Louisville and Jefferson County Wet Weather Consent Decree **Annual** Report FY20

Reporting Period:

July 1, 2019 through June 30, 2020

Submitted To:

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

Submitted By:

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Submittal Date:

December 30, 2020

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Introduction

The Louisville and Jefferson County Metropolitan Sewer District (MSD) has entered into an Amended Consent Decree with the Kentucky Department of Environmental Protection (KDEP) and the United States Environmental Protection Agency (EPA). The Amended Consent Decree was signed by United States District Judge Simpson on April 10, 2009, and filed in United States District Court, Western Division of Kentucky, Louisville Division, on April 15, 2009.

Annual Reporting Period

This is the fifteenth Annual Report submitted in accordance with Paragraph 30 of the Amended Consent Decree. This report covers the time period from July 1, 2019, through June 30, 2020, and references data presented in Quarterly Reports 56 through 59. The structure for this report is outlined as follows:

Section 1: Project Waterway Improvements Now (WIN) Performance Overview – This section provides an accounting of the number of overflow occurrences, including unauthorized discharges from the separate sanitary sewer and combined sewer system, and the estimated volumes of each. A discussion of the probable reductions that are expected as a result of MSD's projects and activities during the reporting period is also contained in this section. These include both unauthorized discharge points and the discharges from MSD's Combined Sewer Overflow (CSO) locations, as identified in the Morris Forman Water Quality Treatment Center (WQTC) Kentucky Pollutant Discharge Elimination System (KPDES) permit.

Section 2: Program Activities for Nine Minimum Controls (NMC) – This section describes the scope, schedule and status for projects and other activities that were active during the reporting period, as well as the anticipated projects and activities scheduled to be performed during the next reporting period (July 1, 2019, through June 30, 2020) for continued compliance with the Amended Consent Decree.

Section 3: Program Activities for Sewer Overflow Response Protocol (SORP) – This section describes the scope, schedule and status for activities that were active during the reporting period, and the anticipated activities that are scheduled to be performed during the next reporting period for continued compliance with the Amended Consent Decree.

Section 4: Program Activities for Discharge Abatement Plans (DAP) – This section describes the scope, schedule and status for projects and other activities that were active during the reporting period, as well as the anticipated projects and activities that are scheduled to be performed during the next reporting period for continued compliance with the Amended Consent Decree.

Section 5: Program Activities For Public Outreach, Education, Notification and Participation – This section describes the activities related to public outreach, education, notification and participation that were active during the reporting period, and the anticipated activities that are scheduled to be performed during the next reporting period for continued compliance with the Amended Consent Decree.

Section 6: Capacity Management Operations and Maintenance (CMOM) Report – The program activities performed during the reporting period, and activities planned for the next reporting period are included in this section for continued compliance with the Amended Consent Decree.

Section 1: Project Waterway Improvements Now (WIN) Performance Overview

1.1. Combined Sewer Overflow Reduction And Sanitary Sewer Overflow Abatement Activities

The following sections outline the activities performed during the reporting period to reduce or control CSOs and eliminate SSOs.

1.1.1. Combined Sewer Overflow Reduction and Control Activities

MSD completed one IOAP project during the reporting period that mitigated permitted CSOs, as detailed in Table 1.1.

Table 1.1. Completed Combined Sewer Overflow Reduction and Control Activities

PROJECT NAME	ACD DATE	CERTIFIED COMPLETION DATE	PROGRAM
PORTLAND CSO STORAGE BASIN	12/31/2019	8/30/2019	LTCP

1.2.2. Sanitary Sewer Overflow Elimination Activities

Per the current approved schedule, there were no IOAP projects which eliminated SSOs during the reporting period.

Estimation of SSO volume is not available in the same manner as it is for the CSO locations. The SSO volume reductions are estimates based on actual observations or from flow monitoring and modeling information where available.

Refer to Section 4.5 for information regarding system monitoring and performance. Refer to Appendix B for a listing of discharges.

1.2. Systemwide Performance

MSD has developed performance measures to monitor the operation of the collections system and WQTCs, with the goal of reducing sewer overflows and improving surface water quality. The data reported in this document is the best, most up-to-date data available as of the document date. There may be changes to historic data as the data is reviewed for quality and accuracy and updated on a continuous basis by MSD administrative and field staff.

1.2.1. Rainfall

The number and the volume of wet weather overflows are directly related to the amount of rain that has fallen during the reporting period. No new rain gauges have been installed by MSD during the reporting period, and the total network currently has 46 rain gauges, as shown in Figure 1.1. Nine gauges are located within Indiana, eight within adjacent Kentucky counties and the remaining 29 are within Jefferson County. MSD plans to continue to expand the rain gauge network as appropriate sites are identified. Figure 1.2 shows the Jefferson County average daily rainfall amounts by month for the reporting period, based on the monthly average of all MSD rain gauges, compared with the average since FY15. Figure 1.3 presents the same data as an average monthly rainfall amount by month and fiscal year. These figures show that while the total rainfall for the year was

Figure 1.1. MSD Rain Gauge Network

just below the average annual rainfall since FY15, FY20 had significantly higher than average rainfall in October and November, and significantly lower than average rainfall in July, August, and September. The discharge data reflects this occurrence.

Figure 1.2. Daily Average Rainfall by Month

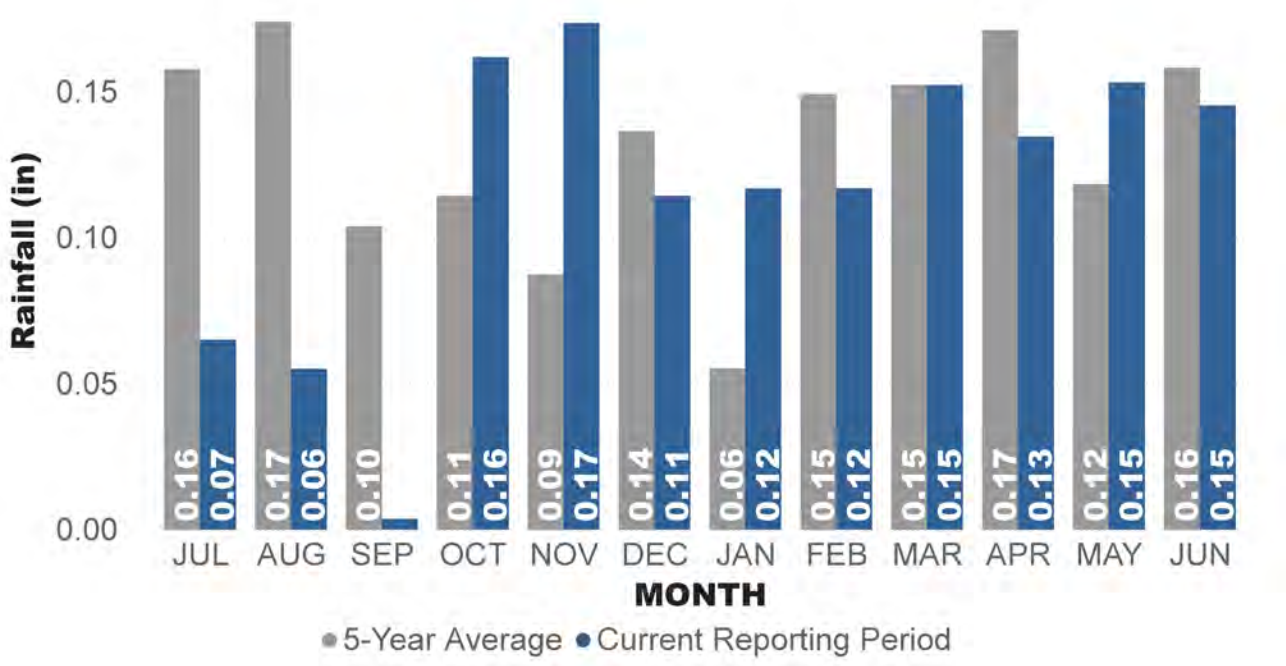
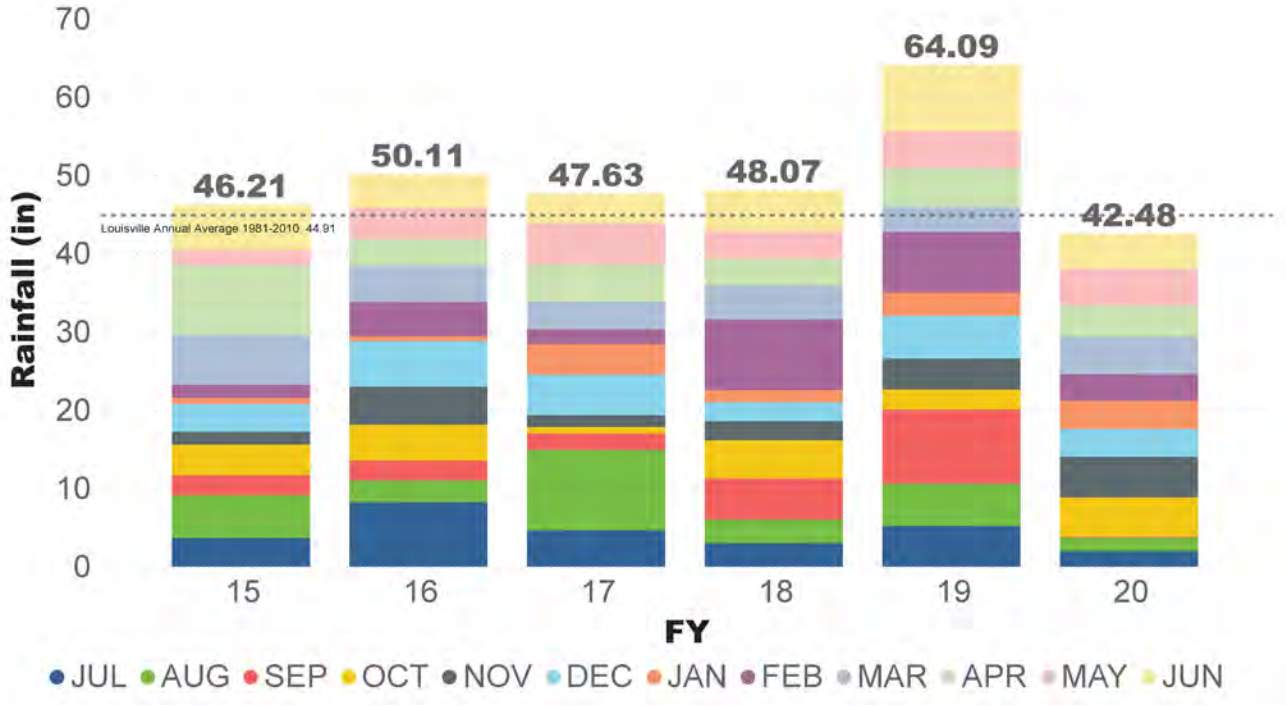


Figure 1.3. Monthly Average Rainfall by Fiscal Year



1.2.3. Discharges

MSD enters and maintains information related to discharges and overflows that are observed by MSD staff in the Infor Public Sector (IPS) asset management system utilizing procedures reviewed and improved through efforts associated with components of the Sewer Overflow Response Protocol (SORP), as required under the Amended Consent Decree. These discharges are categorized using the following categories:

- Asset Type
  - Water Quality Treatment Center (WQTC)
  - Combined Sewer Overflow (CSO)
  - Collections System Assets associated with a Sanitary Sewer Overflow (SSO)
    - Pump Stations –sanitary, flood and viaduct pump stations
    - Access Points – manholes, valves and inlets
    - Mains – sanitary and combined system mains
    - Service Connections – customer service lines
- Weather – Dry or wet
- Result – Waters of the United States (WUS), Exterior (i.e., to the ground), or Interior (i.e., inside a building)
- Cause – The issue that caused the discharge, including the following groups:
  - Bypass / Upset at a WQTC (or Blending at Jeffersontown WQTC, for discharges that occurred prior to WQTC elimination) as defined by permit
  - Capacity – Lack of Capacity or Pumped Overflow during wet weather
  - Maintenance & Operations Issue – Electrical Problem at MSD, Grease Blockage, Mechanical Failure, Obstruction (Not Grease or Roots), Power Outage, Pumped due to USACE Manual Requirements, Roots, Structural Issue, or Utility Damage

Unauthorized discharges to the Waters of the United States (WUS) have been reported to the Kentucky Department of Environment Protection (KDEP) and the Environmental Protection Agency (EPA) per the approved SORP. Overflows to the ground and backups into buildings are reported in the Consent Decree Annual Report. All overflow reporting documentation is stored in MSD's asset management system, IPS.

Table 1.2 details the observed discharges by weather and result since FY15. Appendix B includes information related to MSD's observed unauthorized discharges and overflows for the reporting period. During the upcoming reporting period, this data will be reviewed to determine if anomalies are present and if additional quality control or process improvements are warranted.

Discharges at permitted CSO locations that are observed by telemetry only are recorded with MSD's flow monitoring data and included in Appendix C.

Table 1.2. Observed Discharges by Weather and Result

FY	UNAUTHORIZED DISCHARGE-WATERS		OVERFLOW TO INTERIOR		OVERFLOW TO EXTERIOR (GROUND)	
	DRY WEATHER	WET WEATHER	DRY WEATHER	WET WEATHER	DRY WEATHER	WET WEATHER
FY15	38	422	757	305	84	22
FY16	32	335	86	84	39	17
FY17	29	76	273	8	69	6
FY18	23	204	63	37	51	14
FY19	39	430	31	84	32	10
FY20	20	127	32	8	17	8

1.3. Water Quality Treatment Center Performance

The following sections summarize performance compliance measures and trends at the water quality treatment centers (WQTCs) for the reporting period, including overflows attributed to the WQTC asset, bypasses, and effluent parameter exceedances.

1.3.1. Overflows to the Exterior

Table 1.3 and Figure 1.4 detail the observed discharges by weather since FY08 at all WQTCs from manholes on WQTC property. The decreasing trend in number of discharges can in part be attributed to reduction in number of operational WQTCs, discussed further in Section 1.3.5. Table 1.4 and Figure 1.5 show discharges by cause.

Figure 1.4. Trend of Observed Overflows to the Exterior by Weather - All WQTCs

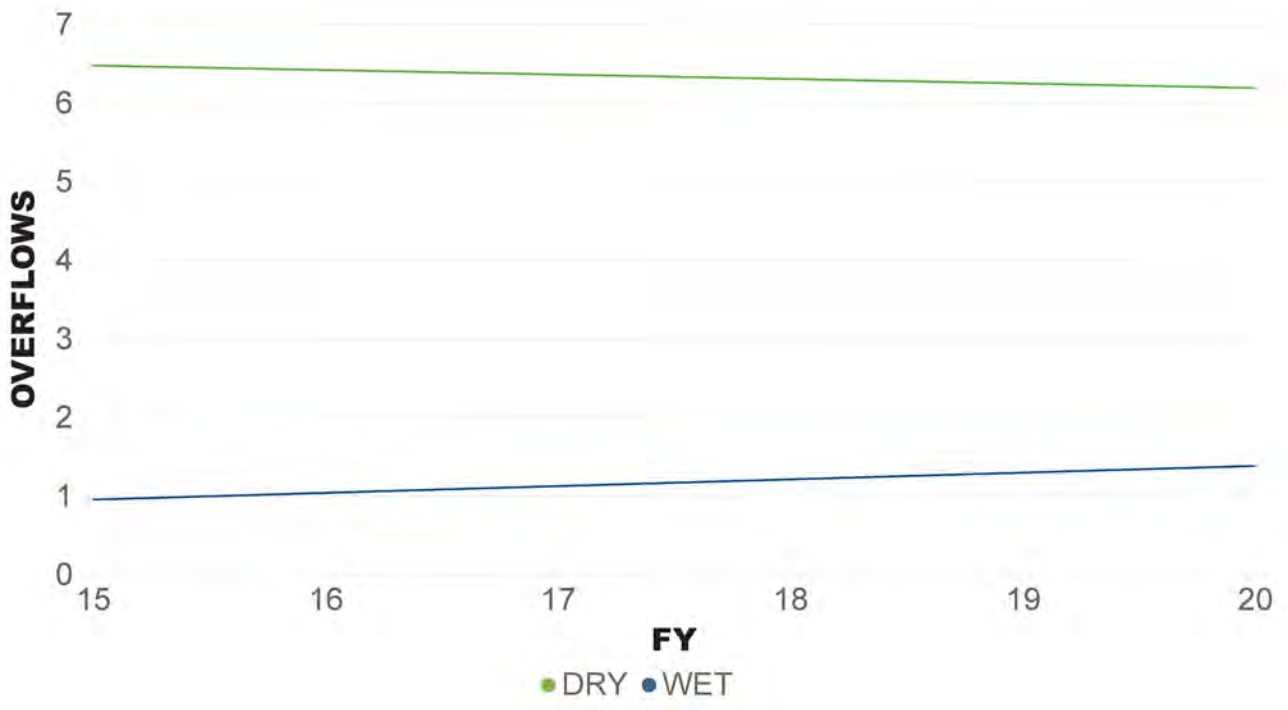


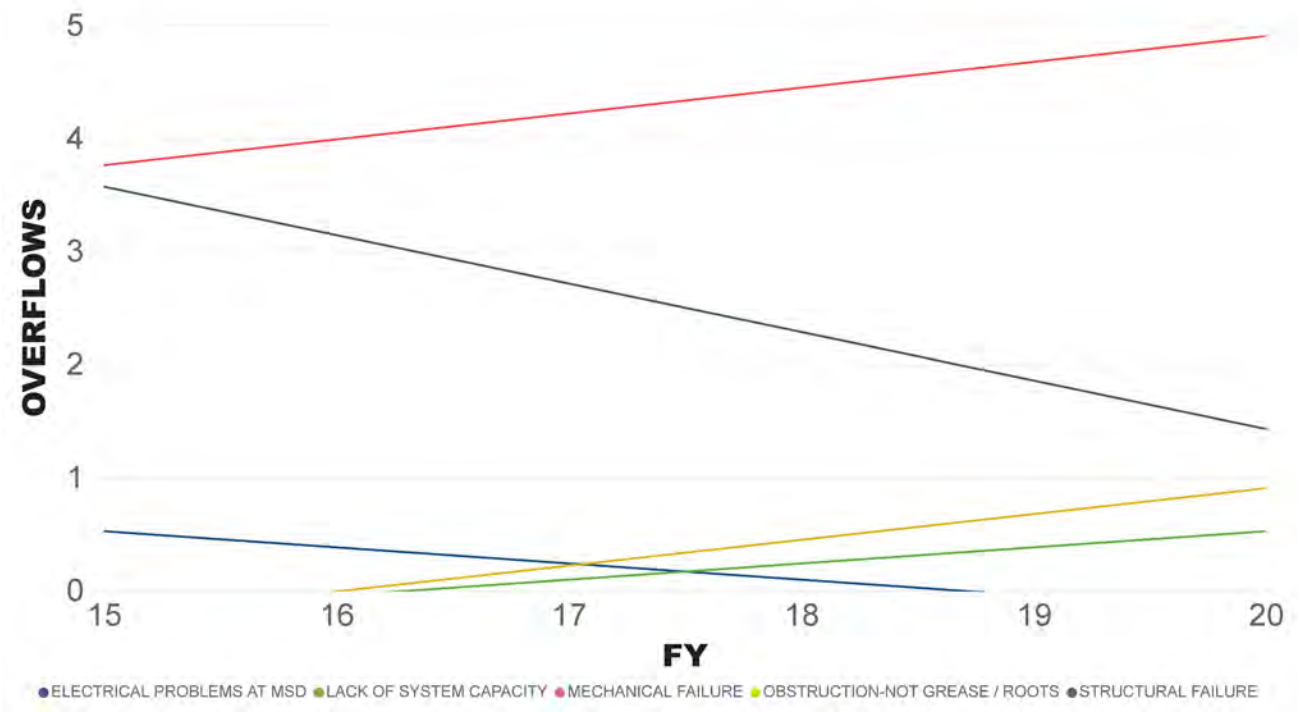
Table 1.3. Observed Overflows to the Exterior by Weather - All WQTCs

FY	DRY WEATHER	WET WEATHER
FY15	7	2
FY16	6	1
FY17	5	0
FY18	8	0
FY19	6	2
FY20	6	2

Table 1.4. Observed Overflows to the Exterior by Result - All WQTCs

FY	ELECTRICAL PROBLEMS AT MSD	LACK OF SYSTEM CAPACITY	MECHANICAL FAILURE	STRUCTURAL FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	POWER OUTAGE (LG&E)
FY15	1	0	3	5	0	0
FY16	0	0	6	1	0	0
FY17	0	0	2	3	0	0
FY18	0	0	5	3	0	0
FY19	0	0	6	1	1	0
FY20	0	1	4	2	1	0

Figure 1.5. Trend of Observed Overflows to the Exterior by Result - All WQTCs



1.3.2. Bypasses

Project WIN Quarterly Report 18 included a memorandum, included as Appendix K in that report, which described the analysis of 44 bypass events that occurred between July 1, 2008, and December 31, 2009. This analysis delineated bypasses into the four categories, including Capacity, External Power Failures, Equipment Failure (Mechanical, Electrical, or Structural), and Human Error. An assessment of bypasses is performed in each subsequent quarterly report to determine the root cause of each bypass, the failure category, corrective actions to be taken, possible programmatic solutions, and a corrective action completion date. Refer to quarterly reports for the reporting period for detailed analysis of bypasses.

Table 1.5 and Figure 1.6 show the WQTC bypass events by weather since FY15. Table 1.6 and Figure 1.7 show the WQTC bypass events by cause since FY15.

Table 1.5. Bypass Events by Weather – All WQTCs

FY	DRY WEATHER	WET WEATHER
FY15	0	10
FY16	4	8
FY17	1	4
FY18	1	1
FY19	1	1
FY20	1	2

Figure 1.6. Trend of Bypass Events by Weather – All WQTCs

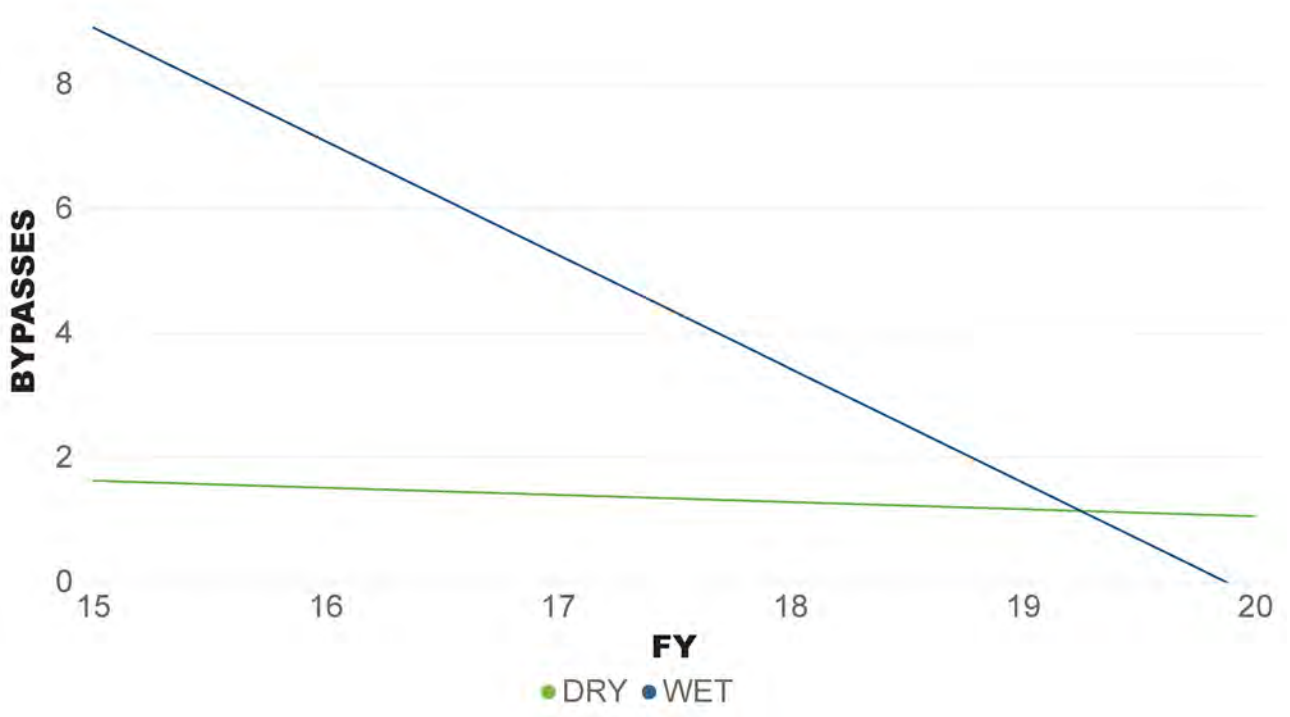
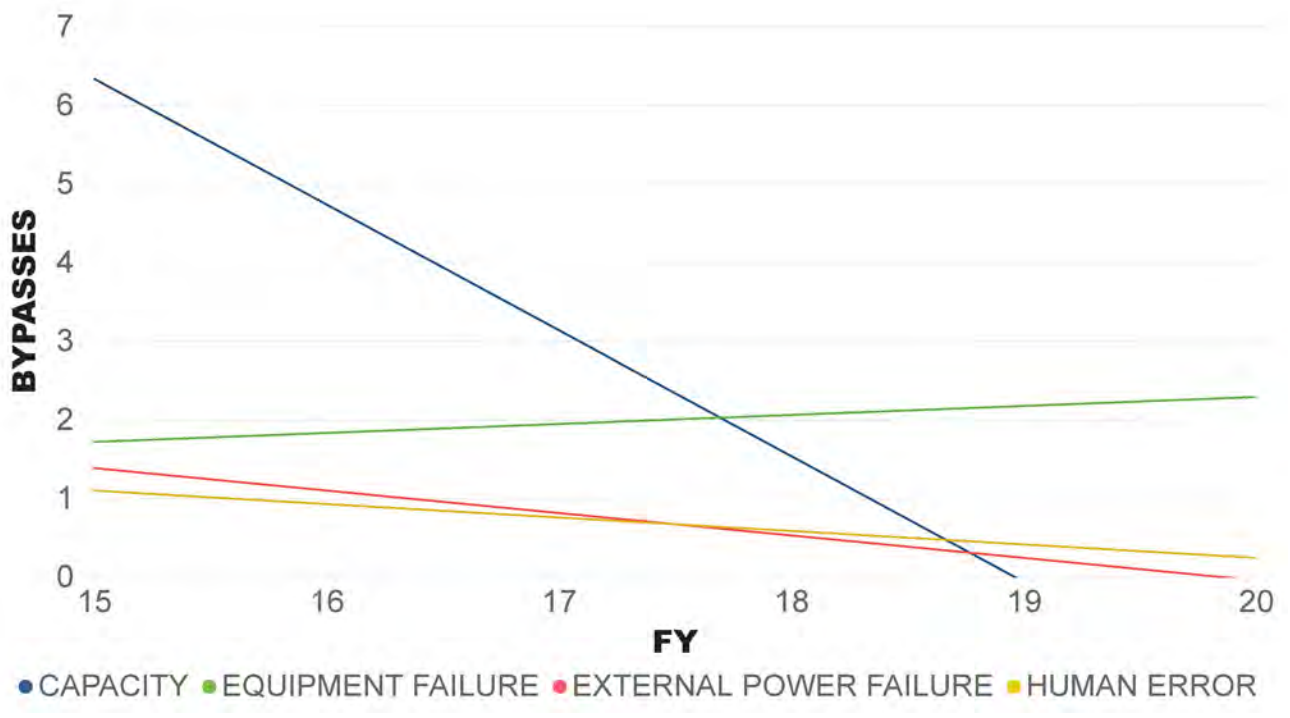


Table 1.6. Bypass Events by Cause – All WQTCs

FY	LACK OF CAPACITY	EQUIPMENT FAILURE	EXTERNAL POWER FAILURE	HUMAN ERROR
FY15	7	2	1	0
FY16	7	1	1	3
FY17	0	3	2	0
FY18	0	2	0	0
FY19	0	1	0	1
FY20	0	3	0	0

Figure 1.7. Trend of Bypass Events by Cause – All WQTCs



1.3.3. Morris Forman Water Quality Treatment Center

Originally constructed in 1958, Morris Forman WQTC is MSD's largest, oldest WQTC. The following sections provide details related to this facility.

1.3.3.1. Overflows to the Exterior

Observed overflows from manholes on WQTC property during the reporting period are shown in Table 1.7 and Table 1.8.

Table 1.7. Observed Overflows to the Exterior by Weather - All WQTCs

FY	DRY WEATHER	WET WEATHER
FY15	0	0
FY16	0	0
FY17	0	0
FY18	7	0
FY19	5	2
FY20	4	2

Table 1.8. Observed Overflows to the Exterior by Result - All WQTCs

FY	ELECTRICAL **PROBLEMS AT MSD**	**LACK OF SYSTEM CAPACITY**	**MECHANICAL** FAILURE	STRUCTURAL FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	**POWER** OUTAGE (LG&E)
FY15	0	0	0	0	0	0
FY16	0	0	0	0	0	0
FY17	0	0	0	0	0	0
FY18	0	0	4	3	0	0
FY19	0	0	6	0	1	0
FY20	0	1	3	1	1	0

1.3.3.2. Bypasses

One unauthorized wet weather bypass occurred during the reporting period, as shown in Table 1.9 summarizes bypass events by weather since FY15, and Table 1.10 summarizes bypasses by cause since FY15. Refer to quarterly reports for the reporting period for details of the bypasses that occurred at Morris Forman WQTC.

Table 1.9. Observed Overflows to the Exterior by Weather - All WQTCs

FY	DRY WEATHER	WET WEATHER
FY15	0	1
FY16	1	0
FY17	0	4
FY18	0	1
FY19	0	0
FY20	0	1

Table 1.10. Observed Overflows to the Exterior by Result - All WQTCs

FY	LACK OF CAPACITY	EQUIPMENT FAILURE	EXTERNAL POWER FAILURE	HUMAN ERROR
FY15	0	1	0	0
FY16	0	0	0	1
FY17	0	3	1	0
FY18	0	1	0	0
FY19	0	0	0	0
FY20	0	1	0	0

1.3.3.3. Exceedances

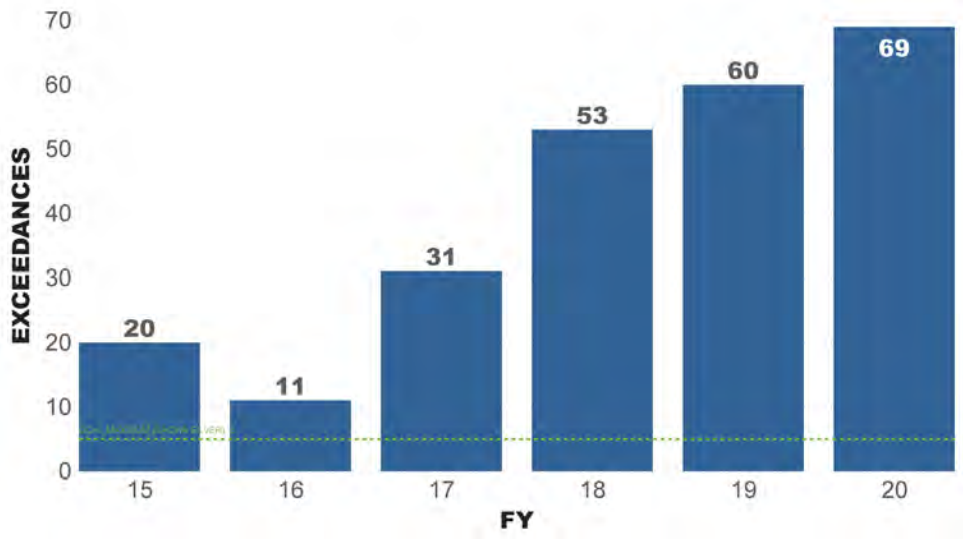
MSD's policy is to operate WQTCs in full compliance with the permitted effluent water quality standards. However, circumstances sometimes arise that may cause WQTCs to exceed the permitted effluent limits. This reality is recognized by the National Association of Clean Water Agencies (NACWA), which gives awards at different levels based on the number of effluent parameter exceedances during the calendar year:

- Silver – Five or fewer exceedances per year
- Gold – Zero exceedances per year
- Platinum – Zero exceedances per year for five years

Based on past operating history, MSD has established the target for all treatment centers of receiving at least the NACWA Silver Award. This goal is discussed under Section 1.3.4.4 related to exceedances at the regional WQTCs.

As shown in Figure 1.8, a total of 65 exceedances occurred at Morris Forman WQTC during the reportng period. Compromised solids processing equipment contributed to the exceedances. Morris Forman WQTC continues to employ additional solids processing methods in an effort to meet permit requirements. These methods include dewatered cake, purchase of additional liquid oxygen, and externally contracted solids handling assistance.

Figure 1.8. Exceedances by Fiscal Year – Morris Forman WQTC



1.3.4. Regional Water Quality Treatment Centers

In December 2015, MSD successfully eliminated Jeffersontown WQTC, bringing the regional WQTC count to four. The following sections provide details related to the remaining regional WQTCs.

1.3.4.1. Overflows to the Exterior

Observed overflows from manholes on WQTC property during the reporting period are shown in Table 1.11 and Table 1.12.

Table 1.11. Observed Overflows to the Exterior by Weather – Regional WQTCs

FY	DRY WEATHER	WET WEATHER
FY15	3	1
FY16	6	1
FY17	5	0
FY18	1	0
FY19	1	0
FY20	2	0

Table 1.12. Observed Overflows to the Exterior by Cause – Regional WQTCs

FY	ELECTRICAL PROBLEMS AT MSD	LACK OF SYSTEM CAPACITY	MECHANICAL FAILURE	STRUCTURAL FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	POWER OUTAGE (LG&E)
FY15	1	0	3	0	0	0
FY16	0	0	6	1	0	0
FY17	0	0	2	3	0	0
FY18	0	0	1	0	0	0
FY19	0	0	0	1	0	0
FY20	0	0	1	1	0	0

1.3.4.2. Bypasses

Table 1.13 details the results of the current reporting period. Table 1.14 and Figure 1.9 summarize bypass events by weather since FY15, and Table 1.15 and Figure 1.10 summarize bypasses by cause since FY15. Refer to quarterly reports for the reporting period for details of the bypasses that occurred at regional WQTCs.

1.3.4.3. Jeffersontown Water Quality Treatment Center

Jeffersontown WQTC is off-line as of December 2015, as detailed in Section 4.4.2. The FY16 Annual Report was the final annual report to include discussion of data at the siphon upstream of the headworks at Jefferson-town WQTC.

1.3.4.4. Excedances

As shown in Figure 1.11, all four operational regional WQTCs have achieved the NACWA Silver Award goal since FY15. Cedar Creek WQTC has maintained NACWA Platinum Award status since FY09.

Table 1.13. Bypass Events by WQTC – Regional WQTCs

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	WET WEATHER	DRY WEATHER
CEDAR CREEK	KY0098540	1	0
HITE CREEK	KY0022420	0	1

Table 1.14. Bypass Events by Weather – Regional WQTCs

FY	DRY WEATHER	WET WEATHER
FY15	0	1
FY16	1	3
FY17	1	0
FY18	1	0
FY19	1	1
FY20	1	1

Figure 1.9. Trend of Bypass Events by Weather – Regional WQTCs

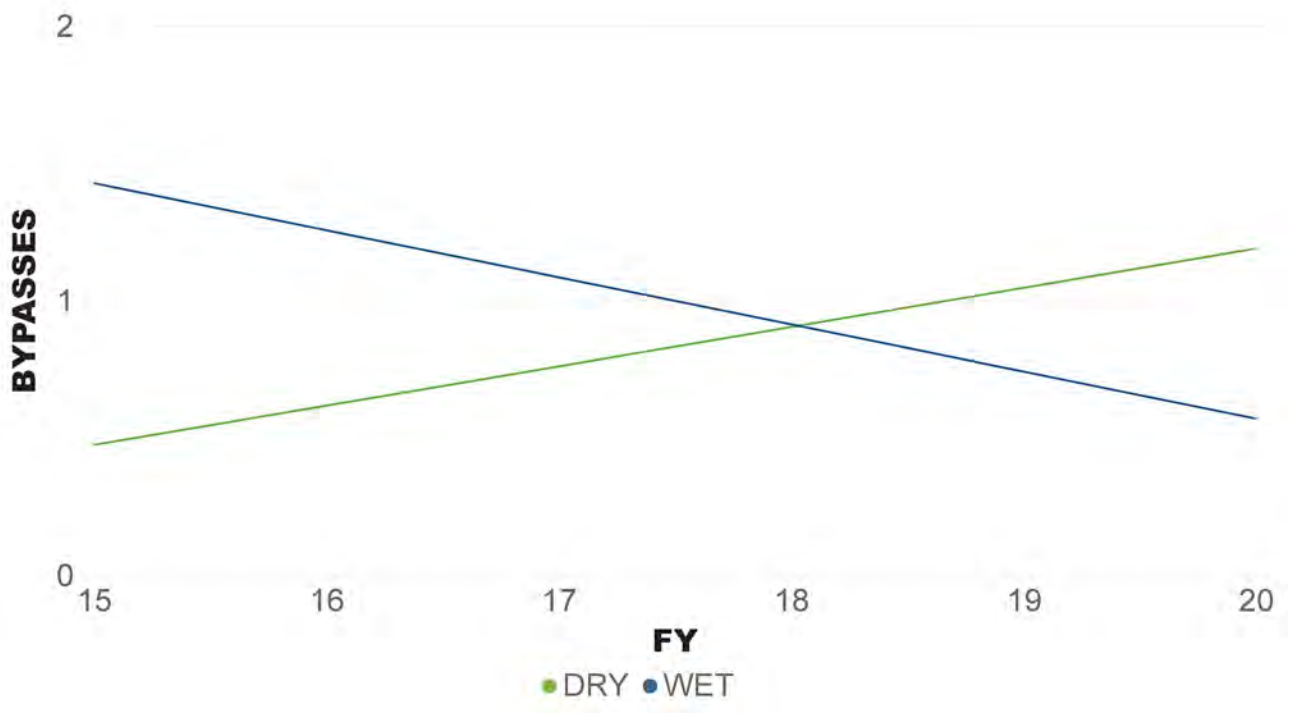


Table 1.15. Bypass Events by Cause – Regional WQTCs

FY	LACK OF CAPACITY	EQUIPMENT FAILURE	EXTERNAL POWER FAILURE	HUMAN ERROR
FY15	1	0	0	0
FY16	2	0	0	2
FY17	0	0	1	0
FY18	0	1	0	0
FY19	0	1	0	1
FY20	0	2	0	0

Figure 1.10. Trend of Bypass Events by Cause – Regional WQTCs

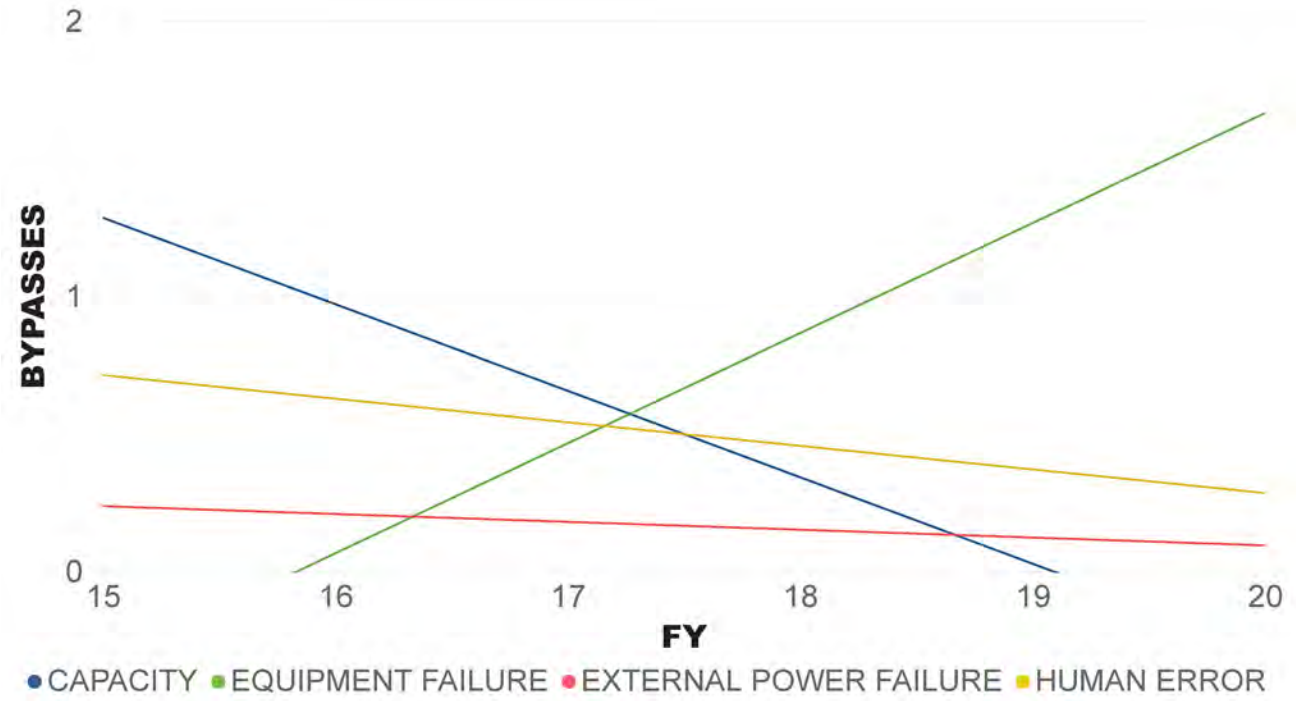
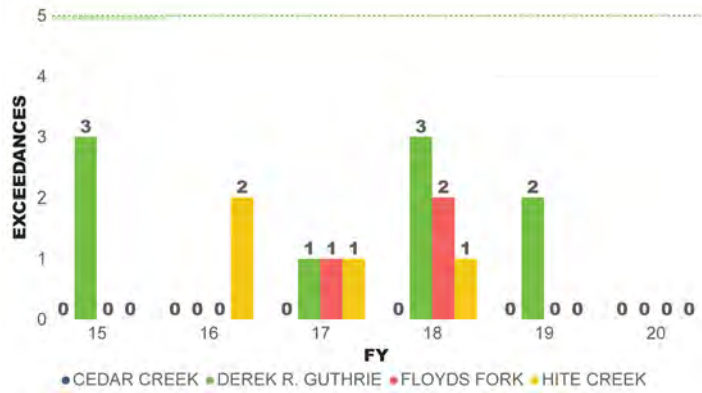


Figure 1.11. Exceedances by Fiscal Year – Regional WQTCs



1.3.5. Non-Regional Water Quality Treatment Centers

Since 1985, MSD has acquired and/or eliminated more than 300 privately owned non-regional WQTCs ("package plants"). The non-regional WQTCs typically had very limited operating flexibility, and were subject to high levels of variability in loads. Most of the non-regional WQTCs had been in operation over 35 years and typically had much poorer records of compliance compared to MSD's regional WQTCs. Therefore, MSD worked aggressively to eliminate the non-regional WQTCs. The last non-regional WQTC within the MSD service area was taken off-line on May 27, 2016. The FY16 Annual Report was the final annual report to include discussion of data associated with non-regional WQTCs. Should MSD acquire and/or eliminate any WQTCs in Jefferson County in the future through service area expansion, their performance will be discussed here.

1.4. Combined Sewer Overflow Performance

1.4.1. Authorized Discharges – Wet Weather CSOs

At the end of the reporting period, MSD maintained 98 CSOs in operation. The modeled AAOV for the permitted CSOs is included as Appendix D. The observed CSO data for the reporting period for each monitored overflow has been tabulated, along with rainfall information from the nearest rain gauge, to facilitate review of the overflows that occurred, and is included as Appendix C. Refer to Section 4.5 for information regarding system monitoring and performance as CSO reduction projects are completed.

1.4.2. Unauthorized Discharges – Dry Weather CSOs

MSD has implemented the Nine Minimum Controls (NMC) programs and provided resources to reduce dry weather CSOs as part of the CSO Long Term Control Plan (LTCP). Dry weather overflows from a permitted CSO location are detailed in Table 1.16, Table 1.17, and Figure 1.12 show dry weather overflow volumes since FY15.

During the reporting period, there was one observed dry weather CSO which was analyzed by location and problem to identify issues that can be corrected. On February 14, 2020, CSO034 discharged due to an unknown obstruction in the main, which resolved on its own.

1.4.3. CSO Flow Monitoring Quality Improvement

During the July 2016 – September 2016 reporting period, MSD identified a potential for inaccurate volume reporting at some CSOs. This was identified by comparing measured overflow volumes against modeled overflow volumes for similar storms. It was determined that several CSO flow monitors were affected by backwater levels

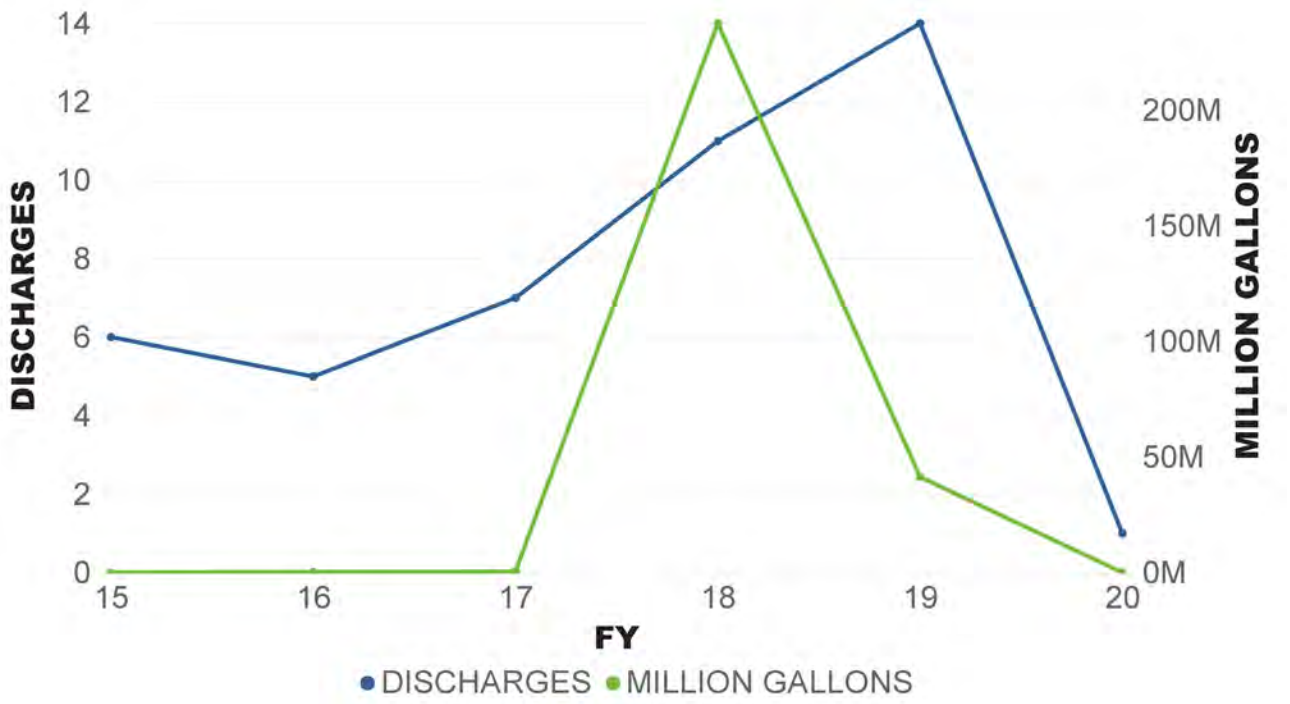
Table 1.16. Dry Weather CSOs

DATE	CSO	PROBLEM	DESCRIPTION	VOLUME (GAL)
February 14, 2020	CSO034	OBSTRUCTION-NOT GREASE / ROOTS	OBSTRUCTION IN THE MAIN.	15,430

Table 1.17. Dry Weather CSOs by Fiscal Year

FY	EVENTS	VOLUME (GAL)
FY15	6	57,815
FY16	5	265,425
FY17	7	540,253
FY18	11	237,638,808
FY19	14	41,395,954
FY20	1	15,430

Figure 1.12. Dry Weather Overflows by Fiscal Year



from the receiving streams causing a discrepancy actual overflow volume, along with other potential variables at some locations. MSD notified EPA and KDEP of data discrepancies on September 29, 2016.

A workgroup was established to review CSO flow monitoring and resolve potential over-reporting of overflow volumes. Initial findings indicated that potentially significant discrepancies between modeling and monitoring data existed at 33 of MSD's 98 CSO locations. This set of 33 CSOs was the highest priority to review, correct data, document SOPs, and implement changes. For these CSO locations, MSD performed site visits including elevation surveys, performed detailed analysis, investigated equipment configurations, and investigated PLC programming or monitoring program logic. This has led to the development of an SOP for each CSO that describes the existing monitoring equipment, configuration, and flow calculation in use as of December 31, 2016, and evaluates the effectiveness of the existing setup. If a more effective arrangement was recommended, MSD added the proposed arrangement to the SOP for implementation and determined if historical data could be updated. In cases where the historical data could be updated, MSD has developed revised volumes for reporting. In some cases, historical volumes could not be recalculated based on the available data. For instance, CSOs influenced by river or creek elevation for which there was no available historic level data could not be recalculated for historical volumes but will be calculated or measured according to the revised SOPs as they are implemented.

To date, SOPs have been drafted and historical volume data corrections (where possible) have been made for all of the 98 CSO locations. Multiple SOPs required programming or equipment changes in order to implement the final SOPs.

Now that the review is complete, CSO flow monitoring data included as an appendix to each quarterly report, will no longer be listed as "Draft". Regular and ongoing meetings between the Engineering and Operations Divisions will continue to occur. MSD will continue to update and refine changes to meter location and calculation algorithms as needed. These changes will be documented in updated monitoring procedures.

Revised volumes for FY20 are included with FY20 CSO flow monitoring for all CSO locations in Appendix C.

1.5. Collection System Overflow Performance

At the end of the reporting period, MSD maintained 3,348 miles of sanitary and combined sewer mains in operation in Jefferson County, including associated pump stations, manholes and other access points, and service lines.

1.5.1. Unauthorized Discharges to Waters of US - Wet Weather SSOs

Table 1.18 and Figure 1.13 detail unauthorized discharges to WUS from the collections system by asset. Table 1.19 and Figure 1.14 detail unauthorized discharges to WUS from the collections system by cause.

Table 1.18. Wet Weather SSOs by Fiscal Year and Asset - Unauthorized Discharges to Waters of the US

FY	PUMP STATION	ACCESS POINT	MAIN	SERVICE CONNECTION
FY15	43	333	2	19
FY16	12	286	5	15
FY17	1	70	1	0
FY18	16	175	2	10
FY19	16	397	4	12
FY20	4	119	1	1

Figure 1.13. Trend of Wet Weather SSOs by Fiscal Year and Asset - Unauthorized Discharges to Waters of the US

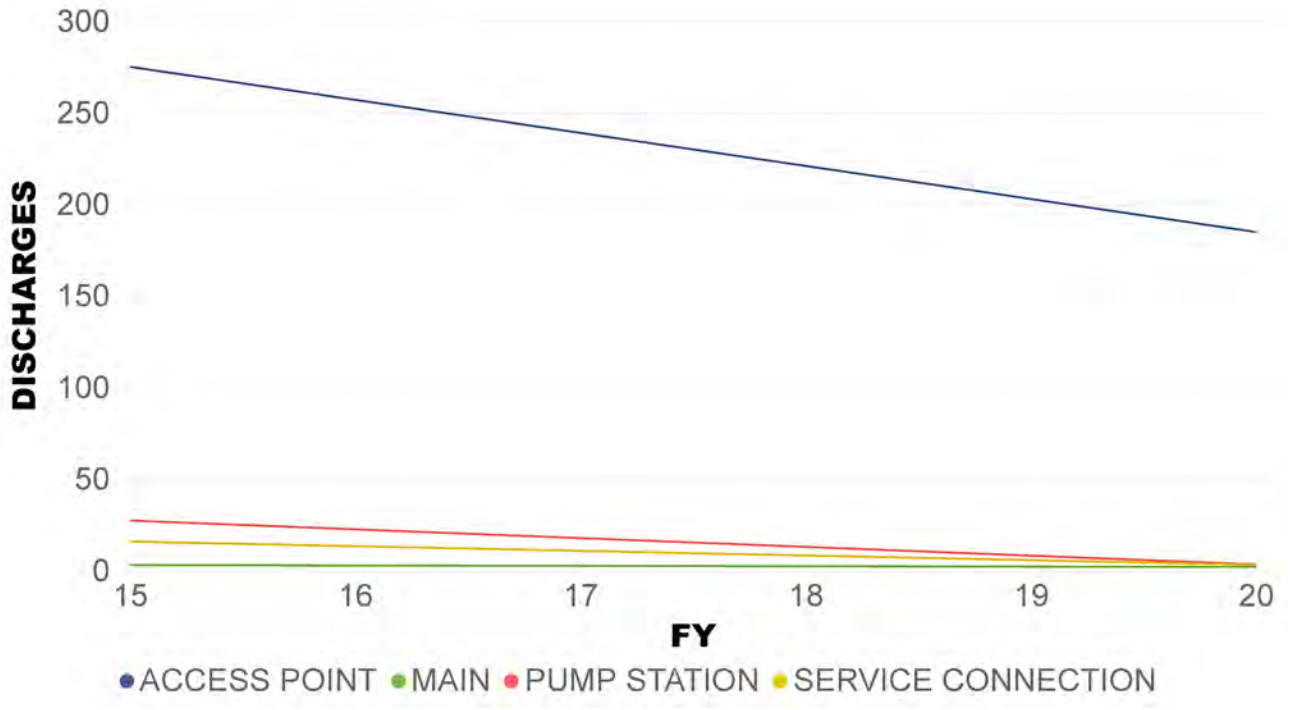
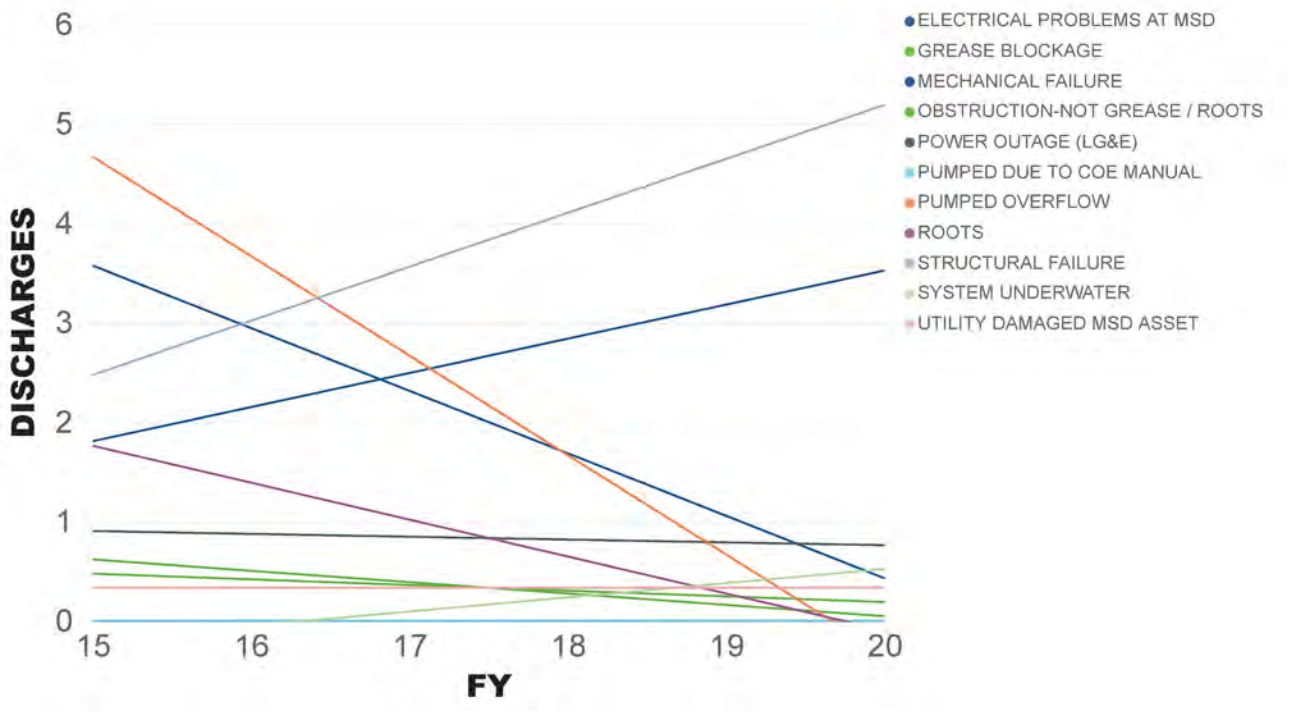


Table 1.19. Wet Weather SSOs by Fiscal Year and Cause - Unauthorized Discharges to Waters of the US

FY	ELECTRICAL PROBLEMS AT MSD	GREASE BLOCKAGE	LACK OF SYSTEM CAPACITY	MECHANICAL FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	POWER OUTAGE (LG&E)	PUMPED DUE TO COE MANUAL	PUMPED OVERFLOW	ROOTS	STRUCTURAL FAILURE	SYSTEM UNDERWATER	UTILITY DAMAGED MSD ASSET
FY15	5	1	374	2	1	1	0	7	3	2	0	1
FY16	1	0	309	0	0	0	0	3	0	5	0	0
FY17	2	0	63	5	0	1	0	0	0	1	0	0
FY18	2	0	190	3	1	2	0	1	2	2	0	0
FY19	2	1	410	3	0	1	0	1	0	11	0	0
FY20	0	0	117	3	0	0	0	1	0	2	1	1

Figure 1.14. Trend of Non-Capacity Related Wet Weather SSOs by Fiscal Year and Cause - Unauthorized Discharges to Waters of the US



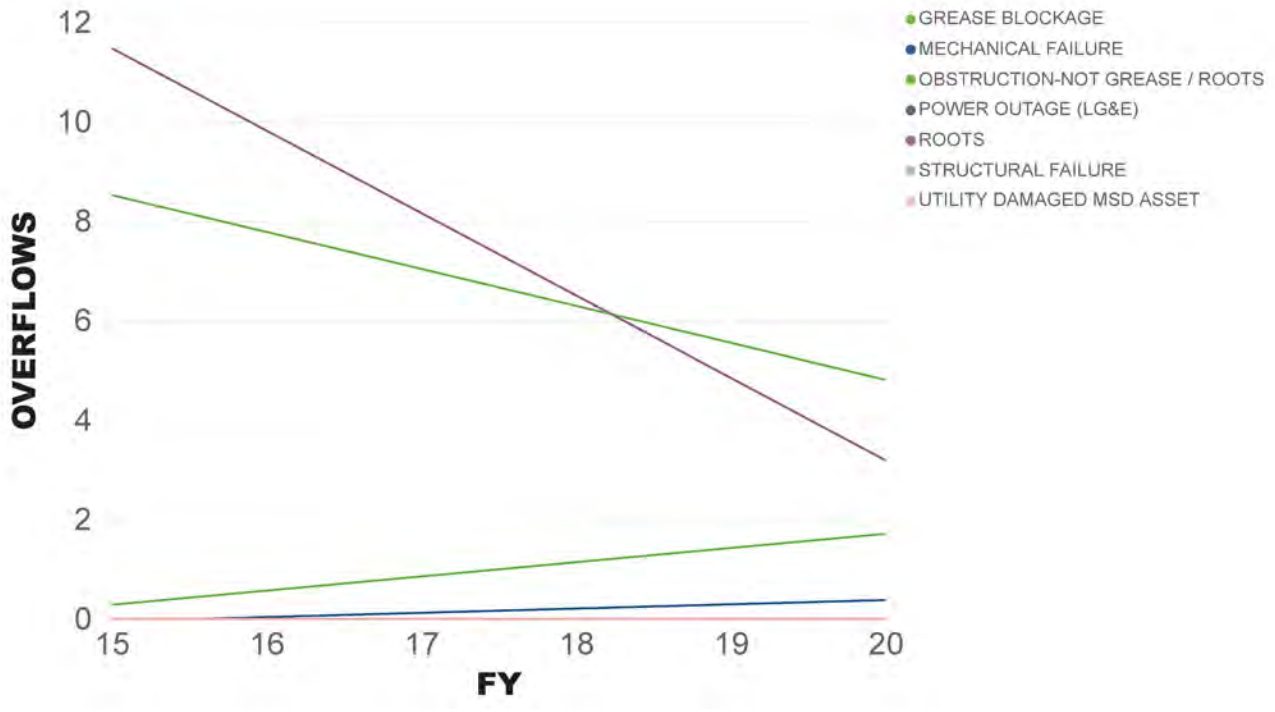
1.5.2. Wet Weather Overflows to the Interior

Table 1.20 and Figure 1.15 detail wet weather overflows to the interior from the collections system by cause.

Table 1.20. Wet Weather Overflows to the Interior by Fiscal Year and Cause

FY	ELECTRICAL PROBLEMS AT MSD	GREASE BLOCKAGE	LACK OF SYSTEM CAPACITY	MECHANICAL FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	POWER OUTAGE (LG&E)	PUMPED DUE TO COE MANUAL	PUMPED OVERFLOW	ROOTS	STRUCTURAL FAILURE	SYSTEM UNDERWATER	UTILITY DAMAGED MSD ASSET
FY15	0	1	271	0	17	0	0	0	16	0	0	0
FY16	0	0	79	0	0	0	0	0	5	0	0	0
FY17	0	1	1	0	0	0	0	0	6	0	0	0
FY18	0	0	22	0	8	0	0	0	7	0	0	0
FY19	0	2	62	1	12	0	0	0	7	0	0	0
FY20	0	2	0	0	3	0	0	0	3	0	0	0

Figure 1.15. Trend of Non-Capacity Related Wet Weather Overflows to the Interior by Fiscal Year and Cause



1.5.3. Wet Weather Overflows to the Exterior

Table 1.21 and Figure 1.16 detail wet weather overflows to the exterior from the collections system by asset. Table 1.22 and Figure 1.17 detail wet weather overflows to the exterior from the collections system by cause.

Table 1.21. Wet Weather Overflows to the Exterior by Fiscal Year and Asset

FY	PUMP STATION	ACCESS POINT	MAIN	SERVICE CONNECTION
FY15	1	9	1	9
FY16	1	6	2	7
FY17	3	2	1	0
FY18	4	2	4	4
FY19	0	4	1	3
FY20	0	2	3	1

Figure 1.16. Trend of Non-Capacity Related Wet Weather Overflows to the Exterior by Fiscal Year and Asset

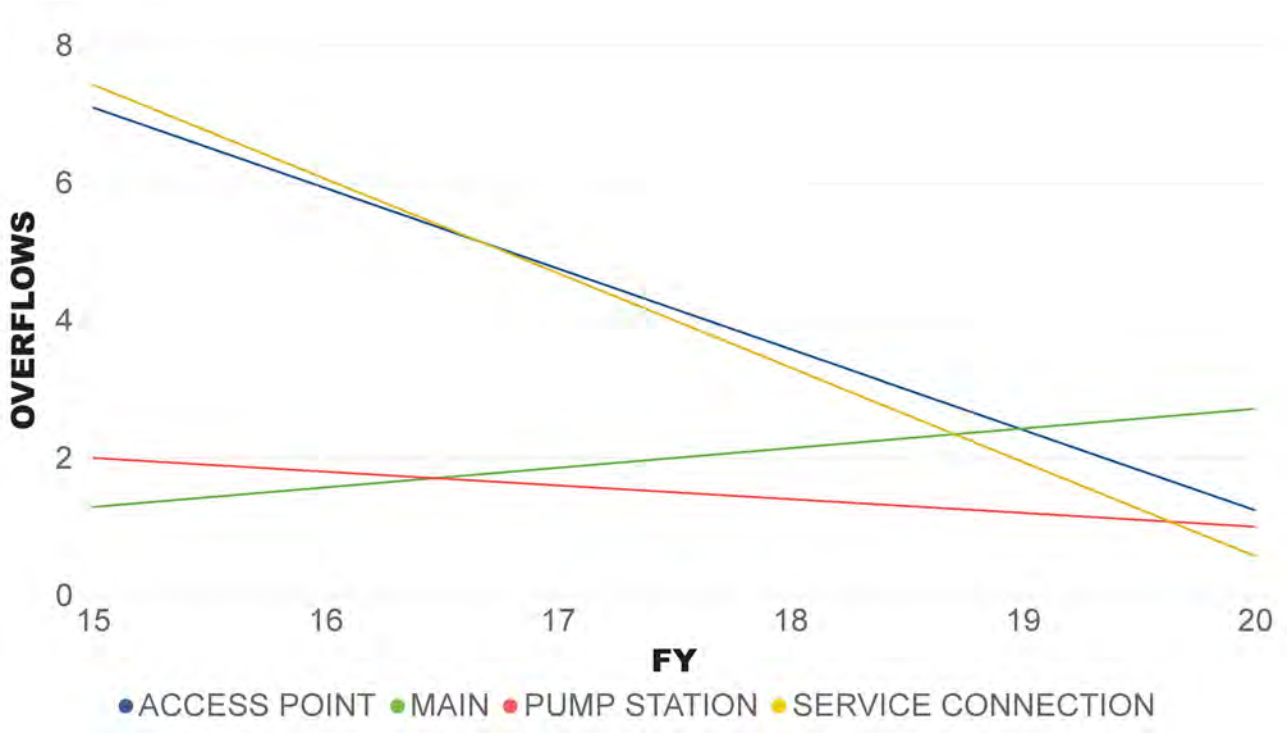
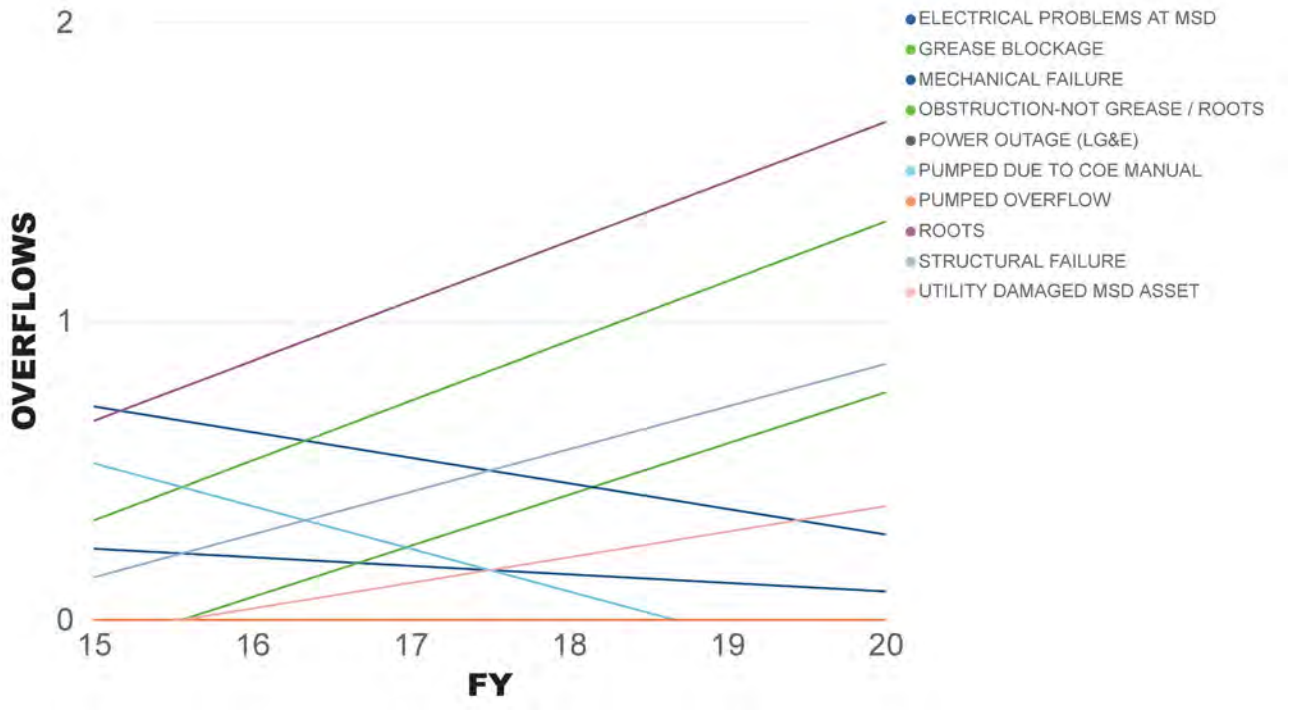


Table 1.22. Wet Weather Overflows to the Exterior by Fiscal Year and Cause

FY	ELECTRICAL **PROBLEMS AT MSD**	GREASE **BLOCKAGE**	**LACK OF SYSTEM CAPACITY**	**MECHANICAL** FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	**POWER** OUTAGE (LG&E)	**PUMPED** DUE TO COE **MANUAL**	**PUMPED OVERFLOW**	ROOTS	STRUCTURAL FAILURE	**SYSTEM** UNDERWATER	UTILITY **DAMAGED MSD** ASSET
FY15	0	0	17	1	1	0	1	0	0	0	0	0
FY16	0	0	14	0	0	0	0	0	2	0	0	0
FY17	1	0	4	0	0	0	0	0	0	1	0	0
FY18	0	1	6	2	1	0	0	0	3	1	0	0
FY19	0	0	5	0	2	0	0	0	0	0	0	1
FY20	0	1	1	0	1	0	0	0	2	1	0	0

Figure 1.17. Trend of Non-Capacity Related Wet Weather Overflows to the Exterior by Fiscal Year and Cause



1.5.4. Wet Weather Hauling Events

To reduce the number of overflows in wet weather, MSD hauls sewage from multiple locations. MSD proactively monitors known and suspected locations that have wet weather capacity issues which may cause sewer line surcharging, basement back-ups, and SSOs. MSD staff only hauls from these locations as necessary and as resources allow. Hauling efforts are summarized in Table 1.23 and Figure 1.18 by month and in Table 1.24 and Figure 1.19 by cause. Significant hauling occured in FY20 in response to structural failure of the Harrods Creek Force Main.

Table 1.23. Hauled Volumes in Gallons by Fiscal Year and Month

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
FY15	41,000	66,500	133,200	58,500	5,000	194,000	0	9,500	509,400	250,300	3,000	58,100
FY16	130,900	3,650	76,000	42,500	95,000	176,102	3,500	115,500	24,700	4,003	0	0
FY17	34,000	0	0	11,500	3,000	123,000	9,200	18,000	10,000	8,000	12,801	6,001
FY18	300	50	15,660	3,000	34,200	0	0	360,700	29,000	3,000	216,500	0
FY19	29,302	187,501	476,500	0	121,900	64,501	86,000	296,750	26,250	78,200	36,800	97,700
FY20	17,500	115,000	47,300	18,000	18,000	4,673,300	55,000	24,000	30,000	0	4,200	33,200

Figure 1.18. Hauled Non-Capacity Volumes in Gallons by Fiscal Year and Month

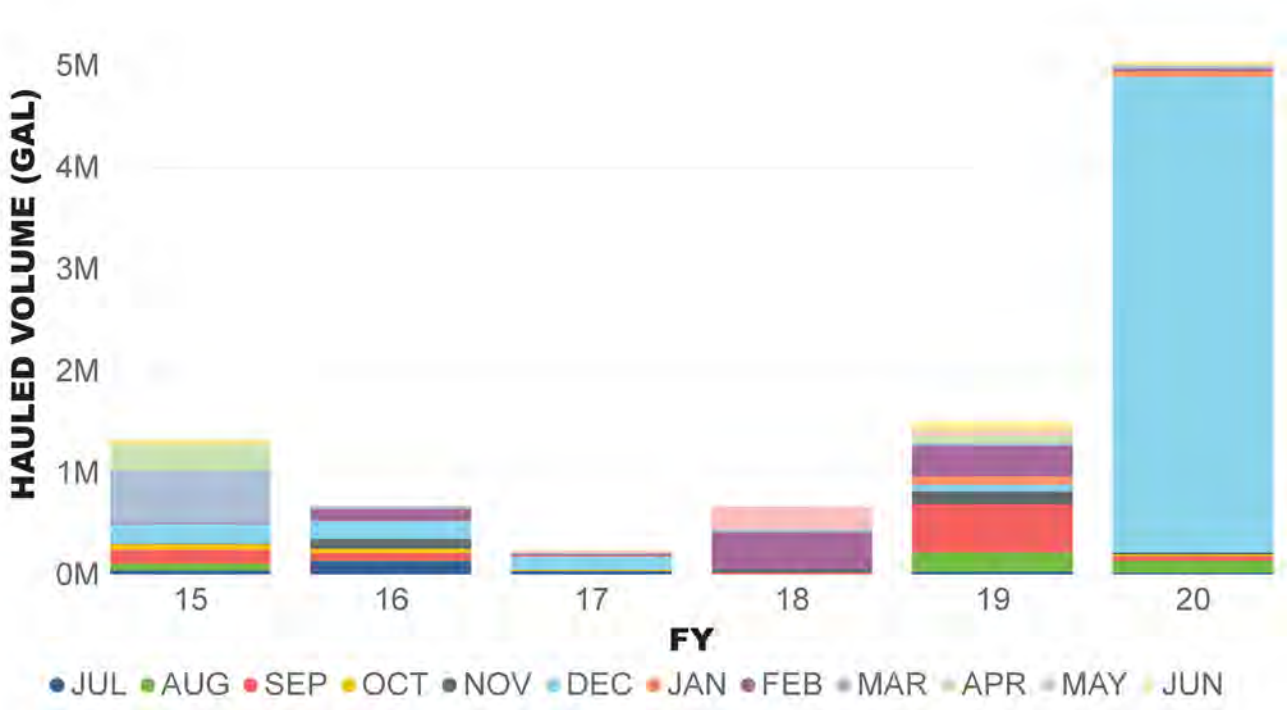
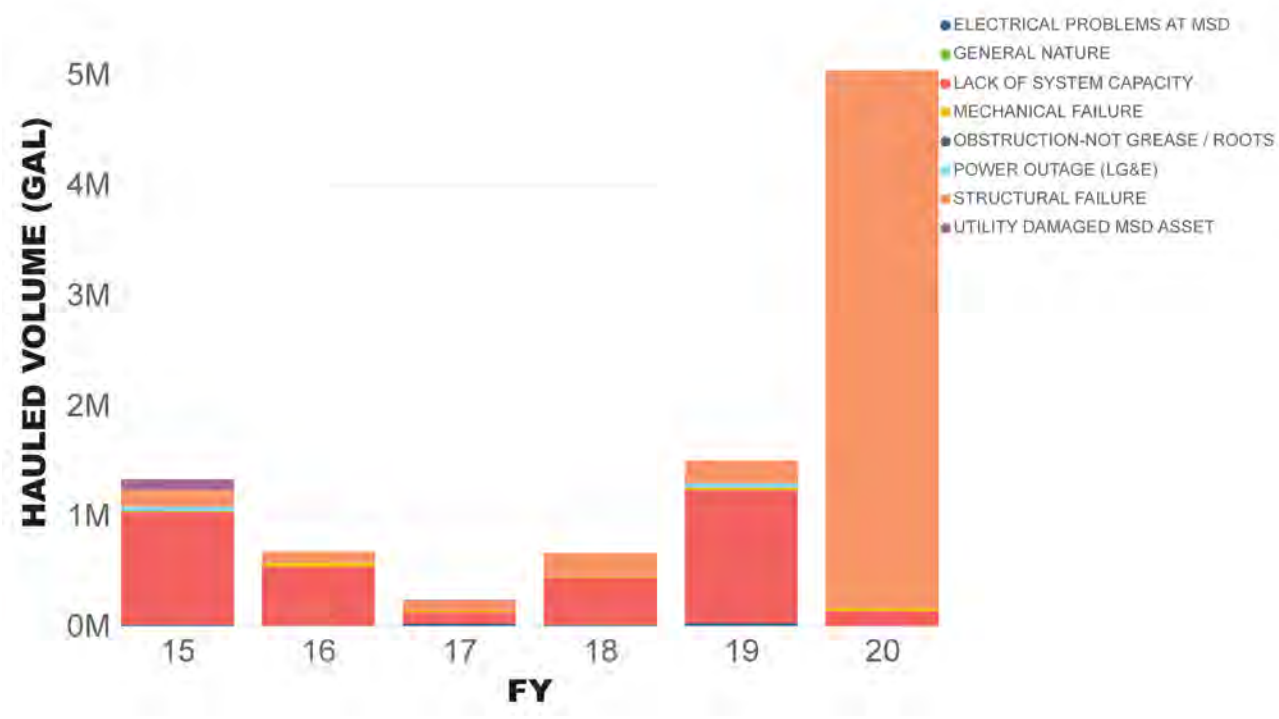


Table 1.24. Hauled Volumes in Gallons by Fiscal Year and Cause

FY	ELECTRICAL **PROBLEMS AT MSD**	GREASE **BLOCKAGE**	**LACK OF SYSTEM CAPACITY**	**MECHANICAL** FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	**POWER** OUTAGE (LG&E)	**PUMPED OVERFLOW**	ROOTS	STRUCTURAL FAILURE	UTILITY **DAMAGED MSD** ASSET
FY15	12,500	0	1,019,100	10,000	0	42,800	0	0	154,100	90,000
FY16	0	0	534,304	38,000	0	0	0	0	99,550	0
FY17	18,500	0	104,802	13,700	0	0	0	0	92,500	4,000
FY18	7,050	0	423,360	7,500	0	0	0	0	219,500	0
FY19	25,000	0	1,197,653	25,001	0	38,700	0	0	200,050	0
FY20	0	0	136,900	23,000	0	0	0	0	4,872,600	0

Figure 1.19. Trend of Non-Capacity Related Hauled Volumes in Gallons by Fiscal Year and Cause



1.5.5. Unauthorized Discharges to Waters of the US - Dry weather SSOs

Table 1.25 and Figure 1.20 detail unauthorized discharges to WUS from the collections system by cause. Table 1.26 and Figure 1.21 detail unauthorized discharges to WUS from the collections system by asset.

Table 1.25. Dry Weather SSOs by Fiscal Year and Asset – Unauthorized Discharges to Waters of US

FY	PUMP STATION	ACCESS POINT	MAIN	SERVICE CONNECTION
FY15	7	15	9	2
FY16	4	2	16	1
FY17	1	8	12	0
FY18	0	7	4	0
FY19	2	10	11	1
FY20	4	3	9	1

Figure 1.20. Trend of Dry Weather SSOs by Fiscal Year and Asset – Unauthorized Discharges to Waters of US

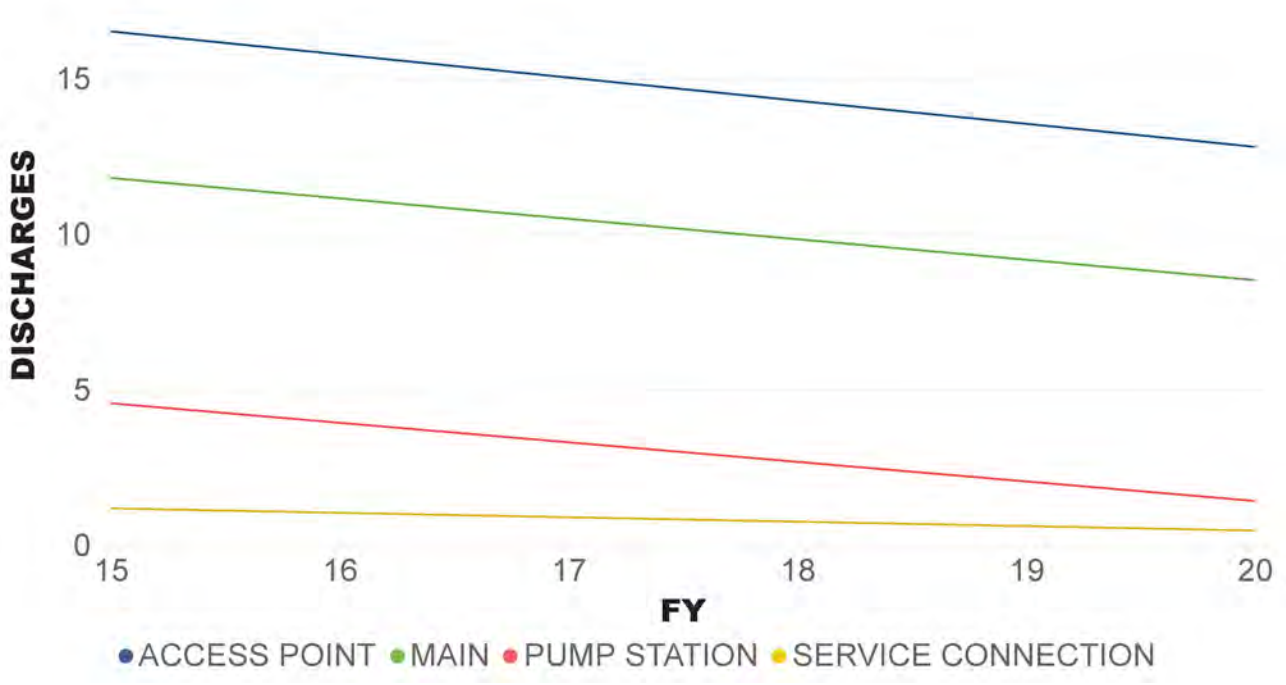
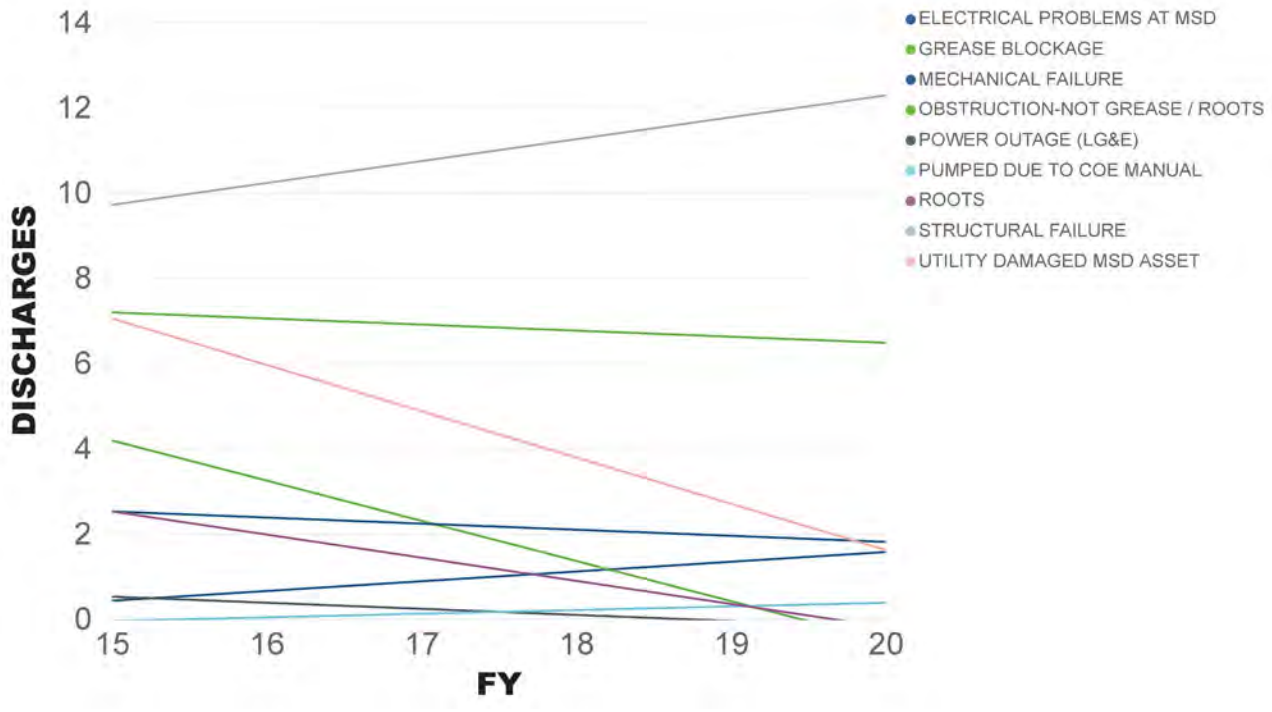


Table 1.26. Dry Weather SSOs by Fiscal Year and Cause – Unauthorized Discharges to Waters of US

FY	ELECTRICAL **PROBLEMS AT MSD**	GREASE **BLOCKAGE**	**MECHANICAL** FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	**POWER** OUTAGE (LG&E)	**PUMPED** DUE TO COE **MANUAL**	ROOTS	STRUCTURAL FAILURE	UTILITY **DAMAGED MSD** ASSET
FY15	0	6	3	5	1	0	3	8	7
FY16	1	2	2	1	0	0	1	16	0
FY17	0	1	2	7	0	0	0	8	3
FY18	0	1	1	4	0	0	1	4	0
FY19	1	1	3	5	0	0	1	11	2
FY20	1	0	1	2	0	0	0	12	1

Figure 1.21. Trend of Dry Weather SSOs by Fiscal Year and Cause – Unauthorized Discharges to Waters of US



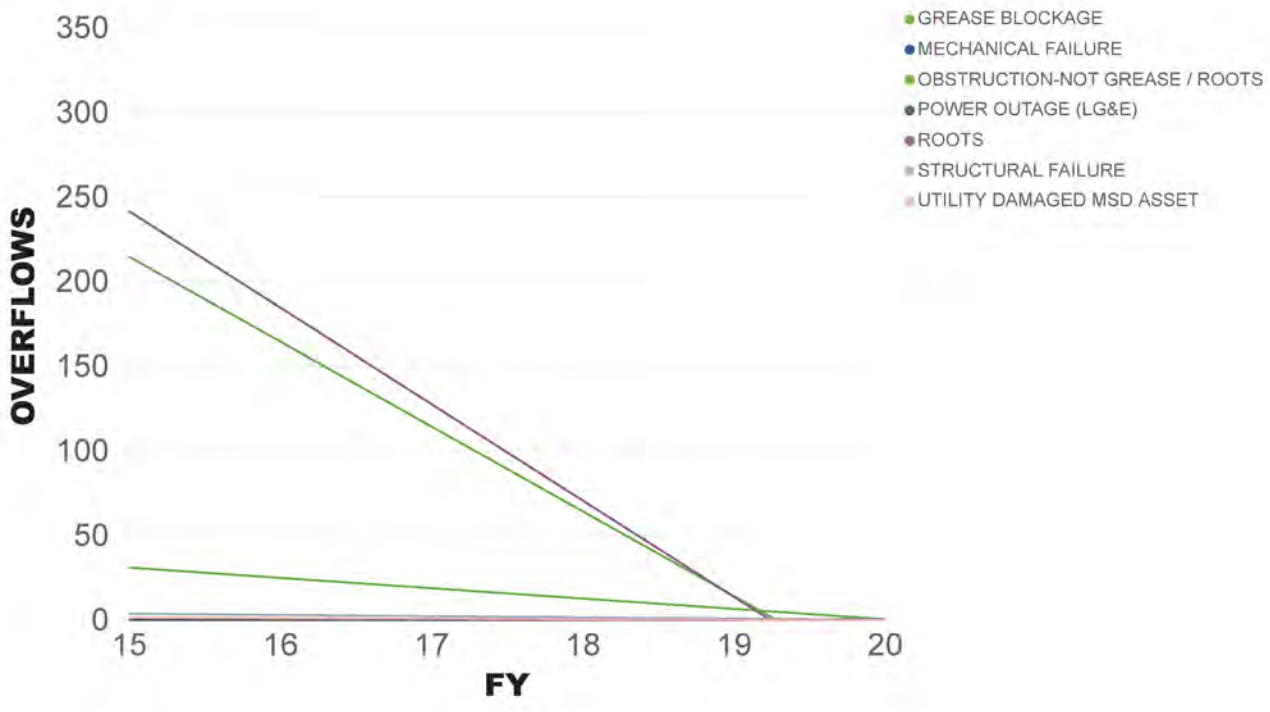
1.5.6. Dry Weather Overflows to the Interior

Table 1.27 and Figure 1.22 detail dry weather overflows to the interior by cause.

Table 1.27. Dry Weather Overflows to the Interior by Fiscal Year and Cause

FY	ELECTRICAL **PROBLEMS AT MSD**	GREASE **BLOCKAGE**	**MECHANICAL** FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	**POWER** OUTAGE (LG&E)	**PUMPED** DUE TO COE **MANUAL**	ROOTS	STRUCTURAL FAILURE	UTILITY **DAMAGED MSD** ASSET
FY15	0	36	1	354	0	0	359	5	2
FY16	0	22	1	20	0	0	43	0	0
FY17	0	18	0	96	0	0	155	3	1
FY18	0	7	0	31	0	0	22	3	0
FY19	0	6	0	17	0	0	8	0	0
FY20	0	5	1	18	0	0	8	0	0

Figure 1.22. Trend of Dry Weather Overflows to the Interior by Fiscal Year and Cause



1.5.7. Dry Weather Overflows to the Exterior

Table 1.28 and Figure 1.23 detail dry weather overflows to the exterior by asset. Table 1.29 and Figure 1.24 detail dry weather overflows to the exterior by asset.

Table 1.28. Dry Weather Overflows to the Exterior by Fiscal Year and Asset

FY	PUMP STATION	ACCESS POINT	MAIN	SERVICE CONNECTION
FY15	5	7	14	50
FY16	1	11	8	13
FY17	3	12	17	32
FY18	4	19	11	9
FY19	2	15	5	4
FY20	0	4	6	1

Figure 1.23. Trend of Dry Weather Overflows to the Exterior by Fiscal Year and Asset

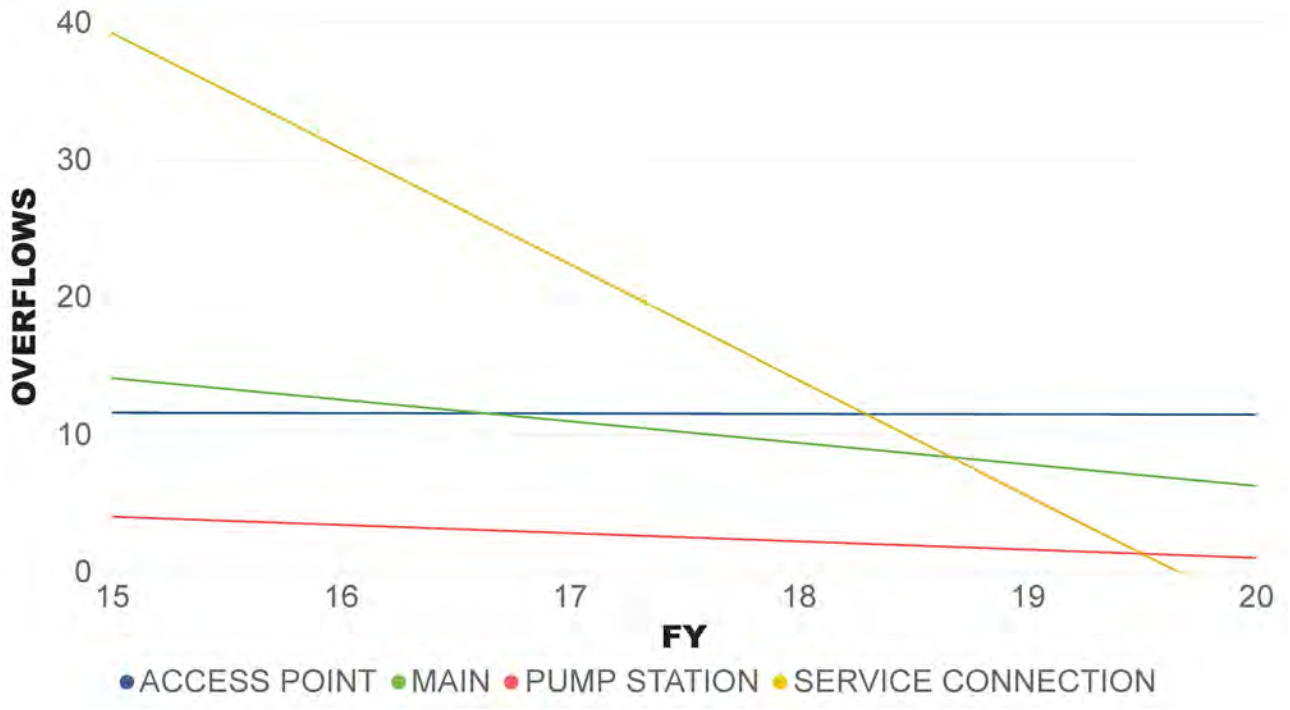
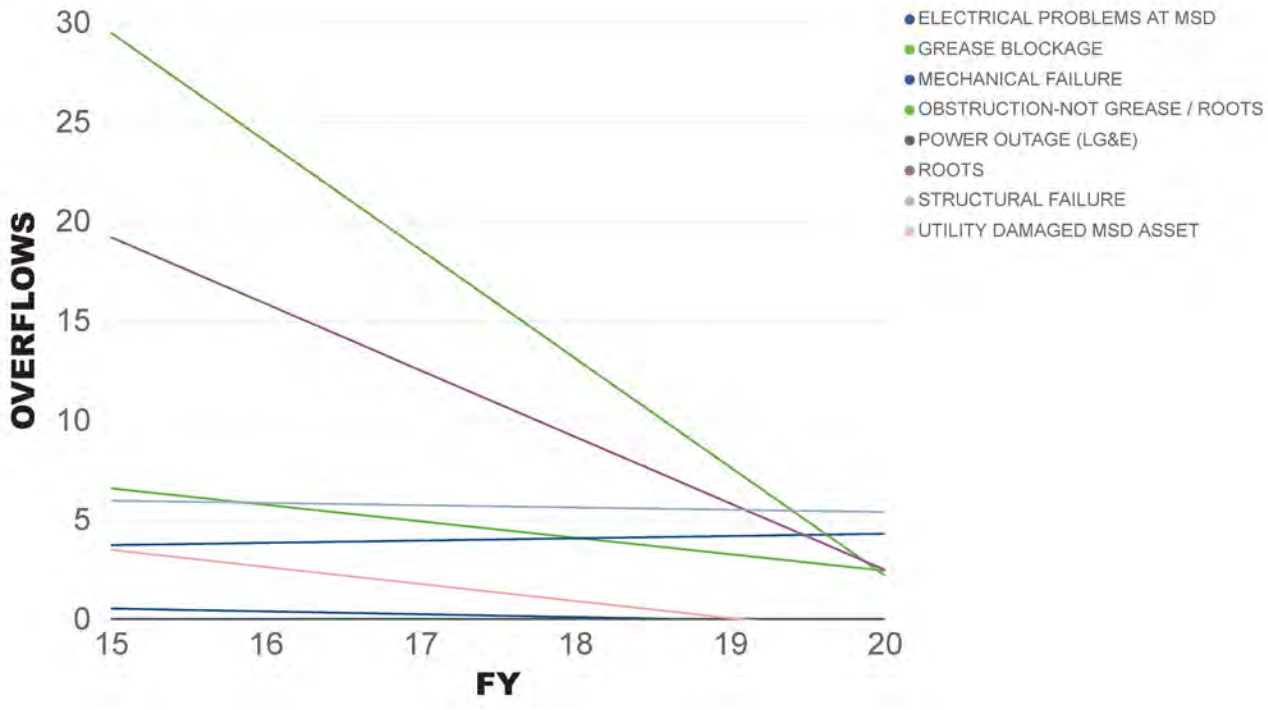


Table 1.29. Dry Weather Overflows to the Exterior by Fiscal Year and Cause

FY	ELECTRICAL **PROBLEMS AT MSD**	GREASE **BLOCKAGE**	**MECHANICAL** FAILURE	OBSTRUCTION-NOT GREASE / ROOTS	**POWER** OUTAGE (LG&E)	**PUMPED** DUE TO COE **MANUAL**	ROOTS	STRUCTURAL FAILURE	UTILITY **DAMAGED MSD** ASSET
FY15	1	4	2	35	0	0	22	7	5
FY16	0	5	4	11	0	0	7	4	2
FY17	0	10	3	23	0	0	22	6	0
FY18	0	5	8	17	0	0	6	6	1
FY19	0	2	7	6	0	0	5	6	0
FY20	0	1	0	2	0	0	3	5	0

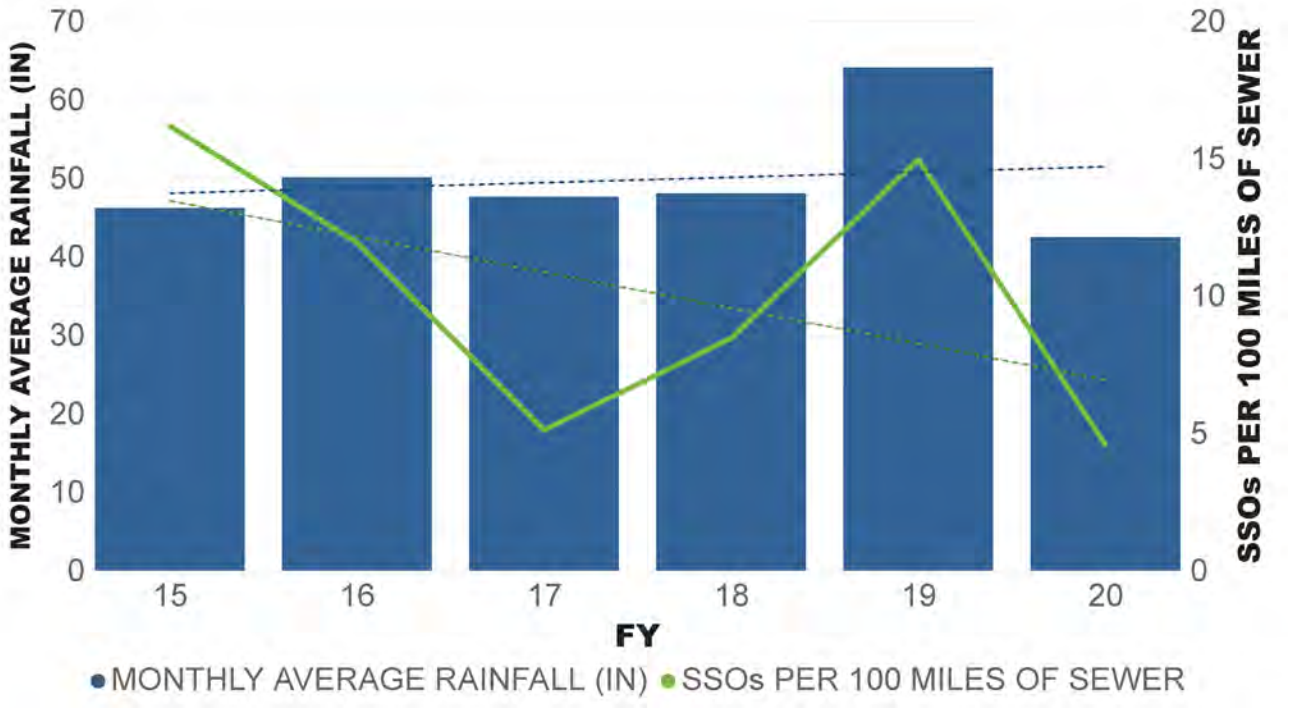
Figure 1.24. Trend of Dry Weather Overflows to the Exterior by Fiscal Year and Cause



1.6. SSOs per 100 Miles of Sewer

Per the request of EPA, and in keeping with benchmarks from other utilities, MSD has prepared the following analysis of SSOs per 100 Miles of sewer by cause for the reporting period, as well as by year and compared to national benchmarks. The background shading in Figure 1.25 represents benchmarking from other utilities and EPA studies of overflows per 100 miles of sewer. Although overflow occurrences are significantly influenced by rainfall, it is shown that MSD is trending favorably against benchmarks, and efforts documented in this Annual Report are proving effective at reducing overflows.

Figure 1.25. SSOs per 100 miles of Sewer



Section 2: Program Activities for Nine Minimum Controls (NMC)

Per Paragraph 24.a. of the Amended Consent Decree, the Nine Minimum Controls (NMC) Compliance Report was initially submitted the Environmental Protection Agency (EPA) and to Kentucky Department of Environment Protection (KDEP) on February 10, 2006. MSD received an approval letter, dated February 22, 2007, for the NMC Compliance Report. The approved NMC Compliance document can be viewed on the MSD Project WIN website **msdprojectwin.org**. Highlights of NMC program implementation are outlined below.

2.1. NMC 1: Proper Operation and Maintenance Programs

FY20 Program

Program Implementation

- Continued to inspect, maintain and properly operate the CSS pump stations and the Morris Forman Water Quality Treatment Center (WQTC).
- Complied with established program attainment goals listed in Table 2.1. Trends since FY15 are shown in Figure 2.1 and Figure 2.2.
  - 95% of CSOs inspected weekly.
  - 95% of Debris or Repair Work Orders on CSO assets created the next workday after the inspection of the asset and open for no more than 5 days.
  - 95% of flap gates inspected weekly.
  - 95% of siphons inspected monthly.
  - 100% catch basins within the CSS cleaned every 15 months. Cleaning totals have been annualized in Figure 2.2.
- Performed scheduled cleaning and inspection on gravity mains within the CSS, shown in Table 2.2. Trends since FY15 are shown in Figure 2.3 and Figure 2.4.

Annual Asset Review and Documentation

- Continued projects to create improved access to selected CSO sites to facilitate cleaning activities.

Table 2.1. NMC 1 Programmatic Implementation Attainment

ACTIVITY	REQUIRED	COMPLETED	% COMPLETE	GOAL
CATCH BASIN CLEANING	18,045	18,467	102%	100%
CSO INSPECTIONS	5,141	5,033	98%	95%
DEBRIS REMOVAL / REPAIR	573	571	100%	95%
SIPHON INSPECTIONS	592	592	100%	95%
FLAPGATE INSPECTIONS	1,092	1,085	99%	95%

Table 2.2. NMC 1 Cleaning & Inspection Activities

ACTIVITY	LINEAR FEET
CLEANING ACTIVITIES	3,517
CHEMICAL ROOT CONTROL	40,795
INSPECTION ACTIVITIES	130,401

Figure 2.1. CSO, Siphon, and Flapgate Inspections

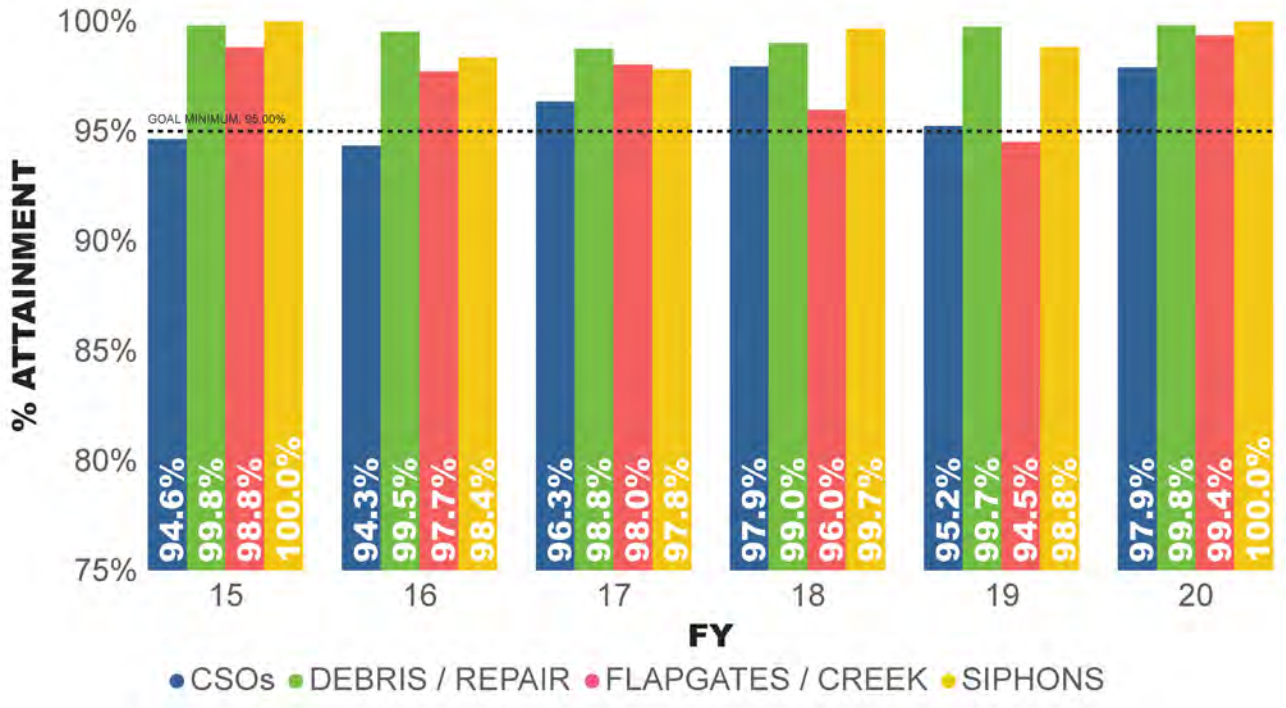


Figure 2.2. Combined System Catch Basin Scheduled Cleaning

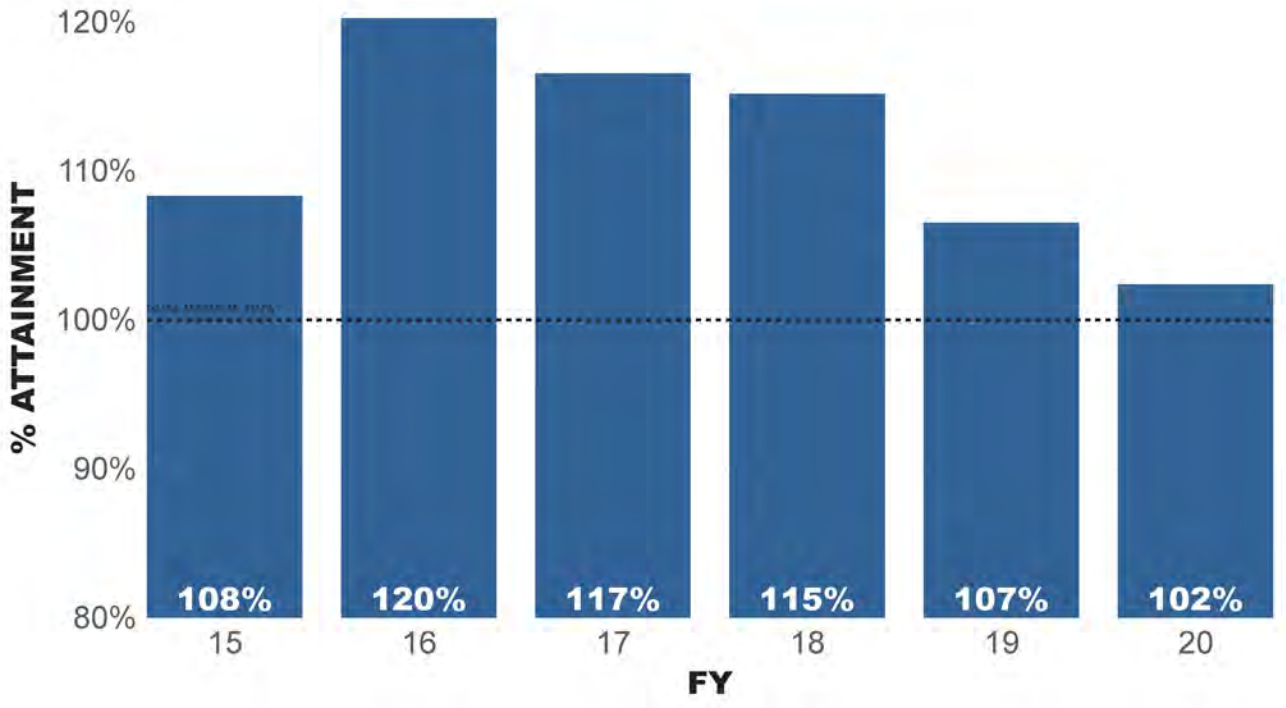


Figure 2.3. Combined System Gravity Main Structured Maintenance

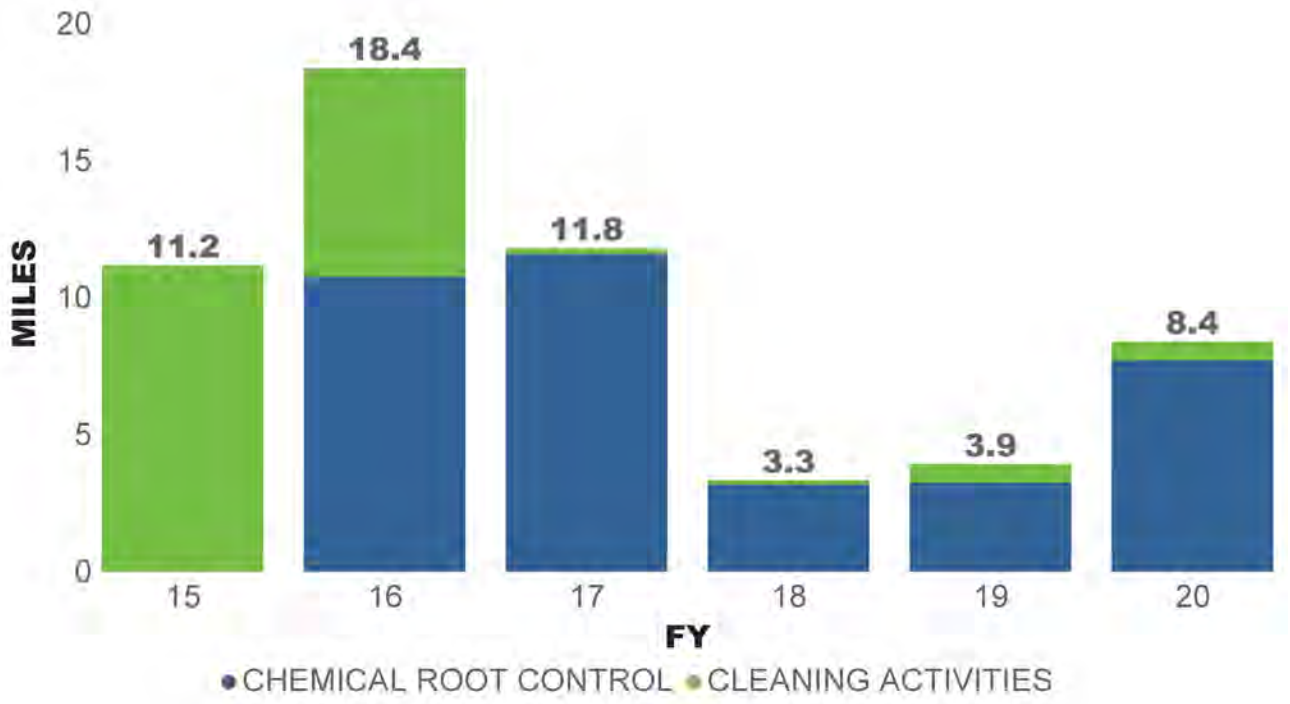
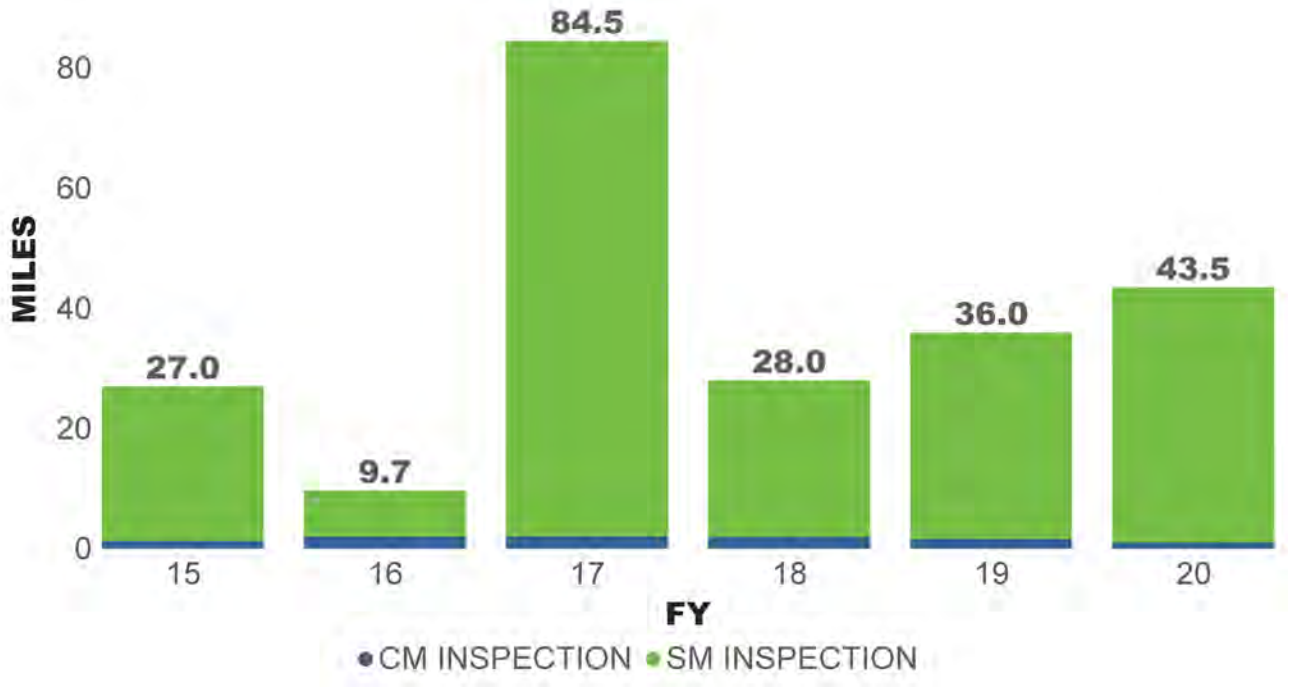


Figure 2.4. Combined System Gravity Main Completed Inspections



- Continued to review catch basin areas against the CSS and explored re-alignment to confirm that the 15-month cleaning cycle is achieving regulatory commitments.

Annual Training

- Develop online CSO & Siphon Training modules for MSD Operations Division CSO/NMC staff and Morris Forman WQTC personnel to supplement CSO Field Training.

FY21 Program

Program Implementation

- Continue cleaning and inspection programs, and reporting on programmatic implementation goals.

Asset Review and Documentation

- Continue implementation of field verification efforts to determine operation and maintenance enhancements to be incorporated into annual training.
- Review the CSO inventory schematics and revise as necessary.
- Update the CSO characterization sheets to reflect the updated and calibrated hydraulic model.

Annual Training

- Incorporate the results of the annual field investigation to adjust and enhance the annual CSO Field Training modules.
- Schedule and conduct the annual CSO Field Training with the MSD Operations Division CSO/NMC staff and Morris Forman WQTC personnel.
- Finalize and deliver online CSO & Siphon Training modules for MSD Operations Division CSO/NMC staff and Morris Forman WQTC personnel to supplement CSO Field Training.

2.2. NMC 2: Maximization of Storage in the Collection System

FY20 Program

Real Time Control (RTC) Optimization

- Continued operation of Phase 1, 2, and 3 of the RTC system. During the reporting period, over 1,802 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See Table 2.3 for a detailed report.
- Continued review of CSOs upstream of Morris Forman WQTC, and noted that flow through the plant is optimized prior to overflows occurring, as shown in quarterly reports for the reporting period.
- Transitioned from utilization of “RTC Active Storage” to the HydroWeb Dashboard for the standardized calculation of the volume of flow stored during wet weather events by RTC facilities.
- Continued Csoft maintenance and service agreement contract with RTC consultant.
- Continued to monitor and evaluate the performance of the RTC system against operational objectives and issue updates to configurations and site tuning as necessary to improve performance of the recently integrated facilities and Csoft 4.

Table 2.3. Wet Weather Storage in the Morris Forman Sewer System via the RTC System

EVENT NUMBER	WET WEATHER EVENT			RAINFALL			CSO SAVED VOLUME (MG)														HIGH RIVER LEVELS	COMMENTS
	START DATE	END DATE	DURATION	AVERAGE*	MAX**		SWPS SG CHAMBER (14.25)	SWOR2 (4.1)	BRADY LAKE AND EXECUTIVE INN STORAGE (21.5)	ASHLAND (1.0)	OHIO RIVER INTERCEPTOR (1.8)	SOR1 (14.05)	SOBA BASIN (20.0)	SOBA WO (0.95)	SOBA NWI (3.9)	CLIFTON HEIGHTS (6.9)	LOGAN (17.0)	SNEADS BRANCH (2.5)	NGPS (8.0)	TOTAL (111.1)		
				TRFD (IN)	TRFD (IN)	RAIN GAUGE																
2019-048	6/30/19 18:00	7/1/19 6:20	12:01	0	0	TR11	2	1	0	0	1	1	-	-	-	0	0	0	0	5	No	Small storm cells heterogeneously distributed over the service area. The SWSG site was controlled manually.
2019-049	7/1/19 17:25	7/2/19 2:30	9:01	0	0	TR04	0	0	0	0	1	1	-	-	-	0	0	0	0	3	No	Small storm cells heterogeneously distributed over the service area. The SWSG site was controlled manually.
2019-051	7/3/19 14:20	7/4/19 0:30	10:01	0	1	TR13	1	0	1	0	1	2	-	-	-	0	1	0	0	6	No	Moderate back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2019-055	7/16/19 12:05	7/18/19 18:00	53:01	0	1	TR12	5	1	1	0	1	11	-	-	-	1	12	1	0	34	No	Moderate storm cells heterogeneously distributed over the service area. The SWSG site was controlled manually.
2019-056	7/21/19 15:05	7/22/19 23:25	32:01	0	0	TR15	1	0	0	0	2	0	-	-	-	0	0	0	0	4	No	Small back-to-back storm cells heterogeneously distributed over the service area.
2019-057	7/29/19 19:05	7/31/19 4:15	33:01	0	1	TR04	4	1	3	1	2	12	-	-	-	1	7	1	0	32	No	Moderate back-to-back storm cells heterogeneously distributed over the service area.
2019-059	8/7/19 5:10	8/9/19 20:40	63:01	0	0	TR12	0	0	0	0	1	7	-	-	-	0	4	0	0	12	No	Small storm cells heterogeneously distributed over the service area.
2019-060	8/13/19 3:55	8/16/19 17:40	85:01	0	1	TR11	3	2	2	1	1	0	-	-	-	0	0	1	0	10	No	Moderate back-to-back storm cells homogeneously distributed over the service area.
2019-062	8/19/19 1:45	8/19/19 10:50	9:01	0	0	TR04	0	0	0	0	1	0	-	-	-	0	0	0	0	1	No	Small storm cells heterogeneously distributed over the service area.
2019-064	8/22/19 3:35	8/22/19 19:25	15:01	0	1	TR13	2	1	2	0	1	0	-	-	-	0	0	0	0	7	No	Moderate storm cells homogeneously distributed over the service area.
2019-065	8/23/19 9:20	8/24/19 2:00	16:01	0	0	TR14	0	0	1	0	0	0	-	-	-	0	0	0	0	2	No	Small storm cells heterogeneously distributed over the service area.
2019-066	8/25/19 21:05	8/28/19 9:30	60:01	1	2	TR13	4	3	5	1	2	14	-	-	-	4	15	2	0	50	No	Large back-to-back storm cells heterogeneously distributed over the service area. The SWSG site was controlled manually.

Table 2.3. Wet Weather Storage in the Morris Forman Sewer System via the RTC System

EVENT NUMBER	WET WEATHER EVENT			RAINFALL			CSO SAVED VOLUME (MG)														HIGH RIVER LEVELS	COMMENTS
	START DATE	END DATE	DURATION	AVERAGE* TRFD (IN)	MAX** TRFD (IN)	MAX** RAIN GAUGE	SWPS SG CHAMBER (14.25)	SWOR2 (4.1)	BRADY LAKE AND EXECUTIVE INN STORAGE (21.5)	ASHLAND (1.0)	OHIO RIVER INTERCEPTOR (1.8)	SOR1 (14.05)	SOBA BASIN (20.0)	SOBA WO (0.95)	SOBA NWI (3.9)	CLIFTON HEIGHTS (6.9)	LOGAN (17.0)	SNEADS BRANCH (2.5)	NGPS (8.0)	TOTAL (111.1)		
2019-070	10/6/19 3:55	10/8/19 11:10	55:01	1	2	TR14	13	4	13	1	2	15	-	-	-	2	7	1	0	56	No	Large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2019-071	10/11/19 10:50	10/12/19 6:55	20:01	0	0	TR14	2	0	1	0	2	2	-	-	-	0	3	0	0	11	No	Small back-to-back storm cells homogeneously distributed over the service area.
2019-072	10/15/19 23:05	10/17/19 3:05	27:01	1	1	TR12	4	2	7	1	1	8	-	-	-	1	4	1	0	28	No	Moderate back-to-back storm cells homogeneously distributed over the service area.
2019-073	10/26/19 2:25	10/29/19 5:05	74:01	1	1	TR04	12	3	13	1	3	20	-	-	-	2	12	1	0	66	No	Large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2019-074	10/30/19 8:20	11/1/19 23:15	62:01	2	2	TR14	20	6	20	1	4	30	-	-	-	5	17	2	4	110	No	Very large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2019-077	11/6/19 20:00	11/7/19 19:40	23:01	1	1	TR14	6	1	3	0	1	7	-	-	-	0	1	0	0	20	No	Moderate storm cells homogeneously distributed over the service area.
2019-082	11/22/19 0:45	11/22/19 13:35	12:01	0	1	TR14	3	1	3	0	0	2	-	-	-	0	0	0	0	11	No	Small storm cells homogeneously distributed over the service area.
2019-084	11/26/19 18:20	11/28/19 18:20	48:01	1	1	TR12	7	2	10	1	2	15	-	-	-	2	9	1	0	48	No	Large back-to-back storm cells homogeneously distributed over the service area.
2019-085	11/29/19 23:35	12/1/19 23:20	47:01	2	3	TR14	13	4	19	1	2	17	-	-	-	7	16	2	7	88	No	Very large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2019-086	12/1/19 23:20	12/3/19 8:00	32:01	0	0	TR04	0	0	0	0	0	0	-	-	-	0	0	0	0	0	No	Analyzed as part of rainfall event #2019-085.
2019-089	12/13/19 14:20	12/14/19 12:05	21:01	1	1	TR14	1	0	0	0	0	1	-	-	-	0	0	0	0	2	No	Small back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2019-090	12/15/19 20:50	12/21/19 13:40	136:01	1	1	TR14	13	4	14	1	2	16	-	-	-	3	11	1	1	64	No	Large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.

Table 2.3. Wet Weather Storage in the Morris Forman Sewer System via the RTC System

EVENT NUMBER	WET WEATHER EVENT			RAINFALL			CSO SAVED VOLUME (MG)													HIGH RIVER LEVELS	COMMENTS
	START DATE	END DATE	DURATION	AVERAGE*	MAX**		SWPS SG CHAMBER (14.25)	SWOR2 (4.1)	BRADY LAKE AND EXECUTIVE INN STORAGE (21.5)	ASHLAND (1.0)	OHIO RIVER INTERCEPTOR (1.8)	SOR1 (14.05)	SOBA BASIN (20.0)	SOBA WO (0.95)	SOBA NWI (3.9)	CLIFTON HEIGHTS (6.9)	LOGAN (17.0)	SNEADS BRANCH (2.5)	NGPS (8.0)	TOTAL (111.1)		
				TRFD (IN)	TRFD (IN)	RAIN GAUGE																
2019-091	12/29/19 3:20	12/31/19 18:40	63:01	1	2	TR14	11	3	12	1	2	11	-	-	-	3	13	1	0	57	No	Large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-001	1/2/20 12:40	1/4/20 9:35	44:01	1	1	TR15	9	2	3	0	4	5	0	-	-	0	4	0	0	27	No	Large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-002	1/10/20 13:20	1/13/20 23:30	82:01	2	2	TR11	31	5	24	2	4	15	1	-	-	5	19	1	1	108	No	Large back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-003	1/18/20 2:05	1/18/20 19:50	17:01	0	1	TR04	4	1	1	0	2	2	1	-	-	0	0	0	0	10	No	Small storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-004	1/23/20 16:20	1/25/20 4:00	35:01	1	1	TR14	3	1	1	0	1	0	0	-	-	0	1	0	0	7	No	Moderate back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-005	1/31/20 6:15	1/31/20 18:05	11:01	0	0	TR04	1	1	1	0	1	0	0	-	-	0	0	0	0	4	No	Small storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-007	2/4/20 7:15	2/5/20 4:35	21:01	0	0	TR14	2	0	0	0	2	0	0	-	-	0	0	0	0	5	No	Moderate storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-008	2/5/20 15:25	2/6/20 1:45	10:01	0	0	TR13	0	0	0	0	1	0	0	-	-	0	0	0	0	2	No	Small storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-011	2/9/20 11:00	2/11/20 21:40	58:01	1	1	TR04	1	1	0	0	2	0	0	-	-	0	0	0	0	4	No	Moderate back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-012	2/12/20 11:15	2/16/20 3:25	88:01	1	1	TR12	21	6	16	1	2	19	13	-	-	0	14	0	2	93	No	Moderate back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.

Table 2.3. Wet Weather Storage in the Morris Forman Sewer System via the RTC System

EVENT NUMBER	WET WEATHER EVENT			RAINFALL			CSO SAVED VOLUME (MG)														HIGH RIVER LEVELS	COMMENTS
	START DATE	END DATE	DURATION	AVERAGE* TRFD (IN)	MAX** TRFD (IN)	MAX** RAIN GAUGE	SWPS SG CHAMBER (14.25)	SWOR2 (4.1)	BRADY LAKE AND EXECUTIVE INN STORAGE (21.5)	ASHLAND (1.0)	OHIO RIVER INTERCEPTOR (1.8)	SOR1 (14.05)	SOBA BASIN (20.0)	SOBA WO (0.95)	SOBA NWI (3.9)	CLIFTON HEIGHTS (6.9)	LOGAN (17.0)	SNEADS BRANCH (2.5)	NGPS (8.0)	TOTAL (111.1)		
2020-013	2/18/20 4:55	2/19/20 9:05	28:01	0	0	TR13	1	0	0	0	1	0	0	-	-	0	3	0	0	5	No	Small back-to-back storm cells homogeneously distributed over the service area. The SWSG site was controlled manually.
2020-014	2/24/20 4:55	2/25/20 14:00	33:01	1	1	TR04	0	2	3	0	3	1	2	-	-	0	1	0	0	11	No	Moderate back-to-back storm cells homogeneously distributed over the service area
2020-016	3/2/20 4:35	3/3/20 13:55	33:01	1	1	TR04	3	1	4	0	2	1	3	-	-	0	0	0	0	14	No	Moderate back-to-back storm cells homogeneously distributed over the service area
2020-017	3/10/20 1:45	3/11/20 6:35	28:01	0	1	TR04	3	1	2	0	2	6	0	-	-	1	5	0	0	20	No	Moderate back-to-back storm cells homogeneously distributed over the service area.
2020-018	3/12/20 16:15	3/14/20 12:05	43:01	1	1	TR14	15	3	8	1	1	9	5	-	-	0	7	1	0	50	No	Large back-to-back storm cells homogeneously distributed over the service area.
2020-019	3/14/20 12:05	3/17/20 7:00	66:01	1	1	TR11	6	1	3	0	2	5	6	-	-	5	15	0	0	42	No	Moderate back-to-back storm cells homogeneously distributed over the service area.
2020-020	3/17/20 7:00	3/18/20 9:05	26:01	0	0	TR14	-	-	-	-	-	-	-	-	-	-	-	-	-	0	No	Analyzed as part of rainfall event #2020-019.
2020-021	3/18/20 11:35	3/23/20 14:10	122:01	1	1	TR04	24	4	16	1	3	13	11	-	-	1	22	0	1	98	No	Large back-to-back storm cells homogeneously distributed over the service area.
2020-022	3/24/20 16:25	3/25/20 9:10	16:01	0	0	TR12	3	1	2	0	1	2	1	-	-	0	1	0	0	11	No	Small back-to-back storm cells homogeneously distributed over the service area.
2020-023	3/28/20 23:00	3/30/20 18:55	43:01	0	1	TR05	14	1	5	1	1	6	3	-	-	2	8	2	0	42	No	Small back-to-back storm cells homogeneously distributed over the service area.
2020-025	4/8/20 22:50	4/9/20 23:15	24:01	0	0	TR11	4	1	1	0	1	1	1	-	0	0	1	0	0	10	No	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells. SOBA-WO data unavailable.
2020-026	4/12/20 16:30	4/15/20 0:35	56:01	2	2	TR14	23	5	20	1	2	14	16	-	4	3	16	1	1	105	No	Large wet weather event heteregeneously distributed across the collection system with back-to-back storm cells. SOBA-WO data unavailable.

Table 2.3. Wet Weather Storage in the Morris Forman Sewer System via the RTC System

EVENT NUMBER	WET WEATHER EVENT			RAINFALL			CSO SAVED VOLUME (MG)													HIGH RIVER LEVELS	COMMENTS
	START DATE	END DATE	DURATION	AVERAGE* TRFD (IN)	MAX** TRFD (IN)	MAX** RAIN GAUGE	SWPS SG CHAMBER (14.25)	SWOR2 (4.1)	BRADY LAKE AND EXECUTIVE INN STORAGE (21.5)	ASHLAND (1.0)	OHIO RIVER INTERCEPTOR (1.8)	SOR1 (14.05)	SOBA BASIN (20.0)	SOBA WO (0.95)	SOBA NWI (3.9)	CLIFTON HEIGHTS (6.9)	LOGAN (17.0)	SNEADS BRANCH (2.5)	NGPS (8.0)	TOTAL (111.1)		
2020-027	4/17/20 14:55	4/18/20 7:00	16:01	0	1	TR13	0	0	0	0	1	0	0	-	0	0	0	0	0	2	No	Moderate wet weather event heteregeneously distributed across the collection system with back-to-back storm cells. SOBA-WO data unavailable. The SWSG site was controlled manually.
2020-028	4/23/20 6:00	4/24/20 15:35	33:01	1	1	TR04	2	1	3	0	1	2	4	1	1	0	2	0	0	18	No	Large wet weather event homogeneously distributed across the collection system with back-to-back storm cells.
2020-029	4/25/20 13:00	4/28/20 1:20	60:01	1	1	TR13	0	1	1	0	2	0	0	0	3	0	1	0	0	9	No	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells.
2020-030	4/29/20 11:20	4/30/20 16:30	29:01	0	0	TR12	0	1	1	0	0	0	1	0	0	0	0	0	0	3	Yes	Small wet weather event homogeneously distributed across the collection system with back-to-back storm cells. The SWSG site was controlled manually.
2020-032	5/5/20 4:35	5/5/20 15:55	11:01	0	0	TR14	0	0	0	0	1	0	1	0	0	0	0	0	0	3	Yes	Small wet weather event homogeneously distributed across the collection system with back-to-back storm cells. The SWSG site was controlled manually.
2020-033	5/8/20 7:35	5/9/20 10:35	27:01	1	1	TR12	13	2	10	1	1	5	1	0	0	1	6	0	0	41	Yes	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells. The SWSG site was controlled manually.
2020-034	5/13/20 5:35	5/14/20 17:40	36:01	0	0	TR11	0	1	1	0	1	0	0	0	0	0	0	0	0	2	No	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells.
2020-035	5/15/20 11:30	5/17/20 20:00	56:01	1	2	TR11	24	3	19	1	1	13	9	1	4	0	3	1	0	80	No	Large wet weather event homogeneously distributed across the collection system with back-to-back storm cells.
2020-036	5/17/20 20:00	5/19/20 10:10	38:01	1	1	TR04	7	0	1	0	1	4	3	1	2	0	7	0	0	27	No	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells.

Table 2.3. Wet Weather Storage in the Morris Forman Sewer System via the RTC System

EVENT NUMBER	WET WEATHER EVENT			RAINFALL			CSO SAVED VOLUME (MG)													HIGH RIVER LEVELS	COMMENTS
	START DATE	END DATE	DURATION	AVERAGE* TRFD (IN)	MAX** TRFD (IN)	MAX** RAIN GAUGE	SWPS SG CHAMBER (14.25)	SWOR2 (4.1)	BRADY LAKE AND EXECUTIVE INN STORAGE (21.5)	ASHLAND (1.0)	OHIO RIVER INTERCEPTOR (1.8)	SOR1 (14.05)	SOBA BASIN (20.0)	SOBA WO (0.95)	SOBA NWI (3.9)	CLIFTON HEIGHTS (6.9)	LOGAN (17.0)	SNEADS BRANCH (2.5)	NGPS (8.0)	TOTAL (111.1)		
2020-037	5/19/20 10:10	5/20/20 12:20	26:01	0	0	TR04	0	0	0	0	0	0	0	0	0	2	7	0	0	10	Yes	Very small wet weather event heterogeneously distributed across the collection system.
2020-039	5/23/20 16:45	5/25/20 16:15	47:01	1	1	TR15	2	1	4	0	1	0	0	0	0	1	2	0	0	11	Yes	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells. The SWSG site was controlled manually.
2020-040	5/25/20 16:15	5/26/20 12:10	19:01	0	1	TR04	7	2	1	0	2	1	1	0	2	2	1	0	0	19	Yes	Small wet weather event heterogeneously distributed across the collection system. The SWSG site was controlled manually.
2020-041	5/26/20 15:15	5/30/20 0:00	80:01	0	1	TR13	2	1	0	0	1	1	1	0	0	0	0	0	0	7	Yes	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells. The SWSG site was controlled manually.
2020-042	6/4/20 13:55	6/6/20 15:50	49:01	1	1	TR04	15	3	12	1	2	4	0	1	4	3	3	0	0	47	No	Moderate wet weather event heterogeneously distributed across the collection system.
2020-043	6/9/20 12:20	6/14/20 7:30	115:01	0	0	TR05	0	0	0	0	1	0	0	0	0	1	0	0	0	2	No	Small wet weather event heterogeneously distributed across the collection system.
2020-046	6/21/20 11:40	6/22/20 10:25	22:01	1	1	TR04	5	1	4	0	1	4	0	0	2	1	4	0	0	22	No	Moderate wet weather event homogeneously distributed across the collection system with back-to-back storm cells.
2020-047	6/22/20 20:30	6/27/20 18:40	118:01	1	1	TR11	13	2	13	1	2	4	1	0	4	4	16	1	0	63	No	Large wet weather event homogeneously distributed across the collection system with back-to-back storm cells.
2020-048	6/27/20 18:40	6/29/20 3:15	32:01	1	2	TR11	14	4	18	1	1	1	0	0	0	0	2	0	0	42	No	Moderate wet weather event homogeneously distributed across the collection system, with very high intensity peak at the beginning.
TOTAL							397	95	331	23	94	328	85	6	27	63	306	25	24	1802		

* Average total rainfall depth based on rain gauges TR04, TR05, TR11, TR12, TR13, TR14 and TR15.

** Maximum total rainfall depth measurement and measurement location during the wet weather event.

*** The MDS is always controlled manually by operators.

- Integrated the Southwestern Parkway (Shawnee) CSO Storage Basin, the Bells Lane Wet Weather Treatment Facility, Splitter Structure #1 at the Southwestern Pump Station (SWPS) and improvements to RTC operations at the SWPS and Southwestern Sluice Gates (SWSG/SWOR1) facilities.
- Updated the master RTC SOP Manual and incorporated the draft Portland CSO Basin RTC SOP, final SOPs for Southwestern Parkway (Shawnee) CSO Storage Basin, the Bells Lane Wet Weather Treatment Facility, Splitter Structure #1 at the SWPS and SWSG/SWOR1. The update also included a reorganization of the upfront chapters and incorporation of the filling and dewatering strategy.
- Updated the site-by-site quick reference guide of expected site behaviors under the various RTC operating modes for use by operations personnel monitoring the system by incorporating recently integrated sites including the Clifton and Logan CSO Storage Basins and the Nightingale Pump Station Storage.
- Completed updates to the RTC hydraulic model to incorporate the Portland CSO basin and has begun operating the basin in advance of RTC integration.
- Began preparing a master programming guide for RTC facilities to document existing programming and parameters at each facility as a reference to ensure long term continuity of the RTC system.
- Continued to implement recommendations for improvements designed to optimize the utilization and performance of the existing RTC system including the adjustment of RTC configurations and Pilot to improve optimization and management of the RTC system.

Storage Optimization

- Continued to monitor and review the performance of the RTC sites and system under Csoft 4, developing recommendations for improvements, and implementing these recommendations as needed to optimize the utilization and performance of the RTC system.
- Incorporated a wet weather rule at the Southern Outfall Retention #1 Facility (SOR1) to keep the RTC system in wet mode until the site was fully dewatered.
- Completed construction, testing, and integration of the upgraded Ashland RTC Facility back into the RTC system.
- Deployed the HydroWeb RTC dashboard. The dashboard is fully functional and incorporates all RTC sites currently integrated into the RTC system and provides graphics and interfaces to support weekly and quarterly reporting functions.
- Developed a method to extract data from the Telog Database into the HydroWeb dashboard and began developing Key Performance Indicator (KPI) functions and graphics for Telog data.
- Began transferring RTC storage volumes calculated within HydroWeb on an event by event basis to PI historian.
- Substantially completed installation of a flow meter between the Main Diversion Structure (MDS) and the Morris Forman WQTC to improve monitoring of flow from the MDS.
- Performed temporary flow monitoring of the Middle Fork Trunk to gather data to improve model calibration during post event recovery to improve dewater of the Clifton Heights CSO Storage Basin.
- Updated Csoft configurations to improve dewatering of Clifton Heights and the Logan CSO Storage Basins to reduce pump cycling by increased utilization of Starkey PS data and CSO 020 level data to establish available dewater capacity.
- Reprogrammed the flow under the gate calculation at the MDS to improve results.

- Identified and corrected data conflicts in programming for the SWSG/SWOR1 that impacted RTC operation of the site.
- Improved level calculations at the Splitter Structure #1 to improve flow estimates from the SWPS to the Morris Forman WQTC.
- Adjusted the SOR1 management strategy to maintain a constant downstream setpoint at the MDS's inflatable dam to reduce gate oscillations.
- Repaired Gate 3 at the Southwestern Parkway CSO Storage Basin so the facility could be managed by the RTC system.
- Continued operating the Portland CSO Storage Basin manually to validate the control assumptions, followed by increasing levels of system automation as the automated controls for individual components are implemented, validated, and then incorporated into the overall RTC system.
- Began evaluation of the SWSG/SWOR1 for the addition of a weir structure to facilitate full utilization of the Southwestern Outfall for in-line storage.
- Reviewed flow monitoring data and calibrated the hydraulic model. Developed recommendation to add baffles at CSO190 to attenuate flow and reduce peak flows to the CSO to increase inline storage.

FY21 Program

RTC Optimization

- Continue monitor system operability in the automated mode under Csoft 4 and refine the local site tuning of RTC facilities as needed based on performance during varying rain events.
- Prepare the preliminary SOP for the 13th and Rowan PS and the Waterway Protection Tunnel and complete preliminary integration of the 13th and Rowan PS.
- Continue developing the RTC Programming and Modules guide to document existing and new site RTC programming and modules including local site variables and parameters utilized for site management.
- Finalize the Portland CSO Storage Basin SOP and develop the draft 13th and Rowan PS SOP and update the master RTC SOP manual.
- Develop a RTC Flood Mode for RTC facilities along the Ohio River that are impacted by flood protection system operations during high river levels to optimize storage and dewatering under these conditions.
- Continue development of the HydroWeb dashboard by implementing KPI associated with data housed in the Telog database.

Storage Optimization

- Complete preparation of a Preliminary Design Report evaluating the addition of a weir structure at the SWSG/SWOR1 facility to facilitate full utilization of the Southwestern Outfall for in-line storage.
- Integrate the Portland CSO Storage Basin and the Logan CSO Interceptor into the RTC system.
- Begin programming and preliminary integration and startup procedures for the 13th and Rowan PS to facilitate integration once the tunnel and related interceptors are constructed.
- Implemented recommendation to add baffles at CSO190.

2.3. NMC 3: Review and Modification of Pretreatment Requirements

FY20 Program

- Completed FY20 NMC 3 Trunk Sewer Water Quality Data Collection in August 2019. Finalized pollutants of concern (POCs) and trunkline sewer data (contributory to CSOs) for FY20 Dry Weather Sampling Result Report. Reviewed and evaluated FY20 trunk sewer data against prior trunk sewer data to determine if changes in pollutants warrant review of contributory Non-Domestic Dischargers (NDDs). Determined POCs and trunkline sewer (contributory to CSOs) dry weather sampling strategy for FY21. Prepared a report to document the findings and recommendations resulting from sampling efforts.

- Continued to send wet weather alerts to NDDs of concern prior to rain events, reminding them of their commitment to implement voluntary controls during wet weather events. During this reporting period, the MSD service area experienced 92 measurable rain events and 37 events with only trace rainfall. MSD sent email notices to NDDs 61 times prior to precipitation events. The email notices contain information regarding expected precipitation expected for a one- to four-day period. There are currently nine NDDs that voluntarily implement controls during wet weather by alternating their cleaning schedule and/or by storing wastewater during a rain event.

- Continued to track performance measures to quantify the effectiveness of voluntary controls during wet weather events. The pollutant loading kept out of the CSS per typical rain event in previous fiscal years has been quantified with the data from the wet weather logs submitted by NDDs and is shown in Table 2.4. The typical results of pollutants kept out of the CSS when all NDDs participate are presented Table 2.5., quantified based on the actual rain events when NDDs detained their flow or otherwise reduced their discharge.

- Continued to include specific NMC 3 related language, as appropriate, in new and re-issued wastewater discharge permits to facilities located in the CSS, as well as in all Unusual Discharge Requests (UDRs) approved for discharge to the CSS. MSD re-issued 24 wastewater discharge permits to users discharging to or immediately upstream of the CSS. There were 30 UDRs processed for discharges to Morris Forman WQTC in FY20. The UDRs included 12 locations in the CSS and 18 locations in the SSS which ultimately discharge to Morris Forman WQTC. To avoid the risk of an overflow occurring, UDR permits contain standard condition requirements which restrict discharges into the collection system when wet weather conditions are expected.

- Conducted two NMC 3 site inspections at NDD facilities as part of the permit renewal process.

- Conducted twenty-three NMC 3 site inspections at Industrial User facilities not currently in the formal NMC 3 program as part of the initial permitting or permit renewal process. These facilities were found to have little to no impact during rain events. MSD elected not to request implementation of voluntary controls by these facilities at this time because of the limited benefit to be gained. MSD heightened the understanding of the CSS operation during wet weather for these industries during the inspections.

- Continued to include hold and release requirements in permits for all new industrial users in the combined sewer system and for existing industrial customers that expand production in the combined sewer system. The volume and duration of each hold and release requirement were determined through use of MSD's hydraulic model. MSD applied this requirement to two permits during the reporting period. MSD also documented which permitted industries have 'hold and release' permit requirements.

- Continued to seek out green infrastructure opportunities at NDDs discharging to the CSS and documented the permitted industries that use green infrastructure to reduce flow contributions during wet weather.

- Documented which NDDs have ceased operation during the reporting period.

- Reviewed improvements made to the combined sewer system infrastructure and the potential impact on the NMC 3 program. Updated CSS flows from the most recent calibrated hydraulic model.

Table 2.4. Typical Pollutants Kept Out of the CSS per Rain Event

FY	NUMBER OF NDDS PARTICIPATING	VOLUME (GAL)	BOD (LBS)	TSS (LBS)
FY15	7	235,000	6,830	5,770
FY16	6	239,000	7,190	6,220
FY17	7	255,000	7,950	6,850
FY18	9	313,000	4,900	2,020
FY19	8	415,000	4,270	1,830
FY20	8	406,000	1,860	1,140

Table 2.5. Total Quantity Pollutants Kept Out of the CSS

FY	NUMBER OF WET WEATHER DAYS	VOLUME (GAL)	BOD (LBS)	TSS (LBS)
FY15	58	14,838,000	448,000	385,000
FY16	78	14,747,000	453,000	396,000
FY17	104	21,065,000	659,000	575,000
FY18	69	16,413,000	179,000	112,000
FY19	65	19,939,000	142,000	99,000
FY20	92	28,435,000	121,000	99,000

FY21 Program

- Complete FY20 NMC 3 Trunk Sewer Water Quality Data Collection effort. Compare FY20 trunk sewer data against prior trunk sewer data to determine if changes in pollutants warrant review of contributory NDDs.
- Determine POCs, NDDs (based on historical data), and trunkline sewers (contributory to CSOs) for FY20. Review NDDs (based on historical data) to identify those that may be removed from the program, as well as any that may need to be added. Prepare a file report to document the findings and recommendations resulting from FY20 NMC 3 trunk sewer collection data.
- Continue to send wet weather alerts to NDDs of concern prior to rain events, reminding them of their commitment to implement voluntary controls during wet weather events.
- Continue to include specific NMC 3 related language, as appropriate, in new and re-issued wastewater discharge permits to facilities located in the CSS, as well as in all Unusual Discharge Requests approved for discharge to the CSS.
- Conduct NMC 3 site inspections at Industrial User permitted facilities not currently in the formal NMC 3 program as part of the permit renewal process.
- Discuss NMC 3 program participation at each annual site inspection for Industrial Users who are currently in the NMC 3 program.
- Track performance measures to monitor the effectiveness of the implementation of NMC 3 within the Pretreatment Program.
- Review new industrial users and existing industrial users with increased discharges in the combined sewer system to determine if hold and release requirements need to be added into their permits. Continue to document which permitted industries have hold and release permit requirements. Continue to document which permitted industries use green infrastructure to trade off for their ‘hold and release’ program.

- Document which NDDs have ceased operation and quantify the impact/reduction on CSS operation.
- Continue to review improvements made to the combined sewer system infrastructure and their potential impact on the NMC 3 program. Consider updated flows from the most recent calibrated hydraulic model. Some CSS improvements may result in changes to the ongoing NMC 3 program. Document the changes and impacts in a memo to the file.

2.4. NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center

FY20 Program

- The following projects were under design:
  - Admin Building Roof Replacement
  - Chiller Replacement
  - Elevator Repair
  - Headworks & Dumpster Building Structural & Primary Blower Building Stair Repairs
  - Primary Sedimentation Project
  - Radio Repeater Project
  - Sewer and Manhole Condition Assessment and Repair
  - Sodium Hypochlorite Building Relocation
  - SWPS Gas Monitoring and SP1 Odor Control
  - SWPS Site Security
- Design was completed on the following projects:
  - Bells Lane PAA System
  - Bells Lane WWTF Polymer Feed System Improvements
- The following projects were under construction:
  - Cake Pump Phase II
  - East Headworks HVAC
  - Louisville Green Dryer Replacements
  - SWPS Flood Repair
- Groundwater Wells Study was underway.
- Construction was completed on the following projects:
  - Bells Lane Grit Classifier Drain Line

- Primary Sludge Line Replacement
- Truck Unloading Station

FY21 Program

- Design is expected to be completed on the Primary Sedimentation Replacement project.
- The following projects are anticipated to begin construction:
  - Admin Building Roof Replacement
  - Bells Lane PAA System
  - Elevator Repair
  - Headworks & Dumpster Building Structural & Primary Blower Building Stair Repairs SWPS Gas Monitoring and SP1 Odor Control
  - Primary Sedimentation Project Design Phase
  - Radio Repeater Project
  - Sewer and Manhole Condition Assessment and Repair
  - SWPS Site Security
- The following projects are anticipated to continue construction:
  - Louisville Green Dryer Replacements
- The following projects are anticipated to be completed:
  - Cake Pump Phase II
  - Chiller Replacement
  - East Headworks HVAC
  - Groundwater Wells Study
  - SWPS Flood Repair

2.4.1. Morris Forman Water Quality Treatment Center

FY20 Program

Flows

Continued to maximize flow to the Morris Forman WQTC. Charts that compare plant flow at the Morris Forman WQTC during the reporting period with the occurrence of CSOs at the Main Diversion Structure and the Southwestern Pump Station have been previously included in Consent Decree quarterly reports. Refer to Figure 2.5 for location of the CSOs closest to Morris Forman WQTC.

Figure 2.5. CSO Locations Relative to Morris Forman WQTC

Outages

The Final Effluent Pump Station was in service 150 days during the reporting period.

Violations

Morris Forman WQTC experienced plant violations throughout the reporting period due to continuing failure of the solids handling equipment and the limited availability of alternate solids disposal.

FY21 Program

The FY21 program for the Morris Forman WQTC is as described in Section 2.4

2.4.2. Wet Weather Capture

Historically, the long term trend continues to show that MSD has increased the amount of wet weather flow diverted at the Morris Forman WQTC. The wet weather capture is the difference between the annual average flow treated and the base wastewater flow (defined in state regulations as the lowest monthly average day flow during the calendar year). CY20 (through June 30) shows a significant increase in base flow compared to CY19, as seen in Figure 2.6. Overall, the long-term base flow trend is rising slightly, as new customers in the industrial/ commercial and residential customer base have continued to increase in the Morris Forman WQTC service area. The increasing trend in wet weather capture is largely attributed to a combination of capital improvements within the Morris Forman WQTC service area, implementation of RTC facilities in the CSS, and construction and integration of CSO control basins into the RTC system.

The long term trend in the peak daily flow treated at the Morris Forman WQTC also shows improvement, as shown in Figure 2.7. However ,during the reporting period, MSD experienced a failure of the biosolids handling system that resulted in permit noncompliance. Each data point represents the maximum daily flow treated during the year. Although the instantaneous peak hydraulic capacity of the Morris Forman WQTC is 350 MGD, the sustained flow that can be treated on a daily basis is governed by a number of other factors, including the

Figure 2.6. Morris Forman WQTC Wet Weather Capture Trend

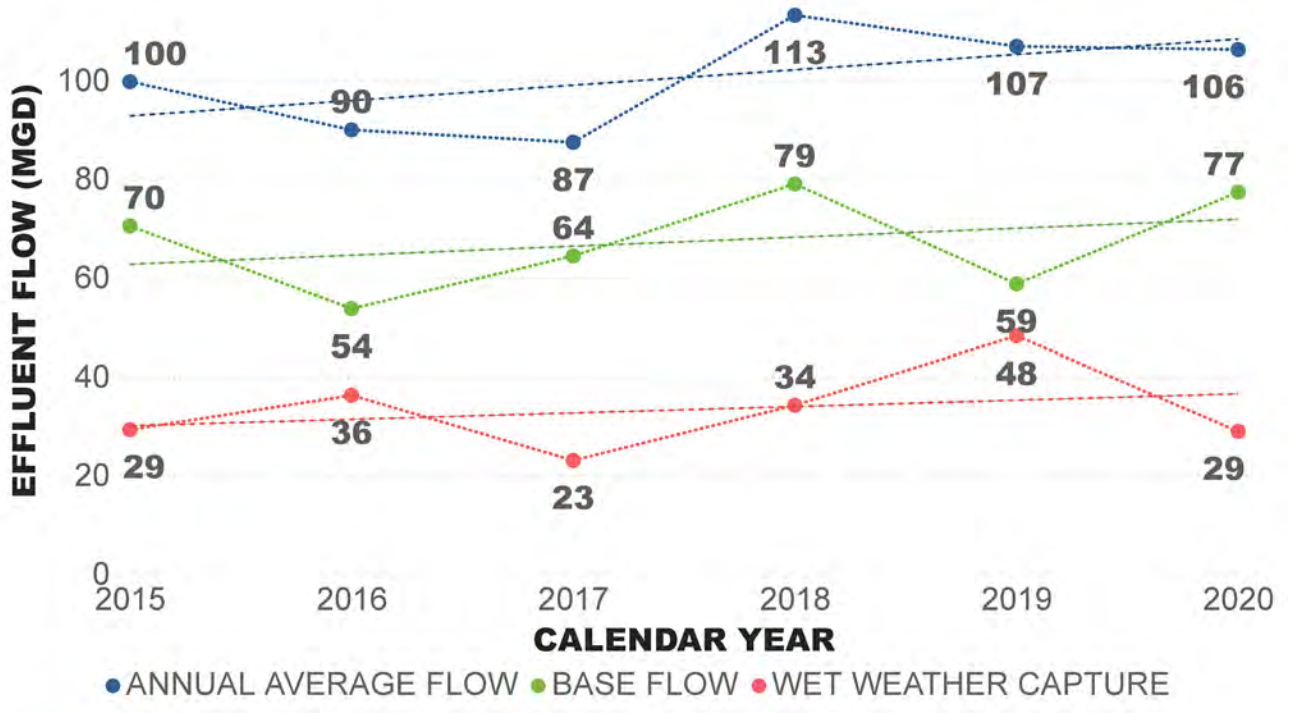
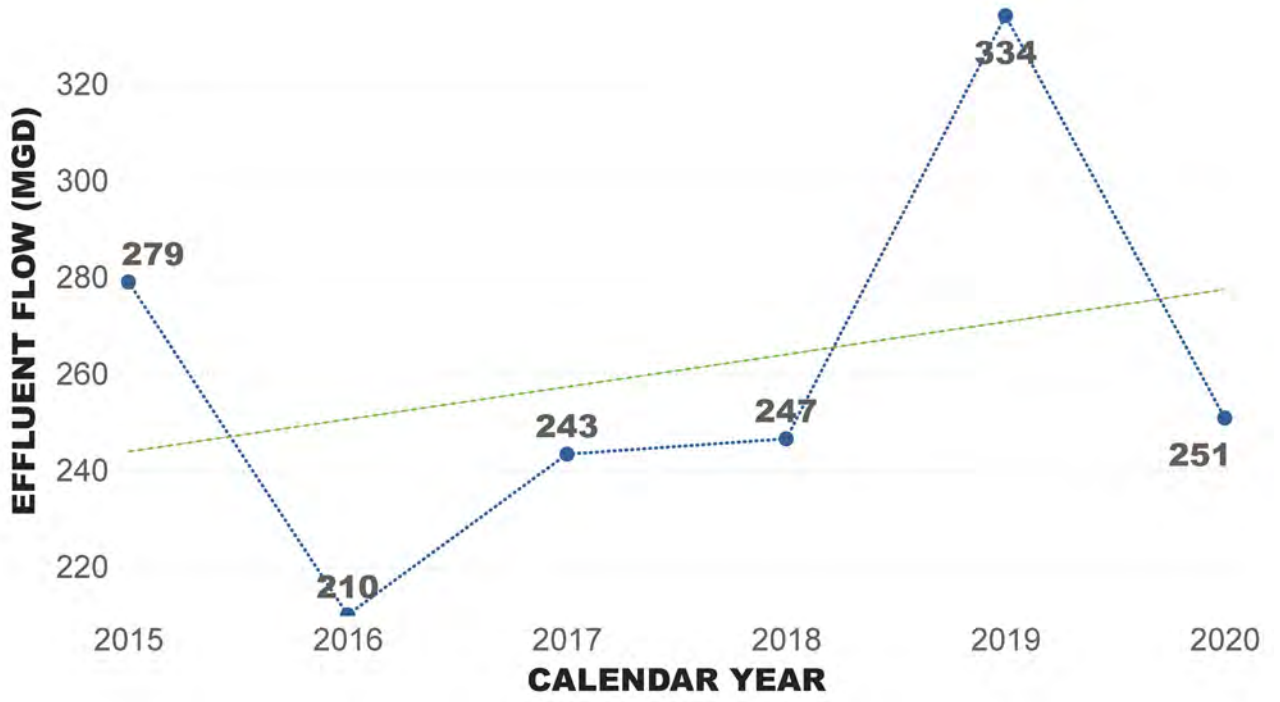


Figure 2.7. Morris Forman WQTC Peak Daily Flow



performance of the biological treatment processes. While individual years are highly variable due to weather impacts, the long-term trend continues to be up. Factors contributing to this long-term positive trend are implementation of the new wet weather SOP and better wet weather process control at the Morris Forman WQTC. However, CY16 through CY18 show decreases in peak daily flow, as recent repair work has reduced the ability of the plant to operate at high flow for extended periods. MSD is currently in the process of design and construction of emergency projects that will mitigate permit noncompliance issues.

2.5. NMC 5: Elimination of Combined Sewer Overflows during Dry Weather

FY20 Program

Flood Pump Stations

- Continued updates of the U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual to reflect changes in operations that have occurred with the IOAP projects and operational SOP improvements. This will be an ongoing task until all the projects in the IOAP are completed and an ongoing task as NMC programmatic activities are completed.
- Monitored flood pump stations (FPSs) for opportunities to pump trapped flow back into the combined sanitary sewer system to avoid dry weather overflows as a result of operation of the flood protection system from the 34th Street, Starkey and 4th Street FPSs. This practice and inspection have been put into place and is accomplished from the associated floodgate in-service work order located in-line with the related CSOs.

Asset Analysis

- Performed the quarterly evaluation of dry weather unauthorized discharges to the WUS, with emphasis on the CSS, to determine causes and to determine if there is a need for corrective activities.

Performed inspection and cleaning of fats, oils and grease (FOG) hotspots within the CSS, in accordance with Capacity Management, Operations and Maintenance (CMOM) commitments.

FY21 Program

Flood Pump Stations

- Continue to implement additional operational modifications at FPSs within the CSS to prevent dry weather overflows. Discussions with the USACE to continue regarding proposed modifications to these pumping stations that will minimize dry weather CSOs due to high river levels. This will be an ongoing activity until all the IOAP projects are completed and as staff implements programmatic NMC activities.
- Continue to review SOPs for the FPSs to reflect ongoing operational changes that occur as capital projects and NMC programmatic activities are completed.

Asset Analysis

- Perform a quarterly evaluation of dry weather overflows to the WUS, with emphasis on the CSS, to determine causes and to determine if there is a need for corrective activities.
- Perform inspection and cleaning of FOG hotspots within the CSS, in accordance with CMOM commitments.

2.6. NMC 6: Control of Solids and Floatable Materials in Combined Sewer Overflows

FY20 Program

- Continued to monitor and document performance of the CSO108 S&F Control Continuous Deflection Separator (CDS) operation in accordance with the Memorandum of Understanding (MOU) with the Kentucky Nature Preserve. Copies of the semi-annual CSO108 efficacy report are provided in quarterly reports for the reporting period (January and July).
- Continued to review new S&F technologies for potential incorporation into the program.
- Continued inspection and maintenance procedures for the S&F structures as part of the weekly CSO inspections and PM cleaning routines, outlined under NMC 1. During the reporting period, 568 work orders were issued for debris removal at the S&F structures.
- Continued working with staff to determine the quantity of debris and floatables captured by catch basin cleaning, at the Headworks of the Morris Forman WQTC, and at the end of line S&F controls. Reports have been developed to capture the amount of material removed through catch basin cleaning and at the end of the line S&F controls. Results for the reporting period are shown in Table 2.6. The process of tracking this data changed during the reporting period, and MSD is evaluating how best to develop, analyze and report this data.

FY21 Program

- Continue to monitor and document performance of the CSO108 S&F structure operation in accordance with the MOU with the Kentucky Nature Preserve by MSD Crews. Reports will be submitted on January 30 and July 30.
- Continue to review new S&F technologies for potential incorporation into the program.

Table 2.6. Debris Removed from System

SOURCE	DEBRIS REMOVED (TONS)
Catch Basin & Sewer Cleaning	472
Morris Forman WQTC Headworks	1,601

- Continued inspection and maintenance procedures for the S&F structures as part of the weekly CSO inspections and PM cleaning routines, outlined under NMC 1.
- Track the volume of S&F materials removed from the CSS.
- Develop revised process to track S&F removal at CSO basins.
- Review and refine S&F control operations and maintenance training and administer to appropriate staff.
- Perform CSO S&F Efficacy assessments for approximately 15 CSOs including pre- and post-storm site visits to determine where S&F control devices could be improved or replaced.

2.7. NMC 7: Pollution Prevention Programs to Reduce Contaminants in Combined Sewer Overflows

FY20 Program

- Continued administration of the Erosion Prevention and Sediment Control (EPSC) Ordinance. Continued use of a tracking system for EPSC Notices of Violation (NOVs) and Field Correction Notices (FCNs) within the CSS.
- Continued administration of the Hazardous Materials Ordinance, which requires users with hazardous materials on site to submit a spill prevention and control plan. Continued response to spills of hazardous materials and incidents involving discharges to the sewer system and provided spill mitigation kits to the Louisville Metro Fire Department to use to absorb vehicle fluids rather than flushing to the sewer.
- Continued issuance of Wastewater Discharge Permits under the Industrial Pretreatment Program.
- Distributed literature to significant industrial users (SIUs) on best management practices for prevention of pollution.
- Continued coordination of activities performed by Louisville Metro, such as street sweeping, Operation Brightside (trash and litter clean-up), and other Metro pollution prevention programs.
- Promoted Green Infrastructure initiatives within Jefferson County, such as guidance on downspout disconnection and rain garden installation.
- Continued to prepare and distribute informational pieces, targeted to inform customers and residents on activities that can be practiced within their homes to assist in the reduction of overflows within the collections system.
- Continued to enhance and train on Stormwater Pollution Prevention Plans (SWPPPs) for the WQTCs, major pump stations, and the Central Maintenance Facility (CMF).
- Continued enhancement of the framework for the IOAP green infrastructure program tracking in IPS.
- Utilized and distributed the rain garden handbook to Louisville Metro agencies and to the public in order to encourage green infrastructure.

- Partnered with the Urban Homesteading Class of Louisville Grows for a rain garden workshop. MSD demonstrated the steps to plan, build, and maintain a rain garden, and covered native plant characteristics. MSD provided all attendees with a native seed packet.
- Assisted a science class at Fern Creek High School with a second round of native plantings in a rain garden that was designed and built by the students to address a drainage issue.
- Discussed water quality topics with students at the Canoemobile event, Including what impacts the CSS can have on receiving waterways, and how they can improve water quality through behavior change.

FY21 Program

- Continue daily inspections and documentation for EPSC NOVs, FCNs, and all enforcement activities within the CSS with an inspection web application for FCN's.
- Continue inspection hazardous materials from facilities. Continue issuance of Wastewater Discharge Permits under the Industrial Pretreatment Program. Continue distribution of literature to SIUs on best management practices for prevention of pollution.
- Utilize and distribute the rain garden handbook to Louisville Metro agencies and to the public in order to encourage green infrastructure.
- Continue to track green infrastructure projects and initiatives in IPS and SharePoint.
- Continue to prepare and distribute informational pieces, targeted to inform customers and residents on activities that can be practiced within their homes to assist in the reduction of overflows within the collection system.
- Continue planning for rain garden and stream health workshops.

2.8. NMC 8: Public Notification

Refer to Section 5: Program Activities For Public Outreach, Education, Notification and Participation for information regarding public notification.

2.9. NMC 9: Monitoring to Characterize Combined Sewer Overflow Impacts and the Efficacy of Combined Sewer Overflow Controls

Refer to Section 4.5 for information regarding system monitoring.

2.10. NMC Activity Schedule

NMC capital project milestones for the current reporting period as well as a look-ahead for the upcoming reporting period are provided in Figure 2.8.

Figure 2.8. NMC Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
	MSD NMC Annual Commitments Schedule	61%	Fri 8/15/14	Wed 5/26/27
A19208	**Broadway Interceptor Infrastructure Rehabilitation**	0%	Fri 10/2/20	Thu 8/29/24
A19208	INITIATION & PROCUREMENT	100%	Fri 10/2/20	Fri 10/2/20
A20244	**Large Diameter Sewer Rehabilitation**	9%	Mon 9/16/19	Thu 9/28/23
A20244	INITIATION & PROCUREMENT	100%	Mon 9/16/19	Mon 6/22/20
A20244	DESIGN	28%	Wed 8/19/20	Wed 8/18/21
D15020	**MFWQTC Cake Pump Phase II**	61%	Mon 3/12/18	Thu 3/31/22
D15020	DESIGN	100%	Tue 8/7/18	Thu 8/1/19
D15020	CONSTRUCTION	87%	Fri 11/1/19	Fri 1/29/21
D15020	CLOSEOUT	0%	Sat 1/30/21	Thu 3/31/22
D17042	**MFWQTC Sedimentation Basin RR**	21%	Tue 5/21/19	Tue 6/30/26
D17042	DESIGN	58%	Fri 1/31/20	Mon 8/30/21
D17047	**MF Brady Lake and Executive Inn Gate Study**	100%	Fri 9/1/17	Thu 7/25/19
D17047	CLOSEOUT	100%	Mon 6/25/18	Thu 7/25/19
D17131	**MFWQTC Biosolids Processing Engineering Services**	100%	Mon 1/2/17	Fri 3/13/20
D17131	INITIATION & PROCUREMENT	100%	Mon 1/2/17	Fri 3/13/20
D17131	CLOSEOUT	100%	Sun 3/1/20	Fri 3/13/20
D18116	**MFWQTC Biosolids Facility Replacement FY21**	1%	Wed 9/2/20	Wed 5/26/27
D18116	INITIATION & PROCUREMENT	100%	Wed 9/2/20	Fri 10/2/20
D18116	DESIGN	0%	Tue 12/1/20	Wed 6/30/21
D18130	**MFWQTC FEPS Loadcenter and MCC Replacement**	11%	Wed 7/1/20	Sat 8/27/22
D18130	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Fri 10/30/20
D18130	DESIGN	23%	Sat 10/17/20	Mon 6/14/21
D18452	**FY20 MFWQTC Equipment RR**	100%	Mon 7/1/19	Tue 6/30/20
D18452	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
D18452	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
D18453	**FY21 MFWQTC Equipment RR**	22%	Wed 7/1/20	Wed 6/30/21
D18453	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
D18453	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
D19028	**FY20 MFWQTC Upgrade PLCs**	100%	Mon 7/1/19	Tue 6/30/20
D19028	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 6/30/20
D19028	CLOSEOUT	100%	Thu 6/25/20	Tue 6/30/20

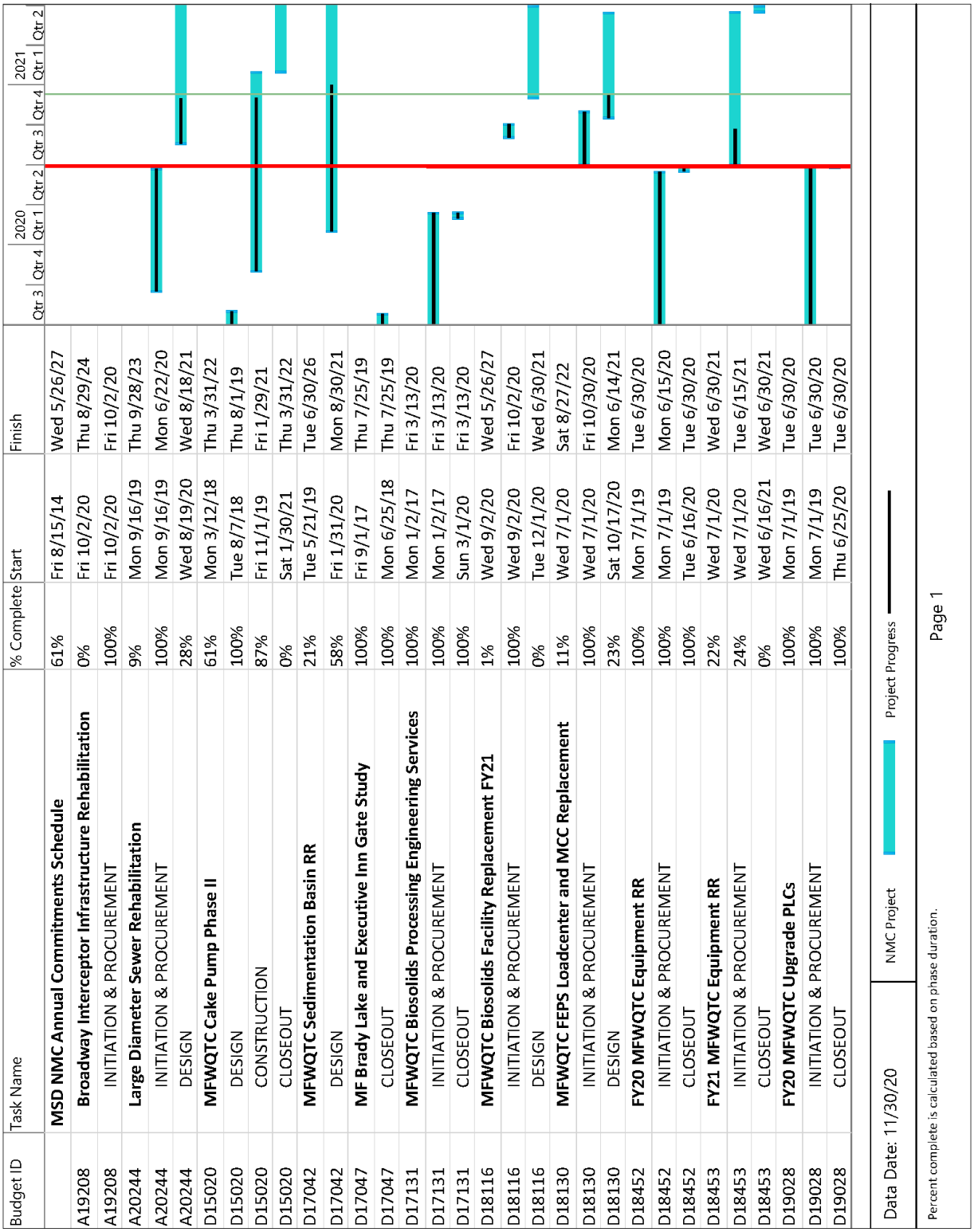


Figure 2.8. NMC Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
D19043	**MFWQTC OGA PTO and Chlorine Rail Car Facility Demolition**	100%	Tue 6/4/19	Thu 7/30/20
D19043	DESIGN	100%	Sun 9/15/19	Thu 7/23/20
D19043	CLOSEOUT	100%	Fri 7/24/20	Thu 7/30/20
D19045	**MFWQTC Sodium Hypochlorite Building Relocation**	9%	Tue 6/4/19	Sun 12/31/23
D19045	DESIGN	33%	Mon 2/17/20	Thu 7/1/21
D19046	**MFWQTC Ground Water Well 10 Replacement**	100%	Mon 7/2/18	Fri 3/6/20
D19046	DESIGN	100%	Tue 9/10/19	Thu 10/3/19
D19046	CONSTRUCTION	100%	Mon 11/11/19	Fri 3/6/20
D19046	CLOSEOUT	100%	Fri 3/6/20	Fri 3/6/20
D19048	**MFWQTC Radio Repeater Project**	3%	Mon 7/2/18	Sat 2/25/23
D19048	INITIATION & PROCUREMENT	100%	Mon 7/2/18	Thu 11/5/20
D19048	DESIGN	14%	Thu 11/5/20	Sun 4/11/21
D19048	CONSTRUCTION	0%	Tue 5/11/21	Tue 1/25/22
D19275	**MDS Downstream Flow Meter**	65%	Tue 1/1/19	Sat 9/4/21
D19275	DESIGN	100%	Mon 1/7/19	Tue 9/17/19
D19275	CONSTRUCTION	100%	Mon 1/6/20	Fri 8/7/20
D19275	CLOSEOUT	25%	Fri 9/4/20	Sat 9/4/21
D19285	**Bells Lane Phase II**	100%	Fri 3/1/19	Tue 6/30/20
D19285	CONSTRUCTION	100%	Fri 3/1/19	Tue 6/30/20
D19285	CLOSEOUT	100%	Mon 6/15/20	Tue 6/30/20
D19307	**MFWQTC FEPS VFD Replacement**	55%	Mon 4/1/19	Sat 12/4/21
D19307	INITIATION & PROCUREMENT	100%	Mon 4/1/19	Mon 11/18/19
D19307	DESIGN	100%	Fri 9/13/19	Fri 12/27/19
D19307	CONSTRUCTION	100%	Tue 11/26/19	Fri 10/30/20
D19307	CLOSEOUT	0%	Mon 11/30/20	Sat 12/4/21
D20012	**SGC RTC Enhancements**	21%	Tue 11/19/19	Sun 8/18/24
D20012	INITIATION & PROCUREMENT	100%	Tue 11/19/19	Sat 1/18/20
D20012	DESIGN	36%	Tue 2/18/20	Fri 5/20/22
D20216	**FY20 Strand CCWQTC Engineering Support**	100%	Tue 8/27/19	Tue 6/30/20
D20216	INITIATION & PROCUREMENT	100%	Tue 8/27/19	Sun 9/1/19
D20216	DESIGN	100%	Sun 9/1/19	Tue 6/30/20
D20216	CLOSEOUT	100%	Mon 6/15/20	Tue 6/30/20

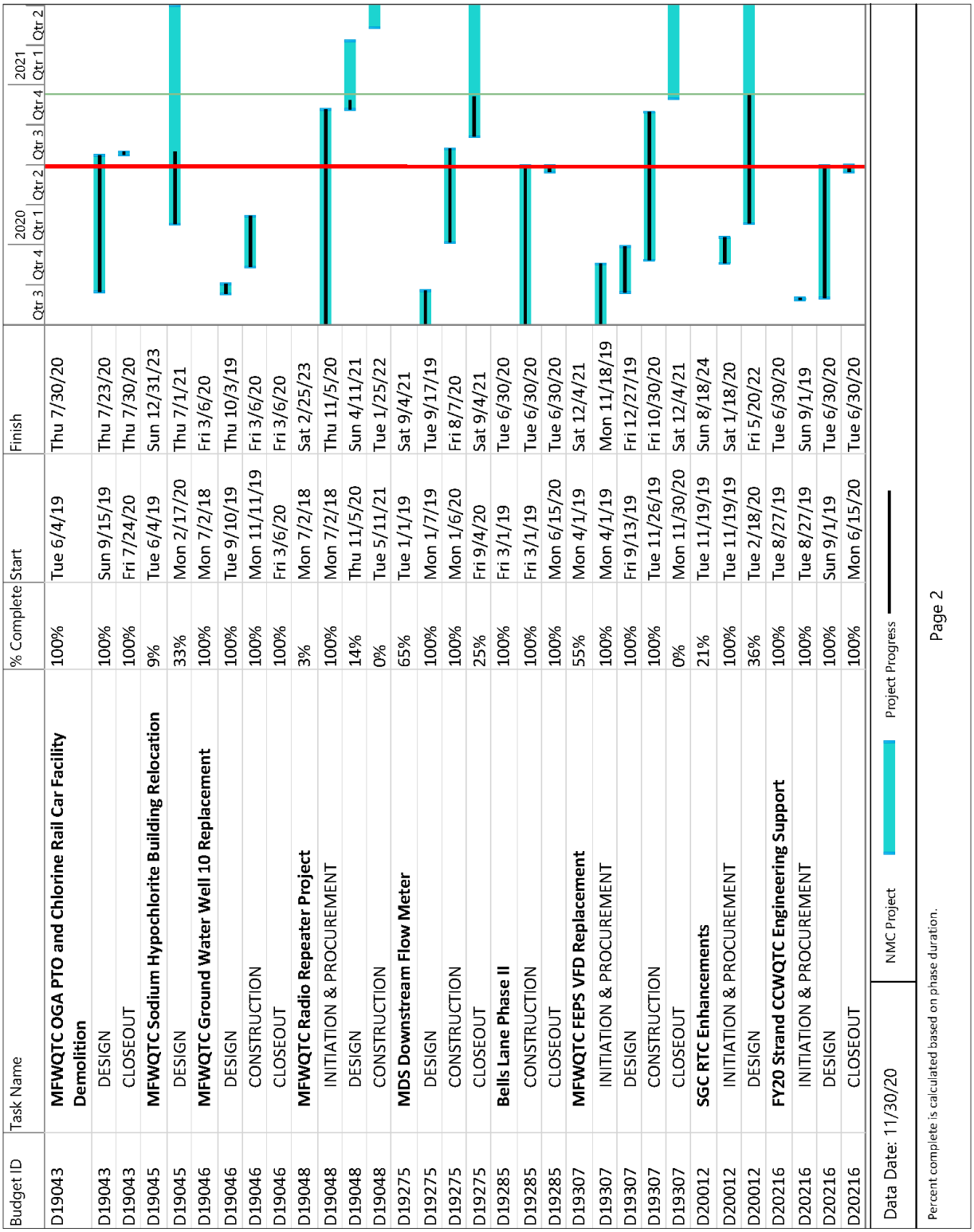


Figure 2.8. NMC Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
D20218	**FY20 Jacobs MFWQTC Engineering Support**	100%	Tue 8/27/19	Tue 6/30/20
D20218	INITIATION & PROCUREMENT	100%	Tue 8/27/19	Sun 9/1/19
D20218	DESIGN	100%	Sun 9/1/19	Tue 6/30/20
D20218	CLOSEOUT	100%	Mon 6/15/20	Tue 6/30/20
D20219	**FY20 HDR MFWQTC Engineering Support**	100%	Tue 8/27/19	Tue 6/30/20
D20219	INITIATION & PROCUREMENT	100%	Tue 8/27/19	Sun 9/1/19
D20219	DESIGN	100%	Sun 9/1/19	Tue 6/30/20
D20219	CLOSEOUT	100%	Mon 6/15/20	Tue 6/30/20
D20226	**Bells Lane and MF HW Bar Screen Grit Study**	100%	Sat 7/13/19	Fri 10/9/20
D20226	INITIATION & PROCUREMENT	100%	Sat 7/13/19	Tue 7/23/19
D20226	STUDY	100%	Thu 10/10/19	Fri 10/9/20
D20226	CLOSEOUT	100%	Mon 10/5/20	Fri 10/9/20
D20228	**MFWQTC Centrifuge Replacement**	51%	Mon 7/1/19	Fri 4/1/22
D20228	INITIATION & PROCUREMENT	100%	Sat 7/13/19	Tue 7/23/19
D20228	EQUIPMENT REPLACEMENT	94%	Mon 7/1/19	Thu 12/31/20
D20228	CLOSEOUT	0%	Thu 12/31/20	Fri 4/1/22
D20230	**MFWQTC BOC_SHOC Fan Replacement**	100%	Mon 7/1/19	Tue 6/30/20
D20230	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Fri 7/5/19
D20230	PROCUREMENT & INSTALLATION	100%	Sun 9/1/19	Tue 6/30/20
D20230	CLOSEOUT	100%	Thu 5/7/20	Fri 5/22/20
D20231	**FY20 MFWQTC FEPS Pump and Motor Repair**	71%	Mon 7/1/19	Tue 8/17/21
D20231	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Sat 11/30/19
D20231	CONSTRUCTION	100%	Thu 10/31/19	Fri 1/31/20
D20231	CLOSEOUT	51%	Sun 3/15/20	Tue 8/17/21
D20285	**MFWQTC LG Dryer Replacements**	34%	Mon 12/2/19	Sat 10/1/22
D20285	INITIATION & PROCUREMENT	100%	Mon 12/2/19	Fri 12/6/19
D20285	CONSTRUCTION	60%	Fri 12/6/19	Sun 8/1/21
D20306	**MFWQTC Loading Design Criteria**	99%	Tue 2/11/20	Fri 10/30/20
D20306	INITIATION & PROCUREMENT	100%	Tue 2/11/20	Fri 10/30/20
D20306	CLOSEOUT	98%	Thu 10/15/20	Fri 10/30/20
E21074	**CSO 190 PCCM**	9%	Wed 9/23/20	Tue 2/22/22
E21074	INITIATION & PROCUREMENT	100%	Wed 9/23/20	Tue 9/29/20
E21074	DESIGN	100%	Tue 9/29/20	Thu 11/19/20

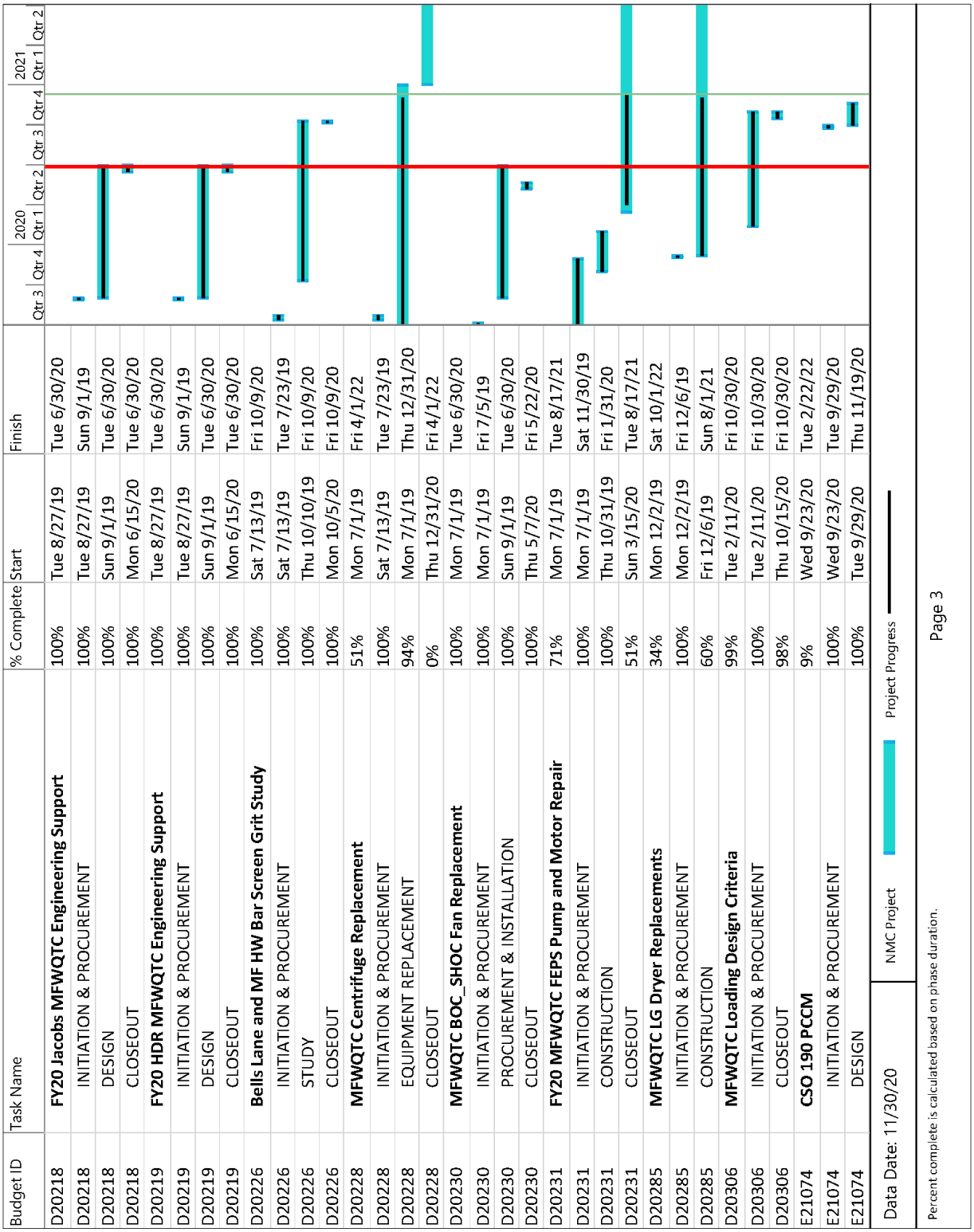


Figure 2.8. NMC Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
E21074	CONSTRUCTION	32%	Thu 11/19/20	Wed 12/23/20
E21074	CLOSEOUT	0%	Thu 12/24/20	Tue 2/22/22
F09510	**MF OGA Plants 1 and 2 Replacement**	100%	Mon 9/14/15	Wed 12/11/19
F09510	CLOSEOUT	100%	Tue 4/30/19	Wed 12/11/19
F14182	**MFWQTC FEPS Pump Repair and Motor**	90%	Wed 1/31/18	Tue 3/23/21
F14182	EQUIPMENT AND SERVICES PROCUREMENT	100%	Tue 3/6/18	Mon 9/30/19
F14182	CLOSEOUT	79%	Mon 9/30/19	Tue 3/23/21
F16003	**Ashland RTC Facility Upgrades**	100%	Fri 4/1/16	Fri 4/24/20
F16003	CLOSEOUT	100%	Tue 6/25/19	Fri 4/24/20
F17079	**Southwestern Sluice Gate Replacement**	100%	Mon 10/3/16	Thu 9/26/19
F17079	CLOSEOUT	100%	Fri 8/31/18	Thu 9/26/19
F21061	**Clifton Heights Storage Basin Sump Pump Improvements**	5%	Wed 7/1/20	Wed 11/2/22
F21061	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Mon 7/6/20
F21061	DESIGN	81%	Tue 9/29/20	Sun 1/10/21
F21061	CONSTRUCTION	0%	Fri 1/15/21	Thu 9/2/21
G17033	**Louisville Green Major Maintenance**	100%	Mon 7/1/19	Tue 6/30/20
G17033	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Fri 6/12/20
G17033	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
G18444	**FY21 Plumbing Modification Program**	23%	Wed 7/1/20	Wed 6/30/21
G18444	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
G18444	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H16056	**FY20 NMC**	100%	Mon 7/1/19	Wed 9/30/20
H16056	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 9/15/20
H16056	CLOSEOUT	100%	Wed 9/16/20	Wed 9/30/20
H17020	**FY21 NMC Support**	56%	Wed 7/1/20	Tue 3/30/21
H17020	INITIATION & PROCUREMENT	59%	Wed 7/1/20	Mon 3/15/21
H17020	CLOSEOUT	0%	Tue 3/16/21	Tue 3/30/21
H18332	**Botanical Garden Biofilter Upgrades**	100%	Thu 3/1/18	Sat 10/19/19
H18332	CLOSEOUT	100%	Fri 9/28/18	Sat 10/19/19
H18442	**FY20 RTC Support**	100%	Mon 7/1/19	Tue 6/30/20
H18442	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
H18442	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20

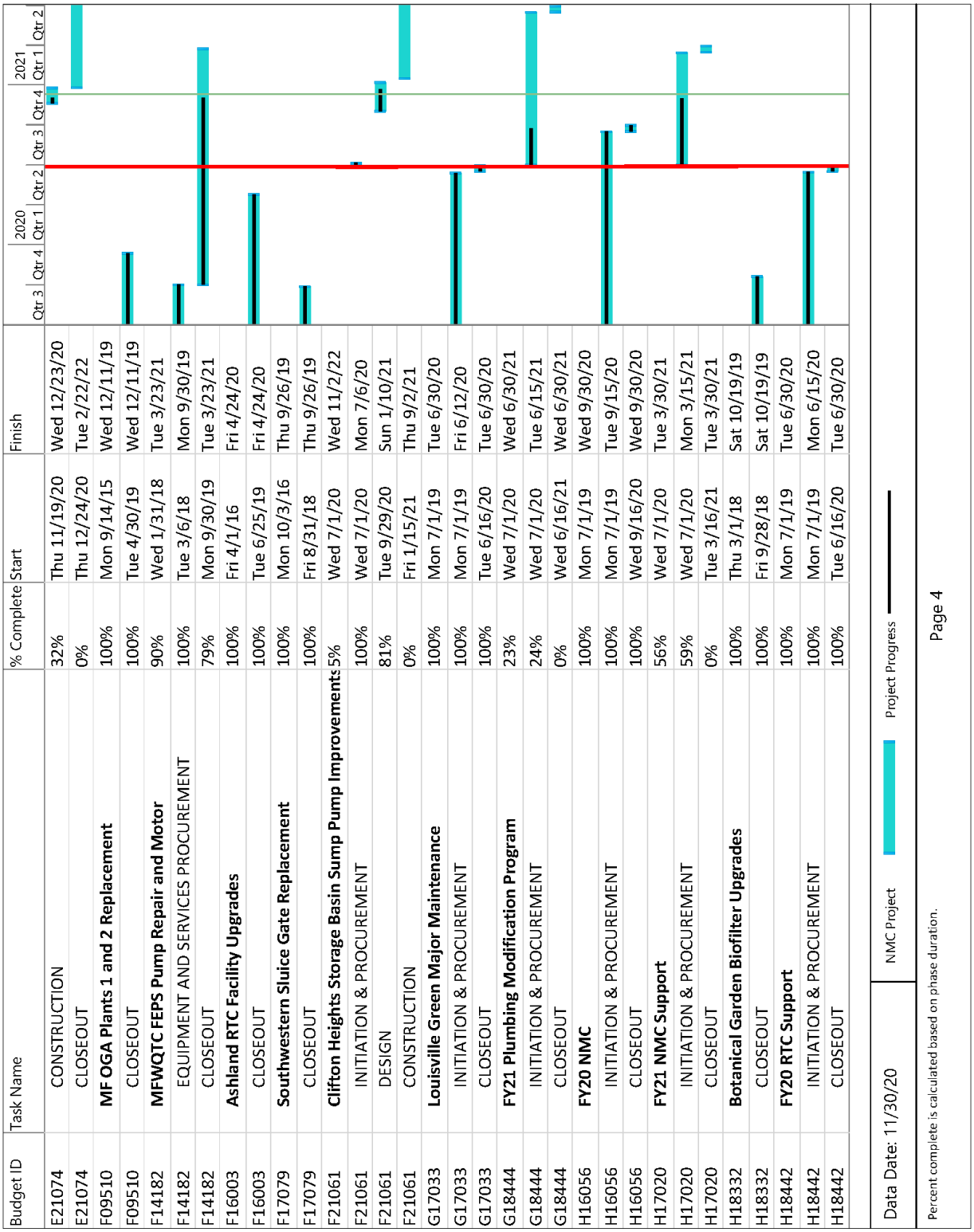
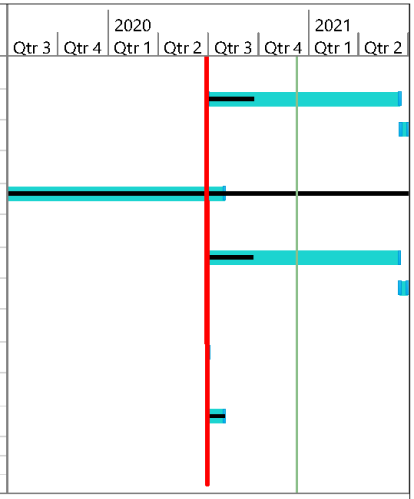


Figure 2.8. NMC Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
H18443	**FY21 NMC_RTC**	19%	Wed 7/1/20	Wed 6/30/21
H18443	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
H18443	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H18503	**I-64 and Grinstead Infrastructure Rehabilitation**	2%	Mon 7/1/19	Wed 11/27/24
H18503	**INITIATION & PROCUREMENT**	100%	Mon 7/1/19	Thu 7/1/21
H20048	**FY21 NMC CSO Inspection Cameras**	22%	Wed 7/1/20	Wed 6/30/21
H20048	INITIATION & PROCUREMENT	23%	Wed 7/1/20	Tue 6/15/21
H20048	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H20147	**Western Outfall Infrastructure Rehabilitation**	0%	Wed 7/1/20	Thu 8/29/24
H20147	**INITIATION & PROCUREMENT**	100%	Wed 7/1/20	Wed 7/1/20
H21019	**Rudd Avenue Infrastructure Rehabilitation**	2%	Wed 7/1/20	Wed 11/27/24
H21019	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Fri 7/31/20



Data Date: 11/30/20

NMC Project

Project Progress

Percent complete is calculated based on phase duration.

Page 5

Section 3: Program Activities for Sewer Overflow Response Protocol (SORP)

Per Paragraph 24.d. of the Amended Consent Decree, MSD initially submitted the Sewer Overflow Response Protocol (SORP) to the Environmental Protection Agency (EPA) and Kentucky Department of Environmental Protection (KDEP) on February 10, 2006, and received comments on March 13, 2006. MSD resubmitted the revised SORP on May 12, 2006, and received an approval letter for the SORP on August 22, 2006. The most recent version is dated February 12, 2012. The approved SORP document can be viewed on the MSD Project WIN website, available at **msdprojectwin.org**. The following activities were performed during the reporting period.

3.1. Overflow Management and Field Documentation

FY20 Program

- Documented overflows and unauthorized discharges to waters of the US (WUS) during the reporting period as documented in Section 1: Project Waterway Improvements Now (WIN) Performance Overview. The charts pertaining to discharges in Section 1 show these overflows broken down by result, problem, and asset type. Interior overflows are from MSD main line issues only, and do not include those that are the result of a problem on MSD's portion of the lateral. In addition, any interior overflow that is caused by a private property matter is also excluded from reporting.
- Reported discharges that reached the WUS within 24 hours as shown in Table 3.1.
- Continued daily, monthly and quarterly reviews with staff from MSD Operations and MSD Engineering Divisions.
- Continued to monitor SSO sites, which have been grouped into routes based on the range of rainfall rates necessary to cause an SSO. These routes were monitored during rain events depending on the magnitude and location of the storm. If an overflow was observed, a discharge work order was created to document the event. MSD staff executed a total of 1,029 wet weather inspections on a total of 8 days, and documented 105 unauthorized discharges through route reconnaissance.
- Continued to monitor over 300 sites via telemetry. There were five sites where sewage was routinely (3 or more times per year) hauled from pump stations to prevent overflows during rain events depending on the magnitude and location of the storm. Due to capacity issues, MSD staff hauled over 136,000 gallons of sewage. It should be noted that this value may be greater than previously reported in the quarterly reports, due to late invoicing by the hauling contractor.

Table 3.1. Reporting Timeframe for Unauthorized Discharges to Waters of the US

OVERFLOW TYPE	TOTAL REPORTED	TOTAL REPORTED ON TIME	% REPORTED ON TIME
ALL DISCHARGES	147	135	92%
BYPASSES	3	3	100%
DRY WEATHER DISCHARGES 1K-50K gal	8	7	88%
DRY WEATHER DISCHARGES >50K gal	5	5	100%

FY21 Program

- Continue to monitor data, train staff and update information as needed.
- Continue to monitor over 300 sites via telemetry.
- Continue to haul to prevent overflows and backups during rain events until system improvements are completed.
- Continue to monitor documented collections system SSO sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO.
- Continue the daily, monthly and quarterly data reviews with staff from Engineering and Operations Divisions to ensure accuracy and consistency in reporting.
- Schedule additional field reviews of SORP procedures after rain events to both ensure successful implementation and to assist with the annual SORP overall review.

3.2. Regulatory Reporting and Data Management

FY20 Program

- Conducted monthly meetings with staff to perform quality control on discharge work orders.
- Conducted a monthly review of the discharge work orders and updated the associated assets in IPS as needed.
- Performed a detailed review and trend analysis on the discharge data, incorporated the findings into the quarterly SORP training and the quarterly reports.

FY21 Program

- Continue to perform quality control on discharge work orders with appropriate staff.
- Update assets in IPS when new overflow locations are identified.
- Continue to review the overflow data for trends. These trends are discussed with staff in the Quarterly SORP training and documented in the Quarterly Reports.

3.3. Staff Training and Communication

FY20 Program

The online training delivery system continues to allow more flexibility for employees to complete training at convenient times during the quarter and to integrate SORP training with new employee and contractor orientation. The previous training program was reviewed, updated, and repackaged into this enhanced online format, which allows training to be delivered on demand, improves accessibility for staff, and provides more accountability. Modules were also developed to provide continued updates related to progress under the IOAP and projects under the CMOM and NMC programs on a quarterly basis, as well as CSO and SSO abatement and annual trends on an annual basis. The modules were delivered to appropriate staff as detailed in Table 3.2.

FY21 Program

- Continued to integrate SORP training with new employee and contractor orientation.
- Schedule SORP Quarterly and Annual Training as described in Table 3.3.
- Continue to review and update the data associated with overflows.

3.4. Annual Program Review

FY20 Program

- Completed the annual SORP document review in August 2019.
- Reviewed and updated routes to include any new SSO locations.

FY21 Program

- Perform the annual SORP document review prior to August 2020. There are no major program updates anticipated at this time. Routes will be reviewed and updated to include any new SSO locations or changes in responsible MSD reporting departments.
- Send new SSO routes to EPA/KDEP by August 22, 2020. New routes will be published once approved by EPA/KDEP.

3.5. Public Notification and Communication

Refer to Section 5: Program Activities For Public Outreach, Education, Notification and Participation for information regarding public notification.

Table 3.2. Completed SORP Training Schedule

KEY LEARNING OBJECTIVE	MONTHS	STAFF TRAINED
Public Notification & Overflow Cleanup	September	265
Reporting & Followup	December	262
Annual Overview	January	368
Preparing for Overflows & Monitoring	March	274
Assessment, Mitigation & Documentation	June	271

Table 3.3. Projected SORP Training Schedule

KEY LEARNING OBJECTIVE	MONTHS
Public Notification & Overflow Cleanup	September
Reporting & Followup	December
Annual Overview	January
Preparing for Overflows & Monitoring	March
Assessment, Mitigation & Documentation	June

Section 4: Program Activities for Discharge Abatement Plans (DAP)

4.1. Integrated Overflow Abatement Plan (IOAP)

As a requirement of the Amended Consent Decree, per Paragraph 25, MSD is to prepare and submit, for review and approval, discharge abatement plans. These discharge abatement plans identify the plan for the elimination of unauthorized discharges from the separate sanitary sewer system and the combined sewer system (CSS), the reduction and control of discharges from the Combined Sewer Overflow (CSO) locations identified in the Morris Forman Water Quality Treatment Center (WQTC) KPDES permit, and the improvement of water quality in the receiving waters.

The Final Sanitary Sewer Discharge Plan (SSDP) and the Final CSO Long Term Control Plan (LTCP) were submitted concurrently and certified on December 19, 2008, under the title of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

MSD submitted an IOAP modification request to the Environmental Protection Agency (EPA) and Kentucky Department of Environmental Protection (KDEP) on September 20, 2012, with approval granted via certified letter on June 19, 2014. The modified project package, program descriptions and progress, and updated supporting text are included in the revised IOAP, submitted to EPA and KDEP on June 14, 2013.

Minor project modifications have been submitted and approved since the 2014 approval of the 2012 IOAP Modification. A summary of these modifications is included in Table 4.1.

4.2. Sanitary Sewer Discharge Plan (SSDP)

The Sanitary Sewer Discharge Plan (SSDP) addresses the overflows and unauthorized discharges from the separate sanitary sewer system. Three separate plans have been submitted under this program as described below and outlined in Paragraph 25.a. of the Amended Consent Decree.

4.2.1. Updated Sanitary Sewer Overflow Plan (SSOP) Implementation

MSD prepared and submitted the Updated Sanitary Sewer Overflow Plan (SSOP) on February 10, 2006. This plan included an overview of the MSD sanitary sewer overflow abatement program and specific actions taken to reduce/eliminate overflows from the sanitary sewer system. This document included a list of the proposed improvements to be accomplished by December 31, 2008. Activities required under the Updated SSOP have been completed.

4.2.2. Interim Sanitary Sewer Discharge Plan (ISSDP)

MSD submitted for approval an Interim Sanitary Sewer Discharge Plan (ISSDP) on September 30, 2007. Comments were received on January 8, 2008. MSD resubmitted the revised ISSDP on March 7, 2008, and received an approval letter for the ISSDP on July 24, 2008. The approved ISSDP document can be viewed on the MSD Project WIN website, available at **msdprojectwin.org**.

4.2.3. Final Sanitary Sewer Discharge Plan (SSDP)

MSD submitted for approval a Final Sanitary Sewer Discharge Plan (SSDP) on December 19, 2008, as Volume 3 of the IOAP. The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, and was entered into public record February 15, 2010. A revised SSDP was included in the IOAP revision submitted June 14, 2013. On June 19, 2014, MSD received approval of the 2012 IOAP Modification from EPA / KDEP. Per paragraph 25.a.(3)C., the SSDP shall not extend beyond December 31, 2024. A listing of SSDP projects completed and certified during the reporting period, along with the entire schedule of projects, can be found in Section 4.4.

4.3. CSO Long Term Control Plan (LTCP)

The CSO Long Term Control Plan (LTCP) addresses the overflows and unauthorized discharges from the CSS. Two separate plans have been submitted under this program as described below and outlined in Paragraph 25.b. of the Amended Consent Decree.

4.3.1. Interim CSO Long Term Control Plan (LTCP)

The Interim CSO LTCP was initially submitted to EPA and KDEP on February 10, 2006. MSD received an approval letter dated February 22, 2007, for the Interim LTCP. The approved Interim CSO LTCP can be viewed on the MSD Project WIN website, available at **msdprojectwin.org**.

This plan includes an overview of the MSD program efforts taken to reduce/eliminate discharges from the CSS and the list of proposed improvements to be accomplished by December 31, 2008. All projects associated with this plan have been completed.

4.3.2. Final CSO Long Term Control Plan (LTCP)

MSD submitted for approval the Final CSO LTCP on December 19, 2008, as Volume 2 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010. Per paragraph 25.b.(2), completion of the Final CSO LTCP shall not extend beyond December 31, 2020. A listing of Final CSO LTCP projects completed and certified during the reporting period, along with the entire schedule of projects, can be found in Section 4.4.

4.3.3. Green Demonstration Project Update

The Final CSO LTCP (Volume 2 of the IOAP) included 19 green demonstration projects with schedules for completion in 2010 and 2011. The 19 green demonstration projects have been certified as complete.

4.3.4. Green Infrastructure Programmatic Activities

The objectives and successes of MSD's Green Infrastructure Program were summarized in the FY19 Annual Report

FY20 Program

- Updated and maintained www.louisvillemsd.org/Green, an MSD Green Infrastructure website intended to offer general information on green infrastructure, including a free online training course for the inspection of post-construction BMPs.
- Utilized mobile GIS mapping applications to track inspection and enforcement of post-construction BMP operation and maintenance.
- Tracked and calculated the impacts of green infrastructure projects on stormwater capture and estimated overflow reductions as a part of the project approval process.
- Continued the arrangement with EPA Office of Research and Development (ORD) to determine the performance of green infrastructure practices to determine most effective applications, maintenance cycles and areas with high potential for reduction of overflows.

FY21 Program

- Continue to track green infrastructure projects in IPS and MSD's Geographic Information System (GIS).
- Continue to track and calculate the impacts of green infrastructure projects on stormwater capture and estimate overflow reductions as a part of the project approval process.

Table 4.1. IOAP Project Minor Modifications

SUBMITTAL DATE	APPROVAL DATE	NEW PROJECT NAME	ORIGINAL PROJECT NAME	IOAP ID NUMBER	MODIFICATION DESCRIPTION
February 16, 2015	September 11, 2015	CSO190 Green Infrastructure Project	18th and Northwestern Parkway Storage Basin	L_SO_MF_190_S_09B_B_A_8	Green Infrastructure solutions for CSO190 replaced the storage basin at 18th and Northwestern Parkway.
February 16, 2015	September 11, 2015	Elimination of Chenoweth Hills WQTC, Chenoweth Run PS, and Chippewa PS	Chenoweth Hills WQTC Elimination and PS Improvements	S_JT_JT_NB01A_M_03_C	Project modification to construct new sewers and eliminate rather than upgrade Chenoweth Run and Chippewa Pump Stations
February 16, 2015	September 11, 2015	Goose Creek PS Phase 1 - Devondale Wet Weather Storage	Goose Creek PS Phase 1 - Devondale Wet Weather Storage	S_MI_MF_NB04_M_03_B	New sewer construction and a new Pump Station at Bancroft allowed for the elimination of both the Bancroft and Devondale WQTCs along with eliminating the need for wet weather storage.
February 16, 2015	September 11, 2015	St. Rene Road Pump Station Elimination	St. Rene Road PS Inline Storage	S_FF_CH_NB01_S_09A_C_A	Elimination of the St. Rene Road Pump Station and diverting flow to the Cedar Creek WQTC replaced the in-line storage solution.
February 16, 2015	September 11, 2015	Prospect #3 - ORFM System Improvements	Prospect #3 - ORFM System Improvements	S_OR_MF_NB04_M_03_B_B	Replaced in-line storage upstream of the Muddy Fork Pump Station with an offline covered storage basin.
August 7, 2015	September 11, 2015	Southwestern Parkway Storage Basin	Southwestern Parkway Storage Basin	L_OR_MF_105_M_13_B_A_0	Increased basin size from 11.07 MG to 20 MG, with a level of control of 8 overflows per Typical Year and no net increase in AAOV.
August 7, 2015	September 11, 2015	Portland Storage Basin	Portland Wharf Storage Basin	L_OR_MF_019_S_13_B_A_8	Increased basin size from 6.37 MG to 6.7 MG.
August 7, 2015	September 11, 2015	Lexington Road and Payne Street Storage Basin	Lexington Road and Payne Street Storage Basin	L_OR_MF_083_M_09B_B_A_8	Increased basin size from 8.18 MG to 13.7 MG.
August 7, 2015	September 11, 2015	Story Avenue and Main Street Storage Basin	Story Avenue and Main Street Storage Basin	L_OR_MF_020_S_09B_B_A_8	Increased basin size from 5.4 MG to 8.3 MG.
August 7, 2015	September 11, 2015	13th Street and Rowan Street Storage Basin	13th Street and Rowan Street Storage Basin	L_OR_MF_155_M_09B_B_B_4	Increased basin size from 4.36 MG to 9.8 MG.
December 21, 2015	January 11, 2016	Fairmount Road Pump Station Offline Storage Basin	Fairmount Road Pump Station Offline Storage Basin	S_FF_CC_81316_M_03_C_A	Change completion deadline from December 31, 2015 to March 31, 2016.
September 28, 2016	November 3, 2016	Logan Street and Breckenridge Street CSO Basin	Logan Street and Breckenridge Street CSO Basin	L_SO_MF_092_M_09B_B_D_8	Change design from an at-grade basin with a building above to open space above the basin structure.
September 28, 2016	November 3, 2016	Bells Lane Wet Weather Treatment Facility	Bells Lane Wet Weather Treatment Facility	L_OR_MF_015_M_13_B_B_8	Change completion deadline from December 31, 2016 to September 30, 2017.
September 28, 2016	November 3, 2016	Nightingale Pump Station Replacement and Storage	Nightingale Pump Station Replacement and Storage	L_SO_MF_018_S_03_A_A	Change completion deadline from December 31, 2016 to June 30, 2017.
September 28, 2016	November 3, 2016	Morris Forman WQTC Headworks	Southern Outfall Inline Storage (SOR2)	L_OR_MF_211_M_13_B_A_8	Elimination of SOR2 project and replace with flow control improvements at the Main Diversion Structure and rehabilitation of Morris Forman WQTC Headworks in order to increase maximum sustainable treatment capacity to 330 MGD.
September 27, 2016, with administrative correction submitted on October 17, 2016	November 3, 2016	Ohio River Tunnel	13th Street and Rowan Street Storage Basin	L_OR_MF_155_M_09B_B_B_4	Revise design to a 31.8 MG tunnel solution that consolidates CSO controls for 13th Street and Rowan Street, Story Avenue and Main Street, and Lexington and Payne Street Storage Basins. Tunnel capacity will allow a level of control of eight overflows per Typical Year for 9 CSOs previously associated with 13th and Rowan. Weir raises at 3 CSOs will remain unchanged.
September 27, 2016, with administrative correction submitted on October 17, 2016	November 3, 2016	Ohio River Tunnel	Story Avenue and Main Street Storage Basin	L_OR_MF_020_S_09B_B_A_8	Revise design to a 31.8 MG tunnel solution that consolidates CSO controls for 13th Street and Rowan Street, Story Avenue and Main Street, and Lexington Road and Payne Street Storage Basins. Tunnel capacity will allow a level of control of eight overflows per Typical Year for the one CSO previously associated with Story and Main.
September 27, 2016, with administrative correction submitted on October 17, 2016	November 3, 2016	Ohio River Tunnel	Lexington Road and Payne Street Storage Basin	L_OR_MF_083_M_09B_B_A_8	Revise design to a 31.8 MG tunnel solution that consolidates CSO controls for 13th Street and Rowan Street, Story Avenue and Main Street, and Lexington Road and Payne Street Storage Basins. Tunnel capacity will allow a level of control of zero overflows per Typical Year for the nine CSOs previously associated with Lexington and Payne.
March 22, 2018	May 10, 2018	Middle Fork Relief Interceptor, Wet Weather Storage and UMFLS Diversion – PS Improvements and Diversion	Middle Fork Relief Interceptor, Wet Weather Storage and UMFPS Diversion 2 – PS Diversion and Storage	S_MISF_MF_NB01_M_01_C_A1	Revise design to replace existiong 9.0 MGD pump stationwith a 30.0 MGD pump station and convey wet weather flows in lieu of providing covered storage on site.

Table 4.1. IOAP Project Minor Modifications

SUBMITTAL DATE	APPROVAL DATE	NEW PROJECT NAME	ORIGINAL PROJECT NAME	IOAP ID NUMBER	MODIFICATION DESCRIPTION
March 22, 2018	May 10, 2018	Southwestern Parkway Storage Basin	Southwestern Parkway Storage Basin	L_OR_MF_105_M_13_B_A_0	Revise project deadline to June 30, 2019 and correct inline storage volume submitted with 2015 minor modification fact sheet to 6.3 MG.
September 6, 2018	September 27, 2018	Waterway Protection Tunnel	Ohio River Tunnel	L_OR_MF_020_S_09B_B_A_8, L_OR_MF_155_M_09B_B_A_4, L_SO_MF_083_M_09B_B_A_8	Change project name and revise design to a 52.2 MG tunnel solution that consolidates CSO controls for Ohio River Tunnel and I-64 and Grinstead Drive Storage Basin.
September 6, 2018	September 27, 2018	Waterway Protection Tunnel	I-64 and Grinstead Drive Storage Basin	L_MI_MF_127_M_09B_B_A_8	Revise design to a 52.2 MG tunnel solution that consolidates CSO controls for Ohio River Tunnel and I-64 and Grinstead Drive Storage Basin.
September 6, 2018	September 27, 2018	CSO108 Dam Modification	CSO108 Dam Modification	L_SO_MF_108_S_09A_B_A_4	Revise LOC from four to eight overflows per Typical Year based on additional flow monitoring data and revised modeling. This change slightly increases the projected residual AAOV from 1.4 MG to 1.6 MG, but is easily offset with the significant increase in volume created by the extension of the Waterway Protection Tunnel.

4.4. Discharge Abatement Plan Project Status

This section addresses project certification progress for the current reporting period and required activities for the upcoming reporting period.

4.4.1. Sanitary Sewer Discharge Plan (SSDP)

Per the approved IOAP schedule, no new SSDP projects were completed in FY20, and no new projects are schedule to be completed in FY21.

4.4.2. Jeffersontown Water Quality Treatment Center Elimination

Jeffersontown WQTC elimination project was completed and certified December 23, 2015. Subsequent post-construction monitoring activities are reported in Section 4.5.2.

4.4.3. Combined Sewer Overflow Long Term Control Plan (LTCP)

Table 4.2 details CSO LTCP projects completed and certified during the current reporting period, and Table 4.3 details CSO LTCP projects required to be completed and certified during the next reporting period.

4.4.4. Activity Progress Chart

A Gantt chart showing the 2012 IOAP Modification project schedules along with subsequently approved minor modifications is provided in Figure 4.1.

Table 4.2. IOAP Project Completion Dates - CSO LTCP

PROJECT NAME	ACD PROJECT NUMBER	ACD DATE	CERTIFIED COMPLETION DATE
PORTLAND CSO STORAGE BASIN	L_OR_MF_019_S_13_B_A_8	December 31, 2019	August 30, 2019

Table 4.3. IOAP Project Required Completion Dates - CSO LTCP

PROJECT NAME	ACD PROJECT NUMBER	ACD DATE	CERTIFIED COMPLETION DATE
WATERWAY PROTECTION TUNNEL (FORMERLY STORY & MAIN ST STORAGE BASIN)	L_OR_MF_020_S_09B_B_A_8	December 31, 2020[1]	Under Construction
WATERWAY PROTECTION TUNNEL (FORMERLY 13TH ST/ ROWAN ST STORAGE BASIN)	L_OR_MF_155_M_09B_B_B_4	December 31, 2020[1]	Under Construction
WATERWAY PROTECTION TUNNEL (FORMERLY I-64 & GRINSTEAD DRIVE CSO BASIN)	L_MI_MF_127_M_09B_B_A_8	December 31, 2020[1]	Under Construction
WATERWAY PROTECTION TUNNEL (FORMERLY LEXINGTON RD & PAYNE ST STORAGE BASIN)	L_SO_MF_083_M_09B_B_A_8	December 31, 2020[1]	Under Construction

[1] MSD is currently in negotiations with EPA and KDEP to extend the certified completion date of this project.

4.5. Post Construction Compliance Monitoring Program

Within the IOAP, monitoring efforts that support the impact evaluation of both project and plan implementation are discussed in Volume 1, Section 6.5 - Post Construction Compliance Monitoring (PCCM). These efforts are incorporated into MSD's overall environmental data monitoring and management planning and activities, which support various MSD initiatives including operational support, the Municipal Separate Storm Sewer System (MS4) program, hydraulic and water quality modeling, and a range of regulatory reporting and trending requirements. Under the IOAP, the primary compliance assessment objectives will be to certify project completion to the selected overflow control level, both for CSOs and SSOs, as well as to confirm that the predicted levels of overflow control and anticipated water quality benefits have been realized. As such, post-construction compliance monitoring supports impact analysis and the validation of various objectives of IOAP project initiatives, and the overall abatement plan.

4.5.1. Modeling Program

As implementation of the IOAP continues, the sewer models increasingly support critical planning and design decisions on sizing, location and operation of new facilities (e.g., storage basins, pump stations, gates) as well as providing validation of predicted project level of control.

MSD has contracted with a hydraulic / hydrologic modeling (H/H) consultant to update and maintain a calibrated Infoworks ICM model of the combined and sanitary sewer collection systems. The model is used for the following activities:

- Planning and design of IOAP and other capital projects, including recommendations for changes to the operation of MSD's RTC system based on project impacts.
- Validation of performance of IOAP projects after construction.
- Evaluation of sewer capacity requests and proposed green infrastructure impacts on the combined and separate sanitary sewer systems.

The model is calibrated to both in-system flow monitors as well as flow monitors on CSO outfalls. MSD continues to look for ways to improve the accuracy and precision of the model by performing field surveys and reconnaissance where additional details or other critical details need clarification to refine calibration of the models.

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- Worked with H/H consultant to update ICM model to incorporate IOAP minor modifications.
- Worked with H/H consultant to review IOAP projects under design for validation of proposed performance.
- Worked with H/H consultant to validate performance of IOAP projects under assessment, as discussed in Section 4.5.2.

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- Work with H/H consultant to review CSO flow monitoring data as discussed in Section 1.4.3.
- Work with H/H consultant to review IOAP projects under design for validation of proposed performance.
- Work with H/H consultant to validate performance of IOAP projects after construction is completed.

4.5.2. Project Performance Reporting

As described in Volume 1, Section 6.5.2 of the 2012 IOAP Modification, dated May 2014, beginning with the FY14 Annual Report, MSD has agreed to provide annual reports on performance findings for completed projects and to self-identify cases where the performance falls below the committed level of control. In such cases,

MSD will define the necessary remedial measures and schedule to improve performance to the appropriate level. It is the intent that performance analyses will be conducted for all constructed IOAP projects as monitoring data becomes available. To complete this effort and independently assess IOAP projects that have been certified to date, MSD has partnered with the University of Louisville Center for Infrastructure Research (UofL) for the majority of the IOAP projects.

Current performance reporting is updated to include 88 projects certified through June 30, 2019, with data through June 30, 2020.

MSD committed to an analysis of twelve months of final effluent sampling to determine performance of the Derek R. Guthrie WQTC Flow Equalization and Treatment Project, which was completed July 10, 2015. For all other LTCP and SSDP projects, the period for monitoring performance and compliance encompasses a three-year window following construction. Green demonstration projects were determined to meet performance commitments based on reported benefit and improvement to MSD's Green Infrastructure Program, as reported in Annual Report 7. Two supplemental environmental projects (SEPs) were assessed for successful restoration.

Detailed performance status of each project is included in Table 4.4. Of the 86 projects analyzed to date, 60 have met the criteria for final committed level of control and 26 remain under assessment. Projects detailed in Table 4.5 have been identified as phased projects that did not pass the current performance assessment but are linked to other projects that will address performance issues. Projects detailed in Table 4.6 need remediation or further analysis to address performance issues.

4.5.3. Green Infrastructure Monitoring

MSD has partnered with the EPA ORD to continue long-term green infrastructure performance monitoring for two CSO areas (CSO130 and CSO190) where green infrastructure solution alternatives have demonstrated more favorable benefit/cost ratios than overflow storage basins. The CSO130 Green Infrastructure Monitoring Project is completed. A significant amount of monitoring data has been compiled to document the green infrastructure infiltration rates, effectiveness of maintenance practices, and impact on overflow reduction. The monitoring data collected for CSO130 has proven to be valuable in developing an effective regular maintenance program. EPA ORD has continued to be involved in green infrastructure monitoring data in the CSO190 basin, beginning with the installations in November 2015. Monitoring was not performed during this reporting period due to COVID restrictions, however monitoring is anticipated to resume during the next reporting period. Both UofL and EPA ORD will be reviewing field monitoring data for these IOAP projects to ascertain overflow reduction performance. PCCM findings for these projects will be included in the annual report subsequent to project certification as updated flow monitoring data is available. Should their findings show that MSD has not achieved the proposed level of control, an action plan will be developed.

4.5.4. Water Quality Synthesis Report

MSD publishes a synthesis report, called "State of the Streams", that summarizes water quality trends based on data MSD collects through its Long-Term Monitoring Network. The latest report is available at **louisvillemsd.org/WaterQuality**. MSD continues to synthesize and trend water quality data in a report as required by the MS4 permit.

Table 4.4. IOAP Project Performance - Performance Status

PROJECT NAME	ACD PROJECT NUMBER	PROJECT CERTIFICATION DATE	PROJECT TYPE	ASSESSMENT RESULT	ASSESSMENT COMPLETION DATE
AVANTI PS ELIMINATION	S_PO_WC_PC07_M_01_A	July 28, 2009	SSDP	Pass	December 30, 2013
SINKING FORK INTERCEPTOR	SINKING FORK RELIEF SEWER	December 23, 2009	ISSDP	Pass	December 31, 2014
ASHBURTON PS IMPROVEMENTS & DIVERSION	S_FF_FF_NB03_M_01_C_A	January 22, 2010	SSDP	Pass	December 30, 2013
WOODLAND HILLS PS DIVERSION	S_FF_FF_NB01_S_01_C_A	April 1, 2010	SSDP	Pass	December 30, 2013
RUNNING FOX PS ELIMINATION	S_CC_CC_MSD1080_S_01_C	April 5, 2010	SSDP	Pass	December 30, 2013
BEECHWOOD VILLAGE SEWER REPL	BEECHWOOD VILLAGE SEWER REPL	September 29, 2010	ISSDP	Pass	December 31, 2014
BILLY GOAT STRUT (FORMERLY CAMPBELL& MAIN) PERMEABLE ALLEY	L_SO_MF_121_S_12_A	October 8, 2010	GREEN	Pass	December 30, 2013
W GAULBERT & HILL ST (FORMERLY 17TH & W HILL) PERMEABLE ALLEY	L_OR_MF_015_S_12_A	October 15, 2010	GREEN	Pass	December 30, 2013
CLIFTON TRIANGLE AREA RAIN GARDEN	ADDITIONAL RAIN GARDEN PROJECT 3	November 11, 2010	GREEN	Pass	December 30, 2013
2300 BLOCK OF CONGRESS (FORMERLY 7TH & MARKET) PERMEABLE ALLEY	L_OR_MF_053_S_12_A_C	November 11, 2010	GREEN	Pass	December 30, 2013
BRANDIES APARTMENTS RAIN GARDEN	ADDITIONAL RAIN GARDEN PROJECT 1	November 15, 2010	GREEN	Pass	December 30, 2013
MSD MAIN OFFICE PARKING LOT BIOSWALE	L_OR_MF_053_S_12_A_A	December 3, 2010	GREEN	Pass	December 30, 2013
CHEROKEE PARK STREAM RESTORATION	SEP PROJECT 1	December 3, 2010	SEP	Pass	May 7, 2014
3RD AND ORMSBY BIOFILTRATION	L_OR_MF_198_S_12_A	December 12, 2010	GREEN	Pass	December 30, 2013
BEARGRASS INTERCEPTOR REHABILITATION PH 2	S_SD_MF_NB06_S_13_C	December 14, 2010	SSDP	Ongoing	Ongoing
FLOYDSBURG RD I&I INVEST	S_HC_HC_MSD1086_M_07_C_A	December 17, 2010	SSDP	Pass	June 30, 2019
6TH & MARTIN LUTHER KING (FORMERLY 6TH & MUHAMMAD ALI) GREEN LOT	L_OR_MF_022_S_12_A	December 28, 2010	GREEN	Pass	December 30, 2013
HOUSING AUTHORITY GREEN NROOF (FORMERLY 6TH & BROADWAY RAIN GARDEN)	L_OR_MF_028_S_12_A	December 30, 2010	GREEN	Pass	December 30, 2013
7TH & CEDAR GREEN PARKING LOT	L_OR_MF_053_S_12_A_B	December 30, 2010	GREEN	Pass	December 30, 2013
SCHOLAR HOUSE (FORMERLY 12TH & JEFFERSON) GREEN PARKING LOT	L_OR_MF_208_S_12_A	December 30, 2010	GREEN	Pass	December 30, 2013
CSO108 DAM MODIFICATION	L_SO_MF_108_S_09A_B_A_4	December 30, 2010	LTCP	Ongoing	Ongoing
SWIFT COMPANY (FORMERLY 2ND & BROADWAY) GREEN PARKING LOT	L_OR_MF_181_S_12_A	December 31, 2010	GREEN	Pass	December 30, 2013
NORTHERN DITCH DIVERSION INTERCEPTOR	NORTHERN DITCH DIVERSION INTER	February 16, 2011	ISSDP	Pass	December 31, 2014
POND CREEK TRAIL SEP	SEP PROJECT 2	February 19, 2011	SEP	Pass	December 30, 2014
GOVERNMENT CENTER PS ELIMINATION	S_PO_WC_PC06_M_01_C	April 1, 2011	SSDP	Pass	December 31, 2014
PARKVIEW ESTATES I&I INVESTIGATION	S_SD_MF_NB03_S_07_C	June 28, 2011	SSDP	Pass	December 31, 2014
HAZELWOOD PS I&I INVESTIGATION & REHABILITATION	S_MC_MF_55665_S_07_C	June 30, 2011	SSDP	Pass	December 31, 2014
SONNE PS I&I INVESTIGATION & REHABILITATION	S_OR_MF_42007_S_07_C	June 30, 2011	SSDP	Pass	June 30, 2019
CAMP TAYLOR SYSTEM IMPROVEMENT PHASE 1 - SSES	S_SF_MF_30917_M_09_A	July 8, 2011	SSDP	Pass	June 30, 2020
EDSEL PS I&I INVESTIGATION & REHABILITATION	S_PO_WC_PC11_M_07_C	September 27, 2011	SSDP	Pass	December 31, 2014
ANCHOR ESTATES PS ELIMINATIONS 1 - VANNAH PUMP STATION ELIMINATION	S_MI_MF_NB06_M_01_A_A-2	October 15, 2011	SSDP	Pass	December 31, 2014
CPE/CCP MODIFICATIONS TO WQTC	CPE/CCP MODIFICATIONS TO WQTC	December 19, 2011	OTHER	Ongoing	Ongoing
EAST WASHINGTON & ADAMS STREET (FORMERLY I-264 ON-RAMP DRY WELL)	L_OR_MF_019_S_12_A	December 19, 2011	GREEN	Pass	December 30, 2013

Table 4.4. IOAP Project Performance - Performance Status

PROJECT NAME	ACD PROJECT NUMBER	PROJECT CERTIFICATION DATE	PROJECT TYPE	ASSESSMENT RESULT	ASSESSMENT COMPLETION DATE
GRAWENMAYER HALL PARKING LOT (FORMERLY I-264 AND GIBSON DRY WELL)	L_OR_MF_191_S_12_A_A	December 20, 2011	GREEN	Pass	December 30, 2013
SPEED ART MUSEUM INFILTRATION TRENCH (FORMERLY I-264 OFF RAMP DRY WELL)	L_OR_MF_189_S_12_A	December 20, 2011	GREEN	Pass	December 30, 2013
GERMAN/PARISTOWN GREEN STREET RAIN GARDEN	ADDITIONAL RAIN GARDEN PROJECT 4	December 20, 2011	GREEN	Pass	December 30, 2013
3RD STREET & CAMPBELL VENTURES GREEN PROJECT (FORMERLY JFK MONTESSORI AREA DRY WELL)	L_OR_MF_191_S_12_A_B	December 20, 2011	GREEN	Pass	December 30, 2013
HURSTBOURNE I/I INVESTIGATION & REHABILITATION	S_MI_MF_NB07_S_07_C	December 27, 2011	SSDP	Pass	December 31, 2014
LANTANA #1 PS I/I INVESTESTIGATION & REHABILITATION	S_PO_WC_PC05_M_07_C	December 29, 2011	SSDP	Ongoing	Ongoing
BROWN-FORMAN GREEN ROOF PROJECT (formerly BARDSTOWN RD PRESBYTERIAN CHURCH GREEN PARKING LOT)	ADDITIONAL RAIN GARDEN PROJECT 2	December 30, 2011	GREEN	Pass	December 30, 2013
WILSON CROSSINGS GREEN PARKING LOT (FORMERLY RUSSELL LEE DRIVE DRY WELL)	L_OR_MF_191_S_12_A_C	December 30, 2011	GREEN	Pass	December 30, 2013
EAST ROCKFORD PS RELOCATION	S_MC_WC_NB02_S_03_C	March 30, 2012	SSDP	Pass	June 30, 2016
DERINGTON CT PS I&I INVESTIGATION & REHABILITATION	S_OR_MF_NB03_S_07_C	March 30, 2012	SSDP	Pass	June 30, 2016
SHIVELY INTERCEPTOR	S_MC_WC_NB01_M_01_A	April 13, 2012	SSDP	Pass	June 30, 2016
SOUTHEASTERN DIVERSION STRUCTURE & INTERCEPTOR	SOUTHEASTERN DIVERSION STRUCT	April 19, 2012	ISSDP	Ongoing	Ongoing
FAIRMOUNT ROAD PS IMPROVEMENTS	S_FF_CC_81316_M_03_C_A_1	April 24, 2012	SSDP	Pass	June 30, 2017
34TH ST FPS DWO ELIMINATION	L_OR_MF_019_S_03_A_B	June 11, 2012	LTCP	Pass	June 30, 2016
4TH STREET FPS DWO ELIMINATION	L_OR_MF_022_M_03_A_A	June 15, 2012	LTCP	Pass	June 30, 2016
HIKES LANE INTERCEPTOR & HIGHGATE SPRINGS PS	HIKES LN INTER & HIGHGATE SPR	November 2, 2012	ISSDP	Pass	June 30, 2016
DEREK R GUTHRIE WQTC UPGRADES	DEREK R GUTHRIE WQTC UPGRADES	November 15, 2012	OTHER	Pass	July 10, 2015
ADAMS STREET SEWER SEPARATION (FORMERLY STORAGE BASIN)	L_OR_MF_172_S_09B_B_A_0	November 28, 2012	LTCP	Pass	June 30, 2016
MEADOW STREAM PS & FM UPGRADE	S_HC_HC_MSD1082_S_09A_C	December 18, 2012	SSDP	Pass	June 30, 2016
LAKE FOREST PS SSO INVESTIGATION	S_FF_LF_NB01_S_13_C_A	December 18, 2012	SSDP	Pass	June 30, 2016
MELLWOOD SYSTEM IMPROVEMENTS AND PS ELIMINATIONS 1 - MELLWOOD PS AND FM IMPROVEMENTS	S_OR_MF_NB01_M_01_B-1	December 27, 2012	SSDP	Ongoing	Ongoing
CSO123 DOWNSPOUT DISCONNECTION	L_MI_MF_123_S_08_A_A_0	December 30, 2012	LTCP	Pass	June 30, 2016
EDEN CARE PS SSO INVESTIGATION	S_FF_FF_NB02_S_13_C	December 31, 2012	SSDP	Pass	December 31, 2015
LELAND RD SSO INVESTIGATION	S_OR_MF_NB02_S_13_C	December 31, 2012	SSDP	Pass	December 31, 2015
SHAWNEE FPS DWO ELIMINATION	L_OR_MF_189_M_03_A_A	June 18, 2013	LTCP	Pass	June 30, 2016
27TH STREET FPS DWO ELIM	L_OR_MF_019_S_03_A_A	June 28, 2013	LTCP	Pass	June 30, 2016
CSO206 SEWER SEPARATION	L_MI_MF_206_S_08_A_A_0	December 12, 2013	LTCP	Pass	June 30, 2017
CAMP TAYLOR SYSTEM IMPROVEMENTS PHASE 2 - REPLACE SEWERS	S_SF_MF_30917_M_09_A_	December 20, 2013	SSDP	Pass	June 30, 2020
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE AND UMFPS DIVERSION 1 - BUECHEL BASIN	S_MISF_MF_NB01_M_01_C_A1	December 27, 2013	SSDP	Ongoing	Ongoing
KLONDIKE INTERCEPTOR	S_SD_MF_NB04_S_01_B_A	July 17, 2014	SSDP	Pass	June 30, 2018
ST RENE RD PS IN-LINE STORAGE	S_FF_CH_NB01_S_09A_C_A	September 19, 2014	SSDP	Pass	June 30, 2018

Table 4.4. IOAP Project Performance - Performance Status

PROJECT NAME	ACD PROJECT NUMBER	PROJECT CERTIFICATION DATE	PROJECT TYPE	ASSESSMENT RESULT	ASSESSMENT COMPLETION DATE
ELIMINATION OF CHENOWETH HILLS WQTC, CHENOWETH RUN PUMP STATION, AND CHIPPEWA PUMP STATION	S_JT_JT_NB01A_M_03_C	September 22, 2014	SSDP	Pass	June 30, 2017
RIDING RIDGE PS IMPROVEMENTS	S_HC_HN_NB01_S_03_C_A	November 15, 2014	SSDP	Pass	June 30, 2018
17TH ST FPS DWO ELIMINATION	L_OR_MF_190_S_03_A_A	December 18, 2014	LTCP	Pass	June 30, 2018
CSO058 IN-LINE STORAGE & GREEN INFRASTRUCTURE	L_OR_MF_058_S_08_A_A_0	December 23, 2014	LTCP	Ongoing	Ongoing
FAIRWAY VIEW PS IMPROVEMENTS	S_HC_HS_NB01_S_03_C_A	December 30, 2014	SSDP	Pass	June 30, 2018
CHARLESWOOD INTERCEPTOR EXTENSION	S_PO_WC_PC03_M_01_C	August 1, 2015	SSDP	Pass	June 30, 2019
PROSPECT SYSTEM IMPROVEMENTS 2 - HARRODS CREEK PUMP STATION AND FORCE MAIN	S_OR_MF_NB04_M_03_B_B-2	November 13, 2015	SSDP	Ongoing	Ongoing
LEA ANN WAY SYSTEM IMPROVEMENT	S_PO_WC_PC08_M_01_C	December 4, 2015	SSDP	Pass	June 30, 2019
CSO160 SEWER SEPARATION	L_OR_MF_160_S_08_A_A_0	December 10, 2015	LTCP	Ongoing	Ongoing
PROSPECT SYSTEM IMPROVEMENTS 1 - WQTC ELIMINATIONS	S_OR_MF_NB04_M_03_B_B-1	December 15, 2015	SSDP	Ongoing	Ongoing
CSO093 STRUCTURAL MODIFICATIONS & GREEN INFRASTRUCTURE	L_SO_MF_093_S_08_A_A_0	December 23, 2015	LTCP	Ongoing	Ongoing
CSO140 IN-LINE STORAGE & GREEN INFRASTRUCTURE	L_MI_MF_140_S_08_A_A_0	December 23, 2015	LTCP	Ongoing	Ongoing
JEFFERSONTOWN WQTC ELIMINATION	S_JT_JT_NB01_M_01_C_A	December 23, 2015	SSDP	Pass	June 30, 2019
FAIRMOUNT ROAD OFF-LINE STORAGE BASIN	S_FF_CC_81316_M_03_C_A_2	March 30, 2016	SSDP	Ongoing	Ongoing
GOOSE CREEK PS IMPROVEMENTS AND WET WEATHER STORAGE 1 - DEVONDALE WET WEATHER STORAGE	S_MI_MF_NB04_M_03_B-1	April 15, 2016	SSDP	Ongoing	Ongoing
CAVEN AVENUE PS ELIMINATION	S_PO_WC_PC09_M_09B_C	September 26, 2016	SSDP	Pass	June 30, 2020
ANCHOR ESTATES PS ELIMINATIONS 2 - ANCHOR ESTATES #1 AND #2 PUMP STATION ELIMINATION	S_MI_MF_NB06_M_01_A_A - 1	September 30, 2016	SSDP	Pass	June 30, 2020
PROSPECT SYSTEM IMPROVEMENTS 3 - ORFM SYSTEM IMPROVEMENTS	S_OR_MF_NB04_M_03_B_B-3	December 19, 2016	SSDP	Ongoing	Ongoing
STORY AVENUE & SPRING STREET GREEN INFRASTRUCTURE (FORMERLY STORAGE BASIN)	L_SO_MF_130_S_09B_B_A_8	December 20, 2016	LTCP	Ongoing	Ongoing
NIGHTINGALE PS REPLACEMENT & STORAGE	L_SO_MF_018_S_03_A_A	June 30, 2017	LTCP	Ongoing	Ongoing
BELLS LANE (FORMERLY PADDY'S RUN) WET WEATHER TREATMENT FACILITY	L_OR_MF_015_M_13_B_B_8	September 25, 2017	LTCP	Ongoing	Ongoing
CAMP TAYLOR SYSTEM IMPROVEMENTS PHASE 3 - REPLACE SEWER & REHABILITATION	S_SF_MF_30917_M_09_A__	December 15, 2017	SSDP	Pass	June 30, 2020
LOGAN & BRECKINRIDGE ST STORAGE BASIN	L_SO_MF_092_M_09B_B_D_8	December 20, 2017	LTCP	Ongoing	Ongoing
CSO190 GREEN INFRASTRUCTURE (FORMERLY18TH & NORTHWESTERN PKWY STORAGE BASIN)	L_OR_MF_190_S_09B_B_A_8	December 29, 2017	LTCP	Ongoing	Ongoing
SOUTHERN OUTFALL IN-LINE STORAGE AT 43RD STREET (SOR1) (FORMERLY ALGONQUIN PKWY STORAGE BASIN)	L_OR_MF_211_M_13_B_A_8__	November 30, 2018	LTCP	Ongoing	Ongoing
MORRIS FORMAN WQTC HEADWORKS (FORMERLY ALGONQUIN PKWY STORAGE BASIN)	L_OR_MF_211_M_13_B_A_8_	December 17, 2018	LTCP	Ongoing	Ongoing
CENTRAL RELIEF DRAIN CSO IN-LINE STORAGE, GREEN INFRASTRUCTURE, AND DISTRIBUTED STORAGE	L_OR_MF_155_M_09B_B_B_4-1	December 20, 2018	LTCP	Ongoing	Ongoing
CLIFTON HEIGHTS STORAGE BASIN	L_MU_MF_154_M_09B_B_A_8	December 21, 2018	LTCP	Ongoing	Ongoing
SOUTHWESTERN PKWY CSO BASIN	L_OR_MF_105_M_13_B_A_0	March 29, 2019	LTCP	Ongoing	Ongoing
PORTLAND CSO STORAGE BASIN	L_OR_MF_019_S_13_B_A_8	August 30, 2019	LTCP	Ongoing	Ongoing

Table 4.5. IOAP Project Performance - Phased Project Performance Status Summary

PROJECT NAME	PHASED PROJECT	PHASED PROJECT ACD COMPLETION
BEARGRASS INTERCEPTOR REHABILITATION PH 2	NIGHTINGALE PS REPLACEMENT & STORAGE (L_SO_MF_018_S_03_A_A) was completed June 30, 2017. While this is an SSDP project, it is hydraulically impacted by the the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
BELLS LANE (FORMERLY PADDY'S RUN) WET WEATHER TREATMENT FACILITY	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CENTRAL RELIEF DRAIN CSO IN-LINE STORAGE, GREEN INFRASTRUCTURE, AND DISTRIBUTED STORAGE	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CLIFTON HEIGHTS STORAGE BASIN	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CSO058 IN-LINE STORAGE & GREEN INFRASTRUCTURE	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CSO093 STRUCTURAL MODIFICATIONS & GREEN INFRASTRUCTURE	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CSO108 DAM MODIFICATION	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CSO140 IN-LINE STORAGE & GREEN INFRASTRUCTURE	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CSO160 SEWER SEPARATION	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
CSO190 GREEN INFRASTRUCTURE (FORMERLY18TH & NORTHWESTERN PKWY STORAGE BASIN)	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
GOOSE CREEK PS IMPROVEMENTS AND WET WEATHER STORAGE 1 - DEVONDALE WET WEATHER STORAGE	GOOSE CREEK PS IMPROVEMENTS AND WET WEATHER STORAGE 2 - PS & FM UPGRADE (S_MI_MF_NB04_M_03_B)	December 31, 2024
LOGAN & BRECKINRIDGE ST STORAGE BASIN	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
MELLWOOD SYSTEM IMPROVEMENTS AND PS ELIMINATIONS 1 - MELLWOOD PS AND FM IMPROVEMENTS	MELLWOOD SYSTEM IMPROVEMENTS AND PS ELIMINATIONS 2 - WINTON AVENUE AND MOCKINGBIRD VALLEY PS ELIMINATIONS (S_OR_MF_NB01_M_01_B)	December 31, 2024
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE AND UMFPS DIVERSION 1 - BUECHEL BASIN	MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE AND UMFPS DIVERSION 2 - PS DIVERSION AND STORAGE	December 31, 2023
MORRIS FORMAN WQTC HEADWORKS (FORMERLY ALGONQUIN PKWY STORAGE BASIN)	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
NIGHTINGALE PS REPLACEMENT & STORAGE	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
PORTLAND CSO STORAGE BASIN	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
SOUTHEASTERN DIVERSION STRUCTURE & INTERCEPTOR	NIGHTINGALE PS REPLACEMENT & STORAGE (L_SO_MF_018_S_03_A_A) was completed June 30, 2017. While this is an SSDP project, it is hydraulically impacted by the the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
SOUTHERN OUTFALL IN-LINE STORAGE AT 43RD STREET (SOR1) (FORMERLY ALGONQUIN PKWY STORAGE BASIN)	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
SOUTHWESTERN PKWY CSO BASIN	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020
STORY AVENUE & SPRING STREET GREEN INFRASTRUCTURE (FORMERLY STORAGE BASIN)	Due to the interdependent nature of the CSS, the intended performance of any LTCP project is dependent on the full implementation of all LTCP projects as outlined in the IOAP.	December 31, 2020

Table 4.5. IOAP Project Performance - Phased Project Performance Status Summary

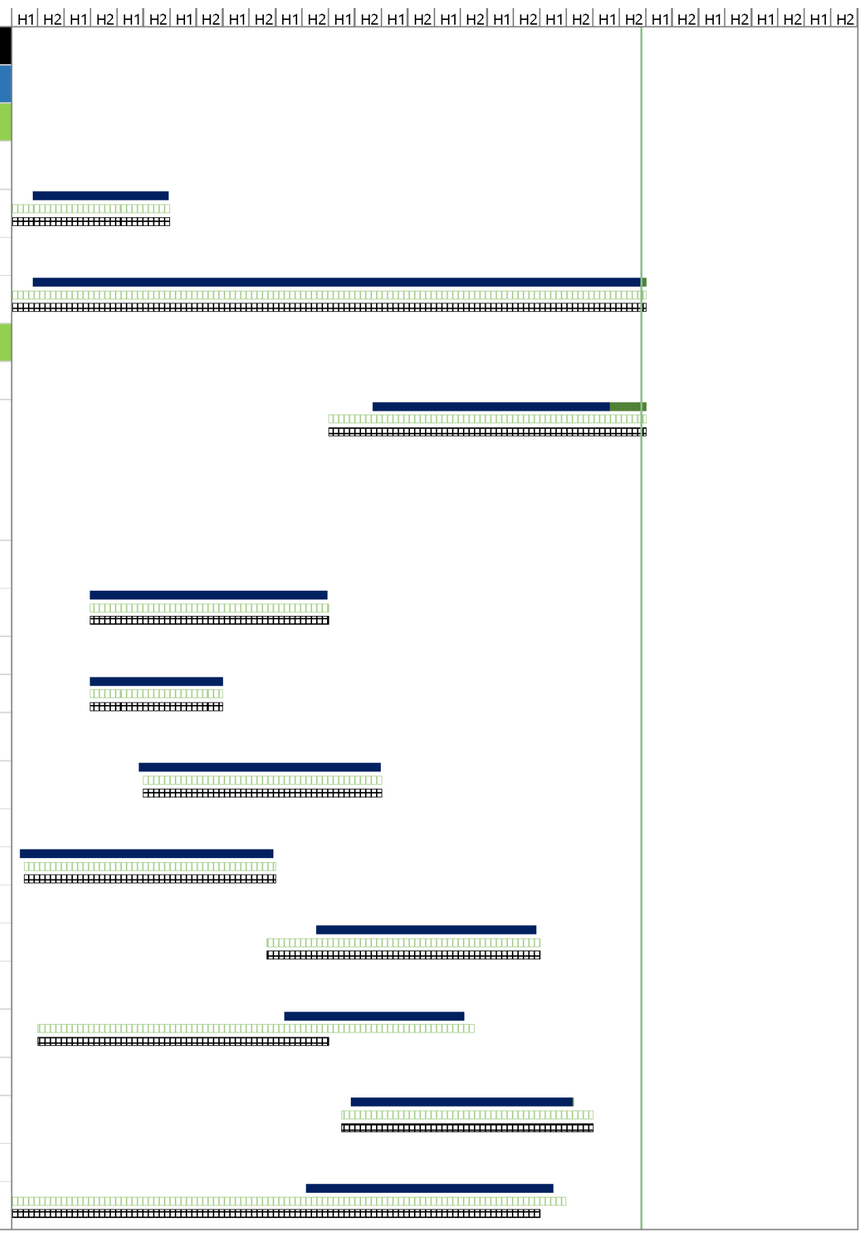
PROJECT NAME	PHASED PROJECT	PHASED PROJECT ACD COMPLETION
PROSPECT SYSTEM IMPROVEMENTS 1 - WQTC ELIMINATIONS	Muddy Fork Basin was dewatering when flow was below a set point. All available pumps turned on maximum causing the overflow. Once Ops was made aware of the issue, programming changes were made to the basin dewatering routine to prevent this. Due to the additional analysis, no further action is required.	December 30, 2020
PROSPECT SYSTEM IMPROVEMENTS 2 - HARRODS CREEK PUMP STATION AND FORCE MAIN	Muddy Fork Basin was dewatering when flow was below a set point. All available pumps turned on maximum causing the overflow. Once Ops was made aware of the issue, programming changes were made to the basin dewatering routine to prevent this. Due to the additional analysis, no further action is required.	December 30, 2020
PROSPECT SYSTEM IMPROVEMENTS 3 - ORFM SYSTEM IMPROVEMENTS	Muddy Fork Basin was dewatering when flow was below a set point. All available pumps turned on maximum causing the overflow. Once Ops was made aware of the issue, programming changes were made to the basin dewatering routine to prevent this. Due to the additional analysis, no further action is required.	December 30, 2020
FAIRMOUNT ROAD OFF-LINE STORAGE BASIN	UofL's analysis returned a recommendation for remediation based off a single rain pixel; however further analysis showed that the event that resulted in this recommendation was greater than the 25-year storm systemwide. Due to the additional analysis, no further action is required.	December 30, 2020

Table 4.6. IOAP Project Performance - Remedial Measure Performance Status Summary

PROJECT NAME	REMEDIAL MEASURES	REMEDIATION ANTICIPATED COMPLETION DATE
LANTANA #1 PS I/I INVESTESTIGATION & REHABILITATION	Remediation was completed for this project August 10, 2018. A revised solution will be developed and implemented.	December 31, 2024

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
MSD IOAP ANNUAL SCHEDULE							
LONG TERM CONTROL PLAN	100%	Thu 1/1/09	Fri 1/1/21	Wed 7/1/09	Thu 12/31/20	Thu 12/31/20	
GREEN DEMONSTRATION PROJECTS							
Green Infrastructure Demonstration Projects	**100%**	**Thu 1/1/09**	**Mon 12/19/11**	**Mon 12/19/11**	**Sat 12/31/11**	**Sat 12/31/11**	
Green Infrastructure Demonstration Projects	100%	Thu 1/1/09	Mon 12/19/11	Mon 12/19/11	Sat 12/31/11	Sat 12/31/11	
Green Infrastructure Program	**99%**	**Thu 1/1/09**	**Thu 12/31/20**	**NA**	**Thu 12/31/20**	**Thu 12/31/20**	
Green Infrastructure Program	99%	Thu 1/1/09	Thu 12/31/20	NA	Thu 12/31/20	Thu 12/31/20	
GRAY INFRASTRUCTURE PROJECTS							
Waterway Protection Tunnel	**99%**	**Thu 1/1/15**	**Sat 7/31/21**	**NA**	**Thu 12/31/20**	**Thu 12/31/20**	
Waterway Protection Tunnel	99%	Thu 1/1/15	Thu 12/31/20	NA	Thu 12/31/20	Thu 12/31/20	L_OR_MF_155_M_09B_B_B_4 L_OR_MF_020_S_09B_B_A_8 L_OR_MF_083_M_09B_B_A_8 L_MI_MF_127_M_09B_B_A_8
CSO058 In-Line Storage and Green Infrastructure	**100%**	**Thu 7/1/10**	**Tue 12/23/14**	**Thu 12/18/14**	**Wed 12/31/14**	**Wed 12/31/14**	
CSO058 In-Line Storage and Green Infrastructure	100%	Thu 7/1/10	Tue 12/23/14	Thu 12/18/14	Wed 12/31/14	Wed 12/31/14	L_OR_MF_058_S_08_A_A_0
CSO123 Downspout Disconnection	**100%**	**Thu 7/1/10**	**Sun 12/30/12**	**Sun 12/30/12**	**Mon 12/31/12**	**Mon 12/31/12**	
CSO123 Downspout Disconnection	100%	Thu 7/1/10	Sun 12/30/12	Sun 12/30/12	Mon 12/31/12	Mon 12/31/12	L_MI_MF_123_S_08_A_A_0
CSO140 In-Line Storage & Green Infrastructure Controls	**100%**	**Fri 7/1/11**	**Wed 12/23/15**	**Wed 12/23/15**	**Thu 12/31/15**	**Thu 12/31/15**	
CSO140 In-Line Storage & Green Infrastructure Controls	100%	Fri 7/1/11	Wed 12/23/15	Wed 12/23/15	Thu 12/31/15	Thu 12/31/15	L_MI_MF_140_S_08_A_A_0
CSO206 Sewer Separation	**100%**	**Wed 4/1/09**	**Thu 12/12/13**	**Thu 12/12/13**	**Tue 12/31/13**	**Mon 12/30/13**	
CSO206 Sewer Separation	100%	Wed 4/1/09	Thu 12/12/13	Thu 12/12/13	Tue 12/31/13	Mon 12/30/13	L_MI_MF_206_S_08_A_A_0
Clifton Heights Storage Basin	**100%**	**Fri 11/1/13**	**Sat 12/1/18**	**Sat 12/1/18**	**Mon 12/31/18**	**Mon 12/31/18**	
Clifton Heights Storage Basin	100%	Fri 11/1/13	Sat 12/1/18	Sat 12/1/18	Mon 12/31/18	Mon 12/31/18	L_MU_MF_154_M_09B_B_A_8
Bells Lane Wet Weather Treatment Facility	**100%**	**Wed 7/1/09**	**Mon 7/24/17**	**Mon 7/24/17**	**Wed 12/31/14**	**Sat 9/30/17**	
Bells Lane Wet Weather Treatment Facility	100%	Wed 7/1/09	Mon 7/24/17	Mon 7/24/17	Wed 12/31/14	Sat 9/30/17	L_OR_MF_015_M_13_B_B_8
Portland CSO Basin	**100%**	**Wed 4/1/15**	**Sun 8/18/19**	**Fri 8/9/19**	**Tue 12/31/19**	**Tue 12/31/19**	
Portland CSO Basin	100%	Wed 4/1/15	Sun 8/18/19	Fri 8/9/19	Tue 12/31/19	Tue 12/31/19	L_OR_MF_019_S_13_B_A_8
Southwestern Parkway Storage Basin	**100%**	**Thu 1/1/09**	**Fri 3/29/19**	**Fri 3/29/19**	**Mon 12/31/18**	**Sun 6/30/19**	
Southwestern Parkway Storage Basin	100%	Thu 1/1/09	Fri 3/29/19	Fri 3/29/19	Mon 12/31/18	Sun 6/30/19	L_OR_MF_105_M_13_B_A_0

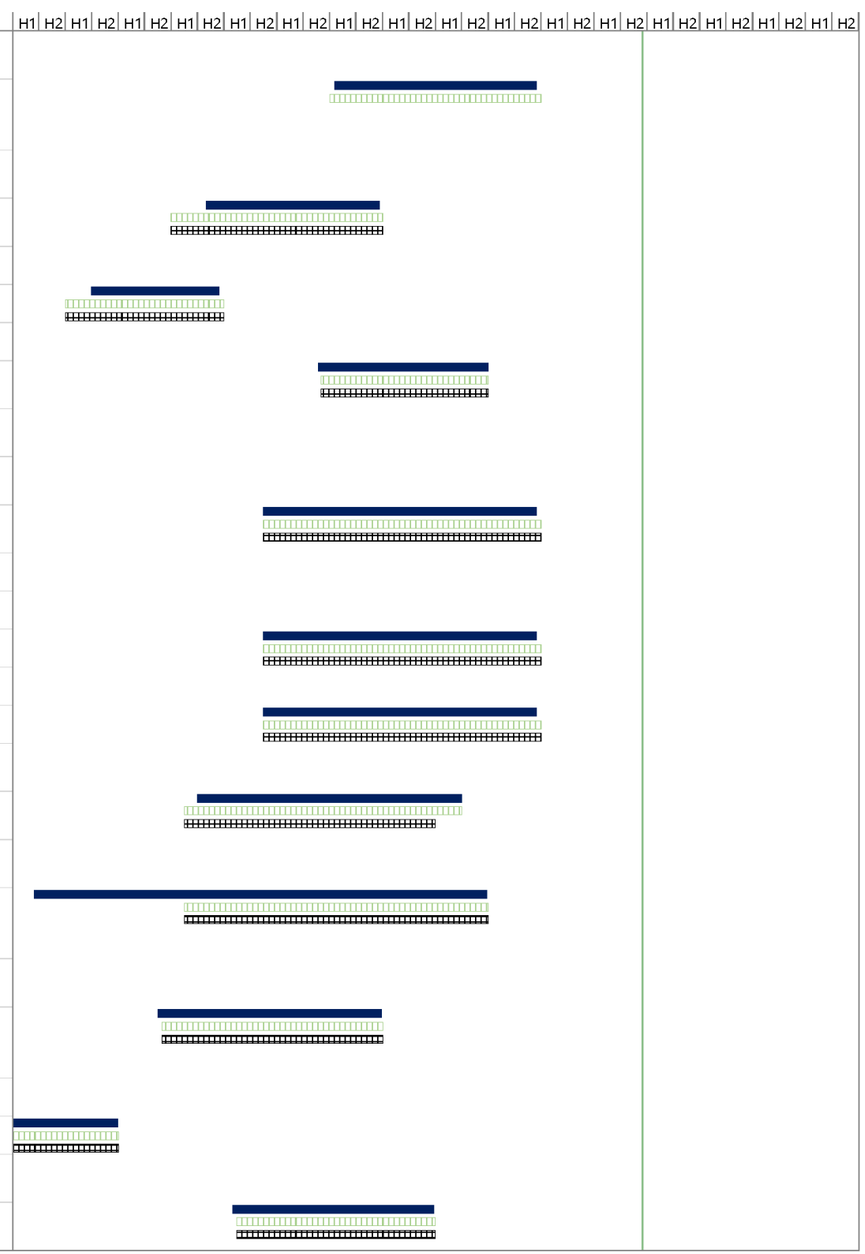


Approved 2009 IOAP | IOAP Modifications | Remaining Work | Completed Work

Includes 2014 approval of 2012 IOAP modification as well as all minor mod letter approvals to date.

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
Central Relief Drain CSO In-Line Storage, Green Infrastructure & Distributed	**100%**	**Thu 1/1/15**	**Fri 11/30/18**	**Fri 11/30/18**	**NA**	**Mon 12/31/18**	
Central Relief Drain CSO In-Line Storage, Green Infrastructure & Distributed Storage	100%	Thu 1/1/15	Fri 11/30/18	Fri 11/30/18	NA	Mon 12/31/18	L_OR_MF_155_M_09B_B_B_4
CSO160 In-Line Storage & Green Infrastructure Controls	**100%**	**Sun 1/1/12**	**Thu 12/10/15**	**Thu 12/10/15**	**Thu 12/31/15**	**Thu 12/31/15**	
CSO160 In-Line Storage & Green Infrastructure Controls	100%	Sun 1/1/12	Thu 12/10/15	Thu 12/10/15	Thu 12/31/15	Thu 12/31/15	L_OR_MF_160_S_08_A_A_0
Adams Street Sewer Separation	**100%**	**Fri 1/1/10**	**Wed 11/28/12**	**Wed 11/28/12**	**Mon 12/31/12**	**Mon 12/31/12**	
Adams Street Sewer Separation	100%	Fri 1/1/10	Wed 11/28/12	Wed 11/28/12	Mon 12/31/12	Mon 12/31/12	L_OR_MF_172_S_09B_B_A_0
CSO190 Green Infrastructure Solution	**100%**	**Sat 11/1/14**	**Sun 12/31/17**	**Fri 12/29/17**	**Sun 12/31/17**	**Sun 12/31/17**	
CSO190 Green Infrastructure Solution	100%	Sat 11/1/14	Sun 12/31/17	Fri 12/29/17	Sun 12/31/17	Sun 12/31/17	L_OR_MF_190_S_09B_B_A_8
Southern Outfall Inline Storage at 43rd St (SOR1) & Morris Forman WQTC	**100%**	**Tue 10/1/13**	**Fri 11/30/18**	**Fri 11/30/18**	**Mon 12/31/18**	**Mon 12/31/18**	
Southern Outfall In-Line Storage at 43rd St (SOR 1)	**100%**	**Tue 10/1/13**	**Fri 11/30/18**	**Fri 11/30/18**	**Mon 12/31/18**	**Mon 12/31/18**	
Southern Outfall In-Line Storage at 43rd St (SOR 1)	100%	Tue 10/1/13	Fri 11/30/18	Fri 11/30/18	Mon 12/31/18	Mon 12/31/18	L_OR_MF_211_M_13_B_A_8
Morris Forman WQTC Headworks	**100%**	**Tue 10/1/13**	**Fri 11/30/18**	**Fri 11/30/18**	**Mon 12/31/18**	**Mon 12/31/18**	
Morris Forman WQTC Headworks	**100%**	**Tue 10/1/13**	**Fri 11/30/18**	**Fri 11/30/18**	**Mon 12/31/18**	**Mon 12/31/18**	
Morris Forman WQTC Headworks	100%	Tue 10/1/13	Fri 11/30/18	Fri 11/30/18	Mon 12/31/18	Mon 12/31/18	
MF Main Diversion Structure	**100%**	**Tue 10/1/13**	**Wed 11/28/18**	**Wed 11/28/18**	**Mon 12/31/18**	**Mon 12/31/18**	
MF Main Diversion Structure	100%	Tue 10/1/13	Wed 11/28/18	Wed 11/28/18	Mon 12/31/18	Mon 12/31/18	
Nightingale Pump Station Replacement & Storage	**100%**	**Sun 4/1/12**	**Thu 6/29/17**	**Thu 6/29/17**	**Sat 12/31/16**	**Fri 6/30/17**	
Nightingale Pump Station Replacement & Storage	100%	Sun 4/1/12	Thu 6/29/17	Thu 6/29/17	Sat 12/31/16	Fri 6/30/17	L_SO_MF_018_S_03_A_A
Logan and Breckenridge Street Storage Basin	**100%**	**Sun 4/1/12**	**Wed 10/18/17**	**Wed 12/20/17**	**Sun 12/31/17**	**Sun 12/31/17**	
Logan and Breckenridge Street Storage Basin	100%	Sun 4/1/12	Wed 10/18/17	Wed 12/20/17	Sun 12/31/17	Sun 12/31/17	L_SO_MF_092_M_09B_B_D_8
CSO093 Structural Modifications & Green Infrastructure	**100%**	**Tue 11/1/11**	**Wed 12/23/15**	**Wed 12/23/15**	**Thu 12/31/15**	**Thu 12/31/15**	
CSO093 Structural Modifications & Green Infrastructure	100%	Tue 11/1/11	Wed 12/23/15	Wed 12/23/15	Thu 12/31/15	Thu 12/31/15	L_SO_MF_093_S_08_A_A_0
CSO108 Dam Modifications	**100%**	**Thu 1/1/09**	**Thu 12/30/10**	**Thu 12/30/10**	**Fri 12/31/10**	**Fri 12/31/10**	
CSO108 Dam Modifications	100%	Thu 1/1/09	Thu 12/30/10	Thu 12/30/10	Fri 12/31/10	Fri 12/31/10	L_SO_MF_108_S_09A_B_A_4
Story Avenue and Spring Street Green Infrastructure	**100%**	**Mon 4/1/13**	**Tue 12/20/16**	**Tue 12/20/16**	**Sat 12/31/16**	**Sat 12/31/16**	
Story Avenue and Spring Street Green Infrastructure	100%	Mon 4/1/13	Tue 12/20/16	Tue 12/20/16	Sat 12/31/16	Sat 12/31/16	L_SO_MF_130_S_09B_B_A_8



Approved 2009 IOAP IOAP Modifications Remaining Work Completed Work

Includes 2014 approval of 2012 IOAP modification as well as all minor mod letter approvals to date.

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
FLOOD PUMP STATION PROJECTS							
27th Street Flood Pump Station DWO Elimination	**100%**	**Thu 7/1/10**	**Fri 6/28/13**	**Fri 6/28/13**	**Sun 6/30/13**	**Sun 6/30/13**	
27th Street Flood Pump Station DWO Elimination	100%	Thu 7/1/10	Fri 6/28/13	Fri 6/28/13	Sun 6/30/13	Sun 6/30/13	L_OR_MF_019_S_03_A_A
34th Street Flood Pump Station DWO Elimination	**100%**	**Sun 11/1/09**	**Mon 6/11/12**	**Mon 6/11/12**	**Mon 12/31/12**	**Mon 12/31/12**	
34th Street Flood Pump Station DWO Elimination	100%	Sun 11/1/09	Mon 6/11/12	Mon 6/11/12	Mon 12/31/12	Mon 12/31/12	L_OR_MF_019_S_03_A_B
4th Street Flood Pump Station DWO Elimination	**100%**	**Sun 11/1/09**	**Fri 6/15/12**	**Fri 6/15/12**	**Mon 12/31/12**	**Mon 12/31/12**	
4th Street Flood Pump Station DWO Elimination	100%	Sun 11/1/09	Fri 6/15/12	Fri 6/15/12	Mon 12/31/12	Mon 12/31/12	L_OR_MF_022_M_03_A_A
Shawnee Flood Pump Station DWO Elimination	**100%**	**Thu 7/1/10**	**Tue 6/18/13**	**Tue 6/18/13**	**Sun 6/30/13**	**Sun 6/30/13**	
Shawnee Flood Pump Station DWO Elimination	100%	Thu 7/1/10	Tue 6/18/13	Tue 6/18/13	Sun 6/30/13	Sun 6/30/13	L_OR_MF_189_M_03_A_A
17th Street Flood Pump Station DWO Elimination	**100%**	**Thu 1/1/09**	**Thu 12/18/14**	**Thu 12/18/14**	**Wed 12/31/14**	**Wed 12/31/14**	
17th Street Flood Pump Station DWO Elimination	100%	Thu 1/1/09	Thu 12/18/14	Thu 12/18/14	Wed 12/31/14	Wed 12/31/14	L_OR_MF_190_S_03_A_A
SANITARY SEWER DISCHARGE PLAN	**62%**	**NA**	**Tue 12/31/24**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
BEARGRASS CREEK MIDDLE FORK AREA							
Goose Creek PS Improvements and Wet Weather Storage	**58%**	**Fri 4/15/16**	**Tue 12/31/24**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Goose Creek PS Improvements & Wet Weather Storage 1 - Devondale PS and Bancroft WQTC Elimination	**100%**	**Fri 4/15/16**	**Thu 6/29/17**	**Tue 7/25/17**	**Tue 12/31/24**	**Tue 12/31/24**	
Goose Creek PS Improvements & Wet Weather Storage 1 - Devondale PS and Bancroft WQTC Elimination	100%	Fri 4/15/16	Thu 6/29/17	Tue 7/25/17	Tue 12/31/24	Tue 12/31/24	S_MI_MF_NB04_M_03_B
Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades	**0%**	**Sat 1/1/22**	**Tue 12/31/24**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades	0%	Sat 1/1/22	Tue 12/31/24	NA	Tue 12/31/24	Tue 12/31/24	S_MI_MF_NB04_M_03_B
Anchor Estates Pump Station Elimination	**100%**	**Tue 11/1/11**	**Fri 4/15/16**	**Fri 4/15/16**	**Sat 12/31/16**	**Sat 12/31/16**	
Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination	**100%**	**Mon 4/1/13**	**Fri 4/15/16**	**Fri 4/15/16**	**Sat 12/31/16**	**Sat 12/31/16**	
Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination	100%	Mon 4/1/13	Fri 4/15/16	Fri 4/15/16	Sat 12/31/16	Sat 12/31/16	S_MI_MF_NB06_M_01_A_A - 1

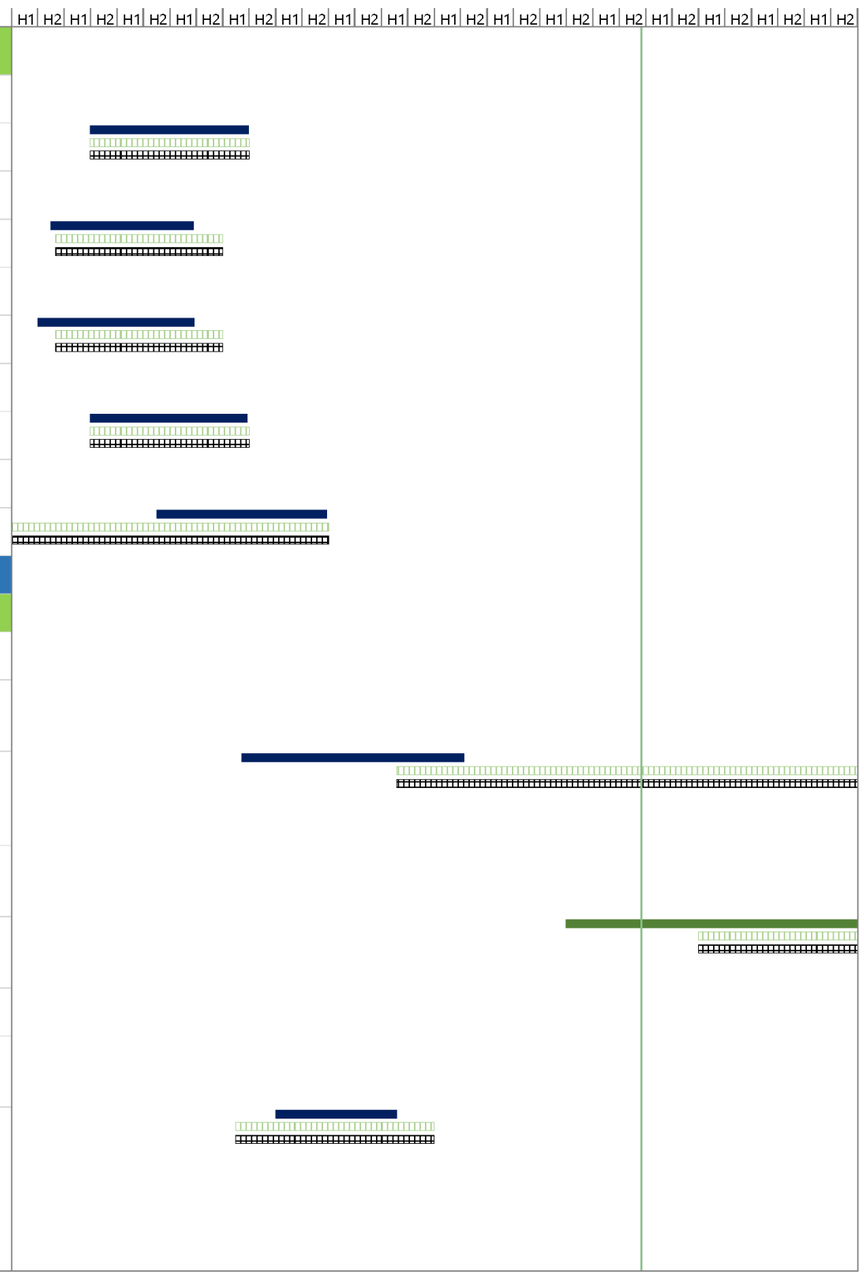
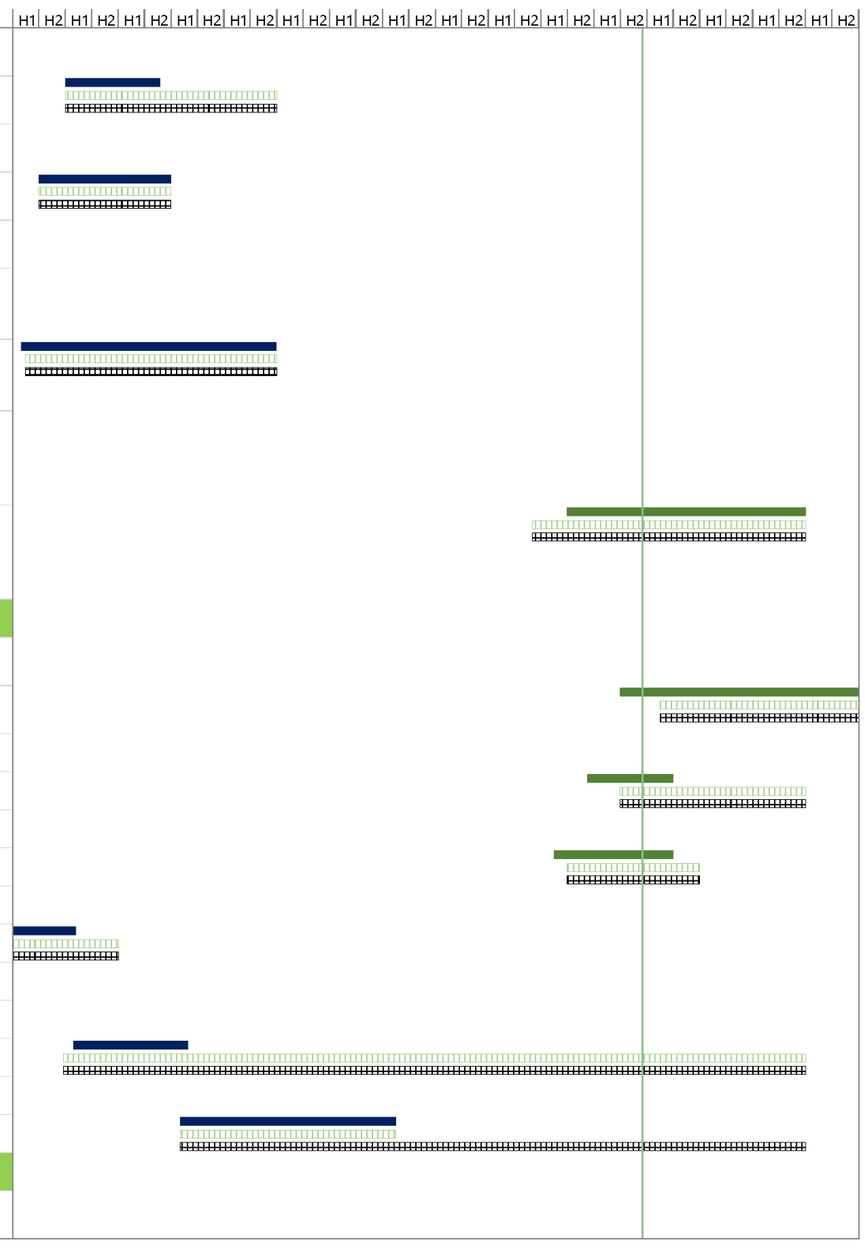

H1 H2 H1 H2 H1 H2

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
Anchor Estates PS Elimination 1 - Vannah PS Elimination	**100%**	**Tue 11/1/11**	**Sat 10/15/11**	**Sat 10/15/11**	**Tue 12/31/13**	**Tue 12/31/13**	
Anchor Estates PS Elimination 1 - Vannah PS Elimination	100%	Fri 1/1/10	Sat 10/15/11	Sat 10/15/11	Tue 12/31/13	Tue 12/31/13	S_MI_MF_NB06_M_01_A_A - 2
Hurstbourne I/I Investigation & Rehabilitation	**100%**	**Wed 7/1/09**	**Tue 12/27/11**	**Tue 12/27/11**	**Sat 12/31/11**	**Sat 12/31/11**	
Hurstbourne I/I Investigation & Rehabilitation	100%	Wed 7/1/09	Tue 12/27/11	Tue 12/27/11	Sat 12/31/11	Sat 12/31/11	S_MI_MF_NB07_S_07_C
Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion	**48%**	**Wed 4/1/09**	**Sun 12/31/23**	**NA**	**Sun 12/31/23**	**Tue 12/31/13**	
Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1 - Buechel Basin	**100%**	**Wed 4/1/09**	**Fri 12/27/13**	**Fri 12/27/13**	**Tue 12/31/13**	**Tue 12/31/13**	
Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1 - Buechel Basin	100%	Wed 4/1/09	Fri 12/27/13	Fri 12/27/13	Tue 12/31/13	Tue 12/31/13	S_MISF_MF_NB01_M_01_C_A1
Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage	**0%**	**Thu 11/1/18**	**Sun 12/31/23**	**NA**	**Sun 12/31/23**	**Sun 12/31/23**	
Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage	0%	Thu 11/1/18	Sun 12/31/23	NA	Sun 12/31/23	Sun 12/31/23	S_MISF_MF_NB01_M_01_C_A1
CEDAR CREEK AREA							
Little Cedar Creek Interceptor Improvements	**0%**	**Thu 4/1/21**	**Tue 12/31/24**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Little Cedar Creek Interceptor Improvements	0%	Thu 4/1/21	Tue 12/31/24	NA	Tue 12/31/24	Tue 12/31/24	S_CC_CC_67997_M_01_C
Idlewood Inline Storage	**0%**	**Wed 7/1/20**	**Wed 6/30/21**	**NA**	**Sun 12/31/23**	**Sun 12/31/23**	
Idlewood Inline Storage	0%	Wed 7/1/20	Wed 6/30/21	NA	Sun 12/31/23	Sun 12/31/23	S_CC_CC_70158_M_09A_C
Bardstown Rd. PS Improvements	**0%**	**Mon 7/1/19**	**Wed 6/30/21**	**NA**	**Fri 12/31/21**	**Fri 12/31/21**	
Bardstown Rd. PS Improvements	0%	Mon 7/1/19	Wed 6/30/21	NA	Fri 12/31/21	Fri 12/31/21	S_CC_CC_MSD1025_S_03_B
Running Fox PS Elimination	**100%**	**Thu 1/1/09**	**Wed 3/10/10**	**Wed 3/10/10**	**Fri 12/31/10**	**Fri 12/31/10**	
Running Fox PS Elimination	100%	Thu 1/1/09	Wed 3/10/10	Wed 3/10/10	Fri 12/31/10	Fri 12/31/10	S_CC_CC_MSD1080_S_01_C
Fairmount Road Pump Station	**100%**	**Fri 12/18/09**	**Wed 3/30/16**	**Thu 3/31/16**	**Sun 12/31/23**	**Sun 12/31/23**	
Fairmount Rd PS Improvements	**100%**	**Fri 12/18/09**	**Tue 4/24/12**	**Tue 4/24/12**	**Sun 12/31/23**	**Sun 12/31/23**	
Fairmount Rd PS Improvements	100%	Fri 12/18/09	Tue 4/24/12	Tue 4/24/12	Sun 12/31/23	Sun 12/31/23	S_FF_CC_81316_M_03_C_A
Fairmount PS Offline Storage Basin	**100%**	**Sat 3/3/12**	**Thu 3/31/16**	**Thu 3/31/16**	**Sun 12/31/23**	**Thu 3/31/16**	
Fairmount PS Offline Storage Basin	100%	Sat 3/3/12	Thu 3/31/16	Thu 3/31/16	Sun 12/31/23	Thu 3/31/16	S_FF_CC_81316_M_03_C_A
COMBINED SEWER SYSTEM AREA							
Hazelwood PS I/I Investigation & Rehabilitation	**100%**	**Thu 1/1/09**	**Thu 6/30/11**	**Thu 6/30/11**	**Thu 6/30/11**	**Thu 6/30/11**	



Approved 2009 IOAP | IOAP Modifications | Remaining Work | Completed Work

Includes 2014 approval of 2012 IOAP modification as well as all minor mod letter approvals to date.

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
Hazelwood PS I/I Investigation & Rehabilitation	100%	Thu 1/1/09	Thu 6/30/11	Thu 6/30/11	Thu 6/30/11	Thu 6/30/11	S_MC_MF_55665_S_07_C
Sonne Pump Station I/I Investigation & Rehabilitation	**100%**	**Wed 7/1/09**	**Thu 6/30/11**	**Thu 6/30/11**	**Thu 6/30/11**	**Thu 6/30/11**	
Sonne Pump Station I/I Investigation & Rehabilitation	100%	Wed 7/1/09	Thu 6/30/11	Thu 6/30/11	Thu 6/30/11	Thu 6/30/11	S_OR_MF_42007_S_07_C
Camp Taylor	**66%**	**Thu 1/1/09**	**Fri 12/15/23**	**NA**	**Sun 12/31/17**	**Sun 12/31/17**	
Camp Taylor Phase 1 - SSES	**100%**	**Thu 1/1/09**	**Fri 7/8/11**	**Fri 7/8/11**	**Sat 12/31/11**	**Tue 12/31/13**	
Camp Taylor Phase 1 - SSES	100%	Thu 1/1/09	Fri 7/8/11	Fri 7/8/11	Sat 12/31/11	Tue 12/31/13	S_SF_MF_30917_M_09_A
Camp Taylor Phase 2 - Sewer Replacement and Rehabilitation	**100%**	**Wed 4/1/09**	**Fri 12/20/13**	**Fri 12/20/13**	**Tue 12/31/13**	**Sun 12/31/17**	
Camp Taylor Phase 2 - Sewer Replacement and Rehabilitation	100%	Wed 4/1/09	Fri 12/20/13	Fri 12/20/13	Tue 12/31/13	Sun 12/31/17	S_SF_MF_30917_M_09_A
Camp Taylor Phase 3 - Sewer Replacement and Rehabilitation	**100%**	**Mon 7/1/13**	**Sun 12/31/17**	**Fri 12/15/17**	**Sun 12/31/17**	**Sun 12/31/17**	
Camp Taylor Phase 3 - Sewer Replacement and Rehabilitation	100%	Mon 7/1/13	Fri 12/15/17	Fri 12/15/17	Sun 12/31/17	Sun 12/31/17	S_SF_MF_30917_M_09_A
Camp Taylor Phase 4 - Storage Basin and Sewer Upsize	**0%**	**Wed 7/1/20**	Fri 12/15/23	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Camp Taylor Phsae 4 - Storage Basin and Sewer Upsize	0%	Wed 7/1/20	Fri 12/15/23	NA	Tue 12/31/24	Tue 12/31/24	S_SF_MF_30917_M_09_A
FLOYDS FORK AREA							
Woodland Hill PS Diversion	**100%**	**Mon 1/4/10**	**Thu 3/4/10**	**Thu 3/4/10**	**Thu 6/30/11**	**Thu 4/1/10**	
Woodland Hill PS Diversion	100%	Mon 1/4/10	Thu 3/4/10	Thu 3/4/10	Thu 6/30/11	Thu 4/1/10	S_FF_FF_NB01_S_01_C_A
Ashburton PS Improvements & Diversion	**100%**	**Thu 1/1/09**	**Wed 12/30/09**	**Wed 12/30/09**	**Fri 12/31/21**	**Fri 1/22/10**	
Ashburton PS Improvements & Diversion	100%	Thu 1/1/09	Wed 12/30/09	Wed 12/30/09	Fri 12/31/21	Fri 1/22/10	S_FF_FF_NB03_M_01_C_A
HITE CREEK AREA							
Meadow Stream Pump Station & Force Main Upgrade	**100%**	**Tue 7/1/14**	**Tue 12/18/12**	**Tue 12/18/12**	**Sat 12/31/16**	**Sat 12/31/16**	
Meadow Stream Pump Station & Force Main Upgrade	100%	Tue 7/1/14	Tue 12/18/12	Tue 12/18/12	Sat 12/31/16	Sat 12/31/16	S_HC_HC_MSD1082_S_09A_C
Kavanaugh Rd. PS Improvements	**0%**	**Sat 1/1/22**	**Tue 11/26/24**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Kavanaugh Rd. PS Improvements	0%	Sat 1/1/22	Tue 11/26/24	NA	Tue 12/31/24	Tue 12/31/24	S_HC_HC_MSD1085_S_03_A
Floydsburg Rd. I/I Investigation & Rehabilitation	**100%**	**Sun 11/1/09**	**Fri 12/17/10**	**Fri 12/17/10**	**Fri 12/31/10**	**Fri 12/31/10**	
Floydsburg Rd. I/I Investigation & Rehabilitation	100%	Sun 11/1/09	Fri 12/17/10	Fri 12/17/10	Fri 12/31/10	Fri 12/31/10	S_HC_HC_MSD1086_M_07_C_A

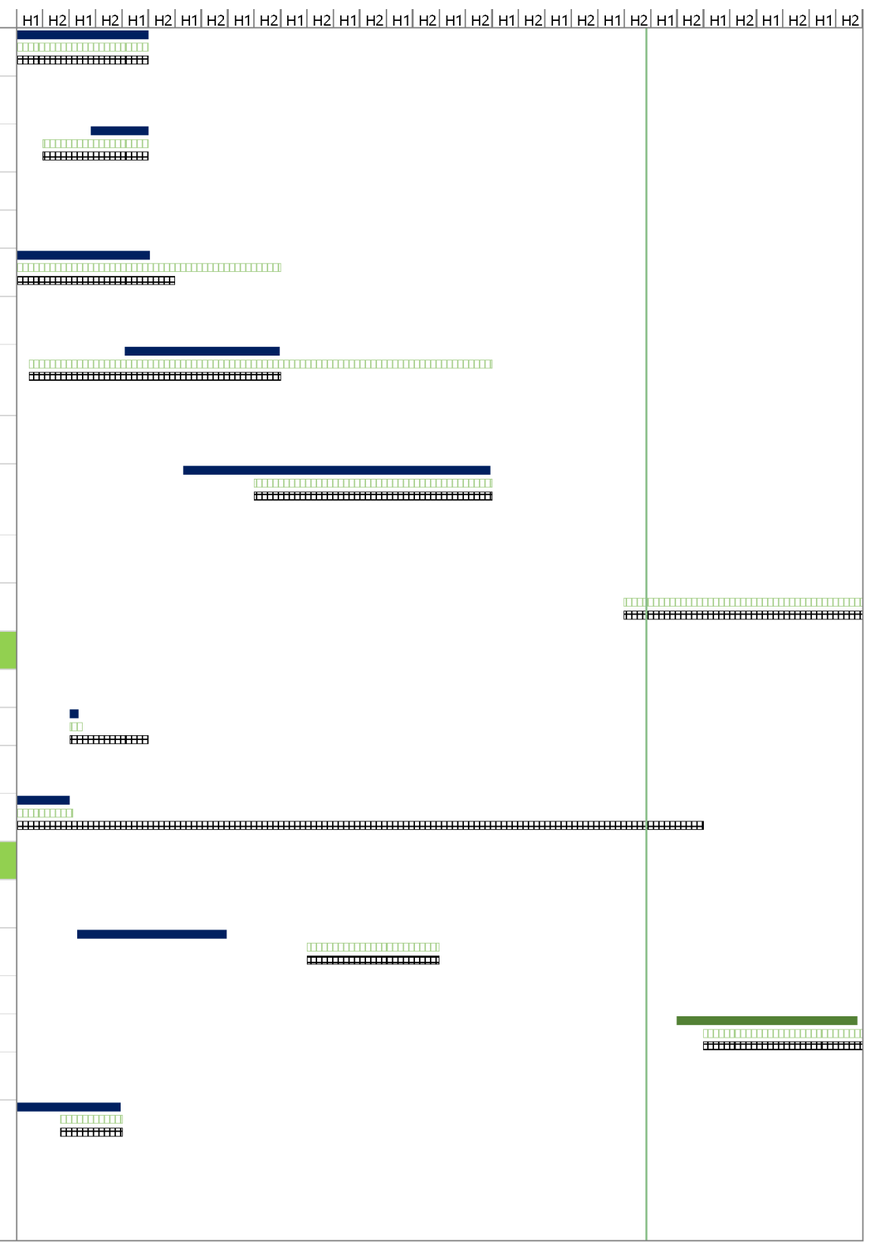

H1 H2 H1 H2 H1 H2

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
INTERIM SSP PROJECTS							
Beechwood Village Sanitary Sewer Replacement	**100%**	**Thu 1/1/09**	**Wed 9/29/10**	**Wed 9/29/10**	**Wed 4/27/11**	**Wed 4/27/11**	
Beechwood Village Sanitary Sewer Replacement	100%	Thu 1/1/09	Wed 9/29/10	Wed 9/29/10	Wed 4/27/11	Wed 4/27/11	
Sinking Fork Relief Sewer	**100%**	**Thu 1/1/09**	**Mon 11/30/09**	**Mon 11/30/09**	**Thu 12/30/10**	**Wed 12/23/09**	
Sinking Fork Relief Sewer	100%	Thu 1/1/09	Mon 11/30/09	Mon 11/30/09	Thu 12/30/10	Wed 12/23/09	
Derek R. Guthrie Water Quality Treatment Center	**100%**	**Thu 1/1/09**	**Tue 11/27/12**	**Tue 11/27/12**	**Tue 11/27/12**	**Tue 11/27/12**	
Derek R. Guthrie Water Quality Treatment Center	100%	Thu 1/1/09	Tue 11/27/12	Tue 11/27/12	Tue 11/27/12	Tue 11/27/12	
Hikes Lane Interceptor and Highgate Springs PS	**100%**	**Thu 1/1/09**	**Fri 11/2/12**	**Fri 11/2/12**	**Tue 11/27/12**	**Tue 11/27/12**	
Hikes Lane Interceptor and Highgate Springs PS	100%	Thu 1/1/09	Fri 11/2/12	Fri 11/2/12	Tue 11/27/12	Tue 11/27/12	
Northern Ditch Diversion Interceptor	**100%**	**Thu 1/1/09**	**Wed 2/16/11**	**Wed 2/16/11**	**Sun 7/31/11**	**Sun 7/31/11**	
Northern Ditch Diversion Interceptor	100%	Thu 1/1/09	Wed 2/16/11	Wed 2/16/11	Sun 7/31/11	Sun 7/31/11	
Southeastern Diversion Structure and Interceptor	**100%**	**Thu 1/1/09**	**Mon 12/19/11**	**Mon 12/19/11**	**Sat 5/12/12**	**Sat 5/12/12**	
Southeastern Diversion Structure and Interceptor	100%	Thu 1/1/09	Mon 12/19/11	Mon 12/19/11	Sat 5/12/12	Sat 5/12/12	
JEFFERSONTOWN AREA							
Jeffersontown WQTC Elimination	**100%**	**Thu 4/1/10**	**Wed 12/23/15**	**Wed 12/23/15**	**Thu 12/31/15**	**Thu 12/31/15**	
Jeffersontown WQTC Elimination	100%	Thu 4/1/10	Wed 12/23/15	Wed 12/23/15	Thu 12/31/15	Thu 12/31/15	S_JT_JT_NB01_M_01_C_A
Elimination of Chenoweth Hills WQTC, Chenoweth Run PS, and Chippewa PS	**100%**	**Thu 4/1/10**	**Mon 9/22/14**	**Mon 9/22/14**	**Thu 12/31/15**	**Thu 12/31/15**	
Elimination of Chenoweth Hills WQTC, Chenoweth Run PS, and Chippewa PS	100%	Thu 4/1/10	Mon 9/22/14	Mon 9/22/14	Thu 12/31/15	Thu 12/31/15	S_JT_JT_NB01A_M_03_C
Dell Rd and Charlane Pkwy Interceptor Improvements	**0%**	**Mon 7/1/19**	**Wed 6/30/21**	**NA**	**Sat 12/31/22**	**Sat 12/31/22**	
Dell Rd and Charlane Pkwy Interceptor Improvements	0%	Mon 7/1/19	Wed 6/30/21	NA	Sat 12/31/22	Sat 12/31/22	S_JT_JT_NB02_M_01_C
Raintree and Marian Ct 1	**42%**	**Mon 7/1/19**	**Wed 6/30/21**	**NA**	**Fri 12/31/21**	**Fri 12/31/21**	
Raintree and Marian Ct 1 - PS Elimination	**84%**	**Mon 7/1/19**	**Mon 5/24/21**	**NA**	**Fri 12/31/21**	**Fri 12/31/21**	
Raintree and Marian Ct 1 - PS Elimination	84%	Mon 7/1/19	Mon 5/24/21	NA	Fri 12/31/21	Fri 12/31/21	S_JT_JT_NB03_M_01_C
Raintree and Marian Ct 2 - Pipe Upgrades	**0%**	**Mon 7/1/19**	**Wed 6/30/21**	**NA**	**Fri 12/31/21**	**Fri 12/31/21**	
Raintree and Marian Ct 2 - Pipe Upgrades	0%	Mon 7/1/19	Wed 6/30/21	NA	Fri 12/31/21	Fri 12/31/21	S_JT_JT_NB03_M_01_C

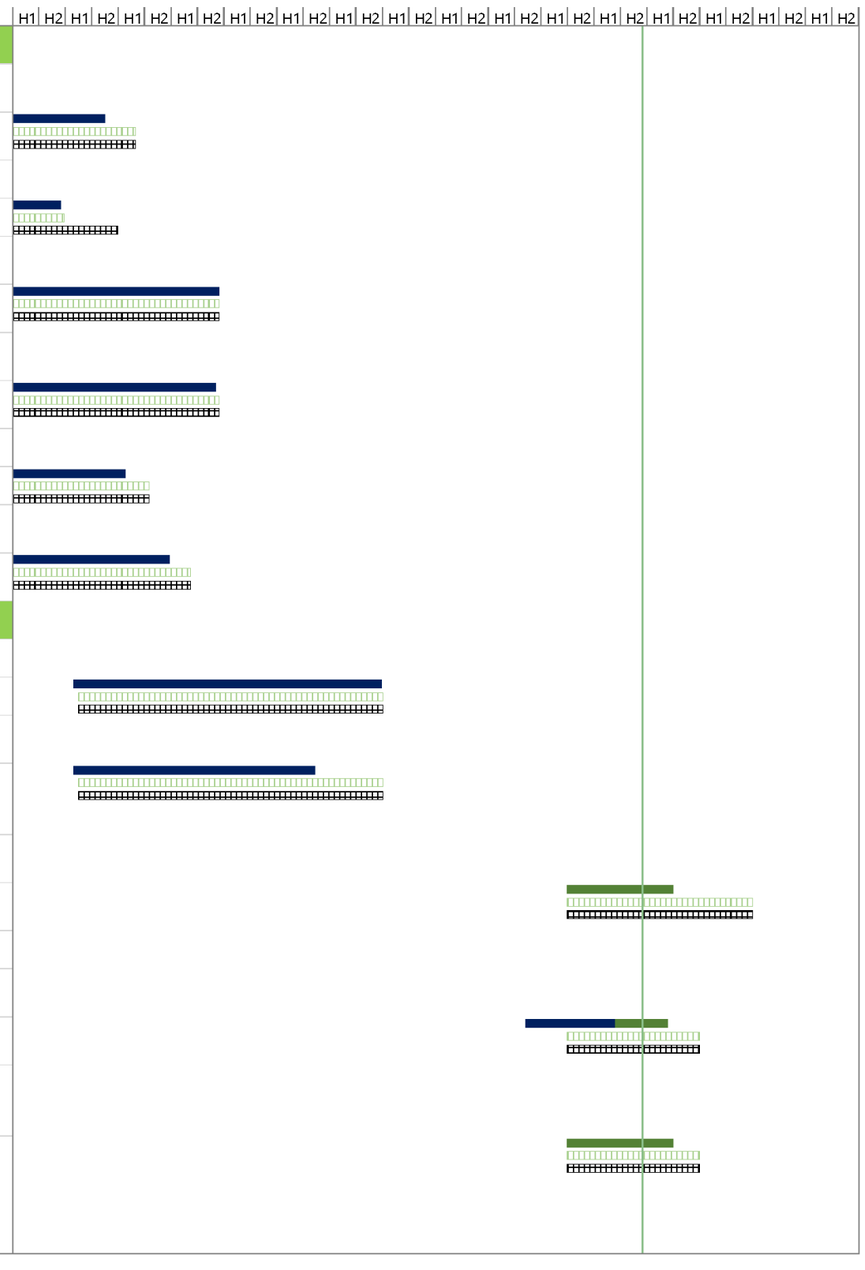
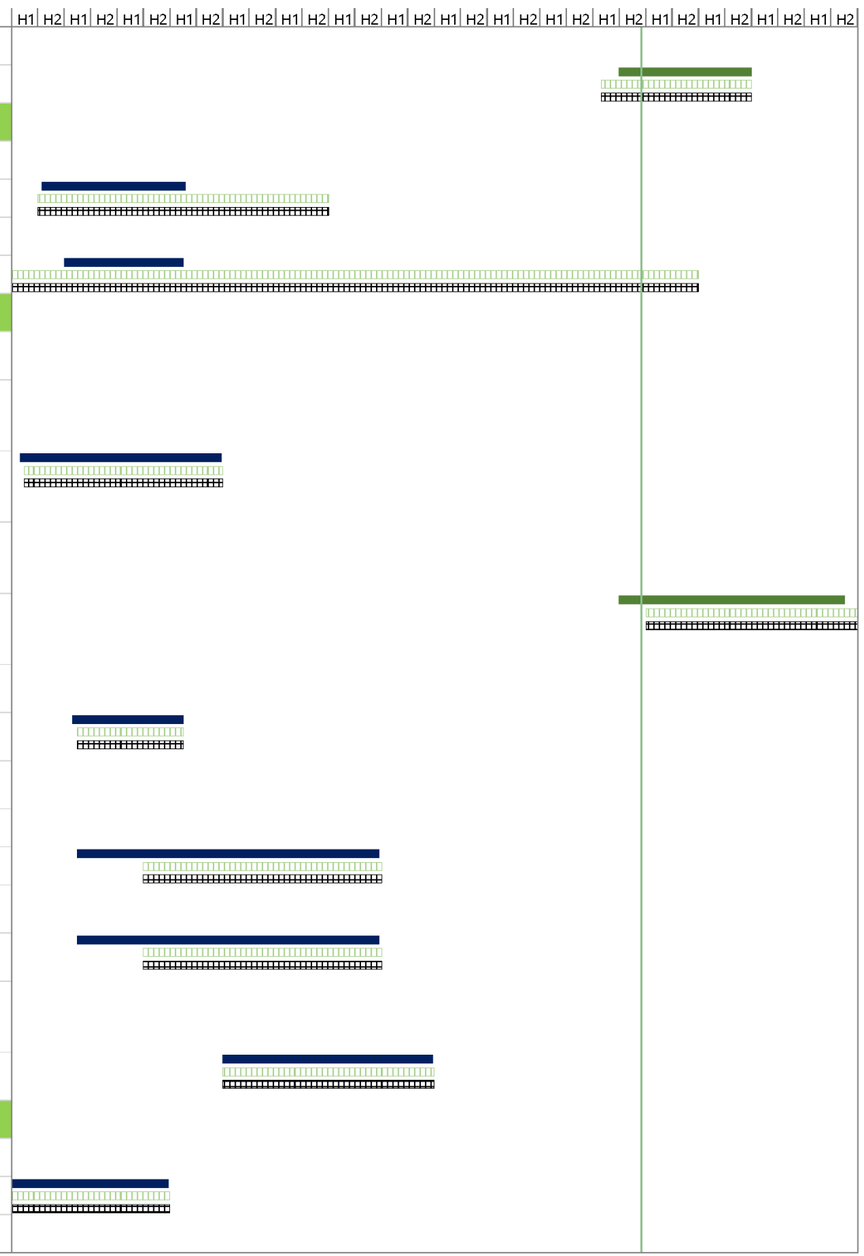

H1 H2 H1 H2 H1 H2

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
Monticello PS Elimination	**0%**	**Sun 3/1/20**	**Sat 12/31/22**	**NA**	**Sat 12/31/22**	**Sat 12/31/22**	
Monticello PS Elimination	0%	Sun 3/1/20	Sat 12/31/22	NA	Sat 12/31/22	Sat 12/31/22	S_JT_JT_NB04_M_01_A
MILL CREEK AREA							
Shively Interceptor	**100%**	**Wed 7/1/09**	**Fri 4/13/12**	**Fri 4/13/12**	**Wed 12/31/14**	**Wed 12/31/14**	
Shively Interceptor	100%	Wed 7/1/09	Fri 4/13/12	Fri 4/13/12	Wed 12/31/14	Wed 12/31/14	S_MC_WC_NB01_M_01_A
East Rockford PS Relocation	**100%**	**Thu 1/1/09**	**Fri 3/30/12**	**Fri 3/30/12**	**Fri 12/31/21**	**Fri 12/31/21**	
East Rockford PS Relocation	100%	Thu 1/1/09	Fri 3/30/12	Fri 3/30/12	Fri 12/31/21	Fri 12/31/21	S_MC_WC_NB02_S_03_C
OHIO RIVER FORCE MAIN AREA							
Mellwood System Improvements & PS Elimination	**49%**	**Wed 4/1/09**	**Wed 12/19/12**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements	**100%**	**Wed 4/1/09**	**Wed 12/19/12**	**Wed 12/19/12**	**Mon 12/31/12**	**Mon 12/31/12**	
Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements	100%	Wed 4/1/09	Wed 12/19/12	Wed 12/19/12	Mon 12/31/12	Mon 12/31/12	S_OR_MF_NB01_M_01_B
Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination	**0%**	**Fri 1/1/21**	**Thu 10/3/24**	**NA**	**Tue 12/31/24**	**Tue 12/31/24**	
Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination	0%	Fri 1/1/21	Thu 10/3/24	NA	Tue 12/31/24	Tue 12/31/24	S_OR_MF_NB01_M_01_B
Derington Ct. PS I/I Investigation & Rehabilitation	**100%**	**Thu 4/1/10**	**Fri 3/30/12**	**Fri 3/30/12**	**Sat 3/31/12**	**Sat 3/31/12**	
Derington Ct. PS I/I Investigation & Rehabilitation	100%	Thu 4/1/10	Fri 3/30/12	Fri 3/30/12	Sat 3/31/12	Sat 3/31/12	S_OR_MF_NB03_S_07_C
Prospect WQTC Eliminations, Harrods Creek PS and ORFM System	**100%**	**Fri 7/1/11**	**Mon 12/19/16**	**Mon 12/19/16**	**Sat 12/31/16**	**Sat 12/31/16**	
Prospect #1 - WQTC Eliminations	**100%**	**Fri 7/1/11**	**Tue 12/15/15**	**Tue 12/15/15**	**Thu 12/31/15**	**Thu 12/31/15**	
Prospect #1 - WQTC Eliminations	100%	Fri 7/1/11	Tue 12/15/15	Tue 12/15/15	Thu 12/31/15	Thu 12/31/15	S_OR_MF_NB04_M_03_B_B
Prospect #2 - Harrods Creek PS and FM	**100%**	**Fri 7/1/11**	**Tue 12/15/15**	**Tue 12/15/15**	**Thu 12/31/15**	**Thu 12/31/15**	
Prospect #2 - Harrods Creek PS and FM	100%	Fri 7/1/11	Tue 12/15/15	Tue 12/15/15	Thu 12/31/15	Thu 12/31/15	S_OR_MF_NB04_M_03_B_B
Prospect #3 - ORFM System Improvements	**100%**	**Tue 1/1/13**	**Mon 12/19/16**	**Mon 12/19/16**	**Sat 12/31/16**	**Sat 12/31/16**	
Prospect #3 - ORFM System Improvements	100%	Tue 1/1/13	Mon 12/19/16	Mon 12/19/16	Sat 12/31/16	Sat 12/31/16	S_OR_MF_NB04_M_03_B_B
OTHER PROJECTS							
CPE_CCP Modifications To WQTC	**100%**	**Thu 1/1/09**	**Mon 12/19/11**	**Mon 12/19/11**	**Sat 12/31/11**	**Sat 12/31/11**	
CPE_CCP Modifications To WQTC	100%	Thu 1/1/09	Mon 12/19/11	Mon 12/19/11	Sat 12/31/11	Sat 12/31/11	
I/I Reduction Program	**100%**	**Thu 1/1/09**	**Tue 6/30/20**	**Tue 6/30/20**	**Tue 12/31/24**	**Tue 12/31/24**	



Approved 2009 IOAP | IOAP Modifications | Remaining Work | Completed Work

Includes 2014 approval of 2012 IOAP modification as well as all minor mod letter approvals to date.

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
I/I Reduction Program	100%	Thu 1/1/09	Tue 6/30/20	Tue 6/30/20	Tue 12/31/24	Tue 12/31/24	
POND CREEK AREA							
Lea Ann Way System Improvements	**100%**	**Mon 7/1/13**	**Fri 12/4/15**	**Fri 12/4/15**	**Thu 12/31/15**	**Thu 12/31/15**	
Lea Ann Way System Improvements	100%	Mon 7/1/13	Fri 12/4/15	Fri 12/4/15	Thu 12/31/15	Thu 12/31/15	S_PO_WC_PC08_M_01_C
Edsel PS I/I Investigation & Rehabilitation	**100%**	**Thu 1/1/09**	**Tue 9/27/11**	**Tue 9/27/11**	**Sat 12/31/11**	**Fri 9/30/11**	
Edsel PS I/I Investigation & Rehabilitation	100%	Thu 1/1/09	Tue 9/27/11	Tue 9/27/11	Sat 12/31/11	Fri 9/30/11	S_PO_WC_PC11_M_07_C
Cinderella PS Elimination	**0%**	**Thu 7/1/21**	**Thu 6/30/22**	**NA**	**Sun 12/31/23**	**Sun 12/31/23**	
Cinderella PS Elimination	0%	Thu 7/1/21	Thu 6/30/22	NA	Sun 12/31/23	Sun 12/31/23	S_PO_WC_PC04_M_01_C
Government Center PS Elimination	**100%**	**Fri 1/1/21**	**Fri 4/1/11**	**Fri 4/1/11**	**Tue 12/31/24**	**Tue 12/31/24**	
Government Center PS Elimination	100%	Fri 1/1/21	Fri 4/1/11	Fri 4/1/11	Tue 12/31/24	Tue 12/31/24	S_PO_WC_PC06_M_01_C
Avanti PS Elimination	**100%**	**Thu 1/1/09**	**Fri 7/10/09**	**Fri 7/10/09**	**Fri 12/31/10**	**Fri 12/31/10**	
Avanti PS Elimination	100%	Thu 1/1/09	Fri 7/10/09	Fri 7/10/09	Fri 12/31/10	Fri 12/31/10	S_PO_WC_PC07_M_01_A
Charleswood Interceptor Extension	**100%**	**Tue 12/1/98**	**Wed 8/5/15**	**Wed 8/5/15**	**Sat 12/31/22**	**Sat 12/31/22**	
Charleswood Interceptor Extension	100%	Tue 12/1/98	Wed 8/5/15	Wed 8/5/15	Sat 12/31/22	Sat 12/31/22	S_PO_WC_PC03_M_01_C
Lantana PS #1 I/I Investigation and Rehabilitation	**100%**	**Fri 1/1/10**	**Thu 12/29/11**	**Thu 12/29/11**	**Sat 12/31/11**	**Thu 12/29/11**	
Lantana PS #1 I/I Investigation and Rehabilitation	100%	Fri 1/1/10	Thu 12/29/11	Thu 12/29/11	Sat 12/31/11	Thu 12/29/11	S_PO_WC_PC05_M_07_C
Leven PS Elimination	**0%**	**Thu 7/1/21**	**Thu 6/30/22**	**NA**	**Sat 12/31/22**	**Sat 12/31/22**	
Leven PS Elimination	0%	Thu 7/1/21	Thu 6/30/22	NA	Sat 12/31/22	Sat 12/31/22	S_PO_WC_PC10_M_01_C
Caven Ave Pump Station Elimination	**100%**	**Wed 6/10/15**	**Mon 8/1/16**	**Mon 8/1/16**	**Tue 12/31/24**	**Sat 12/31/16**	
Caven Ave Pump Station Elimination	100%	Wed 6/10/15	Mon 8/1/16	Mon 8/1/16	Tue 12/31/24	Sat 12/31/16	S_PO_WC_PC09_M_09B_C
SMALL WWTP AREA							
Riding Ridge PS Improvements	**100%**	**Tue 1/1/13**	**Sat 11/15/14**	**Sat 11/15/14**	**Wed 12/31/14**	**Wed 12/31/14**	
Riding Ridge PS Improvements	100%	Tue 1/1/13	Sat 11/15/14	Sat 11/15/14	Wed 12/31/14	Wed 12/31/14	S_HC_HN_NB01_S_03_C_A
Lucas Lane PS Inline Storage	**0%**	**Mon 7/1/19**	**Wed 6/30/21**	**NA**	**Fri 12/31/21**	**Fri 12/31/21**	
Lucas Lane PS Inline Storage	0%	Mon 7/1/19	Wed 6/30/21	NA	Fri 12/31/21	Fri 12/31/21	S_FF_BT_NB01_S_09A_C_A
St. Rene Rd. PS Elimination	**100%**	**Tue 6/24/14**	**Fri 9/19/14**	**Fri 9/19/14**	**Fri 12/31/21**	**Fri 12/31/21**	
St. Rene Rd. PS Elimination	100%	Tue 6/24/14	Fri 9/19/14	Fri 9/19/14	Fri 12/31/21	Fri 12/31/21	S_FF_CH_NB01_S_09A_C_A
Lake Forest PS SSO Investigation	**100%**	**Sat 1/1/11**	**Tue 12/18/12**	**Tue 12/18/12**	**Mon 12/31/12**	**Mon 12/31/12**	
Lake Forest PS SSO Investigation	100%	Sat 1/1/11	Tue 12/18/12	Tue 12/18/12	Mon 12/31/12	Mon 12/31/12	S_FF_LF_NB01_S_13_C_A
Gunpowder PS Inline Storage	**0%**	**Mon 7/1/19**	**Wed 6/30/21**	**NA**	**Fri 12/31/21**	**Fri 12/31/21**	
Gunpowder PS Inline Storage	0%	Mon 7/1/19	Wed 6/30/21	NA	Fri 12/31/21	Fri 12/31/21	S_HC_HN_NB02_S_09A_C_B

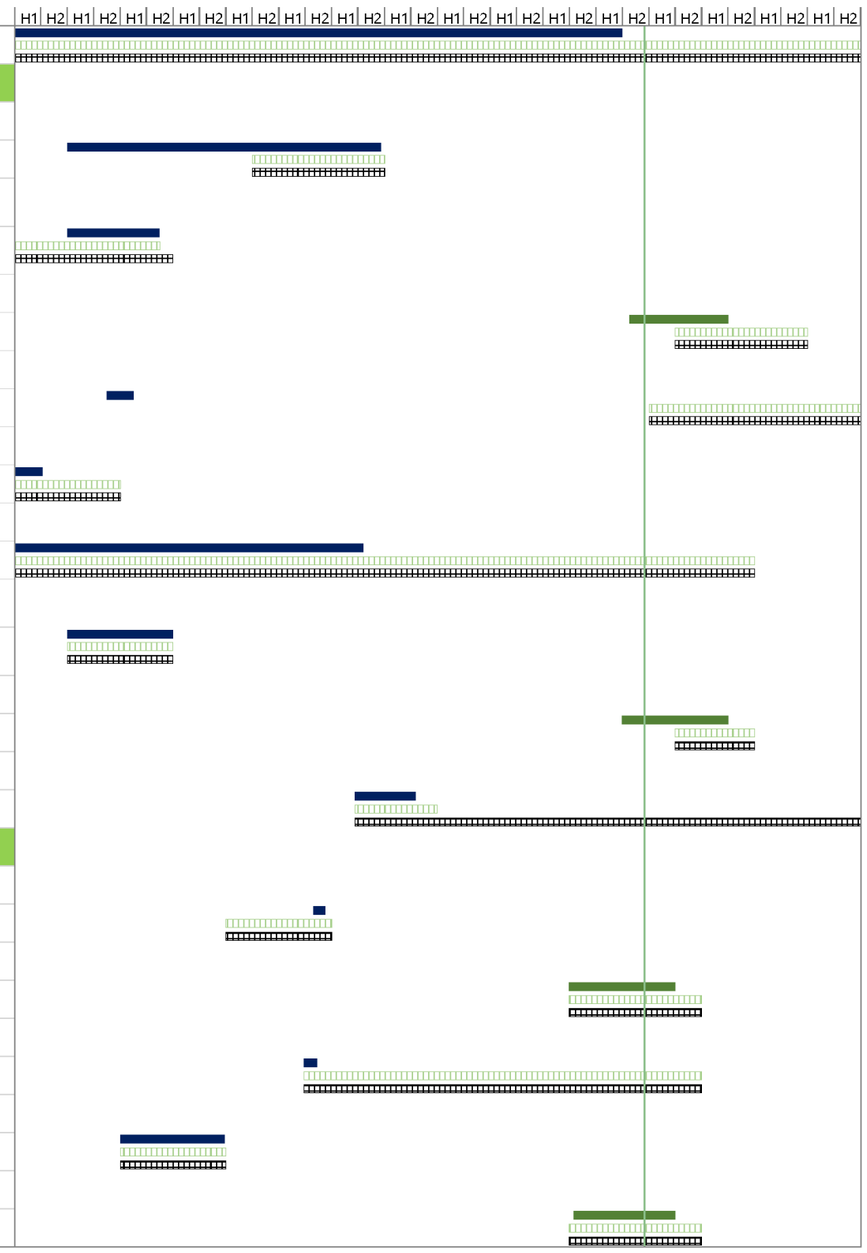
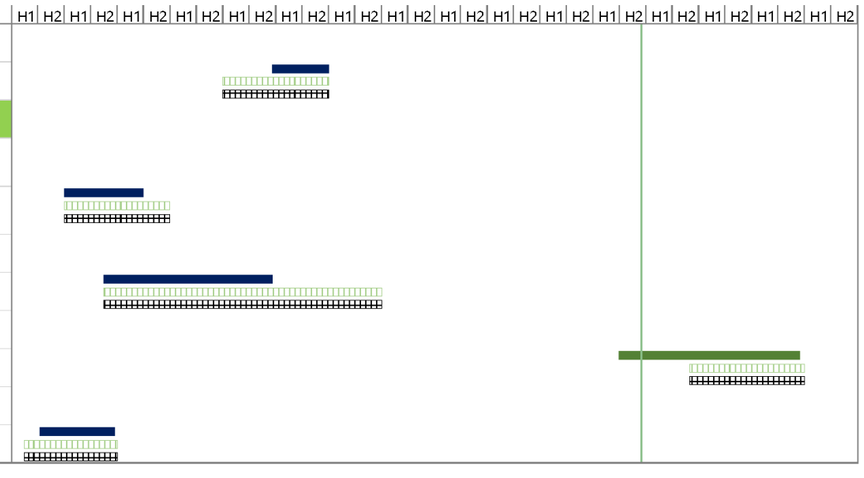

H1 H2 H1 H2 H1 H2

Figure 4.1. IOAP Implementation Schedule

	Complete				Completion	Modifications*	
Fairway View PS Improvements	**100%**	**Tue 1/1/13**	**Tue 12/30/14**	**Tue 12/30/14**	**Wed 12/31/14**	**Wed 12/31/14**	
Fairway View PS Improvements	100%	Tue 1/1/13	Tue 12/30/14	Tue 12/30/14	Wed 12/31/14	Wed 12/31/14	S_HC_HS_NB01_S_03_C_A
SOUTHEASTERN DIVERSION AREA							
Parkview Estates I/I Investigation & Rehabilitation	**100%**	**Fri 1/1/10**	**Tue 6/28/11**	**Tue 6/28/11**	**Sat 12/31/11**	**Sat 12/31/11**	
Parkview Estates I/I Investigation & Rehabilitation	100%	Fri 1/1/10	Tue 6/28/11	Tue 6/28/11	Sat 12/31/11	Sat 12/31/11	S_SD_MF_NB03_S_07_C
Klondike Interceptor	**100%**	**Fri 10/1/10**	**Thu 12/5/13**	**Thu 12/5/13**	**Thu 12/31/15**	**Thu 12/31/15**	
Klondike Interceptor	100%	Fri 10/1/10	Thu 12/5/13	Thu 12/5/13	Thu 12/31/15	Thu 12/31/15	S_SD_MF_NB04_S_01_B_A
Sutherland Interceptor	**0%**	**Mon 11/1/21**	**Mon 11/27/23**	**NA**	**Sun 12/31/23**	**Sun 12/31/23**	
Sutherland Interceptor	0%	Mon 11/1/21	Mon 11/27/23	NA	Sun 12/31/23	Sun 12/31/23	S_SD_MF_NB05_M_01_A
Beargrass Interceptor Rehab Ph. 2	**100%**	**Wed 4/1/09**	**Tue 12/14/10**	**Tue 12/14/10**	**Fri 12/31/10**	**Fri 12/31/10**	
Beargrass Interceptor Rehab Ph. 2	100%	Wed 4/1/09	Tue 12/14/10	Tue 12/14/10	Fri 12/31/10	Fri 12/31/10	S_SD_MF_NB06_S_13_C



Approved 2009 IOAP IOAP Modifications Remaining Work Completed Work

Includes 2014 approval of 2012 IOAP modification as well as all minor mod letter approvals to date.

Section 5: Program Activities For Public Outreach, Education, Notification and Participation

5.1. Public Notification Program

MSD produced and distributed a number of products aimed at notifying the community on the objectives of Project WIN and how to lessen the risks associated with coming into contact with sewage overflows. The following activities occurred during the reporting period or are scheduled to occur in the next reporting period.

5.1.1. Overflow Advisory Signs

FY20 Program

- Updated sign inventory to ensure all needed signs are in place.
- Performed the annual sign inspection process in the spring. There were 1,165 signs inspected, 1,055 signs cleaned, and 367 replaced.

FY21 Program

- Perform an evaluation comparing the documented overflows with existing sign locations to ensure all needed signs are in place.
- Schedule the Annual Sign Inspection process.

5.1.2. Electronic Notifications

FY20 Program

- Continued to utilize the Louisville Metro e-mail alert system to notify customers who voluntarily signed up to receive email alerts regarding sewer overflows and to broadcast messages to the public.
- Provided notification on the MSD webpage for wet weather overflows during rain events and unauthorized discharges of more than 1,000 gallons.

FY21 Program

- Continue email alerts to customers who signed up to receive the information.
- Continue to provide web notification for wet weather overflows and significant unauthorized discharges.

5.1.3. Print Notifications

FY20 Program

- Sent more than 290 public outreach letters to residents in areas that have FOG issues. The FOG message, included on the reverse of these letters, is provided in Appendix F.
- Mailed 768 Project WIN information packets to customers who called with questions about the Amended Consent Decree – specifically regarding overflows, discharges, plumbing modification and the surcharge fee.
- In April 2020, distributed the annual mailing to over 20,000 residents within 500 feet of Beargrass Creek and the Ohio River, advising the use of caution around streams during and immediately following rain events as they may contain untreated sewage. A copy of the letter to residents is provided in Appendix F.
- Provided annual notification to community at large in the Courier Journal in a newspaper advertisement to use caution around streams during and immediately following rain events as they may contain untreated sewage. A copy of the notification is provided in Appendix F.

FY21 Program

- Continue to send out FOG residential public outreach letters to areas that have FOG issues.
- Continue to mail Project WIN information packets to customers who call with questions about the Amended Consent Decree – specifically regarding overflows, discharges, plumbing modification and the surcharge fee.
- Provide annual notification and informational material to the community, providing a general overview and awareness relating to public health impacts associated with sewer overflows and an update of Project WIN initiatives by May 1, 2021.
- Distribute, prior to May 1, 2021, the annual mailing to residents within 500 feet of Beargrass Creek and the Ohio River, advising the use of caution around streams during and immediately following rain events as they may contain untreated sewage.

5.2. Public Education Programs

MSD has developed a public education program aimed at expanding the public's knowledge on MSD's primary business functions of wastewater, stormwater and flood protection, with an emphasis on Project WIN Program elements. The following activities occurred during the reporting period or are scheduled to occur in the coming fiscal year.

FY20 Program

- Continued to identify areas of public knowledge requiring additional effort and attention and target public education efforts to fill the gaps.
- Continued to provide information on MSD's Green Infrastructure incentive programs, Louisville's tree canopy, sewer overflow prevention, pollution prevention and other topics, including the events listed in Table 5.1.
- Included Consent Decree compliance, wastewater facility upgrades, and aging infrastructure as key topics in the Critical Repair & Reinvestment Plan public meetings and posts on MSD's website and social media accounts.
- Released monthly social media ads containing messages related to upcoming IOAP project public meetings. Released posts on topics including environmental awareness, outreach programs, events, health and safety, and public meetings. Public outreach campaigns supported included World Environment Day, World Oceans Day, Pollinator Week, Skills USA, and Ohio River Sweep. Weekly social media campaigns consisted of the following:
    - Shared the benefits of green infrastructure and sewer overflow prevention.
    - Encouraged activities and behaviors that have a positive impact on water quality; discouraged activities and behaviors that have a negative impact on local water quality. This campaign included tweets about the proper way to dispose of pharmaceutical products, pet waste, wipes, dental floss and other household products.
- Shared the benefits of fostering good water quality.

FY21 Program

- Continue to re-tool public education efforts to address areas of public knowledge requiring additional effort and attention.
- Continue to provide information through social media platforms.

Table 5.1. Public Education Workshops and Activities

DATE(S)	EVENT	BENEFIT / RELEVANCE / IMPACT
July 15, 2019	Rain Garden Class at Louisville Grows	MSD partnered with the Urban Homesteading Class of Louisville Grows for a rain garden workshop. MSD demonstrated the steps to plan, build, and maintain a rain garden, and covered native plant characteristics. MSD provided all attendees with a native seed packet.
July 27, 2019	Park Duvalle Living Green Wall Event	MSD had a booth at this event in which they hand out seed packets and rain garden handbooks.
August 18, 2019	Water For Life	MSD had a booth set up to display the enviroscape and educate the public about water quality topics.
August 18, 2019 - August 21, 2019	Water Professionals Conference	MSD presented on several projects at the conference related to stormwater and wastewater.
September 22, 2019	Belleload of Knowledge	Belle of Louisville Cruise to celebrate activities, exhibitions, and lectures presented by representatives of arts, environmental, advocacy, and recreational organizations, including MSD, LWC, Beargrass Creek Alliance, River Fields, etc.
October 2, 2019	BIA Louisville Office Meeting	MSD staff presented on water quality units. The presentation highlighted how WQU's function, maintenance, and a background on the MS4 program and water quality.
October 5, 2019	Canoemobile	MSD staff discussed water quality topics with students, what impacts the CSS can have on receiving waterways, and how they can improve water quality through behavior change.
January 30, 2020	MSD Can You Dig It Event	Forum for contractors and consultants to learn about MSD projects and how to do business with MSD.
February 28, 2020 - March 1, 2020	Home, Garden & Remodeling Show	MSD staffed a booth to answer questions and provide information. Rain Garden Handbooks and seed packets were available, in addition to a rain barrel giveway.
March 11, 2020	Kentuckiana Hazardous Materials Managers Meeting	MSD staff presented on the MS4 program and green infrastructure, including types of green infrastructure, purposes, and maintenance.
June 25, 2020	MSD Virtual Field Day	MSD conducted the Annual Field Day event virtually due to COVID-19 restrictions. MSD used Microsoft Teams to present on green infrastructure, current projects, and outreach opportunities.

5.2.1. Radio and TV Activities

FY20 Program

- Coordinated with Metro TV (Channel 25) to air broadcasts of public input meetings as shown in Figure 5.1.

FY21 Program

- Continue to utilize various media outlets, including TV, radio and the newspaper, to serve as a conduit for disseminating information to the public.
- Continue coordination with Metro TV to show IOAP project public input meetings and special interest material.

5.2.2. Printed Media Activities

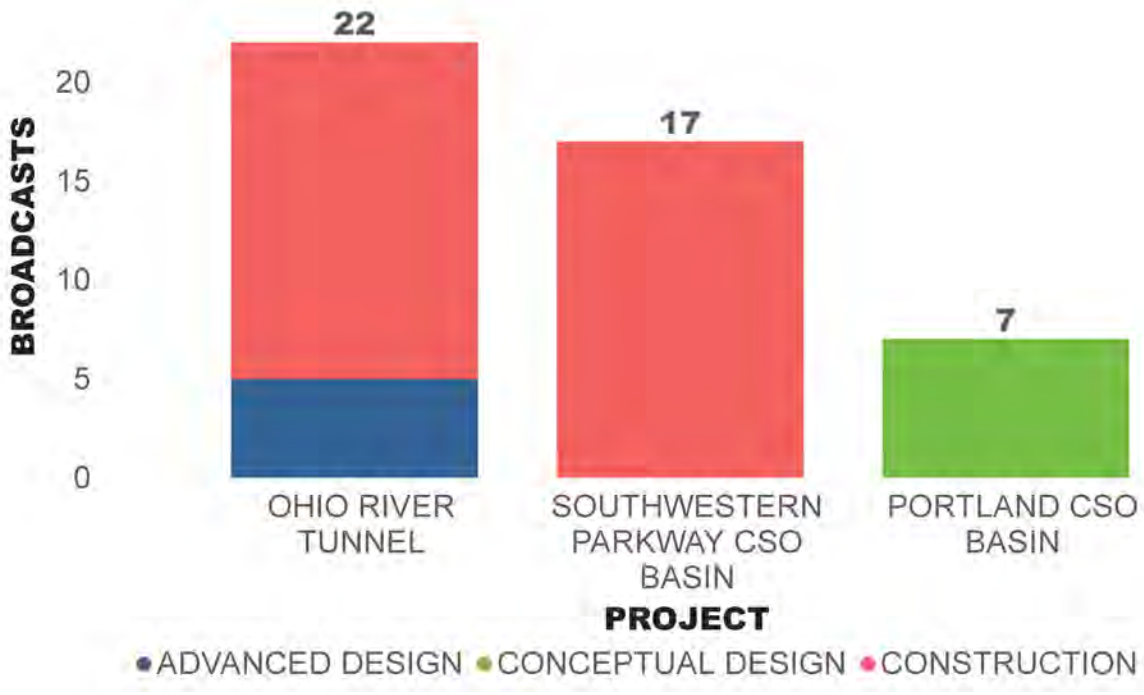
FY20 Program

- Purchased public service advertising messages in Business First and Louisville Magazine, provided in Appendix F.
- Provided printed copies of the StreamLine to 700 customers and staff each month for the first half of the fiscal year, then quarterly. Posted the Streamline to Twitter and Facebook accounts. Project WIN related articles are contained in each issue of this newsletter. These publications are available on the MSD Website. Online versions of the StreamLine newsletter can be viewed at **louisvillemsd.org/publications**.

FY21 Program

- Continue to utilize various media outlets, including TV, radio and the newspaper, to serve as a conduit for disseminating information to the public.
- Continue to send the MSD Streamline to customers and staff each month.

Figure 5.1. Metro TV Broadcasts



5.2.3. Project WIN and Green Websites

FY20 Program

- Continued to post Project WIN information on the website. On MSD's homepage, the Overflow Advisory Level indicator provides important information on the condition of area streams and shows a warning if overflows are likely to be happening or have happened in the past 48 hours. The Overflow Advisory Indicator includes a link to the Project WIN website, which includes a repository of public documents related to Project WIN, tips for customers to help control overflows through their personal actions, information about the history and background of Project WIN and a place to sign up for overflow advisory emails warning when significant precipitation has caused overflows in MSD's system. The Project WIN website can also be accessed by navigating through the Consent Decree link on MSD's homepage. This website can be found at **msdprojectwin.org**.
- Continued communication with customers via posts on MSD's social media platforms.

FY21 Program

- Continue to post Project WIN information on the website.
- Continue to post communication with customers via MSD's social media platforms.

5.3. Public Outreach Programs

MSD has developed a public outreach program aimed at involving the public on MSD's primary business functions with emphasis on wastewater, stormwater and flood protection. The following activities occurred within the current reporting period or are scheduled to occur in the coming fiscal year.

5.3.1. Green Infrastructure Workshops and Activities

FY20 Program

Presented, attended, and/or facilitated meetings in Table 5.2 related to green infrastructure.

FY21 Program

- Schedule rain garden workshops at various times throughout the year.
- Continue planning for additional signage for green demonstration sites and green partnership locations.
- Continue planning of internal and external workshops explaining the Green Infrastructure Program, including the next Construction Field Day and classes on green infrastructure design, construction and inspection.

5.3.2. Clean Streams Workshops and Activities

FY20 Program

Activities related to the current reporting period are detailed in Table 5.3.

FY21 Program

- Continue to facilitate stream cleanup events and workshops.
- Continue work with Beargrass Creek Alliance to mark catch basins in critical areas.

5.3.3. Outreach Activities for Students

FY20 Program

Attended or presented at the student-centered events detailed in Table 5.4.

Table 5.2. Green Infrastructure Workshop and Activities

DATE(S)	EVENT	BENEFIT / RELEVANCE / IMPACT
July 15, 2019	Rain Garden Class at Louisville Grows	MSD partnered with the Urban Homesteading Class of Louisville Grows for a rain garden workshop. MSD demonstrated the steps to plan, build, and maintain a rain garden, and covered native plant characteristics. MSD provided all attendees with a native seed packet.
July 27, 2019	Park Duvalle Living Green Wall Event	MSD had a booth at this event in which they hand out seed packets and rain garden handbooks.
August 18, 2019	Water For Life	MSD had a booth set up to display the enviroscape and educate the public about water quality topics.
August 18, 2019 - August 21, 2019	Water Professionals Conference	MSD presented on several projects at the conference related to stormwater and wastewater.
September 22, 2019	Belleload of Knowledge	Belle of Louisville Cruise to celebrate activities, exhibitions, and lectures presented by representatives of arts, environmental, advocacy, and recreational organizations, including MSD, LWC, Beargrass Creek Alliance, River Fields, etc.
October 2, 2019	BIA Louisville Office Meeting	MSD staff presented on water quality units. The presentation highlighted how WQU's function, maintenance, and a background on the MS4 program and water quality.
October 5, 2019	Canoemobile	MSD staff discussed water quality topics with students, what impacts the CSS can have on receiving waterways, and how they can improve water quality through behavior change.
January 30, 2020	MSD Can You Dig It Event	Forum for contractors and consultants to learn about MSD projects and how to do business with MSD.
February 28, 2020 - March 1, 2020	Home, Garden & Remodeling Show	MSD staffed a booth to answer questions and provide information. Rain Garden Handbooks and seed packets were available, in addition to a rain barrel giveway.
March 11, 2020	Kentuckiana Hazardous Materials Managers Meeting	MSD staff presented on the MS4 program and green infrastructure, including types of green infrastructure, purposes, and maintenance.
June 25, 2020	MSD Virtual Field Day	MSD conducted the Annual Field Day event virtually due to COVID-19 restrictions. MSD used Microsoft Teams to present on green infrastructure, current projects, and outreach opportunities.

FY21 Program

- Continue to coordinate with Parklands of Floyds Fork on educational partnerships at the Floyds Fork WQTC, including field trips with The Parklands and Louisville Water Company at Floyds Fork WQTC.
- Continue to work with UofL to identify educational opportunities for college students.

5.3.4. IOAP Project and Program Meetings

MSD has developed a partnership with Louisville Metro for providing project information and soliciting feedback from stakeholders using a Structured Public Involvement approach. Structured Public Involvement is meant to facilitate relevant input on the design process as MSD prepares to design and construct CSO basins. Our current IOAP outreach activities and public meetings are using this process to elicit qualitative and quantitative information and enhance our engagement with customers. The Structured Public Involvement approach assures anonymity for each participant using transceivers to compile data which can then be correlated on a

Table 5.3. Clean Streams Workshop and Activities

DATE(S)	EVENT	BENEFIT / RELEVANCE / IMPACT
Throughout the Year	Beargrass Creek (BGC) Alliance	Assisted in marking catch basins in critical areas.

Table 5.4. Outreach Activities for Students

DATE(S)	EVENT	BENEFIT / RELEVANCE / IMPACT
September 3, 2019 & September 5, 2019	Holy Cross Internship Program Field Visits	MSD staff and high school seniors from Holy Cross High School visited green infrastructure sites and performed O&M inspections on each practice.
September 23, 2019	River to River Program (Classroom)	Partnering with the Louisville Water Company, MSD conducted a workshop for freshman at Holy Cross High School about the different aspects of water from wastewater, drinking water, to stormwater and flooding.
October 7, 2019	River to River Program (Field Day)	The day was broken down into several stops that included a partnership with Louisville Water. The MSD half of the field day comprised of lab work, a tour of the treatement plant, and a workshop on water quality sampling and watersheds.
October 14, 2019	Fern Creek High School Rain Garden	MSD assisted science class at Fern Creek High School with a second round of native plantiings in a rain garden that was designed and built by the students to address a drainage issue.
October 18, 2019	Enviroscape Demo at Dunn Elementary	MSD staff visited a first grade class at Dunn Elementary for an enviroscape demonstration and discussed watersheds and water pollution.
February 21, 2020	Engineering Day at Kentucky Science Center	Enviroscape demonstration and discussed watersheds and water pollution.
March 5, 2020	Green Infrastructure/Flooding Presentation at St. Agnes School	Flood model demonstration and discussion of rain gardens, bioswales, rain barrels and other green infrastructure.
March 11, 2020	University of Louisville Engineering Expo	MSD had a booth set up to display flooding and discuss water quality.

customer-specific basis. The plan for Structured Public Involvement includes implementing a four-meeting process that leads stakeholders through the project design stages as illustrated in Figure 5.2. Online surveys are also being made available to allow those not in attendance at public meetings to provide similar project-specific input. Creating this secondary online opportunity has been successful and generated responses that otherwise would not have been accounted for at the public meetings. Additional information regarding the Structured Public Involvement Process and meetings held during this reporting period may be found at the Project WIN website, **msdprojectwin.org/Public-Input.aspx**.

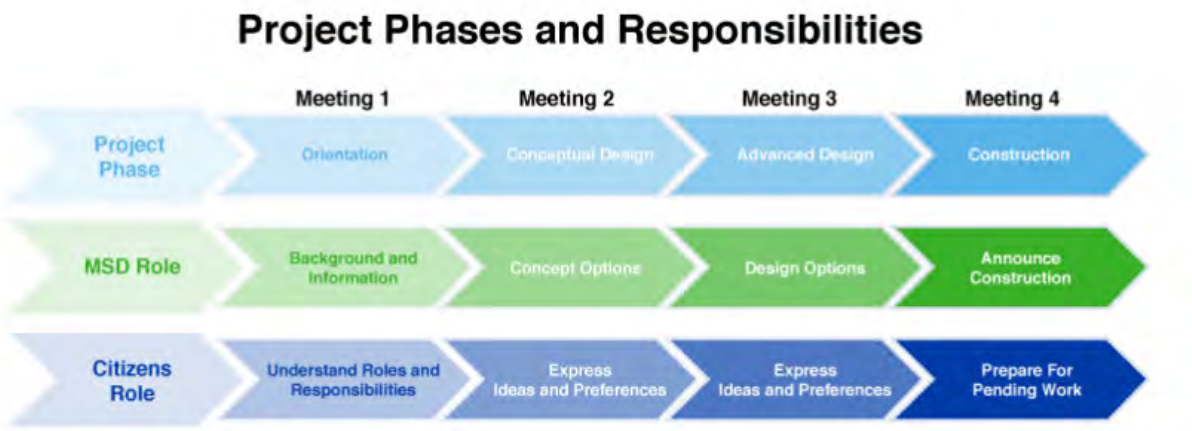
FY20 Program

No IOAP Project Public Input Meetings were held this reporting period.

FY21 Program

- Continue to facilitate and document IOAP Project Public Input Meetings.
- Continue to inform the Wet Weather Team on the progress of the IOAP implementation by hosting two Wet Weather Team meetings per year.

Figure 5.2. MSD's Structured Public Involvement Meeting Process



- Continue to provide information from the Wet Weather Team Stakeholders Group and IOAP Public Input meetings on the Project WIN website, at **msdprojectwin.org**

SECTION 6: CAPACITY MANAGEMENT OPERATIONS AND MAINTENANCE (CMOM) REPORT

6.1. CAPACITY MANAGEMENT OPERATIONS AND MAINTENANCE PROGRAM ACTIVITIES

6.1.1. MANAGEMENT PROGRAMS

Per Paragraph 24.c of the Amended Consent Decree, the CMOM Self-Assessment Report was submitted to the Environmental Protection Agency (EPA) and Kentucky Department of Environmental Protection (KDEP) on February 10, 2006. MSD received a letter of approval on August 22, 2006. The approved CMOM document can be viewed on the Project WIN website, **msdprojectwin.org**. Highlights of the CMOM program implementation during the reporting period are outlined below.

6.1.1.1. TABLE OF ORGANIZATION

M-A-1 Organizational Chart

The Louisville MSD Organizational Chart is updated every quarter. See Appendix F for the latest version.

M-A-2 Relationship to Other Departments

FY20 Program

- Carried 713 approved positions at the beginning of the reporting period and 717.5 approved positions at the end of the reporting period. This is an increase of 4.5 positions.
- Carried 73.5 vacant positions at the beginning of the reporting period and 63 vacant positions at the end of the reporting period.
- Utilized services of executive recruiter to find qualified candidates to fill specialty and senior/mid/upper management positions critical to the success of the ACD.

FY21 Program

Continue to hire qualified staff to fill vacant positions, including specialty and senior/mid/upper management positions critical to the success of the ACD.

6.1.1.2. TRAINING PROGRAMS

This section describes MSD's Training Programs. The goal of this section is to ensure employee growth and workplace safety through mandatory training (both initial and ongoing), conference and seminar attendance, certification, accurate record keeping of employee training, and incentives such as pay, promotions and ability to work. All training programs promote MSD's fundamental mission, goals, and policies.

M-B-1 Technical Training

M-B-2 Skills Training

M-B-3 Safety Training

FY20 Program

Training for the reporting period is detailed in Figure 6.1 and Figure 6.2.

- Conducted Administrative Training sessions including such topics as New Employee Orientation, Project Management, Leadership, Records Retention, Crew Management, Supplier Diversity Procurement Procedures, and Ethics.

Figure 6.1. Training Program - Sessions

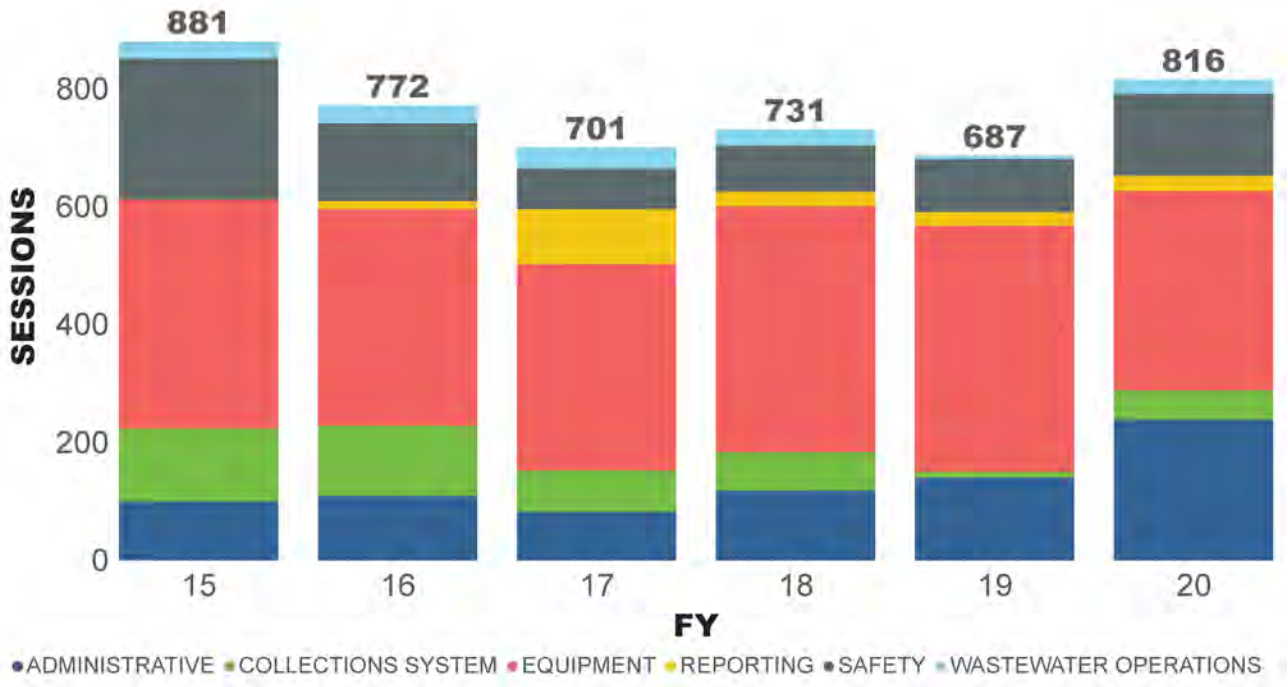
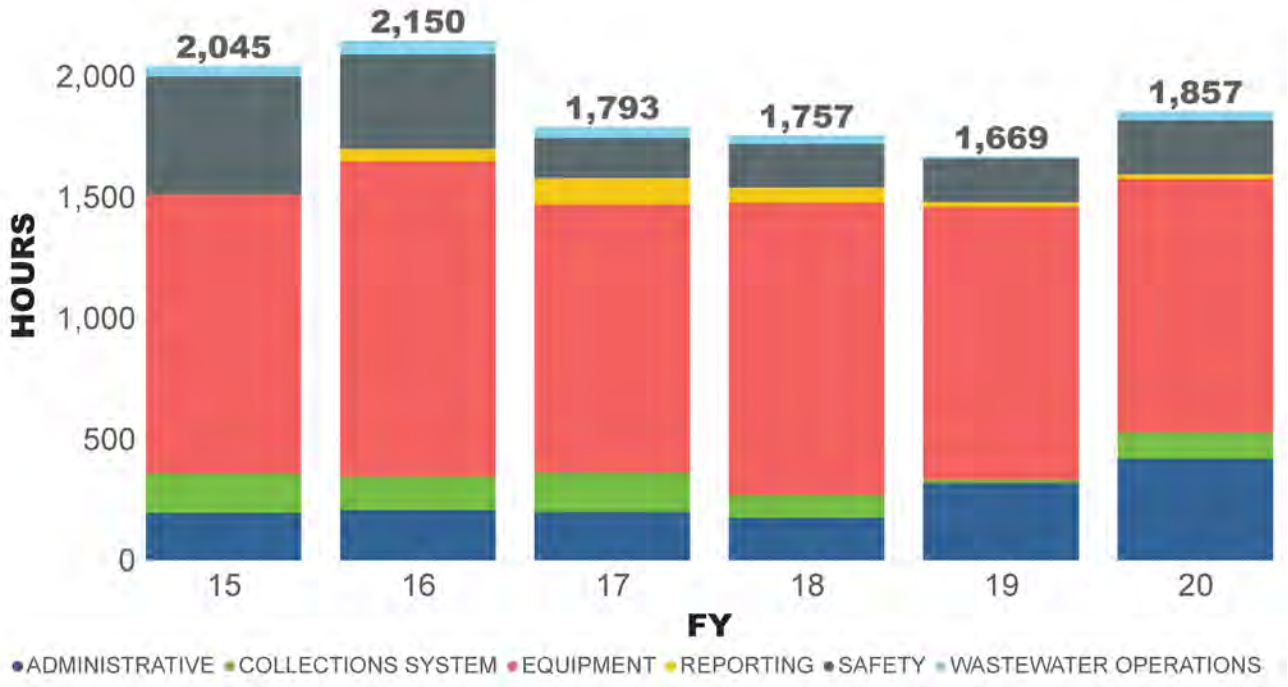


Figure 6.2. Training Program - Hours



- Conducted Collections System training sessions including such topics as Sewer Overflow Response Protocol, Erosion Prevention & Sedimentation Control, Stormwater Pollution Prevention Plans (SWPPP) Training, Combined Sewer Overflow (CSO) & Siphon Preventative Maintenance, Sewer Cleaning, and Construction Blueprints.
- Conducted Reporting training sessions including such topics as Crystal Reports, Telog, Budget Software and eB basics.
- Conducted Equipment training primarily including heavy equipment that enables employees to maintain and operate the collections system, pump stations and treatment plants. Examples include training on mini-excavators, sewer cleaners, cranes, forklifts and backhoes.
- Conducted Wastewater Operations training focusing on knowledge and skills related to wastewater treatment process and control, including sampling, Louisville Green Management System training, and Wastewater Lab Certification Preparation.
- Conducted Safety training in such areas as Traffic Control, Hearing Protection, Confined Space Entry, Blood Borne Pathogens, Hazmat, Lock Out/Tag Out, and Competent Person training for trenching and excavation.

FY21 Program

- Increase access to digital training and resource materials for collection system and wastewater treatment employees.
- Continue development of enhanced Fleet mechanic training program.
- Continue to develop competent and capable employees through technical and skills training related to job duties.
- Continue to implement employee performance-based goals as part of annual appraisal process and utilize performance results to identify additional training needs.
- Continue to train employees on MSD Standard Safety Procedures.
- Hire Safety Trainer position under the Safety Department to track and deliver related safety topics that are required by MSD policy and other regulatory agencies.
- Develop processes to better link organizational goals to individual employee goals.

6.1.1.3. Safety Programs

This section describes MSD's Safety Programs. The goal of this section is to eliminate on-the-job injuries. MSD's Safety Programs include safety committees, confined space entry procedures, district wide safety policies, traffic management, lock out/tag out procedures, and proper use of safety equipment.

M-C-1 Safety Committee

FY20 Program

- Conducted quarterly meetings with the Safety Committee. This Committee includes representatives from across the Operations Division, including Treatment, Collections System, and Drainage and Flood Protection representatives.
- Performed random job site inspections on Drainage/Sanitary crews, and inspections at all MSD facilities.

FY21 Program

- Continue Safety Committee meetings to perform inspections and review policy and incidents. Address safety concerns presented by safety committee members.
- Continue to improve safety culture with quarterly meetings of the CMF Safety Committee, Treatment Safety Committee, Flood Protection Committee and Collections Safety Committee. Maintain a focus on safety culture that includes all personnel.
- Continue to perform random job site inspections on Drainage/Sanitary crews, inspections at Morris Forman WQTC, and quarterly inspections with Operations of WQTCs and flood & viaduct pump stations.

M-C-2 Confined Space Entry

FY20 Program

- Conducted training and monitoring procedures on confined space entries in order to maintain compliance with 29 CFR 1910.146. Health and Safety personnel has spot-checked confined space entries to determine compliance with company procedure.
- Maintained entry equipment and personal protective equipment to provide for safe entry conditions and to maintain compliance with 29 CFR 1910.146.
- Contracted with vendor to conduct annual inspections on confined space entry equipment such as tripods, wenches, and harnesses.
- Continued to advise personnel on the purchase of multi-gas monitors to replace older models that will no longer be maintained or manufactured.
- Continued to assess confined space monitor calibration status and purchase calibration gas for the six calibration stations.
- Revised the calibration station software to remove chlorine and sulfur dioxide from the monthly calibration program, due to their removal from the operational processes at the treatment plants.
- Purchased new monitors in Collections to meet the existing needs of personnel.

FY21 Program

- Continue to administer training and monitor procedures on confined space entry in order to maintain compliance with 29 CFR 1910.146. Health and Safety personnel will spot-check confined space entries to determine compliance with company procedure.
- Continue to ensure that all “Permit Required Confined Spaces” are properly labeled in Operations.
- Continue to advise personnel on the purchase of multi-gas monitors to replace older models that will no longer be maintained or manufactured.
- Continue to assess confined space monitor calibration status and purchase calibration gas for the six calibration stations.

M-C-3 General Safety Procedures

FY20 Program

- Established various general safety procedures based on both 1910 & 1926 OSHA regulations, input from internal personnel, and on the specific needs of the district in order to maintain regulatory compliance and provide safe working procedures for employees.

- Conducted Emergency Response Team (ERT) fire drills and tornado drills at the Main Office, CMF and Morris Forman WQTC.
- Conducted 8-hour refresher training on hazardous materials for the ERTs.
- Conducted fire extinguisher training district-wide.
- Conducted annual audiograms district-wide.

FY21 Program

- Continue to conduct training with employees on the new OSHA Hazardous Communications Standard to include Globally Harmonized Systems for material safety data sheets and container labeling.
- Continue to assess the need to update existing procedures and/or create new procedures as conditions and regulatory requirements dictate.
- Continue to conduct 8-hour refresher training on hazardous materials for the ERTs and other required safety sensitive positions.
- Continue to conduct fire extinguisher training district-wide.
- Continue to conduct fire and tornado drills.
- Continue to conduct annual audiograms district-wide.
- Continue Monthly Safety Day Training as a refresher for safety topics.
- Schedule 40-hour HAZ-MAT Technician Level training for newly hired employees as needed based on hiring demands.
- Replace current Safety Data Sheets in the MSDS Pro database with updated safety data sheets compliant with the Globally Harmonized System (GHS) standard.
- Continue required safety orientations with contractors to ensure compliance with MSD & KYOSHA regulations and promote a strong safety culture.
- Continue to review and update the MSD Confined Space, Trenching, LOTO and Fall Protection Safety Programs.

M-C-4 Traffic Management

FY20 Program

- Purchased and maintained traffic control equipment to reduce hazardous operational exposure.
- Provided training on traffic control on all job sites and as employees are hired or as employee job duties require.

FY21 Program

- Continue traffic control training for employees to ensure continued compliance with MSD standards.
- Inspect and replace traffic control equipment regularly to ensure compliance with safety standards.
- Conduct traffic control audits of job sites in streets and roadways.

M-C-5 Lock Out/Tag Out

FY20 Program

- Enhanced lock out/tag out procedures as required by the OSHA Control of Hazardous Energy standard. Procedures are maintained and communicated to employees.
- Developed lock out/tag out procedures as equipment was added or replaced, or as processes were changed.
- Conducted an inspection of all treatment facilities to determine the number of machine specific procedures.

FY21 Program

- Continue to implement lock out/tag out, machine specific procedures as equipment is added or replaced, or as processes are changed.
- Work with staff at Morris Forman WQTC to train on new machine specific procedures. These SOPs will be available through IPS and eB for improved accessibility.

M-C-6 Safety Equipment

FY20 Program

- Continued to review and provide required personal protective equipment to employees.
- Conducted NFPA 1852 required annual testing and maintenance for self-contained breathing apparatus respirators.

FY21 Program

- Maintain safety related equipment or replace the equipment per governing policies or as the need arises.
- Continue purchasing additional equipment for confined space, fall protection, trenching and Hazardous Materials.
- Explore options for more comfortable safety equipment to maintain employee adherence to safety policies and procedures.

M-C-7 Performance Measures

FY20 Program

- Maintained compliance with OSHA standards.
- Ensured that appropriate staff attended mandatory training on trench excavation safety, confined space, first aid, hazmat response and fire extinguisher usage.
- Safety / worker compensation metrics for MSD employees are detailed in Figure 6.3 and Table 6.1.

FY21 Program

- Maintain field inspections as discussed under M-C-1 Safety Committee to reduce the number of incidents.
- Continue to improve compliance with NFPA 70E and the GHS standard as discussed under M-C-3 General Safety Procedures.
- Continue to foster a strong culture of workplace safety.

Figure 6.3. Safety Performance Rate Trends

Table 6.1. Safety Incidents and Worker Compensation Claims

FY	**DAYS WORKED** (8 **HOURS)**	SAFETY INCIDENTS	**WORKER COMP CLAIMS**	DAYS OFF **DUE TO WORK** RELATED ISSUES
FY15	141,353	126	55	1134
FY16	143,113	123	67	1507
FY17	152,175	64	31	482
FY18	152,616	86	34	340
FY19	153,226	94	33	109
FY20	152,319	89	23	314

6.1.1.4. Utility Information Management Systems

This section describes MSD's Utility Information Management System. The goal of this section is to produce quality information regarding sewer system performance. MSD's Utility Information Management System supports the following programs: management, operations, maintenance, complaint management, and performance indicators.

M-D-1 Management Information Management Systems

M-D-2 Operations Information Management Systems

M-D-3 Maintenance Information Management Systems

M-D-4 Complaint Management and Tracking Information Management Systems

M-D-5 Performance Indicators

FY20 Program

- Utilized a wide variety of software to operate the day to day business activities associated with wastewater collections, conveyance and treatments. The major Utility Information Management applications are shown in Table 6.2.
- Completed upgrade and cloud migration of IPS 11.1 (formerly Hansen).
- Perform Project WIN web site facelift.
- Continued LOJIC deployment and testing of new ArcGIS Enterprise 10.6.1 architecture.
- Acquired FAA drone pilot certification.
- Complete enterprise class reporting to SSRS from Crystal Reports.
- Completed move of disaster recovery data center to a co-located, enterprise-grade data center in Tennessee..
- Completed upgrade of telecommunications network at Morris Forman wastewater treatment facility.
- Implemented two-factor authentication for remote user access.
- Completed network re-design to improve network resiliency and redundancy across multiple MSD locations including our data centers.
- On-boarded security and networking managed services vendor to enhance cybersecurity posture.

FY21 Program

- Enhance IPS 11.1 functionality with Field Inspector Mobile for use by field staff on mobile devices and Rhythm for Civics web portal for customer service request and permit application online submittal.
- Replace FASTER with cloud-based AssetWorks.
- Complete Project WIN redesign and rewrite.
- Complete eB upgrade.

Table 6.2. Utility Information Management Applications

UTILITY INFORMATION MANAGEMENT (UIM) APPLICATIONS						
eB	OneRain	GIS	EGIS	FASTER	SSRS	LIMS
SAP	IPS	Telog	SCADA	SharePoint	Power BI	GPS

- Complete upgrade of Telog.
- Continue planning for SAP upgrade to S/4HANA.
- Perform technology refresh of server and storage platforms in primary data center.
- Deploy McAfee's next-generation endpoint protection to servers and workstations.
- Deploy MaaS360 mobile device management solution.
- Complete end-to-end network resiliency testing.
- Refresh SolarWinds monitoring and alerting environment and deploy enhanced capabilities.

6.1.1.5. Engineering Programs

This section describes MSD's Engineering CMOM activities. The goal of this section is to maintain accurate plans of current sewer system infrastructure, oversee construction quality of new infrastructure, and conduct assessments to maximize the efficiency of current WQTCs. MSD's engineering programs include the following: collections and transmission system plans, system inventory, mapping, sewer system design, sewer construction, construction inspection, acquisition considerations, continuing sewer system assessment (CSSA), infrastructure rehabilitation, and a system capacity assurance plan (SCAP).

M-E-1 Collection and Transmission System Plans

M-E-2 System Inventory

M-E-3 Mapping

MSD has an extensive collection of record drawings of the sewer facilities dating back to 1874. In addition to the original record drawing, a scanned image is stored in eB, MSD's records management system. Plans are scanned twice during a project life cycle – once when the project is approved for construction and a second time when the plans are made "as-built" after construction completion. After a set of plans has been constructed, the facilities are created in GIS and the attributes of the facilities are stored in a corresponding asset record in the IPS database. Map corrections are also obtained during asset inspection activities.

FY20 Program

- Captured assets in the GIS and asset management software. Added 1,000 property service connection records and 141 miles of sewer assets.
- Corrected 58 sewer errata.
- Scanned 75 construction plan sets into the eB Imaging System.

FY21 Program

- Continue to scan plans and to add and update data in the GIS and asset management software based on new construction drawings and feedback from MSD field personnel.
- Update the GIS sewershed layer as projects are completed to support SCAP implementation.
- Continue routine audits and QA/QC methods to ensure data accuracy.

M-E-4 Sewer System Design

FY20 Program

- Continued to hold the Qualified Post-Construction Inspector (QPCI) training course, which includes a 4-hour training course and qualifying exam. All green infrastructure projects are required to submit an annual inspection by a QPCI to verify continued on-site stormwater management.
- Continued use of AutoCAD templates available on the MSD public webpage, including AutoCAD 3D templates, for use by private firms as well as in-house design.

FY21 Program

- Continue to review and update the MSD Design Manual.
- Gather additional data on GMP implementation and update design manual as needed.
- Continue to administer training on the green infrastructure review and inspection process.

M-E-5 Sewer Construction

M-E-6 Construction Inspection

FY20 Program

- Maintained the practice on significant capital projects to utilize the design engineer as the engineer of record or resident project representative (RPR).
- Continued reviews and revisions of the Construction Inspector Field Handbook.
- Continued utilization of contract inspectors due to workloads.

FY21 Program

- Continue construction inspection activities in-house and continue to supplement with contract inspection as needed.
- Continue acquisition of RPR services for significant capital projects.
- Continue review and updates of the Construction Inspector Field Handbook.

M-E-7 Acquisition Considerations

FY20 Program

- Financed capital expenditures of $190,878,467.
- Committed professional services funds of $16,511,066.
- Committed construction funds of $109,512,337.
- Awarded construction contracts valued at $128,606,103.

FY21 Program

- Budget for capital expenditures up to $194,112,000.
- Monitor expenditures related to professional services and construction.

M-E-8 Continuing Sewer System Assessment

FY20 Program

- Completed 43.5 miles of structured maintenance (SM) and corrective maintenance (CM) inspections in the combined and separate systems, as shown in Figure 6.4.
- Introduced acoustic inspections as a prescreening for gravity pipe under 15 inches in diameter.
- Finalized the Continuing Sewer System Assessment Protocol, included as Appendix G.

FY21 Program

Complete SM inspections as scheduled in IPS.

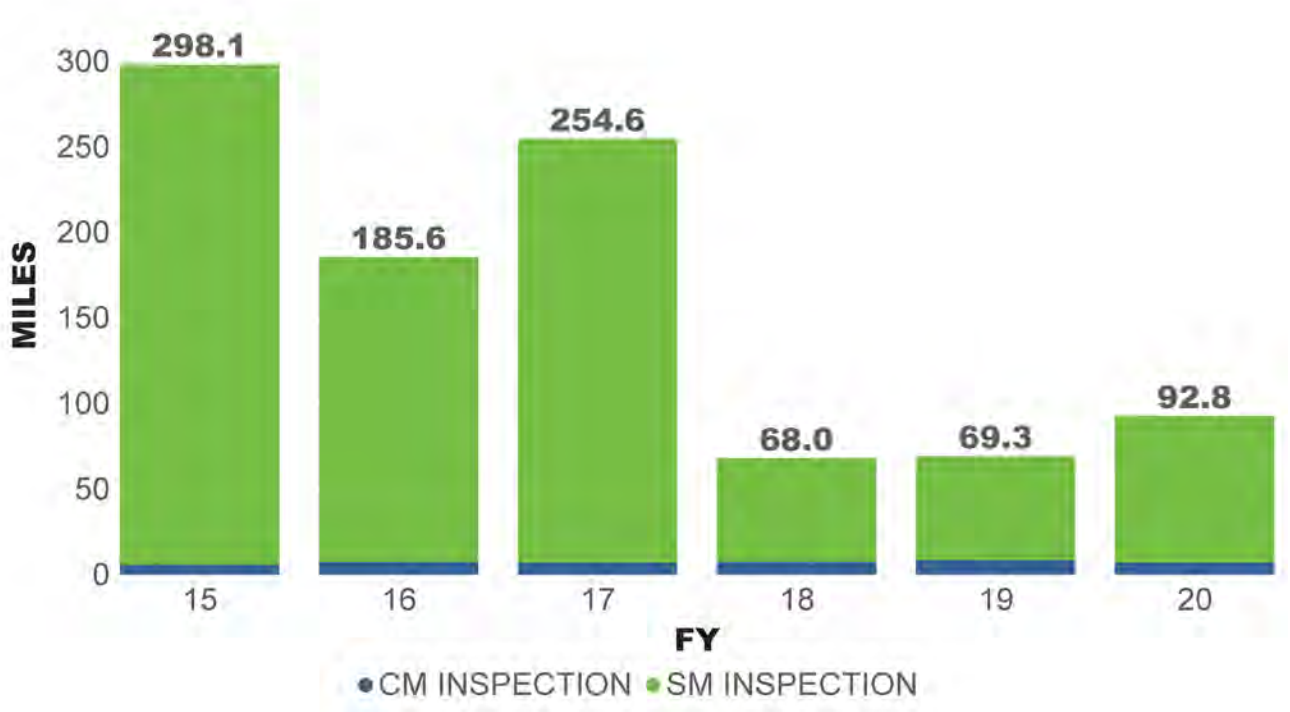
M-E-9 Infrastructure Rehabilitation

Refer to Section 4: Program Activities for Discharge Abatement Plans (DAP) for more details on infrastructure rehabilitation projects identified in the IOAP.

FY20 Program

- Continued construction of the Nightingale I/I Rehabilitation project, including anticipated rehabilitation of 632 manholes, 23,418 LF of mainline pipe, and 436 lateral connections.
- Continued progressive design-build of the Large Diameter Rehabilitation Project, including inspection and repair of portions of Beals Branch Trunk Sewer, Broadway Interceptor, Cherokee Enterprise Sewer, CSO125 Outfall, CSO166 Outfall, Grinstead Drive Sewer, Rudd Avenue Sewer, and Western Outfall.

Figure 6.4. Gravity Main Corrective and Structured Maintenance Inspections



FY21 Program

- Complete construction of the Nightingale I/I Rehabilitation Project.
- Continue progressive design-build of the Large Diameter Rehabilitation Project.

M-E-10 System Capacity Assurance Program

FY20 Program

- Continued to collect formula-based defect inspection of significant footage of sewer lines in various sewer-sheds across the county. This information is being used to prioritize cleaning and rehabilitation efforts that will remove inflow and infiltration from the system and create capacity credits.
- Tracked pump station capacities, reviewed drawdown testing results and identified action items pertaining to deficiencies. Critical results of this effort are being documented on each asset within the IPS system.
- Reviewed wastewater capacity requests from private development as shown in Table 6.3.
- Continued to work on the procedures for documentation of rehabilitation and the calculation of SCAP results.
- Submitted credit catchment ledgers to the Kentucky Division of Water (KDOW) and EPA as part of quarterly reports.

FY21 Program

- Continue to perform inspection of sewer lines in various sewersheds across the service area as scheduled. Continue tracking pump station capacities through testing, investigation and capacity evaluations.
- Update WQTC capacities and track new development flows.
- Generate inflow and infiltration reduction projects and calculate related capacity credits.
- Continue to enhance credit calculation protocols and tracking in IPS.
- Continue to enhance the procedures for documentation of rehabilitation and the calculation of SCAP credits.
- Update SCAP areas based on pump station elimination projects that have been completed.

Table 6.3. SCAP Wastewater Capacity Request Review

FY	APPROVED		CONDITIONALLY APPROVED		DENIED	
	REVIEWS	FLOW	REVIEWS	FLOW	REVIEWS	FLOW
FY15	105	503,940	191	1,985,180	7	47,020
FY16	126	718,564	216	3,289,674	4	15,050
FY17	98	388,626	234	3,677,721	0	0
FY18	87	267,665	183	3,246,133	0	0
FY19	108	522,973	234	5,953,634	4	13,100
FY20	90	821,397	312	5,339,719	4	135,275

6.1.1.6. Sanitary Sewer Overflow Reporting and Notification Program

This section describes MSD's SSO Reporting and Notification Program. The goal of this section is to maintain accurate, up to date records of SSOs and to ensure proper, timely notification of the agencies and organizations through un-permitted discharge reporting, SSO notification and tracking.

M-F-1 Unauthorized Discharge Reporting

Refer to Section 1: Project Waterway Improvements Now (WIN) Performance Overview for detailed information.

M-F-2 Sanitary Sewer Overflow Notification

M-F-3 Tracking Sanitary Sewer Overflows

Refer to Section 3: Program Activities for Sewer Overflow Response Protocol (SORP) for detailed information.

6.1.1.7. Financing and Cost Analysis Program

This section describes MSD's Financing and Cost Analysis Program. The goal of this section is to provide a detailed cost analysis for both the capital and operational costs of MSD for use in future budgeting and decision making.

M-G-1 Operations Cost

M-G-2 Maintenance Cost

M-G-3 Capital Improvement Funding

M-G-4 Management Programs Cost

M-G-5 Life Cycle Cost

M-G-6 Budget and Customer Rate Setting

FY20 Program

Details of the previous reporting period's program are included in Table 6.4. Capitalized budget performance is shown in Figure 6.5. Reported amounts for the program are unaudited financial results.

FY21 Program

- Set the operating budget at $153,521,000 and the capital budget at $ 194,099,478.
- Issue $225 million in revenue bonds to redeem outstanding commercial paper that has been used as interim funding for fiscal years 2019 and 2020.

6.1.1.8. Equipment and Tools Management and Maintenance Program

This section describes MSD's Equipment and Tools Management Programs. The goal of this section is to facilitate efficient repair and support of MSD's sewer systems through an accurate spare parts inventory, a timely equipment maintenance schedule, vehicle repair, and needed tools and supplies.

M-H-1 Spare Parts Inventory Management

M-H-4 Supplies Management

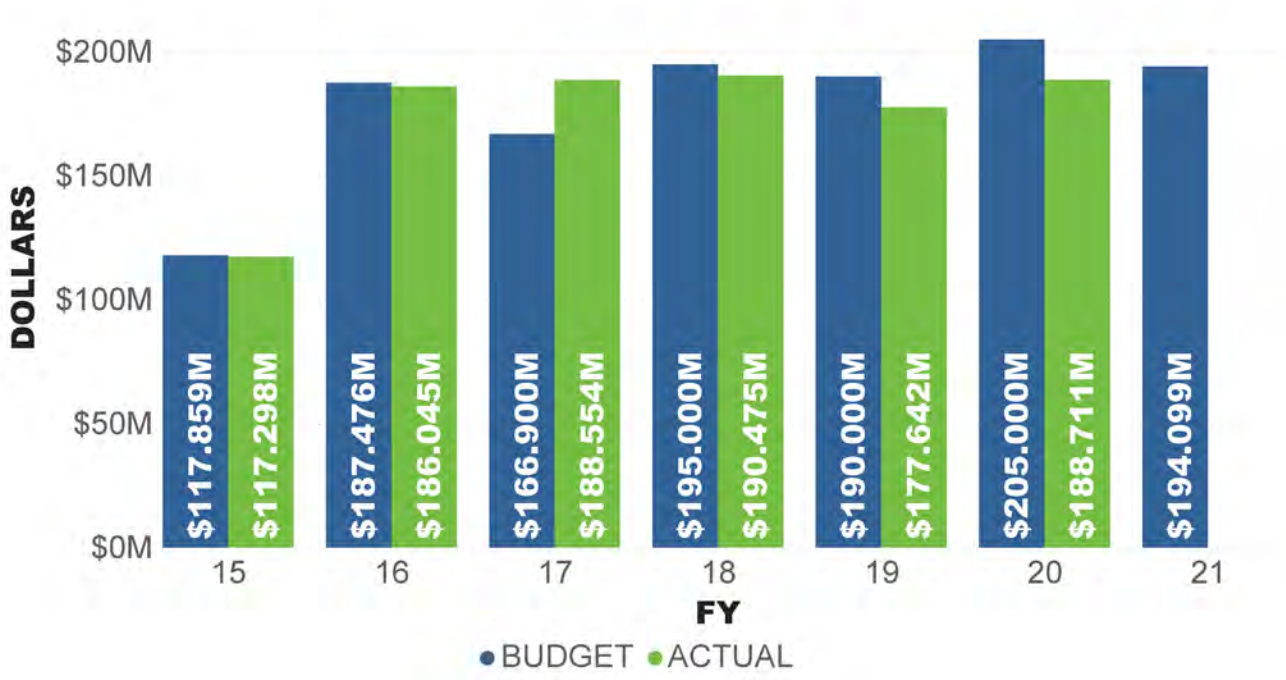
FY20 Program

- Continued weekly meetings with departments for improved customer service, inventory management of critical spare parts, reorganization of new storeroom locations, and PPE/safety upgrades.
- Acquired spare parts for Morris Forman WQTC storeroom from ongoing equipment replacement projects.

Table 6.4. Fiscal Year Financing and Cost Analysis Program Details

METRIC	BUDGET	ACTUAL
Operating Revenue Growth	4%	3%
Operating Revenue	$310,625,000	$319,057,000
Wastewater / Stormwater Revenue	$306,625,000	$312,859,000
Investment Income	$16,259,000	$15,600,000
Senior Debt Service Coverage Ratio	192%	188%
Total Operating Expenses	$144,894,000	$149,945,000
Total Capital Expenses	$205,000,000	$188,711,000

Figure 6.5. MSD Capitalized Budget Performance



- Reviewed current SOPs to verify compatibility with current organizational direction. Updated SOPs for quality improvements and determined best practices to improve operations through continuous training of Storeroom applications.
- Created process to accurately track the valuation of assets that are donated, issued or purchased for MSD Annual Organizational events (i.e. River Sweep); helping trace the life, valuation and spend of assets for proper & transparent auditing purposes.
- Continued asset management process to replace identified spare parts from Morris Forman WQTC flood event.
- Implemented daily cycle counts of all assets issued/day and work order assets/week resulting in 75% of high revolving and mid revolving items being counted 10x's more than annual inventory counts.
- Designed condition tags to help identify non inventory assets maintenance condition of new, repaired (in from maintenance), sending out for maintenance or unserviceable/condemned for salvage, disposal or cannibalization of parts to go to another asset.

- Added mid-year inventory based off of cycle counts and ABC methods to CMF and MF warehouse facilities, improving annual inventory counts and variants.
- Added capability to new bar code system of adding non inventory assets value and maintenance history for transparency and proper asset tracking.
- Continued Bar-Code Scanning initiatives for inventory control.

FY21 Program

- Continue to update SOPs for quality improvements and determine best practices to improve operations, utilizing “Back to Basics” guidelines.
- Resubmit selected Material Master Forms for reprocessing to reconcile vendor’s Unit of Measure with store-room’s Unit of Issue, in order to improve inventory and ordering processes.
- Upgrade security of Cedar Creek Storeroom with camera surveillance.
- Continue improvements to Material Master Form.
- Continue to implement plan to reorganize CMF North Warehouse.
- Complete Bar-Code Scanning initiatives for inventory control.
- Update inventory descriptions and relocate like parts.
- Continue cycle counts after each morning rush and before system processing.
- Implement storeroom follow-up program to ensure accountability of vendors and visibility of incoming assets.
- Continue “Back to Basics” training for goal setting and incorporate focus commodities for team members.

M-H-2 Equipment and Tools Repair Management

FY20 Program

- Attended regular safety inspections and meetings, and supported safety standards as part of participation in CMF and Morris Forman Safety Committees.
- Trained all employees in advanced safety of material handling and storeroom functionality.
- Continued annual audit of SOPs for tooling inspections and implement improved security measures for cost savings initiatives and asset management.
- Collaborated with Safety to review and update safety equipment and inspection controls (Arc Flash Personal Protective Equipment [PPE], safety harness inspections, eyewash stations, ladders, safety PPE, and fire extinguishers).Reconciled Morris Forman WQTC’s Gas Cylinder Cage; assessed inventory of expired and currently used gas cylinders.
- Launched bar code system to improve timeliness and accuracy of issues, receipts and inventory of assets.
- Added capability to new bar code system of adding non inventory assets value and maintenance history for transparency and proper asset tracking.

FY21 Program

- Continue participation on CMF and Morris Forman WQTC Safety Committees by attending regular safety inspections, safety meetings, and supporting safety standards.

- Continue training on safety related storeroom processes and inventory for all employees.
- Continue annual audit of SOP for tooling inspections and implement improved security measures for cost savings initiatives and asset management that aligned with departmental goals when necessary.
- Implement phase 1 of barcode application launch.
- Purchase equipment and labels for barcode system.
- Work with contractor and IT department on technical aspects of application development.

M-H-3 Vehicle Repair

MSD's vehicle repair maintenance program addresses over 600 pieces of rolling stock, including automobiles, trucks, trailers, construction equipment (backhoes, mobile cranes, etc.) and specialty sewer maintenance equipment. Quarterly and annual summary reports specifically address maintenance issues related to the grouping of Mission Critical Equipment (MCEs) that were identified as being essential to meeting Amended Consent Decree commitments related to NMC and CMOM activities. The four equipment types and respective turnaround times as related to goal are in Table 6.5, and shown with overall fleet turnaround in Figure 6.6. MCE metrics include measures for shop turnaround time to include the percentage of units returned to service within 24 hours (goal of 80%) and within 48 hours (goal of 90%), shown in Figure 6.7 and Figure 6.8, respectively.

FY20 Program

- Metrics – Monitored and reported availability and turnaround time of MCE targeting each equipment type's overall average goals.
- Fleet Management Information System - Monitored equipment and work order data using FASTER System reports to analyze and target areas where improvement is needed and to plan future replacements.
- Preventive Maintenance – Monitored preventive maintenance (PM) schedules to ensure they remain within industry standards, specifically addressing the operating environment of all MCE increasing the frequency of PM performed to improve availability to the operating division.
- Procurement
  - Analyzed FY20 capital purchasing needs, including the evaluation of MCE for replacement.
    - Heavy Duty Vacuum Sewer / Catch Basin Cleaner Trucks: Prepared specifications for, bid and awarded contract to purchase one new unit. Unit was received and placed in service on May 5, 2020.
    - Flusher/Jetter Truck: Re-bid and awarded contract to purchase one new unit. Unit is scheduled for delivery in March 2021.

Table 6.5. Mission Critical Equipment Availability and Turnaround Time

EQUIPMENT TYPE	QUANTITY	AVAILABILITY		24-HOUR TURNAROUND TIME		48-HOUR TURNAROUND TIME	
		GOAL	ATTAINMENT	GOAL	ATTAINMENT	GOAL	ATTAINMENT
Catch Basin Cleaners (mechanical clamshell type)	5	80%	92%	80%	82%	90%	86%
High-Pressure Sewer Flusher/Jetter Trucks	5	80%	81%	80%	87%	90%	90%
Tele-Inspection Vehicles	7	80%	96%	80%	91%	90%	98%
Vacuum Sewer / Catch Basin Cleaner Trucks	10	80%	80%	80%	93%	90%	97%

Figure 6.6. Availability for MCE and Fleet Equipment

Figure 6.7. 24-Hour Turnarounf for MCE and Fleet Equipment

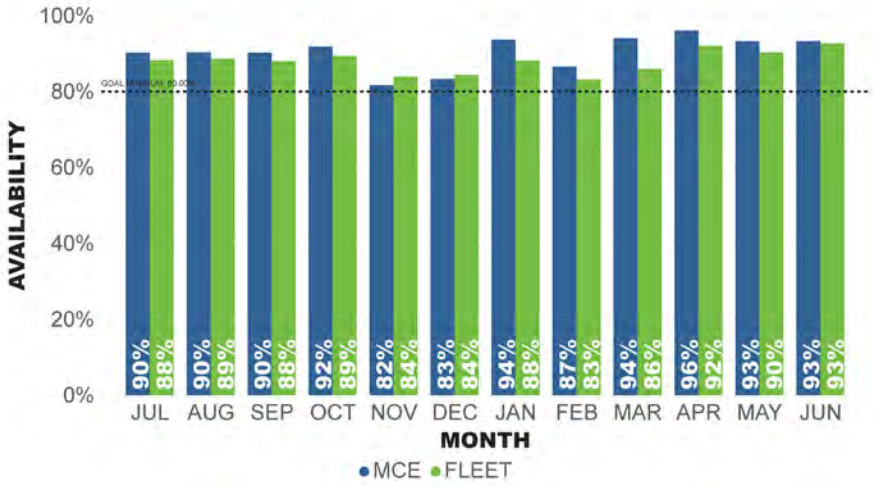


Figure 6.8. 48-Hour Turnarounf for MCE and Fleet Equipment

- Catch Basin Cleaners (mechanical clamshell type): Received two new units and placed in service on September 23, 2020.
- Tele-Inspection Vehicles: Received one new unit and placed in service in October 9, 2020.

- One Water Fleet Services Initiative - Continued efforts associated with One Water Initiative with LWC to capitalize on fleet services opportunities to realize cost savings while better serving our customers and increasing levels of service to the community.
  - Remain in conversations with both MSD and LWC union leadership regarding opportunities to capitalize on shared resources.

FY21 Program

- Metrics - Continue monitoring and reporting availability and turnaround time of MCE targeting each equipment type's overall average goals.
- Fleet Management Information System - Continue monitoring equipment and work order data using FASTER System reports to analyze and target areas where improvement is needed and to plan future replacements.
- Preventive Maintenance – Continue monitoring preventive maintenance (PM) schedules to ensure they remain within industry standards, specifically addressing the operating environment of all MCE increasing the frequency of PM performed to improve availability to the Operations Division.
- Procurement
  - Analyze FY21 capital purchasing needs, including the evaluation of all MCE for replacement.
    - Combination Vacuum Sewer/Catch Basin Cleaner Trucks: Using existing contract, procure and place in service one new unit to replace aging equipment and improve availability. Coordinate operator and fleet technician training on new units after receipt.
    - Catch Basin Cleaners (mechanical clamshell type): Using existing contract, procure and place in service two new units to replace aging equipment and improve availability. Coordinate operator and fleet technician training on new units after receipt.
- One Water Fleet Services Initiative - Continue to explore One Water Initiatives with LWC to capitalize on fleet services opportunities to realize cost savings while better serving our customers and increasing levels of service to the community.

6.1.1.9. Customer Service Programs

This section describes MSD's Customer Service Programs. The goal of this section is to strengthen and maintain a healthy relationship between MSD and the public through service programs which include complaint management, public information and public education.

M-I-1 Customer Service

M-I-2 Public Information

M-I-3 Public Education

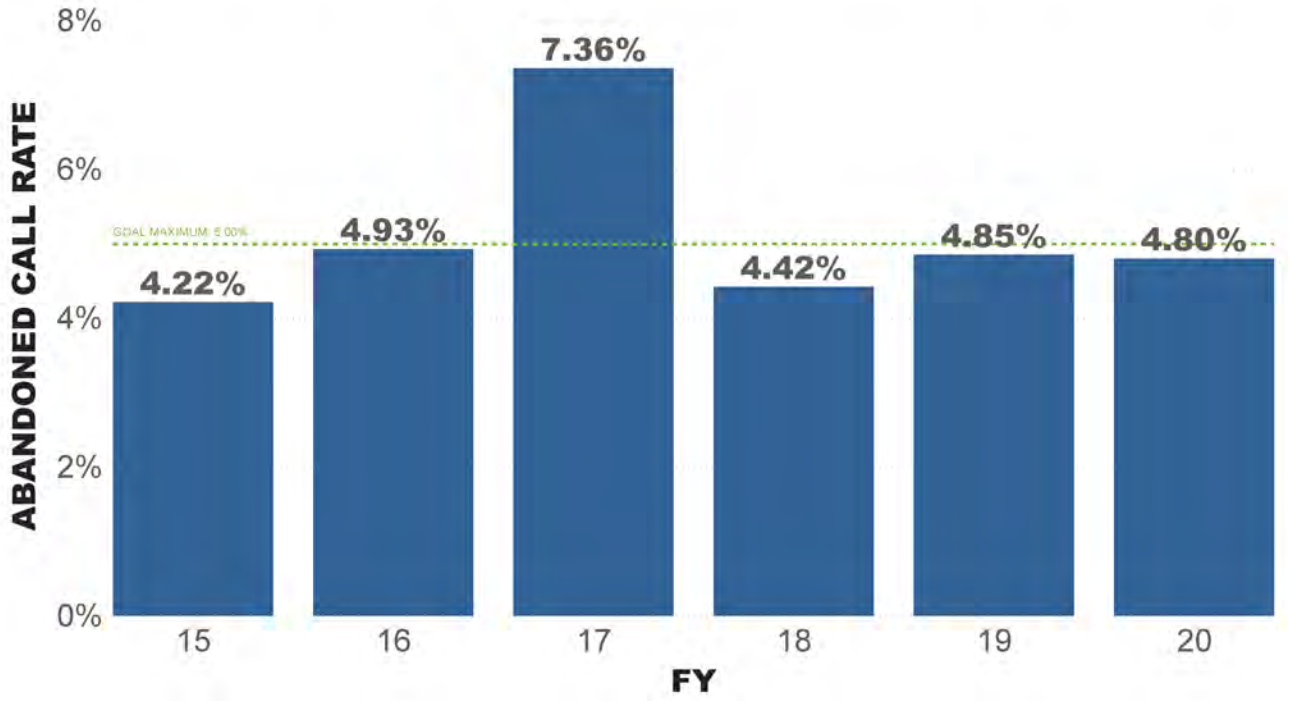
FY20 Program

- Mailed out 705 Project WIN and Plumbing Modification Program packets of information or applications.
- Received 41,652 calls as shown in Table 6.6.

Table 6.6. Customer Service Call Data

MONTH	CALLS RECEIVED	CALLS ABANDONED	ABANDONED CALL RATE
July	3,596	160	4%
August	3,713	163	4%
September	3,576	174	5%
October	3,533	106	3%
November	3,181	118	4%
December	3,148	215	7%
January	3,571	204	6%
February	2,950	90	3%
March	3,562	136	4%
April	3,586	168	5%
May	3,531	171	5%
June	3,705	296	8%
Total	41,652	2,001	5%

Figure 6.9. Abandoned Call Rate



- Continued effort to reduce the percentage of abandoned calls below target level as shown in Figure 6.9. Annual rate dropped steeply from FY17 and remained on target for the current period despite challenges in staffing and programmatic changes.

FY21 Program

- Continue efforts to keep the number of abandoned calls below target level.

- Fill vacant Customer Relations positions and better serve customer needs.

6.1.1.10. Legal Support Programs

The following support programs are included in this section: inter-jurisdictional agreement, ordinances, pre-treatment legal support, grease control legal support, service laterals legal support, septic tank haulers legal support, and "Call Before You Dig" legal support.

M-J-1 Inter-Jurisdictional Agreement

M-J-2 Ordinances

M-J-3 Pretreatment

M-J-4 Grease Control

M-J-5 Service Laterals

M-J-6 Septic Tank Haulers Legal Support

M-J-7 "Call Before You Dig"

FY20 Program

- Over the past fiscal year, the MSD legal department has provided a variety of legal services designed to support MSD in its efforts to implement programs to abate sanitary sewer overflows as required by the Amended Consent Decree. The services most directly related to this effort include:
- Participated in and/or provided legal advice and other functions pertaining to the procurement of construction and professional service contractors to provide services and/or perform work in furtherance of IOAP related projects.
- Participated in the acquisition of properties and/or property interests (easements and/or fee simple ownership) critical to the completion of IOAP related sewer construction projects. The department's participation has included assisting in the negotiation and structuring of purchase and sale agreements, drafting acquisition related documents, drafting easements, title research, and performing or providing oversight of the closing of acquisition transactions, as well as initiating legal proceedings to acquire property through eminent domain.
- Provided support and assistance to the Development & Stormwater Services Administration department in the negotiation and preparation of green infrastructure and long term maintenance agreements.
- Provided support, assistance and counsel to regulatory programs and enforcement actions brought under the Wastewater Stormwater Discharge Regulations, Hazardous Materials Ordinance, and Erosion Prevention and Sediment Control Ordinance.

FY21 Program

Continue to provide legal services to support MSD.

6.1.1.11. Water Quality Monitoring Programs

This section describes MSD's Water Quality Monitoring Program. The goal of this section is to maintain an accurate, consistent record of water quality in receiving bodies of water. Monitoring results are used to determine the effect of effluent discharge and/or spills through the following monitoring programs: routine water quality, investigative water quality, and water quality monitoring for spill impact. Water Quality monitoring data is also assessed and provided in the Water Quality Synthesis Report.

M-K-1 Routine Water Quality Monitoring Programs

M-K-2 Investigative Water Quality Monitoring

M-K-3 Water Quality Monitoring for Spill Impact

MSD has aggressively pursued a watershed management approach that relies heavily on an established water quality monitoring program. The program has an extensive in-stream monitoring effort for tributary streams and for emergency spill responses, including:

- Ambient monitoring at 28 Long Term Monitoring Network (LTMN) locations across Jefferson County to monitor multiple physical and biological indicator parameters in accordance with the MS4 permit.
  - Continuous monitoring for pH, conductivity, temperature, dissolved oxygen, and stream flow are currently collected at 25 of the 28 ambient locations.
  - Biological sampling and/or evaluation for algae, fish, habitat, and benthic macroinvertebrates are currently conducted every two years at 27 of the 28 ambient locations.
  - Quarterly sampling for Total Suspended Solids (TSS), E. coli, total nitrogen, oil and grease, copper, and pH is currently conducted on a quarterly basis at 27 of the 28 ambient locations.
  - Recreational contact monitoring is conducted seasonally from May through October is currently conducted at 27 of the 28 ambient monitoring sites for E. coli.
  - Wet weather monitoring is conducted over the course of the MS4 permit term for three storm events at 27 of the 28 ambient locations and an additional 15 locations.
- Combined Sewer Overflows (CSOs)/Significant Industrial Users (SIUs) point sampling monitors the risk of water quality impairment to discharges associated with SIUs and General Discharge Permits through the NMC 3 Pretreatment Program.
- CSO flow monitoring measures flow within the combined sewer system to provide improved data input into water quality models.

Additional information on these programs is provided in Section 4.5.

6.1.1.12. Contingency Plan for Sewer and Treatment Plant

This section describes MSD's Contingency Plan for the wastewater collection and treatment system. The goal of this section is to provide a protocol for emergency response and notification. The following elements are included in this section: contingency planning process, response flow diagram, public notification plan, agency notification plan, emergency flow control plan, emergency operations and maintenance plan, preparedness training program, water quality monitoring plan, and Sewer Overflow Response Protocol (SORP). The SORP requires training for all MSD employees.

M-L-1 Contingency Planning Process

M-L-2 Response Flow Diagram

FY20 Program

- Continued efforts to improve disaster response protocols. Improved draft matrix for internal training modules to be implemented, including training on first aid, CPR, bloodborne pathogens, and the National Incident Management System's Incident Management System and National Response Framework.
- Practiced annual Floodwall Closure Installations.

- Continued collaboration with the National Weather Service, USGS, and Louisville Metro Emergency Management Agency (EMA) to develop a pilot project to install flow and level monitors at a site for early warning of significant weather events. Significant changes in both meters would trigger a notification at MSD and EMA.
- Revised the Comprehensive Nature Disaster and Business Continuity Plan, including development of several key documents and organizational structure of the comprehensive plan.

FY21 Program

- Continue to practice annual Floodwall Closure Installations.
- Developing Critical Asset Risk Management tool to perform risk and resiliency assessment for all hazards including natural, technology/accidental, human-caused/adversarial, and decaying of infrastructure.
- Continue work with the National Weather Service regarding monitors for early warning of significant weather events.
- Continue revision of Comprehensive Nature Disaster and Business Continuity Plan using the critical path.
- Continue to work with other agencies to develop Catastrophic Urban Flood Plan.
- Add redundant communication paths to provide improved network resiliency for key sites.

M-L-3 Public Notification Plan

M-L-4 Agency Notification Plan

Refer to Section 3: Program Activities for Sewer Overflow Response Protocol (SORP) for more details on public and agency notifications.

M-L-5 Emergency Flow Control Plan

M-L-6 Emergency Operations and Maintenance Plan

- Strategy 5 of MSD's Strategic Business Plan requires that MSD "develop a comprehensive disaster response and business continuity plan for disasters that impact our ability to serve our customers and the community". As part of this effort, a diverse team from across MSD has been working to complete the initiatives of this plan.

FY20 Program

- Finalized comprehensive risk and vulnerability assessment of MSD operations and infrastructure assets, using industry best practices.

FY21 Program

- Continue development of catastrophic urban flood plan in conjunction with the Department of Homeland Security, US Army Corps of Engineers, Kentucky Emergency Management, Louisville Emergency Management Agency and other partners. MSD will transition from the data gathering stage of the Regional Resiliency Assessmet Program to the implementation phase.
- Develop operational emergency response SOPs from the comprehensive risk and vulnerability assessment of MSD operations and infrastructure assets, using industry best practices, and begin training.

M-L-7 Preparedness Training

Refer to Section 6.1.1.12 for details on training for emergency response procedures.

M-L-8 Water Quality Monitoring Plan

Refer to Section 4.5 and Section 6.1.1.11 for more details on the MSD Water Quality Monitoring Plan.

M-L-9 Sewer Overflow Response Protocol

Refer to Section 3: Program Activities for Sewer Overflow Response Protocol (SORP) for more details on the SORP.

6.1.2. Operations Programs

6.1.2.1. Pump Station Operations Programs

This section describes MSD's Pump Station Operation Programs. The goal of this section is to maintain pump stations for optimal use during routine and emergency operations through well documented operating procedures.

O-A-1 Routine Operating Programs

FY20 Program

- Continued review and updates, as needed, of the U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual based on USACE and staff review comments. The manual is continuously under review as MSD completes both LTCP and NMC programmatic activities.
- Determined capital project priorities and the budgetary needs related to flood protection system pump stations during regular meetings with MSD Operations and Engineering staff.
- Completed Operations staff training for pump stations and diversion structures at newly-constructed CSO storage basins.
- Installed level instrumentation at 3 sanitary pump stations.
- Developed schedule for physical drawdown to coincide with completed preventive maintenance.
- Provided permanent backup power at critical pump stations and RTC facilities based upon the previously performed prioritization and ongoing review.

FY21 Program

- Continue regular meetings with MSD Operations and Engineering staff to determine capital project priorities and advise on the budgetary needs on a quarterly basis.
- Complete Operations staff training for pump stations and diversion structures at newly-constructed CSO storage basins.
- Continue reviewing pump stations for the installation of level sensors in support of improved monitoring capability.
- Continue to provide backup power at critical pump stations.
- Begin telemetry panel replacement projects for pump stations with outdated processors, at risk of submergence, or with multiple PLC or communications failures.

O-A-2 Emergency Operating Programs

FY20 Program

- Reviewed and updated procedures for installation and handoff of backup power supply and mobile generator staging and operation.

FY21 Program

- Continue to evaluate pump stations for inclusion in the Green Line program.

6.1.2.2. Pretreatment Program

This section describes MSD's Pretreatment Programs. The goal of this section is to protect MSD's sewer system and treatment plants by requiring industrial users to pretreat their effluent to required levels through industrial user permitting, inspection, sampling and enforcement.

O-B-1 Industrial User Permit

O-B-2 Inspection

O-B-3 Sampling Enforcement

Administered pretreatment limitations at Hite Creek, Floyds Fork, Derek R. Guthrie and Morris Forman WQTCs. Additional information related to the MSD Pretreatment Program for the combined sewer system can be found in Section 2.3. Jeffersontown WQTC was eliminated and flow was redirected to the Morris Forman and Cedar Creek WQTCs in December 2015.

FY20 Program

- Completed Dental Amalgam Program (DAP) implementation and began processing applications from DAP sources.
- Continued with Pretreatment program imporvements by utilizing third party software, and revising Permit template.
- Brochures title Keeping Biosolids Safe: Preventing Molybdenum Pollution were distributed to industries that discharge to the publicly owned treatment works (POTW).

FY21 Program

- Will complete the DAP implementation in FY21 and develop a continuity plan to identify new dental office that apply or recive dental amalgam.
- Continue to identify and monitor sources of molybdenum in Morris Forman's influent and pursue opportunities to reduce molybdenum through product substitution or other controls. Will distribute letters to companies known to perform maintenance or supply water treatment chemicals and request to transition to non-molybdenum containing products. Review sample results of molybdenum in Morris Forman influent in FY21 and evaluate reductions.
- Complete Local Limits submissions to KYDOW and update MSD's Wastewater/Stormwater Discharge Regulations (WDR) after KYDOW approves local limits.
- Implment use of LINKO software to manage Pretreatment Program specific data, including online submission of self-monitoring report data from permitted industries. Develop electronic reporting procedures to meet requirements of EPA's Cross-Media Electronic Reporting Rule.

6.1.2.3. Corrosion Controls Program

This section describes MSD's Corrosion Controls Program. The goal of this section is to extend the life of MSD's sewer system by controlling the corrosive effects of hydrogen sulfide (H2S) and other corrosive chemicals in the system through inspection, control measures, monitoring, and performance measures.

O-C-1 Inspection

O-C-2 Control Measures

O-C-3 Monitoring

O-C-4 Performance Measures

Hydrogen sulfide is a serious problem for the structural integrity of the collection system, as well as a nuisance to the public due to odor. In some instances, it is possible to respond to odor complaints and treat H_2S without addressing corrosion concerns.

FY20 Program

- Continued to clean MSD facilities to minimize impact of corrosion and odors. Completed 66 cleaning work orders on collection system.
- Continued to enhance asset review and documentation by further defining service request responsibilities related to odor complaints.
- Continued contracts in order to provide professional engineering services to assist MSD with odor control for the collection system, regional WQTCs, and Ohio River Force Main (ORFM)
- Continued to monitor and evaluate gravity lines within the collections system through the CSSA/Blockage Abatement Program using the corrosion indexes.

FY21 Program

- Continue to clean MSD facilities to minimize impact of odors and corrosion caused by H_2S on the collection system.
- Create further training and documentation on maintenance activities and work flow for better tracking of work performed and time and materials used.
- Monitor and evaluate gravity lines within the collections system through the CSSA/Blockage Abatement Program.
- Continue to monitor Evoqua's Full Service Odor Control Contract.
- Continue review of underground tank pump station sites, which may be susceptible to corrosion. Projects include application of epoxy coatings as for corrosion control and calcium nitrate as for H_2S elimination.
- Design and construct air release valve replacement using resistant materials on the ORFM.
- Construct two pump station oxygen injection systems to treat H2S on the ORFM.

6.1.2.4. Grease Trap Inspection and Enforcement Program

This section describes MSD's Grease Trap Inspection and Enforcement Programs. The goal of this section is to reduce the amount of fats, oils and grease (FOG) that enter MSD's sewer system and treatment plants through permitting, inspection, enforcement, performance measures, and the FOG program.

O-D-1 Permitting

O-D-2 Inspection

O-D-3 Enforcement

O-D-4 Performance Measures

O-D-5 Fats, Oils and Grease Program

FY20 Program

- Issued 28 enforcement actions to include FCNs, NOVs and NOVs with fines to food service establishments (FSEs) requiring action(s) to prevent and/or eliminate grease blockages in MSD's collections system. The enforcement actions required FSEs to install and/or modify grease control equipment, with additional requirements to submit documentation of installations and/or modifications.
- Conducted 171 plan review inspections to insure proper grease control equipment was installed at new and/or modified FSEs.
- Mailed 303 FOG residential public service notifications. The public service outreach informed residents of a recent sanitary sewer blockage occurrence near their home. Information sent to residents informs the customer of measures that could be taken within a residential dwelling to prevent any further occurrences.
- Conducted five Certified Grease Waste Hauler (CGWH) training classes for haulers servicing grease control equipment within Jefferson County. At least 2 haulers from various MSD Certified Grease Waste Hauler facilities participated and received certification cards collectively. Class number 21 was held on February 26, 2020, and class number 22 held virtually on June 23, 2020. CGWHs as well as master and journeyman plumbers that service or repair grease traps or grease interceptors within Jefferson County service area are required to participate and receive approval to service grease control equipment. FSEs in Jefferson County must only utilize MSD's CGWHs or plumbers that have obtained the appropriate certification.
- Continued to track FOG removal by CGWHs. Collectively, 3,447,668 gallons of FOG was removed from grease control equipment maintained by area FSEs during the reporting period. Collectively, CGWHs in Jefferson County serviced approximately 5,826 items of grease control equipment.
- Conducted one FOG reconnaissance tele-inspection project in conjunction with MSD's internal tele-inspection crews. The location inspected was an area where FSEs have not properly maintained grease control equipment or where multiple FOG related incidents had occurred.
- Continued to track FOG program performance measures.

FY21 Program

- Continue to conduct inspections at FSEs and issue enforcement actions as appropriate for violations of the MSD Wastewater/Stormwater Discharge Regulations.
- Continue to send FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.
- Participate in public education and outreach programs to inform the public regarding MSD's FOG program.
- Continue to host at least two CGWH training classes per year.

- Continue to conduct CGWH audits.
- Continue to track FOG program performance measures and develop reporting tools.

6.1.2.5. New Connection Tap-In Program

This section describes MSD's New Connection Tap-In Program. The goal of this section is to ensure that future connections do not compromise the capacity of the receiving treatment plant. The program is implemented using a new service tap approval process, inspection, enforcement, and performance measures for new connections to existing sewers and increased flow on existing service connection locations. All new service connections are installed by contractors that have a master plumber on staff. New connections made to public sanitary sewers are inspected by MSD personnel.

All new and changes to wastewater discharge volumes are reviewed through MSD's SCAP process. Developers are required to submit proposed flows to MSD's system and those flows are traced through MSD's infrastructure to identify lack of system capacity. Where capacity in the system exists, capacity requests are approved for 90 days. Where capacity does not exist, upgrades to infrastructure are undertaken or the capacity request is not approved.

O-E-1 Installation of New Service Taps

O-E-2 Inspection

O-E-3 Enforcement

O-E-4 Performance Measures

O-E-5 Other

FY20 Program

- Refer to Table 6.3 for details regarding new connections approved through the SCAP process.
- Inspected installation of 120 new property service connections (PSCs) on existing MSD's sewers.

FY21 Program

- Continue to review projects for capacity available through SCAP program.
- Consolidate and improve internal tracker for new property services connections within the existing infrastructure.
- Work with Customer Relations, Development, and Engineering to develop SOP for new property service connections on existing infrastructure.

6.1.2.6. Flow Monitoring Field Operation Programs

This section describes MSD's Flow Monitoring Field Operation Programs. The goal of this section is to provide accurate flow data for use in evaluating various aspects of MSD's sewer system. Flow is monitored at both permanent and temporary stations.

O-F-1 Permanent Stations

O-F-2 Temporary Stations

Refer to Section 4.5 for details on water quality monitoring efforts.

6.1.2.7. Septic Tank Haulers Program

MSD does not accept septic tank waste. This is handled through private contractors in Jefferson County.

6.1.2.8. "Call Before You Dig" Program

This section describes MSD's "Call Before You Dig" Program. The goal of this section is to prevent the damaging or cutting of sewer lines and other MSD assets and subsequent spills through permitting, inspection, enforcement, and performance measures.

O-H-1 Permitting

O-H-2 Inspection

O-H-4 Performance Measures

FY20 Program

- Contracted with locating company to locate all requests with the MSD service area. Contract is set up to handle Louisville Water Company (LWC) requests as well (invoiced separately). Invoices totaled $812,762.28 to process 87,925 locate requests to identify MSD facilities during the reporting period.
- Contracted with the KY 811 (BUD Center) for underground utility information call center services. Invoices totaled $ 162,721.50 to participate in this program for the reporting period.
- Requested 2,498 (1,446 via phone and 1,052 via web) to the BUD Center for the marking of other utilities during this time period.

FY21 Program

Continue to contract for utility locating service.

O-H-3 Enforcement

Enforcement is handled by the Commonwealth of Kentucky.

6.1.3. Maintenance Programs

6.1.3.1. Pump Station Preventive Maintenance

This section describes MSD's Pump Station Structured Maintenance program. The goal of this section is to prevent unanticipated repairs and subsequent down-time by providing scheduling, staff, and records to perform routine, preventive pump station maintenance. Electrical, mechanical, and physical maintenance are included in this section.

S-A-1 Electrical Maintenance

S-A-2 Mechanical Maintenance

S-A-3 Physical Maintenance

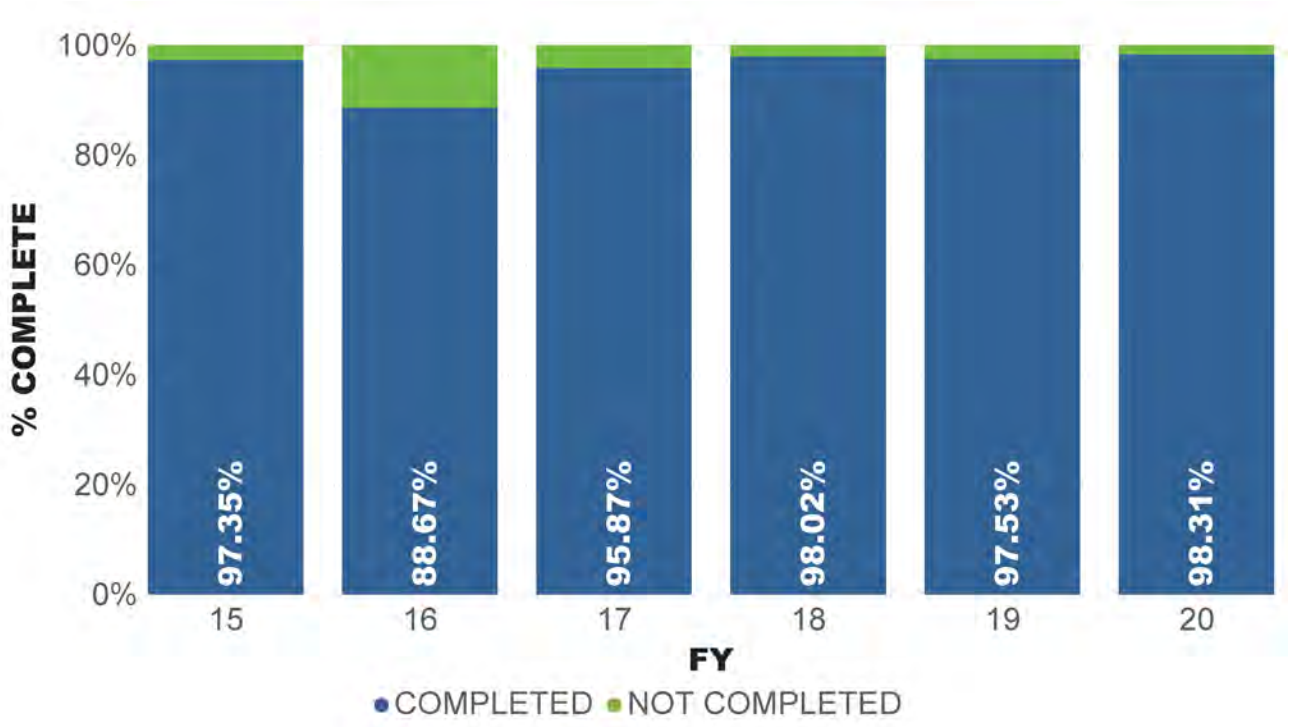
FY20 Program

- Continued structured maintenance for sanitary and flood pump stations as shown in Figure 6.10
- Continued to annually train staff to use the IPS asset management system to track pump station work orders as well as associated pump station assets.
- Ensured collaboration between Engineering and Operations on the design and construction of pump stations at CSO storage basins and diversion structures.

FY21 Program

- Continue structured maintenance for sanitary and flood pump stations.

Figure 6.10. Sanitary Pump Station Structured Maintenance



- Continue to annually train staff to use the IPS asset management system to track pump station work orders as well as associated pump station assets.
- Continue collaboration between Operations and Engineering staff, designers and contractors to incorporate changes to the system with the elimination of the non-regional WQTCs and the addition of storage basins and associated pump stations as required by the IOAP.
- Continue to develop and improve SOPs, training, and reporting related to subsequent repairs.

6.1.3.2. Force Main Preventive Maintenance

This section describes MSD's Force Main Preventive Maintenance program. The goal of this section is to prevent unanticipated repairs and subsequent down-time by providing scheduling, staff, and records to perform routine, preventive force main maintenance. The maintenance programs include walking the force main alignment to find cave-ins and air relief valve inspections.

S-B-1 Air Release Valves

S-B-2 Valve Exercise Program

FY20 Program

- Conducted the Annual Force Main Program evaluation and completed inspections on force mains listed in Table 6.10, covering 287,361 LF. Each inspection consisted of inspecting wet wells, valve vaults, air release valves, and discharge manholes; pumping out access vaults to lube, grease and exercise cross-connections; and observing the ground above the lines for evidence of pipe failure below ground.
- Continued to initiate corrective work orders for defects found on other assets during inspections.

Table 6.7. Completed Force Main Inspections

ASSET NAME	INSPECTED LENGTH
ORFM	81,929
BECKLEY STATION FM	7,291
COVERED COVE FM	3,683
ROSA TERRACE FM	1,521
ADAMS RUN #1 FM	3,877
APPLE PATCH FM	1,942
ASHBURTON FM	438
BAY HARBOR FM	3,810
BERRYTOWN FM	466
BLUEGRASS FIELDS FM	1,479
RUBBERTOWN FM	9,485
WEST COUNTY SLUDGE MAIN	69,331
BRANDYWYNE FM	575
BRIDGE POINTE FM	4,007
CINDERELLA FM	2,964
CROSSGATE FM	450
DENBEIGH FM	416
DOMINION WAY FM	2,346
EASTWOOD-FISHERVILLE FM	12,089
EDITH AVENUE FM	13,469
FAIRMOUNT ROAD FM	5,264
FARMVIEW PLAZA FM	918
INDUSTRIAL FM	1,741
GUNPOWDER FM	3,476
ARBOR MANOR FM	4,174
BARDSTOWN ROAD FM	2,532
LAKE FOREST FM	1,428
FAIRWAY VIEW FM	4,964
JARVIS LANE FM	304
ST. PATRICK SCHOOL FM	404
WORTHING FM	308
GRAND AVENUE FM	26,967
HARRODS CREEK FM	27,370

FY21 Program

- Complete the annual force main evaluation by June 30, 2021. Adjustments to the inspection schedule will be made based on conditions observed during the inspection cycle.
- Review 5-year trends in activities and performance metrics, comparing to targets established in 2006.
- Schedule FY21 force mains for inspection.

6.1.3.3. Gravity Line Preventive Maintenance

This section describes MSD's Gravity Line Preventive Maintenance program. The goal of this section is to reduce infiltration and increase efficiency of the gravity line system through routine cleaning, root control, and manhole preventive maintenance.

S-C-1 Routine Hydraulic Cleaning

S-C-2 Routine Mechanical Cleaning

S-C-3 Root Control Program

S-C-4 Manhole Preventive Maintenance

FY20 Program

- Continued SM and CM activities for gravity mains as shown in Figure 6.11.

FY21 Program

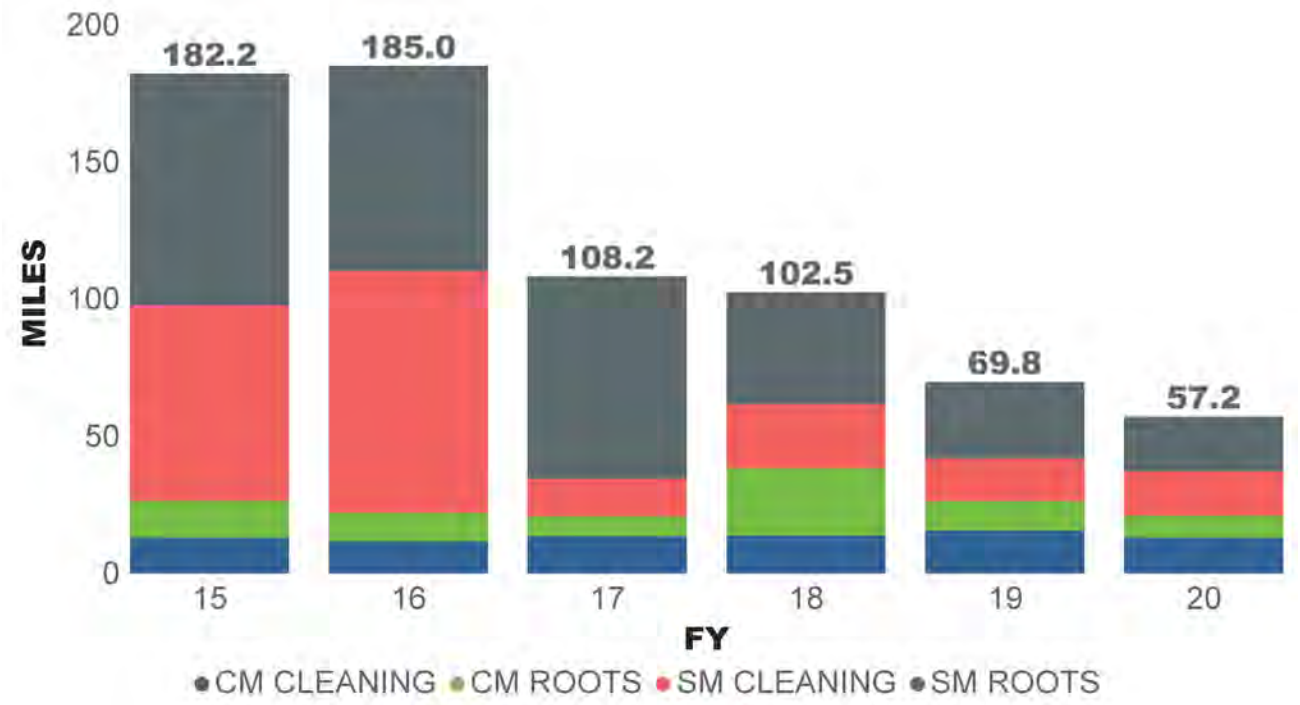
- Continue structured maintenance for gravity mains.

6.1.3.4. Equipment and Collections System Maintenance

S-D-1 Equipment Maintenance

Equipment and vehicle maintenance is discussed in detail in Section 6.1.1.8.

Figure 6.11. Gravity Main Corrective and Structured Maintenance



6.2. Comprehensive Performance Evaluations and Composite Correction Plans (CPE/CCP)

Per requirements of MSD's 2009 Amended Consent Decree, MSD implemented a Comprehensive Performance Evaluation (CPE) and Composite Correction Plan (CCP) program for MSD's Water Quality Treatment Centers (WQTCs). This program defined specific WQTC improvements to be completed by December 31, 2011. These improvements under this program are discussed under Section 6.2.1. Although the IOAP CPE/CCP improvements were completed by December 31, 2011, MSD will continue to implement CPE/CCP activities as part of the MSD's CMOM Program. Section 6.2.2 will list such activities per WQTC as they occur each reporting period and a comprehensive project schedule for CPE/CCP related capital projects

6.2.1. Amended Consent Decree CPE/CCP Program

All activities under this program were completed by December 31, 2011, as required per the IOAP.

6.2.2. CMOM CPE/CCP Program

This section describes CMOM CPE/CCP activities active during the reporting period and being planned for the next fiscal year. Schedules for CPE/CCP related capital projects are provided in Section 6.3.

6.2.2.1. Hite Creek Water Quality Treatment Center

FY20 Program

- Began construction of the Expansion project. Construction is anticipated to be completed in FY22.

FY21 Program

- Anticipate completion of construction of the dewatering system.

6.2.2.2. Floyds Fork Water Quality Treatment Center

No major capital projects were completed at the Floyds Fork WQTC in FY20 and none are planned for FY21.

6.2.2.3. Derek R. Guthrie Water Quality Treatment Center

FY20 Program

- Completed design and began constrution of the Admin and RAS Buildings HVAC project.
- Completed design and began constrution of the Clarifier Grout Repair & RAS Gate Replacement project.
- Continued construction of the Dewatering Emergency Contract project. The interim dewatering facility referred to as Phase 2 was placed into operation.
- Continued design of the Elevator Repairs project.
- Continued design of the Paving project.
- Began construction on the RAS Building Electrical Modifications project.

FY21 Program

- Anticipate completion of construction of the Admin and RAS Buildings HVAC project.
- Continue construction of the Clarifier Grout Repair and RAS Gate Replacement project.
- Anticipate completion of construction of the Dewatering Emergency Contract project.
- Anticipate beginning construction of the Elevator Repairs project.
- Anticipate beginning construction of the Paving project.
- Anticipate completion of construction of the RAS Building Electrical Modifications project.

6.2.2.4. Cedar Creek Water Quality Treatment Center

FY20 Program

- Completed design of the Effluent Parshall Flume Upgrade project.
- Completed design and began construction of the Influent PS MCC Upgrades project.
- Completed design of the Sodium Aluminate Building project.

FY21 Program

- Anticipate beginning construction of the Effluent Parshall Flume Upgrade project with completion anticipated in FY22.
- Continue construction of the Influent PS MCC Upgrades project with completion anticipared in FY21.
- Anticipate beginning construction of the Sodium Aluminate Building with completion anticipated in FY22.

6.2.2.5. Jeffersontown Water Quality Treatment Center

MSD has completed the elimination of Jeffersontown WQTC. Refer to Section 1.3.4.3 for details.

6.2.2.6. Other Water Quality Treatment Centers

All non-regional WQTCs owned or operated by MSD in Jefferson County have been eliminated as of May 27, 2016.

6.3. CMOM Activity Schedule

CMOM capital project milestones for FY20 as well as a look-ahead for FY21 are provided in Figure 6.12.

Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
	MSD CMOM Quarterly Commitments Schedule	69%	Sun 3/29/09	Mon 1/1/24
A14129	**Gorham Way Pump Station Elimination**	12%	Wed 7/1/20	Fri 8/5/22
A14129	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Fri 7/31/20
A14129	DESIGN	70%	Mon 10/12/20	Tue 12/22/20
A14129	CONSTRUCTION	0%	Fri 2/5/21	Sat 6/5/21
A14129	CLOSEOUT	0%	Sun 6/6/21	Fri 8/5/22
A18324	**Oreland Mill Pump Station Elimination**	100%	Fri 4/6/18	Sat 5/16/20
A18324	CLOSEOUT	100%	Thu 5/2/19	Sat 5/16/20
A18353	**Ohio River Interceptor Structural Rehabilitation**	100%	Tue 3/6/18	Tue 1/21/20
A18353	CLOSEOUT	100%	Thu 3/21/19	Tue 1/21/20
A19090	**FY20 Construction Inspection**	100%	Mon 7/1/19	Tue 6/30/20
A19090	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
A19090	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
A19098	**FY21 Construction Inspection**	23%	Wed 7/1/20	Wed 6/30/21
A19098	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
A19098	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
A20280	**Harrods Creek Force Main Repair**	39%	Mon 12/2/19	Thu 5/26/22
A20280	INITIATION & PROCUREMENT	100%	Mon 12/2/19	Fri 12/6/19
A20280	CONSTRUCTION	76%	Fri 12/6/19	Fri 3/26/21
A20280	CLOSEOUT	0%	Sat 3/27/21	Thu 5/26/22
A20320	**Broadfern PS Elimination**	46%	Fri 3/13/20	Thu 11/4/21
A20320	INITIATION & PROCUREMENT	100%	Fri 3/13/20	Thu 3/19/20
A20320	DESIGN	100%	Thu 3/19/20	Tue 5/19/20
A20320	EASEMENTS/LAND ACQUISITION	100%	Mon 4/6/20	Fri 6/5/20
A20320	CONSTRUCTION	100%	Tue 6/9/20	Thu 9/17/20
A20320	CLOSEOUT	23%	Fri 9/18/20	Thu 11/4/21
D16272	**CCWQTC Influent PS MCC Upgrades**	48%	Thu 2/4/16	Tue 3/22/22
D16272	DESIGN	100%	Thu 2/4/16	Thu 2/20/20
D16272	CONSTRUCTION	79%	Mon 5/25/20	Wed 1/20/21
D16272	CLOSEOUT	0%	Thu 1/21/21	Tue 3/22/22

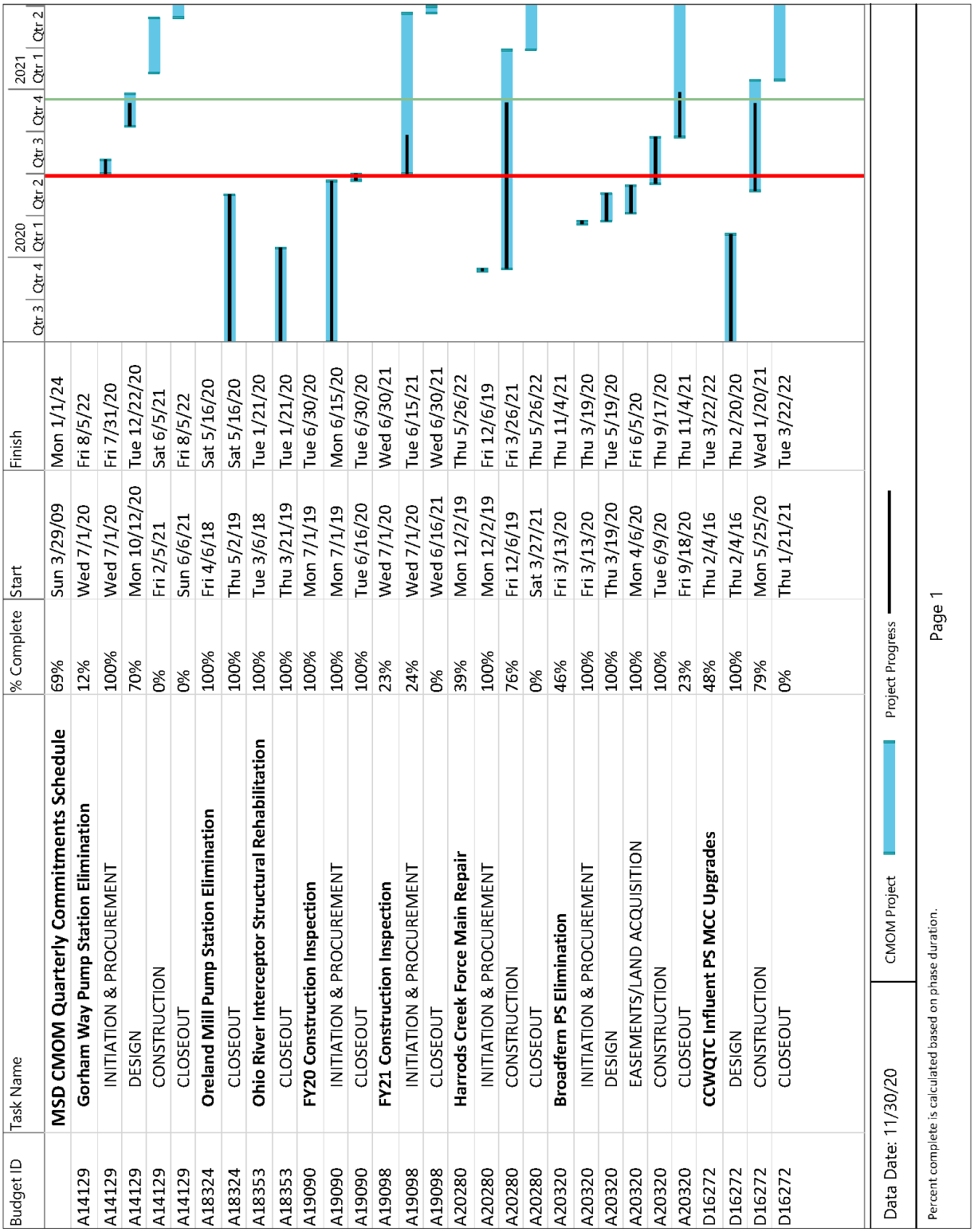
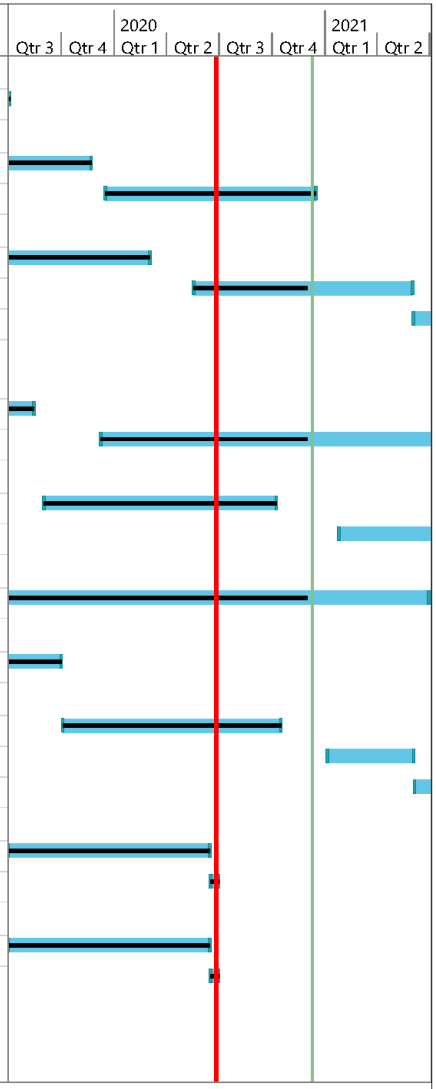


Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
D17032	**CCWQTC Tertiary Filtration**	0%	Thu 6/27/19	Mon 1/1/24
D17032	INITIATION & PROCUREMENT	100%	Thu 6/27/19	Wed 7/3/19
D18127	**DRGWQTC Hypo Containment**	100%	Sat 12/1/18	Wed 12/16/20
D18127	CONSTRUCTION	100%	Mon 6/3/19	Fri 11/22/19
D18127	CLOSEOUT	100%	Tue 12/17/19	Wed 12/16/20
D18285	**ORFM Odor and Corrosion Control**	52%	Mon 1/1/18	Tue 8/2/22
D18285	DESIGN	100%	Thu 3/8/18	Tue 3/3/20
D18285	CONSTRUCTION	52%	Mon 5/18/20	Wed 6/2/21
D18285	CLOSEOUT	0%	Thu 6/3/21	Tue 8/2/22
D18292	**DRGWQTC Clarifier Grout Repair and RAS Gate Replacement**	53%	Wed 1/31/18	Thu 11/10/22
D18292	DESIGN	100%	Wed 5/23/18	Wed 8/14/19
D18292	CONSTRUCTION	56%	Mon 12/9/19	Fri 9/10/21
D19039	**CCWQTC Effluent Parshall Flume Upgrade**	32%	Tue 6/4/19	Thu 2/23/23
D19039	DESIGN	100%	Sun 9/1/19	Thu 10/8/20
D19039	CONSTRUCTION	0%	Mon 1/25/21	Fri 12/24/21
D19223	**DRGWQTC WWPS Finite Element Analysis Phase 2**	73%	Mon 7/2/18	Wed 9/29/21
D19223	ANALYSIS PERIOD	79%	Wed 9/12/18	Wed 6/30/21
D19268	**CCWQTC Safety Items**	100%	Mon 10/1/18	Tue 10/1/19
D19268	CLOSEOUT	100%	Wed 12/5/18	Tue 10/1/19
D20017	**CCWQTC Sodium Aluminate Building**	35%	Tue 6/4/19	Wed 8/3/22
D20017	DESIGN	100%	Fri 10/4/19	Thu 10/15/20
D20017	CONSTRUCTION	0%	Mon 1/4/21	Thu 6/3/21
D20017	CLOSEOUT	0%	Fri 6/4/21	Wed 8/3/22
D20030	**FY20 CCWQTC Equipment RR**	100%	Mon 7/1/19	Tue 6/30/20
D20030	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
D20030	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
D20032	**FY20 HCWQTC Equipment RR**	100%	Mon 7/1/19	Tue 6/30/20
D20032	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
D20032	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20



Data Date: 11/30/20 | CMOM Project | Project Progress

Percent complete is calculated based on phase duration.

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Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
D20033	**FY21 Regional WQTC Equipment RR**	22%	Wed 7/1/20	Wed 6/30/21
D20033	INITIATION & PROCUREMENT	23%	Wed 7/1/20	Tue 6/15/21
D20033	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
D20034	**FY20 FFWQTC Equipment RR**	100%	Mon 7/1/19	Tue 6/30/20
D20034	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
D20034	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
D20036	**FY20 DRGWQTC Equipment RR**	100%	Mon 7/1/19	Tue 6/30/20
D20036	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
D20036	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
D20217	**FY20 Hazen DRGWQTC Engineering Support**	100%	Tue 8/27/19	Tue 6/30/20
D20217	INITIATION & PROCUREMENT	100%	Tue 8/27/19	Sun 9/1/19
D20217	DESIGN	100%	Sun 9/1/19	Tue 6/30/20
D20217	CLOSEOUT	100%	Mon 6/15/20	Tue 6/30/20
D20227	**FFWQTC Filter Evaluation**	100%	Tue 7/23/19	Wed 4/8/20
D20227	EVALUATION	100%	Tue 7/23/19	Fri 3/13/20
D20227	CLOSEOUT	100%	Thu 4/2/20	Wed 4/8/20
D20278	**DRGWQTC RAS Building Electrical Modifications**	31%	Tue 12/17/19	Tue 3/15/22
D20278	INITIATION & PROCUREMENT	100%	Tue 12/17/19	Mon 12/23/19
D20278	DESIGN	100%	Mon 2/24/20	Thu 5/28/20
D20278	CONSTRUCTION	76%	Fri 7/17/20	Wed 1/13/21
D20278	CLOSEOUT	0%	Thu 1/14/21	Tue 3/15/22
D20284	**DRGWQTC Dewatering Emergency Contract**	35%	Sun 11/24/19	Fri 9/30/22
D20284	INITIATION & PROCUREMENT	100%	Sun 11/24/19	Wed 12/4/19
D20284	CONSTRUCTION	60%	Wed 12/4/19	Sat 7/31/21
D20286	**DRGWQTC Substation U-13 Modifications**	50%	Wed 1/1/20	Tue 8/17/21
D20286	INITIATION & PROCUREMENT	100%	Wed 1/1/20	Tue 1/7/20
D20286	CONSTRUCTION	100%	Thu 2/6/20	Tue 6/30/20
D20286	CLOSEOUT	30%	Tue 6/30/20	Tue 8/17/21
D20291	**DRGWQTC Dewatering Emergency Phase 1**	100%	Sun 12/1/19	Sat 10/31/20
D20291	INITIATION & PROCUREMENT	100%	Sun 12/1/19	Wed 12/4/19
D20291	CONSTRUCTION	100%	Wed 7/1/20	Fri 10/9/20
D20291	CLOSEOUT	100%	Sat 10/10/20	Sat 10/31/20

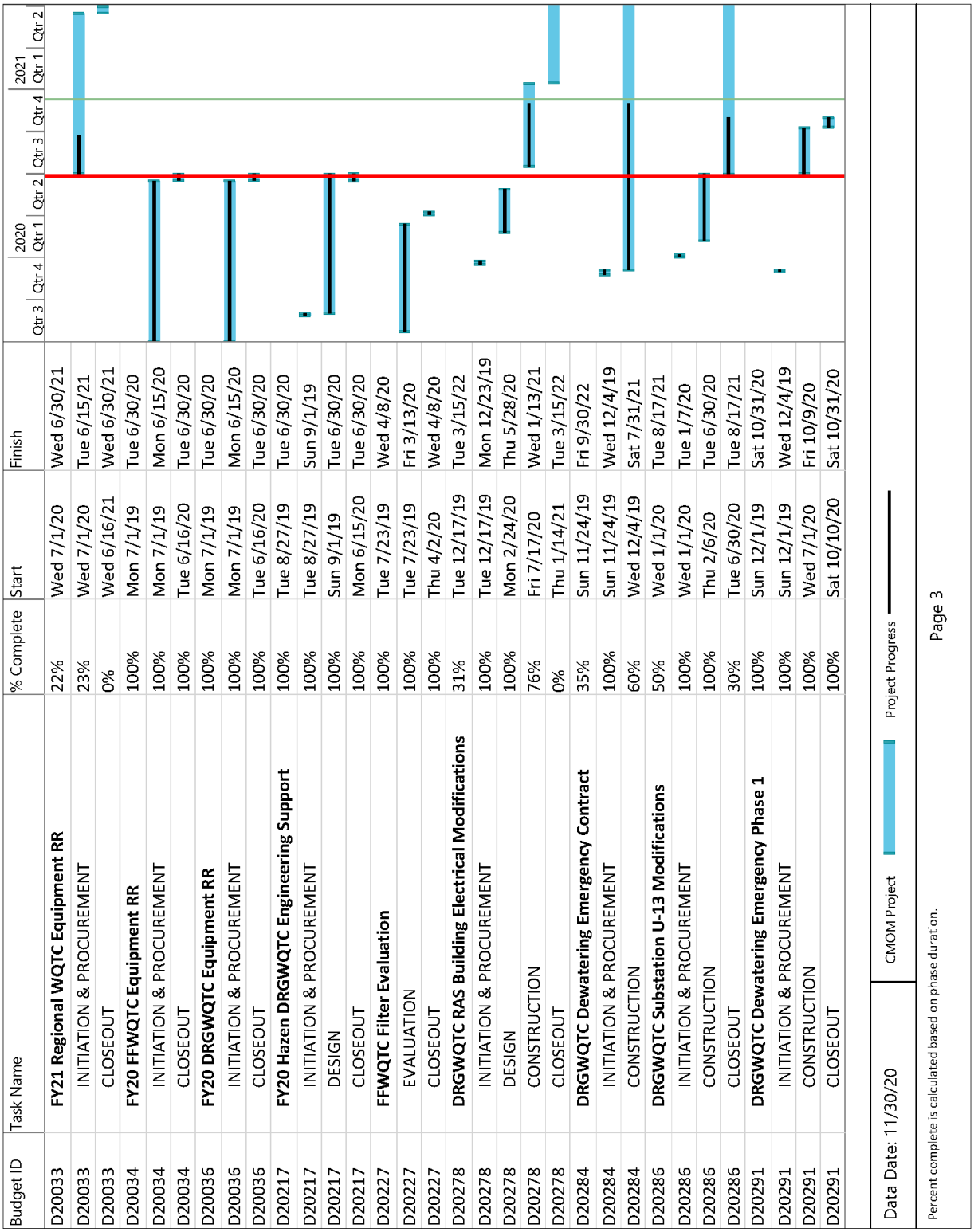

Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
D21059	**Asset Management Plan Development**	12%	Wed 7/1/20	Mon 8/14/23
D21059	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Fri 7/10/20
D21059	DESIGN	13%	Wed 7/1/20	Fri 6/30/23
D21063	**Odor Management Plan**	23%	Wed 7/1/20	Wed 6/30/21
D21063	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
D21063	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
D21077	**DRGWQTC PAA System**	14%	Wed 7/1/20	Mon 1/9/23
D21077	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Sat 10/31/20
D21077	DESIGN	0%	Tue 12/1/20	Fri 7/30/21
D21106	**DRGWQTC Dewatering Emergency Phase 2**	32%	Sun 11/24/19	Wed 6/30/21
D21106	INITIATION & PROCUREMENT	100%	Sun 11/24/19	Wed 12/4/19
D21106	CONSTRUCTION	31%	Tue 9/1/20	Tue 6/15/21
D21106	CLOSEOUT	0%	Tue 6/15/21	Wed 6/30/21
E15033	**Shively PS Generator Replacement**	92%	Fri 4/1/16	Fri 2/26/21
E15033	CONSTRUCTION	100%	Mon 11/27/17	Wed 10/30/19
E15033	CLOSEOUT	82%	Thu 2/27/20	Fri 2/26/21
E18446	**FY20 Systems Automation**	100%	Mon 7/1/19	Mon 3/30/20
E18446	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Sun 3/15/20
E18446	CLOSEOUT	100%	Mon 3/16/20	Mon 3/30/20
E18467	**FY20 CMOM Collection System Pump Rehab & Replacement**	100%	Mon 7/1/19	Tue 6/30/20
E18467	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
E18467	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
E18468	**FY21 CMOM Collection System PS RR**	25%	Wed 7/1/20	Wed 6/30/21
E18468	INITIATION & PROCUREMENT	27%	Wed 7/1/20	Tue 6/15/21
E18468	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
E19211	**FY20 Operations Renewal and Replacement**	100%	Mon 7/1/19	Tue 6/30/20
E19211	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
E19211	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
E19212	**FY21 Operations Renewal and Replacement**	23%	Wed 7/1/20	Wed 6/30/21
E19212	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
E19212	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21

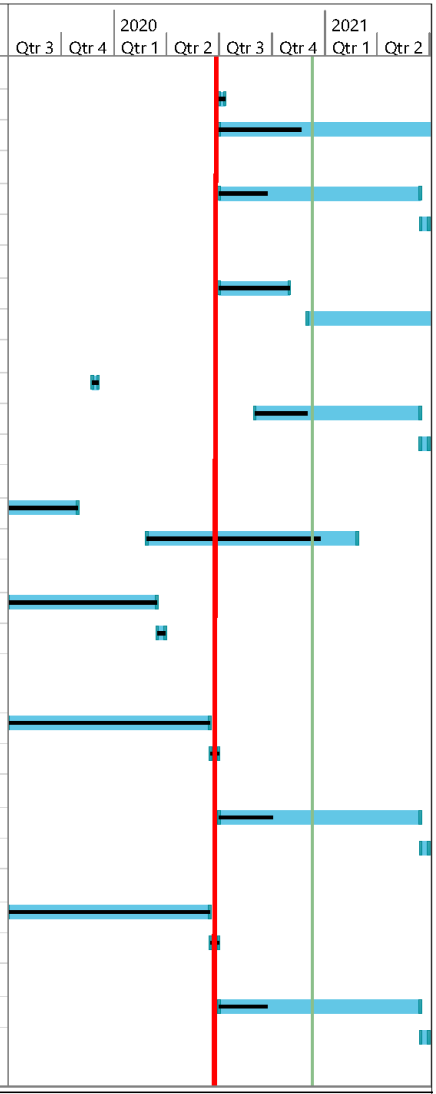

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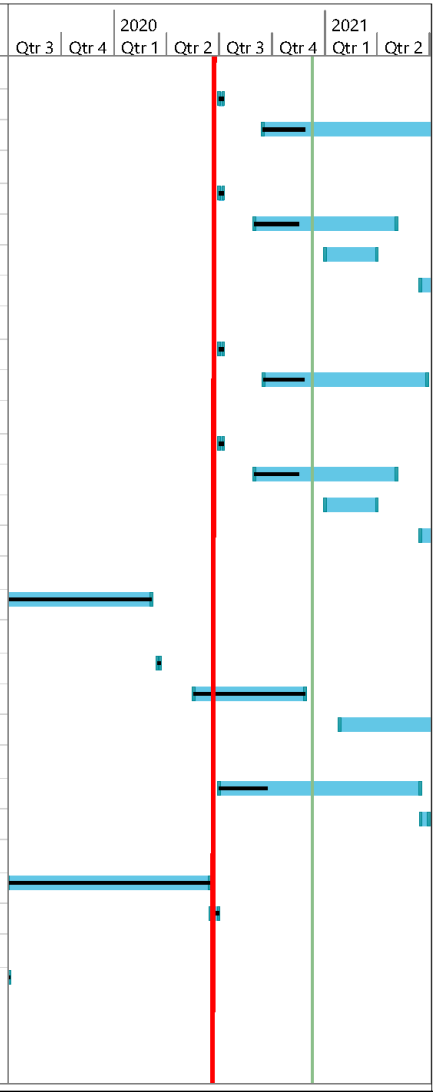
Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
E21070	**Rosa Terrace PS Elimination**	8%	Wed 7/1/20	Sat 6/3/23
E21070	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Tue 7/7/20
E21070	DESIGN	21%	Tue 9/15/20	Sat 8/21/21
E21071	**Wathen Lane PS Rehabilitation**	9%	Wed 7/1/20	Mon 4/3/23
E21071	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Tue 7/7/20
E21071	DESIGN	31%	Mon 8/31/20	Wed 5/5/21
E21071	EASEMENTS/LAND ACQUISITION	0%	Fri 1/1/21	Thu 4/1/21
E21071	CONSTRUCTION	0%	Tue 6/15/21	Tue 2/1/22
E21090	**Sonne Avenue PS Elimination**	8%	Wed 7/1/20	Sun 4/9/23
E21090	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Tue 7/7/20
E21090	DESIGN	25%	Wed 9/16/20	Sun 6/27/21
E21091	**Sanders Lane PS Rehabilitation**	9%	Wed 7/1/20	Mon 4/3/23
E21091	INITIATION & PROCUREMENT	100%	Wed 7/1/20	Tue 7/7/20
E21091	DESIGN	31%	Mon 8/31/20	Wed 5/5/21
E21091	EASEMENTS/LAND ACQUISITION	0%	Fri 1/1/21	Thu 4/1/21
E21091	CONSTRUCTION	0%	Tue 6/15/21	Tue 2/1/22
F14156	**DRGWQTC RAS 1 and 4 Pump Replacement**	100%	Fri 1/1/16	Thu 3/5/20
F14156	CLOSEOUT	100%	Wed 3/6/19	Thu 3/5/20
F20321	**Bluegrass Fields PS Renovation**	19%	Mon 3/16/20	Fri 9/23/22
F20321	INITIATION & PROCUREMENT	100%	Mon 3/16/20	Fri 3/20/20
F20321	DESIGN	100%	Mon 5/18/20	Thu 11/26/20
F20321	CONSTRUCTION	0%	Mon 1/25/21	Sat 7/24/21
G18444	**FY21 Plumbing Modification Program**	23%	Wed 7/1/20	Wed 6/30/21
G18444	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
G18444	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
G18462	**FY20 Land Acquisition**	100%	Mon 7/1/19	Tue 6/30/20
G18462	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
G18462	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
G19001	**FY19 Renewal and Replacement**	100%	Sun 7/1/18	Wed 7/3/19
G19001	CLOSEOUT	100%	Sun 7/1/18	Wed 7/3/19



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Percent complete is calculated based on phase duration.

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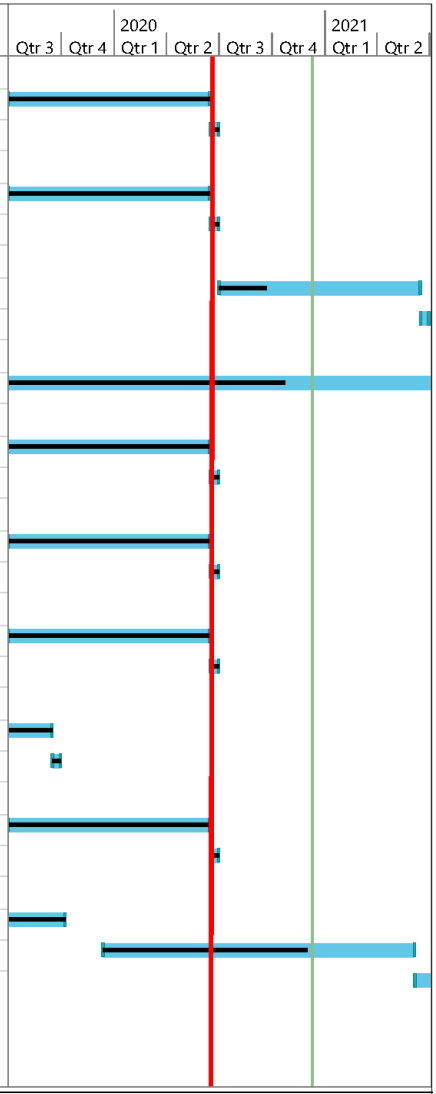
Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
G20001	**FY20 Renewal and Replacement**	100%	Mon 7/1/19	Tue 6/30/20
G20001	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
G20001	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
G20150	**FY20 Contingency Reserve**	100%	Mon 7/1/19	Tue 6/30/20
G20150	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
G20150	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
G21001	**FY21 Renewal and Replacement**	22%	Wed 7/1/20	Wed 6/30/21
G21001	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
G21001	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H14126	**HCWQTC Expansion**	62%	Mon 11/2/15	Tue 11/15/22
H14126	CONSTRUCTION	65%	Fri 3/8/19	Wed 9/15/21
H16007	**FY20 CMOM WQTC CCP Upgrades**	100%	Tue 6/4/19	Tue 6/30/20
H16007	INITIATION & PROCUREMENT	100%	Tue 6/4/19	Mon 6/15/20
H16007	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H16009	**FY20 CMOM Program Management Assistance**	100%	Mon 7/1/19	Tue 6/30/20
H16009	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
H16009	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H16013	**FY20 CMOM SCAP, AAM and FOG**	100%	Mon 7/1/19	Tue 6/30/20
H16013	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
H16013	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H16036	**FY19 I and I Reduction Program**	100%	Sun 7/1/18	Mon 9/30/19
H16036	INITIATION & PROCUREMENT	100%	Sun 7/1/18	Sun 9/15/19
H16036	CLOSEOUT	100%	Mon 9/16/19	Mon 9/30/19
H16045	**FY20 Plumbing Modification Program**	100%	Mon 7/1/19	Tue 6/30/20
H16045	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
H16045	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H16074	**Nightingale Rehab**	42%	Mon 7/2/18	Fri 8/5/22
H16074	DESIGN	100%	Fri 6/28/19	Tue 10/8/19
H16074	CONSTRUCTION	65%	Fri 12/13/19	Sat 6/5/21
H16074	CLOSEOUT	0%	Sun 6/6/21	Fri 8/5/22



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Project Progress

Percent complete is calculated based on phase duration.

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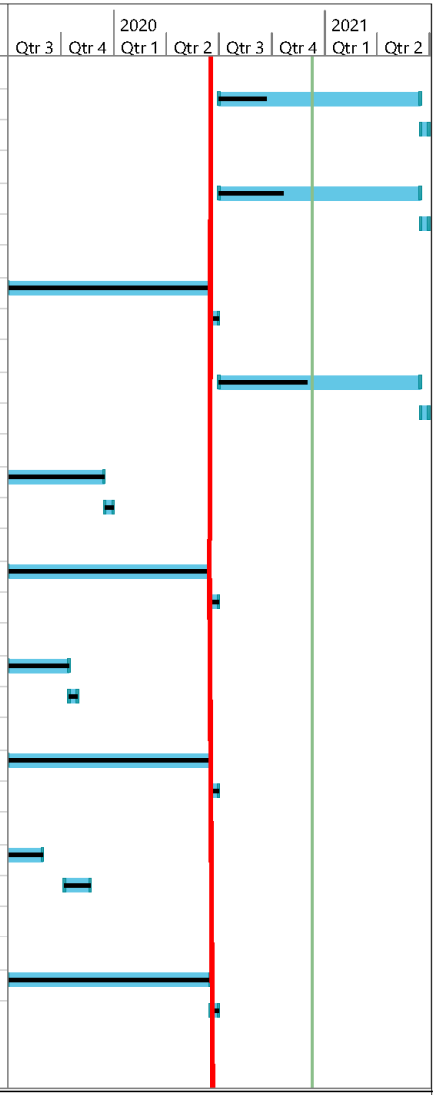
Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
H18096	**FY21 CMOM Program Management Assistance**	22%	Wed 7/1/20	Wed 6/30/21
H18096	INITIATION & PROCUREMENT	24%	Wed 7/1/20	Tue 6/15/21
H18096	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H18097	**FY21 CMOM, SCAP, AAM and FOG**	30%	Wed 7/1/20	Wed 6/30/21
H18097	INITIATION & PROCUREMENT	32%	Wed 7/1/20	Tue 6/15/21
H18097	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H18172	**FY20 Information Governance**	100%	Mon 7/1/19	Tue 6/30/20
H18172	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
H18172	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H18173	**FY21 Information Governance Architecture**	42%	Wed 7/1/20	Wed 6/30/21
H18173	INITIATION & PROCUREMENT	44%	Wed 7/1/20	Tue 6/15/21
H18173	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H19056	**CMOM Telog 3G to 4G Conversion**	100%	Sun 7/1/18	Tue 12/31/19
H19056	INITIATION & PROCUREMENT	100%	Sun 7/1/18	Sun 12/15/19
H19056	CLOSEOUT	100%	Mon 12/16/19	Tue 12/31/19
H19088	**FY20 CMOM Grinder RR**	100%	Mon 7/1/19	Tue 6/30/20
H19088	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Mon 6/15/20
H19088	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H19089	**FY20 CMOM WQTC Process Improvement**	100%	Mon 7/1/19	Wed 10/30/19
H19089	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 10/15/19
H19089	CLOSEOUT	100%	Tue 10/15/19	Wed 10/30/19
H19095	**FY20 PS RR**	100%	Mon 7/1/19	Tue 6/30/20
H19095	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 6/16/20
H19095	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H19232	**Parkwood PS Access Road**	100%	Wed 8/1/18	Mon 12/16/19
H19232	DESIGN	100%	Tue 8/28/18	Fri 8/30/19
H19232	CONSTRUCTION	100%	Mon 10/7/19	Thu 11/21/19
H19232	CLOSEOUT	100%	Mon 12/16/19	Mon 12/16/19
H20045	**FY20 Regulatory Compliance Support**	100%	Mon 7/1/19	Tue 6/30/20
H20045	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 6/16/20
H20045	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20



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CMOM Project

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Percent complete is calculated based on phase duration.

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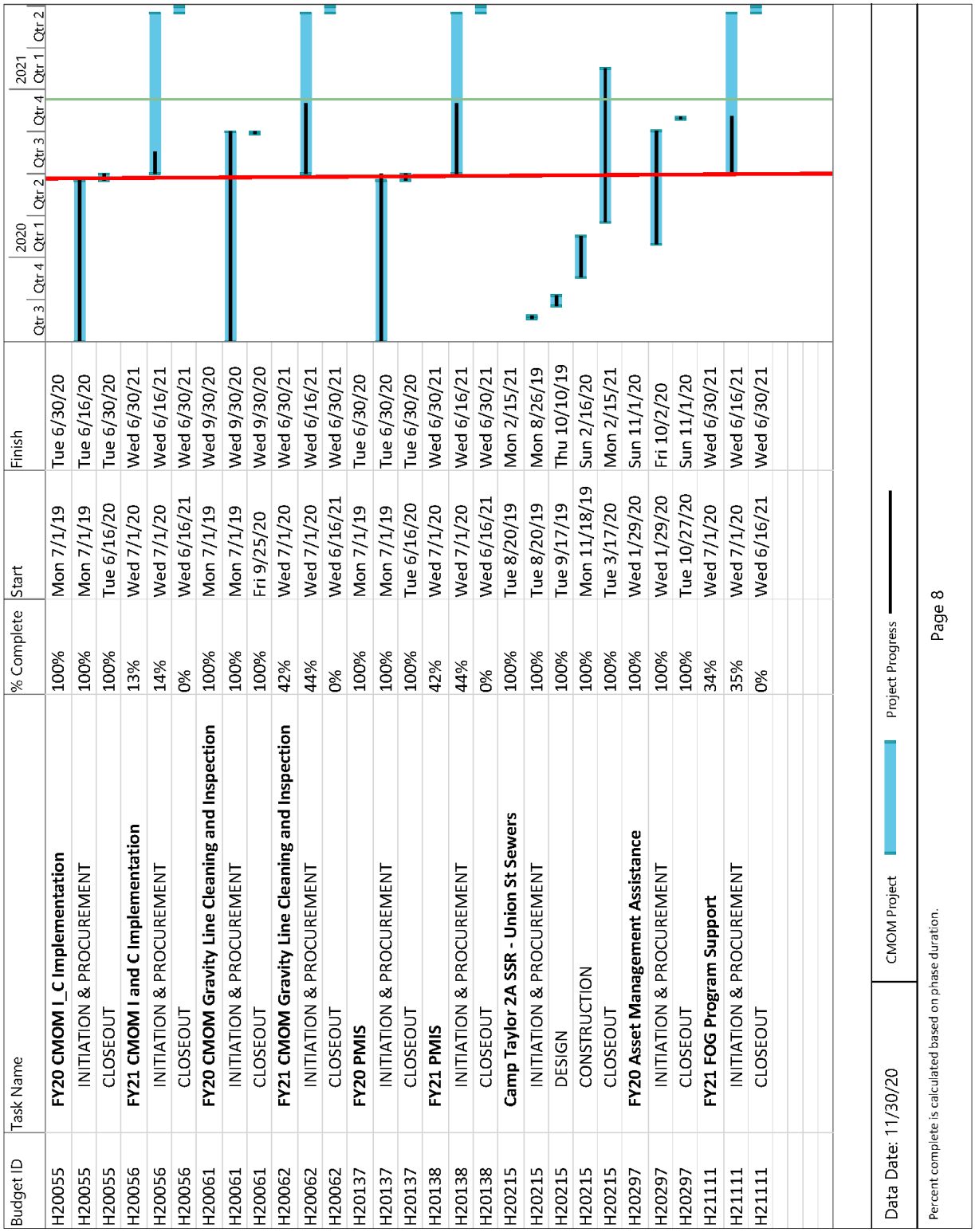
Figure 6.12. CMOM Quarterly Commitments Schedule

Budget ID	Task Name	% Complete	Start	Finish
H20055	**FY20 CMOM I_C Implementation**	100%	Mon 7/1/19	Tue 6/30/20
H20055	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 6/16/20
H20055	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H20056	**FY21 CMOM I and C Implementation**	13%	Wed 7/1/20	Wed 6/30/21
H20056	INITIATION & PROCUREMENT	14%	Wed 7/1/20	Wed 6/16/21
H20056	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H20061	**FY20 CMOM Gravity Line Cleaning and Inspection**	100%	Mon 7/1/19	Wed 9/30/20
H20061	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Wed 9/30/20
H20061	CLOSEOUT	100%	Fri 9/25/20	Wed 9/30/20
H20062	**FY21 CMOM Gravity Line Cleaning and Inspection**	42%	Wed 7/1/20	Wed 6/30/21
H20062	INITIATION & PROCUREMENT	44%	Wed 7/1/20	Wed 6/16/21
H20062	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H20137	**FY20 PMIS**	100%	Mon 7/1/19	Tue 6/30/20
H20137	INITIATION & PROCUREMENT	100%	Mon 7/1/19	Tue 6/30/20
H20137	CLOSEOUT	100%	Tue 6/16/20	Tue 6/30/20
H20138	**FY21 PMIS**	42%	Wed 7/1/20	Wed 6/30/21
H20138	INITIATION & PROCUREMENT	44%	Wed 7/1/20	Wed 6/16/21
H20138	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21
H20215	**Camp Taylor 2A SSR - Union St Sewers**	100%	Tue 8/20/19	Mon 2/15/21
H20215	INITIATION & PROCUREMENT	100%	Tue 8/20/19	Mon 8/26/19
H20215	DESIGN	100%	Tue 9/17/19	Thu 10/10/19
H20215	CONSTRUCTION	100%	Mon 11/18/19	Sun 2/16/20
H20215	CLOSEOUT	100%	Tue 3/17/20	Mon 2/15/21
H20297	**FY20 Asset Management Assistance**	100%	Wed 1/29/20	Sun 11/1/20
H20297	INITIATION & PROCUREMENT	100%	Wed 1/29/20	Fri 10/2/20
H20297	CLOSEOUT	100%	Tue 10/27/20	Sun 11/1/20
H21111	**FY21 FOG Program Support**	34%	Wed 7/1/20	Wed 6/30/21
H21111	INITIATION & PROCUREMENT	35%	Wed 7/1/20	Wed 6/16/21
H21111	CLOSEOUT	0%	Wed 6/16/21	Wed 6/30/21



Appendix A Acronyms

ACRONYM	DEFINITION
AAOV	Average Annual Overflow Volume
ACD	Amended Consent Decree
BGI	Beargrass Interceptor
BGIR	Beargrass Interceptor Relief
BOD	Biological Oxygen Demand
CCP	Composite Correction Plan
CCWQTC	Cedar Creek Water Quality Treatment Center
CMF	Central Maintenance Facility
CMOM	Capacity Management Operations and Maintenance
CPE	Comprehensive Performance Evaluations
CSO	Combined Sewer Overflow
CSOFT	Software Name
CSS	Combined Sewer System
DAP	Discharge Abatement Plan
DRGWQTC	Derek R. Guthrie Water Quality Treatment Center
DWO	Dry Weather Overflow
EPA	Environmental Protection Agency
FEPS	Final Effluent Pump Station
FOG	Fat Oil and Grease
FY	Fiscal Year
GLPM	Gravity Line Preventive Maintenance
HCWQTC	Hite Creek Water Quality Treatment Center
HMI	Human Machine Interface
I/I	Inflow and Infiltration
I/O	Input/ Output
ICM	Integrated Catchment Model
ID	Identification
IFIX	Software name
IOAP	Integrated Overflow Abatement Plan
ISSDP	Interim Sanitary Sewer Discharge Plan
KDEP	Kentucky Department of Environmental Protection
KPDES	Kentucky Pollutant Discharge Elimination System
LG&E	Louisville Gas & Electric Company
LTCP	Long Term Control Plan
LWC	Louisville Water Company
MCC	Motor Control Center
MF/MFWQTC	Morris Forman Water Quality Treatment Center
MFI	Middle Fork Interceptor
MG	Million Gallons
MGD	Million Gallons per Day

ACRONYM	DEFINITION
MSD	Metropolitan Sewer District (Louisville and Jefferson County)
NGPS	Nightingale Pump Station
NMC	Nine Minimum Controls
ORFM	Ohio River Force Main
ORI	Ohio River Interceptor
PLC	Programmable Logic Controller
PM	Preventive Maintenance
PS	Pump Station
RAS	Return Activated Sludge
RTC	Real Time Control
SCADA	Supervisory Control And Data Acquisition
SCAP	System Capacity Assurance Plan
SCS	Soil Conservation Service
SED2	South East Diversion 2
SL-RAT	Sewer Line Rapid Assessment Tool
SOP	Standard Operating Procedure
SOR1	Southern Outfall Retention Facility 1
SORP	Sewer Overflow Response Protocol
SPS	Starkey Pump Station
SSDP	Sanitary Sewer Discharge Plan
SSES	Sewer System Evaluation Survey
SSO	Sanitary Sewer Overflow
SSOP	Sanitary Sewer Overflow Plan
SWOR1	Southwestern Outfall Retention – Phase 1
SWOR2	Southwestern Outfall Retention – Phase 2
SWPS	Southwestern Pump Station
SWSG	Southwest Sluice Gate
TRFD	Total Rainfall Depth
TSS	Total Suspended Solids
TV	Television
UM	Unplanned Maintenance
UMFPS	Upper Middle Fork Pump Station
US	United States
VFD	Variable Frequency Drive
WIN	Waterway Improvements Now
WQTC	Water Quality Treatment Center
WUS	Waters of the United States
WWTF	Wastewater Treatment Facility

APPENDIX B DISCHARGE WORK ORDERS

Appendix B-1 Discharges to Waters of the United States

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
CEDAR CREEK	KY0098540	10809 BROOKSIDE DR	9/17/2019 18:00	9/17/2019 20:33	400	Sewer Manhole	42268A	STREAM	CHENOWETH RUN	LOCATED BURIEED MH# 42268A BURIED UNDER HEAVY ROCK WITH DETECTOR UNCOVERING AND EXCAVTING MH BY HAND WHEN THIS MANHOLE STARTED TO DISCHARGE.	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3158452	THE DISCHARGE NEAR CREEK TRAVELED INTO CREEK.	MAIN SEWER WAS FLUSHED FROM MH# 16615. OPENED MAIN SEWER.
HITE CREEK	KY0022420	10503 POINTE BAY BLVD	9/28/2019 7:20	9/28/2019 10:00	600	Sewer Main	MSD0069-PS	GROUND	LITTLE GOOSE CREEK	THERE WAS A STRUCTURAL FAILURE (FORCEMAIN BREAK).	STRUCTURAL FAILURE	DRY WEATHER	3160293	WE CLEANED AND SANITIZED THE IMPACTED AREA.	WE REPAIRED THE FORCEMAIN 01083D-AG.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	10/31/2019 10:55	10/31/2019 12:45	525	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY:HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3172793	CLEAN UP NOT REQUIRED, NO VISABLE SIGNS OF DEBRIS ON OR AROUND MANHOLE.	LOCATION INCLUDED IN THE IOAP.
HITE CREEK	KY0022420	5504 TIMBER CREEK CT	11/25/2019 9:35	12/3/2019 15:20	98800	Sewer Main	117932-AG	GROUND	HARRODS CREEK	FORCEMAIN STRUCTURAL FAILURE.	STRUCTURAL FAILURE	DRY WEATHER	3180984	MSD PERSONNEL TO CLEAN AFFECTED AREA OR CONTRACTOR.	CONTRACTOR TO REPAIR FORCEMAIN.
HITE CREEK	KY0022420	5500 HITT RD	11/26/2019 13:58	11/26/2019 17:37	6975	Sewer Treatment Plant	MSD0202	STREAM	HITE CREEK	CONTRACTOR HIT FORCE MAIN WHILE EXCAVATING.	UTILITY DAMAGED MSD ASSET	DRY WEATHER	3181148	NO DEBRIS.	CONTRACTOR REPAIRED FORCE MAIN.
MORRIS FORMAN	KY0022411	8409 SABERDEE DR	11/30/2019 10:20	12/1/2019 0:14	13200	Sewer Manhole	43472	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181416	MSD CLEAN AND SANITIZE AREA.	SITE FOUND DURING RAIN EVENT RECON.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	11/30/2019 6:45	12/1/2019 23:30	7900000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181417	NO CLEANUP REQUIRED, MANHOLE IS DISCHARGING DIRECTLY INTO CREEK.	LOCATION INCLUDE IN IOAP.
MORRIS FORMAN	KY0022411	2408 GRAY FOX RD	11/30/2019 11:20	12/1/2019 5:30	135000	Sewer Manhole	27012	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181433	WO#3181641.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	11/30/2019 11:30	12/1/2019 5:45	360000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181435	WO#3181642.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3506 CHARLANE PKY	11/30/2019 12:50	12/1/2019 7:55	34230	Sewer Manhole	28250	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181448	WO#3181638.	LOCATION INCLUDED IN IOAP.
FLOYDS FORK	KY0102784	815 TUCKER STATION RD	11/30/2019 11:25	11/30/2019 16:50	43000	Sewer Manhole	33003	STREAM	POPE LICK	LACK OF SEWER CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181450	NO CLEAN UP REQUIRED, SOLIDS & FLOATABLES WAS NOT DISCHARGED FROM THE MANHOLE.	LOCATION INCLUDED IN IOAP.
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	11/30/2019 9:45	11/30/2019 21:00	11550	Sewer Manhole	60679	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181467	NONE POSSIBLE DUE TO MAGNITUDE OF STORM.	SITE FOUND DURING RAIN EVENT RECON - WILL BE MONITORED AND EVALUATED FOR REPAIR.
MORRIS FORMAN	KY0022411	2001 TERRIL LN	11/30/2019 16:50	12/1/2019 14:17	32175	Sewer Manhole	23212	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181515	WO#3181663.	LOCATION INCLUDED IN IOAP.
DEREK R. GUTHRIE	KY0078956	4005 KIRBY LN	12/30/2019 13:08	12/30/2019 14:30	2460	Sewer Manhole	61266	DITCH	FERN CREEK	MECHANICAL FAILURE, PUMPS AIRLOCKED.	MECHANICAL FAILURE	WET WEATHER	3190259	DEBRIS RAKED, BAGGED AND HAULED OFF WO # 3190326.	REPLACED THE FAULTY FLOAT SWITCH THAT CAUSED THE PUMPS TO AIRLOCK WO # 3190322.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	3/14/2020 16:15	3/15/2020 1:15	400000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3220825	NO CLEANUP REQUIRED, MANHOLE IS DISCHARGING DIRECTLY INTO CREEK	LOCATION INCLUDED IN IOAP
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	5/6/2020 9:00	5/6/2020 9:10	1000	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	MANHOLE OVERWHELMED DUE TO A POSSIBLE BLOCKAGE OR COLLAPSED LINE.	BYPASS AT WQTC	WET WEATHER	3255672	STAFF HOSED DOWN AREA INTO PLANT DRAIN. VACTOR VENDOR DISPATCHED TO CLEAN AREA.	OBSTRUCTION CLEARED.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	5/16/2020 7:33	5/16/2020 15:11	3750	Sewer Manhole	93719	DITCH	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3257023	CLEANED AND SANITIZED THE IMPACTED AREA.	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE INTEGRATED OVERFLOW ABATEMENT PLAN.
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	5/16/2020 8:03	5/16/2020 15:15	1800	Sewer Manhole	102339	GROUND	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3257025	CLEANED AND SANITIZED THE IMPACTED AREA.	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE INTEGRATED OVERFLOW ABATEMENT PLAN.

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
CEDAR CREEK	KY0098540	9719 COLLIER LN	6/30/2020 0:40	6/30/2020 9:37	92000	Sewer Manhole	98022	STREAM	CEDAR CREEK	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3275944	NO DEBRIS WAS OBSERVED.	SYSTEM CAPACITY CAUGHT UP WITH FLOW.
CEDAR CREEK	KY0098540	5600 HOFELICH CT	11/30/2019 16:40	11/30/2019 18:20	15	Sewer Manhole	28998	GROUND	CEDAR CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181517	WO # 3181528	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	12/29/2019 22:47	12/30/2019 6:45	11950	Sewer Manhole	28452	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190206	WO#3190201.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	12/29/2019 22:52	12/30/2019 6:49	11950	Sewer Manhole	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190208	WO#3190207.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	1/3/2020 19:45	1/4/2020 0:45	300000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3193065	CLEAN UP NOT REQUIRED.UNDER GROUND PIPE DISCHARGES DIRECTLY IN TO THE CREEK.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	2408 GRAY FOX RD	1/11/2020 14:00	1/12/2020 9:20	57000	Sewer Manhole	27012	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194066	WO#3194138.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	1/11/2020 14:00	1/12/2020 9:25	142500	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194067	WO#3194139.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	202 OXMOOR LN	1/11/2020 14:30	1/12/2020 9:45	285000	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194068	WO#3194141.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3317 DELL RD	1/11/2020 14:15	1/12/2019 7:50	26500	Sewer Manhole	28413	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194054	WO#3194131.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	1/11/2020 14:35	1/12/2020 8:05	26250	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194056	WO#3194133.	LOCATION INCLUDED IN IOAP.
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	1/11/2020 17:53	1/12/2020 2:15	12550	Sewer Manhole	60679	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194070	CLEANED AND SANITIZED THE IMPACTED AREA.	RAIN STOPPED ALLOWING STATION TO RECOVER AND DISCHARGE STOPPED.
HITE CREEK	KY0022420	3700 CYPRESS SPRINGS PL	2/6/2020 12:30	2/6/2020 12:40	500	Sewer Lift Station	MSD1018-PS	GROUND	FLOYDS FORK	GREASE PLUGGED TRANSDUCERS PREVENTING PUMPS FROM STARTING.	ELECTRICAL PROBLEMS AT MSD	DRY WEATHER	3207919	MSD PERSONNEL CLEANED AND SANITIZED IMPACTED AREA.	MANUALLY TURNED ON PUMPS TO STOP DISCHARGE AND CLEANED TRANSDUCER.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	2/12/2020 20:00	2/12/2020 22:30	7500	Sewer Lift Station	MSD0101-PS	DITCH	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208896	MAGNITUDE OF STORM RESULTED IN NO DEBRIS REMAINING.	NOTHING NEEDED.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	2/12/2020 21:00	2/13/2020 13:20	192000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208937	WO#3209004.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	201 BULLITT LN	2/12/2020 21:30	2/13/2020 9:50	54000	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208939	WO#3209005.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	201 BULLITT LN	1/11/2020 14:30	1/12/2020 9:45	1425000	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194069	WO#3194140.	LOCATION INCLUDED IN IOAP.
DEREK R. GUTHRIE	KY0078956	5205 HASBROOK DR	2/5/2020 9:26	2/5/2020 11:30	2480	Sewer Valve	82091-V	GROUND	FLOYDS FORK	MECHANICAL FAILURE OF AIR RELIEF VALVE.	MECHANICAL FAILURE	WET WEATHER	3207738	WO#3173353	SHUT OFF PUMPS AT HASBROOK PUMP STATION AND HAULED SEWAGE WHILE REPAIRS BEING MADE (REPAIR WO 3173353).
MORRIS FORMAN	KY0022411	7900 SHELBYVILLE RD	2/12/2020 21:40	2/13/2020 10:00	54000	Sewer Manhole	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208940	WO#3209002.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	7913 SHELBYVILLE RD	2/12/2020 21:45	2/13/2020 10:55	54000	Sewer Manhole	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208941	WO#3209008.	LOCATION INCLUDED IN IOAP.

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MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	2/12/2020 19:04	2/13/2020 15:47	670000	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208942	NO CLEANUP REQUIRED PIPES DISCHARGE UNDERWATER, DIRECTLY INTO CREEK.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3406 DELL RD	2/12/2020 21:00	2/13/2020 8:15	33750	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208943	WO#3208993.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3317 DELL RD	2/12/2020 21:10	2/13/2020 8:20	16875	Sewer Manhole	28413	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208944	WO#3208991.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	801 S 4TH ST	2/14/2020 9:30	2/17/2020 13:15	15430	Sewer Manhole	CSO034	GROUND	OHIO RIVER	OBSTRUCTION IN THE MAIN.	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3209394	NOT REQUIRED, DISC PIPE IS DISCHARGING TO CENTRAL RELIEF DRAIN.	NONE AT THIS TIME. FURTHER INVESTIGATION REQUIRED.
MORRIS FORMAN	KY0022411	6600 SEMINARY WOODS PL	2/19/2020 13:00	2/19/2020 19:30	39000	Sewer Lift Station	MSD0123-PS	DITCH	GOOSE CREEK	BROKEN PIPE FITTING TO AIR RELIEF VALVE ON FORCE MAIN.	STRUCTURAL FAILURE	DRY WEATHER	3211399	MSD PERSONNEL CLEANED AND SANITIZED IMPACTED AREA.	SHUT OFF ALL PUMP STATIONS FEEDING FORCE MAIN TO ALLOW REPAIRS TO BE MADE.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	4/13/2020 3:50	4/13/2020 11:39	44123	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234714	NO CLEANUP REQUIRED, MANHOLE IS DISCHARGING DIRECTLY INTO CREEK.	LOCATION INCLUDED IN THE IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	3/13/2020 0:15	3/13/2020 6:20	9000	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3218950	WO#3220563.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	3/14/2020 21:30	3/14/2020 22:00	100	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3223587	NO CLEAN UP NOT PERFORMED NO PUBLIC ACCESS TO THE DISCHARGE SITE	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	3/19/2020 15:45	3/20/2020 10:15	30750	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LOCATION IN IOAP	LACK OF SYSTEM CAPACITY	WET WEATHER	3223594	WO#3226392	LOCATION IN IOAP
HITE CREEK	KY0022420	5500 HITT RD	3/26/2020 20:30	3/27/2020 3:15	6075	Sewer Manhole	11877A	STREAM	HITE CREEK	DEMOLITION WORK ON EXISTING EQUIPMENT/PUMP STATION.	STRUCTURAL FAILURE	DRY WEATHER	3227370	LIME SPREAD THROUGHOUT AREA.	REPAIRING OF EXISTING EQUIPMENT.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	3/12/2020 23:30	3/12/2020 2:33	8240	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3218949	NO CLEANUP REQUIRED, THE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY TO STREAM.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	3/12/2020 0:40	3/13/2020 9:00	102000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3218981	WO#3220565.	LOCATION INCLUDED IN THE IOAP.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	3/18/2020 20:30	3/21/2020 2:00	4600000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3223254	NO CLEAN UP NOT PERFORMED NO PUBLIC ACCESS TO THE DISCHARGE SITE	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	7/3/2019 15:22	7/30/2019 11:00	800	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY. HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3130346	CLEAN UP NOT REQUIRED. DISCHARGE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY INTO THE CREEK.	LOCATION INCLUDED IN IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	7/30/2019 3:14	7/30/2019 3:16	43	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY IN HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3137677	NONE, PIPE DISCHARGE DIRECTLY TO CREEK.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	5/16/2020 10:08	5/16/2020 15:00	1500	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3257061	WO#3257194	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	334 MOCKINGBIRD VALLEY RD	6/23/2020 22:20	6/23/2020 22:50	350	Sewer Lift Station	MSD0007-PS	DITCH	MUDDY FORK BEARGRASS CREEK	MECHANICAL FAILURE, PUMP FAIL TO START.	MECHANICAL FAILURE	DRY WEATHER	3274984	CLEANED AND SANITIZED THE IMPACTED AREA.	PUMP BATTERY CABLE REPAIRED AND PUMP STARTED.
CEDAR CREEK	KY0098540	10519 PROVIDENCE DR	11/5/2019 9:15	11/6/2019 9:34	5	Sewer Main	102886-V	GROUND	CEDAR CREEK	STRUCTURAL FAILURE IN FORCE MAIN.	STRUCTURAL FAILURE	WET WEATHER	3173359	MSD PERSONNEL TO CLEAN AFFECTED AREA.	CONTRACTOR REPAIRING FORCE MAIN.
MORRIS FORMAN	KY0022411	3620 CHARLANE PKY	11/30/2019 8:15	12/1/2019 7:40	56200	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181427	WO#3181635.	LOCATION INCLUDED IN IOAP.

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MORRIS FORMAN	KY0022411	3406 DELL RD	11/30/2019 7:39	12/1/2019 7:35	28800	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181429	WO#3181637.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1700 SULGRAVE RD	11/30/2019 11:40	11/30/2019 19:30	36000	Sewer Manhole	72289	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181436	WO#3181643.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	11603 SHELBYVILLE RD	10/28/2019 0:00	10/29/2019 0:00	1440	Sewer Main	00595	CATCH BASIN	MIDDLETOWN BRANCH	THERE WAS POSSIBLE DAMAGE BY OTHER UTILITY.	UTILITY DAMAGED MSD ASSET	DRY WEATHER	3172279	WORK ORDER 3172287.	REFERRED FOR MAIN SEWER REPAIR.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	10/31/2019 8:26	10/31/2019 12:14	2727	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY: HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3172781	NO CLEANUP REQUIRED, THE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY TO STREAM.	LOCATION INCLUDED IN THE IOAP.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	10/31/2019 9:30	10/31/2019 14:30	600000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY: HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3172790	NO CLEANUP REQUIRED, MANHOLE DISCHARGES DIRECTLY TO CREEK.	LOCATION INCLUDED IN THE IOAP.
CEDAR CREEK	KY0098540	10801 FAIRMOUNT RD	11/26/2019 14:58	11/27/2019 16:21	30040	Sewer Main	78207	STREAM	CEDAR CREEK	STRUCTURAL FAILURE, FORCE MAIN BREAK.	STRUCTURAL FAILURE	DRY WEATHER	3181130	PLACED BAILS OF STRAW TO CATCH DEBRIS, MSD PERSONNEL TO CLEAN AND DISINFECT FOLLOWING REPAIR.	CONTRACTOR TO REPAIR FORCE MAIN.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	11/30/2019 7:50	12/1/2019 7:50	158400	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181419	WO#3181632.	LOCATION INCLUDE IN IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	11/30/2019 7:52	12/1/2019 7:51	7200	Sewer Manhole	28452	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181421	WO#3181633.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	11/30/2019 8:56	12/1/2019 13:14	1612271	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181447	NO CLEANUP REQUIRED, MANHOLE IS DISCHARGING DIRECTLY INTO CREEK.	LOCATION IN IOAP.
MORRIS FORMAN	KY0022411	4337 PRUITT CT	11/30/2019 12:55	12/1/2019 15:21	15900	Sewer Manhole	08429	GROUND	BUECHEL BRANCH	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181454	WO#3181659.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	202 OXMOOR LN	11/30/2019 13:35	12/1/2019 6:00	320000	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181504	WO#3181644.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	7900 SHELBYVILLE RD	11/30/2019 13:45	12/1/2019 6:05	19200	Sewer Manhole	02935	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181506	WO#3181647.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	8021 CHRISTIAN CT	11/30/2019 14:05	12/1/2019 6:15	96000	Sewer Manhole	47593	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181511	WO#3181655.	LOCATION INCLUDED IN IOAP.
CEDAR CREEK	KY0098540	5410 SPRIGWOOD LN	11/30/2019 16:35	11/30/2019 18:25	15	Sewer Manhole	28984	GROUND	CEDAR CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3181522	OPERATION DISCLN	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP
CEDAR CREEK	KY0098540	10800 FAIRMOUNT RD	12/1/2019 10:45	12/2/2019 8:00	129000	Sewer Manhole	97365	GROUND	BIG RUN	CAUSED DUE TO REPAIR ON FORCE MAIN AND LIMITED CAPACITY OF PUMP STATION.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181606	WO#3182298.	LOCATION INCLUDED IN IOAP.
CEDAR CREEK	KY0098540	9719 COLLIER LN	11/30/2019 13:15	12/1/2019 0:15	12540	Sewer Manhole	98022	STREAM	CEDAR CREEK	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3182265	NO DEBRIS ON SITE.	LOCATION IN THE IOAP.
MORRIS FORMAN	KY0022411	9707 WILLOWWOOD WAY	11/30/2019 8:10	12/1/2019 7:45	35375	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181428	WO#3181636.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	4313 PRUITT CT	11/30/2019 12:25	12/1/2019 15:08	320000	Sewer Manhole	08427	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181444	WO#3181657.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	4332 PRUITT CT	11/30/2019 13:05	12/1/2019 15:30	79250	Sewer Service Line	085100290046A	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181453	WO#3181658.	LOCATION INCLUDED IN IOAP.

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
MORRIS FORMAN	KY0022411	4341 PRUITT CT	11/30/2019 12:59	12/1/2019 15:27	159000	Sewer Manhole	08430	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181455	WO#3181660.	LOCATION INCLUDED IN IOAP.
DEREK R. GUTHRIE	KY0078956	8800 ADMIRAL DR	11/30/2019 10:00	12/1/2019 3:48	53400	Sewer Manhole	93703	GROUND	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181471	NONE POSSIBLE DUE TO MAGNITUDE OF STORM.	SITE FOUND DURING RAIN EVENT RECON - WILL BE MONITORED AND EVALUATED FOR REPAIR.
MORRIS FORMAN	KY0022411	3305 INDIAN CREEK CT	11/30/2019 14:10	12/1/2019 14:13	36000	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181478	WO#3181662.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	201 BULLITT LN	11/30/2019 13:35	12/1/2019 6:00	72000	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181505	WO#3181646.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3317 BROWNSBORO RD	11/30/2019 10:30	11/30/2019 15:30	6600	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181514	NO CLEANUP REQUIRED PIPE DISCHARGES DIRECTLY TO THE CREEK.	LOCATION INCLUDE IN IOAP.
HITE CREEK	KY0022420	5504 TIMBER CREEK CT	12/11/2019 6:10	12/12/2019 12:15	600000	Sewer Main	117932-AG	GROUND	HARRODS CREEK	ADDITIONAL STRUCTURAL FAILURE OF FORCE MAIN AT CONSTRUCTION SITE/DISDW #3180984.	STRUCTURAL FAILURE	DRY WEATHER	3185089	EXISTING CONTRUCTION AREA/ DISDW #3180984.	FORCE MAIN REPAIR IN PROGRESS/DISDW #3180984.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	12/16/2019 18:00	12/17/2019 13:45	1700000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3186627	CLEAN-UP NOT REQUIRED, MANHOLE DISCHARGE DIRECTLY INTO THE CREEK.	LOCATION IN THE IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	12/29/2019 18:15	12/30/2019 10:55	25000	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190126	WO#3190236.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	12/29/2019 20:30	12/30/2019 17:45	23000000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OFSYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3190135	CLEANU NOT REQUIRED, PIPE DISCHARGES UNDERGROUND INTO THE CREEK	LOCATION IS INCLUDED IN IOAP
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	12/29/2019 21:54	12/30/2019 2:00	7650	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3190153	NONE POSSIBLE DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1044 ALTA VISTA RD	3/19/2020 15:40	3/20/2020 12:55	161000	Sewer Manhole	27008	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-- HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3223593	WO#3226390.	LOCATION IN IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	3/18/2020 21:45	3/20/2020 15:26	341112	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3223595	NO CLEAN UP NOT PERFORMED NO PUBLIC ACCESS TO THE DISCHARGE SITE	LOCATION INCLUDED IN THE IOAP
HITE CREEK	KY0022420	6596 KEN CARLA DR	12/11/2019 8:48	12/11/2019 15:50	150000	Sewer Lift Station	MSD1215-PS	STREAM	HARRODS CREEK	STRUCTURAL FAILURE OF FORCE MAIN AT CONSTRUCTION SITE/DISDW #3180984.	STRUCTURAL FAILURE	DRY WEATHER	3185106	CONTRACTOR TO CLEAN AND SANITIZE AFFECTED AREA.	FORCE MAIN REPAIR DISDW #3180984.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	12/17/2019 0:01	12/17/2019 1:17	6700	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3187889	NO CLEAN UP PERFORMED – PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	12/29/2019 23:30	12/30/2019 4:30	7500	Sewer Manhole	60679	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190152	NONE POSSIBLE DUE TO MAGNITUDE OF STORM.	SITE FOUND DURING RAIN EVENT RECON - WILL BE MONITORED AND EVALUATED FOR REPAIR.
MORRIS FORMAN	KY0022411	3406 DELL RD	1/11/2020 14:20	1/12/2020 7:55	26500	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194055	WO#3194132.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	1/11/2020 11:30	1/12/2020 14:45	900000	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194062	NO CLEANUP REQUIRED DISCHARGE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY IN TO THE CREEK.	LOCATION INCLUDED IN IOAP.
FLOYDS FORK	KY0102784	605 WOODLAKE DR	3/26/2020 16:30	3/26/2020 18:22	3000	Sewer Main	80378B-AG	DITCH	CHENOWETH RUN,UPPER	STRUCTURAL FAILURE-- FORCE MAIN BREAK.	STRUCTURAL FAILURE	DRY WEATHER	3227353	AREA DISINFECTED WITH LIME.	CONTACTED CONTRACTOR TO MAKE REPAIRS.
CEDAR CREEK	KY0098540	8405 CEDAR CREEK RD	5/8/2020 17:08	5/8/2020 17:11	150	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	LACK OF SYSTEM CAPACITY	BYPASS AT WQTC	WET WEATHER	3256040	THERE WAS NO DEBRIS PRESENT	WE OPENED THE SAND FILTER BYPASS GATE.

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	5/16/2020 5:45	5/16/2020 18:30	700000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3257030	NO CLEAN UP NOT PERFORMED NO PUBLIC ACCESS TO THE DISCHARGE SITE.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3620 CHARLANE PKY	6/30/2020 7:15	6/30/2020 9:15	3000	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3275987	WO#3276094	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	1/11/2020 12:15	1/12/2002 23:15	6000000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3194064	NO CLEANUP REQUIRED DISCHARGE PIPE IS SUBMERGED AND DISCHARGES DIRECTLY IN TO THE CREEK	LOCATION INCLUDED IN IOAP
CEDAR CREEK	KY0098540	9719 COLLIER LN	2/12/2020 20:07	2/17/2020 10:00	358600	Sewer Manhole	98022	STREAM	CEDAR CREEK	MECHANICAL FAILURE.	MECHANICAL FAILURE	WET WEATHER	3208888	NO DEBRIS WAS OBSERVED.	WE CLEANED OUT THE PUMPS.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	2/12/2020 18:15	2/14/2020 4:15	6000000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208936	CLEAN UP NOT REQUIRED, IT IS A REMOTE LOCATION WITH LACK OF PUBLIC ACCESS.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	202 OXMOOR LN	2/12/2020 21:30	2/13/2020 9:50	54000	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208938	WO#3209006.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	9707 WILLOWWOOD WAY	2/12/2020 21:40	2/13/2020 8:50	16875	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208947	WO#3208987.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	2/12/2020 21:15	2/13/2020 8:30	33750	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208997	WO#3208998.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	420 W RIVER RD	2/14/2020 8:30	2/19/2020 8:20	9999	Sewer Lift Station	MSD1017-PS	STREAM	OHIO RIVER	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3209138	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL.	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL.
MORRIS FORMAN	KY0022411	3620 CHARLANE PKY	12/29/2019 23:20	12/30/2019 6:55	11375	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190210	WO #3190209.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	9707 WILLOWWOOD WAY	12/29/2019 23:15	12/30/2019 11:00	17625	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190212	WO #3190211.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	2/12/2020 21:25	2/13/2020 8:36	16875	Sewer Manhole	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACTIY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208946	WO#3208988.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3620 CHARLANE PKY	2/12/2020 21:55	2/13/2020 8:45	16250	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3208948	WO#3208986.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3406 DELL RD	4/13/2020 9:20	4/13/2020 11:13	3000	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234919	WO#3235010	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	4/13/2020 9:40	4/13/2020 12:00	3500	Sewer Manhole	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234924	WO#3235011	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1677 STORY AVE	2/14/2020 16:58	2/18/2020 1:14	2000	Sewer Manhole	30213	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	THE BEARGRASS FLOOD PUMPING STATION WAS IN SERVICE AND GATE 6 WAS CLOSED.	PUMPED OVERFLOW	WET WEATHER	3209530	NONE REQUIRED. FLOW MADE IT TO THE WET WELL OF BEARGRASS CREEK FLOOD PUMP STATION AND WAS PUMPED TO THE RIVER.	WE WILL OPEN GATE 6 WHEN THE RIVER RECEDES TO 24.6 FT AND ALLOW FLOW TO TRAVEL ON TO THE TREATMENT PLANT.
MORRIS FORMAN	KY0022411	3317 DELL RD	4/13/2020 9:15	4/13/2020 11:11	3000	Sewer Manhole	28413	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234916	WO#3235008	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3400 DELL RD	4/13/2020 9:20	#□□	3000	Sewer Manhole	28414	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234918	WO#3235009	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	4/13/2020 9:30	4/13/2020 13:10	16500	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234925	WO#3235013	LOCATION INCLUDED IN IOAP.

ASSOCIATED **WQTC NAME**	ASSOCIATED **WQTC KPDES#**	**OVERFLOW** LOCATION	**OVERFLOW START DATE & TIME**	**OVERFLOW STOP DATE & TIME**	**VOLUME OF OVERFLOW** (GAL)	SOURCE **ASSET TYPE**	SOURCE ASSET ID	SOURCE ASSET **DISCHARGES TO**	**RECEIVING STREAM**	**CAUSE OF OVERFLOW**	DUE TO	**WEATHER**	**WO #**	**CLEANUP EFFORTS BY MSD**	**REPAIR EFFORTS BY MSD**
FLOYDS FORK	KY0102784	611 WOODLAKE DR	7/19/2019 11:57	7/19/2019 12:20	1150	Sewer Main	80581B-AG	STREAM	FLOYDS FORK	THERE WAS A STRUCTURAL FAILURE, FORCEMAIN BREAK.	STRUCTURAL FAILURE	DRY WEATHER	3136302	IT WAS DISINFECTED AREA WITH LIME.	CHEROKEE CONSTRUCTION REPAIRED FORCE MAIN.
MORRIS FORMAN	KY0022411	309 DORSEY WAY	8/24/2019 16:50	8/24/2019 19:45	8	Sewer Service Line	29102	GROUND	MIDDLE FORK BEARGRASS CREEK	THERE WAS DEBRIS IN MANHOLE.	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3147082	REFERS TO AREA SUPERVISOR FOR DISCLEAN.	FLUSHED AND REMOVED DEBRIS FROM MANHOLE.
MORRIS FORMAN	KY0022411	5901 U S HIGHWAY 42	8/26/2019 9:00	8/26/2019 12:30	50000	Sewer Valve	67746D-V	GROUND	GOOSE CREEK	CONTRACTOR DAMAGED FORCE MAIN.	UTILITY DAMAGED MSD ASSET	WET WEATHER	3147215	CONTRACTOR CLEANED AND SANITZED THE AERA.	FLYNN COMPANY REPAIRED WITH SOLID REPAIR COUPLINGS.
MORRIS FORMAN	KY0022411	6600 SEMINARY WOODS PL	8/26/2019 11:30	8/26/2019 17:45	187500	Sewer Lift Station	MSD0123-PS	DITCH	GOOSE CREEK	STRUCTURAL FAILURE FORCEMAIN BREAK.	STRUCTURAL FAILURE	WET WEATHER	3147233	AREA DISINFECTED WITH LIME.	WE PLACED STRAW BALES TO CONTAIN THE OVERFLOW.
FLOYDS FORK	KY0102784	14310 LAKE FOREST DR	8/30/2019 11:36	8/30/2019 11:41	25	Sewer Main	80351B-AG	GROUND	CHENOWETH RUN	STRUCTURAL FAILURE OF FORCE MAIN.	STRUCTURAL FAILURE	DRY WEATHER	3148100	WE CLEANED AND SANITIZED THE IMPACTED AREA.	DERBY CITY ENVIROMENTAL HAULED STATION (WO# 3148105) WHILE CHEROKEE CONSTRUCTION REPAIRED FORCE MAIN (WO# 3148102).
DEREK R. GUTHRIE	KY0078956	3809 DIXIE HWY	11/9/2019 5:25	11/9/2019 5:30	100	Sewer Main	06940-AG	GROUND	MILL CREEK	STRUCTURAL FAILURE: FORCE MAIN BREAK.	STRUCTURAL FAILURE	DRY WEATHER	3174624	WE SPREAD LIME.	PUMP STATION SHUT DOWN AND HAULED.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	11/30/2019 8:02	12/1/2019 7:52	42900	Sewer Manhole	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181426	WO#3181634.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	4315 PRUITT CT	11/30/2019 12:22	12/1/2019 15:04	40000	Sewer Manhole	08426	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181443	WO#3181656.	LOCATION INCLUDED IN IOAP.
HITE CREEK	KY0022420	7302 FLOYDSBURG RD	11/30/2019 12:30	12/1/2019 0:30	28800	Sewer Manhole	108953	DITCH	FLOYDS FORK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181457	NONE POSSIBLE DUE TO MAGNITUDE OF STORM.	SITE FOUND DURING RAIN EVENT RECON - WILL BE MONITORED AND EVALUATED FOR REPAIR.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	11/30/2019 10:30	11/30/2019 20:50	20400	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181473	NONE POSSIBLE DUE TO MAGNITUDE OF STORM.	SITE FOUND DURING RAIN EVENT RECON - WILL BE MONITORED AND EVALUATED FOR REPAIR.
MORRIS FORMAN	KY0022411	3302 TROUT CREEK DR	11/30/2019 13:44	12/1/2019 15:18	109950	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181477	WO#3181661.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	4640 BARBOUR LN	11/30/2019 13:30	12/1/2019 0:36	66600	Sewer Manhole	65633	STREAM	LITTLE GOOSE CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181491	NONE POSSIBLE DUE TO MAGNITUDE OF STORM.	SITE FOUND DURING RAIN EVENT RECON - WILL BE MONITORED AND EVALUATED FOR REPAIR.
MORRIS FORMAN	KY0022411	7900 SHELBYVILLE RD	11/30/2019 13:50	12/1/2019 6:10	72000	Sewer Manhole	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181507	WO#3181648	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	8021 CHRISTIAN CT	11/30/2019 13:55	12/1/2019 6:10	19200	Sewer Manhole	90700	CATCH BASIN	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181508	WO#3181651.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	7913 SHELBYVILLE RD	11/30/2019 14:25	12/1/2019 6:15	72000	Sewer Manhole	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3181510	WO#3181654.	LOCATION INCLUDED IN IOAP.
HITE CREEK	KY0022420	6618 DEL HAVEN AVE	12/11/2019 15:20	12/12/2019 15:50	300000	Sewer Manhole	117936	STREAM	HARRODS CREEK	STRUCTURAL FAILURE FORCE MAIN BREAK.	STRUCTURAL FAILURE	DRY WEATHER	3185202	LIME AND STRAW WAS APPLIED.	MAC CONSTRUCTED A SETTLING POND TO PUMP INTO FOR TEMP STORAGE.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	12/16/2019 19:01	12/16/2019 21:10	129	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3186622	MSD CLEANED AND SANITZED IMPACTED AREA.	RAIN STOPPED ALLOWING STATION TO RECOVER.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	3/12/2020 22:00	3/13/2020 6:00	800000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3218979	NO CLEAN UP NOT PERFORMED NO PUBLIC ACCESS TO THE DISCHARGE SITE.	LOCATION INCLUDED IN THE IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	3/14/2020 19:20	3/15/2020 10:00	18000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3220832	WO#3220565	LOCATION INCLUDED IN IOAP

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
MORRIS FORMAN	KY0022411	1012 ALTA CIR	3/19/2020 13:40	3/19/2020 13:50	3000	Sewer Manhole	IS022A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-- HEAVY RAIN. CURRENTLY BEING INVESTIGATED, COULD BE RELATED TO SIPHON MAINTENANCE.	LACK OF SYSTEM CAPACITY	WET WEATHER	3223589	WO#3226589.	LOCATION IN IOAP.
MORRIS FORMAN	KY0022411	1700 SULGRAVE RD	3/19/2020 13:30	3/19/2020 13:50	400	Sewer Manhole	72289	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-- HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3223590	WO#3226591.	LOCATION IN IOAP.
MORRIS FORMAN	KY0022411	2408 GRAY FOX RD	3/19/2020 15:40	3/20/2020 12:55	161000	Sewer Manhole	27012	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-- HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3223591	WO#3226388.	LOCATION IN IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	3/19/2020 15:45	3/20/2020 12:55	276000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LOCATION IN IOAP	LACK OF SYSTEM CAPACITY	WET WEATHER	3223592	WO#32263896	LOCATION IN IOAP
MORRIS FORMAN	KY0022411	202 OXMOOR LN	3/19/2020 18:55	3/20/2020 5:55	132000	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3225529	WO#3226583.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	201 BULLITT LN	3/19/2020 18:55	3/20/2020 5:55	13200	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY--HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3225531	WO#3226584.	LOCATION INCLUDED IN IOAP.
HITE CREEK	KY0022420	5500 HITT RD	3/26/2020 19:35	3/27/2020 3:15	92040	Sewer Treatment Plant	MSD0202	STREAM	HITE CREEK	DEMOLITION OF EXISTING EQUIPMENT/PUMP STATION.	BYPASS AT WQTC	DRY WEATHER	3227369	LIME SPREAD THROUGHOUT AREA. STORM WATER STATION VECTORING.	REPAIRING OF EXISTING EQUIPMENT.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	6/30/2020 7:10	6/30/2020 9:00	2750	Sewer Manhole	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3275985	WO#3276093	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	12/29/2019 21:56	12/30/2019 4:30	100000	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OFSYSTEM CAPACITY HEAVY RAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3190134	CLEANUP NOT REQUIRED, PIPE DISCHARGES UNDERGROUND INTO THE CREEK	LOCATION IS INCLUDED IN IOAP
MORRIS FORMAN	KY0022411	3406 DELL RD	12/29/2019 22:35	12/30/2019 6:41	12150	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3190198	WO#3190197.	LOCATION INCLUDED IN IOAP.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	1/11/2020 14:20	1/11/2020 22:45	7575	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194026	CLEANED AND SANITIZED THE IMPACTED AREA.	RAIN STOPPED ALLOWING STATION TO RECOVER, STOPPING DISCHARGE.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	1/11/2020 14:55	1/12/2020 8:20	26250	Sewer Manhole	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194058	WO#3194134.	LOCATION INCLUDED IN IOAP.
MORRIS FORMAN	KY0022411	9707 WILLOWWOOD WAY	1/11/2020 15:10	1/12/2020 8:15	25625	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3194060	WO#3194136.	LOCATION INCLUDED IN IOAP.
HITE CREEK	KY0022420	6100 MAYFAIR AVE	2/14/2020 13:30	2/18/2020 19:00	9999	Sewer Lift Station	MSD1206-PS	GROUND	OHIO RIVER	LACK OF CAPACITY DUE TO OHIO RIVER FLOODING.	SYSTEM UNDERWATER	WET WEATHER	3209383	NONE REQUIRED.	STATION TO BE PLACED BACK IN SERVICE WHEN FLOOD WATERS RECEDE.
MORRIS FORMAN	KY0022411	1201 OLD CANNONS LN	4/13/2020 4:30	4/13/2020 18:00	2100000	Sewer Manhole	IS021A-SI	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY: HEAVY RAIN.	LACK OF SYSTEM CAPACITY	WET WEATHER	3234703	NO CLEANUP REQUIRED, MANHOLE IS DISCHARGING DIRECTLY INTO CREEK.	LOCATION INCLUDED IN THE IOAP.

Appendix B-2 Discharges to the Exterior

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
FLOYDS FORK	KY0102784	912 EASTWOOD FISHERVILLE RD	8/8/2019 14:50	8/8/2019 22:12	2000	Sewer Valve	96911A-V			STRUCTURAL FAILURE ARV FAILURE	STRUCTURAL FAILURE	DRY WEATHER	3139417	CLEANED AND SANITIZED THE IMPACTED AREA	HAULED UNTIL ARV REPAIRED
MORRIS FORMAN	KY0022411	140 WHITTINGTON PKY	10/2/2019 19:10	10/2/2019 19:45	1	Sewer Service Line	HU16010029			ROOT OBSTRUCTION IN MAIN ROOTS	ROOTS	DRY WEATHER	3162797	MSD PERSONEL CLEANED AREA	ROOT CUT AND FLUSHED MAIN
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	3/6/2020 6:09	3/6/2020 6:15	1000	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	MECHANICAL ISSUE WITH FLOAT IN SUMP PUMP	MECHANICAL FAILURE	DRY WEATHER	3217798	PLACED LIME	FIXED FLOAT IN SUMP PUMP
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	3/9/2020 9:00	3/9/2020 9:13	500	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	SUMP PUMP ON 3R PUMP AROUND FAILED	MECHANICAL FAILURE	DRY WEATHER	3218084	BARRICADE, LIME	RESTARTED PUMP
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	3/10/2020 4:00	3/10/2020 4:11	2000	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	PUMP CAPACITY AT PUMP AROUND NOT ADEQUATE	LACK OF SYSTEM CAPACITY	WET WEATHER	3218219	OPERATORS HOSING THE AREA	STOPPED WASTING
MORRIS FORMAN	KY0022411	705 MARQUETTE DR	8/28/2019 13:45	8/28/2019 14:57	30	Sewer Manhole	21519			ROOTS IN THE MAIN SEWER	ROOTS	DRY WEATHER	3147570	MSD WILL CLEAN AREA	REFERRED FOR AREA SUPERVISOR . ROOT CUT MAIN SEWER WO 3147549
DEREK R. GUTHRIE	KY0078956	1714 SANDERS LN	12/6/2019 14:50	12/6/2019 14:55	10	Sewer Main	04648B-AG			STRUCTURAL FAILURE. (BREAK IN SEWER MAIN)	STRUCTURAL FAILURE	DRY WEATHER	3183072	SEWAGE WAS CONTAINED TO AREA DUG UP DURING EXCAVATION TO REPAIR FORCE MAIN. NOTHING LEFT TO CLEAN AFTER REPAIRS COMPLETED	SHUT OFF PUMP STATION. HAULED TO PREVENT FURTHER DISCHARGE WHILE SEWER MAIN REPAIRED
DEREK R. GUTHRIE	KY0078956	5422 CEDARWOOD DR	3/19/2020 17:45	3/19/2020 20:00	50	Sewer Service Line	143801250000A			ROOTS IN MAIN SEWER	ROOTS	WET WEATHER	3225484	MSD PERSONNEL CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER TO RESTORE FLOW
HITE CREEK	KY0022420	6802 FAIRWAY VIEW CT	7/12/2019 10:45	7/12/2019 11:08	100	Sewer Main	68048B-AG	DITCH	HUNTING CREEK	• STRUCTURAL FAILURE - FORCEMAIN BREAK	STRUCTURAL FAILURE	DRY WEATHER	3131443	• CLEANED AND SANITIZED THE IMPACTED AREA	REPAIRED THE FORCEMAIN WO# 3131432
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	8/15/2019 9:43	8/15/2019 9:53	500	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	EZ CONSTRUCTION HIT A PROCESS WATER LINE WHILE DIGGING AT MORRIS FORMAN DURING THE PRIMARY RAW SLUDGE LINE REPLACEMENT	STRUCTURAL FAILURE	DRY WEATHER	3140508	NONE	STOPPED PROCESS WATER PUMPS
HITE CREEK	KY0022420	7604 LAUREL HILL PL	9/8/2019 15:00	9/8/2019 15:05	1	Sewer Main	66577			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3151088	MSD CLEAN IMPACTED AREA	THE MAIN FLUSH MAIN SEWER
CEDAR CREEK	KY0098540	10634 WATTERSON TRL	9/17/2019 15:35	9/17/2019 20:30	10	Sewer Manhole	42266A			ROOTS IN MAIN SEWER	ROOTS	DRY WEATHER	3158449	MSD PERSONNEL CLEANED IMPACTED AREA	FLUSHED MAIN SEWER FROM MH# 16615 OPENED MAIN SEWER; ROOT CUT MAIN SEWER
CEDAR CREEK	KY0098540	8405 CEDAR CREEK RD	10/22/2019 12:09	10/22/2019 12:09	25	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	WASTE MANAGEMENT TRUCK PICKED UP DUMPSTER AND DOOR CAME OPEN AND SPILLED RAGS AND GRIT ON PAVEMENT	MECHANICAL FAILURE	DRY WEATHER	3169688	CLEAN UP ON GOING	MAKE SURE DOOR IS CLOSED
DEREK R. GUTHRIE	KY0078956	5806 BRANDYWYNE CT	12/24/2019 14:30	12/24/2019 14:45	20	Sewer Main	70160A-AG			STRUCTURAL FAILURE FORCE MAIN BREAK	STRUCTURAL FAILURE	DRY WEATHER	3188374	CLEANED AND SANITIZED THE IMPACTED AREA	REPAIRED THE FORCE MAIN WO #
HITE CREEK	KY0022420	5500 HITT RD	3/26/2020 18:45	3/27/2020 3:15	51000	Sewer Treatment Plant	MSD0202	STREAM	HITE CREEK	DEMOLITION OF EXISTING EQUIPMENT/PUMP STATION.	STRUCTURAL FAILURE	DRY WEATHER	3227364	VACTOR/PRESSURE WASH CLEAN UP. SPREAD LIME THROUGHOUT AREA.	REPAIRING EXISTING EQUIPMENT.
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	5/6/2020 8:00	5/6/2020 9:00	180	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	MECHANICAL FAILURE OF LEVEL INDICATOR	MECHANICAL FAILURE	WET WEATHER	3255676	STAFF HOSED TO PLANT DRAIN	VALVED TANK INTO SERVICE
MORRIS FORMAN	KY0022411	4940 BROWNSBORO RD	6/11/2020 14:02	6/11/2020 14:26	4	Sewer Manhole	42779			GREASE	GREASE BLOCKAGE	DRY WEATHER	3270205	NO CLEAN UP REQUIRED	FLUSHED AND CUT LINE
DEREK R. GUTHRIE	KY0078956	6101 PRICE LANE RD	1/12/2020 15:15	1/12/2020 16:00	100	Sewer Main	25477			MAIN SEWER WAS HOLDING (GREASE) CAUSING A TWO WAY AT LOT 6007 NO SSL SYMBOL . DISCHARGE CAME OUT OF TWO WAY ON TO 6017 COOPER CHAPER.	GREASE BLOCKAGE	WET WEATHER	3194164	MSD WILL CLEAN AREA	FLUSHED MAIN SEWER TO REMOVE OBSTRUCTION (GREASE)
DEREK R. GUTHRIE	KY0078956	8307 STILLMEADOW DR	4/13/2020 9:40	4/13/2020 12:18	40	Sewer Main	71093			GREASE AND TOWELS IN MAIN	OBSTRUCTION-NOT GREASE / ROOTS	WET WEATHER	3234908	MSD WILL CLEAN AREA	FLUSHED MAIN

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
FLOYDS FORK	KY0102784	600 N BECKLEY STATION RD	5/5/2020 15:04	5/5/2020 15:07	10	Sewer Manhole	80369B	GROUND	CHENOWETH RUN,UPPER	ROOTS IN MAIN SEWER	ROOTS	WET WEATHER	3255583	MSD CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER
MORRIS FORMAN	KY0022411	3317 DELL RD	12/16/2019 19:20	12/16/2019 19:47	1	Sewer Main	28413			CAPACITY ISSUE IN THE MAIN	LACK OF SYSTEM CAPACITY	WET WEATHER	3186621	UNKNOWN AT THIS TIME	SYSTEM HAS TO CATCH UP WITH ITSELF
FLOYDS FORK	KY0102784	300 BECKLEY WOODS DR	5/10/2020 11:23	5/10/2020 11:56	8	Sewer Main	80487			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3256111	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED THE OBSTRUCTION IN THE MAIN SEWER
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	5/13/2020 10:15	5/13/2020 11:00	225	Sewer Manhole	77008			STRUCTURAL FAILURE OF SEWER LINE BETWEEN MANHOLE 70088 AND MANHOLE LOCATED NEXT TO PARKING LOT	STRUCTURAL FAILURE	WET WEATHER	3256596	HOSED AREA	INSTALL PUMP AROUND
DEREK R. GUTHRIE	KY0078956	3809 DIXIE HWY	6/26/2020 17:30	6/26/2020 18:30	200	Sewer Main	06940-AG	GROUND	MILL CREEK	FORCE MAIN BREAK	STRUCTURAL FAILURE	DRY WEATHER	3275516	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	PUMP SHUT OFF TO STOP FLOW AND STATION BEING HAULED UNTIL REPAIRED WO# 3275518
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	1/7/2020 18:00	1/7/2020 19:00	70000	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	BLOCKAGE IN THE DECANT TANK DISCHARGE	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3193173	MSD CLEANED AND SANITIZED	STOPPED WAS FLOW, CALLED SES TO JET ROD DISCHARGE LINE

Appendix B-3 Dischages to the Interior

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
MORRIS FORMAN	KY0022411	7104 LYDGATE DR	8/28/2019 13:45	8/28/2019 15:00	20	Sewer Service Line	63096			ROOTS IN MSD PORTION OF PIPE	ROOTS	DRY WEATHER	3147572	MSD CONTRACTOR WILL CLEAN AREA	ADVISED AREA SUPERVIOSR TO MAKE NEEDED REPAIRS
DEREK R. GUTHRIE	KY0078956	3409 BURRELL DR	8/30/2019 15:15	8/30/2019 16:30	1	Sewer Service Line	12521			GREASE BLOCKAGE IN MSD'S MAIN SEWER	GREASE BLOCKAGE	DRY WEATHER	3148157	CUSTOMER CLEANED IMPACTED AREA	FLUHSED MAIN SEWER TO RESTORE FLOW
MORRIS FORMAN	KY0022411	623 S 38TH ST	9/3/2019 21:20	9/3/2019 22:08	1	Sewer Service Line	B10989019			MAIN SEWER WAS STOPPED UP	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3149430	UNKNOWN AT THIS TIME	FLUSHED THE MAIN SEWER 50'
MORRIS FORMAN	KY0022411	2842 ELEANOR AVE	9/23/2019 20:00	9/23/2019 20:51	1	Sewer Service Line	080H00790000A			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3159558	CUSTOMER CLEANED THE IMPACTED AREA	FLUSH THE MAIN 10 FT AND ROOT CUT MAIN SEWER
MORRIS FORMAN	KY0022411	10013 GLEN MEADOW RD	11/22/2019 12:45	11/22/2019 15:36	1	Sewer Service Line	158284			GREASE IN MH# 41237	GREASE BLOCKAGE	DRY WEATHER	3180799	CUSTOMER IS RESPONSIBLE MSD IS NOT RESPONSIBLE FOR GREASE	FLUSHED MAIN SEWER AND MH# 41237 NEXT SUBDIVISION OVER
DEREK R. GUTHRIE	KY0078956	5401 HASBROOK DR	1/1/2020 8:00	1/1/2020 8:35	85	Sewer Service Line	PD16960019			PUMP STATION MALFUNCTION	MECHANICAL FAILURE	DRY WEATHER	3190575	MSD WILL CLEAN THE AFFECTED AREA	ROUTED TO MOP TO RESOLVE THE CURRENT ISSUE
DEREK R. GUTHRIE	KY0078956	2709 RALPH AVE	8/5/2019 21:00	8/5/2019 21:59	1	Sewer Service Line	100901030000A			ROOTS AT THE MAIN SEWER	ROOTS	DRY WEATHER	3139062	MSD'S CONTRACTOR CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER
MORRIS FORMAN	KY0022411	3814 CHATHAM RD	9/19/2019 20:20	9/19/2019 21:20	1	Sewer Service Line	091E01470000A			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3159027	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN;
MORRIS FORMAN	KY0022411	9815 WHIPPS MILL RD	9/20/2019 12:45	9/20/2019 12:48	3	Sewer Service Line	170049			GREASE FROM THE RESTAURANTS	GREASE BLOCKAGE	DRY WEATHER	3159111	CUSTOMER CLEANED AREA	REFERRED TO IWD
MORRIS FORMAN	KY0022411	2914 CHIMNEY ROCK LN	3/16/2020 13:08	3/16/2020 13:09	1	Sewer Service Line	191201380000A			GREASE IN MAIN SEWER	GREASE BLOCKAGE	WET WEATHER	3220992	CUSTOMER CLEANED IMPACTED AREA	ROOT CUT AND FLUSHED THE SEWER
CEDAR CREEK	KY0098540	9708 FAIRGROUND RD	5/8/2020 16:03	5/8/2020 18:12	1	Sewer Service Line	BE09096859			ROOTS IN MAIN SEWER	ROOTS	WET WEATHER	3256039	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED THE OBSTRUCTION FROM THE SEWER
MORRIS FORMAN	KY0022411	4310 NAOMI DR	5/8/2020 20:00	5/8/2020 21:00	1	Sewer Service Line	PA07115079			GREASE IN MAIN SEWER	GREASE BLOCKAGE	DRY WEATHER	3256070	MSD PERSONNEL CLEANED IMPACTED AREA	FLUSHED MAIN SEWER
MORRIS FORMAN	KY0022411	3027 ELEANOR AVE	12/5/2019 14:02	12/5/2019 15:31	1	Sewer Service Line	35578			ROOTS IN THE MAIN SEWER AND ON MSD'S PORTION OF THE PROPERTY LINE	ROOTS	DRY WEATHER	3182889	CUSTOMER CLEANED AREA	ROOT CUT MAIN SEWER AND MILL CUT AND LINED THE PROPERTY SERVICE LINE
MORRIS FORMAN	KY0022411	2208 STEPHAN LN	12/5/2019 17:50	12/5/2019 18:35	1	Sewer Service Line	DE28790019			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3182952	CUSTOMER CLEANED THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT A PLUMBER
MORRIS FORMAN	KY0022411	2316 TYLER LN	12/19/2019 16:50	12/20/2019 17:50	1	Sewer Service Line	105322			MAIN SEWER WAS HOLDING	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3188019	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN
MORRIS FORMAN	KY0022411	2310 TYLER LN	12/19/2019 16:50	12/19/2019 17:50	1	Sewer Service Line	105317			MAIN SEWER HOLDING	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3188020	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN
MORRIS FORMAN	KY0022411	2133 BELMONT RD	1/7/2020 17:20	1/7/2020 17:56	1	Sewer Service Line	087E01840000A			MAIN SEWER WAS STOPPED UP	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3193154	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN SEWER AND REMOVED BLOCKAGE
DEREK R. GUTHRIE	KY0078956	2246 AMBOY DR	2/17/2020 13:15	2/17/2020 15:30	1	Sewer Service Line	10017			OBSTRUCTION IN MSD'S MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3209728	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN SEWER TO RESTORE FLOW
MORRIS FORMAN	KY0022411	4512 TREY PL	2/22/2020 10:35	2/22/2020 11:25	1	Sewer Service Line	130816			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3213303	CUSTOMER CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER
DEREK R. GUTHRIE	KY0078956	9113 NEW MAPLE RD	5/3/2020 18:00	5/3/2020 18:30	1	Sewer Service Line	PD23270069			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3255304	MSD'S CREW CLEANED AND SANITIZED IMPACTED AREA	FLUSHED MAIN SEWER
MORRIS FORMAN	KY0022411	4316 NANEEN DR	5/5/2020 9:30	5/5/2020 10:19	1	Sewer Service Line	74248			GREASE AND WIPES BLOCKAGE IN MAIN SEWER	GREASE BLOCKAGE	DRY WEATHER	3255537	CUSTOMER CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER TO RESTORE FLOW

ASSOCIATED WQTC NAME	ASSOCIATED WQTC KPDES#	OVERFLOW LOCATION	OVERFLOW START DATE & TIME	OVERFLOW STOP DATE & TIME	VOLUME OF OVERFLOW (GAL)	SOURCE ASSET TYPE	SOURCE ASSET ID	SOURCE ASSET DISCHARGES TO	RECEIVING STREAM	CAUSE OF OVERFLOW	DUE TO	WEATHER	WO #	CLEANUP EFFORTS BY MSD	REPAIR EFFORTS BY MSD
DEREK R. GUTHRIE	KY0078956	2122 WEST LN	3/13/2020 13:00	3/13/2020 13:30	50	Sewer Service Line	101503290000A			OBSTRUCTION IN MSD'S MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3220752	MSD CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED MAIN SEWER TO OPEN
DEREK R. GUTHRIE	KY0078956	4717 SEVILLE DR	3/15/2020 20:14	3/15/2020 20:30	1	Sewer Service Line	120300750000A			ROOTS IN MAIN SEWER	ROOTS	DRY WEATHER	3220886	CUSTOMER CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER W/O 3221004
MORRIS FORMAN	KY0022411	3926 KENNISON AVE	5/5/2020 14:30	5/5/2020 17:28	1	Sewer Service Line	51934			ROOTS AND WIPES IN MAIN SEWER	ROOTS	DRY WEATHER	3255609	CUSTOMER CLEANED THE IMPACTED AREA	ROOT CUT AND FLUSHED THE MAIN SEWER
CEDAR CREEK	KY0098540	9706 FAIRGROUND RD	5/8/2020 16:03	5/8/2020 18:12	1	Sewer Service Line	BE09096659	GROUND	CEDAR CREEK	ROOTS IN MAIN SEWER	ROOTS	WET WEATHER	3256041	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED THE OBSTRUCTION FROM THE SEWER
MORRIS FORMAN	KY0022411	7608 GREENLAWN RD	5/11/2020 17:45	5/11/2020 17:48	1	Sewer Service Line	164800660000A			MAIN SEWER HOLDING	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3256316	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED MAIN TO GET OPEN
MORRIS FORMAN	KY0022411	2203 STEPHAN LN	10/26/2019 9:00	10/26/2019 9:19	1	Sewer Service Line	DE28492019			ROOTS IN MAIN SEWER	ROOTS	DRY WEATHER	3172002	MSD'S CLEANING CONTRACTOR CLEANED IMPACTED AREA	FLUSHED THE OBSTRUCTION / DEBRIS FROM THE SEWER
MORRIS FORMAN	KY0022411	215 NORBOURNE BLVD	9/24/2019 10:06	9/24/2019 11:00	1	Sewer Service Line	75772			ROOTS IN THE MAIN SEWER	ROOTS	DRY WEATHER	3159576	CUSTOMER CLEANED IMPACTED AREA	FLUSHED AND VACTORED LINE AND MADE NEEDED REPAIRS TO MAIN SEWER
MORRIS FORMAN	KY0022411	3105 MCMAHAN BLVD	10/28/2019 12:42	10/28/2019 12:45	15	Sewer Service Line	091N01310000A			ROOTS IN MAIN SEWER	ROOTS	DRY WEATHER	3172227	CUSTOMER CLEANED AREA	ROOT CUT MAIN
DEREK R. GUTHRIE	KY0078956	7102 WATSON LN	10/30/2019 23:00	10/31/2019 0:05	1	Sewer Service Line	DD70876029			GREASE AND ROOTS IN THE STUB END OF THE MAIN.	GREASE BLOCKAGE	WET WEATHER	3172672	CUSTOMER CLEANED THE IMPACTED AREA	FLUSHED AND ROOT CUT THE PROPERTY SERVICE LINE
DEREK R. GUTHRIE	KY0078956	9811 LOWER RIVER RD	12/14/2019 21:50	12/14/2019 22:40	1	Sewer Service Line	124919811			MAIN HOLDING	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3186410	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN
MORRIS FORMAN	KY0022411	1394 S 1ST ST	2/18/2020 12:00	2/18/2020 14:30	1	Sewer Service Line	L08568029			MAIN SEWER BROKE	OBSTRUCTION-NOT GREASE / ROOTS	WET WEATHER	3210909	CUSTOMER CLEANED IMPACTED AREA	FLUSHED LINE AND REPAIRED THE MAIN SEWER
DEREK R. GUTHRIE	KY0078956	2215 GARRS LN	4/27/2020 16:50	4/27/2020 16:53	1	Sewer Service Line	101404370000A			MSD'S MAIN SEWER WAS HOLDING	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3246325	FLUSHED TO OPEN	ADVISED CUSTOMER TO CONTACT A PLUMBER
DEREK R. GUTHRIE	KY0078956	4008 IRON HORSE WAY	9/13/2019 13:00	9/13/2019 13:26	1	Sewer Service Line	DD41217019			BLOCKAGE IN M AIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3154971	CUSTOMER CLEANED IMPACTED AREA	FLUSH MAIN
DEREK R. GUTHRIE	KY0078956	7017 MOOREWICK WAY	12/14/2019 21:50	12/14/2019 22:40	1	Sewer Service Line	124917017A			OBSTRUCTOIN IN MAIN SEWER (TOILET PAPER)	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3186406	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN SEWER AND REMOVED OBSTRUCTION
DEREK R. GUTHRIE	KY0078956	3912 IRON HORSE WAY	12/17/2019 9:00	12/17/2019 10:00	25	Sewer Service Line	DD41236019			ROOTS IN LINE	ROOTS	WET WEATHER	3186671	UNKNOWN AT THIS TIME	FLUSHED AND ROOT CUT MAIN SEWER TO RESTORE FLOW
MORRIS FORMAN	KY0022411	3028 DARTMOUTH AVE	3/18/2020 18:35	3/18/2020 19:30	1	Sewer Service Line	081F01620000A			MAIN HOLDING	OBSTRUCTION-NOT GREASE / ROOTS	WET WEATHER	3223190	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN
MORRIS FORMAN	KY0022411	2901 GLENAFTON LN	1/10/2020 9:02	1/10/2020 11:15	1	Sewer Service Line	084H01730000A			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3193607	CUSTOMER CLEANED IMPACTED AREA	ROOT CUT MAIN SEWER TO RESTORE FLOW
DEREK R. GUTHRIE	KY0078956	2014 LEAHURST CT	4/13/2020 11:20	4/13/2020 11:45	1	Sewer Service Line	86642014A			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	WET WEATHER	3234973	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN SEWER TO RESTORE FLOW
DEREK R. GUTHRIE	KY0078956	8106 CARNES DR	4/27/2020 15:45	4/27/2020 16:15	1	Sewer Service Line	178517			OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	DRY WEATHER	3246268	CUSTOMER CLEANED IMPACTED AREA	FLUSHED MAIN SEWER TO RESTORE FLOW

APPENDIX C CSO FLOW MONITORING DATA

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
CSO015	10/8/2008 4:15	10/8/2008 4:30	15	1.43	3,097,284	1.41	0.55	24	Atlas		4,429,116	1
	10/24/2008 5:15	10/24/2008 17:00	705	1.40	22,911,207	1.41	0.64	12	Atlas		32,075,690	1
	11/5/2008 9:30	11/5/2008 11:15	105	Discharge	-	-					2,592,236	1
	12/1/2008 7:45	12/1/2008 8:00	15	0.20	2,393,390	0.34	0.06	48	Atlas		478,678	1
	12/4/2008 6:30	12/4/2008 7:00	30	0.34	1,459,965	0.59	0.17	1	Atlas		496,388	1
	12/9/2008 14:15	12/9/2008 19:45	330	1.19	26,072,416	1.48	0.57	6	Atlas		31,026,175	1
	12/19/2008 10:00	12/19/2008 11:15	75	0.48	16,588,148	0.89	0.27	3	Atlas		7,962,311	1
	12/24/2008 3:30	12/25/2008 4:15	1,485	2.19	70,446,365	2.80	0.75	24	Atlas		154,277,540	1
	12/28/2008 2:15	12/28/2008 5:15	180	0.62	26,463,731	2.82	0.41	3	Atlas		16,407,513	1
	1/28/2009 3:15	1/28/2009 19:00	945	1.43	27,070,269	1.53	0.47	24	Atlas		38,710,484	1
	2/11/2009 5:30	2/11/2009 23:30	1,080	0.85	44,059,611	1.01	0.28	48	Atlas		37,450,669	1
	2/27/2009 4:00	2/27/2009 12:30	510	0.91	63,086,507	1.46	0.51	3	Atlas		57,408,721	1
	4/2/2009 21:15	4/3/2009 7:00	585	1.07	44,773,453	1.81	0.49	3	Atlas		47,907,595	1
	4/13/2009 21:30	4/14/2009 0:15	165	0.80	26,002,784	1.33	0.32	12	Atlas		20,802,227	1
	4/19/2009 12:45	4/20/2009 6:45	1,080	1.52	42,554,467	2.30	0.60	12	Atlas		64,682,790	1
	6/3/2009 4:30	6/3/2009 7:00	150	0.06	41,344,333	0.09	0.04	1	Atlas		2,480,660	1
	6/4/2009 7:00	6/4/2009 7:00	-	0.22	1,025,068	0.14	0.10	12	Atlas		225,515	1
	6/10/2009 12:15	6/10/2009 14:00	105	1.10	18,423,102	1.41	0.61	3	Atlas		20,265,412	1
	6/11/2009 3:15	6/11/2009 6:00	165	1.59	16,282,499	2.00	0.61	24	Atlas		25,889,174	1
	6/11/2009 17:30	6/12/2009 0:45	435	1.59	54,100,160	2.76	0.61	24	Atlas		86,019,255	1
	6/15/2009 16:45	6/15/2009 19:00	135	0.27	38,418,707	3.18	0.20	1	Atlas		10,373,051	1
	6/18/2009 10:15	6/19/2009 22:00	2,145	0.69	542,250,846	2.90	0.43	3	Atlas		374,153,084	1
	6/22/2009 10:15	6/22/2009 18:00	465	0.59	66,240,636	2.60	0.35	3	Atlas		39,081,975	1
	6/26/2009 3:15	6/26/2009 11:00	465	1.79	59,508,459	2.69	0.95	3	Atlas		106,520,141	1
	7/17/2009 5:15	7/17/2009 5:30	15	0.59	1,766,783	1.23	0.39	3	Atlas		1,042,402	1
	7/22/2009 9:45	7/22/2009 16:30	405	1.88	15,979,367	2.99	0.82	12	Atlas		30,041,210	1
	7/29/2009 4:45	7/29/2009 11:30	405	1.20	111,136,098	3.18	0.51	12	Atlas		133,363,318	1
	7/29/2009 19:45	7/29/2009 20:45	60	1.20	4,135,291	1.75	0.51	12	Atlas		4,962,349	1
	8/4/2009 8:15	8/5/2009 11:00	1,605	5.76	72,308,922	7.79					416,499,391	1
	8/10/2009 19:45	8/10/2009 20:30	45	0.83	17,518,120	6.54	0.52	3	Atlas		14,540,040	1
	9/20/2009 9:00	9/21/2009 14:45	1,785	2.82	88,188,471	2.83	1.47	24	Cloudburst		248,691,488	1
	9/24/2009 22:15	9/25/2009 1:30	195	0.92	10,328,978	3.93	0.31	24	Atlas		9,502,660	1
	9/26/2009 21:30	9/26/2009 22:15	45	0.36	18,775,942	4.43	0.30	1	Atlas		6,759,339	1
	10/2/2009 5:15	10/2/2009 7:45	150	0.86	19,610,994	1.34	0.55	3	Atlas		16,865,455	1
	10/8/2009 18:45	10/9/2009 13:45	1,140	2.00	53,410,186	2.82	0.66	24	Atlas		106,820,371	1
	10/9/2009 22:15	10/9/2009 23:30	75	2.00	1,755,650	2.10	0.66	24	Atlas		3,511,299	1
	10/14/2009 7:30	10/14/2009 8:00	30	0.61	7,890,418	2.61	0.40	3	Atlas		4,813,155	1
	10/27/2009 22:00	10/28/2009 2:30	270	1.14	35,555,639	1.81	0.51	12	Atlas		40,533,429	1
	10/30/2009 22:15	10/31/2009 9:45	690	1.03	45,588,098	2.19	0.46	12	Atlas		46,955,741	1
	12/8/2009 19:00	12/9/2009 1:15	375	2.11	24,896,929	2.24	0.85	12	Atlas		52,532,521	1
	1/20/2010 15:45	1/20/2010 15:45	-	0.39	532,667	0.62	0.20	6	Atlas		207,740	1
	1/21/2010 15:00	1/22/2010 3:45	765	1.02	49,321,226	1.64	0.39	24	Atlas		50,307,651	1
	1/24/2010 5:45	1/25/2010 2:45	1,260	0.87	48,549,914	2.47	0.33	24	Atlas		42,238,425	1
	2/5/2010 14:00	2/6/2010 2:45	765	1.18	37,793,206	1.33	0.43	24	Atlas		44,595,983	1
	4/8/2010 4:00	4/8/2010 7:15	195	1.26	17,423,047	1.39	0.61	6	Atlas		21,953,039	1
	4/24/2010 15:00	4/24/2010 22:30	450	1.54	53,090,615	1.76	0.73	6	Atlas		81,759,547	1
	5/1/2010 5:30	5/3/2010 10:45	3,195	4.43	165,576,249	6.42	4.55	48	Atlas		733,502,784	1
	5/12/2010 9:45	5/12/2010 10:45	60	0.84	23,838,695	1.21	0.61	1	Atlas		20,024,504	1
	5/21/2010 20:15	5/22/2010 9:15	780	0.78	64,777,305	1.30	0.61	1	Atlas		50,526,298	1
	6/9/2010 5:15	6/9/2010 17:00	705	1.55	63,314,137	1.73	0.73	3	Atlas		98,136,913	1
	6/19/2010 6:30	6/19/2010 8:15	105	0.55	11,033,718	1.40	0.32	3	Atlas		6,068,545	1
	7/13/2010 6:15	7/13/2010 11:00	285	1.50	30,537,662	1.94	0.80	3	Atlas		45,806,493	1
	7/20/2010 5:15	7/20/2010 6:15	60	0.63	55,404,727	1.37	0.38	1	Atlas		34,904,978	1
	7/31/2010 5:00	7/31/2010 6:15	75	0.66	24,841,765	0.77	0.37	3	Atlas		16,395,565	1
	8/14/2010 17:15	8/14/2010 18:15	60	0.30	23,354,340	0.41	0.24	1	Atlas		7,006,302	1
	11/16/2010 16:15	11/16/2010 20:00	225	0.82	11,162,860	0.89	0.37	12	Atlas		9,153,545	1
	11/24/2010 14:30	11/24/2010 15:45	75	0.65	5,683,875	1.03	0.31	3	Atlas		3,694,389	1
	11/25/2010 11:15	11/26/2010 2:00	885	2.43	51,209,227	3.36	0.92	24	Atlas		124,438,421	1
	11/30/2010 2:00	11/30/2010 15:00	780	1.92	25,864,431	5.17	0.74	24	Atlas		49,659,708	1
	1/1/2011 9:30	1/1/2011 10:15	45	0.64	2,020,870	1.18	0.28	12	Atlas		1,293,357	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/1/2011 19:30	2/1/2011 20:15	45	0.94	15,314,756	0.84	0.34	6	Atlas		14,395,871	1
	2/24/2011 21:00	2/25/2011 23:30	1,590	2.48	130,823,619	2.67	0.98	12	Atlas		324,442,575	1
	2/28/2011 5:45	3/1/2011 6:30	1,485	1.04	495,924,083	3.68	0.42	6	Atlas		515,761,046	1
	3/5/2011 12:15	3/6/2011 7:30	1,155	0.90	27,112,804	1.94	0.31	24	Atlas		24,401,524	1
	3/9/2011 0:30	3/11/2011 14:00	3,690	2.96	155,058,080	3.88	1.74	12	Cloudburst		458,971,916	1
	3/14/2011 14:45	3/15/2011 19:45	1,740	0.75	41,928,649	3.73	0.25	12	Atlas		31,446,487	1
	4/4/2011 16:15	4/4/2011 17:30	75	0.63	13,662,352	0.76	0.32	6	Atlas		8,607,282	1
	4/9/2011 11:30	4/9/2011 17:15	345	0.43	141,966,472	1.11	0.29	3	Atlas		61,045,583	1
	4/11/2011 16:45	4/13/2011 19:15	3,030	3.12	117,214,018	3.60	2.12	24	Cloudburst		365,707,736	1
	4/20/2011 3:45	4/20/2011 7:00	195	0.76	24,928,174	1.10	0.42	6	Atlas		18,945,412	1
	4/23/2011 1:00	4/28/2011 7:30	7,590	4.67	320,703,086	7.60	2.33	48	Cloudburst		1,497,683,411	1
	5/1/2011 6:00	5/6/2011 5:45	7,185	3.30	351,334,633	6.69	0.83	48	Atlas		1,159,404,290	1
	5/21/2011 19:00	5/21/2011 22:00	180	0.61	43,595,528	0.88	0.43	1	Atlas		26,593,272	1
	5/23/2011 18:00	5/24/2011 6:00	720	0.78	110,156,065	1.92	0.49	3	Atlas		85,921,731	1
	5/25/2011 23:30	5/27/2011 4:15	1,725	1.33	102,012,425	3.24	0.63	3	Atlas		135,676,525	1
	6/15/2011 9:45	6/15/2011 10:45	60	0.90	16,891,807	1.11	0.55	3	Atlas		15,202,626	1
	6/18/2011 6:30	6/18/2011 10:00	210	0.78	34,592,312	1.72	0.47	3	Atlas		26,982,003	1
	6/19/2011 8:30	6/19/2011 10:15	105	0.77	13,662,316	2.47	0.48	3	Atlas		10,519,983	1
	6/20/2011 2:15	6/20/2011 4:30	135	0.67	36,488,594	3.14	0.57	1	Atlas		24,447,358	1
	6/22/2011 21:00	6/23/2011 14:00	1,020	3.08	58,818,738	5.58	9.44	3	Atlas		181,161,714	1
	7/12/2011 17:45	7/12/2011 17:45	-	0.29	1,557,428	0.99	0.15	6	Atlas		451,654	1
	7/19/2011 23:15	7/20/2011 0:30	75	1.19	30,645,451	1.20	1.00	1	Atlas		36,468,087	1
	8/7/2011 3:30	8/7/2011 6:15	165	1.33	39,886,617	1.34	0.75	3	Atlas		53,049,201	1
	8/13/2011 17:15	8/13/2011 18:15	60	0.77	12,891,387	2.47	0.56	1	Atlas		9,926,368	1
	9/23/2011 8:30	9/23/2011 9:00	30	0.75	2,296,285	1.48	0.34	12	Atlas		1,722,214	1
	9/26/2011 0:00	9/26/2011 10:30	630	3.68	57,050,198	5.21	9.52	12	Cloudburst		209,944,730	1
	10/27/2011 0:30	10/27/2011 14:15	825	1.01	47,772,611	1.35	0.42	12	Atlas		48,250,337	1
	11/14/2011 23:15	11/14/2011 23:45	30	1.88	1,511,374	0.44	0.61	48	Atlas		2,841,383	1
	11/15/2011 9:45	11/15/2011 16:15	390	1.88	9,218,777	1.44	0.61	48	Atlas		17,331,300	1
	11/16/2011 6:15	11/16/2011 13:00	405	1.88	11,801,918	1.90	0.61	48	Atlas		22,187,606	1
	11/22/2011 6:45	11/22/2011 16:30	585	1.72	32,054,671	2.98	0.50	48	Atlas		55,134,034	1
	11/27/2011 22:00	11/30/2011 5:15	3,315	2.93	88,678,175	4.27	0.91	48	Atlas		259,827,053	1
	12/4/2011 19:15	12/7/2011 2:45	3,330	3.12	129,044,143	5.38	1.07	48	Cloudburst		402,617,726	1
	12/21/2011 7:30	12/21/2011 8:15	45	0.67	8,932,045	1.27	0.31	12	Atlas		5,984,470	1
	12/22/2011 16:45	12/22/2011 18:45	120	0.51	18,909,780	1.17	0.23	12	Atlas		9,643,988	1
	12/27/2011 10:15	12/27/2011 17:15	420	0.63	29,768,067	1.82	0.25	12	Atlas		18,753,882	1
	1/11/2012 7:15	1/11/2012 12:00	285	0.90	10,906,220	0.79	0.36	12	Atlas		9,815,598	1
	1/17/2012 12:45	1/17/2012 13:45	60	0.45	17,477,796	1.47	0.21	12	Atlas		7,865,008	1
	1/23/2012 4:30	1/23/2012 5:45	75	0.66	18,689,286	1.13	0.37	3	Atlas		12,334,929	1
	1/26/2012 6:45	1/27/2012 23:30	2,445	1.71	78,565,092	2.40	0.57	24	Atlas		134,346,307	1
	3/8/2012 14:00	3/8/2012 21:15	435	0.72	35,757,156	1.01	0.34	6	Atlas		25,745,152	1
	3/16/2012 0:15	3/16/2012 5:30	315	1.07	34,251,627	1.25	0.48	12	Atlas		36,649,241	1
	3/17/2012 21:15	3/18/2012 7:15	600	0.62	73,687,526	1.87	0.33	3	Atlas		45,686,266	1
	3/23/2012 12:00	3/24/2012 5:15	1,035	1.51	80,422,890	2.13	0.57	24	Atlas		121,438,564	1
	4/1/2012 10:00	4/1/2012 17:45	465	1.11	55,195,237	1.24	0.66	3	Atlas		61,266,713	1
	4/28/2012 19:30	4/28/2012 20:45	75	0.68	15,479,619	0.74	0.50	1	Atlas		10,526,141	1
	5/5/2012 1:30	5/5/2012 6:45	315	1.32	60,084,564	2.46	0.68	6	Atlas		79,311,625	1
	5/13/2012 2:45	5/13/2012 18:30	945	2.01	60,653,565	2.06	0.81	3	Atlas		121,913,666	1
	5/29/2012 7:00	5/30/2012 0:30	1,050	3.38	38,159,328	3.38	38.46	3	Cloudburst		128,978,528	1
	5/31/2012 18:45	6/1/2012 7:00	735	1.20	41,328,949	4.58	0.52	12	Atlas		49,594,739	1
	7/14/2012 14:00	7/14/2012 16:30	150	0.80	55,645,253	1.02	0.47	3	Atlas		44,516,202	1
	7/19/2012 17:45	7/20/2012 2:15	510	1.02	66,310,689	1.94	0.77	1	Atlas		67,636,903	1
	7/20/2012 16:00	7/20/2012 16:15	15	0.13	41,673,200	2.07	0.11	1	Atlas		5,417,516	1
	7/27/2012 20:30	7/27/2012 21:45	75	0.54	14,639,543	0.78	0.43	1	Atlas		7,905,353	1
	8/16/2012 22:45	8/17/2012 0:30	105	0.63	12,162,948	0.76	0.35	3	Atlas		7,662,657	1
	9/1/2012 15:15	9/1/2012 18:15	180	0.32	40,566,778	0.38	0.17	6	Atlas		12,981,369	1
	9/2/2012 14:45	9/2/2012 15:30	45	0.51	6,859,118	0.87	0.24	1	Atlas		3,498,150	1
	9/5/2012 15:30	9/5/2012 18:45	195	0.75	58,278,696	1.65	0.57	1	Atlas		43,709,022	1
	9/8/2012 0:15	9/8/2012 7:30	435	1.92	17,022,256	3.54	1.67	3	Atlas		32,682,731	1
	9/26/2012 23:00	9/27/2012 1:30	150	1.12	36,477,176	1.98	0.61	3	Atlas		40,854,437	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/1/2012 19:00	10/1/2012 19:45	45	0.64	10,264,116	2.60	0.25	6	Atlas		6,569,034	1
	12/7/2012 6:00	12/9/2012 9:30	3,090	0.92	99,651,886	2.10	0.44	6	Atlas		91,679,735	1
	12/9/2012 22:30	12/10/2012 8:30	600	1.28	66,589,427	3.06	0.63	3	Atlas		85,234,467	1
	12/20/2012 10:45	12/20/2012 13:15	150	0.68	22,532,982	0.90	0.33	6	Atlas		15,322,428	1
	12/26/2012 6:30	12/26/2012 15:45	555	0.88	34,024,195	1.61	0.34	24	Atlas		29,941,292	1
	1/11/2013 8:00	1/11/2013 11:00	180	0.58	4,931,772	0.80	0.31	3	Atlas		2,860,428	1
	1/13/2013 4:15	1/14/2013 15:15	2,100	2.24	115,532,821	3.03	0.86	24	Atlas		258,793,518	1
	1/28/2013 8:30	1/28/2013 8:30	-	0.22	1,025,068	0.24	0.10	6	Atlas		225,515	1
	1/30/2013 5:00	1/30/2013 14:00	540	0.90	25,344,317	1.16	0.45	6	Atlas		22,809,885	1
	3/11/2013 6:00	3/11/2013 14:15	495	1.03	53,257,384	1.55	0.41	12	Atlas		54,855,106	1
	3/17/2013 14:45	3/18/2013 18:00	1,635	1.78	81,356,167	2.82	0.58	48	Atlas		144,813,977	1
	4/11/2013 8:00	4/11/2013 8:30	30	1.17	3,466,034	0.43	0.45	24	Atlas		4,055,260	1
	4/11/2013 17:30	4/12/2013 2:45	555	1.17	13,247,448	1.17	0.45	24	Atlas		15,499,514	1
	4/16/2013 22:15	4/16/2013 22:45	30	0.45	3,730,167	1.58	0.35	1	Atlas		1,678,575	1
	4/19/2013 3:00	4/19/2013 6:00	180	0.87	60,437,549	1.33	0.48	6	Atlas		52,580,668	1
	4/24/2013 9:15	4/24/2013 11:00	105	0.70	25,738,931	1.66	0.39	3	Atlas		18,017,252	1
	5/4/2013 15:30	5/5/2013 10:00	1,110	1.66	28,487,509	1.66	0.53	24	Atlas		47,289,265	1
	5/10/2013 15:00	5/11/2013 1:45	645	1.02	31,949,352	2.83	0.45	6	Atlas		32,588,339	1
	6/17/2013 23:00	6/18/2013 0:45	105	0.34	6,322,650	0.66	0.18	3	Atlas		2,149,701	1
	6/26/2013 17:00	6/27/2013 1:00	480	1.60	115,264,573	2.19	0.84	1	Atlas		184,423,317	1
	6/29/2013 22:30	6/29/2013 22:45	15	0.59	3,744,103	2.77	0.33	3	Atlas		2,209,021	1
	7/1/2013 20:00	7/1/2013 20:15	15	0.27	5,869,904	2.90	0.11	12	Atlas		1,584,874	1
	7/6/2013 4:45	7/6/2013 9:45	300	0.46	27,680,215	1.94	0.20	12	Atlas		12,732,899	1
	7/10/2013 15:00	7/10/2013 16:00	60	0.46	3,323,324	1.54	0.36	1	Atlas		1,528,729	1
	7/21/2013 20:45	7/21/2013 22:00	75	2.65	2,163,950	1.90	1.93	3	Atlas		5,734,468	1
	7/22/2013 8:00	7/22/2013 16:15	495	2.65	35,622,498	2.80	1.93	3	Atlas		94,399,621	1
	8/9/2013 17:45	8/9/2013 18:45	60	0.11	98,274,245	0.15	0.06	1	Atlas		10,810,167	1
	8/12/2013 15:15	8/12/2013 16:15	60	1.12	14,467,448	1.15	0.63	1	Atlas		16,203,542	1
	8/13/2013 4:30	8/13/2013 5:00	30	1.12	3,012,363	1.36	0.63	1	Atlas		3,373,847	1
	8/31/2013 21:30	9/1/2013 4:45	435	1.14	4,307,164	1.14	0.52	12	Atlas		4,910,167	1
	9/2/2013 15:15	9/2/2013 16:00	45	0.68	6,603,071	1.82	0.59	1	Atlas		4,490,088	1
	9/10/2013 11:30	9/10/2013 12:00	30	Discharge	-	0.07					1,833,844	1
	9/20/2013 20:15	9/21/2013 6:30	615	2.06	23,896,571	2.07	0.86	12	Atlas		49,226,937	1
	10/4/2013 19:15	10/4/2013 20:15	60	0.20	10,949,960	0.26	0.17	1	Atlas		2,189,992	1
	10/5/2013 13:00	10/6/2013 19:30	1,830	4.54	164,899,400	4.80	10.13	24	Cloudburst		748,643,274	1
	10/30/2013 5:15	10/30/2013 10:15	300	1.32	44,418,686	1.33	0.67	6	Atlas		58,632,666	1
	10/31/2013 22:15	11/1/2013 0:00	105	0.88	5,613,089	2.20	0.36	12	Atlas		4,939,518	1
	11/17/2013 7:00	11/17/2013 20:15	795	2.65	117,296,758	2.87	2.12	6	Cloudburst		310,836,408	1
	11/26/2013 8:30	11/26/2013 12:30	240	0.05	71,775,000	0.17	0.02	12	Atlas		3,588,750	1
	12/14/2013 12:00	12/14/2013 14:15	135	0.78	7,309,182	1.27	0.32	6	Atlas		5,701,162	1
	12/21/2013 9:00	12/22/2013 16:15	1,875	1.37	207,249,477	3.27	0.63	12	Atlas		283,931,783	1
	1/5/2014 19:15	1/5/2014 21:00	105	0.48	22,809,977	0.75	0.24	3	Atlas		10,948,789	1
	1/11/2014 2:15	1/11/2014 7:00	285	0.85	47,038,345	1.35	0.45	6	Atlas		39,982,593	1
	2/4/2014 21:00	2/5/2014 9:30	750	0.67	134,279,366	1.29	0.33	6	Atlas		89,967,175	1
	2/17/2014 17:00	2/17/2014 22:15	315	0.62	44,713,484	0.89	0.39	3	Atlas		27,722,360	1
	3/2/2014 12:00	3/2/2014 12:30	30	0.51	7,242,806	0.28	0.19	24	Atlas		3,693,831	1
	3/29/2014 8:15	3/29/2014 14:00	345	0.89	22,872,482	1.22	0.41	12	Atlas		20,356,509	1
	4/3/2014 13:30	4/5/2014 3:00	2,250	2.77	133,193,592	3.99	0.95	24	Atlas		368,946,249	1
	4/7/2014 11:45	4/7/2014 21:00	555	1.11	55,736,349	3.95	0.76	1	Atlas		61,867,347	1
	4/14/2014 22:30	4/15/2014 3:00	270	0.61	13,836,039	1.12	0.29	6	Atlas		8,439,984	1
	4/28/2014 5:15	4/28/2014 21:00	945	1.81	53,623,202	1.96	0.73	3	Atlas		97,057,996	1
	5/9/2014 20:00	5/10/2014 17:15	1,275	2.04	28,547,644	2.11	0.78	24	Atlas		58,237,194	1
	5/14/2014 19:30	5/15/2014 2:15	405	1.13	22,422,596	3.28	0.42	24	Atlas		25,337,533	1
	5/22/2014 4:00	5/22/2014 5:00	60	0.36	43,729,328	0.47	0.23	1	Atlas		15,742,558	1
	5/28/2014 20:00	5/28/2014 22:30	150	0.28	70,195,079	0.64	0.23	1	Atlas		19,654,622	1
	5/29/2014 21:30	5/29/2014 21:45	15	0.27	8,982,889	0.55	0.23	1	Atlas		2,425,380	1
	7/13/2014 23:15	7/14/2014 1:00	105	0.75	29,303,989	0.88	0.44	1	Atlas		21,977,992	1
	7/26/2014 22:00	7/27/2014 10:00	720	1.10	43,804,240	1.13	0.50	12	Atlas		48,184,664	1
	8/8/2014 6:00	8/8/2014 9:00	180	0.77	118,271,562	0.63	0.38	6	Atlas		91,069,103	1
	8/11/2014 19:15	8/11/2014 20:00	45	0.32	34,609,491	1.81	0.17	6	Atlas		11,075,037	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/23/2014 20:15	8/23/2014 22:30	135	0.85	37,607.685	1.77	0.41	6	Atlas		31,966,532	1
	8/30/2014 15:15	8/30/2014 16:45	90	0.71	4,901.948	1.76	0.42	1	Atlas		3,480,383	1
	9/11/2014 1:30	9/11/2014 10:30	540	1.71	113,855.758	1.72	0.95	3	Atlas		194,693,347	1
	10/10/2014 3:30	10/10/2014 4:00	30	0.92	5,284.950	1.35	0.36	3	Atlas		4,862,154	1
	10/13/2014 7:30	10/13/2014 8:15	45	0.56	3,251.118	1.98	0.36	3	Atlas		1,820,626	1
	10/14/2014 0:30	10/14/2014 11:45	675	1.55	27,954.786	3.24	0.68	12	Atlas		43,329,918	1
	11/23/2014 19:00	11/23/2014 21:15	135	0.96	31,158.034	1.23	0.41	6	Atlas		29,911,713	1
	11/24/2014 6:00	11/24/2014 8:00	120	0.96	2,114.086	1.02	0.41	6	Atlas		2,029,523	1
	12/6/2014 0:45	12/6/2014 12:15	690	1.92	50,763.990	2.80	0.62	48	Atlas		97,466,860	1
	3/4/2015 0:30	3/6/2015 1:15	2,925	1.66	253,442.653	1.83	0.54	48	Atlas		420,714,804	1
	3/10/2015 9:45	3/11/2015 8:45	1,380	1.12	697,746.745	2.78	0.50	12	Atlas		781,476,354	1
	3/13/2015 15:00	3/15/2015 1:15	2,055	1.85	592,513.965	2.97	0.70	24	Atlas		1,096,150,835	1
	3/26/2015 6:45	3/26/2015 7:15	30	0.67	3,377.769	0.82	0.34	3	Atlas		2,263,105	1
	4/2/2015 12:30	4/4/2015 22:45	3,495	6.20	103,552.212	6.32	36.46	6	Cloudburst		642,023,712	1
	4/7/2015 12:30	4/8/2015 4:15	945	0.88	173,797.739	7.09	0.39	1	Atlas		152,942,010	1
	4/8/2015 19:00	4/10/2015 5:30	2,070	0.08	4,632,184.613	7.51	0.04	6	Atlas		370,574,769	1
	4/14/2015 12:15	4/14/2015 19:30	435	0.47	14,670.247	1.36	0.18	24	Atlas		6,895,016	1
	4/19/2015 14:45	4/20/2015 5:00	855	0.85	47,040.614	1.49	0.36	12	Atlas		39,984,522	1
	6/17/2015 5:15	6/17/2015 8:45	210	0.67	54,526.863	0.68	0.36	3	Atlas		36,532,998	1
	6/18/2015 17:00	6/18/2015 21:00	240	0.60	112,946.990	1.34	0.28	3	Atlas		67,768,194	1
	6/20/2015 4:45	6/20/2015 10:30	345	1.09	48,871.702	2.53	0.43	12	Atlas		53,270,155	1
	6/26/2015 0:15	6/26/2015 3:45	210	0.90	53,566.363	2.34	0.49	6	Atlas		48,209,727	1
	6/26/2015 17:15	6/27/2015 2:45	570	1.12	41,077.997	3.37	0.60	1	Atlas		46,007,357	1
	7/2/2015 2:30	7/2/2015 9:00	390	0.82	14,857.367	3.11	0.48	3	Atlas		12,183,041	1
	7/2/2015 22:00	7/2/2015 22:45	45	0.82	948.841	3.13	0.48	3	Atlas		778,050	1
	7/3/2015 15:30	7/3/2015 18:15	165	1.04	13,169.896	3.26	0.85	1	Atlas		13,696,692	1
	7/7/2015 13:00	7/7/2015 18:15	315	0.94	19,083.779	2.86	0.50	6	Atlas		17,938,752	1
	7/10/2015 11:15	7/10/2015 18:45	450	0.52	29,487.740	2.95	0.26	6	Atlas		15,333,625	1
	7/12/2015 6:45	7/12/2015 9:45	180	0.67	43,113.899	2.58	0.47	1	Atlas		28,886,312	1
	7/13/2015 15:15	7/15/2015 2:45	2,130	0.54	1,205,440.094	3.58	0.46	1	Atlas		650,937,651	1
	7/18/2015 0:15	7/18/2015 14:30	855	0.72	789,335.235	2.39	0.48	3	Atlas		568,321,369	1
	8/4/2015 20:15	8/5/2015 0:00	225	0.25	874,925.584	0.42	0.21	1	Atlas		218,731,396	1
	8/6/2015 15:00	8/6/2015 18:30	210	0.80	274,120.611	1.05	0.30	1	Atlas		219,296,489	1
	9/29/2015 16:30	9/30/2015 3:15	645	0.50	836,283.256	0.58	0.19	24	Atlas		418,141,628	1
	10/2/2015 17:00	10/5/2015 7:45	3,765	0.47	143,158.043	1.19	0.22	12	Atlas		67,284,280	1
	10/9/2015 18:30	10/9/2015 20:00	90	0.11	13,433.818	0.29	0.05	6	Atlas		1,477,720	1
	10/27/2015 18:00	10/28/2015 12:45	1,125	3.43	37,661.483	3.81	1.75	24	Cloudburst		129,178,887	1
	11/6/2015 4:00	11/6/2015 10:30	390	1.01	42,678.796	1.18	0.64	3	Atlas		43,105,584	1
	11/12/2015 1:30	11/12/2015 2:15	45	0.35	12,980.906	1.94	0.21	3	Atlas		4,543,317	1
	11/18/2015 10:00	11/19/2015 1:45	945	1.83	81,527.521	2.40	0.92	6	Atlas		149,195,364	1
	11/28/2015 18:15	11/28/2015 22:45	270	0.91	13,401.960	0.88	0.30	48	Atlas		12,195,784	1
	11/30/2015 23:00	12/1/2015 7:45	525	0.65	61,876.735	1.62	0.29	12	Atlas		40,219,878	1
	12/22/2015 2:00	12/22/2015 6:15	255	0.65	35,852.311	0.67	0.25	24	Atlas		23,304,002	1
	12/23/2015 19:30	12/24/2015 9:45	855	0.91	88,663.492	1.58	0.63	1	Atlas		80,683,778	1
	12/26/2015 14:15	12/26/2015 21:15	420	0.60	7,293.142	2.27	0.27	12	Atlas		4,375,885	1
	12/27/2015 10:45	12/27/2015 20:30	585	2.80	69,463.093	3.89	0.91	48	Atlas		194,496,659	1
	12/28/2015 17:15	12/29/2015 2:45	570	2.80	4,255.293	4.85	0.91	48	Atlas		11,914,819	1
	2/2/2016 21:15	2/3/2016 14:00	1,005	1.54	86,839.240	1.61	0.76	6	Atlas		133,732,430	1
	2/21/2016 7:15	2/21/2016 16:45	570	0.73	53,326.703	0.91	0.33	12	Atlas		38,928,493	1
	2/24/2016 0:30	2/24/2016 23:00	1,350	2.14	247,778.887	2.85	0.81	24	Atlas		530,246,819	1
	3/1/2016 14:30	3/1/2016 20:45	375	0.61	15,127.098	2.80	0.32	6	Atlas		9,227,530	1
	3/10/2016 15:45	3/11/2016 6:45	900	1.33	45,214.167	1.39	0.45	12	Atlas		60,134,842	1
	3/12/2016 20:30	3/13/2016 15:30	1,140	0.47	169,626.068	1.86	0.18	24	Atlas		79,724,252	1
	3/24/2016 18:30	3/24/2016 20:15	105	0.24	72,319.529	0.37	0.16	1	Atlas		17,356,687	1
	3/27/2016 21:30	3/28/2016 2:15	285	0.75	74,396.072	0.99	0.50	3	Atlas		55,797,054	1
	3/31/2016 6:15	3/31/2016 10:00	225	1.33	21,194.605	1.81	0.51	24	Atlas		28,188,825	1
	4/1/2016 1:30	4/1/2016 2:00	30	1.33	8,627.454	2.08	0.51	24	Atlas		11,474,514	1
	4/11/2016 17:15	4/12/2016 0:30	435	0.96	49,444.608	1.18	0.43	12	Atlas		47,466,824	1
	4/26/2016 22:15	4/26/2016 22:45	30	0.25	9,422.376	0.68	0.15	1	Atlas		2,355,594	1
	4/27/2016 20:45	4/28/2016 0:00	195	1.18	147,496.109	1.84	0.54	3	Atlas		174,045,409	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/30/2016 11:30	4/30/2016 13:00	90	0.83	5,125,207	1.99	0.31	24	Atlas		4,253,922	1
	5/1/2016 15:15	5/1/2016 17:45	150	0.36	87,279,306	2.62	0.24	1	Atlas		31,420,550	1
	5/7/2016 23:15	5/8/2016 0:00	45	0.30	2,584,167	1.03	0.16	3	Atlas		775,250	1
	5/10/2016 15:30	5/10/2016 23:15	465	0.85	21,126,080	1.49	0.32	24	Atlas		17,957,168	1
	5/11/2016 19:30	5/12/2016 0:00	270	0.38	102,780,100	1.63	0.17	6	Atlas		39,056,438	1
	5/17/2016 7:45	5/17/2016 8:30	45	0.72	2,687,417	1.77	0.25	24	Atlas		1,934,940	1
	5/20/2016 14:30	5/21/2016 4:45	855	0.79	66,576,646	1.54	0.45	3	Atlas		52,595,471	1
	5/26/2016 14:15	5/26/2016 16:30	135	0.54	17,340,448	1.46	0.36	3	Atlas		9,363,842	1
	6/2/2016 15:30	6/2/2016 16:45	75	0.87	32,728,251	1.14	0.69	1	Atlas		28,473,578	1
	6/4/2016 18:45	6/4/2016 19:30	45	0.41	11,189,490	1.32	0.19	3	Atlas		4,587,691	1
	6/12/2016 18:45	6/12/2016 20:15	90	0.74	16,729,182	0.87	0.63	1	Atlas		12,379,595	1
	6/14/2016 16:30	6/14/2016 22:45	375	1.08	66,264,997	1.82	0.59	6	Atlas		71,566,197	1
	6/15/2016 14:15	6/15/2016 15:15	60	0.05	77,239,560	1.86	0.03	1	Atlas		3,861,978	1
	6/23/2016 16:30	6/24/2016 2:30	600	2.15	103,201,394	2.19	0.99	12	Atlas		221,882,998	1
	7/3/2016 13:30	7/4/2016 1:30	720	1.20	18,373,988	0.72	0.39	48	Atlas		22,048,786	1
	7/4/2016 10:00	7/4/2016 22:45	765	1.20	22,157,705	1.20	0.39	48	Atlas		26,589,246	1
	7/6/2016 14:30	7/6/2016 16:30	120	0.33	31,186,970	1.53	0.23	1	Atlas		10,291,700	1
	7/12/2016 11:00	7/12/2016 13:45	165	0.21	96,376,429	0.86	0.16	1	Atlas		20,239,050	1
	7/25/2016 16:45	7/25/2016 17:00	15	0.61	2,908,538	0.61	0.44	1	Atlas		1,774,208	1
	7/28/2016 4:30	7/28/2016 6:45	135	0.68	20,872,488	1.20	0.31	12	Atlas		14,193,292	1
	7/30/2016 15:15	7/30/2016 17:30	135	0.56	44,911,241	1.95	0.49	1	Atlas		25,150,295	1
	7/31/2016 18:15	7/31/2016 20:30	135	0.46	75,616,852	2.41	0.39	1	Atlas		34,783,752	1
	8/1/2016 22:15	8/2/2016 0:15	120	0.35	48,967,977	2.15	0.28	1	Atlas		17,138,792	1
	8/4/2016 16:30	8/5/2016 0:15	465	0.13	54,125,562	1.57	0.10	1	Atlas		7,036,323	1
	8/5/2016 16:45	8/5/2016 19:45	180	0.21	17,604,210	1.77	0.14	3	Atlas		3,696,884	1
	8/14/2016 17:30	8/14/2016 19:15	105	1.25	3,637,147	0.28	0.63	3	Atlas		4,546,434	1
	8/15/2016 4:30	8/15/2016 21:15	1,005	1.25	145,473,312	1.46	0.63	3	Atlas		181,841,640	1
	8/17/2016 6:45	8/18/2016 0:15	1,050	0.81	60,057,602	2.06	0.34	12	Atlas		48,646,658	1
	8/20/2016 15:15	8/21/2016 12:30	1,275	1.63	72,375,734	3.69	0.69	12	Atlas		117,972,446	1
	9/10/2016 17:15	9/10/2016 17:30	15	0.32	2,592,516	0.33	0.20	3	Atlas		829,605	1
	9/26/2016 11:30	9/26/2016 13:15	105	0.27	17,142,530	0.27	0.18	3	Atlas		4,628,483	1
	9/28/2016 14:00	9/28/2016 19:00	300	0.36	40,610,714	0.63	0.21	3	Atlas		14,619,867	1
	9/30/2016 3:45	9/30/2016 6:15	150	0.65	22,880,878	1.26	0.30	3	Atlas		14,872,571	1
	9/30/2016 15:45	9/30/2016 19:00	195	0.65	3,619,849	1.37	0.30	3	Atlas		2,352,902	1
	10/20/2016 11:30	10/20/2016 18:15	405	0.70	17,395,687	0.52	0.27	24	Atlas		12,176,981	1
	11/23/2016 23:00	11/24/2016 0:00	60	0.37	3,196,597	0.49	0.15	6	Atlas		1,182,741	1
	11/28/2016 17:30	11/29/2016 1:30	480	0.90	41,459,064	1.27	0.39	12	Atlas		37,313,158	1
	12/6/2016 6:00	12/6/2016 18:30	750	0.95	56,945,725	1.00	0.44	12	Atlas		54,098,439	1
	12/11/2016 23:30	12/12/2016 0:00	30	0.40	1,813,113	1.38	0.18	12	Atlas		725,245	1
	12/17/2016 18:15	12/19/2016 2:45	1,950	3.71	239,600,703	4.12	8.46	12	Cloudburst		888,918,607	1
	12/23/2016 23:15	12/24/2016 8:00	525	0.17	220,589,524	3.84	0.08	12	Atlas		37,500,219	1
	12/26/2016 21:00	12/27/2016 6:15	555	0.37	65,318,954	0.54	0.19	6	Atlas		24,168,013	1
	1/3/2017 6:15	1/3/2017 6:15	-	0.19	1,187,453	0.29	0.09	6	Atlas		225,616	1
	1/10/2017 20:30	1/11/2017 2:30	360	0.40	51,504,723	0.61	0.30	1	Atlas		20,601,889	1
	1/11/2017 13:15	1/12/2017 3:00	825	0.24	52,548,063	0.85	0.16	3	Atlas		12,611,535	1
	1/12/2017 18:15	1/13/2017 2:30	495	0.42	68,027,831	1.09	0.21	6	Atlas		28,571,689	1
	1/13/2017 16:15	1/13/2017 21:30	315	0.34	9,784,068	1.41	0.21	3	Atlas		3,326,583	1
	1/14/2017 11:15	1/15/2017 6:45	1,170	0.19	164,453,400	1.60	0.08	12	Atlas		31,246,146	1
	1/15/2017 17:15	1/15/2017 18:15	60	0.14	18,458,057	1.72	0.07	3	Atlas		2,584,128	1
	1/17/2017 0:15	1/18/2017 10:45	2,070	0.77	249,523,339	2.51	0.35	12	Atlas		192,132,971	1
	1/19/2017 20:00	1/21/2017 7:00	2,100	1.32	1,496,955,467	2.92	0.60	12	Atlas		1,975,981,217	1
	2/7/2017 11:15	2/7/2017 14:30	195	0.52	5,387,456	0.52	0.25	6	Atlas		2,801,477	1
	2/24/2017 19:15	2/25/2017 4:00	525	0.54	130,073,317	0.66	0.45	1	Atlas		70,239,591	1
	2/28/2017 10:45	2/28/2017 14:15	210	0.29	16,298,686	0.89	0.13	12	Atlas		4,726,619	1
	3/7/2017 8:30	3/7/2017 11:45	195	0.73	9,575,560	2.07	0.24	48	Atlas		6,990,159	1
	4/16/2017 18:45	4/16/2017 23:00	255	0.99	78,922,851	1.28	0.38	24	Atlas		78,133,622	1
	4/22/2017 1:30	4/22/2017 2:00	30	0.80	1,092,781	1.64	0.28	24	Atlas		874,225	1
	4/29/2017 3:15	5/2/2017 14:00	4,965	1.34	161,886,872	2.10	0.72	1	Atlas		216,928,408	1
	5/4/2017 21:30	5/5/2017 19:00	1,290	1.93	48,391,180	3.51	0.65	24	Atlas		93,394,978	1
	5/20/2017 20:00	5/21/2017 10:30	870	1.61	298,751,227	1.84	0.71	12	Atlas		480,989,475	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/24/2017 20:15	5/24/2017 23:45	210	0.68	63,970,528	2.40	0.25	24	Atlas		43,499,959	1
	6/15/2017 5:45	6/15/2017 8:15	150	0.49	46,261,339	0.79	0.31	3	Atlas		22,668,056	1
	6/23/2017 15:15	6/23/2017 20:30	315	1.24	33,317,163	1.42	0.40	48	Atlas		41,313,282	1
	6/30/2017 21:15	7/1/2017 0:45	210	0.66	27,449,465	0.83	0.57	1	Atlas		18,116,647	1
	7/6/2017 13:45	7/6/2017 15:45	120	0.40	231,948	1.18	0.20	3	Atlas		92,779	1
	7/7/2017 22:15	7/8/2017 0:00	105	0.39	1,363,928	0.89	0.29	1	Atlas		531,932	1
	7/23/2017 2:45	7/23/2017 12:00	555	0.94	11,710,891	0.99	0.43	12	Atlas		11,008,238	1
	8/29/2017 16:15	8/29/2017 16:30	15	0.22	700,427	0.33	0.19	1	Atlas		154,094	1
	8/31/2017 19:00	8/31/2017 19:45	45	3.69	1,243,715	0.52	2.03	48	Cloudburst		4,589,308	1
	9/1/2017 9:15	9/2/2017 11:00	1,545	3.69	103,229,652	4.00	2.03	48	Cloudburst		380,917,415	1
	9/19/2017 8:45	9/19/2017 10:45	120	0.22	99,106,914	0.66	0.13	1	Atlas		21,803,521	1
	10/7/2017 21:45	10/8/2017 0:00	135	2.48	9,579,311	1.18	0.94	24	Atlas		23,756,692	1
	10/8/2017 11:00	10/8/2017 16:00	300	2.48	15,904,826	2.40	0.94	24	Atlas		39,443,968	1
	10/10/2017 15:15	10/10/2017 17:30	135	0.74	9,951,170	3.17	0.41	3	Atlas		7,363,866	1
	10/23/2017 6:30	10/23/2017 7:30	60	0.47	7,659,462	0.39	0.25	6	Atlas		3,599,947	1
	10/28/2017 8:45	10/28/2017 10:00	75	1.14	95,133	1.75	0.52	12	Atlas		108,452	1
	11/3/2017 4:30	11/3/2017 7:30	180	1.33	88,053,181	2.65	1.30	1	Atlas		117,110,731	1
	12/23/2017 1:15	12/23/2017 7:30	375	1.88	11,643,231	1.65	0.74	12	Atlas		21,889,274	1
	2/16/2018 9:15	2/18/2018 5:45	2,670	0.79	37,779,225	2.05	0.36	12	Atlas		29,845,588	1
	2/21/2018 23:00	2/26/2018 19:15	6,975	2.24	608,974,770	7.94	0.84	24	Atlas		1,364,103,485	1
	3/24/2018 12:00	3/25/2018 16:00	1,680	0.96	48,911,036	2.10	0.37	24	Atlas		46,954,595	1
	3/29/2018 20:15	3/29/2018 21:15	60	1.31	937,365	2.04	0.33	48	Atlas		1,227,948	1
	3/30/2018 8:30	3/30/2018 13:45	315	1.31	437,957	2.36	0.33	48	Atlas		573,724	1
	4/1/2018 23:00	4/2/2018 17:15	1,095	0.67	67,677,134	2.37	0.37	6	Atlas		45,343,680	1
	4/14/2018 10:00	4/14/2018 15:15	315	1.38	951	0.56	0.48	24	Atlas		1,312	1
	4/15/2018 1:45	4/15/2018 13:45	720	1.38	7,388,709	1.42	0.48	24	Atlas		10,196,419	1
	5/5/2018 15:00	5/6/2018 16:15	1,515	0.95	35,229,135	1.01	0.35	24	Atlas		33,467,678	1
	5/17/2018 23:00	5/19/2018 22:45	2,865	0.28	217,007	0.36	0.22	1	Atlas		60,762	1
	5/20/2018 23:00	6/7/2018 14:30	25,410	0.01	2,768,802,600	3.59	0.01	1	Atlas		27,688,026	1
	7/16/2018 7:45	8/22/2018 7:00	53,235	0.28	724,293,932	8.76	0.18	3	Atlas		202,802,301	1
	8/22/2018 17:15	8/23/2018 10:45	1,050	0.06	102,367	4.55	0.05	1	Atlas		6,142	1
	9/17/2018 9:15	9/19/2018 23:00	3,705	0.08	1,417,613	0.08	0.03	12	Atlas		113,409	1
	9/23/2018 4:45	9/26/2018 21:15	5,310	1.87	133,616,873	6.28	0.69	24	Atlas		249,863,552	1
	10/4/2018 16:15	10/5/2018 9:00	1,005	0.04	290,375	0.06	0.03	1	Atlas		11,615	1
	10/6/2018 20:45	10/9/2018 11:30	3,765	0.03	196,167	0.10	0.03	1	Atlas		5,885	1
	10/10/2018 18:45	10/10/2018 20:00	75	0.33	9,606	0.43	0.27	1	Atlas		3,170	1
	4/14/2019 2:30	4/14/2019 11:00	510	1.03	25,735,943	1.82	0.47	12	Atlas		26,508,021	1
	4/19/2019 20:00	4/22/2019 20:15	4,335	2.44	94,341,075	4.27	0.92	24	Atlas		230,192,222	1
	4/26/2019 2:45	4/26/2019 5:45	180	0.96	5,697,632	3.76	0.31	48	Atlas		5,469,727	1
	5/2/2019 11:45	5/2/2019 15:15	210	0.10	129,270	0.65	0.09	1	Atlas		12,927	1
	5/3/2019 5:15	5/3/2019 18:30	795	1.22	38,828,000	1.37	0.67	6	Atlas		47,370,160	1
	5/15/2019 13:15	5/15/2019 19:15	360	0.01	215,100	0.43	0.01	1	Atlas		2,151	1
	5/22/2019 17:15	5/22/2019 22:15	300	0.01	1,175,300	0.32	0.01	1	Atlas		11,753	1
	5/26/2019 18:00	5/26/2019 21:00	180	0.41	16,317	0.65	0.25	3	Atlas		6,690	1
	5/29/2019 15:00	5/29/2019 20:45	345	0.63	34,241	1.13	0.34	6	Atlas		21,572	1
	5/30/2019 15:30	5/30/2019 16:15	45	0.35	2,449	1.39	0.16	3	Atlas		857	1
	6/5/2019 9:30	6/5/2019 20:15	645	0.05	476,520	1.11	0.03	6	Atlas		23,826	1
	6/6/2019 8:00	6/6/2019 22:30	870	1.21	29,830	1.53	0.95	1	Atlas		36,094	1
	6/9/2019 10:45	6/9/2019 19:30	525	0.92	6,791	2.59	0.30	24	Atlas		6,248	1
	6/16/2019 20:30	6/16/2019 21:30	60	1.95	4,492,813	1.75	0.91	6	Atlas		8,760,986	1
	6/17/2019 9:30	6/17/2019 20:30	660	1.95	22,365	2.28	0.91	6	Atlas		43,612	1
	6/22/2019 11:00	6/23/2019 0:00	780	0.96	21,906	3.55	0.37	24	Atlas		21,030	1
	6/23/2019 16:30	6/23/2019 20:15	225	0.58	1,530,333	3.84	0.45	1	Atlas		887,593	1
	6/24/2019 14:15	6/24/2019 22:00	465	0.66	1,223,295	2.67	0.39	3	Atlas		807,375	1
	7/29/2019 23:45	7/30/2019 0:45	60	0.83	6,361,612	0.83	0.51	3	Atlas		5,280,138	1
	8/13/2019 8:15	8/13/2019 9:00	45	0.47	6,625,957	0.53	0.25	3	Atlas		3,114,200	1
	8/26/2019 11:00	8/26/2019 16:00	300	0.56	46,876,446	1.12	0.23	6	Atlas		26,250,810	1
	10/6/2019 15:45	10/6/2019 18:45	180	0.99	2,216,125	0.61	0.38	24	Atlas		2,193,964	1
	10/15/2019 23:15	10/16/2019 2:15	180	0.28	18,991,425	0.62	0.17	3	Atlas		5,317,599	1
	10/26/2019 6:00	10/26/2019 6:30	30	1.38	2,129,397	0.70	0.58	6	Atlas		2,938,568	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/30/2019 14:15	10/30/2019 14:30	15	0.62	1,104.418	1.90	0.31	3	Atlas		684.739	1
	11/27/2019 0:45	11/27/2019 2:15	90	1.06	5,262.006	1.63	0.48	6	Atlas		5,577.726	1
	11/30/2019 4:15	11/30/2019 6:00	105	2.40	11,921.604	1.99	0.94	12	Atlas		28,611.850	1
	2/12/2020 18:30	2/12/2020 23:00	270	1.11	40,115.795	1.81	0.51	3	Atlas		44,528.532	1
	2/25/2020 9:30	2/25/2020 10:15	45	0.96	1,005	1.07	0.36	24	Atlas		965	1
	3/2/2020 13:15	3/2/2020 14:30	75	0.58	426	1.21	0.26	3	Atlas		247	1
	3/3/2020 3:30	3/3/2020 4:45	75	0.26	462	0.90	0.16	3	Atlas		120	1
	3/10/2020 1:30	3/10/2020 17:45	975	0.44	34,341	0.60	0.20	12	Atlas		15,110	1
	3/18/2020 15:30	3/19/2020 0:30	540	0.63	30,060	1.97	0.30	6	Atlas		18,938	1
	3/19/2020 12:15	3/19/2020 21:15	540	0.71	9,084.490	2.60	0.32	3	Atlas		6,449.988	1
	3/28/2020 22:45	3/29/2020 1:00	135	0.33	20.088	0.56	0.27	1	Atlas		6.629	1
	4/12/2020 17:45	4/13/2020 8:00	855	1.39	7,688.560	1.96	0.60	12	Atlas		10,687.098	1
	4/23/2020 13:15	4/23/2020 16:15	180	0.95	1,509	1.57	0.41	12	Atlas		1,434	1
	4/25/2020 11:30	4/26/2020 1:15	825	0.98	1,898	1.58	0.35	24	Atlas		1,860	1
	5/8/2020 14:45	5/8/2020 18:15	210	0.63	6,740	0.99	0.30	6	Atlas		4,246	1
	5/13/2020 21:30	5/14/2020 21:00	1,410	0.01	9,185.800	0.96	0.01	1	Atlas		91,858	1
	5/15/2020 15:00	5/16/2020 19:15	1,695	2.02	1,998.209	2.35	0.77	24	Atlas		4,036.383	1
	5/18/2020 9:00	5/18/2020 12:00	180	0.85	174.086	3.33	0.42	6	Atlas		147.973	1
	5/25/2020 18:00	5/25/2020 19:30	90	0.72	16,176	0.83	0.59	1	Atlas		11,647	1
	6/9/2020 17:00	6/9/2020 17:00	-	0.21	11,567	1.01	0.17	1	Atlas		2,429	1
	6/14/2020 14:45	6/14/2020 18:15	210	0.07	38,929	0.28	0.05	3	Atlas		2,725	1
	6/22/2020 22:30	6/22/2020 23:15	45	1.66	1,583.118	1.88	0.64	24	Atlas		2,627.976	1
	6/23/2020 9:15	6/23/2020 15:15	360	1.66	144.993	2.46	0.64	24	Atlas		240.688	1
	6/28/2020 8:30	6/28/2020 14:30	360	0.77	89,634	3.23	0.54	1	Atlas		69,018	1
	6/29/2020 5:15	6/29/2020 20:30	915	0.25	896,084	2.68	0.16	3	Atlas		224,021	1
	CSO015 Total										**31,616,830,796**	**385**
CSO016	3/26/2009 10:00	3/26/2009 14:15	255	0.16	14,624.581	0.59	0.09	6	Atlas		2,339.933	1
	3/28/2009 21:00	3/29/2009 2:15	315	0.63	8,649.524	1.18	0.32	1	Atlas		5,449.200	1
	4/2/2009 20:15	4/3/2009 6:45	630	1.04	8,658.165	1.78	0.48	12	Atlas		9,004.492	1
	4/5/2009 18:45	4/5/2009 21:30	165	0.37	5,151.714	1.49	0.23	3	Atlas		1,906.134	1
	4/10/2009 21:45	4/10/2009 22:45	60	0.59	108.493	0.99	0.24	12	Atlas		64.011	1
	4/13/2009 15:45	4/14/2009 1:30	585	0.78	7,685.233	1.37	0.31	12	Atlas		5,994.482	1
	4/19/2009 9:45	4/19/2009 19:15	570	1.60	4,823.759	2.20	0.64	12	Atlas		7,718.015	1
	4/28/2009 10:15	4/28/2009 11:15	60	0.32	281.153	0.36	0.20	3	Atlas		89.969	1
	6/10/2009 11:45	6/10/2009 15:45	240	1.01	3,751.040	1.39	0.52	3	Atlas		3,788.550	1
	6/11/2009 4:00	6/11/2009 7:00	180	1.35	1,957.676	2.02	0.52	24	Atlas		2,642.863	1
	6/11/2009 18:00	6/12/2009 2:30	510	1.35	6,684.905	2.44	0.52	24	Atlas		9,024.622	1
	6/16/2009 16:30	6/16/2009 18:45	135	0.77	900.558	3.78	0.47	1	Atlas		693.430	1
	6/18/2009 10:15	6/19/2009 22:00	2,145	0.80	63,780.563	2.92	0.49	3	Atlas		51,024.450	1
	6/22/2009 9:30	6/22/2009 14:00	270	0.52	10,719.060	2.71	0.31	3	Atlas		5,573.911	1
	6/26/2009 3:45	6/26/2009 10:00	375	1.54	4,635.404	2.31	0.87	3	Atlas		7,138.522	1
	7/15/2009 11:15	7/15/2009 14:00	165	0.61	3,427.684	0.64	0.39	3	Atlas		2,090.887	1
	7/17/2009 4:30	7/17/2009 6:45	135	0.58	2,062.752	1.21	0.39	3	Atlas		1,196.396	1
	7/22/2009 7:15	7/22/2009 19:45	750	1.82	5,496.570	3.01	0.80	12	Atlas		10,003.758	1
	7/29/2009 3:15	7/29/2009 10:00	405	1.08	8,678.427	3.35	0.46	12	Atlas		9,372.701	1
	7/30/2009 20:45	7/31/2009 2:30	345	0.83	5,572.954	2.60	0.35	12	Atlas		4,625.552	1
	8/4/2009 8:00	8/4/2009 21:30	810	5.45	3,966.357	7.31					21,616.644	1
	8/10/2009 19:15	8/10/2009 23:30	255	0.88	4,471.327	6.32	0.55	3	Atlas		3,934.768	1
	9/20/2009 7:30	9/21/2009 5:00	1,290	2.89	7,464.189	2.90	1.61	24	Cloudburst		21,571.506	1
	9/22/2009 19:15	9/23/2009 8:15	780	0.31	36,475.555	3.21	0.14	12	Atlas		11,307.422	1
	9/24/2009 21:15	9/25/2009 0:15	180	1.00	1,086.037	4.08	0.35	24	Atlas		1,086.037	1
	9/26/2009 20:30	9/27/2009 1:15	285	0.38	10,611.571	4.63	0.31	1	Atlas		4,032.397	1
	10/2/2009 4:45	10/2/2009 10:15	330	0.74	5,831.153	1.25	0.47	3	Atlas		4,315.053	1
	10/8/2009 14:30	10/10/2009 4:15	2,265	2.17	19,870.902	3.00	0.72	24	Atlas		43,119.868	1
	10/14/2009 6:45	10/14/2009 10:00	195	0.62	4,623.463	2.79	0.41	3	Atlas		2,866.547	1
	10/15/2009 5:45	10/15/2009 6:15	30	0.14	189.107	2.85	0.09	1	Atlas		26.475	1
	10/23/2009 8:00	10/23/2009 11:15	195	0.68	105.596	0.69	0.29	12	Atlas		71.805	1
	10/27/2009 21:15	10/28/2009 3:15	360	1.14	5,154.547	1.82	0.51	12	Atlas		5,876.184	1
	10/30/2009 21:00	10/31/2009 7:15	615	1.00	10,821.414	2.15	0.45	12	Atlas		10,821.414	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/11/2009 12:00	11/12/2009 0:15	735	Discharge	-	-					9,199,608	1
	11/17/2009 19:15	11/18/2009 1:00	345	0.61	6,082,859	0.61	0.23	24	Atlas		3,710,544	1
	12/8/2009 18:00	12/9/2009 1:30	450	2.21	3,477,590	2.34	0.89	12	Atlas		7,685,475	1
	12/13/2009 8:00	12/13/2009 9:15	75	0.27	614,926	2.56	0.17	3	Atlas		166,030	1
	1/20/2010 11:45	1/20/2010 14:30	165	1.50	400,317	0.60	0.49	48	Atlas		600,475	1
	1/21/2010 12:00	1/21/2010 22:00	600	1.50	4,356,644	1.73	0.49	48	Atlas		6,534,966	1
	1/24/2010 4:45	1/24/2010 12:00	435	0.88	4,779,958	2.31	0.34	24	Atlas		4,206,363	1
	1/24/2010 22:30	1/25/2010 4:45	375	0.88	3,635,033	2.38	0.34	24	Atlas		3,198,829	1
	2/5/2010 8:30	2/6/2010 7:00	1,350	1.20	17,360,396	1.40	0.44	24	Atlas		20,832,475	1
	3/22/2010 0:15	3/22/2010 3:30	195	0.76	2,157,034	0.76	0.34	12	Atlas		1,639,346	1
	4/8/2010 2:00	4/8/2010 8:15	375	1.24	5,359,621	1.36	0.58	6	Atlas		6,645,930	1
	4/24/2010 15:00	4/24/2010 23:15	495	1.37	6,460,564	1.58	0.64	6	Atlas		8,850,973	1
	5/1/2010 5:15	5/1/2010 11:30	375	4.12	1,626,957	2.90	3.48	48	Atlas		6,703,062	1
	5/2/2010 1:45	5/2/2010 20:45	1,140	4.12	5,090,884	4.66	3.48	48	Atlas		20,974,443	1
	5/12/2010 10:00	5/12/2010 13:15	195	0.72	4,221,100	0.91	0.54	1	Atlas		3,039,192	1
	7/31/2010 5:00	7/31/2010 9:45	285	0.61	7,749,675	0.74	0.35	3	Atlas		4,727,302	1
	8/14/2010 17:15	8/14/2010 20:00	165	0.33	6,076,270	0.50	0.26	1	Atlas		2,005,169	1
	8/21/2010 8:15	8/21/2010 13:00	285	0.45	9,309,549	0.81	0.28	3	Atlas		4,189,297	1
	10/13/2010 20:45	10/13/2010 22:30	105	0.39	2,560,762	0.40	0.25	3	Atlas		998,697	1
	10/26/2010 12:15	10/26/2010 15:30	195	0.54	780,243	0.56	0.30	6	Atlas		421,331	1
	11/16/2010 13:30	11/16/2010 22:00	510	0.81	9,837,857	0.91	0.36	12	Atlas		7,968,664	1
	11/23/2010 5:00	11/23/2010 5:30	30	0.28	146,900	1.15	0.15	3	Atlas		41,132	1
	11/24/2010 13:45	11/24/2010 18:30	285	0.64	6,562,436	0.99	0.31	3	Atlas		4,199,959	1
	11/25/2010 10:30	11/26/2010 2:00	930	2.42	8,627,669	3.34	0.92	24	Atlas		20,878,959	1
	11/30/2010 0:30	11/30/2010 7:00	390	1.76	4,283,470	4.69	0.68	24	Atlas		7,538,907	1
	1/1/2011 6:00	1/1/2011 9:45	225	0.64	2,993,734	1.19	0.29	12	Atlas		1,915,990	1
	2/1/2011 18:15	2/1/2011 23:00	285	0.93	5,302,665	0.83	0.34	6	Atlas		4,931,478	1
	2/24/2011 20:30	2/25/2011 5:30	540	2.60	4,769,461	2.78	1.14	12	Cloudburst		12,400,598	1
	2/28/2011 6:00	2/28/2011 13:45	465	0.84	8,109,106	3.79	0.39	6	Atlas		6,811,649	1
	3/5/2011 7:45	3/5/2011 10:15	150	0.87	1,645,884	1.85	0.30	24	Atlas		1,431,919	1
	3/8/2011 23:45	3/9/2011 20:00	1,215	3.01	7,724,327	3.91	1.86	12	Cloudburst		23,250,224	1
	4/4/2011 14:15	4/4/2011 19:45	330	0.65	6,259,329	0.78	0.33	6	Atlas		4,068,564	1
	4/9/2011 11:15	4/9/2011 13:45	150	0.46	6,559,798	1.15	0.30	3	Atlas		3,017,507	1
	4/11/2011 16:15	4/12/2011 7:00	885	2.99	6,892,145	3.50	1.80	24	Cloudburst		20,607,515	1
	4/20/2011 2:30	4/20/2011 7:00	270	0.77	6,347,408	1.14	0.42	6	Atlas		4,887,504	1
	4/22/2011 17:45	4/23/2011 21:30	1,665	4.74	5,644,683	4.40	2.83	48	Atlas		26,755,799	1
	4/24/2011 8:45	4/24/2011 22:15	810	4.74	1,257,027	5.11	2.83	48	Atlas		5,958,306	1
	4/27/2011 1:15	4/27/2011 9:45	510	2.10	4,406,451	6.86	0.78	24	Atlas		9,253,548	1
	5/1/2011 6:00	5/1/2011 7:15	75	0.70	790,084	4.22	0.36	3	Atlas		553,059	1
	5/2/2011 5:15	5/2/2011 7:00	105	2.60	912,374	4.17	0.84	48	Atlas		2,372,173	1
	5/2/2011 23:45	5/3/2011 6:45	420	2.60	1,071,994	5.29	0.84	48	Atlas		2,787,185	1
	5/8/2011 1:45	5/8/2011 4:15	150	0.28	9,928,143	3.50	0.18	1	Atlas		2,779,880	1
	5/21/2011 18:45	5/21/2011 22:00	195	0.62	5,669,203	0.95	0.43	1	Atlas		3,514,906	1
	5/23/2011 5:15	5/23/2011 7:00	105	0.43	1,758,477	1.20	0.27	3	Atlas		756,145	1
	5/23/2011 18:00	5/23/2011 23:45	345	0.92	7,548,004	2.11	0.58	3	Atlas		6,944,164	1
	5/25/2011 23:30	5/26/2011 13:45	855	1.43	16,518,891	3.31	0.66	3	Atlas		23,622,014	1
	6/11/2011 5:45	6/11/2011 8:00	135	0.20	3,543,450	0.24	0.15	1	Atlas		708,690	1
	6/15/2011 9:45	6/15/2011 16:00	375	1.03	7,047,642	1.29	0.63	3	Atlas		7,259,071	1
	6/18/2011 7:15	6/18/2011 13:00	345	0.74	7,957,299	1.82	0.45	3	Atlas		5,888,401	1
	6/19/2011 8:15	6/19/2011 14:00	345	0.80	7,840,825	2.60	0.51	3	Atlas		6,272,660	1
	6/20/2011 1:45	6/20/2011 6:45	300	0.67	7,053,585	3.27	0.57	1	Atlas		4,725,902	1
	6/21/2011 17:00	6/21/2011 21:30	270	0.26	6,287,173	3.51	0.15	3	Atlas		1,634,665	1
	6/22/2011 20:00	6/23/2011 17:45	1,305	3.18	7,695,578	5.66	10.00	3	Atlas		24,471,938	1
	7/12/2011 18:30	7/12/2011 22:45	255	0.22	244,659	0.90	0.11	6	Atlas		53,825	1
	7/19/2011 23:00	7/20/2011 4:00	300	1.19	4,157,797	1.20	1.04	1	Atlas		4,947,779	1
	8/7/2011 3:30	8/7/2011 13:00	570	1.42	7,402,620	1.45	0.82	3	Atlas		10,511,721	1
	8/8/2011 16:30	8/8/2011 16:30	-	0.26	13,419	1.71	0.17	3	Atlas		3,489	1
	8/13/2011 17:45	8/13/2011 22:15	270	0.67	6,278,609	2.50	0.50	1	Atlas		4,206,668	1
	9/19/2011 8:00	9/19/2011 12:45	285	0.71	5,138,390	0.82	0.27	24	Atlas		3,648,257	1
	9/23/2011 3:30	9/23/2011 11:30	480	0.73	10,673,803	1.48	0.33	12	Atlas		7,791,876	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/25/2011 23:30	9/26/2011 11:00	690	3.61	5,061,786	5.16	8.75	12	Cloudburst		18,273,047	1
	10/13/2011 8:45	10/13/2011 10:00	75	0.47	374,379	0.33	0.21	12	Atlas		175,958	1
	10/27/2011 0:30	10/27/2011 3:15	165	0.99	2,212,324	1.19	0.41	3	Atlas		2,190,201	1
	11/14/2011 22:30	11/15/2011 17:30	1,140	1.88	7,606,794	1.47	0.61	48	Atlas		14,300,773	1
	11/16/2011 7:00	11/16/2011 13:00	360	1.88	1,961,681	1.90	0.61	48	Atlas		3,687,961	1
	11/20/2011 18:15	11/20/2011 22:00	225	1.63	367,063	2.35	0.51	48	Atlas		598,312	1
	11/22/2011 11:15	11/22/2011 14:15	780	1.63	5,385,817	3.11	0.51	48	Atlas		8,778,882	1
	11/27/2011 7:30	11/27/2011 11:30	240	2.98	791,523	2.23	0.92	48	Atlas		2,358,739	1
	11/27/2011 23:30	11/29/2011 5:30	1,800	2.98	10,260,718	4.21	0.92	48	Atlas		30,576,939	1
	12/4/2011 17:15	12/6/2011 0:30	1,875	3.26	10,992,976	5.59	1.30	48	Cloudburst		35,837,101	1
	12/15/2011 7:30	12/15/2011 10:45	195	0.51	1,128,614	0.46	0.23	6	Atlas		575,593	1
	12/21/2011 6:45	12/21/2011 10:15	210	0.71	3,815,697	1.25	0.33	12	Atlas		2,709,145	1
	12/22/2011 15:15	12/22/2011 21:45	390	0.49	11,838,047	1.23	0.22	12	Atlas		5,800,643	1
	12/27/2011 4:30	12/27/2011 16:30	720	0.64	13,186,667	1.84	0.25	12	Atlas		8,439,467	1
	1/11/2012 6:00	1/11/2012 14:00	480	0.91	7,743,565	0.80	0.36	12	Atlas		7,046,644	1
	1/17/2012 12:45	1/17/2012 14:00	75	0.34	1,330,500	1.38	0.16	12	Atlas		452,370	1
	1/23/2012 4:00	1/23/2012 7:00	180	0.60	4,023,197	0.96	0.31	3	Atlas		2,413,918	1
	1/26/2012 6:15	1/26/2012 10:15	240	1.74	907,390	1.27	0.58	24	Atlas		1,578,858	1
	1/26/2012 19:15	1/27/2012 2:15	420	1.74	3,699,744	2.35	0.58	24	Atlas		6,437,554	1
	2/4/2012 11:00	2/4/2012 11:45	45	0.34	100,071	0.38	0.20	3	Atlas		34,024	1
	2/29/2012 10:15	2/29/2012 10:30	15	0.55	35,125	0.65	0.28	1	Atlas		19,319	1
	3/8/2012 13:15	3/8/2012 17:00	225	0.71	3,402,613	0.88	0.33	6	Atlas		2,415,855	1
	3/16/2012 2:00	3/16/2012 5:00	180	1.00	2,010,443	1.19	0.45	12	Atlas		2,010,443	1
	3/17/2012 21:30	3/17/2012 23:30	120	0.54	1,068,296	1.71	0.29	3	Atlas		576,880	1
	3/23/2012 13:15	3/24/2012 7:30	1,095	1.56	5,059,180	2.10	0.59	24	Atlas		7,892,321	1
	4/1/2012 9:15	4/1/2012 13:45	270	1.30	3,503,240	1.46	0.73	3	Atlas		4,554,212	1
	4/28/2012 19:30	4/28/2012 22:30	180	0.74	3,750,393	0.79	0.54	1	Atlas		2,775,291	1
	5/5/2012 0:30	5/5/2012 6:00	330	1.48	3,374,765	2.64	0.77	6	Atlas		4,994,652	1
	5/13/2012 2:30	5/13/2012 17:45	915	2.08	7,773,287	2.15	0.80	12	Atlas		16,168,437	1
	5/29/2012 6:45	5/29/2012 14:45	480	3.17	3,548,123	3.17	25.64	3	Cloudburst		11,247,549	1
	5/31/2012 19:30	6/1/2012 3:15	465	1.24	2,231,856	4.29	0.54	12	Atlas		2,767,502	1
	7/1/2012 21:15	7/1/2012 21:30	15	0.19	271,047	0.16	0.12	1	Atlas		51,499	1
	7/8/2012 13:15	7/8/2012 16:15	180	0.15	22,094,060	0.54	0.08	1	Atlas		3,314,109	1
	7/14/2012 14:00	7/14/2012 17:15	195	0.70	4,749,681	0.90	0.39	3	Atlas		3,324,777	1
	7/19/2012 18:00	7/19/2012 22:15	255	1.19	3,106,932	1.78	0.77	1	Atlas		3,697,249	1
	7/24/2012 21:00	7/24/2012 22:45	105	0.22	3,449,941	1.47	0.18	1	Atlas		758,987	1
	7/27/2012 20:30	7/28/2012 0:00	210	0.56	7,234,093	0.87	0.44	1	Atlas		4,051,092	1
	8/16/2012 21:30	8/17/2012 1:45	255	0.59	6,208,822	0.72	0.33	3	Atlas		3,663,205	1
	8/21/2012 14:30	8/21/2012 21:15	405	0.14	45,466,000	0.74	0.12	1	Atlas		6,365,240	1
	9/1/2012 15:45	9/1/2012 20:00	255	0.32	10,108,109	0.36	0.17	6	Atlas		3,234,595	1
	9/2/2012 13:45	9/2/2012 23:00	555	0.53	5,574,458	0.89	0.27	1	Atlas		2,954,463	1
	9/5/2012 15:30	9/5/2012 20:00	270	0.72	6,189,072	1.63	0.56	1	Atlas		4,456,132	1
	9/7/2012 23:30	9/8/2012 8:30	540	1.53	3,875,546	3.14	0.88	3	Atlas		5,929,586	1
	9/26/2012 1:30	9/26/2012 10:30	540	0.54	12,753,033	0.84	0.27	6	Atlas		6,886,638	1
	9/26/2012 20:45	9/27/2012 3:15	390	1.33	5,763,208	2.17	0.71	6	Atlas		7,665,067	1
	10/1/2012 17:45	10/1/2012 21:45	240	0.66	4,291,265	2.87	0.27	12	Atlas		2,832,235	1
	10/26/2012 15:15	10/26/2012 19:30	255	0.63	3,308,119	0.60	0.31	6	Atlas		2,084,115	1
	12/4/2012 16:45	12/4/2012 22:15	330	0.57	7,898,056	0.81	0.35	3	Atlas		4,501,892	1
	12/7/2012 6:00	12/8/2012 13:00	1,860	0.94	26,407,050	2.06	0.42	6	Atlas		24,822,627	1
	12/9/2012 22:00	12/10/2012 7:30	570	1.19	9,626,609	2.97	0.58	3	Atlas		11,455,665	1
	12/20/2012 8:15	12/20/2012 17:00	525	0.66	13,915,192	0.95	0.32	6	Atlas		9,184,027	1
	12/26/2012 5:30	12/26/2012 19:00	810	0.94	15,802,247	1.66	0.36	12	Atlas		14,854,112	1
	1/11/2013 6:15	1/11/2013 10:45	270	0.62	6,758,847	0.83	0.33	6	Atlas		4,190,485	1
	1/13/2013 3:45	1/13/2013 22:30	1,125	2.25	11,195,983	3.07	0.86	24	Atlas		25,190,961	1
	1/30/2013 5:00	1/30/2013 10:30	330	0.89	4,538,753	1.14	0.44	6	Atlas		4,039,490	1
	2/26/2013 16:15	2/26/2013 18:00	105	0.68	169,753	1.04	0.26	24	Atlas		115,432	1
	3/11/2013 5:00	3/11/2013 13:45	525	1.03	2,828,711	1.52	0.41	12	Atlas		2,913,572	1
	3/17/2013 14:15	3/17/2013 17:45	210	1.82	1,059,670	1.76	0.59	48	Atlas		1,928,599	1
	3/18/2013 4:45	3/18/2013 12:30	465	1.82	3,024,131	2.25	0.59	48	Atlas		5,503,919	1
	4/11/2013 7:15	4/11/2013 9:30	135	1.23	1,437,003	0.50	0.47	24	Atlas		1,767,514	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/11/2013 18:15	4/11/2013 20:15	120	1.23	250,525	1.21	0.47	24	Atlas		308,146	1
	4/16/2013 20:15	4/16/2013 23:00	165	0.49	4,647,035	1.72	0.41	1	Atlas		2,277,047	1
	4/19/2013 2:30	4/19/2013 7:00	270	0.89	4,581,121	1.41	0.49	6	Atlas		4,077,198	1
	4/24/2013 8:30	4/24/2013 12:00	210	0.67	3,887,534	1.64	0.39	3	Atlas		2,604,648	1
	5/4/2013 14:15	5/4/2013 17:30	195	1.68	1,089,208	0.84	0.53	24	Atlas		1,829,869	1
	5/5/2013 5:30	5/5/2013 11:15	345	1.68	2,879,889	1.62	0.53	24	Atlas		4,838,213	1
	5/10/2013 12:45	5/11/2013 1:45	780	0.90	1,713,230	2.74	0.39	6	Atlas		1,541,907	1
	6/10/2013 1:00	6/10/2013 2:00	60	0.39	354,244	0.34	0.15	24	Atlas		138,155	1
	6/26/2013 4:15	6/26/2013 6:45	150	0.50	2,359,822	0.60	0.36	1	Atlas		1,179,911	1
	6/26/2013 16:30	6/27/2013 0:00	450	1.79	3,401,223	2.39	0.99	1	Atlas		6,088,189	1
	6/29/2013 21:00	6/29/2013 22:30	90	0.65	261,245	3.02	0.37	3	Atlas		169,809	1
	7/2/2013 14:15	7/2/2013 14:45	30	0.02	3,878,300	3.23	0.02	1	Atlas		77,566	1
	7/6/2013 4:45	7/6/2013 7:00	135	0.48	1,090,385	1.96	0.21	12	Atlas		523,385	1
	7/10/2013 14:15	7/10/2013 16:45	150	0.63	3,777,162	1.73	0.50	1	Atlas		2,379,612	1
	7/14/2013 20:30	7/14/2013 21:30	60	0.06	1,772,350	0.72	0.05	1	Atlas		106,341	1
	7/21/2013 20:30	7/21/2013 23:30	180	2.86	663,725	2.26	3.14	3	Atlas		1,891,616	1
	7/22/2013 7:45	7/22/2013 16:45	540	2.85	2,142,179	3.00	3.14	3	Atlas		6,105,209	1
	8/12/2013 14:45	8/12/2013 17:00	135	1.33	1,240,045	1.38	0.82	1	Atlas		1,649,260	1
	8/13/2013 4:00	8/13/2013 5:00	60	1.33	147,270	1.56	0.82	1	Atlas		195,869	1
	8/31/2013 20:45	9/1/2013 4:00	435	1.49	892,874	1.46	0.68	12	Atlas		1,330,382	1
	9/2/2013 14:15	9/2/2013 16:30	135	0.56	2,923,875	2.05	0.49	1	Atlas		1,637,370	1
	9/20/2013 17:45	9/21/2013 7:15	810	1.82	6,751,280	1.84	0.76	12	Atlas		12,287,330	1
	10/5/2013 13:30	10/6/2013 12:00	1,350	4.50	4,688,112	4.73	9.84	24	Cloudburst		21,096,503	1
	10/30/2013 3:15	10/30/2013 8:45	330	1.47	2,663,495	1.47	0.74	6	Atlas		3,915,337	1
	10/31/2013 19:15	10/31/2013 22:45	210	0.95	1,411,726	2.42	0.38	12	Atlas		1,341,140	1
	11/17/2013 5:45	11/17/2013 22:00	975	2.84	3,261,240	3.01	2.12	6	Cloudburst		9,261,921	1
	12/5/2013 7:45	12/5/2013 9:45	120	0.81	860,231	0.22	0.26	48	Atlas		696,787	1
	12/14/2013 10:45	12/14/2013 13:15	150	0.74	610,514	1.19	0.31	12	Atlas		451,780	1
	12/21/2013 7:45	12/22/2013 6:15	1,350	3.19	3,347,972	3.53	1.90	24	Cloudburst		10,680,032	1
	1/1/2014 1:15	1/1/2014 5:45	270	0.97	1,537,508	1.44	0.51	6	Atlas		1,491,383	1
	2/2/2014 6:15	2/2/2014 6:30	15	0.62	6,269	0.22	0.23	24	Atlas		3,887	1
	2/4/2014 20:30	2/5/2014 7:30	660	0.62	25,564,384	1.24	0.30	6	Atlas		15,849,918	1
	2/17/2014 16:30	2/17/2014 20:45	255	0.57	6,174,418	0.84	0.35	3	Atlas		3,519,418	1
	3/2/2014 11:30	3/2/2014 13:00	90	0.49	636,902	0.28	0.18	24	Atlas		312,082	1
	3/29/2014 7:30	3/29/2014 14:30	420	0.96	1,998,068	1.30	0.45	6	Atlas		1,918,145	1
	4/3/2014 12:45	4/4/2014 11:00	1,335	2.56	5,929,602	3.86	0.87	24	Atlas		15,179,780	1
	4/7/2014 10:45	4/7/2014 15:00	255	1.09	3,629,090	3.72	0.69	1	Atlas		3,955,708	1
	4/14/2014 21:15	4/15/2014 2:45	330	1.02	290,667	1.07	0.38	24	Atlas		296,480	1
	4/28/2014 9:45	4/28/2014 19:15	570	1.80	4,338,258	1.97	0.73	3	Atlas		7,808,865	1
	5/9/2014 20:30	5/9/2014 21:00	30	1.64	120,466	0.35	0.63	24	Atlas		197,564	1
	5/10/2014 6:00	5/10/2014 17:45	705	1.64	3,135,388	1.71	0.63	24	Atlas		5,142,037	1
	5/14/2014 9:30	5/14/2014 22:45	795	1.07	2,123,650	2.82	0.41	24	Atlas		2,272,305	1
	5/22/2014 3:45	5/22/2014 6:00	135	0.41	3,724,846	0.54	0.27	1	Atlas		1,527,187	1
	5/28/2014 20:30	5/28/2014 22:30	120	0.39	2,103,203	0.79	0.32	1	Atlas		820,249	1
	5/29/2014 21:30	5/29/2014 23:15	105	0.11	5,519,491	0.51	0.09	1	Atlas		607,144	1
	7/13/2014 23:00	7/14/2014 1:00	120	0.69	1,838,639	0.79	0.35	1	Atlas		1,268,661	1
	7/26/2014 22:00	7/26/2014 23:45	105	1.02	1,285,289	0.54	0.47	12	Atlas		1,310,995	1
	8/8/2014 6:30	8/8/2014 10:00	210	0.75	5,052,000	0.73	0.36	6	Atlas		3,789,000	1
	8/10/2014 4:30	8/10/2014 7:15	165	0.72	3,436,013	1.64	0.63	1	Atlas		2,473,929	1
	8/11/2014 15:45	8/11/2014 18:00	135	0.20	8,239,980	1.77	0.11	6	Atlas		1,647,996	1
	8/17/2014 11:15	8/17/2014 11:30	15	0.50	10,838	0.97	0.26	3	Atlas		5,419	1
	8/23/2014 17:00	8/24/2014 1:00	480	1.01	7,592,703	2.04	0.49	6	Atlas		7,668,630	1
	8/27/2014 18:30	8/27/2014 19:00	30	0.23	402,713	1.52	0.19	1	Atlas		92,624	1
	8/30/2014 16:30	8/30/2014 18:45	195	0.96	3,229,811	2.25	0.57	3	Atlas		3,100,619	1
	9/2/2014 10:00	9/2/2014 10:30	30	0.34	61,879	1.66	0.21	3	Atlas		21,039	1
	9/11/2014 1:00	9/11/2014 8:30	450	2.11	3,062,525	2.11	2.29	3	Atlas		6,461,927	1
	10/6/2014 10:45	10/6/2014 11:45	60	0.46	255,287	0.67	0.25	3	Atlas		117,432	1
	10/10/2014 2:30	10/10/2014 5:45	195	0.86	3,886,013	1.45	0.37	3	Atlas		3,341,971	1
	10/13/2014 6:00	10/13/2014 9:00	180	0.49	3,695,814	1.99	0.32	3	Atlas		1,810,949	1
	10/14/2014 6:00	10/14/2014 12:30	750	1.44	6,882,463	2.99	0.64	12	Atlas		9,910,747	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/23/2014 17:45	11/23/2014 21:15	210	0.92	2,516,068	1.25	0.42	6	Atlas		2,314,783	1
	12/1/2014 5:15	12/1/2014 6:45	90	0.87	180,631	0.47	0.33	24	Atlas		157,149	1
	12/6/2014 0:15	12/6/2014 9:45	570	1.91	4,622,115	2.77	0.62	48	Atlas		8,828,240	1
	3/4/2015 0:15	3/4/2015 17:15	1,020	1.71	6,186,470	1.40	0.55	48	Atlas		10,578,864	1
	3/10/2015 10:30	3/10/2015 16:45	375	1.09	5,986,338	2.79	0.49	12	Atlas		6,525,108	1
	3/13/2015 11:45	3/14/2015 6:30	1,125	1.84	5,449,515	2.90	0.70	24	Atlas		10,027,108	1
	3/26/2015 6:30	3/26/2015 7:00	30	0.52	17,044	0.66	0.23	3	Atlas		8,863	1
	4/2/2015 11:15	4/3/2015 19:00	1,905	5.44	5,128,090	5.57	18.39	6	Cloudburst		27,896,809	1
	4/7/2015 9:15	4/7/2015 19:30	615	0.89	3,929,207	6.34	0.37	12	Atlas		3,496,994	1
	4/8/2015 23:00	4/11/2015 10:30	3,570	0.12	377,279,267	6.86	0.09	1	Atlas		45,273,512	1
	4/13/2015 21:00	4/14/2015 1:00	240	0.55	3,714,884	1.62	0.21	24	Atlas		2,043,186	1
	4/14/2015 9:15	4/14/2015 15:30	375	0.55	5,485,509	1.43	0.21	24	Atlas		3,017,030	1
	4/19/2015 8:45	4/19/2015 23:00	855	0.81	13,317,847	1.43	0.33	12	Atlas		10,787,456	1
	5/16/2015 12:15	5/16/2015 15:45	210	0.95	1,912,696	1.08	0.58	3	Atlas		1,817,061	1
	6/17/2015 5:45	6/17/2015 8:30	165	0.63	3,933,086	0.65	0.34	3	Atlas		2,477,844	1
	6/18/2015 17:30	6/18/2015 20:45	195	0.62	6,389,227	1.30	0.36	1	Atlas		3,961,321	1
	6/20/2015 4:15	6/20/2015 11:00	405	1.19	4,992,556	2.59	0.49	12	Atlas		5,941,142	1
	6/26/2015 0:45	6/26/2015 2:45	120	0.77	920,440	2.31	0.42	6	Atlas		708,739	1
	6/26/2015 17:15	6/27/2015 2:00	525	0.99	2,774,804	3.28	0.55	1	Atlas		2,747,056	1
	7/2/2015 1:30	7/2/2015 5:00	210	0.84	3,552,829	2.98	0.47	3	Atlas		2,984,376	1
	7/2/2015 21:30	7/2/2015 23:00	90	0.84	386,544	3.02	0.47	3	Atlas		324,697	1
	7/3/2015 15:00	7/3/2015 17:45	165	1.48	1,240,420	3.70	2.47	1	Atlas		1,835,821	1
	7/7/2015 12:15	7/7/2015 16:45	270	0.91	3,485,605	3.30	0.48	6	Atlas		3,171,901	1
	7/10/2015 16:15	7/10/2015 18:30	135	0.46	2,569,541	1.80	0.24	6	Atlas		1,181,989	1
	7/12/2015 6:15	7/13/2015 6:15	1,440	0.73	16,429,134	2.50	0.50	1	Atlas		11,993,268	1
	7/13/2015 15:00	7/13/2015 18:00	180	0.51	6,479,145	3.01	0.44	1	Atlas		3,304,364	1
	7/14/2015 4:30	7/14/2015 7:30	180	0.30	8,598,927	3.31	0.23	1	Atlas		2,579,678	1
	7/14/2015 19:45	7/14/2015 20:30	45	0.16	213,438	2.56	0.14	1	Atlas		34,150	1
	7/17/2015 23:30	7/18/2015 7:00	450	0.83	8,343,633	2.53	0.55	3	Atlas		6,925,215	1
	8/4/2015 20:30	8/4/2015 21:45	75	0.18	1,767,039	0.35	0.15	1	Atlas		318,067	1
	8/6/2015 9:00	8/6/2015 10:45	105	0.78	362,597	0.86	0.30	1	Atlas		282,826	1
	10/2/2015 19:45	10/2/2015 21:00	75	0.46	150,222	1.15	0.21	12	Atlas		69,102	1
	10/27/2015 16:00	10/28/2015 11:00	1,140	3.44	6,981,008	3.82	1.84	24	Cloudburst		24,014,668	1
	11/6/2015 3:45	11/6/2015 8:30	285	1.05	4,941,723	1.22	0.65	3	Atlas		5,188,809	1
	11/9/2015 21:00	11/10/2015 0:30	210	0.60	2,024,865	1.65	0.28	12	Atlas		1,214,919	1
	11/12/2015 1:30	11/12/2015 3:30	120	0.30	3,082,767	1.95	0.17	3	Atlas		924,830	1
	11/18/2015 10:15	11/18/2015 21:00	645	1.76	7,904,107	2.27	0.89	6	Atlas		13,911,229	1
	11/28/2015 18:15	11/28/2015 21:45	210	0.87	281,164	0.82	0.28	48	Atlas		244,613	1
	11/30/2015 22:00	12/1/2015 7:00	540	0.56	11,708,864	1.49	0.25	12	Atlas		6,556,964	1
	12/22/2015 3:45	12/22/2015 6:00	135	0.70	2,732,620	0.73	0.27	24	Atlas		1,912,834	1
	12/23/2015 19:15	12/24/2015 0:45	330	1.01	4,925,285	1.73	0.67	1	Atlas		4,974,538	1
	12/26/2015 13:30	12/26/2015 20:00	390	0.58	3,230,950	2.40	0.26	12	Atlas		1,873,951	1
	12/27/2015 10:30	12/29/2015 0:00	2,250	2.53	9,133,275	4.93	0.82	48	Atlas		23,107,187	1
	2/2/2016 20:00	2/3/2016 13:00	1,020	1.51	12,265,524	1.58	0.75	6	Atlas		18,520,941	1
	2/21/2016 5:30	2/21/2016 17:15	705	1.07	13,267,264	1.26	0.49	12	Atlas		14,195,973	1
	2/23/2016 23:30	2/24/2016 16:30	1,020	2.24	8,892,305	3.14	0.86	12	Atlas		19,918,763	1
	3/1/2016 13:00	3/1/2016 17:30	270	0.65	5,824,026	2.93	0.34	6	Atlas		3,785,617	1
	3/10/2016 14:30	3/11/2016 1:30	660	1.31	9,501,103	1.36	0.43	48	Atlas		12,446,445	1
	3/12/2016 21:30	3/13/2016 13:45	975	0.50	14,155,588	1.85	0.19	24	Atlas		7,077,794	1
	3/24/2016 18:30	3/24/2016 20:00	90	0.31	2,237,161	0.39	0.21	1	Atlas		693,520	1
	3/27/2016 21:30	3/28/2016 0:45	195	0.77	5,306,478	1.08	0.53	1	Atlas		4,085,988	1
	3/31/2016 5:30	3/31/2016 9:45	255	1.34	2,712,784	1.86	0.51	24	Atlas		3,635,130	1
	3/31/2016 23:00	4/1/2016 2:30	210	1.34	2,810,016	2.11	0.51	24	Atlas		3,765,421	1
	4/11/2016 17:00	4/12/2016 1:45	525	0.97	10,977,771	1.12	0.44	6	Atlas		10,648,438	1
	4/21/2016 16:30	4/21/2016 19:15	165	0.29	4,895,472	0.17	0.11	24	Atlas		1,419,687	1
	4/26/2016 22:30	4/27/2016 1:15	165	0.24	7,249,258	0.70	0.14	3	Atlas		1,739,822	1
	4/27/2016 14:45	4/28/2016 4:15	810	1.03	8,658,001	1.73	0.49	3	Atlas		8,917,741	1
	4/30/2016 11:30	4/30/2016 16:30	300	0.79	8,205,776	1.80	0.30	24	Atlas		6,482,563	1
	5/1/2016 15:45	5/1/2016 20:30	285	0.32	13,807,625	2.38	0.21	3	Atlas		4,418,440	1
	5/7/2016 21:45	5/8/2016 2:15	270	0.37	12,549,351	1.17	0.19	3	Atlas		4,643,260	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/10/2016 15:15	5/11/2016 3:30	735	0.85	17,387,805	1.52	0.32	24	Atlas		14,779,634	1
	5/11/2016 22:15	5/12/2016 3:15	300	0.36	12,119,803	1.71	0.17	12	Atlas		4,363,129	1
	5/12/2016 18:30	5/13/2016 0:00	330	0.16	20,290,731	1.83	0.10	3	Atlas		3,246,517	1
	5/17/2016 7:30	5/17/2016 10:15	165	0.67	3,372,657	1.73	0.22	24	Atlas		2,259,680	1
	5/20/2016 14:45	5/20/2016 21:45	420	0.73	9,616,340	1.42	0.43	3	Atlas		7,019,928	1
	5/26/2016 18:00	5/26/2016 20:00	300	0.42	12,552,379	1.26	0.28	3	Atlas		5,271,999	1
	6/2/2016 15:30	6/2/2016 22:00	390	0.90	8,059,496	1.25	0.73	1	Atlas		7,253,546	1
	6/4/2016 17:30	6/4/2016 22:30	300	0.30	19,609,623	1.26	0.13	12	Atlas		5,882,887	1
	6/12/2016 18:45	6/13/2016 3:00	495	0.90	8,811,974	0.96	0.77	1	Atlas		7,930,777	1
	6/14/2016 16:30	6/15/2016 6:30	840	1.41	11,003,099	2.31	0.77	6	Atlas		15,514,369	1
	6/23/2016 16:30	6/24/2016 13:15	1,245	2.03	12,903,346	2.08	0.93	12	Atlas		26,193,793	1
	7/3/2016 13:15	7/5/2016 3:45	2,310	1.27	26,014,935	1.33	0.41	48	Atlas		33,038,968	1
	7/6/2016 15:00	7/6/2016 21:00	360	0.18	28,212,950	1.45	0.11	3	Atlas		5,078,331	1
	7/12/2016 11:45	7/12/2016 18:30	405	0.21	28,897,005	0.65	0.17	1	Atlas		6,068,371	1
	7/28/2016 4:30	7/28/2016 12:00	450	0.51	13,901,510	0.86	0.23	12	Atlas		7,089,770	1
	7/30/2016 15:45	7/30/2016 19:45	240	0.23	15,705,278	1.12	0.20	1	Atlas		3,612,214	1
	8/1/2016 12:45	8/2/2016 3:30	885	0.30	20,791,370	1.66	0.24	1	Atlas		6,237,411	1
	8/5/2016 16:00	8/5/2016 18:45	165	0.29	5,352,486	1.23	0.20	1	Atlas		1,552,221	1
	8/15/2016 4:30	8/15/2016 14:30	600	1.16	10,223,932	1.51	0.57	6	Atlas		11,859,761	1
	8/17/2016 7:00	8/17/2016 18:15	675	0.98	12,861,608	2.15	0.47	3	Atlas		12,604,376	1
	8/20/2016 12:30	8/21/2016 5:15	1,005	1.89	9,717,641	4.04	0.82	12	Atlas		18,366,342	1
	9/10/2016 17:15	9/10/2016 20:00	165	0.33	3,904,482	0.34	0.21	3	Atlas		1,288,479	1
	9/26/2016 12:30	9/26/2016 15:15	165	0.28	3,738,714	0.28	0.19	3	Atlas		1,046,840	1
	9/28/2016 14:30	9/28/2016 19:30	300	0.38	12,490,926	0.66	0.21	3	Atlas		4,746,552	1
	9/30/2016 2:45	9/30/2016 8:45	360	0.71	9,431,907	1.30	0.31	3	Atlas		6,696,654	1
	10/20/2016 9:45	10/20/2016 21:45	720	0.67	23,350,704	0.57	0.28	3	Atlas		15,644,972	1
	11/28/2016 18:15	11/29/2016 5:45	690	0.86	10,923,969	1.22	0.38	12	Atlas		9,394,613	1
	12/6/2016 6:00	12/6/2016 22:00	960	0.94	19,277,319	1.00	0.43	12	Atlas		18,120,680	1
	12/12/2016 0:30	12/12/2016 1:00	30	0.39	21,131	1.37	0.17	12	Atlas		8,241	1
	12/17/2016 17:15	12/19/2016 16:30	2,835	3.56	12,197,882	3.96	7.12	12	Cloudburst		43,424,459	1
	12/23/2016 23:45	12/24/2016 11:15	690	0.20	53,538,240	3.72	0.09	12	Atlas		10,707,648	1
	12/26/2016 21:45	12/27/2016 4:00	375	0.33	16,884,182	0.53	0.16	6	Atlas		5,571,780	1
	1/3/2017 4:45	1/3/2017 7:45	180	0.22	3,558,409	0.31	0.10	6	Atlas		782,850	1
	1/10/2017 21:30	1/10/2017 22:00	30	0.34	52,147	0.54	0.24	1	Atlas		17,730	1
	1/11/2017 14:30	1/11/2017 15:30	60	0.23	109,557	0.77	0.15	3	Atlas		25,198	1
	1/12/2017 19:15	1/13/2017 0:00	285	0.37	4,601,824	0.96	0.18	6	Atlas		1,702,675	1
	1/13/2017 17:30	1/13/2017 21:30	240	0.36	4,212,914	1.31	0.23	3	Atlas		1,516,649	1
	1/14/2017 12:30	1/14/2017 17:45	315	0.21	15,111,829	1.52	0.10	12	Atlas		3,173,484	1
	1/17/2017 0:45	1/17/2017 8:15	450	0.85	9,591,560	2.52	0.39	6	Atlas		8,152,826	1
	1/19/2017 20:00	1/22/2017 12:30	3,870	1.36	56,864,752	3.06	0.62	12	Atlas		77,336,063	1
	2/7/2017 11:45	2/7/2017 14:45	180	0.44	1,444,127	0.44	0.21	6	Atlas		635,416	1
	2/24/2017 19:45	2/24/2017 22:30	165	0.29	7,468,738	0.40	0.23	1	Atlas		2,165,934	1
	2/28/2017 11:30	2/28/2017 13:45	135	0.27	3,256,104	0.62	0.12	12	Atlas		879,148	1
	3/1/2017 3:45	3/1/2017 14:45	660	1.26	10,882,761	1.88	0.63	6	Atlas		13,712,279	1
	3/7/2017 8:30	3/7/2017 22:15	825	0.87	12,556,184	2.29	0.31	1	Atlas		10,923,880	1
	3/26/2017 3:45	3/26/2017 13:00	555	0.42	22,853,257	0.43	0.18	12	Atlas		9,598,368	1
	3/27/2017 19:45	3/28/2017 2:00	375	0.32	20,896,572	0.74	0.17	1	Atlas		6,686,903	1
	3/31/2017 1:15	3/31/2017 6:00	285	0.20	13,469,565	0.93	0.10	6	Atlas		2,693,913	1
	4/11/2017 14:15	4/11/2017 17:45	210	0.32	438,522	0.47	0.15	12	Atlas		140,327	1
	4/16/2017 7:15	4/16/2017 9:15	120	0.94	1,105,670	0.52	0.36	24	Atlas		1,039,330	1
	4/16/2017 18:45	4/17/2017 10:30	945	0.94	16,423,424	1.26	0.36	24	Atlas		15,438,019	1
	4/22/2017 0:00	4/22/2017 4:30	270	0.75	6,073,667	1.55	0.27	24	Atlas		4,555,250	1
	4/27/2017 8:45	4/27/2017 12:30	225	0.23	10,622,843	1.00	0.14	1	Atlas		2,443,254	1
	4/29/2017 1:30	4/29/2017 13:30	720	1.60	8,266,581	2.03	0.82	1	Atlas		13,226,529	1
	5/1/2017 6:30	5/1/2017 6:45	15	0.22	59,773	2.05	0.11	3	Atlas		13,150	1
	5/4/2017 21:00	5/7/2017 3:15	3,255	2.02	28,117,801	4.17	0.68	24	Atlas		56,797,958	1
	5/20/2017 20:30	5/21/2017 12:15	945	1.44	9,663,033	1.69	0.65	12	Atlas		13,914,767	1
	5/24/2017 20:30	5/25/2017 1:30	300	0.68	6,366,943	2.27	0.25	24	Atlas		4,329,521	1
	5/25/2017 16:45	5/26/2017 5:00	735	0.68	4,575,874	2.36	0.25	24	Atlas		3,111,594	1
	5/27/2017 15:15	5/28/2017 1:15	600	0.09	66,827,511	2.21	0.06	1	Atlas		6,014,476	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/5/2017 18:45	6/6/2017 1:00	375	0.35	13,070,789	0.42	0.30	1	Atlas		4,574,776	1
	6/15/2017 3:30	6/15/2017 11:00	450	0.50	14,247,958	0.63	0.32	3	Atlas		7,123,979	1
	6/22/2017 20:00	6/23/2017 0:15	255	1.18	3,013,142	0.62	0.38	48	Atlas		3,555,507	1
	6/23/2017 15:15	6/24/2017 4:00	765	1.18	10,876,581	1.41	0.38	48	Atlas		12,834,366	1
	6/30/2017 21:15	7/1/2017 2:45	330	0.51	9,076,700	0.66	0.44	1	Atlas		4,629,117	1
	7/6/2017 13:15	7/6/2017 18:30	315	0.33	7,749,842	0.96	0.17	3	Atlas		2,557,448	1
	7/7/2017 21:45	7/8/2017 1:45	240	0.40	2,913,543	0.84	0.29	1	Atlas		1,165,417	1
	7/23/2017 3:00	7/23/2017 19:15	975	0.93	18,206,933	1.01	0.43	12	Atlas		16,932,448	1
	7/28/2017 10:45	7/28/2017 16:00	315	0.06	28,876,733	1.00	0.02	24	Atlas		1,732,604	1
	8/1/2017 21:45	8/2/2017 4:00	375	0.13	28,088,946	0.20	0.09	1	Atlas		3,651,563	1
	9/1/2017 7:45	9/2/2017 15:30	1,905	3.59	12,195,555	3.89	1.90	24	Cloudburst		43,782,042	1
	9/19/2017 8:45	9/19/2017 12:45	240	0.21	20,279,529	0.63	0.13	1	Atlas		4,258,701	1
	10/27/2017 18:15	10/28/2017 7:00	765	1.10	23,856,957	1.74	0.50	12	Atlas		26,242,653	1
	11/3/2017 4:45	11/3/2017 11:00	375	0.89	14,880,181	2.16	0.68	1	Atlas		13,243,361	1
	11/6/2017 1:45	11/6/2017 5:45	240	0.35	16,715,120	1.41	0.21	1	Atlas		5,850,292	1
	11/7/2017 6:45	11/7/2017 9:30	165	0.24	1,793,083	1.65	0.11	6	Atlas		430,340	1
	11/15/2017 14:00	11/15/2017 17:15	195	0.33	9,340,803	0.37	0.21	1	Atlas		3,082,465	1
	11/18/2017 17:30	11/18/2017 22:00	270	0.31	25,703,048	0.69	0.17	1	Atlas		7,967,945	1
	12/5/2017 4:00	12/5/2017 10:45	405	0.80	16,636,041	0.81	0.43	3	Atlas		13,308,833	1
	12/22/2017 22:00	12/24/2017 4:15	1,815	1.80	32,151,285	1.81	0.71	12	Atlas		57,872,313	1
	1/11/2018 10:30	1/11/2018 15:15	285	0.53	13,005,621	0.23	0.17	48	Atlas		6,892,979	1
	1/12/2018 6:00	1/12/2018 14:30	510	0.53	13,068,830	0.49	0.17	48	Atlas		6,926,480	1
	1/27/2018 15:45	2/7/2018 7:30	150	0.43	3,049,537	0.60	0.26	3	Atlas		1,311,301	1
	2/7/2018 2:45	2/11/2018 13:45	285	0.55	14,508,167	0.89	0.29	6	Atlas		7,979,492	1
	2/11/2018 10:15	2/11/2018 13:45	210	0.29	17,246,431	0.93	0.15	3	Atlas		5,001,465	1
	2/14/2018 7:45	2/14/2018 12:00	255	0.48	9,443,788	0.84	0.23	3	Atlas		4,533,018	1
	2/16/2018 3:15	2/16/2018 14:00	645	0.78	22,670,128	1.76	0.36	12	Atlas		17,682,700	1
	2/17/2018 15:00	2/17/2018 15:30	30	0.16	24,175	1.84	0.10	3	Atlas		3,868	1
	2/21/2018 20:30	2/22/2018 12:00	930	2.16	12,628,759	3.17	0.82	24	Atlas		27,278,119	1
	2/23/2018 2:00	2/23/2018 17:30	930	2.00	13,695,342	5.11	0.92	12	Atlas		27,390,684	1
	2/24/2018 11:00	2/26/2018 10:45	2,865	2.58	26,041,652	6.91	1.60	12	Cloudburst		67,187,461	1
	3/10/2018 1:45	3/10/2018 6:00	255	0.60	9,949,452	0.63	0.40	3	Atlas		5,969,671	1
	3/19/2018 19:15	3/19/2018 22:45	210	0.43	8,158,712	0.46	0.24	3	Atlas		3,508,246	1
	3/24/2018 9:00	3/24/2018 23:45	885	1.02	28,115,911	2.21	0.39	24	Atlas		28,678,229	1
	3/28/2018 7:15	3/28/2018 8:15	60	0.51	259,116	1.53	0.21	6	Atlas		132,149	1
	3/29/2018 19:15	3/30/2018 6:00	645	0.78	19,420,897	2.25	0.25	24	Atlas		15,148,300	1
	4/1/2018 20:30	4/2/2018 3:15	405	0.66	18,283,495	2.34	0.36	6	Atlas		12,067,107	1
	4/3/2018 17:30	4/3/2018 23:45	375	0.29	16,636,897	2.56	0.16	6	Atlas		4,824,700	1
	4/14/2018 10:15	4/14/2018 12:00	105	1.19	565,424	0.43	0.40	24	Atlas		672,855	1
	4/15/2018 1:15	4/15/2018 12:15	660	1.19	7,705,678	1.24	0.40	24	Atlas		9,169,757	1
	4/23/2018 5:45	4/23/2018 9:30	225	0.53	4,784,457	0.59	0.27	3	Atlas		2,535,762	1
	5/5/2018 12:45	5/5/2018 22:30	585	1.18	14,576,262	1.19	0.45	12	Atlas		17,199,989	1
	5/17/2018 17:15	5/17/2018 17:15	-	0.25	27,984	0.27	0.20	1	Atlas		6,996	1
	5/27/2018 3:45	5/27/2018 8:00	255	1.30	6,129,432	1.39	1.13	1	Atlas		7,968,262	1
	5/31/2018 15:15	6/1/2018 7:30	975	1.70	9,081,549	3.44	0.90	3	Atlas		15,438,634	1
	6/10/2018 15:45	6/10/2018 17:15	90	1.01	665,971	0.35	0.38	24	Atlas		672,631	1
	6/11/2018 13:30	6/11/2018 16:45	195	1.01	4,605,424	1.02	0.38	24	Atlas		4,651,478	1
	6/12/2018 13:30	6/12/2018 13:45	15	0.16	49,775	1.18	0.07	3	Atlas		7,964	1
	6/22/2018 15:15	6/22/2018 16:15	60	0.32	612,116	1.39	0.15	3	Atlas		195,877	1
	6/25/2018 11:00	6/25/2018 15:15	255	0.81	9,356,657	2.24	0.33	12	Atlas		7,578,892	1
	6/26/2018 12:45	6/27/2018 2:00	795	0.77	15,467,564	2.96	0.33	12	Atlas		11,910,024	1
	7/2/2018 19:00	7/2/2018 21:00	120	0.10	26,720,050	0.88	0.09	1	Atlas		2,672,005	1
	7/3/2018 16:45	7/3/2018 19:15	150	0.11	26,944,955	0.58	0.06	6	Atlas		2,963,945	1
	7/16/2018 10:30	7/16/2018 12:15	105	0.36	1,074,556	0.46	0.24	1	Atlas		386,840	1
	7/20/2018 20:00	7/21/2018 1:30	330	0.71	14,417,713	1.18	0.27	24	Atlas		10,236,576	1
	7/31/2018 1:30	7/31/2018 16:15	885	2.18	10,493,513	2.43	1.28	6	Cloudburst		22,875,859	1
	8/15/2018 20:30	8/16/2018 14:45	1,095	3.98	8,516,644	3.98	6.05	24	Cloudburst		33,896,244	1
	8/20/2018 11:30	8/20/2018 13:45	135	0.69	5,064,535	4.47	0.34	1	Atlas		3,494,529	1
	8/31/2018 17:00	8/31/2018 18:00	60	1.18	187,323	1.18	0.88	1	Atlas		221,041	1
	9/8/2018 17:00	9/9/2018 1:45	525	3.53	4,835,341	3.86	10.51	6	Cloudburst		17,068,752	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/22/2018 16:45	9/22/2018 19:15	150	1.85	723.274	0.85	0.68	24	Atlas		1,338,057	1
	9/23/2018 5:00	9/23/2018 9:15	255	1.85	3,593,695	2.05	0.68	24	Atlas		6,648,336	1
	9/24/2018 7:30	9/24/2018 17:15	585	2.72	6,818,311	4.76	2.69	6	Cloudburst		18,545,807	1
	9/25/2018 16:45	9/26/2018 5:00	735	1.08	7,673,583	5.87	0.50	1	Atlas		8,287,470	1
	10/10/2018 16:45	10/10/2018 18:45	120	0.45	1,326,918	0.58	0.38	1	Atlas		597,113	1
	10/31/2018 17:15	11/1/2018 4:30	675	2.58	2,262,869	2.37	0.90	24	Atlas		5,838,201	1
	11/1/2018 16:45	11/1/2018 18:45	120	2.58	46,793	3.08	0.90	24	Atlas		120,726	1
	11/5/2018 21:15	11/6/2018 3:00	345	1.44	5,940,701	4.11	0.78	6	Atlas		8,554,610	1
	11/14/2018 23:15	11/15/2018 6:30	435	0.46	20,679,787	0.69	0.21	12	Atlas		9,512,702	1
	12/1/2018 4:30	12/1/2018 17:45	795	1.69	13,009,713	1.89	0.75	12	Atlas		21,986,415	1
	12/15/2018 3:00	12/15/2018 13:30	630	1.61	7,756,942	1.62	0.64	12	Atlas		12,488,676	1
	12/27/2018 18:30	12/27/2018 21:15	165	0.40	5,750,873	0.72	0.23	1	Atlas		2,300,349	1
	12/31/2018 6:00	12/31/2018 23:45	1,065	1.58	16,546,460	2.00	0.61	24	Atlas		26,143,407	1
	1/4/2019 14:45	1/4/2019 20:45	360	0.59	14,263,337	2.15	0.28	3	Atlas		8,415,369	1
	1/19/2019 7:15	1/19/2019 22:30	915	1.06	1,551,845	1.31	0.41	24	Atlas		1,644,956	1
	1/23/2019 9:45	1/23/2019 20:15	630	1.07	17,287,259	2.25	0.44	12	Atlas		18,497,367	1
	2/6/2019 7:00	2/6/2019 12:45	345	1.82	1,467,620	0.94	0.58	48	Atlas		2,671,069	1
	2/7/2019 9:45	2/8/2019 1:00	915	1.82	6,521,008	1.98	0.58	48	Atlas		11,868,234	1
	2/11/2019 2:30	2/12/2019 18:15	2,385	3.15	19,064,456	5.09	0.99	48	Atlas		60,053,037	1
	2/20/2019 3:00	2/20/2019 20:15	1,035	2.26	8,901,538	2.32	1.08	6	Cloudburst		20,117,477	1
	2/23/2019 17:45	2/24/2019 4:15	630	1.24	17,145,469	3.56	0.67	6	Atlas		21,260,381	1
	3/9/2019 14:15	3/10/2019 1:15	660	1.29	16,663,953	1.47	0.59	12	Atlas		21,496,499	1
	3/14/2019 7:15	3/14/2019 21:45	870	0.38	22,286,242	2.37	0.21	6	Atlas		8,468,772	1
	3/30/2019 16:00	3/31/2019 0:15	495	1.07	13,001,338	1.44	0.49	6	Atlas		13,911,432	1
	4/7/2019 12:00	4/7/2019 17:00	300	0.75	10,554,600	0.96	0.35	1	Atlas		7,915,950	1
	4/14/2019 1:45	4/14/2019 8:30	405	1.10	12,731,981	2.02	0.51	6	Atlas		14,005,179	1
	4/18/2019 21:45	4/19/2019 5:45	480	0.68	15,832,547	2.17	0.31	12	Atlas		10,766,132	1
	4/19/2019 18:45	4/20/2019 19:30	1,485	2.53	20,600,166	4.54	0.96	24	Atlas		52,118,421	1
	4/24/2019 21:00	4/25/2019 1:15	255	1.05	4,920,076	3.87	0.34	48	Atlas		5,166,080	1
	4/25/2019 18:15	4/26/2019 5:00	645	1.05	3,543,785	4.43	0.34	48	Atlas		3,720,974	1
	5/3/2019 5:15	5/3/2019 12:15	420	1.19	8,945,736	1.41	0.64	6	Atlas		10,645,426	1
	5/26/2019 14:00	5/26/2019 21:15	435	0.45	19,224,782	0.76	0.27	3	Atlas		8,651,152	1
	5/29/2019 10:30	5/29/2019 17:30	420	0.72	10,619,168	1.23	0.39	6	Atlas		7,645,801	1
	5/30/2019 12:15	5/30/2019 12:30	15	0.32	140,438	1.52	0.14	3	Atlas		44,940	1
	6/5/2019 21:00	6/6/2019 1:30	270	0.99	4,883,747	1.35	0.70	1	Atlas		4,834,910	1
	6/7/2019 22:15	6/8/2019 5:15	420	0.52	9,763,423	1.55	0.22	6	Atlas		5,076,980	1
	6/9/2019 1:00	6/9/2019 4:15	195	0.77	3,201,382	1.91	0.25	48	Atlas		2,465,064	1
	6/9/2019 15:45	6/9/2019 23:45	480	0.77	12,445,156	2.35	0.25	48	Atlas		9,582,770	1
	6/16/2019 7:30	6/16/2019 7:45	15	0.19	14,584	0.73	0.14	1	Atlas		2,771	1
	6/16/2019 18:45	6/17/2019 7:15	750	2.09	9,087,007	2.53	0.96	6	Atlas		18,991,845	1
	6/18/2019 16:45	6/18/2019 20:30	225	0.30	9,011,163	2.70	0.12	24	Atlas		2,703,349	1
	6/21/2019 19:45	6/22/2019 12:45	1,020	0.54	18,515,006	3.81	0.36	3	Atlas		9,998,103	1
	6/23/2019 16:15	6/23/2019 20:45	270	0.61	8,046,098	3.96	0.48	1	Atlas		4,908,120	1
	6/24/2019 13:30	6/24/2019 19:00	330	0.65	10,384,154	2.67	0.38	3	Atlas		6,749,700	1
	7/18/2019 0:45	7/18/2019 6:45	360	0.34	21,112,471	0.47	0.28	1	Atlas		7,178,240	1
	7/29/2019 23:15	7/30/2019 3:45	270	0.92	5,809,176	0.92	0.57	1	Atlas		5,344,442	1
	8/7/2019 5:15	8/7/2019 7:45	150	0.04	34,551,500	0.05	0.03	1	Atlas		1,382,060	1
	2/4/2020 20:15	2/4/2020 21:15	60	0.42	227,952	0.83	0.16	24	Atlas		95,740	1
	2/12/2020 17:30	2/13/2020 1:15	465	1.14	12,263,052	1.85	0.53	3	Atlas		13,979,879	1
	2/24/2020 21:00	2/25/2020 4:15	435	0.99	135,814	1.21	0.37	24	Atlas		134,456	1
	3/2/2020 8:15	3/2/2020 9:45	90	0.64	577,700	1.35	0.30	3	Atlas		369,728	1
	3/10/2020 8:15	3/10/2020 11:45	210	0.49	7,787,039	0.51	0.22	12	Atlas		3,815,649	1
	3/12/2020 17:15	3/13/2020 3:15	600	0.77	18,726,342	1.27	0.35	12	Atlas		14,419,283	1
	3/14/2020 13:00	3/14/2020 20:45	465	0.66	13,054,765	1.92	0.31	6	Atlas		8,616,145	1
	3/18/2020 16:15	3/18/2020 21:45	330	0.69	8,046,174	2.18	0.33	6	Atlas		5,551,860	1
	3/19/2020 12:15	3/19/2020 19:15	420	0.71	12,006,638	2.74	0.27	3	Atlas		8,524,713	1
CSO016 Total											3,454,266,293	449
	6/15/2009 16:15	6/15/2009 18:45	150	0.11	22,665,336	2.06	0.08	1	Atlas		2,493,187	1
	6/16/2009 10:00	6/16/2009 18:30	510	0.88	15,080,665	2.95	0.58	1	Atlas		13,270,985	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/18/2009 10:00	6/18/2009 13:15	195	0.72	18,400,592	2.14	0.48	1	Atlas		13,248,426	1
	6/20/2009 4:45	6/20/2009 4:45	-	0.18	393,200	2.08	0.15	1	Atlas		70,776	1
	6/22/2009 9:00	6/22/2009 11:30	150	0.61	22,651,490	2.59	0.40	1	Atlas		13,817,409	1
	6/26/2009 3:00	6/26/2009 7:45	285	1.86	12,763,855	2.74	1.73	3	Atlas		23,740,771	1
	6/26/2009 16:00	6/26/2009 17:15	75	0.13	14,913,477	2.87	0.11	1	Atlas		1,938,752	1
	7/8/2009 6:45	7/8/2009 8:00	75	0.21	4,002,338	0.54	0.18	1	Atlas		840,491	1
	7/15/2009 10:30	7/15/2009 10:45	15	0.45	2,603,887	0.40	0.29	3	Atlas		1,171,749	1
	7/27/2009 12:30	7/27/2009 15:15	165	Discharge	-	2.72					583,610	1
	7/29/2009 3:15	7/29/2009 8:15	300	1.03	7,355,750	3.48	0.45	12	Atlas		7,576,423	1
	7/30/2009 14:15	7/31/2009 2:00	705	1.67	13,251,307	3.78	0.71	12	Atlas		22,129,682	1
	8/4/2009 7:45	8/5/2009 1:45	1,080	5.15	11,650,893	7.87	333.66	3	Cloudburst		60,002,097	1
	8/10/2009 18:45	8/11/2009 0:00	315	1.00	20,564,416	6.15	0.63	3	Atlas		20,564,416	1
	8/20/2009 9:15	8/20/2009 10:15	60	0.10	2,850,010	0.12	0.08	1	Atlas		285,001	1
	8/29/2009 1:00	8/29/2009 2:15	75	0.10	1,323,180	0.20	0.09	1	Atlas		132,318	1
	9/7/2009 18:00	9/7/2009 19:45	105	0.36	670,039	0.61	0.22	1	Atlas		241,214	1
	9/20/2009 6:15	9/21/2009 9:30	1,635	3.93	8,812,607	3.94	6.53	3	Atlas		34,633,547	1
	9/25/2009 11:45	9/25/2009 11:45	-	1.53	120,258	5.75	0.57	24	Atlas		183,995	1
	9/26/2009 20:15	9/26/2009 22:45	150	0.41	20,110,029	6.16	0.35	1	Atlas		8,245,112	1
	10/2/2009 4:00	10/2/2009 7:00	180	0.70	6,206,511	1.17	0.45	3	Atlas		4,344,558	1
	10/6/2009 11:15	10/6/2009 12:30	75	0.10	12,974,220	0.80	0.07	1	Atlas		1,297,422	1
	10/8/2009 14:30	10/9/2009 13:30	1,380	2.29	7,422,816	3.00	0.79	24	Atlas		16,998,249	1
	10/14/2009 6:00	10/14/2009 8:30	150	0.76	4,909,836	3.05	0.50	3	Atlas		3,731,475	1
	10/15/2009 4:30	10/15/2009 6:00	90	0.15	6,598,000	3.15	0.10	3	Atlas		989,700	1
	10/23/2009 3:00	10/23/2009 11:15	495	0.72	3,693,421	0.69	0.29	12	Atlas		2,659,263	1
	10/27/2009 17:00	10/28/2009 1:30	510	1.14	5,735,085	1.86	0.51	12	Atlas		6,537,997	1
	10/30/2009 20:15	10/31/2009 6:45	630	0.96	8,755,149	2.11	0.43	12	Atlas		8,404,943	1
	11/17/2009 9:30	11/17/2009 22:15	765	0.71	4,208,452	0.71	0.27	24	Atlas		2,988,001	1
	12/2/2009 18:00	12/2/2009 18:15	15	0.29	477,997	0.44	0.13	12	Atlas		138,619	1
	12/8/2009 16:30	12/9/2009 7:00	870	2.04	5,159,235	2.31	0.84	12	Atlas		10,524,839	1
	12/13/2009 7:00	12/13/2009 8:15	75	0.31	2,541,919	2.45	0.20	3	Atlas		787,995	1
	12/19/2009 3:45	12/19/2009 4:00	15	0.23	109,748	0.40	0.08	24	Atlas		25,242	1
	12/25/2009 11:30	12/25/2009 12:00	30	0.23	746,391	0.47	0.08	24	Atlas		171,670	1
	12/31/2009 1:45	12/31/2009 1:45	-	0.12	175,092	0.54	0.07	3	Atlas		21,011	1
	1/20/2010 10:00	1/20/2010 13:30	210	1.29	1,329,741	0.61	0.42	48	Atlas		1,715,366	1
	1/21/2010 0:45	1/21/2010 1:00	15	1.29	14,622	0.69	0.42	48	Atlas		18,862	1
	1/21/2010 11:00	1/21/2010 21:30	630	1.29	4,019,760	1.50	0.42	48	Atlas		5,185,490	1
	1/24/2010 4:00	1/24/2010 12:30	510	0.90	2,960,527	2.11	0.35	24	Atlas		2,664,474	1
	1/24/2010 22:00	1/24/2010 23:15	75	0.90	655,616	2.19	0.35	24	Atlas		590,054	1
	2/5/2010 12:00	2/5/2010 20:30	510	1.15	3,046,437	1.14	0.42	12	Atlas		3,503,403	1
	3/12/2010 14:00	3/12/2010 15:45	105	0.27	2,736,315	0.28	0.16	3	Atlas		738,805	1
	3/21/2010 20:30	3/22/2010 2:15	345	0.65	2,651,391	0.65	0.29	12	Atlas		1,723,404	1
	3/25/2010 14:45	3/25/2010 22:30	465	0.27	1,119,185	0.90	0.10	24	Atlas		302,180	1
	4/7/2010 23:45	4/8/2010 7:00	435	1.11	5,305,206	1.17	0.54	6	Atlas		5,888,779	1
	4/24/2010 14:00	4/24/2010 21:15	435	1.42	4,587,351	1.57	0.67	6	Atlas		6,514,039	1
	4/27/2010 8:45	4/27/2010 11:00	135	0.29	3,212,997	1.97	0.14	6	Atlas		931,769	1
	5/1/2010 4:15	5/1/2010 10:00	345	3.52	1,860,920	2.81	1.73	48	Cloudburst		6,550,439	1
	5/2/2010 1:00	5/2/2010 19:30	1,110	3.52	6,381,653	3.93	1.73	48	Cloudburst		22,463,417	1
	5/8/2010 0:00	5/8/2010 8:30	510	0.07	1,778,286	3.63	0.05	1	Atlas		124,480	1
	5/12/2010 9:30	5/12/2010 11:30	120	0.54	6,389,448	0.70	0.37	1	Atlas		3,450,302	1
	5/13/2010 12:45	5/13/2010 14:00	75	0.03	35,497,700	0.73	0.03	1	Atlas		1,064,931	1
	5/17/2010 18:15	5/17/2010 20:45	150	0.33	5,155,809	1.34	0.22	3	Atlas		1,701,417	1
	5/21/2010 19:30	5/21/2010 21:15	105	0.35	7,692,623	1.04	0.29	1	Atlas		2,692,418	1
	5/30/2010 15:30	5/30/2010 17:00	90	0.46	2,428,302	0.42	0.27	1	Atlas		1,117,019	1
	6/9/2010 3:15	6/9/2010 13:30	615	1.06	4,933,605	1.22	0.57	3	Atlas		5,229,621	1
	6/12/2010 2:00	6/12/2010 2:30	30	0.09	5,307,633	1.13	0.05	3	Atlas		477,687	1
	6/13/2010 22:45	6/14/2010 7:30	525	0.72	6,415,372	1.87	0.43	1	Atlas		4,619,068	1
	6/19/2010 5:15	6/19/2010 9:00	225	0.61	6,594,177	1.79	0.37	3	Atlas		4,022,448	1
	6/28/2010 1:15	6/28/2010 10:15	540	0.27	6,854,848	0.27	0.17	3	Atlas		1,850,809	1
	7/8/2010 2:15	7/8/2010 3:15	60	Discharge	-	-					197,719	1
	7/8/2010 15:45	7/8/2010 16:45	60	0.28	1,394,346	0.06	0.11	24	Atlas		390,417	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/9/2010 9:15	7/9/2010 10:30	75	0.28	1,757,600	0.24	0.11	24	Atlas		492,128	1
	7/13/2010 5:00	7/13/2010 15:30	630	1.19	6,994,150	1.47	0.72	1	Atlas		8,323,038	1
	7/19/2010 18:45	7/20/2010 9:15	870	0.15	42,183,293	2.07	0.13	1	Atlas		6,327,494	1
	7/21/2010 5:45	7/21/2010 10:15	270	0.56	3,969,898	1.46	0.45	1	Atlas		2,223,143	1
	7/31/2010 5:00	7/31/2010 7:00	120	0.35	6,206,960	0.63	0.19	3	Atlas		2,172,436	1
	8/5/2010 9:00	8/5/2010 10:15	75	0.21	2,938,957	0.56	0.15	1	Atlas		617,181	1
	8/14/2010 16:15	8/14/2010 18:30	135	0.47	5,962,260	0.70	0.37	1	Atlas		2,802,262	1
	8/21/2010 7:30	8/21/2010 9:45	135	0.47	3,153,402	1.17	0.31	3	Atlas		1,482,099	1
	9/11/2010 8:30	9/11/2010 8:45	15	0.05	2,420,420	0.10	0.03	3	Atlas		121,021	1
	10/9/2010 2:45	10/9/2010 4:00	75	Discharge	-	0.06					568,060	1
	10/13/2010 19:00	10/13/2010 22:15	195	0.47	3,712,349	0.48	0.31	3	Atlas		1,744,804	1
	10/26/2010 11:15	10/26/2010 17:30	375	0.48	4,578,815	0.52	0.26	6	Atlas		2,197,831	1
	11/16/2010 12:30	11/16/2010 22:30	600	0.86	3,624,186	0.98	0.39	12	Atlas		3,116,800	1
	11/23/2010 4:00	11/23/2010 5:30	90	0.27	2,609,726	1.18	0.16	3	Atlas		704,626	1
	11/24/2010 13:00	11/24/2010 22:00	540	0.73	2,689,974	1.07	0.33	12	Atlas		1,963,681	1
	11/25/2010 8:15	11/26/2010 0:30	975	2.44	4,131,184	3.43	0.93	24	Atlas		10,080,089	1
	11/29/2010 21:15	11/30/2010 14:00	1,005	1.56	3,714,237	4.98	0.60	24	Atlas		5,794,210	1
	12/30/2010 3:15	12/30/2010 8:45	330	0.44	1,015,630	0.55	0.20	12	Atlas		446,877	1
	1/1/2011 1:30	1/1/2011 10:00	510	0.57	3,380,354	1.03	0.25	12	Atlas		1,926,802	1
	2/1/2011 17:15	2/1/2011 21:00	225	0.85	6,403,935	0.77	0.33	6	Atlas		5,443,345	1
	2/24/2011 17:15	2/25/2011 4:30	675	2.47	5,710,943	2.63	0.96	12	Atlas		14,106,029	1
	2/28/2011 4:45	2/28/2011 21:15	990	1.06	6,250,494	3.66	0.41	24	Atlas		6,625,524	1
	3/4/2011 22:00	3/5/2011 20:00	1,320	0.81	334,407	1.87	0.27	24	Atlas		270,870	1
	3/8/2011 20:00	3/9/2011 23:15	1,635	2.77	1,878,997	3.58	1.31	24	Cloudburst		5,204,823	1
	3/13/2011 9:30	3/17/2011 7:00	5,610	Discharge	-	3.47					66,095,358	1
	4/1/2011 21:15	4/1/2011 21:45	30	0.14	1,021,779	0.30	0.10	1	Atlas		143,049	1
	4/4/2011 13:15	4/4/2011 17:45	270	0.63	8,297,178	0.81	0.32	6	Atlas		5,227,222	1
	4/9/2011 10:45	4/9/2011 12:45	120	0.46	3,112,357	1.12	0.31	1	Atlas		1,431,684	1
	4/11/2011 12:00	4/12/2011 7:45	1,185	2.71	6,232,233	3.77	1.25	24	Cloudburst		16,889,352	1
	4/15/2011 12:30	4/15/2011 13:45	75	0.15	5,373,180	3.32	0.09	3	Atlas		805,977	1
	4/15/2011 22:45	4/15/2011 23:00	15	0.16	189,463	3.38	0.07	12	Atlas		30,314	1
	4/20/2011 0:00	4/20/2011 8:00	480	0.74	1,773,607	1.12	0.40	6	Atlas		1,312,469	1
	4/22/2011 16:15	4/24/2011 20:00	3,105	4.74	1,677,304	5.22	3.07	48	Atlas		7,950,421	1
	4/25/2011 5:15	4/25/2011 8:15	180	4.74	20,690	5.46	3.07	48	Atlas		98,072	1
	4/26/2011 9:45	4/26/2011 10:15	30	0.06	581,950	5.58	0.03	1	Atlas		34,917	1
	4/26/2011 23:00	4/27/2011 16:00	1,020	1.88	3,610,591	7.29	0.72	24	Atlas		6,787,911	1
	4/28/2011 18:45	4/28/2011 19:30	45	0.18	164,339	6.86	0.12	1	Atlas		29,581	1
	5/1/2011 4:00	5/1/2011 12:45	525	0.65	1,045,688	3.96	0.33	3	Atlas		679,697	1
	5/1/2011 22:30	5/3/2011 14:45	2,415	2.45	1,322,993	5.73	0.80	48	Atlas		3,241,334	1
	5/7/2011 12:00	5/8/2011 17:00	1,740	0.03	87,184,467	3.38	0.02	1	Atlas		2,615,534	1
	5/14/2011 14:45	5/14/2011 16:30	105	0.14	8,099,100	0.42	0.10	1	Atlas		1,133,874	1
	5/21/2011 18:00	5/21/2011 20:00	120	0.42	4,406,479	0.78	0.28	3	Atlas		1,850,721	1
	5/23/2011 4:00	5/23/2011 6:00	120	0.40	4,838,770	0.97	0.25	3	Atlas		1,935,508	1
	5/23/2011 17:45	5/23/2011 22:15	270	0.92	5,059,439	1.89	0.57	3	Atlas		4,654,684	1
	5/25/2011 22:45	5/26/2011 2:45	240	1.19	7,787,574	2.70	0.53	3	Atlas		9,267,213	1
	5/26/2011 11:45	5/26/2011 17:30	345	1.19	841,858	3.01	0.53	3	Atlas		1,001,811	1
	6/11/2011 5:00	6/11/2011 5:45	45	0.12	5,719,742	0.19	0.10	1	Atlas		686,369	1
	6/15/2011 9:30	6/15/2011 11:15	105	0.74	7,648,765	0.95	0.45	3	Atlas		5,660,086	1
	6/18/2011 7:15	6/18/2011 9:30	135	0.64	4,010,947	1.44	0.37	3	Atlas		2,567,006	1
	6/19/2011 7:45	6/19/2011 10:15	150	0.59	4,285,844	2.02	0.37	3	Atlas		2,528,648	1
	6/20/2011 1:15	6/20/2011 3:15	120	0.41	12,582,873	2.43	0.35	1	Atlas		5,158,978	1
	6/21/2011 17:00	6/21/2011 17:15	15	0.26	270,073	2.64	0.14	3	Atlas		70,219	1
	6/22/2011 19:45	6/23/2011 4:15	510	2.39	10,147,771	4.30	2.00	3	Atlas		24,253,172	1
	6/26/2011 5:00	6/26/2011 6:00	60	0.30	1,249,013	3.93	0.16	6	Atlas		374,704	1
	7/8/2011 4:15	7/8/2011 5:15	60	0.30	2,103,307	3.36	0.15	6	Atlas		630,992	1
	7/12/2011 17:45	7/12/2011 18:00	15	0.16	1,150,275	2.38	0.08	6	Atlas		184,044	1
	8/7/2011 3:15	8/7/2011 7:30	255	1.48	4,783,589	1.51	0.86	1	Atlas		7,079,712	1
	8/8/2011 14:15	8/8/2011 16:15	120	0.28	2,545,207	1.79	0.19	3	Atlas		712,658	1
	8/13/2011 17:15	8/13/2011 18:15	60	0.40	1,710,300	2.17	0.28	1	Atlas		684,120	1
	8/18/2011 9:00	8/18/2011 9:00	-	0.46	56,704	0.86	0.35	1	Atlas		26,084	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/19/2011 7:45	9/19/2011 7:45	-	0.76	202,318	0.64	0.29	24	Atlas		153,762	1
	9/25/2011 23:30	9/26/2011 10:30	660	3.29	5,174,724	4.97	4.90	12	Cloudburst		17,024,841	1
	10/13/2011 7:00	10/13/2011 9:00	120	0.41	1,239,649	0.25	0.18	12	Atlas		508,256	1
	10/18/2011 20:00	10/18/2011 21:30	90	0.21	1,675,181	0.57	0.10	1	Atlas		351,788	1
	10/20/2011 7:15	10/20/2011 7:45	30	0.40	784,133	0.94	0.15	24	Atlas		313,653	1
	10/27/2011 0:00	10/27/2011 9:45	585	0.83	3,273,295	1.07	0.36	6	Atlas		2,716,835	1
	11/3/2011 9:15	11/3/2011 11:45	150	0.47	568,479	0.44	0.24	3	Atlas		267,185	1
	11/14/2011 21:30	11/15/2011 14:30	1,020	1.53	2,027,833	1.18	0.50	48	Atlas		3,102,585	1
	11/16/2011 6:15	11/16/2011 13:30	435	1.53	502,943	1.55	0.50	48	Atlas		769,503	1
	11/20/2011 17:15	11/20/2011 19:00	105	0.57	271,074	1.90	0.22	24	Atlas		154,512	1
	11/21/2011 4:00	11/21/2011 13:30	570	0.57	1,683,954	2.17	0.22	24	Atlas		959,864	1
	11/22/2011 1:00	11/22/2011 23:30	1,350	0.88	3,859,359	2.69	0.38	12	Atlas		3,396,236	1
	11/27/2011 6:45	11/27/2011 9:45	180	2.92	159,659	2.00	0.91	48	Atlas		466,204	1
	11/27/2011 22:15	11/29/2011 4:15	1,800	2.92	2,299,889	4.03	0.91	48	Atlas		6,715,676	1
	12/4/2011 16:00	12/5/2011 20:00	1,680	3.51	4,053,549	5.82	1.72	48	Cloudburst		14,227,957	1
	12/15/2011 3:30	12/15/2011 13:00	570	0.38	2,144,776	0.40	0.19	3	Atlas		815,015	1
	12/21/2011 3:15	12/21/2011 9:00	345	0.70	2,701,210	1.09	0.32	12	Atlas		1,890,847	1
	12/22/2011 14:45	12/23/2011 0:30	585	0.46	3,068,587	1.17	0.21	12	Atlas		1,411,550	1
	12/27/2011 3:30	12/27/2011 12:15	525	0.65	609,452	1.78	0.26	12	Atlas		396,144	1
	1/11/2012 5:15	1/17/2012 12:15	420	0.88	2,446,842	0.77	0.35	12	Atlas		2,153,221	1
	1/17/2012 4:45	1/17/2012 13:15	510	0.33	1,214,933	1.33	0.15	12	Atlas		400,928	1
	1/23/2012 2:45	1/23/2012 5:45	180	0.63	2,854,384	1.01	0.32	3	Atlas		1,798,262	1
	1/25/2012 17:15	1/27/2012 2:45	2,010	1.59	6,524,089	2.23	0.52	48	Atlas		10,373,302	1
	2/4/2012 10:15	2/4/2012 11:45	90	0.37	1,233,911	0.43	0.21	3	Atlas		456,547	1
	2/21/2012 9:15	2/21/2012 9:15	-	0.11	14,173	0.42	0.06	6	Atlas		1,559	1
	2/22/2012 22:45	2/23/2012 0:00	75	0.13	1,154,854	0.42	0.10	1	Atlas		150,131	1
	2/29/2012 8:30	2/29/2012 11:00	150	0.44	1,870,445	0.57	0.20	12	Atlas		822,996	1
	3/2/2012 16:30	3/2/2012 18:30	120	0.16	95,694	0.61	0.08	1	Atlas		15,311	1
	3/8/2012 9:45	3/8/2012 16:00	375	0.65	1,622,297	0.88	0.31	6	Atlas		1,054,493	1
	3/15/2012 18:30	3/16/2012 4:30	600	0.79	2,825,797	1.04	0.35	12	Atlas		2,232,380	1
	3/17/2012 18:30	3/17/2012 23:00	270	0.44	5,321,630	1.46	0.28	1	Atlas		2,341,517	1
	3/23/2012 5:45	3/23/2012 23:45	1,080	1.53	2,856,307	1.97	0.56	24	Atlas		4,370,150	1
	3/30/2012 23:45	3/31/2012 0:45	60	0.19	49,611	0.19	0.12	1	Atlas		9,426	1
	4/1/2012 8:30	4/1/2012 12:15	225	1.21	4,401,375	1.41	0.66	6	Atlas		5,325,664	1
	4/14/2012 12:45	4/14/2012 12:45	-	0.09	26,989	0.08	0.05	6	Atlas		2,429	1
	4/28/2012 19:15	4/29/2012 2:30	435	0.65	5,867,240	0.75	0.45	1	Atlas		3,813,706	1
	4/30/2012 17:45	4/30/2012 21:15	210	0.23	9,210,635	0.98	0.15	3	Atlas		2,118,446	1
	5/4/2012 23:30	5/5/2012 5:30	360	1.18	493,786	2.09	0.61	6	Atlas		582,667	1
	5/13/2012 2:00	5/13/2012 15:45	825	1.86	2,654,103	2.15	0.72	12	Atlas		4,936,631	1
	5/16/2012 17:30	5/16/2012 18:45	75	0.13	5,002,262	1.99	0.10	1	Atlas		650,294	1
	5/29/2012 6:15	5/29/2012 6:30	15	2.66	16,461	1.55	12.27	1	Atlas		43,787	1
	7/14/2012 11:45	7/14/2012 15:45	240	0.63	3,682,073	0.84	0.37	3	Atlas		2,319,706	1
	7/19/2012 18:15	7/19/2012 21:30	195	0.43	16,949,481	1.08	0.31	1	Atlas		7,288,277	1
	7/24/2012 19:45	7/24/2012 21:15	90	0.55	4,636,411	0.98	0.46	1	Atlas		2,550,026	1
	7/27/2012 19:30	7/27/2012 22:15	165	0.59	15,019,673	1.27	0.42	1	Atlas		8,861,607	1
	8/3/2012 7:15	8/3/2012 7:15	-	0.18	13,517	0.76	0.09	3	Atlas		2,433	1
	8/16/2012 20:00	8/17/2012 0:15	255	0.55	5,524,316	0.67	0.31	3	Atlas		3,038,374	1
	8/21/2012 14:00	8/21/2012 15:00	60	0.03	29,684,300	0.59	0.03	1	Atlas		890,529	1
	8/31/2012 15:15	8/31/2012 15:15	-	0.02	1,160,700	0.02	0.01	6	Atlas		23,214	1
	9/1/2012 15:15	9/1/2012 16:30	75	0.15	12,582,087	0.14	0.08	6	Atlas		1,887,313	1
	9/2/2012 13:30	9/2/2012 21:30	480	0.41	3,455,680	0.58	0.16	12	Atlas		1,416,829	1
	9/3/2012 16:30	9/3/2012 16:45	15	0.25	844,168	0.83	0.20	1	Atlas		211,042	1
	9/5/2012 15:15	9/5/2012 17:30	135	0.79	8,270,644	1.62	0.57	1	Atlas		6,533,730	1
	9/7/2012 23:15	9/8/2012 7:45	510	1.30	9,098,555	2.90	0.73	3	Atlas		11,828,122	1
	9/25/2012 9:00	9/25/2012 10:15	75	0.30	229,680	0.32	0.17	3	Atlas		68,904	1
	9/26/2012 0:15	9/26/2012 8:00	465	0.31	10,296,419	0.66	0.14	12	Atlas		3,191,890	1
	9/26/2012 19:45	9/27/2012 16:00	1,215	1.46	15,331,397	2.12	0.78	6	Atlas		22,383,839	1
	10/1/2012 15:30	10/1/2012 20:00	270	0.65	3,786,615	2.67	0.26	12	Atlas		2,461,300	1
	10/6/2012 0:00	10/6/2012 1:45	105	0.15	3,885,340	0.79	0.09	3	Atlas		582,801	1
	10/14/2012 16:00	10/14/2012 17:45	105	0.16	3,575,038	0.15	0.12	1	Atlas		572,006	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/18/2012 1:00	10/18/2012 9:30	510	0.25	2,465,416	0.42	0.17	3	Atlas		616,354	1
	10/26/2012 11:15	10/27/2012 5:45	1,110	0.63	2,091,770	0.65	0.31	6	Atlas		1,317,815	1
	11/3/2012 11:00	11/3/2012 17:15	375	0.11	323,609	0.12	0.05	3	Atlas		35,597	1
	11/12/2012 3:45	11/12/2012 13:30	585	0.38	1,190,916	0.42	0.17	6	Atlas		452,548	1
	11/27/2012 1:30	11/27/2012 3:30	120	0.06	123,150	0.06	0.03	6	Atlas		7,389	1
	12/2/2012 11:15	12/2/2012 15:45	270	0.24	7,428,700	0.30	0.13	3	Atlas		1,782,888	1
	12/4/2012 15:00	12/5/2012 5:00	840	0.43	8,999,179	0.67	0.28	3	Atlas		3,869,647	1
	12/6/2012 17:00	12/8/2012 12:00	2,580	0.81	6,666,780	1.70	0.33	12	Atlas		5,400,092	1
	12/9/2012 8:45	12/9/2012 9:45	60	1.19	16,887	1.75	0.60	3	Atlas		20,095	1
	12/9/2012 20:00	12/10/2012 9:00	780	1.19	9,531,664	2.63	0.60	3	Atlas		11,342,680	1
	12/15/2012 11:30	12/15/2012 13:15	105	0.16	2,044,313	1.37	0.10	3	Atlas		327,090	1
	12/17/2012 12:15	12/17/2012 20:30	495	0.34	2,480,735	0.54	0.19	6	Atlas		843,450	1
	12/20/2012 7:00	12/20/2012 18:15	675	0.60	10,924,667	1.13	0.31	6	Atlas		6,554,800	1
	12/26/2012 1:30	12/27/2012 5:00	1,650	0.81	6,910,040	1.53	0.32	12	Atlas		5,597,132	1
	12/29/2012 0:45	12/29/2012 15:15	870	0.06	3,289,517	0.95	0.03	12	Atlas		197,371	1
	12/31/2012 23:30	1/1/2013 4:15	285	0.39	127,387	1.27	0.24	1	Atlas		49,681	1
	1/10/2013 13:15	1/10/2013 14:00	45	0.18	58,061	0.19	0.09	6	Atlas		10,451	1
	1/11/2013 2:45	1/11/2013 13:00	615	0.59	7,862,327	0.79	0.33	3	Atlas		4,638,773	1
	1/13/2013 3:00	1/14/2013 3:45	1,485	2.05	11,601,364	2.82	0.78	24	Atlas		23,782,796	1
	1/15/2013 1:30	1/15/2013 1:30	-	0.04	822,950	2.86	0.02	6	Atlas		32,918	1
	1/16/2013 2:15	1/16/2013 4:15	120	0.17	42,076	3.00	0.07	24	Atlas		7,153	1
	1/27/2013 20:45	1/28/2013 2:30	345	0.19	309,279	0.21	0.08	12	Atlas		58,763	1
	1/28/2013 11:00	1/28/2013 12:00	60	0.06	233,533	0.26	0.04	1	Atlas		14,012	1
	1/30/2013 4:30	1/30/2013 18:45	855	0.77	13,246,543	1.04	0.38	6	Atlas		10,199,838	1
	2/4/2013 18:15	2/4/2013 18:15	-	0.12	26,058	0.98	0.07	3	Atlas		3,127	1
	2/8/2013 4:45	2/8/2013 4:45	-	0.08	45,775	0.23	0.04	6	Atlas		3,662	1
	2/10/2013 15:45	2/10/2013 16:45	60	0.18	75,400	0.40	0.09	3	Atlas		13,572	1
	2/19/2013 0:00	2/19/2013 4:30	270	0.32	103,366	0.39	0.15	12	Atlas		33,077	1
	2/21/2013 23:00	2/22/2013 6:15	435	0.42	4,083,607	0.75	0.19	12	Atlas		1,715,115	1
	2/26/2013 6:00	2/26/2013 21:45	945	0.58	4,047,100	0.99	0.23	12	Atlas		2,347,318	1
	3/5/2013 16:15	3/5/2013 23:45	450	0.46	3,847,300	0.62	0.18	24	Atlas		1,769,758	1
	3/6/2013 9:00	3/6/2013 9:00	-	0.46	30,817	0.58	0.18	24	Atlas		14,176	1
	3/11/2013 3:15	3/11/2013 22:15	1,140	0.94	8,663,919	1.42	0.37	12	Atlas		8,144,084	1
	3/17/2013 7:00	3/18/2013 15:15	1,935	1.69	8,086,722	2.64	0.55	48	Atlas		13,666,560	1
	3/24/2013 7:30	3/24/2013 18:00	630	0.52	2,553,929	1.80	0.19	24	Atlas		1,328,043	1
	4/11/2013 5:15	4/12/2013 4:15	1,380	1.09	5,749,040	1.09	0.42	24	Atlas		6,266,454	1
	4/16/2013 20:00	4/16/2013 23:00	180	0.46	6,574,787	1.49	0.32	1	Atlas		3,024,402	1
	4/19/2013 1:15	4/19/2013 12:00	645	0.81	9,387,217	1.30	0.44	6	Atlas		7,603,646	1
	4/24/2013 6:30	4/24/2013 15:30	540	0.61	10,180,292	1.49	0.35	3	Atlas		6,209,978	1
	5/4/2013 12:15	5/6/2013 0:15	2,160	1.64	4,097,627	1.59	0.50	24	Atlas		6,720,109	1
	5/10/2013 9:45	5/11/2013 6:30	1,245	0.87	5,173,202	2.60	0.33	24	Atlas		4,500,686	1
	5/16/2013 10:15	5/16/2013 13:00	165	0.10	3,596,310	1.02	0.08	1	Atlas		359,631	1
	6/1/2013 5:45	6/1/2013 7:45	120	0.20	178,455	0.33	0.09	12	Atlas		35,691	1
	6/9/2013 22:00	6/10/2013 4:45	405	0.31	6,861,403	0.32	0.12	6	Atlas		2,127,035	1
	6/16/2013 9:00	6/18/2013 11:15	3,015	0.47	33,849,506	1.19	0.35	1	Atlas		15,909,268	1
	6/24/2013 10:30	6/24/2013 11:00	30	0.04	182,225	0.77	0.03	3	Atlas		7,289	1
	6/26/2013 3:15	6/26/2013 16:30	795	0.65	12,851,737	1.77	0.44	1	Atlas		8,353,629	1
	10/30/2013 1:45	10/30/2013 8:00	375	1.21	7,325,163	1.21	0.58	6	Atlas		8,863,447	1
	10/31/2013 19:00	10/31/2013 22:30	210	0.96	6,903,321	2.17	0.41	1	Atlas		6,627,188	1
	11/17/2013 4:30	11/17/2013 21:15	1,005	3.43	9,154,774	3.59	8.37	6	Cloudburst		31,400,875	1
	12/5/2013 6:15	12/5/2013 9:15	180	0.77	2,737,723	0.19	0.25	48	Atlas		2,108,047	1
	12/6/2013 3:45	12/6/2013 3:45	-	0.77	10,781	0.35	0.25	48	Atlas		8,301	1
	12/6/2013 12:15	12/6/2013 13:00	45	0.77	20,984	0.48	0.25	48	Atlas		16,158	1
	12/14/2013 9:15	12/14/2013 13:00	225	0.68	3,318,456	1.02	0.28	12	Atlas		2,256,550	1
	12/21/2013 2:00	12/22/2013 6:30	1,710	3.32	10,915,419	4.01	2.24	24	Cloudburst		36,239,192	1
	12/29/2013 5:45	12/29/2013 7:45	120	0.52	645,708	0.42	0.22	12	Atlas		335,768	1
	1/5/2014 15:30	1/5/2014 20:15	285	0.46	5,447,428	0.64	0.22	3	Atlas		2,505,817	1
	1/11/2014 0:15	1/11/2014 6:30	375	0.87	7,035,672	1.34	0.47	6	Atlas		6,121,035	1
	1/13/2014 15:30	1/13/2014 18:30	180	0.25	660,444	1.13	0.11	6	Atlas		165,111	1
	2/2/2014 5:00	2/2/2014 8:30	210	0.55	2,209,744	0.26	0.20	24	Atlas		1,215,359	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/4/2014 19:30	2/5/2014 3:00	450	0.67	13,353,313	1.22	0.34	6	Atlas		8,946,720	1
	2/17/2014 16:00	2/17/2014 19:45	225	0.57	8,469,828	0.80	0.34	3	Atlas		4,827,802	1
	2/20/2014 23:30	2/21/2014 0:30	60	0.26	1,642,715	1.07	0.14	6	Atlas		427,106	1
	3/2/2014 10:30	3/2/2014 12:30	120	0.39	3,188,969	0.21	0.15	24	Atlas		1,243,698	1
	3/12/2014 8:00	3/12/2014 8:30	30	0.10	533,280	0.10	0.05	1	Atlas		53,328	1
	3/28/2014 4:15	3/28/2014 6:00	105	0.35	3,765,683	0.42	0.18	6	Atlas		1,317,989	1
	3/29/2014 6:15	3/29/2014 14:00	465	0.75	5,849,133	1.17	0.34	12	Atlas		4,386,860	1
	4/3/2014 7:45	4/4/2014 10:00	1,575	3.21	9,809,836	4.40	1.63	24	Cloudburst		31,489,575	1
	4/7/2014 8:45	4/7/2014 14:30	345	1.05	8,851,535	4.32	0.61	3	Atlas		9,294,112	1
	4/14/2014 4:00	4/14/2014 4:45	45	0.41	889,841	1.35	0.21	6	Atlas		364,835	1
	4/14/2014 20:15	4/15/2014 2:45	390	0.54	6,323,620	1.03	0.25	12	Atlas		3,414,755	1
	4/28/2014 4:15	4/28/2014 9:15	300	1.91	6,405,478	1.75	0.87	3	Atlas		12,234,463	1
	4/28/2014 17:30	4/28/2014 21:15	225	1.91	838,352	2.03	0.87	3	Atlas		1,601,252	1
	5/9/2014 19:15	5/10/2014 17:00	1,305	1.40	9,596,074	1.47	0.64	1	Atlas		13,434,504	1
	5/14/2014 9:15	5/15/2014 1:30	975	0.99	3,104,769	2.52	0.37	24	Atlas		3,073,721	1
	5/16/2014 4:30	5/16/2014 5:00	30	0.13	155,538	2.65	0.10	1	Atlas		20,220	1
	5/21/2014 21:30	5/22/2014 5:00	450	0.89	3,362,924	1.09	0.45	1	Atlas		2,993,002	1
	5/28/2014 20:15	5/28/2014 23:30	195	0.49	14,475,545	1.39	0.31	1	Atlas		7,093,017	1
	6/11/2014 14:00	6/11/2014 15:30	90	0.14	11,692,836	0.33	0.10	1	Atlas		1,636,997	1
	6/20/2014 17:15	6/20/2014 18:45	90	0.15	10,987,247	0.16	0.10	1	Atlas		1,648,087	1
	6/24/2014 13:45	6/24/2014 14:00	15	0.17	537,818	0.33	0.09	6	Atlas		91,429	1
	7/1/2014 19:45	7/1/2014 23:00	195	0.49	4,308,796	0.53	0.33	1	Atlas		2,111,310	1
	7/2/2014 16:00	7/2/2014 17:30	90	0.16	10,627,994	0.69	0.14	1	Atlas		1,700,479	1
	7/7/2014 20:15	7/7/2014 20:45	30	0.01	31,017,500	0.66	0.01	1	Atlas		310,175	1
	7/13/2014 22:45	7/14/2014 1:15	150	0.90	3,490,530	0.65	0.44	1	Atlas		3,141,477	1
	7/14/2014 19:00	7/14/2014 21:30	150	0.30	19,049,853	1.29	0.19	3	Atlas		5,714,956	1
	7/26/2014 21:45	7/27/2014 10:15	750	0.91	4,770,488	0.96	0.41	12	Atlas		4,341,144	1
	8/8/2014 6:15	8/8/2014 8:30	135	0.58	4,482,129	0.44	0.27	6	Atlas		2,599,635	1
	8/10/2014 4:00	8/10/2014 6:30	150	0.65	12,260,491	1.40	0.54	1	Atlas		7,969,319	1
	8/11/2014 14:00	8/11/2014 16:45	165	0.23	16,706,552	1.63	0.16	1	Atlas		3,842,507	1
	8/17/2014 9:45	8/17/2014 15:45	360	0.82	1,885,040	1.01	0.31	24	Atlas		1,545,733	1
	8/22/2014 19:00	8/22/2014 20:30	90	0.12	11,364,533	0.92	0.07	3	Atlas		1,363,744	1
	8/23/2014 16:15	8/23/2014 23:15	420	1.20	6,446,151	2.15	0.55	3	Atlas		7,735,381	1
	8/26/2014 20:00	8/26/2014 21:15	75	0.12	3,545,392	1.46	0.10	1	Atlas		425,447	1
	8/27/2014 17:30	8/27/2014 18:15	45	0.03	8,305,833	1.47	0.03	1	Atlas		249,175	1
	8/30/2014 15:15	8/30/2014 17:45	150	1.19	4,789,032	2.42	0.73	3	Atlas		5,698,948	1
	9/2/2014 7:45	9/2/2014 10:30	165	0.72	3,532,842	2.03	0.46	3	Atlas		2,543,646	1
	9/11/2014 0:15	9/11/2014 7:30	435	1.65	10,687,703	1.63	0.94	3	Atlas		17,634,710	1
	10/6/2014 9:30	10/6/2014 13:45	255	0.70	3,325,004	0.82	0.24	6	Atlas		2,327,503	1
	10/7/2014 12:15	10/7/2014 13:00	45	0.70	670,857	1.07	0.24	6	Atlas		469,600	1
	10/10/2014 1:45	10/10/2014 4:30	165	0.88	5,222,523	1.93	0.55	3	Atlas		4,595,820	1
	10/10/2014 21:45	10/10/2014 22:30	45	0.29	483,010	1.87	0.13	12	Atlas		140,073	1
	10/13/2014 4:30	10/13/2014 7:45	195	0.52	6,784,438	2.42	0.33	1	Atlas		3,527,908	1
	10/13/2014 23:15	10/14/2014 11:30	735	1.47	5,923,951	3.39	0.66	12	Atlas		8,708,208	1
	11/23/2014 17:15	11/23/2014 22:15	300	0.86	5,008,110	1.14	0.37	12	Atlas		4,306,975	1
	12/1/2014 2:00	12/1/2014 17:00	900	0.82	5,964,027	0.79	0.31	24	Atlas		4,890,502	1
	12/5/2014 6:30	12/5/2014 7:45	75	1.36	48,454	1.31	0.50	24	Atlas		65,898	1
	12/5/2014 20:45	12/6/2014 8:00	675	1.36	7,904,741	2.55	0.50	24	Atlas		10,750,448	1
	12/22/2014 23:00	12/23/2014 0:30	90	0.22	2,600,464	0.32	0.13	3	Atlas		572,102	1
	12/23/2014 20:45	12/23/2014 21:00	15	0.05	198,500	0.29	0.04	1	Atlas		9,925	1
	12/24/2014 13:30	12/24/2014 15:00	90	0.26	1,741,927	0.44	0.10	12	Atlas		452,901	1
	12/28/2014 1:30	12/28/2014 2:30	60	0.31	821,742	0.84	0.12	24	Atlas		254,740	1
	1/3/2015 5:00	1/4/2015 12:15	1,875	0.61	1,868,259	0.93	0.23	24	Atlas		1,139,638	1
	1/12/2015 0:15	1/12/2015 14:45	870	0.19	710,584	0.22	0.07	24	Atlas		135,011	1
	1/18/2015 3:30	1/18/2015 4:30	60	0.06	174,467	0.25	0.04	1	Atlas		10,468	1
	1/25/2015 16:30	1/26/2015 3:15	645	0.16	636,406	0.23	0.07	12	Atlas		101,825	1
	1/29/2015 5:45	1/29/2015 6:30	45	0.06	198,200	0.30	0.04	1	Atlas		11,892	1
	2/1/2015 11:45	2/2/2015 2:15	870	0.38	2,701,858	0.61	0.19	3	Atlas		1,026,706	1
	2/21/2015 0:00	2/22/2015 4:00	1,680	1.17	579,491	1.46	0.45	12	Atlas		678,004	1
	3/1/2015 16:45	3/1/2015 23:45	420	0.09	1,252,278	0.19	0.03	24	Atlas		112,705	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/14/2015 0:00	3/14/2015 0:00	-	1.82	179	2.04	0.67	24	Atlas		326	1
	3/24/2015 20:00	3/24/2015 22:15	135	0.16	193,713	0.32	0.10	1	Atlas		30,994	1
	3/26/2015 3:15	3/26/2015 19:00	945	0.58	5,921,188	0.92	0.28	3	Atlas		3,434,289	1
	4/2/2015 10:15	4/3/2015 23:45	2,250	4.19	16,490,251	4.32	5.65	24	Cloudburst		69,094,151	1
	4/9/2015 0:00	4/9/2015 0:00	-	0.03	1,671,000	5.71	0.02	6	Atlas		50,130	1
	5/16/2015 11:45	5/16/2015 19:15	450	1.14	4,960,046	1.32	0.62	3	Atlas		5,654,452	1
	5/17/2015 14:00	5/17/2015 17:15	195	0.17	577,853	1.46	0.11	1	Atlas		98,235	1
	5/25/2015 6:45	5/25/2015 11:00	255	0.24	2,167,221	0.27	0.12	6	Atlas		520,133	1
	5/26/2015 13:30	5/26/2015 15:45	135	0.19	689,647	0.37	0.10	1	Atlas		131,033	1
	6/17/2015 4:45	6/17/2015 9:15	270	0.53	6,653,953	0.54	0.30	3	Atlas		3,526,595	1
	6/18/2015 17:15	6/18/2015 23:00	345	0.70	8,896,153	1.21	0.42	1	Atlas		6,227,307	1
	6/20/2015 0:15	6/20/2015 14:15	840	1.02	9,174,276	2.34	0.43	12	Atlas		9,357,762	1
	6/21/2015 23:45	6/22/2015 9:30	585	0.21	2,485,595	2.54	0.10	12	Atlas		521,975	1
	6/25/2015 23:30	6/26/2015 7:45	495	0.49	3,136,498	1.82	0.25	6	Atlas		1,536,884	1
	6/26/2015 17:00	6/27/2015 8:45	945	1.22	11,287,603	2.94	0.81	1	Atlas		13,770,876	1
	6/29/2015 13:30	6/29/2015 16:45	195	0.10	12,181,830	1.81	0.05	3	Atlas		1,218,183	1
	7/2/2015 0:15	7/3/2015 23:30	2,835	1.22	20,847,357	3.54	0.47	24	Atlas		25,433,776	1
	7/7/2015 11:30	7/7/2015 22:45	675	0.98	3,922,424	2.64	0.48	6	Atlas		3,843,976	1
	7/8/2015 12:15	7/8/2015 13:45	90	0.98	98,981	2.70	0.48	6	Atlas		97,001	1
	7/9/2015 7:00	7/9/2015 19:30	750	0.32	6,860,953	2.24	0.15	12	Atlas		2,195,505	1
	7/10/2015 10:15	7/10/2015 22:45	750	0.43	4,941,923	2.20	0.22	6	Atlas		2,125,027	1
	7/12/2015 5:45	7/12/2015 14:45	540	0.76	11,203,441	2.52	0.57	1	Atlas		8,514,615	1
	7/13/2015 14:30	7/13/2015 18:30	240	0.34	7,911,247	2.86	0.29	1	Atlas		2,689,824	1
	7/14/2015 4:15	7/14/2015 21:00	1,005	0.55	8,458,807	3.44	0.43	1	Atlas		4,652,344	1
	7/29/2015 17:00	7/29/2015 19:30	150	0.28	3,645,232	0.30	0.23	1	Atlas		1,020,665	1
	8/4/2015 18:45	8/4/2015 22:15	210	0.22	22,149,245	0.50	0.18	1	Atlas		4,872,834	1
	8/5/2015 14:45	8/5/2015 20:00	315	0.83	2,628,418	0.84	0.32	24	Atlas		2,181,587	1
	8/6/2015 7:30	8/6/2015 15:30	480	0.83	3,088,886	1.04	0.32	24	Atlas		2,563,775	1
	8/19/2015 6:45	8/20/2015 0:00	1,035	1.21	4,370,298	1.21	0.57	1	Atlas		5,288,060	1
	9/5/2015 17:45	9/5/2015 19:00	75	0.11	7,821,500	0.06	0.06	6	Atlas		860,365	1
	9/9/2015 11:00	9/9/2015 15:15	255	0.52	7,293,671	0.63	0.45	1	Atlas		3,792,709	1
	9/29/2015 5:30	9/29/2015 11:15	345	0.86	137,323	0.53	0.28	48	Atlas		118,098	1
	10/2/2015 16:00	10/3/2015 2:15	615	0.47	4,046,847	1.42	0.23	6	Atlas		1,902,018	1
	10/12/2015 17:45	10/12/2015 21:15	210	0.25	2,624,636	0.29	0.19	1	Atlas		656,159	1
	10/24/2015 17:00	10/24/2015 22:00	300	0.19	3,113,684	0.20	0.09	6	Atlas		591,600	1
	10/27/2015 3:15	10/29/2015 1:00	2,745	3.54	8,302,955	3.74	1.84	24	Cloudburst		29,392,460	1
	10/31/2015 22:15	11/1/2015 1:15	180	0.17	572,112	3.71	0.11	3	Atlas		97,259	1
	11/6/2015 2:45	11/6/2015 17:00	855	0.82	9,666,920	0.99	0.49	3	Atlas		7,926,874	1
	11/9/2015 16:00	11/10/2015 2:15	615	0.61	3,472,228	1.43	0.28	12	Atlas		2,118,059	1
	11/12/2015 0:00	11/12/2015 8:00	480	0.28	6,854,654	1.71	0.15	3	Atlas		1,919,303	1
	11/18/2015 8:30	11/19/2015 3:45	1,155	1.71	9,379,907	2.17	0.83	6	Atlas		16,039,641	1
	11/21/2015 15:00	11/21/2015 16:15	75	0.12	175,458	2.01	0.10	1	Atlas		21,055	1
	11/28/2015 12:00	11/29/2015 12:30	1,470	0.65	2,842,082	0.96	0.26	12	Atlas		1,847,353	1
	11/30/2015 22:00	12/1/2015 15:30	1,050	0.59	4,546,856	1.49	0.27	12	Atlas		2,682,645	1
	12/14/2015 5:30	12/14/2015 10:45	315	0.25	1,268,404	0.26	0.13	6	Atlas		317,101	1
	12/21/2015 10:45	12/22/2015 11:45	1,500	0.58	3,842,809	0.63	0.22	24	Atlas		2,228,829	1
	12/23/2015 7:00	12/24/2015 5:30	1,350	1.79	5,209,839	2.40	1.83	1	Atlas		9,325,611	1
	12/26/2015 12:15	12/26/2015 23:30	675	0.48	1,520,798	2.98	0.23	3	Atlas		729,983	1
	12/27/2015 9:45	12/27/2015 23:45	840	2.88	2,542,866	4.58	0.94	48	Atlas		7,323,453	1
	1/9/2016 19:00	1/10/2016 8:00	780	0.28	2,177,486	0.41	0.11	12	Atlas		609,696	1
	2/2/2016 14:30	2/3/2016 11:15	1,245	1.29	3,809,095	1.32	0.64	6	Atlas		4,913,733	1
	2/21/2016 4:00	2/21/2016 18:30	870	0.71	1,201,228	0.90	0.33	6	Atlas		852,872	1
	2/23/2016 22:15	2/25/2016 3:30	1,755	2.08	3,463,951	2.79	0.80	12	Atlas		7,205,018	1
	2/29/2016 1:15	2/29/2016 2:00	45	0.05	306,460	2.14	0.04	1	Atlas		15,323	1
	3/1/2016 8:30	3/1/2016 19:00	630	0.83	481,696	2.97	0.54	1	Atlas		399,808	1
	3/9/2016 15:15	3/9/2016 23:45	510	1.34	158,120	0.55	0.44	48	Atlas		211,881	1
	3/10/2016 8:15	3/11/2016 9:00	1,485	1.34	1,044,075	1.39	0.44	48	Atlas		1,399,060	1
	3/12/2016 20:15	3/13/2016 17:15	1,260	0.55	3,388,762	1.92	0.21	24	Atlas		1,863,819	1
	3/24/2016 17:00	3/24/2016 22:00	300	0.84	978,420	0.88	0.67	1	Atlas		821,873	1
	3/27/2016 21:00	3/27/2016 23:00	120	0.54	2,682,263	1.38	0.37	1	Atlas		1,448,422	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/31/2016 1:30	4/1/2016 2:00	1,470	1.55	1,238,408	2.93	0.57	24	Atlas		1,919,533	1
	4/11/2016 13:15	4/11/2016 20:15	420	1.01	1,952,102	1.16	0.44	6	Atlas		1,971,623	1
	4/21/2016 15:15	4/21/2016 17:00	105	0.13	625,792	0.15	0.07	3	Atlas		81,353	1
	4/22/2016 12:45	4/22/2016 13:45	60	0.13	406,723	0.28	0.05	6	Atlas		52,874	1
	4/26/2016 21:15	4/26/2016 23:15	120	0.29	528,203	0.57	0.19	3	Atlas		153,179	1
	4/27/2016 12:15	4/28/2016 1:30	795	1.00	1,160,386	1.57	0.45	12	Atlas		1,160,386	1
	4/30/2016 10:45	4/30/2016 16:30	345	0.78	703,886	1.78	0.30	24	Atlas		549,031	1
	5/1/2016 3:15	5/1/2016 6:15	180	0.78	172,896	2.07	0.30	24	Atlas		134,859	1
	5/1/2016 15:30	5/1/2016 17:30	120	0.15	187,573	2.22	0.10	3	Atlas		28,136	1
	5/4/2016 11:15	5/4/2016 12:30	75	0.17	116,418	2.07	0.09	3	Atlas		19,791	1
	5/7/2016 16:15	5/7/2016 23:15	420	0.53	985,994	1.15	0.27	6	Atlas		522,577	1
	5/10/2016 14:00	5/11/2016 1:30	690	1.06	1,124,341	1.80	0.43	6	Atlas		1,191,801	1
	5/11/2016 21:15	5/11/2016 23:45	150	0.20	814,490	1.79	0.09	3	Atlas		162,898	1
	5/17/2016 7:15	5/17/2016 8:30	75	0.28	156,450	1.64	0.11	12	Atlas		43,806	1
	5/17/2016 20:00	5/17/2016 22:15	135	0.26	552,081	0.96	0.13	6	Atlas		143,541	1
	5/20/2016 13:30	5/20/2016 22:30	540	0.61	2,440,744	1.20	0.35	3	Atlas		1,488,854	1
	5/25/2016 19:00	5/25/2016 19:15	15	0.01	1,535,200	0.72	0.01	1	Atlas		15,352	1
	5/26/2016 13:30	5/26/2016 16:30	180	0.41	444,954	1.13	0.27	3	Atlas		182,431	1
	5/28/2016 14:30	5/28/2016 16:00	90	0.25	345,096	0.57	0.14	6	Atlas		86,274	1
	6/2/2016 15:15	6/2/2016 18:15	180	1.07	3,254,782	1.39	0.90	1	Atlas		3,482,617	1
	6/4/2016 16:15	6/4/2016 23:15	420	0.28	646,093	1.50	0.13	1	Atlas		180,906	1
	6/12/2016 17:45	6/12/2016 20:30	165	0.39	496,031	0.41	0.34	1	Atlas		193,452	1
	6/14/2016 16:15	6/15/2016 2:00	585	1.41	4,163,119	1.80	0.81	3	Atlas		5,869,998	1
	6/22/2016 8:00	6/22/2016 15:30	450	0.61	845,162	0.77	0.36	3	Atlas		515,549	1
	6/23/2016 16:15	6/23/2016 23:00	405	1.90	3,659,557	2.51	1.17	6	Cloudburst		6,953,159	1
	7/3/2016 10:15	7/5/2016 6:00	2,625	1.60	2,193,871	1.69	0.52	48	Atlas		3,510,194	1
	7/8/2016 1:00	7/8/2016 1:00	-	0.28	2,954	1.73	0.19	1	Atlas		827	1
	7/12/2016 8:45	7/12/2016 13:45	300	0.15	602,333	0.51	0.08	6	Atlas		90,350	1
	7/20/2016 19:30	7/20/2016 20:45	75	0.01	70,476,500	0.34	0.01	1	Atlas		704,765	1
	7/25/2016 12:30	7/25/2016 13:45	75	0.26	338,823	0.20	0.14	6	Atlas		88,094	1
	7/26/2016 17:30	7/26/2016 18:45	75	0.26	91,392	0.54	0.23	1	Atlas		23,762	1
	7/27/2016 17:45	7/28/2016 4:30	645	0.31	1,753,613	0.81	0.13	12	Atlas		543,620	1
	7/30/2016 13:45	7/30/2016 14:45	60	0.28	142,264	1.13	0.23	1	Atlas		39,834	1
	7/31/2016 15:45	7/31/2016 15:45	-	0.01	8,030,700	1.14	0.01	1	Atlas		80,307	1
	8/1/2016 10:45	8/1/2016 20:30	585	0.67	778,269	1.81	0.54	1	Atlas		521,440	1
	8/5/2016 14:00	8/5/2016 15:15	75	0.21	111,943	1.21	0.17	1	Atlas		23,508	1
	8/9/2016 15:30	8/9/2016 17:00	90	0.54	131,920	0.76	0.46	1	Atlas		71,237	1
	8/15/2016 2:30	8/15/2016 14:00	690	1.13	1,795,069	1.74	0.61	3	Atlas		2,028,428	1
	8/17/2016 4:00	8/18/2016 0:45	1,245	1.41	3,144,932	2.61	0.77	1	Atlas		4,434,354	1
	8/19/2016 19:45	8/19/2016 20:30	45	0.01	19,575,400	2.59	0.01	1	Atlas		195,754	1
	8/20/2016 6:45	8/21/2016 6:00	1,395	1.41	2,619,261	4.00	0.61	12	Atlas		3,693,158	1
	8/27/2016 12:45	8/27/2016 14:00	75	0.20	2,427,235	1.08	0.17	1	Atlas		485,447	1
	8/31/2016 17:30	8/31/2016 18:45	75	0.36	126,264	0.58	0.30	1	Atlas		45,455	1
	9/8/2016 23:15	9/8/2016 23:15	-	0.03	115,033	0.02	0.03	1	Atlas		3,451	1
	9/10/2016 14:00	9/10/2016 16:30	150	0.21	571,695	0.22	0.13	3	Atlas		120,056	1
	9/26/2016 9:00	9/26/2016 12:00	180	0.25	396,520	0.24	0.16	3	Atlas		99,130	1
	9/28/2016 11:00	9/28/2016 16:00	300	0.45	672,587	0.68	0.24	3	Atlas		302,664	1
	9/29/2016 9:00	9/29/2016 10:30	90	0.58	101,124	0.84	0.23	3	Atlas		58,652	1
	9/30/2016 0:00	9/30/2016 6:15	375	0.58	1,570,102	1.23	0.23	3	Atlas		910,659	1
	10/20/2016 9:00	10/20/2016 18:30	570	0.66	2,081,582	0.56	0.28	3	Atlas		1,373,844	1
	11/8/2016 19:45	11/8/2016 20:45	60	0.13	35,446	0.15	0.06	12	Atlas		4,608	1
	11/19/2016 1:30	11/19/2016 1:45	15	0.10	74,450	0.09	0.06	3	Atlas		7,445	1
	11/23/2016 17:30	11/23/2016 22:30	300	0.32	114,069	0.42	0.12	24	Atlas		36,502	1
	11/28/2016 13:00	11/29/2016 5:45	1,005	0.76	1,122,987	1.08	0.33	12	Atlas		853,470	1
	12/4/2016 17:30	12/4/2016 20:15	165	0.06	335,333	0.83	0.03	12	Atlas		20,120	1
	12/6/2016 4:15	12/6/2016 21:15	1,020	0.80	1,307,679	0.87	0.37	12	Atlas		1,046,143	1
	12/11/2016 21:00	12/12/2016 8:45	705	0.36	119,236	1.29	0.16	12	Atlas		42,925	1
	12/17/2016 0:45	12/18/2016 14:30	2,265	2.89	4,753,021	3.27	2.68	12	Cloudburst		13,736,230	1
	12/23/2016 21:45	12/24/2016 22:15	1,470	0.28	4,346,004	3.16	0.13	6	Atlas		1,216,881	1
	12/26/2016 8:00	12/27/2016 11:30	1,650	0.40	1,959,778	0.68	0.20	1	Atlas		783,911	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/28/2016 19:00	12/28/2016 22:45	225	0.03	877,400	0.71	0.02	3	Atlas		26,322	1
	1/10/2017 20:45	1/10/2017 23:15	150	0.23	99,930	0.56	0.17	1	Atlas		22,984	1
	1/11/2017 12:15	1/11/2017 23:45	690	0.21	3,136,971	0.77	0.15	1	Atlas		658,764	1
	1/12/2017 15:15	1/18/2017 8:30	8,235	0.25	30,115,936	2.58	0.13	6	Atlas		7,528,984	1
	1/19/2017 18:15	1/21/2017 10:30	2,415	1.11	5,781,605	2.97	0.51	12	Atlas		6,417,582	1
	2/7/2017 8:45	2/7/2017 15:45	420	0.50	405,282	0.49	0.23	6	Atlas		202,641	1
	2/18/2017 20:30	2/19/2017 0:00	210	0.11	1,042,127	0.12	0.06	6	Atlas		114,634	1
	2/24/2017 19:00	2/24/2017 21:15	135	0.27	4,661,626	0.36	0.22	1	Atlas		1,258,639	1
	2/28/2017 10:00	2/28/2017 13:30	210	0.39	3,248,656	0.72	0.20	6	Atlas		1,266,976	1
	3/1/2017 3:15	3/1/2017 14:00	645	1.22	7,327,873	1.95	0.64	6	Atlas		8,940,005	1
	3/7/2017 7:00	3/7/2017 16:45	585	0.68	3,373,278	2.15	0.22	48	Atlas		2,293,829	1
	3/27/2017 18:15	3/27/2017 20:15	120	0.26	6,166,342	0.75	0.14	3	Atlas		1,603,249	1
	3/31/2017 1:30	3/31/2017 2:15	45	0.25	518,148	0.93	0.11	6	Atlas		129,537	1
	4/3/2017 19:15	4/3/2017 20:15	60	0.20	30,775	0.39	0.11	1	Atlas		6,155	1
	4/16/2017 4:15	4/16/2017 23:00	1,125	1.23	4,888,973	1.44	0.47	24	Atlas		6,013,437	1
	4/21/2017 22:15	4/22/2017 1:15	180	0.72	4,359,843	1.90	0.27	6	Atlas		3,139,087	1
	4/27/2017 6:30	4/27/2017 8:15	105	0.15	4,654,020	0.96	0.09	1	Atlas		698,103	1
	4/28/2017 23:15	4/29/2017 2:45	210	2.34	4,570,377	2.54	1.92	6	Cloudburst		10,694,683	1
	6/30/2017 21:00	6/30/2017 22:15	75	0.56	2,927,561	0.66	0.49	1	Atlas		1,639,434	1
	7/4/2017 8:00	7/4/2017 9:15	75	0.17	6,239,447	0.72	0.09	3	Atlas		1,060,706	1
	7/6/2017 12:30	7/6/2017 14:15	105	0.31	1,240,219	1.02	0.14	3	Atlas		384,468	1
	7/7/2017 21:15	7/7/2017 22:45	90	0.31	3,450,274	0.80	0.26	1	Atlas		1,069,585	1
	7/18/2017 7:45	7/18/2017 9:00	75	0.13	5,812,669	0.13	0.11	1	Atlas		755,647	1
	7/23/2017 1:45	7/23/2017 11:00	555	1.11	4,414,228	1.23	0.51	12	Atlas		4,899,793	1
	7/28/2017 9:15	7/28/2017 11:15	120	0.15	12,117,253	1.26	0.08	3	Atlas		1,817,588	1
	8/1/2017 21:30	8/1/2017 23:30	120	0.22	33,204,700	0.38	0.15	3	Atlas		7,305,034	1
	8/6/2017 14:45	8/7/2017 1:30	645	0.61	1,144,467	0.91	0.27	12	Atlas		698,125	1
	8/17/2017 14:45	8/17/2017 19:15	270	0.36	1,153,556	0.40	0.20	6	Atlas		415,280	1
	8/22/2017 16:15	8/22/2017 17:15	60	0.08	13,489,850	0.46	0.05	1	Atlas		1,079,188	1
	9/1/2017 6:45	9/2/2017 10:15	1,650	3.69	9,170,659	3.99	2.92	24	Cloudburst		33,839,732	1
	9/12/2017 7:45	9/12/2017 8:45	60	0.22	265,032	0.25	0.11	6	Atlas		58,307	1
	9/19/2017 8:30	9/19/2017 11:00	150	0.18	1,193,150	0.64	0.10	3	Atlas		214,767	1
	10/7/2017 21:45	10/9/2017 9:00	2,115	2.25	7,217,753	2.26	0.84	24	Atlas		16,239,944	1
	10/10/2017 14:30	10/10/2017 23:00	510	0.49	7,627,998	2.75	0.30	3	Atlas		3,737,719	1
	10/23/2017 6:15	10/23/2017 9:30	195	0.53	5,489,740	0.51	0.28	6	Atlas		2,909,562	1
	10/24/2017 12:45	10/25/2017 7:45	1,140	0.16	1,595,263	0.69	0.07	12	Atlas		255,242	1
	10/27/2017 18:00	10/28/2017 6:45	765	1.12	7,215,204	1.82	0.51	12	Atlas		8,081,029	1
	11/3/2017 4:30	11/3/2017 11:00	390	1.09	8,412,854	2.37	0.83	1	Atlas		9,170,011	1
	11/6/2017 1:30	11/6/2017 13:15	705	1.17	8,795,417	2.42	0.94	1	Atlas		10,290,638	1
	11/7/2017 6:00	11/7/2017 11:00	300	0.26	2,245,565	2.68	0.12	12	Atlas		583,847	1
	11/15/2017 13:45	11/15/2017 16:30	165	0.33	5,560,103	0.39	0.22	1	Atlas		1,834,834	1
	11/18/2017 17:30	11/18/2017 20:45	195	0.46	4,410,967	0.84	0.25	3	Atlas		2,029,045	1
	12/5/2017 4:00	12/5/2017 9:15	315	0.86	5,619,891	0.87	0.50	3	Atlas		4,833,106	1
	12/22/2017 19:15	12/23/2017 19:45	1,470	1.41	6,589,087	1.42	0.58	12	Atlas		9,290,612	1
	1/8/2018 7:00	1/8/2018 7:00	-	0.16	94,850	0.14	0.07	12	Atlas		15,176	1
	1/11/2018 10:30	1/11/2018 12:00	90	0.46	386,809	0.24	0.15	48	Atlas		177,932	1
	1/12/2018 8:00	1/13/2018 3:00	1,140	0.46	364,935	0.63	0.15	48	Atlas		167,870	1
	1/13/2018 14:30	1/13/2018 14:30	-	0.02	116,550	0.65	0.01	3	Atlas		2,331	1
	1/22/2018 13:15	1/22/2018 21:45	510	0.14	1,281,393	0.30	0.07	6	Atlas		179,395	1
	1/27/2018 14:30	1/27/2018 20:30	360	0.41	2,153,961	0.57	0.23	3	Atlas		883,124	1
	2/14/2018 7:15	2/14/2018 10:30	195	0.82	2,727,663	1.15	0.35	12	Atlas		2,236,684	1
	2/16/2018 2:45	2/16/2018 4:15	90	0.82	2,640,794	1.61	0.38	12	Atlas		2,165,451	1
	2/17/2018 13:30	2/17/2018 15:30	120	0.20	754,850	2.35	0.12	3	Atlas		150,970	1
	2/21/2018 8:15	2/21/2018 9:30	75	2.13	55,182	1.92	0.76	24	Atlas		117,538	1
	2/21/2018 21:15	2/24/2018 1:15	3,120	2.13	11,256,962	5.39	0.76	24	Atlas		23,977,330	1
	2/24/2018 10:30	2/28/2018 15:45	6,075	2.53	7,833,232	7.12	1.58	6	Cloudburst		19,818,078	1
	3/24/2018 6:15	3/24/2018 21:45	930	1.10	10,240,004	2.18	0.42	24	Atlas		11,264,004	1
	3/28/2018 6:00	3/28/2018 11:45	345	1.26	590,044	1.79	0.32	48	Atlas		743,456	1
	3/29/2018 13:30	3/30/2018 11:45	1,335	1.26	3,331,496	2.43	0.32	48	Atlas		4,197,685	1
	3/31/2018 22:45	4/1/2018 0:15	90	0.30	1,237,557	1.62	0.17	3	Atlas		371,267	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/1/2018 20:30	4/2/2018 12:15	945	0.81	7,611,546	2.44	0.44	6	Atlas		6,165,352	1
	4/3/2018 19:45	4/4/2018 8:00	735	0.71	1,612,359	3.07	0.39	6	Atlas		1,144,775	1
	4/14/2018 9:45	4/14/2018 11:00	75	1.13	1,675,884	0.35	0.38	24	Atlas		1,893,749	1
	4/15/2018 0:00	4/15/2018 14:30	870	1.13	8,051,447	1.16	0.38	24	Atlas		9,098,135	1
	4/23/2018 5:45	4/23/2018 12:45	420	0.58	4,264,652	0.90	0.27	3	Atlas		2,473,498	1
	5/4/2018 7:45	5/4/2018 8:15	30	0.01	1,157,800	0.10	0.01	1	Atlas		11,578	1
	5/5/2018 12:45	5/6/2018 2:15	810	1.24	13,607,518	1.32	0.49	12	Atlas		16,873,322	1
	5/10/2018 3:00	5/10/2018 3:45	45	0.03	8,353,367	1.38	0.03	1	Atlas		250,601	1
	5/16/2018 18:30	5/16/2018 18:30	-	0.01	98,800	0.04	0.01	1	Atlas		988	1
	5/17/2018 16:45	5/17/2018 17:00	15	0.05	936,340	0.05	0.03	1	Atlas		46,817	1
	5/22/2018 7:45	5/22/2018 9:45	120	0.42	3,733,343	0.52	0.32	1	Atlas		1,568,004	1
	5/27/2018 3:30	5/27/2018 6:00	150	1.38	6,729,493	1.39	0.79	1	Atlas		9,286,700	1
	5/30/2018 14:45	5/30/2018 14:45	-	0.10	751,740	1.61	0.07	1	Atlas		75,174	1
	5/31/2018 14:15	5/31/2018 15:45	90	1.31	1,569,561	1.78	0.70	3	Atlas		2,056,125	1
	6/1/2018 0:15	6/1/2018 11:45	690	1.31	12,605,839	2.92	0.70	3	Atlas		16,513,649	1
	6/10/2018 15:00	6/10/2018 16:15	75	0.63	2,643,321	0.22	0.23	24	Atlas		1,665,292	1
	6/11/2018 6:45	6/11/2018 15:15	510	0.63	3,464,748	0.64	0.23	24	Atlas		2,182,791	1
	6/12/2018 12:30	6/12/2018 13:30	60	0.20	3,411,130	0.88	0.16	1	Atlas		682,226	1
	6/21/2018 8:45	6/21/2018 23:15	870	0.36	13,288,617	1.36	0.18	1	Atlas		4,783,902	1
	6/22/2018 10:15	6/23/2018 0:00	825	0.62	5,875,239	1.98	0.31	3	Atlas		3,642,648	1
	6/25/2018 0:30	6/25/2018 20:00	1,170	0.77	5,209,832	2.76	0.30	12	Atlas		4,011,571	1
	7/2/2018 18:15	7/2/2018 19:00	45	0.25	359,936	0.93	0.22	1	Atlas		89,984	1
	7/3/2018 13:00	7/3/2018 23:15	615	0.88	3,830,382	1.52	0.52	3	Atlas		3,370,736	1
	7/16/2018 9:15	7/16/2018 12:00	165	0.10	19,197,100	0.33	0.07	3	Atlas		1,919,710	1
	7/20/2018 19:00	7/21/2018 4:30	570	1.62	6,036,904	1.95	0.95	3	Atlas		9,779,785	1
	8/15/2018 15:45	8/16/2018 21:00	1,755	3.39	8,546,927	3.41	3.16	24	Cloudburst		28,974,084	1
	8/17/2018 8:00	8/17/2018 17:00	540	0.23	982,078	3.64	0.19	1	Atlas		225,878	1
	8/20/2018 11:15	8/20/2018 16:45	330	0.44	3,057,100	4.08	0.32	1	Atlas		1,345,124	1
	8/21/2018 11:00	8/21/2018 13:15	135	0.11	323,400	4.24	0.06	3	Atlas		35,574	1
	8/22/2018 1:30	8/22/2018 1:45	15	0.11	931,291	4.26	0.06	3	Atlas		102,442	1
	9/6/2018 11:30	9/6/2018 20:00	510	0.82	1,078,845	2.74	0.67	1	Atlas		884,653	1
	9/8/2018 0:30	9/9/2018 17:15	2,445	0.24	135,477,483	4.64	0.13	3	Atlas		32,514,596	1
	9/21/2018 14:00	9/21/2018 22:45	525	0.57	6,048,049	0.63	0.32	1	Atlas		3,447,388	1
	9/22/2018 15:00	9/26/2018 18:45	5,985	1.39	32,690,598	5.95	0.51	24	Atlas		45,439,931	1
	10/12/2018 22:15	10/13/2018 0:00	105	0.08	359,125	0.44	0.04	6	Atlas		28,730	1
	10/14/2018 4:00	10/15/2018 13:30	2,010	0.24	1,848,796	0.79	0.13	3	Atlas		443,711	1
	10/19/2018 20:45	10/20/2018 0:30	225	0.17	340,053	0.58	0.10	1	Atlas		57,809	1
	10/26/2018 2:45	10/27/2018 1:45	1,380	0.50	799,596	0.67	0.19	24	Atlas		399,798	1
	10/31/2018 11:45	11/2/2018 13:15	2,970	2.63	6,374,737	3.16	0.90	24	Atlas		16,765,559	1
	11/4/2018 19:00	11/4/2018 19:30	30	0.09	869,300	2.71	0.05	3	Atlas		78,237	1
	11/5/2018 19:30	11/6/2018 14:15	1,125	1.15	7,294,617	3.87	0.62	6	Atlas		8,388,809	1
	11/9/2018 3:30	11/9/2018 9:45	375	0.12	657,992	1.36	0.06	6	Atlas		78,959	1
	11/12/2018 21:30	11/12/2018 21:30	-	0.09	52,600	0.83	0.03	24	Atlas		4,734	1
	11/13/2018 6:00	11/13/2018 9:00	180	0.09	217,144	0.22	0.03	24	Atlas		19,543	1
	11/14/2018 20:15	11/16/2018 0:00	1,665	0.44	17,112,420	0.68	0.20	12	Atlas		7,529,465	1
	11/24/2018 0:00	11/24/2018 12:00	720	0.34	546,479	0.35	0.18	6	Atlas		185,803	1
	11/25/2018 23:45	11/26/2018 3:00	195	0.06	733,467	0.41	0.03	12	Atlas		44,008	1
	11/30/2018 1:30	11/30/2018 2:00	30	0.06	167,450	0.50	0.04	1	Atlas		10,047	1
	12/1/2018 3:00	12/2/2018 4:00	1,500	1.62	9,326,738	1.80	0.71	12	Atlas		15,109,315	1
	12/14/2018 14:45	12/15/2018 22:15	1,890	1.91	6,945,205	1.93	0.78	12	Atlas		13,265,341	1
	12/20/2018 14:15	12/21/2018 9:15	1,140	0.59	618,471	2.51	0.23	24	Atlas		364,898	1
	12/27/2018 17:45	12/27/2018 20:30	165	0.42	4,332,521	0.79	0.19	12	Atlas		1,819,659	1
	12/31/2018 4:45	12/31/2018 23:00	1,095	1.36	8,604,620	1.80	0.52	24	Atlas		11,702,283	1
	1/4/2019 14:15	1/5/2019 7:00	1,005	0.69	6,449,867	2.05	0.34	3	Atlas		4,450,408	1
	1/12/2019 6:45	1/13/2019 8:45	1,560	0.19	898,126	0.42	0.09	6	Atlas		170,644	1
	1/17/2019 12:45	1/17/2019 12:45	-	0.11	25,673	0.50	0.05	1	Atlas		2,824	1
	1/19/2019 6:30	1/20/2019 19:15	2,205	0.95	8,024,666	1.28	0.37	24	Atlas		7,623,433	1
	1/23/2019 3:45	1/24/2019 1:45	1,320	1.09	7,767,753	2.15	0.44	12	Atlas		8,466,851	1
	2/6/2019 5:15	2/8/2019 4:15	2,820	1.59	9,227,577	1.73	0.51	48	Atlas		14,671,848	1
	2/10/2019 18:00	2/12/2019 17:45	2,865	2.90	5,028,170	4.60	0.91	48	Atlas		14,581,694	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/20/2019 1:45	2/21/2019 6:45	1,740	1.99	9,307.231	2.05	0.89	6	Atlas		18,521.390	1
	2/23/2019 17:15	2/24/2019 2:45	570	0.91	20,005.327	2.97	0.49	6	Atlas		18,204.848	1
	3/9/2019 13:30	3/10/2019 4:30	900	0.99	11,853.979	1.13	0.48	6	Atlas		11,735.439	1
	3/14/2019 5:15	3/15/2019 5:00	1,425	0.98	6,580.622	2.09	0.45	1	Atlas		6,449.010	1
	3/30/2019 15:15	3/31/2019 1:15	600	1.19	9,678.065	1.50	0.53	6	Atlas		11,516.897	1
	4/7/2019 6:45	4/7/2019 17:45	660	0.76	6,805.300	0.97	0.44	1	Atlas		5,172.028	1
	4/14/2019 1:15	4/14/2019 9:45	510	1.07	5,931.748	1.95	0.50	6	Atlas		6,346.970	1
	6/30/2019 17:30	6/30/2019 18:45	75	0.15	7,915.580	0.78	0.08	6	Atlas		1,187.337	1
	7/1/2019 17:30	7/1/2019 18:15	45	0.10	13,282.940	0.26	0.08	1	Atlas		1,328.294	1
	7/15/2019 23:45	7/15/2019 23:45	-	0.02	733.300	0.02	0.01	12	Atlas		15.066	1
	7/17/2019 6:15	7/17/2019 14:15	480	0.03	3,813.200	0.14	0.02	3	Atlas		114.396	1
	7/18/2019 0:00	7/18/2019 2:15	135	0.38	8,257.266	0.52	0.32	1	Atlas		3,137.761	1
	7/21/2019 21:30	7/22/2019 0:45	195	0.83	53.183	1.35	0.58	1	Atlas		44.142	1
	7/29/2019 18:15	7/30/2019 3:45	570	0.69	6,478.491	0.69	0.39	3	Atlas		4,470.159	1
	8/13/2019 7:00	8/13/2019 10:15	195	0.41	397.788	0.45	0.21	6	Atlas		163.093	1
	8/17/2019 14:45	8/17/2019 15:45	60	0.09	132.422	0.50	0.08	1	Atlas		11.918	1
	8/19/2019 1:00	8/19/2019 4:15	195	0.29	3,843.052	0.79	0.25	1	Atlas		1,114.485	1
	8/20/2019 17:00	8/20/2019 17:45	45	0.05	203.960	0.43	0.04	1	Atlas		10.198	1
	8/22/2019 2:45	8/22/2019 7:15	270	0.25	4,065.324	0.66	0.15	3	Atlas		1,016.331	1
	8/26/2019 0:30	8/26/2019 21:00	1,230	0.80	9,845.300	1.50	0.31	24	Atlas		7,876.240	1
	9/20/2019 9:45	9/20/2019 10:30	45	0.05	764.760	0.05	0.03	6	Atlas		38.238	1
	10/6/2019 7:30	10/6/2019 7:30	-	0.10	187.070	0.10	0.05	6	Atlas		18.707	1
	10/6/2019 17:30	10/7/2019 9:15	945	0.71	603.044	0.80	0.27	24	Atlas		428.161	1
	10/11/2019 10:45	10/11/2019 12:45	120	0.32	213.456	1.05	0.16	3	Atlas		68.306	1
	10/11/2019 21:15	10/11/2019 23:15	120	0.32	128.656	1.13	0.16	3	Atlas		41.170	1
	10/15/2019 22:30	10/16/2019 7:45	555	0.42	693.519	0.74	0.28	1	Atlas		291.278	1
	10/26/2019 4:15	10/26/2019 23:15	1,140	1.39	3,002.723	1.51	0.53	24	Atlas		4,173.785	1
	10/30/2019 11:15	10/31/2019 15:45	1,710	0.59	3,766.061	2.55	0.29	3	Atlas		2,221.976	1
	11/5/2019 9:30	11/5/2019 10:30	60	0.13	103.723	1.29	0.08	3	Atlas		13.484	1
	11/7/2019 4:00	11/7/2019 16:30	750	0.65	372.578	1.25	0.25	24	Atlas		242.176	1
	11/11/2019 19:00	11/12/2019 1:00	360	0.25	431.352	1.03	0.11	12	Atlas		107.838	1
	11/22/2019 2:15	11/22/2019 10:00	465	0.32	615.559	0.38	0.17	6	Atlas		196.979	1
	11/23/2019 9:15	11/23/2019 17:00	465	0.20	496.270	0.58	0.10	3	Atlas		99.254	1
	11/26/2019 20:15	11/27/2019 18:45	1,350	0.75	1,261.403	1.31	0.37	6	Atlas		946.052	1
	11/30/2019 2:30	12/1/2019 8:45	1,815	2.21	3,953.379	3.17	0.86	12	Atlas		8,736.968	1
	12/2/2019 1:30	12/2/2019 4:45	195	0.10	598.410	3.07	0.05	12	Atlas		59.841	1
	12/6/2019 10:45	12/6/2019 10:45	-	0.07	56.657	2.38	0.04	6	Atlas		3.966	1
	12/9/2019 3:30	12/9/2019 20:15	1,005	0.19	313.642	0.26	0.07	24	Atlas		59.592	1
	12/13/2019 16:45	12/14/2019 10:45	1,080	0.59	629.653	0.79	0.24	12	Atlas		371.495	1
	12/15/2019 22:45	12/17/2019 12:45	2,280	0.14	7,566.007	1.77	0.07	6	Atlas		1,059.241	1
	12/29/2019 5:30	12/30/2019 15:00	2,010	1.43	1,230.536	1.43	0.53	24	Atlas		1,759.667	1
	1/2/2020 16:30	1/4/2020 6:45	2,295	0.97	710.454	2.41	0.33	24	Atlas		689.140	1
	1/10/2020 18:00	1/12/2020 14:45	2,685	1.45	801.148	1.51	0.52	24	Atlas		1,161.664	1
	1/18/2020 3:15	1/18/2020 18:15	900	0.49	922.871	1.45	0.21	12	Atlas		452.207	1
	1/23/2020 18:45	1/24/2020 22:15	1,650	0.62	900.542	1.11	0.20	48	Atlas		558.336	1
	1/31/2020 7:45	1/31/2020 13:00	315	0.55	210.042	0.71	0.33	3	Atlas		115.523	1
	2/4/2020 8:45	2/4/2020 22:15	810	0.34	601.356	0.89	0.13	24	Atlas		204.461	1
	2/5/2020 16:30	2/5/2020 21:45	315	0.11	991.509	1.01	0.06	6	Atlas		109.066	1
	2/6/2020 10:45	2/6/2020 10:45	-	0.04	97.325	1.04	0.03	3	Atlas		3.893	1
	2/7/2020 6:15	2/7/2020 12:30	375	0.03	1,853.933	1.06	0.01	12	Atlas		55.618	1
	2/9/2020 12:15	2/9/2020 13:30	75	0.64	29.719	0.59	0.21	48	Atlas		19.020	1
	2/9/2020 23:30	2/10/2020 16:45	1,035	0.64	491.698	0.88	0.21	48	Atlas		314.687	1
	2/11/2020 1:15	2/11/2020 13:30	735	0.64	449.217	1.17	0.21	48	Atlas		287.499	1
	2/12/2020 12:45	2/13/2020 7:00	1,095	1.01	1,054.195	1.86	0.44	12	Atlas		1,064.737	1
	2/18/2020 8:00	2/18/2020 13:00	300	0.22	565.436	1.26	0.10	6	Atlas		124.396	1
	2/24/2020 6:30	2/25/2020 18:00	2,130	0.88	979.294	1.10	0.33	24	Atlas		861.779	1
	2/26/2020 10:00	2/26/2020 13:30	210	0.11	596.945	0.98	0.05	6	Atlas		65.664	1
	3/2/2020 6:00	3/3/2020 12:00	1,800	0.54	1,015.872	1.69	0.25	12	Atlas		548.571	1
	3/10/2020 1:15	3/10/2020 13:15	720	0.36	736.917	0.52	0.16	12	Atlas		265.290	1
	3/12/2020 15:30	3/13/2020 6:30	900	0.60	2,873.913	0.97	0.30	6	Atlas		1,724.348	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/14/2020 11:00	3/15/2020 5:00	1,080	0.66	756,076	1.62	0.30	12	Atlas		499,010	1
	3/18/2020 11:15	3/20/2020 14:00	3,045	0.63	3,665,416	2.59	0.28	12	Atlas		2,309,212	1
	3/24/2020 15:30	3/24/2020 22:30	420	0.19	1,735,484	1.53	0.09	6	Atlas		329,742	1
	3/28/2020 22:15	3/29/2020 2:45	270	0.25	470,996	0.48	0.20	1	Atlas		117,749	1
	4/12/2020 15:45	4/13/2020 13:30	1,305	1.17	3,700,127	1.88	0.51	12	Atlas		4,329,149	1
	4/17/2020 14:15	4/18/2020 2:00	705	0.76	410,342	2.04	0.34	12	Atlas		311,860	1
	4/23/2020 5:30	4/23/2020 21:30	960	0.89	583,600	1.67	0.39	12	Atlas		519,404	1
	4/25/2020 13:00	4/26/2020 18:15	1,755	1.39	650,253	2.30	0.53	1	Atlas		903,851	1
	4/29/2020 9:30	4/29/2020 12:00	150	0.18	487,894	2.39	0.06	48	Atlas		87,821	1
	5/5/2020 4:00	5/5/2020 8:00	240	0.25	406,152	0.43	0.13	3	Atlas		101,538	1
	5/8/2020 6:45	5/8/2020 14:45	480	0.57	527,054	0.83	0.26	12	Atlas		300,421	1
	5/13/2020 14:00	5/13/2020 20:45	405	0.13	1,191,715	0.74	0.06	12	Atlas		154,923	1
	5/14/2020 8:45	5/14/2020 10:00	75	0.12	277,442	0.86	0.08	1	Atlas		33,293	1
	5/15/2020 11:00	5/16/2020 15:30	1,710	1.11	749,650	1.47	0.38	24	Atlas		832,111	1
	5/18/2020 2:45	5/18/2020 21:45	1,140	0.73	751,663	2.16	0.37	1	Atlas		548,714	1
	5/23/2020 17:15	5/23/2020 17:45	30	0.22	234,368	1.07	0.11	1	Atlas		51,561	1
	5/25/2020 16:30	5/25/2020 18:15	105	0.14	800,114	0.45	0.10	1	Atlas		112,016	1
	5/27/2020 11:45	5/27/2020 17:15	330	0.37	206,351	0.74	0.12	48	Atlas		76,350	1
	5/28/2020 2:15	5/28/2020 4:15	120	0.37	131,892	0.81	0.12	48	Atlas		48,800	1
	5/29/2020 0:30	5/29/2020 2:15	105	0.14	480,507	0.95	0.08	1	Atlas		67,271	1
	6/4/2020 18:00	6/5/2020 2:15	495	1.11	1,701,159	1.23	0.66	3	Atlas		1,888,287	1
	6/9/2020 11:45	6/9/2020 12:45	60	0.14	261,314	1.24	0.10	1	Atlas		36,584	1
	6/14/2020 6:45	6/14/2020 7:45	60	0.08	413,963	0.22	0.06	1	Atlas		33,117	1
	6/21/2020 11:30	6/21/2020 18:30	420	0.62	284,256	0.61	0.42	1	Atlas		176,239	1
	6/22/2020 20:00	6/23/2020 9:00	780	0.88	1,750,753	1.50	0.45	3	Atlas		1,540,663	1
	6/27/2020 18:30	6/27/2020 19:00	30	0.13	83,938	1.59	0.07	1	Atlas		10,912	1
	6/29/2020 2:30	6/29/2020 10:00	450	0.76	663,226	1.77	0.53	1	Atlas		504,052	1
	6/29/2020 18:45	6/30/2020 0:00	315	0.04	2,810,650	1.81	0.02	6	Atlas		112,426	1
CSO019 Total											**2,381,926,300**	**630**
CSO020	3/12/2010 14:00	3/12/2010 16:00	120	0.24	2,640,546	0.26	0.15	3	Atlas		633,731	1
	3/21/2010 23:00	3/22/2010 2:30	210	0.51	3,751,504	0.51	0.23	12	Atlas		1,913,267	1
	3/25/2010 21:00	3/25/2010 23:00	120	0.66	821,602	1.17	0.42	1	Atlas		542,257	1
	4/8/2010 0:45	4/8/2010 8:30	465	1.17	5,313,306	1.24	0.54	12	Atlas		6,216,568	1
	4/24/2010 14:15	4/25/2010 0:45	630	1.89	4,795,106	2.12	0.91	6	Atlas		9,062,750	1
	4/27/2010 8:30	4/27/2010 12:00	210	0.31	5,163,939	2.59	0.15	6	Atlas		1,600,821	1
	5/1/2010 4:15	5/3/2010 17:15	3,660	3.76	16,700,151	6.02	2.26	48	Cloudburst		62,792,569	1
	5/13/2010 12:00	5/13/2010 12:45	45	0.11	7,487,473	1.11	0.10	1	Atlas		823,622	1
	5/16/2010 9:15	5/16/2010 21:00	705	0.51	7,981,514	1.32	0.23	12	Atlas		4,070,572	1
	5/17/2010 17:45	5/20/2010 6:15	3,630	0.47	31,575,504	1.79	0.30	1	Atlas		14,840,487	1
	5/21/2010 19:45	5/22/2010 4:00	495	0.91	5,706,052	1.89	0.66	1	Atlas		5,192,507	1
	5/30/2010 20:45	5/30/2010 21:15	30	0.58	22,329	0.64	0.34	1	Atlas		12,951	1
	6/9/2010 3:45	6/9/2010 14:30	645	2.05	3,874,896	2.19	1.57	3	Atlas		7,943,537	1
	6/13/2010 23:00	6/14/2010 0:30	90	0.72	1,265,347	2.73	0.33	12	Atlas		911,050	1
	6/19/2010 5:30	6/19/2010 10:30	300	1.17	3,798,270	2.46	0.69	3	Atlas		4,443,976	1
	6/28/2010 2:15	6/28/2010 3:30	75	0.31	1,773,729	0.30	0.21	1	Atlas		549,856	1
	7/9/2010 12:45	7/10/2010 5:15	990	0.45	12,187,044	0.45	0.17	24	Atlas		5,484,170	1
	7/13/2010 4:45	7/13/2010 16:30	705	1.76	6,564,210	2.21	0.81	12	Atlas		11,553,010	1
	7/20/2010 5:00	7/20/2010 7:00	120	0.82	1,778,691	2.06	0.41	1	Atlas		1,458,527	1
	7/21/2010 6:45	7/21/2010 6:45	-	0.45	4,433	1.45	0.35	1	Atlas		1,995	1
	7/27/2010 16:00	7/27/2010 17:15	75	0.86	320,387	1.40	0.60	1	Atlas		275,533	1
	7/31/2010 5:30	7/31/2010 6:45	75	0.35	1,143,723	1.36	0.19	3	Atlas		400,303	1
	8/5/2010 10:00	8/5/2010 10:15	15	0.23	91,148	0.75	0.17	1	Atlas		20,964	1
	8/14/2010 16:30	8/14/2010 18:30	120	0.78	1,249,801	1.03	0.62	1	Atlas		974,845	1
	8/21/2010 7:45	8/21/2010 9:00	75	0.34	2,312,879	1.34	0.20	3	Atlas		786,379	1
	10/13/2010 19:30	10/13/2010 22:00	150	0.47	4,356,974	0.50	0.30	3	Atlas		2,047,778	1
	10/26/2010 11:45	10/26/2010 12:30	45	0.67	143,228	0.43	0.37	6	Atlas		95,963	1
	11/1/2010 0:30	11/1/2010 6:15	345	Discharge	-	0.70					2,209,468	1
	11/16/2010 12:15	11/16/2010 22:30	615	0.71	13,136,120	0.82	0.32	12	Atlas		9,326,645	1
	11/23/2010 4:30	11/23/2010 5:00	30	0.26	242,638	1.04	0.14	6	Atlas		63,086	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/24/2010 13:00	11/24/2010 16:00	180	0.81	3,561,106	1.14	0.39	3	Atlas		2,884,496	1
	11/25/2010 9:45	11/26/2010 2:00	975	2.56	6,964,192	3.64	0.98	24	Atlas		17,828,331	1
	11/29/2010 21:15	11/30/2010 15:30	1,095	1.69	7,187,456	5.32	0.65	24	Atlas		12,146,801	1
	12/30/2010 3:30	12/30/2010 9:45	375	0.54	2,794,457	0.64	0.24	12	Atlas		1,509,007	1
	1/1/2011 4:45	1/1/2011 10:45	360	0.59	7,098,525	1.15	0.27	12	Atlas		4,188,130	1
	1/18/2011 11:45	1/18/2011 13:00	75	0.38	1,080,926	0.37	0.13	24	Atlas		410,752	1
	2/1/2011 17:15	2/2/2011 0:30	435	0.93	9,218,244	0.85	0.36	6	Atlas		8,572,967	1
	2/5/2011 6:00	2/5/2011 16:45	645	0.22	30,585,414	1.15	0.10	12	Atlas		6,728,791	1
	2/7/2011 12:00	2/8/2011 0:00	720	0.21	47,827,924	1.36	0.08	24	Atlas		10,043,864	1
	2/21/2011 19:00	2/21/2011 22:30	210	0.16	14,689,631	0.20	0.10	3	Atlas		2,350,341	1
	2/24/2011 8:45	2/25/2011 22:00	2,235	2.32	19,496,744	2.52	0.89	24	Atlas		45,232,447	1
	4/4/2011 13:45	4/4/2011 19:00	315	0.84	6,566,171	0.99	0.43	6	Atlas		5,515,584	1
	6/15/2011 9:30	6/15/2011 12:00	150	1.09	2,326,175	1.52	0.70	1	Atlas		2,535,531	1
	6/18/2011 7:15	6/18/2011 9:15	120	0.71	1,477,545	1.85	0.43	3	Atlas		1,049,057	1
	6/19/2011 8:30	6/19/2011 10:00	90	0.57	1,038,663	2.41	0.35	3	Atlas		592,038	1
	6/20/2011 1:30	6/20/2011 3:00	90	0.50	1,278,374	2.91	0.43	1	Atlas		639,187	1
	6/21/2011 16:15	6/21/2011 17:30	75	0.26	762,704	3.13	0.15	3	Atlas		198,303	1
	6/22/2011 19:30	6/23/2011 13:15	1,065	3.75	4,290,263	5.80	14.59	3	Atlas		16,088,486	1
	7/19/2011 22:30	7/20/2011 0:15	105	1.72	1,110,809	1.74	2.19	1	Atlas		1,910,592	1
	8/7/2011 3:15	8/7/2011 7:30	255	1.62	1,971,382	1.67	0.95	3	Atlas		3,193,639	1
	9/19/2011 7:30	9/19/2011 8:45	75	0.70	684,719	0.61	0.28	12	Atlas		479,303	1
	9/23/2011 3:00	9/23/2011 9:15	375	0.74	2,631,946	1.49	0.34	12	Atlas		1,947,640	1
	9/25/2011 23:15	9/26/2011 14:45	930	3.56	4,675,522	5.11	8.37	12	Cloudburst		16,644,859	1
	10/13/2011 7:45	10/13/2011 9:15	90	0.49	1,187,863	0.37	0.25	3	Atlas		582,053	1
	10/27/2011 0:00	10/27/2011 6:30	390	1.05	4,310,380	1.46	0.47	3	Atlas		4,525,899	1
	11/3/2011 9:45	11/3/2011 12:15	150	0.52	2,437,369	0.46	0.24	3	Atlas		1,267,432	1
	11/14/2011 22:00	11/15/2011 17:30	1,170	2.07	5,308,723	1.51	0.67	48	Atlas		10,989,056	1
	11/16/2011 5:45	11/16/2011 13:45	480	2.07	3,330,293	2.08	0.67	48	Atlas		6,893,707	1
	11/20/2011 17:45	11/20/2011 21:15	210	0.78	1,122,537	2.61	0.28	24	Atlas		875,579	1
	11/22/2011 0:15	11/22/2011 14:30	855	0.96	6,671,288	3.32	0.42	6	Atlas		6,404,436	1
	12/4/2011 18:00	12/5/2011 10:45	1,005	3.23	4,937,904	4.43	1.25	48	Cloudburst		15,949,430	1
	12/15/2011 4:45	12/15/2011 10:00	315	0.47	2,855,600	0.41	0.22	12	Atlas		1,342,132	1
	12/21/2011 6:00	12/21/2011 9:00	180	0.68	3,321,222	1.17	0.31	12	Atlas		2,258,431	1
	12/22/2011 14:15	12/22/2011 20:30	375	0.55	9,072,844	1.23	0.25	12	Atlas		4,990,064	1
	12/27/2011 3:15	12/27/2011 16:00	765	0.70	12,323,501	1.93	0.28	12	Atlas		8,626,451	1
	1/11/2012 5:30	1/11/2012 22:45	1,035	0.77	9,790,362	0.78	0.30	12	Atlas		7,538,579	1
	1/17/2012 12:00	1/17/2012 13:45	105	0.41	2,948,122	1.29	0.19	12	Atlas		1,208,730	1
	1/23/2012 3:00	1/23/2012 6:45	225	0.67	5,075,027	1.09	0.33	3	Atlas		3,400,268	1
	2/4/2012 10:00	2/4/2012 13:00	180	0.39	3,950,428	0.43	0.22	3	Atlas		1,540,667	1
	2/22/2012 23:45	2/23/2012 0:00	15	0.15	67,000	0.42	0.11	1	Atlas		10,050	1
	2/29/2012 9:00	2/29/2012 10:30	90	0.70	864,043	0.67	0.32	12	Atlas		604,830	1
	3/8/2012 14:30	3/8/2012 18:15	225	0.78	3,336,729	1.09	0.38	6	Atlas		2,602,649	1
	3/15/2012 20:00	3/16/2012 4:45	525	0.95	4,107,051	1.15	0.42	12	Atlas		3,901,698	1
	3/17/2012 14:00	3/17/2012 23:45	585	Discharge	-	1.83					3,319,598	1
	3/23/2012 5:45	3/24/2012 0:45	1,140	1.53	2,906,733	2.26	0.55	24	Atlas		4,447,302	1
	4/1/2012 8:30	4/1/2012 14:30	360	1.36	3,509,482	1.55	0.73	6	Atlas		4,772,895	1
	4/4/2012 8:15	4/4/2012 8:45	30	0.06	4,120,200	1.61	0.04	1	Atlas		247,212	1
	4/4/2012 17:30	4/4/2012 18:15	45	0.24	290,592	1.69	0.11	12	Atlas		69,742	1
	4/28/2012 19:15	4/29/2012 2:00	405	0.75	3,396,715	0.88	0.56	1	Atlas		2,547,536	1
	4/30/2012 18:30	4/30/2012 19:30	60	0.38	801,787	1.17	0.25	3	Atlas		304,679	1
	5/4/2012 23:45	5/5/2012 6:45	420	1.35	5,631,398	2.51	0.73	3	Atlas		7,602,387	1
	5/13/2012 2:00	5/13/2012 18:00	960	2.21	7,747,282	2.26	0.86	12	Atlas		17,121,493	1
	5/16/2012 18:00	5/16/2012 19:30	90	0.22	5,152,605	2.44	0.19	1	Atlas		1,133,573	1
	5/29/2012 6:45	5/29/2012 23:45	1,020	2.48	8,504,780	2.48	6.94	3	Atlas		21,091,864	1
	5/31/2012 18:30	6/1/2012 15:00	1,230	1.28	11,797,605	3.76	0.55	12	Atlas		15,100,934	1
	7/1/2012 20:30	7/1/2012 21:30	60	0.42	972,019	0.38	0.30	1	Atlas		408,248	1
	7/14/2012 13:00	7/14/2012 16:15	195	0.56	4,608,214	0.72	0.33	3	Atlas		2,580,600	1
	7/19/2012 18:00	7/19/2012 20:30	150	0.71	3,619,641	1.26	0.57	1	Atlas		2,569,945	1
	7/27/2012 20:00	7/27/2012 23:45	225	0.60	4,973,800	0.99	0.39	3	Atlas		2,984,280	1
	8/16/2012 20:45	8/17/2012 1:45	300	0.51	9,928,076	0.63	0.30	3	Atlas		5,063,319	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/21/2012 14:30	8/21/2012 15:45	75	0.21	1,555,162	0.74	0.18	1	Atlas		326,584	1
	9/1/2012 15:15	9/1/2012 19:30	255	0.34	13,464,003	0.36	0.20	3	Atlas		4,574,361	1
	9/2/2012 12:30	9/3/2012 0:00	690	0.59	11,280,954	0.95	0.23	24	Atlas		6,655,763	1
	9/3/2012 14:45	9/3/2012 16:15	90	0.06	7,885,733	1.00	0.05	1	Atlas		473,144	1
	9/5/2012 15:15	9/5/2012 20:00	285	0.80	5,875,293	1.80	0.62	1	Atlas		4,700,234	1
	9/7/2012 23:45	9/8/2012 11:00	675	1.26	8,380,315	3.05	0.69	3	Atlas		10,559,197	1
	9/26/2012 1:45	9/26/2012 3:00	75	0.44	792,243	0.65	0.20	12	Atlas		348,587	1
	9/26/2012 21:15	9/27/2012 4:15	420	1.90	3,843,153	2.77	1.14	6	Cloudburst		7,301,990	1
	10/1/2012 15:30	10/1/2012 21:00	330	0.65	7,435,398	3.38	0.26	12	Atlas		4,833,009	1
	10/26/2012 14:00	10/26/2012 18:45	285	0.75	3,836,871	0.70	0.34	6	Atlas		2,877,653	1
	11/12/2012 7:45	11/12/2012 10:30	165	0.44	82,675	0.44	0.20	12	Atlas		36,377	1
	12/4/2012 16:15	12/4/2012 21:45	330	0.57	9,050,937	0.82	0.36	3	Atlas		5,159,034	1
	12/7/2012 4:45	12/7/2012 18:45	840	1.10	10,313,304	1.92	0.47	12	Atlas		11,344,634	1
	12/8/2012 5:45	12/8/2012 10:30	285	0.32	3,130,372	2.24	0.18	1	Atlas		1,001,719	1
	12/9/2012 21:15	12/10/2012 2:00	285	1.10	4,246,695	2.99	0.53	3	Atlas		4,671,364	1
	12/15/2012 12:15	12/15/2012 13:30	75	0.18	2,842,844	1.28	0.11	3	Atlas		511,712	1
	12/20/2012 7:30	12/20/2012 17:30	600	0.74	8,436,153	1.20	0.40	6	Atlas		6,242,753	1
	12/26/2012 5:00	12/26/2012 17:00	720	0.66	14,435,150	1.49	0.26	12	Atlas		9,527,199	1
	1/11/2013 6:15	1/11/2013 9:15	180	0.60	3,209,805	0.76	0.32	6	Atlas		1,925,883	1
	1/13/2013 3:30	1/14/2013 20:15	2,445	2.12	15,001,536	2.90	0.81	24	Atlas		31,803,257	1
	1/30/2013 4:45	1/30/2013 19:45	900	0.86	9,464,038	1.15	0.45	6	Atlas		8,139,073	1
	2/22/2013 0:15	2/22/2013 2:45	150	0.42	3,733,707	0.77	0.19	12	Atlas		1,568,157	1
	2/26/2013 13:30	2/26/2013 22:45	555	0.60	10,192,838	1.02	0.23	24	Atlas		6,115,703	1
	3/5/2013 16:15	3/5/2013 21:30	315	0.51	7,015,365	0.66	0.20	6	Atlas		3,577,836	1
	3/11/2013 4:00	3/11/2013 21:00	1,020	1.00	12,428,647	1.54	0.41	12	Atlas		12,428,647	1
	3/17/2013 11:45	3/18/2013 10:30	1,365	1.65	7,532,227	2.66	0.54	48	Atlas		12,428,175	1
	3/24/2013 8:45	3/24/2013 17:45	540	0.53	1,076,404	1.71	0.20	24	Atlas		570,494	1
	4/11/2013 6:30	4/12/2013 2:45	1,215	1.34	6,925,759	1.34	0.52	24	Atlas		9,280,517	1
	4/16/2013 20:00	4/16/2013 22:30	150	0.64	3,089,873	1.96	0.51	1	Atlas		1,977,519	1
	4/19/2013 2:00	4/19/2013 7:45	345	0.92	5,765,122	1.58	0.50	6	Atlas		5,303,912	1
	4/24/2013 7:15	4/24/2013 12:30	315	0.72	5,427,917	1.68	0.39	6	Atlas		3,908,100	1
	5/4/2013 15:00	5/5/2013 10:45	1,185	1.42	1,902,750	1.34	0.43	24	Atlas		2,701,905	1
	5/10/2013 12:45	5/11/2013 2:45	840	0.90	5,989,812	2.44	0.40	6	Atlas		5,390,831	1
	5/16/2013 10:45	5/16/2013 12:45	120	0.29	3,709,817	1.25	0.24	1	Atlas		1,075,847	1
	5/31/2013 19:30	5/31/2013 19:45	15	0.25	20,316	0.35	0.11	12	Atlas		5,079	1
	6/10/2013 0:30	6/10/2013 2:15	105	0.31	1,747,687	0.27	0.14	6	Atlas		541,783	1
	6/16/2013 17:30	6/16/2013 18:30	60	0.49	388,463	0.79	0.33	1	Atlas		190,347	1
	6/17/2013 16:15	6/18/2013 4:30	735	1.24	10,281,387	1.76	0.69	1	Atlas		12,748,920	1
	6/21/2013 19:45	6/21/2013 21:00	75	0.13	3,912,546	1.89	0.09	1	Atlas		508,631	1
	6/26/2013 3:30	6/28/2013 13:45	3,495	3.33	13,801,896	3.90	6.54	1	Atlas		45,960,313	1
	6/29/2013 19:45	6/30/2013 0:45	300	0.44	11,279,748	4.19	0.23	6	Atlas		4,963,089	1
	7/1/2013 19:15	7/1/2013 20:45	90	0.27	1,343,963	4.17	0.15	3	Atlas		362,870	1
	7/2/2013 13:45	7/2/2013 14:45	60	0.15	1,147,493	4.32	0.13	1	Atlas		172,124	1
	7/4/2013 8:00	7/4/2013 19:00	660	0.50	7,282,834	1.51	0.22	12	Atlas		3,641,417	1
	7/6/2013 1:15	7/6/2013 12:15	660	0.64	10,910,438	2.16	0.28	12	Atlas		6,982,680	1
	7/10/2013 14:00	7/10/2013 18:45	285	0.96	3,344,546	2.20	0.69	1	Atlas		3,210,764	1
	7/14/2013 19:45	7/14/2013 21:30	105	0.20	6,663,345	1.24	0.17	1	Atlas		1,332,669	1
	7/21/2013 19:45	7/21/2013 21:30	105	1.88	945,753	1.00	0.72	24	Atlas		1,778,016	1
	7/22/2013 7:30	7/22/2013 23:45	975	1.88	6,718,886	2.06	0.72	24	Atlas		12,631,506	1
	8/12/2013 15:00	8/12/2013 17:30	150	0.57	2,777,016	0.59	0.22	24	Atlas		1,582,899	1
	8/13/2013 3:15	8/13/2013 5:15	120	0.57	1,736,814	0.79	0.22	24	Atlas		989,984	1
	8/20/2013 18:45	8/20/2013 20:00	75	0.17	1,880,629	0.19	0.09	6	Atlas		319,707	1
	8/31/2013 20:00	9/1/2013 5:00	540	1.23	8,676,226	1.23	0.58	1	Atlas		10,671,758	1
	9/2/2013 14:00	9/2/2013 15:45	105	0.13	8,688,285	1.36	0.11	1	Atlas		1,129,477	1
	9/20/2013 19:45	9/21/2013 8:45	780	1.22	9,215,691	1.28	0.50	12	Atlas		11,243,143	1
	10/5/2013 13:15	10/7/2013 22:45	3,450	3.64	16,404,230	3.77	4.00	24	Cloudburst		59,711,398	1
	10/30/2013 2:15	10/30/2013 11:00	525	1.39	5,483,974	1.39	0.68	6	Atlas		7,622,724	1
	10/31/2013 19:45	11/1/2013 1:00	315	0.68	6,194,432	2.07	0.26	24	Atlas		4,212,214	1
	11/17/2013 5:45	11/18/2013 23:30	2,505	2.31	16,410,061	2.43	0.98	6	Atlas		37,907,240	1
	12/5/2013 7:45	12/5/2013 13:00	315	0.83	3,746,277	0.29	0.27	48	Atlas		3,109,410	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/6/2013 12:15	12/6/2013 14:45	150	0.83	835,707	0.65	0.27	48	Atlas		693,637	1
	12/14/2013 7:45	12/14/2013 19:15	690	0.77	7,037,821	1.14	0.31	12	Atlas		5,419,122	1
	12/21/2013 6:00	12/22/2013 15:00	1,980	2.85	10,787,186	3.31	1.27	24	Cloudburst		30,743,479	1
	1/5/2014 15:45	1/5/2014 22:30	405	0.52	10,897,700	0.72	0.26	6	Atlas		5,666,804	1
	1/11/2014 0:45	1/11/2014 14:30	825	0.79	10,994,551	1.32	0.42	6	Atlas		8,685,695	1
	1/13/2014 15:15	1/13/2014 19:15	240	0.21	7,003,895	1.01	0.10	3	Atlas		1,470,818	1
	2/2/2014 4:30	2/2/2014 10:30	360	0.48	8,907,742	0.21	0.18	24	Atlas		4,275,716	1
	2/4/2014 19:30	2/6/2014 8:15	2,205	0.50	56,192,510	0.98	0.25	6	Atlas		28,096,255	1
	2/14/2014 17:15	2/14/2014 20:45	210	0.48	3,252,529	0.52	0.25	6	Atlas		1,561,214	1
	2/17/2014 16:00	2/19/2014 16:15	2,895	0.64	20,776,397	1.19	0.39	3	Atlas		13,296,894	1
	2/20/2014 20:30	2/21/2014 17:15	1,245	0.17	35,930,494	1.36	0.09	6	Atlas		6,108,184	1
	3/2/2014 10:45	3/2/2014 12:30	105	0.48	1,677,223	0.22	0.18	24	Atlas		805,067	1
	3/28/2014 3:15	3/28/2014 6:45	210	0.31	20,239,968	0.37	0.16	6	Atlas		6,274,390	1
	3/29/2014 6:30	3/29/2014 15:45	555	0.92	10,737,480	1.29	0.43	6	Atlas		9,878,482	1
	4/3/2014 12:15	4/4/2014 13:45	1,530	2.36	12,368,140	3.69	0.82	24	Atlas		29,188,810	1
	4/28/2014 4:15	4/28/2014 22:00	1,065	1.59	6,351,969	1.66	0.65	3	Atlas		10,099,630	1
	5/9/2014 20:15	5/9/2014 20:15	-	1.62	143	0.25	0.62	24	Atlas		231	1
	5/10/2014 5:45	5/10/2014 18:00	735	1.62	2,768,280	1.70	0.62	24	Atlas		4,484,614	1
	5/14/2014 18:15	5/15/2014 0:30	375	0.85	1,077,066	2.61	0.32	24	Atlas		915,506	1
	5/22/2014 3:00	5/22/2014 5:00	120	0.52	1,468,488	0.59	0.24	1	Atlas		763,614	1
	5/29/2014 20:45	5/29/2014 22:30	105	0.10	6,650,380	0.35	0.08	1	Atlas		665,038	1
	7/13/2014 23:00	7/14/2014 0:00	60	0.59	512,824	1.31	0.31	1	Atlas		302,566	1
	7/14/2014 20:45	7/14/2014 21:00	15	0.44	13,141	1.62	0.31	1	Atlas		5,782	1
	8/8/2014 6:30	8/8/2014 8:45	135	0.78	2,185,363	0.58	0.38	6	Atlas		1,704,583	1
	8/10/2014 4:45	8/10/2014 5:00	15	0.64	91,247	1.51	0.52	1	Atlas		58,398	1
	8/22/2014 19:45	8/22/2014 20:30	45	0.26	66,635	0.95	0.17	1	Atlas		17,325	1
	8/23/2014 20:15	8/23/2014 22:45	150	0.52	2,435,306	1.44	0.27	3	Atlas		1,266,359	1
	8/30/2014 15:15	8/30/2014 16:30	75	0.61	735,990	1.39	0.39	1	Atlas		448,954	1
	9/11/2014 0:45	9/11/2014 8:45	480	1.92	3,317,859	1.92	1.50	3	Atlas		6,370,289	1
	10/10/2014 2:15	10/10/2014 4:00	105	1.24	826,877	1.59	0.59	3	Atlas		1,025,327	1
	10/13/2014 6:15	10/13/2014 7:00	45	0.42	172,579	2.12	0.27	3	Atlas		72,483	1
	10/14/2014 0:00	10/14/2014 11:45	705	0.87	3,797,001	2.77	0.38	12	Atlas		3,303,391	1
	11/23/2014 17:30	11/24/2014 0:15	405	0.70	5,697,606	1.09	0.32	12	Atlas		3,988,324	1
	12/1/2014 4:15	12/1/2014 5:45	90	0.89	128,416	0.44	0.34	24	Atlas		114,290	1
	12/6/2014 21:30	12/6/2014 10:30	780	1.91	4,244,751	2.80	0.62	48	Atlas		8,107,475	1
	2/1/2015 13:45	2/1/2015 14:45	60	0.42	2,532,505	0.51	0.20	3	Atlas		1,063,652	1
	2/21/2015 15:30	2/21/2015 17:45	135	1.18	74,408	1.39	0.46	12	Atlas		87,801	1
	3/3/2015 20:00	3/5/2015 17:15	2,715	1.73	17,797,710	1.83	0.56	48	Atlas		30,790,038	1
	3/26/2015 5:45	3/26/2015 7:00	75	0.41	334,200	0.60	0.16	12	Atlas		137,022	1
	4/2/2015 10:45	4/5/2015 11:30	4,365	4.46	18,195,278	4.59	6.29	24	Cloudburst		81,150,941	1
	5/26/2015 14:15	5/26/2015 15:00	45	0.31	607,884	0.50	0.23	1	Atlas		188,444	1
	6/17/2015 5:15	6/17/2015 7:30	135	0.64	1,330,406	0.67	0.36	3	Atlas		851,460	1
	6/18/2015 17:00	6/18/2015 22:00	300	0.62	6,786,048	1.26	0.34	1	Atlas		4,207,350	1
	6/20/2015 2:00	6/20/2015 13:00	660	0.87	9,037,124	2.22	0.38	12	Atlas		7,862,298	1
	6/26/2015 1:00	6/26/2015 1:30	30	0.47	18,328	1.46	0.25	6	Atlas		8,614	1
	6/26/2015 17:00	6/27/2015 2:30	570	1.05	3,688,899	2.61	0.55	1	Atlas		3,873,344	1
	7/2/2015 1:15	7/2/2015 2:45	90	1.75	191,151	2.40	0.67	24	Atlas		334,514	1
	7/2/2015 19:30	7/2/2015 22:45	195	1.75	1,290,584	3.54	0.67	24	Atlas		2,258,522	1
	7/3/2015 15:15	7/3/2015 20:15	300	0.37	1,494,165	3.43	0.20	6	Atlas		552,841	1
	7/7/2015 12:00	7/7/2015 17:15	315	0.80	2,196,751	2.81	0.34	6	Atlas		1,757,401	1
	7/8/2015 12:30	7/8/2015 13:45	75	0.80	376,860	2.96	0.34	6	Atlas		301,488	1
	7/9/2015 7:00	7/9/2015 8:30	90	0.33	1,185,891	2.30	0.15	12	Atlas		391,344	1
	7/10/2015 10:45	7/10/2015 17:45	420	0.35	2,780,749	1.88	0.17	6	Atlas		973,262	1
	7/12/2015 6:00	7/13/2015 1:00	1,140	1.54	12,505,521	3.05	1.13	3	Atlas		19,258,503	1
	7/13/2015 14:15	7/13/2015 17:15	180	0.56	2,257,804	3.61	0.46	1	Atlas		1,264,370	1
	7/14/2015 4:00	7/14/2015 22:45	1,125	0.74	19,083,497	4.53	0.60	1	Atlas		14,121,788	1
	8/5/2015 15:45	8/5/2015 16:00	15	0.79	43,604	1.15	0.29	24	Atlas		34,447	1
	8/6/2015 8:15	8/6/2015 16:30	495	0.79	755,385	1.57	0.29	24	Atlas		596,764	1
	8/19/2015 8:30	8/19/2015 9:00	30	0.30	47,127	0.28	0.12	24	Atlas		14,138	1
	10/27/2015 17:30	10/28/2015 10:15	1,005	2.37	5,944,499	2.69	0.78	24	Atlas		14,088,463	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/6/2015 3:30	11/6/2015 6:30	180	0.87	2,603,370	0.98	0.53	3	Atlas		2,264,932	1
	11/9/2015 20:00	11/9/2015 23:00	180	0.57	1,122,084	1.44	0.25	12	Atlas		639,588	1
	11/12/2015 0:45	11/12/2015 2:00	75	0.28	2,295,196	1.71	0.17	3	Atlas		642,655	1
	11/18/2015 9:30	11/18/2015 20:15	645	1.34	7,543,820	1.76	0.69	6	Atlas		10,108,719	1
	11/28/2015 16:45	11/28/2015 21:30	285	0.66	677,533	0.76	0.28	12	Atlas		447,172	1
	11/30/2015 22:45	12/1/2015 6:30	465	0.60	3,380,868	1.45	0.27	12	Atlas		2,028,521	1
	12/22/2015 0:00	12/22/2015 6:15	375	0.55	4,896,689	0.57	0.21	24	Atlas		2,693,179	1
	12/23/2015 19:15	12/24/2015 3:00	465	0.79	6,842,737	1.39	0.62	1	Atlas		5,405,762	1
	12/26/2015 12:45	12/26/2015 15:00	135	0.32	2,605,328	1.71	0.15	12	Atlas		833,705	1
	2/2/2016 19:45	2/3/2016 10:30	885	1.36	6,903,774	1.41	0.62	12	Atlas		9,389,132	1
	2/21/2016 5:30	2/21/2016 14:00	510	0.89	7,893,370	1.07	0.41	12	Atlas		7,025,099	1
	2/23/2016 23:00	2/24/2016 20:45	1,305	1.92	10,749,667	2.78	0.75	12	Atlas		20,639,361	1
	3/1/2016 12:30	3/1/2016 15:30	180	0.40	2,712,938	2.35	0.21	6	Atlas		1,085,175	1
	3/10/2016 14:00	3/10/2016 22:30	510	1.17	3,858,432	1.21	0.38	48	Atlas		4,514,366	1
	3/12/2016 20:45	3/13/2016 13:30	1,005	0.72	7,339,211	1.93	0.28	24	Atlas		5,284,232	1
	3/24/2016 17:45	3/24/2016 19:30	105	0.27	1,457,711	0.33	0.17	1	Atlas		393,682	1
	3/27/2016 21:15	3/27/2016 23:45	150	0.81	2,003,099	1.08	0.55	1	Atlas		1,622,510	1
	3/31/2016 5:15	3/31/2016 8:30	195	1.11	528,716	1.73	0.42	24	Atlas		586,875	1
	3/31/2016 22:15	4/1/2016 1:30	195	1.11	1,052,384	1.92	0.42	24	Atlas		1,168,146	1
	4/11/2016 17:00	4/11/2016 21:45	285	1.02	2,176,721	1.16	0.46	6	Atlas		2,220,255	1
	4/26/2016 21:45	4/26/2016 22:15	30	0.27	244,393	0.61	0.15	3	Atlas		65,986	1
	4/27/2016 21:15	4/27/2016 23:00	105	0.70	901,991	1.28	0.31	12	Atlas		631,394	1
	5/10/2016 18:30	5/10/2016 23:45	315	0.69	2,357,141	1.42	0.26	24	Atlas		1,626,427	1
	5/11/2016 22:00	5/11/2016 23:15	75	0.20	1,743,075	1.41	0.11	3	Atlas		348,615	1
	5/20/2016 14:15	5/20/2016 18:00	225	0.54	4,451,480	1.20	0.29	3	Atlas		2,403,799	1
	6/2/2016 15:45	6/2/2016 16:45	60	0.30	947,263	0.43	0.23	1	Atlas		284,179	1
	6/12/2016 18:30	6/12/2016 19:00	30	0.18	384,361	0.21	0.15	1	Atlas		69,185	1
	6/14/2016 16:30	6/14/2016 19:45	195	0.80	2,621,314	0.98	0.53	3	Atlas		2,097,051	1
	6/23/2016 16:00	6/24/2016 0:30	510	2.25	2,338,619	2.61	2.12	6	Cloudburst		5,261,892	1
	7/3/2016 12:30	7/3/2016 21:30	540	1.30	51,192	0.76	0.42	48	Atlas		66,550	1
	7/4/2016 14:45	7/4/2016 17:00	135	1.30	152,962	1.31	0.42	48	Atlas		198,850	1
	7/12/2016 10:15	7/12/2016 10:45	30	0.25	278,248	0.46	0.16	3	Atlas		69,562	1
	7/28/2016 3:15	7/28/2016 4:00	45	0.67	192,322	0.82	0.31	1	Atlas		128,856	1
	7/30/2016 14:30	7/30/2016 15:00	30	0.13	400,062	1.16	0.11	1	Atlas		52,008	1
	8/15/2016 3:00	8/15/2016 8:45	345	0.75	3,263,133	1.16	0.39	6	Atlas		2,447,350	1
	8/17/2016 6:30	8/17/2016 8:15	105	0.79	1,746,509	1.67	0.35	3	Atlas		1,379,742	1
	8/20/2016 14:15	8/20/2016 22:30	495	1.37	1,668,627	3.05	0.67	1	Atlas		2,286,019	1
	8/31/2016 17:45	8/31/2016 18:30	45	0.43	239,174	0.50	0.36	1	Atlas		102,845	1
	9/30/2016 2:00	9/30/2016 2:45	45	0.58	195,336	1.27	0.31	3	Atlas		113,295	1
	10/20/2016 10:30	10/20/2016 12:00	90	0.73	549,586	0.60	0.34	3	Atlas		401,198	1
	11/28/2016 18:45	11/28/2016 22:45	240	0.68	1,008,293	0.96	0.29	12	Atlas		685,639	1
	12/6/2016 9:00	12/6/2016 13:15	255	0.82	1,194,318	0.85	0.38	12	Atlas		979,341	1
	12/17/2016 18:30	12/18/2016 9:00	870	2.74	5,387,808	3.04	2.05	12	Cloudburst		14,762,593	1
	1/11/2017 13:45	1/11/2017 14:15	30	0.16	52,694	0.51	0.11	3	Atlas		8,431	1
	1/12/2017 18:45	1/12/2017 22:15	210	0.46	522,198	0.81	0.23	6	Atlas		240,211	1
	1/13/2017 16:00	1/13/2017 16:30	30	0.37	200,381	1.14	0.23	3	Atlas		74,141	1
	1/14/2017 11:45	1/14/2017 15:45	240	0.24	4,231,171	1.40	0.11	6	Atlas		1,015,481	1
	2/24/2017 19:30	2/24/2017 20:30	60	0.34	264,806	0.41	0.29	1	Atlas		90,034	1
	2/28/2017 11:15	2/28/2017 11:15	-	0.23	4,504	0.64	0.11	12	Atlas		1,036	1
	3/1/2017 3:15	3/1/2017 11:45	510	0.99	4,117,884	1.62	0.48	6	Atlas		4,076,705	1
	3/7/2017 8:15	3/7/2017 13:30	315	0.59	204,992	1.72	0.19	48	Atlas		120,945	1
	3/27/2017 18:45	3/27/2017 19:45	60	0.29	670,124	0.71	0.17	3	Atlas		194,336	1
	4/16/2017 18:00	4/16/2017 22:15	255	1.26	1,046,896	1.55	0.48	24	Atlas		1,319,089	1
	4/21/2017 23:00	4/22/2017 1:00	120	0.67	538,130	1.80	0.24	24	Atlas		360,547	1
	4/29/2017 1:45	4/29/2017 6:00	255	1.11	3,337,962	1.36	0.59	3	Atlas		3,705,138	1
	5/4/2017 20:00	5/5/2017 19:45	1,425	1.58	6,106,061	2.92	0.53	24	Atlas		9,647,576	1
	5/21/2017 2:45	5/21/2017 6:45	240	1.10	2,661,757	1.14	0.50	12	Atlas		2,927,933	1
	5/24/2017 18:45	5/24/2017 22:00	195	0.52	1,319,844	1.54	0.19	24	Atlas		686,319	1
	5/27/2017 14:15	5/27/2017 15:00	45	0.30	146,357	1.91	0.24	1	Atlas		43,907	1
	6/15/2017 3:15	6/15/2017 4:45	90	0.67	835,164	0.74	0.43	3	Atlas		559,560	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/23/2017 15:30	6/23/2017 19:00	210	0.85	1,248,361	1.34	0.41	6	Atlas		1,061,107	1
	6/30/2017 21:30	6/30/2017 21:45	15	0.28	95,411	0.36	0.20	1	Atlas		26,715	1
	7/6/2017 13:00	7/6/2017 13:45	45	0.45	300,282	0.79	0.21	6	Atlas		135,127	1
	7/23/2017 2:45	7/23/2017 10:30	465	1.11	1,327,734	1.24	0.51	12	Atlas		1,473,785	1
	7/28/2017 10:00	7/28/2017 11:00	60	0.40	224,303	1.50	0.28	1	Atlas		89,721	1
	9/1/2017 9:00	9/2/2017 9:00	1,440	2.76	461,831	2.84	0.98	24	Atlas		1,274,653	1
	9/19/2017 8:15	9/20/2017 3:15	1,140	0.40	2,364,755	0.79	0.25	3	Atlas		945,902	1
	9/20/2017 15:00	9/20/2017 22:30	450	Discharge	-	0.50					110,183	1
	9/21/2017 15:30	9/21/2017 23:45	495	Discharge	-	0.40					13,876	1
	10/7/2017 21:45	10/8/2017 0:00	135	1.76	60,203	0.83	0.66	24	Atlas		105,967	1
	10/8/2017 11:00	10/8/2017 21:15	615	1.76	241,975	1.75	0.66	24	Atlas		425,876	1
	10/10/2017 15:00	10/10/2017 22:00	420	0.57	317,386	2.34	0.30	6	Atlas		180,910	1
	10/23/2017 7:30	10/23/2017 8:45	75	0.41	15,149	0.39	0.21	6	Atlas		6,211	1
	10/27/2017 23:15	10/28/2017 1:30	135	0.83	20,963	1.29	0.38	12	Atlas		17,399	1
	11/3/2017 4:30	11/3/2017 8:15	225	1.34	178,246	2.32	1.26	1	Atlas		238,849	1
	11/6/2017 1:45	11/6/2017 3:15	90	0.65	102,242	2.14	0.49	1	Atlas		66,457	1
	11/15/2017 13:45	11/15/2017 14:30	45	0.29	32,000	0.31	0.19	1	Atlas		9,280	1
	11/18/2017 17:15	11/18/2017 18:30	75	0.33	92,567	0.63	0.19	3	Atlas		30,547	1
	12/5/2017 3:45	12/5/2017 7:15	210	0.54	322,998	0.55	0.27	3	Atlas		174,419	1
	12/22/2017 23:15	12/23/2017 14:30	915	1.21	621,744	1.21	0.47	24	Atlas		752,310	1
	1/12/2018 10:00	1/12/2018 13:15	195	0.29	541,497	0.32	0.11	24	Atlas		157,034	1
	1/27/2018 15:30	1/27/2018 16:45	75	0.32	223,797	0.57	0.17	3	Atlas		71,615	1
	2/16/2018 11:00	2/16/2018 14:45	225	0.70	7,680,147	1.64	0.31	12	Atlas		5,376,103	1
	4/14/2018 9:45	4/14/2018 11:15	90	0.91	29,592	0.28	0.30	24	Atlas		26,929	1
	4/14/2018 23:30	4/15/2018 12:30	780	0.91	372,456	0.95	0.30	24	Atlas		338,935	1
	5/5/2018 14:00	5/5/2018 21:15	435	1.47	4,736,611	1.41	0.62	6	Atlas		6,962,818	1
	6/1/2018 1:00	6/1/2018 5:00	240	1.45	2,333,523	2.11	0.84	3	Atlas		3,383,609	1
	6/7/2018 0:45	6/7/2018 2:45	120	Discharge	-	1.62					579,990	1
	7/2/2018 17:30	7/2/2018 20:15	165	0.40	5,213,068	1.12	0.33	1	Atlas		2,085,227	1
	7/3/2018 15:30	7/3/2018 18:00	150	0.47	3,245,536	1.26	0.35	1	Atlas		1,525,402	1
	7/20/2018 19:15	7/21/2018 0:30	315	1.82	2,605,574	2.10	1.40	3	Atlas		4,742,144	1
	7/22/2018 17:15	7/22/2018 19:00	105	0.19	4,947,947	2.22	0.13	1	Atlas		940,110	1
	7/31/2018 0:30	7/31/2018 14:30	840	1.82	3,798,227	1.86	0.83	1	Atlas		6,912,773	1
	8/10/2018 3:15	8/10/2018 7:00	225	Discharge	-	0.18					883,123	1
	8/16/2018 3:15	8/16/2018 16:45	810	2.55	4,384,296	2.56	0.98	24	Atlas		11,179,964	1
	8/31/2018 17:45	9/1/2018 20:30	1,605	0.30	4,026,727	0.33	0.19	3	Atlas		1,208,018	1
	9/6/2018 11:30	9/7/2018 2:00	870	0.29	2,685,993	0.60	0.24	1	Atlas		778,938	1
	9/7/2018 12:30	9/9/2018 6:00	2,490	0.01	293,940,000	3.49	0.01	1	Atlas		2,939,400	1
	9/21/2018 14:15	9/22/2018 1:30	675	0.37	12,671,608	0.42	0.20	6	Atlas		4,688,495	1
	9/22/2018 14:15	9/22/2018 19:30	315	1.22	4,440,989	0.77	0.46	24	Atlas		5,418,006	1
	9/23/2018 4:00	9/23/2018 11:15	435	1.22	1,355,287	1.64	0.46	24	Atlas		1,653,450	1
	10/10/2018 16:00	10/11/2018 1:15	555	0.13	1,819,238	0.15	0.09	1	Atlas		236,501	1
	10/12/2018 19:15	10/13/2018 1:15	360	0.09	1,218,989	0.22	0.05	6	Atlas		109,709	1
	10/14/2018 5:45	10/14/2018 22:30	1,005	0.25	519,180	0.47	0.13	3	Atlas		129,795	1
	10/15/2018 9:15	10/16/2018 0:30	915	0.11	4,132,718	0.58	0.08	1	Atlas		454,599	1
	10/19/2018 21:30	10/20/2018 0:00	150	0.11	292,691	0.49	0.06	6	Atlas		32,196	1
	10/26/2018 9:00	10/27/2018 1:00	960	0.22	2,134,264	0.33	0.08	24	Atlas		469,538	1
	CSO020 Total										1,511,686,374	317
CSO022	7/14/2012 13:30	7/14/2012 14:45	75	0.68	12,924,434	0.96	0.43	3	Atlas		8,788,615	1
	9/7/2012 23:30	9/8/2012 0:45	75	1.34	301,790	2.67	0.74	3	Atlas		404,398	1
	9/26/2012 20:45	9/26/2012 23:30	165	1.74	1,051,088	2.55	0.93	6	Atlas		1,828,893	1
	12/9/2012 22:00	12/9/2012 22:45	45	1.08	947,230	2.88	0.51	3	Atlas		1,023,008	1
	1/11/2013 6:00	1/11/2013 6:30	30	0.65	66,852	0.75	0.34	6	Atlas		43,454	1
	1/13/2013 3:15	1/13/2013 5:30	135	2.20	328,688	1.41	0.84	24	Atlas		723,113	1
	1/13/2013 14:00	1/13/2013 14:15	15	2.20	45,860	2.45	0.84	24	Atlas		100,893	1
	1/30/2013 4:45	1/30/2013 5:00	15	0.84	688,156	0.59	0.43	6	Atlas		578,051	1
	3/18/2013 4:45	3/18/2013 5:15	30	1.69	50,705	1.77	0.55	48	Atlas		85,692	1
	4/11/2013 7:00	4/11/2013 7:15	15	1.31	239,359	0.54	0.50	24	Atlas		313,560	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.79	442,867	0.63	0.30	1	Atlas		349,865	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/31/2013 20:00	8/31/2013 20:15	15	1.14	480.640	0.59	0.52	12	Atlas		547,930	1
	9/2/2013 13:30	9/2/2013 14:00	30	0.22	4,325.695	1.36	0.19	1	Atlas		951,653	1
	9/20/2013 16:15	9/20/2013 22:45	390	1.32	126.030	0.84	0.55	12	Atlas		166,359	1
	10/5/2013 13:15	10/5/2013 22:30	555	4.89	691.058	2.76	16.43	24	Atlas		3,379,273	1
	4/7/2014 11:00	4/7/2014 12:15	75	0.72	484.314	3.60	0.44	1	Atlas		348,706	1
	4/28/2014 4:00	4/28/2014 7:00	180	1.67	906.395	1.26	0.63	3	Atlas		1,513,680	1
	5/9/2014 19:15	5/9/2014 19:30	15	1.79	79.894	0.32	0.66	24	Atlas		143,010	1
	5/10/2014 5:45	5/10/2014 5:45	-	1.79	68.949	0.75	0.66	24	Atlas		123,419	1
	5/10/2014 14:00	5/10/2014 15:15	75	1.79	864.945	1.78	0.66	24	Atlas		1,548,252	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.34	1,803.074	1.01	0.28	1	Atlas		613,045	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.14	194.229	0.29	0.11	1	Atlas		27,192	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.06	546.983	0.25	0.03	12	Atlas		32,819	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.42	1,510.910	0.69	0.37	1	Atlas		634,582	1
	7/13/2014 22:45	7/13/2014 23:00	15	0.90	523.120	1.41	0.50	1	Atlas		470,808	1
	7/26/2014 21:45	7/26/2014 22:00	15	0.77	799.700	0.36	0.34	12	Atlas		615,769	1
	8/8/2014 6:00	8/8/2014 7:30	90	0.74	1,700.618	0.54	0.35	6	Atlas		1,258,457	1
	8/10/2014 3:45	8/10/2014 4:00	15	0.89	705.143	1.46	0.72	1	Atlas		627,577	1
	8/27/2014 17:15	8/27/2014 17:15	-	0.06	772.050	0.98	0.04	3	Atlas		46,323	1
	8/30/2014 15:00	8/30/2014 16:00	60	0.56	929.609	1.18	0.32	1	Atlas		520,581	1
	9/11/2014 0:30	9/11/2014 0:45	15	1.82	349.223	0.76	0.98	3	Atlas		635,586	1
	12/6/2014 2:00	12/6/2014 3:30	90	1.95	234.646	2.80	0.63	48	Atlas		457,559	1
	3/10/2015 11:00	3/10/2015 16:30	330	1.12	11,339.655	2.99	0.50	12	Atlas		12,700,414	1
	3/14/2015 1:15	4/2/2015 15:15	270	2.02	4,396.729	3.10	0.76	24	Atlas		8,881,392	1
	4/2/2015 10:30	4/3/2015 11:00	285	4.83	205.360	0.97	8.95	6	Cloudburst		991,889	1
	4/3/2015 0:15	4/7/2015 18:00	645	4.83	836.762	4.49	8.95	6	Cloudburst		4,041,560	1
	4/7/2015 9:15	4/7/2015 18:30	525	0.95	13,084.301	5.78	0.43	1	Atlas		12,430,086	1
	4/9/2015 12:00	4/9/2015 13:30	90	0.11	2,454.145	5.66	0.09	1	Atlas		269,956	1
	4/10/2015 2:15	4/10/2015 5:30	195	0.23	21,419.861	3.41	0.15	3	Atlas		4,926,568	1
	4/13/2015 21:00	4/13/2015 21:00	-	0.56	17.591	1.59	0.22	24	Atlas		9,851	1
	5/16/2015 11:45	5/16/2015 12:00	15	0.56	434.793	0.47	0.33	3	Atlas		243,484	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.05	1,534.680	0.71	0.02	12	Atlas		76,734	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.17	272.488	0.38	0.10	1	Atlas		46,323	1
	6/17/2015 5:00	6/17/2015 6:00	60	0.68	263.534	0.62	0.39	3	Atlas		179,203	1
	6/18/2015 17:15	6/18/2015 17:45	30	0.64	1,140.072	1.17	0.36	1	Atlas		729,646	1
	6/20/2015 5:15	6/20/2015 8:00	165	0.89	130.408	2.22	0.39	12	Atlas		116,063	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.48	7.675	1.40	0.25	6	Atlas		3,684	1
	6/26/2015 17:00	6/26/2015 17:30	30	1.12	960.708	2.32	0.63	1	Atlas		1,075,993	1
	7/2/2015 20:15	7/2/2015 21:00	45	2.45	704.253	4.41	0.94	24	Atlas		1,725,421	1
	7/7/2015 11:45	7/7/2015 12:45	60	0.94	165.176	3.46	0.42	6	Atlas		155,265	1
	7/12/2015 5:45	7/12/2015 6:00	15	1.20	649.340	2.62	0.80	3	Atlas		779,208	1
	7/18/2015 0:45	7/18/2015 1:00	15	1.62	191.129	4.23	1.37	3	Atlas		309,629	1
	8/15/2015 16:30	8/15/2015 16:45	15	0.01	36,805.600	0.15	0.01	1	Atlas		368,056	1
	9/9/2015 11:15	9/9/2015 11:30	15	0.32	997.459	0.48	0.28	1	Atlas		319,187	1
	10/27/2015 18:45	10/27/2015 20:15	90	2.43	124.107	1.87	0.82	24	Atlas		301,579	1
	11/6/2015 3:30	11/6/2015 4:15	45	0.92	839.803	0.93	0.56	3	Atlas		772,619	1
	11/18/2015 10:15	11/18/2015 14:00	225	1.31	685.048	1.72	0.67	6	Atlas		897,413	1
	3/12/2016 22:45	3/12/2016 23:15	30	0.91	343.982	1.98	0.39	6	Atlas		313,024	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.77	799.331	1.03	0.51	3	Atlas		615,485	1
	4/11/2016 17:30	4/11/2016 18:00	30	1.00	40.002	0.92	0.43	6	Atlas		40,002	1
	4/26/2016 16:00	4/26/2016 16:15	15	0.29	300.148	0.37	0.17	3	Atlas		87,043	1
	4/27/2016 20:45	4/27/2016 21:45	60	0.83	42.602	1.39	0.36	12	Atlas		35,360	1
	4/30/2016 11:15	4/30/2016 11:15	-	0.71	46.224	1.49	0.27	24	Atlas		32,819	1
	5/10/2016 18:30	5/10/2016 21:45	195	0.95	282.598	1.87	0.39	6	Atlas		268,468	1
	5/20/2016 15:15	5/20/2016 15:30	15	0.47	139.653	1.21	0.26	6	Atlas		65,637	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.59	440.859	0.66	0.46	1	Atlas		260,107	1
	6/4/2016 16:30	6/4/2016 16:45	15	0.29	831.714	0.92	0.14	1	Atlas		241,197	1
	7/28/2016 3:15	7/28/2016 3:30	15	0.74	487.218	0.96	0.37	1	Atlas		360,541	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.17	105.106	1.32	0.15	1	Atlas		17,868	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.58	15.921	1.85	0.45	1	Atlas		9,234	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.27	257.119	0.35	0.20	1	Atlas		69,422	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/15/2016 3:15	8/15/2016 3:15	-	0.76	21,076	0.77	0.41	3	Atlas		16,018	1
	8/17/2016 6:45	8/17/2016 7:00	15	0.96	324,593	1.90	0.43	3	Atlas		311,609	1
	4/16/2017 13:15	4/16/2017 13:15	-	1.22	3,020	0.67	0.47	24	Atlas		3,684	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.25	680,012	1.50	0.69	3	Atlas		850,015	1
	5/4/2017 20:30	5/4/2017 20:30	-	1.65	6,344	2.09	0.55	24	Atlas		10,468	1
	5/21/2017 2:15	5/21/2017 4:15	120	1.16	828,834	1.08	0.53	12	Atlas		961,447	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.03	831,367	0.04	0.01	12	Atlas		24,941	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.15	1,868,860	0.16	0.13	1	Atlas		280,329	1
	7/23/2017 1:45	7/23/2017 6:45	300	1.16	533,597	0.78	0.53	12	Atlas		618,973	1
	7/28/2017 9:15	7/28/2017 10:15	60	0.45	1,036,089	1.60	0.33	1	Atlas		466,240	1
	8/1/2017 21:15	8/1/2017 21:45	30	0.72	812,343	1.15	0.59	1	Atlas		584,887	1
	8/22/2017 16:00	8/22/2017 16:30	30	0.38	853,608	0.74	0.26	1	Atlas		324,371	1
	9/1/2017 14:30	9/1/2017 17:15	165	2.66	171,383	1.71	0.95	24	Atlas		455,879	1
	9/19/2017 8:00	9/19/2017 9:00	60	0.49	792,324	0.71	0.31	3	Atlas		388,239	1
	10/7/2017 21:30	10/7/2017 22:15	45	1.77	482,295	0.73	0.66	24	Atlas		853,662	1
	10/8/2017 11:15	10/8/2017 14:45	210	1.77	228,129	1.70	0.66	24	Atlas		403,788	1
	10/23/2017 6:15	10/23/2017 7:00	45	0.36	367,403	0.23	0.19	6	Atlas		132,265	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.26	1,084,273	2.31	0.90	1	Atlas		1,366,184	1
	11/6/2017 1:45	11/6/2017 2:15	30	0.74	1,151,272	2.16	0.57	1	Atlas		851,941	1
	12/5/2017 3:45	12/5/2017 4:45	60	0.65	349,878	0.54	0.34	3	Atlas		227,421	1
	12/22/2017 23:45	12/23/2017 0:00	15	1.28	25,086	0.39	0.49	24	Atlas		32,110	1
	2/7/2018 3:15	2/7/2018 3:45	30	0.66	246,483	0.90	0.36	6	Atlas		162,679	1
	2/16/2018 3:00	2/16/2018 4:15	75	0.82	240,522	1.33	0.36	12	Atlas		197,228	1
	2/22/2018 3:45	2/22/2018 8:45	300	1.82	6,480,594	2.88	0.69	24	Atlas		11,794,681	1
	2/23/2018 3:00	2/23/2018 12:00	540	1.58	10,099,133	4.26	0.72	12	Atlas		15,956,630	1
	2/24/2018 18:45	2/26/2018 15:00	2,655	1.80	49,903,243	5.21	0.75	12	Atlas		89,825,838	1
	4/3/2018 16:30	4/3/2018 16:30	-	0.39	82,103	2.10	0.21	6	Atlas		32,020	1
	5/5/2018 14:15	5/5/2018 18:30	255	1.55	1,432,222	1.49	0.65	6	Atlas		2,219,944	1
	5/27/2018 4:00	5/27/2018 4:45	45	0.42	1,974,312	0.60	0.35	1	Atlas		829,211	1
	6/1/2018 0:30	6/1/2018 3:15	165	1.47	879,646	2.44	0.82	3	Atlas		1,293,080	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.53	39,508	0.27	0.24	12	Atlas		20,939	1
	6/22/2018 14:45	6/22/2018 14:45	-	0.27	1,496	1.30	0.12	12	Atlas		404	1
	6/25/2018 10:30	6/25/2018 11:00	30	0.87	751,285	2.10	0.34	12	Atlas		653,618	1
	6/26/2018 12:45	6/26/2018 13:15	30	0.79	733,652	2.56	0.30	24	Atlas		579,585	1
	7/3/2018 16:00	7/3/2018 16:15	15	0.46	368,109	1.07	0.36	1	Atlas		169,330	1
	7/20/2018 5:00	7/20/2018 5:00	-	1.81	18,201	0.54	1.23	3	Atlas		32,943	1
	7/20/2018 19:30	7/20/2018 21:15	105	1.81	1,045,814	2.19	1.23	3	Atlas		1,892,924	1
	7/31/2018 1:30	7/31/2018 1:45	15	1.74	296,933	0.62	0.77	6	Atlas		516,663	1
	8/10/2018 7:30	8/10/2018 15:15	465	Discharge	-	0.13					3,000,000	1
	9/21/2018 13:45	9/21/2018 17:15	210	0.47	169,587	0.52	0.26	1	Atlas		79,706	1
	9/24/2018 7:15	9/24/2018 10:45	210	1.43	258,660	3.04	0.66	6	Atlas		369,884	1
	9/25/2018 16:15	9/25/2018 17:30	75	0.70	372,399	3.89	0.30	12	Atlas		260,679	1
	9/26/2018 1:45	9/26/2018 1:45	-	0.70	124	4.11	0.30	12	Atlas		87	1
	10/10/2018 16:15	10/10/2018 16:15	-	0.17	142,700	0.12	0.11	3	Atlas		24,259	1
	10/31/2018 17:00	11/1/2018 19:30	1,590	1.83	641,005	2.11	0.64	24	Atlas		1,173,040	1
	11/5/2018 21:45	11/5/2018 23:15	90	0.86	133,859	2.62	0.46	6	Atlas		115,119	1
	11/24/2018 9:15	11/24/2018 9:30	15	0.26	1,555,227	0.27	0.14	6	Atlas		404,359	1
	2/12/2019 4:45	2/12/2019 5:45	60	2.86	619,460	4.17	0.90	48	Atlas		1,771,657	1
	2/20/2019 5:15	2/20/2019 7:00	105	1.36	2,256,828	1.31	0.61	6	Atlas		3,069,286	1
	3/14/2019 17:00	3/14/2019 17:15	15	0.38	900,255	1.60	0.25	3	Atlas		342,097	1
	5/3/2019 4:45	5/3/2019 5:15	30	0.88	133,953	0.61	0.48	6	Atlas		117,879	1
	6/5/2019 20:45	6/5/2019 21:00	15	0.91	505,329	0.99	0.66	1	Atlas		459,849	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.39	655,977	1.87	0.19	6	Atlas		255,831	1
	6/16/2019 19:30	6/16/2019 21:00	90	2.41	337,924	2.53	1.58	12	Cloudburst		814,397	1
	6/18/2019 16:15	6/18/2019 16:30	15	0.48	890,308	3.55	0.38	1	Atlas		427,348	1
	6/21/2019 19:15	6/21/2019 19:15	-	0.53	83,526	3.89	0.35	3	Atlas		44,269	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.25	456,492	4.09	0.18	1	Atlas		114,123	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.42	156,712	2.49	0.27	3	Atlas		65,819	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.30	1,436,580	0.34	0.25	1	Atlas		430,974	1
	7/29/2019 23:15	7/29/2019 23:30	15	0.51	308,106	0.51	0.31	3	Atlas		157,134	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/26/2019 11:15	8/26/2019 12:00	45	0.49	308.304	0.79	0.22	6	Atlas		151,069	1
	10/30/2019 14:15	10/30/2019 14:30	15	0.78	385.697	2.03	0.41	3	Atlas		300,844	1
	2/12/2020 18:00	2/12/2020 20:45	165	0.75	1,591.573	1.33	0.34	12	Atlas		1,193,680	1
	3/10/2020 8:00	3/10/2020 8:00	-	0.48	41.665	0.49	0.22	12	Atlas		19,999	1
	3/12/2020 19:30	3/12/2020 19:30	-	0.54	2.743	0.96	0.27	6	Atlas		1,481	1
	3/19/2020 12:15	3/19/2020 12:15	-	0.56	34.570	1.87	0.24	3	Atlas		19,359	1
	3/28/2020 22:15	3/28/2020 22:30	15	0.18	1,123.861	0.39	0.16	1	Atlas		202,295	1
	5/25/2020 17:30	5/25/2020 17:45	15	0.33	285.385	0.45	0.25	1	Atlas		94,177	1
	6/22/2020 23:30	6/22/2020 23:30	-	0.96	80.693	0.96	0.40	3	Atlas		77,465	1
	CSO022 Total										**234,569,905**	**140**
CSO023	7/19/2012 18:15	7/19/2012 18:45	30	0.87	109.480	1.53	0.68	1	Atlas		95,248	1
	7/18/2015 0:15	7/18/2015 0:15	-	1.62	2.416	3.97	1.37	3	Atlas		3,914	1
	9/1/2017 14:15	9/2/2017 1:15	660	2.66	440.474	2.43	0.95	24	Atlas		1,171,660	1
	10/8/2017 13:45	10/8/2017 15:30	105	1.77	2,565.119	1.72	0.66	24	Atlas		4,540,260	1
	10/10/2017 16:00	10/10/2017 21:15	315	0.61	1,836.279	2.39	0.33	3	Atlas		1,120,130	1
	10/27/2017 22:45	10/28/2017 1:15	150	0.89	2,385.689	1.31	0.40	12	Atlas		2,123,263	1
	11/3/2017 5:00	11/3/2017 9:00	240	1.26	3,847.038	2.31	0.90	1	Atlas		4,847,268	1
	12/5/2017 5:00	12/5/2017 5:15	15	0.65	120.120	0.58	0.34	3	Atlas		78,078	1
	12/22/2017 23:45	12/23/2017 3:00	195	1.28	170.606	0.84	0.49	24	Atlas		218,376	1
	2/22/2018 4:45	2/22/2018 5:30	45	1.82	1,781.380	2.83	0.69	24	Atlas		3,242,112	1
	2/23/2018 4:15	2/23/2018 5:00	45	1.58	1,685.484	3.36	0.72	12	Atlas		2,663,064	1
	2/24/2018 18:45	2/24/2018 23:00	255	1.80	527.521	4.93	0.75	12	Atlas		949,537	1
	7/20/2018 20:45	7/20/2018 20:45	-	1.81	108.953	2.10	1.23	3	Atlas		197,205	1
	7/31/2018 2:15	7/31/2018 2:15	-	1.74	98.090	1.18	0.77	6	Atlas		170,676	1
	CSO023 Total										**21,420,791**	**14**
CSO027	6/14/2016 16:45	6/14/2016 18:45	120	0.88	254.543	0.95	0.56	3	Atlas		223,998	1
	8/17/2016 6:45	8/17/2016 7:15	30	0.93	41.701	1.96	0.43	3	Atlas		38,782	1
	8/20/2016 14:30	8/20/2016 14:30	-	1.38	27.596	2.62	0.59	12	Atlas		38,083	1
	8/27/2016 13:00	8/27/2016 13:45	45	0.01	8,291.500	1.19	0.01	1	Atlas		82,915	1
	9/10/2016 15:30	9/10/2016 16:00	30	0.19	185.668	0.17	0.12	1	Atlas		35,277	1
	10/20/2016 9:15	10/20/2016 10:00	45	0.69	18.651	0.32	0.26	24	Atlas		12,869	1
	6/30/2017 21:15	6/30/2017 21:15	-	0.59	6.059	0.71	0.50	1	Atlas		3,575	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.28	6.204	0.53	0.23	1	Atlas		1,737	1
	2/24/2018 23:15	2/24/2018 23:15	-	2.10	82.409	4.97	0.86	12	Atlas		173,058	1
	5/5/2018 14:45	5/5/2018 14:45	-	1.69	14	0.95	0.67	12	Atlas		24	1
	5/27/2018 4:15	5/27/2018 4:15	-	0.46	141	0.51	0.37	1	Atlas		65	1
	7/31/2018 2:00	7/31/2018 2:00	-	1.94	31	1.22	0.78	6	Atlas		61	1
	8/20/2018 11:00	8/20/2018 11:15	15	0.72	3.915	3.57	0.57	1	Atlas		2,819	1
	9/8/2018 17:30	9/8/2018 21:00	210	2.68	178.234	2.58	1.75	6	Cloudburst		477,666	1
	12/31/2018 13:15	12/31/2018 16:15	180	1.30	1,626	1.69	0.50	12	Atlas		2,114	1
	6/16/2019 19:45	6/16/2019 19:45	-	2.14	956	1.74	0.97	3	Atlas		2,045	1
	CSO027 Total										**1,095,088**	**16**
CSO028	7/8/2012 13:00	7/8/2012 13:00	-	0.22	1,236	0.68	0.16	1	Atlas		272	1
	7/14/2012 13:45	7/14/2012 13:45	-	0.72	597	0.90	0.46	3	Atlas		430	1
	9/5/2012 15:30	9/5/2012 15:45	15	0.66	18.167	1.70	0.53	1	Atlas		11,990	1
	9/26/2012 23:00	9/26/2012 23:00	-	1.24	838	1.95	0.66	6	Atlas		1,039	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.81	9.251	0.59	0.40	6	Atlas		7,493	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.58	80.124	1.84	0.48	1	Atlas		46,472	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.32	92.263	3.25	2.17	6	Cloudburst		214,049	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.17	166.594	3.84	0.15	1	Atlas		28,321	1
	7/10/2013 14:00	7/10/2013 14:15	15	0.76	72.446	1.94	0.50	1	Atlas		55,059	1
	7/22/2013 8:00	7/22/2013 13:45	345	2.15	56.764	2.56	0.83	24	Atlas		122,042	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.78	1.203	0.78	0.34	1	Atlas		938	1
	9/2/2013 13:45	9/2/2013 13:45	-	0.42	1.255	1.75	0.37	1	Atlas		527	1
	10/5/2013 21:00	10/5/2013 23:30	150	3.21	4.965	2.24	2.28	24	Cloudburst		15,937	1
	10/30/2013 5:00	10/30/2013 5:00	-	1.41	558	1.11	0.72	1	Atlas		787	1
	12/21/2013 22:30	12/21/2013 22:45	15	1.77	3.331	2.46	0.97	3	Atlas		5,895	1
	4/28/2014 6:00	4/28/2014 6:15	15	1.63	5.021	1.16	0.66	3	Atlas		8,185	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.43	1.753	1.01	0.37	1	Atlas		754	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.47	1.506	0.77	0.41	1	Atlas		708	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/13/2014 23:00	7/13/2014 23:00	-	0.77	378	1.33	0.38	1	Atlas		291	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.06	15.874	0.41	0.48	12	Atlas		16,826	1
	8/8/2014 6:30	8/8/2014 6:30	-	0.85	869	0.62	0.40	6	Atlas		739	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.47	994	1.18	0.37	1	Atlas		467	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.56	1.661	1.13	0.31	1	Atlas		930	1
	9/11/2014 1:00	9/11/2014 2:15	75	1.91	1.263	1.60	1.37	3	Atlas		2.412	1
	4/3/2015 0:15	4/3/2015 3:30	195	5.47	3.777	3.90	15.85	6	Cloudburst		20.662	1
	4/7/2015 9:15	4/7/2015 9:30	15	0.87	1.074	6.07	0.38	1	Atlas		934	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.55	2.445	1.29	0.50	48	Atlas		3,790	1
	6/26/2015 17:15	6/26/2015 17:15	-	0.86	51.365	2.17	0.48	1	Atlas		44.174	1
	7/2/2015 20:30	7/2/2015 20:30	-	1.14	509	2.85	0.49	3	Atlas		580	1
	7/12/2015 6:15	7/12/2015 6:15	-	1.06	67.885	2.68	0.73	1	Atlas		71.958	1
	7/18/2015 0:30	7/18/2015 0:30	-	1.06	705	3.11	0.71	3	Atlas		747	1
	11/18/2015 10:45	11/18/2015 10:45	-	1.22	327	0.96	0.61	6	Atlas		399	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.79	9.635	1.31	0.63	1	Atlas		7.612	1
	12/27/2015 10:45	12/27/2015 10:45	-	2.13	513	2.58	0.75	3	Atlas		1.092	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.29	3.195	1.25	0.63	6	Atlas		4.121	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.68	8.216	1.08	0.46	1	Atlas		5.587	1
	4/27/2016 14:00	4/27/2016 22:45	525	0.99	15.763	1.63	0.53	1	Atlas		15.605	1
	4/30/2016 11:15	4/30/2016 13:15	120	0.65	5.906	1.81	0.25	6	Atlas		3.839	1
	5/10/2016 14:15	5/10/2016 22:15	480	0.89	13.531	1.91	0.33	24	Atlas		12.043	1
	5/17/2016 7:00	5/17/2016 7:45	45	0.69	3.319	1.72	0.23	24	Atlas		2.290	1
	5/20/2016 14:00	5/20/2016 16:30	150	0.52	21.167	1.24	0.29	3	Atlas		11.007	1
	5/26/2016 15:00	5/26/2016 15:30	30	0.30	8.600	0.90	0.19	3	Atlas		2.560	1
	6/2/2016 15:45	6/2/2016 16:15	30	0.26	27.035	0.36	0.21	1	Atlas		7.029	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.32	631	0.61	0.17	3	Atlas		202	1
	6/14/2016 16:45	6/14/2016 18:30	105	0.88	9.270	0.94	0.56	3	Atlas		8.158	1
	6/22/2016 8:30	6/22/2016 11:45	195	0.24	90.429	0.31	0.15	3	Atlas		21.703	1
	6/23/2016 16:15	6/23/2016 22:45	390	2.02	64.862	2.26	1.56	6	Cloudburst		131.022	1
	7/3/2016 11:45	7/3/2016 20:45	540	1.35	21.415	0.76	0.44	48	Atlas		28.910	1
	7/4/2016 8:00	7/4/2016 16:30	510	1.35	28.803	1.35	0.44	48	Atlas		38.884	1
	7/20/2016 19:45	7/20/2016 22:15	150	0.10	78.180	0.32	0.09	1	Atlas		7.818	1
	7/28/2016 3:15	7/28/2016 9:00	345	0.70	39.503	1.02	0.32	12	Atlas		27.652	1
	8/15/2016 3:15	8/15/2016 8:30	315	0.87	50.963	1.21	0.43	6	Atlas		44.338	1
	8/17/2016 4:45	8/17/2016 11:00	375	0.93	35.008	2.08	0.43	3	Atlas		32.557	1
	8/20/2016 14:30	8/21/2016 6:45	975	1.38	91.015	3.22	0.59	12	Atlas		125.601	1
	9/28/2016 12:30	9/28/2016 15:30	180	0.38	51.711	0.64	0.21	6	Atlas		19.650	1
	9/30/2016 0:15	9/30/2016 5:00	285	0.68	61.131	1.31	0.35	3	Atlas		41.569	1
	12/17/2016 18:30	12/21/2016 12:45	5,415	2.81	4.222.818	3.16	2.53	12	Cloudburst		11.866.118	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.45	800	0.49	0.37	1	Atlas		360	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.15	335	1.04	0.61	6	Atlas		385	1
	3/1/2017 11:30	3/1/2017 20:45	555	1.15	28.657	1.90	0.61	6	Atlas		32.955	1
	3/7/2017 17:30	3/8/2017 14:15	1,245	0.39	449.603	1.76	0.18	12	Atlas		175.345	1
	5/21/2017 3:00	5/21/2017 3:15	15	1.09	2.832	0.79	0.49	12	Atlas		3.087	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.59	17.042	0.71	0.50	1	Atlas		10.055	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.14	1.581	0.22	0.52	12	Atlas		1.802	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.49	2	0.22	0.27	6	Atlas		1	1
	10/7/2017 22:00	10/7/2017 22:00	-	1.65	419	0.53	0.62	24	Atlas		691	1
	11/1/2017 9:00	11/1/2017 21:00	720	0.14	21	0.96	0.06	6	Atlas		3	1
	11/3/2017 4:30	11/3/2017 11:30	420	0.99	1.360	1.94	0.77	1	Atlas		1.346	1
	2/23/2018 8:15	2/23/2018 8:30	15	1.44	586	3.30	0.66	12	Atlas		844	1
	2/24/2018 12:45	2/24/2018 21:30	525	2.10	23.788	4.49	0.86	12	Atlas		49.955	1
	3/1/2018 13:15	3/1/2018 13:15	-	0.02	514.400	3.65	0.01	12	Atlas		10.288	1
	5/5/2018 14:45	5/5/2018 14:45	-	1.69	2.789	0.95	0.67	12	Atlas		4.714	1
	7/20/2018 19:15	7/20/2018 20:45	90	0.94	29	1.20	0.42	3	Atlas		27	1
	7/31/2018 1:30	7/31/2018 7:00	330	1.94	14.880	1.84	0.78	6	Atlas		28.868	1
	8/16/2018 3:45	8/16/2018 8:45	300	2.81	256	2.61	1.45	24	Cloudburst		719	1
	9/8/2018 19:45	9/8/2018 20:15	30	2.68	122.962	2.30	1.75	6	Cloudburst		329.538	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.51	34.939	1.86	0.34	3	Atlas		17.819	1
	5/3/2019 4:45	5/3/2019 4:45	-	0.84	495	0.51	0.45	6	Atlas		416	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.53	28.709	2.05	0.27	3	Atlas		15.216	1
	6/16/2019 19:30	6/16/2019 20:45	75	2.14	10.870	1.96	0.97	3	Atlas		23.262	1
	6/18/2019 16:15	6/18/2019 16:15	-	0.24	2.467	2.71	0.09	24	Atlas		592	1
	6/21/2019 19:15	6/21/2019 19:15	-	0.80	6.813	3.25	0.53	3	Atlas		5.450	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/23/2019 16:00	6/23/2019 16:00	-	0.36	23.933	4.04	0.28	1	Atlas		8,616	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.44	70.852	0.60	0.32	1	Atlas		31,175	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.52	16.250	0.52	0.33	3	Atlas		8,450	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.19	151.521	0.40	0.15	1	Atlas		28,789	1
CSO028 Total											13,943,562	86
CSO029	12/5/2011 15:00	12/5/2011 15:45	45	3.15	13.095	3.77	1.12	48	Cloudburst		41,250	1
	12/21/2011 6:30	12/21/2011 6:45	15	0.60	122.430	1.15	0.28	12	Atlas		73,458	1
	1/11/2012 6:30	1/11/2012 6:30	-	0.65	9.082	0.35	0.25	24	Atlas		5,903	1
	1/23/2012 2:45	1/23/2012 4:15	90	0.60	89.192	1.01	0.33	3	Atlas		53,515	1
	1/26/2012 5:45	1/26/2012 6:00	15	1.74	65.798	1.36	0.57	24	Atlas		114,489	1
	1/26/2012 19:45	1/26/2012 20:45	60	1.74	55.767	2.13	0.57	24	Atlas		97,035	1
	2/29/2012 8:45	2/29/2012 8:45	-	0.55	35.418	0.69	0.25	12	Atlas		19,480	1
	3/8/2012 12:45	3/8/2012 12:45	-	0.81	12.799	1.02	0.38	6	Atlas		10,367	1
	3/23/2012 13:30	3/23/2012 13:30	-	1.61	15.465	1.30	0.64	3	Atlas		24,899	1
	4/1/2012 8:30	4/1/2012 10:15	105	1.52	39.328	1.63	0.83	6	Atlas		59,779	1
	4/28/2012 19:15	4/28/2012 19:15	-	0.88	405.367	0.89	0.67	1	Atlas		356,723	1
	5/4/2012 23:45	5/5/2012 1:30	105	1.43	79.438	2.45	0.74	6	Atlas		113,596	1
	5/13/2012 2:30	5/13/2012 8:15	345	2.08	8.125	1.95	0.81	12	Atlas		16,899	1
	5/29/2012 7:00	5/29/2012 9:30	150	2.97	1,526.854	2.91	18.27	3	Atlas		4,534,755	1
	5/31/2012 18:30	5/31/2012 20:30	120	1.27	29.522	3.61	0.55	12	Atlas		37,493	1
	11/17/2013 5:30	11/17/2013 9:15	225	2.38	33.873	2.06	1.11	6	Cloudburst		80,618	1
	11/17/2013 17:45	11/17/2013 18:00	15	2.38	7.607	2.52	1.11	6	Cloudburst		18,105	1
	12/6/2013 7:30	12/6/2013 7:30	-	0.80	10.610	0.15	0.26	48	Atlas		8,488	1
	12/21/2013 8:00	12/21/2013 8:00	-	1.11	8.379	0.91	0.51	12	Atlas		9,301	1
	12/21/2013 21:15	12/21/2013 23:15	120	1.77	759.977	2.50	0.97	3	Atlas		1,345,159	1
	1/11/2014 0:15	1/11/2014 0:15	-	0.97	14.139	0.84	0.52	6	Atlas		13,715	1
	2/4/2014 20:15	2/4/2014 20:15	-	0.47	1.204	0.74	0.23	6	Atlas		566	1
	2/17/2014 16:00	2/17/2014 16:15	15	0.48	22.606	0.79	0.28	3	Atlas		10,851	1
	3/29/2014 6:30	3/29/2014 6:45	15	0.84	27.585	0.66	0.39	6	Atlas		23,171	1
	4/3/2014 12:00	4/3/2014 19:00	420	2.72	11.084	2.70	0.95	24	Atlas		30,149	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.72	1.833	3.29	0.95	24	Atlas		4,986	1
	4/7/2014 10:30	4/7/2014 11:45	75	0.66	38.295	3.48	0.38	3	Atlas		25,275	1
	4/28/2014 4:00	4/28/2014 6:15	135	1.63	264.402	1.16	0.66	3	Atlas		430,976	1
	4/28/2014 17:30	4/28/2014 17:30	-	1.63	2.286	1.61	0.66	3	Atlas		3,726	1
	5/9/2014 19:15	5/10/2014 15:00	1,185	1.63	79.504	1.71	0.63	24	Atlas		129,592	1
	5/22/2014 2:30	5/22/2014 3:15	45	0.59	41.385	0.62	0.27	12	Atlas		24,417	1
	5/28/2014 20:00	5/28/2014 20:30	30	0.43	653.737	1.01	0.37	1	Atlas		281,107	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.09	72.600	0.23	0.06	1	Atlas		6,534	1
	6/20/2014 17:30	6/20/2014 17:30	-	0.29	1.197	0.29	0.19	3	Atlas		347	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.47	101.972	0.79	0.41	1	Atlas		47,927	1
	7/14/2014 20:15	7/14/2014 20:15	-	0.31	93.671	1.40	0.21	3	Atlas		29,038	1
	7/26/2014 21:45	7/26/2014 22:00	15	1.06	319.708	0.45	0.48	12	Atlas		338,891	1
	8/8/2014 6:00	8/8/2014 7:30	90	0.85	25.752	0.66	0.40	6	Atlas		21,889	1
	8/10/2014 4:00	8/10/2014 4:45	45	0.52	844.460	1.51	0.41	1	Atlas		439,119	1
	8/17/2014 9:45	8/17/2014 9:45	-	0.73	3.121	0.86	0.27	24	Atlas		2,278	1
	8/17/2014 23:00	8/17/2014 23:15	15	0.73	24.573	1.03	0.27	24	Atlas		17,938	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.47	46.840	1.18	0.37	1	Atlas		22,015	1
	8/23/2014 16:30	8/23/2014 20:15	225	0.65	708.488	1.65	0.37	3	Atlas		460,517	1
	8/27/2014 17:15	8/27/2014 17:15	-	0.14	28.093	1.29	0.10	1	Atlas		3,933	1
	8/30/2014 15:15	8/30/2014 18:15	180	0.56	614.223	1.27	0.31	1	Atlas		343,965	1
	9/11/2014 0:30	9/11/2014 2:30	120	1.91	227.650	1.62	1.37	3	Atlas		434,811	1
	10/3/2014 3:30	10/3/2014 3:30	-	0.22	75.223	0.03	0.08	24	Atlas		16,549	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.50	14.782	0.42	0.20	1	Atlas		7,391	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.28	89.966	1.60	0.57	1	Atlas		115,157	1
	10/13/2014 23:30	10/13/2014 23:45	15	1.06	13.086	2.45	0.47	12	Atlas		13,871	1
	10/14/2014 8:15	10/14/2014 8:15	-	1.06	7.070	3.02	0.47	12	Atlas		7,494	1
	11/23/2014 17:30	11/23/2014 17:30	-	0.68	36.276	0.70	0.28	12	Atlas		24,668	1
	12/6/2014 2:00	12/6/2014 3:00	60	1.86	60.000	2.59	0.60	48	Atlas		111,600	1
	3/10/2015 11:00	3/10/2015 12:45	105	1.26	69.709	2.88	0.57	12	Atlas		87,833	1
	3/14/2015 1:15	3/14/2015 3:45	150	1.93	34.125	3.12	0.73	24	Atlas		65,861	1
	3/26/2015 4:30	3/26/2015 4:30	-	0.54	14.865	0.58	0.23	3	Atlas		8,027	1
	4/2/2015 10:30	4/2/2015 15:15	285	5.47	50.512	1.10	15.85	6	Cloudburst		276,301	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/3/2015 0:15	4/3/2015 17:00	1,005	5.47	1,961,985	5.50	15.85	6	Cloudburst		10,732,058	1
	4/7/2015 9:15	4/7/2015 17:15	480	0.87	385,687	6.34	0.38	1	Atlas		335,548	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.10	110,280	6.06	0.09	1	Atlas		11,028	1
	4/10/2015 2:15	4/10/2015 2:30	15	0.27	144,552	3.60	0.18	3	Atlas		39,029	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.50	34,438	0.42	0.29	3	Atlas		17,219	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.07	325,871	0.68	0.03	1	Atlas		22,811	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.21	57,933	0.41	0.14	1	Atlas		12,166	1
	6/17/2015 4:45	6/17/2015 5:00	15	0.70	940	0.57	0.39	3	Atlas		658	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.55	144,988	1.29	0.50	48	Atlas		224,732	1
	6/20/2015 3:30	6/20/2015 8:00	270	1.55	11,508	2.42	0.50	48	Atlas		17,837	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.53	7,670	1.42	0.28	6	Atlas		4,065	1
	6/26/2015 17:00	6/26/2015 17:15	15	0.86	340,997	2.17	0.48	1	Atlas		293,257	1
	7/2/2015 15:15	7/2/2015 20:45	330	1.14	398,225	2.86	0.49	3	Atlas		453,976	1
	7/3/2015 14:45	7/3/2015 14:45	-	0.40	19,700	2.66	0.31	1	Atlas		7,880	1
	7/7/2015 12:00	7/7/2015 12:45	45	0.83	9,843	2.24	0.43	6	Atlas		8,170	1
	7/9/2015 6:15	7/9/2015 6:15	-	0.34	11,644	1.89	0.19	3	Atlas		3,959	1
	7/10/2015 16:00	7/10/2015 16:00	-	0.48	11,613	1.87	0.23	6	Atlas		5,574	1
	7/12/2015 5:45	7/12/2015 6:15	30	1.06	391,895	2.68	0.73	1	Atlas		415,409	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.31	90,542	3.22	0.27	1	Atlas		28,068	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.69	54,971	3.87	0.54	1	Atlas		37,930	1
	7/17/2015 22:30	7/18/2015 0:45	135	1.06	328,665	3.17	0.71	3	Atlas		348,385	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.31	10,848	0.34	0.25	1	Atlas		3,363	1
	8/6/2015 2:15	8/6/2015 8:00	345	0.50	24,414	0.82	0.21	1	Atlas		12,207	1
	9/9/2015 11:15	9/9/2015 11:30	15	0.28	146,907	0.38	0.22	1	Atlas		41,134	1
	9/29/2015 18:45	9/29/2015 18:45	-	0.79	33,841	0.75	0.26	48	Atlas		26,734	1
	10/27/2015 18:45	10/27/2015 20:00	75	2.39	9,383	1.91	0.79	24	Atlas		22,426	1
	10/28/2015 5:45	10/28/2015 5:45	-	2.39	282	2.54	0.79	24	Atlas		675	1
	11/6/2015 3:00	11/6/2015 3:45	45	0.94	17,188	0.89	0.59	3	Atlas		16,157	1
	11/12/2015 0:45	11/12/2015 0:45	-	0.25	145,148	1.65	0.14	3	Atlas		36,287	1
	11/18/2015 9:30	11/18/2015 13:45	255	1.22	57,523	1.49	0.61	6	Atlas		70,178	1
	12/23/2015 19:15	12/23/2015 20:00	45	0.79	522,915	1.41	0.63	1	Atlas		413,103	1
	12/27/2015 10:30	12/27/2015 12:45	135	2.13	66,051	3.15	0.75	3	Atlas		140,689	1
	2/2/2016 20:00	2/3/2016 0:00	240	1.29	37,325	1.25	0.63	6	Atlas		48,149	1
	2/21/2016 4:00	2/21/2016 10:15	375	1.12	21,587	1.29	0.51	12	Atlas		24,177	1
	2/24/2016 5:00	2/24/2016 7:00	120	1.91	17,287	2.67	0.72	12	Atlas		33,018	1
	3/12/2016 22:30	3/12/2016 23:15	45	0.74	75,986	1.68	0.29	6	Atlas		56,230	1
	3/13/2016 9:45	3/13/2016 9:45	-	0.74	5,192	1.89	0.29	6	Atlas		3,842	1
	3/24/2016 17:30	3/24/2016 17:30	-	0.48	14,067	0.57	0.35	1	Atlas		6,752	1
	3/27/2016 21:15	3/27/2016 21:15	-	0.68	91,496	1.02	0.46	1	Atlas		62,217	1
	3/31/2016 22:00	3/31/2016 22:00	-	1.18	1,585	1.67	0.45	24	Atlas		1,870	1
	4/11/2016 17:15	4/11/2016 17:45	30	0.98	19,454	0.86	0.46	6	Atlas		19,065	1
	4/26/2016 16:00	4/26/2016 16:00	-	0.35	9,900	0.42	0.18	6	Atlas		3,465	1
	4/27/2016 20:45	4/27/2016 21:00	15	0.99	9,234	1.39	0.53	1	Atlas		9,142	1
	4/30/2016 11:15	4/30/2016 11:15	-	0.65	3,095	1.69	0.25	6	Atlas		2,012	1
	5/1/2016 14:45	5/1/2016 14:45	-	0.22	8,400	2.07	0.14	3	Atlas		1,848	1
	5/7/2016 20:00	5/7/2016 20:00	-	0.76	6,141	0.97	0.41	1	Atlas		4,667	1
	5/10/2016 14:15	5/10/2016 14:15	-	0.89	4,817	1.38	0.33	24	Atlas		4,287	1
	5/20/2016 15:30	5/20/2016 15:30	-	0.52	344	1.24	0.29	3	Atlas		179	1
	5/25/2016 17:45	5/25/2016 17:45	-	0.03	47,900	0.61	0.03	1	Atlas		1,437	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.26	35,115	0.35	0.21	1	Atlas		9,130	1
	6/4/2016 16:30	6/4/2016 16:45	15	0.32	119,803	0.61	0.17	3	Atlas		38,337	1
	6/14/2016 16:30	6/14/2016 16:45	15	0.88	119,298	0.67	0.56	3	Atlas		104,982	1
	6/23/2016 20:00	6/23/2016 20:45	45	2.02	139,938	2.26	1.56	6	Cloudburst		282,675	1
	7/3/2016 19:45	7/3/2016 23:45	240	1.35	138,471	0.85	0.44	48	Atlas		186,936	1
	7/6/2016 13:00	7/6/2016 13:00	-	0.17	40,900	1.49	0.11	1	Atlas		6,953	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.16	51,681	0.42	0.14	1	Atlas		8,269	1
	7/27/2016 23:30	7/28/2016 3:15	225	0.70	220,107	0.85	0.32	12	Atlas		154,075	1
	7/30/2016 14:00	7/30/2016 14:00	-	0.48	12,229	1.53	0.42	1	Atlas		5,870	1
	8/1/2016 11:00	8/1/2016 11:00	-	0.34	10,097	1.88	0.28	1	Atlas		3,433	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.27	14,300	0.38	0.22	1	Atlas		3,861	1
	8/15/2016 3:00	8/15/2016 5:30	150	0.87	20,231	1.12	0.43	6	Atlas		17,601	1
	8/17/2016 6:45	8/17/2016 7:00	15	0.93	81,082	1.96	0.43	3	Atlas		75,406	1
	8/20/2016 14:15	8/20/2016 20:00	345	1.38	160,464	3.06	0.59	12	Atlas		221,440	1
	9/30/2016 1:45	9/30/2016 1:45	-	0.68	6,324	1.16	0.35	3	Atlas		4,300	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/20/2016 9:00	10/20/2016 9:15	15	0.69	26,823	0.25	0.26	24	Atlas		18,508	1
	12/17/2016 18:45	12/18/2016 1:15	390	2.81	69,545	3.16	2.53	12	Cloudburst		195,421	1
	1/19/2017 19:15	1/20/2017 0:45	330	0.93	15,475	2.18	0.43	12	Atlas		14,392	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.45	12,447	0.49	0.37	1	Atlas		5,601	1
	3/1/2017 3:15	3/1/2017 8:45	330	1.15	67,744	1.90	0.61	6	Atlas		77,906	1
	3/7/2017 7:45	3/7/2017 7:45	-	0.39	4,892	1.75	0.18	12	Atlas		1,908	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.10	28,363	1.35	0.56	3	Atlas		31,199	1
	5/4/2017 20:00	5/5/2017 4:45	525	1.56	20,607	2.26	0.53	24	Atlas		32,147	1
	5/21/2017 2:15	5/21/2017 3:00	45	1.09	54,575	0.74	0.49	12	Atlas		59,487	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.12	241,892	1.66	0.09	1	Atlas		29,027	1
	6/15/2017 4:00	6/15/2017 4:00	-	0.43	13,214	0.39	0.27	3	Atlas		5,682	1
	6/23/2017 15:15	6/23/2017 16:00	45	0.77	22,408	1.07	0.37	6	Atlas		17,254	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.59	339,168	0.71	0.50	1	Atlas		200,109	1
	7/7/2017 20:45	7/7/2017 20:45	-	0.24	60,263	1.05	0.16	3	Atlas		14,463	1
	7/23/2017 2:30	7/23/2017 6:45	255	1.14	140,876	0.78	0.52	12	Atlas		160,599	1
	7/28/2017 9:30	7/28/2017 9:45	15	0.26	259,542	1.40	0.19	1	Atlas		67,481	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.28	60,825	0.53	0.23	1	Atlas		17,031	1
	8/17/2017 18:00	8/17/2017 18:00	-	0.49	39,765	0.51	0.27	6	Atlas		19,485	1
	8/22/2017 16:00	8/22/2017 16:30	30	0.61	91,138	1.13	0.38	1	Atlas		55,594	1
	8/29/2017 5:15	8/29/2017 7:15	120	0.03	5,548,433	0.67	0.02	1	Atlas		166,453	1
	8/29/2017 19:15	8/29/2017 19:15	-	0.08	572,625	0.14	0.04	6	Atlas		45,810	1
	9/1/2017 7:30	9/1/2017 15:00	450	2.61	48,318	1.44	0.91	24	Atlas		126,109	1
	9/19/2017 8:45	9/19/2017 8:45	-	0.38	11,045	0.61	0.25	3	Atlas		4,197	1
	10/7/2017 22:15	10/7/2017 22:15	-	1.65	7,255	0.53	0.62	24	Atlas		11,970	1
	10/8/2017 13:45	10/8/2017 14:15	30	1.65	14,832	1.53	0.62	24	Atlas		24,473	1
	10/23/2017 6:30	10/23/2017 6:30	-	0.39	1,331	0.22	0.21	6	Atlas		519	1
	11/3/2017 4:30	11/3/2017 5:00	30	0.99	54,882	1.90	0.77	1	Atlas		54,333	1
	11/6/2017 1:45	11/6/2017 2:00	15	0.32	3,150	1.45	0.22	1	Atlas		1,008	1
	12/5/2017 4:00	12/5/2017 4:00	-	0.65	1,118	0.35	0.33	3	Atlas		727	1
	12/22/2017 23:30	12/22/2017 23:45	15	1.26	11,742	0.39	0.48	24	Atlas		14,795	1
	2/7/2018 3:15	2/7/2018 3:30	15	0.54	6,789	0.77	0.30	6	Atlas		3,666	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.40	12,605	1.02	0.21	3	Atlas		5,042	1
	2/22/2018 3:15	2/22/2018 5:30	135	1.71	61,524	2.82	0.64	24	Atlas		105,206	1
	2/23/2018 3:00	2/23/2018 5:00	120	1.44	50,967	3.21	0.66	12	Atlas		73,392	1
	2/24/2018 7:15	2/25/2018 9:00	1,545	2.10	4,243,291	5.48	0.86	12	Atlas		8,910,912	1
	3/24/2018 12:00	3/24/2018 12:00	-	1.12	5,916	1.61	0.43	24	Atlas		6,626	1
	4/3/2018 16:30	4/3/2018 16:30	-	0.48	15,106	2.29	0.26	6	Atlas		7,251	1
	5/5/2018 14:30	5/5/2018 17:30	180	1.69	112,235	1.48	0.67	12	Atlas		189,677	1
	5/27/2018 4:15	5/27/2018 4:15	-	0.46	205,937	0.51	0.37	1	Atlas		94,731	1
	6/1/2018 0:30	6/1/2018 1:15	45	1.36	96,393	1.73	0.65	3	Atlas		131,095	1
	7/3/2018 14:15	7/3/2018 14:15	-	0.27	730	0.63	0.20	1	Atlas		197	1
	7/20/2018 18:15	7/20/2018 19:00	45	0.94	48,532	0.61	0.42	3	Atlas		45,620	1
	7/30/2018 23:45	7/31/2018 5:30	345	1.94	510,745	1.62	0.78	6	Atlas		990,846	1
	8/15/2018 18:00	8/16/2018 7:00	780	2.81	102,025	2.27	1.45	24	Cloudburst		286,691	1
	8/20/2018 11:15	8/20/2018 11:15	-	0.72	330,874	3.57	0.57	1	Atlas		238,229	1
	9/8/2018 17:15	9/8/2018 22:15	300	2.68	2,990,656	2.80	1.75	6	Cloudburst		8,014,957	1
	9/21/2018 17:30	9/21/2018 17:30	-	0.39	1,172,885	0.44	0.21	6	Atlas		457,425	1
	9/22/2018 16:30	9/22/2018 16:45	15	1.42	342,692	0.81	0.53	24	Atlas		486,623	1
	9/23/2018 4:15	9/23/2018 6:45	150	1.42	2,192,175	1.79	0.53	24	Atlas		3,112,889	1
	9/24/2018 7:15	9/24/2018 13:45	390	1.45	2,738,383	3.24	0.68	6	Atlas		3,970,655	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.06	6,288,667	3.32	0.05	1	Atlas		377,320	1
	9/25/2018 16:30	9/26/2018 2:00	570	0.77	3,704,361	4.02	0.33	12	Atlas		2,852,358	1
	10/10/2018 16:15	10/10/2018 16:30	15	0.19	53,453	0.12	0.13	1	Atlas		10,156	1
	6/16/2019 19:30	6/16/2019 20:30	60	2.14	27,914	1.87	0.97	3	Atlas		59,736	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.44	108,868	0.60	0.32	1	Atlas		47,902	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.19	47,958	0.40	0.15	1	Atlas		9,112	1
	6/22/2020 22:15	6/22/2020 22:15	-	1.00	8,210	1.04	0.49	3	Atlas		8,210	1
	CSO029 Total										58,082,346	178
CSO031	7/27/2014 7:00	7/27/2014 8:00	60	1.06	25,528	1.01	0.48	12	Atlas		27,060	1
	8/17/2014 23:00	8/17/2014 23:30	30	0.73	37,741	1.03	0.27	24	Atlas		27,551	1
	8/20/2014 16:00	8/20/2014 16:30	30	0.03	326,333	0.76	0.03	1	Atlas		9,790	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.47	21,111	1.18	0.37	1	Atlas		9,922	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/23/2014 15:45	8/23/2014 23:45	480	0.65	403.538	1.88	0.37	3	Atlas		262,300	1
	8/27/2014 16:30	8/27/2014 17:30	60	0.14	42.064	1.29	0.10	1	Atlas		5,889	1
	8/30/2014 15:15	8/30/2014 16:30	75	0.56	151.079	1.20	0.31	1	Atlas		84,604	1
	9/2/2014 6:30	9/2/2014 9:45	195	0.40	228.765	1.11	0.25	3	Atlas		91,506	1
	9/11/2014 0:30	9/11/2014 21:15	1,245	1.91	279.228	1.91	1.37	3	Atlas		533,326	1
	10/3/2014 3:30	10/3/2014 3:30	-	0.22	14.014	0.03	0.08	24	Atlas		3,083	1
	10/3/2014 14:45	10/4/2014 0:15	570	0.22	3,673.309	0.23	0.08	24	Atlas		808,128	1
	10/6/2014 8:00	10/6/2014 10:15	135	0.50	64.196	0.42	0.20	1	Atlas		32,098	1
	10/7/2014 1:15	10/7/2014 2:00	45	0.50	19.744	0.48	0.20	1	Atlas		9,872	1
	10/7/2014 11:30	10/7/2014 12:45	75	0.50	93.878	0.72	0.20	1	Atlas		46,939	1
	10/10/2014 2:00	10/10/2014 3:30	90	1.28	42.159	1.62	0.57	1	Atlas		53,964	1
	10/10/2014 17:15	10/11/2014 7:45	870	1.28	39.906	1.91	0.57	1	Atlas		51,080	1
	10/13/2014 4:30	10/13/2014 9:00	270	0.52	208.154	2.33	0.34	3	Atlas		108,240	1
	3/10/2015 17:00	3/11/2015 11:45	1,125	1.26	262.009	3.02	0.57	12	Atlas		330,131	1
	4/2/2015 9:45	4/3/2015 10:00	1,455	5.47	127.889	4.99	15.85	6	Cloudburst		699,555	1
	4/7/2015 5:15	4/7/2015 9:30	255	0.87	8.820	6.07	0.38	1	Atlas		7,673	1
	6/17/2015 6:00	6/17/2015 6:45	45	0.70	20.479	0.81	0.39	3	Atlas		14,335	1
	6/19/2015 18:30	6/20/2015 8:00	810	1.55	94.159	2.42	0.50	48	Atlas		145,946	1
	6/21/2015 23:15	6/22/2015 7:45	510	0.24	45.350	2.59	0.11	3	Atlas		10,884	1
	6/25/2015 23:45	6/26/2015 4:15	270	0.53	25.257	1.72	0.28	6	Atlas		13,386	1
	6/26/2015 17:15	6/27/2015 0:15	420	0.86	9.202	2.46	0.48	1	Atlas		7,914	1
	6/29/2015 13:30	6/29/2015 14:15	45	0.26	105.927	1.64	0.18	1	Atlas		27,541	1
	6/30/2015 19:30	6/30/2015 20:00	30	0.02	225.200	1.66	0.01	6	Atlas		4,504	1
	7/2/2015 0:30	7/2/2015 2:30	120	1.14	33.551	2.51	0.49	3	Atlas		38,248	1
	7/2/2015 15:45	7/2/2015 22:45	420	1.14	125.224	2.86	0.49	3	Atlas		142,755	1
	7/3/2015 15:00	7/3/2015 15:15	15	0.40	28.930	2.70	0.31	1	Atlas		11,572	1
	7/7/2015 12:00	7/7/2015 13:00	60	0.83	10.040	2.25	0.43	6	Atlas		8,333	1
	7/10/2015 10:45	7/10/2015 11:00	15	0.48	15.152	1.96	0.23	6	Atlas		7,273	1
	7/12/2015 6:00	7/12/2015 9:15	195	1.06	224.042	2.90	0.73	1	Atlas		237,484	1
	7/13/2015 14:30	7/13/2015 14:30	-	0.31	10.616	3.09	0.27	1	Atlas		3,291	1
	8/6/2015 2:15	8/6/2015 16:00	825	0.50	360.362	0.98	0.21	1	Atlas		180,181	1
	11/6/2015 4:00	11/6/2015 4:00	-	0.94	4.283	0.93	0.59	3	Atlas		4,026	1
	11/18/2015 11:00	11/18/2015 11:00	-	1.22	370	1.02	0.61	6	Atlas		451	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.79	30.241	1.31	0.63	1	Atlas		23,890	1
	12/27/2015 10:45	12/27/2015 11:45	60	2.13	1.159	2.88	0.75	3	Atlas		2,469	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.29	8.709	1.25	0.63	6	Atlas		11,235	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.68	3.250	1.08	0.46	1	Atlas		2,210	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.32	17.484	0.61	0.17	3	Atlas		5,595	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.88	13.122	0.67	0.56	3	Atlas		11,547	1
	6/23/2016 16:15	6/23/2016 20:45	270	2.02	14.356	2.26	1.56	6	Cloudburst		29,000	1
	7/28/2016 3:30	7/28/2016 3:30	-	0.70	4.120	0.85	0.32	12	Atlas		2,884	1
	8/20/2016 14:30	8/20/2016 20:00	330	1.38	35.521	3.06	0.59	12	Atlas		49,019	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.14	4.657	0.14	0.12	1	Atlas		652	1
	12/17/2016 18:30	12/17/2016 19:15	45	2.81	1.677	1.41	2.53	12	Cloudburst		4,711	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.15	3.050	1.04	0.61	6	Atlas		3,508	1
	4/29/2017 2:45	4/29/2017 2:45	-	1.10	597	1.34	0.56	3	Atlas		657	1
	5/21/2017 3:00	5/21/2017 3:15	15	1.09	7.731	0.79	0.49	12	Atlas		8,427	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.59	16.685	0.71	0.50	1	Atlas		9,844	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.36	1.897	1.73	0.65	3	Atlas		2,580	1
	8/20/2018 11:30	8/20/2018 11:30	-	0.72	19.914	3.57	0.57	1	Atlas		14,338	1
	9/8/2018 17:30	9/8/2018 21:15	225	2.68	48.749	2.64	1.75	6	Cloudburst		130,646	1
	2/20/2019 5:30	2/20/2019 5:30	-	1.40	179	1.08	0.63	6	Atlas		250	1
	3/14/2019 17:30	3/14/2019 17:30	-	0.51	2.535	1.86	0.34	3	Atlas		1,293	1
	5/3/2019 5:00	5/3/2019 5:00	-	0.84	876	0.57	0.45	6	Atlas		736	1
	6/9/2019 17:00	6/9/2019 17:00	-	0.53	1.851	2.07	0.27	3	Atlas		981	1
	6/16/2019 19:45	6/16/2019 21:00	75	2.14	914	1.99	0.97	3	Atlas		1,957	1
	6/21/2019 19:30	6/21/2019 19:30	-	0.80	284	3.27	0.53	3	Atlas		227	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.36	4.194	3.82	0.28	1	Atlas		1,510	1
	6/24/2019 13:45	6/24/2019 13:45	-	0.40	1.248	2.38	0.25	3	Atlas		499	1
	7/18/2019 0:45	7/18/2019 1:00	15	0.44	5.061	0.60	0.32	1	Atlas		2,227	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.52	408	0.52	0.33	3	Atlas		212	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.19	7.200	0.40	0.15	1	Atlas		1,368	1
	5/16/2020 7:15	5/16/2020 7:15	-	1.35	124	1.52	0.52	24	Atlas		168	1
	6/22/2020 22:30	6/22/2020 23:45	75	1.00	689	1.35	0.49	3	Atlas		689	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
CSO031 Total											**4,386,164**	**68**
CSO034	7/8/2012 13:00	7/8/2012 13:00	-	0.22	19,164	0.68	0.16	1	Atlas		4,216	1
	7/14/2012 13:45	7/14/2012 14:15	30	0.72	4,943	0.98	0.46	3	Atlas		3,559	1
	9/26/2012 23:00	9/26/2012 23:00	-	1.24	1,557	1.95	0.66	6	Atlas		1,931	1
	12/9/2012 22:15	12/9/2012 22:15	-	1.14	1,970	2.94	0.54	3	Atlas		2,246	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.81	2,823	0.59	0.40	6	Atlas		2,287	1
	6/10/2013 0:00	6/10/2013 0:15	15	0.36	3,844	0.28	0.15	6	Atlas		1,384	1
	6/26/2013 4:30	6/26/2013 4:30	-	0.63	697	1.24	0.42	3	Atlas		439	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.32	128,791	3.25	2.17	6	Cloudburst		298,794	1
	6/29/2013 20:00	6/29/2013 20:00	-	0.47	11,121	3.45	0.25	3	Atlas		5,227	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.17	836,371	3.84	0.15	1	Atlas		142,183	1
	7/10/2013 14:00	7/11/2013 11:15	1,275	0.76	4,784,136	1.98	0.50	1	Atlas		3,635,943	1
	7/21/2013 20:15	7/22/2013 13:45	1,050	2.15	72,451	2.56	0.83	24	Atlas		155,770	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.78	217,810	0.78	0.34	1	Atlas		169,892	1
	8/31/2013 20:00	8/31/2013 20:15	15	1.33	10,915	0.65	0.61	6	Atlas		14,517	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.42	31,995	1.75	0.37	1	Atlas		13,438	1
	10/5/2013 14:15	10/5/2013 23:30	555	3.21	26,725	2.24	2.28	24	Cloudburst		85,787	1
	10/30/2013 4:45	10/30/2013 5:00	15	1.41	14,570	1.11	0.72	1	Atlas		20,543	1
	11/17/2013 6:00	11/17/2013 8:15	135	2.38	4,654	1.84	1.11	6	Cloudburst		11,077	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.38	2,913	2.52	1.11	6	Cloudburst		6,934	1
	12/21/2013 22:00	12/21/2013 22:45	45	1.77	41,230	2.46	0.97	3	Atlas		72,977	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.72	3,942	3.29	0.95	24	Atlas		10,723	1
	4/7/2014 11:30	4/7/2014 11:30	-	0.66	994	3.46	0.38	3	Atlas		656	1
	4/28/2014 4:15	4/28/2014 6:15	120	1.63	12,040	1.16	0.66	3	Atlas		19,625	1
	5/10/2014 5:45	5/10/2014 5:45	-	1.63	19,003	0.94	0.63	24	Atlas		30,975	1
	5/10/2014 14:15	5/10/2014 14:15	-	1.63	4,144	1.53	0.63	24	Atlas		6,755	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.43	44,749	1.01	0.37	1	Atlas		19,242	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.47	97,298	0.77	0.41	1	Atlas		45,730	1
	7/13/2014 22:15	7/13/2014 22:15	-	0.77	1,086	0.91	0.38	1	Atlas		836	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.06	82,175	0.41	0.48	12	Atlas		87,106	1
	8/8/2014 6:30	8/8/2014 6:30	-	0.85	6,506	0.62	0.40	6	Atlas		5,530	1
	8/10/2014 4:30	8/10/2014 4:30	-	0.52	5,588	1.50	0.41	1	Atlas		2,906	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.47	9,634	1.18	0.37	1	Atlas		4,528	1
	8/23/2014 20:00	8/23/2014 20:00	-	0.65	36,665	1.57	0.37	3	Atlas		23,832	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.56	39,032	1.13	0.31	1	Atlas		21,868	1
	9/11/2014 0:30	9/11/2014 2:15	105	1.91	19,518	1.60	1.37	3	Atlas		37,280	1
	10/10/2014 2:45	10/10/2014 2:45	-	1.28	22,082	1.58	0.57	1	Atlas		28,265	1
	4/2/2015 10:30	4/2/2015 15:00	270	5.47	6,893	1.09	15.85	6	Cloudburst		37,706	1
	4/3/2015 0:15	4/3/2015 2:30	135	5.47	14,189	3.50	15.85	6	Cloudburst		77,612	1
	4/7/2015 9:15	4/7/2015 9:30	15	0.87	35,262	6.07	0.38	1	Atlas		30,678	1
	6/18/2015 17:00	6/18/2015 17:15	15	1.55	19,283	1.29	0.50	48	Atlas		29,889	1
	6/25/2015 23:45	6/25/2015 23:45	-	0.53	3,406	1.41	0.28	6	Atlas		1,805	1
	6/26/2015 17:00	6/26/2015 17:00	-	0.86	178,333	2.12	0.48	1	Atlas		153,366	1
	7/2/2015 20:15	7/2/2015 20:30	15	1.14	7,571	2.85	0.49	3	Atlas		8,631	1
	7/12/2015 5:45	7/12/2015 6:15	30	1.06	66,468	2.68	0.73	1	Atlas		70,456	1
	7/18/2015 0:15	7/18/2015 0:30	15	1.06	8,448	3.11	0.71	3	Atlas		8,955	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.28	14,696	0.38	0.22	1	Atlas		4,115	1
	11/6/2015 4:00	11/6/2015 4:00	-	0.94	23,360	0.93	0.59	3	Atlas		21,958	1
	11/18/2015 11:00	11/18/2015 11:15	15	1.22	17,132	1.07	0.61	6	Atlas		20,901	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.79	86,770	1.31	0.63	1	Atlas		68,548	1
	12/27/2015 10:45	12/27/2015 10:45	-	2.13	2,773	2.58	0.75	3	Atlas		5,906	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.29	14,262	1.25	0.63	6	Atlas		18,398	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.68	10,284	1.08	0.46	1	Atlas		6,993	1
	5/10/2016 16:45	5/11/2016 10:30	1,065	0.89	13,403	1.95	0.33	24	Atlas		11,929	1
	5/11/2016 21:15	5/11/2016 21:45	30	0.27	5,378	1.92	0.15	3	Atlas		1,452	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.26	10,688	0.35	0.21	1	Atlas		2,779	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.32	79,447	0.61	0.17	3	Atlas		25,423	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.88	26,568	0.67	0.56	3	Atlas		23,380	1
	6/23/2016 16:15	6/23/2016 20:45	270	2.02	118,653	2.26	1.56	6	Cloudburst		239,680	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/27/2016 23:45	7/28/2016 3:30	225	0.70	9,636	0.85	0.32	12	Atlas		6,745	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.48	10,365	1.54	0.42	1	Atlas		4,975	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.93	4,092	1.96	0.43	3	Atlas		3,806	1
	8/20/2016 14:30	8/21/2016 20:00	1,770	1.38	7,318,211	3.22	0.59	12	Atlas		10,099,131	1
	12/17/2016 18:30	12/17/2016 19:15	45	2.81	7,946	1.41	2.53	12	Cloudburst		22,327	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.45	16,562	0.49	0.37	1	Atlas		7,453	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.15	12,112	1.04	0.61	6	Atlas		13,929	1
	4/29/2017 1:45	4/29/2017 2:45	60	1.10	7,780	1.34	0.56	3	Atlas		8,558	1
	5/21/2017 3:00	5/21/2017 3:00	-	1.09	5,628	0.74	0.49	12	Atlas		6,134	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.12	32,300	1.66	0.09	1	Atlas		3,876	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.28	12,793	0.34	0.23	1	Atlas		3,582	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.59	47,105	0.71	0.50	1	Atlas		27,792	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.14	4,282	0.22	0.52	12	Atlas		4,882	1
	7/28/2017 9:30	7/28/2017 9:30	-	0.26	92	1.39	0.19	1	Atlas		24	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.28	4	0.53	0.23	1	Atlas		1	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.49	33,982	0.22	0.27	6	Atlas		16,661	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.61	36,634	1.01	0.38	1	Atlas		22,347	1
	10/7/2017 21:45	10/7/2017 22:00	15	1.65	5,004	0.53	0.62	24	Atlas		8,257	1
	10/8/2017 13:45	10/8/2017 14:00	15	1.65	11	1.50	0.62	24	Atlas		18	1
	11/3/2017 4:45	11/3/2017 5:15	30	0.99	178,113	1.94	0.77	1	Atlas		176,332	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.32	19,400	1.45	0.22	1	Atlas		6,208	1
	12/5/2017 3:15	12/5/2017 3:45	30	0.65	515	0.30	0.33	3	Atlas		335	1
	12/22/2017 23:30	12/23/2017 3:00	210	1.26	110	0.83	0.48	24	Atlas		139	1
	1/22/2018 19:45	1/22/2018 19:45	-	0.29	7	0.36	0.17	1	Atlas		2	1
	2/7/2018 3:15	2/7/2018 3:15	-	0.54	20	0.76	0.30	6	Atlas		11	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.40	35	1.02	0.21	3	Atlas		14	1
	2/16/2018 2:45	2/16/2018 3:00	15	0.85	67	1.30	0.39	12	Atlas		57	1
	2/21/2018 7:15	2/21/2018 7:15	-	1.71	12	1.58	0.64	24	Atlas		20	1
	2/22/2018 3:15	2/22/2018 5:00	105	1.71	562	2.77	0.64	24	Atlas		961	1
	2/23/2018 3:00	2/23/2018 5:00	120	1.44	115	3.21	0.66	12	Atlas		166	1
	2/24/2018 4:00	2/24/2018 5:15	75	2.10	553	3.44	0.86	12	Atlas		1,162	1
	2/24/2018 19:00	2/24/2018 23:30	270	2.10	113,100	5.00	0.86	12	Atlas		237,510	1
	3/24/2018 12:00	3/24/2018 12:15	15	1.12	4	1.61	0.43	24	Atlas		5	1
	3/29/2018 19:00	3/29/2018 19:30	30	1.13	102	2.06	0.30	48	Atlas		115	1
	4/1/2018 20:15	4/1/2018 23:00	165	0.61	7	2.04	0.33	6	Atlas		4	1
	4/3/2018 16:30	4/3/2018 19:15	165	0.48	19	2.32	0.26	6	Atlas		9	1
	4/14/2018 9:30	4/14/2018 9:45	15	0.88	51	0.22	0.29	24	Atlas		45	1
	5/5/2018 14:15	5/5/2018 14:15	-	1.69	20	0.68	0.67	12	Atlas		33	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.52	35	0.52	0.43	1	Atlas		18	1
	5/27/2018 4:00	5/27/2018 4:15	15	0.46	7,915	0.51	0.37	1	Atlas		3,641	1
	6/1/2018 0:30	6/1/2018 0:30	-	1.36	23	1.27	0.65	3	Atlas		31	1
	7/20/2018 5:00	7/20/2018 5:00	-	0.94	155	0.48	0.42	3	Atlas		146	1
	7/20/2018 19:30	7/20/2018 21:00	90	0.94	43,086	1.22	0.42	3	Atlas		40,501	1
	7/31/2018 1:30	7/31/2018 7:15	345	1.94	188,848	1.84	0.78	6	Atlas		366,365	1
	8/15/2018 20:00	8/16/2018 8:45	765	2.81	8,298	2.61	1.45	24	Cloudburst		23,318	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.72	34,161	3.57	0.57	1	Atlas		24,596	1
	9/8/2018 17:30	9/8/2018 21:15	225	2.68	86,782	2.64	1.75	6	Cloudburst		232,576	1
	9/21/2018 17:30	9/21/2018 17:30	-	0.39	7,600	0.44	0.21	6	Atlas		2,964	1
	9/23/2018 4:15	9/23/2018 6:45	150	1.42	69	1.79	0.53	24	Atlas		98	1
	9/24/2018 7:15	9/24/2018 13:45	390	1.45	1,298	3.24	0.68	6	Atlas		1,882	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.06	1,100	3.32	0.05	1	Atlas		66	1
	9/25/2018 16:30	9/26/2018 2:15	585	0.77	7,888	4.05	0.33	12	Atlas		6,074	1
	11/1/2018 0:30	11/1/2018 2:15	105	1.93	36	1.71	0.69	24	Atlas		69	1
	12/31/2018 16:15	12/31/2018 16:15	-	1.30	257	1.69	0.50	12	Atlas		334	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.51	65,847	1.86	0.34	3	Atlas		33,582	1
	4/24/2019 20:30	4/24/2019 20:30	-	1.09	3,572	2.82	0.35	48	Atlas		3,894	1
	5/3/2019 4:45	5/3/2019 4:45	-	0.84	40,921	0.51	0.45	6	Atlas		34,374	1
	6/5/2019 20:30	6/5/2019 21:00	30	0.80	29,313	0.91	0.58	1	Atlas		23,450	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.53	92,745	2.05	0.27	3	Atlas		49,155	1
	6/16/2019 19:30	6/16/2019 20:45	75	2.14	50,668	1.96	0.97	3	Atlas		108,429	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/18/2019 16:15	6/18/2019 16:15	-	0.24	152,025	2.71	0.09	24	Atlas		36,486	1
	6/21/2019 19:15	6/21/2019 19:15	-	0.80	45,008	3.25	0.53	3	Atlas		36,006	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.36	78,931	4.04	0.28	1	Atlas		28,415	1
	6/24/2019 13:30	6/24/2019 13:30	-	0.40	40,900	2.34	0.25	3	Atlas		16,360	1
	7/18/2019 0:30	7/18/2019 1:00	30	0.44	325,036	0.60	0.32	1	Atlas		143,016	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.52	63,060	0.52	0.33	3	Atlas		32,791	1
	12/16/2019 17:15	12/16/2019 17:30	15	0.73	1,341	1.19	0.33	6	Atlas		979	1
	2/12/2020 17:30	2/12/2020 18:00	30	0.77	5,364	1.10	0.35	3	Atlas		4,130	1
	2/14/2020 9:30	2/14/2020 13:00	210	Discharge	-	1.32					15,427	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.19	421,211	0.40	0.15	1	Atlas		80,030	1
	5/16/2020 7:15	5/16/2020 7:15	-	1.35	8,484	1.52	0.52	24	Atlas		11,454	1
	6/21/2020 11:30	6/21/2020 11:30	-	0.44	20,084	0.28	0.24	1	Atlas		8,837	1
	6/22/2020 22:15	6/22/2020 23:45	90	1.00	32,116	1.35	0.49	3	Atlas		32,116	1
	6/29/2020 3:15	6/29/2020 3:15	-	0.40	10,523	1.44	0.25	3	Atlas		4,209	1
	CSO034 Total										**17,954,986**	**132**
CSO035	7/19/2012 18:15	7/19/2012 18:30	15	0.91	183,448	1.51	0.74	1	Atlas		166,938	1
	7/27/2012 20:00	7/27/2012 20:00	-	0.69	51,932	1.02	0.48	1	Atlas		35,833	1
	9/5/2012 15:30	9/5/2012 15:45	15	0.59	390,607	1.69	0.46	1	Atlas		230,458	1
	9/26/2012 21:00	9/26/2012 23:00	120	1.28	31,438	1.99	0.68	6	Atlas		40,240	1
	12/4/2012 18:00	12/6/2012 1:30	1,890	0.59	93,220	0.78	0.38	3	Atlas		55,000	1
	12/9/2012 22:15	12/9/2012 22:45	30	1.12	108,613	3.04	0.52	3	Atlas		121,646	1
	1/13/2013 23:30	1/15/2013 3:15	1,665	2.28	121,011	3.12	0.87	24	Atlas		275,906	1
	1/30/2013 5:00	1/30/2013 5:00	-	0.80	15,534	0.60	0.41	6	Atlas		12,427	1
	2/19/2013 7:30	2/20/2013 1:45	1,095	0.37	285,557	0.44	0.17	12	Atlas		105,656	1
	2/26/2013 20:00	3/1/2013 1:00	3,180	0.52	556,090	0.94	0.20	24	Atlas		289,167	1
	3/17/2013 6:30	3/17/2013 22:15	945	1.73	24,133	1.93	0.56	48	Atlas		41,750	1
	3/25/2013 5:00	3/28/2013 14:30	4,890	0.49	2,095,429	0.95	0.18	24	Atlas		1,026,760	1
	4/11/2013 6:45	4/13/2013 14:00	3,315	1.30	217,612	1.30	0.50	24	Atlas		282,896	1
	4/16/2013 20:15	4/17/2013 13:45	1,050	0.57	427,888	1.87	0.46	1	Atlas		243,896	1
	4/19/2013 4:45	4/22/2013 12:30	4,785	0.95	1,751,688	1.54	0.52	3	Atlas		1,664,104	1
	4/24/2013 15:30	4/26/2013 12:15	2,685	0.65	260,352	1.63	0.37	3	Atlas		169,229	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.33	506,336	0.24	0.14	6	Atlas		167,091	1
	6/26/2013 3:30	6/26/2013 4:45	75	0.75	620,839	1.39	0.50	1	Atlas		465,629	1
	6/26/2013 16:15	6/26/2013 21:00	285	2.42	976,931	3.53	2.63	6	Cloudburst		2,364,174	1
	6/29/2013 20:00	6/29/2013 20:00	-	0.40	546,433	3.69	0.21	6	Atlas		218,573	1
	7/2/2013 13:15	7/2/2013 13:30	15	0.14	2,459,743	4.01	0.12	1	Atlas		344,364	1
	7/10/2013 14:00	7/10/2013 14:30	30	0.64	978,534	1.80	0.44	1	Atlas		626,262	1
	7/14/2013 19:45	7/14/2013 19:45	-	0.11	190,345	0.80	0.10	1	Atlas		20,938	1
	7/18/2013 16:00	7/18/2013 16:00	-	0.29	280,514	0.44	0.22	1	Atlas		81,349	1
	7/21/2013 20:15	7/21/2013 20:15	-	2.03	33,873	1.24	0.78	24	Atlas		68,762	1
	7/22/2013 7:45	7/22/2013 16:00	495	2.03	626,232	2.36	0.78	24	Atlas		1,271,250	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.78	759,869	0.75	0.33	1	Atlas		592,698	1
	8/31/2013 20:15	8/31/2013 22:45	150	1.34	141,108	0.94	0.62	6	Atlas		189,085	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.51	671,739	1.85	0.44	1	Atlas		342,587	1
	9/20/2013 16:30	9/20/2013 22:00	330	1.22	172,316	0.75	0.51	12	Atlas		210,225	1
	10/5/2013 13:15	10/6/2013 6:30	1,035	4.10	583,815	3.67	6.53	24	Cloudburst		2,393,642	1
	10/30/2013 4:45	10/30/2013 5:30	45	1.51	424,031	1.47	0.74	6	Atlas		640,287	1
	10/31/2013 19:30	10/31/2013 19:30	-	0.71	83,834	2.07	0.28	12	Atlas		59,522	1
	11/17/2013 5:45	11/17/2013 8:30	165	2.16	599,929	1.70	0.93	6	Atlas		1,295,847	1
	11/17/2013 18:00	11/17/2013 18:15	15	2.16	118,189	2.28	0.93	6	Atlas		255,288	1
	12/21/2013 8:15	12/21/2013 8:15	-	2.56	12,544	0.88	0.96	24	Atlas		32,113	1
	12/21/2013 21:30	12/21/2013 23:00	90	2.56	458,988	2.15	0.96	24	Atlas		1,175,010	1
	2/17/2014 16:15	2/17/2014 16:30	15	0.63	229,519	1.11	0.37	3	Atlas		144,597	1
	3/29/2014 6:45	3/29/2014 6:45	-	0.86	85,926	0.64	0.40	6	Atlas		73,896	1
	4/3/2014 12:15	4/3/2014 12:30	15	2.80	5,612	1.92	1.00	24	Cloudburst		15,714	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.80	88,582	3.33	1.00	24	Cloudburst		248,029	1
	4/7/2014 10:45	4/7/2014 12:00	75	0.70	343,449	3.60	0.40	3	Atlas		240,414	1
	4/28/2014 4:15	4/28/2014 6:30	135	1.62	470,976	1.14	0.63	3	Atlas		762,981	1
	5/9/2014 19:30	5/9/2014 19:30	-	1.68	111,929	0.25	0.65	24	Atlas		188,041	1
	5/10/2014 5:45	5/10/2014 15:15	570	1.68	526,646	1.74	0.65	24	Atlas		884,765	1
	5/22/2014 2:45	5/22/2014 2:45	-	0.44	1,261	0.35	0.23	1	Atlas		555	1
	5/28/2014 20:30	5/28/2014 20:45	15	0.40	796,043	0.85	0.34	1	Atlas		318,417	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/11/2014 14:15	6/11/2014 14:15	-	0.07	1,634.886	0.22	0.03	1	Atlas		114.442	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.10	1,884.710	0.32	0.05	6	Atlas		188.471	1
	7/7/2014 19:45	7/7/2014 19:45	-	1.15	195.743	1.38	1.00	1	Atlas		225.105	1
	7/26/2014 21:45	7/26/2014 22:00	15	1.17	408.559	0.43	0.54	12	Atlas		478.014	1
	8/8/2014 6:00	8/8/2014 7:30	90	0.86	874.909	0.63	0.39	6	Atlas		752.422	1
	8/10/2014 4:00	8/10/2014 4:45	45	1.16	452.816	2.10	0.97	1	Atlas		525.266	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.48	422.883	2.56	0.40	1	Atlas		202.984	1
	8/17/2014 23:15	8/17/2014 23:15	-	0.73	62.555	1.21	0.27	24	Atlas		45.665	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.34	890.656	1.11	0.26	1	Atlas		302.823	1
	8/23/2014 20:00	8/23/2014 20:15	15	0.62	767.548	1.49	0.31	3	Atlas		475.880	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.62	636.494	1.35	0.39	1	Atlas		394.626	1
	9/11/2014 0:45	9/11/2014 2:30	105	1.78	691.344	1.51	0.99	3	Atlas		1,230.593	1
	10/3/2014 3:30	10/3/2014 3:30	-	0.24	38.829	0.05	0.09	24	Atlas		9.319	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.18	844.461	0.38	0.08	6	Atlas		152.003	1
	10/10/2014 2:15	10/10/2014 3:00	45	1.20	351.208	1.45	0.55	3	Atlas		421.449	1
	10/13/2014 23:30	10/13/2014 23:45	15	0.99	23.787	2.27	0.44	12	Atlas		23.549	1
	10/14/2014 8:15	10/14/2014 8:15	-	0.99	3.052	2.84	0.44	12	Atlas		3.021	1
	12/6/2014 2:45	12/6/2014 2:45	-	1.92	39.264	2.62	0.62	48	Atlas		75.387	1
	3/10/2015 11:00	3/10/2015 12:45	105	1.34	145.065	2.89	0.61	12	Atlas		194.387	1
	3/14/2015 1:15	3/14/2015 1:15	-	1.89	14.388	2.69	0.71	24	Atlas		27.194	1
	4/2/2015 10:45	4/2/2015 15:15	270	5.34	127.164	0.99	15.08	6	Cloudburst		679.056	1
	4/3/2015 0:15	4/3/2015 11:30	675	5.34	517.299	4.91	15.08	6	Cloudburst		2,762.379	1
	4/7/2015 9:30	4/7/2015 17:15	465	0.97	564.176	6.30	0.43	1	Atlas		547.251	1
	4/9/2015 11:45	4/9/2015 11:45	-	0.17	39.635	6.17	0.15	1	Atlas		6.738	1
	4/10/2015 2:15	4/10/2015 2:30	15	0.22	624.564	3.64	0.15	3	Atlas		137.404	1
	4/13/2015 20:30	4/13/2015 20:45	15	0.41	143.129	1.61	0.16	6	Atlas		58.683	1
	5/16/2015 11:45	5/16/2015 12:00	15	0.41	465.712	0.35	0.23	3	Atlas		190.942	1
	5/17/2015 14:30	5/17/2015 14:30	-	0.05	1,354.400	0.56	0.02	12	Atlas		67.720	1
	5/26/2015 14:15	5/26/2015 14:15	-	0.28	483.346	0.53	0.21	1	Atlas		135.337	1
	6/8/2015 7:15	6/8/2015 8:30	75	0.34	147.394	0.38	0.18	6	Atlas		50.114	1
	6/17/2015 5:00	6/17/2015 5:00	-	0.55	320.195	0.40	0.30	3	Atlas		176.107	1
	6/18/2015 17:15	6/18/2015 17:30	15	1.42	376.708	1.08	0.46	48	Atlas		534.926	1
	6/20/2015 1:45	6/20/2015 3:30	105	1.42	42.458	1.61	0.46	48	Atlas		60.291	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.43	511.058	1.34	0.23	6	Atlas		219.755	1
	6/26/2015 17:15	6/26/2015 17:30	15	0.90	839.222	2.04	0.49	1	Atlas		755.300	1
	12/1/2018 9:15	12/1/2018 13:00	225	1.21	185.055	1.17	0.51	12	Atlas		223.917	1
	12/15/2018 4:00	12/15/2018 4:30	30	1.66	77.093	0.97	0.70	12	Atlas		127.975	1
	12/27/2018 17:45	12/27/2018 17:45	-	0.41	324.249	0.55	0.27	1	Atlas		132.942	1
	12/31/2018 12:15	12/31/2018 16:30	255	1.17	114.215	1.57	0.45	24	Atlas		133.631	1
	3/30/2019 15:45	3/30/2019 20:00	255	0.92	431.857	1.23	0.44	6	Atlas		397.308	1
	4/7/2019 12:00	4/7/2019 12:30	30	0.48	524.392	0.57	0.22	12	Atlas		251.708	1
	4/24/2019 20:30	4/24/2019 20:30	-	0.58	1.853	2.76	0.29	1	Atlas		1.075	1
	5/3/2019 4:45	5/3/2019 4:45	-	0.86	21.407	0.50	0.46	6	Atlas		18.410	1
	6/5/2019 20:45	6/5/2019 20:45	-	0.83	19.477	0.88	0.62	1	Atlas		16.166	1
	6/9/2019 16:30	6/9/2019 16:45	15	0.59	39.044	2.22	0.32	3	Atlas		23.036	1
	6/16/2019 19:30	6/16/2019 20:45	75	1.87	17.256	1.71	0.85	12	Atlas		32.268	1
	6/18/2019 16:15	6/18/2019 16:15	-	0.21	387.281	2.36	0.08	24	Atlas		81.329	1
	6/21/2019 19:15	6/21/2019 19:15	-	0.76	1.580	2.88	0.51	3	Atlas		1.201	1
	6/23/2019 15:45	6/23/2019 16:00	15	0.28	11.529	3.68	0.21	1	Atlas		3.228	1
	6/24/2019 13:30	6/24/2019 13:30	-	0.41	4.107	2.20	0.26	3	Atlas		1.684	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.37	126.492	0.54	0.29	1	Atlas		46.802	1
	7/29/2019 23:15	7/29/2019 23:30	15	0.50	13.964	0.50	0.32	3	Atlas		6.982	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.22	183.273	0.40	0.18	1	Atlas		40.320	1
	5/25/2020 16:15	5/25/2020 16:30	15	0.47	1.349	0.55	0.38	1	Atlas		634	1
	6/22/2020 22:15	6/22/2020 22:15	-	0.93	20.766	0.97	0.45	3	Atlas		19.312	1
	6/29/2020 4:00	6/29/2020 4:00	-	0.34	2.047	1.34	0.21	3	Atlas		696	1
	CSO035 Total										34,239,238	103
CSO036	7/14/2012 13:45	7/14/2012 14:30	45	0.61	20.702	0.92	0.39	3	Atlas		12.628	1
	7/19/2012 18:15	7/19/2012 18:45	30	0.91	222.596	1.51	0.74	1	Atlas		202.562	1
	7/24/2012 20:00	7/24/2012 20:15	15	0.38	10.637	1.38	0.32	1	Atlas		4.042	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.69	9.106	1.16	0.48	1	Atlas		6.283	1
	8/16/2012 20:15	8/16/2012 22:00	105	0.60	25.560	0.59	0.35	3	Atlas		15.336	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/21/2012 13:45	8/21/2012 14:00	15	0.23	36,474	0.85	0.20	1	Atlas		8,389	1
	9/1/2012 15:15	9/1/2012 17:30	135	0.53	44,885	0.57	0.33	3	Atlas		23,789	1
	9/2/2012 12:00	9/2/2012 12:45	45	0.57	10,704	0.94	0.22	24	Atlas		6,101	1
	9/5/2012 15:30	9/5/2012 16:15	45	0.59	134,044	1.77	0.46	1	Atlas		79,086	1
	9/7/2012 23:30	9/8/2012 6:30	420	1.46	21,522	3.18	0.80	3	Atlas		31,422	1
	9/25/2012 23:45	9/26/2012 8:15	510	0.46	11,180	0.88	0.21	6	Atlas		5,143	1
	9/26/2012 20:45	9/27/2012 0:30	225	1.28	225,309	2.12	0.68	6	Atlas		288,395	1
	10/1/2012 15:00	10/1/2012 19:15	255	0.66	45,930	2.73	0.25	24	Atlas		30,314	1
	12/2/2012 11:30	12/2/2012 12:30	60	0.19	3,632	0.27	0.11	3	Atlas		690	1
	12/4/2012 15:30	12/5/2012 3:15	705	0.59	131,437	0.78	0.38	3	Atlas		77,548	1
	12/7/2012 5:15	12/7/2012 5:15	-	1.21	1,086	1.27	0.51	12	Atlas		1,314	1
	12/8/2012 5:45	12/8/2012 9:30	225	0.46	22,083	2.45	0.25	6	Atlas		10,158	1
	12/9/2012 8:30	12/9/2012 8:30	-	1.12	865	2.52	0.52	3	Atlas		969	1
	12/9/2012 21:30	12/9/2012 23:00	90	1.12	44,852	3.10	0.52	3	Atlas		50,234	1
	12/17/2012 17:00	12/17/2012 17:00	-	0.17	3,659	0.33	0.09	6	Atlas		622	1
	12/20/2012 7:00	12/20/2012 10:00	180	0.63	6,249	0.77	0.34	6	Atlas		3,937	1
	12/26/2012 4:45	12/26/2012 6:00	75	0.62	44,447	1.16	0.24	12	Atlas		27,557	1
	1/11/2013 5:30	1/11/2013 6:30	60	0.61	16,115	0.73	0.32	6	Atlas		9,830	1
	1/13/2013 3:15	1/13/2013 17:45	870	2.28	39,410	3.00	0.87	24	Atlas		89,855	1
	1/30/2013 4:45	1/30/2013 8:00	195	0.80	46,103	0.95	0.41	6	Atlas		36,882	1
	3/11/2013 3:15	3/11/2013 10:30	435	1.00	6,575	1.44	0.40	12	Atlas		6,575	1
	3/17/2013 13:45	3/17/2013 14:30	45	1.73	3,280	1.66	0.56	48	Atlas		5,675	1
	3/18/2013 4:15	3/18/2013 6:30	135	1.73	11,860	2.05	0.56	48	Atlas		20,517	1
	3/24/2013 7:45	3/24/2013 7:45	-	0.49	2,141	1.65	0.18	24	Atlas		1,049	1
	3/24/2013 16:00	3/24/2013 16:00	-	0.49	5,524	1.45	0.18	24	Atlas		2,707	1
	4/11/2013 6:30	4/12/2013 13:00	1,830	1.30	256,098	1.30	0.50	24	Atlas		332,927	1
	4/16/2013 20:15	4/18/2013 12:30	2,415	0.57	15,874,491	1.88	0.46	1	Atlas		9,048,460	1
	4/19/2013 2:30	4/21/2013 14:15	3,585	0.95	635,206	1.54	0.52	3	Atlas		603,446	1
	4/23/2013 21:45	4/23/2013 21:45	-	0.02	9,600	1.02	0.01	3	Atlas		192	1
	4/24/2013 7:30	4/26/2013 14:15	3,285	0.65	936,534	1.64	0.37	3	Atlas		608,747	1
	5/5/2013 8:15	5/5/2013 8:15	-	1.56	1,881	1.39	0.50	24	Atlas		2,934	1
	5/10/2013 10:15	5/11/2013 11:00	1,485	0.95	143,775	2.64	0.44	6	Atlas		136,586	1
	5/11/2013 21:00	5/12/2013 11:30	870	0.03	898,233	2.00	0.03	1	Atlas		26,947	1
	5/31/2013 11:45	5/31/2013 15:15	210	0.25	54,108	0.24	0.11	12	Atlas		13,527	1
	6/1/2013 5:15	6/1/2013 5:30	15	0.14	50,886	0.37	0.06	12	Atlas		7,124	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.33	2,155	0.24	0.14	6	Atlas		711	1
	6/13/2013 9:00	6/14/2013 6:00	1,260	0.02	4,459,200	0.36	0.02	1	Atlas		89,184	1
	6/17/2013 16:15	6/17/2013 23:00	405	0.86	1,427	1.17	0.44	6	Atlas		1,227	1
	6/18/2013 8:45	6/19/2013 12:15	1,650	0.86	30,733	1.23	0.44	6	Atlas		26,430	1
	6/22/2013 19:00	6/22/2013 19:15	15	0.07	40,200	1.56	0.04	3	Atlas		2,814	1
	6/24/2013 8:30	6/24/2013 9:00	30	0.06	14,533	1.49	0.04	3	Atlas		872	1
	6/26/2013 2:30	6/26/2013 5:15	165	0.75	113,201	1.39	0.50	1	Atlas		84,901	1
	8/31/2013 20:15	8/31/2013 23:30	195	1.34	12,749	1.02	0.62	6	Atlas		17,083	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.51	76,433	1.85	0.44	1	Atlas		38,981	1
	9/20/2013 16:30	9/21/2013 1:00	510	1.22	6,032	1.01	0.51	12	Atlas		7,359	1
	10/5/2013 13:00	10/6/2013 6:00	1,020	4.10	89,656	3.60	6.53	24	Cloudburst		367,589	1
	10/30/2013 2:15	10/30/2013 5:45	210	1.51	23,801	1.49	0.74	6	Atlas		35,939	1
	10/31/2013 19:30	10/31/2013 19:30	-	0.71	2,654	2.07	0.28	12	Atlas		1,884	1
	11/17/2013 5:30	11/17/2013 8:45	195	2.16	13,288	1.76	0.93	6	Atlas		28,702	1
	12/5/2013 7:30	12/5/2013 7:30	-	0.84	840	0.18	0.27	48	Atlas		706	1
	12/21/2013 8:15	12/21/2013 10:45	150	2.56	677	1.12	0.96	24	Atlas		1,733	1
	12/21/2013 21:15	12/22/2013 0:00	165	2.56	68,653	2.37	0.96	24	Atlas		175,751	1
	1/5/2014 16:45	1/5/2014 16:45	-	0.51	2,596	0.59	0.26	6	Atlas		1,324	1
	1/11/2014 0:15	1/11/2014 4:00	225	1.01	37,521	1.43	0.54	6	Atlas		37,896	1
	2/2/2014 4:00	2/2/2014 5:15	75	0.24	26,258	0.17	0.13	6	Atlas		6,302	1
	2/4/2014 19:00	2/4/2014 23:30	270	0.50	76,986	1.00	0.25	6	Atlas		38,493	1
	2/17/2014 16:00	2/17/2014 16:45	45	0.63	23,003	1.13	0.37	3	Atlas		14,492	1
	2/21/2014 6:45	2/21/2014 6:45	-	0.18	183,867	1.38	0.10	6	Atlas		33,096	1
	3/12/2014 7:15	3/12/2014 7:15	-	0.08	9,163	0.08	0.04	1	Atlas		733	1
	3/28/2014 4:30	3/28/2014 4:45	15	0.26	19,238	0.31	0.12	6	Atlas		5,002	1
	3/29/2014 6:15	3/29/2014 8:30	135	0.86	8,930	0.91	0.40	6	Atlas		7,680	1
	4/3/2014 12:00	4/4/2014 6:45	1,125	2.80	10,315	3.86	1.00	24	Cloudburst		28,882	1
	4/7/2014 9:15	4/7/2014 15:15	360	0.70	54,116	3.63	0.40	3	Atlas		37,881	1
	4/14/2014 3:30	4/14/2014 10:15	405	0.34	6,976	1.06	0.17	6	Atlas		2,372	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/14/2014 20:00	4/15/2014 1:15	315	0.58	45.455	0.88	0.27	12	Atlas		26.364	1
	4/28/2014 4:00	4/28/2014 7:30	210	1.62	78.670	1.22	0.63	3	Atlas		127.445	1
	4/28/2014 17:30	4/28/2014 17:30	-	1.62	2.490	1.53	0.63	3	Atlas		4.034	1
	5/9/2014 19:15	5/10/2014 15:00	1,185	1.68	39.467	1.74	0.65	24	Atlas		66.305	1
	5/14/2014 7:00	5/14/2014 8:15	75	0.96	41.821	1.99	0.37	24	Atlas		40.148	1
	5/14/2014 18:00	5/14/2014 20:15	135	0.96	1.658	2.65	0.37	24	Atlas		1.592	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.40	730	0.85	0.34	1	Atlas		292	1
	5/29/2014 20:45	5/29/2014 20:45	-	0.39	1.264	0.73	0.30	1	Atlas		493	1
	6/11/2014 14:00	6/11/2014 21:00	420	0.07	857.200	0.22	0.03	1	Atlas		60.004	1
	6/20/2014 17:15	6/20/2014 19:00	105	0.20	187.575	0.20	0.13	3	Atlas		37.515	1
	6/24/2014 13:30	6/24/2014 14:15	45	0.10	132.420	0.33	0.05	6	Atlas		13.242	1
	7/7/2014 19:30	7/7/2014 19:45	15	1.15	19.032	1.38	1.00	1	Atlas		21.887	1
	7/13/2014 22:30	7/13/2014 23:15	45	0.93	48.085	2.32	0.49	1	Atlas		44.719	1
	7/14/2014 20:00	7/14/2014 20:30	30	0.23	64.991	1.63	0.19	1	Atlas		14.948	1
	7/26/2014 21:45	7/26/2014 22:45	60	1.17	74.978	0.56	0.54	12	Atlas		87.724	1
	8/10/2014 4:00	8/10/2014 4:45	45	1.16	73.267	2.10	0.97	1	Atlas		84.990	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.48	31.727	2.56	0.40	1	Atlas		15.229	1
	8/17/2014 9:30	8/17/2014 10:30	60	0.73	17.348	1.10	0.27	24	Atlas		12.664	1
	8/17/2014 23:00	8/17/2014 23:15	15	0.73	28.636	1.21	0.27	24	Atlas		20.904	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.34	118.453	1.11	0.26	1	Atlas		40.274	1
	8/23/2014 15:45	8/23/2014 21:45	360	0.62	184.100	1.71	0.31	3	Atlas		114.142	1
	8/27/2014 17:15	8/27/2014 17:15	-	0.22	17.459	1.24	0.15	3	Atlas		3.841	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.62	168.453	1.35	0.39	1	Atlas		104.441	1
	9/11/2014 0:30	9/11/2014 6:00	330	1.78	78.899	1.71	0.99	3	Atlas		140.441	1
	10/3/2014 3:30	10/3/2014 3:30	-	0.24	3.975	0.05	0.09	24	Atlas		954	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.18	3.356	0.38	0.08	6	Atlas		604	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.20	45.283	1.45	0.55	3	Atlas		54.340	1
	10/13/2014 23:30	10/14/2014 8:15	525	0.99	7.928	2.84	0.44	12	Atlas		7.849	1
	11/23/2014 17:30	11/23/2014 23:00	330	0.64	45.850	0.99	0.27	12	Atlas		29.344	1
	12/1/2014 4:30	12/1/2014 4:30	-	0.90	761	0.42	0.34	24	Atlas		685	1
	12/6/2014 2:15	12/6/2014 6:30	255	1.92	13.960	2.81	0.62	48	Atlas		26.804	1
	12/28/2014 1:00	12/28/2014 1:00	-	0.29	8.393	0.65	0.11	1	Atlas		2.434	1
	1/29/2015 5:15	1/29/2015 5:15	-	0.04	75.625	0.24	0.03	3	Atlas		3.025	1
	2/4/2015 23:45	2/5/2015 16:45	1,020	0.03	488.000	0.50	0.02	3	Atlas		14.640	1
	2/21/2015 13:15	2/21/2015 14:15	60	1.25	3.850	1.44	0.48	24	Atlas		4.813	1
	3/10/2015 10:45	3/10/2015 13:45	180	1.34	30.878	3.01	0.61	12	Atlas		41.377	1
	3/13/2015 10:30	3/14/2015 3:45	1,035	1.89	38.646	3.15	0.71	24	Atlas		73.041	1
	3/26/2015 4:15	3/26/2015 5:45	90	0.55	18.364	0.65	0.22	3	Atlas		10.100	1
	4/2/2015 10:30	4/2/2015 15:15	285	5.34	42.639	0.99	15.08	6	Cloudburst		227.690	1
	4/3/2015 0:00	4/3/2015 16:45	1,005	5.34	63.466	5.35	15.08	6	Cloudburst		338.910	1
	4/7/2015 9:15	4/7/2015 17:00	465	0.97	16.490	6.27	0.43	1	Atlas		15.995	1
	4/8/2015 18:00	4/8/2015 18:00	-	0.16	7.063	6.47	0.09	3	Atlas		1.130	1
	4/10/2015 2:00	4/10/2015 2:15	15	0.22	37.805	3.86	0.15	3	Atlas		8.317	1
	4/13/2015 20:15	4/13/2015 20:30	15	0.41	7.590	1.60	0.16	6	Atlas		3.112	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.41	11.190	0.33	0.23	3	Atlas		4.588	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.05	17.420	0.56	0.02	12	Atlas		871	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.28	1.150	0.53	0.21	1	Atlas		322	1
	5/27/2015 16:45	5/27/2015 16:45	-	0.09	221.511	0.66	0.08	1	Atlas		19.936	1
	6/1/2015 4:45	6/1/2015 18:00	795	0.10	1,888.950	0.72	0.05	6	Atlas		188.895	1
	6/8/2015 8:15	6/8/2015 8:15	-	0.34	2.229	0.35	0.18	6	Atlas		758	1
	6/17/2015 5:00	6/17/2015 5:30	30	0.55	47.425	0.48	0.30	3	Atlas		26.084	1
	6/18/2015 17:15	6/22/2015 17:45	5,790	1.42	3,244.416	2.37	0.46	48	Atlas		4,607.071	1
	6/26/2015 17:00	6/27/2015 7:30	870	0.90	1,982.439	2.39	0.49	1	Atlas		1,784.195	1
	7/2/2015 20:30	7/2/2015 21:00	30	1.19	63.076	2.76	0.46	24	Atlas		75.061	1
	7/10/2015 22:45	7/11/2015 9:00	615	0.55	30.289	1.75	0.28	6	Atlas		16.659	1
	7/12/2015 6:00	7/12/2015 14:30	510	1.16	405.945	2.91	0.79	1	Atlas		470.896	1
	7/14/2015 4:15	7/18/2015 1:30	5,595	0.71	7,559.932	5.11	0.57	1	Atlas		5,367.552	1
	8/4/2015 20:15	8/5/2015 15:15	1,140	0.21	87.300	0.36	0.16	1	Atlas		18.333	1
	8/6/2015 2:15	8/7/2015 2:45	1,470	0.49	92.080	0.82	0.20	1	Atlas		45.119	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.38	9.076	0.57	0.17	1	Atlas		3.449	1
	9/9/2015 5:00	9/9/2015 11:30	390	0.21	489.162	0.28	0.16	1	Atlas		102.724	1
	9/11/2015 18:30	9/11/2015 18:30	-	0.15	45.273	0.50	0.10	1	Atlas		6.791	1
	9/29/2015 19:00	9/29/2015 19:00	-	0.76	2.668	0.74	0.25	48	Atlas		2.028	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.28	25.389	0.33	0.19	3	Atlas		7.109	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/27/2015 17:00	10/28/2015 7:45	885	2.25	32.981	2.58	0.74	24	Atlas		74,207	1
	12/22/2015 0:00	12/22/2015 4:00	240	0.39	98.946	0.61	0.20	1	Atlas		38,589	1
	12/23/2015 19:15	12/23/2015 20:30	75	0.96	136.328	1.60	0.77	1	Atlas		130,875	1
	12/26/2015 12:45	12/26/2015 17:45	300	0.33	49.009	2.03	0.15	3	Atlas		16,173	1
	12/27/2015 10:00	12/27/2015 13:45	225	1.90	207.647	3.15	0.65	3	Atlas		394,530	1
	12/28/2015 16:30	12/28/2015 16:45	15	1.90	1,233	3.70	0.65	3	Atlas		2,343	1
	2/2/2016 14:45	2/3/2016 0:15	570	1.21	191.136	1.18	0.58	6	Atlas		231,275	1
	2/21/2016 4:15	2/21/2016 10:45	390	1.10	122.571	1.26	0.50	12	Atlas		134,828	1
	2/23/2016 23:15	2/24/2016 7:15	480	1.98	37.343	2.76	0.77	12	Atlas		73,940	1
	3/1/2016 12:45	3/1/2016 13:00	15	0.27	7.922	2.22	0.14	6	Atlas		2,139	1
	3/9/2016 15:45	3/9/2016 15:45	-	1.12	240	0.22	0.36	48	Atlas		269	1
	3/10/2016 13:30	3/10/2016 16:30	180	1.12	8,562	0.89	0.36	48	Atlas		9,589	1
	3/12/2016 20:30	3/12/2016 23:30	180	0.77	118.206	1.68	0.30	24	Atlas		91,019	1
	3/13/2016 9:15	3/13/2016 10:00	45	0.77	27.614	1.91	0.30	24	Atlas		21,263	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.47	29.189	0.57	0.35	1	Atlas		13,719	1
	3/27/2016 21:15	3/27/2016 22:00	45	0.72	282.757	1.17	0.49	1	Atlas		203,585	1
	3/31/2016 22:15	3/31/2016 23:15	60	1.07	15.102	1.74	0.41	24	Atlas		16,159	1
	4/11/2016 16:15	4/11/2016 18:00	105	0.92	44.272	0.84	0.44	6	Atlas		40,730	1
	4/21/2016 14:30	4/21/2016 15:30	60	0.33	104.291	0.21	0.13	3	Atlas		34,416	1
	4/26/2016 16:15	4/26/2016 21:15	300	0.33	207.567	0.65	0.16	6	Atlas		68,497	1
	4/27/2016 14:00	4/27/2016 22:00	480	0.70	142.509	1.34	0.37	1	Atlas		99,756	1
	4/30/2016 11:15	4/30/2016 11:30	15	0.60	83.593	1.36	0.23	6	Atlas		50,156	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.20	61.960	1.72	0.13	3	Atlas		12,396	1
	5/7/2016 16:30	5/7/2016 20:15	225	0.65	26.971	1.08	0.34	6	Atlas		17,531	1
	5/10/2016 14:30	5/10/2016 22:00	450	0.94	129.090	1.85	0.36	12	Atlas		121,345	1
	5/11/2016 22:00	5/11/2016 22:00	-	0.24	3.029	1.85	0.13	3	Atlas		727	1
	5/12/2016 16:15	5/12/2016 16:15	-	0.15	51.427	1.94	0.10	3	Atlas		7,714	1
	5/20/2016 14:00	5/20/2016 15:45	105	0.51	176.592	1.20	0.28	3	Atlas		90,062	1
	5/25/2016 18:00	5/25/2016 18:00	-	0.02	115.900	0.59	0.02	1	Atlas		2,318	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.34	364.653	0.44	0.27	1	Atlas		123,982	1
	6/4/2016 16:45	6/4/2016 17:00	15	0.23	424.870	0.63	0.12	1	Atlas		97,720	1
	6/14/2016 16:45	6/14/2016 17:00	15	0.84	22.470	0.64	0.54	3	Atlas		18,875	1
	6/22/2016 8:30	6/22/2016 8:30	-	0.17	134.994	0.13	0.10	3	Atlas		22,949	1
	6/23/2016 16:00	6/23/2016 21:00	300	1.88	335.977	2.05	1.17	6	Cloudburst		631,637	1
	7/3/2016 10:15	7/3/2016 20:15	600	1.28	46.701	0.66	0.42	48	Atlas		59,777	1
	7/4/2016 8:30	7/4/2016 14:45	375	1.28	1,617	1.24	0.42	48	Atlas		2,070	1
	7/6/2016 13:15	7/6/2016 13:15	-	0.17	152.529	1.43	0.13	1	Atlas		25,930	1
	7/12/2016 9:00	7/12/2016 9:45	45	0.22	133.200	0.51	0.14	3	Atlas		29,304	1
	7/20/2016 19:45	7/20/2016 19:45	-	0.04	800	0.26	0.03	1	Atlas		32	1
	7/26/2016 18:00	7/26/2016 18:00	-	0.09	65.044	0.25	0.08	1	Atlas		5,854	1
	7/27/2016 23:45	7/28/2016 5:00	315	0.67	398.564	0.80	0.31	12	Atlas		267,038	1
	7/30/2016 14:15	7/30/2016 14:30	15	0.45	331.476	1.38	0.39	1	Atlas		149,164	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.41	114.017	1.79	0.34	1	Atlas		46,747	1
	8/5/2016 14:00	8/5/2016 14:00	-	0.12	29.083	1.33	0.09	1	Atlas		3,490	1
	8/12/2016 14:00	8/12/2016 14:15	15	0.20	223.735	0.31	0.16	1	Atlas		44,747	1
	8/15/2016 2:45	8/15/2016 7:30	285	0.92	142.858	1.26	0.45	6	Atlas		131,429	1
	8/17/2016 4:45	8/17/2016 7:15	150	0.83	191.045	1.89	0.36	12	Atlas		158,567	1
	8/20/2016 10:30	8/20/2016 20:30	600	1.10	176.181	2.85	0.45	12	Atlas		193,799	1
	8/28/2016 17:30	8/28/2016 17:45	15	0.27	192.922	0.28	0.23	1	Atlas		52,089	1
	9/10/2016 15:30	9/10/2016 15:30	-	0.24	4	0.22	0.17	1	Atlas		1	1
	9/28/2016 12:30	9/28/2016 13:00	30	0.35	16.003	0.52	0.19	6	Atlas		5,601	1
	9/30/2016 1:30	9/30/2016 2:15	45	0.67	23.121	1.19	0.35	3	Atlas		15,491	1
	10/20/2016 9:15	10/20/2016 10:45	90	0.60	237.133	0.31	0.23	24	Atlas		142,280	1
	11/23/2016 21:00	11/23/2016 21:00	-	0.30	1,263	0.47	0.12	6	Atlas		379	1
	12/6/2016 5:30	12/6/2016 9:45	255	0.90	13.026	0.64	0.41	12	Atlas		11,723	1
	12/17/2016 16:30	12/18/2016 1:30	540	2.78	210.447	3.10	2.39	12	Cloudburst		585,044	1
	12/24/2016 1:00	12/24/2016 1:00	-	0.22	6.141	2.94	0.10	12	Atlas		1,351	1
	1/10/2017 19:45	1/10/2017 19:45	-	0.11	41.755	0.34	0.08	1	Atlas		4,593	1
	1/11/2017 12:15	1/11/2017 12:15	-	0.24	446	0.51	0.16	1	Atlas		107	1
	1/12/2017 15:45	1/12/2017 18:30	165	0.36	29.314	0.60	0.17	6	Atlas		10,553	1
	1/14/2017 11:15	1/14/2017 13:45	150	0.25	9.144	1.26	0.11	12	Atlas		2,286	1
	1/19/2017 19:15	1/20/2017 1:00	345	0.97	52.869	2.21	0.44	12	Atlas		51,283	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.50	349.440	0.55	0.43	1	Atlas		174,720	1
	2/28/2017 10:15	2/28/2017 10:30	15	0.25	6.660	0.79	0.11	6	Atlas		1,665	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/1/2017 3:15	3/1/2017 9:00	345	1.01	220.626	1.81	0.54	6	Atlas		222.832	1
	3/7/2017 7:45	3/7/2017 8:00	15	0.54	79.624	1.58	0.18	48	Atlas		42.997	1
	3/27/2017 18:15	3/27/2017 19:00	45	0.33	13.324	0.74	0.21	3	Atlas		4.397	1
	3/30/2017 20:45	3/30/2017 20:45	-	0.24	233	0.82	0.11	6	Atlas		56	1
	4/3/2017 19:30	4/3/2017 19:30	-	0.13	62.969	0.35	0.08	1	Atlas		8.186	1
	4/16/2017 5:30	4/16/2017 20:30	900	1.16	52.712	1.37	0.49	6	Atlas		61.146	1
	4/21/2017 22:45	4/21/2017 22:45	-	0.69	43	1.57	0.25	24	Atlas		30	1
	4/27/2017 7:00	4/27/2017 7:00	-	0.16	27.063	0.85	0.11	1	Atlas		4.330	1
	4/28/2017 23:45	4/29/2017 3:15	210	0.90	525.239	1.22	0.46	6	Atlas		472.715	1
	5/4/2017 19:45	5/5/2017 7:45	720	1.60	42.449	2.44	0.54	24	Atlas		67.919	1
	5/11/2017 4:00	5/11/2017 4:00	-	0.18	211	1.77	0.10	6	Atlas		38	1
	5/20/2017 18:45	5/21/2017 5:45	660	0.98	493.947	1.01	0.44	12	Atlas		484.068	1
	5/24/2017 18:15	5/24/2017 19:00	45	0.50	2.688	1.36	0.18	24	Atlas		1.344	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.12	1,058.583	1.58	0.09	1	Atlas		127.030	1
	6/5/2017 8:45	6/5/2017 9:00	15	0.06	883.683	0.07	0.03	12	Atlas		53.021	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.27	382.511	0.33	0.23	1	Atlas		103.278	1
	6/15/2017 3:15	6/15/2017 4:15	60	0.56	290.213	0.52	0.35	3	Atlas		162.519	1
	6/22/2017 18:45	6/22/2017 19:15	30	0.32	25.191	0.50	0.17	6	Atlas		8.061	1
	6/23/2017 8:00	6/23/2017 16:15	495	0.74	118.220	1.04	0.35	6	Atlas		87.483	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.65	320.195	0.78	0.54	1	Atlas		208.127	1
	7/6/2017 12:30	7/6/2017 13:00	30	0.46	11.354	1.17	0.21	3	Atlas		5.223	1
	7/7/2017 20:45	7/7/2017 21:00	15	0.23	99.174	1.11	0.15	3	Atlas		22.810	1
	7/23/2017 1:45	7/23/2017 7:00	315	1.18	195.929	0.81	0.54	12	Atlas		231.196	1
	8/1/2017 21:30	8/1/2017 21:45	15	0.22	446.736	0.53	0.18	1	Atlas		98.282	1
	8/6/2017 14:45	8/7/2017 0:00	555	0.57	25.247	0.79	0.25	12	Atlas		14.391	1
	8/17/2017 15:00	8/17/2017 18:00	180	0.66	295.050	0.67	0.36	6	Atlas		194.733	1
	8/22/2017 12:45	8/22/2017 16:45	240	0.62	173.371	1.30	0.37	1	Atlas		107.490	1
	8/29/2017 19:30	8/29/2017 19:30	-	0.08	1.438	0.14	0.04	6	Atlas		115	1
	9/1/2017 10:15	9/2/2017 4:45	1,110	2.84	40.012	2.90	1.02	24	Cloudburst		113.633	1
	9/19/2017 8:00	9/19/2017 9:15	75	0.39	606.264	0.68	0.25	3	Atlas		236.443	1
	10/7/2017 21:45	10/7/2017 23:00	75	1.64	180.360	0.65	0.62	24	Atlas		295.791	1
	10/8/2017 10:15	10/8/2017 15:00	285	1.64	62.595	1.56	0.62	24	Atlas		102.655	1
	10/10/2017 14:15	10/10/2017 21:00	405	0.63	14.059	2.28	0.35	3	Atlas		8.857	1
	10/23/2017 6:30	10/23/2017 7:15	45	0.38	103.292	0.26	0.20	6	Atlas		39.251	1
	10/27/2017 17:15	10/27/2017 18:00	45	0.74	11.799	0.61	0.34	12	Atlas		8.731	1
	11/3/2017 4:30	11/3/2017 5:30	60	0.89	457.266	1.76	0.69	1	Atlas		406.967	1
	11/6/2017 1:45	11/6/2017 2:15	30	0.28	569.700	1.30	0.17	1	Atlas		159.516	1
	11/15/2017 13:15	11/15/2017 13:45	30	0.26	25.562	0.28	0.17	3	Atlas		6.646	1
	11/18/2017 16:45	11/18/2017 17:30	45	0.34	13.324	0.60	0.19	3	Atlas		4.530	1
	12/5/2017 3:30	12/5/2017 5:00	90	0.67	229.301	0.57	0.36	3	Atlas		153.632	1
	12/22/2017 23:30	12/23/2017 5:15	345	1.23	39.289	0.96	0.47	24	Atlas		48.325	1
	1/11/2018 10:30	1/11/2018 10:30	-	0.06	2.950	0.18	0.04	3	Atlas		177	1
	1/22/2018 19:45	1/22/2018 19:45	-	0.31	106.384	0.39	0.18	1	Atlas		32.979	1
	2/7/2018 1:15	2/7/2018 3:45	150	0.61	41.349	0.83	0.33	6	Atlas		25.223	1
	2/11/2018 4:15	2/11/2018 10:30	375	0.41	151.068	1.16	0.22	3	Atlas		61.938	1
	2/14/2018 7:30	2/14/2018 7:30	-	0.44	6.755	0.72	0.19	12	Atlas		2.972	1
	2/16/2018 2:45	2/16/2018 7:00	255	0.80	18.349	1.46	0.34	12	Atlas		14.679	1
	2/21/2018 7:15	2/21/2018 7:15	-	1.69	1.480	1.44	0.63	24	Atlas		2.501	1
	2/22/2018 1:45	2/22/2018 5:45	240	1.69	210.461	2.70	0.63	24	Atlas		355.679	1
	2/23/2018 3:00	2/23/2018 9:30	390	1.35	151.328	3.59	0.62	12	Atlas		204.293	1
	2/24/2018 10:30	2/25/2018 10:15	1,425	1.94	511.919	5.20	0.78	12	Atlas		993.122	1
	3/10/2018 1:15	3/10/2018 2:00	45	0.59	5.208	0.49	0.37	3	Atlas		3.073	1
	3/19/2018 19:45	3/19/2018 19:45	-	0.29	4.259	0.31	0.17	3	Atlas		1.235	1
	3/24/2018 9:00	3/24/2018 12:30	210	1.01	17.885	1.56	0.39	24	Atlas		18.064	1
	3/28/2018 5:45	3/28/2018 5:45	-	0.47	3.391	1.39	0.21	6	Atlas		1.594	1
	3/29/2018 19:00	3/29/2018 19:45	45	0.63	21.719	1.93	0.22	24	Atlas		13.683	1
	4/1/2018 20:00	4/1/2018 23:15	195	0.57	28.872	1.95	0.31	6	Atlas		16.457	1
	4/3/2018 16:30	4/3/2018 21:30	300	0.40	322.820	2.35	0.22	6	Atlas		129.128	1
	4/14/2018 9:15	4/14/2018 10:00	45	0.97	13.298	0.27	0.31	48	Atlas		12.899	1
	4/15/2018 5:45	4/15/2018 9:00	195	0.97	14.018	0.95	0.31	48	Atlas		13.597	1
	4/23/2018 5:15	4/23/2018 7:00	105	0.60	2.907	0.61	0.28	12	Atlas		1.744	1
	5/5/2018 14:15	5/5/2018 18:30	255	1.51	207.860	1.38	0.58	12	Atlas		313.869	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.30	16.470	0.30	0.25	1	Atlas		4.941	1
	5/22/2018 6:30	5/22/2018 6:30	-	0.05	16.940	0.41	0.03	3	Atlas		847	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/27/2018 4:15	5/27/2018 4:45	30	0.34	688.203	0.40	0.27	1	Atlas		233.989	1
	5/31/2018 14:15	5/31/2018 14:15	-	1.37	206	0.67	0.69	3	Atlas		282	1
	6/1/2018 0:15	6/1/2018 2:45	150	1.37	138.188	1.84	0.69	3	Atlas		189.318	1
	6/10/2018 15:00	6/10/2018 19:00	240	0.44	98.020	0.31	0.20	12	Atlas		43.129	1
	6/11/2018 11:30	6/11/2018 13:45	135	0.33	245.658	0.74	0.20	3	Atlas		81.067	1
	6/12/2018 12:00	6/12/2018 12:15	15	0.36	10.586	1.02	0.17	1	Atlas		3.811	1
	6/21/2018 9:45	6/21/2018 17:30	465	0.18	133.167	0.38	0.09	1	Atlas		23.970	1
	6/22/2018 14:15	6/22/2018 14:45	30	0.26	357.335	0.56	0.12	1	Atlas		92.907	1
	6/25/2018 10:45	6/25/2018 11:45	60	0.87	150.092	1.48	0.35	12	Atlas		130.580	1
	6/26/2018 13:00	6/26/2018 13:15	15	0.59	235.963	1.74	0.24	12	Atlas		139.218	1
	7/2/2018 18:00	7/2/2018 18:15	15	0.27	467.552	0.86	0.22	1	Atlas		126.239	1
	7/3/2018 16:00	7/3/2018 16:15	15	0.36	203.306	0.92	0.27	1	Atlas		73.190	1
	9/24/2018 11:15	9/24/2018 14:00	165	1.35	29.212	2.83	0.64	6	Atlas		39.436	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.06	936.600	2.92	0.05	1	Atlas		56.196	1
	9/25/2018 16:30	9/26/2018 2:30	600	0.67	451.234	3.55	0.29	12	Atlas		302.327	1
	10/10/2018 16:30	10/10/2018 16:30	-	0.11	345.327	0.07	0.07	3	Atlas		37.986	1
	10/15/2018 9:00	10/15/2018 9:15	15	0.17	65.106	0.62	0.10	1	Atlas		11.068	1
	10/31/2018 15:00	11/1/2018 16:15	1,515	1.71	41.119	1.91	0.60	24	Atlas		70.313	1
	11/5/2018 21:15	11/6/2018 0:15	180	0.82	104.828	2.57	0.44	6	Atlas		85.959	1
	2/6/2019 7:00	2/6/2019 7:00	-	1.48	1.504	0.57	0.48	48	Atlas		2.226	1
	2/20/2019 5:30	2/20/2019 6:15	45	1.44	5.253	1.31	0.66	6	Atlas		7.565	1
	3/9/2019 13:30	3/9/2019 15:15	105	0.99	8.795	0.70	0.45	12	Atlas		8.707	1
	3/14/2019 17:15	3/14/2019 17:30	15	0.43	37.002	1.76	0.30	1	Atlas		15.911	1
	3/30/2019 17:30	3/30/2019 17:30	-	0.92	450	0.89	0.44	6	Atlas		414	1
	4/7/2019 12:00	4/7/2019 12:00	-	0.48	1.219	0.55	0.22	12	Atlas		585	1
	4/24/2019 20:45	4/24/2019 20:45	-	0.58	52.383	2.80	0.29	1	Atlas		30.382	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.33	4.761	3.17	0.15	12	Atlas		1.571	1
	5/3/2019 5:00	5/3/2019 5:15	15	0.86	12.623	0.61	0.46	6	Atlas		10.866	1
	6/5/2019 20:45	6/5/2019 21:15	30	0.83	137.728	0.94	0.62	1	Atlas		114.314	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.28	15.382	1.77	0.14	6	Atlas		4.307	1
	6/16/2019 19:45	6/16/2019 21:15	90	1.87	65.780	1.75	0.85	12	Atlas		123.008	1
	6/18/2019 16:30	6/18/2019 16:30	-	0.21	200.071	2.36	0.08	24	Atlas		42.015	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.28	195.014	3.42	0.21	1	Atlas		54.604	1
	6/24/2019 13:45	6/24/2019 14:00	15	0.41	130.024	2.26	0.26	3	Atlas		53.310	1
	7/18/2019 1:00	7/18/2019 1:15	15	0.37	71.081	0.54	0.29	1	Atlas		26.300	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.50	106.418	0.50	0.32	3	Atlas		53.209	1
	8/26/2019 12:15	8/26/2019 12:15	-	0.42	5.645	0.73	0.17	6	Atlas		2.371	1
	10/30/2019 14:30	10/30/2019 14:45	15	0.84	30.910	1.98	0.43	3	Atlas		25.964	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.41	35.695	0.41	0.18	12	Atlas		14.635	1
	3/19/2020 12:30	3/19/2020 12:30	-	0.44	74.530	1.88	0.21	3	Atlas		32.793	1
	3/28/2020 22:30	3/28/2020 22:45	15	0.22	256.400	0.41	0.18	1	Atlas		56.408	1
	5/16/2020 7:30	5/16/2020 7:30	-	1.38	18.025	1.59	0.53	24	Atlas		24.874	1
	5/25/2020 16:45	5/25/2020 16:45	-	0.47	54.760	0.53	0.38	1	Atlas		25.737	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.47	72.879	0.35	0.28	1	Atlas		34.253	1
	6/22/2020 22:30	6/23/2020 0:00	90	0.93	109.865	1.31	0.45	3	Atlas		102.174	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.34	60.062	1.37	0.21	3	Atlas		20.421	1
	CSO036 Total										41,939,575	307
CSO038	5/10/2016 21:45	5/10/2016 21:45	-	0.89	7.398	1.91	0.33	24	Atlas		6.584	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.32	39.041	0.61	0.17	3	Atlas		12.493	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.88	17.464	0.67	0.56	3	Atlas		15.368	1
	8/20/2016 14:30	8/20/2016 14:30	-	1.38	24.314	2.62	0.59	12	Atlas		33.553	1
	12/17/2016 18:30	12/17/2016 19:15	45	2.81	20.467	1.41	2.53	12	Cloudburst		57.512	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.45	23.373	0.49	0.37	1	Atlas		10.518	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.15	30.413	1.04	0.61	6	Atlas		34.975	1
	4/29/2017 1:45	4/29/2017 1:45	-	1.10	14.331	0.86	0.56	3	Atlas		15.764	1
	5/21/2017 3:00	5/21/2017 3:00	-	1.09	14.920	0.74	0.49	12	Atlas		16.263	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.59	110.593	0.71	0.50	1	Atlas		65.250	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.28	29.318	0.53	0.23	1	Atlas		8.209	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.61	18.733	1.01	0.38	1	Atlas		11.427	1
	11/3/2017 5:00	11/3/2017 5:00	-	0.99	21.115	1.90	0.77	1	Atlas		20.904	1
	2/24/2018 19:00	2/24/2018 23:30	270	2.10	34.979	5.00	0.86	12	Atlas		73.455	1
	5/5/2018 14:45	5/5/2018 14:45	-	1.69	19.012	0.95	0.67	12	Atlas		32.130	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/27/2018 4:15	5/27/2018 4:15	-	0.46	23.163	0.51	0.37	1	Atlas		10,655	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.36	10,708	1.73	0.65	3	Atlas		14,563	1
	7/20/2018 19:30	7/20/2018 21:00	90	0.94	25.954	1.22	0.42	3	Atlas		24,397	1
	9/8/2018 17:30	9/8/2018 20:30	180	2.68	69.881	2.35	1.75	6	Cloudburst		187,282	1
	3/14/2019 17:30	3/14/2019 17:30	-	0.51	31.245	1.86	0.34	3	Atlas		15,935	1
	5/3/2019 5:00	5/3/2019 5:00	-	0.84	2.194	0.57	0.45	6	Atlas		1,843	1
	6/5/2019 20:45	6/5/2019 21:00	15	0.80	18.316	0.91	0.58	1	Atlas		14,653	1
	6/9/2019 17:00	6/9/2019 17:00	-	0.53	19.575	2.07	0.27	3	Atlas		10,375	1
	7/18/2019 0:45	7/18/2019 1:00	15	0.44	10.043	0.60	0.32	1	Atlas		4,419	1
	3/12/2020 19:45	3/12/2020 19:45	-	0.63	1.837	0.96	0.29	12	Atlas		1,157	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.19	173.184	0.40	0.15	1	Atlas		32,905	1
	6/22/2020 22:30	6/22/2020 22:30	-	1.00	5,125	1.17	0.49	3	Atlas		5,125	1
	CSO038 Total										737,714	27
CSO050	11/17/2009 17:45	11/17/2009 21:00	195	0.70	119.194	0.70	0.27	24	Atlas		83,436	1
	12/2/2009 16:15	12/2/2009 18:15	120	0.38	15.721	0.54	0.17	12	Atlas		5,974	1
	12/8/2009 13:00	12/9/2009 4:00	900	2.11	160.297	2.48	0.86	12	Atlas		338,226	1
	12/13/2009 6:30	12/13/2009 7:15	45	0.28	109.150	2.47	0.18	3	Atlas		30,562	1
	12/25/2009 7:00	12/25/2009 11:15	255	0.23	16.983	0.60	0.08	24	Atlas		3,906	1
	12/31/2009 0:45	12/31/2009 1:00	15	0.10	35.120	0.52	0.07	3	Atlas		3,512	1
	1/20/2010 9:15	1/20/2010 12:30	195	1.22	21.094	0.68	0.40	48	Atlas		25,735	1
	1/20/2010 23:45	1/21/2010 0:00	15	1.22	12.998	0.78	0.40	48	Atlas		15,857	1
	1/21/2010 10:15	1/21/2010 19:00	525	1.22	116.666	1.44	0.40	48	Atlas		142,333	1
	1/24/2010 3:45	1/24/2010 10:45	420	0.97	107.540	2.10	0.37	24	Atlas		104,314	1
	1/24/2010 21:00	1/24/2010 22:30	90	0.97	25.965	2.18	0.37	24	Atlas		25,186	1
	1/25/2010 20:00	1/25/2010 20:30	30	0.19	16.805	2.37	0.08	12	Atlas		3,193	1
	2/5/2010 11:15	2/5/2010 17:30	375	1.19	118.936	0.79	0.44	12	Atlas		141,534	1
	3/12/2010 13:30	3/12/2010 14:30	60	0.25	142.284	0.26	0.15	3	Atlas		35,571	1
	3/21/2010 18:15	3/22/2010 1:30	435	0.62	91.155	0.62	0.28	12	Atlas		56,516	1
	3/25/2010 13:30	3/25/2010 21:45	495	0.27	132.519	0.88	0.10	24	Atlas		35,780	1
	4/3/2010 10:00	4/3/2010 10:00	-	0.06	139.200	0.24	0.04	3	Atlas		8,352	1
	4/7/2010 23:00	4/8/2010 6:15	435	1.42	223.175	1.48	0.65	12	Atlas		316,909	1
	4/16/2010 18:15	4/16/2010 18:15	-	0.13	29.277	0.06	0.09	3	Atlas		3,806	1
	4/24/2010 3:00	4/24/2010 3:00	-	1.60	766	0.30	0.75	6	Atlas		1,226	1
	4/24/2010 14:00	4/24/2010 20:00	360	1.60	527.136	1.81	0.75	6	Atlas		843,417	1
	4/27/2010 7:45	4/27/2010 10:15	150	0.39	47.687	2.31	0.19	6	Atlas		18,598	1
	5/1/2010 4:15	5/1/2010 9:00	285	4.05	148.122	3.07	3.24	48	Atlas		599,896	1
	5/2/2010 1:00	5/2/2010 18:30	1,050	4.05	422.408	4.57	3.24	48	Atlas		1,710,753	1
	5/7/2010 23:15	5/7/2010 23:15	-	0.24	66.175	4.32	0.20	1	Atlas		15,882	1
	5/12/2010 9:45	5/12/2010 10:15	30	0.59	307.120	0.91	0.43	1	Atlas		181,201	1
	5/13/2010 12:30	5/13/2010 12:45	15	0.23	97.039	1.15	0.20	1	Atlas		22,319	1
	5/16/2010 9:45	5/16/2010 17:30	465	0.50	2.342	1.40	0.23	12	Atlas		1,171	1
	5/17/2010 17:30	5/17/2010 19:45	135	0.38	297.139	1.79	0.26	1	Atlas		112,913	1
	5/21/2010 19:45	5/21/2010 20:30	45	1.25	264.620	2.14	1.04	1	Atlas		330,775	1
	5/30/2010 15:45	5/30/2010 20:45	300	0.43	145.944	0.47	0.23	6	Atlas		62,756	1
	6/9/2010 3:00	6/9/2010 12:30	570	2.01	520.110	2.21	1.70	3	Atlas		1,045,422	1
	6/12/2010 1:30	6/12/2010 1:45	15	0.18	260.361	2.20	0.10	6	Atlas		46,865	1
	6/13/2010 22:45	6/14/2010 6:30	465	0.59	698.227	2.78	0.37	1	Atlas		411,954	1
	6/15/2010 20:45	6/15/2010 20:45	-	0.63	2.468	3.42	0.45	1	Atlas		1,555	1
	6/19/2010 5:00	6/19/2010 8:00	180	0.96	227.631	2.22	0.57	3	Atlas		218,526	1
	6/28/2010 1:15	6/28/2010 2:30	75	0.32	275.447	0.30	0.22	1	Atlas		88,143	1
	7/8/2010 22:45	7/8/2010 22:45	-	0.34	12.950	0.10	0.13	24	Atlas		4,403	1
	7/9/2010 7:45	7/9/2010 9:30	105	0.34	172.259	0.30	0.13	24	Atlas		58,568	1
	7/13/2010 5:30	7/13/2010 10:15	285	1.55	178.616	1.81	0.78	3	Atlas		276,865	1
	7/19/2010 18:45	7/19/2010 19:45	60	0.13	226.554	1.85	0.11	1	Atlas		29,452	1
	7/20/2010 4:30	7/20/2010 6:30	120	0.65	898.183	2.24	0.41	1	Atlas		583,819	1
	7/21/2010 5:45	7/21/2010 6:15	30	0.53	288.096	1.47	0.43	1	Atlas		152,691	1
	7/27/2010 16:00	7/27/2010 16:15	15	0.49	229.167	1.09	0.32	1	Atlas		112,292	1
	7/28/2010 13:00	7/28/2010 13:00	-	0.12	35.850	0.66	0.07	6	Atlas		4,302	1
	7/31/2010 4:15	7/31/2010 6:30	135	0.43	334.960	1.04	0.23	3	Atlas		144,033	1
	8/5/2010 9:00	8/5/2010 9:30	30	0.27	411.537	0.85	0.22	1	Atlas		111,115	1
	8/11/2010 17:15	8/11/2010 17:15	-	0.14	1.607	0.42	0.11	1	Atlas		225	1
	8/14/2010 16:15	8/14/2010 16:45	30	0.71	415.313	0.95	0.58	1	Atlas		294,872	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/21/2010 7:00	8/21/2010 8:30	90	0.43	116.853	1.28	0.27	3	Atlas		50.247	1
	9/11/2010 7:15	9/11/2010 7:15	-	0.07	195.629	0.15	0.05	3	Atlas		13.694	1
	10/13/2010 18:15	10/13/2010 20:45	150	0.58	208.084	0.58	0.37	3	Atlas		120.689	1
	10/26/2010 11:00	10/26/2010 14:45	225	0.60	160.228	0.55	0.33	6	Atlas		96.137	1
	11/16/2010 11:00	11/16/2010 20:30	570	0.86	215.565	0.93	0.39	12	Atlas		185.386	1
	11/23/2010 1:45	11/23/2010 4:15	150	0.37	71.316	1.28	0.22	3	Atlas		26.387	1
	11/24/2010 12:15	11/24/2010 21:00	525	0.79	270.628	1.23	0.38	3	Atlas		213.796	1
	11/25/2010 8:15	11/25/2010 23:30	916	2.45	780.201	3.53	0.93	24	Atlas		1,911.493	1
	11/29/2010 20:15	11/30/2010 13:15	1,020	1.96	447.809	5.53	0.75	24	Atlas		877.705	1
	12/11/2010 18:00	12/12/2010 1:45	465	0.36	21.836	0.40	0.12	12	Atlas		7.861	1
	12/30/2010 2:30	12/30/2010 8:00	330	0.54	44.961	0.60	0.24	12	Atlas		24.279	1
	1/1/2011 0:45	1/1/2011 9:15	510	0.66	119.094	1.22	0.29	12	Atlas		78.602	1
	2/1/2011 16:15	2/1/2011 20:00	225	0.83	186.416	0.73	0.30	6	Atlas		154.725	1
	2/5/2011 6:45	2/5/2011 6:45	-	0.17	4.476	0.93	0.07	12	Atlas		761	1
	2/7/2011 12:15	2/7/2011 12:45	30	0.25	4.780	1.15	0.10	24	Atlas		1.195	1
	2/21/2011 18:00	2/21/2011 18:45	45	0.19	108.158	0.22	0.11	3	Atlas		20.550	1
	2/24/2011 4:30	2/24/2011 8:00	210	2.50	2.700	0.50	0.96	24	Atlas		6.749	1
	2/24/2011 16:15	2/25/2011 3:30	675	2.50	594.948	2.73	0.96	24	Atlas		1,487.369	1
	2/28/2011 4:45	2/28/2011 11:45	420	1.12	153.432	4.26	0.52	6	Atlas		171.844	1
	3/5/2011 4:15	3/5/2011 9:15	300	0.90	139.762	2.42	0.31	24	Atlas		125.786	1
	3/8/2011 20:00	3/9/2011 17:15	1,275	3.14	380.308	4.04	2.04	24	Cloudburst		1,194.167	1
	3/14/2011 3:45	3/14/2011 15:00	675	0.73	34.736	3.73	0.25	12	Atlas		25.357	1
	3/15/2011 4:45	3/15/2011 12:15	450	0.73	14.959	3.88	0.25	12	Atlas		10.920	1
	3/18/2011 21:00	3/18/2011 21:45	45	0.14	186.786	0.85	0.08	1	Atlas		26.150	1
	4/1/2011 20:15	4/1/2011 21:00	45	0.16	103.719	0.32	0.10	1	Atlas		16.595	1
	4/4/2011 13:30	4/4/2011 16:45	195	0.74	258.897	0.92	0.38	6	Atlas		191.584	1
	4/9/2011 10:30	4/9/2011 12:45	135	0.40	357.860	1.17	0.26	1	Atlas		143.144	1
	4/11/2011 11:00	4/12/2011 5:45	1,125	3.16	898.961	4.27	2.28	24	Cloudburst		2,840.718	1
	4/15/2011 12:30	4/15/2011 13:15	45	0.16	146.119	3.72	0.11	3	Atlas		23.379	1
	4/20/2011 0:00	4/20/2011 7:15	435	0.81	677.354	1.23	0.44	6	Atlas		548.657	1
	4/22/2011 16:15	4/23/2011 18:45	1,590	5.00	747.596	4.81	4.41	48	Atlas		3,737.982	1
	4/24/2011 7:45	4/28/2011 20:45	6,540	5.00	1,058.302	8.53	4.41	48	Atlas		5,291.508	1
	5/1/2011 4:00	5/1/2011 6:15	135	0.77	186.436	4.56	0.40	3	Atlas		143.556	1
	5/1/2011 18:45	5/2/2011 7:00	735	2.98	93.230	4.68	0.97	48	Atlas		277.824	1
	5/2/2011 16:30	5/3/2011 9:00	990	2.98	149.924	6.39	0.97	48	Atlas		446.774	1
	5/8/2011 0:30	5/8/2011 3:30	180	0.28	1,470.011	3.98	0.17	1	Atlas		411.603	1
	5/14/2011 14:45	5/14/2011 15:45	60	0.29	706.700	0.59	0.23	1	Atlas		204.943	1
	5/21/2011 18:00	5/21/2011 20:00	120	0.37	488.854	0.76	0.25	3	Atlas		180.876	1
	5/23/2011 4:00	5/23/2011 4:45	45	0.55	59.933	1.05	0.36	1	Atlas		32.963	1
	5/23/2011 17:30	5/23/2011 21:45	255	0.86	684.315	1.93	0.54	3	Atlas		588.511	1
	5/25/2011 22:45	5/26/2011 16:45	1,080	1.31	440.182	3.21	0.53	3	Atlas		576.638	1
	6/11/2011 4:30	6/11/2011 4:45	15	0.23	112.961	0.27	0.18	1	Atlas		25.981	1
	6/15/2011 7:30	6/15/2011 11:15	225	0.98	1,069.878	1.29	0.59	3	Atlas		1,048.480	1
	6/18/2011 6:00	6/18/2011 9:30	210	0.63	174.338	1.69	0.39	3	Atlas		109.833	1
	6/19/2011 7:30	6/19/2011 10:15	165	0.51	294.963	2.18	0.31	3	Atlas		150.431	1
	6/20/2011 1:15	6/20/2011 2:15	60	0.64	680.264	2.81	0.55	1	Atlas		435.369	1
	6/21/2011 16:00	6/21/2011 16:30	30	0.28	48.568	3.04	0.15	6	Atlas		13.599	1
	6/22/2011 19:15	6/23/2011 9:15	840	3.51	641.273	5.58	12.45	3	Atlas		2,250.867	1
	6/26/2011 4:00	6/26/2011 4:30	30	0.34	12.597	5.22	0.18	6	Atlas		4.283	1
	7/8/2011 3:00	7/8/2011 5:00	120	0.39	64.438	1.07	0.20	3	Atlas		25.131	1
	7/12/2011 17:00	7/12/2011 20:30	210	0.23	149.817	1.08	0.12	6	Atlas		34.458	1
	7/19/2011 22:45	7/20/2011 1:00	135	1.50	648.113	1.51	2.56	1	Atlas		972.169	1
	8/7/2011 3:00	8/7/2011 8:30	330	1.54	829.227	1.56	0.88	3	Atlas		1,277.010	1
	8/8/2011 13:45	8/8/2011 15:15	90	0.41	229.883	1.97	0.27	3	Atlas		94.252	1
	8/10/2011 2:30	8/10/2011 2:45	15	0.10	163.330	2.03	0.06	3	Atlas		16.333	1
	8/13/2011 17:00	8/13/2011 17:30	30	0.83	56.655	2.82	0.66	1	Atlas		47.024	1
	8/18/2011 8:00	8/18/2011 8:30	30	0.26	86.754	1.07	0.20	1	Atlas		22.556	1
	9/4/2011 20:30	9/4/2011 20:45	15	0.19	85.574	0.19	0.07	12	Atlas		16.259	1
	9/11/2011 19:30	9/11/2011 20:30	60	0.31	162.342	0.57	0.22	1	Atlas		50.326	1
	9/14/2011 22:00	9/14/2011 22:15	15	0.19	11.305	0.48	0.10	3	Atlas		2.148	1
	9/18/2011 21:30	9/18/2011 21:30	-	0.80	8.756	0.30	0.32	12	Atlas		7.005	1
	9/19/2011 7:00	9/19/2011 7:45	45	0.80	150.443	0.65	0.32	12	Atlas		120.354	1
	9/19/2011 22:45	9/19/2011 22:45	-	0.80	180	1.02	0.32	12	Atlas		144	1
	9/21/2011 12:15	9/21/2011 12:30	15	0.07	162.114	1.09	0.04	6	Atlas		11.348	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/23/2011 0:30	9/23/2011 8:15	465	0.72	262.535	1.62	0.33	12	Atlas		189.025	1
	9/25/2011 19:30	9/26/2011 6:15	645	3.97	936.804	5.80	15.00	12	Atlas		3,719.111	1
	10/13/2011 7:00	10/13/2011 8:00	60	0.47	106.043	0.28	0.22	3	Atlas		49.840	1
	10/13/2011 17:30	10/13/2011 17:30	-	0.47	7.098	0.45	0.22	3	Atlas		3.336	1
	10/18/2011 20:00	10/18/2011 20:30	30	0.16	245.475	0.62	0.11	1	Atlas		39.276	1
	10/19/2011 17:45	10/19/2011 17:45	-	0.37	3.446	0.75	0.14	24	Atlas		1.275	1
	10/20/2011 6:00	10/20/2011 6:30	30	0.37	10.227	0.95	0.14	24	Atlas		3.784	1
	10/26/2011 22:30	10/27/2011 5:00	390	0.97	225.027	1.24	0.42	3	Atlas		218.276	1
	11/3/2011 9:00	11/3/2011 21:45	765	0.53	121.360	0.60	0.28	3	Atlas		64.321	1
	12/4/2011 15:15	12/5/2011 19:00	1,665	3.36	861.277	5.66	1.47	48	Cloudburst		2,893.890	1
	12/15/2011 3:30	12/15/2011 11:45	495	0.48	161.777	0.50	0.23	6	Atlas		77.653	1
	12/20/2011 23:00	12/21/2011 7:00	480	0.76	117.071	1.27	0.35	12	Atlas		88.974	1
	12/22/2011 11:30	12/22/2011 17:45	375	0.53	174.170	1.26	0.23	12	Atlas		92.310	1
	12/27/2011 2:00	12/27/2011 11:30	570	0.79	96.170	2.03	0.32	12	Atlas		75.974	1
	1/11/2012 4:15	1/11/2012 11:15	420	0.74	279.676	0.62	0.28	24	Atlas		206.960	1
	1/11/2012 19:45	1/11/2012 20:15	30	0.74	4.061	0.73	0.28	24	Atlas		3.005	1
	1/17/2012 2:15	1/17/2012 12:15	600	0.37	213.922	1.22	0.17	12	Atlas		79.151	1
	1/22/2012 22:15	1/23/2012 4:45	390	0.57	261.611	0.98	0.31	3	Atlas		149.118	1
	1/25/2012 16:15	1/25/2012 18:45	150	1.72	3.820	0.86	0.56	48	Atlas		6.571	1
	1/26/2012 4:45	1/26/2012 6:45	120	1.72	87.199	1.31	0.56	48	Atlas		149.982	1
	1/26/2012 17:15	1/26/2012 23:30	375	1.72	356.104	2.29	0.56	48	Atlas		612.499	1
	2/4/2012 9:15	2/4/2012 11:30	135	0.35	104.457	0.40	0.21	3	Atlas		36.560	1
	2/15/2012 23:30	2/15/2012 23:30	-	0.35	463	0.38	0.15	12	Atlas		162	1
	2/16/2012 8:00	2/16/2012 8:00	-	0.35	4.103	0.57	0.15	12	Atlas		1.436	1
	2/21/2012 9:30	2/21/2012 9:30	-	0.14	14.036	0.49	0.08	6	Atlas		1.965	1
	2/22/2012 22:45	2/22/2012 23:00	15	0.20	98.130	0.56	0.15	1	Atlas		19.626	1
	2/29/2012 4:00	2/29/2012 9:00	300	0.65	255.366	0.82	0.34	1	Atlas		165.988	1
	3/2/2012 16:45	3/2/2012 16:45	-	0.16	13.281	0.82	0.07	12	Atlas		2.125	1
	3/5/2012 3:45	3/5/2012 4:00	15	0.24	1.500	1.06	0.11	6	Atlas		360	1
	3/8/2012 9:45	3/8/2012 15:45	360	0.75	414.200	1.07	0.36	6	Atlas		310.650	1
	3/12/2012 11:15	3/12/2012 11:30	15	0.16	31.656	0.90	0.07	12	Atlas		5.065	1
	3/15/2012 17:45	3/16/2012 3:15	570	0.91	392.909	1.14	0.40	12	Atlas		357.547	1
	3/17/2012 18:15	3/17/2012 23:00	285	0.54	516.089	1.61	0.28	3	Atlas		278.688	1
	3/23/2012 5:00	3/24/2012 0:00	1,140	1.68	474.469	2.23	0.60	24	Atlas		797.108	1
	3/30/2012 23:30	3/31/2012 0:00	30	0.18	88.939	0.19	0.11	3	Atlas		16.009	1
	4/1/2012 8:30	4/1/2012 12:45	255	1.41	813.791	1.61	0.77	6	Atlas		1,147.446	1
	4/4/2012 16:30	4/4/2012 16:30	-	0.24	14.658	1.68	0.11	12	Atlas		3.518	1
	4/14/2012 8:45	4/14/2012 9:00	15	0.20	80.050	0.13	0.11	6	Atlas		16.010	1
	4/16/2012 6:45	4/16/2012 6:45	-	0.18	25.656	0.28	0.11	3	Atlas		4.618	1
	4/26/2012 4:45	4/26/2012 4:45	-	0.06	1.767	0.36	0.04	1	Atlas		106	1
	4/28/2012 19:00	4/29/2012 0:15	315	0.71	459.372	0.82	0.52	1	Atlas		326.154	1
	4/30/2012 17:45	4/30/2012 20:15	150	0.41	516.156	1.24	0.27	3	Atlas		211.624	1
	5/4/2012 23:30	5/5/2012 4:45	315	1.38	612.072	2.52	0.74	3	Atlas		844.659	1
	5/13/2012 1:45	5/13/2012 20:30	1,125	2.15	482.192	2.23	0.83	24	Atlas		1,036.712	1
	5/16/2012 17:30	5/16/2012 18:15	45	0.22	225.559	2.37	0.19	1	Atlas		49.623	1
	5/29/2012 6:30	5/29/2012 10:30	240	2.74	832.306	2.73	11.84	3	Atlas		2,280.518	1
	5/31/2012 18:15	6/1/2012 4:45	630	1.17	323.543	3.85	0.51	12	Atlas		378.545	1
	6/4/2012 16:30	6/4/2012 16:30	-	0.17	2.747	4.04	0.08	12	Atlas		467	1
	6/17/2012 11:15	6/17/2012 12:00	45	0.20	1,147.600	0.22	0.16	1	Atlas		229.520	1
	7/1/2012 19:45	7/1/2012 20:00	15	0.32	195.363	0.24	0.21	1	Atlas		62.516	1
	7/8/2012 12:45	7/8/2012 13:30	45	0.25	1,274.884	0.67	0.18	1	Atlas		318.721	1
	7/14/2012 13:30	7/14/2012 14:45	75	0.61	434.825	0.87	0.38	3	Atlas		265.243	1
	7/19/2012 18:00	7/19/2012 19:30	90	0.97	948.214	1.57	0.77	1	Atlas		919.768	1
	7/24/2012 19:45	7/24/2012 20:15	30	0.46	494.993	1.50	0.38	1	Atlas		227.697	1
	7/26/2012 21:30	7/26/2012 21:30	-	0.07	107.229	0.61	0.04	1	Atlas		7.506	1
	7/27/2012 19:45	7/27/2012 21:00	75	0.72	515.108	1.26	0.49	1	Atlas		370.878	1
	8/4/2012 15:15	8/4/2012 15:15	-	0.09	28.778	0.28	0.08	1	Atlas		2.590	1
	8/5/2012 17:15	8/5/2012 17:15	-	0.03	381.300	0.32	0.03	1	Atlas		11.439	1
	8/13/2012 11:15	8/13/2012 11:45	30	0.11	14.355	0.11	0.07	3	Atlas		1.579	1
	8/16/2012 20:00	8/16/2012 23:15	195	0.63	229.508	0.75	0.37	3	Atlas		144.590	1
	8/21/2012 13:30	8/21/2012 14:15	45	0.16	1,576.288	0.81	0.14	1	Atlas		252.206	1
	9/1/2012 15:00	9/1/2012 17:45	165	0.37	351.241	0.40	0.24	1	Atlas		129.969	1
	9/2/2012 11:45	9/2/2012 20:30	525	0.61	195.659	0.99	0.24	12	Atlas		119.352	1
	9/5/2012 15:15	9/5/2012 16:30	75	0.80	705.779	1.86	0.60	1	Atlas		564.623	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/7/2012 23:00	9/8/2012 6:30	450	1.44	317.711	3.25	0.81	3	Atlas		457.504	1
	9/25/2012 8:45	9/25/2012 10:00	75	0.38	41.716	0.33	0.21	6	Atlas		15.862	1
	9/25/2012 23:30	9/26/2012 5:30	360	0.45	499.411	0.76	0.21	12	Atlas		224.735	1
	9/26/2012 19:30	9/27/2012 1:15	345	1.61	911.475	2.43	0.86	6	Atlas		1,467.474	1
	10/1/2012 14:30	10/1/2012 19:45	315	0.61	339.346	3.02	0.25	12	Atlas		207.001	1
	10/5/2012 23:15	10/6/2012 0:45	90	0.16	184.256	0.76	0.08	6	Atlas		29.481	1
	10/14/2012 16:00	10/14/2012 16:15	15	0.10	254.480	0.08	0.06	1	Atlas		25.448	1
	10/18/2012 0:30	10/18/2012 1:45	75	0.30	83.703	0.39	0.20	3	Atlas		25.111	1
	10/26/2012 11:15	10/26/2012 17:15	360	0.74	58.289	0.69	0.34	6	Atlas		43.134	1
	11/3/2012 10:45	11/3/2012 16:00	315	0.11	52.955	0.13	0.05	3	Atlas		5.825	1
	11/12/2012 5:30	11/12/2012 7:30	120	0.44	40.627	0.40	0.20	12	Atlas		17.876	1
	12/2/2012 11:15	12/2/2012 13:00	105	0.27	170.374	0.33	0.16	3	Atlas		46.001	1
	12/4/2012 15:00	12/4/2012 18:45	225	0.72	164.935	0.99	0.47	3	Atlas		118.753	1
	12/6/2012 21:30	12/7/2012 20:15	1,365	1.08	531.697	2.07	0.43	12	Atlas		574.233	1
	12/8/2012 5:45	12/8/2012 11:15	330	0.33	384.867	2.40	0.19	3	Atlas		127.006	1
	12/9/2012 8:30	12/9/2012 9:00	30	1.08	8.289	2.46	0.52	3	Atlas		8.952	1
	12/9/2012 19:45	12/10/2012 4:30	525	1.08	983.010	3.16	0.52	3	Atlas		1,061.651	1
	12/15/2012 11:15	12/15/2012 12:15	60	0.18	138.450	1.26	0.11	3	Atlas		24.921	1
	12/17/2012 17:00	12/17/2012 17:15	15	0.35	35.031	0.55	0.19	6	Atlas		12.261	1
	12/20/2012 6:45	12/20/2012 12:30	345	0.70	285.031	1.24	0.37	6	Atlas		199.522	1
	12/26/2012 3:30	12/26/2012 11:15	465	0.72	221.618	1.44	0.28	12	Atlas		159.565	1
	12/31/2012 23:15	1/1/2013 0:00	45	0.47	8.713	0.89	0.31	1	Atlas		4.095	1
	1/10/2013 12:45	1/10/2013 13:00	15	0.16	9.844	0.16	0.08	6	Atlas		1.575	1
	1/11/2013 2:15	1/11/2013 7:30	315	0.67	287.912	0.84	0.37	3	Atlas		192.901	1
	1/13/2013 3:15	1/13/2013 19:45	990	2.22	739.046	3.05	0.85	24	Atlas		1,640.682	1
	1/28/2013 10:45	1/28/2013 11:00	15	0.07	79.371	0.30	0.05	1	Atlas		5.556	1
	1/30/2013 4:45	1/30/2013 9:15	270	0.86	565.717	1.09	0.43	6	Atlas		486.517	1
	1/30/2013 17:45	1/30/2013 17:45	-	0.86	3.506	1.16	0.43	6	Atlas		3.015	1
	2/4/2013 18:00	2/4/2013 18:30	30	0.12	49.633	1.07	0.07	3	Atlas		5.956	1
	2/10/2013 15:30	2/10/2013 16:15	45	0.18	48.172	0.39	0.10	3	Atlas		8.671	1
	2/18/2013 22:15	2/19/2013 4:00	345	0.32	41.997	0.38	0.15	12	Atlas		13.439	1
	2/21/2013 22:45	2/22/2013 1:30	165	0.43	105.374	0.73	0.20	12	Atlas		45.311	1
	2/26/2013 5:30	2/26/2013 19:30	840	0.57	114.428	0.96	0.22	24	Atlas		65.224	1
	3/5/2013 14:15	3/5/2013 19:00	285	0.45	97.198	0.70	0.17	24	Atlas		43.739	1
	3/11/2013 3:15	3/11/2013 12:15	540	1.05	223.885	1.53	0.42	12	Atlas		235.079	1
	3/17/2013 6:30	3/18/2013 12:45	1,815	1.80	436.189	2.86	0.58	48	Atlas		785.140	1
	3/24/2013 7:30	3/24/2013 17:15	585	0.54	125.635	1.89	0.20	24	Atlas		67.843	1
	4/11/2013 5:15	4/11/2013 23:00	1,065	1.27	176.081	1.26	0.49	24	Atlas		223.623	1
	4/16/2013 20:00	4/16/2013 21:00	60	0.57	926.347	1.82	0.45	1	Atlas		528.018	1
	4/19/2013 0:45	4/19/2013 4:45	240	0.92	342.462	1.51	0.50	6	Atlas		315.065	1
	4/24/2013 6:15	4/24/2013 10:15	240	0.66	303.789	1.65	0.39	3	Atlas		200.501	1
	5/4/2013 12:15	5/5/2013 8:45	1,230	1.54	195.220	1.38	0.47	24	Atlas		300.639	1
	5/6/2013 17:30	5/6/2013 17:45	15	1.54	16.353	1.56	0.47	24	Atlas		25.183	1
	5/10/2013 9:45	5/10/2013 15:30	345	0.90	164.134	2.36	0.40	6	Atlas		147.721	1
	5/10/2013 23:45	5/11/2013 0:00	15	0.90	30.550	2.44	0.40	6	Atlas		27.495	1
	5/16/2013 10:30	5/16/2013 10:45	15	0.18	128.756	1.10	0.15	1	Atlas		23.176	1
	5/31/2013 18:30	5/31/2013 18:30	-	0.18	21.139	0.26	0.08	12	Atlas		3.805	1
	6/1/2013 5:45	6/1/2013 6:15	30	0.18	27.428	0.31	0.08	12	Atlas		4.937	1
	6/1/2013 16:30	6/1/2013 16:30	-	0.18	7.022	0.43	0.08	12	Atlas		1.264	1
	6/6/2013 5:15	6/6/2013 5:15	-	0.03	96.000	0.42	0.02	3	Atlas		2.880	1
	6/9/2013 23:45	6/10/2013 1:30	105	0.36	459.814	0.30	0.15	6	Atlas		165.533	1
	6/16/2013 16:45	6/16/2013 17:45	60	0.40	902.743	0.72	0.29	1	Atlas		361.097	1
	6/17/2013 19:15	6/17/2013 21:45	150	0.51	237.288	0.86	0.25	6	Atlas		121.017	1
	6/26/2013 3:30	6/26/2013 5:15	105	0.65	663.502	1.01	0.49	1	Atlas		431.276	1
	6/26/2013 16:15	6/26/2013 22:45	390	2.21	1,033.586	3.20	1.67	6	Cloudburst		2,284.224	1
	6/29/2013 20:00	6/29/2013 22:00	120	0.58	76.419	3.50	0.33	3	Atlas		44.323	1
	7/1/2013 18:45	7/1/2013 20:00	75	0.26	146.831	3.72	0.13	3	Atlas		38.176	1
	7/2/2013 13:15	7/2/2013 13:45	30	0.05	6,434.280	3.78	0.04	1	Atlas		321.714	1
	7/3/2013 17:15	7/3/2013 17:15	-	0.09	22.367	1.87	0.07	1	Atlas		2.013	1
	7/4/2013 6:30	7/4/2013 12:00	330	0.51	60.927	1.32	0.22	12	Atlas		31.073	1
	7/6/2013 0:30	7/6/2013 8:00	450	0.56	191.130	2.06	0.24	12	Atlas		107.033	1
	7/10/2013 14:00	7/10/2013 15:00	60	0.68	903.054	1.86	0.44	3	Atlas		614.077	1
	7/14/2013 19:30	7/14/2013 20:00	30	0.06	332.867	0.78	0.05	1	Atlas		19.972	1
	7/18/2013 15:45	7/18/2013 17:15	90	0.34	2,601.506	0.48	0.26	1	Atlas		884.512	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/21/2013 20:00	7/22/2013 14:30	1,110	1.85	453,060	2.23	0.71	24	Atlas		838,161	1
	8/12/2013 14:45	8/12/2013 16:15	90	1.04	207,350	0.88	0.50	1	Atlas		215,644	1
	8/13/2013 2:30	8/13/2013 3:45	75	1.04	50,749	1.19	0.50	1	Atlas		52,779	1
	8/20/2013 18:30	8/20/2013 18:45	15	0.22	33,936	0.23	0.12	6	Atlas		7,466	1
	8/31/2013 20:00	9/1/2013 3:45	465	1.38	315,367	1.33	0.63	12	Atlas		435,207	1
	9/2/2013 13:30	9/2/2013 14:45	75	0.40	1,391,923	1.78	0.35	1	Atlas		556,769	1
	9/19/2013 11:00	9/19/2013 11:15	15	0.11	38,664	0.16	0.10	1	Atlas		4,253	1
	9/20/2013 16:30	9/21/2013 5:30	780	1.57	226,416	1.71	0.65	12	Atlas		355,473	1
	10/3/2013 2:45	10/3/2013 2:45	-	0.09	13,589	0.15	0.04	6	Atlas		1,223	1
	10/5/2013 12:15	10/6/2013 15:15	1,620	4.32	1,025,917	4.50	8.63	24	Cloudburst		4,431,962	1
	10/19/2013 7:30	10/19/2013 7:30	-	0.20	2,420	0.17	0.10	6	Atlas		484	1
	10/29/2013 21:30	10/30/2013 6:45	555	1.27	459,345	1.28	0.61	6	Atlas		583,368	1
	10/31/2013 12:00	10/31/2013 21:00	540	0.80	458,678	2.02	0.34	1	Atlas		366,942	1
	11/6/2013 19:15	11/6/2013 19:15	-	0.24	4,613	0.90	0.11	12	Atlas		1,107	1
	11/15/2013 18:15	11/15/2013 18:45	30	0.10	41,580	0.14	0.08	1	Atlas		4,158	1
	11/17/2013 4:15	11/17/2013 19:15	900	2.95	757,281	3.09	2.00	6	Cloudburst		2,233,979	1
	12/5/2013 5:30	12/5/2013 11:45	375	0.79	131,419	0.26	0.26	48	Atlas		103,821	1
	12/6/2013 2:45	12/6/2013 11:45	540	0.79	7,777	0.46	0.26	48	Atlas		6,144	1
	12/14/2013 4:15	12/14/2013 11:30	435	0.67	39,922	1.05	0.27	12	Atlas		26,748	1
	12/20/2013 7:30	12/20/2013 7:30	-	0.07	61,743	0.73	0.04	1	Atlas		4,322	1
	12/21/2013 2:00	12/21/2013 13:00	660	3.11	99,667	1.73	1.82	24	Cloudburst		309,964	1
	12/21/2013 21:15	12/22/2013 3:30	375	3.11	530,514	3.17	1.82	24	Cloudburst		1,649,899	1
	12/29/2013 5:00	12/29/2013 6:30	90	0.50	9,998	0.38	0.22	12	Atlas		4,999	1
	1/5/2014 14:45	1/5/2014 19:00	255	0.52	95,744	0.66	0.27	3	Atlas		49,787	1
	1/11/2014 0:00	1/11/2014 5:15	315	0.77	297,413	1.29	0.41	6	Atlas		229,008	1
	1/13/2014 14:30	1/13/2014 17:15	165	0.22	21,968	1.00	0.10	12	Atlas		4,833	1
	1/14/2014 18:30	1/14/2014 18:30	-	0.03	12,800	1.03	0.03	1	Atlas		384	1
	2/2/2014 3:00	2/2/2014 7:15	255	0.52	71,540	0.22	0.20	24	Atlas		37,201	1
	2/4/2014 18:45	2/5/2014 1:15	390	0.62	427,521	1.13	0.30	6	Atlas		265,063	1
	2/14/2014 16:15	2/14/2014 17:30	75	0.28	19,529	0.26	0.15	6	Atlas		5,468	1
	2/17/2014 15:30	2/17/2014 18:15	165	0.52	297,892	0.85	0.31	3	Atlas		154,904	1
	3/2/2014 9:30	3/2/2014 11:30	120	0.45	126,622	0.22	0.17	24	Atlas		56,980	1
	3/12/2014 7:15	3/12/2014 7:30	15	0.10	159,750	0.08	0.04	1	Atlas		15,975	1
	3/19/2014 8:45	3/19/2014 8:45	-	0.07	15,343	0.14	0.04	1	Atlas		1,074	1
	3/27/2014 9:45	3/27/2014 9:45	-	0.03	20,600	0.06	0.02	3	Atlas		618	1
	3/28/2014 4:00	3/28/2014 5:00	60	0.34	120,056	0.40	0.17	6	Atlas		40,819	1
	3/29/2014 5:15	3/29/2014 13:00	465	0.82	212,993	1.19	0.38	12	Atlas		174,654	1
	4/3/2014 5:30	4/4/2014 8:45	1,635	3.33	662,418	4.64	1.88	24	Cloudburst		2,205,853	1
	4/7/2014 8:00	4/7/2014 15:30	450	0.89	1,041,388	4.33	0.55	1	Atlas		926,835	1
	4/14/2014 3:30	4/14/2014 10:30	420	1.15	11,246	1.42	0.44	24	Atlas		12,933	1
	4/14/2014 19:30	4/15/2014 1:30	360	1.15	99,333	1.15	0.44	24	Atlas		114,233	1
	4/28/2014 4:00	4/28/2014 20:00	960	1.90	678,109	2.00	0.77	3	Atlas		1,288,407	1
	4/29/2014 19:00	4/29/2014 19:30	30	0.20	8,845	2.10	0.09	12	Atlas		1,769	1
	5/9/2014 19:15	5/10/2014 16:15	1,260	1.49	630,079	1.56	0.58	1	Atlas		938,817	1
	5/14/2014 7:15	5/15/2014 1:15	1,080	0.74	420,786	2.36	0.28	24	Atlas		311,382	1
	5/16/2014 3:45	5/16/2014 4:15	30	0.12	75,742	2.46	0.08	1	Atlas		9,089	1
	5/21/2014 21:00	5/22/2014 5:00	480	0.65	159,994	0.85	0.30	12	Atlas		103,996	1
	5/28/2014 20:15	5/28/2014 20:45	30	0.65	329,506	1.30	0.55	1	Atlas		214,179	1
	6/1/2014 16:00	6/1/2014 22:15	375	0.12	99,725	0.77	0.06	12	Atlas		11,967	1
	6/10/2014 15:30	6/10/2014 17:00	90	0.09	83,533	0.18	0.06	3	Atlas		7,518	1
	6/11/2014 14:00	6/11/2014 14:30	30	0.15	1,932,507	0.33	0.12	1	Atlas		289,876	1
	6/20/2014 16:00	6/20/2014 17:45	105	0.23	453,004	0.24	0.15	3	Atlas		104,191	1
	6/23/2014 16:00	6/23/2014 16:00	-	0.09	128,400	0.27	0.05	6	Atlas		11,556	1
	6/24/2014 13:45	6/24/2014 14:15	30	0.10	181,940	0.37	0.05	6	Atlas		18,194	1
	6/29/2014 15:30	6/29/2014 16:15	45	0.03	500,467	0.24	0.03	1	Atlas		15,014	1
	7/1/2014 20:00	7/1/2014 22:15	135	0.31	24,442	0.36	0.20	3	Atlas		7,577	1
	7/2/2014 16:00	7/2/2014 16:30	30	0.19	285,574	0.55	0.17	1	Atlas		54,259	1
	7/7/2014 19:30	7/7/2014 20:00	30	0.26	739,888	0.76	0.23	1	Atlas		192,371	1
	7/8/2014 7:15	7/8/2014 7:15	-	0.20	9,585	0.96	0.17	1	Atlas		1,917	1
	7/13/2014 22:45	7/14/2014 4:15	330	0.83	392,729	1.15	0.40	1	Atlas		325,965	1
	7/14/2014 19:00	7/14/2014 20:30	90	0.45	155,340	1.74	0.30	3	Atlas		69,903	1
	7/26/2014 21:30	7/27/2014 9:15	705	1.15	310,962	1.23	0.52	12	Atlas		357,606	1
	8/8/2014 5:30	8/8/2014 10:45	315	0.73	910,312	0.76	0.34	6	Atlas		664,528	1
	8/10/2014 3:30	8/10/2014 5:30	120	0.49	1,302,602	1.33	0.34	1	Atlas		638,275	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/11/2014 15:00	8/11/2014 15:45	45	0.40	218.708	1.73	0.29	1	Atlas		87.483	1
	8/17/2014 0:15	8/17/2014 0:15	-	0.70	1.330	1.16	0.27	24	Atlas		931	1
	8/17/2014 8:45	8/17/2014 10:30	105	0.70	62.840	0.98	0.27	24	Atlas		43.988	1
	8/17/2014 23:00	8/18/2014 2:00	180	0.70	83.416	1.10	0.27	24	Atlas		58.391	1
	8/20/2014 15:45	8/20/2014 15:45	-	0.02	161.500	0.72	0.02	1	Atlas		3.230	1
	8/22/2014 19:00	8/22/2014 19:30	30	0.24	1.204.250	0.91	0.17	1	Atlas		289.020	1
	8/23/2014 15:30	8/24/2014 0:00	510	1.00	817.799	1.96	0.47	3	Atlas		817.799	1
	8/26/2014 19:45	8/26/2014 20:00	15	0.11	110.100	1.36	0.10	1	Atlas		12.111	1
	8/27/2014 17:15	8/27/2014 17:30	15	0.28	153.139	1.63	0.24	1	Atlas		42.879	1
	8/30/2014 15:00	8/30/2014 18:00	180	0.92	338.389	2.22	0.61	1	Atlas		311.318	1
	9/2/2014 8:00	9/2/2014 15:45	465	0.60	65.277	1.91	0.31	3	Atlas		39.166	1
	9/11/2014 0:00	9/11/2014 8:15	495	2.22	794.045	2.22	2.50	3	Atlas		1.762.779	1
	9/15/2014 22:45	9/15/2014 22:45	-	0.04	54.425	2.26	0.03	1	Atlas		2.177	1
	10/3/2014 3:30	10/3/2014 4:15	45	0.28	34.025	0.09	0.11	24	Atlas		9.527	1
	10/3/2014 12:45	10/3/2014 19:15	390	0.28	11.739	0.21	0.11	24	Atlas		3.287	1
	10/6/2014 7:45	10/6/2014 11:15	210	0.55	305.502	0.58	0.18	48	Atlas		168.026	1
	10/7/2014 11:30	10/7/2014 12:00	30	0.55	78.882	0.83	0.18	48	Atlas		43.385	1
	10/10/2014 1:45	10/10/2014 4:15	150	1.00	626.362	1.52	0.45	3	Atlas		626.362	1
	10/10/2014 17:15	10/10/2014 21:30	255	1.00	15.451	1.64	0.45	3	Atlas		15.451	1
	10/13/2014 4:15	10/13/2014 7:30	195	0.37	334.559	1.93	0.23	3	Atlas		123.787	1
	10/13/2014 23:00	10/14/2014 11:45	765	1.08	665.148	2.68	0.48	12	Atlas		718.360	1
	2/21/2015 13:30	2/21/2015 16:45	195	1.24	11.839	1.51	0.49	12	Atlas		14.680	1
	3/3/2015 18:30	3/4/2015 16:30	1.320	1.95	370.047	1.56	0.63	48	Atlas		721.591	1
	3/10/2015 6:45	3/10/2015 17:30	645	1.11	1.249.022	3.06	0.50	12	Atlas		1.386.414	1
	3/13/2015 10:00	3/14/2015 9:30	1.410	2.10	909.993	3.19	0.78	24	Atlas		1.910.985	1
	3/24/2015 19:45	3/24/2015 20:15	30	0.15	61.800	0.31	0.09	1	Atlas		9.270	1
	3/26/2015 3:00	3/26/2015 6:15	195	0.61	199.659	0.75	0.28	3	Atlas		121.792	1
	4/2/2015 9:30	4/3/2015 17:30	1.920	4.74	967.303	4.90	7.98	24	Cloudburst		4.585.017	1
	4/7/2015 7:30	4/7/2015 20:45	795	1.08	804.197	5.83	0.53	1	Atlas		868.533	1
	4/8/2015 15:45	4/8/2015 15:45	-	0.05	24.280	5.87	0.03	1	Atlas		1.214	1
	4/9/2015 11:30	4/10/2015 10:30	1.380	0.17	6.955.065	5.89	0.15	1	Atlas		1.182.361	1
	4/13/2015 20:15	4/13/2015 22:00	105	0.78	55.122	1.88	0.30	24	Atlas		42.995	1
	4/14/2015 6:45	4/14/2015 12:45	360	0.78	91.415	2.26	0.30	24	Atlas		71.304	1
	4/19/2015 6:45	4/19/2015 18:30	705	0.67	253.931	1.51	0.28	12	Atlas		170.134	1
	4/20/2015 3:30	4/20/2015 3:30	-	0.10	28.700	1.60	0.08	1	Atlas		2.870	1
	4/25/2015 9:00	4/25/2015 9:15	15	0.30	56.763	0.97	0.12	24	Atlas		17.029	1
	4/25/2015 18:45	4/25/2015 18:45	-	0.30	34.843	1.05	0.12	24	Atlas		10.453	1
	4/30/2015 12:45	4/30/2015 12:45	-	0.14	67.650	0.44	0.11	1	Atlas		9.471	1
	5/9/2015 4:00	5/9/2015 4:00	-	0.08	20.313	0.08	0.05	3	Atlas		1.625	1
	5/16/2015 11:15	5/16/2015 14:00	165	0.70	367.046	0.81	0.41	3	Atlas		256.932	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.09	71.100	0.91	0.04	12	Atlas		6.399	1
	5/25/2015 7:00	5/25/2015 8:30	90	0.30	43.060	0.27	0.14	12	Atlas		12.918	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.17	245.324	0.43	0.10	1	Atlas		41.705	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.09	1.478	0.56	0.08	1	Atlas		133	1
	5/30/2015 15:00	5/30/2015 16:00	60	0.15	37.227	0.65	0.07	12	Atlas		5.584	1
	6/8/2015 7:00	6/8/2015 8:15	75	0.16	314.638	0.23	0.10	3	Atlas		50.342	1
	6/17/2015 4:30	6/17/2015 7:00	150	0.67	273.912	0.67	0.37	3	Atlas		183.521	1
	6/18/2015 17:00	6/18/2015 19:45	165	0.76	433.679	1.41	0.43	1	Atlas		329.596	1
	6/20/2015 1:15	6/20/2015 9:30	495	1.04	625.123	2.55	0.41	12	Atlas		650.128	1
	6/22/2015 5:45	6/22/2015 6:45	60	0.23	67.052	2.76	0.11	3	Atlas		15.422	1
	6/25/2015 23:45	6/26/2015 2:45	180	0.61	115.902	1.92	0.33	6	Atlas		70.700	1
	6/26/2015 17:00	6/27/2015 0:15	435	1.04	650.031	2.91	0.55	1	Atlas		676.032	1
	6/29/2015 13:15	6/29/2015 14:45	90	0.22	210.491	1.87	0.12	1	Atlas		46.308	1
	7/2/2015 0:00	7/2/2015 21:45	1.305	2.42	499.044	4.38	0.94	1	Atlas		1.207.687	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.57	412.681	4.33	0.47	1	Atlas		235.228	1
	7/7/2015 11:15	7/7/2015 16:30	315	1.07	166.984	3.99	0.51	3	Atlas		178.673	1
	7/8/2015 12:00	7/8/2015 12:30	30	1.07	24.357	4.13	0.51	3	Atlas		26.062	1
	7/9/2015 6:00	7/9/2015 13:30	450	0.34	300.985	3.49	0.16	12	Atlas		102.335	1
	7/10/2015 10:15	7/10/2015 17:30	435	0.50	222.944	2.50	0.26	6	Atlas		111.472	1
	7/12/2015 6:00	7/12/2015 9:45	225	1.07	829.882	3.00	0.82	1	Atlas		887.974	1
	7/13/2015 14:15	7/13/2015 16:45	150	0.46	464.680	3.47	0.40	1	Atlas		213.753	1
	7/14/2015 3:30	7/14/2015 6:30	180	0.84	746.410	4.31	0.66	1	Atlas		626.984	1
	7/14/2015 18:30	7/14/2015 18:45	15	0.03	48.767	3.43	0.03	1	Atlas		1.463	1
	7/17/2015 22:30	7/18/2015 3:45	315	1.58	1.292.997	3.99	1.27	3	Atlas		2.042.935	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/29/2015 17:30	7/29/2015 17:30	-	0.12	139,958	0.17	0.10	1	Atlas		16,795	1
	8/4/2015 18:45	8/4/2015 19:15	30	0.52	451,310	0.63	0.44	1	Atlas		234,681	1
	8/5/2015 14:45	8/5/2015 15:30	45	1.13	110,287	1.29	0.57	1	Atlas		124,624	1
	8/6/2015 2:15	8/6/2015 15:00	765	1.13	75,437	1.65	0.57	1	Atlas		85,244	1
	8/10/2015 20:45	8/10/2015 20:45	-	0.06	144,033	1.72	0.05	1	Atlas		8,642	1
	8/15/2015 16:45	8/15/2015 17:00	15	0.02	3,228,450	0.09	0.02	1	Atlas		64,569	1
	8/19/2015 7:45	8/19/2015 17:15	570	0.76	70,203	0.75	0.33	12	Atlas		53,354	1
	9/5/2015 17:45	9/5/2015 18:45	60	0.31	192,745	0.28	0.24	1	Atlas		59,751	1
	9/11/2015 19:15	9/11/2015 21:15	120	0.27	60,815	1.03	0.15	6	Atlas		16,420	1
	9/29/2015 9:15	9/29/2015 10:00	45	0.78	15,031	0.46	0.25	48	Atlas		11,724	1
	9/29/2015 18:45	9/29/2015 19:15	30	0.78	7,073	0.64	0.25	48	Atlas		5,517	1
	10/2/2015 17:15	10/2/2015 22:30	315	0.54	95,802	1.40	0.26	6	Atlas		51,733	1
	10/12/2015 18:00	10/12/2015 19:30	90	0.35	108,989	0.39	0.26	1	Atlas		38,146	1
	10/24/2015 17:00	10/24/2015 17:30	30	0.31	65,242	0.23	0.15	6	Atlas		20,225	1
	10/27/2015 10:00	10/28/2015 9:30	1,410	2.99	772,966	3.19	0.97	24	Atlas		2,311,169	1
	10/28/2015 18:00	10/28/2015 22:30	270	2.99	5,753	3.30	0.97	24	Atlas		17,201	1
	10/31/2015 23:15	10/31/2015 23:15	-	0.16	13,588	3.15	0.11	3	Atlas		2,174	1
	11/6/2015 3:00	11/6/2015 5:45	165	0.80	675,266	0.91	0.49	3	Atlas		540,213	1
	11/9/2015 16:15	11/9/2015 22:00	345	0.63	73,186	1.42	0.28	12	Atlas		46,107	1
	11/12/2015 0:00	11/12/2015 1:15	75	0.31	147,813	1.73	0.18	3	Atlas		45,822	1
	12/14/2015 4:45	12/14/2015 7:00	135	0.27	139,956	0.19	0.15	6	Atlas		37,788	1
	12/21/2015 10:45	12/21/2015 11:30	45	0.57	42,433	0.24	0.22	24	Atlas		24,187	1
	12/21/2015 23:00	12/22/2015 4:00	300	0.57	308,035	0.59	0.22	24	Atlas		175,580	1
	12/23/2015 6:15	12/23/2015 6:30	15	0.84	7,433	0.60	0.56	1	Atlas		6,244	1
	12/23/2015 19:00	12/23/2015 22:30	210	0.84	1,457,630	1.42	0.56	1	Atlas		1,224,409	1
	12/25/2015 9:00	12/25/2015 9:15	15	0.13	82,308	1.51	0.06	6	Atlas		10,700	1
	12/26/2015 11:45	12/26/2015 17:45	360	0.66	981,267	2.20	0.31	3	Atlas		647,636	1
	12/27/2015 9:45	12/28/2015 6:15	1,230	2.49	1,494,026	3.99	0.81	48	Atlas		3,720,125	1
	12/28/2015 15:15	12/28/2015 22:45	450	2.49	304,118	4.46	0.81	48	Atlas		757,253	1
	1/9/2016 18:45	1/9/2016 22:45	240	0.19	112,742	0.21	0.08	12	Atlas		21,421	1
	2/2/2016 14:45	2/3/2016 1:45	660	1.50	1,379,841	1.54	0.71	6	Atlas		2,069,762	1
	2/8/2016 9:45	2/8/2016 9:45	-	0.14	2,229	1.61	0.06	12	Atlas		312	1
	2/21/2016 4:00	2/21/2016 11:00	420	0.83	776,627	1.01	0.38	12	Atlas		644,600	1
	2/23/2016 22:15	2/24/2016 14:00	945	1.82	1,324,443	2.46	0.69	24	Atlas		2,410,487	1
	2/29/2016 1:15	2/29/2016 1:45	30	0.03	732,767	1.86	0.03	1	Atlas		21,983	1
	3/1/2016 8:45	3/1/2016 14:00	315	0.48	397,294	2.31	0.25	6	Atlas		190,701	1
	3/9/2016 15:15	3/9/2016 20:00	285	1.34	82,081	0.34	0.44	12	Atlas		109,988	1
	3/10/2016 13:15	3/10/2016 20:45	450	1.34	668,558	1.38	0.44	12	Atlas		895,868	1
	3/12/2016 20:00	3/13/2016 0:15	255	0.65	1,265,989	1.86	0.27	6	Atlas		822,893	1
	3/13/2016 9:00	3/13/2016 11:00	120	0.65	445,368	2.03	0.27	6	Atlas		289,489	1
	3/24/2016 17:15	3/24/2016 17:45	30	0.33	343,421	0.36	0.21	1	Atlas		113,329	1
	3/27/2016 20:30	3/27/2016 23:15	165	0.88	777,901	1.21	0.59	3	Atlas		684,563	1
	3/31/2016 1:30	4/1/2016 1:00	1,410	1.38	572,685	2.59	0.52	24	Atlas		790,305	1
	4/11/2016 13:15	4/11/2016 21:15	480	1.11	699,468	1.26	0.52	6	Atlas		776,410	1
	4/21/2016 14:30	4/21/2016 16:00	90	0.35	89,329	0.19	0.13	24	Atlas		31,265	1
	4/22/2016 1:00	4/22/2016 1:00	-	0.35	8,920	0.23	0.13	24	Atlas		3,122	1
	4/26/2016 16:00	4/26/2016 21:45	345	0.31	181,774	0.67	0.20	1	Atlas		56,350	1
	4/27/2016 12:45	4/28/2016 0:15	690	0.88	727,613	1.55	0.41	1	Atlas		640,299	1
	4/30/2016 8:45	4/30/2016 14:30	345	0.87	400,566	1.76	0.33	24	Atlas		348,492	1
	4/30/2016 23:15	5/1/2016 2:00	165	0.87	65,600	1.97	0.33	24	Atlas		57,072	1
	5/1/2016 14:45	5/1/2016 16:15	90	0.33	81,945	2.38	0.22	3	Atlas		27,042	1
	5/4/2016 11:15	5/4/2016 11:45	30	0.21	112,976	2.25	0.11	3	Atlas		23,725	1
	5/7/2016 16:15	5/7/2016 23:45	450	0.80	346,898	1.63	0.42	6	Atlas		277,518	1
	5/10/2016 8:30	5/11/2016 7:00	1,350	0.83	817,752	1.90	0.32	12	Atlas		678,734	1
	5/11/2016 21:15	5/11/2016 22:15	60	0.23	136,504	1.87	0.12	3	Atlas		31,396	1
	5/12/2016 16:00	5/12/2016 16:15	15	0.16	33,081	1.92	0.11	3	Atlas		5,293	1
	5/17/2016 5:45	5/17/2016 7:00	75	0.32	29,369	1.55	0.13	12	Atlas		9,398	1
	5/17/2016 20:00	5/17/2016 20:30	30	0.33	37,200	1.09	0.16	6	Atlas		12,276	1
	5/20/2016 13:00	5/20/2016 16:30	210	0.55	782,676	1.28	0.30	6	Atlas		430,472	1
	5/25/2016 17:45	5/25/2016 18:00	15	0.03	3,734,000	0.68	0.03	1	Atlas		112,020	1
	5/26/2016 13:45	5/26/2016 15:15	90	0.37	38,016	1.03	0.25	3	Atlas		14,066	1
	6/2/2016 15:15	6/2/2016 16:15	60	1.12	579,531	1.26	0.91	1	Atlas		649,075	1
	6/4/2016 11:45	6/4/2016 18:15	390	0.33	484,918	1.56	0.16	3	Atlas		160,023	1
	6/14/2016 16:30	6/14/2016 20:30	240	1.14	878,162	1.16	0.72	3	Atlas		1,001,105	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/22/2016 8:15	6/22/2016 8:30	15	0.34	228,362	0.17	0.21	3	Atlas		77,643	1
	6/23/2016 15:45	6/23/2016 23:15	450	2.12	922,630	2.47	1.81	6	Cloudburst		1,955,975	1
	7/3/2016 7:30	7/4/2016 18:30	2,100	1.30	868,802	1.33	0.42	48	Atlas		1,129,443	1
	7/6/2016 13:15	7/6/2016 13:15	-	0.10	118,880	1.40	0.07	1	Atlas		11,888	1
	7/12/2016 9:30	7/12/2016 10:00	30	0.16	521,875	0.56	0.10	1	Atlas		83,500	1
	7/20/2016 19:15	7/20/2016 20:00	45	0.10	3,902,760	0.24	0.08	1	Atlas		390,276	1
	7/25/2016 12:45	7/25/2016 12:45	-	0.30	59,683	0.20	0.16	6	Atlas		17,905	1
	7/26/2016 17:45	7/26/2016 18:00	15	0.11	220,691	0.51	0.10	1	Atlas		24,276	1
	7/27/2016 23:45	7/28/2016 5:30	345	0.69	661,496	1.01	0.35	1	Atlas		456,432	1
	7/29/2016 14:30	7/29/2016 14:30	-	0.05	210,780	1.11	0.03	6	Atlas		10,539	1
	7/30/2016 14:00	7/30/2016 14:15	15	0.15	830,127	1.30	0.13	1	Atlas		124,519	1
	8/1/2016 11:00	8/1/2016 11:30	30	0.65	295,983	1.90	0.51	1	Atlas		192,389	1
	8/4/2016 11:45	8/4/2016 12:30	45	0.35	659,703	1.03	0.23	1	Atlas		230,896	1
	8/5/2016 13:45	8/5/2016 14:15	30	0.13	364,846	1.29	0.09	3	Atlas		47,430	1
	8/12/2016 14:00	8/12/2016 14:15	15	0.23	424,991	0.41	0.19	1	Atlas		97,748	1
	8/15/2016 2:30	8/15/2016 10:00	450	0.74	1,287,846	1.13	0.38	6	Atlas		953,006	1
	8/17/2016 4:00	8/17/2016 10:00	360	1.32	600,083	2.23	0.63	3	Atlas		792,109	1
	8/20/2016 10:15	8/20/2016 22:15	720	1.40	988,136	3.65	0.61	12	Atlas		1,383,391	1
	8/27/2016 12:45	8/27/2016 13:00	15	0.08	97,975	1.21	0.07	1	Atlas		7,838	1
	8/31/2016 17:45	8/31/2016 17:45	-	0.40	10,388	0.49	0.35	1	Atlas		4,155	1
	9/10/2016 15:15	9/10/2016 15:30	15	0.22	188,677	0.20	0.14	3	Atlas		41,509	1
	9/17/2016 9:15	9/17/2016 9:15	-	0.15	74,933	0.35	0.11	1	Atlas		11,240	1
	9/26/2016 9:15	9/26/2016 11:00	105	0.25	187,268	0.25	0.17	3	Atlas		46,817	1
	9/28/2016 12:00	9/28/2016 14:00	120	0.62	270,282	0.85	0.33	6	Atlas		167,575	1
	9/29/2016 9:00	9/29/2016 9:30	30	0.09	365,622	0.94	0.05	3	Atlas		32,906	1
	9/30/2016 0:00	9/30/2016 4:00	240	0.42	1,258,060	1.33	0.23	3	Atlas		628,385	1
	10/20/2016 9:15	10/20/2016 16:30	435	0.54	679,726	0.42	0.23	3	Atlas		367,052	1
	11/8/2016 19:45	11/8/2016 20:00	15	0.15	182,040	0.16	0.07	12	Atlas		27,306	1
	11/23/2016 20:15	11/23/2016 21:15	60	0.31	58,200	0.43	0.13	6	Atlas		18,042	1
	11/28/2016 13:45	11/28/2016 23:00	555	0.77	973,458	1.08	0.33	12	Atlas		749,563	1
	12/6/2016 4:15	12/6/2016 14:00	585	0.93	1,437,552	0.98	0.43	12	Atlas		1,336,923	1
	12/11/2016 21:30	12/11/2016 22:00	30	0.35	38,151	1.20	0.15	12	Atlas		13,353	1
	12/17/2016 15:45	12/18/2016 5:15	810	3.36	849,777	3.72	4.95	12	Cloudburst		2,855,250	1
	12/23/2016 22:15	12/24/2016 2:15	240	0.29	1,106,976	3.62	0.13	12	Atlas		321,023	1
	12/26/2016 17:00	12/26/2016 20:45	225	0.39	294,510	0.64	0.19	6	Atlas		114,859	1
	1/3/2017 1:45	1/3/2017 5:00	195	0.20	1,233,530	0.29	0.10	6	Atlas		246,706	1
	1/10/2017 19:30	1/10/2017 20:00	30	0.15	417,247	0.35	0.11	1	Atlas		62,587	1
	1/11/2017 12:00	1/11/2017 13:00	60	0.23	158,191	0.56	0.17	1	Atlas		36,384	1
	1/12/2017 15:30	1/12/2017 21:15	345	0.43	218,149	0.86	0.21	6	Atlas		93,804	1
	1/13/2017 14:45	1/13/2017 15:45	60	0.41	76,995	1.21	0.25	3	Atlas		31,568	1
	1/14/2017 8:45	1/14/2017 14:30	345	0.24	532,338	1.47	0.11	12	Atlas		127,761	1
	1/15/2017 17:00	1/15/2017 17:00	-	0.10	77,160	1.55	0.05	3	Atlas		7,716	1
	1/16/2017 23:30	1/17/2017 5:45	375	0.69	2,402,687	2.26	0.32	6	Atlas		1,657,854	1
	1/19/2017 18:15	1/20/2017 9:00	885	0.89	3,979,196	2.53	0.41	12	Atlas		3,541,484	1
	2/7/2017 7:00	2/7/2017 13:00	360	0.46	151,333	0.43	0.23	6	Atlas		69,613	1
	2/8/2017 17:00	2/8/2017 17:15	15	0.10	64,970	0.50	0.05	6	Atlas		6,497	1
	2/24/2017 18:45	2/24/2017 19:15	30	0.23	987,357	0.28	0.18	1	Atlas		227,092	1
	2/28/2017 5:30	2/28/2017 11:15	345	0.35	448,646	0.62	0.17	6	Atlas		157,026	1
	3/1/2017 3:00	3/1/2017 11:45	525	1.31	935,353	1.94	0.67	6	Atlas		1,225,313	1
	3/7/2017 5:00	3/7/2017 14:30	570	0.48	500,390	2.36	0.22	12	Atlas		240,187	1
	3/26/2017 1:00	3/26/2017 8:15	435	0.32	236,666	0.35	0.14	12	Atlas		75,733	1
	3/27/2017 16:30	3/27/2017 19:00	150	0.29	784,345	0.61	0.17	3	Atlas		227,460	1
	3/30/2017 21:45	3/31/2017 1:00	195	0.32	209,313	0.86	0.16	6	Atlas		66,980	1
	4/3/2017 19:15	4/3/2017 19:45	30	0.21	37,557	0.46	0.11	1	Atlas		7,887	1
	4/11/2017 6:15	4/11/2017 11:15	300	0.32	188,928	0.36	0.15	12	Atlas		60,457	1
	4/16/2017 4:30	4/16/2017 22:30	1,080	1.26	578,888	1.54	0.48	24	Atlas		729,399	1
	4/21/2017 19:30	4/22/2017 0:30	300	0.74	374,361	1.87	0.27	24	Atlas		277,027	1
	4/27/2017 6:30	4/27/2017 7:00	30	0.15	387,053	0.92	0.08	6	Atlas		58,058	1
	4/28/2017 23:15	4/29/2017 9:45	630	1.28	1,285,095	1.69	0.64	6	Atlas		1,644,922	1
	5/1/2017 2:15	5/1/2017 4:00	105	0.24	275,833	1.65	0.12	6	Atlas		66,200	1
	5/4/2017 18:45	5/5/2017 18:15	1,410	1.66	1,416,311	3.17	0.56	24	Atlas		2,351,077	1
	5/11/2017 3:45	5/11/2017 4:00	15	0.18	27,439	1.85	0.10	6	Atlas		4,939	1
	5/20/2017 18:30	5/21/2017 7:15	765	1.46	1,276,352	1.51	0.65	12	Atlas		1,863,474	1
	5/24/2017 18:15	5/25/2017 2:15	480	0.55	116,715	1.99	0.20	24	Atlas		64,193	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/27/2017 13:45	5/27/2017 14:15	30	0.27	845.267	2.26	0.22	1	Atlas		228.222	1
	6/5/2017 8:30	6/5/2017 8:30	-	0.04	17.775	0.05	0.02	12	Atlas		711	1
	6/5/2017 18:15	6/5/2017 18:45	30	0.47	581.543	0.52	0.41	1	Atlas		273.325	1
	6/13/2017 16:45	6/13/2017 17:00	15	0.30	853.950	0.30	0.25	1	Atlas		256.185	1
	6/15/2017 3:00	6/15/2017 6:15	195	0.48	1.136.840	0.79	0.29	3	Atlas		545.683	1
	6/18/2017 21:30	6/18/2017 22:15	45	0.25	111.108	1.03	0.15	3	Atlas		27.777	1
	6/22/2017 15:45	6/22/2017 20:30	285	1.25	29.951	0.65	0.41	48	Atlas		37.439	1
	6/23/2017 7:45	6/23/2017 20:30	765	1.25	579.526	1.52	0.41	48	Atlas		724.408	1
	6/27/2017 1:30	6/27/2017 2:00	30	0.07	614.571	1.32	0.06	1	Atlas		43.020	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.70	148.130	0.77	0.60	1	Atlas		103.691	1
	7/4/2017 7:45	7/4/2017 8:00	15	0.23	51.878	0.88	0.11	3	Atlas		11.932	1
	7/6/2017 12:15	7/6/2017 13:15	60	0.46	480.217	1.30	0.23	3	Atlas		220.900	1
	7/7/2017 20:30	7/7/2017 21:45	75	0.22	876.109	1.60	0.17	1	Atlas		192.744	1
	7/18/2017 7:45	7/18/2017 8:00	15	0.06	750.817	0.06	0.05	1	Atlas		45.049	1
	7/23/2017 1:45	7/23/2017 11:00	555	1.33	892.867	1.38	0.61	12	Atlas		1.187.513	1
	7/28/2017 9:00	7/28/2017 10:15	75	0.34	1.081.015	1.68	0.27	1	Atlas		367.545	1
	8/1/2017 21:15	8/1/2017 22:30	75	0.87	836.963	1.22	0.72	1	Atlas		728.158	1
	8/6/2017 14:30	8/7/2017 1:45	675	0.73	259.555	1.63	0.32	12	Atlas		189.475	1
	8/17/2017 15:00	8/17/2017 18:30	210	0.42	286.636	0.46	0.23	6	Atlas		120.387	1
	8/22/2017 12:15	8/22/2017 17:30	315	0.37	1.311.273	0.82	0.27	1	Atlas		485.171	1
	9/1/2017 5:30	9/2/2017 9:15	1.665	2.80	1.960.976	2.94	0.97	24	Atlas		5.490.733	1
	9/12/2017 6:15	9/12/2017 8:00	105	0.20	193.005	0.21	0.10	6	Atlas		38.601	1
	9/12/2017 20:15	9/12/2017 21:15	60	0.34	54.029	0.27	0.12	24	Atlas		18.370	1
	9/13/2017 12:30	9/13/2017 12:30	-	0.34	968	0.39	0.12	24	Atlas		329	1
	9/19/2017 8:00	9/19/2017 10:15	135	0.39	932.351	0.73	0.25	3	Atlas		363.617	1
	10/7/2017 21:30	10/7/2017 23:30	120	2.05	367.850	0.90	0.76	24	Atlas		754.093	1
	10/8/2017 10:00	10/8/2017 23:00	780	2.05	584.019	2.06	0.76	24	Atlas		1.197.239	1
	10/10/2017 13:45	10/10/2017 21:45	480	0.66	1.395.462	2.72	0.36	3	Atlas		921.005	1
	10/23/2017 6:15	10/23/2017 9:00	165	0.40	860.560	0.38	0.21	6	Atlas		344.224	1
	10/27/2017 17:00	10/28/2017 3:00	600	1.06	1.342.078	1.58	0.48	12	Atlas		1.422.603	1
	11/3/2017 4:30	11/3/2017 9:45	315	1.02	1.001.051	2.24	0.78	1	Atlas		1.021.072	1
	11/6/2017 1:30	11/6/2017 4:15	165	0.82	710.948	2.00	0.63	1	Atlas		582.977	1
	11/7/2017 2:15	11/7/2017 6:30	255	0.25	116.104	2.25	0.11	12	Atlas		29.026	1
	11/15/2017 13:00	11/15/2017 14:00	60	0.36	518.719	0.39	0.25	1	Atlas		186.739	1
	11/18/2017 16:30	11/18/2017 17:45	75	0.46	697.111	0.83	0.26	3	Atlas		320.671	1
	12/4/2017 21:30	12/5/2017 6:30	540	0.65	1.037.075	0.66	0.35	3	Atlas		674.099	1
	12/22/2017 18:15	12/23/2017 12:30	1.095	1.59	1.001.844	1.59	0.61	24	Atlas		1.592.932	1
	1/11/2018 9:00	1/11/2018 10:45	105	0.06	888.000	0.21	0.04	3	Atlas		53.280	1
	1/12/2018 2:30	1/12/2018 12:45	615	0.37	640.505	0.41	0.14	24	Atlas		236.987	1
	1/22/2018 12:00	1/22/2018 20:00	480	0.29	503.024	0.42	0.13	12	Atlas		145.877	1
	1/27/2018 13:45	1/27/2018 16:15	150	0.41	130.451	0.70	0.24	3	Atlas		53.485	1
	2/7/2018 1:00	2/7/2018 4:45	225	0.70	657.973	1.05	0.38	6	Atlas		460.581	1
	2/11/2018 4:00	2/11/2018 12:00	480	0.42	499.519	1.29	0.23	3	Atlas		209.798	1
	2/14/2018 6:15	2/14/2018 15:15	540	0.63	412.841	1.16	0.29	3	Atlas		260.090	1
	2/16/2018 2:30	2/16/2018 13:30	660	1.05	1.051.088	2.27	0.48	12	Atlas		1.103.642	1
	2/17/2018 12:45	2/17/2018 13:45	60	0.29	65.417	2.45	0.18	3	Atlas		18.971	1
	2/21/2018 5:15	2/21/2018 10:00	285	2.17	7.979	2.48	0.75	24	Atlas		17.314	1
	2/21/2018 18:45	2/22/2018 12:15	1.050	2.17	1.612.907	3.56	0.75	24	Atlas		3.500.009	1
	2/23/2018 1:30	2/23/2018 22:15	1.245	2.06	1.758.291	5.57	0.94	12	Atlas		3.622.079	1
	2/24/2018 10:00	2/26/2018 5:00	2.580	2.26	3.182.380	6.78	0.93	12	Atlas		7.192.178	1
	3/19/2018 17:15	3/19/2018 20:00	165	0.35	314.271	0.38	0.19	3	Atlas		109.995	1
	3/20/2018 21:15	3/20/2018 21:15	-	0.56	1.845	0.63	0.22	24	Atlas		1.033	1
	3/24/2018 4:15	3/24/2018 21:15	1.020	1.16	1.709.789	2.07	0.45	24	Atlas		1.983.355	1
	3/28/2018 5:15	3/28/2018 10:30	315	1.20	83.175	1.84	0.31	48	Atlas		99.810	1
	3/29/2018 17:00	3/29/2018 23:15	375	1.20	406.248	2.24	0.31	48	Atlas		487.498	1
	4/1/2018 18:30	4/1/2018 23:45	315	0.71	1.361.806	2.23	0.39	6	Atlas		966.882	1
	4/3/2018 20:00	4/3/2018 21:15	75	0.39	362.223	2.55	0.21	6	Atlas		141.267	1
	4/14/2018 8:00	4/14/2018 9:00	60	0.95	101.021	0.17	0.31	48	Atlas		95.970	1
	4/14/2018 22:00	4/15/2018 9:00	660	0.95	469.955	0.93	0.31	48	Atlas		446.457	1
	4/23/2018 4:00	4/23/2018 10:30	390	0.57	245.802	0.68	0.27	3	Atlas		140.107	1
	5/5/2018 11:00	5/5/2018 19:30	510	2.03	965.315	1.93	0.89	6	Atlas		1.959.590	1
	7/15/2018 14:45	7/15/2018 15:00	15	0.15	883.767	0.14	0.07	3	Atlas		132.565	1
	7/20/2018 15:30	7/20/2018 18:00	150	1.73	599.814	0.61	1.30	3	Atlas		1.037.678	1
	7/30/2018 20:00	7/31/2018 9:30	810	2.08	1.512.172	1.96	0.86	6	Atlas		3.145.318	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/8/2018 0:45	8/8/2018 1:00	15	0.24	82,088	0.19	0.15	1	Atlas		19,701	1
	8/15/2018 12:45	8/16/2018 13:45	1,500	3.00	1,064,340	2.98	1.78	24	Cloudburst		3,193,019	1
	8/20/2018 11:15	8/20/2018 20:00	525	0.61	1,490,626	3.64	0.37	1	Atlas		909,282	1
	8/31/2018 16:45	8/31/2018 17:45	60	0.47	292,272	0.45	0.31	3	Atlas		137,368	1
	9/6/2018 11:45	9/6/2018 12:00	15	0.17	423,612	0.58	0.11	3	Atlas		72,014	1
	9/8/2018 0:45	9/8/2018 1:30	45	0.25	65,668	0.43	0.14	3	Atlas		16,417	1
	9/8/2018 15:15	9/9/2018 0:15	540	3.55	950,282	3.97	12.29	6	Cloudburst		3,373,501	1
	9/21/2018 14:00	9/21/2018 17:45	225	0.46	820,715	0.52	0.26	1	Atlas		377,529	1
	9/22/2018 15:00	9/22/2018 17:45	165	1.59	99,182	1.00	0.60	24	Atlas		157,699	1
	9/23/2018 4:00	9/23/2018 7:45	225	1.59	523,645	2.06	0.60	24	Atlas		832,596	1
	9/24/2018 0:45	9/24/2018 19:45	1,140	1.99	914,789	3.94	0.85	6	Atlas		1,820,431	1
	9/25/2018 5:45	9/25/2018 6:15	30	1.99	64,940	4.04	0.85	6	Atlas		129,231	1
	9/25/2018 16:30	9/26/2018 2:45	615	1.02	793,294	5.03	0.45	12	Atlas		809,160	1
	10/10/2018 16:00	10/10/2018 17:30	90	0.34	612,947	0.38	0.27	1	Atlas		208,402	1
	10/12/2018 21:45	10/12/2018 21:45	-	0.10	1,470	0.44	0.05	6	Atlas		147	1
	10/14/2018 4:30	10/14/2018 4:45	15	0.27	19,615	0.67	0.14	3	Atlas		5,296	1
	10/15/2018 9:00	10/15/2018 9:15	15	0.16	97,575	0.84	0.10	1	Atlas		15,612	1
	10/19/2018 20:45	10/19/2018 21:15	30	0.14	5,007	0.63	0.08	1	Atlas		701	1
	10/26/2018 14:15	10/26/2018 16:00	105	0.34	101,097	0.46	0.13	24	Atlas		34,373	1
	10/31/2018 11:30	11/1/2018 17:45	1,815	2.27	312,987	2.64	0.80	24	Atlas		710,481	1
	11/4/2018 18:45	11/4/2018 18:45	-	0.07	6,157	2.34	0.05	3	Atlas		431	1
	11/5/2018 19:30	11/6/2018 1:45	375	0.99	564,104	3.33	0.54	6	Atlas		558,463	1
	11/14/2018 22:00	11/15/2018 4:15	375	0.42	571,740	0.62	0.19	12	Atlas		240,131	1
	11/23/2018 21:45	11/24/2018 0:00	135	0.27	34,374	0.15	0.14	6	Atlas		9,281	1
	11/25/2018 23:45	11/26/2018 0:00	15	0.07	92,414	0.35	0.04	1	Atlas		6,469	1
	12/1/2018 3:00	12/1/2018 21:00	1,080	1.45	563,770	1.64	0.60	12	Atlas		817,466	1
	12/14/2018 14:15	12/14/2018 14:30	15	1.55	3,767	0.12	0.64	12	Atlas		5,839	1
	12/15/2018 2:00	12/15/2018 11:00	540	1.55	714,566	1.53	0.64	12	Atlas		1,107,577	1
	12/20/2018 14:45	12/20/2018 21:30	405	0.47	32,106	1.91	0.18	24	Atlas		15,090	1
	12/27/2018 17:30	12/27/2018 18:45	75	0.36	358,594	0.64	0.21	1	Atlas		129,094	1
	12/31/2018 4:30	12/31/2018 17:30	780	1.59	612,652	1.97	0.62	12	Atlas		974,116	1
	1/4/2019 13:45	1/4/2019 20:00	375	0.53	284,426	2.10	0.25	3	Atlas		150,746	1
	1/12/2019 23:15	1/13/2019 0:30	75	0.18	34,106	0.37	0.08	12	Atlas		6,139	1
	1/17/2019 11:45	1/17/2019 11:45	-	0.12	24,100	0.50	0.06	12	Atlas		2,892	1
	1/19/2019 5:45	1/19/2019 20:15	870	1.00	275,831	1.11	0.38	24	Atlas		275,831	1
	1/23/2019 7:00	1/23/2019 17:15	615	0.97	281,002	2.06	0.39	12	Atlas		272,572	1
	2/4/2019 13:00	2/4/2019 14:15	75	0.11	75,891	0.15	0.06	3	Atlas		8,348	1
	2/6/2019 6:30	2/6/2019 10:00	210	1.61	145,807	0.80	0.52	48	Atlas		234,750	1
	2/7/2019 5:00	2/7/2019 19:45	885	1.61	191,307	1.75	0.52	48	Atlas		308,005	1
	2/10/2019 19:00	2/12/2019 16:45	2,745	3.03	734,773	4.75	0.95	48	Atlas		2,226,361	1
	2/20/2019 1:15	2/20/2019 17:30	975	1.60	1,194,203	1.65	0.71	6	Atlas		1,910,724	1
	2/23/2019 16:45	2/23/2019 22:45	360	0.89	973,945	2.55	0.49	6	Atlas		866,811	1
	3/9/2019 12:15	3/9/2019 19:15	420	1.14	710,045	1.29	0.55	6	Atlas		809,451	1
	3/14/2019 4:15	3/14/2019 8:00	225	0.36	71,514	1.64	0.20	6	Atlas		25,745	1
	3/14/2019 17:00	3/14/2019 19:00	120	0.48	1,764,456	2.08	0.32	3	Atlas		846,939	1
	3/25/2019 0:30	3/25/2019 5:00	270	0.30	20,383	0.36	0.16	6	Atlas		6,115	1
	3/30/2019 15:00	3/30/2019 20:30	330	1.07	964,188	1.45	0.48	6	Atlas		1,031,681	1
	4/7/2019 6:00	4/7/2019 13:45	465	0.62	524,726	0.84	0.28	12	Atlas		325,330	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.10	21,550	0.71	0.06	1	Atlas		2,155	1
	4/14/2019 0:45	4/14/2019 5:15	270	0.86	706,849	1.57	0.40	6	Atlas		607,890	1
	4/14/2019 14:30	4/14/2019 14:30	-	0.03	61,100	0.99	0.03	1	Atlas		1,833	1
	4/18/2019 21:15	4/18/2019 22:45	90	2.59	12,125	1.35	0.84	48	Atlas		31,404	1
	4/19/2019 12:30	4/20/2019 9:00	1,230	2.59	909,641	3.17	0.84	48	Atlas		2,355,969	1
	4/24/2019 20:30	4/24/2019 21:00	30	1.16	186,303	3.05	0.38	24	Atlas		216,112	1
	4/25/2019 17:45	4/25/2019 18:00	15	1.16	112,305	3.56	0.38	24	Atlas		130,274	1
	4/26/2019 2:15	4/26/2019 2:15	-	1.16	1,313	3.18	0.38	24	Atlas		1,523	1
	5/2/2019 11:15	5/2/2019 11:15	-	0.22	205,950	0.80	0.19	1	Atlas		45,309	1
	5/3/2019 4:30	5/3/2019 8:00	210	1.14	665,449	1.40	0.62	6	Atlas		758,612	1
	5/4/2019 17:15	5/4/2019 17:15	-	0.23	11,417	1.60	0.12	3	Atlas		2,626	1
	6/16/2019 5:45	6/16/2019 5:45	-	0.59	117,939	0.97	0.39	3	Atlas		69,584	1
	7/29/2019 22:30	7/29/2019 23:30	60	0.62	448,761	0.62	0.37	3	Atlas		278,232	1
	8/7/2019 4:30	8/7/2019 5:00	30	0.05	281,920	0.06	0.04	1	Atlas		14,096	1
	8/13/2019 7:30	8/13/2019 9:00	90	0.35	24,617	0.41	0.21	3	Atlas		8,616	1
	8/17/2019 14:45	8/17/2019 14:45	-	0.04	149,450	0.39	0.03	1	Atlas		5,978	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/19/2019 1:15	8/19/2019 2:15	60	0.14	190.314	0.53	0.12	1	Atlas		26,644	1
	8/22/2019 2:45	8/22/2019 4:30	105	0.22	767.318	0.44	0.15	3	Atlas		168,810	1
	8/25/2019 23:00	8/26/2019 0:30	90	0.61	10,792	0.66	0.26	6	Atlas		6,583	1
	8/26/2019 10:00	8/26/2019 15:15	315	0.61	1,738.715	1.05	0.26	6	Atlas		1,060,616	1
	9/20/2019 9:15	9/20/2019 9:45	30	0.15	63.647	0.15	0.13	1	Atlas		9,547	1
	10/6/2019 14:45	10/6/2019 20:00	315	0.86	167.301	0.69	0.33	24	Atlas		143,879	1
	10/7/2019 6:30	10/7/2019 6:30	-	0.86	1,642	0.90	0.33	24	Atlas		1,412	1
	10/11/2019 10:30	10/11/2019 11:15	45	0.30	98.723	1.17	0.15	1	Atlas		29,617	1
	10/11/2019 21:45	10/11/2019 21:45	-	0.30	14.283	1.26	0.15	1	Atlas		4,285	1
	10/15/2019 22:30	10/15/2019 23:45	75	0.30	181.233	0.56	0.19	1	Atlas		54,370	1
	10/26/2019 5:00	10/26/2019 19:30	870	1.41	602.238	1.51	0.56	6	Atlas		849,155	1
	10/30/2019 12:30	10/30/2019 17:45	315	0.66	905.761	2.07	0.32	3	Atlas		597,802	1
	10/31/2019 4:00	10/31/2019 11:00	420	0.58	1,014.281	2.65	0.31	6	Atlas		588,283	1
	11/7/2019 7:00	11/7/2019 10:00	180	0.68	50.126	0.81	0.26	24	Atlas		34,086	1
	11/22/2019 2:45	11/22/2019 6:45	240	0.35	143.066	0.41	0.19	6	Atlas		50,073	1
	11/23/2019 9:00	11/23/2019 9:15	15	0.19	48.837	0.56	0.11	3	Atlas		9,279	1
	11/26/2019 20:00	11/27/2019 6:45	645	0.84	577.568	1.42	0.39	6	Atlas		485,157	1
	11/30/2019 2:00	11/30/2019 21:45	1,185	2.30	1,196.144	3.35	0.93	12	Atlas		2,751,131	1
	12/9/2019 2:45	12/9/2019 2:45	-	0.21	3.362	0.16	0.08	1	Atlas		706	1
	12/9/2019 20:00	12/9/2019 20:15	15	0.21	41.010	0.27	0.08	1	Atlas		8,612	1
	12/13/2019 18:45	12/14/2019 1:45	420	0.60	21.752	0.51	0.24	12	Atlas		13,051	1
	12/16/2019 6:00	12/16/2019 1:45	105	0.14	52.586	0.94	0.07	6	Atlas		7,362	1
	12/16/2019 13:30	12/17/2019 0:00	630	0.83	465.393	1.53	0.36	6	Atlas		386,276	1
	12/29/2019 5:30	12/30/2019 3:30	1,320	1.21	654.235	1.17	0.44	24	Atlas		791,624	1
	1/2/2020 15:30	1/2/2020 16:45	75	0.96	5.394	1.36	0.31	48	Atlas		5,178	1
	1/3/2020 3:30	1/3/2020 20:00	990	0.96	83.097	2.16	0.31	48	Atlas		79,773	1
	1/10/2020 18:45	1/10/2020 20:45	120	0.45	258.313	0.43	0.20	3	Atlas		116,241	1
	1/11/2020 10:30	1/11/2020 20:45	615	0.89	823.088	1.34	0.41	6	Atlas		732,548	1
	1/18/2020 3:45	1/18/2020 12:00	495	0.43	272.821	1.31	0.18	12	Atlas		117,313	1
	1/24/2020 4:30	1/24/2020 7:00	150	0.46	94.689	0.81	0.15	48	Atlas		43,557	1
	1/31/2020 10:00	1/31/2020 10:45	45	0.35	27.157	0.43	0.21	3	Atlas		9,505	1
	2/4/2020 12:30	2/4/2020 20:15	465	0.46	76.741	0.81	0.17	24	Atlas		35,301	1
	2/5/2020 17:45	2/5/2020 19:00	75	0.10	141.350	0.91	0.05	6	Atlas		14,135	1
	2/10/2020 4:30	2/10/2020 8:00	210	0.24	15.775	0.88	0.10	12	Atlas		3,786	1
	2/11/2020 1:15	2/11/2020 5:00	225	0.27	51.037	1.10	0.13	6	Atlas		13,780	1
	2/12/2020 16:45	2/12/2020 23:00	375	0.89	999.598	1.54	0.40	3	Atlas		889,642	1
	2/18/2020 8:45	2/18/2020 10:45	120	0.29	17.255	1.17	0.14	6	Atlas		5,004	1
	2/24/2020 9:30	2/25/2020 3:15	1,065	0.91	120.131	1.18	0.34	24	Atlas		109,319	1
	3/2/2020 6:15	3/2/2020 13:00	405	0.65	87.971	1.61	0.31	3	Atlas		57,181	1
	3/3/2020 1:45	3/3/2020 7:15	330	0.22	238.159	1.04	0.13	3	Atlas		52,395	1
	3/10/2020 5:45	3/10/2020 8:00	135	0.45	393.160	0.46	0.20	12	Atlas		176,922	1
	5/25/2020 16:45	5/25/2020 16:45	-	0.08	96.450	0.21	0.05	3	Atlas		7,716	1
	5/29/2020 0:15	5/29/2020 0:30	15	0.17	344.612	0.63	0.11	1	Atlas		58,584	1
	6/4/2020 18:15	6/4/2020 20:30	135	0.96	255.127	1.02	0.57	3	Atlas		244,922	1
	6/9/2020 11:45	6/9/2020 12:00	15	0.16	431.656	1.10	0.13	1	Atlas		69,065	1
	6/21/2020 11:45	6/21/2020 17:15	330	0.39	311.549	0.40	0.20	6	Atlas		121,504	1
	6/22/2020 22:30	6/23/2020 9:00	630	1.10	608.317	1.51	0.44	6	Atlas		669,149	1
	6/29/2020 2:45	6/29/2020 7:30	285	0.72	467.478	1.94	0.47	3	Atlas		336,584	1
	6/29/2020 19:00	6/29/2020 19:30	30	0.56	308.991	2.49	0.48	1	Atlas		173,035	1
	CSO050 Total										266,578,685	674
CSO051	9/25/2012 23:15	9/26/2012 5:30	375	0.45	6,102	0.76	0.21	12	Atlas		2,746	1
	9/26/2012 19:45	9/26/2012 23:15	210	1.61	50.082	2.34	0.86	6	Atlas		80,632	1
	10/1/2012 9:30	10/2/2012 8:15	1,365	0.61	590	3.08	0.25	12	Atlas		360	1
	10/14/2012 15:00	10/14/2012 16:15	75	0.10	11.270	0.08	0.06	1	Atlas		1,127	1
	12/4/2012 18:15	12/4/2012 18:15	-	0.72	1.544	0.99	0.47	3	Atlas		1,112	1
	12/8/2012 5:45	12/8/2012 5:45	-	0.33	1.103	2.32	0.19	3	Atlas		364	1
	12/9/2012 21:30	12/9/2012 23:15	105	1.08	21.997	3.00	0.52	3	Atlas		23,757	1
	12/26/2012 5:45	12/26/2012 5:45	-	0.72	1.521	1.25	0.28	12	Atlas		1,095	1
	1/11/2013 6:00	1/11/2013 6:30	30	0.67	2.807	0.79	0.37	3	Atlas		1,881	1
	1/13/2013 3:15	1/13/2013 17:45	870	2.22	4.758	3.00	0.85	24	Atlas		10,563	1
	1/30/2013 4:45	1/30/2013 9:15	270	0.86	80.706	1.09	0.43	6	Atlas		69,407	1
	1/30/2013 18:00	1/30/2013 18:15	15	0.86	257	1.16	0.43	6	Atlas		221	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/18/2013 4:15	3/18/2013 5:00	45	1.80	1.827	1.87	0.58	48	Atlas		3,289	1
	4/16/2013 19:45	4/16/2013 20:00	15	0.57	102.525	1.80	0.45	1	Atlas		58,439	1
	4/19/2013 0:45	4/19/2013 4:00	195	0.92	12.591	1.50	0.50	6	Atlas		11,584	1
	4/24/2013 8:15	4/24/2013 8:15	-	0.66	1.356	1.41	0.39	3	Atlas		895	1
	5/6/2013 17:15	5/6/2013 17:15	-	1.54	300	1.56	0.47	24	Atlas		462	1
	5/10/2013 9:30	5/10/2013 9:30	-	0.90	479	1.82	0.40	6	Atlas		431	1
	6/9/2013 23:30	6/9/2013 23:45	15	0.36	4.603	0.24	0.15	6	Atlas		1,657	1
	6/16/2013 16:30	6/16/2013 16:30	-	0.40	28.180	0.59	0.29	1	Atlas		11,272	1
	6/17/2013 19:00	6/17/2013 19:15	15	0.51	978	0.67	0.25	6	Atlas		499	1
	6/26/2013 3:15	6/26/2013 4:15	60	0.65	18.395	1.00	0.49	1	Atlas		11,957	1
	6/26/2013 16:00	6/26/2013 20:45	285	2.21	71.758	2.94	1.67	6	Cloudburst		158,585	1
	6/29/2013 19:45	6/29/2013 19:45	-	0.58	1.116	3.39	0.33	3	Atlas		647	1
	7/1/2013 18:30	7/1/2013 18:30	-	0.26	3.138	3.65	0.13	3	Atlas		816	1
	7/2/2013 13:00	7/2/2013 13:00	-	0.05	530.880	3.77	0.04	1	Atlas		26,544	1
	7/10/2013 13:45	7/10/2013 14:00	15	0.68	51.900	1.82	0.44	3	Atlas		35,292	1
	7/18/2013 15:30	7/18/2013 16:00	30	0.34	149.124	0.47	0.26	1	Atlas		50,702	1
	7/21/2013 20:15	7/21/2013 20:15	-	1.85	264	1.17	0.71	24	Atlas		488	1
	7/22/2013 6:45	7/22/2013 13:30	405	1.85	15.036	2.23	0.71	24	Atlas		27,816	1
	8/12/2013 14:30	8/12/2013 14:30	-	1.04	11.312	0.82	0.50	1	Atlas		11,764	1
	8/13/2013 2:15	8/13/2013 2:15	-	1.04	371	1.08	0.50	1	Atlas		386	1
	8/31/2013 19:45	8/31/2013 23:00	195	1.38	15.178	0.96	0.63	12	Atlas		20,945	1
	9/2/2013 13:15	9/2/2013 13:30	15	0.40	57.750	1.72	0.35	1	Atlas		23,100	1
	9/20/2013 16:15	9/20/2013 22:30	375	1.57	1.776	1.03	0.65	12	Atlas		2,789	1
	10/5/2013 13:00	10/6/2013 6:15	1,035	4.32	55.225	3.91	8.63	24	Cloudburst		238,572	1
	10/30/2013 2:30	11/2/2013 20:45	5,415	1.27	33.899	2.09	0.61	6	Atlas		43,052	1
	11/17/2013 4:15	11/18/2013 22:00	2,505	2.95	51.213	3.09	2.00	6	Cloudburst		151,078	1
	12/5/2013 5:30	12/5/2013 23:30	1,080	0.79	1.316	0.31	0.26	48	Atlas		1,040	1
	12/21/2013 7:30	12/22/2013 0:00	990	3.11	24.650	3.08	1.82	24	Cloudburst		76,661	1
	1/11/2014 0:30	1/11/2014 22:45	1,335	0.77	1.158	1.30	0.41	6	Atlas		892	1
	2/17/2014 16:00	2/17/2014 16:00	-	0.52	10.583	0.71	0.31	3	Atlas		5,503	1
	2/20/2014 22:45	2/20/2014 22:45	-	0.18	467	1.00	0.09	6	Atlas		84	1
	3/29/2014 6:30	3/29/2014 6:30	-	0.82	77	0.66	0.38	12	Atlas		63	1
	4/3/2014 11:45	4/4/2014 3:30	945	3.33	5.966	4.04	1.88	24	Cloudburst		19,868	1
	4/7/2014 10:30	4/7/2014 11:45	75	0.89	31.016	4.32	0.55	1	Atlas		27,604	1
	4/28/2014 3:45	4/28/2014 6:45	180	1.90	25.181	1.41	0.77	3	Atlas		47,844	1
	5/9/2014 19:00	5/10/2014 5:30	630	1.49	11.830	0.68	0.58	1	Atlas		17,627	1
	5/10/2014 14:00	5/10/2014 15:00	60	1.49	10.331	1.55	0.58	1	Atlas		15,393	1
	5/21/2014 20:45	5/22/2014 3:15	390	0.65	5.106	0.84	0.30	12	Atlas		3,319	1
	5/28/2014 20:00	5/28/2014 20:15	15	0.65	10.752	1.26	0.55	1	Atlas		6,989	1
	6/11/2014 14:00	6/11/2014 14:15	15	0.15	138.193	0.33	0.12	1	Atlas		20,729	1
	6/20/2014 17:15	6/20/2014 17:30	15	0.23	17.865	0.24	0.15	3	Atlas		4,109	1
	6/24/2014 13:45	6/24/2014 14:15	30	0.10	16.220	0.37	0.05	6	Atlas		1,622	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.26	60.696	0.75	0.23	1	Atlas		15,781	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.83	23.925	0.89	0.40	1	Atlas		19,858	1
	7/14/2014 20:00	7/14/2014 20:00	-	0.45	1.916	1.47	0.30	3	Atlas		862	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.15	10.883	0.56	0.52	12	Atlas		12,516	1
	7/27/2014 7:45	7/27/2014 7:45	-	1.15	2.508	1.17	0.52	12	Atlas		2,884	1
	8/8/2014 6:15	8/8/2014 7:15	60	0.73	32.852	0.53	0.34	6	Atlas		23,982	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.49	68.676	1.31	0.34	1	Atlas		33,651	1
	8/11/2014 15:15	8/11/2014 15:15	-	0.40	21.495	1.73	0.29	1	Atlas		8,598	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.70	8.439	1.10	0.27	24	Atlas		5,907	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.24	329	0.91	0.17	1	Atlas		79	1
	8/23/2014 15:45	8/23/2014 20:00	255	1.00	23.738	1.59	0.47	3	Atlas		23,738	1
	8/27/2014 17:15	8/27/2014 17:15	-	0.28	16.129	1.63	0.24	1	Atlas		4,516	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.92	4.915	2.11	0.61	1	Atlas		4,522	1
	9/2/2014 8:15	9/2/2014 8:15	-	0.60	2.213	1.59	0.31	3	Atlas		1,328	1
	9/11/2014 0:30	9/11/2014 2:45	135	2.22	32.313	1.90	2.50	3	Atlas		71,735	1
	10/6/2014 7:45	10/6/2014 7:45	-	0.55	1.735	0.39	0.18	48	Atlas		954	1
	10/10/2014 1:45	10/10/2014 2:45	60	1.00	24.940	1.44	0.45	3	Atlas		24,940	1
	10/13/2014 5:15	10/13/2014 5:15	-	0.37	1.730	1.83	0.23	3	Atlas		640	1
	10/13/2014 23:30	10/13/2014 23:30	-	1.08	4.401	1.94	0.48	12	Atlas		4,753	1
	10/14/2014 7:45	10/14/2014 9:15	90	1.08	1.695	2.64	0.48	12	Atlas		1,831	1
	11/23/2014 17:30	11/23/2014 17:30	-	0.60	3.417	0.68	0.26	12	Atlas		2,050	1
	12/6/2014 1:00	12/6/2014 3:00	120	1.88	12.095	2.78	0.61	48	Atlas		22,739	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/10/2015 11:45	3/10/2015 14:30	165	1.11	32,863	3.03	0.50	12	Atlas		36,478	1
	3/13/2015 10:30	3/13/2015 10:30	-	2.10	80	1.44	0.78	24	Atlas		168	1
	3/14/2015 1:00	3/14/2015 4:15	195	2.10	4,128	3.14	0.78	24	Atlas		8,668	1
	4/2/2015 10:30	4/2/2015 15:00	270	4.74	5,512	1.13	7.98	24	Cloudburst		26,126	1
	4/3/2015 0:15	4/3/2015 15:30	915	4.74	77,986	4.73	7.98	24	Cloudburst		369,653	1
	4/7/2015 9:15	4/7/2015 17:00	465	1.08	27,643	5.79	0.53	1	Atlas		29,854	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.17	28,941	5.64	0.15	1	Atlas		4,920	1
	4/10/2015 2:15	4/10/2015 3:15	60	0.24	35,063	3.61	0.16	3	Atlas		8,415	1
	4/13/2015 20:45	4/13/2015 20:45	-	0.78	800	1.86	0.30	24	Atlas		624	1
	4/19/2015 18:15	4/19/2015 18:15	-	0.67	2,236	1.50	0.28	12	Atlas		1,498	1
	5/16/2015 11:45	5/16/2015 12:00	15	0.70	13,786	0.54	0.41	3	Atlas		9,650	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.09	8,267	0.91	0.04	12	Atlas		744	1
	5/25/2015 8:15	5/25/2015 8:15	-	0.30	2,917	0.25	0.14	12	Atlas		875	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.17	32,324	0.43	0.10	1	Atlas		5,495	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.67	12,670	0.37	0.37	3	Atlas		8,489	1
	6/18/2015 17:15	6/18/2015 17:45	30	0.76	10,949	1.27	0.43	1	Atlas		8,321	1
	6/20/2015 1:30	6/20/2015 5:15	225	1.04	12,916	2.23	0.41	12	Atlas		13,433	1
	6/26/2015 17:00	6/26/2015 17:30	30	1.04	16,459	2.50	0.55	1	Atlas		17,117	1
	6/29/2015 13:45	6/29/2015 13:45	-	0.22	6,959	1.87	0.12	1	Atlas		1,531	1
	7/2/2015 7:00	7/2/2015 20:30	810	2.42	19,099	4.37	0.94	1	Atlas		46,220	1
	7/3/2015 15:00	7/3/2015 18:45	225	0.57	9,270	4.33	0.47	1	Atlas		5,284	1
	7/7/2015 11:45	7/7/2015 12:00	15	1.07	1,638	3.63	0.51	3	Atlas		1,753	1
	7/10/2015 16:00	7/10/2015 16:00	-	0.50	2,040	1.95	0.26	6	Atlas		1,020	1
	7/12/2015 5:45	7/12/2015 7:15	90	1.07	21,492	3.00	0.82	1	Atlas		22,996	1
	7/13/2015 14:45	7/13/2015 15:00	15	0.46	2,354	3.47	0.40	1	Atlas		1,083	1
	7/14/2015 4:15	7/14/2015 4:15	-	0.84	5,940	4.26	0.66	1	Atlas		4,990	1
	7/17/2015 22:15	7/18/2015 1:30	195	1.58	65,329	3.99	1.27	3	Atlas		103,220	1
	7/29/2015 17:15	7/29/2015 17:15	-	0.12	30,142	0.16	0.10	1	Atlas		3,617	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.52	20,900	0.62	0.44	1	Atlas		10,868	1
	8/5/2015 14:45	8/5/2015 15:00	15	1.13	12,393	1.26	0.57	1	Atlas		14,004	1
	8/6/2015 2:15	8/6/2015 8:00	345	1.13	3,646	1.46	0.57	1	Atlas		4,120	1
	8/10/2015 20:30	8/10/2015 20:30	-	0.06	42,600	1.72	0.05	1	Atlas		2,556	1
	8/15/2015 16:45	8/15/2015 16:45	-	0.02	11,650	0.09	0.02	1	Atlas		233	1
	9/5/2015 17:30	9/5/2015 17:45	15	0.31	20,723	0.28	0.24	1	Atlas		6,424	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.34	4,735	0.65	0.30	1	Atlas		1,610	1
	10/27/2015 18:00	10/28/2015 7:45	825	2.99	9,826	3.17	0.97	24	Atlas		29,381	1
	11/6/2015 3:00	11/6/2015 4:00	60	0.80	7,075	0.80	0.49	3	Atlas		5,660	1
	11/18/2015 10:30	11/18/2015 17:45	435	1.37	15,816	1.86	0.68	6	Atlas		21,668	1
	12/22/2015 3:30	12/22/2015 3:30	-	0.57	942	0.58	0.22	24	Atlas		537	1
	12/23/2015 19:45	12/23/2015 20:30	45	0.84	19,473	1.42	0.56	1	Atlas		16,357	1
	12/27/2015 10:15	12/27/2015 13:30	195	2.49	16,015	3.57	0.81	48	Atlas		39,878	1
	2/2/2016 19:00	2/3/2016 0:45	345	1.50	21,955	1.48	0.71	6	Atlas		32,933	1
	2/21/2016 5:45	2/21/2016 10:15	270	0.83	6,865	1.00	0.38	12	Atlas		5,698	1
	2/24/2016 5:00	2/24/2016 7:15	135	1.82	5,819	2.26	0.69	24	Atlas		10,591	1
	3/1/2016 8:45	3/1/2016 8:45	-	0.48	4,733	2.06	0.25	6	Atlas		2,272	1
	3/12/2016 20:15	3/12/2016 23:15	180	0.65	54,117	1.84	0.27	6	Atlas		35,176	1
	3/13/2016 10:30	3/13/2016 10:30	-	0.65	1,071	2.02	0.27	6	Atlas		696	1
	3/24/2016 17:15	3/24/2016 17:30	15	0.33	25,876	0.35	0.21	1	Atlas		8,539	1
	3/27/2016 21:15	3/27/2016 21:15	-	0.88	14,776	1.05	0.59	3	Atlas		13,003	1
	3/31/2016 22:00	3/31/2016 22:00	-	1.38	765	2.08	0.52	24	Atlas		1,056	1
	4/11/2016 17:45	4/11/2016 18:00	15	1.11	746	1.10	0.52	6	Atlas		828	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.35	640	0.10	0.13	24	Atlas		224	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.88	69	1.27	0.41	1	Atlas		61	1
	4/30/2016 11:00	4/30/2016 11:15	15	0.87	8,187	1.61	0.33	24	Atlas		7,123	1
	5/1/2016 2:00	5/1/2016 2:00	-	0.87	1,131	1.97	0.33	24	Atlas		984	1
	5/1/2016 14:45	5/1/2016 14:45	-	0.33	1,788	2.20	0.22	3	Atlas		590	1
	5/7/2016 16:15	5/7/2016 16:15	-	0.80	1,326	1.09	0.42	6	Atlas		1,061	1
	5/10/2016 14:15	5/10/2016 21:45	450	0.83	14,298	1.88	0.32	12	Atlas		11,867	1
	5/20/2016 15:15	5/20/2016 15:30	15	0.55	1,896	1.28	0.30	6	Atlas		1,043	1
	6/2/2016 15:15	6/2/2016 15:30	15	1.12	29,351	1.22	0.91	1	Atlas		32,873	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.33	1,761	1.48	0.16	3	Atlas		581	1
	6/14/2016 16:30	6/14/2016 16:45	15	1.14	69,847	0.78	0.72	3	Atlas		79,626	1
	6/22/2016 8:15	6/22/2016 8:15	-	0.34	13,435	0.17	0.21	3	Atlas		4,568	1
	6/23/2016 16:00	6/23/2016 21:00	300	2.12	20,094	2.46	1.81	6	Cloudburst		42,600	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/3/2016 19:45	7/3/2016 20:00	15	1.30	7.940	0.59	0.42	48	Atlas		10,322	1
	7/20/2016 19:15	7/20/2016 19:30	15	0.10	63.000	0.23	0.08	1	Atlas		6,300	1
	7/25/2016 12:45	7/25/2016 12:45	-	0.30	3.553	0.20	0.16	6	Atlas		1,066	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.11	709	0.51	0.10	1	Atlas		78	1
	7/28/2016 3:15	7/28/2016 3:15	15	0.69	24.746	0.98	0.35	1	Atlas		17,075	1
	8/1/2016 11:00	8/1/2016 11:00	-	0.65	3.360	1.90	0.51	1	Atlas		2,184	1
	8/5/2016 13:45	8/5/2016 13:45	-	0.13	3.631	1.25	0.09	3	Atlas		472	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.23	33.822	0.41	0.19	1	Atlas		7,779	1
	8/15/2016 2:30	8/15/2016 5:45	195	0.74	5.135	1.06	0.38	6	Atlas		3,800	1
	8/17/2016 6:00	8/17/2016 7:00	60	1.32	21.449	2.15	0.63	3	Atlas		28,313	1
	8/20/2016 14:15	8/20/2016 19:45	330	1.40	22.838	3.52	0.61	12	Atlas		31,973	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.22	7.432	0.20	0.14	3	Atlas		1,635	1
	9/28/2016 12:15	9/28/2016 12:15	-	0.62	177	0.70	0.33	6	Atlas		110	1
	10/20/2016 9:15	10/20/2016 10:30	75	0.54	5.620	0.27	0.23	3	Atlas		3,035	1
	12/6/2016 9:15	12/6/2016 9:30	15	0.93	118	0.70	0.43	12	Atlas		110	1
	12/17/2016 16:45	12/18/2016 1:15	510	3.36	40.034	3.72	4.95	12	Cloudburst		134,514	1
	1/10/2017 19:30	1/10/2017 19:30	-	0.15	8.933	0.34	0.11	1	Atlas		1,340	1
	1/12/2017 15:30	1/12/2017 18:15	165	0.43	1.293	0.67	0.21	6	Atlas		556	1
	1/17/2017 1:00	1/17/2017 1:00	-	0.69	7.384	2.04	0.32	6	Atlas		5,095	1
	1/19/2017 19:00	1/20/2017 1:00	360	0.89	6.638	2.35	0.41	12	Atlas		5,908	1
	2/24/2017 18:45	2/24/2017 18:45	-	0.23	18.865	0.27	0.18	1	Atlas		4,339	1
	2/28/2017 10:00	2/28/2017 10:00	-	0.35	4.274	0.54	0.17	6	Atlas		1,496	1
	3/1/2017 3:15	3/1/2017 8:45	330	1.31	8.657	1.94	0.67	6	Atlas		11,341	1
	3/7/2017 7:00	3/7/2017 7:00	-	0.48	731	1.93	0.22	12	Atlas		351	1
	4/16/2017 5:30	4/16/2017 17:30	720	1.26	5.569	0.91	0.48	24	Atlas		7,017	1
	4/28/2017 23:15	4/29/2017 3:45	270	1.28	51.137	1.63	0.64	6	Atlas		65,455	1
	4/29/2017 17:45	4/29/2017 17:45	-	1.28	280	1.44	0.64	6	Atlas		359	1
	5/4/2017 20:30	5/4/2017 20:30	-	1.66	2.950	1.99	0.56	24	Atlas		4,897	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.66	999	2.33	0.56	24	Atlas		1,659	1
	5/20/2017 18:45	5/21/2017 4:30	585	1.46	36.391	1.31	0.65	12	Atlas		53,131	1
	5/27/2017 14:00	5/27/2017 14:00	-	0.27	48.574	2.26	0.22	1	Atlas		13,115	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.47	22.881	0.46	0.41	1	Atlas		10,754	1
	6/13/2017 16:45	6/13/2017 16:45	-	0.30	39.533	0.30	0.25	1	Atlas		11,860	1
	6/15/2017 3:00	6/15/2017 3:45	45	0.48	83.448	0.54	0.29	3	Atlas		40,055	1
	6/23/2017 15:15	6/23/2017 17:15	120	1.25	4.078	1.36	0.41	48	Atlas		5,098	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.70	6.884	0.76	0.60	1	Atlas		4,819	1
	7/7/2017 20:30	7/7/2017 20:30	-	0.22	6.405	1.42	0.17	1	Atlas		1,409	1
	7/23/2017 3:00	7/23/2017 6:30	210	1.33	10.692	0.96	0.61	12	Atlas		14,220	1
	7/28/2017 9:00	7/28/2017 9:45	45	0.34	20.238	1.68	0.27	1	Atlas		6,881	1
	8/1/2017 21:15	8/1/2017 21:30	15	0.87	30.145	1.08	0.72	1	Atlas		26,226	1
	8/6/2017 14:30	8/6/2017 14:30	-	0.73	2.741	1.09	0.32	12	Atlas		2,001	1
	8/22/2017 15:45	8/22/2017 16:00	15	0.37	42.273	0.79	0.27	1	Atlas		15,641	1
	9/1/2017 10:15	9/2/2017 5:45	1,170	2.80	95.723	2.91	0.97	24	Atlas		268,023	1
	10/7/2017 21:30	10/7/2017 21:45	15	2.05	9,718	0.65	0.76	24	Atlas		19,921	1
	10/8/2017 10:00	10/8/2017 15:30	330	2.05	20.255	1.98	0.76	24	Atlas		41,523	1
	10/10/2017 16:15	10/10/2017 21:00	285	0.66	5.009	2.72	0.36	3	Atlas		3,306	1
	10/23/2017 6:15	10/23/2017 6:15	-	0.40	15.485	0.20	0.21	6	Atlas		6,194	1
	10/28/2017 0:00	10/28/2017 0:45	45	1.06	1.335	1.54	0.48	12	Atlas		1,415	1
	11/3/2017 4:30	11/3/2017 6:30	120	1.02	44.986	2.24	0.78	1	Atlas		45,886	1
	11/6/2017 1:30	11/6/2017 1:45	15	0.82	24.655	1.99	0.63	1	Atlas		20,217	1
	11/18/2017 16:30	11/18/2017 17:15	45	0.46	20.248	0.82	0.26	3	Atlas		9,314	1
	12/5/2017 3:15	12/5/2017 3:45	30	0.65	140	0.30	0.35	3	Atlas		91	1
	12/23/2017 3:00	12/23/2017 3:00	-	1.59	177	1.05	0.61	24	Atlas		282	1
	1/22/2018 19:30	1/22/2018 19:30	-	0.29	14.869	0.38	0.13	12	Atlas		4,312	1
	2/7/2018 3:15	2/7/2018 3:15	-	0.70	593	0.98	0.38	6	Atlas		415	1
	2/11/2018 10:00	2/11/2018 10:00	-	0.42	6.612	1.19	0.23	3	Atlas		2,777	1
	2/14/2018 7:15	2/14/2018 7:15	-	0.63	400	0.88	0.29	3	Atlas		252	1
	2/16/2018 2:30	2/16/2018 2:30	-	1.05	183	1.48	0.48	12	Atlas		192	1
	2/22/2018 1:30	2/22/2018 10:00	510	2.17	85.119	3.55	0.75	24	Atlas		184,708	1
	2/23/2018 3:00	2/23/2018 13:30	630	2.06	84.136	5.24	0.94	12	Atlas		173,321	1
	2/24/2018 18:00	2/26/2018 12:45	2,565	2.26	390.661	6.49	0.93	12	Atlas		882,894	1
	3/24/2018 10:30	3/24/2018 13:30	180	1.16	13.352	1.80	0.45	24	Atlas		15,488	1
	3/29/2018 19:15	3/29/2018 19:15	-	1.20	101	2.14	0.31	48	Atlas		121	1
	4/1/2018 21:45	4/2/2018 0:00	135	0.71	23.207	2.23	0.39	6	Atlas		16,477	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/15/2018 5:30	4/15/2018 5:30	-	0.95	1,118	0.70	0.31	48	Atlas		1,062	1
	5/5/2018 12:15	5/5/2018 19:30	435	2.03	51,765	1.93	0.89	6	Atlas		105,082	1
	5/22/2018 7:45	5/22/2018 7:45	-	0.27	33,374	0.45	0.21	1	Atlas		9,011	1
	5/27/2018 4:00	5/27/2018 4:15	15	1.23	8,695	0.99	0.60	1	Atlas		10,695	1
	5/27/2018 13:30	5/27/2018 13:30	-	1.23	467	1.44	0.60	1	Atlas		575	1
	6/1/2018 0:00	6/1/2018 4:00	240	1.60	24,554	3.02	0.75	6	Atlas		39,286	1
	6/10/2018 14:45	6/10/2018 14:45	-	0.66	5,253	0.31	0.29	12	Atlas		3,467	1
	6/11/2018 13:00	6/11/2018 13:15	15	0.22	52,595	0.84	0.14	1	Atlas		11,571	1
	6/20/2018 12:15	6/20/2018 15:00	165	0.87	191	0.88	0.57	3	Atlas		166	1
	6/21/2018 16:30	6/21/2018 16:30	-	0.48	296	1.17	0.22	12	Atlas		142	1
	6/22/2018 14:15	6/22/2018 14:15	-	0.72	128	1.82	0.36	6	Atlas		92	1
	6/25/2018 10:15	6/25/2018 12:45	150	0.84	470	2.92	0.33	12	Atlas		395	1
	6/26/2018 12:30	6/26/2018 12:30	-	0.75	457	3.09	0.30	12	Atlas		343	1
	7/16/2018 9:15	7/16/2018 9:15	-	0.32	119	0.21	0.26	1	Atlas		38	1
	7/20/2018 4:45	7/20/2018 4:45	-	1.73	23	0.50	1.30	3	Atlas		39	1
	7/20/2018 19:15	7/20/2018 22:15	180	1.73	1,057	2.20	1.30	3	Atlas		1,828	1
	7/22/2018 12:00	7/22/2018 12:00	-	0.08	463	2.19	0.04	12	Atlas		37	1
	7/31/2018 1:15	7/31/2018 8:30	435	2.08	2,270	1.96	0.86	6	Atlas		4,721	1
	8/15/2018 19:45	8/16/2018 9:45	840	3.00	48,944	2.91	1.78	24	Cloudburst		146,833	1
	8/20/2018 11:15	8/20/2018 11:15	-	0.61	77,469	3.47	0.37	1	Atlas		47,256	1
	8/31/2018 17:00	8/31/2018 17:00	-	0.47	5,853	0.39	0.31	3	Atlas		2,751	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.17	14,965	0.56	0.11	3	Atlas		2,544	1
	9/8/2018 17:15	9/8/2018 22:00	285	3.55	19,042	3.94	12.29	6	Cloudburst		67,600	1
	9/21/2018 14:00	9/21/2018 17:15	195	0.46	24,287	0.52	0.26	1	Atlas		11,172	1
	9/23/2018 4:00	9/23/2018 6:15	135	1.59	4,149	1.90	0.60	24	Atlas		6,597	1
	9/24/2018 7:30	9/24/2018 13:45	375	1.99	7,640	3.87	0.85	6	Atlas		15,203	1
	9/25/2018 16:30	9/25/2018 17:00	30	1.02	6,148	4.59	0.45	12	Atlas		6,271	1
	9/26/2018 1:30	9/26/2018 1:45	15	1.02	3,946	4.96	0.45	12	Atlas		4,025	1
	10/10/2018 16:15	10/10/2018 16:15	-	0.34	27,844	0.27	0.27	1	Atlas		9,467	1
	11/1/2018 2:15	11/1/2018 2:15	-	2.27	349	1.89	0.80	24	Atlas		793	1
	11/5/2018 21:45	11/5/2018 22:00	15	0.99	4,212	2.85	0.54	6	Atlas		4,170	1
	12/1/2018 9:00	12/1/2018 10:00	60	1.45	1,160	1.26	0.60	12	Atlas		1,682	1
	12/15/2018 4:15	12/15/2018 9:15	300	1.55	9,758	1.43	0.64	12	Atlas		15,125	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.36	2,633	0.49	0.21	1	Atlas		948	1
	12/31/2018 12:30	12/31/2018 17:00	270	1.59	8,348	1.97	0.62	12	Atlas		13,273	1
	2/6/2019 6:45	2/6/2019 9:30	165	1.61	5,000	0.79	0.52	48	Atlas		8,050	1
	2/7/2019 9:00	2/7/2019 9:15	15	1.61	491	1.27	0.52	48	Atlas		791	1
	2/11/2019 23:15	2/12/2019 8:30	555	3.03	24,481	4.57	0.95	48	Atlas		74,178	1
	2/20/2019 3:15	2/20/2019 7:45	270	1.60	64,663	1.50	0.71	6	Atlas		103,460	1
	2/23/2019 18:30	2/23/2019 21:45	195	0.89	8,182	2.54	0.49	6	Atlas		7,282	1
	3/9/2019 16:30	3/9/2019 18:30	120	1.14	2,200	1.24	0.55	6	Atlas		2,508	1
	3/14/2019 17:00	3/14/2019 18:00	60	0.48	76,481	1.94	0.32	3	Atlas		36,711	1
	3/30/2019 15:15	3/30/2019 20:15	300	1.07	36,516	1.45	0.48	6	Atlas		39,072	1
	4/7/2019 11:45	4/7/2019 13:45	120	0.62	13,003	0.84	0.28	12	Atlas		8,062	1
	4/14/2019 2:30	4/14/2019 5:30	180	0.86	31,195	1.58	0.40	6	Atlas		26,828	1
	5/26/2019 14:00	5/26/2019 15:00	60	0.87	2,000	0.94	0.53	3	Atlas		1,740	1
	5/29/2019 9:00	5/29/2019 9:00	-	0.90	6,166	1.20	0.49	6	Atlas		5,549	1
	6/5/2019 20:30	6/5/2019 21:00	30	0.95	7,049	1.08	0.70	1	Atlas		6,697	1
	6/7/2019 21:00	6/7/2019 21:00	-	0.66	2,089	1.11	0.21	48	Atlas		1,379	1
	6/9/2019 0:15	6/9/2019 0:15	-	0.66	648	1.61	0.21	48	Atlas		428	1
	6/9/2019 15:30	6/9/2019 18:00	150	0.37	58,141	1.96	0.17	6	Atlas		21,512	1
	6/16/2019 5:45	6/16/2019 5:45	-	0.59	6,620	0.97	0.39	3	Atlas		3,906	1
	6/16/2019 16:00	6/16/2019 22:45	405	2.61	39,372	3.27	2.00	12	Cloudburst		102,762	1
	6/18/2019 16:15	6/18/2019 16:30	15	0.65	37,551	3.97	0.37	1	Atlas		24,408	1
	6/21/2019 19:15	6/21/2019 19:15	-	0.41	9,673	4.25	0.27	3	Atlas		3,966	1
	6/22/2019 6:45	6/22/2019 6:45	-	0.50	4,000	4.50	0.33	3	Atlas		2,000	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.31	27,365	4.41	0.23	1	Atlas		8,483	1
	6/24/2019 13:30	6/24/2019 14:45	75	0.53	17,736	2.51	0.33	3	Atlas		9,400	1
	8/22/2019 2:45	8/22/2019 2:45	-	0.22	35,227	0.33	0.15	3	Atlas		7,750	1
	8/26/2019 10:30	8/26/2019 14:15	225	0.61	80,207	1.03	0.26	6	Atlas		48,926	1
	10/26/2019 5:45	10/26/2019 9:15	210	1.41	17,782	1.24	0.56	6	Atlas		25,072	1
	10/30/2019 12:30	10/30/2019 16:00	210	0.66	25,215	2.04	0.32	3	Atlas		16,642	1
	10/31/2019 6:15	10/31/2019 9:15	180	0.58	25,755	2.65	0.31	6	Atlas		14,938	1
	11/26/2019 21:30	11/27/2019 0:15	165	0.84	5,223	1.26	0.39	6	Atlas		4,387	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/30/2019 5:00	11/30/2019 16:30	690	2.30	34.228	3.33	0.93	12	Atlas		78.725	1
	12/16/2019 17:30	12/16/2019 18:15	45	0.83	13.145	1.44	0.36	6	Atlas		10.910	1
	12/29/2019 19:30	12/29/2019 22:15	165	1.21	34.723	1.11	0.44	24	Atlas		42.015	1
	1/11/2020 11:00	1/11/2020 16:30	330	0.89	4.407	1.31	0.41	6	Atlas		3.922	1
	2/12/2020 17:15	2/12/2020 19:15	120	0.89	32.544	1.47	0.40	3	Atlas		28.964	1
	3/10/2020 8:00	3/10/2020 8:00	-	0.45	4.040	0.46	0.20	12	Atlas		1.818	1
	3/12/2020 19:30	3/12/2020 20:15	45	0.62	25.474	1.01	0.31	6	Atlas		15.794	1
	3/19/2020 12:00	3/19/2020 13:00	60	0.59	18.485	2.21	0.25	3	Atlas		10.906	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.24	69.921	0.49	0.19	1	Atlas		16.781	1
	4/8/2020 22:00	4/8/2020 22:00	-	0.58	4.233	0.31	0.39	3	Atlas		2.455	1
	4/12/2020 18:15	4/13/2020 3:15	540	1.12	12.496	1.72	0.46	12	Atlas		13.996	1
	4/23/2020 15:00	4/23/2020 15:00	-	0.75	5.208	1.29	0.33	12	Atlas		3.906	1
	5/15/2020 16:45	5/16/2020 7:45	900	1.53	5.713	1.69	0.58	24	Atlas		8.741	1
	5/18/2020 2:45	5/18/2020 7:45	300	0.74	8.091	2.50	0.35	1	Atlas		5.987	1
	5/25/2020 16:30	5/25/2020 16:30	-	0.08	14.225	0.20	0.05	3	Atlas		1.138	1
	5/29/2020 0:15	5/29/2020 0:15	-	0.17	20.665	0.63	0.11	1	Atlas		3.513	1
	6/4/2020 18:00	6/4/2020 18:15	15	0.96	10.782	0.62	0.57	3	Atlas		10.351	1
	6/21/2020 11:30	6/21/2020 11:45	15	0.39	14.503	0.20	0.20	6	Atlas		5.656	1
	6/22/2020 22:30	6/23/2020 8:30	600	1.10	23.058	1.51	0.44	6	Atlas		25.364	1
	6/29/2020 2:45	6/29/2020 4:15	90	0.72	12.646	1.92	0.47	3	Atlas		9.105	1
	6/29/2020 19:00	6/29/2020 19:00	-	0.56	7.418	2.49	0.48	1	Atlas		4.154	1
	CSO051 Total										**6,539,334**	**289**
CSO052	10/27/2015 17:00	10/28/2015 8:00	900	2.55	55.524	2.86	0.86	24	Atlas		141.587	1
	11/6/2015 3:30	11/6/2015 4:45	75	0.95	14.525	1.02	0.59	3	Atlas		13.799	1
	11/12/2015 0:30	11/12/2015 0:30	-	0.32	5.306	1.82	0.19	3	Atlas		1.698	1
	11/18/2015 10:15	11/18/2015 14:15	240	1.25	65.854	1.68	0.62	6	Atlas		82.317	1
	12/23/2015 19:00	12/23/2015 20:15	75	0.74	58.201	1.37	0.56	1	Atlas		43.069	1
	12/27/2015 10:15	12/27/2015 16:30	375	2.21	22.282	3.49	0.72	6	Atlas		49.243	1
	12/28/2015 16:30	12/28/2015 20:00	210	2.21	600	4.03	0.72	6	Atlas		1.327	1
	2/2/2016 22:15	2/3/2016 0:30	135	1.49	32.326	1.48	0.72	6	Atlas		48.166	1
	2/21/2016 10:00	2/21/2016 10:15	15	0.86	6.001	1.00	0.39	12	Atlas		5.161	1
	2/24/2016 1:00	2/24/2016 5:00	240	1.90	7.665	2.04	0.72	24	Atlas		14.563	1
	3/12/2016 22:30	3/12/2016 22:45	15	0.87	12.146	1.94	0.37	6	Atlas		10.567	1
	4/11/2016 17:30	4/11/2016 17:45	15	1.03	1.051	0.93	0.47	6	Atlas		1.083	1
	5/10/2016 18:15	5/10/2016 22:00	225	0.90	24.396	1.83	0.34	24	Atlas		21.956	1
	5/20/2016 15:15	5/20/2016 15:15	-	0.53	1.023	1.18	0.29	3	Atlas		542	1
	6/23/2016 19:30	6/23/2016 21:30	120	2.37	33.070	2.92	2.92	6	Cloudburst		78.376	1
	1/10/2017 19:15	1/10/2017 19:15	-	0.16	2.763	0.34	0.11	1	Atlas		442	1
	1/12/2017 15:15	1/12/2017 15:15	-	0.45	2.087	0.60	0.22	6	Atlas		939	1
	1/17/2017 0:45	1/17/2017 4:45	240	0.60	63.997	2.19	0.28	12	Atlas		38.398	1
	1/19/2017 18:45	1/20/2017 4:15	570	0.95	137.067	2.48	0.43	12	Atlas		130.214	1
	2/24/2017 18:30	2/24/2017 18:45	15	0.44	15.236	0.47	0.36	1	Atlas		6.704	1
	3/1/2017 2:45	3/1/2017 9:45	420	1.35	63.118	2.24	0.71	3	Atlas		85.209	1
	3/7/2017 7:15	3/7/2017 7:30	15	0.68	1.301	1.95	0.22	48	Atlas		885	1
	4/16/2017 5:00	4/17/2017 12:45	1,905	1.24	89.643	1.63	0.48	24	Atlas		111.157	1
	4/28/2017 23:00	4/29/2017 8:30	570	1.25	94.424	1.67	0.66	3	Atlas		118.030	1
	5/4/2017 19:45	5/5/2017 12:15	990	1.66	84.930	3.03	0.57	24	Atlas		140.984	1
	5/20/2017 18:15	5/21/2017 6:15	720	1.34	122.293	1.37	0.60	12	Atlas		163.872	1
	5/27/2017 13:45	5/27/2017 13:45	-	0.19	36.089	1.96	0.15	1	Atlas		6.857	1
	6/5/2017 18:00	6/5/2017 18:00	-	0.26	74.146	0.18	0.22	1	Atlas		19.278	1
	6/15/2017 2:45	6/15/2017 4:45	120	0.53	27.481	0.69	0.33	3	Atlas		14.565	1
	6/23/2017 14:45	6/23/2017 19:30	285	1.22	45.654	1.45	0.43	6	Atlas		55.698	1
	6/30/2017 20:45	6/30/2017 20:45	-	0.33	20.779	0.42	0.28	1	Atlas		6.857	1
	7/7/2017 20:15	7/7/2017 20:15	-	0.19	1.284	1.04	0.15	1	Atlas		244	1
	7/28/2017 8:45	7/28/2017 9:30	45	0.50	31.712	1.62	0.38	1	Atlas		15.856	1
	8/1/2017 21:00	8/1/2017 21:30	30	0.63	56.329	1.06	0.50	1	Atlas		35.487	1
	8/22/2017 15:30	8/22/2017 17:00	90	0.35	31.426	0.77	0.24	1	Atlas		10.999	1
	9/1/2017 9:15	9/2/2017 6:45	1,290	2.71	136.792	2.82	0.95	24	Atlas		370.706	1
	9/19/2017 7:45	9/19/2017 8:00	15	0.54	11.296	0.71	0.35	3	Atlas		6.100	1
	10/7/2017 21:15	10/7/2017 23:00	105	1.91	12.735	0.86	0.71	24	Atlas		24.323	1
	10/8/2017 10:00	10/8/2017 15:30	330	1.91	25.624	1.85	0.71	24	Atlas		48.941	1
	10/10/2017 15:45	10/10/2017 21:15	330	0.65	87.422	2.57	0.35	3	Atlas		56.824	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/23/2017 6:00	10/23/2017 6:00	-	0.38	10.234	0.15	0.20	6	Atlas		3,889	1
	10/27/2017 19:45	10/28/2017 1:45	360	0.92	55.849	1.40	0.42	12	Atlas		51,381	1
	11/3/2017 4:15	11/3/2017 9:00	285	1.00	36.725	2.09	0.73	1	Atlas		36,725	1
	11/6/2017 1:15	11/6/2017 1:45	30	0.91	12.941	2.07	0.70	1	Atlas		11,776	1
	11/18/2017 17:00	11/18/2017 17:00	-	0.63	1.490	0.66	0.40	1	Atlas		939	1
	12/5/2017 3:30	12/5/2017 5:45	135	0.60	20.430	0.59	0.31	3	Atlas		12,258	1
	12/22/2017 23:30	12/23/2017 5:15	345	1.36	27.963	1.08	0.52	24	Atlas		38,030	1
	1/22/2018 19:15	1/22/2018 19:15	-	0.27	167	0.27	0.12	12	Atlas		45	1
	2/7/2018 3:45	2/7/2018 3:45	-	0.60	1.068	0.86	0.33	6	Atlas		641	1
	2/11/2018 11:15	2/11/2018 11:15	-	0.41	837	1.13	0.22	3	Atlas		343	1
	2/16/2018 2:15	2/16/2018 12:00	585	0.98	55.082	2.12	0.44	12	Atlas		53,980	1
	2/21/2018 21:45	2/22/2018 11:30	825	1.89	64.844	3.15	0.71	24	Atlas		122,556	1
	2/23/2018 2:30	2/23/2018 20:15	1,065	1.84	97.822	4.79	0.84	12	Atlas		179,993	1
	2/24/2018 10:15	3/1/2018 16:45	7,590	2.13	239.494	6.21	0.90	12	Atlas		510,123	1
	3/10/2018 2:45	3/10/2018 2:45	-	0.59	414	0.60	0.37	3	Atlas		244	1
	3/24/2018 9:30	3/24/2018 19:15	585	1.13	21.787	1.92	0.43	24	Atlas		24,619	1
	3/29/2018 19:00	3/29/2018 22:45	225	0.67	3.949	2.15	0.22	24	Atlas		2,646	1
	4/1/2018 21:15	4/2/2018 0:15	180	0.62	78.031	2.07	0.34	6	Atlas		48,379	1
	4/3/2018 16:15	4/3/2018 21:45	330	0.39	34.131	2.48	0.21	6	Atlas		13,311	1
	4/15/2018 5:15	4/15/2018 9:30	255	0.89	3.084	0.91	0.29	24	Atlas		2,745	1
	5/5/2018 14:15	5/5/2018 20:00	345	1.66	43.165	1.57	0.70	6	Atlas		71,654	1
	5/10/2018 2:15	5/10/2018 2:15	-	0.08	18.850	1.75	0.06	1	Atlas		1,508	1
	5/22/2018 7:30	5/22/2018 7:30	-	0.25	6.792	0.36	0.20	1	Atlas		1,698	1
	5/27/2018 3:30	5/27/2018 4:15	45	0.93	26.404	0.85	0.50	1	Atlas		24,556	1
	5/27/2018 13:15	5/27/2018 13:15	-	0.93	1.010	1.13	0.50	1	Atlas		939	1
	5/31/2018 23:45	6/1/2018 4:30	285	1.72	53.187	2.83	0.87	3	Atlas		91,481	1
	6/10/2018 14:30	6/10/2018 14:45	15	0.94	8.898	0.24	0.35	24	Atlas		8,364	1
	6/11/2018 12:45	6/11/2018 14:15	90	0.94	4.783	0.92	0.35	24	Atlas		4,496	1
	8/15/2018 19:45	8/16/2018 12:00	975	3.06	102.939	3.06	1.94	24	Cloudburst		314,993	1
	8/20/2018 11:00	8/20/2018 11:30	30	0.81	49.177	3.77	0.53	1	Atlas		39,833	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.19	49.821	0.58	0.13	1	Atlas		9,466	1
	9/8/2018 17:15	9/8/2018 22:15	300	3.08	51.458	3.50	5.81	6	Cloudburst		158,490	1
	9/21/2018 13:45	9/21/2018 17:15	210	0.52	12.840	0.57	0.28	6	Atlas		6,677	1
	9/22/2018 16:30	9/22/2018 16:30	-	1.43	309	0.91	0.53	24	Atlas		442	1
	9/23/2018 4:00	9/23/2018 6:30	150	1.43	6.276	1.88	0.53	24	Atlas		8,974	1
	9/24/2018 7:15	9/24/2018 13:30	375	1.65	22.698	3.54	0.78	6	Atlas		37,451	1
	9/25/2018 5:30	9/25/2018 5:30	-	0.20	6.595	3.75	0.17	1	Atlas		1,319	1
	9/25/2018 16:15	9/25/2018 17:15	60	0.81	13.516	4.26	0.35	12	Atlas		10,948	1
	9/26/2018 1:45	9/26/2018 1:45	-	0.81	2.564	4.52	0.35	12	Atlas		2,077	1
	10/10/2018 16:15	10/10/2018 16:15	-	0.16	36.038	0.09	0.10	1	Atlas		5,766	1
	11/1/2018 2:00	11/1/2018 2:00	-	1.98	1.845	1.62	0.69	24	Atlas		3,654	1
	11/5/2018 22:00	11/5/2018 23:15	75	0.88	328	2.79	0.48	6	Atlas		289	1
	12/1/2018 8:00	12/1/2018 12:30	270	1.32	253	1.24	0.55	12	Atlas		334	1
	12/15/2018 4:15	12/15/2018 8:15	240	1.56	10.726	1.31	0.65	12	Atlas		16,733	1
	12/31/2018 12:15	12/31/2018 17:00	285	1.43	4.892	1.79	0.55	24	Atlas		6,996	1
	2/6/2019 6:45	2/6/2019 6:45	-	1.54	416	0.50	0.49	48	Atlas		641	1
	2/11/2019 13:00	2/12/2019 14:15	1,515	2.98	66.012	4.57	0.94	48	Atlas		196,717	1
	2/20/2019 3:45	2/20/2019 8:00	255	1.41	125.785	1.35	0.63	6	Atlas		177,357	1
	2/23/2019 18:15	2/23/2019 22:00	225	0.82	96.644	2.29	0.45	6	Atlas		79,248	1
	3/9/2019 13:15	3/9/2019 19:00	345	1.06	43.842	1.23	0.52	6	Atlas		46,472	1
	3/14/2019 17:00	3/14/2019 18:45	105	0.42	44.400	1.95	0.28	3	Atlas		18,648	1
	6/5/2019 20:45	6/5/2019 20:45	-	0.95	11.061	0.97	0.70	1	Atlas		10,508	1
	6/16/2019 19:30	6/16/2019 19:30	-	2.25	1.024	2.12	1.19	12	Cloudburst		2,305	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.19	15.126	0.40	0.16	1	Atlas		2,874	1
	CSO052 Total										4,461,554	94
CSO053	4/1/2012 8:30	4/1/2012 11:00	150	1.63	259.028	1.84	0.89	6	Atlas		422,215	1
	4/4/2012 16:45	4/4/2012 16:45	-	0.25	5.856	1.94	0.11	12	Atlas		1,464	1
	4/14/2012 9:00	4/14/2012 9:00	-	0.25	42.540	0.17	0.14	6	Atlas		10,635	1
	4/16/2012 7:00	4/16/2012 7:00	-	0.18	4.211	0.35	0.11	3	Atlas		758	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.72	410.111	0.84	0.54	1	Atlas		295,280	1
	4/30/2012 18:00	4/30/2012 20:15	135	0.46	261.646	1.30	0.30	3	Atlas		120,357	1
	5/4/2012 23:45	5/5/2012 4:30	285	1.40	282.499	2.59	0.75	3	Atlas		395,499	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/13/2012 1:45	5/13/2012 13:45	720	2.18	217.540	2.24	0.83	24	Atlas		474.237	1
	5/16/2012 17:45	5/16/2012 18:15	30	0.26	157.081	2.45	0.23	1	Atlas		40.841	1
	5/29/2012 6:30	5/29/2012 9:15	165	2.89	312.245	2.82	15.82	3	Atlas		902.389	1
	5/31/2012 18:30	6/1/2012 4:45	615	1.23	158.665	4.05	0.53	12	Atlas		195.158	1
	6/17/2012 11:30	6/17/2012 12:00	30	0.23	337.987	0.27	0.18	1	Atlas		77.737	1
	7/1/2012 19:45	7/1/2012 20:00	15	0.49	63.639	0.40	0.35	1	Atlas		31.183	1
	7/8/2012 13:00	7/8/2012 13:30	30	0.28	548.543	0.83	0.20	1	Atlas		153.592	1
	7/14/2012 13:30	7/14/2012 14:30	60	0.62	368.300	0.90	0.39	3	Atlas		228.346	1
	7/18/2012 16:15	7/18/2012 17:30	75	0.01	25.675.900	0.64	0.01	1	Atlas		256.759	1
	7/19/2012 18:15	7/19/2012 18:45	30	0.95	432.637	1.57	0.75	1	Atlas		411.005	1
	7/24/2012 20:00	7/24/2012 20:15	15	0.47	216.938	1.47	0.40	1	Atlas		101.961	1
	7/26/2012 21:30	7/26/2012 21:30	-	0.10	83.580	0.60	0.05	1	Atlas		8.358	1
	7/27/2012 19:45	7/27/2012 20:45	60	0.71	476.110	1.29	0.48	1	Atlas		338.038	1
	8/5/2012 17:30	8/5/2012 17:30	-	0.02	32.050	0.34	0.02	1	Atlas		641	1
	8/16/2012 20:15	8/16/2012 22:15	120	0.64	101.061	0.66	0.37	3	Atlas		64.679	1
	8/21/2012 13:30	8/21/2012 14:00	30	0.22	933.386	0.87	0.19	1	Atlas		205.345	1
	9/1/2012 15:00	9/1/2012 17:30	150	0.40	153.768	0.43	0.26	1	Atlas		61.507	1
	9/2/2012 12:00	9/2/2012 20:30	510	0.73	123.819	1.12	0.28	24	Atlas		90.388	1
	9/5/2012 15:15	9/5/2012 16:30	75	0.60	519.503	1.79	0.43	1	Atlas		311.702	1
	9/7/2012 23:15	9/8/2012 6:30	435	1.37	184.947	3.12	0.77	3	Atlas		253.377	1
	9/25/2012 9:00	9/25/2012 9:00	-	0.39	8.772	0.24	0.21	6	Atlas		3.421	1
	9/25/2012 23:45	9/26/2012 5:30	345	0.46	230.713	0.75	0.21	12	Atlas		106.128	1
	9/26/2012 19:45	9/27/2012 0:00	255	1.73	302.150	2.54	0.92	6	Atlas		522.720	1
	10/1/2012 14:45	10/1/2012 18:45	240	0.61	75.874	3.11	0.24	12	Atlas		46.283	1
	10/6/2012 0:00	10/6/2012 0:45	45	0.15	112.360	0.75	0.08	3	Atlas		16.854	1
	10/14/2012 16:15	10/14/2012 16:15	-	0.12	120.942	0.11	0.08	1	Atlas		14.513	1
	10/18/2012 0:45	10/18/2012 1:45	60	0.28	80.754	0.39	0.19	3	Atlas		22.611	1
	10/26/2012 11:30	10/26/2012 17:15	345	0.77	29.714	0.74	0.36	6	Atlas		22.880	1
	11/7/2012 12:15	11/7/2012 12:15	-	0.03	141.900	0.16	0.02	3	Atlas		4.257	1
	11/12/2012 5:30	11/12/2012 7:15	105	0.45	516	0.43	0.21	12	Atlas		232	1
	12/2/2012 11:15	12/2/2012 11:15	-	0.25	63.424	0.28	0.15	3	Atlas		15.856	1
	12/4/2012 15:00	12/4/2012 18:15	195	0.68	88.490	0.93	0.44	3	Atlas		60.173	1
	12/6/2012 23:45	12/7/2012 17:30	1,065	1.14	64.355	2.07	0.47	12	Atlas		73.365	1
	12/8/2012 5:45	12/8/2012 9:30	225	0.37	45.157	2.44	0.23	1	Atlas		16.708	1
	12/9/2012 8:45	12/9/2012 8:45	-	1.13	950	2.50	0.55	3	Atlas		1.074	1
	12/9/2012 21:30	12/9/2012 23:30	120	1.13	276.393	3.12	0.55	3	Atlas		312.324	1
	12/15/2012 11:15	12/15/2012 11:45	30	0.17	65.159	1.29	0.10	3	Atlas		11.077	1
	12/17/2012 17:00	12/17/2012 17:00	-	0.35	17.043	0.53	0.19	6	Atlas		5.965	1
	12/20/2012 6:45	12/20/2012 12:00	315	0.70	154.029	1.22	0.38	6	Atlas		107.820	1
	12/26/2012 3:45	12/26/2012 6:15	150	0.67	106.391	1.25	0.26	24	Atlas		71.282	1
	1/11/2013 5:30	1/11/2013 6:30	60	0.67	170.097	0.79	0.37	3	Atlas		113.965	1
	1/13/2013 3:15	1/13/2013 18:45	930	2.30	194.368	3.10	0.88	24	Atlas		447.046	1
	1/30/2013 17:30	1/30/2013 21:15	225	0.80	7.964	1.11	0.40	6	Atlas		6.371	1
	1/31/2013 20:45	1/31/2013 22:15	90	0.06	23.750	1.17	0.03	12	Atlas		1.425	1
	2/10/2013 23:00	2/11/2013 8:00	540	0.18	92.461	0.39	0.09	3	Atlas		16.643	1
	2/13/2013 18:45	2/13/2013 20:15	90	0.07	60.129	0.35	0.03	12	Atlas		4.209	1
	2/21/2013 23:15	2/22/2013 1:00	105	0.43	40.600	0.75	0.20	12	Atlas		17.458	1
	2/26/2013 13:45	2/26/2013 16:15	150	0.56	24.161	0.90	0.22	24	Atlas		13.530	1
	3/5/2013 16:15	3/5/2013 21:30	315	0.45	38.693	0.58	0.17	24	Atlas		17.412	1
	3/10/2013 18:45	3/11/2013 11:00	975	1.06	109.025	1.49	0.43	12	Atlas		115.567	1
	3/17/2013 13:45	3/18/2013 6:30	1,005	1.76	122.427	2.61	0.57	48	Atlas		215.472	1
	3/24/2013 7:30	3/24/2013 16:15	525	0.55	56.140	1.84	0.20	24	Atlas		30.877	1
	4/11/2013 5:15	4/11/2013 7:15	120	1.27	97.660	0.50	0.49	24	Atlas		124.028	1
	4/11/2013 15:45	4/11/2013 22:45	420	1.27	26.227	1.25	0.49	24	Atlas		33.308	1
	4/16/2013 20:00	4/16/2013 20:30	30	0.59	875.583	1.80	0.46	1	Atlas		516.594	1
	4/19/2013 1:15	4/19/2013 4:15	180	0.80	307.758	1.41	0.44	6	Atlas		246.206	1
	4/24/2013 6:15	4/24/2013 9:30	195	0.70	132.421	1.53	0.40	3	Atlas		92.695	1
	5/4/2013 12:30	5/4/2013 14:00	90	1.56	5.802	0.54	0.48	24	Atlas		9.051	1
	5/5/2013 4:45	5/5/2013 8:15	210	1.56	24.659	1.36	0.48	24	Atlas		38.468	1
	5/6/2013 17:30	5/6/2013 17:30	-	1.56	39.844	1.62	0.48	24	Atlas		62.157	1
	5/10/2013 9:45	5/10/2013 14:15	270	0.86	71.648	2.34	0.38	6	Atlas		61.617	1
	5/10/2013 23:45	5/11/2013 0:00	15	0.86	67.981	2.43	0.38	6	Atlas		58.464	1
	5/16/2013 10:30	5/16/2013 10:30	-	0.24	261.521	1.13	0.20	1	Atlas		62.765	1
	6/10/2013 0:00	6/10/2013 0:30	30	0.33	410.655	0.24	0.13	6	Atlas		135.516	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/16/2013 16:45	6/16/2013 17:15	30	0.44	305.645	0.73	0.30	1	Atlas		134.484	1
	6/17/2013 19:30	6/17/2013 21:00	90	0.63	70.683	1.01	0.31	6	Atlas		44.530	1
	6/26/2013 3:30	6/26/2013 4:45	75	0.70	473.230	1.06	0.50	1	Atlas		331.261	1
	6/26/2013 16:15	6/26/2013 21:30	315	2.46	611.900	3.38	2.75	6	Cloudburst		1,505.273	1
	6/29/2013 20:00	6/29/2013 21:15	75	0.55	109.920	3.79	0.30	3	Atlas		60.456	1
	7/1/2013 18:45	7/1/2013 19:30	45	0.25	52.784	4.02	0.12	3	Atlas		13.196	1
	7/2/2013 13:15	7/2/2013 13:30	15	0.09	2,578.911	4.12	0.08	1	Atlas		232.102	1
	7/3/2013 17:15	7/3/2013 17:15	-	0.06	2.583	1.81	0.04	1	Atlas		155	1
	7/4/2013 6:45	7/4/2013 6:45	-	0.51	8.724	1.14	0.21	12	Atlas		4.449	1
	7/6/2013 1:00	7/6/2013 5:15	255	0.56	37.525	1.96	0.25	12	Atlas		21.014	1
	7/10/2013 14:00	7/10/2013 14:30	30	0.64	535.966	1.76	0.43	1	Atlas		343.018	1
	7/14/2013 19:45	7/14/2013 19:45	-	0.08	633.175	0.76	0.07	1	Atlas		50.654	1
	7/18/2013 15:45	7/18/2013 16:30	45	0.29	1,450.128	0.40	0.23	1	Atlas		420.537	1
	7/21/2013 20:15	7/21/2013 20:45	30	1.96	36.803	1.20	0.75	24	Atlas		72.134	1
	7/22/2013 6:30	7/22/2013 14:00	450	1.96	272.271	2.27	0.75	24	Atlas		533.651	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.83	229.812	0.66	0.37	1	Atlas		190.744	1
	8/13/2013 2:30	8/13/2013 3:30	60	0.83	86.955	1.01	0.37	1	Atlas		72.173	1
	8/20/2013 18:30	8/20/2013 18:30	-	0.17	24.565	0.18	0.09	6	Atlas		4.176	1
	8/31/2013 20:00	9/1/2013 0:30	270	1.34	157.986	1.08	0.63	1	Atlas		211.701	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.25	842.656	1.59	0.22	1	Atlas		210.664	1
	9/20/2013 16:30	9/21/2013 4:00	690	1.36	162.921	1.30	0.56	12	Atlas		221.573	1
	10/6/2013 12:30	10/6/2013 12:15	1,425	4.23	352.049	4.38	7.98	24	Cloudburst		1,489.166	1
	10/30/2013 1:30	10/30/2013 5:45	255	1.06	238.183	1.03	0.50	6	Atlas		252.474	1
	10/31/2013 19:00	10/31/2013 20:00	60	0.71	155.454	1.71	0.28	12	Atlas		110.372	1
	11/15/2013 18:30	11/15/2013 18:30	-	0.10	6.400	0.14	0.09	1	Atlas		640	1
	11/17/2013 4:30	11/17/2013 19:15	885	2.59	355.060	2.73	1.61	6	Cloudburst		919.605	1
	12/5/2013 5:30	12/5/2013 7:45	135	0.76	59.732	0.16	0.25	48	Atlas		45.396	1
	12/14/2013 5:15	12/14/2013 10:45	330	0.64	155.186	0.99	0.26	12	Atlas		99.319	1
	12/21/2013 3:45	12/21/2013 12:30	525	2.75	49.656	1.71	1.08	24	Cloudburst		136.554	1
	12/21/2013 21:15	12/22/2013 0:45	210	2.75	265.942	2.62	1.08	24	Cloudburst		731.340	1
	1/5/2014 15:00	1/5/2014 17:45	165	0.48	15.619	0.59	0.25	3	Atlas		7.497	1
	1/11/2014 0:15	1/11/2014 4:00	225	0.75	153.393	1.17	0.39	6	Atlas		115.045	1
	2/2/2014 3:00	2/2/2014 5:15	135	0.21	85.848	0.16	0.11	6	Atlas		18.028	1
	2/4/2014 19:00	2/4/2014 23:45	285	0.53	317.740	1.00	0.26	6	Atlas		168.402	1
	2/17/2014 16:15	2/17/2014 16:45	30	0.49	184.822	0.80	0.29	3	Atlas		90.563	1
	2/20/2014 23:00	2/20/2014 23:15	15	0.20	154.165	1.05	0.11	6	Atlas		30.833	1
	3/2/2014 9:45	3/2/2014 11:15	90	0.45	67.462	0.22	0.17	24	Atlas		30.358	1
	3/12/2014 7:30	3/12/2014 7:30	-	0.10	8.840	0.10	0.05	1	Atlas		884	1
	3/28/2014 4:15	3/28/2014 4:45	30	0.29	56.541	0.35	0.15	6	Atlas		16.397	1
	3/29/2014 5:15	3/29/2014 8:30	195	0.79	102.347	0.84	0.36	12	Atlas		80.854	1
	4/3/2014 7:45	4/4/2014 7:15	1,410	2.91	170.644	4.05	1.04	24	Cloudburst		496.574	1
	4/7/2014 8:00	4/7/2014 15:30	450	0.82	392.293	3.84	0.52	1	Atlas		321.680	1
	4/14/2014 3:30	4/14/2014 3:45	15	1.14	3.435	1.08	0.43	24	Atlas		3.916	1
	4/14/2014 19:30	4/15/2014 0:45	315	1.14	45.445	1.06	0.43	24	Atlas		51.807	1
	4/28/2014 4:00	4/28/2014 7:15	195	1.69	237.336	1.29	0.63	24	Atlas		401.098	1
	4/28/2014 16:45	4/28/2014 17:45	60	1.69	9.083	1.71	0.63	24	Atlas		15.350	1
	5/9/2014 19:15	5/10/2014 15:15	1,200	1.47	327.259	1.53	0.57	24	Atlas		481.071	1
	5/14/2014 7:15	5/14/2014 23:15	960	0.72	79.611	2.31	0.27	24	Atlas		57.320	1
	5/16/2014 3:45	5/16/2014 3:45	-	0.10	43.040	2.40	0.07	1	Atlas		4.304	1
	5/21/2014 21:00	5/22/2014 3:30	390	0.73	165.381	0.88	0.33	12	Atlas		120.728	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.49	292.751	1.22	0.41	1	Atlas		143.448	1
	6/11/2014 14:00	6/11/2014 14:15	15	0.13	614.723	0.29	0.10	1	Atlas		79.914	1
	6/20/2014 16:00	6/20/2014 17:30	90	0.18	346.767	0.17	0.12	3	Atlas		62.418	1
	6/24/2014 13:45	6/24/2014 14:15	30	0.07	865.157	0.30	0.03	1	Atlas		60.561	1
	7/2/2014 16:15	7/2/2014 16:30	15	0.18	127.083	0.51	0.16	1	Atlas		22.875	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.31	804.055	0.78	0.27	1	Atlas		249.257	1
	7/13/2014 22:45	7/13/2014 23:15	30	0.92	191.357	1.31	0.52	1	Atlas		176.048	1
	7/14/2014 20:00	7/14/2014 20:15	15	0.46	75.993	1.76	0.31	3	Atlas		34.957	1
	7/26/2014 21:30	7/26/2014 22:45	75	0.89	233.936	0.51	0.39	12	Atlas		208.203	1
	7/27/2014 7:00	7/27/2014 9:15	135	0.89	74.381	0.96	0.39	12	Atlas		66.199	1
	8/8/2014 5:45	8/8/2014 7:45	120	0.79	522.651	0.59	0.38	6	Atlas		412.894	1
	8/10/2014 4:00	8/10/2014 4:45	45	0.73	566.607	1.62	0.57	1	Atlas		413.623	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.33	168.252	1.94	0.23	1	Atlas		55.523	1
	8/17/2014 9:30	8/17/2014 10:15	45	0.68	44.504	0.89	0.26	24	Atlas		30.263	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/17/2014 23:00	8/17/2014 23:15	15	0.68	57.313	1.01	0.26	24	Atlas		38.973	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.16	345.975	0.80	0.10	3	Atlas		55.356	1
	8/23/2014 15:45	8/24/2014 6:30	885	0.83	412.369	1.68	0.43	3	Atlas		342.266	1
	8/26/2014 20:00	8/26/2014 20:00	-	0.11	61.145	1.11	0.10	1	Atlas		6.726	1
	8/27/2014 17:15	8/27/2014 17:15	-	0.11	784.064	1.21	0.08	1	Atlas		86.247	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.72	190.993	1.57	0.44	1	Atlas		137.515	1
	9/2/2014 8:15	9/2/2014 8:30	15	0.49	30.865	1.21	0.25	3	Atlas		15.124	1
	9/11/2014 0:15	9/11/2014 6:00	345	2.08	258.576	2.01	1.67	3	Atlas		537.839	1
	10/3/2014 3:30	10/3/2014 3:30	-	0.34	17.397	0.04	0.13	24	Atlas		5.915	1
	10/6/2014 7:45	10/6/2014 9:45	120	0.35	218.880	0.64	0.18	3	Atlas		76.608	1
	10/7/2014 11:45	10/7/2014 12:00	15	0.18	86.017	0.88	0.14	1	Atlas		15.483	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.18	308.187	1.69	0.54	3	Atlas		363.661	1
	10/10/2014 21:15	10/10/2014 21:15	-	1.18	350	1.70	0.54	3	Atlas		413	1
	10/13/2014 4:15	10/13/2014 6:00	105	0.33	173.994	2.02	0.21	3	Atlas		57.418	1
	10/13/2014 23:00	10/14/2014 10:00	660	1.07	136.838	2.76	0.48	12	Atlas		146.417	1
	11/23/2014 17:30	11/23/2014 23:00	330	0.65	138.574	1.11	0.29	6	Atlas		90.073	1
	12/1/2014 2:15	12/1/2014 4:30	135	1.02	9.307	0.40	0.39	24	Atlas		9.493	1
	12/5/2014 23:15	12/6/2014 6:00	405	1.97	120.978	2.96	0.64	48	Atlas		238.326	1
	12/22/2014 22:30	12/22/2014 22:30	-	0.23	57.017	0.22	0.14	3	Atlas		13.114	1
	12/23/2014 20:30	12/23/2014 20:30	-	0.04	68.225	0.28	0.03	3	Atlas		2.729	1
	12/24/2014 13:30	12/24/2014 13:30	-	0.19	15.926	0.36	0.08	12	Atlas		3.026	1
	12/28/2014 1:00	12/28/2014 1:15	15	0.35	25.706	0.79	0.13	24	Atlas		8.997	1
	1/3/2015 10:45	1/3/2015 16:30	345	0.41	21.141	0.57	0.15	24	Atlas		8.668	1
	2/1/2015 13:00	2/1/2015 13:30	30	0.43	1.630	0.50	0.21	3	Atlas		701	1
	3/3/2015 18:45	3/4/2015 12:45	1,080	1.92	45.169	1.35	0.62	48	Atlas		86.724	1
	3/10/2015 7:00	3/10/2015 14:00	420	1.15	169.271	3.05	0.52	12	Atlas		194.662	1
	3/13/2015 10:15	3/14/2015 4:00	1,065	2.00	90.582	3.08	0.75	24	Atlas		181.164	1
	3/24/2015 20:00	3/24/2015 20:00	-	0.14	3.293	0.32	0.09	1	Atlas		461	1
	3/26/2015 4:15	3/26/2015 6:00	105	0.62	115.606	0.80	0.29	3	Atlas		71.676	1
	4/2/2015 9:45	4/3/2015 17:00	1,875	4.94	295.078	5.10	9.44	24	Cloudburst		1,457.686	1
	4/7/2015 9:15	4/7/2015 17:15	480	1.11	307.820	6.04	0.54	1	Atlas		341.680	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.26	181.688	5.99	0.23	1	Atlas		47.239	1
	4/10/2015 2:15	4/10/2015 2:45	30	0.22	297.118	3.74	0.14	3	Atlas		65.366	1
	4/13/2015 20:15	4/13/2015 21:00	45	0.66	42.052	1.88	0.25	24	Atlas		27.754	1
	4/14/2015 7:00	4/14/2015 7:00	-	0.66	9.170	1.97	0.25	24	Atlas		6.052	1
	4/19/2015 7:00	4/19/2015 18:15	675	0.68	66.744	1.40	0.28	12	Atlas		45.386	1
	4/20/2015 3:30	4/20/2015 3:30	-	0.10	21.050	1.50	0.09	1	Atlas		2.105	1
	4/25/2015 9:00	4/25/2015 9:15	15	0.17	41.200	0.98	0.08	12	Atlas		7.004	1
	4/30/2015 12:45	4/30/2015 12:45	-	0.17	91.165	0.42	0.15	1	Atlas		15.498	1
	5/16/2015 11:30	5/16/2015 13:15	105	0.60	193.882	0.61	0.35	3	Atlas		116.329	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	878.138	0.76	0.04	12	Atlas		70.251	1
	5/25/2015 8:15	5/25/2015 8:15	-	0.28	34.714	0.24	0.13	12	Atlas		9.720	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.16	313.319	0.40	0.10	1	Atlas		50.131	1
	6/8/2015 7:00	6/8/2015 8:15	75	0.18	403.633	0.23	0.11	3	Atlas		72.654	1
	6/17/2015 4:45	6/17/2015 6:15	90	0.64	228.839	0.65	0.35	3	Atlas		146.457	1
	6/18/2015 17:15	6/18/2015 17:45	30	0.67	274.633	1.19	0.38	1	Atlas		184.004	1
	6/20/2015 1:30	6/20/2015 8:15	405	0.95	257.867	2.33	0.39	12	Atlas		244.974	1
	6/22/2015 6:00	6/22/2015 6:15	15	0.24	4.008	2.51	0.11	3	Atlas		962	1
	6/25/2015 23:45	6/26/2015 1:00	75	0.57	82.633	1.63	0.31	6	Atlas		47.101	1
	6/26/2015 17:00	6/27/2015 0:00	420	1.05	311.799	2.79	0.54	1	Atlas		327.389	1
	6/29/2015 13:15	6/29/2015 14:45	90	0.25	85.304	1.87	0.12	1	Atlas		21.326	1
	7/2/2015 0:15	7/2/2015 21:00	1,245	2.57	172.760	4.45	0.98	1	Atlas		443.992	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.44	130.305	4.32	0.35	1	Atlas		57.334	1
	7/7/2015 11:30	7/7/2015 12:45	75	1.04	122.288	3.73	0.48	3	Atlas		127.179	1
	7/8/2015 12:00	7/8/2015 21:00	540	1.04	28.161	4.05	0.48	3	Atlas		29.287	1
	7/9/2015 6:15	7/9/2015 13:30	435	0.42	97.160	3.44	0.19	12	Atlas		40.807	1
	7/10/2015 10:15	7/10/2015 16:00	345	0.43	95.133	2.35	0.22	6	Atlas		40.907	1
	7/12/2015 5:45	7/12/2015 7:15	90	1.10	434.424	3.00	0.79	1	Atlas		477.866	1
	7/13/2015 14:45	7/13/2015 15:00	15	0.47	110.955	3.49	0.39	1	Atlas		52.149	1
	7/14/2015 4:00	7/14/2015 4:30	30	0.99	153.885	4.45	0.81	1	Atlas		152.346	1
	7/17/2015 22:15	7/18/2015 1:00	165	1.66	504.311	4.28	1.53	3	Atlas		837.157	1
	7/29/2015 17:15	7/29/2015 17:15	-	0.17	210.788	0.19	0.15	1	Atlas		35.834	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.55	194.598	0.68	0.46	1	Atlas		107.029	1
	8/5/2015 14:45	8/5/2015 15:15	30	0.31	369.294	1.02	0.27	1	Atlas		114.481	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/6/2015 2:15	8/6/2015 15:00	765	0.44	193.384	1.30	0.27	1	Atlas		85,089	1
	8/10/2015 20:30	8/10/2015 20:30	-	0.06	77.400	1.37	0.05	1	Atlas		4,644	1
	8/15/2015 16:30	8/15/2015 16:45	15	0.02	4,139.650	0.09	0.02	1	Atlas		82,793	1
	8/19/2015 8:30	8/19/2015 8:30	-	0.41	339	0.20	0.17	3	Atlas		139	1
	9/5/2015 17:30	9/5/2015 17:45	15	0.10	598.750	0.06	0.05	6	Atlas		59,875	1
	9/11/2015 19:15	9/11/2015 19:15	-	0.24	9.921	0.77	0.13	3	Atlas		2,381	1
	9/29/2015 19:00	9/29/2015 19:00	-	0.67	1.512	0.59	0.22	48	Atlas		1,013	1
	10/2/2015 17:30	10/2/2015 19:15	105	0.57	17.800	1.25	0.27	6	Atlas		10,146	1
	10/12/2015 18:00	10/12/2015 19:15	75	0.35	45.211	0.37	0.26	1	Atlas		15,824	1
	10/24/2015 17:00	10/24/2015 17:00	-	0.31	11.319	0.21	0.14	6	Atlas		3,509	1
	10/27/2015 14:15	10/28/2015 7:45	1,050	2.55	163.311	2.84	0.86	24	Atlas		416,444	1
	10/28/2015 17:45	10/28/2015 18:00	15	0.17	255.176	2.94	0.09	6	Atlas		43,380	1
	11/6/2015 3:00	11/6/2015 4:30	90	0.95	277.456	0.99	0.59	3	Atlas		263,583	1
	11/9/2015 19:15	11/9/2015 20:30	75	0.60	15.037	1.50	0.27	12	Atlas		9,022	1
	11/12/2015 0:00	11/12/2015 0:45	45	0.32	173.597	1.86	0.19	3	Atlas		55,551	1
	11/18/2015 8:30	11/18/2015 17:45	555	1.25	371.243	1.76	0.62	6	Atlas		464,054	1
	11/28/2015 13:45	11/28/2015 13:45	-	0.68	1.116	0.49	0.28	12	Atlas		759	1
	11/30/2015 21:45	12/1/2015 4:30	405	0.66	181.182	1.56	0.30	12	Atlas		119,580	1
	12/21/2015 11:00	12/21/2015 11:15	15	0.60	19.818	0.24	0.23	24	Atlas		11,891	1
	12/21/2015 23:45	12/22/2015 4:00	255	0.60	148.638	0.61	0.23	24	Atlas		89,183	1
	12/23/2015 19:15	12/23/2015 20:15	60	0.74	349.739	1.37	0.56	1	Atlas		258,807	1
	12/26/2015 13:30	12/26/2015 17:30	240	0.54	99.430	2.04	0.26	3	Atlas		53,692	1
	12/27/2015 10:00	12/27/2015 16:30	390	2.21	208.406	3.49	0.72	6	Atlas		460,577	1
	12/28/2015 5:45	12/28/2015 5:45	-	2.21	433	3.70	0.72	6	Atlas		958	1
	12/28/2015 16:00	12/28/2015 20:15	255	2.21	13.286	4.03	0.72	6	Atlas		29,363	1
	2/2/2016 14:45	2/3/2016 0:45	600	1.49	315.466	1.49	0.72	6	Atlas		470,044	1
	2/21/2016 4:00	2/21/2016 10:30	390	0.86	209.012	1.03	0.39	12	Atlas		179,750	1
	2/23/2016 22:30	2/24/2016 7:30	540	1.90	195.193	2.41	0.72	24	Atlas		370,866	1
	3/1/2016 8:45	3/1/2016 12:45	240	0.50	60.862	2.36	0.27	6	Atlas		30,431	1
	3/9/2016 15:30	3/9/2016 16:30	60	1.32	6.770	0.29	0.44	12	Atlas		8,937	1
	3/10/2016 13:15	3/10/2016 19:00	345	1.32	52.190	1.31	0.44	12	Atlas		68,891	1
	3/12/2016 20:15	3/12/2016 23:15	180	0.87	256.321	2.02	0.37	6	Atlas		222,999	1
	3/13/2016 9:00	3/13/2016 10:30	90	0.87	54.659	2.22	0.37	6	Atlas		47,553	1
	3/24/2016 17:15	3/24/2016 17:45	30	0.29	191.052	0.33	0.17	1	Atlas		55,405	1
	3/27/2016 21:00	3/27/2016 22:00	60	0.73	301.058	1.01	0.49	3	Atlas		219,772	1
	3/31/2016 4:15	4/1/2016 0:00	1,185	1.33	60.654	2.35	0.50	24	Atlas		80,670	1
	4/11/2016 13:30	4/11/2016 18:45	315	1.03	132.170	1.04	0.47	6	Atlas		136,135	1
	4/21/2016 14:15	4/21/2016 15:45	90	0.42	51.633	0.21	0.15	24	Atlas		21,686	1
	4/26/2016 16:00	4/26/2016 21:30	330	0.31	348.697	0.70	0.20	1	Atlas		108,096	1
	4/27/2016 12:45	4/27/2016 22:00	555	0.82	308.674	1.47	0.36	12	Atlas		253,113	1
	4/30/2016 8:45	4/30/2016 13:00	255	0.83	145.265	1.68	0.32	24	Atlas		120,570	1
	4/30/2016 23:15	5/1/2016 2:00	165	0.83	13.292	1.90	0.32	24	Atlas		11,032	1
	5/1/2016 14:45	5/1/2016 14:45	-	0.28	22.757	2.11	0.19	3	Atlas		6,372	1
	5/4/2016 11:15	5/4/2016 11:30	15	0.20	30.580	2.09	0.11	3	Atlas		6,116	1
	5/7/2016 16:15	5/7/2016 21:45	330	0.69	83.951	1.41	0.36	6	Atlas		57,926	1
	5/10/2016 14:00	5/10/2016 21:45	465	0.90	231.613	1.83	0.34	24	Atlas		208,452	1
	5/11/2016 21:30	5/11/2016 22:00	30	0.22	47.436	1.82	0.11	3	Atlas		10,436	1
	5/17/2016 6:45	5/17/2016 6:45	-	0.64	1.000	1.61	0.22	24	Atlas		640	1
	5/17/2016 20:00	5/17/2016 20:15	15	0.64	1.638	1.07	0.22	24	Atlas		1,048	1
	5/20/2016 13:30	5/20/2016 15:30	120	0.53	195.351	1.20	0.29	3	Atlas		103,536	1
	5/25/2016 17:45	5/25/2016 18:00	15	0.04	492.725	0.65	0.03	1	Atlas		19,709	1
	5/26/2016 13:30	5/26/2016 15:00	90	0.30	8.250	0.91	0.20	3	Atlas		2,475	1
	6/2/2016 15:15	6/2/2016 15:45	30	0.68	306.275	0.76	0.51	1	Atlas		208,267	1
	6/4/2016 11:30	6/4/2016 16:45	315	0.53	338.936	1.20	0.27	1	Atlas		179,636	1
	6/23/2016 16:00	6/23/2016 20:30	270	2.37	31.536	2.92	2.92	6	Cloudburst		74,740	1
	7/3/2016 10:00	7/3/2016 12:00	120	1.31	25	0.37	0.43	48	Atlas		33	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.09	1.778	0.36	0.08	1	Atlas		160	1
	7/28/2016 3:00	7/28/2016 3:00	-	0.85	545	1.05	0.43	1	Atlas		463	1
	7/30/2016 14:00	7/30/2016 14:00	-	0.18	1.461	1.44	0.16	1	Atlas		263	1
	8/1/2016 11:00	8/1/2016 11:00	-	0.68	153	2.01	0.49	1	Atlas		104	1
	8/5/2016 13:45	8/5/2016 13:45	-	0.10	5.540	1.16	0.07	3	Atlas		554	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.37	895	0.46	0.30	1	Atlas		331	1
	8/15/2016 2:30	8/15/2016 3:00	30	0.74	6.188	0.79	0.39	6	Atlas		4,579	1
	8/17/2016 6:30	8/17/2016 6:45	15	1.11	2.343	2.11	0.51	3	Atlas		2,601	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/20/2016 14:15	8/20/2016 19:30	315	1.48	24.693	3.42	0.64	12	Atlas		36,545	1
	9/28/2016 12:45	9/28/2016 12:45	-	0.48	935	0.66	0.26	6	Atlas		449	1
	12/17/2016 18:30	12/18/2016 1:15	405	3.07	2,395	3.40	3.65	12	Cloudburst		7,352	1
	3/1/2017 7:00	3/1/2017 7:00	-	1.35	120	1.73	0.71	3	Atlas		162	1
	3/27/2017 16:30	3/27/2017 16:30	-	0.31	655	0.41	0.19	1	Atlas		203	1
	4/16/2017 19:30	4/16/2017 19:30	-	1.24	1,384	1.16	0.48	24	Atlas		1,716	1
	5/25/2017 14:30	5/25/2017 15:30	60	0.47	2,636	1.86	0.17	24	Atlas		1,239	1
	6/5/2017 18:15	6/5/2017 18:30	15	0.26	2,654	0.30	0.22	1	Atlas		690	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.33	485	0.42	0.28	1	Atlas		160	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.63	131,090	1.06	0.50	1	Atlas		82,587	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.35	19,466	0.74	0.24	1	Atlas		6,813	1
	9/19/2017 8:00	9/19/2017 8:15	15	0.54	63,681	0.73	0.35	3	Atlas		34,388	1
	10/7/2017 22:00	10/7/2017 22:15	15	1.91	5,266	0.76	0.71	24	Atlas		10,059	1
	10/8/2017 13:00	10/8/2017 14:00	60	1.91	3,143	1.76	0.71	24	Atlas		6,004	1
	10/23/2017 6:15	10/23/2017 6:30	15	0.38	11,474	0.22	0.20	6	Atlas		4,360	1
	11/3/2017 5:00	11/3/2017 5:00	-	1.00	374	2.04	0.73	1	Atlas		374	1
	11/6/2017 1:45	11/6/2017 1:45	-	0.91	262	2.07	0.70	1	Atlas		238	1
	11/18/2017 17:30	11/18/2017 17:30	-	0.63	157	0.98	0.40	1	Atlas		99	1
	12/5/2017 3:45	12/5/2017 3:45	-	0.60	92	0.28	0.31	3	Atlas		55	1
	2/22/2018 3:15	2/22/2018 5:15	120	1.89	394	3.08	0.71	24	Atlas		745	1
	2/23/2018 4:15	2/23/2018 4:15	-	1.84	240	3.60	0.84	12	Atlas		441	1
	2/24/2018 19:00	2/24/2018 23:15	255	2.13	19,828	5.58	0.90	12	Atlas		42,234	1
	5/5/2018 14:45	5/5/2018 17:15	150	1.66	18,875	1.45	0.70	6	Atlas		31,333	1
	5/10/2018 2:30	5/10/2018 2:30	-	0.08	1,665,725	1.78	0.06	1	Atlas		133,258	1
	5/22/2018 8:00	5/22/2018 8:00	-	0.25	924	0.45	0.20	1	Atlas		231	1
	5/27/2018 4:00	5/27/2018 4:30	30	0.93	17,031	0.85	0.50	1	Atlas		15,839	1
	5/31/2018 14:00	5/31/2018 14:00	-	1.72	4,641	1.20	0.87	3	Atlas		7,983	1
	6/1/2018 1:15	6/1/2018 1:15	60	1.72	15,338	2.37	0.87	3	Atlas		26,382	1
	6/21/2018 17:00	6/21/2018 17:00	-	0.39	108,551	1.08	0.23	1	Atlas		42,335	1
	6/22/2018 19:00	6/22/2018 19:00	-	0.41	6,802	1.52	0.20	6	Atlas		2,789	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.82	76,194	2.12	0.32	12	Atlas		62,479	1
	6/26/2018 12:45	6/26/2018 13:00	15	0.82	49,199	2.69	0.33	12	Atlas		40,343	1
	7/16/2018 9:45	7/16/2018 9:45	-	0.26	7,223	0.33	0.21	1	Atlas		1,878	1
	7/20/2018 5:00	7/20/2018 5:00	-	1.69	14,139	0.46	1.07	3	Atlas		23,895	1
	7/20/2018 20:00	7/20/2018 21:15	75	1.69	65,918	2.05	1.07	3	Atlas		111,402	1
	7/31/2018 1:30	7/31/2018 13:00	690	1.73	187,286	1.76	0.73	6	Atlas		324,004	1
	8/15/2018 20:00	8/16/2018 8:45	765	3.06	132,017	2.89	1.94	24	Cloudburst		403,972	1
	8/20/2018 11:15	8/20/2018 11:45	30	0.81	15,158	3.77	0.53	1	Atlas		12,278	1
	9/8/2018 1:00	9/8/2018 1:15	15	0.27	78,159	0.45	0.15	3	Atlas		21,103	1
	9/8/2018 10:30	9/8/2018 17:15	405	0.27	444,693	1.21	0.15	3	Atlas		120,067	1
	9/21/2018 14:00	9/21/2018 17:30	210	0.52	135,519	0.57	0.28	6	Atlas		70,470	1
	9/22/2018 15:15	9/22/2018 17:00	105	1.43	42,078	0.95	0.53	24	Atlas		60,171	1
	9/23/2018 4:15	9/23/2018 7:15	180	1.43	113,090	1.95	0.53	24	Atlas		161,719	1
	9/24/2018 0:45	9/24/2018 14:00	795	1.65	151,607	3.58	0.78	6	Atlas		250,152	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.20	97,380	3.80	0.17	1	Atlas		19,476	1
	9/25/2018 16:30	9/26/2018 2:30	600	0.81	222,441	4.57	0.35	12	Atlas		180,177	1
	10/10/2018 16:30	10/10/2018 17:00	30	0.16	271,244	0.18	0.10	1	Atlas		43,339	1
	12/27/2018 16:30	12/27/2018 17:15	45	0.35	75,394	0.48	0.21	1	Atlas		26,388	1
	12/31/2018 3:45	12/31/2018 15:45	720	1.43	97,270	1.40	0.55	24	Atlas		139,096	1
	1/4/2019 12:45	1/4/2019 14:45	120	0.50	103,526	1.64	0.25	3	Atlas		51,763	1
	1/19/2019 5:15	1/19/2019 21:00	945	0.93	74,834	1.04	0.36	24	Atlas		69,596	1
	1/20/2019 9:00	1/21/2019 21:00	2,160	0.93	66,403	1.05	0.36	24	Atlas		61,755	1
	1/23/2019 9:45	1/23/2019 13:15	210	0.91	36,605	1.76	0.36	12	Atlas		33,311	1
	2/6/2019 7:00	2/6/2019 9:45	165	1.54	19,577	0.70	0.49	48	Atlas		30,148	1
	2/7/2019 8:30	2/7/2019 19:45	675	1.54	50,816	1.65	0.49	48	Atlas		78,257	1
	2/11/2019 0:30	2/11/2019 3:15	165	2.98	803	2.39	0.94	48	Atlas		2,392	1
	2/11/2019 20:00	2/12/2019 7:30	690	2.98	41,294	4.41	0.94	48	Atlas		123,056	1
	2/20/2019 2:45	2/20/2019 15:00	735	1.41	163,145	1.41	0.63	6	Atlas		230,034	1
	2/23/2019 17:00	2/23/2019 21:45	285	0.82	126,757	2.29	0.45	6	Atlas		103,941	1
	3/9/2019 12:30	3/9/2019 19:15	405	1.06	152,051	1.23	0.52	6	Atlas		161,174	1
	3/14/2019 4:30	3/14/2019 8:00	210	0.35	11,366	1.56	0.19	6	Atlas		3,978	1
	3/14/2019 17:15	3/14/2019 18:45	90	0.42	254,221	1.95	0.28	3	Atlas		106,773	1
	3/25/2019 5:00	3/25/2019 5:00	-	0.29	714	0.35	0.15	6	Atlas		207	1
	3/30/2019 15:15	3/30/2019 20:00	285	1.02	184,233	1.39	0.46	6	Atlas		187,918	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/7/2019 6:00	4/7/2019 13:45	465	0.57	145,605	0.78	0.27	3	Atlas		82,995	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.09	99,300	0.66	0.06	1	Atlas		8,937	1
	4/14/2019 1:00	4/14/2019 5:30	270	0.79	153,673	1.45	0.38	6	Atlas		121,402	1
	4/18/2019 21:15	4/18/2019 23:00	105	2.39	5,982	1.23	0.77	48	Atlas		14,297	1
	4/19/2019 18:30	4/20/2019 7:00	750	2.39	127,537	2.83	0.77	48	Atlas		304,813	1
	4/24/2019 20:30	4/25/2019 1:45	315	1.04	68,649	2.97	0.34	48	Atlas		71,395	1
	4/25/2019 18:00	4/26/2019 3:00	540	1.04	88,660	3.42	0.34	48	Atlas		92,206	1
	5/2/2019 11:30	5/2/2019 11:45	15	0.23	18,713	0.73	0.20	1	Atlas		4,304	1
	5/3/2019 3:15	5/3/2019 8:30	315	0.95	226,028	1.29	0.51	6	Atlas		214,727	1
	5/19/2019 13:15	5/19/2019 13:15	-	0.28	21,121	0.15	0.11	12	Atlas		5,914	1
	5/19/2019 23:30	5/19/2019 23:30	-	0.28	17,914	0.31	0.11	12	Atlas		5,016	1
	5/23/2019 16:00	5/23/2019 16:00	-	0.03	242,633	0.35	0.03	1	Atlas		7,279	1
	5/26/2019 13:45	5/26/2019 17:00	195	0.79	65,780	1.00	0.45	3	Atlas		51,966	1
	5/29/2019 9:15	5/29/2019 13:45	270	0.80	72,346	1.62	0.44	6	Atlas		57,877	1
	5/30/2019 11:00	5/30/2019 12:00	60	0.21	72,205	1.81	0.08	12	Atlas		15,163	1
	6/5/2019 20:45	6/5/2019 21:15	30	0.95	110,153	1.04	0.70	1	Atlas		104,645	1
	6/7/2019 21:15	6/8/2019 2:30	315	0.43	49,609	1.37	0.19	6	Atlas		21,332	1
	6/9/2019 0:30	6/9/2019 1:00	30	0.23	133,074	1.64	0.11	6	Atlas		30,607	1
	6/9/2019 15:45	6/9/2019 17:45	120	0.37	110,165	1.92	0.17	6	Atlas		40,761	1
	6/16/2019 6:00	6/16/2019 6:00	-	0.58	8,717	1.03	0.42	1	Atlas		5,056	1
	6/16/2019 16:15	6/17/2019 1:15	540	2.25	46,807	3.26	1.19	12	Cloudburst		105,315	1
	6/18/2019 16:30	6/18/2019 17:00	30	0.42	119,426	3.53	0.33	1	Atlas		50,159	1
	6/21/2019 19:30	6/21/2019 21:15	105	0.46	112,254	4.09	0.31	3	Atlas		51,637	1
	6/22/2019 7:00	6/22/2019 9:00	120	0.52	65,623	4.45	0.34	3	Atlas		34,124	1
	6/23/2019 16:15	6/23/2019 16:30	15	0.27	105,581	3.68	0.20	1	Atlas		28,507	1
	6/24/2019 13:00	6/24/2019 14:15	75	0.48	102,319	2.38	0.31	3	Atlas		49,113	1
	6/30/2019 17:30	6/30/2019 17:45	15	0.14	74,443	0.62	0.08	1	Atlas		10,422	1
	7/16/2019 11:30	7/16/2019 19:00	450	0.10	73,940	0.12	0.06	1	Atlas		7,394	1
	7/18/2019 0:45	7/18/2019 1:15	30	0.30	86,417	0.45	0.21	1	Atlas		25,925	1
	7/29/2019 22:45	7/30/2019 0:00	75	0.61	97,975	0.61	0.37	3	Atlas		59,765	1
	8/7/2019 4:45	8/7/2019 4:45	-	0.05	125,940	0.06	0.04	1	Atlas		6,297	1
	8/13/2019 7:45	8/13/2019 7:45	-	0.34	653	0.29	0.20	3	Atlas		222	1
	8/19/2019 2:00	8/19/2019 2:15	15	0.13	77,038	0.54	0.10	1	Atlas		10,015	1
	8/22/2019 3:00	8/22/2019 3:00	-	0.20	81,490	0.34	0.13	3	Atlas		16,298	1
	8/26/2019 10:15	8/26/2019 14:45	270	0.52	272,715	0.94	0.23	6	Atlas		141,812	1
	9/20/2019 9:30	9/20/2019 10:00	30	0.10	80,090	0.10	0.09	1	Atlas		8,009	1
	CSO053 Total										**42,456,941**	**363**
CSO054	1/12/2012 12:45	1/12/2012 15:00	135	0.10	103,260	0.78	0.05	3	Atlas		10,326	1
	1/12/2012 23:15	1/13/2012 2:15	180	0.10	700	0.80	0.05	3	Atlas		70	1
	1/17/2012 2:15	1/17/2012 15:45	810	0.46	50,874	1.27	0.21	12	Atlas		23,402	1
	1/22/2012 22:45	1/23/2012 15:45	1,020	0.57	67,795	1.06	0.31	3	Atlas		38,643	1
	1/25/2012 15:45	1/25/2012 19:30	225	1.82	2,342	0.85	0.60	24	Atlas		4,263	1
	1/26/2012 5:00	1/26/2012 23:45	1,125	1.82	29,730	2.38	0.60	24	Atlas		54,108	1
	2/4/2012 9:00	2/4/2012 11:15	135	0.36	35,728	0.41	0.21	3	Atlas		12,862	1
	2/14/2012 6:00	2/14/2012 13:15	435	0.20	69,505	0.26	0.10	6	Atlas		13,901	1
	2/15/2012 23:45	2/16/2012 8:45	540	0.37	18,295	0.60	0.16	12	Atlas		6,769	1
	2/21/2012 9:45	2/21/2012 14:00	255	0.13	2,869	0.50	0.07	6	Atlas		373	1
	2/22/2012 22:45	2/22/2012 23:45	60	0.19	6,458	0.55	0.15	1	Atlas		1,227	1
	2/29/2012 2:00	2/29/2012 9:30	450	0.64	8,364	0.77	0.30	1	Atlas		5,353	1
	3/4/2012 23:00	3/5/2012 4:00	300	0.22	5,205	1.00	0.11	6	Atlas		1,145	1
	3/12/2012 7:15	3/12/2012 12:15	300	0.16	7,856	0.92	0.07	12	Atlas		1,257	1
	3/15/2012 17:45	3/16/2012 3:45	600	0.94	8,683	1.17	0.41	12	Atlas		8,162	1
	3/17/2012 18:30	3/17/2012 22:45	255	0.57	20,470	1.65	0.29	3	Atlas		11,668	1
	3/22/2012 15:30	3/23/2012 23:30	1,920	1.69	62,495	3.15	0.61	3	Atlas		105,617	1
	3/30/2012 23:30	3/31/2012 0:45	75	0.18	8,633	0.21	0.11	3	Atlas		1,554	1
	4/1/2012 6:30	4/1/2012 11:45	315	1.63	48,173	1.85	0.89	6	Atlas		78,522	1
	4/4/2012 16:30	4/4/2012 17:15	45	0.25	4,848	1.96	0.11	12	Atlas		1,212	1
	4/14/2012 8:30	4/14/2012 10:00	90	0.25	10,188	0.19	0.14	6	Atlas		2,547	1
	4/16/2012 6:45	4/16/2012 6:45	-	0.18	1,411	0.34	0.11	3	Atlas		254	1
	4/20/2012 23:15	4/20/2012 23:15	-	0.23	4,339	0.51	0.11	12	Atlas		998	1
	4/26/2012 4:30	4/26/2012 4:45	15	0.06	11,850	0.35	0.04	3	Atlas		711	1
	4/28/2012 19:15	4/29/2012 1:00	345	0.72	135,229	0.84	0.54	1	Atlas		97,365	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/30/2012 18:00	4/30/2012 20:30	150	0.46	40.637	1.30	0.30	3	Atlas		18,693	1
	5/4/2012 16:15	5/5/2012 4:30	735	1.40	54.454	2.59	0.75	3	Atlas		76,236	1
	5/13/2012 0:00	5/13/2012 20:30	1,230	2.18	23.017	2.24	0.83	24	Atlas		50,178	1
	5/16/2012 17:30	5/16/2012 18:30	60	0.26	16.135	2.45	0.23	1	Atlas		4,195	1
	5/29/2012 6:15	5/29/2012 9:45	210	2.89	99.584	2.84	15.82	3	Atlas		287,799	1
	5/31/2012 18:15	6/1/2012 5:15	660	1.23	12.676	4.05	0.53	12	Atlas		15,592	1
	6/17/2012 11:15	6/17/2012 12:15	60	0.23	26.774	0.27	0.18	1	Atlas		6,158	1
	6/25/2012 2:15	6/25/2012 2:15	-	0.01	81.800	0.04	0.01	1	Atlas		818	1
	7/1/2012 19:45	7/1/2012 20:15	30	0.49	24.237	0.41	0.35	1	Atlas		11,876	1
	7/5/2012 2:00	7/5/2012 2:00	-	0.10	1.480	0.57	0.08	1	Atlas		148	1
	7/8/2012 12:45	7/8/2012 13:45	60	0.28	113.218	0.83	0.20	1	Atlas		31,701	1
	7/14/2012 12:15	7/14/2012 14:45	150	0.62	44.034	0.91	0.39	3	Atlas		27,301	1
	7/18/2012 16:15	7/18/2012 17:30	75	0.01	6,404.500	0.64	0.01	1	Atlas		64,045	1
	7/19/2012 13:30	7/19/2012 19:15	345	0.95	135.346	1.57	0.75	1	Atlas		128,579	1
	7/24/2012 19:45	7/24/2012 21:00	75	0.47	38.251	1.47	0.40	1	Atlas		17,978	1
	7/26/2012 21:15	7/26/2012 22:30	75	0.10	48.790	0.60	0.05	1	Atlas		4,879	1
	7/27/2012 8:00	7/27/2012 9:30	90	0.10	7.410	0.62	0.05	1	Atlas		741	1
	7/27/2012 18:45	7/27/2012 22:00	195	0.71	147.904	1.30	0.48	1	Atlas		105,012	1
	8/3/2012 8:00	8/3/2012 10:00	120	0.20	2.840	0.92	0.09	3	Atlas		568	1
	8/5/2012 17:15	8/5/2012 18:00	45	0.02	110.100	0.34	0.02	1	Atlas		2,202	1
	8/13/2012 11:00	8/13/2012 12:00	60	0.12	13.000	0.11	0.08	3	Atlas		1,560	1
	8/16/2012 20:00	8/16/2012 23:45	225	0.64	7.136	0.77	0.37	3	Atlas		4,567	1
	8/21/2012 13:30	8/21/2012 14:45	75	0.22	163.236	0.87	0.19	1	Atlas		35,912	1
	9/1/2012 15:00	9/1/2012 17:45	165	0.40	29.235	0.43	0.26	1	Atlas		11,694	1
	9/2/2012 11:45	9/2/2012 21:15	570	0.73	22.158	1.15	0.28	24	Atlas		16,175	1
	9/5/2012 15:15	9/5/2012 16:30	75	0.60	182.067	1.79	0.43	1	Atlas		109,240	1
	9/7/2012 23:00	9/8/2012 6:30	450	1.37	23.841	3.12	0.77	3	Atlas		32,662	1
	9/25/2012 8:30	9/25/2012 10:15	105	0.39	3.810	0.35	0.21	6	Atlas		1,486	1
	9/25/2012 23:30	9/26/2012 6:00	390	0.46	21.648	0.75	0.21	12	Atlas		9,958	1
	9/26/2012 19:45	9/27/2012 1:15	330	1.73	72.480	2.56	0.92	6	Atlas		125,391	1
	10/1/2012 13:15	10/1/2012 18:45	330	0.61	7.444	3.11	0.24	12	Atlas		4,541	1
	10/5/2012 23:15	10/6/2012 0:30	75	0.15	12.947	0.75	0.08	3	Atlas		1,942	1
	10/14/2012 16:15	10/14/2012 16:15	-	0.12	658	0.11	0.08	1	Atlas		79	1
	10/26/2012 10:30	10/26/2012 23:00	750	0.77	5.192	0.80	0.36	6	Atlas		3,998	1
	11/3/2012 9:15	11/3/2012 16:00	405	0.11	6.164	0.13	0.05	3	Atlas		678	1
	11/12/2012 2:45	11/12/2012 10:00	435	0.45	3.740	0.45	0.21	12	Atlas		1,683	1
	12/2/2012 11:00	12/2/2012 13:15	135	0.25	30.864	0.32	0.15	3	Atlas		7,716	1
	12/4/2012 14:45	12/4/2012 19:00	255	0.68	27.265	0.93	0.44	3	Atlas		18,540	1
	12/8/2012 5:30	12/8/2012 9:15	225	0.37	9.038	2.44	0.23	1	Atlas		3,344	1
	12/9/2012 8:15	12/9/2012 8:45	30	1.13	355	2.51	0.55	3	Atlas		401	1
	12/9/2012 19:30	12/10/2012 3:15	465	1.13	49.342	3.26	0.55	3	Atlas		55,756	1
	12/15/2012 11:00	12/15/2012 12:30	90	0.17	6.812	1.31	0.10	3	Atlas		1,158	1
	12/17/2012 16:45	12/17/2012 17:30	45	0.35	4.940	0.53	0.19	6	Atlas		1,729	1
	12/20/2012 6:30	12/20/2012 12:00	330	0.70	7.859	1.22	0.38	6	Atlas		5,501	1
	12/26/2012 3:00	12/26/2012 11:00	480	0.67	5.466	1.40	0.26	24	Atlas		3,662	1
	12/31/2012 22:45	12/31/2012 23:45	60	0.12	2.433	0.84	0.05	24	Atlas		292	1
	1/10/2013 12:30	1/10/2013 15:15	165	0.15	10.047	0.17	0.08	6	Atlas		1,507	1
	1/11/2013 2:00	1/11/2013 8:00	360	0.67	13.507	0.84	0.37	3	Atlas		9,050	1
	1/13/2013 3:00	1/13/2013 18:45	945	2.30	29.540	3.10	0.88	24	Atlas		67,941	1
	1/15/2013 20:00	1/15/2013 20:00	-	0.21	1.524	3.25	0.08	12	Atlas		320	1
	1/27/2013 19:45	1/27/2013 20:15	30	0.22	2.600	0.11	0.10	6	Atlas		572	1
	1/28/2013 10:30	1/28/2013 10:30	-	0.07	2.471	0.29	0.04	1	Atlas		173	1
	1/30/2013 4:30	1/30/2013 8:45	255	0.80	43.255	1.04	0.40	6	Atlas		34,604	1
	1/30/2013 17:30	1/30/2013 17:30	-	0.80	178	1.10	0.40	6	Atlas		142	1
	2/4/2013 17:00	2/4/2013 18:00	60	0.11	1.927	1.01	0.07	3	Atlas		212	1
	2/10/2013 15:15	2/10/2013 15:45	30	0.18	1.672	0.36	0.09	3	Atlas		301	1
	2/13/2013 13:15	2/13/2013 13:45	30	0.07	1.057	0.35	0.03	12	Atlas		74	1
	2/18/2013 22:00	2/19/2013 3:30	330	0.34	1.435	0.38	0.16	12	Atlas		488	1
	2/21/2013 22:30	2/22/2013 1:00	150	0.43	3.051	0.75	0.20	12	Atlas		1,312	1
	2/26/2013 5:15	2/26/2013 19:15	840	0.56	6.955	0.96	0.22	24	Atlas		3,895	1
	3/5/2013 14:00	3/5/2013 19:00	300	0.45	5.896	0.68	0.17	24	Atlas		2,653	1
	3/11/2013 3:00	3/11/2013 11:45	525	1.06	5.680	1.51	0.43	12	Atlas		6,021	1
	3/17/2013 6:30	3/18/2013 7:15	1,485	1.76	4.776	2.73	0.57	48	Atlas		8,406	1
	3/24/2013 4:30	3/24/2013 17:45	795	0.55	7.116	2.06	0.20	24	Atlas		3,914	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/11/2013 5:00	4/12/2013 0:45	1,185	1.27	18.604	1.26	0.49	24	Atlas		23,627	1
	4/16/2013 20:00	4/16/2013 21:15	75	0.59	76.015	1.82	0.46	1	Atlas		44,849	1
	4/19/2013 0:30	4/19/2013 4:15	225	0.80	17.133	1.42	0.44	6	Atlas		13,706	1
	4/24/2013 6:00	4/24/2013 10:45	285	0.70	11.179	1.56	0.40	3	Atlas		7,825	1
	5/3/2013 18:45	5/3/2013 18:45	-	0.10	1.180	0.15	0.07	1	Atlas		118	1
	5/4/2013 11:45	5/5/2013 8:15	1,230	1.56	4.317	1.41	0.48	24	Atlas		6,735	1
	5/6/2013 17:15	5/6/2013 17:15	-	1.56	5.356	1.62	0.48	24	Atlas		8,356	1
	5/10/2013 9:30	5/10/2013 15:15	345	0.86	6.622	2.38	0.38	6	Atlas		5,695	1
	5/10/2013 23:30	5/10/2013 23:45	15	0.86	1.609	2.43	0.38	6	Atlas		1,384	1
	5/31/2013 11:00	5/31/2013 11:00	-	0.22	1.850	0.10	0.10	12	Atlas		407	1
	6/1/2013 5:30	6/1/2013 6:45	75	0.15	4.693	0.37	0.07	12	Atlas		704	1
	6/1/2013 16:00	6/1/2013 16:00	-	0.15	2.660	0.43	0.07	12	Atlas		399	1
	6/6/2013 5:00	6/6/2013 5:00	-	0.02	3.850	0.42	0.01	3	Atlas		77	1
	6/9/2013 23:30	6/10/2013 1:15	105	0.33	34.861	0.27	0.13	6	Atlas		11,504	1
	6/16/2013 16:30	6/16/2013 18:00	90	0.44	28.964	0.73	0.30	1	Atlas		12,744	1
	6/17/2013 19:00	6/17/2013 21:30	150	0.63	5.178	1.03	0.31	6	Atlas		3,262	1
	6/24/2013 9:00	6/24/2013 9:00	-	0.04	6.075	1.00	0.03	3	Atlas		243	1
	6/26/2013 3:00	6/26/2013 5:15	135	0.70	77.256	1.06	0.50	1	Atlas		54,079	1
	6/26/2013 16:00	6/26/2013 21:45	345	2.46	133.187	3.41	2.75	6	Cloudburst		327,640	1
	6/29/2013 19:45	6/29/2013 21:30	105	0.55	8.511	3.84	0.30	3	Atlas		4,681	1
	7/1/2013 18:30	7/1/2013 19:30	60	0.25	9.064	4.02	0.12	3	Atlas		2,266	1
	7/2/2013 13:00	7/2/2013 13:15	15	0.09	413.856	4.12	0.08	1	Atlas		37,247	1
	7/3/2013 17:00	7/3/2013 17:00	-	0.06	4.233	1.88	0.04	1	Atlas		254	1
	7/4/2013 6:15	7/4/2013 11:15	300	0.51	12.296	1.26	0.21	12	Atlas		6,271	1
	7/6/2013 0:15	7/6/2013 7:00	405	0.56	4.591	2.01	0.25	12	Atlas		2,571	1
	7/10/2013 13:45	7/10/2013 14:45	60	0.64	79.311	1.76	0.43	1	Atlas		50,759	1
	7/14/2013 19:15	7/14/2013 20:00	45	0.08	62.988	0.76	0.07	1	Atlas		5,039	1
	7/18/2013 15:30	7/18/2013 17:00	90	0.29	220.466	0.40	0.23	1	Atlas		63,935	1
	7/21/2013 19:45	7/22/2013 15:45	1,200	1.96	43.961	2.28	0.75	24	Atlas		86,163	1
	7/30/2013 18:00	7/30/2013 18:00	-	0.11	14.118	0.12	0.06	3	Atlas		1,553	1
	8/12/2013 11:45	8/12/2013 14:45	180	0.83	52.983	0.66	0.37	1	Atlas		43,976	1
	8/13/2013 2:15	8/13/2013 3:15	60	0.83	21.065	1.00	0.37	1	Atlas		17,484	1
	8/20/2013 18:00	8/20/2013 19:15	75	0.17	22.294	0.19	0.09	6	Atlas		3,790	1
	8/31/2013 19:30	9/1/2013 3:15	465	1.34	40.004	1.28	0.63	1	Atlas		53,605	1
	9/2/2013 13:30	9/2/2013 13:45	15	0.25	150.744	1.59	0.22	1	Atlas		37,686	1
	9/12/2013 12:45	9/12/2013 12:45	-	0.02	34.750	0.04	0.02	1	Atlas		695	1
	9/19/2013 10:45	9/19/2013 10:45	-	0.03	39.167	0.08	0.03	1	Atlas		1,175	1
	9/20/2013 16:15	9/21/2013 5:15	780	1.36	14.206	1.42	0.56	12	Atlas		19,320	1
	10/5/2013 12:00	10/6/2013 12:00	1,440	4.23	118.502	4.38	7.98	24	Cloudburst		501,263	1
	10/19/2013 7:00	10/19/2013 9:30	150	0.19	4.642	0.20	0.10	6	Atlas		882	1
	10/29/2013 20:45	10/30/2013 7:15	630	1.06	25.278	1.06	0.50	6	Atlas		26,795	1
	10/31/2013 11:30	10/31/2013 20:45	555	0.71	20.485	1.72	0.28	12	Atlas		14,544	1
	11/6/2013 19:00	11/6/2013 21:00	120	0.25	1.560	0.87	0.11	12	Atlas		390	1
	11/15/2013 18:00	11/15/2013 18:15	15	0.10	5.470	0.14	0.09	1	Atlas		547	1
	11/17/2013 3:00	11/17/2013 19:45	1,005	2.59	84.540	2.73	1.61	6	Cloudburst		218,958	1
	11/21/2013 18:45	11/21/2013 19:00	15	0.13	1.438	2.79	0.09	1	Atlas		187	1
	12/5/2013 5:15	12/6/2013 13:45	1,950	0.76	22.983	0.49	0.25	48	Atlas		17,467	1
	12/8/2013 13:00	12/8/2013 13:00	-	0.29	1.234	1.05	0.19	1	Atlas		358	1
	12/14/2013 5:45	12/14/2013 12:00	375	0.64	6.656	0.99	0.26	12	Atlas		4,260	1
	12/20/2013 7:15	12/20/2013 7:15	-	0.07	2.500	0.71	0.05	1	Atlas		175	1
	12/21/2013 1:45	12/21/2013 12:30	645	2.75	2.995	1.74	1.08	24	Cloudburst		8,235	1
	12/21/2013 21:00	12/22/2013 2:45	345	2.75	65.279	2.77	1.08	24	Cloudburst		179,517	1
	12/29/2013 1:30	12/29/2013 9:30	480	0.49	11.016	0.60	0.21	12	Atlas		5,398	1
	1/5/2014 14:30	1/5/2014 18:45	255	0.48	6.992	0.61	0.25	3	Atlas		3,356	1
	1/10/2014 23:45	1/11/2014 5:45	360	0.75	12.289	1.24	0.39	6	Atlas		9,217	1
	1/13/2014 14:00	1/13/2014 17:00	180	0.20	5.675	0.96	0.09	3	Atlas		1,135	1
	1/14/2014 18:15	1/14/2014 18:15	-	0.02	20.800	0.98	0.02	1	Atlas		416	1
	2/2/2014 2:30	2/2/2014 8:00	330	0.21	20.967	0.22	0.11	6	Atlas		4,403	1
	2/4/2014 18:45	2/5/2014 0:15	330	0.53	12.785	1.02	0.26	6	Atlas		6,776	1
	2/14/2014 15:45	2/14/2014 17:45	120	0.32	4.484	0.30	0.17	6	Atlas		1,435	1
	2/17/2014 14:15	2/17/2014 17:15	180	0.49	12.749	0.83	0.29	3	Atlas		6,247	1
	2/20/2014 22:30	2/20/2014 23:30	60	0.20	3.940	1.06	0.11	6	Atlas		788	1
	3/2/2014 9:15	3/2/2014 12:00	165	0.45	6.116	0.23	0.17	24	Atlas		2,752	1
	3/12/2014 7:00	3/12/2014 7:15	15	0.10	9.100	0.10	0.05	1	Atlas		910	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/19/2014 8:15	3/19/2014 8:15	-	0.07	3.471	0.13	0.05	1	Atlas		243	1
	3/28/2014 3:45	3/28/2014 5:45	120	0.29	10.438	0.35	0.15	6	Atlas		3,027	1
	3/29/2014 5:00	3/29/2014 12:15	435	0.79	10.377	1.06	0.36	12	Atlas		8,198	1
	4/1/2014 20:30	4/1/2014 20:30	-	0.09	1.389	1.21	0.06	1	Atlas		125	1
	4/3/2014 4:45	4/4/2014 9:15	1,710	2.91	21.164	4.12	1.04	24	Cloudburst		61,588	1
	4/7/2014 7:45	4/7/2014 15:15	450	0.82	71.026	3.84	0.52	1	Atlas		58,241	1
	4/14/2014 3:30	4/14/2014 10:15	405	1.14	1.718	1.32	0.43	24	Atlas		1,959	1
	4/14/2014 19:30	4/15/2014 1:15	345	1.14	2.430	1.12	0.43	24	Atlas		2,770	1
	4/25/2014 2:30	4/25/2014 2:45	15	0.13	1.892	0.07	0.07	6	Atlas		246	1
	4/28/2014 3:45	4/28/2014 7:45	240	1.69	39.014	1.34	0.63	24	Atlas		65,933	1
	4/28/2014 16:45	4/28/2014 20:00	195	1.69	1.272	1.80	0.63	24	Atlas		2,149	1
	4/29/2014 19:00	4/29/2014 19:30	30	0.18	1.889	1.90	0.08	12	Atlas		340	1
	5/9/2014 19:15	5/10/2014 16:15	1,260	1.47	56.019	1.54	0.57	24	Atlas		82,348	1
	5/14/2014 7:00	5/15/2014 0:45	1,065	0.72	6.351	2.31	0.27	24	Atlas		4,573	1
	5/16/2014 3:15	5/16/2014 3:45	30	0.10	2.650	2.40	0.07	1	Atlas		265	1
	5/21/2014 21:00	5/22/2014 4:45	465	0.73	6.933	0.90	0.33	12	Atlas		5,061	1
	5/28/2014 20:15	5/28/2014 21:15	60	0.49	32.235	1.22	0.41	1	Atlas		15,795	1
	6/1/2014 14:15	6/1/2014 22:15	480	0.12	3.233	0.63	0.05	12	Atlas		388	1
	6/10/2014 5:45	6/10/2014 6:00	15	0.05	12.940	0.07	0.03	6	Atlas		647	1
	6/10/2014 15:30	6/10/2014 17:00	90	0.09	8.222	0.16	0.06	3	Atlas		740	1
	6/11/2014 14:00	6/11/2014 14:45	45	0.13	85.015	0.29	0.10	1	Atlas		11,052	1
	6/20/2014 16:00	6/20/2014 18:00	120	0.18	9.339	0.17	0.12	3	Atlas		1,681	1
	6/23/2014 16:00	6/23/2014 16:00	-	0.10	14.250	0.22	0.05	6	Atlas		1,425	1
	6/24/2014 13:30	6/24/2014 14:30	60	0.07	33.771	0.30	0.03	1	Atlas		2,364	1
	7/1/2014 19:45	7/1/2014 22:30	165	0.29	2.921	0.34	0.19	3	Atlas		847	1
	7/2/2014 16:00	7/2/2014 16:45	45	0.18	52.178	0.52	0.16	1	Atlas		9,392	1
	7/7/2014 19:30	7/7/2014 20:15	45	0.31	106.103	0.78	0.27	1	Atlas		32,892	1
	7/8/2014 6:30	7/8/2014 7:30	60	0.38	5.734	1.16	0.33	1	Atlas		2,179	1
	7/13/2014 22:45	7/14/2014 4:15	330	0.92	56.632	1.48	0.52	1	Atlas		52,101	1
	7/14/2014 19:00	7/14/2014 20:45	105	0.46	12.733	2.07	0.31	3	Atlas		5,857	1
	7/26/2014 21:30	7/27/2014 9:45	735	0.89	38.279	0.96	0.39	12	Atlas		34,068	1
	8/8/2014 5:30	8/8/2014 11:00	330	0.79	47.832	0.81	0.38	6	Atlas		37,787	1
	8/10/2014 3:45	8/10/2014 5:30	105	0.73	50.296	1.62	0.57	1	Atlas		36,716	1
	8/11/2014 14:00	8/11/2014 16:00	120	0.33	9.188	1.94	0.23	1	Atlas		3,032	1
	8/16/2014 23:15	8/17/2014 11:00	705	0.68	6.351	1.63	0.26	24	Atlas		4,319	1
	8/17/2014 20:00	8/18/2014 0:00	240	0.68	11.262	1.01	0.26	24	Atlas		7,658	1
	8/20/2014 15:45	8/20/2014 15:45	-	0.01	34.300	0.69	0.01	1	Atlas		343	1
	8/22/2014 19:00	8/22/2014 19:45	45	0.16	233.563	0.81	0.10	3	Atlas		37,370	1
	8/23/2014 15:30	8/23/2014 23:00	450	0.83	71.004	1.67	0.43	3	Atlas		58,933	1
	8/26/2014 19:45	8/26/2014 20:30	45	0.11	42.182	1.11	0.10	1	Atlas		4,640	1
	8/27/2014 17:00	8/27/2014 18:00	60	0.11	55.255	1.21	0.08	1	Atlas		6,078	1
	8/30/2014 15:00	8/30/2014 18:30	210	0.72	11.344	1.67	0.44	1	Atlas		8,168	1
	9/2/2014 6:30	9/2/2014 15:30	540	0.49	9.814	1.43	0.25	3	Atlas		4,809	1
	9/11/2014 0:00	9/11/2014 8:30	510	2.08	64.591	2.08	1.67	3	Atlas		134,350	1
	9/15/2014 22:30	9/15/2014 22:45	15	0.03	38.667	2.11	0.03	1	Atlas		1,160	1
	9/21/2014 6:15	9/21/2014 6:15	-	0.02	25.700	0.04	0.01	3	Atlas		514	1
	10/6/2014 6:30	10/6/2014 12:00	330	0.35	86.989	0.66	0.18	3	Atlas		30,446	1
	10/7/2014 11:15	10/7/2014 12:30	75	0.18	11.444	0.88	0.14	1	Atlas		2,060	1
	10/10/2014 1:45	10/10/2014 4:30	165	1.18	44.547	1.72	0.54	3	Atlas		52,566	1
	10/10/2014 17:00	10/10/2014 22:00	300	1.18	834	1.81	0.54	3	Atlas		984	1
	10/13/2014 4:15	10/13/2014 7:45	210	0.33	15.845	2.05	0.21	3	Atlas		5,229	1
	10/13/2014 23:00	10/14/2014 11:15	735	1.07	16.422	2.77	0.48	12	Atlas		17,572	1
	10/15/2014 17:45	10/15/2014 17:45	-	0.15	1.567	2.72	0.07	12	Atlas		235	1
	10/20/2014 6:45	10/20/2014 6:45	-	0.07	2.000	1.30	0.06	1	Atlas		140	1
	10/20/2014 19:45	10/20/2014 19:45	-	0.06	1.150	1.35	0.05	1	Atlas		69	1
	10/28/2014 12:00	10/28/2014 13:00	60	0.12	750	0.11	0.07	3	Atlas		90	1
	10/31/2014 12:30	10/31/2014 12:30	-	0.12	3.000	0.17	0.05	24	Atlas		360	1
	11/5/2014 18:45	11/5/2014 18:45	-	0.01	8.300	0.26	0.01	1	Atlas		83	1
	11/16/2014 23:30	11/17/2014 4:00	270	0.46	291	0.38	0.19	12	Atlas		134	1
	11/23/2014 13:45	11/23/2014 22:45	540	0.65	9.418	1.10	0.29	6	Atlas		6,122	1
	12/1/2014 0:45	12/1/2014 17:00	975	1.02	7.396	0.97	0.39	24	Atlas		7,544	1
	12/6/2014 5:45	12/6/2014 6:00	1,455	1.97	18.381	2.96	0.64	48	Atlas		36,211	1
	12/16/2014 2:45	12/16/2014 5:45	180	0.10	9.790	0.10	0.05	3	Atlas		979	1
	12/22/2014 22:15	12/22/2014 23:45	90	0.23	6.057	0.32	0.14	3	Atlas		1,393	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/23/2014 19:30	12/23/2014 20:15	45	0.04	10.425	0.28	0.03	3	Atlas		417	1
	12/24/2014 13:15	12/24/2014 13:30	15	0.19	2.511	0.36	0.08	12	Atlas		477	1
	12/27/2014 16:45	12/28/2014 1:30	525	0.35	22.457	0.81	0.13	24	Atlas		7.860	1
	1/3/2015 5:45	1/3/2015 13:15	450	0.41	2.988	0.51	0.15	24	Atlas		1,225	1
	1/4/2015 0:45	1/4/2015 4:00	195	0.41	510	0.48	0.15	24	Atlas		209	1
	1/12/2015 5:15	1/12/2015 5:15	-	0.16	150	0.14	0.06	24	Atlas		24	1
	1/18/2015 3:00	1/18/2015 3:15	15	0.07	2.457	0.23	0.05	1	Atlas		172	1
	1/25/2015 20:45	1/25/2015 21:30	45	0.17	747	0.22	0.07	12	Atlas		127	1
	1/29/2015 5:00	1/29/2015 5:00	-	0.04	3.100	0.27	0.03	1	Atlas		124	1
	2/1/2015 11:00	2/1/2015 17:30	390	0.43	4.212	0.59	0.21	3	Atlas		1,811	1
	3/3/2015 18:15	3/4/2015 15:15	1,260	1.92	6.667	1.47	0.62	48	Atlas		12,801	1
	3/10/2015 6:30	3/10/2015 14:30	480	1.15	56.839	3.06	0.52	12	Atlas		65,365	1
	3/13/2015 9:45	3/14/2015 9:30	1,425	2.00	13.339	3.13	0.75	24	Atlas		26,678	1
	3/19/2015 18:45	3/19/2015 19:15	30	0.20	2.475	2.17	0.08	24	Atlas		495	1
	3/24/2015 14:15	3/24/2015 20:00	345	0.14	4.264	0.32	0.09	1	Atlas		597	1
	3/26/2015 3:00	3/26/2015 5:45	165	0.62	1.656	0.79	0.29	3	Atlas		1,027	1
	4/2/2015 9:15	4/3/2015 16:45	1,890	4.94	103.621	5.10	9.44	24	Cloudburst		511,890	1
	4/7/2015 4:15	4/7/2015 17:15	780	1.11	58.436	6.04	0.54	1	Atlas		64,864	1
	4/8/2015 15:30	4/8/2015 15:30	-	0.06	2.283	6.10	0.04	1	Atlas		137	1
	4/9/2015 11:30	4/9/2015 12:15	45	0.26	1.858	5.99	0.23	1	Atlas		483	1
	4/10/2015 1:45	4/10/2015 3:00	75	0.22	135.950	4.11	0.14	3	Atlas		29,909	1
	4/13/2015 19:45	4/13/2015 21:00	75	0.66	2.270	1.88	0.25	24	Atlas		1,498	1
	4/14/2015 6:30	4/14/2015 11:30	300	0.66	1.156	2.24	0.25	24	Atlas		763	1
	4/19/2015 6:15	4/19/2015 18:00	705	0.68	6.360	1.39	0.28	12	Atlas		4,325	1
	4/20/2015 3:15	4/20/2015 3:15	-	0.10	2.530	1.49	0.09	1	Atlas		253	1
	4/25/2015 8:45	4/25/2015 9:15	30	0.17	4.306	0.98	0.08	12	Atlas		732	1
	4/25/2015 18:45	4/25/2015 18:45	-	0.08	913	1.01	0.05	3	Atlas		73	1
	4/30/2015 12:30	4/30/2015 13:45	75	0.17	18.388	0.42	0.15	1	Atlas		3,126	1
	5/9/2015 3:15	5/9/2015 4:00	45	0.09	12.822	0.08	0.05	3	Atlas		1,154	1
	5/11/2015 17:30	5/11/2015 17:30	-	0.06	22.667	0.15	0.05	1	Atlas		1,360	1
	5/16/2015 11:15	5/16/2015 15:15	240	0.60	55.598	0.70	0.35	3	Atlas		33,359	1
	5/17/2015 14:00	5/17/2015 15:00	60	0.08	169.963	0.76	0.04	12	Atlas		13,597	1
	5/25/2015 6:15	5/25/2015 10:00	225	0.28	17.007	0.29	0.13	12	Atlas		4,762	1
	5/26/2015 14:00	5/26/2015 14:45	45	0.16	12.963	0.40	0.10	1	Atlas		2,074	1
	5/27/2015 13:45	5/27/2015 14:00	15	0.10	7.180	0.54	0.09	1	Atlas		718	1
	6/8/2015 7:00	6/8/2015 9:30	150	0.18	39.239	0.25	0.11	3	Atlas		7,063	1
	6/17/2015 4:45	6/17/2015 7:30	165	0.64	9.717	0.66	0.35	3	Atlas		6,219	1
	6/17/2015 17:15	6/17/2015 17:15	-	0.07	600	0.72	0.05	1	Atlas		42	1
	6/18/2015 16:15	6/18/2015 20:45	270	0.67	17.533	1.30	0.38	1	Atlas		11,747	1
	6/20/2015 0:30	6/20/2015 9:45	555	0.95	29.437	2.35	0.39	12	Atlas		27,965	1
	6/22/2015 6:00	6/22/2015 6:45	45	0.24	2.825	2.55	0.11	3	Atlas		678	1
	6/25/2015 23:45	6/26/2015 4:30	285	0.57	6.016	1.85	0.31	6	Atlas		3,429	1
	6/26/2015 17:00	6/27/2015 1:15	495	1.05	62.052	2.81	0.54	1	Atlas		65,155	1
	6/29/2015 3:45	6/29/2015 3:45	-	0.25	6.564	1.81	0.12	1	Atlas		1,641	1
	6/29/2015 13:30	6/29/2015 15:00	90	0.25	9.580	1.87	0.12	1	Atlas		2,395	1
	7/1/2015 23:45	7/2/2015 20:45	1,260	2.57	39.406	4.45	0.98	1	Atlas		101,273	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.44	41.670	4.32	0.35	1	Atlas		18,335	1
	7/7/2015 10:45	7/8/2015 0:15	810	1.04	8.169	3.93	0.48	3	Atlas		8,496	1
	7/8/2015 10:00	7/8/2015 12:45	165	1.04	910	4.05	0.48	3	Atlas		946	1
	7/9/2015 5:00	7/9/2015 13:45	525	0.42	13.133	3.44	0.19	12	Atlas		5,516	1
	7/10/2015 10:15	7/10/2015 16:15	360	0.43	7.953	2.35	0.22	6	Atlas		3,420	1
	7/12/2015 6:00	7/12/2015 7:30	90	1.10	103.329	3.01	0.79	1	Atlas		113,662	1
	7/13/2015 14:15	7/13/2015 15:30	75	0.47	20.585	3.49	0.39	1	Atlas		9,675	1
	7/14/2015 3:30	7/14/2015 5:00	90	0.99	60.041	4.46	0.81	1	Atlas		59,441	1
	7/17/2015 22:15	7/18/2015 2:15	240	1.66	120.871	4.28	1.53	3	Atlas		200,646	1
	7/29/2015 17:30	7/29/2015 17:45	15	0.17	1.882	0.21	0.15	1	Atlas		320	1
	8/4/2015 18:45	8/4/2015 20:00	75	0.55	64.069	0.72	0.46	1	Atlas		35,238	1
	8/5/2015 14:45	8/5/2015 16:15	90	0.31	29.765	1.03	0.27	1	Atlas		9,227	1
	8/6/2015 2:15	8/6/2015 15:00	765	0.44	14.011	1.30	0.27	1	Atlas		6,165	1
	8/10/2015 20:30	8/10/2015 20:45	15	0.06	42.983	1.37	0.05	1	Atlas		2,579	1
	8/15/2015 16:30	8/15/2015 17:30	60	0.02	994.650	0.09	0.02	1	Atlas		19,893	1
	8/19/2015 7:30	8/19/2015 17:00	570	0.41	6.912	0.40	0.17	3	Atlas		2,834	1
	9/5/2015 17:30	9/5/2015 18:15	45	0.10	60.570	0.06	0.05	6	Atlas		6,057	1
	9/11/2015 18:30	9/11/2015 21:30	180	0.24	5.233	0.77	0.13	3	Atlas		1,256	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/25/2015 20:30	9/25/2015 20:45	15	0.11	12.218	0.08	0.05	6	Atlas		1,344	1
	9/29/2015 9:15	9/29/2015 10:15	60	0.67	830	0.44	0.22	48	Atlas		556	1
	9/29/2015 18:45	9/29/2015 19:45	60	0.67	546	0.60	0.22	48	Atlas		366	1
	9/30/2015 8:15	9/30/2015 8:30	15	0.67	424	0.78	0.22	48	Atlas		284	1
	10/2/2015 15:00	10/2/2015 22:15	435	0.57	3.209	1.35	0.27	6	Atlas		1,829	1
	10/12/2015 18:00	10/12/2015 20:00	120	0.35	9.471	0.40	0.26	1	Atlas		3,315	1
	10/24/2015 14:45	10/24/2015 18:00	195	0.31	3.032	0.23	0.14	6	Atlas		940	1
	10/27/2015 9:45	10/28/2015 23:15	2,250	2.55	35.405	3.02	0.86	24	Atlas		90,282	1
	10/31/2015 21:45	10/31/2015 23:15	90	0.15	9.087	2.88	0.10	3	Atlas		1,363	1
	11/6/2015 3:00	11/6/2015 7:00	240	0.95	22.836	1.10	0.59	3	Atlas		21,694	1
	11/9/2015 16:00	11/9/2015 23:30	450	0.60	5.523	1.55	0.27	12	Atlas		3,314	1
	11/11/2015 23:30	11/12/2015 2:00	150	0.32	13.181	1.86	0.19	3	Atlas		4,218	1
	11/18/2015 8:30	11/18/2015 19:00	630	1.25	61.945	1.76	0.62	6	Atlas		77,431	1
	11/21/2015 15:00	11/21/2015 15:15	15	0.07	9.514	1.51	0.05	1	Atlas		666	1
	11/28/2015 12:00	11/28/2015 20:15	495	0.68	3.619	0.83	0.28	12	Atlas		2,461	1
	11/30/2015 21:30	12/1/2015 5:30	480	0.66	6.626	1.57	0.30	12	Atlas		4,373	1
	12/14/2015 4:45	12/14/2015 9:00	255	0.26	9.127	0.27	0.14	6	Atlas		2,373	1
	12/21/2015 10:30	12/21/2015 12:00	90	0.60	1.697	0.24	0.23	24	Atlas		1,018	1
	12/21/2015 23:00	12/22/2015 4:30	330	0.60	8.085	0.62	0.23	24	Atlas		4,851	1
	12/23/2015 6:15	12/23/2015 7:00	45	0.03	8.433	0.65	0.02	3	Atlas		253	1
	12/23/2015 19:15	12/23/2015 21:00	105	0.74	153.372	1.39	0.56	1	Atlas		113,495	1
	12/25/2015 9:00	12/25/2015 9:15	15	0.13	1.446	1.48	0.07	3	Atlas		188	1
	12/26/2015 11:00	12/26/2015 18:30	450	0.54	4.969	2.04	0.26	3	Atlas		2,694	1
	12/27/2015 9:45	12/28/2015 21:15	2,130	2.21	55.309	4.25	0.72	6	Atlas		122,233	1
	1/8/2016 1:15	1/8/2016 7:00	345	0.10	1.040	0.12	0.05	6	Atlas		104	1
	1/9/2016 18:45	1/9/2016 23:15	270	0.18	7.711	0.23	0.08	12	Atlas		1,388	1
	1/15/2016 15:15	1/15/2016 15:15	-	0.10	1.200	0.36	0.05	6	Atlas		120	1
	2/2/2016 14:30	2/3/2016 2:30	720	1.49	44.141	1.54	0.72	6	Atlas		65,770	1
	2/8/2016 10:15	2/8/2016 10:45	30	0.14	16.707	1.60	0.06	12	Atlas		2,339	1
	2/21/2016 3:45	2/21/2016 11:15	450	0.86	22.515	1.03	0.39	12	Atlas		19,363	1
	2/23/2016 22:15	2/24/2016 14:30	975	1.90	23.947	2.58	0.72	24	Atlas		45,499	1
	2/29/2016 1:15	2/29/2016 1:45	30	0.03	22.533	1.95	0.02	3	Atlas		676	1
	3/1/2016 8:45	3/1/2016 15:00	375	0.50	11.466	2.44	0.27	6	Atlas		5,733	1
	3/9/2016 15:00	3/9/2016 20:15	315	1.32	1.450	0.32	0.44	12	Atlas		1,914	1
	3/10/2016 7:00	3/10/2016 20:30	810	1.32	9.263	1.37	0.44	12	Atlas		12,227	1
	3/12/2016 20:15	3/13/2016 0:15	240	0.87	33.241	2.04	0.37	6	Atlas		28,920	1
	3/13/2016 9:00	3/13/2016 11:15	135	0.87	3.610	2.23	0.37	6	Atlas		3,141	1
	3/24/2016 17:15	3/24/2016 18:45	90	0.29	57.703	0.36	0.17	1	Atlas		16,734	1
	3/27/2016 20:00	3/27/2016 22:15	135	0.73	52.425	1.02	0.49	3	Atlas		38,270	1
	3/31/2016 1:00	4/1/2016 0:00	1,380	1.33	4.760	2.35	0.50	24	Atlas		6,331	1
	4/10/2016 18:00	4/10/2016 18:00	-	0.02	6.050	0.13	0.02	1	Atlas		121	1
	4/11/2016 13:15	4/11/2016 20:15	420	1.03	11.222	1.14	0.47	6	Atlas		11,559	1
	4/21/2016 14:15	4/21/2016 16:30	135	0.42	7.871	0.22	0.15	24	Atlas		3,306	1
	4/22/2016 0:45	4/22/2016 3:30	165	0.42	2.545	0.33	0.15	24	Atlas		1,069	1
	4/26/2016 16:00	4/26/2016 22:15	375	0.31	14.665	0.72	0.20	1	Atlas		4,546	1
	4/27/2016 12:00	4/27/2016 22:30	630	0.82	24.501	1.48	0.36	12	Atlas		20,091	1
	4/30/2016 8:30	4/30/2016 13:15	285	0.83	5.881	1.69	0.32	24	Atlas		4,881	1
	4/30/2016 23:15	5/1/2016 2:00	165	0.83	1.160	1.90	0.32	24	Atlas		963	1
	5/1/2016 14:45	5/1/2016 16:00	75	0.28	2.107	2.22	0.19	3	Atlas		590	1
	5/4/2016 10:45	5/4/2016 11:30	45	0.20	1.440	2.09	0.11	3	Atlas		288	1
	5/7/2016 16:15	5/7/2016 22:30	375	0.69	7.004	1.43	0.36	6	Atlas		4,833	1
	5/10/2016 8:15	5/10/2016 22:30	855	0.90	35.109	1.83	0.34	24	Atlas		31,598	1
	5/11/2016 7:00	5/11/2016 7:00	-	0.04	1.025	1.87	0.03	1	Atlas		41	1
	5/11/2016 21:15	5/11/2016 22:00	45	0.22	2.432	1.82	0.11	3	Atlas		535	1
	5/12/2016 16:00	5/12/2016 16:45	45	0.17	11.588	1.97	0.11	3	Atlas		1,970	1
	5/17/2016 5:30	5/17/2016 7:00	90	0.64	1.513	1.61	0.22	24	Atlas		968	1
	5/17/2016 20:00	5/17/2016 20:45	45	0.64	719	1.11	0.22	24	Atlas		460	1
	5/20/2016 12:45	5/20/2016 16:15	210	0.53	23.491	1.21	0.29	3	Atlas		12,450	1
	5/25/2016 17:45	5/25/2016 18:15	30	0.04	121.400	0.65	0.03	1	Atlas		4,856	1
	5/26/2016 13:30	5/26/2016 15:45	135	0.30	6.970	0.95	0.20	3	Atlas		2,091	1
	6/1/2016 22:15	6/1/2016 22:15	-	0.68	529	0.39	0.51	1	Atlas		360	1
	6/2/2016 15:15	6/2/2016 16:30	75	0.68	102.868	0.79	0.51	1	Atlas		69,960	1
	6/4/2016 11:30	6/4/2016 18:15	405	0.53	16.532	1.28	0.27	1	Atlas		8,762	1
	6/12/2016 18:00	6/12/2016 18:15	15	0.03	47.700	0.07	0.02	3	Atlas		1,431	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/14/2016 16:30	6/14/2016 19:30	180	1.07	105,446	1.09	0.69	3	Atlas		112,827	1
	6/15/2016 13:15	6/15/2016 13:15	-	0.04	14,550	1.13	0.03	3	Atlas		582	1
	6/22/2016 8:15	6/22/2016 11:15	180	0.55	6,638	0.59	0.35	3	Atlas		3,651	1
	6/23/2016 15:45	6/23/2016 21:30	345	2.37	62,456	2.92	2.92	6	Cloudburst		148,021	1
	7/3/2016 7:30	7/4/2016 17:30	2,040	1.31	28,932	1.34	0.43	48	Atlas		37,901	1
	7/6/2016 13:00	7/6/2016 13:30	30	0.12	11,458	1.43	0.09	1	Atlas		1,375	1
	7/8/2016 0:45	7/8/2016 0:45	-	0.10	650	1.56	0.07	1	Atlas		65	1
	7/12/2016 8:45	7/12/2016 11:45	180	0.22	27,195	0.61	0.15	1	Atlas		5,983	1
	7/26/2016 17:30	7/26/2016 17:30	-	0.09	8,756	0.35	0.08	1	Atlas		788	1
	7/28/2016 3:00	7/28/2016 3:00	-	0.85	34,678	1.05	0.43	1	Atlas		29,476	1
	7/30/2016 13:45	7/30/2016 13:45	-	0.18	5,350	1.31	0.16	1	Atlas		963	1
	8/20/2016 14:00	8/20/2016 19:30	330	1.48	30,124	3.42	0.64	12	Atlas		44,584	1
	12/18/2016 0:45	12/18/2016 0:45	-	3.07	2,042	3.33	3.65	12	Cloudburst		6,270	1
	3/1/2017 3:00	3/1/2017 3:00	-	1.35	323	1.13	0.71	3	Atlas		436	1
	4/16/2017 20:00	4/16/2017 20:00	-	1.24	1,010	1.32	0.48	24	Atlas		1,252	1
	4/29/2017 1:30	4/29/2017 3:30	120	1.25	90,062	1.50	0.66	3	Atlas		112,578	1
	5/4/2017 20:45	5/5/2017 8:30	705	1.66	8,295	2.81	0.57	24	Atlas		13,769	1
	5/21/2017 2:30	5/21/2017 5:15	165	1.34	92,481	1.34	0.60	12	Atlas		123,924	1
	5/27/2017 13:45	5/27/2017 13:45	-	0.19	24,479	1.96	0.15	1	Atlas		4,651	1
	6/5/2017 18:00	6/5/2017 18:00	-	0.26	72,469	0.18	0.22	1	Atlas		18,842	1
	6/15/2017 2:45	6/15/2017 2:45	-	0.53	67,217	0.31	0.33	3	Atlas		35,625	1
	6/23/2017 17:00	6/23/2017 17:00	-	1.22	1,498	1.24	0.43	6	Atlas		1,828	1
	6/30/2017 20:45	6/30/2017 20:45	-	0.33	20,236	0.42	0.28	1	Atlas		6,678	1
	7/23/2017 3:00	7/23/2017 3:30	30	1.15	6,404	0.56	0.53	12	Atlas		7,365	1
	7/28/2017 9:00	7/28/2017 9:00	-	0.50	9,610	1.38	0.38	1	Atlas		4,805	1
	8/1/2017 21:00	8/1/2017 21:15	15	0.63	107,195	0.90	0.50	1	Atlas		67,533	1
	8/22/2017 15:30	8/22/2017 15:30	-	0.35	30,203	0.49	0.24	1	Atlas		10,571	1
	9/1/2017 10:00	9/2/2017 5:30	1,170	2.71	369,967	2.79	0.95	24	Atlas		1,002,611	1
	9/19/2017 7:45	9/19/2017 7:45	-	0.54	3,811	0.52	0.35	3	Atlas		2,058	1
	10/10/2017 16:00	10/10/2017 21:00	300	0.65	42,397	2.57	0.35	3	Atlas		27,558	1
	10/27/2017 23:30	10/28/2017 1:00	90	0.92	29,121	1.39	0.42	12	Atlas		26,791	1
	11/3/2017 4:30	11/3/2017 6:30	120	1.00	86,065	2.09	0.73	1	Atlas		86,065	1
	11/6/2017 1:30	11/6/2017 1:45	15	0.91	26,679	2.07	0.70	1	Atlas		24,278	1
	12/5/2017 3:30	12/5/2017 3:30	-	0.60	755	0.22	0.31	3	Atlas		453	1
	12/23/2017 0:00	12/23/2017 3:00	180	1.36	9,718	0.88	0.52	24	Atlas		13,217	1
	2/16/2018 10:15	2/16/2018 10:45	30	0.98	2,467	2.06	0.44	12	Atlas		2,418	1
	2/22/2018 1:15	2/22/2018 11:00	585	1.89	303,846	3.15	0.71	24	Atlas		574,269	1
	2/23/2018 3:00	2/23/2018 13:30	630	1.84	436,013	4.72	0.84	12	Atlas		802,263	1
	2/24/2018 10:30	2/26/2018 16:45	3,255	2.13	1,524,022	6.12	0.90	12	Atlas		3,246,166	1
	3/24/2018 10:15	3/24/2018 13:30	195	1.13	66,347	1.68	0.43	24	Atlas		74,972	1
	4/1/2018 21:30	4/2/2018 0:00	150	0.62	100,018	2.07	0.34	6	Atlas		62,011	1
	4/3/2018 19:00	4/3/2018 21:15	135	0.39	13,123	2.47	0.21	6	Atlas		5,118	1
	5/5/2018 14:15	5/5/2018 19:45	330	1.66	205,661	1.57	0.70	6	Atlas		341,398	1
	5/10/2018 2:15	5/10/2018 2:15	-	0.08	15,950	1.75	0.06	1	Atlas		1,276	1
	5/22/2018 7:45	5/22/2018 7:45	-	0.25	9,736	0.45	0.20	1	Atlas		2,434	1
	5/27/2018 3:45	5/27/2018 4:00	15	0.93	35,998	0.79	0.50	1	Atlas		33,478	1
	6/1/2018 1:00	6/1/2018 4:00	180	1.72	81,886	2.82	0.87	3	Atlas		140,844	1
	8/15/2018 19:45	8/16/2018 9:30	825	3.06	150,774	2.96	1.94	24	Cloudburst		461,369	1
	8/20/2018 11:00	8/20/2018 11:15	15	0.81	87,963	3.77	0.53	1	Atlas		71,250	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.19	150,558	0.58	0.13	1	Atlas		28,606	1
	9/8/2018 17:15	9/8/2018 21:15	240	3.08	62,622	3.28	5.81	6	Cloudburst		192,876	1
	9/21/2018 13:45	9/21/2018 13:45	-	0.52	35,363	0.34	0.28	6	Atlas		18,389	1
	9/23/2018 4:00	9/23/2018 4:00	-	1.43	2,842	1.34	0.53	24	Atlas		4,064	1
	9/24/2018 7:15	9/24/2018 7:30	15	1.65	11,214	2.52	0.78	6	Atlas		18,503	1
	9/25/2018 16:45	9/25/2018 16:45	-	0.81	21,911	4.18	0.35	12	Atlas		17,748	1
	10/10/2018 16:15	10/10/2018 16:15	-	0.16	117,356	0.09	0.10	1	Atlas		18,777	1
	12/31/2018 12:15	12/31/2018 17:00	285	1.43	48,055	1.79	0.55	24	Atlas		68,719	1
	2/12/2019 3:30	2/12/2019 8:45	315	2.98	174,004	4.44	0.94	48	Atlas		518,532	1
	2/20/2019 4:00	2/20/2019 7:45	225	1.41	343,850	1.35	0.63	6	Atlas		484,829	1
	2/23/2019 18:30	2/23/2019 19:00	30	0.82	11,520	2.08	0.45	6	Atlas		9,446	1
	3/14/2019 17:45	3/14/2019 17:45	-	0.42	33,583	1.81	0.28	3	Atlas		14,105	1
	3/30/2019 17:15	3/30/2019 20:15	180	1.02	234,586	1.39	0.46	6	Atlas		239,278	1
	4/7/2019 13:30	4/7/2019 13:45	15	0.57	23,223	0.78	0.27	3	Atlas		13,237	1
	4/14/2019 2:30	4/14/2019 5:15	165	0.79	158,080	1.44	0.38	6	Atlas		124,883	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2019 19:15	4/20/2019 9:00	825	2.39	414.974	2.94	0.77	48	Atlas		991,788	1
	5/3/2019 5:15	5/3/2019 8:45	210	0.95	427.255	1.28	0.51	6	Atlas		405,892	1
	5/29/2019 13:15	5/29/2019 13:15	-	0.80	676	1.59	0.44	6	Atlas		541	1
	6/9/2019 16:45	6/9/2019 18:00	75	0.37	385.492	1.95	0.17	6	Atlas		142,632	1
	6/16/2019 20:00	6/16/2019 22:45	165	2.25	158.372	2.72	1.19	12	Cloudburst		356,338	1
	6/18/2019 16:30	6/18/2019 16:45	15	0.42	65.269	3.53	0.33	1	Atlas		27,413	1
	6/24/2019 13:45	6/24/2019 14:45	60	0.48	209.144	2.38	0.31	3	Atlas		100,389	1
	8/26/2019 12:00	8/26/2019 14:00	120	0.52	177.931	0.91	0.23	6	Atlas		92,524	1
	10/26/2019 7:30	10/26/2019 9:15	105	1.41	20.759	1.24	0.56	6	Atlas		29,270	1
	10/30/2019 15:00	10/30/2019 15:30	30	0.70	22.887	2.07	0.35	3	Atlas		16,021	1
	10/31/2019 7:15	10/31/2019 9:00	105	0.62	60.556	2.73	0.33	6	Atlas		37,545	1
	11/30/2019 5:00	11/30/2019 16:30	690	2.31	87.091	3.19	0.93	12	Atlas		201,180	1
	12/16/2019 17:45	12/16/2019 18:00	15	0.79	12.019	1.32	0.34	6	Atlas		9,495	1
	12/29/2019 20:00	12/29/2019 22:15	135	1.13	167.167	1.04	0.41	24	Atlas		188,899	1
	1/11/2020 16:15	1/11/2020 16:30	15	0.78	2.555	1.19	0.37	6	Atlas		1,993	1
	3/12/2020 19:45	3/12/2020 20:00	15	0.67	45.542	1.09	0.34	6	Atlas		30,513	1
	3/19/2020 12:45	3/19/2020 12:45	-	0.52	12.923	2.08	0.21	3	Atlas		6,720	1
	4/12/2020 18:15	4/13/2020 3:15	540	1.06	12.742	1.65	0.44	12	Atlas		13,507	1
	5/16/2020 7:30	5/16/2020 7:45	15	1.49	10.079	1.71	0.57	24	Atlas		15,017	1
	6/22/2020 23:30	6/23/2020 0:15	45	0.98	79.829	1.16	0.43	3	Atlas		78,232	1
	CSO054 Total										**19,639,210**	**429**
CSO065	12/8/2009 19:30	12/8/2009 20:45	75	1.89	38.365	1.93	0.76	12	Atlas		72,510	1
	1/21/2010 16:30	1/21/2010 16:30	-	1.27	5.296	1.32	0.41	48	Atlas		6,726	1
	1/24/2010 3:45	1/24/2010 4:00	15	0.91	26.468	1.79	0.35	24	Atlas		24,086	1
	2/5/2010 13:15	2/5/2010 17:00	225	1.13	17.146	0.70	0.42	12	Atlas		19,375	1
	4/8/2010 4:45	4/8/2010 5:45	60	1.28	33.955	1.35	0.59	12	Atlas		43,463	1
	4/24/2010 14:00	4/24/2010 20:00	360	1.57	74.936	1.78	0.74	6	Atlas		117,650	1
	5/1/2010 4:15	5/1/2010 7:15	180	4.25	19.499	2.91	3.93	48	Atlas		82,872	1
	5/2/2010 1:00	5/2/2010 13:15	735	4.25	60.861	4.45	3.93	48	Atlas		258,659	1
	5/7/2010 23:00	5/7/2010 23:00	-	0.26	815	4.54	0.22	1	Atlas		212	1
	5/12/2010 9:30	5/12/2010 10:00	30	0.62	40.445	0.95	0.46	1	Atlas		25,076	1
	5/17/2010 19:30	5/17/2010 19:30	-	0.55	61.562	1.99	0.37	3	Atlas		33,859	1
	5/21/2010 19:45	5/21/2010 20:00	15	1.21	55.003	2.31	0.96	1	Atlas		66,554	1
	5/30/2010 20:15	5/30/2010 20:30	15	0.49	67.702	0.52	0.28	1	Atlas		33,174	1
	6/9/2010 3:00	6/9/2010 12:30	570	1.87	78.143	2.05	1.20	3	Atlas		146,127	1
	6/12/2010 1:30	6/12/2010 1:30	-	0.26	650	2.12	0.14	6	Atlas		169	1
	6/13/2010 22:45	6/14/2010 6:00	435	0.83	48.199	2.96	0.47	1	Atlas		40,005	1
	6/19/2010 5:00	6/19/2010 6:00	60	1.12	19.147	2.35	0.66	3	Atlas		21,445	1
	6/28/2010 1:15	6/28/2010 1:30	15	0.31	16.677	0.20	0.20	3	Atlas		5,170	1
	7/9/2010 8:30	7/9/2010 8:30	-	0.34	8.147	0.26	0.13	24	Atlas		2,770	1
	7/13/2010 5:45	7/13/2010 7:00	75	1.57	18.861	1.53	0.77	3	Atlas		29,611	1
	7/19/2010 18:45	7/19/2010 18:45	-	0.16	3.481	1.89	0.14	1	Atlas		557	1
	7/20/2010 4:30	7/20/2010 6:30	120	0.62	147.042	2.23	0.39	1	Atlas		91,166	1
	7/21/2010 5:45	7/21/2010 6:00	15	0.49	51.431	1.44	0.38	1	Atlas		25,201	1
	7/27/2010 16:00	7/27/2010 16:00	-	0.75	51.531	1.29	0.54	1	Atlas		38,648	1
	7/31/2010 4:45	7/31/2010 5:45	60	0.44	31.768	1.35	0.25	3	Atlas		13,978	1
	8/5/2010 9:00	8/5/2010 9:15	15	0.26	58.631	0.86	0.21	1	Atlas		15,244	1
	8/14/2010 16:15	8/14/2010 16:30	15	0.66	21.030	0.92	0.55	1	Atlas		13,880	1
	8/21/2010 8:00	8/21/2010 8:00	-	0.43	3.798	1.24	0.27	3	Atlas		1,633	1
	10/13/2010 18:00	10/13/2010 20:00	120	0.55	7.865	0.54	0.36	3	Atlas		4,326	1
	10/26/2010 10:45	10/26/2010 10:45	-	0.64	32.438	0.33	0.35	6	Atlas		20,760	1
	11/16/2010 15:00	11/16/2010 15:15	15	0.83	5.969	0.73	0.37	12	Atlas		4,954	1
	11/23/2010 3:45	11/23/2010 3:45	-	0.32	7.713	1.16	0.19	3	Atlas		2,468	1
	11/24/2010 13:00	11/24/2010 20:30	450	0.78	33.706	1.17	0.37	3	Atlas		26,291	1
	11/25/2010 11:00	11/25/2010 23:00	720	2.59	179.067	3.51	0.99	24	Atlas		463,784	1
	11/30/2010 0:45	11/30/2010 4:15	210	1.79	107.012	5.00	0.69	24	Atlas		191,551	1
	1/1/2011 5:45	1/1/2011 5:45	-	0.63	968	1.08	0.28	12	Atlas		610	1
	2/1/2011 18:30	2/1/2011 19:15	45	0.87	13.431	0.73	0.33	6	Atlas		11,685	1
	2/24/2011 4:15	2/24/2011 4:15	-	2.37	45	0.29	0.91	24	Atlas		107	1
	2/24/2011 19:45	2/24/2011 23:45	240	2.37	54.874	2.36	0.91	24	Atlas		130,052	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/28/2011 4:45	2/28/2011 10:15	330	1.19	7,166	3.85	0.56	6	Atlas		8,528	1
	3/5/2011 7:00	3/5/2011 7:00	-	0.92	15,303	2.20	0.32	24	Atlas		14,079	1
	3/8/2011 23:15	3/9/2011 4:15	300	3.21	18,520	3.37	2.44	24	Cloudburst		59,450	1
	3/9/2011 16:00	3/9/2011 16:00	-	3.21	207	4.11	2.44	24	Cloudburst		663	1
	4/4/2011 13:15	4/4/2011 16:30	195	0.72	40,386	0.89	0.37	6	Atlas		29,078	1
	4/9/2011 10:30	4/9/2011 10:30	-	0.46	37,261	1.06	0.31	1	Atlas		17,140	1
	4/11/2011 16:45	4/12/2011 3:00	615	3.06	171,958	3.18	1.94	24	Cloudburst		526,191	1
	4/20/2011 2:45	4/20/2011 7:00	255	0.74	199,328	1.19	0.40	6	Atlas		147,503	1
	4/22/2011 16:15	4/23/2011 15:00	1,365	4.97	139,319	4.58	4.10	48	Atlas		692,416	1
	4/27/2011 1:00	4/27/2011 4:45	225	2.25	178,116	6.98	0.87	24	Atlas		400,762	1
	4/28/2011 18:45	4/28/2011 18:45	-	0.16	11,663	7.41	0.11	3	Atlas		1,866	1
	5/1/2011 23:30	5/2/2011 4:45	315	2.97	2,661	4.28	0.96	48	Atlas		7,904	1
	5/2/2011 23:45	5/3/2011 3:45	240	2.97	1,048	5.39	0.96	48	Atlas		3,114	1
	5/8/2011 0:30	5/8/2011 3:30	180	0.28	255,539	3.93	0.16	3	Atlas		71,551	1
	5/14/2011 14:45	5/14/2011 14:45	-	0.24	21,758	0.50	0.17	1	Atlas		5,222	1
	5/21/2011 18:15	5/21/2011 18:15	-	0.39	22,667	0.64	0.26	1	Atlas		8,840	1
	5/23/2011 4:00	5/23/2011 4:00	-	0.38	7,795	0.79	0.25	1	Atlas		2,962	1
	5/23/2011 17:30	5/23/2011 21:45	255	0.89	128,303	1.79	0.57	3	Atlas		114,190	1
	5/25/2011 22:45	5/26/2011 2:30	225	1.58	49,109	2.68	0.61	24	Atlas		77,592	1
	5/26/2011 11:15	5/26/2011 16:30	315	1.58	8,887	3.31	0.61	24	Atlas		14,042	1
	6/15/2011 9:15	6/15/2011 11:00	105	0.96	209,014	1.20	0.59	1	Atlas		200,653	1
	6/18/2011 8:30	6/18/2011 8:45	15	0.71	18,730	1.73	0.43	3	Atlas		13,298	1
	6/19/2011 7:45	6/19/2011 7:45	-	0.48	32,681	2.02	0.29	3	Atlas		15,687	1
	6/20/2011 1:15	6/20/2011 1:45	30	0.56	69,123	2.75	0.48	1	Atlas		38,709	1
	6/22/2011 19:15	6/23/2011 7:45	750	3.43	230,781	5.46	14.29	3	Atlas		791,578	1
	6/27/2011 8:15	6/27/2011 8:15	-	0.04	13,650	4.02	0.02	12	Atlas		546	1
	7/19/2011 22:45	7/20/2011 1:00	135	1.61	210,916	1.62	3.31	1	Atlas		339,574	1
	8/7/2011 3:00	8/7/2011 8:15	315	1.54	224,960	1.58	0.89	3	Atlas		346,438	1
	8/8/2011 13:45	8/8/2011 13:45	-	0.36	39,678	1.83	0.24	3	Atlas		14,284	1
	8/13/2011 17:15	8/13/2011 17:15	-	0.81	27,988	2.73	0.63	1	Atlas		22,670	1
	8/18/2011 8:00	8/18/2011 8:00	-	0.37	45,270	1.16	0.30	1	Atlas		16,750	1
	9/4/2011 20:30	9/4/2011 20:30	-	0.17	17,024	0.16	0.07	24	Atlas		2,894	1
	9/19/2011 7:00	9/19/2011 7:30	30	0.74	23,942	0.58	0.29	12	Atlas		17,717	1
	9/23/2011 2:15	9/23/2011 7:45	330	0.74	59,347	1.54	0.34	12	Atlas		43,917	1
	9/25/2011 23:30	9/26/2011 6:00	390	4.48	268,642	6.12	25.83	12	Atlas		1,203,517	1
	10/13/2011 7:15	10/13/2011 7:45	30	0.41	62,749	0.22	0.19	3	Atlas		25,727	1
	10/18/2011 20:15	10/18/2011 20:15	-	0.21	27,886	0.62	0.16	1	Atlas		5,856	1
	10/27/2011 0:00	10/27/2011 0:30	30	1.05	50,899	1.11	0.46	3	Atlas		53,444	1
	11/14/2011 21:30	11/14/2011 21:30	-	1.99	17,360	0.30	0.65	48	Atlas		34,546	1
	11/21/2011 4:00	11/21/2011 4:00	-	0.70	26,461	2.57	0.24	24	Atlas		18,523	1
	11/22/2011 3:00	11/22/2011 11:15	495	1.06	330,136	3.18	0.48	6	Atlas		349,944	1
	11/28/2011 11:00	11/29/2011 1:45	885	2.98	248,422	4.04	0.92	48	Atlas		740,298	1
	12/5/2011 2:45	12/5/2011 19:00	975	3.29	353,104	5.01	1.35	48	Cloudburst		1,161,712	1
	12/21/2011 6:30	12/21/2011 6:30	-	0.85	26,086	1.32	0.39	12	Atlas		22,173	1
	1/1/2012 4:30	1/1/2012 4:30	-	0.69	7,910	0.14	0.27	24	Atlas		5,458	1
	1/23/2012 2:45	1/23/2012 4:15	90	0.57	70,744	1.05	0.31	3	Atlas		40,324	1
	1/26/2012 5:45	1/26/2012 6:00	15	1.82	21,921	1.35	0.60	24	Atlas		39,896	1
	1/26/2012 18:45	1/26/2012 22:00	195	1.82	80,632	2.26	0.60	24	Atlas		146,750	1
	2/14/2012 13:30	2/14/2012 13:30	-	0.20	5,480	0.26	0.10	6	Atlas		1,096	1
	2/22/2012 22:45	2/22/2012 22:45	-	0.19	18,553	0.53	0.15	1	Atlas		3,525	1
	2/29/2012 8:45	2/29/2012 8:45	-	0.64	25,358	0.76	0.30	1	Atlas		16,229	1
	3/16/2012 2:30	3/16/2012 3:15	45	0.94	17,036	1.13	0.41	12	Atlas		16,014	1
	3/17/2012 18:30	3/17/2012 22:30	240	0.57	14,114	1.65	0.29	3	Atlas		8,045	1
	3/23/2012 5:15	3/23/2012 23:30	1,095	1.69	24,907	2.26	0.61	3	Atlas		42,093	1
	4/1/2012 8:30	4/1/2012 12:30	240	1.63	68,564	1.85	0.89	6	Atlas		111,760	1
	4/28/2012 19:15	4/28/2012 19:30	15	0.72	203,506	0.74	0.54	1	Atlas		146,524	1
	4/30/2012 18:00	4/30/2012 18:00	-	0.46	251,872	1.06	0.30	3	Atlas		115,861	1
	5/4/2012 23:45	5/5/2012 2:00	135	1.40	187,929	2.38	0.75	3	Atlas		263,100	1
	5/13/2012 2:00	5/13/2012 15:30	810	2.18	176,487	2.24	0.83	24	Atlas		384,741	1
	5/16/2012 17:45	5/16/2012 17:45	-	0.26	5,292	2.45	0.23	1	Atlas		1,376	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/29/2012 6:30	5/29/2012 10:30	240	2.89	313.970	2.88	15.82	3	Atlas		907.372	1
	5/31/2012 18:30	5/31/2012 20:30	120	1.23	35.947	3.52	0.53	12	Atlas		44.215	1
	6/17/2012 11:30	6/17/2012 11:30	-	0.23	8.778	0.26	0.18	1	Atlas		2.019	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.49	392	0.40	0.35	1	Atlas		192	1
	7/8/2012 13:00	7/8/2012 13:15	15	0.28	294.436	0.82	0.20	1	Atlas		82.442	1
	7/14/2012 13:45	7/14/2012 14:45	60	0.62	218.739	0.91	0.39	3	Atlas		135.618	1
	7/18/2012 16:15	7/18/2012 17:30	75	0.01	15.140.200	0.64	0.01	1	Atlas		151.402	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.95	213.478	1.57	0.75	1	Atlas		202.804	1
	7/24/2012 20:00	7/24/2012 20:00	-	0.47	24.734	1.47	0.40	1	Atlas		11.625	1
	7/26/2012 21:30	7/26/2012 21:30	-	0.10	3.120	0.60	0.05	1	Atlas		312	1
	7/27/2012 19:45	7/27/2012 20:00	15	0.71	9.146	1.07	0.48	1	Atlas		6.494	1
	8/16/2012 20:15	8/16/2012 20:15	-	0.64	384	0.34	0.37	3	Atlas		246	1
	8/21/2012 13:45	8/21/2012 13:45	-	0.22	122.409	0.87	0.19	1	Atlas		26.930	1
	9/1/2012 17:30	9/1/2012 17:30	-	0.40	29.365	0.43	0.26	1	Atlas		11.746	1
	9/2/2012 20:15	9/2/2012 20:30	15	0.73	6.659	1.12	0.28	24	Atlas		4.861	1
	9/5/2012 15:15	9/5/2012 16:30	75	0.60	115.022	1.79	0.43	1	Atlas		69.013	1
	9/7/2012 23:30	9/7/2012 23:30	-	1.37	6.376	2.42	0.77	3	Atlas		8.735	1
	9/25/2012 23:45	9/26/2012 5:00	315	0.46	3.798	0.74	0.21	12	Atlas		1.747	1
	9/26/2012 19:45	9/26/2012 23:30	225	1.73	28.641	2.51	0.92	6	Atlas		49.549	1
	10/1/2012 18:30	10/1/2012 18:45	15	0.61	8.016	3.11	0.24	12	Atlas		4.890	1
	12/4/2012 15:00	12/4/2012 15:00	-	0.68	588	0.51	0.44	3	Atlas		400	1
	12/7/2012 4:45	12/7/2012 19:45	900	1.14	5.470	2.07	0.47	12	Atlas		6.236	1
	12/8/2012 9:30	12/8/2012 11:15	105	0.37	3.062	2.44	0.23	1	Atlas		1.133	1
	12/9/2012 22:15	12/10/2012 3:45	330	1.13	120.727	3.27	0.55	3	Atlas		136.421	1
	12/26/2012 5:30	12/26/2012 5:45	15	0.67	22.230	1.23	0.26	24	Atlas		14.894	1
	1/11/2013 6:00	1/11/2013 6:00	-	0.67	3.848	0.75	0.37	3	Atlas		2.578	1
	1/13/2013 3:15	1/13/2013 18:30	915	2.30	30.226	3.10	0.88	24	Atlas		69.519	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.80	104.408	0.60	0.40	6	Atlas		83.526	1
	3/17/2013 14:45	3/17/2013 16:00	75	1.76	3.863	1.73	0.57	48	Atlas		6.798	1
	3/18/2013 4:15	3/18/2013 11:15	420	1.76	5.564	2.27	0.57	48	Atlas		9.792	1
	4/11/2013 7:00	4/11/2013 7:15	15	1.27	1.614	0.50	0.49	24	Atlas		2.050	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.59	228.058	1.80	0.46	1	Atlas		134.564	1
	4/19/2013 1:15	4/19/2013 3:45	150	0.80	46.460	1.37	0.44	6	Atlas		37.168	1
	4/24/2013 6:00	4/24/2013 10:00	240	0.70	16.234	1.55	0.40	3	Atlas		11.364	1
	5/6/2013 17:30	5/6/2013 17:30	-	1.56	312	1.62	0.48	24	Atlas		486	1
	5/9/2013 23:30	5/10/2013 12:15	765	0.01	620.300	2.16	0.01	1	Atlas		6.203	1
	5/10/2013 23:45	5/10/2013 23:45	-	0.86	1.287	2.43	0.38	6	Atlas		1.107	1
	5/16/2013 10:30	5/16/2013 10:30	-	0.24	3.300	1.13	0.20	1	Atlas		792	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.33	44.176	0.22	0.13	6	Atlas		14.578	1
	6/16/2013 16:45	6/16/2013 16:45	-	0.44	31.482	0.70	0.30	1	Atlas		13.852	1
	6/26/2013 3:30	6/26/2013 4:30	60	0.70	34.970	1.05	0.50	1	Atlas		24.479	1
	6/26/2013 16:15	6/26/2013 21:30	315	2.46	433.318	3.38	2.75	6	Cloudburst		1.065.962	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.09	1.301.711	4.12	0.08	1	Atlas		117.154	1
	7/10/2013 14:00	7/10/2013 14:45	45	0.64	262.758	1.76	0.43	1	Atlas		168.165	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.08	168.638	0.76	0.07	1	Atlas		13.491	1
	7/18/2013 15:45	7/18/2013 16:00	15	0.29	692.538	0.39	0.23	1	Atlas		200.836	1
	7/21/2013 20:15	7/21/2013 20:15	-	1.96	1.408	1.16	0.75	24	Atlas		2.760	1
	7/22/2013 7:00	7/22/2013 14:15	435	1.96	196.174	2.27	0.75	24	Atlas		384.501	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.83	98.414	0.66	0.37	1	Atlas		81.684	1
	8/13/2013 2:30	8/13/2013 2:30	-	0.83	27.673	0.93	0.37	1	Atlas		22.969	1
	8/20/2013 18:15	8/20/2013 18:15	-	0.17	65.029	0.18	0.09	6	Atlas		11.055	1
	8/31/2013 19:45	8/31/2013 23:15	210	1.34	70.014	0.98	0.63	1	Atlas		93.819	1
	9/2/2013 13:45	9/2/2013 13:45	-	0.25	351.668	1.59	0.22	1	Atlas		87.917	1
	9/20/2013 16:30	9/20/2013 23:00	390	1.36	41.503	0.83	0.56	12	Atlas		56.444	1
	10/6/2013 13:15	10/6/2013 8:45	1.170	4.23	76.159	4.37	7.98	24	Cloudburst		322.152	1
	10/30/2013 2:15	10/30/2013 5:45	210	1.06	32.265	1.03	0.50	6	Atlas		34.201	1
	10/31/2013 19:30	10/31/2013 19:30	-	0.71	5.224	1.70	0.28	12	Atlas		3.709	1
	11/17/2013 6:00	11/17/2013 18:00	720	2.59	81.766	2.47	1.61	6	Cloudburst		211.775	1
	12/5/2013 7:30	12/5/2013 7:30	-	0.76	530	0.16	0.25	48	Atlas		403	1
	12/6/2013 10:45	12/6/2013 10:45	-	0.76	576	0.41	0.25	48	Atlas		438	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2013 12:30	12/21/2013 12:45	15	2.75	276	1.18	1.08	24	Cloudburst		760	1
	12/21/2013 21:15	12/22/2013 0:45	210	2.75	34,735	2.62	1.08	24	Cloudburst		95,520	1
	1/11/2014 0:15	1/11/2014 0:15	-	0.75	496	0.69	0.39	6	Atlas		372	1
	2/4/2014 22:45	2/4/2014 23:30	45	0.53	17,674	1.00	0.26	6	Atlas		9,367	1
	2/17/2014 16:15	2/17/2014 16:15	-	0.49	6,267	0.76	0.29	3	Atlas		3,071	1
	3/12/2014 9:00	3/12/2014 9:00	-	0.10	21,650	0.10	0.05	1	Atlas		2,165	1
	3/29/2014 6:30	3/29/2014 6:45	15	0.79	5,268	0.67	0.36	12	Atlas		4,162	1
	4/3/2014 12:15	4/4/2014 3:45	930	2.91	13,798	3.59	1.04	24	Cloudburst		40,153	1
	4/7/2014 10:45	4/7/2014 13:15	150	0.82	69,449	3.82	0.52	1	Atlas		56,948	1
	4/28/2014 4:15	4/28/2014 8:15	240	1.69	41,610	1.34	0.63	24	Atlas		70,321	1
	5/10/2014 5:45	5/10/2014 15:45	600	1.47	21,652	1.53	0.57	24	Atlas		31,828	1
	5/14/2014 10:45	5/14/2014 11:30	45	0.72	1,619	1.87	0.27	24	Atlas		1,166	1
	5/14/2014 20:15	5/14/2014 23:30	195	0.72	11,071	2.31	0.27	24	Atlas		7,971	1
	5/21/2014 21:00	5/21/2014 21:00	-	0.73	6,988	0.37	0.33	12	Atlas		5,101	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.49	17,618	1.22	0.41	1	Atlas		8,633	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.13	3,523	0.29	0.10	1	Atlas		458	1
	6/20/2014 17:30	6/20/2014 17:30	-	0.18	18,917	0.17	0.12	3	Atlas		3,405	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.31	107,045	0.76	0.27	1	Atlas		33,184	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.92	2,811	1.27	0.52	1	Atlas		2,586	1
	7/26/2014 21:45	7/26/2014 21:45	-	0.89	57,898	0.36	0.39	12	Atlas		51,529	1
	7/27/2014 7:45	7/27/2014 7:45	-	0.89	2,683	0.93	0.39	12	Atlas		2,388	1
	8/8/2014 6:00	8/8/2014 8:00	120	0.79	71,019	0.59	0.38	6	Atlas		56,105	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.73	146,237	1.60	0.57	1	Atlas		106,753	1
	8/11/2014 15:15	8/11/2014 15:15	-	0.33	20,097	1.94	0.23	1	Atlas		6,632	1
	8/17/2014 9:30	8/17/2014 9:30	-	0.68	1,963	0.78	0.26	24	Atlas		1,335	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.68	53,706	1.01	0.26	24	Atlas		36,520	1
	8/23/2014 15:45	8/23/2014 22:00	375	0.83	36,958	1.61	0.43	3	Atlas		30,675	1
	8/27/2014 17:15	8/27/2014 17:15	-	0.11	12,282	1.21	0.08	1	Atlas		1,351	1
	8/30/2014 15:15	8/30/2014 16:15	60	0.72	20,388	1.57	0.44	1	Atlas		14,679	1
	9/11/2014 0:30	9/11/2014 6:15	345	2.08	49,756	2.02	1.67	3	Atlas		103,493	1
	10/6/2014 9:30	10/6/2014 9:30	-	0.35	4,169	0.63	0.18	3	Atlas		1,459	1
	10/10/2014 1:45	10/10/2014 3:15	90	1.18	13,946	1.71	0.54	3	Atlas		16,456	1
	10/13/2014 4:15	10/13/2014 4:15	-	0.33	3,824	1.83	0.21	3	Atlas		1,262	1
	10/13/2014 23:30	10/13/2014 23:30	-	1.07	2,611	1.98	0.48	12	Atlas		2,794	1
	10/14/2014 8:15	10/14/2014 8:15	-	1.07	822	2.66	0.48	12	Atlas		880	1
	12/6/2014 2:00	12/6/2014 3:00	60	1.97	9,431	2.88	0.64	48	Atlas		18,580	1
	12/22/2014 22:30	12/22/2014 22:30	-	0.23	4,952	0.22	0.14	3	Atlas		1,139	1
	3/4/2015 2:30	3/4/2015 6:00	210	1.92	12,146	0.90	0.62	48	Atlas		23,321	1
	3/10/2015 11:00	3/10/2015 12:15	75	1.15	3,523	2.79	0.52	12	Atlas		4,052	1
	3/14/2015 1:15	3/14/2015 3:45	150	2.00	446	3.07	0.75	24	Atlas		891	1
	4/3/2015 0:15	4/3/2015 4:45	270	4.94	7,367	3.77	9.44	24	Cloudburst		36,391	1
	4/7/2015 9:15	4/7/2015 9:30	15	1.11	4,177	5.69	0.54	1	Atlas		4,637	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.60	9,128	0.44	0.35	3	Atlas		5,477	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	115,763	0.76	0.04	12	Atlas		9,261	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.64	5,597	0.38	0.35	3	Atlas		3,582	1
	6/18/2015 17:15	6/18/2015 17:15	-	0.67	17,134	1.07	0.38	1	Atlas		11,480	1
	6/20/2015 1:30	6/20/2015 5:15	225	0.95	1,787	2.04	0.39	12	Atlas		1,698	1
	6/26/2015 17:15	6/26/2015 17:30	15	1.05	10,220	2.38	0.54	1	Atlas		10,731	1
	7/2/2015 20:15	7/2/2015 20:45	30	2.57	26,018	4.45	0.98	1	Atlas		66,866	1
	7/12/2015 6:00	7/12/2015 7:15	75	1.10	37,987	3.00	0.79	1	Atlas		41,786	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.99	3,174	4.45	0.81	1	Atlas		3,142	1
	7/17/2015 22:15	7/18/2015 1:00	165	1.66	44,122	4.28	1.53	3	Atlas		73,242	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.55	238,002	0.68	0.46	1	Atlas		130,901	1
	8/5/2015 14:45	8/5/2015 15:15	30	0.31	367,645	1.02	0.27	1	Atlas		113,970	1
	8/6/2015 2:15	8/6/2015 8:00	345	0.44	149,952	1.17	0.27	1	Atlas		65,979	1
	8/15/2015 16:30	8/15/2015 16:45	15	0.02	1,146,800	0.09	0.02	1	Atlas		22,936	1
	9/5/2015 17:30	9/5/2015 17:45	15	0.10	119,090	0.06	0.05	6	Atlas		11,909	1
	9/9/2015 11:15	9/9/2015 11:30	15	0.32	49,163	0.44	0.28	1	Atlas		15,732	1
	10/12/2015 18:00	10/12/2015 18:00	-	0.35	3,740	0.30	0.26	1	Atlas		1,309	1
	10/27/2015 17:15	10/28/2015 8:45	930	2.55	142,358	2.86	0.86	24	Atlas		363,013	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/6/2015 3:00	11/6/2015 4:45	105	0.95	37.678	1.02	0.59	3	Atlas		35,794	1
	11/12/2015 0:00	11/12/2015 0:00	-	0.32	2.953	1.74	0.19	3	Atlas		945	1
	11/18/2015 9:00	11/18/2015 19:00	600	1.25	149.586	1.76	0.62	6	Atlas		186.982	1
	11/30/2015 23:30	12/1/2015 5:30	360	0.66	18.518	1.57	0.30	12	Atlas		12.222	1
	12/22/2015 3:15	12/22/2015 3:30	15	0.60	1.558	0.60	0.23	24	Atlas		935	1
	12/23/2015 19:15	12/23/2015 22:15	180	0.74	166.622	1.39	0.56	1	Atlas		123.300	1
	12/26/2015 14:30	12/26/2015 14:30	-	0.54	474	1.93	0.26	3	Atlas		256	1
	12/27/2015 10:30	12/27/2015 13:15	165	2.21	10.651	3.33	0.72	6	Atlas		23.538	1
	12/28/2015 19:30	12/28/2015 20:45	75	2.21	605	4.03	0.72	6	Atlas		1.336	1
	2/2/2016 19:00	2/3/2016 1:15	375	1.49	27.691	1.52	0.72	6	Atlas		41.269	1
	2/21/2016 4:15	2/21/2016 10:15	360	0.86	3.580	1.02	0.39	12	Atlas		3.079	1
	2/24/2016 5:15	2/24/2016 7:00	105	1.90	1.269	2.37	0.72	24	Atlas		2.411	1
	3/10/2016 16:15	3/10/2016 19:15	180	1.32	4.803	1.32	0.44	12	Atlas		6.340	1
	3/12/2016 22:30	3/13/2016 0:15	105	0.87	57.030	2.04	0.37	6	Atlas		49.616	1
	3/13/2016 9:15	3/13/2016 9:45	30	0.87	2.317	2.20	0.37	6	Atlas		2.016	1
	3/24/2016 17:15	3/24/2016 17:30	15	0.29	8.714	0.32	0.17	1	Atlas		2.527	1
	3/27/2016 21:15	3/27/2016 23:15	120	0.73	39.556	1.02	0.49	3	Atlas		28.876	1
	3/31/2016 6:45	3/31/2016 8:30	105	1.33	10.623	1.83	0.50	24	Atlas		14.129	1
	3/31/2016 23:45	4/1/2016 1:00	75	1.33	3.820	2.06	0.50	24	Atlas		5.081	1
	4/11/2016 17:00	4/11/2016 19:15	135	1.03	32.807	1.08	0.47	6	Atlas		33.791	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.42	20.798	0.11	0.15	24	Atlas		8.735	1
	4/26/2016 16:15	4/26/2016 16:15	-	0.31	30.355	0.43	0.20	1	Atlas		9.410	1
	4/27/2016 21:00	4/28/2016 0:00	180	0.82	19.480	1.52	0.36	12	Atlas		15.974	1
	4/30/2016 11:00	4/30/2016 13:30	150	0.83	6.652	1.70	0.32	24	Atlas		5.521	1
	5/7/2016 16:30	5/7/2016 23:30	420	0.69	5.333	1.43	0.36	6	Atlas		3.680	1
	5/10/2016 14:15	5/10/2016 23:30	555	0.90	59.487	1.83	0.34	24	Atlas		53.538	1
	5/20/2016 15:15	5/20/2016 16:30	75	0.53	85.894	1.21	0.29	3	Atlas		45.524	1
	5/25/2016 18:00	5/25/2016 18:00	-	0.04	101.600	0.65	0.03	1	Atlas		4.064	1
	5/26/2016 13:30	5/26/2016 13:30	-	0.30	5.437	0.75	0.20	3	Atlas		1.631	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.68	42.210	0.74	0.51	1	Atlas		28.703	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.53	49.904	1.19	0.27	1	Atlas		26.449	1
	6/14/2016 16:30	6/14/2016 20:30	240	1.07	75.191	1.10	0.69	3	Atlas		80.454	1
	6/22/2016 8:15	6/22/2016 8:15	-	0.55	27.680	0.22	0.35	3	Atlas		15.224	1
	6/23/2016 16:00	6/23/2016 22:45	405	2.37	112.515	2.92	2.92	6	Cloudburst		266.661	1
	7/3/2016 7:30	7/4/2016 0:45	1,035	1.31	26.165	0.76	0.43	48	Atlas		34.276	1
	7/4/2016 16:15	7/4/2016 18:45	150	1.31	4.456	1.32	0.43	48	Atlas		5.838	1
	7/20/2016 19:30	7/20/2016 19:30	-	0.03	61.433	0.20	0.03	1	Atlas		1.843	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.09	25.656	0.36	0.08	1	Atlas		2.309	1
	7/27/2016 23:45	7/28/2016 5:30	345	0.85	97.049	1.09	0.43	1	Atlas		82.492	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.18	62.089	1.45	0.16	1	Atlas		11.176	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.68	7.284	2.01	0.49	1	Atlas		4.953	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.37	28.022	0.46	0.30	1	Atlas		10.368	1
	8/15/2016 2:45	8/15/2016 8:15	330	0.74	41.514	1.23	0.39	6	Atlas		30.720	1
	8/17/2016 6:45	8/17/2016 9:45	180	1.11	31.354	2.23	0.51	3	Atlas		34.803	1
	8/20/2016 14:15	8/20/2016 21:30	435	1.48	69.724	3.57	0.64	12	Atlas		103.192	1
	8/27/2016 13:00	8/27/2016 13:00	-	0.03	194.333	1.27	0.03	1	Atlas		5.830	1
	9/26/2016 9:15	9/26/2016 9:15	-	0.28	5.582	0.10	0.19	3	Atlas		1.563	1
	9/30/2016 2:45	9/30/2016 3:30	45	0.52	6.221	1.29	0.28	3	Atlas		3.235	1
	10/20/2016 9:15	10/20/2016 10:00	45	0.67	23.860	0.34	0.28	3	Atlas		15.986	1
	11/8/2016 19:45	11/8/2016 19:45	-	0.16	12.081	0.16	0.07	12	Atlas		1.933	1
	11/28/2016 19:30	11/28/2016 21:45	135	0.70	10.586	1.04	0.30	12	Atlas		7.410	1
	12/6/2016 7:45	12/6/2016 13:30	345	0.95	23.467	1.00	0.44	12	Atlas		22.294	1
	12/17/2016 16:45	12/18/2016 4:30	705	3.07	229.346	3.40	3.65	12	Cloudburst		704.092	1
	12/24/2016 1:15	12/24/2016 2:15	60	0.29	43.228	3.28	0.13	12	Atlas		12.536	1
	1/10/2017 19:30	1/10/2017 19:30	-	0.16	18.306	0.37	0.11	1	Atlas		2.929	1
	1/12/2017 15:30	1/12/2017 15:30	-	0.45	13.364	0.59	0.22	6	Atlas		6.014	1
	1/16/2017 23:45	1/17/2017 5:30	345	0.60	106.242	2.19	0.28	12	Atlas		63.745	1
	1/19/2017 19:15	1/20/2017 6:45	690	0.95	97.806	2.46	0.43	12	Atlas		92.916	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.44	89.743	0.48	0.36	1	Atlas		39.487	1
	2/28/2017 10:15	2/28/2017 10:15	-	0.41	1.339	0.85	0.20	6	Atlas		549	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/1/2017 3:15	3/1/2017 9:45	390	1.35	69,440	2.24	0.71	3	Atlas		93,744	1
	3/7/2017 7:45	3/7/2017 7:45	-	0.68	5,721	1.99	0.22	48	Atlas		3,890	1
	3/27/2017 16:30	3/27/2017 16:30	-	0.31	40,361	0.41	0.19	1	Atlas		12,512	1
	4/3/2017 19:30	4/3/2017 19:30	-	0.21	5,348	0.39	0.11	1	Atlas		1,123	1
	4/16/2017 5:30	4/16/2017 21:30	960	1.24	57,456	1.58	0.48	24	Atlas		71,245	1
	4/21/2017 22:30	4/21/2017 22:30	-	0.73	567	1.74	0.27	24	Atlas		414	1
	4/29/2017 1:45	4/29/2017 8:00	375	1.25	117,194	1.52	0.66	3	Atlas		146,493	1
	5/1/2017 3:45	5/1/2017 3:45	-	0.24	1,933	1.61	0.13	3	Atlas		464	1
	5/4/2017 20:00	5/5/2017 15:00	1,140	1.66	88,454	3.09	0.57	24	Atlas		146,834	1
	5/11/2017 3:45	5/11/2017 3:45	-	0.20	20,945	1.88	0.11	6	Atlas		4,189	1
	5/20/2017 18:45	5/21/2017 6:15	690	1.34	139,756	1.37	0.60	12	Atlas		187,273	1
	5/27/2017 14:00	5/27/2017 14:15	15	0.19	35,332	1.98	0.15	1	Atlas		6,713	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.04	643,750	0.06	0.02	12	Atlas		25,750	1
	6/13/2017 17:00	6/13/2017 17:00	-	0.27	1,141	0.27	0.23	1	Atlas		308	1
	6/15/2017 3:15	6/15/2017 5:45	150	0.53	6,468	0.78	0.33	3	Atlas		3,428	1
	6/23/2017 15:15	6/23/2017 20:15	300	1.22	32,381	1.45	0.43	6	Atlas		39,505	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.33	165,506	0.42	0.28	1	Atlas		54,617	1
	7/23/2017 1:45	7/23/2017 11:00	555	1.15	423,431	1.22	0.53	12	Atlas		486,946	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.63	440,594	1.06	0.50	1	Atlas		277,574	1
	8/6/2017 23:45	8/6/2017 23:45	-	0.67	363	1.30	0.29	12	Atlas		243	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.38	471	0.14	0.20	6	Atlas		179	1
	8/22/2017 12:15	8/22/2017 17:15	300	0.35	1,074	0.77	0.24	1	Atlas		376	1
	9/1/2017 9:30	9/2/2017 8:00	1,350	2.71	803,968	2.82	0.95	24	Atlas		2,178,754	1
	9/19/2017 8:45	9/19/2017 8:45	-	0.54	22,328	0.75	0.35	3	Atlas		12,057	1
	10/7/2017 22:00	10/7/2017 23:30	90	1.91	38,275	0.86	0.71	24	Atlas		73,105	1
	10/8/2017 10:15	10/8/2017 15:45	330	1.91	115,495	1.85	0.71	24	Atlas		220,596	1
	10/10/2017 14:15	10/10/2017 21:45	450	0.65	262,698	2.57	0.35	3	Atlas		170,754	1
	10/23/2017 7:00	10/23/2017 7:00	-	0.38	63	0.27	0.20	6	Atlas		24	1
	10/27/2017 17:30	10/28/2017 2:45	555	0.92	397,461	1.42	0.42	12	Atlas		365,664	1
	11/3/2017 5:00	11/3/2017 9:45	285	1.00	290,185	2.09	0.73	1	Atlas		290,185	1
	11/6/2017 2:00	11/6/2017 4:00	120	0.91	23,647	2.08	0.70	1	Atlas		21,519	1
	11/18/2017 17:30	11/18/2017 17:30	-	0.63	205	0.98	0.40	1	Atlas		129	1
	12/5/2017 4:00	12/5/2017 6:30	150	0.60	25,845	0.60	0.31	3	Atlas		15,507	1
	12/22/2017 23:30	12/23/2017 12:30	780	1.36	102,063	1.36	0.52	24	Atlas		138,805	1
	2/7/2018 3:00	2/7/2018 3:30	30	0.60	415	0.86	0.33	6	Atlas		249	1
	2/11/2018 10:15	2/11/2018 11:45	90	0.41	50,029	1.13	0.22	3	Atlas		20,512	1
	2/14/2018 7:30	2/14/2018 10:00	150	0.55	8,509	1.01	0.26	3	Atlas		4,680	1
	2/16/2018 2:45	2/16/2018 13:15	630	0.98	203,553	2.12	0.44	12	Atlas		199,482	1
	2/21/2018 22:00	2/22/2018 12:45	885	1.89	561,544	3.15	0.71	24	Atlas		1,061,319	1
	2/23/2018 2:45	2/23/2018 22:15	1,170	1.84	751,186	4.74	0.84	12	Atlas		1,382,183	1
	2/24/2018 10:30	2/26/2018 15:45	3,195	2.13	458,095	6.12	0.90	12	Atlas		975,743	1
	3/24/2018 9:30	3/24/2018 20:15	645	1.13	567,166	1.93	0.43	24	Atlas		640,898	1
	3/29/2018 19:00	3/29/2018 23:15	255	0.67	54,155	2.16	0.22	24	Atlas		36,284	1
	4/1/2018 20:15	4/2/2018 0:45	270	0.62	503,369	2.07	0.34	6	Atlas		312,089	1
	4/3/2018 16:30	4/3/2018 22:15	345	0.39	359,095	2.48	0.21	6	Atlas		140,047	1
	4/14/2018 9:15	4/14/2018 9:45	30	0.89	72	0.25	0.29	24	Atlas		64	1
	4/15/2018 9:00	4/15/2018 9:45	45	0.89	22,735	0.92	0.29	24	Atlas		20,234	1
	5/5/2018 14:30	5/5/2018 20:30	360	1.66	315,451	1.58	0.70	6	Atlas		523,649	1
	5/10/2018 2:30	5/10/2018 2:30	-	0.08	27,925	1.78	0.06	1	Atlas		2,234	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.15	6,833	0.15	0.12	1	Atlas		1,025	1
	5/22/2018 8:00	5/22/2018 8:00	-	0.25	48,348	0.45	0.20	1	Atlas		12,087	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.93	27,437	0.85	0.50	1	Atlas		25,516	1
	5/27/2018 13:30	5/27/2018 13:30	-	0.93	1,030	1.14	0.50	1	Atlas		958	1
	5/31/2018 14:00	5/31/2018 14:00	-	1.72	367	1.20	0.87	3	Atlas		631	1
	6/1/2018 1:15	6/1/2018 5:00	225	1.72	180,716	2.83	0.87	3	Atlas		310,832	1
	6/10/2018 14:45	6/10/2018 15:00	15	0.94	17,157	0.27	0.35	24	Atlas		16,128	1
	6/11/2018 13:15	6/11/2018 15:00	105	0.94	2,435	0.94	0.35	24	Atlas		2,289	1
	10/10/2018 16:30	10/10/2018 16:30	-	0.16	124,238	0.12	0.10	1	Atlas		19,878	1
	10/26/2018 15:00	10/26/2018 16:00	60	0.30	6,317	0.43	0.12	24	Atlas		1,895	1
	10/31/2018 11:30	11/1/2018 17:15	1,785	1.98	24,448	2.29	0.69	24	Atlas		48,408	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/5/2018 19:45	11/6/2018 0:45	300	0.88	63,067	2.93	0.48	6	Atlas		55,499	1
	11/14/2018 22:00	11/15/2018 4:15	375	0.38	39,345	0.57	0.17	12	Atlas		14,951	1
	11/23/2018 22:00	11/24/2018 0:15	135	0.26	4,773	0.16	0.13	6	Atlas		1,241	1
	11/26/2018 0:00	11/26/2018 0:15	15	0.07	14,143	0.34	0.04	1	Atlas		990	1
	12/3/2018 9:00	12/4/2018 21:30	2,190	Discharge	-	1.41					47,572	1
	12/5/2018 6:00	12/9/2018 7:45	5,865	0.02	3,177,550	1.44	0.01	6	Atlas		63,551	1
	12/15/2018 3:00	12/15/2018 9:30	390	1.56	54,489	1.46	0.65	12	Atlas		85,003	1
	12/27/2018 17:45	12/27/2018 17:45	-	0.35	420	0.50	0.21	1	Atlas		147	1
	12/31/2018 10:15	12/31/2018 17:30	435	1.43	564	1.79	0.55	24	Atlas		806	1
	1/19/2019 19:30	1/19/2019 19:30	-	0.93	901	1.01	0.36	24	Atlas		838	1
	2/6/2019 9:45	2/6/2019 9:45	-	1.54	136	0.70	0.49	48	Atlas		209	1
	2/7/2019 8:30	2/7/2019 8:30	-	1.54	38	1.13	0.49	48	Atlas		58	1
	2/11/2019 15:45	2/12/2019 15:30	1,425	2.98	476,590	4.53	0.94	48	Atlas		1,420,238	1
	2/20/2019 3:30	2/20/2019 8:15	285	1.41	210,565	1.35	0.63	6	Atlas		296,896	1
	2/23/2019 18:30	2/23/2019 22:15	225	0.82	256,807	2.29	0.45	6	Atlas		210,582	1
	3/9/2019 13:30	3/9/2019 19:00	330	1.06	115,745	1.23	0.52	6	Atlas		122,690	1
	3/14/2019 17:15	3/14/2019 19:00	105	0.42	414,352	1.95	0.28	3	Atlas		174,028	1
	3/30/2019 15:30	3/30/2019 21:15	345	1.02	616,504	1.39	0.46	6	Atlas		628,834	1
	4/7/2019 6:00	4/7/2019 14:45	525	0.57	246,205	0.78	0.27	3	Atlas		140,337	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.09	1,744	0.66	0.06	1	Atlas		157	1
	4/14/2019 1:15	4/14/2019 6:15	300	0.79	471,766	1.47	0.38	6	Atlas		372,695	1
	4/18/2019 21:15	4/18/2019 21:15	-	2.39	566	1.12	0.77	48	Atlas		1,353	1
	4/19/2019 19:00	4/20/2019 17:15	1,335	2.39	975,191	3.19	0.77	48	Atlas		2,330,707	1
	4/24/2019 20:30	4/24/2019 22:15	105	1.04	65,477	2.87	0.34	48	Atlas		68,096	1
	4/25/2019 18:15	4/25/2019 18:15	-	1.04	7,144	3.25	0.34	48	Atlas		7,430	1
	4/26/2019 2:30	4/26/2019 2:30	-	1.04	5,309	2.94	0.34	48	Atlas		5,521	1
	5/2/2019 11:30	5/2/2019 11:30	-	0.23	7,887	0.72	0.20	1	Atlas		1,814	1
	5/3/2019 3:15	5/3/2019 9:45	390	0.95	994,243	1.29	0.51	6	Atlas		944,531	1
	5/26/2019 13:45	5/26/2019 17:15	210	0.79	51,089	1.00	0.45	3	Atlas		40,360	1
	5/29/2019 9:15	5/29/2019 14:00	285	0.80	159,039	1.62	0.44	6	Atlas		127,231	1
	6/5/2019 20:45	6/5/2019 21:45	60	0.95	132,302	1.10	0.70	1	Atlas		125,687	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.23	2,383	1.63	0.11	6	Atlas		548	1
	6/9/2019 17:00	6/9/2019 22:15	315	0.37	1,208,022	2.03	0.17	6	Atlas		446,968	1
	6/16/2019 6:00	6/16/2019 6:00	-	0.58	10,586	1.03	0.42	1	Atlas		6,140	1
	6/16/2019 19:45	6/17/2019 2:00	375	2.25	485,846	3.02	1.19	12	Cloudburst		1,093,153	1
	6/18/2019 16:30	6/18/2019 19:30	180	0.42	421,324	3.54	0.33	1	Atlas		176,956	1
	6/21/2019 19:30	6/21/2019 21:30	120	0.46	255,276	4.09	0.31	3	Atlas		117,427	1
	6/22/2019 6:45	6/22/2019 9:45	180	0.52	113,823	4.46	0.34	3	Atlas		59,188	1
	6/23/2019 16:15	6/23/2019 17:30	75	0.27	272,233	3.68	0.20	1	Atlas		73,503	1
	6/24/2019 13:30	6/24/2019 15:45	135	0.48	615,471	2.38	0.31	3	Atlas		295,426	1
	6/30/2019 17:30	6/30/2019 17:30	-	0.14	75,229	0.62	0.08	1	Atlas		10,532	1
	7/18/2019 0:45	7/18/2019 1:00	15	0.30	113,617	0.45	0.21	1	Atlas		34,085	1
	7/29/2019 23:30	7/30/2019 0:15	45	0.61	87,375	0.61	0.37	3	Atlas		53,299	1
	8/19/2019 2:00	8/19/2019 2:00	-	0.13	21,000	0.54	0.10	1	Atlas		2,730	1
	8/22/2019 3:00	8/22/2019 3:00	-	0.20	66,610	0.34	0.13	3	Atlas		13,322	1
	8/26/2019 10:45	8/26/2019 15:00	255	0.52	1,302,627	0.94	0.23	6	Atlas		677,366	1
	10/11/2019 10:45	10/11/2019 10:45	-	0.32	1,778	1.19	0.17	1	Atlas		569	1
	10/15/2019 22:30	10/15/2019 22:30	-	0.36	3,578	0.58	0.25	1	Atlas		1,288	1
	10/26/2019 6:00	10/26/2019 10:00	240	1.41	35,369	1.25	0.56	6	Atlas		49,870	1
	10/26/2019 19:30	10/26/2019 19:30	-	1.41	37	1.51	0.56	6	Atlas		52	1
	10/30/2019 14:45	10/30/2019 18:00	195	0.70	250,899	2.11	0.35	3	Atlas		175,629	1
	10/31/2019 6:30	10/31/2019 10:45	255	0.62	809,898	2.73	0.33	6	Atlas		502,137	1
	11/30/2019 3:00	11/30/2019 5:00	120	2.31	100	1.54	0.93	12	Atlas		232	1
	11/30/2019 13:45	11/30/2019 16:15	150	2.31	28,287	3.04	0.93	12	Atlas		65,343	1
	12/16/2019 21:45	12/16/2019 22:00	15	0.79	927	1.39	0.34	6	Atlas		732	1
	12/29/2019 14:15	12/30/2019 2:30	735	1.13	544,021	1.10	0.41	24	Atlas		614,744	1
	1/10/2020 20:30	1/10/2020 20:30	-	0.39	2,095	0.39	0.19	3	Atlas		817	1
	1/11/2020 11:15	1/11/2020 17:00	345	0.78	128,850	1.19	0.37	6	Atlas		100,503	1
	2/12/2020 17:30	2/12/2020 22:15	285	0.77	2,775	1.40	0.35	3	Atlas		2,137	1
	3/10/2020 8:00	3/10/2020 8:15	15	0.46	66,193	0.47	0.21	12	Atlas		30,449	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/12/2020 15:45	3/12/2020 22:45	420	0.67	236,706	1.14	0.34	6	Atlas		158,593	1
	3/18/2020 15:45	3/18/2020 18:00	135	0.51	184	1.72	0.24	6	Atlas		94	1
	3/19/2020 12:00	3/19/2020 13:30	90	0.52	280,387	2.14	0.21	3	Atlas		145,801	1
	3/24/2020 18:30	3/24/2020 18:30	-	0.19	4,842	1.18	0.09	6	Atlas		920	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.19	487,863	0.41	0.16	1	Atlas		92,694	1
	4/8/2020 22:15	4/8/2020 22:15	-	0.59	32,305	0.37	0.39	3	Atlas		19,060	1
	4/12/2020 17:45	4/13/2020 4:00	615	1.06	360,181	1.65	0.44	12	Atlas		381,792	1
	5/15/2020 23:00	5/15/2020 23:00	-	1.49	468	0.83	0.57	24	Atlas		697	1
	5/16/2020 7:15	5/16/2020 8:15	60	1.49	86,676	1.71	0.57	24	Atlas		129,147	1
	5/18/2020 3:00	5/18/2020 12:00	540	0.70	7,369	2.48	0.32	6	Atlas		5,158	1
	5/25/2020 16:45	5/25/2020 16:45	-	0.13	199,423	0.22	0.10	1	Atlas		25,925	1
	5/29/2020 0:30	5/29/2020 0:30	-	0.14	879	0.66	0.09	1	Atlas		123	1
	6/4/2020 18:15	6/4/2020 18:30	15	0.65	42,040	0.42	0.36	3	Atlas		27,326	1
	6/9/2020 11:45	6/9/2020 11:45	-	0.16	13,981	0.81	0.14	1	Atlas		2,237	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.37	53,773	0.25	0.22	1	Atlas		19,896	1
	6/22/2020 22:30	6/23/2020 1:00	150	0.98	291,074	1.16	0.43	3	Atlas		285,253	1
	6/29/2020 2:45	6/29/2020 5:00	135	0.60	102,548	1.69	0.39	3	Atlas		61,529	1
	6/29/2020 19:00	6/29/2020 19:15	15	0.31	30,703	2.00	0.26	1	Atlas		9,518	1
	CSO055 Total										44,660,640	417
CSO056	11/3/2017 4:45	11/3/2017 5:45	60	1.00	195,523	2.09	0.73	1	Atlas		195,523	1
	2/22/2018 3:15	2/22/2018 7:00	225	1.89	237,120	3.15	0.71	24	Atlas		448,157	1
	2/23/2018 3:15	2/23/2018 12:00	525	1.84	419,786	4.69	0.84	12	Atlas		772,407	1
	2/24/2018 18:15	2/26/2018 12:00	2,505	2.13	1,654,348	5.87	0.90	12	Atlas		3,523,761	1
	3/29/2018 9:45	3/29/2018 9:45	-	0.67	445	1.77	0.22	24	Atlas		298	1
	4/1/2018 23:00	4/1/2018 23:15	15	0.62	23,155	2.07	0.34	6	Atlas		14,356	1
	4/3/2018 16:30	4/3/2018 16:45	15	0.39	20,692	2.20	0.21	6	Atlas		8,070	1
	5/5/2018 14:30	5/5/2018 19:00	270	1.66	354,393	1.57	0.70	6	Atlas		588,292	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.93	63,925	0.85	0.50	1	Atlas		59,450	1
	6/1/2018 1:15	6/1/2018 3:00	105	1.72	95,972	2.72	0.87	3	Atlas		165,071	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.94	14,914	0.27	0.35	24	Atlas		14,019	1
	6/11/2018 13:15	6/11/2018 13:15	-	0.94	771	0.89	0.35	24	Atlas		725	1
	6/21/2018 17:00	6/21/2018 17:00	-	0.39	45,390	1.08	0.23	1	Atlas		17,702	1
	6/25/2018 10:45	6/25/2018 10:45	-	0.82	62,811	2.14	0.32	12	Atlas		51,505	1
	6/26/2018 13:00	6/26/2018 13:00	-	0.82	89,638	2.69	0.33	12	Atlas		73,503	1
	7/3/2018 16:00	7/3/2018 16:15	15	0.32	14,334	0.95	0.23	1	Atlas		4,587	1
	7/20/2018 19:30	7/20/2018 22:00	150	1.69	218,666	2.06	1.07	3	Atlas		369,545	1
	7/31/2018 1:30	7/31/2018 8:00	390	1.73	439,971	1.64	0.73	6	Atlas		761,150	1
	8/15/2018 20:00	8/16/2018 9:30	810	3.06	187,255	2.96	1.94	24	Cloudburst		573,000	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.81	284,869	3.77	0.53	1	Atlas		230,744	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.19	134,737	0.60	0.13	1	Atlas		25,600	1
	9/8/2018 17:30	9/8/2018 21:30	240	3.08	155,843	3.33	5.81	6	Cloudburst		479,996	1
	9/24/2018 7:30	9/24/2018 11:00	210	1.65	39,187	3.37	0.78	6	Atlas		64,659	1
	9/25/2018 17:00	9/25/2018 17:30	30	0.81	77,683	4.29	0.35	12	Atlas		62,923	1
	10/10/2018 16:30	10/10/2018 17:30	60	0.16	605,313	0.18	0.10	1	Atlas		96,850	1
	10/15/2018 9:15	10/15/2018 10:30	75	0.13	67,515	0.65	0.07	1	Atlas		8,777	1
	10/26/2018 15:15	10/26/2018 16:30	75	0.30	40,153	0.43	0.12	24	Atlas		12,046	1
	10/31/2018 11:45	11/1/2018 18:15	1,830	1.98	80,532	2.31	0.69	24	Atlas		159,454	1
	11/5/2018 20:00	11/6/2018 2:15	375	0.88	15,841	2.93	0.48	6	Atlas		13,940	1
	11/14/2018 22:15	11/15/2018 0:45	150	0.38	12,474	0.45	0.17	12	Atlas		4,740	1
	11/23/2018 22:00	11/24/2018 3:45	345	0.26	24,354	0.25	0.13	6	Atlas		6,332	1
	11/26/2018 0:00	11/26/2018 0:30	30	0.07	136,314	0.34	0.04	1	Atlas		9,542	1
	12/1/2018 5:30	12/1/2018 21:45	975	1.32	6,986	1.49	0.55	12	Atlas		9,221	1
	12/31/2018 13:15	12/31/2018 16:15	180	1.43	131	1.72	0.55	24	Atlas		188	1
	2/12/2019 4:00	2/12/2019 6:00	120	2.98	1,557	4.28	0.94	48	Atlas		4,640	1
	2/20/2019 4:15	2/20/2019 6:45	150	1.41	2,830	1.35	0.63	6	Atlas		3,990	1
	3/9/2019 13:30	3/9/2019 13:30	-	1.06	148	0.44	0.52	6	Atlas		157	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.42	7,133	1.81	0.28	3	Atlas		2,996	1
	3/30/2019 17:15	3/30/2019 20:00	165	1.02	18,576	1.39	0.46	6	Atlas		18,948	1
	4/14/2019 3:15	4/14/2019 3:15	-	0.79	1,805	1.28	0.38	6	Atlas		1,426	1
	4/19/2019 19:15	4/20/2019 0:45	330	2.39	74,439	2.14	0.77	48	Atlas		177,909	1
	5/3/2019 4:45	5/3/2019 8:15	210	0.95	95,342	1.27	0.51	6	Atlas		90,575	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/5/2019 20:45	6/5/2019 21:15	30	0.95	83.519	1.04	0.70	1	Atlas		79,343	1
	6/9/2019 17:00	6/9/2019 17:45	45	0.37	446.427	1.92	0.17	6	Atlas		165,178	1
	6/16/2019 19:45	6/16/2019 22:15	150	2.25	116.463	2.72	1.19	12	Cloudburst		262,041	1
	6/18/2019 16:30	6/18/2019 16:45	15	0.42	121.164	3.53	0.33	1	Atlas		50,889	1
	6/21/2019 19:30	6/21/2019 19:30	-	0.46	37.865	3.80	0.31	3	Atlas		17,418	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.27	64.619	3.68	0.20	1	Atlas		17,447	1
	6/24/2019 13:45	6/24/2019 14:15	30	0.48	75.421	2.38	0.31	3	Atlas		36,202	1
	7/18/2019 0:45	7/18/2019 1:00	15	0.30	176.500	0.45	0.21	1	Atlas		52,950	1
	7/29/2019 23:30	7/29/2019 23:45	15	0.61	88.434	0.61	0.37	3	Atlas		53,945	1
	8/26/2019 11:30	8/26/2019 14:00	150	0.52	47.452	0.91	0.23	6	Atlas		24,675	1
	10/26/2019 7:30	10/26/2019 9:00	90	1.41	3.658	1.22	0.56	6	Atlas		5,158	1
	10/30/2019 14:30	10/30/2019 14:30	-	0.70	52.806	1.99	0.35	3	Atlas		36,964	1
	11/27/2019 0:30	11/27/2019 0:30	-	0.74	6.922	1.15	0.33	6	Atlas		5,122	1
	11/30/2019 5:15	11/30/2019 12:15	420	2.31	6.900	2.90	0.93	12	Atlas		15,940	1
	12/29/2019 20:30	12/29/2019 21:15	45	1.13	13.723	1.03	0.41	24	Atlas		15,507	1
	12/30/2019 7:30	12/30/2019 11:00	210	1.13	373	1.13	0.41	24	Atlas		421	1
	2/12/2020 18:00	2/12/2020 18:45	45	0.77	18.183	1.27	0.35	3	Atlas		14,001	1
	3/10/2020 8:00	3/10/2020 8:15	15	0.46	86.654	0.47	0.21	12	Atlas		39,861	1
	3/12/2020 19:45	3/12/2020 20:00	15	0.67	123.291	1.09	0.34	6	Atlas		82,605	1
	3/19/2020 12:15	3/19/2020 12:30	15	0.52	87.854	2.08	0.21	3	Atlas		45,684	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.19	398.595	0.41	0.16	1	Atlas		75,733	1
	5/16/2020 7:30	5/16/2020 7:30	-	1.49	6.526	1.71	0.57	24	Atlas		9,724	1
	5/25/2020 16:45	5/25/2020 16:45	-	0.13	18.831	0.22	0.10	1	Atlas		2,448	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.37	29.951	0.25	0.22	1	Atlas		11,082	1
	6/22/2020 22:45	6/23/2020 0:15	90	0.98	76.005	1.16	0.43	3	Atlas		74,485	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.60	22.592	1.69	0.39	3	Atlas		13,555	1
CSO056 Total											10,335,152	68
CSO057	9/25/2012 23:45	9/26/2012 5:00	315	0.47	5.147	0.79	0.22	12	Atlas		2,419	1
	9/26/2012 19:45	9/26/2012 23:00	195	1.65	1.816	2.35	0.88	6	Atlas		2,997	1
	10/1/2012 15:00	10/1/2012 18:15	195	0.59	166	3.02	0.23	24	Atlas		98	1
	10/18/2012 0:30	10/18/2012 0:30	-	0.26	2.435	0.27	0.17	3	Atlas		633	1
	12/4/2012 16:00	12/4/2012 18:15	135	0.61	136	0.79	0.39	3	Atlas		83	1
	12/7/2012 2:00	12/7/2012 5:45	225	1.24	171	1.51	0.52	12	Atlas		212	1
	12/9/2012 21:30	12/9/2012 22:30	60	1.09	1.362	2.90	0.51	3	Atlas		1,485	1
	12/20/2012 8:00	12/20/2012 8:00	-	0.67	54	0.76	0.36	6	Atlas		36	1
	12/26/2012 5:30	12/26/2012 5:30	-	0.65	448	1.19	0.26	12	Atlas		291	1
	1/11/2013 4:30	1/11/2013 6:15	105	0.82	182	0.76	0.34	6	Atlas		149	1
	1/13/2013 3:15	1/13/2013 5:15	120	2.38	260	1.54	0.91	24	Atlas		618	1
	1/13/2013 13:30	1/13/2013 17:30	240	2.38	16	3.13	0.91	24	Atlas		39	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.89	335	0.59	0.45	6	Atlas		298	1
	2/10/2013 7:30	2/10/2013 15:15	465	0.16	256	0.30	0.08	3	Atlas		41	1
	2/21/2013 20:30	2/22/2013 3:15	405	0.41	124	0.76	0.19	12	Atlas		51	1
	3/17/2013 3:45	3/17/2013 5:45	120	1.75	19	1.27	0.57	48	Atlas		34	1
	3/17/2013 22:00	3/18/2013 4:45	405	1.75	42	2.27	0.57	48	Atlas		74	1
	4/11/2013 5:45	4/12/2013 1:15	1,170	1.32	542	1.32	0.51	24	Atlas		716	1
	4/16/2013 19:45	4/16/2013 19:45	-	0.55	1.153	1.77	0.44	1	Atlas		634	1
	4/19/2013 0:30	4/19/2013 3:30	180	0.91	430	1.39	0.49	6	Atlas		391	1
	4/24/2013 6:45	4/24/2013 8:15	90	0.70	273	1.46	0.38	6	Atlas		191	1
	5/10/2013 10:15	5/10/2013 23:30	795	0.97	726	2.60	0.43	6	Atlas		704	1
	5/11/2013 19:45	5/11/2013 21:30	105	0.02	6.750	2.04	0.02	1	Atlas		135	1
	5/31/2013 11:30	5/31/2013 18:30	420	0.26	1.254	0.37	0.12	12	Atlas		326	1
	6/1/2013 5:30	6/1/2013 7:30	120	0.13	2.546	0.42	0.06	12	Atlas		331	1
	6/1/2013 16:15	6/1/2013 18:00	105	0.13	2.262	0.49	0.06	12	Atlas		294	1
	6/9/2013 23:15	6/10/2013 3:30	255	0.30	330	0.30	0.12	6	Atlas		99	1
	6/16/2013 16:45	6/16/2013 16:45	-	0.38	21.137	0.60	0.24	1	Atlas		8,032	1
	6/23/2013 13:00	6/23/2013 13:15	15	0.17	241	1.70	0.12	1	Atlas		41	1
	6/24/2013 9:15	6/24/2013 10:00	45	0.07	686	1.46	0.04	3	Atlas		48	1
	6/26/2013 3:30	6/26/2013 4:15	45	0.68	82	1.23	0.45	3	Atlas		56	1
	6/26/2013 16:45	6/26/2013 20:30	225	2.26	923	3.18	2.56	1	Atlas		2,086	1
	6/29/2013 19:30	6/29/2013 20:00	30	0.42	212	3.49	0.21	3	Atlas		89	1
	7/2/2013 13:15	7/2/2013 14:15	60	0.12	8.667	3.80	0.10	1	Atlas		1,040	1
	7/3/2013 17:15	7/3/2013 17:45	30	0.05	920	1.56	0.03	1	Atlas		46	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/10/2013 14:00	7/10/2013 14:15	15	0.62	9,961	1.79	0.45	1	Atlas		6,176	1
	7/14/2013 19:30	7/14/2013 20:00	30	0.10	6,060	0.78	0.09	1	Atlas		606	1
	7/18/2013 15:45	7/18/2013 16:00	15	0.26	5,269	0.38	0.19	1	Atlas		1,370	1
	7/21/2013 20:15	7/21/2013 21:30	75	1.89	54	1.20	0.73	24	Atlas		103	1
	7/22/2013 7:45	7/22/2013 13:45	360	1.89	2,039	2.13	0.73	24	Atlas		3,853	1
	8/12/2013 12:15	8/12/2013 14:45	150	0.82	200	0.73	0.37	1	Atlas		164	1
	8/20/2013 18:15	8/20/2013 19:15	60	0.17	682	0.19	0.09	3	Atlas		116	1
	8/31/2013 19:45	8/31/2013 22:30	165	1.38	2,802	0.99	0.71	1	Atlas		3,867	1
	10/5/2013 13:15	10/5/2013 14:00	45	3.98	48	0.92	5.56	24	Cloudburst		191	1
	10/5/2013 22:15	10/6/2013 8:15	600	3.98	197	3.98	5.56	24	Cloudburst		783	1
	10/30/2013 5:00	10/30/2013 5:15	15	1.42	338	1.34	0.69	6	Atlas		480	1
	11/17/2013 6:45	11/17/2013 8:00	75	2.35	182	1.71	1.08	6	Cloudburst		428	1
	12/21/2013 10:45	12/21/2013 10:45	-	2.97	17	1.09	1.55	24	Cloudburst		50	1
	12/21/2013 22:30	12/21/2013 22:45	15	2.97	4,832	2.54	1.55	24	Cloudburst		14,350	1
	3/29/2014 6:15	3/29/2014 6:30	15	1.15	297	0.91	0.56	3	Atlas		341	1
	4/4/2014 1:30	4/4/2014 1:30	-	3.03	125	3.33	1.37	24	Cloudburst		378	1
	4/7/2014 10:15	4/7/2014 11:30	75	0.62	160	3.73	0.35	3	Atlas		99	1
	4/14/2014 3:15	4/14/2014 3:15	-	0.96	110	0.75	0.36	24	Atlas		106	1
	4/25/2014 9:45	4/25/2014 9:45	-	0.09	11,156	0.09	0.04	12	Atlas		1,004	1
	4/27/2014 20:30	4/28/2014 6:00	570	1.37	2,489	0.93	0.49	24	Atlas		3,410	1
	5/9/2014 19:00	5/9/2014 19:00	-	1.66	2,820	0.12	0.64	24	Atlas		4,681	1
	5/10/2014 14:45	5/10/2014 14:45	-	1.66	3,748	1.50	0.64	24	Atlas		6,221	1
	5/14/2014 6:45	5/14/2014 6:45	-	0.79	337	1.82	0.30	24	Atlas		266	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.20	295	0.78	0.17	1	Atlas		59	1
	6/10/2014 15:30	6/10/2014 17:45	135	0.08	2,613	0.17	0.05	3	Atlas		209	1
	6/11/2014 7:15	6/11/2014 9:45	150	0.11	300	0.19	0.08	1	Atlas		33	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.10	4,430	0.38	0.05	6	Atlas		443	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.48	1,756	0.80	0.42	1	Atlas		843	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.74	4,900	1.26	0.37	1	Atlas		3,626	1
	7/26/2014 21:45	7/26/2014 21:45	-	0.99	4,133	0.39	0.44	12	Atlas		4,092	1
	8/8/2014 5:45	8/8/2014 6:45	60	0.80	8,828	0.54	0.35	6	Atlas		7,062	1
	8/10/2014 4:00	8/10/2014 4:15	15	0.91	3,034	1.74	0.75	1	Atlas		2,761	1
	8/11/2014 15:15	8/11/2014 15:15	-	0.43	1,279	2.19	0.36	1	Atlas		550	1
	8/17/2014 9:30	8/17/2014 9:30	-	0.72	481	0.93	0.27	24	Atlas		346	1
	8/23/2014 19:45	8/23/2014 19:45	-	0.73	9,612	1.38	0.38	3	Atlas		7,017	1
	8/27/2014 14:45	8/27/2014 14:45	-	0.12	7,000	1.20	0.08	3	Atlas		840	1
	9/11/2014 1:00	9/11/2014 2:15	75	1.88	194	1.58	1.30	3	Atlas		365	1
	10/7/2014 11:45	10/7/2014 11:45	-	0.25	284	0.71	0.21	1	Atlas		71	1
	10/10/2014 1:45	10/10/2014 2:45	60	1.17	4,532	1.47	0.53	3	Atlas		5,303	1
	10/14/2014 7:45	10/14/2014 7:45	-	1.01	808	2.74	0.44	12	Atlas		816	1
	12/6/2014 1:45	12/6/2014 2:30	45	2.01	146	2.59	0.65	48	Atlas		293	1
	4/2/2015 14:45	4/2/2015 15:00	15	5.15	841	1.09	10.13	24	Cloudburst		4,332	1
	4/3/2015 0:15	4/3/2015 4:30	255	5.15	656	3.90	10.13	24	Cloudburst		3,376	1
	4/7/2015 9:15	4/7/2015 9:15	-	0.90	8,532	5.73	0.45	1	Atlas		7,679	1
	4/10/2015 2:15	4/10/2015 2:15	-	0.21	16,843	3.37	0.13	3	Atlas		3,537	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.16	781	0.40	0.10	1	Atlas		125	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.53	2,168	1.05	0.50	48	Atlas		3,317	1
	6/25/2015 23:45	6/25/2015 23:45	-	0.50	684	1.48	0.26	6	Atlas		342	1
	6/26/2015 17:00	6/26/2015 17:00	-	0.89	4,831	2.07	0.46	1	Atlas		4,300	1
	7/2/2015 15:00	7/2/2015 15:00	-	2.02	174	2.83	0.78	24	Atlas		351	1
	7/18/2015 0:00	7/18/2015 0:45	45	1.31	8,950	3.79	0.87	3	Atlas		11,724	1
	8/4/2015 18:45	8/4/2015 18:45	-	0.43	656	0.44	0.37	1	Atlas		282	1
	8/5/2015 14:45	8/5/2015 14:45	-	0.70	6,023	0.69	0.25	24	Atlas		4,216	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.28	311	0.42	0.24	1	Atlas		87	1
	10/27/2015 18:30	10/27/2015 19:00	30	2.50	37	1.59	0.79	24	Atlas		93	1
	4/26/2016 16:00	4/26/2016 16:00	-	0.31	12,035	0.37	0.17	1	Atlas		3,731	1
	6/2/2016 15:15	6/2/2016 15:30	15	0.34	371	0.45	0.27	1	Atlas		126	1
	6/4/2016 16:30	6/4/2016 16:30	-	0.30	4,307	0.72	0.17	1	Atlas		1,292	1
	6/14/2016 16:30	6/14/2016 16:30	-	0.95	4,283	0.63	0.61	3	Atlas		4,069	1
	6/23/2016 16:00	6/23/2016 20:30	270	2.48	434	2.74	3.67	6	Cloudburst		1,076	1
	8/20/2016 14:15	8/20/2016 14:15	-	1.48	102	2.45	0.68	1	Atlas		151	1
	9/17/2016 9:15	9/17/2016 10:30	75	0.15	240	0.34	0.12	1	Atlas		36	1
	9/28/2016 12:00	9/28/2016 12:00	-	0.43	95	0.51	0.23	6	Atlas		41	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.62	2,237	0.95	0.44	1	Atlas		1,387	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/1/2017 14:45	9/1/2017 21:45	420	2.69	961	2.25	0.95	24	Atlas		2,586	1
	9/19/2017 8:00	9/19/2017 8:15	15	0.46	170	0.61	0.29	3	Atlas		78	1
	10/7/2017 21:45	10/7/2017 22:15	30	1.78	966	0.68	0.66	24	Atlas		1,720	1
	10/8/2017 13:45	10/8/2017 14:00	15	1.78	496	1.62	0.66	24	Atlas		883	1
	10/27/2017 17:30	10/28/2017 4:30	660	0.88	874	1.34	0.40	12	Atlas		769	1
	11/1/2017 3:30	11/1/2017 15:45	735	0.15	213	1.02	0.07	6	Atlas		32	1
	11/3/2017 4:30	11/3/2017 5:00	30	1.18	419	2.17	0.84	1	Atlas		495	1
	11/6/2017 1:45	11/6/2017 2:00	15	0.53	3.596	1.86	0.38	1	Atlas		1,906	1
	11/7/2017 1:00	11/7/2017 6:15	315	0.22	1.250	2.08	0.10	12	Atlas		275	1
	11/15/2017 13:30	11/15/2017 20:30	420	0.31	2.048	0.34	0.20	3	Atlas		635	1
	12/5/2017 3:00	12/5/2017 7:00	240	0.68	1.157	0.70	0.35	3	Atlas		787	1
	12/22/2017 18:45	12/23/2017 10:15	930	1.16	366	0.97	0.45	24	Atlas		424	1
	1/8/2018 5:45	1/8/2018 8:45	180	0.11	727	0.11	0.05	12	Atlas		80	1
	1/12/2018 2:30	1/12/2018 17:00	870	0.29	6.093	0.37	0.11	24	Atlas		1,767	1
	1/22/2018 11:45	1/22/2018 20:45	540	0.24	4.113	0.37	0.11	1	Atlas		987	1
	2/4/2018 3:15	2/4/2018 6:00	165	0.15	1.013	0.26	0.08	6	Atlas		152	1
	2/7/2018 0:00	2/7/2018 5:00	300	0.69	1.604	0.97	0.37	6	Atlas		1,107	1
	2/11/2018 4:15	2/11/2018 10:15	360	0.40	315	1.22	0.20	3	Atlas		126	1
	2/14/2018 7:00	2/14/2018 16:15	555	0.39	803	0.91	0.19	3	Atlas		313	1
	2/16/2018 2:30	2/16/2018 9:15	405	0.85	314	1.54	0.36	12	Atlas		267	1
	2/17/2018 12:00	2/17/2018 12:45	45	0.21	195	1.83	0.13	3	Atlas		41	1
	2/22/2018 3:15	2/22/2018 5:15	120	1.79	7.528	2.81	0.67	24	Atlas		13,475	1
	2/23/2018 2:30	2/23/2018 4:45	135	1.48	1.024	3.33	0.68	12	Atlas		1,516	1
	2/24/2018 10:00	2/24/2018 23:15	795	2.04	457	5.28	0.84	12	Atlas		933	1
	3/1/2018 6:15	3/1/2018 14:00	465	0.01	16.200	3.61	0.01	1	Atlas		162	1
	5/5/2018 14:45	5/5/2018 14:45	-	1.49	134	0.80	0.59	12	Atlas		200	1
	5/10/2018 2:30	5/10/2018 2:30	-	0.20	18.900	1.74	0.17	1	Atlas		3,780	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.63	1.732	3.38	0.47	1	Atlas		1,091	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.21	5.162	0.37	0.15	1	Atlas		1,084	1
	9/8/2018 10:30	9/8/2018 21:30	660	2.96	5.916	3.00	3.04	6	Cloudburst		17,510	1
	9/23/2018 4:15	9/23/2018 6:15	120	1.37	1.354	1.61	0.52	24	Atlas		1,865	1
	9/24/2018 10:45	9/24/2018 13:45	180	1.35	1.428	3.01	0.64	6	Atlas		1,928	1
	9/25/2018 16:30	9/25/2018 16:30	-	0.81	993	3.27	0.35	12	Atlas		804	1
	10/10/2018 16:30	10/10/2018 16:30	-	0.13	4.192	0.09	0.09	3	Atlas		545	1
	11/1/2018 0:30	11/1/2018 2:15	105	1.75	512	1.56	0.62	24	Atlas		896	1
	11/14/2018 21:45	11/15/2018 0:00	135	0.38	105	0.45	0.17	12	Atlas		40	1
	12/1/2018 10:00	12/1/2018 10:00	-	1.34	149	1.20	0.56	12	Atlas		199	1
	12/15/2018 1:00	12/15/2018 14:30	810	1.63	37	1.63	0.68	12	Atlas		61	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.45	5.384	0.53	0.30	1	Atlas		2,423	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.61	1.420	1.19	0.52	48	Atlas		2,286	1
	2/20/2019 3:15	2/20/2019 6:00	165	1.29	795	1.10	0.58	6	Atlas		1,025	1
	3/9/2019 13:15	3/9/2019 15:00	105	0.93	180	0.61	0.43	6	Atlas		167	1
	3/14/2019 17:00	3/14/2019 17:00	-	0.58	4.307	1.69	0.39	3	Atlas		2,498	1
	3/30/2019 15:30	3/30/2019 17:15	105	1.10	108	1.07	0.52	6	Atlas		119	1
	4/7/2019 11:45	4/7/2019 12:15	30	0.60	2.497	0.67	0.28	3	Atlas		1,498	1
	4/14/2019 2:00	4/14/2019 2:00	-	0.68	943	1.08	0.33	6	Atlas		641	1
	5/23/2019 16:00	5/23/2019 17:15	75	0.07	9.000	0.32	0.04	1	Atlas		630	1
	5/26/2019 14:00	5/26/2019 14:00	-	0.55	182	0.44	0.32	3	Atlas		100	1
	6/7/2019 21:00	6/7/2019 21:00	-	0.47	164	1.10	0.20	6	Atlas		77	1
	6/9/2019 15:30	6/9/2019 16:45	75	0.48	2.756	2.01	0.23	6	Atlas		1,323	1
	6/16/2019 19:45	6/16/2019 19:45	-	1.81	93	1.52	0.83	12	Atlas		168	1
	6/18/2019 16:15	6/18/2019 16:15	-	0.15	9.760	2.49	0.12	1	Atlas		1,464	1
	6/22/2019 6:45	6/22/2019 6:45	-	0.49	994	3.49	0.33	3	Atlas		487	1
	6/24/2019 13:45	6/24/2019 13:45	-	0.37	759	2.32	0.23	3	Atlas		281	1
	7/18/2019 0:45	7/18/2019 0:45	-	0.22	11.314	0.39	0.18	1	Atlas		2,489	1
	8/19/2019 2:00	8/19/2019 2:00	-	0.09	3.100	0.43	0.08	1	Atlas		279	1
	8/25/2019 23:00	8/25/2019 23:00	-	0.47	1.611	0.49	0.22	6	Atlas		757	1
	8/26/2019 11:30	8/26/2019 11:30	-	0.47	4.374	0.66	0.22	6	Atlas		2,056	1
	10/15/2019 22:30	10/15/2019 22:30	-	0.37	619	0.62	0.26	1	Atlas		229	1
	10/26/2019 7:15	10/26/2019 7:15	-	1.45	292	0.86	0.56	24	Atlas		423	1
	12/9/2019 20:00	12/9/2019 20:00	-	0.19	6.826	0.23	0.08	1	Atlas		1,297	1
	1/3/2020 3:15	1/3/2020 5:30	135	0.76	116	1.34	0.25	48	Atlas		88	1
	1/3/2020 14:00	1/3/2020 17:15	195	0.76	379	1.72	0.25	48	Atlas		288	1
	2/4/2020 9:00	2/4/2020 12:45	225	0.37	124	0.45	0.14	24	Atlas		46	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/5/2020 16:45	2/5/2020 19:15	150	0.10	2,570	0.69	0.05	6	Atlas		257	1
	2/12/2020 17:15	2/12/2020 18:15	60	0.73	114	1.09	0.33	3	Atlas		83	1
	3/2/2020 7:30	3/2/2020 13:00	330	0.56	554	1.28	0.26	6	Atlas		310	1
	3/10/2020 2:30	3/10/2020 6:30	240	0.51	98	0.25	0.25	1	Atlas		50	1
	3/12/2020 19:30	3/12/2020 19:30	-	0.57	749	1.00	0.27	6	Atlas		427	1
	3/18/2020 13:30	3/18/2020 13:30	-	0.48	71	1.27	0.23	6	Atlas		34	1
	3/24/2020 15:45	3/24/2020 21:30	345	0.18	328	1.15	0.09	6	Atlas		59	1
	4/12/2020 16:15	4/13/2020 2:00	585	0.89	2,982	1.27	0.37	12	Atlas		2,654	1
	4/17/2020 14:00	4/17/2020 22:30	510	0.43	1,044	1.39	0.19	12	Atlas		449	1
	4/23/2020 7:00	4/23/2020 17:30	630	0.55	160	0.98	0.22	12	Atlas		88	1
	4/25/2020 12:15	4/26/2020 5:45	1,050	0.52	1,571	0.88	0.18	24	Atlas		817	1
	5/5/2020 4:00	5/5/2020 12:30	510	0.24	650	0.39	0.13	3	Atlas		156	1
	5/8/2020 7:00	5/8/2020 10:45	225	0.60	317	0.65	0.28	12	Atlas		190	1
	5/18/2020 2:45	5/18/2020 2:45	-	0.39	133	1.68	0.16	12	Atlas		52	1
	5/25/2020 16:30	5/25/2020 16:30	-	0.44	4,595	0.53	0.37	1	Atlas		2,022	1
	5/29/2020 0:15	5/29/2020 0:15	-	0.14	37,186	0.98	0.08	1	Atlas		5,206	1
	6/21/2020 11:30	6/21/2020 11:45	15	0.35	7,211	0.22	0.19	1	Atlas		2,524	1
	6/23/2020 8:30	6/23/2020 8:30	-	0.78	159	1.15	0.36	3	Atlas		124	1
	6/29/2020 2:45	6/29/2020 4:15	90	0.34	7,759	1.21	0.23	1	Atlas		2,638	1
	CSO057 Total										**267,047**	**182**
CSO058	4/24/2010 19:15	4/24/2010 19:15	-	1.65	214,939	1.80	0.78	6	Atlas		354,649	1
	5/2/2010 1:00	5/2/2010 5:15	255	4.02	235,823	3.34	3.14	48	Atlas		948,010	1
	5/12/2010 10:00	5/12/2010 10:00	-	0.78	110,458	1.23	0.58	1	Atlas		86,157	1
	5/21/2010 19:45	5/21/2010 20:00	15	0.92	269,257	1.80	0.68	1	Atlas		247,716	1
	5/30/2010 20:15	5/30/2010 20:15	-	0.56	21,305	0.61	0.30	6	Atlas		11,931	1
	6/19/2010 5:45	6/19/2010 6:00	15	0.99	166,932	1.96	0.57	3	Atlas		165,263	1
	7/13/2010 5:45	7/13/2010 5:45	-	1.87	60	1.74	0.86	12	Atlas		113	1
	7/20/2010 5:00	7/20/2010 5:30	30	0.74	92,577	2.03	0.49	1	Atlas		68,507	1
	7/27/2010 16:00	7/27/2010 16:15	15	1.00	444,645	1.55	0.67	1	Atlas		444,645	1
	8/14/2010 16:15	8/14/2010 16:15	-	0.59	48,758	0.75	0.47	1	Atlas		28,767	1
	11/25/2010 11:15	11/25/2010 11:15	-	2.36	13,740	1.67	0.90	24	Atlas		32,426	1
	11/30/2010 2:45	11/30/2010 2:45	-	1.82	11,087	4.56	0.70	24	Atlas		20,179	1
	4/11/2011 23:30	4/12/2011 2:30	180	3.15	201,232	3.26	2.24	24	Cloudburst		633,881	1
	4/20/2011 2:45	4/20/2011 4:00	75	0.78	305,006	1.26	0.43	6	Atlas		237,905	1
	4/23/2011 0:30	4/23/2011 14:45	855	4.88	921,617	4.39	3.97	48	Atlas		4,497,493	1
	5/8/2011 1:15	5/8/2011 1:15	-	0.25	519,708	3.74	0.15	1	Atlas		129,927	1
	5/23/2011 18:00	5/23/2011 18:15	15	0.84	202,150	1.36	0.53	3	Atlas		169,806	1
	5/26/2011 11:15	5/26/2011 11:30	15	1.43	298,164	3.03	0.59	3	Atlas		426,375	1
	6/15/2011 9:30	6/15/2011 10:00	30	1.03	1,028,204	1.30	0.63	1	Atlas		1,059,050	1
	6/22/2011 20:00	6/23/2011 2:45	405	4.36	949,332	6.41	49.36	3	Cloudburst		4,139,089	1
	8/7/2011 3:30	8/7/2011 4:00	30	1.91	317,740	1.39	1.63	3	Atlas		606,883	1
	9/25/2011 23:30	9/26/2011 3:45	255	3.78	1,395,606	5.17	10.83	12	Atlas		5,275,392	1
	4/14/2012 8:45	4/14/2012 8:45	-	0.22	7,295	0.10	0.12	6	Atlas		1,605	1
	4/28/2012 19:15	4/29/2012 0:00	285	0.77	47,213	0.90	0.58	1	Atlas		36,354	1
	4/30/2012 18:00	4/30/2012 18:00	-	0.51	3,606	1.13	0.34	3	Atlas		1,839	1
	5/4/2012 23:30	5/5/2012 1:15	105	1.41	539,888	2.44	0.73	3	Atlas		761,242	1
	5/13/2012 1:45	5/13/2012 7:45	360	2.15	14,905	1.96	0.84	12	Atlas		32,046	1
	5/16/2012 17:30	5/16/2012 17:45	15	0.22	55,186	2.38	0.19	1	Atlas		12,141	1
	5/29/2012 6:30	5/29/2012 8:45	135	2.84	1,239,356	2.70	13.98	3	Atlas		3,519,772	1
	5/31/2012 18:15	5/31/2012 18:15	-	1.25	4,607	3.09	0.54	12	Atlas		5,759	1
	6/17/2012 11:15	6/17/2012 11:45	30	0.39	21,649	0.31	0.23	3	Atlas		8,443	1
	7/8/2012 12:45	7/8/2012 13:00	15	0.24	31,667	0.64	0.17	1	Atlas		7,600	1
	7/14/2012 14:00	7/14/2012 14:00	-	0.54	9,159	0.75	0.34	3	Atlas		4,946	1
	7/19/2012 18:00	7/19/2012 18:30	30	0.94	2,249,678	1.46	0.76	1	Atlas		2,114,697	1
	7/24/2012 19:45	7/24/2012 20:00	15	0.27	23,411	1.23	0.22	1	Atlas		6,321	1
	7/27/2012 19:45	7/27/2012 20:30	45	0.70	19,901	1.12	0.49	1	Atlas		13,931	1
	8/16/2012 20:00	8/16/2012 20:00	-	0.54	4,576	0.25	0.31	3	Atlas		2,471	1
	8/21/2012 13:45	8/21/2012 13:45	-	0.31	12,481	0.86	0.27	1	Atlas		3,869	1
	9/1/2012 15:00	9/1/2012 15:00	-	0.41	7,932	0.30	0.26	3	Atlas		3,252	1
	9/2/2012 11:45	9/2/2012 12:30	45	0.56	9,109	0.74	0.22	24	Atlas		5,101	1
	9/3/2012 14:45	9/3/2012 14:45	-	0.05	40,800	1.03	0.03	1	Atlas		2,040	1
	9/5/2012 15:15	9/5/2012 15:45	30	0.67	1,142,978	1.63	0.52	1	Atlas		765,795	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/7/2012 23:15	9/8/2012 6:15	420	1.48	5,516	3.14	0.83	3	Atlas		8,164	1
	9/26/2012 1:00	9/26/2012 1:00	-	0.51	8,022	0.69	0.23	12	Atlas		4,091	1
	9/26/2012 20:45	9/26/2012 23:00	135	1.67	204,186	2.43	0.89	6	Atlas		340,991	1
	10/1/2012 14:30	10/2/2012 4:45	855	0.64	1,048,623	3.29	0.25	12	Atlas		671,119	1
	10/6/2012 0:00	10/6/2012 10:15	615	0.13	2,766,223	0.77	0.07	3	Atlas		359,609	1
	10/18/2012 0:45	10/18/2012 8:30	465	0.25	1,207,080	0.43	0.17	3	Atlas		301,770	1
	10/26/2012 12:00	10/27/2012 9:45	1,305	0.68	1,486,316	0.70	0.31	6	Atlas		1,010,695	1
	11/3/2012 16:15	11/3/2012 19:45	210	0.18	245,228	0.20	0.08	12	Atlas		44,141	1
	11/12/2012 5:30	11/12/2012 21:45	975	0.43	1,523,512	0.51	0.20	12	Atlas		655,110	1
	12/2/2012 11:15	12/2/2012 21:30	615	0.19	2,113,258	0.26	0.11	3	Atlas		401,519	1
	12/4/2012 15:00	12/5/2012 12:45	1,305	0.61	1,275,752	0.80	0.39	3	Atlas		778,209	1
	12/6/2012 21:15	12/10/2012 1:00	4,545	1.15	4,582,712	3.25	0.48	12	Atlas		5,270,119	1
	12/20/2012 8:00	12/20/2012 10:00	120	0.67	10,600	0.95	0.37	6	Atlas		7,102	1
	12/26/2012 5:30	12/26/2012 5:30	-	0.68	4,179	1.16	0.27	12	Atlas		2,842	1
	1/11/2013 5:45	1/11/2013 6:15	30	0.61	18,203	0.70	0.33	3	Atlas		11,104	1
	1/13/2013 3:00	1/13/2013 17:45	885	2.35	25,671	3.05	0.90	24	Atlas		60,326	1
	1/30/2013 4:45	1/30/2013 6:00	75	0.87	21,453	0.81	0.45	6	Atlas		18,664	1
	2/22/2013 0:45	2/22/2013 0:45	-	0.42	4,790	0.79	0.19	12	Atlas		2,012	1
	3/11/2013 3:45	3/11/2013 10:15	390	1.01	27,696	1.44	0.40	12	Atlas		27,973	1
	3/17/2013 6:45	3/17/2013 15:15	510	1.67	29,049	1.72	0.54	48	Atlas		48,512	1
	3/18/2013 3:45	3/18/2013 10:00	375	1.67	40,912	2.21	0.54	48	Atlas		68,323	1
	3/24/2013 7:30	3/24/2013 16:00	510	0.52	38,090	1.70	0.20	24	Atlas		19,807	1
	4/11/2013 5:30	4/11/2013 7:30	120	1.32	187,282	0.51	0.51	24	Atlas		247,212	1
	4/11/2013 18:00	4/11/2013 22:30	270	1.32	3,836	1.29	0.51	24	Atlas		5,064	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.55	1,089,231	1.83	0.44	1	Atlas		599,077	1
	4/19/2013 2:00	4/19/2013 4:15	135	0.96	34,597	1.51	0.52	6	Atlas		33,213	1
	4/24/2013 8:15	4/24/2013 9:15	60	0.69	23,891	1.65	0.38	6	Atlas		16,485	1
	5/10/2013 12:00	5/10/2013 12:00	-	0.87	4,214	2.08	0.39	6	Atlas		3,666	1
	5/10/2013 23:30	5/10/2013 23:30	-	0.87	4,689	2.40	0.39	6	Atlas		4,079	1
	5/16/2013 10:15	5/16/2013 10:15	-	0.24	19,563	1.16	0.21	1	Atlas		4,695	1
	6/1/2013 6:00	6/1/2013 6:00	-	0.14	15,886	0.34	0.06	12	Atlas		2,224	1
	6/9/2013 23:45	6/9/2013 23:45	-	0.30	23,903	0.19	0.13	6	Atlas		7,171	1
	6/16/2013 16:30	6/16/2013 17:00	30	0.40	32,703	0.65	0.26	1	Atlas		13,081	1
	6/17/2013 16:15	6/17/2013 21:00	285	1.09	33,132	1.41	0.56	6	Atlas		36,114	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.76	268,242	1.35	0.51	3	Atlas		203,864	1
	6/26/2013 16:00	6/26/2013 20:45	285	2.28	2,460,476	3.30	2.47	1	Atlas		5,609,885	1
	6/29/2013 19:45	6/29/2013 19:45	-	0.39	17,962	3.59	0.20	6	Atlas		7,005	1
	7/1/2013 19:00	7/1/2013 19:00	-	0.27	9,844	3.71	0.14	3	Atlas		2,658	1
	7/2/2013 13:00	7/2/2013 13:00	-	0.14	64,936	3.82	0.12	1	Atlas		9,091	1
	7/6/2013 4:45	7/6/2013 4:45	-	0.64	2,211	1.88	0.28	12	Atlas		1,415	1
	7/10/2013 14:00	7/10/2013 14:15	15	0.86	951,780	2.04	0.61	1	Atlas		809,013	1
	7/14/2013 19:15	7/14/2013 19:30	15	0.13	59,869	1.04	0.11	1	Atlas		7,783	1
	7/22/2013 6:45	7/22/2013 13:45	420	2.07	1,086,838	2.29	0.80	24	Atlas		2,249,755	1
	8/12/2013 14:30	8/12/2013 14:45	15	0.77	16,248	0.67	0.31	1	Atlas		12,511	1
	8/13/2013 2:15	8/13/2013 2:45	30	0.77	9,596	0.95	0.31	1	Atlas		7,389	1
	8/20/2013 18:00	8/20/2013 18:00	-	0.19	31,332	0.16	0.11	3	Atlas		5,953	1
	8/31/2013 19:45	8/31/2013 22:15	150	1.39	13,719	0.99	0.70	1	Atlas		19,069	1
	9/2/2013 13:30	9/2/2013 13:45	15	0.44	19,575	1.83	0.38	1	Atlas		8,613	1
	9/20/2013 16:15	9/20/2013 22:30	375	1.16	11,742	0.71	0.47	12	Atlas		13,621	1
	10/5/2013 13:00	10/6/2013 6:00	1,020	4.09	711,299	3.55	6.45	24	Cloudburst		2,909,211	1
	10/30/2013 2:00	10/30/2013 5:15	195	1.45	7,704	1.36	0.71	6	Atlas		11,171	1
	10/31/2013 19:15	10/31/2013 19:15	-	0.63	10,413	1.96	0.25	12	Atlas		6,560	1
	11/12/2013 5:15	11/12/2013 5:15	-	0.03	53,067	0.24	0.01	12	Atlas		1,592	1
	11/17/2013 5:30	11/17/2013 8:30	180	2.34	79,290	1.80	1.03	6	Cloudburst		185,538	1
	11/17/2013 17:45	11/17/2013 17:45	-	2.34	3,416	2.35	1.03	6	Cloudburst		7,993	1
	12/5/2013 5:15	12/5/2013 7:30	135	0.82	8,773	0.19	0.27	48	Atlas		7,194	1
	12/6/2013 2:30	12/6/2013 2:30	-	0.82	1,700	0.35	0.27	48	Atlas		1,394	1
	12/6/2013 10:45	12/6/2013 12:15	90	0.82	7,604	0.49	0.27	48	Atlas		6,235	1
	12/14/2013 6:30	12/14/2013 15:45	555	0.82	62,672	1.32	0.33	12	Atlas		51,391	1
	12/21/2013 7:30	12/21/2013 8:00	30	1.14	4,073	1.04	0.52	12	Atlas		4,643	1
	12/21/2013 21:00	12/21/2013 23:00	120	1.75	1,250,302	2.48	0.95	3	Atlas		2,188,028	1
	1/11/2014 0:00	1/11/2014 0:00	-	0.85	4,067	0.71	0.45	6	Atlas		3,457	1
	2/17/2014 16:00	2/17/2014 16:00	-	0.72	7,117	1.05	0.43	3	Atlas		5,124	1
	3/29/2014 6:30	3/29/2014 6:30	-	1.07	2,279	0.83	0.51	3	Atlas		2,439	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/3/2014 11:45	4/4/2014 3:30	945	2.87	340.800	3.84	1.04	24	Cloudburst		978,095	1
	4/7/2014 10:30	4/7/2014 11:45	75	0.74	489.627	3.70	0.43	3	Atlas		362,324	1
	4/28/2014 4:00	4/28/2014 6:45	165	1.51	782.505	1.10	0.56	3	Atlas		1,181,582	1
	5/10/2014 2:15	5/10/2014 5:30	195	1.85	5,978	0.80	0.68	24	Atlas		11,059	1
	5/10/2014 13:45	5/10/2014 15:15	90	1.85	493.019	1.84	0.68	24	Atlas		912,086	1
	5/14/2014 19:00	5/14/2014 20:45	105	0.84	65.385	2.66	0.32	24	Atlas		54,923	1
	5/21/2014 21:00	5/21/2014 21:00	-	0.57	14,772	0.26	0.26	12	Atlas		8,420	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.20	44.190	0.76	0.17	1	Atlas		8,838	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.12	65.317	0.29	0.09	1	Atlas		7,838	1
	6/20/2014 17:30	6/20/2014 17:30	-	0.25	15.496	0.25	0.17	3	Atlas		3,874	1
	6/24/2014 13:45	6/24/2014 14:15	30	0.10	48.530	0.37	0.05	6	Atlas		4,853	1
	7/2/2014 16:15	7/2/2014 16:15	-	0.06	40.467	0.25	0.04	1	Atlas		2,428	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.85	18.175	1.06	0.74	1	Atlas		15,449	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.99	21.451	2.09	0.48	3	Atlas		21,236	1
	7/14/2014 20:00	7/14/2014 20:00	-	0.25	10.700	1.77	0.18	1	Atlas		2,675	1
	7/26/2014 21:45	7/26/2014 22:15	30	1.34	14.607	0.49	0.61	12	Atlas		19,574	1
	7/27/2014 7:00	7/27/2014 7:45	45	1.34	8.507	1.27	0.61	12	Atlas		11,400	1
	8/8/2014 5:45	8/8/2014 7:30	105	0.77	881.717	0.59	0.37	6	Atlas		678,922	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.89	20.801	1.77	0.73	1	Atlas		18,513	1
	8/17/2014 9:30	8/17/2014 9:30	-	0.72	6.789	0.89	0.27	24	Atlas		4,888	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.26	7.708	0.98	0.18	1	Atlas		2,004	1
	8/23/2014 20:00	8/23/2014 20:00	-	0.65	11.020	1.38	0.34	3	Atlas		7,163	1
	8/30/2014 15:15	8/30/2014 16:15	60	0.58	367.002	1.25	0.35	1	Atlas		212,861	1
	9/11/2014 0:30	9/11/2014 6:15	345	1.78	1,547.854	1.73	1.00	3	Atlas		2,755,180	1
	10/6/2014 7:45	10/6/2014 7:45	-	0.18	7.739	0.35	0.08	6	Atlas		1,393	1
	10/10/2014 1:45	10/10/2014 3:15	90	1.20	380.416	1.51	0.55	3	Atlas		456,499	1
	10/13/2014 4:15	10/13/2014 6:00	105	0.44	31.382	2.05	0.29	3	Atlas		13,808	1
	10/13/2014 23:30	10/13/2014 23:30	-	0.95	5.595	2.16	0.42	12	Atlas		5,315	1
	10/14/2014 7:45	10/14/2014 8:30	45	0.95	32.336	2.77	0.42	12	Atlas		30,719	1
	11/23/2014 17:30	11/23/2014 22:45	315	0.70	6.943	1.05	0.30	12	Atlas		4,860	1
	12/6/2014 2:00	12/6/2014 3:15	75	1.99	92.621	2.71	0.64	48	Atlas		184,315	1
	2/21/2015 15:15	2/21/2015 16:00	45	1.28	4.478	1.52	0.49	24	Atlas		5,732	1
	3/3/2015 18:45	3/4/2015 17:15	1,350	1.82	81.726	1.44	0.59	24	Atlas		148,742	1
	3/10/2015 6:45	3/10/2015 18:15	690	1.19	110.592	3.01	0.53	12	Atlas		131,605	1
	3/13/2015 10:30	3/14/2015 11:15	1,485	1.89	23.971	3.08	0.72	24	Atlas		45,305	1
	3/26/2015 4:15	3/26/2015 11:30	435	0.51	25.478	0.74	0.21	3	Atlas		12,994	1
	4/2/2015 10:30	4/2/2015 15:30	300	5.08	6.853	1.13	9.60	24	Cloudburst		34,812	1
	4/3/2015 0:15	4/3/2015 17:00	1,005	5.08	34.174	5.10	9.60	24	Cloudburst		173,606	1
	4/7/2015 9:15	4/7/2015 17:45	510	0.89	52.702	5.97	0.43	1	Atlas		46,905	1
	4/9/2015 11:30	4/9/2015 11:45	15	0.11	70.873	5.81	0.10	1	Atlas		7,796	1
	4/10/2015 2:15	4/10/2015 2:30	15	0.21	35.995	3.41	0.13	3	Atlas		7,559	1
	4/13/2015 20:45	4/13/2015 21:15	30	0.40	20.658	1.53	0.15	24	Atlas		8,263	1
	4/19/2015 7:30	4/19/2015 14:30	420	0.73	9.071	1.06	0.31	12	Atlas		6,622	1
	4/30/2015 12:45	4/30/2015 12:45	-	0.19	15.021	0.39	0.17	1	Atlas		2,854	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.56	12.055	0.40	0.28	3	Atlas		6,751	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.04	158.450	0.64	0.02	12	Atlas		6,338	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.16	56.456	0.42	0.10	1	Atlas		9,033	1
	6/8/2015 7:00	6/8/2015 8:15	75	0.25	39.984	0.29	0.13	6	Atlas		9,996	1
	6/17/2015 4:45	6/17/2015 6:00	75	0.65	23.406	0.61	0.37	3	Atlas		15,214	1
	6/18/2015 17:15	6/18/2015 17:45	30	1.48	29.731	1.14	0.48	48	Atlas		44,002	1
	6/20/2015 1:30	6/20/2015 8:00	390	1.48	14.195	2.20	0.48	48	Atlas		21,008	1
	6/25/2015 23:45	6/25/2015 23:45	-	0.50	8.682	1.45	0.26	6	Atlas		4,341	1
	6/26/2015 17:00	6/27/2015 0:00	420	0.92	45.859	2.50	0.49	1	Atlas		42,190	1
	6/29/2015 13:45	6/29/2015 13:45	-	0.24	11.813	1.65	0.14	1	Atlas		2,835	1
	7/2/2015 0:15	7/2/2015 20:45	1,230	1.93	34.319	3.66	0.74	24	Atlas		66,236	1
	7/3/2015 18:45	7/3/2015 18:45	-	0.40	11.740	2.97	0.29	1	Atlas		4,696	1
	7/7/2015 11:30	7/7/2015 11:45	15	0.87	10.000	2.87	0.45	6	Atlas		8,700	1
	7/8/2015 12:00	7/8/2015 12:00	-	0.13	18.900	3.36	0.10	1	Atlas		2,457	1
	7/9/2015 6:15	7/9/2015 13:15	420	0.35	16.240	2.83	0.17	3	Atlas		5,684	1
	7/10/2015 16:00	7/10/2015 16:00	-	0.42	6.762	1.86	0.21	6	Atlas		2,840	1
	7/12/2015 5:45	7/12/2015 7:30	105	1.30	861.921	3.09	0.87	3	Atlas		1,120,497	1
	7/13/2015 14:45	7/13/2015 15:00	15	0.54	15.517	3.64	0.45	1	Atlas		8,379	1
	7/14/2015 4:00	7/14/2015 4:45	45	0.67	37.697	4.28	0.52	1	Atlas		25,257	1
	7/17/2015 22:15	7/18/2015 1:15	180	1.45	846.033	4.03	0.96	3	Atlas		1,226,748	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/4/2015 18:45	8/4/2015 19:00	15	0.46	34.376	0.49	0.39	1	Atlas		15,813	1
	8/5/2015 15:00	8/5/2015 15:00	-	0.71	3.428	0.77	0.25	24	Atlas		2,434	1
	8/6/2015 2:15	8/6/2015 2:15	-	0.71	2.542	0.84	0.25	24	Atlas		1,805	1
	8/15/2015 16:30	8/15/2015 16:30	-	0.04	132.900	0.14	0.03	1	Atlas		5,316	1
	8/19/2015 8:15	8/19/2015 8:15	-	0.29	5.593	0.21	0.11	24	Atlas		1,622	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.29	6.338	0.34	0.11	24	Atlas		1,838	1
	10/27/2015 18:00	10/28/2015 3:15	555	2.35	8.702	2.16	0.78	24	Atlas		20,450	1
	11/6/2015 3:00	11/6/2015 4:00	60	0.92	24.017	0.87	0.55	3	Atlas		22,096	1
	11/12/2015 0:00	11/12/2015 0:45	45	0.27	25.459	1.73	0.16	3	Atlas		6,874	1
	11/18/2015 9:15	11/18/2015 13:45	270	1.31	33.398	1.61	0.67	6	Atlas		43,751	1
	12/14/2015 5:00	12/14/2015 5:00	-	0.24	6.667	0.05	0.13	3	Atlas		1,600	1
	12/21/2015 11:00	12/21/2015 11:15	15	0.70	4.276	0.23	0.27	1	Atlas		2,993	1
	12/21/2015 23:45	12/22/2015 3:45	240	0.70	21.097	0.71	0.27	1	Atlas		14,768	1
	12/23/2015 19:15	12/23/2015 20:00	45	0.70	59.269	1.34	0.51	1	Atlas		41,488	1
	12/26/2015 17:30	12/26/2015 17:30	-	0.42	7.240	1.96	0.19	12	Atlas		3,041	1
	12/27/2015 10:15	12/27/2015 13:15	180	2.05	19.072	3.18	0.69	3	Atlas		39,097	1
	2/2/2016 20:00	2/3/2016 0:00	240	1.37	16.334	1.33	0.66	6	Atlas		22,377	1
	2/21/2016 4:00	2/21/2016 10:15	375	1.07	7.046	1.22	0.49	12	Atlas		7,539	1
	2/24/2016 5:00	2/24/2016 7:00	120	1.92	3.573	2.64	0.74	12	Atlas		6,860	1
	3/12/2016 22:30	3/12/2016 23:00	30	0.80	22.243	1.73	0.32	6	Atlas		17,794	1
	3/13/2016 9:00	3/13/2016 9:45	45	0.80	8.926	1.97	0.32	6	Atlas		7,141	1
	3/24/2016 17:30	3/24/2016 17:30	-	0.41	5.920	0.46	0.29	1	Atlas		2,427	1
	3/27/2016 21:00	3/27/2016 21:30	30	0.71	27.752	1.05	0.47	3	Atlas		19,704	1
	3/31/2016 22:00	3/31/2016 22:00	-	1.13	1.235	1.71	0.43	24	Atlas		1,395	1
	4/11/2016 17:15	4/11/2016 17:30	15	0.99	3.127	0.81	0.46	6	Atlas		3,096	1
	4/26/2016 16:00	4/26/2016 16:00	-	0.34	47.185	0.38	0.17	1	Atlas		16,043	1
	4/27/2016 20:45	4/27/2016 20:45	-	0.67	16.245	1.04	0.31	3	Atlas		10,884	1
	4/30/2016 11:00	4/30/2016 11:00	-	0.63	5.817	1.35	0.25	6	Atlas		3,665	1
	5/10/2016 18:30	5/10/2016 21:45	195	0.94	14.812	1.77	0.35	12	Atlas		13,923	1
	5/17/2016 9:00	5/18/2016 16:45	1,905	0.37	806.816	1.96	0.16	12	Atlas		298,522	1
	5/25/2016 17:45	5/25/2016 17:45	-	0.03	137.533	0.61	0.03	1	Atlas		4,126	1
	5/26/2016 13:30	5/26/2016 13:30	-	0.27	8.989	0.70	0.18	3	Atlas		2,427	1
	6/2/2016 15:15	6/2/2016 15:45	30	0.34	55.453	0.46	0.26	1	Atlas		18,864	1
	6/4/2016 16:30	6/4/2016 16:45	15	0.28	115.857	0.70	0.17	1	Atlas		32,440	1
	6/12/2016 17:45	6/12/2016 18:00	15	0.07	216.557	0.10	0.06	1	Atlas		15,159	1
	6/14/2016 16:30	6/14/2016 17:00	30	0.94	36.953	0.76	0.61	3	Atlas		34,736	1
	6/22/2016 8:00	6/22/2016 8:15	15	0.26	27.796	0.17	0.17	3	Atlas		7,227	1
	6/23/2016 15:45	6/23/2016 21:00	315	2.46	410.762	2.71	3.50	6	Cloudburst		1,010,475	1
	7/3/2016 7:30	7/3/2016 20:15	765	1.33	21.489	0.66	0.43	48	Atlas		28,580	1
	7/4/2016 9:30	7/5/2016 8:45	1,395	1.33	600.400	1.33	0.43	48	Atlas		798,532	1
	7/6/2016 15:30	7/7/2016 1:45	615	0.10	1,418.140	1.44	0.06	1	Atlas		141,814	1
	7/7/2016 17:30	7/9/2016 7:15	2,265	0.04	6,944.650	1.56	0.03	1	Atlas		277,786	1
	8/4/2016 13:15	8/4/2016 13:30	15	0.22	40.727	0.87	0.12	6	Atlas		8,960	1
	8/12/2016 14:00	8/12/2016 14:15	15	0.18	58.950	0.33	0.15	1	Atlas		10,611	1
	8/15/2016 2:30	8/15/2016 7:15	285	0.74	74.945	1.07	0.39	6	Atlas		55,459	1
	8/17/2016 4:15	8/17/2016 7:15	180	0.79	45.833	1.64	0.34	3	Atlas		36,208	1
	8/20/2016 10:15	8/20/2016 20:45	630	1.40	74.053	2.94	0.60	12	Atlas		103,674	1
	8/27/2016 13:00	8/27/2016 13:00	-	0.01	138.600	1.18	0.01	1	Atlas		1,386	1
	8/28/2016 17:15	8/28/2016 17:15	-	0.07	72.971	0.07	0.06	1	Atlas		5,108	1
	9/10/2016 14:30	9/10/2016 15:30	60	0.20	64.465	0.17	0.11	3	Atlas		12,893	1
	9/17/2016 9:30	9/17/2016 9:45	15	0.14	21.157	0.35	0.11	1	Atlas		2,962	1
	9/26/2016 9:15	9/26/2016 11:00	105	0.27	80.156	0.27	0.18	3	Atlas		21,642	1
	9/28/2016 12:00	9/28/2016 14:30	150	0.41	85.915	0.68	0.22	6	Atlas		35,225	1
	9/29/2016 9:00	9/29/2016 9:30	30	0.07	118.629	0.74	0.04	1	Atlas		8,304	1
	9/30/2016 0:00	9/30/2016 3:00	180	0.62	57.366	1.29	0.33	3	Atlas		35,567	1
	10/20/2016 9:15	10/20/2016 11:30	135	0.57	73.565	0.38	0.23	3	Atlas		41,932	1
	11/8/2016 19:30	11/8/2016 20:15	45	0.19	72.595	0.22	0.09	12	Atlas		13,793	1
	11/19/2016 1:30	11/19/2016 3:30	120	0.13	91.085	0.13	0.09	3	Atlas		11,841	1
	11/23/2016 14:45	11/24/2016 15:00	1,455	0.31	1,112.806	0.44	0.13	6	Atlas		344,970	1
	12/4/2016 19:15	12/5/2016 0:30	315	0.03	906.167	0.72	0.01	12	Atlas		27,185	1
	12/6/2016 4:15	12/6/2016 18:45	870	0.90	217.102	0.94	0.41	12	Atlas		195,392	1
	12/11/2016 21:00	12/12/2016 2:15	315	0.33	69.676	1.28	0.15	12	Atlas		22,993	1
	12/17/2016 1:45	12/17/2016 2:00	15	2.68	2.264	0.42	1.86	12	Cloudburst		6,068	1
	12/17/2016 15:45	12/19/2016 4:30	2,205	2.68	188.206	3.02	1.86	12	Cloudburst		504,393	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/23/2016 21:30	12/25/2016 7:45	2,055	0.25	841.324	2.93	0.11	6	Atlas		210.331	1
	12/26/2016 17:00	12/27/2016 8:00	900	0.36	311.797	0.61	0.18	6	Atlas		112.247	1
	12/28/2016 19:30	12/29/2016 6:30	660	0.04	1,323.125	0.65	0.03	3	Atlas		52.925	1
	1/2/2017 19:30	1/4/2017 7:30	2,160	0.22	415.977	0.46	0.09	6	Atlas		91.515	1
	1/10/2017 19:30	1/11/2017 18:15	1,365	0.13	1,253.115	0.57	0.10	1	Atlas		162.905	1
	1/12/2017 15:15	1/13/2017 21:45	1,830	0.34	965.062	1.08	0.16	6	Atlas		328.121	1
	1/14/2017 8:45	1/14/2017 15:00	375	0.24	174.333	1.26	0.11	12	Atlas		41.840	1
	1/16/2017 17:45	1/17/2017 3:15	570	0.54	71.841	1.89	0.25	12	Atlas		38.794	1
	1/19/2017 18:30	1/20/2017 3:15	525	0.96	90.297	2.34	0.44	12	Atlas		86.685	1
	2/7/2017 5:15	2/8/2017 13:45	1,950	0.36	1,253.475	0.36	0.16	6	Atlas		451.251	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.42	32.619	0.47	0.36	1	Atlas		13.700	1
	2/28/2017 5:30	2/28/2017 11:30	360	0.29	101.514	0.76	0.14	6	Atlas		29.439	1
	3/1/2017 3:15	3/1/2017 9:30	375	1.07	77.362	1.83	0.57	6	Atlas		82.777	1
	3/7/2017 1:30	3/7/2017 15:15	825	0.55	114.642	1.92	0.18	48	Atlas		63.053	1
	3/26/2017 1:00	3/26/2017 9:00	480	0.40	157.448	0.41	0.18	6	Atlas		62.979	1
	3/27/2017 16:30	3/27/2017 19:30	180	0.33	121.352	0.73	0.20	3	Atlas		40.046	1
	3/30/2017 9:00	3/31/2017 1:30	990	0.02	3,010.200	0.94	0.02	1	Atlas		60.204	1
	4/3/2017 19:15	4/3/2017 23:45	270	0.16	113.831	0.41	0.10	1	Atlas		18.213	1
	4/6/2017 8:00	4/6/2017 8:00	-	0.05	27.720	0.45	0.02	12	Atlas		1.386	1
	4/11/2017 6:15	4/11/2017 14:30	495	0.33	174.679	0.41	0.15	12	Atlas		57.644	1
	4/16/2017 4:30	4/16/2017 21:15	1,005	1.13	69.719	1.42	0.43	24	Atlas		78.782	1
	4/21/2017 20:45	4/22/2017 0:45	240	0.71	63.641	1.75	0.25	24	Atlas		45.185	1
	4/28/2017 23:15	4/29/2017 9:00	585	1.07	100.046	1.45	0.55	6	Atlas		107.049	1
	5/1/2017 2:15	5/1/2017 4:00	105	0.23	82.678	1.41	0.13	3	Atlas		19.016	1
	5/4/2017 14:45	5/5/2017 12:30	1,305	1.66	95.045	2.87	0.56	24	Atlas		157.774	1
	5/5/2017 8:15	5/5/2017 9:15	60	0.09	84.456	2.00	0.05	3	Atlas		7.601	1
	5/11/2017 3:45	5/11/2017 5:45	120	0.18	84.161	1.90	0.10	6	Atlas		15.149	1
	5/20/2017 18:45	5/21/2017 7:15	750	1.08	112.568	1.13	0.49	12	Atlas		121.573	1
	5/24/2017 15:45	5/25/2017 9:45	1,080	0.49	124.796	1.62	0.17	24	Atlas		61.150	1
	5/27/2017 13:45	5/27/2017 14:30	45	0.35	78.049	1.90	0.29	1	Atlas		27.317	1
	6/5/2017 8:45	6/5/2017 9:15	30	0.04	250.975	0.04	0.02	12	Atlas		10.039	1
	6/5/2017 18:15	6/5/2017 18:30	15	0.36	32.514	0.39	0.31	1	Atlas		11.705	1
	6/13/2017 17:00	6/13/2017 17:00	-	0.17	20.365	0.19	0.15	1	Atlas		3.462	1
	6/15/2017 3:00	6/15/2017 10:00	420	0.64	109.469	0.83	0.39	3	Atlas		70.060	1
	6/18/2017 21:30	6/18/2017 23:30	120	0.21	94.324	1.05	0.13	3	Atlas		19.808	1
	6/22/2017 15:45	6/22/2017 21:00	315	0.32	145.025	0.54	0.17	6	Atlas		46.408	1
	6/23/2017 7:45	6/23/2017 20:15	750	0.90	103.220	1.44	0.44	6	Atlas		92.898	1
	6/27/2017 1:45	6/27/2017 2:15	30	0.08	95.888	1.30	0.07	1	Atlas		7.671	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.47	26.109	0.54	0.38	1	Atlas		12.271	1
	7/4/2017 7:30	7/4/2017 9:00	90	0.12	97.917	0.59	0.06	1	Atlas		11.750	1
	7/6/2017 4:15	7/6/2017 17:45	810	0.53	120.847	1.12	0.25	3	Atlas		64.049	1
	7/7/2017 20:30	7/7/2017 21:45	75	0.19	88.847	1.28	0.13	3	Atlas		16.881	1
	10/23/2017 6:15	10/23/2017 8:00	105	0.38	56.445	0.33	0.20	6	Atlas		21.449	1
	10/27/2017 17:00	10/28/2017 1:00	480	0.87	6.564	1.31	0.40	12	Atlas		5.711	1
	11/3/2017 4:30	11/3/2017 7:15	165	1.18	11.109	2.19	0.87	1	Atlas		13.109	1
	11/6/2017 1:30	11/6/2017 2:00	30	0.51	11.955	1.83	0.37	1	Atlas		6.097	1
	11/7/2017 1:45	11/7/2017 6:15	270	0.22	291	2.05	0.10	12	Atlas		64	1
	11/7/2017 22:15	11/7/2017 22:15	-	0.03	66.633	2.06	0.02	3	Atlas		1.999	1
	11/15/2017 12:45	11/15/2017 19:00	375	0.32	13.963	0.35	0.21	1	Atlas		4.468	1
	11/18/2017 16:30	11/18/2017 18:15	105	0.35	79.014	0.66	0.19	3	Atlas		27.655	1
	12/5/2017 3:00	12/5/2017 8:15	315	0.67	8.561	0.69	0.35	3	Atlas		5.736	1
	12/22/2017 18:15	12/23/2017 12:00	1,065	1.14	6.243	1.14	0.44	24	Atlas		7.117	1
	1/8/2018 8:30	1/8/2018 11:30	180	0.11	20.727	0.12	0.05	12	Atlas		2.280	1
	1/11/2018 8:45	1/11/2018 10:15	90	0.06	1.083	0.17	0.03	3	Atlas		65	1
	1/12/2018 3:15	1/13/2018 4:00	1,485	0.29	18.924	0.46	0.11	24	Atlas		5.488	1
	1/13/2018 15:00	1/13/2018 16:30	90	0.02	188.200	0.48	0.01	12	Atlas		3.764	1
	1/22/2018 11:45	1/22/2018 20:00	495	0.29	10.148	0.41	0.16	1	Atlas		2.943	1
	1/27/2018 13:30	1/27/2018 17:00	210	0.34	10.718	0.62	0.19	3	Atlas		3.644	1
	2/7/2018 0:15	2/7/2018 10:45	630	0.66	3.297	0.94	0.36	6	Atlas		2.176	1
	2/14/2018 6:15	2/14/2018 15:15	540	0.40	748	0.93	0.20	3	Atlas		299	1
	2/16/2018 2:15	2/17/2018 1:45	1,410	0.81	25.484	1.75	0.34	12	Atlas		20.642	1
	2/17/2018 12:45	2/17/2018 13:30	45	0.22	264	1.87	0.13	3	Atlas		58	1
	2/17/2018 22:15	2/18/2018 9:00	645	0.22	33.859	1.90	0.13	3	Atlas		7.449	1
	3/10/2018 0:15	3/10/2018 2:15	120	0.58	217	0.55	0.37	3	Atlas		126	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/19/2018 17:30	3/19/2018 19:45	135	0.27	11,381	0.29	0.15	3	Atlas		3,073	1
	3/24/2018 9:00	3/24/2018 12:30	210	1.02	169	1.50	0.39	24	Atlas		172	1
	3/28/2018 5:30	3/28/2018 10:45	315	0.49	924	1.64	0.21	6	Atlas		453	1
	3/29/2018 19:00	3/29/2018 22:45	225	0.62	229	1.98	0.21	24	Atlas		142	1
	3/31/2018 21:45	3/31/2018 22:30	45	0.22	164	1.34	0.11	3	Atlas		36	1
	4/1/2018 20:00	4/1/2018 23:30	210	0.60	353	1.99	0.33	6	Atlas		212	1
	4/3/2018 16:30	4/3/2018 21:30	300	0.36	4,789	2.35	0.20	6	Atlas		1,724	1
	4/14/2018 9:00	4/14/2018 10:00	60	0.92	216	0.26	0.30	24	Atlas		199	1
	4/14/2018 22:30	4/15/2018 9:30	660	0.92	183	0.95	0.30	24	Atlas		168	1
	4/23/2018 5:15	4/23/2018 11:30	375	0.62	608	0.75	0.28	12	Atlas		377	1
	5/5/2018 12:30	5/5/2018 20:00	450	1.42	2,834	1.31	0.56	12	Atlas		4,024	1
	5/10/2018 2:45	5/10/2018 2:45	-	0.18	689	1.66	0.16	1	Atlas		124	1
	5/17/2018 15:45	5/18/2018 18:30	1,605	0.15	151,887	0.21	0.12	1	Atlas		22,783	1
	5/19/2018 3:45	5/19/2018 10:00	375	0.01	107,100	0.23	0.01	1	Atlas		1,071	1
	5/22/2018 6:45	5/22/2018 8:15	90	0.12	13,308	0.35	0.09	1	Atlas		1,597	1
	5/27/2018 4:00	5/27/2018 4:45	45	0.39	921	0.52	0.31	1	Atlas		359	1
	5/31/2018 14:15	5/31/2018 15:15	60	1.53	59	0.86	0.77	3	Atlas		91	1
	6/1/2018 0:15	6/1/2018 3:15	180	1.53	524	2.16	0.77	3	Atlas		801	1
	7/20/2018 20:00	7/20/2018 20:00	-	1.48	290,679	1.32	0.83	3	Atlas		430,205	1
	7/31/2018 1:00	7/31/2018 1:30	30	2.22	469,713	0.69	1.06	6	Cloudburst		1,042,763	1
	8/15/2018 19:15	8/17/2018 8:30	2,235	2.70	7,334,693	2.72	1.22	24	Cloudburst		19,803,672	1
	9/8/2018 20:00	9/8/2018 20:15	15	2.83	65,649	2.41	2.17	6	Cloudburst		185,788	1
	11/1/2018 13:15	11/1/2018 20:00	405	1.73	2,211,462	1.99	0.62	24	Atlas		3,825,830	1
	6/9/2019 17:00	6/9/2019 17:00	-	0.56	310,245	2.15	0.30	3	Atlas		173,737	1
	6/16/2019 21:00	6/16/2019 21:00	-	1.79	294,038	1.76	0.82	12	Atlas		526,328	1
	6/18/2019 16:45	6/18/2019 16:45	-	0.32	1,501,797	2.54	0.16	1	Atlas		480,575	1
	CSO058 Total										97,783,731	324
	11/15/2017 14:00	11/15/2017 15:15	75	0.29	1,324,303	0.32	0.19	1	Atlas		384,048	1
	11/18/2017 17:30	11/18/2017 19:00	90	0.33	2,528,576	0.63	0.19	3	Atlas		834,430	1
	12/5/2017 4:00	12/5/2017 7:45	225	0.54	4,269,528	0.55	0.27	3	Atlas		2,305,545	1
	12/22/2017 23:30	12/23/2017 15:15	945	1.21	8,292,852	1.21	0.47	24	Atlas		10,034,351	1
	1/12/2018 10:15	1/12/2018 13:45	210	0.29	903,307	0.32	0.11	24	Atlas		261,959	1
	1/27/2018 16:00	1/27/2018 17:15	75	0.32	393,288	0.59	0.17	3	Atlas		125,852	1
	2/7/2018 3:15	2/7/2018 6:45	210	0.54	3,112,383	0.80	0.29	6	Atlas		1,680,687	1
	3/10/2018 2:00	3/10/2018 4:30	150	0.54	1,285,707	0.57	0.33	3	Atlas		694,282	1
	3/19/2018 20:30	3/19/2018 21:00	30	0.28	140,879	0.31	0.17	3	Atlas		39,446	1
	3/24/2018 9:30	3/25/2018 1:30	960	0.97	9,213,875	1.71	0.37	24	Atlas		8,937,459	1
	3/28/2018 6:30	3/28/2018 12:45	375	1.11	1,294,154	1.60	0.28	48	Atlas		1,436,511	1
	3/29/2018 19:30	3/29/2018 22:45	195	1.11	1,391,725	1.91	0.28	48	Atlas		1,544,815	1
	4/14/2018 10:15	4/14/2018 11:45	90	0.91	428,084	0.28	0.30	24	Atlas		389,556	1
	4/15/2018 0:00	4/15/2018 13:00	780	0.91	4,595,463	0.95	0.30	24	Atlas		4,181,871	1
	5/5/2018 14:30	5/5/2018 21:45	435	1.47	4,569,573	1.44	0.62	6	Atlas		6,717,272	1
	6/1/2018 1:30	6/1/2018 5:30	240	1.45	1,995,212	2.11	0.84	3	Atlas		2,893,057	1
	6/11/2018 14:00	6/11/2018 14:30	30	0.33	94,382	0.81	0.23	1	Atlas		31,146	1
	8/16/2018 3:45	8/16/2018 17:15	810	2.55	4,102,360	2.56	0.98	24	Atlas		10,461,018	1
	8/31/2018 18:00	9/1/2018 21:00	1,620	0.30	55,322,263	0.33	0.19	3	Atlas		16,596,679	1
	9/6/2018 11:45	9/9/2018 7:30	4,065	0.29	169,235,145	3.50	0.24	1	Atlas		49,078,192	1
	9/17/2018 15:30	9/17/2018 16:00	30	0.05	23,100	0.05	0.02	24	Atlas		1,155	1
	9/21/2018 14:45	9/22/2018 2:00	675	0.37	10,167,459	0.42	0.20	6	Atlas		3,761,960	1
	9/22/2018 14:45	9/22/2018 19:45	300	1.22	4,225,037	0.78	0.46	24	Atlas		5,154,545	1
	9/23/2018 4:30	9/23/2018 11:30	420	1.22	4,448,383	1.64	0.46	24	Atlas		5,427,027	1
	9/24/2018 7:15	9/24/2018 20:15	780	1.26	12,098,101	2.86	0.58	6	Atlas		15,243,607	1
	9/25/2018 6:00	9/25/2018 7:15	75	0.06	9,453,850	2.91	0.05	1	Atlas		567,231	1
	10/10/2018 16:30	10/11/2018 1:45	555	0.13	21,679,038	0.15	0.09	1	Atlas		2,818,275	1
	10/12/2018 19:00	10/13/2018 1:45	405	0.09	14,052,000	0.22	0.05	6	Atlas		1,264,680	1
	10/14/2018 6:00	10/14/2018 23:30	1,050	0.25	6,749,144	0.47	0.13	3	Atlas		1,687,286	1
	10/15/2018 9:30	10/16/2018 1:00	930	0.11	54,056,018	0.58	0.08	1	Atlas		5,946,162	1
	10/19/2018 22:00	10/20/2018 0:30	150	0.11	3,438,564	0.47	0.06	6	Atlas		378,242	1
	10/26/2018 9:30	10/27/2018 1:30	960	0.22	29,289,436	0.33	0.08	24	Atlas		6,443,676	1
	10/31/2018 12:45	11/1/2018 20:30	1,905	1.66	16,058,698	1.90	0.60	24	Atlas		26,657,438	1
	11/5/2018 20:45	11/6/2018 5:00	495	0.76	10,621,361	2.47	0.41	6	Atlas		8,072,234	1
	11/12/2018 15:00	11/13/2018 2:00	660	0.09	8,342,333	0.93	0.03	24	Atlas		750,810	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/13/2018 12:15	11/13/2018 14:30	135	0.09	562,022	0.20	0.03	24	Atlas		50,582	1
	11/14/2018 22:30	11/15/2018 6:30	480	0.38	16,220,505	0.57	0.17	12	Atlas		6,163,792	1
	11/19/2018 11:45	11/19/2018 23:45	720	0.03	77,344,900	0.52	0.02	3	Atlas		2,320,347	1
	11/23/2018 22:45	11/24/2018 4:30	345	0.22	4,234,177	0.25	0.12	6	Atlas		931,519	1
	11/25/2018 23:45	11/26/2018 2:15	150	0.06	29,781,383	0.31	0.03	1	Atlas		1,786,883	1
	11/26/2018 14:00	11/27/2018 1:00	660	0.01	33,910,500	0.29	0.01	1	Atlas		339,105	1
	12/1/2018 3:45	12/2/2018 0:00	1,215	1.29	15,155,026	1.43	0.55	12	Atlas		19,549,983	1
	1/19/2019 7:15	1/20/2019 4:00	1,245	0.78	32,031,763	1.02	0.30	24	Atlas		24,984,775	1
	2/6/2019 0:15	2/6/2019 10:15	600	1.39	2,822,902	0.64	0.45	48	Atlas		3,923,834	1
	3/9/2019 14:00	3/9/2019 23:45	585	0.95	9,656,283	1.10	0.45	6	Atlas		9,173,469	1
	4/7/2019 12:30	4/7/2019 15:15	165	0.47	1,339,634	0.66	0.22	3	Atlas		629,628	1
	4/14/2019 1:30	4/14/2019 9:00	450	0.79	6,494,124	1.38	0.39	6	Atlas		5,130,358	1
	4/19/2019 19:00	4/20/2019 8:00	780	2.59	4,291,591	3.11	0.84	48	Atlas		11,115,220	1
	5/26/2019 13:30	5/26/2019 18:15	285	0.89	8,035,270	1.06	0.56	3	Atlas		7,151,390	1
	5/29/2019 10:15	5/29/2019 15:30	315	0.99	1,228,829	1.70	0.41	6	Atlas		1,216,541	1
	5/30/2019 11:30	5/30/2019 13:00	90	0.99	358,265	1.91	0.41	6	Atlas		354,682	1
	6/5/2019 21:15	6/5/2019 23:15	120	0.84	965,473	1.07	0.62	1	Atlas		810,997	1
	6/7/2019 22:30	6/7/2019 23:30	60	0.51	276,996	1.16	0.22	6	Atlas		141,268	1
	6/9/2019 1:00	6/9/2019 2:00	60	0.27	440,819	1.67	0.14	6	Atlas		119,021	1
	6/9/2019 16:45	6/9/2019 22:00	315	0.63	8,279,116	2.31	0.33	3	Atlas		5,215,843	1
	6/16/2019 20:15	6/17/2019 9:30	795	1.81	2,491,510	2.22	0.83	12	Atlas		4,509,633	1
	6/18/2019 5:45	6/18/2019 6:45	60	0.13	761,062	2.32	0.06	12	Atlas		98,938	1
	6/18/2019 16:15	6/18/2019 21:00	285	0.64	26,769,191	2.96	0.52	1	Atlas		17,132,282	1
	6/21/2019 20:00	6/21/2019 23:45	225	0.51	12,860,586	3.55	0.34	3	Atlas		6,558,899	1
	6/22/2019 8:00	6/22/2019 12:15	255	0.36	16,671,156	3.77	0.23	3	Atlas		6,001,616	1
	6/23/2019 16:15	6/23/2019 19:15	180	0.36	14,047,769	3.46	0.27	1	Atlas		5,057,197	1
	6/24/2019 13:15	6/24/2019 19:45	390	0.40	28,822,678	2.50	0.25	3	Atlas		11,529,071	1
	7/18/2019 1:30	7/18/2019 2:30	60	0.25	334,628	0.45	0.21	1	Atlas		83,657	1
	7/30/2019 0:00	7/30/2019 1:00	60	0.42	558,002	0.42	0.25	3	Atlas		234,361	1
	8/26/2019 11:45	8/26/2019 16:15	270	0.44	5,461,191	0.79	0.21	6	Atlas		2,402,924	1
	10/6/2019 17:45	10/6/2019 20:15	150	0.94	448,719	0.75	0.36	24	Atlas		421,796	1
	10/16/2019 0:00	10/16/2019 0:30	30	0.42	101,736	0.73	0.30	1	Atlas		42,729	1
	11/30/2019 5:15	11/30/2019 16:30	675	1.90	2,567,213	2.68	0.75	12	Atlas		4,877,705	1
	1/11/2020 16:30	1/11/2020 16:30	-	0.68	285,307	1.00	0.31	12	Atlas		194,009	1
	3/12/2020 19:45	3/12/2020 23:30	225	0.51	7,130,035	0.93	0.25	6	Atlas		3,636,318	1
	3/14/2020 13:00	3/14/2020 13:00	-	0.49	537,418	1.22	0.22	12	Atlas		263,335	1
	3/19/2020 12:30	3/19/2020 12:45	15	0.45	3,819,444	1.72	0.18	3	Atlas		1,718,750	1
	3/24/2020 19:00	3/25/2020 0:15	315	0.17	105,925,941	1.07	0.08	6	Atlas		18,007,410	1
	3/28/2020 22:30	3/29/2020 1:15	165	0.20	51,099,405	0.40	0.17	1	Atlas		10,219,881	1
	5/8/2020 11:00	5/8/2020 12:45	105	0.62	11,088,710	0.83	0.28	12	Atlas		6,875,000	1
	5/16/2020 7:15	5/16/2020 9:00	105	1.18	3,373,779	1.38	0.45	24	Atlas		3,981,059	1
	5/23/2020 18:45	5/24/2020 3:30	525	0.12	257,812,500	0.67	0.07	3	Atlas		30,937,500	1
	6/22/2020 23:15	6/23/2020 10:15	660	0.80	17,608,506	1.19	0.34	6	Atlas		14,086,805	1
	6/29/2020 4:00	6/29/2020 6:15	135	0.43	18,942,537	1.30	0.29	1	Atlas		8,145,291	1
	CSO062 Total										**460,927,907**	**79**
CSO082	9/26/2012 22:00	9/27/2012 2:00	240	1.59	260,065	2.48	0.84	6	Atlas		413,504	1
	10/1/2012 16:15	10/1/2012 19:30	195	0.68	202,837	3.13	0.28	12	Atlas		137,929	1
	10/26/2012 15:00	10/26/2012 15:45	45	0.71	3,444	0.61	0.32	6	Atlas		2,445	1
	12/4/2012 16:30	12/4/2012 19:30	180	0.59	436,681	0.78	0.37	3	Atlas		257,642	1
	12/7/2012 5:15	12/7/2012 12:00	405	1.14	155,919	1.86	0.48	12	Atlas		177,748	1
	12/9/2012 21:15	12/10/2012 0:15	180	1.10	201,168	3.08	0.53	3	Atlas		221,285	1
	12/20/2012 8:00	12/20/2012 12:30	270	0.71	185,934	1.19	0.39	6	Atlas		132,013	1
	12/26/2012 5:30	12/26/2012 11:30	360	0.71	123,400	1.46	0.28	12	Atlas		87,614	1
	1/11/2013 7:00	1/11/2013 7:15	15	0.59	4,173	0.73	0.31	6	Atlas		2,462	1
	1/13/2013 3:30	1/13/2013 22:00	1,110	2.30	559,589	3.04	0.88	24	Atlas		1,287,054	1
	1/30/2013 5:00	1/30/2013 10:00	300	0.90	429,642	1.14	0.46	6	Atlas		386,678	1
	2/22/2013 0:45	2/22/2013 1:00	15	0.43	3,965	0.78	0.20	12	Atlas		1,705	1
	2/26/2013 15:45	2/26/2013 16:45	60	0.59	23,973	0.94	0.23	24	Atlas		14,144	1
	3/5/2013 16:45	3/5/2013 18:15	90	0.47	50,347	0.56	0.18	6	Atlas		23,663	1
	3/11/2013 4:15	3/11/2013 13:15	540	1.01	416,879	1.49	0.40	12	Atlas		421,048	1
	3/17/2013 13:45	3/18/2013 7:45	1,080	1.69	239,453	2.60	0.55	48	Atlas		404,675	1
	4/11/2013 6:45	4/11/2013 7:45	60	1.29	52,042	0.53	0.50	24	Atlas		67,134	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/11/2013 16:30	4/11/2013 19:15	165	1.29	70.621	1.22	0.50	24	Atlas		91,101	1
	4/16/2013 20:00	4/16/2013 21:00	60	0.56	79,523	1.82	0.46	1	Atlas		44,533	1
	4/19/2013 2:00	4/19/2013 5:15	195	0.98	281,560	1.55	0.53	6	Atlas		275,929	1
	4/24/2013 8:00	4/24/2013 10:15	135	0.69	143,536	1.71	0.38	6	Atlas		99,040	1
	5/10/2013 15:00	5/11/2013 1:15	615	0.90	115,951	2.46	0.40	6	Atlas		104,356	1
	6/17/2013 16:15	6/18/2013 0:15	480	1.23	463,228	1.69	0.67	1	Atlas		569,770	1
	6/26/2013 3:45	6/26/2013 6:15	150	0.79	227,025	1.29	0.53	3	Atlas		179,350	1
	6/26/2013 16:00	6/27/2013 8:30	990	2.48	735,473	3.77	4.06	1	Atlas		1,823,974	1
	6/29/2013 19:45	6/29/2013 22:45	180	0.40	535,130	4.00	0.21	3	Atlas		214,052	1
	7/6/2013 1:30	7/6/2013 5:15	225	0.67	23,042	2.03	0.29	12	Atlas		15,438	1
	7/10/2013 14:00	7/10/2013 15:15	75	0.91	75,789	2.19	0.61	1	Atlas		68,968	1
	7/14/2013 20:00	7/14/2013 20:00	-	0.19	1,484	1.18	0.17	1	Atlas		282	1
	7/21/2013 19:45	7/21/2013 20:45	60	2.15	34,291	1.19	0.83	24	Atlas		73,726	1
	7/22/2013 7:30	7/22/2013 17:30	600	2.15	242,811	2.38	0.83	24	Atlas		522,044	1
	8/12/2013 15:00	8/12/2013 15:30	30	0.76	8,658	0.67	0.30	1	Atlas		6,580	1
	8/31/2013 20:00	9/1/2013 3:45	465	1.29	430,950	1.25	0.63	1	Atlas		555,925	1
	9/2/2013 14:30	9/2/2013 14:30	-	0.25	10,252	1.54	0.22	1	Atlas		2,563	1
	9/20/2013 21:45	9/21/2013 5:45	480	1.23	339,749	1.32	0.51	12	Atlas		417,891	1
	10/5/2013 13:15	10/6/2013 20:15	1,860	4.21	851,493	4.33	7.58	24	Cloudburst		3,584,784	1
	10/30/2013 2:45	10/30/2013 8:00	315	1.35	200,461	1.35	0.67	6	Atlas		270,622	1
	10/31/2013 20:30	10/31/2013 22:45	135	0.65	107,277	2.00	0.25	24	Atlas		69,730	1
	11/17/2013 5:45	11/17/2013 23:45	1,080	2.23	596,807	2.36	0.93	6	Atlas		1,330,880	1
	12/14/2013 10:30	12/14/2013 10:45	15	0.77	2,335	1.11	0.31	12	Atlas		1,798	1
	12/21/2013 7:45	12/22/2013 9:00	1,515	1.07	1,182,219	3.03	0.49	12	Atlas		1,264,974	1
	12/29/2013 6:00	12/29/2013 7:15	75	0.50	199,384	0.42	0.22	12	Atlas		99,692	1
	1/5/2014 16:30	1/5/2014 20:00	210	0.49	83,929	0.67	0.25	3	Atlas		41,125	1
	1/11/2014 1:00	1/11/2014 6:00	300	0.81	323,658	1.32	0.43	6	Atlas		262,163	1
	2/2/2014 5:00	2/2/2014 7:45	165	0.22	71,164	0.22	0.11	6	Atlas		15,656	1
	2/4/2014 19:45	2/5/2014 5:15	570	0.51	1,291,524	0.98	0.25	6	Atlas		658,677	1
	2/17/2014 16:00	2/17/2014 19:45	225	0.65	343,458	1.20	0.39	3	Atlas		223,248	1
	2/20/2014 23:00	2/21/2014 0:30	90	0.17	425,900	1.38	0.09	6	Atlas		72,403	1
	3/28/2014 5:00	3/28/2014 5:45	45	0.32	46,469	0.37	0.17	1	Atlas		14,870	1
	3/29/2014 6:30	3/29/2014 13:30	420	0.94	285,817	1.30	0.43	6	Atlas		268,668	1
	4/3/2014 12:30	4/5/2014 5:00	2,430	2.61	1,107,294	3.96	0.91	24	Atlas		2,890,037	1
	4/7/2014 8:30	4/7/2014 21:45	795	0.76	2,158,343	3.46	0.46	3	Atlas		1,640,341	1
	4/14/2014 20:00	4/15/2014 3:30	450	1.03	194,275	1.12	0.39	24	Atlas		200,103	1
	4/28/2014 5:30	4/28/2014 8:45	195	1.87	167,115	1.53	0.73	3	Atlas		312,505	1
	4/28/2014 17:30	4/28/2014 20:30	180	1.87	39,706	1.96	0.73	3	Atlas		74,251	1
	5/10/2014 7:00	5/10/2014 15:45	525	1.90	60,001	1.89	0.70	24	Atlas		114,001	1
	5/29/2014 21:00	5/29/2014 21:00	-	0.45	3,611	0.69	0.38	1	Atlas		1,625	1
	7/26/2014 21:45	7/29/2014 8:30	3,525	0.97	3,422,129	1.01	0.43	12	Atlas		3,319,465	1
	8/8/2014 6:30	8/8/2014 7:30	60	0.87	42,829	0.66	0.42	6	Atlas		37,261	1
	10/10/2014 2:45	10/10/2014 3:00	15	1.19	23,782	1.49	0.55	1	Atlas		28,301	1
	10/14/2014 8:15	10/14/2014 8:30	15	0.88	5,965	2.65	0.39	12	Atlas		5,249	1
	11/23/2014 18:00	11/23/2014 20:15	135	0.74	108,757	1.01	0.32	12	Atlas		80,480	1
	12/6/2014 1:30	12/6/2014 7:30	360	1.85	176,348	2.71	0.60	48	Atlas		326,243	1
	2/1/2015 13:45	2/1/2015 14:15	30	0.39	133,636	0.46	0.19	3	Atlas		52,118	1
	3/3/2015 23:45	3/4/2015 18:30	1,125	1.76	641,947	1.46	0.57	24	Atlas		1,129,826	1
	3/5/2015 17:15	3/5/2015 17:30	15	1.76	70	1.85	0.57	24	Atlas		124	1
	4/2/2015 15:00	4/4/2015 20:30	3,210	4.76	1,024,337	4.83	7.33	6	Cloudburst		4,875,845	1
	4/9/2015 11:30	4/9/2015 14:00	150	0.18	1,371,633	5.71	0.16	1	Atlas		246,894	1
	4/10/2015 2:30	4/10/2015 4:30	120	0.19	1,008,326	3.41	0.12	3	Atlas		191,582	1
	6/17/2015 5:45	6/17/2015 6:15	30	0.63	17,092	0.67	0.36	3	Atlas		10,768	1
	6/18/2015 17:00	6/18/2015 20:15	195	1.38	170,500	1.19	0.45	48	Atlas		235,290	1
	6/20/2015 3:15	6/20/2015 10:00	405	1.38	203,310	2.14	0.45	48	Atlas		280,568	1
	6/26/2015 17:00	6/27/2015 1:15	495	0.93	123,337	2.49	0.53	1	Atlas		114,703	1
	7/2/2015 20:00	7/2/2015 21:15	75	1.66	78,584	3.45	0.64	24	Atlas		130,449	1
	7/7/2015 12:00	7/7/2015 13:15	75	0.87	32,154	2.65	0.41	6	Atlas		27,974	1
	7/12/2015 6:00	7/12/2015 21:30	930	1.35	1,202,512	2.98	0.91	1	Atlas		1,623,391	1
	7/13/2015 14:45	7/13/2015 15:15	30	0.50	41,186	3.48	0.41	1	Atlas		20,593	1
	7/14/2015 4:00	7/14/2015 8:45	285	0.73	239,455	4.21	0.57	1	Atlas		174,802	1
	10/27/2015 18:00	10/28/2015 8:30	870	2.51	196,975	2.67	0.78	48	Atlas		494,408	1
	11/6/2015 3:45	11/6/2015 5:15	90	0.85	123,316	0.90	0.49	3	Atlas		104,819	1
	11/18/2015 9:45	11/18/2015 18:45	540	1.40	363,908	1.82	0.72	6	Atlas		509,471	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/1/2015 4:15	12/1/2015 4:30	15	0.64	1,842	1.52	0.29	12	Atlas		1,179	1
	12/22/2015 3:15	12/22/2015 4:45	90	0.74	71,127	0.76	0.30	1	Atlas		52,634	1
	12/23/2015 19:15	12/23/2015 22:15	180	0.72	355,744	1.50	0.57	1	Atlas		256,136	1
	12/27/2015 10:30	12/27/2015 18:30	480	1.97	627,701	3.24	0.65	3	Atlas		1,236,571	1
	2/2/2016 20:00	2/3/2016 3:15	435	1.34	290,314	1.41	0.62	6	Atlas		389,021	1
	2/21/2016 6:00	2/21/2016 12:15	375	1.10	181,006	1.27	0.50	12	Atlas		199,107	1
	2/23/2016 23:30	2/25/2016 1:15	1,545	2.04	391,274	3.13	0.79	12	Atlas		798,198	1
	3/10/2016 15:45	3/10/2016 19:00	195	1.11	4,412	1.12	0.36	48	Atlas		4,897	1
	3/12/2016 22:30	3/12/2016 23:45	75	0.80	63,508	1.69	0.31	6	Atlas		50,806	1
	3/13/2016 9:15	3/13/2016 10:45	90	0.80	54,278	1.94	0.31	6	Atlas		43,422	1
	3/27/2016 21:15	3/27/2016 22:00	45	0.75	30,031	1.24	0.51	1	Atlas		22,523	1
	4/11/2016 17:30	4/11/2016 18:00	30	1.04	8,676	0.98	0.46	6	Atlas		9,023	1
	5/10/2016 21:45	5/10/2016 22:00	15	0.70	13,553	1.44	0.26	24	Atlas		9,487	1
	5/20/2016 14:45	5/20/2016 15:45	60	0.53	82,243	1.22	0.29	3	Atlas		43,589	1
	6/14/2016 16:30	6/14/2016 17:15	45	0.82	20,271	0.73	0.53	3	Atlas		16,622	1
	6/23/2016 16:15	6/23/2016 22:00	345	2.15	103,688	2.41	1.92	6	Cloudburst		222,929	1
	8/15/2016 3:00	8/15/2016 7:15	255	0.81	32,893	1.09	0.43	6	Atlas		26,643	1
	8/17/2016 6:30	8/17/2016 7:15	45	0.72	41,163	1.54	0.32	6	Atlas		29,637	1
	8/20/2016 14:30	8/20/2016 20:45	375	1.10	32,554	2.66	0.46	12	Atlas		35,809	1
	12/17/2016 18:30	12/18/2016 3:45	555	2.61	344,213	2.95	1.70	12	Cloudburst		898,395	1
	1/17/2017 0:30	1/17/2017 3:30	180	0.50	369,448	1.91	0.23	12	Atlas		184,724	1
	1/19/2017 19:30	1/20/2017 4:00	510	1.03	643,134	2.38	0.47	12	Atlas		662,428	1
	3/1/2017 7:00	3/1/2017 9:15	135	1.05	85,191	1.78	0.55	6	Atlas		89,451	1
	4/29/2017 1:45	4/29/2017 3:45	120	0.90	219,883	1.14	0.46	6	Atlas		197,895	1
	5/4/2017 20:15	5/5/2017 10:00	825	1.69	71,762	2.66	0.57	24	Atlas		121,277	1
	5/21/2017 3:00	5/21/2017 5:45	165	1.04	87,355	1.06	0.47	12	Atlas		90,849	1
	7/23/2017 3:00	7/23/2017 3:30	30	1.02	18,484	0.49	0.47	12	Atlas		18,864	1
	9/1/2017 13:15	9/2/2017 5:30	975	2.98	241,461	3.05	1.31	24	Cloudburst		719,555	1
	9/19/2017 8:30	9/19/2017 12:30	240	0.47	696,843	0.89	0.30	3	Atlas		327,516	1
	10/7/2017 22:00	10/7/2017 23:00	60	1.59	13,040	0.64	0.60	24	Atlas		20,734	1
	10/8/2017 12:00	10/8/2017 19:45	465	1.59	95,783	1.59	0.60	24	Atlas		152,295	1
	10/10/2017 15:30	10/10/2017 16:45	75	0.66	51,914	2.17	0.34	3	Atlas		34,263	1
	11/3/2017 4:45	11/3/2017 7:15	150	1.05	195,330	1.99	0.83	1	Atlas		205,096	1
	11/6/2017 2:00	11/6/2017 2:15	15	0.46	51,259	1.64	0.32	1	Atlas		23,579	1
	12/5/2017 4:00	12/5/2017 6:15	135	0.63	109,283	0.65	0.33	3	Atlas		68,848	1
	12/22/2017 23:45	12/23/2017 12:45	780	1.15	280,640	1.15	0.44	24	Atlas		322,736	1
	2/7/2018 3:15	2/7/2018 4:30	75	0.62	44,113	0.86	0.33	6	Atlas		27,350	1
	2/11/2018 10:00	2/11/2018 11:15	75	0.41	296,546	1.10	0.20	3	Atlas		121,584	1
	2/14/2018 9:00	2/14/2018 9:45	45	0.45	42,156	0.90	0.23	3	Atlas		18,970	1
	3/24/2018 12:00	3/24/2018 20:00	480	0.93	100,357	1.68	0.35	24	Atlas		93,332	1
	3/29/2018 19:30	3/29/2018 19:45	15	1.04	626	1.78	0.27	48	Atlas		651	1
	3/31/2018 22:30	4/1/2018 1:45	195	0.22	1,295,282	1.30	0.12	3	Atlas		284,962	1
	4/1/2018 20:15	4/2/2018 4:45	510	0.63	1,588,817	1.95	0.34	6	Atlas		1,000,955	1
	4/3/2018 16:30	4/4/2018 2:45	615	0.49	2,763,192	2.44	0.28	1	Atlas		1,353,964	1
	4/15/2018 8:30	4/15/2018 9:30	60	0.95	9,653	0.98	0.31	48	Atlas		9,170	1
	4/23/2018 6:45	4/23/2018 12:15	330	0.67	73,833	0.82	0.31	12	Atlas		49,468	1
	5/5/2018 14:15	5/5/2018 19:30	315	1.31	276,560	1.22	0.51	6	Atlas		362,294	1
	6/1/2018 1:00	6/1/2018 3:30	150	1.35	73,676	2.06	0.79	3	Atlas		99,463	1
	6/26/2018 13:00	6/26/2018 13:15	15	0.69	3,616	1.88	0.28	12	Atlas		2,495	1
	7/2/2018 17:30	7/2/2018 18:45	75	0.43	247,165	1.11	0.35	1	Atlas		106,281	1
	7/3/2018 15:45	7/3/2018 16:30	45	0.56	111,352	1.33	0.42	1	Atlas		62,357	1
	7/20/2018 19:30	7/20/2018 22:30	180	1.61	174,968	1.85	0.92	3	Atlas		281,698	1
	7/22/2018 17:45	7/22/2018 18:00	15	0.17	51,894	1.96	0.12	1	Atlas		8,822	1
	7/31/2018 1:30	7/31/2018 7:45	375	2.10	168,874	2.00	0.93	6	Atlas		354,636	1
	8/16/2018 3:30	8/16/2018 8:15	285	2.51	135,919	2.28	0.96	24	Atlas		341,156	1
	8/19/2018 20:30	8/20/2018 2:00	330	0.11	4,489,882	2.64	0.08	1	Atlas		493,887	1
	8/20/2018 10:45	8/20/2018 23:15	750	0.63	1,826,941	3.25	0.49	1	Atlas		1,150,973	1
	8/21/2018 10:45	8/21/2018 21:00	615	0.02	2,042,750	3.30	0.02	1	Atlas		40,855	1
	8/31/2018 17:45	8/31/2018 23:15	330	0.24	988,329	0.26	0.14	3	Atlas		237,199	1
	9/6/2018 11:30	9/6/2018 13:30	120	0.27	681,381	0.52	0.21	1	Atlas		183,973	1
	9/8/2018 1:15	9/8/2018 19:45	1,110	2.44	454,711	2.02	1.14	6	Cloudburst		1,109,494	1
	9/21/2018 17:30	9/21/2018 19:00	90	0.37	360,019	0.43	0.20	6	Atlas		133,207	1
	9/22/2018 15:15	9/22/2018 18:15	180	1.24	292,911	0.78	0.47	24	Atlas		363,210	1
	9/23/2018 4:30	9/23/2018 7:45	195	1.24	334,082	1.64	0.47	24	Atlas		414,262	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/24/2018 7:00	9/24/2018 10:45	225	1.32	424.164	2.71	0.61	6	Atlas		559,897	1
	9/25/2018 16:45	9/26/2018 3:00	615	0.72	384.185	3.68	0.32	12	Atlas		276,613	1
	10/10/2018 17:15	10/10/2018 18:15	60	0.11	417.073	0.12	0.07	3	Atlas		45,878	1
	10/15/2018 9:30	10/15/2018 11:30	120	0.13	1,165.162	0.56	0.08	1	Atlas		151,471	1
	10/26/2018 15:15	10/26/2018 18:45	210	0.23	839.543	0.32	0.09	24	Atlas		193,095	1
	10/31/2018 15:00	11/1/2018 19:45	1,725	1.64	782.513	1.89	0.59	24	Atlas		1,283,322	1
	11/5/2018 21:30	11/6/2018 2:45	315	0.83	684.042	2.52	0.45	6	Atlas		567,755	1
	11/14/2018 22:30	11/15/2018 4:45	375	0.39	1,098.567	0.59	0.17	12	Atlas		428,441	1
	11/23/2018 23:00	11/23/2018 23:00	-	0.27	43.630	0.11	0.14	6	Atlas		11,780	1
	11/26/2018 0:30	11/26/2018 1:30	60	0.06	2,083.200	0.36	0.03	1	Atlas		124,992	1
	12/1/2018 3:45	12/1/2018 19:00	915	1.46	928.642	1.49	0.60	12	Atlas		1,355,818	1
	12/15/2018 3:15	12/15/2018 21:00	1,065	1.60	1,420.878	1.63	0.68	12	Atlas		2,273,405	1
	12/20/2018 16:30	12/21/2018 0:30	480	0.47	1,751.840	2.04	0.18	12	Atlas		823,365	1
	12/31/2018 5:45	1/1/2019 5:45	1,440	1.21	3,202.907	1.54	0.47	24	Atlas		3,875,518	1
	1/19/2019 7:30	1/20/2019 1:15	1,065	0.77	2,963.144	0.99	0.30	24	Atlas		2,281,621	1
	2/6/2019 7:00	2/6/2019 15:45	525	1.40	673.701	0.71	0.45	48	Atlas		943,182	1
	2/7/2019 5:30	2/7/2019 19:15	825	1.40	1,556.871	1.45	0.45	48	Atlas		2,179,619	1
	2/12/2019 19:30	2/13/2019 15:30	1,200	2.61	246.423	4.00	0.81	48	Atlas		643,165	1
	2/20/2019 2:30	2/20/2019 4:45	135	1.49	307.325	0.82	0.68	6	Atlas		457,914	1
	2/28/2019 18:00	2/28/2019 19:15	75	0.08	1,523.375	0.84	0.04	3	Atlas		121,870	1
	3/9/2019 14:15	3/9/2019 22:15	480	0.97	790.441	1.12	0.44	12	Atlas		766,728	1
	3/14/2019 6:15	3/15/2019 0:15	1,080	0.33	4,572.161	1.95	0.18	6	Atlas		1,508,813	1
	3/30/2019 17:00	3/30/2019 21:45	285	0.85	203.073	1.18	0.40	6	Atlas		172,612	1
	4/7/2019 13:30	4/7/2019 13:45	15	0.47	451	0.66	0.22	3	Atlas		212	1
	4/14/2019 2:00	4/14/2019 7:00	300	0.80	379.220	1.33	0.37	6	Atlas		303,376	1
	4/19/2019 19:00	4/21/2019 1:45	1,845	2.57	1,479.317	3.37	0.83	48	Atlas		3,801,844	1
	4/24/2019 20:45	4/24/2019 23:30	165	0.54	594.669	2.99	0.26	1	Atlas		321,121	1
	4/25/2019 18:15	4/26/2019 6:00	705	0.31	1,850.232	3.45	0.14	12	Atlas		573,572	1
	5/3/2019 5:00	5/3/2019 9:45	285	0.88	376.252	1.08	0.48	6	Atlas		331,102	1
	5/29/2019 13:30	5/29/2019 13:30	-	0.59	775	1.21	0.32	6	Atlas		457	1
	6/5/2019 21:00	6/5/2019 21:15	15	0.81	3,302	0.94	0.61	1	Atlas		2,675	1
	6/9/2019 16:30	6/9/2019 19:00	150	0.72	372.603	2.36	0.39	3	Atlas		268,274	1
	6/16/2019 20:45	6/17/2019 1:30	285	1.68	90.171	2.06	0.77	12	Atlas		151,487	1
	6/18/2019 16:15	6/18/2019 19:45	210	0.38	1,504.045	2.58	0.31	1	Atlas		571,537	1
	6/21/2019 20:00	6/21/2019 22:45	165	0.58	531.374	3.23	0.38	3	Atlas		308,197	1
	6/22/2019 8:00	6/22/2019 10:45	165	0.35	916.843	3.46	0.23	3	Atlas		320,895	1
	6/23/2019 16:15	6/23/2019 18:15	120	0.38	583.255	3.30	0.30	1	Atlas		221,637	1
	6/24/2019 13:30	6/24/2019 17:15	225	0.40	1,185.860	2.31	0.25	3	Atlas		474,344	1
	8/26/2019 12:00	8/26/2019 14:15	135	0.49	104.910	0.82	0.23	6	Atlas		51,406	1
	10/30/2019 14:15	10/30/2019 15:00	45	0.77	42.505	2.03	0.37	3	Atlas		32,729	1
	11/27/2019 6:00	11/27/2019 1:45	105	0.60	63.965	1.10	0.27	12	Atlas		38,379	1
	11/30/2019 4:15	11/30/2019 17:45	810	1.93	420.245	2.64	0.76	12	Atlas		811,073	1
	12/16/2019 15:45	12/16/2019 20:00	255	0.69	407.909	1.23	0.31	6	Atlas		281,457	1
	1/11/2020 11:45	1/11/2020 17:15	330	0.67	138.966	1.01	0.31	6	Atlas		93,107	1
	2/12/2020 17:30	2/13/2020 15:15	1,305	0.74	3,823.246	1.27	0.33	12	Atlas		2,829,202	1
	3/10/2020 8:30	3/10/2020 9:15	45	0.48	15.225	0.49	0.23	1	Atlas		7,308	1
	3/12/2020 17:00	3/13/2020 0:30	450	0.59	516.322	1.07	0.28	6	Atlas		304,630	1
	3/14/2020 12:45	3/14/2020 19:15	390	0.50	604.410	1.57	0.23	12	Atlas		302,205	1
	3/18/2020 16:00	3/18/2020 19:00	180	0.42	43.740	1.51	0.19	12	Atlas		18,371	1
	3/19/2020 12:00	3/20/2020 5:15	1,035	0.42	459.455	1.94	0.17	1	Atlas		192,971	1
	3/24/2020 18:30	3/25/2020 0:15	345	0.16	4,850.756	1.02	0.08	6	Atlas		776,121	1
	3/28/2020 22:30	3/29/2020 1:15	165	0.18	1,952.917	0.37	0.14	1	Atlas		351,525	1
	5/8/2020 10:45	5/8/2020 12:45	120	0.60	427.287	0.82	0.28	12	Atlas		256,372	1
	5/16/2020 7:15	5/16/2020 10:00	165	1.22	120.286	1.39	0.47	24	Atlas		146,749	1
	5/23/2020 18:15	5/24/2020 3:15	540	0.19	4,436.874	0.62	0.11	3	Atlas		843,006	1
	6/22/2020 22:45	6/23/2020 10:00	675	0.81	550.012	1.23	0.36	6	Atlas		445,510	1
	6/29/2020 4:00	6/29/2020 6:15	135	0.46	544.000	1.34	0.29	3	Atlas		250,240	1
	CSO082 Total										89,560,403	202
CSO083	6/14/2016 16:30	6/14/2016 16:45	15	0.68	90.560	0.59	0.43	3	Atlas		61,581	1
	6/23/2016 20:00	6/23/2016 20:45	45	1.87	12.189	2.04	1.11	6	Cloudburst		22,794	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.40	56.435	1.26	0.35	1	Atlas		22,574	1
	8/4/2016 13:30	8/4/2016 13:30	-	0.22	15.314	0.93	0.14	3	Atlas		3,369	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/15/2016 3:15	8/15/2016 7:15	240	0.98	2,789	1.19	0.49	6	Atlas		2,733	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.70	2,303	1.62	0.30	12	Atlas		1,612	1
	8/20/2016 19:45	8/20/2016 20:00	15	0.89	15,385	2.39	0.39	1	Atlas		13,693	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.53	2,591	0.09	0.20	24	Atlas		1,373	1
	12/17/2016 18:30	12/17/2016 19:00	30	2.60	23,263	1.21	1.77	12	Cloudburst		60,485	1
	3/1/2017 3:15	3/1/2017 7:00	225	1.07	6,731	1.44	0.57	6	Atlas		7,202	1
	4/29/2017 2:00	4/29/2017 2:00	-	0.89	18,246	0.87	0.46	6	Atlas		16,239	1
	5/21/2017 3:00	5/21/2017 3:30	30	1.04	32,912	0.81	0.46	12	Atlas		34,228	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.32	5,047	0.39	0.28	1	Atlas		1,615	1
	7/23/2017 2:30	7/23/2017 2:30	-	1.18	162	0.33	0.54	12	Atlas		191	1
	7/28/2017 9:30	7/28/2017 9:45	15	0.52	4,463	1.67	0.40	1	Atlas		2,321	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.53	17,468	0.19	0.29	6	Atlas		9,258	1
	10/7/2017 21:45	10/7/2017 21:45	-	1.60	9,536	0.37	0.60	24	Atlas		15,268	1
	11/3/2017 4:45	11/3/2017 4:45	-	1.00	993	1.74	0.79	1	Atlas		993	1
	2/22/2018 4:45	2/22/2018 5:15	30	1.58	7,713	2.45	0.58	24	Atlas		12,186	1
	2/23/2018 4:45	2/23/2018 4:45	-	1.15	182	2.69	0.53	12	Atlas		209	1
	2/24/2018 18:45	2/24/2018 19:30	45	1.65	3,944	3.60	0.66	12	Atlas		6,507	1
	5/5/2018 14:30	5/5/2018 14:30	-	1.24	725	0.50	0.47	12	Atlas		899	1
	6/1/2018 1:00	6/1/2018 1:15	15	1.42	22,924	1.64	0.83	3	Atlas		32,552	1
	7/2/2018 17:45	7/2/2018 17:45	-	0.52	3,587	1.08	0.43	1	Atlas		1,865	1
	7/3/2018 15:15	7/3/2018 15:15	-	0.53	7,896	1.01	0.37	1	Atlas		4,185	1
	7/20/2018 16:30	7/20/2018 19:15	165	1.21	1,612	0.82	0.61	3	Atlas		1,950	1
	7/31/2018 1:30	7/31/2018 6:45	315	1.94	12,219	1.60	0.80	6	Atlas		23,705	1
	8/16/2018 4:45	8/16/2018 8:45	240	2.46	29,184	2.34	0.95	24	Atlas		71,792	1
	8/19/2018 20:45	8/19/2018 20:45	-	0.28	30,357	2.72	0.19	3	Atlas		8,500	1
	8/20/2018 11:15	8/20/2018 11:15	-	0.46	107,726	3.15	0.33	1	Atlas		49,554	1
	9/8/2018 18:30	9/8/2018 21:00	150	2.23	10,918	2.31	0.90	6	Atlas		24,348	1
	9/24/2018 10:45	9/24/2018 10:45	-	1.41	1,744	2.56	0.65	6	Atlas		2,459	1
	11/1/2018 0:45	11/1/2018 0:45	-	1.65	4,478	1.25	0.59	24	Atlas		7,388	1
	11/5/2018 22:00	11/5/2018 22:00	-	0.94	3,266	2.24	0.51	6	Atlas		3,070	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.50	815	1.10	0.48	48	Atlas		1,223	1
	2/20/2019 5:15	2/20/2019 6:00	45	1.43	280	1.22	0.65	6	Atlas		400	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.40	60,823	1.67	0.27	3	Atlas		24,329	1
	4/24/2019 20:45	4/24/2019 20:45	-	0.47	613	3.05	0.22	12	Atlas		288	1
	5/29/2019 9:00	5/29/2019 9:00	-	0.75	15,588	0.80	0.41	6	Atlas		11,691	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.82	1,183	0.91	0.61	1	Atlas		970	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.69	34,825	2.24	0.37	3	Atlas		24,029	1
	6/16/2019 19:45	6/16/2019 20:45	60	1.52	28,257	1.37	0.68	12	Atlas		42,950	1
	6/18/2019 16:30	6/18/2019 16:30	-	0.29	65,679	2.09	0.11	24	Atlas		19,047	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.43	101,147	2.10	0.27	3	Atlas		43,493	1
	7/18/2019 0:30	7/18/2019 0:30	-	0.26	25,677	0.32	0.17	1	Atlas		6,676	1
	10/30/2019 14:15	10/30/2019 14:15	-	0.85	4,146	1.88	0.43	3	Atlas		3,524	1
	3/19/2020 12:30	3/19/2020 12:30	-	0.42	48,605	1.67	0.18	1	Atlas		20,414	1
	3/28/2020 22:45	3/28/2020 22:45	-	0.24	18,508	0.42	0.20	1	Atlas		4,442	1
	5/16/2020 2:15	5/16/2020 2:15	-	1.26	1,755	0.86	0.47	24	Atlas		2,211	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.45	46,180	0.32	0.24	1	Atlas		20,781	1
	6/22/2020 22:45	6/23/2020 0:00	75	0.88	53,234	1.20	0.38	6	Atlas		46,846	1
	CSO083 Total										802,002	51
CSO084	1/21/2010 18:45	1/21/2010 18:45	-	0.88	5,967	1.56	0.35	12	Atlas		5,251	1
	1/24/2010 4:15	1/24/2010 4:45	30	0.95	6,561	1.91	0.37	24	Atlas		6,233	1
	1/24/2010 21:30	1/24/2010 21:30	-	0.95	5,031	2.20	0.37	24	Atlas		4,779	1
	3/12/2010 14:15	3/12/2010 14:15	-	0.25	9,808	0.25	0.15	3	Atlas		2,452	1
	3/25/2010 21:30	3/25/2010 21:30	-	0.52	2,715	1.06	0.30	1	Atlas		1,412	1
	4/8/2010 1:30	4/8/2010 5:45	255	1.10	26,684	1.18	0.51	6	Atlas		29,352	1
	4/24/2010 14:30	4/24/2010 19:45	315	1.63	16,936	1.84	0.76	6	Atlas		27,606	1
	5/1/2010 5:15	5/1/2010 7:00	105	4.15	1,775	2.88	3.59	48	Atlas		7,367	1
	5/2/2010 3:00	5/2/2010 16:00	780	4.15	15,067	4.59	3.59	48	Atlas		62,530	1
	5/7/2010 23:15	5/7/2010 23:15	-	0.16	8,738	4.33	0.13	1	Atlas		1,398	1
	5/21/2010 20:30	5/21/2010 20:30	-	1.15	2,323	2.08	0.85	1	Atlas		2,672	1
	5/30/2010 16:30	5/30/2010 16:30	-	0.39	10,692	0.31	0.21	6	Atlas		4,170	1
	6/9/2010 4:30	6/9/2010 12:00	450	2.35	5,490	2.48	2.57	3	Atlas		12,901	1
	6/19/2010 5:15	6/19/2010 6:30	75	0.90	5,731	1.80	0.52	3	Atlas		5,158	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/28/2010 1:30	6/28/2010 1:45	15	0.26	29,288	0.20	0.18	1	Atlas		7,615	1
	7/13/2010 5:15	7/13/2010 6:30	75	1.83	41,133	1.66	0.84	12	Atlas		75,274	1
	7/20/2010 5:00	7/20/2010 6:00	60	0.70	42,386	2.04	0.44	1	Atlas		29,670	1
	7/21/2010 6:00	7/21/2010 6:15	15	0.46	29,585	1.45	0.37	1	Atlas		13,609	1
	7/27/2010 16:30	7/27/2010 16:30	-	1.00	6,334	1.54	0.64	3	Atlas		6,334	1
	7/31/2010 6:00	7/31/2010 6:00	-	0.43	14,774	1.61	0.23	3	Atlas		6,353	1
	7/31/2010 21:00	7/31/2010 21:00	-	0.26	11,219	1.87	0.23	1	Atlas		2,917	1
	8/5/2010 9:30	8/5/2010 9:30	-	0.22	25,845	0.89	0.17	1	Atlas		5,686	1
	8/14/2010 16:45	8/14/2010 17:00	15	0.53	5,904	0.86	0.43	1	Atlas		3,129	1
	10/13/2010 20:00	10/13/2010 20:15	15	0.43	31,516	0.47	0.29	3	Atlas		13,552	1
	10/26/2010 10:45	10/26/2010 11:15	30	0.58	5,586	0.30	0.32	6	Atlas		3,240	1
	11/16/2010 12:15	11/16/2010 15:15	180	0.79	16,009	0.76	0.36	12	Atlas		12,647	1
	11/23/2010 4:00	11/23/2010 4:00	-	0.27	8,600	1.08	0.15	6	Atlas		2,322	1
	11/24/2010 13:00	11/24/2010 14:45	105	0.80	37,770	0.99	0.37	12	Atlas		30,216	1
	11/25/2010 9:30	11/25/2010 20:15	645	2.27	26,143	2.94	0.87	24	Atlas		59,345	1
	11/30/2010 1:00	11/30/2010 3:30	150	1.69	21,755	4.55	0.65	24	Atlas		36,766	1
	1/1/2011 5:45	1/1/2011 6:00	15	0.61	10,764	1.06	0.27	12	Atlas		6,566	1
	2/1/2011 18:15	2/1/2011 19:30	75	0.91	8,153	0.80	0.37	6	Atlas		7,419	1
	2/24/2011 19:45	2/25/2011 1:15	330	2.24	14,055	2.44	0.87	12	Atlas		31,484	1
	2/28/2011 5:00	2/28/2011 10:30	330	1.35	14,230	3.73	0.63	6	Atlas		19,210	1
	3/5/2011 7:00	3/5/2011 7:30	30	0.92	13,432	2.20	0.30	24	Atlas		12,357	1
	3/8/2011 22:30	3/9/2011 16:30	1,080	3.15	19,749	4.03	2.04	24	Cloudburst		62,209	1
	3/15/2011 7:15	3/15/2011 7:15	-	0.08	765	3.95	0.29	12	Atlas		673	1
	3/18/2011 21:30	3/18/2011 21:30	-	0.21	18,857	1.06	0.10	1	Atlas		3,960	1
	4/4/2011 13:30	4/4/2011 16:15	165	0.84	19,799	0.99	0.43	6	Atlas		16,631	1
	4/9/2011 10:45	4/9/2011 11:15	30	0.53	14,857	1.40	0.37	1	Atlas		7,874	1
	4/11/2011 15:15	4/12/2011 3:45	750	3.23	25,496	3.81	2.56	24	Cloudburst		82,352	1
	4/20/2011 2:45	4/20/2011 3:30	45	0.79	24,648	1.21	0.43	6	Atlas		19,472	1
	4/22/2011 16:30	4/23/2011 18:45	1,575	4.73	39,596	4.54	3.28	48	Atlas		187,289	1
	4/24/2011 7:45	4/24/2011 8:45	60	4.73	4,623	4.74	3.28	48	Atlas		21,866	1
	4/24/2011 17:45	4/24/2011 19:15	90	4.73	4,661	5.21	3.28	48	Atlas		22,045	1
	4/25/2011 5:15	4/25/2011 5:30	15	4.73	1,400	5.43	3.28	48	Atlas		6,620	1
	4/27/2011 1:30	4/27/2011 19:00	1,050	2.80	590,667	8.07	1.43	24	Cloudburst		1,653,868	1
	4/28/2011 18:30	4/28/2011 19:00	30	0.17	22,582	7.74	0.11	3	Atlas		3,839	1
	5/1/2011 4:30	5/1/2011 6:00	90	0.73	37,273	4.98	0.38	3	Atlas		27,209	1
	5/2/2011 22:30	5/2/2011 5:00	390	2.84	3,538	4.97	0.92	48	Atlas		10,048	1
	5/2/2011 19:30	5/3/2011 7:00	690	2.84	13,260	6.36	0.92	48	Atlas		37,659	1
	5/8/2011 1:30	5/8/2011 1:30	-	0.21	10,543	3.68	0.12	3	Atlas		2,214	1
	5/14/2011 14:45	5/14/2011 14:45	-	0.26	21,146	0.47	0.19	1	Atlas		5,498	1
	5/21/2011 18:00	5/21/2011 18:45	45	0.44	5,030	0.85	0.30	1	Atlas		2,213	1
	5/23/2011 17:45	5/23/2011 20:30	165	0.80	23,163	1.77	0.51	3	Atlas		18,530	1
	5/25/2011 23:30	5/26/2011 1:15	105	1.48	8,552	2.70	0.67	3	Atlas		12,657	1
	5/26/2011 11:30	5/26/2011 11:30	-	1.48	1,570	3.08	0.67	3	Atlas		2,324	1
	6/11/2011 4:45	6/11/2011 4:45	-	0.31	1,597	0.33	0.26	1	Atlas		495	1
	6/18/2011 6:30	6/18/2011 8:00	90	0.82	33,021	1.86	0.51	3	Atlas		27,077	1
	6/19/2011 8:00	6/19/2011 8:00	-	0.46	7,041	2.19	0.28	3	Atlas		3,239	1
	6/20/2011 2:00	6/20/2011 2:00	-	0.52	8,560	2.89	0.45	1	Atlas		4,451	1
	6/23/2011 2:45	6/23/2011 2:45	-	4.11	894	6.32	32.05	3	Cloudburst		3,675	1
	7/19/2011 23:30	7/19/2011 23:30	-	1.58	1,871	1.64	1.61	1	Atlas		2,956	1
	8/7/2011 5:15	8/7/2011 5:30	15	1.90	2,781	1.75	1.70	3	Atlas		5,283	1
	8/13/2011 17:30	8/13/2011 17:30	-	0.73	7,189	2.90	0.57	1	Atlas		5,248	1
	9/4/2011 20:30	9/4/2011 20:30	-	0.13	17,654	0.10	0.05	1	Atlas		2,295	1
	9/19/2011 6:45	9/19/2011 6:45	-	0.70	8,466	0.41	0.28	12	Atlas		5,926	1
	9/23/2011 7:00	9/23/2011 7:15	15	0.79	8,885	1.51	0.36	12	Atlas		7,019	1
	9/25/2011 19:45	9/26/2011 5:00	555	3.64	15,929	5.28	9.04	12	Cloudburst		57,982	1
	10/13/2011 7:45	10/13/2011 7:45	-	0.39	8,246	0.24	0.19	3	Atlas		3,216	1
	10/27/2011 0:30	10/27/2011 0:45	15	1.14	4,663	1.26	0.47	12	Atlas		5,316	1
	11/14/2011 21:45	11/14/2011 21:45	-	2.04	2,525	0.23	0.66	48	Atlas		5,151	1
	11/15/2011 12:00	11/15/2011 12:00	-	2.04	800	1.14	0.66	48	Atlas		1,633	1
	11/20/2011 17:30	11/20/2011 17:30	-	0.86	3,735	2.57	0.30	24	Atlas		3,212	1
	11/22/2011 0:00	11/22/2011 9:30	570	1.14	25,463	3.57	0.49	12	Atlas		29,028	1
	11/28/2011 13:30	11/28/2011 23:00	570	3.13	4,239	4.09	0.97	48	Atlas		13,268	1
	12/4/2011 16:45	12/4/2011 17:00	15	3.10	2,115	3.06	1.03	48	Cloudburst		6,558	1
	12/5/2011 3:15	12/5/2011 17:30	855	3.10	37,201	4.98	1.03	48	Cloudburst		115,323	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/15/2011 3:45	12/15/2011 7:30	225	0.45	14.409	0.39	0.22	6	Atlas		6,484	1
	12/21/2011 6:15	12/21/2011 6:15	-	0.63	10.841	1.07	0.29	12	Atlas		6,830	1
	12/27/2011 11:00	12/27/2011 11:00	-	0.65	2.192	1.77	0.26	12	Atlas		1,425	1
	1/11/2012 4:30	1/11/2012 6:45	135	0.73	22.895	0.42	0.28	24	Atlas		16,713	1
	1/17/2012 11:30	1/17/2012 12:00	30	0.33	41.988	1.15	0.15	12	Atlas		13,856	1
	1/23/2012 3:00	1/23/2012 4:15	75	0.52	53.096	0.85	0.29	3	Atlas		27,610	1
	1/26/2012 6:00	1/26/2012 6:15	15	1.72	150.637	1.24	0.56	48	Atlas		259,095	1
	1/26/2012 18:45	1/26/2012 21:15	150	1.72	15.087	2.05	0.56	48	Atlas		25,950	1
	2/22/2012 22:45	2/22/2012 23:00	15	0.16	75.663	0.43	0.12	1	Atlas		12,106	1
	2/29/2012 8:45	2/29/2012 8:45	-	0.66	4.898	0.78	0.30	1	Atlas		3,233	1
	3/8/2012 13:00	3/8/2012 14:45	105	0.80	12.969	1.07	0.38	6	Atlas		10,375	1
	3/15/2012 19:00	3/16/2012 2:30	450	0.95	34.586	1.13	0.41	12	Atlas		32,857	1
	3/23/2012 5:00	3/23/2012 10:00	300	1.55	2.257	1.50	0.58	24	Atlas		3,499	1
	4/1/2012 10:45	4/1/2012 10:45	-	1.58	3.856	1.74	0.86	6	Atlas		6,092	1
	4/29/2012 0:15	4/29/2012 0:15	-	0.78	4.847	0.91	0.59	1	Atlas		3,781	1
	4/30/2012 18:15	4/30/2012 18:15	-	0.34	3.444	1.08	0.23	3	Atlas		1,171	1
	5/4/2012 23:30	5/5/2012 1:45	135	1.69	5.582	2.56	0.90	3	Atlas		9,434	1
	5/13/2012 1:45	5/13/2012 8:45	420	2.10	16.106	1.98	0.84	12	Atlas		33,823	1
	5/16/2012 18:00	5/16/2012 18:00	-	0.19	24.942	2.29	0.17	1	Atlas		4,739	1
	5/29/2012 7:30	5/29/2012 9:15	105	2.72	8.778	2.62	10.31	3	Atlas		23,875	1
	5/31/2012 18:45	6/1/2012 1:15	390	1.22	14.116	3.78	0.52	12	Atlas		17,221	1
	7/8/2012 13:15	7/8/2012 13:15	-	0.21	29.205	0.68	0.15	1	Atlas		6,133	1
	7/14/2012 12:15	7/14/2012 14:30	135	0.49	41.427	0.72	0.30	3	Atlas		20,299	1
	7/19/2012 19:00	7/19/2012 19:00	-	0.81	11.370	1.28	0.66	1	Atlas		9,210	1
	7/24/2012 20:00	7/24/2012 20:15	15	0.25	57.056	1.07	0.20	1	Atlas		14,264	1
	7/27/2012 20:15	7/27/2012 20:45	30	0.63	17.543	1.01	0.41	3	Atlas		11,052	1
	8/16/2012 20:30	8/16/2012 22:00	90	0.59	12.651	0.59	0.34	3	Atlas		7,464	1
	8/21/2012 13:45	8/21/2012 22:30	525	0.21	2,438.243	0.82	0.18	1	Atlas		512,031	1
	9/1/2012 15:30	9/2/2012 21:30	1,800	0.58	1,147.281	1.29	0.36	3	Atlas		665,423	1
	9/3/2012 14:15	9/4/2012 9:15	1,140	0.09	2,365.222	1.38	0.07	1	Atlas		212,870	1
	9/5/2012 16:15	9/5/2012 16:15	-	0.63	8.183	1.99	0.50	1	Atlas		5,155	1
	9/7/2012 23:45	9/8/2012 1:15	90	1.45	15.573	3.20	0.81	3	Atlas		22,581	1
	9/26/2012 1:30	9/26/2012 5:00	210	0.43	29.965	0.77	0.20	6	Atlas		12,885	1
	9/26/2012 21:00	9/26/2012 23:45	165	1.21	18.047	2.02	0.64	6	Atlas		21,837	1
	10/1/2012 15:00	10/1/2012 18:30	210	0.73	24.689	2.73	0.29	12	Atlas		18,023	1
	12/4/2012 16:15	12/4/2012 18:15	120	0.60	3.543	0.79	0.38	3	Atlas		2,126	1
	12/7/2012 5:30	12/7/2012 8:30	180	1.16	721	1.70	0.49	12	Atlas		836	1
	12/8/2012 5:45	12/8/2012 6:00	15	0.42	9,783	2.26	0.22	6	Atlas		4,109	1
	12/9/2012 21:45	12/9/2012 23:15	90	1.16	10.593	3.09	0.55	3	Atlas		12,288	1
	12/20/2012 6:45	12/20/2012 10:00	195	0.67	19.590	0.86	0.36	6	Atlas		13,125	1
	12/26/2012 5:45	12/26/2012 6:00	15	0.66	9.415	1.21	0.26	12	Atlas		6,214	1
	1/11/2013 5:45	1/11/2013 6:30	45	0.65	26.817	0.73	0.34	6	Atlas		17,431	1
	1/13/2013 4:15	1/13/2013 17:45	810	2.24	12.756	2.97	0.86	24	Atlas		28,574	1
	1/30/2013 5:15	1/30/2013 8:15	180	0.83	33.218	1.00	0.42	6	Atlas		27,571	1
	2/22/2013 1:00	2/22/2013 1:00	-	0.42	814	0.75	0.19	12	Atlas		342	1
	2/26/2013 15:15	2/26/2013 15:15	-	0.56	19.654	0.84	0.22	12	Atlas		11,006	1
	3/5/2013 17:15	3/5/2013 17:15	-	0.45	1.282	0.49	0.17	24	Atlas		577	1
	3/11/2013 4:00	3/11/2013 6:30	150	0.99	29.696	1.30	0.39	12	Atlas		29,399	1
	3/17/2013 14:00	3/17/2013 14:45	45	1.68	189.034	1.65	0.55	48	Atlas		317,577	1
	3/18/2013 4:30	3/18/2013 5:45	75	1.68	8.062	1.83	0.55	48	Atlas		13,544	1
	3/24/2013 16:00	3/24/2013 16:00	-	0.51	15.151	1.42	0.19	24	Atlas		7,727	1
	3/25/2013 6:00	3/25/2013 7:30	90	0.51	359.869	0.79	0.19	24	Atlas		183,533	1
	4/11/2013 6:30	4/11/2013 6:45	15	1.25	4.845	0.36	0.48	24	Atlas		6,056	1
	4/16/2013 20:30	4/16/2013 20:30	-	0.60	9.940	1.82	0.50	1	Atlas		5,964	1
	4/19/2013 3:00	4/19/2013 4:15	75	0.92	25.410	1.52	0.50	6	Atlas		23,377	1
	4/24/2013 7:15	4/24/2013 17:00	585	0.68	451.912	1.63	0.37	3	Atlas		307,300	1
	5/10/2013 12:45	5/10/2013 12:45	-	0.97	3.765	2.21	0.43	6	Atlas		3,652	1
	5/11/2013 0:00	5/11/2013 3:15	195	0.97	397.234	2.49	0.43	6	Atlas		385,317	1
	5/16/2013 10:30	5/16/2013 10:30	-	0.25	2.176	1.27	0.22	1	Atlas		544	1
	5/22/2013 16:00	5/22/2013 16:00	-	0.15	21.487	0.38	0.10	3	Atlas		3,223	1
	6/10/2013 0:00	6/10/2013 0:45	45	0.33	85.467	0.27	0.15	6	Atlas		28,204	1
	6/17/2013 16:15	6/17/2013 20:45	270	1.05	5.255	1.39	0.55	1	Atlas		5,518	1
	6/21/2013 18:45	6/21/2013 18:45	-	0.25	28.236	1.68	0.19	1	Atlas		7,059	1
	6/26/2013 3:45	6/26/2013 4:45	60	0.82	8.621	1.43	0.55	3	Atlas		7,069	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/26/2013 21:15	6/26/2013 21:30	15	2.33	2.750	3.56	1.97	6	Cloudburst		6,407	1
	6/29/2013 19:45	6/29/2013 20:45	60	0.47	70.106	3.84	0.26	3	Atlas		32,950	1
	7/14/2013 19:45	7/14/2013 19:45	-	0.12	27.075	0.95	0.10	1	Atlas		3,249	1
	7/21/2013 19:30	7/21/2013 20:15	45	2.39	4.324	1.44	0.92	24	Atlas		10,334	1
	7/22/2013 7:15	7/24/2013 4:15	2,700	2.39	1,239,437	2.60	0.92	24	Atlas		2,962,255	1
	8/12/2013 15:15	8/12/2013 15:15	-	0.92	9,438	0.80	0.42	1	Atlas		8,683	1
	8/13/2013 3:15	8/13/2013 3:30	15	0.92	16,763	1.17	0.42	1	Atlas		15,422	1
	8/20/2013 18:00	8/20/2013 18:30	30	0.19	70,584	0.18	0.10	1	Atlas		13,411	1
	8/31/2013 20:00	8/31/2013 22:45	165	1.19	8,997	0.83	0.55	6	Atlas		10,707	1
	9/2/2013 14:15	9/2/2013 14:15	-	0.41	14,554	1.60	0.36	1	Atlas		5,967	1
	9/20/2013 16:30	9/21/2013 4:00	690	1.26	97,307	1.24	0.53	12	Atlas		122,607	1
	10/5/2013 13:00	10/6/2013 10:30	1,290	4.28	579,197	4.33	7.90	24	Cloudburst		2,478,962	1
	10/30/2013 2:15	10/30/2013 5:45	210	1.30	5,488	1.27	0.63	6	Atlas		7,134	1
	10/31/2013 21:00	10/31/2013 21:00	-	0.60	3,058	1.84	0.23	24	Atlas		1,835	1
	11/17/2013 9:45	11/17/2013 10:00	15	2.68	944	2.40	1.89	6	Cloudburst		2,530	1
	12/5/2013 7:15	12/5/2013 7:45	30	0.78	12,192	0.18	0.25	48	Atlas		9,510	1
	12/14/2013 10:45	12/14/2013 10:45	-	0.81	3,130	1.11	0.33	12	Atlas		2,535	1
	12/21/2013 7:45	12/21/2013 11:45	240	2.57	6,965	1.22	0.95	24	Atlas		17,901	1
	12/21/2013 23:15	12/22/2013 1:00	105	2.57	15,268	2.49	0.95	24	Atlas		39,240	1
	1/11/2014 0:30	1/11/2014 3:30	180	0.95	41,908	1.26	0.51	6	Atlas		39,813	1
	2/4/2014 20:00	2/4/2014 23:30	210	0.51	151,343	0.95	0.26	6	Atlas		77,185	1
	2/17/2014 16:45	2/17/2014 16:45	-	0.55	6,558	1.05	0.33	3	Atlas		3,607	1
	3/2/2014 10:45	3/2/2014 11:15	30	0.57	42,149	0.28	0.22	24	Atlas		24,025	1
	3/28/2014 4:45	3/28/2014 4:45	-	0.25	8,248	0.30	0.12	6	Atlas		2,062	1
	3/29/2014 6:30	3/29/2014 8:30	120	0.94	9,839	0.93	0.43	12	Atlas		9,249	1
	4/3/2014 12:45	4/4/2014 6:15	1,050	2.63	16,303	3.63	0.92	24	Atlas		42,876	1
	4/7/2014 11:15	4/7/2014 12:15	60	0.74	353	3.44	0.43	3	Atlas		261	1
	4/14/2014 3:45	4/14/2014 3:45	-	1.02	436	0.94	0.39	24	Atlas		445	1
	4/14/2014 20:15	4/14/2014 21:15	60	1.02	19,108	0.75	0.39	24	Atlas		19,490	1
	4/28/2014 4:30	4/28/2014 7:00	150	1.80	5,118	1.43	0.71	3	Atlas		9,212	1
	4/28/2014 17:45	4/28/2014 17:45	-	1.80	2,425	1.80	0.71	3	Atlas		4,365	1
	5/10/2014 8:15	5/10/2014 12:30	255	1.50	22,931	1.06	0.58	24	Atlas		34,396	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.09	7,203	1.83	0.42	24	Atlas		7,851	1
	5/14/2014 18:30	5/14/2014 18:30	-	1.09	2,587	2.42	0.42	24	Atlas		2,820	1
	5/21/2014 21:00	5/22/2014 3:30	390	0.43	62,516	0.54	0.20	12	Atlas		26,882	1
	5/28/2014 20:45	5/28/2014 21:45	60	0.35	41,537	0.77	0.30	1	Atlas		14,538	1
	5/29/2014 15:15	5/29/2014 21:45	390	0.02	5,508,900	1.14	0.01	3	Atlas		110,178	1
	8/23/2014 20:00	8/23/2014 20:30	30	0.55	11,155	1.53	0.25	3	Atlas		6,135	1
	8/27/2014 17:15	8/27/2014 17:30	15	0.24	101,138	1.39	0.17	1	Atlas		24,273	1
	8/30/2014 15:45	8/30/2014 16:00	15	0.50	15,550	1.18	0.30	1	Atlas		7,775	1
	9/2/2014 8:30	9/2/2014 8:30	-	0.34	14,594	1.12	0.22	3	Atlas		4,962	1
	9/11/2014 1:45	9/11/2014 2:45	60	1.93	6,983	1.67	1.47	3	Atlas		13,478	1
	10/7/2014 12:00	10/7/2014 12:00	-	0.18	18,867	0.82	0.16	1	Atlas		3,396	1
	10/10/2014 1:45	10/10/2014 2:30	45	1.17	5,851	1.50	0.55	3	Atlas		6,846	1
	10/14/2014 8:00	10/14/2014 8:30	30	0.96	2,802	2.71	0.42	12	Atlas		2,690	1
	11/23/2014 17:45	11/23/2014 17:45	-	0.68	4,247	0.78	0.31	6	Atlas		2,888	1
	12/6/2014 3:30	12/6/2014 6:15	165	1.74	6,982	2.54	0.56	48	Atlas		12,149	1
	12/16/2014 5:15	12/16/2014 5:15	-	0.10	32,300	0.10	0.06	1	Atlas		3,230	1
	12/28/2014 1:15	12/28/2014 14:45	810	0.30	3,239,580	0.69	0.12	24	Atlas		971,874	1
	3/3/2015 23:30	3/4/2015 5:30	360	1.67	16,128	0.79	0.54	48	Atlas		26,934	1
	3/10/2015 11:00	3/10/2015 14:15	195	1.21	26,340	2.85	0.55	12	Atlas		31,872	1
	3/13/2015 10:45	3/14/2015 4:15	1,050	1.72	19,107	2.87	0.65	24	Atlas		32,864	1
	3/26/2015 4:45	3/26/2015 4:45	-	0.47	677	0.55	0.18	12	Atlas		318	1
	4/2/2015 11:00	4/2/2015 11:15	15	4.71	2,224	0.49	8.02	6	Cloudburst		10,476	1
	4/3/2015 2:15	4/3/2015 18:30	975	4.71	572,123	4.73	8.02	6	Cloudburst		2,694,698	1
	4/7/2015 16:45	4/7/2015 17:30	45	0.86	6,440	5.58	0.39	1	Atlas		5,538	1
	4/8/2015 18:30	4/8/2015 18:30	-	0.11	44,727	5.68	0.06	3	Atlas		4,920	1
	4/9/2015 12:00	4/9/2015 12:00	-	0.26	17,873	5.60	0.23	1	Atlas		4,647	1
	4/13/2015 20:30	4/13/2015 20:45	15	0.37	21,438	1.48	0.15	6	Atlas		7,932	1
	4/19/2015 14:45	4/19/2015 14:45	-	0.70	2,393	1.08	0.29	12	Atlas		1,675	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.10	35,020	0.63	0.09	1	Atlas		3,502	1
	6/8/2015 8:15	6/8/2015 8:30	15	0.22	18,041	0.24	0.12	6	Atlas		3,969	1
	6/17/2015 5:15	6/17/2015 6:00	45	0.54	26,724	0.54	0.29	3	Atlas		14,431	1
	6/18/2015 17:00	6/18/2015 18:15	75	1.61	2,159	1.17	0.52	48	Atlas		3,476	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/20/2015 1:30	6/20/2015 8:30	420	1.61	14.407	2.30	0.52	48	Atlas		23,195	1
	6/26/2015 0:15	6/26/2015 0:15	-	0.50	2.514	1.53	0.27	6	Atlas		1,257	1
	6/26/2015 17:30	6/26/2015 17:45	15	0.90	13.430	2.26	0.52	1	Atlas		12,087	1
	7/2/2015 0:45	7/2/2015 2:00	75	1.30	17.258	2.24	0.50	24	Atlas		22,436	1
	7/2/2015 19:15	7/2/2015 21:15	120	1.30	21.462	2.96	0.50	24	Atlas		27,901	1
	7/3/2015 15:00	7/3/2015 19:00	240	0.33	58.682	2.79	0.18	1	Atlas		19,365	1
	7/7/2015 11:30	7/7/2015 13:00	90	0.80	27.986	2.27	0.42	6	Atlas		22,389	1
	7/8/2015 12:30	7/8/2015 12:45	15	0.07	67.457	2.54	0.05	1	Atlas		4,722	1
	7/9/2015 6:15	7/9/2015 7:30	75	0.28	26.221	2.08	0.15	3	Atlas		7,342	1
	7/10/2015 16:15	7/10/2015 16:15	-	0.43	10.451	1.72	0.21	6	Atlas		4,494	1
	7/12/2015 7:30	7/12/2015 12:45	315	1.06	23.746	2.65	0.78	1	Atlas		25,171	1
	7/13/2015 15:00	7/13/2015 15:15	15	0.40	14.423	3.06	0.34	1	Atlas		5,769	1
	7/14/2015 4:00	7/14/2015 4:45	45	0.51	39.888	3.54	0.39	1	Atlas		20,343	1
	7/17/2015 22:30	7/18/2015 1:30	180	1.18	96.155	3.16	0.79	3	Atlas		113,463	1
	8/5/2015 15:00	8/5/2015 15:15	15	0.87	9.867	0.41	0.31	24	Atlas		8,584	1
	8/6/2015 2:15	8/6/2015 8:15	360	0.87	9.418	0.91	0.31	24	Atlas		8,194	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.23	29.870	0.55	0.18	1	Atlas		6,870	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.22	31.241	0.27	0.15	3	Atlas		6,873	1
	10/27/2015 18:00	10/28/2015 6:00	720	2.34	30.592	2.49	0.77	24	Atlas		71,586	1
	11/6/2015 4:15	11/6/2015 4:30	15	0.83	11.559	0.88	0.50	3	Atlas		9,594	1
	11/12/2015 0:00	11/12/2015 1:00	60	0.28	54.871	1.60	0.17	3	Atlas		15,364	1
	11/18/2015 9:15	11/18/2015 14:15	300	1.57	51.483	1.91	0.80	6	Atlas		80,828	1
	11/30/2015 21:45	12/1/2015 4:15	390	0.73	97.229	1.59	0.33	12	Atlas		70,977	1
	12/21/2015 23:45	12/22/2015 4:00	255	0.50	67.260	0.69	0.26	6	Atlas		33,630	1
	12/23/2015 20:15	12/23/2015 20:15	-	0.82	7.241	1.52	0.64	1	Atlas		5,938	1
	12/26/2015 17:30	12/26/2015 17:30	-	0.25	26.584	1.89	0.11	12	Atlas		6,646	1
	12/27/2015 12:15	12/27/2015 16:45	270	2.01	7.089	3.15	0.65	3	Atlas		14,249	1
	12/28/2015 16:15	12/28/2015 16:30	15	2.01	1.647	3.66	0.65	3	Atlas		3,311	1
	2/2/2016 19:00	2/3/2016 0:45	345	1.20	32.087	1.22	0.57	6	Atlas		38,504	1
	2/21/2016 4:30	2/21/2016 10:45	375	1.12	16.838	1.29	0.51	12	Atlas		18,859	1
	2/23/2016 23:30	2/24/2016 7:45	495	2.02	43.165	2.85	0.79	12	Atlas		87,193	1
	3/1/2016 12:15	3/1/2016 13:00	45	0.25	32.132	2.24	0.15	3	Atlas		8,033	1
	3/10/2016 13:45	3/10/2016 17:00	195	1.03	35.089	0.87	0.33	48	Atlas		36,142	1
	3/12/2016 23:00	3/12/2016 23:30	30	0.92	15.584	1.70	0.37	6	Atlas		14,337	1
	3/13/2016 9:15	3/13/2016 10:15	60	0.92	17.859	1.98	0.37	6	Atlas		16,430	1
	3/24/2016 18:00	3/24/2016 18:00	-	0.59	8.783	0.68	0.45	1	Atlas		5,182	1
	3/27/2016 22:00	3/27/2016 22:00	-	0.80	6.605	1.36	0.54	1	Atlas		5,284	1
	3/31/2016 4:45	3/31/2016 4:45	-	0.99	7.247	1.76	0.37	24	Atlas		7,175	1
	3/31/2016 22:30	3/31/2016 23:30	60	0.99	6.808	1.77	0.37	24	Atlas		6,740	1
	4/11/2016 17:15	4/11/2016 18:15	60	0.89	18.131	0.86	0.42	6	Atlas		16,137	1
	4/21/2016 14:45	4/21/2016 14:45	-	0.29	2.217	0.14	0.13	3	Atlas		643	1
	4/26/2016 16:15	4/26/2016 21:45	330	0.39	12.526	0.71	0.20	6	Atlas		4,885	1
	4/27/2016 21:15	4/27/2016 22:15	60	0.51	51.318	1.19	0.23	3	Atlas		26,172	1
	4/30/2016 11:15	4/30/2016 11:30	15	0.48	13.238	1.16	0.19	6	Atlas		6,354	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.23	16.735	1.52	0.15	3	Atlas		3,849	1
	5/7/2016 16:30	5/7/2016 16:30	-	0.61	3.746	0.78	0.32	6	Atlas		2,285	1
	5/10/2016 14:30	5/10/2016 19:00	270	0.79	10.018	1.41	0.29	24	Atlas		7,914	1
	5/20/2016 14:00	5/20/2016 16:00	120	0.57	41.330	1.24	0.32	3	Atlas		23,558	1
	5/26/2016 13:45	5/26/2016 13:45	-	0.23	4.970	0.75	0.15	3	Atlas		1,143	1
	6/2/2016 16:00	6/2/2016 16:00	-	0.34	23.688	0.46	0.26	1	Atlas		8,054	1
	6/4/2016 17:00	6/4/2016 17:00	-	0.13	44.115	0.57	0.06	12	Atlas		5,735	1
	6/12/2016 18:15	6/12/2016 18:15	-	0.17	38.076	0.19	0.14	1	Atlas		6,473	1
	6/14/2016 17:15	6/14/2016 17:30	15	0.68	9.094	0.70	0.43	3	Atlas		6,184	1
	6/22/2016 8:30	6/22/2016 8:30	-	0.18	17.178	0.11	0.11	3	Atlas		3,092	1
	6/23/2016 16:00	6/23/2016 20:15	255	1.87	6.041	1.86	1.11	6	Cloudburst		11,297	1
	7/3/2016 11:45	7/3/2016 23:15	690	1.08	30.779	0.67	0.35	48	Atlas		33,241	1
	7/4/2016 14:30	7/4/2016 14:45	15	1.08	4.443	1.03	0.35	48	Atlas		4,798	1
	7/6/2016 13:30	7/6/2016 13:30	-	0.11	14.427	1.17	0.07	1	Atlas		1,587	1
	7/12/2016 9:00	7/12/2016 10:00	60	0.17	75.012	0.33	0.11	3	Atlas		12,752	1
	8/1/2016 11:30	8/1/2016 11:30	-	0.35	6.366	1.61	0.30	1	Atlas		2,228	1
	8/4/2016 13:45	8/4/2016 13:45	-	0.22	10.082	0.94	0.14	3	Atlas		2,218	1
	8/15/2016 3:00	8/15/2016 4:00	60	0.98	24.174	0.98	0.49	6	Atlas		23,691	1
	8/17/2016 6:00	8/17/2016 7:15	75	0.70	22.157	1.62	0.30	12	Atlas		15,510	1
	8/20/2016 20:30	8/20/2016 20:30	-	0.89	4.303	2.50	0.39	1	Atlas		3,830	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/31/2016 17:00	8/31/2016 18:00	60	0.10	54.730	0.32	0.08	1	Atlas		5,473	1
	9/10/2016 15:30	9/10/2016 15:30	-	0.19	3,458	0.17	0.12	3	Atlas		657	1
	9/28/2016 13:00	9/28/2016 13:00	-	0.35	7,571	0.46	0.19	6	Atlas		2,650	1
	9/30/2016 1:30	9/30/2016 2:15	45	0.68	18,724	1.14	0.35	3	Atlas		12,732	1
	10/20/2016 9:30	10/20/2016 10:15	45	0.53	13,079	0.21	0.20	24	Atlas		6,932	1
	11/8/2016 19:45	11/8/2016 20:00	15	0.20	49,085	0.23	0.10	1	Atlas		9,817	1
	12/6/2016 9:15	12/6/2016 9:45	30	0.86	21,202	0.61	0.39	12	Atlas		18,234	1
	12/17/2016 16:30	12/18/2016 1:15	525	2.60	35,982	2.90	1.77	12	Cloudburst		93,552	1
	1/10/2017 19:45	1/10/2017 19:45	-	0.11	8,218	0.35	0.08	1	Atlas		904	1
	1/12/2017 18:30	1/12/2017 18:30	-	0.33	14,624	0.55	0.16	6	Atlas		4,826	1
	1/14/2017 11:30	1/14/2017 11:30	-	0.22	20,309	1.12	0.10	6	Atlas		4,468	1
	1/17/2017 0:15	1/17/2017 3:45	210	0.48	49,756	1.82	0.22	12	Atlas		23,883	1
	1/19/2017 19:15	1/20/2017 1:00	345	1.08	39,893	2.24	0.50	12	Atlas		43,084	1
	3/1/2017 3:00	3/1/2017 8:30	330	1.07	15,381	1.84	0.57	6	Atlas		16,458	1
	3/7/2017 7:30	3/7/2017 8:00	30	0.51	41,247	1.62	0.17	48	Atlas		21,036	1
	3/27/2017 18:15	3/27/2017 18:45	30	0.29	24,669	0.73	0.17	3	Atlas		7,154	1
	4/16/2017 13:15	4/16/2017 20:30	435	1.20	7,753	1.41	0.47	6	Atlas		9,304	1
	4/27/2017 6:45	4/27/2017 7:00	15	0.21	37,229	0.81	0.16	1	Atlas		7,818	1
	4/29/2017 3:15	4/29/2017 3:15	-	0.89	2,689	1.21	0.46	6	Atlas		2,393	1
	5/4/2017 19:45	5/5/2017 6:45	660	1.70	10,895	2.42	0.57	24	Atlas		18,521	1
	5/20/2017 18:30	5/21/2017 5:45	675	1.04	22,766	1.05	0.46	12	Atlas		23,677	1
	5/24/2017 18:30	5/24/2017 19:00	30	0.56	14,461	1.47	0.20	24	Atlas		8,098	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.22	23,655	1.80	0.17	1	Atlas		5,204	1
	6/5/2017 9:15	6/5/2017 9:15	-	0.07	55,471	0.08	0.03	1	Atlas		3,883	1
	6/15/2017 4:30	6/15/2017 4:30	-	0.75	3,492	0.75	0.48	3	Atlas		2,619	1
	6/22/2017 19:00	6/22/2017 19:15	15	0.31	40,513	0.48	0.17	6	Atlas		12,559	1
	6/23/2017 16:15	6/23/2017 16:15	-	0.68	4,591	0.97	0.33	6	Atlas		3,122	1
	7/6/2017 5:00	7/6/2017 13:15	495	0.51	27,020	0.83	0.23	6	Atlas		13,780	1
	7/7/2017 21:15	7/7/2017 21:15	-	0.26	18,300	0.87	0.17	1	Atlas		4,758	1
	7/23/2017 7:00	7/23/2017 7:15	15	1.18	7,464	0.91	0.54	12	Atlas		8,807	1
	7/28/2017 9:30	7/28/2017 10:15	45	0.52	16,387	1.71	0.40	1	Atlas		8,521	1
	8/6/2017 17:00	8/7/2017 0:00	420	0.56	16,027	0.79	0.25	12	Atlas		8,975	1
	8/17/2017 15:15	8/17/2017 23:00	465	0.53	41,813	0.56	0.29	6	Atlas		22,161	1
	8/22/2017 16:30	8/22/2017 16:30	-	0.76	5,714	1.32	0.51	1	Atlas		4,343	1
	9/1/2017 10:30	9/2/2017 1:00	870	3.29	28,496	3.07	1.92	24	Cloudburst		93,752	1
	9/19/2017 8:00	9/19/2017 9:45	105	0.43	39,353	0.84	0.27	3	Atlas		16,922	1
	10/7/2017 22:30	10/7/2017 22:30	-	1.60	1,063	0.46	0.60	24	Atlas		1,701	1
	10/8/2017 14:30	10/8/2017 14:45	15	1.60	2,941	1.52	0.60	24	Atlas		4,706	1
	10/10/2017 15:15	10/10/2017 16:30	75	0.68	28,209	2.20	0.36	6	Atlas		19,182	1
	10/23/2017 6:30	10/23/2017 7:00	30	0.47	8,521	0.31	0.25	6	Atlas		4,005	1
	10/27/2017 17:45	10/27/2017 18:00	15	0.80	8,896	0.71	0.37	12	Atlas		7,117	1
	11/3/2017 4:30	11/3/2017 6:45	135	1.00	747,814	1.93	0.79	1	Atlas		747,814	1
	11/6/2017 2:00	11/6/2017 3:15	75	0.31	192,813	1.44	0.21	1	Atlas		59,772	1
	2/22/2018 5:15	2/22/2018 9:00	225	1.58	841,994	2.50	0.58	24	Atlas		1,330,350	1
	2/24/2018 19:30	2/25/2018 15:45	1,215	1.65	2,663,701	4.39	0.66	12	Atlas		4,395,106	1
	3/24/2018 9:30	3/24/2018 12:30	180	0.94	123,233	1.46	0.36	24	Atlas		115,839	1
	3/29/2018 19:00	3/29/2018 20:00	60	1.10	123,534	1.84	0.28	48	Atlas		135,887	1
	4/1/2018 20:15	4/1/2018 23:15	180	0.60	210,402	1.99	0.33	6	Atlas		126,241	1
	4/3/2018 16:30	4/3/2018 21:30	300	0.51	110,929	2.50	0.28	6	Atlas		56,574	1
	4/14/2018 9:30	4/14/2018 10:00	30	1.04	32,652	0.27	0.34	48	Atlas		33,958	1
	4/15/2018 5:45	4/15/2018 6:15	30	1.04	37,619	0.82	0.34	48	Atlas		39,124	1
	5/5/2018 14:30	5/5/2018 18:45	255	1.24	961,901	1.09	0.47	12	Atlas		1,192,757	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.30	122,887	0.35	0.22	1	Atlas		36,866	1
	6/1/2018 0:30	6/1/2018 2:30	120	1.42	363,174	1.83	0.83	3	Atlas		515,707	1
	6/10/2018 15:00	6/10/2018 15:15	15	0.40	74,333	0.18	0.18	12	Atlas		29,733	1
	6/11/2018 11:00	6/11/2018 13:30	150	0.54	415,211	0.62	0.18	48	Atlas		224,214	1
	6/11/2018 23:45	6/11/2018 23:45	-	0.54	1,113	0.68	0.18	48	Atlas		601	1
	7/15/2018 14:45	7/15/2018 15:00	15	0.11	651,255	0.08	0.05	12	Atlas		71,638	1
	7/20/2018 15:30	7/20/2018 18:00	150	1.21	613,923	0.51	0.61	3	Atlas		742,847	1
	7/22/2018 13:45	7/22/2018 14:00	15	0.21	105,957	1.41	0.15	1	Atlas		22,251	1
	7/30/2018 20:00	7/31/2018 9:30	810	1.94	1,230,515	1.80	0.80	6	Atlas		2,387,200	1
	8/7/2018 21:00	8/7/2018 23:15	135	0.01	3,410,100	0.05	0.01	1	Atlas		34,101	1
	8/15/2018 16:00	8/16/2018 8:30	990	2.46	1,043,705	2.32	0.95	24	Atlas		2,567,515	1
	8/31/2018 17:45	8/31/2018 17:45	-	0.26	36,646	0.17	0.13	3	Atlas		9,528	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/6/2018 11:30	9/6/2018 12:00	30	0.25	462.016	0.50	0.18	1	Atlas		115,504	1
	9/8/2018 5:45	9/8/2018 5:45	-	2.23	3.888	0.64	0.90	6	Atlas		8,671	1
	9/8/2018 17:45	9/9/2018 4:30	645	2.23	1,181.720	2.49	0.90	6	Atlas		2,635,236	1
	9/22/2018 16:30	9/22/2018 17:15	45	1.22	131.238	0.58	0.45	24	Atlas		160,110	1
	9/23/2018 4:30	9/23/2018 7:45	195	1.22	1,129.776	1.44	0.45	24	Atlas		1,378,327	1
	9/24/2018 7:00	9/24/2018 18:00	660	1.41	785.133	2.79	0.65	6	Atlas		1,107,038	1
	9/25/2018 6:00	9/25/2018 6:00	-	0.11	203.927	2.91	0.10	1	Atlas		22,432	1
	10/15/2018 20:00	10/15/2018 20:00	-	0.15	55.207	0.57	0.10	1	Atlas		8,281	1
	10/31/2018 17:30	11/1/2018 1:30	480	1.65	119.183	1.28	0.59	24	Atlas		196,662	1
	11/5/2018 21:45	11/6/2018 0:30	165	0.94	242.186	2.64	0.51	6	Atlas		227,655	1
	4/12/2019 6:00	4/12/2019 6:15	15	0.07	159.243	0.59	0.05	3	Atlas		11,147	1
	4/14/2019 1:15	4/14/2019 5:30	255	0.84	600.944	1.44	0.40	6	Atlas		504,793	1
	4/18/2019 21:30	4/18/2019 21:30	-	0.46	9.046	1.04	0.21	12	Atlas		4,161	1
	4/19/2019 18:30	4/20/2019 7:00	750	2.29	347.140	3.26	0.86	24	Atlas		794,951	1
	4/23/2019 18:00	4/23/2019 18:30	30	0.05	1,088.180	2.80	0.04	1	Atlas		54,409	1
	4/24/2019 20:45	4/24/2019 21:30	45	0.47	802.398	3.11	0.22	12	Atlas		377,127	1
	4/25/2019 18:15	4/25/2019 18:30	15	0.32	772.284	3.39	0.16	1	Atlas		247,131	1
	4/26/2019 2:45	4/26/2019 3:00	15	0.32	61.675	3.19	0.16	1	Atlas		19,736	1
	5/3/2019 5:00	5/3/2019 8:15	195	0.90	491.682	1.07	0.49	6	Atlas		442,514	1
	5/4/2019 17:00	5/4/2019 17:30	30	0.22	113.391	1.25	0.13	3	Atlas		24,946	1
	5/19/2019 23:30	5/19/2019 23:30	-	0.27	72.404	0.28	0.11	12	Atlas		19,549	1
	5/23/2019 16:00	5/23/2019 16:00	-	0.10	455.890	0.39	0.06	1	Atlas		45,589	1
	5/26/2019 14:00	5/26/2019 15:30	90	0.42	183.271	0.61	0.26	3	Atlas		76,974	1
	5/29/2019 9:15	5/29/2019 13:45	270	0.75	337.077	1.27	0.41	6	Atlas		252,808	1
	6/5/2019 20:45	6/5/2019 21:30	45	0.82	198.534	0.92	0.61	1	Atlas		162,798	1
	6/9/2019 0:30	6/9/2019 0:45	15	0.31	37.139	1.74	0.16	6	Atlas		11,513	1
	6/9/2019 17:00	6/9/2019 18:15	75	0.69	485.943	2.38	0.37	3	Atlas		335,301	1
	6/16/2019 19:45	6/17/2019 1:15	330	1.52	477.060	1.81	0.68	12	Atlas		725,131	1
	6/18/2019 16:30	6/18/2019 17:15	45	0.29	1,132.755	2.10	0.11	24	Atlas		328,499	1
	6/21/2019 19:30	6/21/2019 20:45	75	0.58	165.207	2.72	0.39	3	Atlas		95,820	1
	6/23/2019 16:15	6/23/2019 16:45	30	0.33	694.521	2.96	0.25	1	Atlas		229,192	1
	6/24/2019 13:30	6/24/2019 14:30	60	0.43	911.202	2.11	0.27	3	Atlas		391,817	1
	7/3/2019 13:00	7/3/2019 13:00	-	0.21	2.671	0.33	0.17	1	Atlas		561	1
	7/18/2019 0:45	7/18/2019 2:45	120	0.26	957.019	0.39	0.17	1	Atlas		248,825	1
	7/29/2019 23:45	7/30/2019 0:00	15	0.55	276.736	0.55	0.35	1	Atlas		152,205	1
	8/26/2019 11:15	8/26/2019 13:30	135	0.45	784.729	0.78	0.21	6	Atlas		353,128	1
	10/6/2019 14:45	10/6/2019 20:00	315	0.98	60.289	0.81	0.38	6	Atlas		59,083	1
	10/15/2019 22:45	10/15/2019 23:00	15	0.52	117.287	0.84	0.39	1	Atlas		60,989	1
	10/26/2019 5:30	10/26/2019 9:00	210	1.28	173.203	1.08	0.49	24	Atlas		221,700	1
	10/30/2019 14:15	10/30/2019 15:15	60	0.85	318.435	2.06	0.43	3	Atlas		270,670	1
	10/31/2019 6:30	10/31/2019 7:45	75	0.65	224.454	2.71	0.35	6	Atlas		145,895	1
	11/26/2019 21:45	11/27/2019 1:00	195	0.63	192.652	1.07	0.28	12	Atlas		121,371	1
	11/30/2019 3:15	11/30/2019 16:30	795	1.89	289.160	2.67	0.75	12	Atlas		546,512	1
	12/9/2019 20:30	12/9/2019 20:30	-	0.21	10.448	0.25	0.08	1	Atlas		2,194	1
	12/16/2019 17:15	12/16/2019 18:30	75	0.69	214.810	1.22	0.31	6	Atlas		148,219	1
	12/29/2019 20:15	12/29/2019 21:15	60	1.11	110.463	1.02	0.41	24	Atlas		122,614	1
	1/3/2020 18:15	1/3/2020 18:15	-	0.68	5.451	1.75	0.22	48	Atlas		3,707	1
	1/10/2020 20:30	1/10/2020 20:45	15	0.34	130.738	0.32	0.15	3	Atlas		44,451	1
	1/11/2020 11:00	1/11/2020 16:45	345	0.71	276.823	1.03	0.33	6	Atlas		196,544	1
	1/18/2020 11:00	1/18/2020 11:15	15	0.34	45.332	0.85	0.14	12	Atlas		15,413	1
	2/12/2020 12:00	2/12/2020 12:00	-	0.77	107.075	0.62	0.37	3	Atlas		82,448	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.36	234.375	0.37	0.17	12	Atlas		84,375	1
	3/12/2020 22:45	3/12/2020 22:45	-	0.52	195.825	0.89	0.24	12	Atlas		101,829	1
	3/19/2020 12:00	3/19/2020 12:00	-	0.42	254.431	1.57	0.18	1	Atlas		106,861	1
	3/28/2020 22:45	3/28/2020 22:45	-	0.24	368.963	0.42	0.20	1	Atlas		88,551	1
	CSO084 Total										47,468,348	389
CSO088	1/20/2010 23:45	1/21/2010 0:00	15	1.33	21.485	0.77	0.43	48	Atlas		28,575	1
	1/21/2010 14:15	1/21/2010 19:15	300	1.33	33.847	1.59	0.43	48	Atlas		45,017	1
	1/24/2010 3:45	1/24/2010 5:00	75	0.82	81.823	1.87	0.32	24	Atlas		67,095	1
	1/24/2010 21:15	1/24/2010 22:00	45	0.82	11.632	2.12	0.32	24	Atlas		9,538	1
	1/28/2010 7:00	1/30/2010 21:00	3,720	0.01	611,914.900	1.88	0.01	1	Atlas		6,119,149	1
	2/5/2010 13:00	2/5/2010 17:30	270	1.21	6.112	0.68	0.44	12	Atlas		7,395	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/25/2010 21:30	3/25/2010 21:30	-	0.69	1,430	1.20	0.43	1	Atlas		987	1
	4/8/2010 1:30	4/8/2010 6:00	270	1.19	57,508	1.27	0.56	6	Atlas		68,435	1
	4/24/2010 14:45	4/24/2010 20:15	330	1.88	292,874	2.10	0.90	6	Atlas		550,603	1
	4/27/2010 10:00	4/27/2010 10:15	15	0.29	3,466	2.53	0.14	6	Atlas		1,005	1
	5/1/2010 4:45	5/1/2010 8:30	225	3.73	81,734	3.04	2.16	48	Cloudburst		304,869	1
	5/2/2010 1:00	5/2/2010 11:45	645	3.73	528,584	3.57	2.16	48	Cloudburst		1,971,617	1
	5/2/2010 23:45	5/3/2010 0:00	15	3.73	397	4.02	2.16	48	Cloudburst		1,479	1
	5/12/2010 9:45	5/12/2010 10:30	45	0.66	367,039	1.13	0.50	1	Atlas		242,246	1
	5/17/2010 19:30	5/17/2010 20:00	30	0.54	103,972	1.85	0.35	3	Atlas		56,145	1
	5/21/2010 19:45	5/21/2010 20:30	45	0.93	285,341	1.98	0.64	1	Atlas		265,367	1
	5/30/2010 16:15	5/30/2010 20:30	255	0.49	257,061	0.58	0.31	1	Atlas		125,960	1
	6/9/2010 3:30	6/9/2010 13:00	570	2.21	283,365	2.35	2.21	3	Atlas		626,237	1
	6/13/2010 22:45	6/14/2010 6:00	435	0.64	154,202	3.20	0.31	1	Atlas		98,689	1
	6/19/2010 5:00	6/19/2010 6:45	105	1.14	238,350	2.33	0.68	3	Atlas		271,719	1
	7/9/2010 8:45	7/9/2010 8:45	-	0.48	331	0.38	0.18	24	Atlas		159	1
	7/13/2010 4:15	7/13/2010 11:15	420	1.71	289,576	2.16	0.78	12	Atlas		495,175	1
	7/19/2010 18:45	7/19/2010 19:00	15	0.21	264,005	2.07	0.17	1	Atlas		55,441	1
	7/20/2010 4:45	7/20/2010 6:15	90	0.67	529,743	2.32	0.43	1	Atlas		354,928	1
	7/21/2010 6:00	7/21/2010 6:15	15	0.43	66,623	1.49	0.34	1	Atlas		28,648	1
	7/27/2010 16:00	7/27/2010 16:15	15	0.76	164,511	1.26	0.52	1	Atlas		125,028	1
	7/31/2010 5:00	7/31/2010 6:15	75	0.35	56,169	1.26	0.19	3	Atlas		19,659	1
	8/5/2010 9:15	8/5/2010 9:30	15	0.22	267,691	0.72	0.17	1	Atlas		58,892	1
	8/14/2010 16:30	8/14/2010 17:00	30	0.82	193,110	1.07	0.64	1	Atlas		158,350	1
	8/21/2010 7:00	8/21/2010 8:30	90	0.35	22,057	1.38	0.22	3	Atlas		7,720	1
	10/13/2010 18:30	10/13/2010 20:45	135	0.47	114,191	0.51	0.31	3	Atlas		53,670	1
	10/26/2010 11:00	10/26/2010 11:15	15	0.70	35,063	0.40	0.38	6	Atlas		24,544	1
	11/16/2010 12:45	11/16/2010 18:30	345	0.72	35,025	0.75	0.33	12	Atlas		25,218	1
	11/23/2010 4:00	11/23/2010 4:00	-	0.30	39,213	1.04	0.17	3	Atlas		11,764	1
	11/24/2010 13:30	11/24/2010 20:45	435	0.80	29,845	1.17	0.37	3	Atlas		23,876	1
	11/25/2010 9:30	11/25/2010 23:00	810	2.46	53,091	3.44	0.94	24	Atlas		130,604	1
	11/29/2010 21:45	11/30/2010 4:00	375	1.61	74,355	4.73	0.62	24	Atlas		119,711	1
	1/1/2011 6:00	1/1/2011 6:30	30	0.56	20,870	1.01	0.25	12	Atlas		11,687	1
	2/1/2011 18:00	2/1/2011 20:15	135	0.93	58,316	0.84	0.36	6	Atlas		54,234	1
	2/24/2011 20:00	2/25/2011 17:00	1,260	2.26	1,147,792	2.47	0.87	24	Atlas		2,594,010	1
	3/5/2011 7:30	3/5/2011 13:00	330	0.94	434,002	2.30	0.31	24	Atlas		407,962	1
	3/9/2011 0:00	3/11/2011 23:15	4,275	3.04	3,362,986	4.02	1.88	12	Cloudburst		10,223,477	1
	3/14/2011 20:45	3/16/2011 9:15	2,190	0.76	1,043,811	3.84	0.25	48	Atlas		793,296	1
	3/20/2011 4:30	3/20/2011 5:15	45	0.01	820,500	0.94	0.01	1	Atlas		8,205	1
	4/4/2011 13:15	4/4/2011 16:45	210	0.83	116,834	0.99	0.42	6	Atlas		96,972	1
	4/9/2011 10:30	4/9/2011 12:00	90	0.54	28,774	1.42	0.38	1	Atlas		15,538	1
	4/11/2011 12:15	4/12/2011 9:45	1,290	3.10	738,708	4.44	2.04	24	Cloudburst		2,289,994	1
	4/20/2011 2:45	4/20/2011 5:00	135	0.74	450,389	1.23	0.40	6	Atlas		333,288	1
	4/22/2011 16:30	4/25/2011 7:30	3,780	4.92	1,149,933	5.93	4.48	48	Atlas		5,657,669	1
	4/25/2011 19:15	4/29/2011 18:00	5,685	4.92	467,636	8.76	4.48	48	Atlas		2,300,768	1
	5/1/2011 4:45	5/7/2011 4:15	8,610	0.66	5,596,541	7.62	0.35	3	Atlas		3,693,717	1
	5/8/2011 1:30	5/8/2011 1:30	-	0.18	578	3.59	0.10	6	Atlas		104	1
	5/21/2011 18:15	5/21/2011 18:45	30	0.40	95,808	0.70	0.29	1	Atlas		38,323	1
	5/23/2011 17:45	5/23/2011 21:30	225	0.89	56,911	1.77	0.57	3	Atlas		50,651	1
	5/25/2011 22:45	5/26/2011 1:30	165	1.35	75,621	2.48	0.52	24	Atlas		102,089	1
	5/26/2011 11:30	5/26/2011 11:45	15	1.35	2,114	2.85	0.52	24	Atlas		2,854	1
	6/11/2011 4:30	6/11/2011 4:45	15	0.33	11,673	0.38	0.29	1	Atlas		3,852	1
	6/15/2011 9:30	6/15/2011 10:30	60	1.11	375,571	1.51	0.76	1	Atlas		416,884	1
	6/18/2011 6:30	6/18/2011 8:15	105	0.76	4,559	1.89	0.45	3	Atlas		3,465	1
	6/19/2011 7:45	6/19/2011 8:00	15	0.53	25,234	2.22	0.33	3	Atlas		13,374	1
	6/20/2011 1:30	6/20/2011 2:00	30	0.50	208,932	2.93	0.43	1	Atlas		104,466	1
	6/22/2011 19:30	6/23/2011 5:00	570	3.65	311,808	5.71	15.51	3	Atlas		1,138,099	1
	7/19/2011 22:30	7/19/2011 23:45	75	1.78	275,500	1.82	2.00	1	Atlas		490,390	1
	9/11/2011 19:30	9/11/2011 19:45	15	0.31	2,352	0.57	0.20	3	Atlas		729	1
	9/19/2011 7:15	9/19/2011 7:45	30	0.69	57,103	0.59	0.28	12	Atlas		39,401	1
	9/23/2011 7:15	9/23/2011 7:30	15	0.80	1,841	1.52	0.37	12	Atlas		1,473	1
	9/25/2011 20:00	9/26/2011 6:15	615	3.46	473,610	5.14	7.40	12	Cloudburst		1,638,690	1
	10/13/2011 7:45	10/13/2011 7:45	-	0.48	4,271	0.29	0.25	3	Atlas		2,050	1
	10/27/2011 0:15	10/27/2011 1:15	60	0.99	105,939	1.20	0.42	3	Atlas		104,880	1
	11/14/2011 21:45	11/14/2011 21:45	-	2.06	1,593	0.35	0.67	48	Atlas		3,281	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/16/2011 6:45	11/16/2011 6:45	-	2.06	34	1.84	0.67	48	Atlas		71	1
	11/21/2011 4:00	11/21/2011 4:15	15	1.81	1,235	2.76	0.54	48	Atlas		2,236	1
	11/22/2011 3:00	11/22/2011 9:15	375	1.81	40,536	3.19	0.54	48	Atlas		73,371	1
	11/27/2011 8:15	11/27/2011 9:15	60	3.07	68	2.28	0.95	48	Atlas		209	1
	11/27/2011 23:00	11/29/2011 10:45	2,145	3.07	432,749	4.30	0.95	48	Atlas		1,328,539	1
	11/29/2011 20:00	11/30/2011 4:15	495	0.07	313,986	3.14	0.04	1	Atlas		21,979	1
	12/5/2011 3:15	12/6/2011 4:15	1,500	3.12	1,133,058	5.02	1.07	48	Cloudburst		3,535,141	1
	12/21/2011 6:30	12/21/2011 6:45	15	0.61	208,902	1.10	0.28	12	Atlas		127,430	1
	12/27/2011 11:30	12/27/2011 11:30	-	0.67	75	1.80	0.27	12	Atlas		50	1
	1/23/2012 2:45	1/23/2012 4:30	105	0.70	88,649	1.06	0.33	3	Atlas		62,054	1
	1/26/2012 5:45	1/26/2012 6:30	45	1.69	103,347	1.43	0.55	48	Atlas		174,656	1
	1/26/2012 19:00	1/27/2012 3:30	510	1.69	522,515	2.40	0.55	48	Atlas		883,051	1
	3/8/2012 12:45	3/8/2012 14:30	105	0.77	4,512	1.01	0.37	6	Atlas		3,474	1
	3/16/2012 1:30	3/16/2012 1:45	15	0.98	421	1.00	0.43	12	Atlas		413	1
	3/23/2012 5:30	3/23/2012 22:45	1,035	1.53	221,029	2.40	0.56	24	Atlas		338,175	1
	4/1/2012 8:30	4/1/2012 11:00	150	1.27	596,833	1.46	0.68	6	Atlas		757,978	1
	4/28/2012 19:15	4/28/2012 19:45	30	0.74	132,585	0.75	0.54	1	Atlas		98,113	1
	5/4/2012 23:45	5/5/2012 1:45	120	1.36	316,387	2.42	0.73	3	Atlas		430,286	1
	5/13/2012 2:15	5/13/2012 14:15	720	2.07	233,456	2.12	0.81	12	Atlas		483,253	1
	5/16/2012 17:45	5/16/2012 18:00	15	0.24	377,775	2.32	0.20	1	Atlas		90,666	1
	5/29/2012 6:45	5/29/2012 16:15	570	2.34	882,097	2.34	5.14	3	Atlas		2,064,107	1
	5/31/2012 19:00	5/31/2012 19:00	-	1.24	22	2.80	0.54	12	Atlas		27	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.40	60,003	0.32	0.28	1	Atlas		24,001	1
	7/14/2012 12:15	7/14/2012 14:15	120	0.73	311,848	0.85	0.46	3	Atlas		227,649	1
	7/19/2012 18:15	7/19/2012 18:30	15	0.61	455,333	1.33	0.48	1	Atlas		277,753	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.60	188,195	0.92	0.39	3	Atlas		112,917	1
	8/16/2012 20:00	8/16/2012 22:15	135	0.55	23,200	0.57	0.32	3	Atlas		12,760	1
	8/21/2012 13:30	8/21/2012 13:45	15	0.12	608	0.67	0.10	1	Atlas		73	1
	9/1/2012 15:00	9/1/2012 17:30	150	0.32	35,188	0.34	0.19	3	Atlas		11,260	1
	9/2/2012 11:45	9/2/2012 12:30	45	0.64	16,894	0.68	0.25	24	Atlas		10,812	1
	9/2/2012 21:00	9/2/2012 21:45	45	0.64	2,734	0.98	0.25	24	Atlas		1,750	1
	9/26/2012 19:30	9/27/2012 0:15	285	1.81	56,094	2.61	0.97	6	Atlas		101,531	1
	10/1/2012 14:45	10/1/2012 18:30	225	0.71	821	3.27	0.28	12	Atlas		583	1
	12/4/2012 17:00	12/4/2012 19:45	165	0.53	3,723	0.79	0.33	3	Atlas		1,973	1
	12/7/2012 8:45	12/7/2012 8:45	-	1.09	30	1.66	0.47	12	Atlas		33	1
	12/8/2012 5:45	12/8/2012 5:45	-	0.37	341	2.15	0.21	1	Atlas		126	1
	12/9/2012 22:00	12/9/2012 23:30	90	1.15	251,603	2.93	0.56	3	Atlas		289,343	1
	12/20/2012 9:45	12/20/2012 12:00	135	0.68	316	1.06	0.37	6	Atlas		215	1
	12/26/2012 5:30	12/26/2012 6:15	45	0.74	276	1.30	0.29	12	Atlas		204	1
	1/11/2013 6:00	1/11/2013 7:30	90	0.63	56,433	0.76	0.33	6	Atlas		35,553	1
	1/13/2013 3:15	1/13/2013 18:45	930	2.09	92,945	2.85	0.80	24	Atlas		194,256	1
	1/30/2013 4:45	1/30/2013 8:15	210	0.89	161,888	1.07	0.45	6	Atlas		144,080	1
	2/3/2013 11:45	2/5/2013 7:15	2,610	0.01	291,861,700	1.38	0.01	1	Atlas		2,918,617	1
	3/11/2013 1:30	3/11/2013 11:15	585	1.00	18,797	1.42	0.40	12	Atlas		18,797	1
	3/17/2013 14:00	3/17/2013 15:15	75	1.67	10,935	1.70	0.54	48	Atlas		18,262	1
	3/18/2013 4:15	3/18/2013 7:45	210	1.67	160,687	2.07	0.54	48	Atlas		268,348	1
	4/19/2013 2:15	4/19/2013 4:30	135	0.91	198,295	1.48	0.50	6	Atlas		180,448	1
	5/10/2013 12:30	5/10/2013 15:45	195	0.91	34,742	2.27	0.41	6	Atlas		31,615	1
	5/11/2013 0:00	5/11/2013 7:15	435	0.91	792	2.30	0.41	6	Atlas		721	1
	5/16/2013 10:30	5/16/2013 10:30	-	0.21	90,476	1.19	0.18	1	Atlas		19,000	1
	5/22/2013 16:00	5/22/2013 16:00	-	0.13	48,315	0.33	0.09	1	Atlas		6,281	1
	6/16/2013 16:45	6/16/2013 17:00	15	0.53	121,977	0.78	0.36	1	Atlas		64,648	1
	6/17/2013 16:30	6/17/2013 17:00	30	1.30	161,119	1.39	0.72	1	Atlas		209,455	1
	6/26/2013 3:30	6/26/2013 4:45	75	0.67	311,616	1.40	0.45	3	Atlas		208,783	1
	6/26/2013 16:15	6/27/2013 5:00	765	2.64	1,451,973	4.04	5.00	1	Atlas		3,833,209	1
	7/6/2013 1:45	7/6/2013 1:45	-	0.65	3,295	1.75	0.28	12	Atlas		2,142	1
	7/10/2013 14:15	7/10/2013 14:30	15	0.96	153,127	2.13	0.66	1	Atlas		147,002	1
	7/14/2013 19:30	7/14/2013 19:45	15	0.23	531,448	1.25	0.20	1	Atlas		122,233	1
	7/22/2013 7:45	7/22/2013 14:15	390	1.91	346,566	2.01	0.73	24	Atlas		661,941	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.53	93,274	0.50	0.20	24	Atlas		49,435	1
	8/31/2013 19:45	9/1/2013 0:45	300	1.34	221,162	1.15	0.67	3	Atlas		296,357	1
	9/20/2013 19:30	9/24/2013 12:45	5,355	1.48	107,111	1.55	0.62	12	Atlas		158,525	1
	10/5/2013 13:00	10/6/2013 14:45	1,545	3.89	1,321,278	3.97	5.08	24	Cloudburst		5,139,772	1
	10/30/2013 4:45	10/30/2013 5:45	60	1.16	37,049	1.10	0.56	6	Atlas		42,977	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/31/2013 20:45	10/31/2013 21:00	15	0.65	634	1.73	0.25	24	Atlas		412	1
	11/17/2013 5:30	11/17/2013 19:15	825	2.17	376,874	2.30	0.89	6	Atlas		817,817	1
	12/5/2013 7:15	12/5/2013 7:45	30	0.78	254	0.16	0.25	48	Atlas		198	1
	12/14/2013 10:30	12/14/2013 10:30	-	0.77	155	1.03	0.31	12	Atlas		119	1
	12/21/2013 7:45	12/21/2013 12:15	270	2.81	25,694	1.41	1.24	24	Cloudburst		72,200	1
	12/21/2013 21:30	12/22/2013 3:45	375	2.81	332,935	2.89	1.24	24	Cloudburst		935,547	1
	1/11/2014 0:15	1/11/2014 4:15	240	0.80	28,138	1.22	0.43	6	Atlas		22,510	1
	2/4/2014 19:45	2/5/2014 0:30	285	0.51	50,920	0.95	0.25	6	Atlas		25,969	1
	2/17/2014 16:00	2/17/2014 17:00	60	0.55	219,996	1.04	0.33	3	Atlas		120,998	1
	3/29/2014 6:45	3/29/2014 7:00	15	0.98	342	0.80	0.45	6	Atlas		335	1
	4/3/2014 12:15	4/3/2014 12:30	15	2.59	606	1.95	0.90	24	Atlas		1,570	1
	4/4/2014 3:15	4/4/2014 17:00	825	2.59	550,573	3.83	0.90	24	Atlas		1,425,985	1
	4/7/2014 10:45	4/7/2014 16:15	330	0.82	65,795	3.50	0.49	3	Atlas		53,962	1
	6/11/2014 14:30	6/11/2014 14:30	-	0.11	32,118	0.30	0.07	1	Atlas		3,533	1
	7/7/2014 19:45	7/7/2014 20:00	15	0.49	70,739	0.82	0.43	1	Atlas		34,662	1
	7/13/2014 23:00	7/13/2014 23:15	15	0.62	39,798	1.24	0.28	12	Atlas		24,675	1
	7/14/2014 20:15	7/14/2014 20:30	15	0.34	21,471	1.31	0.23	3	Atlas		7,300	1
	7/26/2014 22:00	7/26/2014 22:15	15	0.94	10,111	0.47	0.41	12	Atlas		9,504	1
	7/27/2014 7:15	7/27/2014 8:15	60	0.94	16,043	0.93	0.41	12	Atlas		15,080	1
	8/8/2014 6:30	8/8/2014 7:45	75	0.84	112,744	0.63	0.41	6	Atlas		94,705	1
	8/10/2014 4:15	8/10/2014 4:15	-	0.53	7,857	1.41	0.44	1	Atlas		4,164	1
	8/17/2014 9:45	8/17/2014 9:45	-	0.70	7,576	0.82	0.26	24	Atlas		5,303	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.31	13,410	0.95	0.21	1	Atlas		4,157	1
	8/23/2014 16:00	8/23/2014 20:30	270	0.48	37,746	1.31	0.23	3	Atlas		18,118	1
	8/27/2014 15:00	8/27/2014 15:00	-	0.18	23,511	1.15	0.11	1	Atlas		4,232	1
	8/30/2014 15:30	8/30/2014 15:45	15	0.55	64,598	1.21	0.34	1	Atlas		35,529	1
	9/11/2014 0:45	9/11/2014 2:30	105	1.92	106,876	1.65	1.43	3	Atlas		205,202	1
	10/10/2014 2:15	10/10/2014 3:15	60	0.83	61,999	1.62	0.53	3	Atlas		51,459	1
	10/13/2014 23:45	10/14/2014 8:30	525	0.95	12,803	2.63	0.42	12	Atlas		12,163	1
	11/23/2014 17:45	11/23/2014 17:45	-	0.81	547	0.86	0.37	12	Atlas		443	1
	12/6/2014 2:15	12/6/2014 6:00	225	1.82	25,735	2.66	0.59	48	Atlas		46,837	1
	3/4/2015 4:00	3/4/2015 5:30	90	1.70	19,061	0.79	0.55	24	Atlas		32,404	1
	3/10/2015 7:15	3/12/2015 13:00	3,225	1.09	351,594	2.79	0.49	12	Atlas		383,237	1
	3/13/2015 12:15	3/15/2015 20:15	3,360	1.69	252,810	2.78	0.63	24	Atlas		427,249	1
	3/20/2015 0:00	3/20/2015 2:00	120	0.19	859,068	1.88	0.07	24	Atlas		163,223	1
	4/2/2015 11:00	4/2/2015 15:45	285	3.87	10,358	0.97	3.28	24	Cloudburst		40,086	1
	4/3/2015 0:30	4/3/2015 22:30	1,320	3.87	586,454	3.89	3.28	24	Cloudburst		2,269,578	1
	5/17/2015 14:45	5/17/2015 14:45	-	0.10	97,310	0.60	0.05	1	Atlas		9,731	1
	5/26/2015 14:15	5/26/2015 14:30	15	0.41	41,185	0.61	0.31	1	Atlas		16,886	1
	6/17/2015 5:15	6/17/2015 5:30	15	0.62	13,402	0.50	0.36	3	Atlas		8,309	1
	6/18/2015 17:30	6/18/2015 18:15	45	1.47	97,372	1.13	0.48	48	Atlas		143,137	1
	6/20/2015 2:00	6/20/2015 9:00	420	1.47	39,791	2.19	0.48	48	Atlas		58,493	1
	6/26/2015 17:30	6/26/2015 18:00	30	0.95	49,881	2.11	0.51	1	Atlas		47,387	1
	7/2/2015 2:00	7/2/2015 2:00	-	1.67	539	2.19	0.63	24	Atlas		900	1
	7/2/2015 15:30	7/2/2015 21:15	345	1.67	101,575	3.24	0.63	24	Atlas		169,630	1
	7/7/2015 12:15	7/7/2015 13:00	45	0.78	5,653	2.43	0.32	6	Atlas		4,409	1
	7/8/2015 0:30	7/8/2015 0:30	-	0.78	515	2.59	0.32	6	Atlas		402	1
	7/9/2015 13:45	7/9/2015 13:45	-	0.34	4,088	2.26	0.16	12	Atlas		1,390	1
	7/10/2015 16:30	7/10/2015 16:30	-	0.41	22,644	1.69	0.20	6	Atlas		9,284	1
	7/12/2015 6:15	7/12/2015 8:30	135	1.75	302,045	3.30	2.28	1	Atlas		528,578	1
	7/13/2015 14:30	7/13/2015 15:15	45	0.67	36,066	3.97	0.58	1	Atlas		24,164	1
	7/14/2015 4:30	7/14/2015 19:15	885	0.68	383,485	4.83	0.55	1	Atlas		260,770	1
	7/18/2015 0:00	7/18/2015 19:30	1,170	1.54	687,539	4.82	1.10	3	Atlas		1,058,810	1
	8/4/2015 19:15	8/4/2015 19:30	15	0.52	126,767	0.58	0.44	1	Atlas		65,919	1
	8/5/2015 15:15	8/5/2015 15:30	15	0.29	47,169	0.88	0.24	1	Atlas		13,679	1
	8/6/2015 8:15	8/6/2015 15:30	435	0.53	45,196	1.34	0.22	12	Atlas		23,954	1
	8/19/2015 8:45	8/19/2015 8:45	-	0.34	36,332	0.26	0.13	12	Atlas		12,353	1
	8/19/2015 17:15	8/19/2015 17:30	15	0.34	2,724	0.46	0.13	12	Atlas		926	1
	10/27/2015 18:15	10/28/2015 3:30	555	2.38	21,059	2.23	0.78	24	Atlas		50,120	1
	11/6/2015 3:30	11/6/2015 4:30	60	0.74	68,885	0.82	0.45	3	Atlas		50,975	1
	11/12/2015 1:00	11/12/2015 1:00	-	0.31	17,565	1.58	0.19	3	Atlas		5,445	1
	11/18/2015 9:45	11/18/2015 14:15	270	1.38	88,633	1.77	0.70	6	Atlas		122,314	1
	12/22/2015 3:15	12/22/2015 4:00	45	0.47	31,617	0.66	0.27	1	Atlas		14,860	1
	12/23/2015 19:30	12/23/2015 20:30	60	0.83	112,702	1.50	0.63	1	Atlas		93,543	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/27/2015 10:45	1/1/2016 8:45	7,080	1.98	2,712.417	3.93	0.65	3	Atlas		5,370,586	1
	2/2/2016 20:15	2/3/2016 0:30	255	1.49	46.877	1.47	0.68	12	Atlas		69,847	1
	2/21/2016 10:30	2/21/2016 10:30	-	0.92	13.199	1.08	0.42	12	Atlas		12,143	1
	2/24/2016 2:45	2/24/2016 7:45	300	2.00	46.493	2.61	0.78	12	Atlas		92,985	1
	3/12/2016 23:00	3/12/2016 23:00	-	0.76	10.576	1.58	0.29	24	Atlas		8,038	1
	3/13/2016 10:00	3/13/2016 10:00	-	0.76	5.851	1.86	0.29	24	Atlas		4,447	1
	3/24/2016 17:45	3/24/2016 17:45	-	0.27	18.507	0.31	0.17	1	Atlas		4,997	1
	3/27/2016 21:30	3/27/2016 21:45	15	0.75	17.720	0.98	0.50	3	Atlas		13,290	1
	4/11/2016 17:30	4/11/2016 18:15	45	0.99	17.478	0.96	0.44	6	Atlas		17,303	1
	4/26/2016 16:30	4/26/2016 16:30	-	0.26	14.058	0.36	0.15	3	Atlas		3,655	1
	4/27/2016 21:15	4/27/2016 21:15	-	0.66	7.241	1.03	0.28	12	Atlas		4,779	1
	12/17/2016 18:45	12/18/2016 2:45	480	2.75	45.856	3.03	2.05	12	Cloudburst		126,105	1
	1/17/2017 1:15	1/17/2017 4:00	165	0.49	34.116	1.83	0.22	12	Atlas		16,717	1
	1/19/2017 20:00	1/20/2017 1:30	330	0.99	70.117	2.13	0.45	12	Atlas		69,416	1
	2/24/2017 19:30	2/24/2017 19:30	-	0.35	4.646	0.43	0.30	1	Atlas		1,626	1
	3/1/2017 3:30	3/1/2017 9:15	345	0.98	88.206	1.61	0.46	6	Atlas		86,442	1
	3/6/2017 10:15	3/6/2017 10:15	-	0.20	3.050	1.30	0.08	24	Atlas		610	1
	3/7/2017 8:00	3/7/2017 8:00	-	0.40	6.818	1.62	0.18	12	Atlas		2,727	1
	4/16/2017 13:45	4/16/2017 20:45	420	1.12	8.878	1.34	0.43	24	Atlas		9,943	1
	4/29/2017 2:15	4/29/2017 4:00	105	1.12	64.275	1.38	0.58	6	Atlas		71,988	1
	5/4/2017 20:30	5/5/2017 6:30	540	1.69	32.984	2.50	0.57	24	Atlas		55,743	1
	5/21/2017 3:30	5/21/2017 6:00	150	1.05	44.902	1.07	0.47	12	Atlas		47,147	1
	5/27/2017 14:30	5/27/2017 14:45	15	0.35	48.254	1.96	0.29	1	Atlas		16,889	1
	6/15/2017 3:15	6/15/2017 3:30	15	0.70	67.913	0.55	0.44	3	Atlas		47,539	1
	6/23/2017 15:30	6/23/2017 16:00	30	0.71	46.221	0.99	0.34	6	Atlas		32,817	1
	6/30/2017 21:15	6/30/2017 21:15	-	0.23	41.365	0.34	0.17	1	Atlas		9,514	1
	7/23/2017 2:45	7/23/2017 3:30	45	1.02	15.853	0.61	0.47	12	Atlas		16,170	1
	7/28/2017 9:45	7/28/2017 9:45	-	0.47	20.764	1.46	0.35	1	Atlas		9,759	1
	8/17/2017 15:15	8/18/2017 12:15	1,260	0.34	749.550	0.38	0.19	6	Atlas		254,847	1
	10/7/2017 22:00	10/7/2017 22:30	30	1.73	7.609	0.70	0.65	24	Atlas		13,163	1
	10/8/2017 13:45	10/8/2017 14:15	30	1.73	10.179	1.60	0.65	24	Atlas		17,610	1
	10/10/2017 16:45	10/10/2017 16:45	-	0.59	1.586	2.25	0.31	3	Atlas		936	1
	2/12/2019 4:00	2/12/2019 17:45	825	2.50	50.876	3.85	0.77	48	Atlas		127,189	1
	2/20/2019 3:45	2/20/2019 7:15	210	1.46	72.140	1.42	0.67	6	Atlas		105,325	1
	2/23/2019 18:45	2/23/2019 19:15	30	0.75	14.517	2.07	0.40	6	Atlas		10,888	1
	2/12/2020 18:00	2/12/2020 18:45	45	0.74	17.850	1.18	0.34	12	Atlas		13,209	1
	3/28/2020 23:15	3/28/2020 23:15	-	0.21	18.419	0.39	0.17	1	Atlas		3,868	1
	4/8/2020 22:45	4/8/2020 23:45	60	0.47	43.172	0.48	0.31	3	Atlas		20,291	1
	4/12/2020 16:45	4/13/2020 6:30	825	0.88	226.409	1.41	0.36	12	Atlas		199,240	1
	4/17/2020 18:30	4/17/2020 19:15	45	0.37	7.605	1.29	0.17	12	Atlas		2,814	1
	4/23/2020 8:00	4/23/2020 17:45	585	0.50	95.960	0.87	0.21	12	Atlas		47,980	1
	4/25/2020 17:15	4/26/2020 12:45	1,170	0.46	93.622	0.97	0.17	24	Atlas		43,066	1
	CSO088 Total										88,762,576	240
CSO091	11/14/2011 21:30	11/14/2011 21:45	15	2.22	3.949	0.29	0.72	48	Atlas		8,767	1
	11/20/2011 17:15	11/20/2011 17:15	-	0.96	48	2.83	0.33	24	Atlas		46	1
	11/21/2011 23:45	11/22/2011 9:30	585	1.25	1.586	3.88	0.53	12	Atlas		1,982	1
	11/28/2011 13:30	11/28/2011 20:00	390	3.11	464	3.85	0.97	48	Atlas		1,442	1
	12/4/2011 16:45	12/4/2011 17:00	15	2.92	185	3.05	0.95	48	Atlas		540	1
	12/6/2011 3:30	12/5/2011 17:45	855	2.92	4.178	4.80	0.95	48	Atlas		12,201	1
	12/15/2011 3:45	12/15/2011 7:30	225	0.42	2.988	0.39	0.22	6	Atlas		1,255	1
	12/21/2011 5:00	12/21/2011 6:45	105	0.60	18.847	1.04	0.28	12	Atlas		11,308	1
	12/27/2011 10:45	12/27/2011 11:00	15	0.71	362	1.79	0.28	12	Atlas		257	1
	1/11/2012 4:30	1/11/2012 6:45	135	0.75	4.265	0.44	0.29	6	Atlas		3,199	1
	1/17/2012 11:30	1/17/2012 12:00	30	0.32	5.719	1.15	0.14	12	Atlas		1,830	1
	1/23/2012 2:45	1/23/2012 4:30	105	0.55	38.827	0.86	0.29	3	Atlas		21,355	1
	1/26/2012 5:45	1/26/2012 6:00	15	1.65	20.050	1.20	0.54	48	Atlas		33,082	1
	1/26/2012 19:00	1/26/2012 22:45	225	1.65	16.667	2.13	0.54	48	Atlas		27,501	1
	2/4/2012 9:45	2/4/2012 9:45	-	0.42	200	0.34	0.25	3	Atlas		84	1
	2/22/2012 22:45	2/22/2012 23:00	15	0.14	12.421	0.41	0.10	1	Atlas		1,739	1
	2/29/2012 8:45	2/29/2012 9:00	15	0.58	18.862	0.71	0.27	12	Atlas		10,940	1
	3/8/2012 12:45	3/8/2012 14:45	120	0.79	9.920	1.06	0.37	6	Atlas		7,837	1
	3/15/2012 19:00	3/16/2012 2:30	450	1.06	3.606	1.25	0.47	12	Atlas		3,822	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/17/2012 18:30	3/17/2012 21:45	195	1.03	790	2.25	0.58	1	Atlas		814	1
	3/23/2012 5:00	3/23/2012 22:30	1,050	1.52	50,213	2.56	0.57	24	Atlas		76,323	1
	4/1/2012 8:30	4/1/2012 10:45	135	1.85	39,776	2.02	1.08	6	Cloudburst		73,586	1
	4/16/2012 6:45	4/16/2012 6:45	-	0.14	4,921	0.26	0.09	3	Atlas		689	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.76	60,358	0.89	0.57	1	Atlas		45,872	1
	4/30/2012 18:00	4/30/2012 18:15	15	0.27	66,089	1.06	0.18	3	Atlas		17,844	1
	5/4/2012 23:45	5/5/2012 1:30	105	1.40	43,502	2.17	0.72	6	Atlas		60,903	1
	5/13/2012 1:45	5/13/2012 8:15	390	2.11	20,423	2.03	0.86	12	Atlas		43,093	1
	5/16/2012 18:00	5/16/2012 18:00	-	0.21	1,971	2.33	0.18	1	Atlas		414	1
	5/29/2012 6:30	5/29/2012 9:00	150	2.97	69,626	2.87	17.65	3	Atlas		206,788	1
	5/31/2012 18:30	6/1/2012 1:15	405	1.20	32,641	4.03	0.52	12	Atlas		39,169	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.46	8,648	0.38	0.33	1	Atlas		3,978	1
	7/8/2012 12:45	7/8/2012 13:15	30	0.16	50,063	0.64	0.11	1	Atlas		8,010	1
	7/14/2012 12:30	7/14/2012 14:15	105	0.55	64,904	0.74	0.35	3	Atlas		35,697	1
	7/19/2012 18:15	7/19/2012 18:30	15	0.85	126,098	1.38	0.68	1	Atlas		107,183	1
	7/24/2012 20:00	7/24/2012 20:00	-	0.26	5,312	1.15	0.22	1	Atlas		1,381	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.61	9,038	0.95	0.43	1	Atlas		5,513	1
	8/16/2012 20:15	8/16/2012 22:00	105	0.66	25,277	0.62	0.38	3	Atlas		16,683	1
	8/21/2012 13:45	8/21/2012 14:00	15	0.21	35,862	0.87	0.18	1	Atlas		7,531	1
	9/1/2012 15:00	9/1/2012 17:30	150	0.58	32,419	0.61	0.37	3	Atlas		18,803	1
	9/2/2012 12:00	9/2/2012 21:30	570	0.74	34,036	1.35	0.28	24	Atlas		25,187	1
	9/3/2012 14:15	9/3/2012 14:30	15	0.06	182,167	1.41	0.05	1	Atlas		10,930	1
	9/5/2012 15:30	9/5/2012 16:30	60	0.67	101,470	2.07	0.52	1	Atlas		67,985	1
	9/7/2012 23:30	9/8/2012 6:30	420	1.27	6,493	3.30	0.69	3	Atlas		8,246	1
	9/25/2012 23:45	9/26/2012 1:45	120	0.43	23,049	0.66	0.20	6	Atlas		9,911	1
	9/26/2012 21:00	9/26/2012 23:30	150	1.18	48,786	1.93	0.67	3	Atlas		57,568	1
	10/1/2012 15:00	10/1/2012 18:30	210	0.78	37,913	2.75	0.32	12	Atlas		29,572	1
	10/26/2012 15:00	10/26/2012 15:00	-	0.79	1,359	0.63	0.36	6	Atlas		1,074	1
	12/4/2012 16:00	12/4/2012 18:15	135	0.58	4,867	0.78	0.38	3	Atlas		2,823	1
	12/7/2012 5:30	12/7/2012 8:30	180	1.35	729	1.88	0.57	12	Atlas		984	1
	12/8/2012 5:45	12/8/2012 9:15	210	0.69	91	2.82	0.38	3	Atlas		63	1
	12/9/2012 22:00	12/9/2012 23:00	60	1.13	37,828	3.48	0.53	3	Atlas		42,746	1
	12/15/2012 11:15	12/15/2012 11:15	-	0.19	5,005	1.26	0.11	3	Atlas		951	1
	12/20/2012 6:30	12/20/2012 10:00	210	0.65	8,154	0.82	0.36	6	Atlas		5,300	1
	12/26/2012 5:30	12/26/2012 5:45	15	0.74	2,182	1.22	0.29	12	Atlas		1,615	1
	1/11/2013 5:45	1/11/2013 7:15	90	0.85	3,039	0.85	0.37	6	Atlas		2,583	1
	1/12/2013 20:45	1/13/2013 18:45	1,320	2.32	35,907	3.15	0.89	24	Atlas		83,304	1
	1/28/2013 10:45	1/28/2013 17:00	375	0.06	34,183	0.33	0.04	1	Atlas		2,051	1
	1/30/2013 4:45	1/30/2013 8:00	195	0.89	15,427	1.04	0.44	6	Atlas		13,730	1
	2/22/2013 0:45	2/22/2013 0:45	-	0.42	500	0.78	0.19	12	Atlas		210	1
	2/26/2013 13:45	2/26/2013 15:30	105	0.55	291	0.85	0.21	24	Atlas		160	1
	3/11/2013 4:00	3/11/2013 6:15	135	0.99	576	1.24	0.39	12	Atlas		570	1
	3/17/2013 13:45	3/17/2013 14:45	60	1.79	360	1.72	0.58	48	Atlas		644	1
	3/18/2013 4:15	3/18/2013 5:45	90	1.79	10,758	1.94	0.58	48	Atlas		19,256	1
	3/24/2013 16:00	3/24/2013 16:00	-	0.50	770	1.44	0.18	24	Atlas		385	1
	4/11/2013 6:15	4/11/2013 7:15	60	1.19	10,164	0.45	0.46	24	Atlas		12,095	1
	4/11/2013 22:45	4/11/2013 22:45	-	1.19	92	1.15	0.46	24	Atlas		110	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.63	106,740	1.79	0.52	1	Atlas		67,246	1
	4/19/2013 2:15	4/19/2013 4:00	105	0.93	42,473	1.55	0.51	6	Atlas		39,500	1
	4/24/2013 7:00	4/24/2013 9:00	120	0.72	19,808	1.60	0.41	3	Atlas		14,262	1
	5/5/2013 8:00	5/5/2013 8:00	-	1.50	435	1.31	0.46	24	Atlas		653	1
	5/10/2013 12:45	5/10/2013 12:45	-	1.00	290	2.20	0.44	6	Atlas		290	1
	5/10/2013 23:45	5/10/2013 23:45	-	1.00	12,884	2.50	0.44	6	Atlas		12,884	1
	5/16/2013 10:15	5/16/2013 10:15	-	0.41	1,044	1.46	0.36	1	Atlas		428	1
	5/22/2013 15:45	5/22/2013 15:45	-	0.17	65,494	0.57	0.11	3	Atlas		11,134	1
	5/31/2013 18:15	5/31/2013 18:15	-	0.20	2,935	0.26	0.09	6	Atlas		587	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.34	9,071	0.24	0.16	6	Atlas		3,084	1
	6/17/2013 16:30	6/17/2013 20:45	255	0.99	18,585	1.15	0.51	6	Atlas		18,399	1
	6/21/2013 18:45	6/21/2013 19:30	45	0.44	230,520	1.70	0.33	1	Atlas		101,429	1
	6/23/2013 12:45	6/23/2013 12:45	-	0.26	1,938	1.91	0.18	1	Atlas		504	1
	6/26/2013 3:15	6/26/2013 4:45	90	0.73	38,363	1.54	0.49	3	Atlas		28,005	1
	6/26/2013 16:15	6/26/2013 21:30	315	2.43	109,615	3.77	2.66	1	Atlas		266,364	1
	6/29/2013 19:30	6/29/2013 20:00	30	0.47	48,777	3.81	0.26	3	Atlas		22,925	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.10	154,770	4.06	0.09	1	Atlas		15,477	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/6/2013 1:00	7/6/2013 5:15	255	0.62	18.682	2.03	0.27	12	Atlas		11.583	1
	7/10/2013 12:30	7/10/2013 14:15	105	0.66	148.964	1.94	0.43	1	Atlas		98.316	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.12	100.733	0.86	0.10	1	Atlas		12.088	1
	7/18/2013 16:15	7/18/2013 16:15	-	0.21	33.348	0.35	0.14	3	Atlas		7.003	1
	7/21/2013 19:30	7/21/2013 20:15	45	2.92	3.082	1.99	2.21	3	Atlas		8.999	1
	7/22/2013 7:15	7/22/2013 16:00	525	2.92	35.024	3.14	2.21	3	Atlas		102.270	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.85	86.207	0.87	0.40	1	Atlas		73.276	1
	8/13/2013 3:00	8/13/2013 3:15	15	0.85	1.720	1.16	0.40	1	Atlas		1.462	1
	8/20/2013 18:00	8/20/2013 18:15	15	0.25	143.544	0.25	0.16	1	Atlas		35.886	1
	8/31/2013 19:45	8/31/2013 22:45	180	1.13	27.915	0.75	0.52	6	Atlas		31.544	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.56	122.409	1.69	0.49	1	Atlas		68.549	1
	9/20/2013 19:15	9/21/2013 3:30	495	1.26	19.420	1.19	0.52	12	Atlas		24.469	1
	10/5/2013 12:45	10/6/2013 8:45	1,200	4.59	110.756	4.69	10.90	24	Cloudburst		508.372	1
	10/30/2013 2:45	10/30/2013 5:30	165	1.48	53.995	1.44	0.77	1	Atlas		79.913	1
	10/31/2013 19:45	10/31/2013 21:15	90	0.59	892	1.98	0.23	12	Atlas		526	1
	11/17/2013 5:30	11/17/2013 9:45	255	2.53	80.429	2.26	1.64	6	Cloudburst		203.485	1
	11/17/2013 18:00	11/17/2013 18:15	15	2.53	4.109	2.66	1.64	6	Cloudburst		10.395	1
	12/5/2013 7:00	12/5/2013 10:00	180	0.72	10.721	0.18	0.23	48	Atlas		7.719	1
	12/14/2013 10:30	12/14/2013 10:30	-	0.86	1.382	1.13	0.36	6	Atlas		1.175	1
	12/21/2013 8:00	12/21/2013 11:30	210	2.40	2.378	1.13	0.90	24	Atlas		5.708	1
	12/21/2013 21:30	12/22/2013 0:30	180	2.40	48.484	2.32	0.90	24	Atlas		116.362	1
	1/11/2014 0:15	1/11/2014 4:00	225	0.99	9.847	1.39	0.53	6	Atlas		9.749	1
	2/2/2014 4:45	2/2/2014 4:45	-	0.20	6.115	0.12	0.10	6	Atlas		1.223	1
	2/4/2014 19:30	2/4/2014 23:15	225	0.51	19.125	0.93	0.24	6	Atlas		9.754	1
	2/17/2014 16:00	2/17/2014 16:30	30	0.51	46.092	1.02	0.31	3	Atlas		23.507	1
	3/2/2014 10:15	3/2/2014 10:30	15	0.61	910	0.22	0.23	24	Atlas		555	1
	3/28/2014 4:15	3/28/2014 4:15	-	0.26	927	0.24	0.12	6	Atlas		241	1
	3/29/2014 6:00	3/29/2014 7:15	75	1.00	34.846	0.79	0.46	12	Atlas		34.846	1
	4/3/2014 11:45	4/4/2014 6:30	1,125	2.65	40.000	3.76	0.93	24	Atlas		106.000	1
	4/7/2014 10:15	4/7/2014 15:00	285	0.73	71.482	3.48	0.43	1	Atlas		52.182	1
	4/14/2014 3:15	4/14/2014 3:15	-	0.38	1.218	0.85	0.19	6	Atlas		463	1
	4/14/2014 19:45	4/15/2014 0:00	255	0.63	4.835	0.82	0.29	12	Atlas		3.046	1
	4/28/2014 3:45	4/28/2014 6:30	165	1.77	99.463	1.36	0.71	3	Atlas		176.049	1
	4/28/2014 17:15	4/28/2014 19:30	135	1.77	5.841	1.82	0.71	3	Atlas		10.339	1
	5/9/2014 19:00	5/10/2014 14:45	1,185	1.60	52.863	1.52	0.58	24	Atlas		84.581	1
	5/14/2014 6:45	5/14/2014 18:00	675	1.11	26.712	2.37	0.43	24	Atlas		29.650	1
	5/22/2014 2:30	5/22/2014 3:00	30	0.45	9.258	0.41	0.23	1	Atlas		4.166	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.21	78.814	0.67	0.17	1	Atlas		16.551	1
	5/29/2014 20:45	5/29/2014 21:15	30	0.85	85.478	1.06	0.70	1	Atlas		72.656	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.11	10.000	0.30	0.06	1	Atlas		1.100	1
	6/20/2014 17:30	6/20/2014 17:30	-	0.24	3.100	0.24	0.16	3	Atlas		744	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.24	63.779	0.47	0.17	1	Atlas		15.307	1
	7/2/2014 16:15	7/2/2014 16:30	15	0.11	9.373	0.36	0.10	1	Atlas		1.031	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.80	15.704	1.06	0.70	1	Atlas		12.563	1
	7/13/2014 22:15	7/13/2014 23:00	45	0.76	31.400	1.81	0.40	3	Atlas		23.864	1
	7/14/2014 20:00	7/14/2014 20:00	-	0.13	10.677	1.32	0.10	1	Atlas		1.388	1
	7/26/2014 21:30	7/26/2014 21:45	15	1.19	56.200	0.44	0.54	12	Atlas		66.878	1
	7/27/2014 6:30	7/27/2014 7:15	45	1.19	2.968	0.98	0.54	12	Atlas		3.532	1
	8/8/2014 5:30	8/8/2014 7:15	105	0.98	61.257	0.74	0.45	6	Atlas		60.032	1
	8/10/2014 3:45	8/10/2014 4:00	15	0.41	5.000	1.37	0.34	1	Atlas		2.050	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.44	107.564	1.85	0.35	1	Atlas		47.328	1
	8/17/2014 9:30	8/17/2014 10:00	30	0.71	1.586	1.02	0.27	24	Atlas		1.126	1
	8/22/2014 19:00	8/22/2014 19:15	15	0.42	62.321	1.10	0.30	1	Atlas		26.175	1
	8/23/2014 15:45	8/23/2014 20:15	270	0.59	25.490	1.54	0.27	12	Atlas		15.039	1
	8/27/2014 16:45	8/27/2014 17:15	30	0.26	7.423	1.30	0.17	3	Atlas		1.930	1
	8/30/2014 15:00	8/30/2014 15:15	15	0.53	113.066	1.16	0.32	1	Atlas		59.925	1
	9/2/2014 8:15	9/2/2014 8:15	-	0.36	2.342	1.03	0.22	3	Atlas		843	1
	9/11/2014 0:30	9/11/2014 5:45	315	1.92	83.396	1.86	1.43	3	Atlas		160.120	1
	10/6/2014 9:30	10/6/2014 9:30	-	0.31	45.074	0.46	0.18	1	Atlas		13.973	1
	10/7/2014 11:45	10/7/2014 11:45	-	0.16	11.313	0.67	0.14	1	Atlas		1.810	1
	10/10/2014 1:45	10/10/2014 2:45	60	0.93	37.623	1.24	0.39	3	Atlas		34.989	1
	10/13/2014 5:00	10/13/2014 5:00	-	0.42	6.433	1.69	0.27	3	Atlas		2.702	1
	10/13/2014 23:15	10/14/2014 8:15	540	1.10	89.983	2.54	0.49	12	Atlas		98.981	1
	11/23/2014 17:15	11/23/2014 18:00	45	0.71	7.461	0.88	0.33	6	Atlas		5.297	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/1/2014 3:00	12/1/2014 4:30	90	0.79	2,505	0.36	0.30	24	Atlas		1,979	1
	12/5/2014 23:00	12/6/2014 6:30	450	1.84	7,819	2.62	0.59	48	Atlas		14,387	1
	12/16/2014 5:00	12/16/2014 5:00	-	0.10	5,610	0.10	0.07	1	Atlas		561	1
	12/28/2014 0:45	12/28/2014 1:00	15	0.30	5,030	0.67	0.12	1	Atlas		1,509	1
	3/3/2015 23:30	3/4/2015 5:15	345	1.61	3,319	0.71	0.52	48	Atlas		5,343	1
	3/10/2015 10:45	3/10/2015 14:00	195	1.26	17,382	2.83	0.57	12	Atlas		21,901	1
	3/13/2015 14:45	3/13/2015 14:45	-	1.67	17	1.81	0.63	24	Atlas		28	1
	3/14/2015 0:30	3/14/2015 4:00	210	1.67	4,815	2.87	0.63	24	Atlas		8,041	1
	3/26/2015 4:30	3/26/2015 4:45	15	0.42	2,224	0.49	0.17	12	Atlas		934	1
	4/2/2015 10:45	4/2/2015 15:30	285	5.12	21,219	0.97	13.81	6	Cloudburst		108,643	1
	4/3/2015 0:15	4/3/2015 17:00	1,005	5.12	135,695	5.13	13.81	6	Cloudburst		694,759	1
	4/7/2015 9:15	4/7/2015 17:30	495	0.78	60,664	5.91	0.33	12	Atlas		47,318	1
	4/8/2015 18:15	4/8/2015 18:30	15	0.16	171,531	6.06	0.09	3	Atlas		27,445	1
	4/9/2015 11:30	4/9/2015 12:00	30	0.25	65,636	5.95	0.22	1	Atlas		16,409	1
	4/10/2015 2:15	4/10/2015 2:30	15	0.14	89,529	3.56	0.09	3	Atlas		12,534	1
	4/13/2015 20:30	4/13/2015 21:00	30	0.38	15,200	1.41	0.16	6	Atlas		5,776	1
	4/19/2015 14:15	4/19/2015 14:30	15	0.75	29,311	1.14	0.31	12	Atlas		21,983	1
	4/25/2015 9:15	4/25/2015 9:15	-	0.12	933	0.94	0.06	6	Atlas		112	1
	5/17/2015 14:15	5/17/2015 14:30	15	0.10	22,270	0.50	0.06	1	Atlas		2,227	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.24	267,646	0.42	0.16	1	Atlas		64,235	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.14	4,343	0.61	0.12	1	Atlas		608	1
	6/17/2015 4:45	6/17/2015 6:15	90	0.60	54,850	0.64	0.33	3	Atlas		32,910	1
	6/18/2015 16:15	6/18/2015 17:45	90	1.84	62,842	1.54	0.60	48	Atlas		115,630	1
	6/20/2015 1:30	6/20/2015 8:15	405	1.84	14,577	2.62	0.60	48	Atlas		26,821	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.62	54,826	1.59	0.34	6	Atlas		33,992	1
	6/26/2015 17:00	6/27/2015 0:30	450	0.81	26,337	2.52	0.38	1	Atlas		21,333	1
	6/29/2015 13:30	6/29/2015 13:30	-	0.18	9,461	1.60	0.11	1	Atlas		1,703	1
	7/2/2015 0:15	7/2/2015 1:45	90	0.87	1,832	2.25	0.40	3	Atlas		1,594	1
	7/2/2015 14:15	7/2/2015 21:00	405	0.87	40,851	2.55	0.40	3	Atlas		35,540	1
	7/3/2015 14:45	7/3/2015 19:00	255	0.35	85,369	2.27	0.21	1	Atlas		29,879	1
	7/7/2015 11:30	7/7/2015 16:30	300	0.75	28,680	2.01	0.38	6	Atlas		21,510	1
	7/9/2015 5:15	7/9/2015 7:30	135	0.28	5,611	1.64	0.17	3	Atlas		1,571	1
	7/10/2015 16:15	7/10/2015 16:15	-	0.39	3,300	1.59	0.19	6	Atlas		1,287	1
	7/12/2015 6:00	7/12/2015 7:45	105	0.84	154,379	2.33	0.55	3	Atlas		129,678	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.32	46,906	2.66	0.27	1	Atlas		15,010	1
	7/14/2015 4:15	7/14/2015 4:45	30	0.56	113,770	3.19	0.37	3	Atlas		63,711	1
	7/17/2015 22:30	7/18/2015 1:15	165	0.87	122,499	2.61	0.58	3	Atlas		106,574	1
	7/29/2015 17:30	7/29/2015 17:30	-	0.08	23,450	0.14	0.07	1	Atlas		1,876	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.11	20,018	0.16	0.09	1	Atlas		2,202	1
	8/5/2015 15:00	8/5/2015 15:15	15	0.91	2,044	0.29	0.33	24	Atlas		1,860	1
	8/6/2015 2:15	8/6/2015 15:15	780	0.91	22,859	1.02	0.33	24	Atlas		20,802	1
	8/19/2015 7:45	8/19/2015 8:30	45	0.57	73,568	0.38	0.24	1	Atlas		41,934	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.57	10,961	0.61	0.24	1	Atlas		6,248	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.21	32,857	0.38	0.16	1	Atlas		6,900	1
	9/11/2015 18:30	9/11/2015 18:30	-	0.20	4,030	0.69	0.14	1	Atlas		806	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.25	5,740	0.33	0.17	3	Atlas		1,435	1
	10/27/2015 17:00	10/28/2015 6:00	780	2.55	12,792	2.74	0.83	24	Atlas		32,619	1
	CSO091 Total										6,438,227	194
CSO092	1/5/2014 14:30	1/5/2014 19:15	285	0.48	1,808	0.68	0.24	6	Atlas		868	1
	1/11/2014 0:00	1/11/2014 5:00	300	0.99	5,566	1.47	0.53	6	Atlas		5,510	1
	2/2/2014 2:45	2/2/2014 7:00	255	0.20	1,980	0.19	0.10	6	Atlas		396	1
	2/4/2014 18:00	2/5/2014 1:45	465	0.51	27,033	0.96	0.24	6	Atlas		13,787	1
	2/17/2014 15:15	2/17/2014 17:15	120	0.51	7,824	1.05	0.31	3	Atlas		3,990	1
	3/2/2014 9:15	3/2/2014 11:30	135	0.61	6,666	0.32	0.23	24	Atlas		4,066	1
	3/12/2014 7:00	3/12/2014 7:15	15	0.08	2,350	0.07	0.04	1	Atlas		188	1
	3/19/2014 7:45	3/19/2014 8:30	45	0.13	354	0.21	0.10	1	Atlas		46	1
	3/28/2014 4:15	3/28/2014 5:30	75	0.26	4,977	0.31	0.12	6	Atlas		1,294	1
	3/29/2014 6:00	3/29/2014 12:00	360	1.00	6,162	1.20	0.46	12	Atlas		6,162	1
	4/3/2014 11:45	4/4/2014 8:00	1,215	2.65	9,942	4.02	0.93	24	Atlas		26,347	1
	4/7/2014 9:00	4/7/2014 12:00	180	0.73	10,512	3.47	0.43	1	Atlas		7,674	1
	4/14/2014 3:15	4/14/2014 3:15	-	0.38	1,726	0.85	0.19	6	Atlas		656	1
	4/14/2014 19:45	4/15/2014 0:00	255	0.63	2,581	0.82	0.29	12	Atlas		1,626	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/27/2014 20:30	4/28/2014 7:00	630	1.77	14.366	1.40	0.71	3	Atlas		25,427	1
	4/28/2014 17:30	4/28/2014 17:45	15	1.77	596	1.76	0.71	3	Atlas		1,055	1
	5/9/2014 19:15	5/10/2014 15:15	1,200	1.60	19.128	1.57	0.58	24	Atlas		30,605	1
	5/14/2014 7:00	5/15/2014 0:45	1,065	1.11	11.320	2.76	0.43	24	Atlas		12,565	1
	5/21/2014 21:00	5/22/2014 3:30	390	0.45	15.587	0.58	0.23	1	Atlas		7,014	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.21	2.448	0.67	0.17	1	Atlas		514	1
	5/29/2014 20:45	5/29/2014 21:30	45	0.85	22.561	1.07	0.70	1	Atlas		19,177	1
	5/30/2014 14:00	5/30/2014 14:00	-	0.17	1.306	1.25	0.11	3	Atlas		222	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.11	13.464	0.30	0.06	1	Atlas		1,481	1
	6/20/2014 16:00	6/20/2014 17:30	90	0.24	7.450	0.24	0.16	3	Atlas		1,788	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.24	9.908	0.47	0.17	1	Atlas		2,378	1
	7/2/2014 16:15	7/2/2014 16:15	-	0.11	7.991	0.34	0.10	1	Atlas		879	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.80	8.638	1.06	0.70	1	Atlas		6,910	1
	7/13/2014 22:15	7/13/2014 23:00	45	0.76	5.361	1.81	0.40	3	Atlas		4,074	1
	7/14/2014 20:00	7/14/2014 20:00	-	0.13	1.062	1.32	0.10	1	Atlas		138	1
	8/8/2014 5:30	8/8/2014 8:00	150	0.98	9.801	0.76	0.45	6	Atlas		9,605	1
	8/10/2014 3:45	8/10/2014 4:15	30	0.41	3.432	1.45	0.34	1	Atlas		1,407	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.44	20.480	1.85	0.35	1	Atlas		9,011	1
	8/17/2014 9:30	8/17/2014 10:30	60	0.71	3.189	1.04	0.27	24	Atlas		2,264	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.42	14.024	1.10	0.30	1	Atlas		5,890	1
	8/23/2014 20:00	8/23/2014 21:30	90	0.59	6.254	1.63	0.27	12	Atlas		3,690	1
	8/27/2014 15:00	8/27/2014 17:30	150	0.26	18.496	1.34	0.17	3	Atlas		4,809	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.53	55.055	1.16	0.32	1	Atlas		29,179	1
	9/2/2014 8:15	9/2/2014 8:30	15	0.36	117	1.06	0.22	3	Atlas		42	1
	9/11/2014 0:45	9/11/2014 6:00	315	1.92	16.335	1.87	1.43	3	Atlas		31,363	1
	10/7/2014 11:45	10/7/2014 12:00	15	0.16	6.638	0.67	0.14	1	Atlas		1,062	1
	10/10/2014 1:45	10/10/2014 5:30	225	0.93	9.117	1.29	0.39	3	Atlas		8,479	1
	10/13/2014 4:30	10/13/2014 13:30	540	0.42	5.357	1.85	0.27	3	Atlas		2,250	1
	10/13/2014 23:30	10/14/2014 10:00	630	1.10	6.994	2.64	0.49	12	Atlas		7,693	1
	10/15/2014 17:30	10/15/2014 22:30	300	0.16	531	2.64	0.07	12	Atlas		85	1
	10/20/2014 20:00	10/20/2014 20:30	30	0.04	725	1.36	0.03	1	Atlas		29	1
	11/17/2014 2:15	11/18/2014 8:15	1,800	0.38	955	0.44	0.15	12	Atlas		363	1
	11/23/2014 14:30	11/23/2014 23:15	525	0.71	4.594	1.10	0.33	6	Atlas		3,262	1
	12/1/2014 3:15	12/1/2014 16:45	810	0.79	3.753	0.75	0.30	24	Atlas		2,965	1
	12/5/2014 4:30	12/6/2014 7:30	1,620	1.84	7.217	2.62	0.59	48	Atlas		13,279	1
	12/16/2014 5:15	12/16/2014 5:15	-	0.10	5.110	0.11	0.07	1	Atlas		511	1
	12/22/2014 23:30	12/23/2014 0:30	60	0.21	514	0.31	0.13	3	Atlas		108	1
	12/23/2014 20:00	12/23/2014 20:30	30	0.05	3.280	0.26	0.03	3	Atlas		164	1
	12/24/2014 13:30	12/24/2014 14:30	60	0.13	300	0.38	0.07	3	Atlas		39	1
	12/27/2014 17:15	12/28/2014 2:00	525	0.30	3.450	0.70	0.12	1	Atlas		1,035	1
	1/3/2015 10:45	1/3/2015 10:45	-	0.32	491	0.38	0.12	24	Atlas		157	1
	1/4/2015 3:15	1/4/2015 3:15	-	0.32	4.047	0.32	0.12	24	Atlas		1,295	1
	11/6/2015 3:15	11/6/2015 4:00	45	0.75	1.560	0.77	0.45	3	Atlas		1,170	1
	11/11/2015 23:45	11/12/2015 1:00	75	0.29	4.869	1.52	0.18	3	Atlas		1,412	1
	11/30/2015 23:15	12/1/2015 4:15	300	0.69	3.187	1.58	0.31	12	Atlas		2,199	1
	12/22/2015 3:00	12/22/2015 3:45	45	0.55	3.978	0.72	0.29	6	Atlas		2,188	1
	12/26/2015 13:45	12/26/2015 17:30	225	0.28	1.486	1.93	0.13	12	Atlas		416	1
	12/27/2015 11:00	12/27/2015 13:15	135	2.02	1.994	3.06	0.67	3	Atlas		4,027	1
	1/9/2016 18:15	1/9/2016 22:00	225	0.19	774	0.25	0.08	12	Atlas		147	1
	2/2/2016 14:30	2/3/2016 1:15	645	1.24	2.315	1.30	0.57	6	Atlas		2,870	1
	2/8/2016 10:15	2/9/2016 1:30	915	0.11	18.155	1.35	0.04	24	Atlas		1,997	1
	2/21/2016 4:00	2/21/2016 10:30	390	1.06	2.749	1.23	0.49	12	Atlas		2,914	1
	2/23/2016 22:15	2/25/2016 1:00	1,605	2.02	6.016	3.07	0.78	12	Atlas		12,153	1
	3/1/2016 11:45	3/1/2016 15:30	225	0.29	7.755	2.32	0.17	3	Atlas		2,249	1
	3/19/2016 9:15	3/19/2016 20:15	660	0.16	107.013	1.14	0.10	1	Atlas		17,122	1
	3/24/2016 17:30	3/24/2016 18:30	60	0.61	2.054	0.76	0.48	1	Atlas		1,253	1
	3/27/2016 21:15	3/27/2016 21:30	15	0.81	12.217	1.34	0.55	1	Atlas		9,896	1
	3/31/2016 2:30	4/1/2016 11:15	1,965	1.07	57.518	2.49	0.41	24	Atlas		61,544	1
	4/11/2016 16:45	4/11/2016 17:45	60	0.85	1.256	0.76	0.41	6	Atlas		1,068	1
	4/21/2016 14:15	4/21/2016 14:15	-	0.30	4.460	0.12	0.11	3	Atlas		1,338	1
	4/27/2016 21:00	4/27/2016 22:30	90	0.55	3.909	1.16	0.26	1	Atlas		2,150	1
	4/30/2016 8:45	4/30/2016 13:15	270	0.47	2.349	1.22	0.17	6	Atlas		1,104	1
	4/30/2016 23:00	5/1/2016 16:00	1,020	0.47	5.487	1.66	0.17	6	Atlas		2,579	1
	5/4/2016 11:15	5/4/2016 13:15	120	0.20	2.435	1.52	0.12	1	Atlas		487	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/7/2016 16:15	5/7/2016 21:45	330	0.63	1,181	1.25	0.33	6	Atlas		744	1
	5/10/2016 8:30	5/10/2016 21:45	795	0.85	916	1.72	0.32	24	Atlas		779	1
	5/20/2016 14:30	5/20/2016 15:30	60	0.63	922	1.27	0.35	3	Atlas		581	1
	6/2/2016 15:15	6/2/2016 15:15	-	0.47	1,119	0.46	0.39	1	Atlas		526	1
	6/23/2016 15:45	6/24/2016 1:45	600	1.62	4,899	1.76	0.87	6	Atlas		7,936	1
	7/6/2016 13:00	7/6/2016 13:00	-	0.12	675	1.22	0.09	1	Atlas		81	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.54	204	0.60	0.46	1	Atlas		110	1
	4/29/2017 1:45	4/29/2017 2:30	45	0.97	721	1.10	0.52	3	Atlas		699	1
	5/20/2017 18:30	5/20/2017 18:30	-	1.11	379	0.33	0.49	12	Atlas		421	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.06	9,017	0.06	0.03	12	Atlas		541	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.32	1,875	0.37	0.28	1	Atlas		600	1
	6/15/2017 3:00	6/15/2017 3:00	-	0.93	373	0.64	0.61	1	Atlas		347	1
	6/23/2017 15:15	6/23/2017 15:45	30	0.78	394	1.00	0.38	6	Atlas		307	1
	7/23/2017 2:30	7/23/2017 6:30	240	1.19	1,217	0.84	0.55	12	Atlas		1,448	1
	10/7/2017 21:30	10/7/2017 21:45	15	1.76	450	0.50	0.67	24	Atlas		792	1
	10/8/2017 13:45	10/8/2017 13:45	-	1.76	16	1.54	0.67	24	Atlas		29	1
	11/6/2017 1:45	11/6/2017 1:45	-	0.22	4,455	1.94	0.13	1	Atlas		980	1
	12/5/2017 3:45	12/5/2017 3:45	-	0.65	49	0.38	0.37	3	Atlas		32	1
	2/24/2018 18:45	2/25/2018 0:45	360	1.67	667	4.27	0.69	12	Atlas		1,114	1
	5/5/2018 14:00	5/5/2018 14:45	45	1.28	990	0.63	0.49	12	Atlas		1,267	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.88	519	1.18	0.36	12	Atlas		457	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.64	1,061	1.54	0.28	12	Atlas		679	1
	7/2/2018 17:45	7/2/2018 17:45	-	0.58	26,950	1.14	0.46	1	Atlas		15,631	1
	7/3/2018 15:30	7/3/2018 15:30	-	0.46	1,335	1.17	0.29	1	Atlas		614	1
	7/20/2018 20:45	7/20/2018 21:00	15	1.06	9,172	1.28	0.51	3	Atlas		9,722	1
	7/30/2018 23:45	7/31/2018 7:00	435	2.03	159	1.87	0.82	6	Atlas		323	1
	8/16/2018 3:15	8/16/2018 8:30	315	2.56	389	2.41	0.98	24	Atlas		996	1
	8/19/2018 20:00	8/19/2018 20:45	45	0.78	1,181	3.31	0.52	3	Atlas		921	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.26	4,808	0.58	0.17	1	Atlas		1,250	1
	9/8/2018 19:30	9/8/2018 20:15	45	2.34	64,445	2.24	0.95	6	Atlas		150,802	1
	9/21/2018 17:30	9/21/2018 23:15	345	0.25	49,308	0.34	0.18	1	Atlas		12,327	1
	9/24/2018 10:45	9/24/2018 10:45	-	1.44	38	2.79	0.66	6	Atlas		54	1
	9/25/2018 16:30	9/25/2018 16:30	-	0.71	45	3.27	0.32	12	Atlas		32	1
	11/1/2018 0:45	11/1/2018 0:45	-	1.60	18	1.33	0.57	24	Atlas		29	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.34	344	0.53	0.19	1	Atlas		117	1
	4/7/2019 11:45	4/7/2019 11:45	-	0.49	218	0.52	0.25	3	Atlas		107	1
	4/18/2019 21:15	4/18/2019 21:15	-	3.06	119	1.30	0.99	48	Atlas		364	1
	4/23/2019 17:45	4/23/2019 18:00	15	0.34	41,265	3.40	0.30	1	Atlas		14,030	1
	5/26/2019 13:45	5/26/2019 13:45	-	0.50	1,740	0.54	0.31	3	Atlas		870	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.80	288	0.91	0.58	1	Atlas		230	1
	6/16/2019 17:30	6/16/2019 20:45	195	1.43	2,953	1.38	0.65	12	Atlas		4,223	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.46	2,048	3.12	0.37	1	Atlas		942	1
	10/30/2019 14:15	10/30/2019 14:15	-	0.83	67	1.80	0.41	3	Atlas		56	1
	1/11/2020 11:00	1/11/2020 11:00	-	0.79	400	0.59	0.38	6	Atlas		316	1
	2/10/2020 17:30	2/10/2020 18:30	60	0.20	4,650	0.75	0.09	12	Atlas		930	1
	2/12/2020 17:30	2/12/2020 18:30	60	0.87	332	1.18	0.40	3	Atlas		289	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.37	1,400	0.38	0.17	12	Atlas		518	1
	3/12/2020 15:45	3/12/2020 22:45	420	0.59	4,868	0.95	0.27	12	Atlas		2,872	1
	3/18/2020 15:45	3/18/2020 18:00	135	0.40	1,250	1.41	0.19	6	Atlas		500	1
	3/19/2020 12:00	3/19/2020 19:00	420	0.32	8,684	1.76	0.16	1	Atlas		2,779	1
	3/20/2020 3:45	3/20/2020 4:30	45	0.13	2,546	1.29	0.10	1	Atlas		331	1
	3/24/2020 18:30	3/24/2020 19:45	75	0.14	5,171	0.99	0.08	6	Atlas		724	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.30	42,937	0.46	0.25	1	Atlas		12,881	1
	4/8/2020 22:15	4/8/2020 22:30	15	0.53	940	0.35	0.35	3	Atlas		498	1
	4/12/2020 14:15	4/13/2020 3:15	780	0.89	1,328	1.41	0.35	12	Atlas		1,182	1
	4/26/2020 6:45	4/26/2020 6:45	-	0.53	98	0.97	0.19	24	Atlas		52	1
	4/29/2020 5:30	4/29/2020 7:00	90	0.11	518	1.10	0.04	24	Atlas		57	1
	5/15/2020 23:45	5/16/2020 7:30	465	1.39	673	1.53	0.53	24	Atlas		936	1
	5/18/2020 7:30	5/18/2020 7:30	-	0.34	406	1.86	0.14	12	Atlas		138	1
	6/21/2020 11:30	6/21/2020 11:30	-	0.55	329	0.36	0.31	1	Atlas		181	1
	6/22/2020 23:15	6/22/2020 23:15	-	0.75	77	1.13	0.36	6	Atlas		58	1
	6/29/2020 3:15	6/29/2020 4:00	45	0.87	1,589	1.76	0.56	3	Atlas		1,382	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
CSO092 Total											**719,890**	**140**
CSO093	12/20/2011 23:15	12/21/2011 7:15	480	0.62	34.781	1.15	0.28	12	Atlas		21.564	1
	12/22/2011 11:15	12/22/2011 17:45	390	0.59	46.836	1.22	0.26	12	Atlas		27.633	1
	12/27/2011 2:15	12/27/2011 11:45	570	0.71	31.563	1.89	0.28	12	Atlas		22.410	1
	1/11/2012 4:30	1/11/2012 11:15	405	0.78	38.177	0.66	0.31	6	Atlas		29.778	1
	1/11/2012 19:45	1/11/2012 21:15	90	0.78	3.768	0.80	0.31	6	Atlas		2.939	1
	1/12/2012 12:45	1/12/2012 12:45	-	0.08	5.200	0.85	0.04	3	Atlas		416	1
	1/17/2012 2:15	1/17/2012 12:30	615	0.40	30.085	1.28	0.18	12	Atlas		12.034	1
	1/22/2012 22:30	1/23/2012 4:45	375	0.70	79.780	1.09	0.35	3	Atlas		55.846	1
	1/25/2012 15:30	1/25/2012 19:15	225	1.86	3.790	1.00	0.60	48	Atlas		7.049	1
	1/26/2012 5:00	1/26/2012 6:45	105	1.86	16.835	1.49	0.60	48	Atlas		31.314	1
	1/26/2012 17:15	1/27/2012 1:00	465	1.86	29.113	2.56	0.60	48	Atlas		54.150	1
	2/4/2012 8:45	2/4/2012 11:45	180	0.37	21.376	0.42	0.21	3	Atlas		7.909	1
	2/15/2012 23:30	2/16/2012 8:15	525	0.34	9.038	0.57	0.14	12	Atlas		3.073	1
	2/22/2012 22:45	2/22/2012 23:15	30	0.17	21.965	0.45	0.12	1	Atlas		3.734	1
	2/29/2012 4:00	2/29/2012 9:00	300	0.58	18.950	0.69	0.27	12	Atlas		10.991	1
	3/4/2012 23:00	3/5/2012 4:30	330	0.21	12.371	0.90	0.11	6	Atlas		2.598	1
	3/8/2012 9:45	3/8/2012 17:15	450	0.80	39.546	1.08	0.38	6	Atlas		31.637	1
	3/12/2012 4:00	3/12/2012 13:00	540	0.18	416.956	0.98	0.08	12	Atlas		75.052	1
	3/15/2012 18:30	3/16/2012 3:15	525	0.96	25.914	1.18	0.42	12	Atlas		24.877	1
	3/17/2012 18:30	3/17/2012 22:15	225	1.03	21.795	2.15	0.64	1	Atlas		22.449	1
	3/23/2012 4:45	3/23/2012 22:45	1,080	1.58	66.004	2.61	0.60	24	Atlas		104.286	1
	3/28/2012 14:15	3/28/2012 14:30	15	0.05	34.140	1.63	0.04	1	Atlas		1.707	1
	3/30/2012 23:30	3/31/2012 0:15	45	0.16	28.219	0.20	0.10	3	Atlas		4.515	1
	4/1/2012 7:15	4/1/2012 11:15	240	1.52	117.484	1.71	0.82	6	Atlas		178.576	1
	4/4/2012 16:00	4/4/2012 17:30	90	0.24	26.608	1.85	0.11	12	Atlas		6.386	1
	4/14/2012 9:00	4/14/2012 9:00	-	0.24	3.721	0.09	0.13	6	Atlas		893	1
	4/16/2012 6:45	4/16/2012 7:00	15	0.16	12.588	0.31	0.10	3	Atlas		2.014	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.74	36.149	0.87	0.54	1	Atlas		26.750	1
	4/30/2012 18:00	4/30/2012 19:00	60	0.49	8.510	1.27	0.33	3	Atlas		4.170	1
	5/4/2012 23:30	5/5/2012 4:45	315	1.40	113.802	2.65	0.75	3	Atlas		159.323	1
	5/13/2012 0:00	5/13/2012 14:15	855	1.95	51.635	1.99	0.78	12	Atlas		100.689	1
	5/16/2012 17:45	5/16/2012 18:15	30	0.23	405.578	2.18	0.19	1	Atlas		93.283	1
	5/29/2012 6:30	5/29/2012 9:30	180	2.39	95.581	2.31	5.69	3	Atlas		228.438	1
	5/31/2012 18:15	6/1/2012 5:15	660	1.18	50.255	3.49	0.50	12	Atlas		59.301	1
	6/4/2012 16:30	6/4/2012 17:30	60	0.22	5.700	3.75	0.10	12	Atlas		1.254	1
	6/17/2012 11:30	6/17/2012 12:00	30	0.52	12.004	0.47	0.32	3	Atlas		6.242	1
	7/1/2012 19:45	7/1/2012 20:15	30	0.40	9.260	0.33	0.29	1	Atlas		3.704	1
	7/8/2012 13:15	7/8/2012 13:30	15	0.15	17.093	0.55	0.10	1	Atlas		2.564	1
	7/14/2012 12:00	7/14/2012 14:45	165	0.61	65.987	0.75	0.38	3	Atlas		40.252	1
	7/19/2012 18:15	7/19/2012 19:00	45	0.88	110.080	1.47	0.72	1	Atlas		96.870	1
	7/24/2012 19:45	7/24/2012 20:15	30	0.15	29.333	1.04	0.12	1	Atlas		4.400	1
	7/26/2012 21:30	7/26/2012 21:45	15	0.18	5.639	0.26	0.08	12	Atlas		1.015	1
	7/27/2012 19:45	7/27/2012 21:00	75	0.62	103.184	0.95	0.41	3	Atlas		63.974	1
	8/3/2012 8:00	8/3/2012 10:30	150	0.21	23.943	0.84	0.10	3	Atlas		5.028	1
	8/13/2012 11:45	8/13/2012 11:45	-	0.10	6.970	0.09	0.07	3	Atlas		697	1
	8/16/2012 20:00	8/16/2012 23:30	210	0.59	31.815	0.70	0.34	3	Atlas		18.771	1
	8/21/2012 13:45	8/21/2012 14:00	15	0.19	15.516	0.79	0.17	1	Atlas		2.948	1
	9/1/2012 15:00	9/1/2012 17:45	165	0.38	22.937	0.41	0.23	3	Atlas		8.716	1
	9/2/2012 11:45	9/2/2012 22:00	615	0.68	41.337	1.08	0.26	24	Atlas		28.109	1
	9/3/2012 14:15	9/3/2012 14:45	30	0.11	51.964	1.19	0.10	1	Atlas		5.716	1
	9/5/2012 15:15	9/5/2012 16:45	90	0.82	46.434	2.00	0.65	1	Atlas		38.076	1
	9/7/2012 23:00	9/8/2012 6:45	465	1.31	15.108	3.28	0.73	3	Atlas		19.791	1
	9/25/2012 9:00	9/25/2012 10:15	75	0.43	12.770	0.37	0.24	3	Atlas		5.491	1
	9/25/2012 23:30	9/26/2012 5:30	360	0.44	27.552	0.83	0.20	6	Atlas		12.123	1
	9/26/2012 19:45	9/27/2012 1:15	330	1.46	32.510	2.31	0.78	6	Atlas		47.465	1
	10/1/2012 14:30	10/1/2012 19:00	270	0.75	30.319	3.00	0.30	12	Atlas		22.739	1
	10/6/2012 0:00	10/6/2012 0:45	45	0.11	38.036	0.85	0.06	6	Atlas		4.184	1
	10/14/2012 18:45	10/14/2012 18:45	-	0.19	3.984	0.19	0.14	1	Atlas		757	1
	10/18/2012 0:45	10/18/2012 2:00	75	0.25	26.732	0.45	0.17	3	Atlas		6.683	1
	10/26/2012 11:00	10/26/2012 23:00	720	0.76	18.328	0.78	0.34	6	Atlas		13.929	1
	11/3/2012 16:15	11/3/2012 16:15	-	0.17	4.676	0.19	0.08	12	Atlas		795	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/12/2012 5:00	11/12/2012 10:00	300	0.47	23,377	0.47	0.22	12	Atlas		10,987	1
	12/2/2012 11:00	12/2/2012 12:45	105	0.20	19,915	0.27	0.12	3	Atlas		3,983	1
	12/4/2012 15:00	12/4/2012 18:30	210	0.56	15,452	0.76	0.35	3	Atlas		8,653	1
	12/7/2012 2:00	12/7/2012 17:45	945	1.11	15,021	1.87	0.47	6	Atlas		16,673	1
	12/8/2012 5:30	12/8/2012 9:15	225	0.45	7,358	2.32	0.25	6	Atlas		3,311	1
	12/9/2012 8:30	12/9/2012 8:45	15	1.14	928	2.37	0.55	3	Atlas		1,058	1
	12/9/2012 20:45	12/10/2012 0:30	225	1.14	44,615	3.12	0.55	3	Atlas		50,861	1
	12/15/2012 11:00	12/15/2012 12:00	60	0.19	34,205	1.32	0.11	3	Atlas		6,499	1
	12/17/2012 16:45	12/17/2012 17:00	15	0.21	5,729	0.40	0.10	6	Atlas		1,203	1
	12/20/2012 6:30	12/20/2012 12:30	360	0.75	27,916	1.10	0.38	6	Atlas		20,937	1
	12/26/2012 1:00	12/26/2012 13:15	735	0.71	39,849	1.48	0.28	12	Atlas		28,293	1
	12/31/2012 23:30	12/31/2012 23:45	15	0.11	3,745	0.86	0.04	24	Atlas		412	1
	1/10/2013 12:45	1/10/2013 14:45	120	0.74	4,091	0.16	0.31	6	Atlas		3,027	1
	1/11/2013 2:00	1/11/2013 7:30	330	0.74	13,488	0.74	0.31	6	Atlas		9,981	1
	1/12/2013 20:30	1/13/2013 19:30	1,380	2.21	31,417	2.95	0.85	24	Atlas		69,431	1
	1/28/2013 10:45	1/28/2013 17:00	375	0.06	29,917	0.28	0.04	1	Atlas		1,795	1
	1/30/2013 4:30	1/30/2013 9:00	270	0.94	32,324	1.13	0.46	6	Atlas		30,385	1
	1/30/2013 17:30	1/30/2013 17:30	-	0.94	1,563	1.22	0.46	6	Atlas		1,469	1
	2/4/2013 17:15	2/4/2013 18:00	45	0.10	16,920	1.15	0.07	3	Atlas		1,692	1
	2/10/2013 15:15	2/10/2013 15:45	30	0.16	11,525	0.34	0.08	3	Atlas		1,844	1
	2/18/2013 23:30	2/19/2013 3:45	255	0.34	8,732	0.37	0.16	12	Atlas		2,969	1
	2/21/2013 22:45	2/22/2013 1:00	135	0.39	22,856	0.72	0.18	12	Atlas		8,914	1
	2/26/2013 5:30	2/26/2013 19:30	840	0.62	28,398	0.99	0.24	12	Atlas		17,607	1
	3/5/2013 15:30	3/5/2013 17:45	135	0.43	17,547	0.58	0.16	24	Atlas		7,545	1
	3/11/2013 3:00	3/11/2013 12:00	540	0.99	27,009	1.44	0.40	12	Atlas		26,739	1
	3/17/2013 6:30	3/18/2013 7:45	1,515	1.64	17,129	2.56	0.53	48	Atlas		28,092	1
	3/24/2013 7:30	3/24/2013 16:15	525	0.49	8,420	1.69	0.18	24	Atlas		4,126	1
	4/11/2013 5:00	4/12/2013 1:00	1,200	1.34	24,591	1.33	0.52	24	Atlas		32,952	1
	4/16/2013 19:45	4/16/2013 20:45	60	0.61	34,728	1.92	0.50	1	Atlas		21,184	1
	4/19/2013 1:00	4/19/2013 4:30	210	0.92	30,141	1.56	0.50	6	Atlas		27,730	1
	4/24/2013 7:00	4/24/2013 9:00	120	0.65	11,523	1.51	0.36	3	Atlas		7,490	1
	5/3/2013 18:45	5/3/2013 18:45	-	0.12	5,283	0.18	0.08	1	Atlas		634	1
	5/4/2013 12:15	5/5/2013 8:00	1,185	1.41	20,089	1.29	0.42	24	Atlas		28,326	1
	5/6/2013 17:30	5/6/2013 17:30	-	1.41	634	1.50	0.42	24	Atlas		894	1
	5/10/2013 10:00	5/11/2013 0:45	885	0.93	19,347	2.48	0.42	6	Atlas		17,993	1
	5/16/2013 10:30	5/16/2013 10:45	15	0.25	7,308	1.23	0.22	1	Atlas		1,827	1
	5/22/2013 15:45	5/22/2013 16:00	15	0.14	12,800	0.37	0.09	3	Atlas		1,792	1
	6/16/2013 17:00	6/16/2013 17:00	-	0.50	22,934	0.74	0.36	1	Atlas		11,467	1
	6/17/2013 16:30	6/17/2013 16:30	-	1.41	85,429	1.30	0.82	1	Atlas		120,455	1
	6/23/2013 12:30	6/23/2013 12:30	-	0.35	15,531	2.39	0.27	1	Atlas		5,436	1
	6/26/2013 3:30	6/26/2013 4:30	60	0.71	8,882	1.30	0.47	3	Atlas		6,306	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.58	56,935	3.51	4.16	1	Atlas		146,893	1
	7/10/2013 14:15	7/10/2013 14:15	-	0.93	29,302	2.20	0.65	1	Atlas		27,251	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.23	112,317	1.24	0.20	1	Atlas		25,833	1
	7/22/2013 7:45	7/22/2013 14:00	375	2.21	67,204	2.33	0.85	24	Atlas		148,521	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.71	25,199	0.63	0.29	1	Atlas		17,891	1
	8/31/2013 20:15	8/31/2013 22:30	135	1.20	6,113	0.82	0.55	12	Atlas		7,336	1
	10/5/2013 14:00	10/5/2013 23:45	585	4.30	26,211	3.05	8.06	24	Cloudburst		112,706	1
	2/20/2014 13:15	2/20/2014 14:45	90	0.01	535,000	1.11	0.01	1	Atlas		5,350	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.48	3,111	3.26	0.87	24	Atlas		7,716	1
	4/7/2014 10:45	4/7/2014 10:45	-	0.78	1,119	3.08	0.46	3	Atlas		873	1
	5/29/2014 20:45	5/29/2014 21:00	15	0.61	131,995	0.82	0.50	1	Atlas		80,517	1
	6/9/2014 22:45	6/9/2014 22:45	-	0.05	250,420	0.04	0.02	12	Atlas		12,521	1
	6/20/2014 1:00	6/20/2014 1:00	-	0.01	423,800	0.04	0.01	1	Atlas		4,238	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.16	17,019	0.34	0.10	1	Atlas		2,723	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.27	330	0.96	0.17	3	Atlas		89	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.61	10,089	1.22	0.39	1	Atlas		6,154	1
	9/11/2014 0:45	9/11/2014 2:15	90	1.92	45,368	1.63	1.47	3	Atlas		87,107	1
	10/10/2014 2:15	10/10/2014 3:00	45	1.09	10,722	1.48	0.49	3	Atlas		11,687	1
	11/24/2014 16:15	11/24/2014 21:00	285	0.85	192,756	0.87	0.38	6	Atlas		163,843	1
	3/10/2015 12:15	3/10/2015 13:15	60	1.10	11,486	2.68	0.50	12	Atlas		12,635	1
	3/14/2015 3:45	3/14/2015 3:45	-	1.63	96	2.67	0.61	24	Atlas		156	1
	4/2/2015 10:30	4/2/2015 15:15	285	4.42	34,729	1.16	5.24	24	Cloudburst		153,503	1
	4/3/2015 0:15	4/3/2015 15:30	915	4.42	40,844	4.34	5.24	24	Cloudburst		180,529	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/7/2015 9:15	4/7/2015 17:30	495	0.86	142.707	5.29	0.42	1	Atlas		122.728	1
	4/8/2015 18:15	4/8/2015 18:15	-	0.15	161.887	5.43	0.10	1	Atlas		24.283	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.29	173.017	5.26	0.25	1	Atlas		50.175	1
	4/10/2015 2:15	4/10/2015 2:15	-	0.16	132.869	3.16	0.11	3	Atlas		21.259	1
	4/13/2015 20:45	4/13/2015 21:00	15	0.38	78.863	1.56	0.15	6	Atlas		29.968	1
	4/19/2015 14:15	4/19/2015 14:30	15	0.78	53.405	1.16	0.33	12	Atlas		41.656	1
	5/16/2015 11:45	5/16/2015 13:30	105	0.34	6.441	0.40	0.19	3	Atlas		2.190	1
	5/17/2015 14:30	5/17/2015 14:30	-	0.16	2.850	0.60	0.12	1	Atlas		456	1
	5/25/2015 7:15	5/25/2015 8:30	75	0.27	2.033	0.23	0.12	12	Atlas		549	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.09	3.600	0.71	0.08	1	Atlas		324	1
	5/30/2015 16:15	5/30/2015 16:15	-	0.04	19.025	0.73	0.03	1	Atlas		761	1
	6/8/2015 7:15	6/8/2015 7:30	15	0.20	2.585	0.19	0.12	3	Atlas		517	1
	6/17/2015 5:30	6/17/2015 6:30	60	0.65	8.909	0.69	0.37	3	Atlas		5.791	1
	6/18/2015 16:30	6/18/2015 17:45	75	1.48	14.578	1.17	0.48	48	Atlas		21.576	1
	6/20/2015 4:00	6/20/2015 11:00	420	1.48	1.018	2.23	0.48	48	Atlas		1.507	1
	6/22/2015 6:15	6/22/2015 6:30	15	0.21	4.048	2.36	0.10	3	Atlas		850	1
	6/26/2015 1:15	6/26/2015 3:00	105	0.45	1.193	1.57	0.24	6	Atlas		537	1
	6/26/2015 17:15	6/27/2015 1:00	465	0.88	3.008	2.41	0.52	1	Atlas		2.647	1
	6/29/2015 3:45	6/29/2015 3:45	-	0.34	506	1.54	0.19	1	Atlas		172	1
	6/29/2015 13:30	6/29/2015 14:45	75	0.34	1.074	1.67	0.19	1	Atlas		365	1
	7/2/2015 0:15	7/2/2015 5:30	315	1.53	1.661	2.42	0.59	24	Atlas		2.541	1
	7/2/2015 14:30	7/2/2015 21:30	420	1.53	3.646	3.26	0.59	24	Atlas		5.578	1
	7/3/2015 15:00	7/3/2015 15:15	15	0.36	622	3.04	0.20	1	Atlas		224	1
	7/7/2015 11:45	7/8/2015 0:30	765	0.72	2.938	2.67	0.37	6	Atlas		2.115	1
	7/8/2015 12:15	7/8/2015 13:15	60	0.10	13.590	2.75	0.07	1	Atlas		1.359	1
	7/9/2015 6:15	7/9/2015 13:45	450	0.29	5.248	2.31	0.13	12	Atlas		1.522	1
	7/10/2015 10:15	7/10/2015 16:15	360	0.45	2.922	1.94	0.21	6	Atlas		1.315	1
	7/12/2015 6:00	7/12/2015 8:15	135	1.36	53.971	2.93	1.04	1	Atlas		73.401	1
	7/13/2015 14:15	7/13/2015 14:15	-	0.49	2.157	3.21	0.41	1	Atlas		1.057	1
	7/14/2015 3:45	7/14/2015 5:15	90	0.65	34.066	4.07	0.52	1	Atlas		22.143	1
	7/14/2015 18:45	7/14/2015 19:00	15	0.18	1.794	3.56	0.16	1	Atlas		323	1
	7/17/2015 22:30	7/18/2015 0:45	135	1.40	54.114	4.08	0.93	3	Atlas		75.760	1
	8/4/2015 19:00	8/4/2015 19:15	15	0.35	25.577	0.40	0.30	1	Atlas		8.952	1
	8/5/2015 15:00	8/5/2015 15:15	15	0.90	626	0.66	0.32	24	Atlas		563	1
	8/6/2015 2:30	8/6/2015 15:30	780	0.90	1.060	1.24	0.32	24	Atlas		954	1
	8/19/2015 8:30	8/19/2015 8:30	-	0.38	7.597	0.36	0.15	12	Atlas		2.887	1
	8/19/2015 17:00	8/19/2015 17:15	15	0.38	13.263	0.54	0.15	12	Atlas		5.040	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.26	50.042	1.26	0.23	1	Atlas		13.011	1
	9/11/2015 18:45	9/11/2015 18:45	-	0.19	732	1.43	0.13	3	Atlas		139	1
	9/29/2015 9:30	9/29/2015 12:30	180	0.84	998	0.70	0.27	48	Atlas		838	1
	9/30/2015 8:45	9/30/2015 8:45	-	0.84	1.085	0.98	0.27	48	Atlas		911	1
	10/2/2015 17:45	10/2/2015 19:30	105	0.56	4.345	1.45	0.27	6	Atlas		2.433	1
	10/12/2015 18:45	10/12/2015 19:30	45	0.28	2.007	0.33	0.19	3	Atlas		562	1
	10/24/2015 17:15	10/24/2015 17:15	-	0.32	278	0.22	0.17	3	Atlas		89	1
	10/27/2015 10:00	10/28/2015 8:30	1.350	2.51	4.283	2.84	0.82	24	Atlas		10.750	1
	10/31/2015 23:15	10/31/2015 23:15	-	0.18	161	2.86	0.11	3	Atlas		29	1
	11/6/2015 3:00	11/6/2015 5:00	120	0.85	1.647	0.95	0.52	3	Atlas		1.400	1
	11/9/2015 16:15	11/9/2015 21:30	315	0.55	2.738	1.38	0.25	12	Atlas		1.506	1
	11/12/2015 0:00	11/12/2015 1:00	60	0.29	1.562	1.67	0.17	3	Atlas		453	1
	11/18/2015 9:15	11/18/2015 18:15	540	1.51	10.142	1.93	0.78	6	Atlas		15.315	1
	11/21/2015 15:00	11/21/2015 15:15	15	0.11	3.236	1.75	0.10	1	Atlas		356	1
	11/28/2015 12:15	11/28/2015 20:30	495	0.64	4.639	0.81	0.26	12	Atlas		2.969	1
	11/30/2015 21:45	12/1/2015 5:00	435	0.67	4.454	1.49	0.30	12	Atlas		2.984	1
	12/14/2015 5:00	12/14/2015 7:15	135	0.25	10.088	0.19	0.13	6	Atlas		2.522	1
	12/21/2015 23:15	12/22/2015 4:00	285	0.59	1.393	0.76	0.33	1	Atlas		822	1
	12/23/2015 19:30	12/23/2015 19:30	-	0.87	333	1.38	0.70	1	Atlas		290	1
	6/23/2016 16:15	6/23/2016 16:15	-	1.94	2.478	1.13	1.31	6	Cloudburst		4.807	1
	8/15/2016 3:15	8/15/2016 3:15	-	0.94	1.684	0.81	0.50	6	Atlas		1.583	1
	12/17/2016 19:15	12/17/2016 19:15	-	2.66	2.507	1.34	1.86	12	Cloudburst		6.669	1
	2/7/2017 9:45	2/7/2017 9:45	-	0.26	1.227	0.10	0.13	6	Atlas		319	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.06	1.317	1.17	0.54	6	Atlas		1.396	1
	11/3/2017 4:45	11/3/2017 5:00	15	0.91	1.420	1.80	0.71	1	Atlas		1.292	1
	3/1/2018 11:45	3/1/2018 14:30	165	0.02	304.050	2.97	0.01	12	Atlas		6.081	1
	3/24/2018 16:45	3/25/2018 7:00	855	0.86	74.930	1.64	0.33	24	Atlas		64.440	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/28/2018 11:30	3/29/2018 17:45	1,815	1.02	125,427	1.60	0.26	48	Atlas		127,936	1
	5/5/2018 12:30	5/5/2018 12:30	-	1.44	1,317	0.25	0.59	6	Atlas		1,896	1
	6/11/2018 13:00	6/11/2018 13:00	-	0.23	1,004	0.59	0.13	1	Atlas		231	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.86	6,164	1.43	0.35	12	Atlas		5,301	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.60	15,952	1.80	0.24	12	Atlas		9,571	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.65	42,548	1.18	0.52	1	Atlas		27,656	1
	7/3/2018 15:30	7/3/2018 15:45	15	0.68	619	1.54	0.42	3	Atlas		421	1
	7/20/2018 19:15	7/20/2018 20:45	90	1.63	54,681	1.78	0.93	3	Atlas		89,130	1
	7/22/2018 12:15	7/22/2018 17:15	300	0.36	14,761	2.03	0.27	1	Atlas		5,314	1
	7/31/2018 1:45	7/31/2018 2:15	30	2.06	81	1.37	0.91	6	Atlas		167	1
	9/8/2018 19:45	9/8/2018 20:00	15	2.37	1,717	2.29	1.06	6	Cloudburst		4,069	1
	11/5/2018 22:00	11/5/2018 22:00	-	0.84	44	2.12	0.45	6	Atlas		37	1
	2/12/2019 4:30	2/12/2019 4:30	-	2.63	399	3.65	0.82	48	Atlas		1,049	1
	5/26/2019 13:45	5/26/2019 13:45	-	0.58	533	0.53	0.36	3	Atlas		309	1
	6/9/2019 16:30	6/9/2019 16:30	-	0.68	1,896	1.92	0.37	3	Atlas		1,289	1
	6/18/2019 16:30	6/18/2019 16:30	-	0.84	3,518	2.82	0.55	1	Atlas		2,955	1
	12/16/2019 13:45	12/16/2019 13:45	-	0.67	975	0.75	0.30	6	Atlas		653	1
	1/18/2020 3:15	1/18/2020 15:30	735	0.34	195,271	1.07	0.14	12	Atlas		66,392	1
	CSO093 Total										4,771,508	207
CSO097	7/15/2009 10:45	7/15/2009 12:45	120	0.34	53,641	0.37	0.21	3	Atlas		18,238	1
	7/17/2009 4:15	7/17/2009 13:15	540	0.41	5,454	0.77	0.27	3	Atlas		2,236	1
	7/22/2009 7:30	7/23/2009 4:15	1,245	1.45	195,029	2.20	0.64	12	Atlas		282,792	1
	7/29/2009 8:00	7/29/2009 8:45	405	2.68	20,927	4.48	3.21	6	Cloudburst		56,084	1
	10/14/2009 12:45	10/15/2009 17:00	1,695	0.72	42,842	2.99	0.47	3	Atlas		30,846	1
	10/23/2009 4:15	10/23/2009 20:00	945	0.53	125,604	0.56	0.23	12	Atlas		66,570	1
	10/27/2009 17:15	10/28/2009 12:00	1,125	1.11	215,291	1.64	0.50	12	Atlas		238,973	1
	10/30/2009 20:30	11/1/2009 1:45	1,755	1.04	284,363	2.17	0.47	12	Atlas		295,737	1
	11/17/2009 8:45	11/18/2009 7:45	1,380	0.94	166,953	0.95	0.36	24	Atlas		156,936	1
	12/8/2009 15:45	12/9/2009 10:45	1,140	1.46	216,747	1.76	0.61	12	Atlas		316,450	1
	12/13/2009 7:00	12/13/2009 16:15	555	0.27	69,193	1.80	0.17	3	Atlas		18,682	1
	12/19/2009 2:15	12/19/2009 13:45	690	0.46	58,091	0.47	0.16	24	Atlas		26,722	1
	12/25/2009 11:00	12/25/2009 20:00	540	0.27	19,200	0.74	0.10	24	Atlas		5,184	1
	12/31/2009 1:00	12/31/2009 2:15	75	0.06	100,733	0.50	0.04	3	Atlas		6,044	1
	1/17/2010 11:15	1/17/2010 22:00	645	0.28	10,414	0.29	0.12	12	Atlas		2,916	1
	1/20/2010 10:15	1/20/2010 13:45	210	0.45	105,060	0.73	0.23	6	Atlas		47,277	1
	1/21/2010 0:15	1/23/2010 4:15	3,120	0.17	2,854,247	1.83	0.15	1	Atlas		485,222	1
	1/24/2010 4:00	1/26/2010 21:00	3,900	0.96	551,454	2.90	0.37	24	Atlas		529,396	1
	2/6/2010 5:45	2/7/2010 7:15	2,970	1.08	675,777	1.26	0.38	24	Atlas		729,839	1
	3/12/2010 14:15	3/12/2010 22:45	510	0.27	10,637	0.29	0.17	3	Atlas		2,872	1
	3/21/2010 19:15	3/22/2010 9:45	870	0.53	107,234	0.53	0.24	12	Atlas		56,834	1
	3/25/2010 14:45	3/26/2010 7:00	975	0.47	52,604	1.03	0.24	1	Atlas		24,724	1
	4/8/2010 1:30	4/8/2010 15:45	855	1.06	165,833	1.12	0.52	6	Atlas		175,783	1
	4/24/2010 14:45	4/25/2010 7:00	975	1.78	92,498	2.02	0.83	6	Atlas		164,647	1
	4/27/2010 7:45	4/27/2010 11:45	240	0.34	286,847	2.53	0.16	6	Atlas		97,528	1
	5/1/2010 4:45	5/6/2010 22:15	8,250	4.30	695,295	6.48	4.10	48	Atlas		2,989,768	1
	5/7/2010 22:45	5/8/2010 8:45	600	0.15	293,533	4.48	0.11	1	Atlas		44,030	1
	5/12/2010 9:45	5/12/2010 21:00	675	0.98	80,544	1.24	0.76	1	Atlas		78,933	1
	5/13/2010 12:30	5/13/2010 22:00	570	0.21	133,200	1.45	0.17	1	Atlas		27,972	1
	5/16/2010 9:30	5/17/2010 4:45	1,155	0.61	64,048	1.91	0.28	12	Atlas		39,069	1
	5/17/2010 19:30	5/18/2010 5:45	615	0.34	177,688	2.25	0.25	1	Atlas		60,414	1
	5/21/2010 19:45	5/22/2010 22:30	1,605	1.08	433,969	2.05	0.83	1	Atlas		468,686	1
	5/30/2010 20:30	5/30/2010 20:45	15	0.37	9,624	0.61	0.20	6	Atlas		3,561	1
	6/9/2010 4:15	6/9/2010 23:15	1,140	2.26	93,241	2.39	1.80	3	Atlas		210,724	1
	6/12/2010 1:30	6/12/2010 10:00	510	0.24	35,163	2.50	0.14	1	Atlas		8,439	1
	6/13/2010 23:00	6/14/2010 8:00	540	0.32	17,547	2.82	0.16	1	Atlas		5,615	1
	6/19/2010 5:45	6/19/2010 17:30	705	0.91	117,420	1.90	0.55	3	Atlas		106,852	1
	6/28/2010 2:00	6/28/2010 2:45	45	0.30	9,590	0.26	0.19	1	Atlas		2,877	1
	7/13/2010 5:30	7/13/2010 20:00	870	2.11	39,203	2.71	0.97	12	Atlas		82,719	1
	7/20/2010 4:30	7/20/2010 15:30	660	0.78	112,596	2.37	0.50	1	Atlas		87,825	1
	7/21/2010 6:00	7/21/2010 7:15	75	0.49	67,259	1.54	0.40	1	Atlas		32,957	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/22/2010 14:30	7/22/2010 16:45	75	0.19	150.358	1.73	0.17	1	Atlas		28,568	1
	7/27/2010 16:00	7/27/2010 17:00	60	1.32	23.214	1.98	0.85	3	Atlas		30,642	1
	7/31/2010 4:45	7/31/2010 22:00	1,035	0.49	141.453	2.18	0.27	3	Atlas		69,312	1
	8/14/2010 16:30	8/15/2010 3:30	660	0.69	77.858	1.25	0.57	1	Atlas		53,722	1
	8/21/2010 7:15	8/21/2010 9:30	135	0.52	79.417	1.26	0.32	3	Atlas		41,297	1
	9/7/2010 9:45	9/7/2010 17:45	480	0.13	8.908	0.13	0.10	1	Atlas		1,158	1
	10/13/2010 19:15	10/13/2010 21:15	120	0.37	48.246	0.42	0.24	3	Atlas		17,851	1
	10/26/2010 11:15	10/26/2010 12:15	60	0.57	8.560	0.30	0.31	6	Atlas		4,879	1
	11/16/2010 12:30	11/16/2010 21:45	555	0.72	228.301	0.84	0.32	12	Atlas		164,377	1
	11/23/2010 4:00	11/23/2010 10:00	360	0.24	130.604	1.03	0.13	6	Atlas		31,345	1
	11/24/2010 12:30	11/24/2010 16:15	225	0.71	105.355	1.02	0.35	3	Atlas		74,802	1
	11/25/2010 10:00	11/26/2010 8:15	1,335	2.46	169.349	3.43	0.94	24	Atlas		416,599	1
	11/29/2010 21:15	11/30/2010 23:15	1,560	1.68	176.551	5.09	0.65	24	Atlas		296,606	1
	12/30/2010 2:45	12/30/2010 9:15	390	0.50	146.320	0.60	0.22	12	Atlas		73,160	1
	2/28/2011 9:00	3/1/2011 2:30	1,050	1.35	443.081	3.78	0.66	6	Atlas		598,159	1
	3/5/2011 7:00	3/5/2011 19:30	750	0.96	135.595	2.43	0.32	24	Atlas		130,171	1
	3/8/2011 23:15	3/11/2011 1:00	2,985	3.01	1,307.528	4.03	1.80	24	Cloudburst		3,935,658	1
	3/14/2011 3:45	3/14/2011 21:15	1,050	0.93	112.388	3.79	0.30	48	Atlas		104,521	1
	3/15/2011 7:00	3/15/2011 13:15	375	0.93	65.934	3.98	0.30	48	Atlas		61,319	1
	3/18/2011 21:15	3/18/2011 22:15	60	0.26	84.246	1.18	0.12	12	Atlas		21,904	1
	4/4/2011 13:30	4/4/2011 17:30	240	0.90	64.021	1.01	0.45	6	Atlas		57,619	1
	4/9/2011 10:30	4/9/2011 12:30	120	0.61	66.269	1.56	0.43	1	Atlas		40,424	1
	4/11/2011 10:30	4/13/2011 21:15	3,525	3.48	1,064.665	4.99	3.56	24	Cloudburst		3,705,033	1
	4/15/2011 12:45	4/15/2011 14:15	90	0.18	175.078	4.27	0.12	3	Atlas		31,514	1
	4/15/2011 22:30	4/16/2011 8:15	585	0.23	31.404	4.49	0.11	12	Atlas		7,223	1
	4/20/2011 1:00	4/20/2011 5:30	270	0.67	123.734	1.14	0.37	6	Atlas		82,902	1
	4/22/2011 17:00	4/25/2011 8:00	3,780	4.79	487.221	5.68	2.93	48	Atlas		2,333,789	1
	4/25/2011 16:45	4/26/2011 4:00	675	4.79	3.064	5.53	2.93	48	Atlas		14,676	1
	4/26/2011 12:15	4/29/2011 23:30	4,995	0.06	91,627.317	8.33	0.03	3	Atlas		5,497,639	1
	5/1/2011 3:45	5/5/2011 16:15	6,510	0.71	6,272.741	7.48	0.36	3	Atlas		4,453,646	1
	5/8/2011 0:30	5/8/2011 2:30	120	0.38	196.171	3.74	0.26	1	Atlas		74,545	1
	5/21/2011 18:30	5/21/2011 19:45	75	0.50	60.280	0.97	0.37	1	Atlas		30,140	1
	5/23/2011 4:00	5/23/2011 5:15	75	0.35	93.783	1.03	0.28	1	Atlas		32,824	1
	5/23/2011 17:45	5/23/2011 23:30	345	0.71	484.206	1.75	0.45	3	Atlas		343,786	1
	5/25/2011 22:45	5/26/2011 17:00	1,095	1.27	433.954	2.96	0.55	3	Atlas		551,122	1
	6/15/2011 9:45	6/15/2011 11:15	90	0.93	78.529	1.35	0.56	3	Atlas		73,032	1
	6/18/2011 6:30	6/18/2011 9:00	150	0.83	97.898	1.83	0.51	3	Atlas		81,255	1
	6/19/2011 8:00	6/19/2011 10:00	120	0.52	59.112	2.33	0.31	3	Atlas		30,738	1
	6/20/2011 1:30	6/20/2011 2:45	75	0.51	120.816	2.84	0.43	1	Atlas		61,616	1
	6/21/2011 14:15	6/21/2011 17:15	180	0.40	175.335	3.18	0.24	3	Atlas		70,134	1
	6/22/2011 19:30	6/24/2011 10:00	2,310	3.56	817.925	5.83	19.18	3	Atlas		2,911,814	1
	6/26/2011 4:15	6/26/2011 5:30	75	0.28	40.636	5.21	0.15	6	Atlas		11,378	1
	7/12/2011 17:45	7/12/2011 21:45	240	0.58	4.529	1.14	0.31	6	Atlas		2,627	1
	7/19/2011 22:45	7/20/2011 0:15	90	1.41	89.711	1.51	0.91	1	Atlas		126,492	1
	7/30/2011 21:30	7/30/2011 22:15	45	0.51	1.780	0.64	0.40	1	Atlas		908	1
	8/7/2011 3:15	8/7/2011 7:45	270	1.94	244.925	1.97	1.90	3	Atlas		475,155	1
	8/13/2011 17:00	8/13/2011 20:15	195	0.86	144.450	3.17	0.67	1	Atlas		124,227	1
	8/18/2011 8:15	8/18/2011 9:00	45	0.38	87.453	1.25	0.33	1	Atlas		33,232	1
	9/23/2011 3:15	9/23/2011 8:15	300	0.83	35.107	1.64	0.38	12	Atlas		29,139	1
	9/25/2011 23:30	9/26/2011 11:30	720	3.48	503.437	5.15	7.31	12	Cloudburst		1,751,961	1
	10/13/2011 7:45	10/13/2011 8:15	30	0.43	8.705	0.30	0.22	3	Atlas		3,743	1
	10/27/2011 0:00	10/27/2011 5:30	330	1.18	83.880	1.56	0.48	12	Atlas		98,978	1
	11/14/2011 21:30	11/14/2011 23:15	105	2.17	3.586	0.34	0.70	48	Atlas		7,781	1
	11/15/2011 11:45	11/15/2011 15:30	225	2.17	13.212	1.52	0.70	48	Atlas		28,669	1
	11/16/2011 6:30	11/16/2011 12:15	345	2.17	15.358	2.16	0.70	48	Atlas		33,326	1
	11/20/2011 18:15	11/20/2011 20:45	150	0.94	6.760	2.91	0.33	24	Atlas		6,354	1
	11/21/2011 10:15	11/21/2011 10:45	30	0.94	779	3.12	0.33	24	Atlas		732	1
	11/22/2011 0:30	11/22/2011 19:45	1,155	1.35	118.377	4.12	0.57	12	Atlas		159,809	1
	11/27/2011 5:45	11/30/2011 0:45	4,020	3.29	624.803	5.60	1.15	48	Cloudburst		2,055,601	1
	12/4/2011 16:00	12/7/2011 12:45	4,125	2.87	1,017.367	5.53	0.93	48	Atlas		2,919,843	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/15/2011 7:15	12/15/2011 9:00	105	0.45	26.100	0.46	0.24	6	Atlas		11,745	1
	12/21/2011 6:15	12/21/2011 8:00	105	0.56	98.205	1.03	0.26	12	Atlas		54,995	1
	12/22/2011 12:00	12/22/2011 18:30	390	0.65	73.386	1.18	0.29	12	Atlas		47,701	1
	12/27/2011 2:30	12/27/2011 13:45	675	0.80	111.685	2.01	0.33	12	Atlas		89,348	1
	1/11/2012 5:15	1/11/2012 11:00	345	0.75	118.385	0.64	0.29	6	Atlas		88,789	1
	1/17/2012 11:45	1/17/2012 13:00	75	0.37	39.076	1.24	0.17	12	Atlas		14,458	1
	1/23/2012 2:45	1/23/2012 5:30	165	0.58	91.800	0.97	0.30	3	Atlas		53,244	1
	1/25/2012 16:00	1/25/2012 19:45	225	1.96	14.149	0.88	0.64	24	Atlas		27,732	1
	1/26/2012 5:30	1/26/2012 8:00	150	1.96	35.026	1.35	0.64	24	Atlas		68,650	1
	1/26/2012 18:45	1/27/2012 23:00	1,695	1.96	571.884	2.55	0.64	24	Atlas		1,120,892	1
	2/4/2012 9:15	2/4/2012 12:15	180	0.40	106.573	0.44	0.22	3	Atlas		42,629	1
	2/29/2012 6:15	2/29/2012 9:30	195	0.64	4.036	0.78	0.29	12	Atlas		2,583	1
	3/8/2012 13:00	3/8/2012 17:45	285	0.83	102.263	1.21	0.38	12	Atlas		84,878	1
	3/16/2012 0:45	3/16/2012 4:00	195	1.05	59.777	1.24	0.46	12	Atlas		62,766	1
	3/17/2012 18:30	3/18/2012 3:45	555	1.14	214.180	2.38	0.69	1	Atlas		244,165	1
	3/23/2012 5:00	3/24/2012 1:30	1,230	1.60	183.458	2.74	0.61	24	Atlas		293,533	1
	4/1/2012 8:45	4/1/2012 15:00	375	1.87	264.569	2.04	1.14	6	Cloudburst		494,744	1
	4/28/2012 19:15	4/28/2012 20:45	90	0.79	41.930	0.82	0.58	1	Atlas		33,125	1
	4/30/2012 18:15	4/30/2012 19:00	45	0.32	9.191	1.23	0.22	1	Atlas		2,941	1
	5/4/2012 23:45	5/5/2012 4:30	285	1.39	102.037	2.50	0.72	6	Atlas		141,831	1
	5/13/2012 2:15	5/13/2012 14:45	750	2.20	179.412	2.23	0.90	12	Atlas		394,706	1
	5/29/2012 9:00	5/29/2012 23:00	840	3.11	603.385	3.11	21.33	3	Atlas		1,876,528	1
	5/31/2012 18:30	6/1/2012 5:15	645	1.32	133.808	4.37	0.58	12	Atlas		176,627	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.52	1.329	0.44	0.39	1	Atlas		691	1
	7/8/2012 13:30	7/8/2012 13:30	-	0.13	308	0.68	0.09	1	Atlas		40	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.81	126.433	1.50	0.65	1	Atlas		102,411	1
	7/27/2012 20:00	7/27/2012 22:15	135	0.71	159.030	1.06	0.51	1	Atlas		112,911	1
	9/2/2012 12:30	9/2/2012 22:15	585	0.82	39.959	1.50	0.32	24	Atlas		32,766	1
	9/5/2012 15:30	9/5/2012 17:30	120	0.97	132.082	2.49	0.75	1	Atlas		128,120	1
	9/7/2012 23:45	9/8/2012 2:15	150	1.17	19.619	3.55	0.65	3	Atlas		22,954	1
	9/26/2012 21:15	9/27/2012 1:15	240	0.94	128.281	1.77	0.53	3	Atlas		120,584	1
	10/1/2012 15:30	10/1/2012 19:45	255	0.85	142.159	2.69	0.36	12	Atlas		120,835	1
	10/26/2012 14:45	10/26/2012 16:15	90	0.82	5.573	0.72	0.37	6	Atlas		4,570	1
	12/4/2012 18:00	12/4/2012 19:00	60	0.50	29.638	0.68	0.32	3	Atlas		14,819	1
	12/7/2012 4:00	12/7/2012 19:45	945	1.37	278.261	2.06	0.58	12	Atlas		381,217	1
	12/8/2012 5:30	12/8/2012 11:00	330	0.65	204.145	2.71	0.35	6	Atlas		132,694	1
	12/9/2012 9:15	12/9/2012 9:30	15	1.14	1.021	2.80	0.52	3	Atlas		1,164	1
	12/9/2012 22:00	12/10/2012 5:15	435	1.14	433.295	3.60	0.52	3	Atlas		493,956	1
	12/15/2012 11:45	12/15/2012 12:45	60	0.17	39.818	1.32	0.10	3	Atlas		6,769	1
	12/20/2012 7:15	12/20/2012 13:00	345	0.76	115.713	1.07	0.39	6	Atlas		87,942	1
	12/26/2012 4:45	12/26/2012 15:00	615	0.81	148.954	1.62	0.32	12	Atlas		120,653	1
	1/11/2013 6:00	1/11/2013 8:30	150	0.62	116.387	0.80	0.32	6	Atlas		72,160	1
	1/13/2013 3:15	1/14/2013 20:00	2,445	2.42	998.017	3.26	0.93	24	Atlas		2,415,200	1
	1/30/2013 5:00	1/30/2013 10:00	300	0.80	76.018	1.08	0.40	6	Atlas		60,814	1
	2/19/2013 5:00	2/19/2013 5:00	-	0.33	67	0.38	0.15	12	Atlas		22	1
	2/22/2013 1:45	2/22/2013 1:45	60	0.38	67.803	0.70	0.17	12	Atlas		25,765	1
	2/26/2013 13:30	2/26/2013 17:45	255	0.65	51.206	0.98	0.25	12	Atlas		33,284	1
	3/5/2013 16:15	3/5/2013 19:15	180	0.43	17.577	0.55	0.17	24	Atlas		7,558	1
	3/11/2013 14:00	3/11/2013 14:30	630	1.00	179.378	1.44	0.39	12	Atlas		179,378	1
	3/17/2013 10:30	3/18/2013 23:45	2,235	1.71	544.840	2.71	0.56	48	Atlas		931,677	1
	3/24/2013 8:00	3/24/2013 17:45	585	0.49	38.639	1.77	0.18	24	Atlas		18,933	1
	4/11/2013 6:45	4/11/2013 8:15	90	1.22	41.336	0.47	0.47	24	Atlas		50,430	1
	4/11/2013 17:00	4/12/2013 7:15	855	1.22	35.628	1.22	0.47	24	Atlas		43,466	1
	4/16/2013 20:15	4/16/2013 21:30	75	0.48	68.719	1.68	0.38	1	Atlas		32,985	1
	4/19/2013 2:15	4/19/2013 5:45	210	0.86	260.319	1.35	0.46	6	Atlas		221,271	1
	4/24/2013 7:30	4/24/2013 10:45	195	0.74	155.236	1.63	0.41	3	Atlas		114,875	1
	5/4/2013 13:30	5/4/2013 15:45	135	1.43	9.376	0.66	0.45	24	Atlas		13,408	1
	5/5/2013 3:45	5/5/2013 9:30	345	1.43	39.768	1.36	0.45	24	Atlas		56,868	1
	5/10/2013 13:45	5/11/2013 1:30	705	1.11	437.533	2.70	0.50	6	Atlas		485,662	1
	6/17/2013 16:30	6/17/2013 23:45	435	1.05	343.304	1.30	0.54	6	Atlas		360,469	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/21/2013 19:00	6/21/2013 20:30	90	0.64	159,527	1.98	0.49	1	Atlas		102,097	1
	6/26/2013 3:30	6/26/2013 5:30	120	0.54	72,796	1.49	0.36	3	Atlas		39,310	1
	6/26/2013 16:15	6/27/2013 12:00	1,185	2.50	870,550	3.99	3.50	1	Atlas		2,176,375	1
	6/29/2013 20:00	6/29/2013 22:30	150	0.47	131,232	3.82	0.30	3	Atlas		61,679	1
	7/4/2013 9:45	7/4/2013 14:30	285	0.61	22,139	1.48	0.26	12	Atlas		13,505	1
	7/6/2013 1:30	7/6/2013 9:00	450	0.66	112,064	2.25	0.28	12	Atlas		73,962	1
	7/10/2013 14:00	7/10/2013 15:45	105	0.80	96,539	2.23	0.53	3	Atlas		77,231	1
	7/18/2013 16:30	7/18/2013 16:45	15	0.18	25,006	0.42	0.12	1	Atlas		4,501	1
	7/21/2013 19:15	7/21/2013 21:15	120	3.37	45,379	2.46	5.14	3	Atlas		152,927	1
	7/22/2013 7:30	7/22/2013 19:15	705	3.37	237,850	3.57	5.14	3	Atlas		801,556	1
	8/9/2013 17:15	8/9/2013 18:15	60	0.50	57,172	0.43	0.24	1	Atlas		28,586	1
	8/12/2013 14:45	8/12/2013 16:15	90	0.89	50,411	1.06	0.37	3	Atlas		44,866	1
	8/13/2013 3:00	8/13/2013 4:15	75	0.89	8,040	1.42	0.37	3	Atlas		7,156	1
	8/20/2013 18:15	8/20/2013 19:00	45	0.28	14,961	0.29	0.19	1	Atlas		4,189	1
	8/31/2013 19:45	9/1/2013 3:45	480	1.14	32,596	1.11	0.52	6	Atlas		37,159	1
	9/2/2013 14:00	9/2/2013 15:15	75	0.64	101,413	1.78	0.56	1	Atlas		64,904	1
	9/20/2013 19:45	9/21/2013 6:00	615	1.59	133,855	1.62	0.66	12	Atlas		212,829	1
	10/5/2013 13:00	10/7/2013 14:30	2,970	5.83	1,172,652	6.06	34.87	24	Atlas		6,836,564	1
	10/30/2013 2:45	10/30/2013 9:15	390	1.96	211,387	1.96	1.57	1	Atlas		414,318	1
	10/31/2013 20:30	10/31/2013 23:15	165	0.59	132,964	2.55	0.23	12	Atlas		78,449	1
	11/17/2013 6:00	11/18/2013 11:00	1,740	2.64	794,007	2.81	2.29	6	Cloudburst		2,096,178	1
	12/5/2013 7:30	12/5/2013 9:00	90	0.70	29,864	0.17	0.23	48	Atlas		20,905	1
	12/14/2013 10:45	12/14/2013 11:00	15	1.09	910	1.29	0.48	6	Atlas		992	1
	12/21/2013 9:45	12/22/2013 9:00	1,395	2.81	450,065	3.05	1.33	3	Atlas		1,264,683	1
	1/3/2014 0:30	1/3/2014 10:00	570	0.25	7,456,380	0.83	0.13	3	Atlas		1,864,095	1
	1/5/2014 19:00	1/8/2014 9:00	3,720	0.51	30,868,425	0.76	0.26	6	Atlas		15,742,897	1
	1/11/2014 2:15	1/11/2014 5:15	180	1.08	15,444	1.60	0.58	6	Atlas		16,679	1
	1/21/2014 17:45	1/22/2014 10:15	990	0.13	43,783,200	0.15	0.06	6	Atlas		5,691,816	1
	1/23/2014 3:15	1/24/2014 10:45	1,890	0.02	431,177,050	0.17	0.02	1	Atlas		8,623,541	1
	2/4/2014 19:30	2/5/2014 3:00	450	0.48	551,083	0.88	0.23	6	Atlas		264,520	1
	2/10/2014 1:15	2/12/2014 10:15	3,420	0.04	345,237,975	0.58	0.03	3	Atlas		13,809,519	1
	2/14/2014 22:30	2/15/2014 9:15	645	0.39	7,053,436	0.44	0.21	6	Atlas		2,750,840	1
	2/17/2014 16:15	2/17/2014 17:30	75	0.39	126,169	0.83	0.23	3	Atlas		49,206	1
	3/2/2014 20:45	3/4/2014 8:45	2,160	0.64	15,577,139	0.64	0.24	24	Atlas		9,969,369	1
	3/13/2014 6:00	3/13/2014 7:30	90	0.01	11,428,000	0.08	0.01	1	Atlas		114,280	1
	3/29/2014 7:00	3/29/2014 8:00	60	1.21	3,517	0.94	0.56	6	Atlas		4,255	1
	4/3/2014 12:15	4/4/2014 11:45	1,410	2.63	305,210	4.23	0.92	24	Atlas		802,701	1
	4/7/2014 10:45	4/7/2014 14:15	210	0.74	197,293	3.49	0.46	1	Atlas		145,997	1
	4/14/2014 20:45	4/14/2014 21:00	15	0.61	3,244	0.72	0.28	12	Atlas		1,979	1
	4/28/2014 5:45	4/28/2014 7:45	120	1.75	86,114	1.47	0.65	24	Atlas		150,700	1
	4/28/2014 20:00	4/28/2014 20:00	-	1.75	40	1.86	0.65	24	Atlas		70	1
	5/10/2014 5:45	5/10/2014 15:15	570	1.74	57,574	1.79	0.67	24	Atlas		100,179	1
	5/14/2014 18:30	5/14/2014 19:15	45	1.18	1,054	2.80	0.42	24	Atlas		1,244	1
	5/29/2014 21:00	5/29/2014 21:45	45	0.67	52,822	0.78	0.47	1	Atlas		35,391	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.73	10,705	1.56	0.39	3	Atlas		7,815	1
	7/26/2014 22:00	7/26/2014 22:00	-	1.39	2,700	0.54	0.63	12	Atlas		3,753	1
	7/27/2014 7:15	7/27/2014 7:45	30	1.39	1,802	1.28	0.63	12	Atlas		2,505	1
	8/8/2014 6:15	8/8/2014 7:45	90	1.01	30,709	0.85	0.50	3	Atlas		31,016	1
	8/27/2014 16:45	8/27/2014 17:45	60	0.62	92,673	1.86	0.41	3	Atlas		57,457	1
	8/30/2014 15:45	8/30/2014 15:45	-	0.52	5,700	1.47	0.30	1	Atlas		2,964	1
	9/11/2014 0:45	9/11/2014 9:15	510	2.03	604,446	2.04	1.70	3	Atlas		1,227,025	1
	10/10/2014 2:45	10/10/2014 3:00	15	0.82	12,930	1.01	0.36	3	Atlas		10,603	1
	10/14/2014 8:30	10/14/2014 8:45	15	1.21	171	2.59	0.54	12	Atlas		207	1
	11/23/2014 18:00	11/23/2014 19:45	105	0.81	4,004	1.12	0.37	6	Atlas		3,243	1
	12/6/2014 2:45	12/6/2014 8:45	360	1.84	167,514	2.56	0.59	48	Atlas		308,225	1
	1/7/2015 6:45	1/8/2015 10:30	1,665	0.01	736,627,800	0.34	0.01	1	Atlas		7,366,278	1
	2/1/2015 14:00	2/1/2015 14:00	-	0.36	56	0.39	0.17	12	Atlas		20	1
	2/21/2015 18:00	2/21/2015 18:00	150	1.17	6,776	1.29	0.45	24	Atlas		7,928	1
	3/3/2015 23:15	3/5/2015 0:45	1,530	1.63	984,035	1.60	0.53	48	Atlas		1,603,977	1
	3/10/2015 7:15	3/11/2015 9:15	1,560	1.20	1,384,057	2.83	0.54	12	Atlas		1,660,868	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/13/2015 14:15	3/15/2015 3:30	2,235	1.59	1,296,231	2.79	0.60	24	Atlas		2,061,007	1
	3/26/2015 5:00	3/26/2015 6:45	105	0.46	14,941	0.58	0.20	3	Atlas		6,873	1
	4/2/2015 10:45	4/6/2015 11:45	5,820	5.54	5,225,469	5.68	28.12	6	Cloudburst		28,949,099	1
	4/7/2015 7:45	4/7/2015 22:30	885	0.69	384,638	6.24	0.29	12	Atlas		265,400	1
	4/8/2015 18:00	4/8/2015 22:45	285	0.17	1,039,494	6.41	0.11	1	Atlas		176,714	1
	4/9/2015 11:30	4/9/2015 17:45	375	0.36	394,025	6.39	0.31	1	Atlas		141,849	1
	4/10/2015 3:45	4/10/2015 4:45	60	0.15	11,947	2.79	0.09	3	Atlas		1,792	1
	4/13/2015 20:45	4/13/2015 22:00	75	0.49	29,196	1.49	0.19	6	Atlas		14,306	1
	4/14/2015 10:00	4/14/2015 10:45	45	0.49	5,778	1.36	0.19	6	Atlas		2,831	1
	4/19/2015 14:15	4/19/2015 15:45	90	0.72	63,103	1.25	0.31	12	Atlas		45,434	1
	5/26/2015 14:30	5/26/2015 14:45	15	0.25	1,348	0.47	0.15	1	Atlas		337	1
	6/17/2015 5:30	6/17/2015 6:15	45	0.60	5,232	0.89	0.33	3	Atlas		3,139	1
	6/18/2015 16:45	6/19/2015 0:15	450	2.28	439,420	2.05	0.74	48	Atlas		1,001,878	1
	6/20/2015 3:30	6/20/2015 14:30	660	2.28	177,529	3.31	0.74	48	Atlas		404,765	1
	6/26/2015 0:00	6/26/2015 5:30	330	0.63	274,559	2.10	0.34	6	Atlas		172,972	1
	6/26/2015 17:00	6/27/2015 3:00	600	0.75	174,941	2.68	0.35	1	Atlas		131,206	1
	6/29/2015 13:30	6/29/2015 14:45	75	0.14	234,336	1.52	0.10	1	Atlas		32,807	1
	7/2/2015 1:00	7/2/2015 3:15	135	0.74	35,981	2.18	0.37	3	Atlas		26,626	1
	7/2/2015 21:00	7/2/2015 22:00	60	0.74	15,550	2.33	0.37	3	Atlas		11,507	1
	7/3/2015 15:00	7/3/2015 20:15	315	0.30	36,390	1.99	0.17	1	Atlas		10,917	1
	7/7/2015 12:00	7/7/2015 17:15	315	0.68	16,200	1.78	0.35	6	Atlas		11,016	1
	7/9/2015 8:00	7/9/2015 8:15	15	0.21	1,324	1.38	0.13	3	Atlas		278	1
	7/10/2015 10:15	7/10/2015 18:45	510	0.67	257,091	1.95	0.33	6	Atlas		172,251	1
	7/12/2015 6:00	7/13/2015 2:45	1,245	0.90	3,082,327	2.56	0.63	1	Atlas		2,774,094	1
	7/13/2015 14:15	7/14/2015 23:00	1,965	0.40	4,868,755	3.50	0.33	1	Atlas		1,947,502	1
	7/17/2015 22:45	7/18/2015 8:30	585	0.87	942,093	2.72	0.58	3	Atlas		819,621	1
	8/6/2015 8:15	8/6/2015 16:45	510	1.08	86,629	1.26	0.40	24	Atlas		93,559	1
	9/7/2015 18:15	9/7/2015 19:00	45	1.05	37,964	1.15	0.91	1	Atlas		39,862	1
	10/2/2015 19:15	10/2/2015 19:30	15	0.60	317	1.64	0.29	6	Atlas		190	1
	10/12/2015 19:15	10/12/2015 19:30	15	0.29	790	0.40	0.19	3	Atlas		229	1
	10/27/2015 17:00	10/28/2015 9:00	960	2.68	149,022	3.10	0.87	48	Atlas		399,378	1
	11/6/2015 3:15	11/6/2015 10:00	405	0.66	700,033	0.83	0.41	3	Atlas		462,022	1
	11/9/2015 19:30	11/9/2015 23:30	240	0.50	150,202	1.16	0.22	12	Atlas		75,101	1
	11/12/2015 0:15	11/12/2015 2:30	135	0.31	320,145	1.47	0.19	3	Atlas		99,245	1
	11/18/2015 9:15	11/19/2015 2:15	1,020	1.91	967,554	2.35	0.98	6	Atlas		1,848,029	1
	11/28/2015 13:30	11/29/2015 0:30	660	0.68	908,204	0.98	0.28	12	Atlas		617,579	1
	11/30/2015 21:45	12/1/2015 17:45	1,200	0.74	1,528,149	1.65	0.33	12	Atlas		1,130,830	1
	12/14/2015 7:00	12/14/2015 9:15	135	0.28	198,132	0.29	0.15	6	Atlas		55,477	1
	12/21/2015 23:30	12/22/2015 9:30	600	0.78	741,985	0.81	0.33	6	Atlas		578,748	1
	12/23/2015 19:15	1/3/2016 1:30	14,775	0.95	15,416,107	4.41	0.65	1	Atlas		14,645,302	1
	1/9/2016 22:45	1/9/2016 23:00	15	0.20	805	0.28	0.09	12	Atlas		161	1
	2/2/2016 19:45	2/5/2016 21:30	4,425	1.51	1,999,028	1.61	0.72	6	Atlas		3,018,533	1
	2/8/2016 10:15	2/8/2016 11:15	60	0.11	5,109	1.59	0.04	24	Atlas		562	1
	2/21/2016 4:15	2/22/2016 11:45	1,890	0.84	490,670	1.03	0.39	12	Atlas		412,163	1
	2/23/2016 23:00	3/1/2016 1:15	8,775	2.10	2,727,375	2.96	0.83	12	Atlas		5,727,487	1
	3/1/2016 11:45	3/2/2016 23:30	2,145	0.36	649,317	2.49	0.21	3	Atlas		233,754	1
	3/10/2016 12:15	3/18/2016 0:30	10,815	1.12	4,660,131	2.16	0.37	12	Atlas		5,219,347	1
	3/24/2016 17:30	3/24/2016 20:45	195	0.44	574,318	0.62	0.31	1	Atlas		252,700	1
	3/27/2016 21:15	3/28/2016 17:00	1,185	0.86	688,333	1.30	0.57	3	Atlas		591,966	1
	3/29/2016 10:45	3/29/2016 12:30	105	Discharge	-	1.30					4,203	1
	3/31/2016 4:15	4/4/2016 8:00	5,985	1.15	3,569,551	2.45	0.44	24	Atlas		4,104,984	1
	4/11/2016 16:45	4/11/2016 21:45	300	0.81	244,015	0.93	0.39	6	Atlas		197,652	1
	4/21/2016 15:45	4/21/2016 16:45	60	0.35	31,280	0.29	0.16	3	Atlas		10,948	1
	4/26/2016 21:30	4/26/2016 22:30	60	0.33	32,648	0.72	0.15	3	Atlas		10,774	1
	4/27/2016 14:00	4/27/2016 23:15	555	0.60	228,013	1.31	0.28	3	Atlas		136,808	1
	4/30/2016 11:00	4/30/2016 14:15	195	0.50	62,998	1.29	0.19	24	Atlas		31,499	1
	5/1/2016 14:45	5/1/2016 17:00	135	0.48	284,242	1.91	0.34	1	Atlas		136,436	1
	5/4/2016 11:30	5/4/2016 13:00	90	0.18	154,017	1.74	0.12	1	Atlas		27,723	1
	5/7/2016 20:15	5/7/2016 23:00	165	0.59	146,292	1.36	0.31	6	Atlas		86,312	1
	5/10/2016 14:30	5/10/2016 23:30	540	0.68	385,600	1.48	0.25	24	Atlas		262,208	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/11/2016 19:00	5/11/2016 23:30	270	0.26	248.335	1.54	0.14	3	Atlas		64.567	1
	5/12/2016 16:30	5/12/2016 18:45	135	0.10	301.020	1.86	0.07	1	Atlas		30.102	1
	5/17/2016 6:15	5/17/2016 8:00	105	0.31	148.642	1.32	0.13	12	Atlas		46.079	1
	5/17/2016 20:15	5/17/2016 22:00	105	0.24	130.467	1.04	0.12	6	Atlas		31.312	1
	5/20/2016 13:30	5/20/2016 18:15	285	0.79	361.651	1.37	0.45	3	Atlas		285.704	1
	5/26/2016 14:45	5/26/2016 16:15	90	0.23	156.030	1.09	0.15	3	Atlas		35.887	1
	6/2/2016 15:30	6/2/2016 16:45	75	0.52	80.598	0.65	0.42	1	Atlas		41.911	1
	6/12/2016 18:00	6/12/2016 19:30	90	0.48	76.581	0.50	0.41	1	Atlas		36.759	1
	6/14/2016 16:45	6/14/2016 18:45	120	0.63	92.338	1.09	0.40	3	Atlas		58.173	1
	6/23/2016 16:15	6/24/2016 1:15	540	1.71	299.958	1.86	0.90	6	Atlas		512.929	1
	7/3/2016 11:45	7/3/2016 13:15	90	0.98	46.259	0.32	0.32	48	Atlas		45.334	1
	7/3/2016 23:00	7/4/2016 0:30	90	0.98	53.181	0.57	0.32	48	Atlas		52.117	1
	7/4/2016 8:45	7/4/2016 17:45	540	0.98	171.988	0.98	0.32	48	Atlas		168.548	1
	7/6/2016 13:15	7/6/2016 14:00	45	0.11	32.673	1.07	0.07	1	Atlas		3.594	1
	7/12/2016 9:30	7/12/2016 12:15	165	0.34	215.009	0.55	0.24	1	Atlas		73.103	1
	7/27/2016 18:15	7/27/2016 20:00	105	0.84	191.587	0.56	0.33	12	Atlas		160.933	1
	7/28/2016 5:00	7/28/2016 5:45	45	0.84	18.210	0.94	0.33	12	Atlas		15.296	1
	7/30/2016 14:15	7/30/2016 15:30	75	0.33	148.697	1.41	0.29	1	Atlas		49.070	1
	8/1/2016 20:15	8/2/2016 0:00	225	0.52	611.900	1.97	0.24	12	Atlas		318.188	1
	8/4/2016 13:30	8/4/2016 14:15	45	0.22	138.723	1.22	0.14	3	Atlas		30.519	1
	8/15/2016 2:45	8/15/2016 8:15	330	1.64	165.978	1.83	0.78	6	Atlas		272.204	1
	8/17/2016 5:15	8/17/2016 10:00	285	0.48	239.708	2.11	0.20	12	Atlas		115.060	1
	8/20/2016 15:30	8/20/2016 22:15	405	0.63	319.521	2.70	0.28	1	Atlas		201.298	1
	8/31/2016 17:15	8/31/2016 18:00	45	0.04	458.900	0.11	0.03	1	Atlas		18.356	1
	9/10/2016 15:15	9/10/2016 16:00	45	0.24	26.279	0.22	0.17	1	Atlas		6.307	1
	9/26/2016 11:00	9/26/2016 11:45	45	0.28	38.636	0.28	0.19	3	Atlas		10.818	1
	9/28/2016 13:00	9/28/2016 14:45	105	0.42	89.393	0.70	0.23	6	Atlas		37.545	1
	9/30/2016 1:45	9/30/2016 3:15	90	0.69	54.949	1.34	0.35	3	Atlas		37.915	1
	10/20/2016 10:00	10/20/2016 11:45	105	0.55	16.145	0.37	0.23	3	Atlas		8.880	1
	11/23/2016 21:15	11/23/2016 21:30	15	0.25	1.680	0.42	0.10	6	Atlas		420	1
	11/28/2016 17:15	11/28/2016 22:45	330	0.87	202.914	1.12	0.38	12	Atlas		176.535	1
	12/6/2016 5:30	12/6/2016 13:45	495	0.98	270.000	1.01	0.45	12	Atlas		264.600	1
	12/11/2016 22:00	12/11/2016 23:00	60	0.26	40.619	1.26	0.12	12	Atlas		10.561	1
	12/17/2016 18:30	12/18/2016 19:30	1.500	2.52	755.933	2.78	1.56	12	Cloudburst		1.904.950	1
	12/23/2016 23:00	12/24/2016 2:15	195	0.16	573.581	2.65	0.07	12	Atlas		91.773	1
	12/26/2016 21:00	12/26/2016 23:15	135	0.25	94.396	0.40	0.13	6	Atlas		23.599	1
	1/10/2017 20:00	1/10/2017 20:15	15	0.18	5.956	0.46	0.14	1	Atlas		1.072	1
	1/11/2017 13:45	1/11/2017 15:00	75	0.21	41.376	0.67	0.13	3	Atlas		8.689	1
	1/12/2017 16:15	1/12/2017 22:45	390	0.50	149.862	0.93	0.25	6	Atlas		74.931	1
	1/13/2017 15:45	1/13/2017 17:15	90	0.26	18.658	1.16	0.17	3	Atlas		4.851	1
	1/14/2017 11:00	1/14/2017 16:45	345	0.20	346.790	1.36	0.09	12	Atlas		69.358	1
	1/15/2017 16:00	1/15/2017 20:15	255	0.12	186.775	1.48	0.06	6	Atlas		22.413	1
	1/16/2017 18:30	1/17/2017 23:15	1,725	0.52	546.156	2.00	0.23	12	Atlas		284.001	1
	1/19/2017 18:30	1/21/2017 13:00	2,550	1.16	908.747	2.45	0.53	12	Atlas		1,054.147	1
	2/24/2017 19:00	2/24/2017 20:30	90	0.80	134.158	0.88	0.69	1	Atlas		107.326	1
	2/28/2017 10:30	2/28/2017 11:15	45	0.27	68.674	1.09	0.12	12	Atlas		18.542	1
	3/1/2017 3:15	3/1/2017 23:30	1,215	0.99	1,082.202	2.12	0.52	6	Atlas		1,071.380	1
	3/7/2017 7:45	3/7/2017 16:15	510	0.55	180.440	1.72	0.18	48	Atlas		99.242	1
	3/26/2017 2:45	3/26/2017 3:45	60	0.49	1.206	0.36	0.22	12	Atlas		591	1
	3/27/2017 18:15	3/27/2017 20:00	105	0.29	242.314	0.78	0.17	3	Atlas		70.271	1
	4/11/2017 12:00	4/11/2017 13:00	60	0.38	13.058	0.40	0.17	12	Atlas		4.962	1
	4/16/2017 17:30	4/16/2017 23:15	345	1.23	212.228	1.59	0.58	3	Atlas		261.041	1
	4/27/2017 7:00	4/27/2017 7:15	15	0.21	10.657	0.78	0.14	1	Atlas		2.238	1
	4/29/2017 1:45	4/29/2017 11:00	555	0.97	502.524	1.35	0.57	3	Atlas		487.448	1
	5/1/2017 3:45	5/1/2017 5:15	90	0.40	125.305	1.58	0.21	3	Atlas		50.122	1
	5/4/2017 19:45	5/6/2017 22:00	3,015	1.83	471.819	3.31	0.61	24	Atlas		863.428	1
	5/20/2017 19:15	5/21/2017 9:15	840	1.21	320.172	1.23	0.52	12	Atlas		387.408	1
	5/24/2017 18:15	5/24/2017 22:15	240	0.77	216.877	1.90	0.28	24	Atlas		166.995	1
	6/5/2017 9:00	6/5/2017 10:00	60	0.07	539.657	0.07	0.03	12	Atlas		37.776	1
	6/5/2017 18:30	6/5/2017 19:30	60	0.22	194.227	0.29	0.19	1	Atlas		42.730	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/15/2017 3:15	6/15/2017 6:45	210	0.95	117.558	1.06	0.62	3	Atlas		111,680	1
	6/22/2017 18:45	6/22/2017 19:45	60	0.42	94.462	0.58	0.23	6	Atlas		39,674	1
	6/23/2017 15:15	6/23/2017 19:45	270	0.97	307.566	1.55	0.53	3	Atlas		298,339	1
	6/30/2017 21:00	6/30/2017 22:30	90	0.41	228.088	0.49	0.35	1	Atlas		93,516	1
	7/6/2017 4:45	7/6/2017 14:15	570	0.64	199.191	1.09	0.27	3	Atlas		127,482	1
	7/7/2017 21:00	7/7/2017 22:15	75	0.24	246.717	0.99	0.17	1	Atlas		59,212	1
	7/23/2017 2:45	7/23/2017 11:00	495	1.08	325.883	1.08	0.50	12	Atlas		351,964	1
	7/28/2017 10:00	7/28/2017 11:15	75	0.43	174.030	1.52	0.33	1	Atlas		74,833	1
	8/2/2017 13:15	8/2/2017 13:45	30	0.39	5.256	0.90	0.34	1	Atlas		2,050	1
	8/6/2017 17:00	8/7/2017 1:00	480	0.71	118.845	1.20	0.31	12	Atlas		84,380	1
	8/17/2017 15:00	8/17/2017 20:15	315	0.77	215.761	0.79	0.42	6	Atlas		166,136	1
	9/1/2017 7:45	9/2/2017 17:00	1,995	4.13	549.336	4.30	4.92	24	Cloudburst		2,268,756	1
	9/19/2017 9:00	9/19/2017 10:00	60	0.43	17.419	0.83	0.27	3	Atlas		7,490	1
	10/7/2017 21:45	10/7/2017 23:45	120	1.88	55.544	0.60	0.71	24	Atlas		104,423	1
	10/8/2017 11:15	10/8/2017 20:15	540	1.88	115.963	1.87	0.71	24	Atlas		218,011	1
	10/10/2017 14:45	10/10/2017 22:00	435	0.79	228.334	2.68	0.42	3	Atlas		180,384	1
	10/23/2017 6:45	10/23/2017 7:15	30	0.54	11.374	0.38	0.29	6	Atlas		6,142	1
	10/27/2017 18:00	10/28/2017 3:45	585	1.03	190.946	1.68	0.47	12	Atlas		196,674	1
	11/3/2017 4:30	11/3/2017 8:15	225	1.87	141.940	3.04	6.92	1	Atlas		265,427	1
	11/6/2017 1:45	11/6/2017 3:15	90	0.19	205.616	2.20	0.12	1	Atlas		39,067	1
	11/15/2017 13:45	11/15/2017 14:15	30	0.23	704	0.26	0.15	1	Atlas		162	1
	11/18/2017 17:15	11/18/2017 17:45	30	0.33	25.491	0.56	0.21	1	Atlas		8,412	1
	12/5/2017 3:30	12/5/2017 7:15	225	0.62	364.226	0.63	0.35	3	Atlas		225,820	1
	12/22/2017 23:45	12/23/2017 2:45	180	1.16	1,779	0.79	0.47	12	Atlas		2,064	1
	1/12/2018 9:45	1/12/2018 9:45	-	0.44	411	0.43	0.17	24	Atlas		181	1
	1/27/2018 14:45	1/27/2018 16:15	90	0.32	83.431	0.38	0.17	6	Atlas		26,698	1
	2/14/2018 7:15	2/14/2018 9:45	150	0.44	80.336	0.79	0.20	12	Atlas		35,348	1
	2/16/2018 2:30	2/16/2018 12:15	585	0.73	603.977	1.72	0.33	12	Atlas		440,903	1
	2/17/2018 13:15	2/17/2018 16:30	195	0.21	271.186	1.88	0.13	3	Atlas		56,949	1
	3/24/2018 6:15	3/24/2018 21:15	900	0.85	922.907	1.68	0.33	12	Atlas		784,471	1
	3/28/2018 5:30	3/28/2018 11:00	330	0.40	110.448	1.40	0.17	12	Atlas		44,179	1
	3/29/2018 18:45	3/30/2018 8:15	810	0.72	573.417	2.03	0.24	24	Atlas		412,860	1
	3/31/2018 21:45	3/31/2018 23:45	120	0.23	99.104	1.35	0.11	3	Atlas		22,794	1
	4/1/2018 20:00	4/2/2018 1:15	315	0.57	896.882	1.98	0.31	6	Atlas		511,223	1
	4/3/2018 16:15	4/3/2018 23:00	405	0.55	476.080	2.52	0.30	6	Atlas		261,844	1
	4/14/2018 9:15	4/14/2018 10:00	45	1.51	15.730	0.46	0.49	48	Atlas		23,753	1
	4/14/2018 23:45	4/15/2018 10:45	660	1.51	207.970	1.53	0.49	48	Atlas		314,034	1
	4/23/2018 5:15	4/23/2018 7:30	135	0.71	95.962	0.66	0.31	12	Atlas		68,133	1
	6/1/2018 0:30	6/1/2018 3:00	150	1.23	214.684	1.67	0.61	3	Atlas		264,061	1
	6/11/2018 11:15	6/11/2018 13:45	150	0.92	21.488	0.88	0.30	48	Atlas		19,769	1
	6/26/2018 12:30	6/26/2018 21:30	540	0.90	214.441	2.12	0.45	1	Atlas		192,997	1
	7/2/2018 17:30	7/2/2018 18:30	60	0.65	617.766	1.52	0.52	1	Atlas		401,548	1
	7/3/2018 15:30	7/3/2018 16:15	45	0.56	133.461	1.43	0.39	1	Atlas		74,738	1
	7/15/2018 18:15	7/15/2018 19:00	45	0.22	461.632	0.22	0.11	1	Atlas		101,559	1
	7/20/2018 14:00	7/20/2018 22:15	495	0.93	624.776	1.31	0.39	12	Atlas		581,042	1
	7/22/2018 17:45	7/22/2018 18:00	15	0.30	6.657	1.55	0.17	1	Atlas		1,997	1
	7/30/2018 23:45	7/31/2018 13:15	810	2.22	106.092	2.33	0.90	12	Atlas		235,524	1
	8/15/2018 20:00	8/16/2018 11:15	915	2.80	763.440	2.79	1.41	24	Cloudburst		2,137,631	1
	8/19/2018 20:00	8/19/2018 23:00	180	2.93	454.096	5.78	36.61	1	Atlas		1,330,500	1
	8/20/2018 11:15	8/20/2018 11:45	30	0.61	93.993	6.17	0.34	1	Atlas		57,336	1
	8/31/2018 17:30	8/31/2018 17:45	15	0.58	58.162	0.50	0.41	1	Atlas		33,734	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.30	15.373	0.82	0.19	3	Atlas		4,612	1
	9/8/2018 18:15	9/9/2018 0:30	375	2.08	1,142.588	2.78	0.98	6	Atlas		2,376,684	1
	9/21/2018 17:30	9/21/2018 17:45	15	0.36	27.906	0.49	0.30	1	Atlas		10,046	1
	9/22/2018 17:00	9/22/2018 17:00	-	1.41	1.042	0.84	0.54	3	Atlas		1,469	1
	9/23/2018 4:15	9/23/2018 8:30	255	1.41	812.268	1.88	0.54	3	Atlas		1,145,298	1
	9/24/2018 6:30	9/24/2018 16:30	600	2.00	1,155.364	3.80	0.88	6	Atlas		2,310,728	1
	9/25/2018 5:30	9/25/2018 6:00	30	0.10	258.920	3.87	0.09	1	Atlas		25,892	1
	9/25/2018 16:30	9/26/2018 3:00	630	0.77	623.553	4.62	0.34	12	Atlas		480,136	1
	10/31/2018 17:00	11/1/2018 2:30	570	2.04	153.515	1.89	0.73	24	Atlas		313,170	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/5/2018 21:30	11/6/2018 0:45	195	1.24	463.515	3.38	0.67	6	Atlas		574,758	1
	11/14/2018 23:00	11/15/2018 0:45	105	0.48	137.894	0.49	0.22	12	Atlas		66,189	1
	12/1/2018 6:00	12/1/2018 14:30	510	1.50	172.637	1.61	0.66	12	Atlas		258,955	1
	12/15/2018 2:15	12/15/2018 13:15	660	1.70	776.101	1.70	0.70	12	Atlas		1,319,371	1
	12/20/2018 20:15	12/20/2018 22:15	120	0.56	29.439	2.17	0.22	12	Atlas		16,486	1
	12/27/2018 17:30	12/27/2018 19:15	105	0.32	427.509	0.65	0.18	1	Atlas		136,803	1
	12/31/2018 5:00	12/31/2018 17:45	765	1.36	404.979	1.69	0.52	24	Atlas		550,771	1
	1/4/2019 14:00	1/4/2019 16:15	135	0.64	251.588	1.83	0.29	12	Atlas		161,016	1
	1/23/2019 10:00	1/23/2019 13:00	180	0.75	38.853	1.48	0.29	12	Atlas		29,140	1
	2/6/2019 7:00	2/6/2019 10:30	210	1.48	63.409	0.54	0.48	48	Atlas		93,845	1
	2/7/2019 8:45	2/7/2019 19:45	660	1.48	179.804	1.56	0.48	48	Atlas		266,110	1
	2/10/2019 19:15	2/12/2019 17:45	2,790	2.59	885.775	4.14	0.81	48	Atlas		2,294,158	1
	2/20/2019 2:45	2/20/2019 17:30	885	1.76	739.480	1.82	0.80	6	Atlas		1,301,485	1
	2/23/2019 17:00	2/23/2019 22:30	330	0.90	348.661	2.72	0.49	6	Atlas		313,795	1
	3/9/2019 13:30	3/9/2019 19:15	345	1.11	118.708	1.27	0.56	6	Atlas		131,766	1
	3/14/2019 17:15	3/14/2019 19:15	120	0.17	730.194	1.77	0.11	3	Atlas		124,133	1
	3/30/2019 17:00	3/30/2019 20:15	195	0.79	213.056	1.10	0.37	6	Atlas		168,314	1
	4/7/2019 12:00	4/7/2019 13:30	90	0.61	133.559	0.81	0.31	3	Atlas		81,471	1
	4/14/2019 1:15	4/14/2019 5:15	240	1.18	220.400	1.89	0.57	6	Atlas		260,072	1
	4/19/2019 18:45	4/20/2019 10:30	945	3.64	375.080	4.60	1.92	48	Cloudburst		1,365,293	1
	4/23/2019 17:45	4/23/2019 18:30	45	0.24	940.171	3.88	0.21	1	Atlas		225,641	1
	5/3/2019 4:45	5/3/2019 8:30	225	0.95	201.757	1.33	0.51	6	Atlas		191,669	1
	5/19/2019 23:00	5/19/2019 23:45	45	0.38	124.045	0.40	0.19	1	Atlas		47,137	1
	5/26/2019 13:45	5/26/2019 16:00	135	0.43	195.400	0.67	0.25	3	Atlas		84,022	1
	5/29/2019 9:15	5/29/2019 13:45	270	0.78	52.497	1.25	0.43	6	Atlas		40,948	1
	5/30/2019 11:00	5/30/2019 11:30	30	0.21	85.738	1.42	0.11	1	Atlas		18,005	1
	6/5/2019 21:00	6/5/2019 21:30	30	0.65	61.717	0.78	0.47	1	Atlas		40,116	1
	6/7/2019 22:15	6/7/2019 22:15	-	0.63	395	1.02	0.25	6	Atlas		249	1
	6/9/2019 16:15	6/9/2019 19:00	165	0.83	787.286	2.40	0.48	3	Atlas		653,447	1
	6/16/2019 19:45	6/16/2019 22:15	150	1.28	258.709	1.33	0.58	12	Atlas		331,147	1
	6/18/2019 17:00	6/18/2019 17:30	30	0.52	11.985	2.12	0.20	24	Atlas		6,232	1
	6/21/2019 19:30	6/21/2019 21:15	105	0.77	71.327	2.68	0.30	24	Atlas		54,922	1
	6/22/2019 6:45	6/22/2019 9:00	135	0.77	36.432	2.90	0.30	24	Atlas		28,053	1
	6/23/2019 15:45	6/23/2019 16:45	60	0.47	381.883	3.10	0.36	1	Atlas		179,485	1
	6/24/2019 13:15	6/24/2019 14:45	90	0.48	635.019	2.36	0.30	3	Atlas		304,809	1
	7/18/2019 0:45	7/18/2019 1:45	60	0.57	443.796	0.65	0.37	1	Atlas		252,964	1
	7/29/2019 23:30	7/30/2019 0:15	45	0.46	249.209	0.46	0.31	3	Atlas		114,636	1
	8/7/2019 4:30	8/7/2019 5:00	30	0.28	37.218	0.29	0.24	1	Atlas		10,421	1
	8/26/2019 11:00	8/26/2019 14:45	225	0.45	772.724	0.88	0.22	6	Atlas		347,726	1
	10/6/2019 14:45	10/6/2019 20:00	315	1.20	29.420	1.02	0.50	6	Atlas		35,304	1
	10/15/2019 22:30	10/16/2019 0:00	90	0.73	94.259	1.01	0.57	1	Atlas		68,809	1
	10/26/2019 5:15	10/26/2019 8:45	210	1.24	57.351	1.04	0.47	24	Atlas		71,115	1
	10/26/2019 19:30	10/26/2019 19:30	-	1.24	118	1.34	0.47	24	Atlas		146	1
	10/30/2019 13:45	10/30/2019 16:15	150	0.82	358.352	2.03	0.41	3	Atlas		293,849	1
	10/31/2019 6:15	10/31/2019 8:30	135	0.69	279.112	2.72	0.37	6	Atlas		192,587	1
	11/26/2019 21:45	11/27/2019 1:00	195	0.80	72.429	1.25	0.36	12	Atlas		57,943	1
	11/30/2019 2:45	11/30/2019 22:30	1,185	1.83	808.010	2.83	0.71	12	Atlas		1,478,658	1
	12/16/2019 14:15	12/16/2019 19:15	300	0.78	301.865	1.46	0.38	6	Atlas		235,455	1
	12/29/2019 19:00	12/30/2019 2:00	420	1.45	82.654	1.42	0.53	24	Atlas		119,848	1
	1/3/2020 18:15	1/3/2020 18:30	15	0.79	1.586	2.18	0.26	48	Atlas		1,253	1
	1/10/2020 19:30	1/10/2020 20:45	75	1.46	39.452	0.44	0.55	24	Atlas		57,600	1
	1/11/2020 10:45	1/11/2020 21:00	615	1.46	308.664	1.49	0.55	24	Atlas		450,649	1
	1/18/2020 10:45	1/18/2020 11:00	15	0.37	5.084	1.21	0.16	12	Atlas		1,881	1
	1/24/2020 6:15	1/24/2020 6:30	15	0.60	302	0.87	0.20	24	Atlas		181	1
	2/12/2020 17:00	2/12/2020 23:00	360	0.97	513.854	1.58	0.45	3	Atlas		498,438	1
	2/24/2020 19:30	2/24/2020 19:45	15	0.68	2.231	0.76	0.26	24	Atlas		1,517	1
	3/10/2020 8:00	3/10/2020 8:30	30	0.41	78.749	0.41	0.19	1	Atlas		32,287	1
	3/12/2020 17:30	3/12/2020 23:00	330	0.49	101.794	0.90	0.22	12	Atlas		49,879	1
	3/14/2020 12:30	3/14/2020 12:45	15	0.47	8.300	1.17	0.22	12	Atlas		3,901	1
	3/18/2020 16:00	3/18/2020 16:30	30	0.39	16.010	1.31	0.19	6	Atlas		6,244	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/19/2020 11:45	3/19/2020 13:00	75	0.66	332.318	1.76	0.27	1	Atlas		219,330	1
	3/20/2020 3:30	3/20/2020 4:00	30	0.66	28.314	1.55	0.27	1	Atlas		18,687	1
	3/24/2020 18:15	3/24/2020 19:00	45	0.13	90.038	1.17	0.07	6	Atlas		11,705	1
	3/28/2020 22:15	3/28/2020 23:00	45	0.34	248.274	0.48	0.29	1	Atlas		84,413	1
	4/12/2020 16:45	4/13/2020 7:15	870	1.10	151.035	1.68	0.44	12	Atlas		166,139	1
	4/26/2020 7:45	4/26/2020 8:00	15	0.58	69	1.10	0.20	24	Atlas		40	1
	5/8/2020 11:30	5/8/2020 13:15	105	0.61	69.308	0.82	0.28	6	Atlas		42,278	1
	5/16/2020 0:30	5/16/2020 10:45	615	1.36	184.034	1.51	0.49	24	Atlas		250,286	1
	5/18/2020 8:30	5/18/2020 8:45	15	0.39	19.074	1.86	0.16	12	Atlas		7,439	1
	5/23/2020 18:30	5/23/2020 19:15	45	0.41	264.029	0.86	0.23	3	Atlas		108,252	1
	6/4/2020 16:30	6/4/2020 19:45	195	0.67	62.206	0.64	0.33	6	Atlas		41,678	1
	6/21/2020 12:45	6/21/2020 13:00	15	0.55	39.904	0.47	0.26	6	Atlas		21,947	1
	6/22/2020 23:30	6/23/2020 1:45	135	1.26	223.490	1.81	0.63	6	Atlas		281,598	1
	6/29/2020 4:15	6/29/2020 6:15	120	1.09	283.756	2.70	0.63	3	Atlas		309,294	1
CSO097 Total											**269,918,382**	**475**
CSO104	9/26/2012 20:45	9/27/2012 0:15	210	1.48	127.354	2.10	0.80	6	Atlas		188,484	1
	12/9/2012 22:15	12/9/2012 23:45	90	1.23	78.797	2.85	0.63	3	Atlas		96,920	1
	1/11/2013 6:15	1/11/2013 6:45	30	0.69	11.504	0.86	0.37	3	Atlas		7,938	1
	1/13/2013 3:45	1/13/2013 17:45	840	2.19	45.645	3.01	0.84	24	Atlas		99,963	1
	1/30/2013 4:45	1/30/2013 6:30	105	0.85	120.579	0.93	0.43	6	Atlas		102,492	1
	3/18/2013 5:00	3/18/2013 6:15	75	1.63	14.347	1.81	0.53	48	Atlas		23,385	1
	4/11/2013 7:15	4/11/2013 7:15	-	1.17	720	0.42	0.45	24	Atlas		842	1
	4/16/2013 20:00	4/16/2013 21:15	75	0.42	310.690	1.57	0.34	1	Atlas		130,490	1
	4/19/2013 2:30	4/19/2013 4:00	90	0.85	52.665	1.31	0.46	6	Atlas		44,765	1
	4/24/2013 9:00	4/24/2013 9:00	-	0.62	1.026	1.49	0.35	3	Atlas		636	1
	5/10/2013 23:30	5/10/2013 23:30	-	0.73	8.436	2.50	0.32	6	Atlas		6,158	1
	6/26/2013 4:30	6/26/2013 5:15	45	0.46	67.391	0.59	0.33	1	Atlas		31,000	1
	6/26/2013 16:45	6/26/2013 22:00	315	1.64	558.404	2.19	0.85	6	Atlas		915,782	1
	7/4/2013 16:45	7/5/2013 0:15	450	0.44	21.761	1.42	0.20	12	Atlas		9,575	1
	7/6/2013 12:30	7/6/2013 13:00	30	0.45	4.980	1.86	0.20	12	Atlas		2,241	1
	7/10/2013 14:15	7/10/2013 15:00	45	0.66	157.844	1.67	0.53	1	Atlas		104,177	1
	7/21/2013 20:15	7/21/2013 22:30	135	2.72	9.065	2.15	3.43	3	Atlas		24,657	1
	7/22/2013 7:45	7/22/2013 14:15	390	2.72	45.407	2.77	3.43	3	Atlas		123,506	1
	8/12/2013 14:45	8/12/2013 15:30	45	0.91	31.009	0.79	0.51	1	Atlas		28,218	1
	8/31/2013 22:30	8/31/2013 22:30	-	1.41	474	0.81	0.65	12	Atlas		668	1
	10/30/2013 4:45	10/30/2013 7:30	165	1.70	859.119	1.70	0.84	6	Atlas		1,460,503	1
	10/31/2013 19:15	10/31/2013 20:15	60	1.10	47.806	2.70	0.50	1	Atlas		52,587	1
	11/17/2013 6:00	11/17/2013 10:45	285	2.72	465.642	2.66	2.87	6	Cloudburst		1,266,545	1
	12/21/2013 21:45	12/22/2013 1:15	210	3.31	344.944	3.24	2.24	24	Cloudburst		1,141,766	1
	2/17/2014 16:45	2/17/2014 16:45	-	0.56	2.763	0.75	0.32	3	Atlas		1,547	1
	4/4/2014 2:00	4/4/2014 5:15	195	2.93	42.834	3.62	1.14	24	Cloudburst		125,505	1
	4/7/2014 11:15	4/7/2014 12:45	90	1.06	265.172	4.05	0.64	1	Atlas		281,082	1
	4/28/2014 5:45	4/28/2014 8:45	180	1.80	343.624	1.59	0.73	3	Atlas		618,523	1
	5/9/2014 19:30	5/9/2014 21:00	90	1.44	1.213	0.24	0.63	1	Atlas		1,746	1
	5/10/2014 14:15	5/10/2014 20:30	375	1.44	210.899	1.51	0.63	1	Atlas		303,695	1
	5/28/2014 20:15	5/29/2014 2:30	375	0.04	1,966.650	0.59	0.03	3	Atlas		78,666	1
	7/13/2014 23:15	7/13/2014 23:45	30	0.69	16.690	0.46	0.32	12	Atlas		11,516	1
	7/26/2014 21:45	7/26/2014 22:45	60	1.04	40.199	0.65	0.48	12	Atlas		41,807	1
	8/8/2014 7:00	8/8/2014 7:00	-	0.62	3.081	0.46	0.31	6	Atlas		1,910	1
	8/10/2014 4:45	8/10/2014 5:30	45	1.14	31.961	1.92	0.98	1	Atlas		36,435	1
	8/23/2014 16:15	8/23/2014 21:30	315	0.96	86.558	1.82	0.46	6	Atlas		83,096	1
	8/30/2014 15:15	8/30/2014 16:15	60	1.27	60.791	2.24	0.80	1	Atlas		77,204	1
	9/11/2014 0:45	9/11/2014 3:15	150	2.30	361.620	2.03	3.14	3	Atlas		831,725	1
	10/10/2014 2:45	10/10/2014 3:30	45	1.02	19.502	1.50	0.46	3	Atlas		19,892	1
	10/13/2014 23:45	10/14/2014 0:00	15	1.56	4.027	2.40	0.70	12	Atlas		6,282	1
	12/6/2014 2:15	12/6/2014 3:45	90	1.75	28.856	2.59	0.56	48	Atlas		50,498	1
	3/10/2015 12:30	3/10/2015 14:00	90	0.95	36.676	2.57	0.42	12	Atlas		34,842	1
	3/14/2015 3:45	3/14/2015 4:15	30	1.91	3.968	2.79	0.72	24	Atlas		7,578	1
	4/2/2015 15:00	4/2/2015 16:00	60	4.80	13.376	0.90	10.76	6	Cloudburst		64,203	1
	4/3/2015 0:15	4/3/2015 7:15	420	4.80	518.341	4.38	10.76	6	Cloudburst		2,488,038	1
	4/7/2015 9:15	4/7/2015 10:30	75	1.03	73.778	5.50	0.45	1	Atlas		75,991	1
	5/16/2015 11:45	5/16/2015 13:45	120	0.94	54.121	0.98	0.50	3	Atlas		50,874	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/8/2015 8:00	6/8/2015 8:45	45	0.14	14,936	0.18	0.08	3	Atlas		2,091	1
	6/17/2015 5:15	6/17/2015 7:30	135	0.66	8,645	0.67	0.37	3	Atlas		5,706	1
	6/20/2015 0:15	6/20/2015 4:45	270	1.14	1,748	2.33	0.46	12	Atlas		1,993	1
	6/21/2015 21:15	6/22/2015 9:45	750	0.25	415,764	2.96	0.11	12	Atlas		103,941	1
	6/26/2015 0:15	6/26/2015 4:15	240	0.85	4,856	2.32	0.46	6	Atlas		4,128	1
	6/26/2015 17:00	6/27/2015 2:30	570	0.89	405,113	3.13	0.50	1	Atlas		360,551	1
	6/29/2015 14:30	6/29/2015 14:45	15	0.29	6,452	2.03	0.14	1	Atlas		1,871	1
	7/2/2015 16:00	7/2/2015 23:00	420	0.99	22,665	3.08	0.50	3	Atlas		22,438	1
	7/3/2015 14:45	7/3/2015 18:30	225	1.51	120,482	3.71	2.75	1	Atlas		181,928	1
	7/7/2015 12:30	7/7/2015 14:45	135	1.07	26,148	3.51	0.58	3	Atlas		27,978	1
	7/10/2015 16:15	7/10/2015 17:30	75	0.46	5,209	1.89	0.23	6	Atlas		2,396	1
	7/12/2015 6:00	7/12/2015 8:00	120	0.70	173,777	2.55	0.47	3	Atlas		121,644	1
	7/14/2015 18:45	7/14/2015 19:30	45	0.14	29,836	2.35	0.11	1	Atlas		4,177	1
	7/29/2015 17:30	7/29/2015 17:30	-	0.33	1,621	0.36	0.28	1	Atlas		535	1
	8/19/2015 16:15	8/19/2015 17:00	45	0.80	54,601	0.79	0.50	1	Atlas		43,681	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.85	2,135	0.91	0.74	1	Atlas		1,815	1
	10/27/2015 18:30	10/27/2015 20:30	120	3.38	13,420	2.42	1.47	24	Cloudburst		45,359	1
	11/6/2015 3:45	11/6/2015 5:00	75	0.91	84,085	1.00	0.56	3	Atlas		76,517	1
	11/18/2015 10:30	11/18/2015 14:00	210	1.75	67,279	2.15	0.90	6	Atlas		117,738	1
	12/23/2015 19:15	12/23/2015 21:15	120	1.28	576,927	1.80	0.81	1	Atlas		738,467	1
	12/27/2015 10:30	12/27/2015 14:15	225	2.65	84,909	3.63	0.86	48	Atlas		225,008	1
	2/2/2016 23:00	2/3/2016 1:30	150	1.34	437,325	1.39	0.67	6	Atlas		586,015	1
	2/21/2016 10:15	2/21/2016 10:45	30	0.80	10,850	0.97	0.37	12	Atlas		8,680	1
	2/24/2016 3:45	2/24/2016 8:00	255	2.32	76,931	2.79	0.91	12	Atlas		178,479	1
	3/27/2016 21:30	3/27/2016 22:30	60	0.73	55,188	1.24	0.51	1	Atlas		40,287	1
	4/11/2016 18:00	4/11/2016 18:00	-	1.14	1,569	1.16	0.52	6	Atlas		1,789	1
	4/27/2016 20:15	4/28/2016 12:00	945	0.91	90,264	1.59	0.43	3	Atlas		82,140	1
	5/11/2016 22:00	5/11/2016 22:00	-	0.30	2,897	1.58	0.14	3	Atlas		869	1
	6/2/2016 15:30	6/2/2016 17:15	105	1.49	325,470	1.72	2.75	1	Atlas		484,950	1
	6/12/2016 17:45	6/12/2016 20:00	135	0.59	22,978	0.60	0.50	1	Atlas		13,557	1
	6/14/2016 16:15	6/14/2016 21:00	285	1.46	498,682	2.05	0.87	1	Atlas		728,076	1
	6/22/2016 9:00	6/22/2016 9:30	30	0.17	18,476	0.16	0.09	6	Atlas		3,141	1
	6/23/2016 16:00	6/24/2016 0:45	525	2.12	199,489	2.29	1.11	6	Cloudburst		422,917	1
	7/4/2016 9:15	7/4/2016 9:30	15	1.30	1,308	0.89	0.42	48	Atlas		1,700	1
	7/8/2016 10:00	7/8/2016 15:00	300	0.28	216,593	1.78	0.23	1	Atlas		60,646	1
	7/28/2016 3:45	7/28/2016 4:30	45	0.30	46,283	0.72	0.14	12	Atlas		13,885	1
	8/9/2016 15:45	8/9/2016 16:00	15	0.53	36,285	0.75	0.43	1	Atlas		19,231	1
	8/15/2016 2:45	8/15/2016 3:15	30	1.44	30,135	1.52	0.72	6	Atlas		43,394	1
	8/17/2016 6:45	8/17/2016 9:00	135	1.13	126,169	2.69	0.52	3	Atlas		142,571	1
	8/20/2016 15:00	8/20/2016 19:45	285	1.25	62,900	3.63	0.55	12	Atlas		78,625	1
	8/28/2016 17:30	8/28/2016 17:45	15	0.13	19,946	0.14	0.10	1	Atlas		2,593	1
	9/30/2016 0:45	9/30/2016 4:45	240	0.64	21,323	1.61	0.34	3	Atlas		13,647	1
	11/29/2016 4:30	11/29/2016 11:30	420	0.79	36,651	1.19	0.35	12	Atlas		28,954	1
	12/6/2016 14:15	12/7/2016 8:45	1,110	0.87	698,349	0.93	0.40	12	Atlas		607,564	1
	12/17/2016 18:30	12/18/2016 0:30	360	3.53	79,617	3.78	6.35	12	Cloudburst		281,048	1
	1/6/2017 8:15	1/9/2017 3:30	4,035	0.24	8,961,017	0.50	0.10	12	Atlas		2,150,644	1
	1/12/2017 19:30	1/16/2017 19:45	5,775	0.37	5,555,424	1.92	0.19	6	Atlas		2,055,507	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.37	1,349	1.28	0.73	6	Atlas		1,848	1
	4/29/2017 2:15	4/29/2017 3:45	90	1.64	544,235	1.85	0.80	6	Atlas		892,545	1
	5/21/2017 3:00	5/21/2017 5:45	165	1.09	493,908	1.20	0.48	12	Atlas		538,360	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.65	13,337	0.80	0.57	1	Atlas		8,669	1
	8/22/2017 16:00	8/22/2017 16:15	15	0.42	23,826	0.78	0.30	1	Atlas		10,007	1
	9/1/2017 15:15	9/1/2017 15:45	30	3.66	287	2.05	2.32	24	Cloudburst		1,050	1
	10/7/2017 22:00	10/7/2017 23:00	60	2.35	20,954	1.06	0.88	24	Atlas		49,241	1
	10/8/2017 14:30	10/8/2017 14:30	-	2.35	527	2.19	0.88	24	Atlas		1,239	1
	11/3/2017 5:00	11/3/2017 6:15	75	0.78	64,545	2.02	0.55	1	Atlas		50,345	1
	11/6/2017 2:15	11/6/2017 2:30	15	0.77	2,139	1.71	0.60	1	Atlas		1,647	1
	12/23/2017 3:15	12/23/2017 4:00	45	1.49	940	1.15	0.57	12	Atlas		1,401	1
	2/22/2018 4:00	2/24/2018 23:45	4,065	2.10	893,529	7.32	0.78	24	Atlas		1,876,411	1
	5/5/2018 15:00	5/7/2018 2:00	2,100	1.40	207,291	1.55	0.56	6	Atlas		290,208	1
	5/27/2018 4:15	5/27/2018 5:30	75	1.15	416,840	1.31	0.86	1	Atlas		479,366	1
	6/1/2018 0:00	6/1/2018 2:45	165	1.91	30,187	3.33	0.93	3	Atlas		57,658	1
	6/21/2018 9:15	6/21/2018 9:30	15	0.67	54,703	0.94	0.30	12	Atlas		36,651	1
	6/26/2018 12:30	6/26/2018 13:30	60	0.69	112,800	3.26	0.29	12	Atlas		77,832	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/20/2018 20:45	7/20/2018 21:30	45	0.79	847	1.17	0.40	3	Atlas		669	1
	7/31/2018 1:45	7/31/2018 12:45	660	2.27	9,687	2.47	1.11	6	Cloudburst		21,989	1
	8/16/2018 3:45	8/16/2018 10:30	405	4.16	228,187	4.09	6.94	24	Cloudburst		949,259	1
	8/20/2018 12:00	8/20/2018 12:30	30	0.48	38,767	4.59	0.28	1	Atlas		18,608	1
	8/31/2018 16:30	8/31/2018 18:00	90	1.94	97,406	2.02	6.15	1	Atlas		188,968	1
	9/8/2018 17:30	9/9/2018 0:00	390	3.74	1,216,130	4.17	16.61	6	Cloudburst		4,548,328	1
	9/23/2018 6:15	9/23/2018 7:30	75	1.55	13,674	1.81	0.56	24	Atlas		21,195	1
	9/24/2018 8:00	9/24/2018 14:30	390	2.69	390,472	4.52	2.15	12	Cloudburst		1,050,371	1
	9/25/2018 17:15	9/25/2018 18:15	60	1.29	41,345	5.63	0.75	1	Atlas		53,335	1
	10/10/2018 17:15	10/10/2018 17:15	-	0.47	11,172	0.52	0.40	1	Atlas		5,251	1
	11/1/2018 2:45	11/1/2018 2:45	-	2.49	63	2.30	0.86	24	Atlas		156	1
	11/5/2018 22:45	11/6/2018 0:45	120	1.29	29,621	3.87	0.69	6	Atlas		38,211	1
	12/1/2018 8:45	12/1/2018 10:45	120	1.63	21,276	1.55	0.72	12	Atlas		34,680	1
	12/15/2018 6:00	12/15/2018 17:30	690	1.78	15,776	1.78	0.71	12	Atlas		28,082	1
	12/20/2018 21:00	12/22/2018 5:15	1,935	0.61	777	2.40	0.23	12	Atlas		474	1
	12/27/2018 18:30	12/31/2018 17:45	5,715	0.42	95,417	2.32	0.25	1	Atlas		40,075	1
	2/12/2019 4:15	2/12/2019 6:45	150	2.84	56,861	4.37	0.90	48	Atlas		161,485	1
	2/15/2019 22:45	2/15/2019 22:45	-	0.03	20,033	2.88	0.02	3	Atlas		601	1
	2/20/2019 4:30	2/20/2019 8:00	210	2.30	562,513	2.03	0.95	6	Atlas		1,270,780	1
	2/23/2019 21:15	2/23/2019 22:30	75	1.08	28,053	3.42	0.58	6	Atlas		30,297	1
	3/9/2019 14:00	3/9/2019 20:00	360	1.07	142,960	1.22	0.49	12	Atlas		152,967	1
	3/14/2019 17:30	3/14/2019 18:45	75	0.24	205,571	1.76	0.21	1	Atlas		49,337	1
	3/30/2019 17:15	3/30/2019 20:15	180	1.17	2,740	1.50	0.56	6	Atlas		3,206	1
	4/7/2019 8:15	4/7/2019 16:30	495	0.79	158,080	1.01	0.43	3	Atlas		124,883	1
	4/14/2019 2:15	4/14/2019 8:30	375	1.02	224,754	1.95	0.49	6	Atlas		229,249	1
	4/18/2019 22:30	4/19/2019 1:30	180	1.03	57,891	2.06	0.48	6	Atlas		59,628	1
	4/19/2019 19:00	4/20/2019 13:30	1,110	2.69	528,442	4.68	1.12	24	Cloudburst		1,421,510	1
	4/24/2019 21:00	4/25/2019 0:30	210	0.91	13,791	4.11	0.30	48	Atlas		12,550	1
	4/25/2019 20:15	4/26/2019 3:15	420	0.91	6,023	4.56	0.30	48	Atlas		5,481	1
	5/3/2019 5:15	5/3/2019 11:15	360	1.15	227,603	1.42	0.63	3	Atlas		261,744	1
	5/26/2019 13:45	5/26/2019 15:15	90	1.09	73,315	1.15	0.65	3	Atlas		79,913	1
	5/29/2019 12:00	5/29/2019 13:15	75	1.15	108,766	1.93	0.45	6	Atlas		125,081	1
	5/30/2019 12:15	5/30/2019 15:30	195	1.15	1,357	2.25	0.45	6	Atlas		1,560	1
	6/7/2019 22:30	6/8/2019 3:45	315	0.57	7,004	1.75	0.23	6	Atlas		3,992	1
	6/9/2019 1:30	6/9/2019 1:30	-	0.87	168	2.09	0.29	24	Atlas		146	1
	6/9/2019 15:45	6/9/2019 17:45	120	0.87	58,277	2.57	0.29	24	Atlas		50,701	1
	6/16/2019 6:30	6/16/2019 8:15	105	0.21	352	0.87	0.17	1	Atlas		74	1
	6/16/2019 19:30	6/17/2019 4:45	555	3.00	477,954	3.36	3.67	6	Cloudburst		1,433,863	1
	6/18/2019 17:30	6/18/2019 17:30	-	0.50	43,818	3.84	0.19	24	Atlas		21,909	1
	6/21/2019 19:30	6/22/2019 10:00	870	0.52	660,860	5.03	0.34	3	Atlas		343,647	1
	6/23/2019 16:15	6/23/2019 19:30	195	0.64	44,184	4.73	0.50	1	Atlas		28,278	1
	6/24/2019 13:30	6/24/2019 15:45	135	0.65	270,280	2.98	0.39	3	Atlas		175,682	1
	6/30/2019 19:30	6/30/2019 19:45	15	0.39	1,949	0.84	0.21	6	Atlas		760	1
	7/1/2019 17:15	7/1/2019 17:15	-	0.41	9,388	0.80	0.36	1	Atlas		3,849	1
	7/22/2019 14:45	7/23/2019 4:00	795	0.02	712,050	0.74	0.01	3	Atlas		14,241	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.82	396,495	0.82	0.47	3	Atlas		325,126	1
	8/7/2019 4:45	8/7/2019 4:45	-	0.09	8,867	0.10	0.08	1	Atlas		798	1
	8/26/2019 11:30	8/26/2019 14:45	195	0.73	222,360	1.22	0.28	24	Atlas		162,323	1
	10/6/2019 18:45	10/26/2019 21:45	28,980	0.83	323,082	3.16	0.32	3	Atlas		268,158	1
	10/30/2019 14:45	10/31/2019 11:30	1,245	0.68	155,118	2.65	0.32	3	Atlas		105,480	1
	11/7/2019 10:00	11/11/2019 9:45	5,745	0.73	26,215	0.83	0.28	24	Atlas		19,137	1
	12/14/2019 5:15	12/14/2019 7:00	105	0.48	1,158	0.69	0.20	12	Atlas		556	1
	12/16/2019 16:45	12/16/2019 23:30	405	1.05	15,045	1.63	0.45	6	Atlas		15,797	1
	12/29/2019 17:00	12/30/2019 3:30	630	1.51	155,465	1.45	0.55	24	Atlas		234,752	1
	1/3/2020 6:45	1/3/2020 17:45	660	0.91	4,358	2.38	0.30	24	Atlas		3,966	1
	1/10/2020 19:45	1/11/2020 2:15	390	0.45	5,653	0.47	0.23	3	Atlas		2,544	1
	1/11/2020 11:30	1/11/2020 16:00	270	0.92	165,512	1.30	0.43	6	Atlas		152,271	1
	1/18/2020 17:45	1/18/2020 17:45	-	0.52	475	0.56	0.22	12	Atlas		247	1
	1/31/2020 13:15	1/31/2020 13:15	-	0.54	61	0.70	0.34	1	Atlas		33	1
	2/12/2020 18:15	2/20/2020 13:30	11,235	1.09	45,580	2.08	0.49	3	Atlas		49,682	1
	2/24/2020 19:00	2/24/2020 19:00	-	0.90	28	0.74	0.34	24	Atlas		25	1
	3/3/2020 8:30	3/3/2020 8:30	-	0.27	300	0.97	0.15	3	Atlas		81	1
	3/10/2020 10:00	3/11/2020 8:45	1,365	0.47	86,323	0.47	0.22	1	Atlas		40,572	1
	3/12/2020 20:15	3/13/2020 2:00	345	0.70	24,241	1.17	0.32	12	Atlas		16,969	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/14/2020 13:30	3/14/2020 19:30	360	0.65	65,878	1.82	0.30	12	Atlas		42,821	1
	3/18/2020 21:30	3/18/2020 21:30	-	0.56	114	1.94	0.27	6	Atlas		64	1
	3/19/2020 12:15	3/19/2020 17:00	285	0.65	58,960	2.43	0.27	3	Atlas		38,324	1
	3/28/2020 23:00	3/29/2020 1:45	165	0.21	35,305	0.44	0.17	1	Atlas		7,414	1
	4/9/2020 4:00	4/9/2020 8:30	270	0.58	3,964	0.59	0.39	3	Atlas		2,299	1
CSO104 Total											40,227,806	180
CSO105	12/8/2009 18:00	12/8/2009 23:15	315	2.05	1,853,765	2.22	0.84	12	Atlas		3,800,218	1
	12/13/2009 7:45	12/13/2009 8:00	15	0.28	32,229	2.42	0.18	3	Atlas		9,024	1
	1/20/2010 12:15	1/20/2010 12:45	30	0.37	45,943	0.59	0.19	6	Atlas		16,999	1
	1/21/2010 15:00	1/21/2010 19:30	270	0.98	877,956	1.57	0.39	12	Atlas		860,397	1
	1/24/2010 4:15	1/24/2010 6:15	120	0.91	1,203,831	1.97	0.35	24	Atlas		1,095,486	1
	1/24/2010 22:30	1/24/2010 23:00	30	0.91	14,937	2.26	0.35	24	Atlas		13,593	1
	2/5/2010 13:30	2/5/2010 18:15	285	1.17	354,982	0.86	0.43	24	Atlas		415,329	1
	3/21/2010 23:45	3/22/2010 1:30	105	0.77	510,077	0.77	0.35	12	Atlas		392,759	1
	4/8/2010 0:45	4/8/2010 7:00	375	1.29	2,090,824	1.40	0.62	6	Atlas		2,697,163	1
	4/24/2010 14:30	4/24/2010 21:15	405	1.36	4,395,187	1.55	0.64	6	Atlas		5,977,454	1
	5/1/2010 4:45	5/1/2010 9:30	285	4.01	1,428,705	2.83	3.10	48	Atlas		5,729,107	1
	5/2/2010 1:15	5/2/2010 16:45	930	4.01	4,787,800	4.43	3.10	48	Atlas		19,199,079	1
	5/12/2010 9:30	5/12/2010 11:45	135	0.66	4,455,733	1.15	0.50	1	Atlas		2,940,784	1
	5/13/2010 12:30	5/13/2010 13:15	45	0.07	1,233,414	1.22	0.06	1	Atlas		86,339	1
	5/17/2010 19:30	5/17/2010 21:00	90	0.23	3,705,535	1.37	0.15	3	Atlas		852,273	1
	5/21/2010 19:30	5/21/2010 21:45	135	0.45	6,162,316	1.02	0.37	1	Atlas		2,773,042	1
	6/9/2010 3:00	6/9/2010 13:30	630	1.17	8,147,877	1.32	0.56	3	Atlas		9,533,016	1
	6/13/2010 22:45	6/14/2010 7:30	525	0.67	4,406,960	1.99	0.45	1	Atlas		2,952,663	1
	6/19/2010 6:00	6/19/2010 8:30	150	0.49	4,451,820	1.40	0.28	3	Atlas		2,181,392	1
	6/28/2010 1:30	6/28/2010 3:30	120	0.42	2,084,945	0.40	0.30	1	Atlas		875,677	1
	7/9/2010 9:00	7/9/2010 9:45	45	0.26	276,985	0.23	0.10	12	Atlas		72,016	1
	7/13/2010 5:45	7/13/2010 10:30	285	1.00	2,829,804	1.24	0.54	3	Atlas		2,829,804	1
	7/20/2010 5:00	7/20/2010 7:30	150	0.56	8,702,168	1.16	0.35	1	Atlas		4,873,214	1
	7/21/2010 6:15	7/21/2010 7:30	75	0.38	1,466,334	1.20	0.29	1	Atlas		557,207	1
	7/31/2010 4:30	7/31/2010 7:15	165	0.47	5,654,734	0.67	0.27	3	Atlas		2,657,725	1
	8/5/2010 9:30	8/5/2010 10:30	60	0.17	1,015,394	0.64	0.12	1	Atlas		172,617	1
	8/14/2010 16:30	8/14/2010 18:15	105	0.27	4,998,800	0.45	0.21	1	Atlas		1,349,676	1
	8/21/2010 8:15	8/21/2010 9:30	75	0.55	433,725	0.85	0.35	3	Atlas		238,549	1
	10/13/2010 20:15	10/13/2010 21:30	75	0.47	599,206	0.48	0.31	3	Atlas		281,627	1
	10/26/2010 11:30	10/26/2010 12:30	60	0.48	544,175	0.30	0.26	6	Atlas		261,204	1
	11/16/2010 13:15	11/16/2010 17:00	225	0.82	453,911	0.78	0.37	12	Atlas		372,207	1
	11/24/2010 13:30	11/24/2010 16:00	150	0.60	1,160,410	0.94	0.29	3	Atlas		696,246	1
	11/25/2010 9:45	11/25/2010 23:30	825	2.52	3,753,282	3.31	0.96	24	Atlas		9,458,270	1
	11/29/2010 22:00	11/30/2010 5:00	420	1.54	3,685,358	4.54	0.59	24	Atlas		5,675,452	1
	1/1/2011 6:00	1/1/2011 7:00	60	0.58	142,417	1.00	0.26	12	Atlas		82,602	1
	2/1/2011 18:15	2/1/2011 20:30	135	0.84	1,272,167	0.74	0.31	6	Atlas		1,068,620	1
	2/24/2011 20:15	2/25/2011 2:15	360	2.57	5,019,281	2.75	1.00	12	Cloudburst		12,899,551	1
	2/28/2011 5:30	2/28/2011 12:00	390	1.01	670,178	4.03	0.48	6	Atlas		676,880	1
	3/5/2011 7:15	3/5/2011 8:30	75	0.84	482,717	2.07	0.28	24	Atlas		405,482	1
	3/8/2011 23:15	3/9/2011 17:15	1,080	2.87	3,467,914	3.71	1.63	12	Cloudburst		9,952,913	1
	3/14/2011 1:45	3/14/2011 19:30	1,065	0.68	819,893	3.46	0.24	12	Atlas		557,527	1
	3/15/2011 13:30	3/15/2011 13:30	-	0.68	151,894	3.54	0.24	12	Atlas		103,288	1
	4/4/2011 14:00	4/4/2011 17:00	180	0.63	1,105,902	0.77	0.32	6	Atlas		696,718	1
	4/9/2011 11:00	4/9/2011 12:15	75	0.43	1,036,963	1.08	0.30	1	Atlas		445,894	1
	4/11/2011 16:15	4/12/2011 6:00	825	2.96	4,366,909	3.41	1.75	24	Cloudburst		12,926,050	1
	4/20/2011 2:45	4/20/2011 5:00	135	0.78	1,132,100	1.13	0.43	6	Atlas		883,038	1
	4/23/2011 0:30	4/24/2011 16:30	2,400	4.66	5,049,555	4.80	2.83	48	Atlas		23,530,926	1
	4/27/2011 1:15	4/27/2011 2:30	75	1.93	90,190	5.83	0.72	24	Atlas		174,066	1
	5/8/2011 1:15	5/8/2011 2:30	75	0.40	2,202,113	3.43	0.29	1	Atlas		880,845	1
	5/14/2011 15:15	5/14/2011 16:15	60	0.18	1,869,422	0.61	0.11	3	Atlas		336,496	1
	5/21/2011 18:30	5/21/2011 19:45	75	0.57	1,293,914	0.95	0.40	1	Atlas		737,531	1
	5/23/2011 4:30	5/23/2011 5:15	45	0.38	133,503	1.11	0.23	3	Atlas		50,731	1
	5/23/2011 17:45	5/23/2011 21:00	195	0.98	2,462,828	2.09	0.61	3	Atlas		2,413,571	1
	5/25/2011 23:00	5/26/2011 2:30	210	1.18	2,434,020	2.99	0.59	3	Atlas		2,872,144	1
	5/26/2011 12:00	5/26/2011 12:15	15	1.18	24,039	3.10	0.59	3	Atlas		28,366	1
	6/11/2011 5:00	6/11/2011 5:30	30	0.14	608,079	0.16	0.10	1	Atlas		85,131	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/15/2011 9:30	6/15/2011 11:30	120	0.89	3,709,715	1.07	0.56	3	Atlas		3,301,646	1
	6/18/2011 7:30	6/18/2011 9:00	90	0.83	435,100	1.77	0.50	3	Atlas		361,133	1
	6/19/2011 8:00	6/19/2011 9:30	90	0.70	1,208,826	2.44	0.44	3	Atlas		846,178	1
	6/20/2011 1:45	6/20/2011 3:00	75	0.51	1,745,431	2.95	0.43	1	Atlas		890,170	1
	6/22/2011 20:00	6/23/2011 4:00	480	3.17	4,957,895	5.48	8.33	3	Atlas		15,716,527	1
	7/19/2011 23:00	7/20/2011 1:45	165	1.36	7,650,374	1.37	1.83	1	Atlas		10,404,509	1
	8/7/2011 3:45	8/7/2011 7:00	195	1.20	3,794,153	1.22	0.69	3	Atlas		4,552,984	1
	8/8/2011 15:00	8/8/2011 16:00	60	0.36	368,811	1.58	0.24	3	Atlas		132,772	1
	8/13/2011 17:45	8/13/2011 18:45	60	0.49	710,588	2.17	0.35	1	Atlas		348,188	1
	9/19/2011 7:30	9/19/2011 8:45	75	0.66	717,903	0.60	0.25	24	Atlas		473,816	1
	9/23/2011 2:00	9/23/2011 8:45	405	0.64	556,809	1.43	0.29	12	Atlas		356,358	1
	9/25/2011 23:30	9/26/2011 7:00	450	3.08	11,804,614	4.61	4.37	12	Cloudburst		36,358,210	1
	10/27/2011 0:15	10/27/2011 2:30	135	0.92	2,107,671	1.10	0.38	12	Atlas		1,939,067	1
	11/14/2011 22:00	11/14/2011 23:15	75	1.74	226,357	0.40	0.56	48	Atlas		393,862	1
	11/16/2011 7:00	11/16/2011 8:00	60	1.74	25,148	1.64	0.56	48	Atlas		43,757	1
	11/22/2011 7:00	11/22/2011 10:45	225	1.50	1,075,709	2.62	0.47	48	Atlas		1,613,564	1
	11/27/2011 8:45	11/27/2011 9:00	15	3.02	2,308	2.10	0.93	48	Atlas		6,969	1
	11/28/2011 0:30	11/28/2011 2:00	90	3.02	15,750	2.39	0.93	48	Atlas		47,564	1
	11/28/2011 12:15	11/29/2011 1:45	810	3.02	214,975	3.89	0.93	48	Atlas		649,223	1
	12/4/2011 16:45	12/5/2011 19:15	1,590	3.50	4,558,526	5.79	1.70	48	Cloudburst		15,954,841	1
	12/21/2011 6:30	12/21/2011 7:45	75	0.70	601,919	1.15	0.32	12	Atlas		421,343	1
	12/22/2011 15:30	12/22/2011 17:00	90	0.48	165,958	1.15	0.22	12	Atlas		79,660	1
	1/11/2012 6:15	1/11/2012 7:30	75	0.95	196,353	0.59	0.39	12	Atlas		186,535	1
	1/17/2012 12:15	1/17/2012 12:30	15	0.43	17,542	1.49	0.20	12	Atlas		7,543	1
	1/23/2012 3:15	1/23/2012 5:15	120	0.70	965,761	1.16	0.35	3	Atlas		676,033	1
	1/26/2012 5:45	1/26/2012 7:30	105	0.45	3,956,918	1.38	0.27	3	Atlas		1,780,613	1
	1/26/2012 19:00	1/26/2012 23:30	270	1.13	2,819,755	2.46	0.51	12	Atlas		3,186,323	1
	2/29/2012 9:00	2/29/2012 9:45	45	0.43	184,260	0.59	0.20	1	Atlas		79,232	1
	3/8/2012 13:15	3/8/2012 14:00	45	0.72	97,481	0.91	0.34	6	Atlas		70,186	1
	3/15/2012 18:45	3/16/2012 3:30	525	0.93	342,019	1.16	0.42	12	Atlas		318,078	1
	3/17/2012 18:30	3/17/2012 19:30	60	0.51	619,706	1.45	0.29	3	Atlas		316,050	1
	3/23/2012 13:15	3/23/2012 23:00	585	1.45	1,721,410	1.96	0.54	24	Atlas		2,496,044	1
	4/1/2012 8:45	4/1/2012 12:00	195	1.35	2,844,446	1.51	0.73	6	Atlas		3,840,002	1
	4/28/2012 19:15	4/28/2012 20:45	90	0.72	730,493	0.73	0.52	1	Atlas		525,955	1
	5/5/2012 1:00	5/5/2012 1:00	-	1.46	396,260	2.14	0.77	6	Atlas		578,540	1
	5/29/2012 6:15	5/29/2012 12:30	375	2.73	10,500,679	2.73	12.76	3	Atlas		28,666,853	1
	5/31/2012 18:15	6/1/2012 6:45	750	1.05	6,616,597	3.78	0.45	12	Atlas		6,947,427	1
	6/4/2012 14:00	6/4/2012 18:15	255	0.20	22,295	3.97	0.10	6	Atlas		4,459	1
	6/17/2012 11:15	6/17/2012 13:30	135	0.13	1,578,092	0.14	0.11	1	Atlas		205,152	1
	7/1/2012 20:00	7/1/2012 20:15	15	0.21	3,571	0.16	0.13	1	Atlas		750	1
	7/6/2012 1:15	7/6/2012 4:15	180	0.31	3,249,242	0.52	0.22	1	Atlas		1,007,265	1
	7/8/2012 12:45	7/8/2012 15:45	180	0.23	25,374,670	0.71	0.16	1	Atlas		5,836,174	1
	7/14/2012 11:45	7/14/2012 16:45	300	0.55	5,475,322	0.80	0.30	6	Atlas		3,011,427	1
	7/19/2012 13:30	7/19/2012 13:45	15	0.66	4,286	0.70	0.44	1	Atlas		2,829	1
	8/13/2012 12:00	8/13/2012 12:30	30	0.11	1,682	0.12	0.07	3	Atlas		185	1
	8/16/2012 20:00	8/17/2012 0:45	285	0.50	209,336	0.63	0.27	6	Atlas		104,668	1
	8/21/2012 13:45	8/21/2012 16:00	135	0.05	690,440	0.56	0.04	1	Atlas		34,522	1
	9/1/2012 15:00	9/1/2012 17:15	135	0.22	365,755	0.23	0.13	1	Atlas		80,466	1
	9/2/2012 11:45	9/2/2012 22:00	615	0.35	124,917	0.60	0.15	12	Atlas		43,721	1
	9/5/2012 15:15	9/5/2012 18:45	210	0.59	209,358	1.38	0.45	1	Atlas		123,521	1
	9/7/2012 23:15	9/8/2012 4:45	330	1.42	37,108	2.70	0.79	3	Atlas		52,694	1
	10/14/2012 16:00	10/14/2012 18:00	120	0.05	213,240	0.04	0.03	3	Atlas		10,662	1
	10/18/2012 0:30	10/18/2012 3:00	150	0.30	39,423	0.37	0.20	3	Atlas		11,827	1
	10/26/2012 11:00	10/26/2012 17:45	405	0.62	633,184	0.61	0.30	6	Atlas		392,574	1
	11/3/2012 10:45	11/3/2012 16:45	360	0.13	126,023	0.14	0.06	12	Atlas		16,383	1
	11/12/2012 3:00	11/12/2012 12:45	585	0.38	41,929	0.43	0.17	6	Atlas		15,933	1
	12/2/2012 11:15	12/2/2012 13:15	120	0.27	68,848	0.35	0.15	3	Atlas		18,589	1
	12/4/2012 14:45	12/4/2012 19:45	300	0.56	4,403,791	0.83	0.35	3	Atlas		2,466,123	1
	12/6/2012 16:30	12/7/2012 18:45	1,575	0.93	3,917,171	1.76	0.39	12	Atlas		3,642,969	1
	12/8/2012 5:30	12/8/2012 8:00	150	0.27	608,852	2.02	0.19	1	Atlas		164,390	1
	12/9/2012 8:15	12/9/2012 9:00	45	1.23	3,261	2.13	0.63	3	Atlas		4,011	1
	12/9/2012 19:30	12/10/2012 3:30	480	1.23	10,267,806	2.97	0.63	3	Atlas		12,629,401	1
	12/15/2012 11:00	12/15/2012 12:45	105	0.14	72,871	1.40	0.08	3	Atlas		10,202	1
	12/17/2012 12:15	12/17/2012 17:15	300	0.24	51,288	0.41	0.13	6	Atlas		12,309	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/20/2012 6:45	12/20/2012 14:30	465	0.61	8,152.423	1.00	0.30	6	Atlas		4,972,978	1
	12/26/2012 1:15	12/26/2012 14:30	795	0.90	4,409,008	1.60	0.36	12	Atlas		3,968,107	1
	12/28/2012 22:15	12/29/2012 10:15	720	0.06	86,267	1.03	0.03	12	Atlas		5,176	1
	12/31/2012 23:00	1/1/2013 1:15	135	0.51	7,143	1.47	0.34	1	Atlas		3,643	1
	1/10/2013 12:15	1/10/2013 13:30	75	0.18	18,750	0.18	0.09	6	Atlas		3,375	1
	1/11/2013 2:15	1/11/2013 9:00	405	0.69	7,046,884	0.88	0.37	3	Atlas		4,862,350	1
	1/12/2013 20:45	1/13/2013 21:15	1,470	2.19	12,965,063	3.06	0.84	24	Atlas		28,393,487	1
	1/15/2013 20:00	1/15/2013 20:30	30	0.19	10,211	3.19	0.07	12	Atlas		1,940	1
	1/27/2013 19:45	1/27/2013 21:30	105	0.21	33,295	0.13	0.10	12	Atlas		6,992	1
	1/28/2013 10:30	1/28/2013 11:00	30	0.08	13,463	0.30	0.06	1	Atlas		1,077	1
	1/30/2013 4:30	1/30/2013 18:00	810	0.85	12,244,162	1.15	0.43	6	Atlas		10,407,538	1
	2/2/2013 11:45	2/2/2013 12:15	30	0.01	95,400	1.21	0.01	1	Atlas		954	1
	2/4/2013 17:00	2/4/2013 18:45	105	0.12	132,975	1.06	0.08	3	Atlas		15,957	1
	2/8/2013 2:30	2/8/2013 3:15	45	0.08	20,613	0.21	0.05	3	Atlas		1,649	1
	2/10/2013 15:15	2/10/2013 16:00	45	0.18	6,222	0.38	0.09	3	Atlas		1,120	1
	2/13/2013 11:45	2/13/2013 12:15	30	0.06	30,333	0.33	0.03	12	Atlas		1,820	1
	2/18/2013 21:45	2/19/2013 4:30	405	0.35	7,977	0.42	0.16	12	Atlas		2,792	1
	2/21/2013 20:30	2/22/2013 4:15	465	0.44	1,603,616	0.80	0.20	12	Atlas		705,591	1
	2/26/2013 5:15	2/26/2013 19:30	855	0.69	1,914,538	1.10	0.28	12	Atlas		1,321,031	1
	3/5/2013 14:15	3/5/2013 19:45	330	0.46	2,492,322	0.70	0.17	24	Atlas		1,146,468	1
	3/11/2013 2:00	3/11/2013 13:30	690	1.01	5,911,985	1.49	0.41	12	Atlas		5,971,105	1
	3/17/2013 4:00	3/18/2013 9:30	1,770	1.63	7,817,399	2.62	0.53	48	Atlas		12,742,361	1
	3/24/2013 8:15	3/24/2013 9:15	60	0.58	440,348	1.57	0.21	24	Atlas		255,402	1
	4/11/2013 6:30	4/11/2013 8:45	135	1.17	1,252,036	0.44	0.45	24	Atlas		1,464,882	1
	4/11/2013 18:00	4/11/2013 19:00	60	1.17	36,565	1.14	0.45	24	Atlas		42,781	1
	4/16/2013 19:45	4/16/2013 22:45	180	0.42	16,509,376	1.57	0.34	1	Atlas		6,933,938	1
	4/19/2013 2:15	4/19/2013 5:45	210	0.85	5,848,784	1.31	0.46	6	Atlas		4,971,466	1
	4/24/2013 7:30	4/24/2013 11:15	225	0.62	5,228,127	1.57	0.35	3	Atlas		3,241,439	1
	5/4/2013 13:45	5/4/2013 16:15	150	1.76	406,551	0.82	0.55	24	Atlas		715,530	1
	5/5/2013 5:00	5/5/2013 9:45	285	1.76	1,497,125	1.62	0.55	24	Atlas		2,634,940	1
	5/10/2013 10:00	5/11/2013 1:45	945	0.73	3,636,175	2.61	0.32	6	Atlas		2,654,408	1
	6/10/2013 0:15	6/10/2013 2:00	105	0.36	2,922,244	0.31	0.14	24	Atlas		1,052,008	1
	6/16/2013 16:30	6/16/2013 18:15	105	0.57	414,711	0.87	0.43	1	Atlas		236,385	1
	6/17/2013 19:00	6/17/2013 22:30	210	0.29	2,770,928	0.84	0.15	3	Atlas		803,569	1
	6/24/2013 9:00	6/24/2013 9:00	-	0.07	471	0.44	0.04	3	Atlas		33	1
	6/26/2013 3:00	6/26/2013 7:15	255	0.46	11,586,720	0.59	0.33	1	Atlas		5,329,891	1
	6/26/2013 16:15	6/27/2013 0:15	480	1.64	14,730,770	2.23	0.85	6	Atlas		24,158,462	1
	6/29/2013 19:45	6/29/2013 19:45	-	0.61	167	2.71	0.37	3	Atlas		102	1
	7/1/2013 9:00	7/1/2013 9:15	15	0.22	5,086	2.86	0.09	12	Atlas		1,119	1
	7/1/2013 19:00	7/1/2013 20:30	90	0.22	9,127	2.93	0.09	12	Atlas		2,008	1
	7/2/2013 13:45	7/2/2013 15:30	105	0.02	62,096,200	2.97	0.02	1	Atlas		1,241,924	1
	7/3/2013 16:00	7/3/2013 17:15	75	0.11	117,164	2.25	0.09	1	Atlas		12,888	1
	7/4/2013 6:15	7/4/2013 17:15	660	0.44	139,314	1.40	0.20	12	Atlas		61,298	1
	7/6/2013 0:15	7/6/2013 7:45	450	0.45	4,653,136	1.84	0.20	12	Atlas		2,093,911	1
	7/10/2013 13:45	7/10/2013 17:15	210	0.66	11,732,391	1.68	0.53	1	Atlas		7,743,378	1
	7/14/2013 19:30	7/14/2013 21:45	135	0.06	24,147,050	0.74	0.05	1	Atlas		1,448,823	1
	7/18/2013 16:30	7/18/2013 18:15	105	0.06	18,260,633	0.19	0.04	1	Atlas		1,095,638	1
	7/21/2013 20:00	7/22/2013 16:45	1,245	2.72	6,690,069	2.82	3.43	3	Atlas		18,196,989	1
	7/30/2013 18:30	7/30/2013 18:30	-	0.09	78,711	0.12	0.05	3	Atlas		7,084	1
	8/12/2013 11:45	8/12/2013 17:30	345	0.91	6,537,745	0.84	0.51	1	Atlas		5,949,348	1
	8/13/2013 2:45	8/13/2013 5:00	135	0.91	619,974	1.05	0.51	1	Atlas		564,176	1
	8/20/2013 15:30	8/20/2013 16:15	45	0.18	221,400	0.19	0.15	1	Atlas		39,852	1
	8/31/2013 20:00	9/1/2013 4:15	495	1.41	3,891,255	1.39	0.65	12	Atlas		5,486,669	1
	9/2/2013 13:45	9/2/2013 16:30	165	0.97	3,853,157	2.38	0.84	1	Atlas		3,737,562	1
	9/12/2013 13:45	9/12/2013 13:45	-	0.02	2,450	0.06	0.02	1	Atlas		49	1
	9/20/2013 16:30	9/21/2013 6:30	840	1.71	4,991,965	1.75	0.70	12	Atlas		8,536,261	1
	10/2/2013 15:30	10/2/2013 16:15	45	0.13	72,623	0.19	0.07	1	Atlas		9,441	1
	10/5/2013 12:15	10/6/2013 16:00	1,665	4.19	13,284,012	4.52	7.10	24	Cloudburst		55,660,011	1
	10/17/2013 9:45	10/17/2013 10:15	30	0.04	134,950	0.08	0.03	1	Atlas		5,398	1
	10/19/2013 7:30	10/19/2013 12:30	300	0.16	49,756	0.24	0.08	6	Atlas		7,961	1
	10/29/2013 21:30	10/30/2013 9:00	690	1.70	2,226,671	1.70	0.84	6	Atlas		3,785,340	1
	10/31/2013 10:45	10/31/2013 23:15	750	1.10	6,221,374	2.80	0.50	1	Atlas		6,843,511	1
	11/6/2013 18:45	11/7/2013 2:30	465	0.22	41,541	1.33	0.10	12	Atlas		9,139	1
	11/15/2013 18:30	11/15/2013 19:15	45	0.09	64,300	0.15	0.07	1	Atlas		5,787	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/17/2013 3:30	11/17/2013 21:15	1,065	2.72	12,004,469	2.87	2.87	6	Cloudburst		32,652,157	1
	11/21/2013 19:15	11/21/2013 19:15	-	0.14	1,414	2.93	0.09	3	Atlas		198	1
	12/5/2013 5:15	12/5/2013 12:45	450	0.72	1,855,935	0.21	0.23	48	Atlas		1,336,273	1
	12/6/2013 2:45	12/6/2013 14:00	675	0.72	23,985	0.48	0.23	48	Atlas		17,269	1
	12/8/2013 15:45	12/8/2013 15:45	-	0.29	23,548	1.01	0.19	3	Atlas		6,829	1
	12/13/2013 20:15	12/14/2013 13:45	1,050	0.72	1,614,025	1.08	0.29	12	Atlas		1,162,098	1
	12/20/2013 11:15	12/20/2013 11:15	-	0.08	5,000	0.81	0.04	6	Atlas		400	1
	12/21/2013 2:00	12/22/2013 5:45	1,665	3.31	10,243,310	4.03	2.24	24	Cloudburst		33,905,355	1
	12/29/2013 0:45	12/29/2013 11:00	615	0.54	28,706	0.72	0.23	12	Atlas		15,501	1
	1/11/2014 0:00	1/11/2014 7:30	450	0.91	8,106,258	1.40	0.48	6	Atlas		7,376,695	1
	1/13/2014 14:15	1/13/2014 18:15	240	0.28	35,764	1.20	0.13	3	Atlas		10,014	1
	1/14/2014 18:30	1/14/2014 18:45	15	0.02	48,950	1.23	0.02	1	Atlas		979	1
	1/21/2014 3:30	1/21/2014 16:00	750	0.15	54,367	0.20	0.07	6	Atlas		8,155	1
	1/25/2014 12:00	1/25/2014 16:00	240	0.04	228,625	0.22	0.02	6	Atlas		9,145	1
	2/2/2014 2:30	2/2/2014 7:45	315	0.58	839,214	0.25	0.22	24	Atlas		486,744	1
	2/2/2014 17:15	2/2/2014 17:30	15	0.58	5,088	0.29	0.22	24	Atlas		2,951	1
	2/4/2014 18:15	2/5/2014 8:00	825	0.67	17,296,942	1.25	0.33	6	Atlas		11,588,951	1
	2/14/2014 15:45	2/14/2014 23:00	435	0.23	47,835	0.29	0.13	6	Atlas		11,002	1
	2/17/2014 14:30	2/17/2014 21:15	405	0.56	9,442,184	0.82	0.32	3	Atlas		5,287,623	1
	2/20/2014 20:15	2/21/2014 0:45	270	0.24	860,517	1.06	0.13	6	Atlas		206,524	1
	3/2/2014 9:30	3/2/2014 13:00	210	0.47	2,147,360	0.28	0.18	24	Atlas		1,009,259	1
	3/3/2014 15:30	3/3/2014 17:00	90	0.47	11,185	0.47	0.18	24	Atlas		5,257	1
	3/12/2014 7:15	3/12/2014 11:45	270	0.11	41,155	0.11	0.06	1	Atlas		4,527	1
	3/16/2014 17:30	3/17/2014 2:45	555	0.04	102,550	0.17	0.03	3	Atlas		4,102	1
	3/19/2014 8:00	3/19/2014 8:45	45	0.06	23,033	0.12	0.04	3	Atlas		1,382	1
	3/27/2014 23:15	3/28/2014 6:15	420	0.26	1,223,819	0.35	0.14	6	Atlas		318,193	1
	3/29/2014 4:30	3/29/2014 14:15	585	0.84	4,449,870	1.19	0.39	12	Atlas		3,737,891	1
	4/1/2014 20:30	4/1/2014 20:30	-	0.04	4,975	1.21	0.03	1	Atlas		199	1
	4/3/2014 4:45	4/4/2014 10:15	1,770	2.93	10,945,447	4.13	1.14	24	Cloudburst		32,070,161	1
	4/7/2014 5:30	4/7/2014 15:30	600	1.06	10,450,854	4.06	0.64	1	Atlas		11,077,905	1
	4/14/2014 3:15	4/14/2014 11:30	495	0.43	40,951	1.54	0.21	6	Atlas		17,609	1
	4/14/2014 19:45	4/15/2014 13:00	1,035	0.55	4,401,440	1.05	0.25	12	Atlas		2,420,792	1
	4/25/2014 2:30	4/25/2014 11:00	510	0.18	84,444	0.18	0.09	6	Atlas		15,200	1
	4/28/2014 3:45	4/28/2014 21:15	1,050	1.80	9,870,998	1.95	0.73	3	Atlas		17,767,797	1
	4/29/2014 19:00	4/29/2014 22:15	195	0.21	30,443	2.16	0.10	12	Atlas		6,393	1
	5/9/2014 19:15	5/10/2014 18:15	1,380	1.44	11,701,631	1.51	0.63	1	Atlas		16,850,349	1
	5/14/2014 7:00	5/15/2014 1:00	1,080	1.17	1,177,069	2.74	0.45	24	Atlas		1,377,171	1
	5/16/2014 3:15	5/16/2014 12:30	555	0.13	113,369	2.87	0.10	1	Atlas		14,738	1
	5/28/2014 20:00	5/28/2014 23:00	180	0.04	120,659,875	0.59	0.03	3	Atlas		4,826,395	1
	6/1/2014 22:00	6/1/2014 23:00	60	0.13	21,885	0.22	0.06	1	Atlas		2,845	1
	6/2/2014 22:15	6/2/2014 22:15	-	0.02	29,600	0.25	0.01	3	Atlas		592	1
	6/10/2014 5:30	6/10/2014 6:45	75	0.06	49,767	0.08	0.03	6	Atlas		2,986	1
	6/10/2014 15:30	6/10/2014 17:15	105	0.11	31,064	0.19	0.07	3	Atlas		3,417	1
	6/11/2014 13:45	6/11/2014 16:15	150	0.09	17,540,078	0.28	0.06	1	Atlas		1,578,607	1
	6/24/2014 13:30	6/24/2014 18:45	315	0.18	20,372	0.57	0.09	6	Atlas		3,667	1
	6/28/2014 15:45	6/28/2014 15:45	-	0.01	76,200	0.29	0.01	1	Atlas		762	1
	7/1/2014 19:30	7/1/2014 22:30	180	0.60	537,472	0.62	0.39	3	Atlas		322,483	1
	7/2/2014 15:45	7/2/2014 16:30	45	0.10	41,840	0.73	0.09	1	Atlas		4,184	1
	7/7/2014 19:15	7/7/2014 22:00	165	0.03	86,602,533	0.73	0.03	1	Atlas		2,598,076	1
	7/8/2014 6:45	7/8/2014 7:45	60	0.06	45,367	0.79	0.05	1	Atlas		2,722	1
	7/13/2014 22:30	7/14/2014 4:45	375	0.69	5,292,836	0.68	0.32	12	Atlas		3,652,057	1
	7/14/2014 20:00	7/14/2014 21:45	105	0.42	1,153,912	1.17	0.30	1	Atlas		484,643	1
	7/26/2014 21:30	7/27/2014 10:15	765	1.04	5,290,140	1.14	0.48	12	Atlas		5,501,746	1
	8/8/2014 5:15	8/8/2014 11:00	345	0.62	7,465,840	0.67	0.31	6	Atlas		4,628,821	1
	8/10/2014 3:15	8/10/2014 7:15	240	1.14	5,256,224	1.92	0.98	1	Atlas		5,992,095	1
	8/11/2014 14:45	8/11/2014 17:15	150	0.15	12,563,880	2.04	0.10	1	Atlas		1,884,582	1
	8/16/2014 23:45	8/17/2014 0:15	30	0.83	3,048	1.63	0.32	24	Atlas		2,530	1
	8/17/2014 8:45	8/17/2014 16:15	450	0.83	1,221,060	0.97	0.32	24	Atlas		1,013,480	1
	8/22/2014 20:00	8/22/2014 21:00	60	0.13	2,387,100	0.94	0.07	6	Atlas		310,323	1
	8/23/2014 16:00	8/24/2014 0:00	480	0.96	12,740,138	1.94	0.46	6	Atlas		12,230,532	1
	8/26/2014 20:00	8/26/2014 20:30	30	0.12	42,658	1.23	0.10	1	Atlas		5,119	1
	8/27/2014 17:00	8/27/2014 17:30	30	0.11	31,409	1.32	0.10	1	Atlas		3,455	1
	8/30/2014 15:00	8/30/2014 18:15	195	1.27	5,000,316	2.38	0.80	1	Atlas		6,350,401	1
	9/2/2014 6:45	9/2/2014 10:30	225	0.53	1,466,904	1.95	0.30	3	Atlas		777,459	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/11/2014 0:00	9/11/2014 7:30	450	2.30	7,993,901	2.29	3.14	3	Atlas		18,385,972	1
	10/3/2014 12:45	10/3/2014 20:15	450	0.22	31,850	0.22	0.08	24	Atlas		7,007	1
	10/6/2014 7:30	10/6/2014 19:00	690	0.56	2,494,441	0.55	0.18	48	Atlas		1,396,887	1
	10/7/2014 11:15	10/7/2014 13:00	105	0.56	15,091	0.77	0.18	48	Atlas		8,451	1
	10/10/2014 1:30	10/10/2014 5:30	240	1.02	5,864,096	1.53	0.46	3	Atlas		5,981,378	1
	10/10/2014 17:00	10/11/2014 3:00	600	1.02	19,185	1.69	0.46	3	Atlas		19,569	1
	10/13/2014 4:00	10/13/2014 8:45	285	0.45	6,580,278	2.07	0.29	3	Atlas		2,961,125	1
	10/13/2014 22:15	10/14/2014 15:15	1,020	1.56	6,071,032	3.29	0.70	12	Atlas		9,470,810	1
	10/15/2014 18:15	10/15/2014 19:00	45	0.19	10,889	3.26	0.09	12	Atlas		2,069	1
	10/28/2014 11:45	10/28/2014 13:15	90	0.09	31,844	0.09	0.06	3	Atlas		2,866	1
	11/5/2014 18:45	11/5/2014 19:00	15	0.01	108,000	0.27	0.01	1	Atlas		1,080	1
	11/16/2014 21:30	11/17/2014 12:30	900	0.41	82,907	0.43	0.15	12	Atlas		33,992	1
	11/23/2014 14:30	11/24/2014 0:00	570	0.86	4,029,817	1.26	0.39	6	Atlas		3,465,643	1
	12/1/2014 1:15	12/1/2014 16:30	915	0.91	671,648	0.88	0.35	24	Atlas		611,200	1
	12/4/2014 9:00	12/6/2014 8:45	2,865	1.75	6,905,479	2.65	0.56	48	Atlas		12,084,589	1
	12/16/2014 3:00	12/16/2014 6:00	180	0.09	90,678	0.11	0.05	3	Atlas		8,161	1
	12/22/2014 22:30	12/22/2014 23:45	75	0.21	37,652	0.31	0.12	3	Atlas		7,907	1
	12/23/2014 19:45	12/23/2014 20:45	60	0.05	80,400	0.29	0.03	1	Atlas		4,020	1
	12/24/2014 12:00	12/24/2014 14:30	150	0.20	50,270	0.41	0.08	12	Atlas		10,054	1
	12/27/2014 8:45	12/28/2014 2:45	1,080	0.33	132,442	0.79	0.13	24	Atlas		43,706	1
	1/3/2015 5:15	1/4/2015 4:30	1,395	0.59	52,090	0.93	0.22	24	Atlas		30,733	1
	1/12/2015 0:30	1/12/2015 10:15	585	0.17	102,535	0.20	0.07	24	Atlas		17,431	1
	1/18/2015 3:15	1/18/2015 4:00	45	0.10	27,660	0.28	0.08	1	Atlas		2,766	1
	1/25/2015 16:30	1/25/2015 22:45	375	0.17	19,094	0.22	0.07	12	Atlas		3,246	1
	2/1/2015 11:30	2/1/2015 19:30	480	0.37	871,114	0.60	0.17	3	Atlas		322,312	1
	2/17/2015 15:00	2/17/2015 21:00	360	0.01	319,200	0.28	0.01	1	Atlas		3,192	1
	2/18/2015 6:00	2/19/2015 5:15	1,395	0.06	161,400	0.35	0.03	6	Atlas		9,684	1
	2/21/2015 3:45	2/22/2015 1:00	1,275	1.35	50,479	1.68	0.54	12	Atlas		68,147	1
	2/23/2015 12:45	2/23/2015 14:15	90	0.02	149,500	1.48	0.01	3	Atlas		2,990	1
	3/3/2015 14:15	3/4/2015 18:30	1,695	1.65	10,841,999	1.43	0.54	48	Atlas		17,889,298	1
	3/5/2015 14:30	3/5/2015 21:45	435	1.65	9,708	1.82	0.54	48	Atlas		16,019	1
	3/19/2015 17:15	3/20/2015 11:30	1,095	0.22	1,292,582	2.13	0.08	24	Atlas		284,368	1
	3/24/2015 13:45	3/24/2015 22:30	525	0.14	45,164	0.33	0.07	1	Atlas		6,323	1
	3/26/2015 3:15	3/26/2015 12:00	525	0.51	4,423,206	0.80	0.25	3	Atlas		2,255,835	1
	3/29/2015 22:30	3/29/2015 22:30	-	0.03	19,333	0.69	0.02	3	Atlas		580	1
	4/2/2015 9:15	4/3/2015 19:45	2,070	4.80	15,064,608	4.95	10.76	6	Cloudburst		72,310,119	1
	4/7/2015 4:30	4/7/2015 19:45	915	1.03	10,068,485	5.83	0.45	1	Atlas		10,370,540	1
	4/8/2015 15:45	4/8/2015 16:15	30	0.05	30,400	5.87	0.03	1	Atlas		1,520	1
	4/9/2015 11:30	4/9/2015 13:15	105	0.25	180,808	5.91	0.21	1	Atlas		45,202	1
	4/10/2015 2:00	4/10/2015 5:00	180	0.28	11,109,996	3.91	0.19	1	Atlas		3,110,799	1
	4/13/2015 19:00	4/14/2015 12:00	1,020	0.87	2,008,183	2.47	0.33	24	Atlas		1,747,119	1
	4/16/2015 10:00	4/16/2015 10:00	-	0.04	8,225	1.45	0.03	3	Atlas		329	1
	4/19/2015 6:45	4/20/2015 4:30	1,305	0.83	1,081,960	1.84	0.34	12	Atlas		898,027	1
	4/25/2015 8:45	4/25/2015 20:45	720	0.22	59,859	1.14	0.08	24	Atlas		13,169	1
	5/9/2015 3:15	5/9/2015 3:45	30	0.08	70,363	0.08	0.04	1	Atlas		5,629	1
	5/11/2015 16:45	5/11/2015 17:45	60	0.09	24,122	0.18	0.07	1	Atlas		2,171	1
	5/16/2015 11:30	5/16/2015 15:15	225	0.94	5,790,655	1.02	0.50	3	Atlas		5,443,216	1
	5/17/2015 14:00	5/17/2015 16:15	135	0.09	148,789	1.11	0.04	1	Atlas		13,391	1
	5/25/2015 6:15	5/25/2015 9:30	195	0.30	33,017	0.32	0.15	6	Atlas		9,905	1
	5/25/2015 18:30	5/25/2015 18:30	-	0.30	36,813	0.32	0.15	6	Atlas		11,044	1
	5/26/2015 13:30	5/26/2015 14:30	60	0.32	33,025	0.57	0.23	1	Atlas		10,568	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.08	8,325	0.69	0.07	1	Atlas		666	1
	5/30/2015 13:15	5/31/2015 6:30	1,035	0.10	309,480	0.80	0.05	1	Atlas		30,948	1
	6/1/2015 7:15	6/1/2015 9:30	135	0.16	35,238	0.81	0.09	3	Atlas		5,638	1
	6/8/2015 6:45	6/8/2015 10:00	195	0.14	662,564	0.26	0.08	3	Atlas		92,759	1
	6/15/2015 0:15	6/15/2015 0:15	-	0.01	248,500	0.15	0.01	1	Atlas		2,485	1
	6/17/2015 4:45	6/17/2015 8:15	210	0.66	5,386,841	0.67	0.37	3	Atlas		3,555,315	1
	6/18/2015 17:15	6/18/2015 20:15	180	0.83	4,138,405	1.48	0.54	1	Atlas		3,434,876	1
	6/19/2015 17:45	6/19/2015 18:15	30	1.14	2,811	1.71	0.46	12	Atlas		3,205	1
	6/20/2015 11:15	6/20/2015 12:15	60	1.14	23,022	2.72	0.46	12	Atlas		26,245	1
	6/25/2015 23:45	6/26/2015 4:15	270	0.86	1,315,299	2.33	0.46	6	Atlas		1,118,004	1
	6/26/2015 17:00	6/27/2015 2:15	555	0.89	11,338,030	3.13	0.50	1	Atlas		10,090,847	1
	6/29/2015 5:00	6/29/2015 15:45	645	0.29	2,975,683	2.18	0.14	1	Atlas		862,948	1
	7/1/2015 23:30	7/2/2015 23:30	1,440	0.99	8,378,865	3.08	0.50	3	Atlas		8,295,076	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/3/2015 14:30	7/3/2015 18:00	210	1.51	3,879,511	3.71	2.75	1	Atlas		5,858,061	1
	7/7/2015 10:45	7/7/2015 16:30	345	1.07	4,957,294	3.55	0.58	3	Atlas		5,304,305	1
	7/8/2015 9:45	7/8/2015 12:45	180	1.07	19,981	3.63	0.58	3	Atlas		21,380	1
	7/9/2015 6:30	7/9/2015 13:45	435	0.28	1,366,661	3.02	0.14	1	Atlas		382,665	1
	7/10/2015 10:15	7/10/2015 18:15	480	0.46	1,847,109	3.37	0.23	6	Atlas		849,670	1
	7/12/2015 6:00	7/12/2015 9:45	225	0.70	12,339,406	2.55	0.47	3	Atlas		8,637,584	1
	7/13/2015 14:45	7/13/2015 17:45	180	0.38	9,759,705	2.93	0.33	1	Atlas		3,708,688	1
	7/14/2015 4:15	7/14/2015 7:00	165	0.27	9,080,407	3.20	0.18	1	Atlas		2,451,710	1
	7/14/2015 18:45	7/14/2015 21:15	150	0.14	14,254,079	2.35	0.11	1	Atlas		1,995,571	1
	7/27/2015 9:45	7/27/2015 10:00	15	0.04	675,725	0.07	0.03	1	Atlas		27,029	1
	7/29/2015 17:30	7/29/2015 19:15	105	0.33	477,803	0.38	0.28	1	Atlas		157,675	1
	8/4/2015 18:45	8/4/2015 20:45	120	0.28	194,625	0.61	0.23	1	Atlas		54,495	1
	8/5/2015 14:30	8/5/2015 20:45	375	1.24	1,064,308	1.33	0.63	1	Atlas		1,319,742	1
	8/6/2015 7:30	8/6/2015 10:30	180	1.24	1,426,931	1.42	0.63	1	Atlas		1,769,394	1
	8/10/2015 20:30	8/10/2015 20:45	15	0.10	50,330	1.65	0.09	1	Atlas		5,033	1
	8/15/2015 16:45	8/15/2015 18:30	105	0.01	25,231,000	0.14	0.01	1	Atlas		252,310	1
	8/19/2015 7:15	8/19/2015 18:45	690	0.80	3,085,656	0.79	0.50	1	Atlas		2,468,525	1
	8/23/2015 2:30	8/23/2015 2:30	-	0.07	2,514	0.83	0.04	1	Atlas		176	1
	8/23/2015 13:00	8/23/2015 13:00	-	0.07	8,629	0.88	0.04	1	Atlas		604	1
	9/11/2015 17:45	9/11/2015 18:45	60	0.24	16,092	1.43	0.14	1	Atlas		3,862	1
	9/25/2015 22:45	9/25/2015 22:45	-	0.11	136,600	0.11	0.05	6	Atlas		15,026	1
	9/29/2015 6:15	9/29/2015 9:45	210	0.85	26,394	0.46	0.28	48	Atlas		22,435	1
	9/29/2015 18:15	9/29/2015 19:15	60	0.85	15,249	0.70	0.28	48	Atlas		12,962	1
	9/30/2015 8:00	9/30/2015 8:00	-	0.85	693	0.95	0.28	48	Atlas		589	1
	10/2/2015 15:30	10/2/2015 23:00	450	0.47	2,000,838	1.43	0.22	12	Atlas		940,394	1
	10/12/2015 17:45	10/12/2015 20:45	180	0.35	650,043	0.40	0.25	1	Atlas		227,515	1
	10/24/2015 16:45	10/24/2015 18:45	120	0.32	39,356	0.28	0.17	1	Atlas		12,594	1
	10/27/2015 15:15	10/28/2015 10:30	1,155	3.38	7,873,786	3.59	1.47	24	Cloudburst		26,613,395	1
	11/6/2015 3:30	11/6/2015 7:00	210	0.91	8,699,270	1.05	0.56	3	Atlas		7,916,336	1
	11/9/2015 19:45	11/9/2015 23:00	195	0.65	1,716,575	1.56	0.29	12	Atlas		1,115,774	1
	11/12/2015 1:00	11/12/2015 3:00	120	0.29	4,669,855	1.85	0.17	3	Atlas		1,354,258	1
	11/18/2015 9:30	11/18/2015 16:45	435	1.75	10,072,501	2.18	0.90	6	Atlas		17,626,876	1
	11/28/2015 14:30	11/28/2015 20:00	330	0.83	672,357	0.75	0.27	48	Atlas		558,056	1
	11/30/2015 23:15	12/1/2015 6:45	450	0.51	6,214,188	1.41	0.23	12	Atlas		3,169,236	1
	12/14/2015 7:00	12/14/2015 8:45	105	0.27	233,574	0.26	0.14	6	Atlas		63,065	1
	12/21/2015 12:15	12/21/2015 12:15	-	0.50	4,922	0.24	0.19	24	Atlas		2,461	1
	12/22/2015 0:15	12/22/2015 6:00	345	0.50	3,884,476	0.53	0.19	24	Atlas		1,942,238	1
	12/23/2015 19:15	12/23/2015 23:30	255	1.28	12,353,032	1.80	0.81	1	Atlas		15,811,881	1
	12/26/2015 13:15	12/26/2015 19:30	375	0.42	5,520,714	2.32	0.19	12	Atlas		2,318,700	1
	12/27/2015 10:30	12/27/2015 19:15	525	2.65	9,761,235	3.81	0.86	48	Atlas		25,867,274	1
	12/28/2015 6:15	12/28/2015 7:15	60	2.65	10,214	4.12	0.86	48	Atlas		27,066	1
	12/28/2015 16:30	12/28/2015 22:15	345	2.65	1,237,135	4.76	0.86	48	Atlas		3,278,408	1
	2/2/2016 19:45	2/3/2016 4:00	495	1.34	15,781,846	1.39	0.67	6	Atlas		21,147,674	1
	2/21/2016 4:45	2/21/2016 13:15	510	0.80	10,634,788	1.00	0.37	12	Atlas		8,507,830	1
	2/23/2016 23:30	2/24/2016 10:45	675	2.32	12,010,210	2.79	0.91	12	Atlas		27,863,688	1
	3/1/2016 12:30	3/1/2016 15:30	180	0.71	2,346,227	3.08	0.38	6	Atlas		1,665,821	1
	3/9/2016 16:30	3/9/2016 18:15	105	1.31	332,944	0.37	0.43	48	Atlas		436,157	1
	3/10/2016 14:15	3/10/2016 21:30	435	1.31	5,182,302	1.34	0.43	48	Atlas		6,788,815	1
	3/12/2016 21:00	3/13/2016 1:45	285	0.48	10,950,773	1.65	0.18	24	Atlas		5,256,371	1
	3/13/2016 10:15	3/13/2016 12:15	120	0.48	2,546,685	1.82	0.18	24	Atlas		1,222,409	1
	3/24/2016 17:30	3/24/2016 19:45	135	0.51	3,413,486	0.58	0.39	1	Atlas		1,740,878	1
	3/27/2016 21:30	3/28/2016 0:30	180	0.73	8,450,510	1.24	0.51	1	Atlas		6,168,872	1
	3/31/2016 5:00	3/31/2016 9:30	270	1.38	2,179,248	2.03	0.52	24	Atlas		3,007,362	1
	3/31/2016 22:30	4/1/2016 2:00	210	1.38	2,243,036	2.11	0.52	24	Atlas		3,095,389	1
	4/11/2016 16:45	4/11/2016 21:00	255	1.14	5,302,468	1.30	0.52	6	Atlas		6,044,813	1
	4/21/2016 16:15	4/21/2016 17:15	60	0.41	231,920	0.16	0.15	24	Atlas		95,087	1
	4/26/2016 22:15	4/26/2016 23:15	60	0.24	493,288	0.67	0.15	1	Atlas		118,389	1
	4/27/2016 14:15	4/28/2016 0:15	600	0.91	5,156,341	1.58	0.43	3	Atlas		4,692,270	1
	4/30/2016 11:30	4/30/2016 14:45	195	0.79	3,042,728	1.58	0.30	24	Atlas		2,403,755	1
	5/1/2016 15:15	5/1/2016 17:30	135	0.65	720,525	2.59	0.43	3	Atlas		468,341	1
	5/7/2016 20:30	5/7/2016 23:45	195	0.52	3,804,519	1.76	0.27	3	Atlas		1,978,350	1
	5/10/2016 14:30	5/11/2016 0:15	585	0.72	6,431,665	1.53	0.29	3	Atlas		4,630,799	1
	5/11/2016 22:00	5/11/2016 23:45	105	0.30	1,311,500	1.60	0.14	3	Atlas		393,450	1
	5/17/2016 1:45	5/17/2016 5:30	225	0.64	48,784	1.47	0.21	24	Atlas		31,222	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/20/2016 14:15	5/20/2016 18:00	225	0.63	9,098,356	1.29	0.35	3	Atlas		5,731,964	1
	5/26/2016 15:15	5/26/2016 16:15	60	0.36	38,814	1.09	0.24	3	Atlas		13,973	1
	6/2/2016 15:30	6/2/2016 18:45	195	1.49	8,255,773	1.72	2.75	1	Atlas		12,301,102	1
	6/4/2016 17:30	6/4/2016 19:00	90	0.18	5,387,772	1.74	0.07	12	Atlas		969,799	1
	6/14/2016 14:45	6/14/2016 20:45	360	1.46	10,046,027	2.05	0.87	1	Atlas		14,667,199	1
	6/15/2016 20:45	6/15/2016 20:45	-	0.04	45,300	2.09	0.03	1	Atlas		1,812	1
	6/23/2016 16:00	6/24/2016 0:45	525	2.12	8,838,732	2.29	1.11	6	Cloudburst		18,738,111	1
	7/3/2016 12:15	7/3/2016 23:30	675	1.30	3,333,801	0.79	0.42	48	Atlas		4,333,941	1
	7/4/2016 9:15	7/4/2016 17:00	465	1.30	1,720,270	1.30	0.42	48	Atlas		2,236,351	1
	7/8/2016 10:00	7/8/2016 11:15	75	0.28	64,632	1.78	0.23	1	Atlas		18,097	1
	7/18/2016 8:45	7/18/2016 16:00	435	0.11	165,318	0.42	0.05	1	Atlas		18,185	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.10	115,790	0.48	0.09	1	Atlas		11,579	1
	7/27/2016 23:45	7/28/2016 6:15	390	0.30	15,468,567	0.72	0.14	12	Atlas		4,640,570	1
	7/30/2016 15:15	7/30/2016 16:15	60	0.11	4,708,891	0.93	0.10	1	Atlas		517,978	1
	8/1/2016 11:45	8/1/2016 13:15	90	0.35	2,192,451	1.29	0.30	1	Atlas		767,358	1
	8/5/2016 14:30	8/5/2016 16:15	105	0.21	3,496,871	0.77	0.16	1	Atlas		734,343	1
	8/9/2016 15:45	8/9/2016 16:45	60	0.53	804,643	0.78	0.43	1	Atlas		426,461	1
	8/15/2016 2:30	8/15/2016 8:15	345	1.44	5,457,761	2.18	0.72	6	Atlas		7,859,176	1
	8/17/2016 5:15	8/17/2016 10:00	285	1.13	7,463,466	2.70	0.52	3	Atlas		8,433,717	1
	8/20/2016 10:30	8/20/2016 23:00	750	1.25	14,577,218	3.77	0.55	12	Atlas		18,221,522	1
	8/27/2016 13:00	8/27/2016 14:45	105	0.03	53,239,500	0.97	0.02	1	Atlas		1,597,185	1
	8/28/2016 17:45	8/28/2016 17:45	-	0.13	96,292	0.14	0.10	1	Atlas		12,518	1
	9/10/2016 16:00	9/10/2016 17:00	60	0.14	855,000	0.13	0.08	3	Atlas		119,700	1
	9/28/2016 13:00	9/28/2016 15:15	135	0.50	1,290,664	0.84	0.27	6	Atlas		645,332	1
	9/30/2016 0:45	9/30/2016 4:15	210	0.64	2,701,263	1.61	0.34	3	Atlas		1,728,808	1
	10/20/2016 10:00	10/20/2016 12:45	165	0.67	3,492,822	0.53	0.33	3	Atlas		2,340,191	1
	11/28/2016 17:30	11/28/2016 23:00	330	0.79	2,557,456	1.19	0.35	12	Atlas		2,020,390	1
	12/6/2016 6:15	12/6/2016 14:00	465	0.87	3,682,102	0.93	0.40	12	Atlas		3,203,429	1
	12/17/2016 17:00	12/18/2016 4:30	690	3.53	10,245,477	3.90	6.35	12	Cloudburst		36,166,534	1
	12/23/2016 23:45	12/24/2016 2:30	165	0.24	2,624,333	3.72	0.11	12	Atlas		629,840	1
	12/26/2016 21:30	12/26/2016 22:15	45	0.34	5,294	0.57	0.16	6	Atlas		1,800	1
	1/3/2017 4:15	1/3/2017 6:15	120	0.16	2,310,231	0.29	0.08	6	Atlas		369,637	1
	1/10/2017 20:15	1/10/2017 21:30	75	0.31	630,923	0.56	0.21	1	Atlas		195,586	1
	1/12/2017 19:15	1/12/2017 21:30	135	0.37	549,403	0.90	0.19	6	Atlas		203,279	1
	1/13/2017 14:15	1/13/2017 16:00	105	0.41	19,390	1.27	0.25	3	Atlas		7,950	1
	1/14/2017 8:30	1/14/2017 15:45	435	0.21	1,844,005	1.50	0.10	12	Atlas		387,241	1
	1/15/2017 16:45	1/15/2017 19:30	165	0.22	59,027	1.72	0.11	6	Atlas		12,986	1
	1/17/2017 0:30	1/17/2017 5:30	300	0.83	4,815,048	2.54	0.38	12	Atlas		3,396,490	1
	1/19/2017 19:45	1/20/2017 5:15	570	1.36	8,069,668	3.11	0.62	12	Atlas		10,974,749	1
	2/8/2017 17:00	2/8/2017 21:00	240	0.09	38,111	0.65	0.05	6	Atlas		3,430	1
	2/24/2017 19:15	2/24/2017 21:15	120	0.50	2,742,702	0.60	0.42	1	Atlas		1,371,351	1
	2/28/2017 11:00	2/28/2017 12:30	90	0.27	869,037	0.84	0.12	12	Atlas		234,640	1
	3/1/2017 3:15	3/1/2017 11:30	495	1.37	7,265,315	2.20	0.73	6	Atlas		9,953,482	1
	3/7/2017 8:00	3/7/2017 10:00	120	0.88	1,335,340	2.27	0.31	1	Atlas		1,175,099	1
	3/26/2017 0:45	3/26/2017 8:00	435	0.42	353,362	0.43	0.18	12	Atlas		148,412	1
	3/27/2017 18:30	3/27/2017 20:30	120	0.26	4,296,646	0.68	0.14	1	Atlas		1,117,128	1
	4/3/2017 19:15	4/3/2017 19:45	30	0.22	30,373	0.32	0.12	1	Atlas		6,682	1
	4/6/2017 1:30	4/6/2017 3:45	135	0.05	163,700	0.46	0.03	3	Atlas		8,185	1
	4/11/2017 6:00	4/11/2017 6:15	15	0.27	21,937	0.24	0.12	12	Atlas		5,923	1
	4/21/2017 19:30	4/22/2017 13:00	1,050	0.74	2,475,572	1.75	0.27	6	Atlas		1,831,923	1
	4/27/2017 7:30	4/27/2017 8:30	60	0.20	737,315	0.98	0.12	1	Atlas		147,463	1
	4/29/2017 0:15	4/29/2017 6:00	345	1.64	9,508,126	1.87	0.80	6	Atlas		15,593,327	1
	5/1/2017 4:45	5/1/2017 5:00	15	0.24	81,725	2.08	0.12	3	Atlas		19,614	1
	5/4/2017 20:00	5/5/2017 14:15	1,095	2.15	8,459,593	3.95	0.72	24	Atlas		18,188,124	1
	5/20/2017 19:15	5/21/2017 8:45	810	1.09	20,503,689	1.23	0.48	12	Atlas		22,349,021	1
	5/24/2017 19:30	5/24/2017 21:45	135	0.65	845,222	1.75	0.24	24	Atlas		549,394	1
	5/27/2017 14:30	5/27/2017 16:00	90	0.12	8,556,767	1.84	0.08	1	Atlas		1,026,812	1
	6/5/2017 18:45	6/5/2017 20:45	120	0.42	3,136,838	0.50	0.37	1	Atlas		1,317,472	1
	6/22/2017 19:45	6/22/2017 21:00	75	1.15	275,058	0.61	0.37	48	Atlas		316,317	1
	6/23/2017 7:30	6/23/2017 19:30	720	1.15	3,933,257	1.35	0.37	48	Atlas		4,523,246	1
	6/30/2017 21:00	6/30/2017 23:30	150	0.65	6,207,435	0.81	0.57	1	Atlas		4,034,833	1
	7/6/2017 13:30	7/6/2017 14:30	60	0.28	793,161	1.08	0.13	3	Atlas		222,085	1
	7/7/2017 21:15	7/7/2017 23:15	120	0.31	3,908,826	0.75	0.23	1	Atlas		1,211,736	1
	7/23/2017 3:30	7/23/2017 11:15	465	1.12	5,902,643	1.33	0.51	12	Atlas		6,610,960	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/1/2017 21:45	8/2/2017 0:00	135	0.21	17,974,667	0.32	0.14	3	Atlas		3,774,680	1
	8/17/2017 18:45	8/17/2017 19:45	60	0.33	591,782	0.37	0.18	1	Atlas		195,288	1
	8/22/2017 16:00	8/22/2017 18:45	165	0.42	12,915,619	0.79	0.30	1	Atlas		5,424,560	1
	9/1/2017 8:30	9/2/2017 8:00	1,410	3.66	7,562,943	3.90	2.32	24	Cloudburst		27,680,371	1
	9/19/2017 9:00	9/19/2017 11:45	165	0.17	11,594,682	0.60	0.10	1	Atlas		1,971,096	1
	10/7/2017 21:45	10/8/2017 1:00	195	2.35	2,750,037	1.07	0.88	24	Atlas		6,462,587	1
	10/8/2017 11:00	10/8/2017 17:30	390	2.35	4,313,893	2.29	0.88	24	Atlas		10,137,649	1
	10/10/2017 14:45	10/10/2017 19:30	285	0.51	5,036,080	2.85	0.29	3	Atlas		2,568,401	1
	10/23/2017 6:45	10/23/2017 9:30	165	0.53	5,437,511	0.52	0.28	6	Atlas		2,881,881	1
	10/27/2017 18:00	10/28/2017 2:15	495	1.08	3,793,469	1.78	0.49	12	Atlas		4,096,946	1
	11/3/2017 5:00	11/3/2017 8:00	180	0.78	8,793,587	2.02	0.55	1	Atlas		6,858,998	1
	11/6/2017 2:00	11/6/2017 4:15	135	0.77	5,215,371	1.71	0.60	1	Atlas		4,015,836	1
	11/15/2017 13:45	11/15/2017 15:30	105	0.34	2,355,500	0.39	0.22	1	Atlas		800,870	1
	11/18/2017 17:30	11/18/2017 19:30	120	0.27	6,711,085	0.66	0.14	6	Atlas		1,811,993	1
	12/5/2017 4:00	12/5/2017 7:45	225	0.76	5,999,775	0.78	0.41	3	Atlas		4,559,829	1
	12/22/2017 22:45	12/23/2017 7:15	510	1.49	7,588,802	1.27	0.57	12	Atlas		11,307,315	1
	1/22/2018 11:15	1/22/2018 11:15	-	0.15	8,660	0.15	0.07	12	Atlas		1,299	1
	1/27/2018 16:15	1/27/2018 16:30	15	0.49	21,124	0.64	0.29	3	Atlas		10,351	1
	2/7/2018 3:00	2/7/2018 6:15	195	0.55	6,346,815	0.83	0.28	6	Atlas		3,490,748	1
	2/11/2018 10:30	2/11/2018 12:30	120	0.27	5,319,441	0.92	0.13	3	Atlas		1,436,249	1
	2/14/2018 7:30	2/14/2018 11:00	210	0.60	2,062,872	0.93	0.29	3	Atlas		1,237,723	1
	2/16/2018 3:15	2/16/2018 12:30	555	0.74	5,592,143	1.80	0.34	12	Atlas		4,138,186	1
	2/21/2018 21:45	2/22/2018 8:45	660	2.10	9,463,867	3.02	0.78	24	Atlas		19,874,120	1
	2/23/2018 4:00	2/23/2018 7:00	180	1.92	1,899,596	4.01	0.88	12	Atlas		3,647,225	1
	2/24/2018 18:45	2/25/2018 1:45	420	2.65	901,728	6.66	1.74	12	Cloudburst		2,389,579	1
	3/10/2018 1:45	3/10/2018 4:45	180	0.64	2,767,423	0.67	0.41	3	Atlas		1,771,151	1
	3/19/2018 20:15	3/19/2018 21:30	75	0.38	1,471,484	0.39	0.19	6	Atlas		559,164	1
	3/24/2018 9:30	3/24/2018 21:30	720	1.07	8,539,829	2.18	0.41	24	Atlas		9,137,617	1
	3/28/2018 6:45	3/28/2018 8:00	75	1.30	256,868	1.61	0.33	48	Atlas		333,928	1
	3/29/2018 19:00	3/29/2018 23:30	270	1.30	1,822,353	2.26	0.33	48	Atlas		2,369,059	1
	4/1/2018 20:45	4/2/2018 1:15	270	0.80	7,118,946	2.48	0.44	6	Atlas		5,695,157	1
	4/3/2018 21:15	4/3/2018 23:15	120	0.35	2,164,877	2.70	0.19	6	Atlas		757,707	1
	4/14/2018 9:45	4/14/2018 11:45	120	1.23	887,544	0.48	0.42	24	Atlas		1,091,679	1
	4/15/2018 1:15	4/15/2018 11:15	600	1.23	3,199,456	1.26	0.42	24	Atlas		3,935,331	1
	4/23/2018 5:45	4/23/2018 8:15	150	0.65	1,304,746	0.76	0.32	3	Atlas		848,085	1
	5/5/2018 12:30	5/5/2018 20:45	495	1.40	8,791,826	1.44	0.56	6	Atlas		12,308,557	1
	5/10/2018 2:15	5/10/2018 4:15	120	0.05	14,325,660	1.60	0.04	1	Atlas		716,283	1
	9/8/2018 20:00	9/9/2018 4:00	480	3.74	9,514	4.17	16.61	6	Cloudburst		35,583	1
	2/12/2019 2:45	2/12/2019 23:45	1,260	2.84	4,949	4.56	0.90	48	Atlas		14,056	1
	4/7/2019 12:15	4/7/2019 14:00	105	0.79	4,062,138	1.01	0.43	3	Atlas		3,209,089	1
	4/19/2019 19:15	4/20/2019 10:30	915	2.69	9,440,374	4.59	1.12	24	Cloudburst		25,394,607	1
	4/24/2019 21:15	4/24/2019 21:15	-	0.91	624,145	4.06	0.30	48	Atlas		567,972	1
	4/25/2019 19:30	4/25/2019 19:30	-	0.91	136,279	4.42	0.30	48	Atlas		124,014	1
	5/26/2019 14:15	5/26/2019 14:15	-	1.09	364,861	0.82	0.65	3	Atlas		397,698	1
	6/16/2019 21:15	6/16/2019 21:15	-	3.00	561,898	2.78	3.67	6	Cloudburst		1,685,695	1
	6/22/2020 23:45	6/23/2020 0:00	15	1.27	698,701	1.93	0.54	6	Atlas		887,350	1
	CSO105 Total										**1,731,414,042**	**486**
CSO106	12/4/2011 16:45	12/4/2011 17:45	60	2.87	314	3.18	0.93	48	Atlas		902	1
	12/5/2011 3:15	12/6/2011 5:30	1,575	2.87	51,093	4.83	0.93	48	Atlas		146,637	1
	12/27/2011 10:00	12/27/2011 12:00	120	0.80	4,201	1.98	0.33	12	Atlas		3,361	1
	2/22/2012 23:00	2/22/2012 23:00	-	0.15	3,340	0.35	0.11	1	Atlas		501	1
	2/29/2012 6:00	2/29/2012 8:45	165	0.64	6,533	0.78	0.29	12	Atlas		4,181	1
	3/8/2012 13:00	3/8/2012 14:45	105	0.83	1,949	1.14	0.38	12	Atlas		1,618	1
	3/16/2012 0:45	3/16/2012 3:00	135	1.05	2,953	1.23	0.46	12	Atlas		3,101	1
	3/17/2012 18:30	3/17/2012 22:30	240	1.14	15,540	2.33	0.69	1	Atlas		17,716	1
	3/23/2012 5:00	3/23/2012 23:00	1,080	1.60	27,390	2.74	0.61	24	Atlas		43,824	1
	4/1/2012 8:45	4/1/2012 14:30	345	1.87	16,983	2.04	1.14	6	Cloudburst		31,758	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.79	7,770	0.93	0.58	1	Atlas		6,138	1
	4/30/2012 18:00	4/30/2012 18:00	-	0.32	16,653	1.18	0.22	1	Atlas		5,329	1
	5/5/2012 0:00	5/5/2012 1:45	105	1.39	18,371	2.26	0.72	6	Atlas		25,536	1
	5/13/2012 2:00	5/13/2012 9:30	450	2.20	13,215	2.10	0.90	12	Atlas		29,072	1
	5/29/2012 6:45	5/29/2012 17:45	660	3.11	74,670	3.11	21.33	3	Atlas		232,225	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/31/2012 18:30	5/31/2012 21:15	165	1.32	4.986	3.98	0.58	12	Atlas		6,581	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.52	5,600	0.44	0.39	1	Atlas		2,912	1
	7/8/2012 13:15	7/8/2012 13:15	-	0.13	96,315	0.68	0.09	1	Atlas		12,521	1
	7/14/2012 12:30	7/14/2012 14:30	120	0.70	31,896	0.88	0.45	3	Atlas		22,327	1
	7/19/2012 18:15	7/19/2012 19:00	45	0.81	28,806	1.50	0.65	1	Atlas		23,333	1
	7/24/2012 20:15	7/24/2012 20:15	-	0.20	1,660	1.10	0.17	1	Atlas		332	1
	7/27/2012 20:00	7/27/2012 21:00	60	0.71	12,701	1.05	0.51	1	Atlas		9,018	1
	8/16/2012 20:15	8/16/2012 20:15	-	0.63	7,565	0.36	0.36	3	Atlas		4,766	1
	8/21/2012 14:00	8/21/2012 14:00	-	0.16	36,444	0.80	0.14	1	Atlas		5,831	1
	9/1/2012 15:15	9/1/2012 15:15	-	0.63	5,424	0.43	0.39	3	Atlas		3,417	1
	9/2/2012 12:00	9/2/2012 21:30	570	0.82	9,132	1.50	0.32	24	Atlas		7,488	1
	9/5/2012 15:30	9/5/2012 16:45	75	0.97	17,312	2.49	0.75	1	Atlas		16,793	1
	9/7/2012 23:30	9/8/2012 6:30	420	1.17	922	3.62	0.65	3	Atlas		1,079	1
	9/25/2012 8:45	9/25/2012 8:45	-	0.44	720	0.24	0.25	3	Atlas		317	1
	9/25/2012 23:45	9/26/2012 1:45	120	0.40	1,413	0.70	0.19	6	Atlas		565	1
	9/26/2012 21:15	9/26/2012 23:45	150	0.94	13,498	1.74	0.53	3	Atlas		12,688	1
	10/1/2012 16:15	10/1/2012 18:45	150	0.85	6,271	2.61	0.36	12	Atlas		5,330	1
	12/4/2012 17:00	12/4/2012 17:00	-	0.50	948	0.67	0.32	3	Atlas		474	1
	12/7/2012 1:45	12/7/2012 18:15	990	1.37	5,412	2.06	0.58	12	Atlas		7,414	1
	12/8/2012 5:30	12/8/2012 9:45	255	0.65	2,300	2.71	0.35	6	Atlas		1,495	1
	12/9/2012 20:30	12/10/2012 3:45	435	1.14	35,358	3.60	0.52	3	Atlas		40,308	1
	12/20/2012 6:30	12/20/2012 11:30	300	0.76	11,888	1.05	0.39	6	Atlas		9,035	1
	12/26/2012 5:15	12/26/2012 9:00	225	0.81	10,422	1.48	0.32	12	Atlas		8,442	1
	1/11/2013 5:30	1/11/2013 6:15	45	0.62	1,826	0.67	0.32	6	Atlas		1,132	1
	1/13/2013 3:00	1/13/2013 23:30	1,230	2.42	31,943	3.21	0.93	24	Atlas		77,301	1
	1/28/2013 17:00	1/28/2013 17:00	-	0.07	11,129	0.34	0.04	1	Atlas		779	1
	1/30/2013 4:45	1/30/2013 7:45	180	0.80	1,721	0.95	0.40	6	Atlas		1,377	1
	2/26/2013 13:30	2/26/2013 13:30	-	0.65	35	0.79	0.25	12	Atlas		23	1
	3/11/2013 5:30	3/11/2013 6:30	60	1.00	2,955	1.27	0.39	12	Atlas		2,955	1
	3/17/2013 13:45	3/17/2013 14:45	60	1.71	332	1.61	0.56	48	Atlas		568	1
	3/18/2013 4:00	3/18/2013 11:00	420	1.71	24,840	2.21	0.56	48	Atlas		42,476	1
	3/24/2013 7:45	3/24/2013 15:45	480	0.49	2,029	1.73	0.18	24	Atlas		994	1
	4/11/2013 6:45	4/11/2013 7:15	30	1.22	14,183	0.47	0.47	24	Atlas		17,303	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.48	18,315	1.67	0.38	1	Atlas		8,791	1
	4/19/2013 2:00	4/19/2013 4:15	135	0.85	23,368	1.35	0.46	6	Atlas		19,863	1
	4/24/2013 8:15	4/24/2013 9:00	45	0.74	4,431	1.55	0.41	3	Atlas		3,279	1
	5/10/2013 14:00	5/10/2013 23:30	570	1.11	951	2.69	0.50	6	Atlas		1,056	1
	6/17/2013 16:15	6/17/2013 20:45	270	1.05	25,994	1.21	0.54	6	Atlas		27,294	1
	6/21/2013 18:30	6/21/2013 19:30	60	0.64	156,959	1.97	0.49	1	Atlas		100,454	1
	6/26/2013 16:00	6/26/2013 21:30	330	2.50	74,948	3.81	3.50	1	Atlas		187,369	1
	6/29/2013 19:45	6/29/2013 19:45	-	0.47	21,060	3.64	0.30	3	Atlas		9,898	1
	7/3/2013 18:15	7/3/2013 18:15	-	0.07	1,071	1.82	0.05	3	Atlas		75	1
	7/6/2013 1:00	7/6/2013 1:30	30	0.66	34,120	1.85	0.28	12	Atlas		22,519	1
	7/10/2013 14:00	7/10/2013 14:15	15	0.80	14,154	2.18	0.53	3	Atlas		11,323	1
	7/14/2013 19:15	7/14/2013 19:15	-	0.20	68,480	1.11	0.17	1	Atlas		13,696	1
	7/21/2013 19:00	7/21/2013 20:00	60	3.37	6,819	2.53	5.14	3	Atlas		22,980	1
	7/22/2013 7:30	7/22/2013 17:15	585	3.37	9,792	3.57	5.14	3	Atlas		33,000	1
	8/9/2013 17:00	8/9/2013 17:30	30	0.50	18,246	0.43	0.24	1	Atlas		9,123	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.89	79,690	1.02	0.37	3	Atlas		70,924	1
	8/13/2013 2:15	8/13/2013 2:15	-	0.89	11,670	1.25	0.37	3	Atlas		10,386	1
	8/20/2013 17:45	8/20/2013 18:00	15	0.28	37,525	0.27	0.19	1	Atlas		10,507	1
	8/31/2013 19:30	8/31/2013 20:15	45	1.14	8,251	0.56	0.52	6	Atlas		9,406	1
	9/2/2013 13:45	9/2/2013 14:15	30	0.64	22,878	1.78	0.56	1	Atlas		14,642	1
	9/11/2013 10:15	9/11/2013 10:15	-	0.04	4,100	0.05	0.03	1	Atlas		164	1
	9/20/2013 19:15	9/21/2013 3:45	510	1.59	15,825	1.47	0.66	12	Atlas		25,161	1
	10/4/2013 18:45	10/4/2013 18:45	-	0.15	1,947	0.21	0.13	1	Atlas		292	1
	10/5/2013 12:30	10/6/2013 19:00	1,830	5.83	78,753	6.06	34.87	24	Atlas		459,128	1
	10/30/2013 1:15	10/30/2013 6:00	285	1.96	20,340	1.91	1.57	1	Atlas		39,867	1
	11/17/2013 5:30	11/17/2013 21:30	960	2.64	55,517	2.81	2.29	6	Cloudburst		146,565	1
	11/21/2013 19:00	11/21/2013 20:00	60	0.07	10,714	2.80	0.05	1	Atlas		750	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/26/2013 8:45	11/26/2013 15:45	420	0.03	36.833	0.11	0.01	12	Atlas		1,105	1
	12/5/2013 7:30	12/5/2013 8:00	30	0.70	4.673	0.17	0.23	48	Atlas		3,271	1
	12/14/2013 10:45	12/14/2013 11:15	30	1.09	3.479	1.29	0.48	6	Atlas		3,792	1
	12/21/2013 8:00	12/22/2013 9:15	1,515	2.81	48.007	3.21	1.33	3	Atlas		134,900	1
	1/11/2014 0:15	1/11/2014 5:00	285	1.08	6.581	1.60	0.58	6	Atlas		7,107	1
	2/4/2014 19:45	2/5/2014 3:00	435	0.48	19.358	0.88	0.23	6	Atlas		9,292	1
	2/17/2014 16:00	2/17/2014 17:15	75	0.39	36.295	0.82	0.23	3	Atlas		14,155	1
	2/20/2014 22:45	2/20/2014 22:45	-	0.24	3.775	1.04	0.13	6	Atlas		906	1
	3/2/2014 10:15	3/2/2014 10:30	15	0.64	2.389	0.24	0.24	24	Atlas		1,529	1
	3/29/2014 6:45	3/29/2014 8:30	105	1.21	4.253	1.07	0.56	6	Atlas		5,146	1
	4/3/2014 12:00	4/4/2014 14:30	1,590	2.63	28.028	4.23	0.92	24	Atlas		73,713	1
	4/7/2014 10:30	4/7/2014 13:45	195	0.74	20.230	3.49	0.46	1	Atlas		14,970	1
	4/14/2014 20:00	4/14/2014 21:00	60	0.61	1.138	0.72	0.28	12	Atlas		694	1
	4/27/2014 20:15	4/28/2014 8:15	720	1.75	23.165	1.48	0.65	24	Atlas		40,539	1
	4/28/2014 17:30	4/28/2014 17:30	-	1.75	35	1.75	0.65	24	Atlas		62	1
	5/9/2014 19:15	5/10/2014 15:15	1,200	1.74	53.118	1.79	0.67	24	Atlas		92,426	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.18	127	1.99	0.42	24	Atlas		150	1
	5/14/2014 18:00	5/14/2014 18:30	30	1.18	2.813	2.71	0.42	24	Atlas		3,319	1
	5/22/2014 2:30	5/22/2014 2:30	-	0.52	683	0.36	0.26	1	Atlas		355	1
	5/29/2014 20:45	5/29/2014 21:30	45	0.67	52.830	0.76	0.47	1	Atlas		35,396	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.16	74.463	0.40	0.10	1	Atlas		11,914	1
	6/20/2014 15:45	6/20/2014 17:30	105	0.22	11.064	0.22	0.15	3	Atlas		2,434	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.27	530	0.53	0.19	1	Atlas		143	1
	7/2/2014 16:15	7/2/2014 16:15	-	0.16	1.531	0.35	0.14	1	Atlas		245	1
	7/13/2014 21:45	7/13/2014 23:15	90	0.73	36.673	1.57	0.39	3	Atlas		26,771	1
	7/26/2014 21:30	7/27/2014 9:00	690	1.39	13.502	1.41	0.63	12	Atlas		18,768	1
	8/8/2014 5:30	8/8/2014 7:45	135	1.01	19.456	0.85	0.50	3	Atlas		19,651	1
	8/9/2014 3:45	8/9/2014 3:45	-	0.08	3.238	1.10	0.04	6	Atlas		259	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.32	14.172	1.57	0.22	1	Atlas		4,535	1
	8/17/2014 9:30	8/17/2014 10:00	30	0.69	222	0.87	0.25	24	Atlas		153	1
	8/22/2014 19:00	8/22/2014 23:00	240	0.63	18.525	1.33	0.48	1	Atlas		11,671	1
	8/23/2014 20:00	8/23/2014 20:00	-	0.61	22.851	1.61	0.28	12	Atlas		13,939	1
	8/27/2014 15:00	8/27/2014 17:45	165	0.62	11.960	1.87	0.41	3	Atlas		7,415	1
	8/30/2014 15:00	8/30/2014 15:45	45	0.52	13.550	1.57	0.30	1	Atlas		7,046	1
	9/2/2014 8:15	9/2/2014 8:15	-	0.30	31.127	1.33	0.20	3	Atlas		9,338	1
	9/11/2014 0:30	9/11/2014 9:45	555	2.03	36.226	2.04	1.70	3	Atlas		73,539	1
	10/3/2014 3:15	10/3/2014 4:00	45	0.18	19.617	0.12	0.07	24	Atlas		3,531	1
	10/6/2014 7:45	10/6/2014 7:45	-	0.14	3.850	0.27	0.05	24	Atlas		539	1
	10/7/2014 11:45	10/7/2014 11:45	-	0.16	3.756	0.48	0.13	1	Atlas		601	1
	10/10/2014 1:45	10/10/2014 2:45	60	0.82	10.463	1.01	0.36	3	Atlas		8,580	1
	10/13/2014 5:30	10/13/2014 5:30	-	0.50	354	1.51	0.33	3	Atlas		177	1
	10/13/2014 23:15	10/13/2014 23:30	15	1.21	18.942	1.86	0.54	12	Atlas		22,920	1
	10/14/2014 8:15	10/14/2014 8:15	-	1.21	67	2.58	0.54	12	Atlas		81	1
	10/31/2014 17:45	11/1/2014 17:30	1,425	0.17	106.759	0.27	0.06	24	Atlas		18,149	1
	11/3/2014 8:00	11/3/2014 12:15	255	Discharge	-	0.27					2,130	1
	11/23/2014 17:15	11/23/2014 18:00	45	0.81	2.427	0.94	0.37	6	Atlas		1,966	1
	12/1/2014 4:15	12/1/2014 4:30	15	0.73	918	0.29	0.28	24	Atlas		670	1
	12/5/2014 23:00	12/6/2014 8:45	585	1.84	8.741	2.56	0.59	48	Atlas		16,083	1
	12/22/2014 23:15	12/22/2014 23:15	-	0.24	1.583	0.23	0.15	3	Atlas		380	1
	12/28/2014 1:00	12/28/2014 1:00	-	0.28	3.329	0.72	0.13	1	Atlas		932	1
	1/3/2015 10:30	1/3/2015 10:30	-	0.32	559	0.37	0.12	24	Atlas		179	1
	3/3/2015 23:15	3/4/2015 12:45	810	1.63	23.896	1.12	0.53	48	Atlas		38,950	1
	3/4/2015 21:45	3/4/2015 22:30	45	1.63	234	1.52	0.53	48	Atlas		382	1
	3/24/2015 16:15	3/24/2015 19:00	165	0.10	860	0.21	0.05	1	Atlas		86	1
	3/26/2015 4:15	3/26/2015 4:30	15	0.46	11.489	0.50	0.20	3	Atlas		5,285	1
	4/2/2015 10:30	4/3/2015 19:30	1,980	5.54	120.044	5.68	28.12	6	Cloudburst		665,046	1
	4/7/2015 9:15	4/8/2015 21:30	2,175	0.69	89.374	6.41	0.29	12	Atlas		61,668	1
	4/9/2015 11:30	4/9/2015 14:30	180	0.36	31.639	6.39	0.31	1	Atlas		11,390	1
	4/10/2015 2:15	4/10/2015 2:15	-	0.15	1.133	3.75	0.09	3	Atlas		170	1
	4/19/2015 14:00	4/19/2015 14:30	30	0.72	32.831	1.25	0.31	12	Atlas		23,638	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/20/2015 3:15	4/20/2015 3:15	-	0.07	3,743	1.37	0.06	1	Atlas		262	1
	4/25/2015 18:45	4/25/2015 18:45	-	0.05	23,160	0.92	0.03	3	Atlas		1,158	1
	5/11/2015 17:30	5/11/2015 17:30	-	0.14	89,371	0.29	0.12	1	Atlas		12,512	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.11	7,018	0.51	0.08	1	Atlas		772	1
	5/26/2015 13:30	5/26/2015 14:00	30	0.25	11,012	0.47	0.15	1	Atlas		2,753	1
	5/27/2015 13:30	5/27/2015 13:30	-	0.27	3,393	0.79	0.23	1	Atlas		916	1
	6/8/2015 8:15	6/8/2015 8:15	-	0.35	12,697	0.38	0.19	3	Atlas		4,444	1
	6/17/2015 4:30	6/17/2015 5:30	60	0.60	26,683	0.78	0.33	3	Atlas		16,010	1
	6/18/2015 16:00	6/18/2015 17:30	90	2.28	40,168	1.94	0.74	48	Atlas		91,582	1
	6/19/2015 2:45	6/19/2015 2:45	-	2.28	29	2.07	0.74	48	Atlas		66	1
	6/20/2015 1:30	6/20/2015 8:45	435	2.28	22,617	3.30	0.74	48	Atlas		51,567	1
	6/25/2015 23:45	6/26/2015 1:45	120	0.63	13,917	1.94	0.34	6	Atlas		8,768	1
	6/26/2015 17:00	6/27/2015 2:45	585	0.75	32,945	2.68	0.35	1	Atlas		24,709	1
	6/29/2015 13:15	6/29/2015 13:45	30	0.14	63,607	1.52	0.10	1	Atlas		8,905	1
	7/2/2015 0:30	7/2/2015 1:45	75	0.74	3,051	2.12	0.37	3	Atlas		2,258	1
	7/2/2015 10:15	7/2/2015 21:00	645	0.74	20,284	2.33	0.37	3	Atlas		15,010	1
	7/3/2015 14:45	7/3/2015 20:00	315	0.30	30,057	1.99	0.17	1	Atlas		9,017	1
	7/7/2015 11:45	7/7/2015 16:15	270	0.68	3,362	1.76	0.35	6	Atlas		2,286	1
	7/9/2015 6:00	7/9/2015 6:15	15	0.21	12,767	1.28	0.13	3	Atlas		2,681	1
	7/10/2015 9:45	7/10/2015 18:00	495	0.67	65,143	1.95	0.33	6	Atlas		43,646	1
	7/12/2015 5:45	7/12/2015 8:15	150	0.90	65,163	2.55	0.63	1	Atlas		58,647	1
	7/13/2015 14:15	7/13/2015 16:00	105	0.40	12,818	2.96	0.33	1	Atlas		5,127	1
	7/14/2015 4:00	7/14/2015 5:30	90	0.50	45,276	3.45	0.37	1	Atlas		22,638	1
	7/17/2015 22:30	7/18/2015 0:45	135	0.87	51,572	2.71	0.58	3	Atlas		44,868	1
	7/29/2015 17:15	7/29/2015 17:15	-	0.06	22,200	0.14	0.05	1	Atlas		1,332	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.18	2,172	0.19	0.14	1	Atlas		391	1
	8/5/2015 14:45	8/5/2015 14:45	-	1.08	98	0.29	0.40	24	Atlas		106	1
	8/6/2015 7:30	8/6/2015 15:30	480	1.08	34,088	1.26	0.40	24	Atlas		36,815	1
	8/19/2015 7:30	8/19/2015 8:15	45	0.65	8,745	0.31	0.27	1	Atlas		5,684	1
	8/19/2015 16:45	8/19/2015 16:45	-	0.65	13,560	0.66	0.27	1	Atlas		8,814	1
	9/7/2015 17:45	9/7/2015 18:30	45	1.05	39,956	1.15	0.91	1	Atlas		41,954	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.10	3,330	1.25	0.08	1	Atlas		333	1
	9/29/2015 18:45	9/29/2015 18:45	-	1.02	391	0.94	0.33	48	Atlas		399	1
	10/12/2015 19:00	10/12/2015 19:00	-	0.29	16,376	0.38	0.19	3	Atlas		4,749	1
	10/27/2015 17:00	10/28/2015 6:30	810	2.68	4,385	3.02	0.87	48	Atlas		11,753	1
	11/6/2015 3:45	11/6/2015 5:30	105	0.66	15,462	0.79	0.41	3	Atlas		10,205	1
	2/8/2016 6:30	2/9/2016 0:45	1,095	0.11	269,864	1.62	0.04	24	Atlas		29,685	1
	2/14/2016 13:00	2/14/2016 14:45	105	0.17	19,765	0.21	0.08	12	Atlas		3,360	1
	2/15/2016 1:30	2/16/2016 17:45	2,415	0.17	574,082	0.34	0.08	12	Atlas		97,594	1
	CSO106 Total										4,375,742	174
CSO108	4/23/2011 14:15	4/23/2011 17:15	180	5.12	1,327,118	4.27	3.59	48	Atlas		6,794,844	1
	4/27/2011 1:00	4/27/2011 6:30	330	2.92	9,773,341	7.79	1.63	24	Cloudburst		28,538,156	1
	5/2/2011 23:45	5/3/2011 8:30	525	2.93	499,482	6.70	0.95	48	Atlas		1,463,481	1
	5/23/2011 18:00	5/23/2011 18:00	-	0.78	168,871	1.38	0.51	3	Atlas		131,719	1
	6/22/2011 21:15	6/23/2011 2:15	300	3.20	5,951,067	5.55	10.00	3	Atlas		19,043,415	1
	7/30/2011 20:30	7/30/2011 21:00	30	0.94	1,382,441	1.48	0.69	1	Atlas		1,299,495	1
	8/7/2011 3:00	8/7/2011 3:15	15	1.90	302,626	1.19	1.87	3	Atlas		574,989	1
	9/26/2011 0:00	9/26/2011 5:00	300	3.35	2,621,456	5.04	6.06	12	Cloudburst		8,781,877	1
	11/28/2011 13:30	11/29/2011 1:30	720	3.42	182,391	4.69	1.37	48	Cloudburst		623,778	1
	12/5/2011 14:45	12/5/2011 19:15	270	3.15	1,108,887	4.21	1.12	48	Cloudburst		3,492,995	1
	1/26/2012 20:15	1/26/2012 22:00	105	1.92	536,283	2.42	0.62	48	Atlas		1,029,663	1
	3/17/2012 18:30	3/17/2012 18:30	-	1.23	219,559	2.00	0.65	3	Atlas		270,057	1
	4/1/2012 10:15	4/1/2012 10:15	-	1.53	19,380	1.61	0.83	6	Atlas		29,651	1
	4/28/2012 19:15	4/28/2012 19:15	-	0.78	486,663	0.78	0.55	1	Atlas		379,597	1
	5/5/2012 0:15	5/5/2012 3:15	180	1.42	232,060	2.41	0.73	3	Atlas		329,525	1
	5/13/2012 3:00	5/13/2012 17:00	840	2.43	341,505	2.47	0.99	12	Atlas		829,858	1
	5/29/2012 7:00	5/29/2012 18:15	675	3.12	18,943,804	3.12	21.63	3	Atlas		59,104,668	1
	5/31/2012 19:15	6/1/2012 0:30	315	1.44	306,576	4.13	0.63	12	Atlas		441,470	1
	6/1/2012 9:00	6/3/2012 10:00	2,940	1.44	391,801	4.58	0.63	12	Atlas		564,194	1
	7/1/2012 20:15	7/1/2012 20:30	15	0.40	267,915	0.32	0.28	1	Atlas		107,166	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/14/2012 14:00	7/14/2012 14:45	45	0.87	195.131	1.00	0.57	3	Atlas		169,764	1
	7/19/2012 18:15	7/19/2012 18:45	30	0.70	347.306	1.58	0.57	1	Atlas		243,114	1
	9/1/2012 15:30	9/1/2012 15:30	-	0.55	50.700	0.42	0.35	3	Atlas		27,885	1
	9/5/2012 15:30	9/5/2012 16:15	45	0.82	403.509	2.34	0.63	1	Atlas		330,877	1
	9/26/2012 23:15	9/26/2012 23:30	15	0.83	17.135	1.57	0.49	3	Atlas		14,222	1
	10/1/2012 18:30	10/1/2012 18:30	-	1.14	4.198	2.83	0.49	12	Atlas		4,786	1
	12/9/2012 22:15	12/10/2012 4:15	360	1.20	855.889	3.94	0.51	3	Atlas		1,027,067	1
	1/11/2013 6:15	1/11/2013 6:15	-	0.67	82.225	0.70	0.35	6	Atlas		55,091	1
	1/13/2013 4:00	1/14/2013 4:15	1,455	2.33	8,479.077	3.17	0.89	24	Atlas		19,756,249	1
	3/18/2013 4:45	3/18/2013 14:45	600	1.68	1,633.346	2.15	0.55	48	Atlas		2,744,021	1
	4/16/2013 20:00	4/16/2013 20:45	45	0.52	2,248.771	1.74	0.41	1	Atlas		1,169,361	1
	4/19/2013 2:45	4/19/2013 3:15	30	1.00	504.568	1.36	0.55	3	Atlas		504,568	1
	4/24/2013 9:15	4/24/2013 9:15	-	0.67	664	1.66	0.37	6	Atlas		445	1
	5/10/2013 14:15	5/11/2013 0:45	630	1.06	83.955	2.58	0.49	6	Atlas		88,992	1
	6/17/2013 16:15	6/17/2013 23:00	405	1.52	1,236.417	1.74	0.89	1	Atlas		1,879,354	1
	6/21/2013 19:15	6/21/2013 20:30	75	0.82	451.830	2.61	0.53	1	Atlas		370,501	1
	6/26/2013 3:30	6/26/2013 4:00	30	0.62	348.640	1.60	0.41	3	Atlas		216,157	1
	6/26/2013 16:15	6/27/2013 11:15	1,140	2.42	4,253.298	4.18	3.22	1	Atlas		10,292,982	1
	6/29/2013 20:15	6/29/2013 20:30	15	0.55	399.931	3.76	0.35	3	Atlas		219,962	1
	7/10/2013 14:00	7/10/2013 15:00	60	0.89	867.487	2.41	0.58	3	Atlas		772,063	1
	7/14/2013 19:45	7/14/2013 20:00	15	0.17	287.059	1.17	0.15	1	Atlas		48,800	1
	7/21/2013 19:15	7/21/2013 20:00	45	3.43	54.881	2.43	8.46	1	Atlas		188,242	1
	7/22/2013 7:45	7/22/2013 16:45	540	3.43	516.432	3.63	8.46	1	Atlas		1,771,361	1
	8/9/2013 17:30	8/9/2013 18:00	30	0.45	553.149	0.48	0.27	3	Atlas		248,917	1
	8/12/2013 14:45	8/12/2013 15:45	60	1.02	900.070	1.25	0.50	1	Atlas		918,071	1
	8/13/2013 2:45	8/13/2013 3:00	15	1.02	137.525	1.55	0.50	1	Atlas		140,275	1
	8/31/2013 20:00	8/31/2013 20:15	15	1.30	112.682	0.53	0.60	6	Atlas		146,486	1
	9/2/2013 14:00	9/2/2013 14:45	45	0.74	745.104	2.04	0.64	1	Atlas		551,377	1
	9/20/2013 19:45	9/20/2013 23:00	195	1.58	27.171	0.89	0.71	12	Atlas		42,930	1
	10/4/2013 19:15	10/4/2013 19:30	15	0.15	202.440	0.22	0.13	1	Atlas		30,366	1
	10/6/2013 13:00	10/7/2013 13:15	2,895	5.35	5,448.939	5.57	22.20	24	Atlas		29,151,826	1
	10/30/2013 5:00	10/30/2013 8:15	195	1.52	1,440.046	1.52	0.77	6	Atlas		2,188,870	1
	11/17/2013 6:45	11/17/2013 22:45	960	2.85	1,829.094	3.03	3.04	6	Cloudburst		5,212,919	1
	12/5/2013 8:00	12/5/2013 8:00	-	0.72	2.801	0.14	0.23	48	Atlas		2,017	1
	12/21/2013 14:15	12/24/2013 10:30	4,095	2.85	4,077.777	2.94	1.40	3	Atlas		11,621,665	1
	2/4/2014 23:15	2/5/2014 3:00	225	0.57	412.488	1.05	0.26	6	Atlas		235,118	1
	2/17/2014 16:30	2/17/2014 16:45	15	0.57	156.202	1.20	0.37	1	Atlas		89,035	1
	4/3/2014 12:30	4/6/2014 12:45	4,335	2.65	2,180.918	3.97	0.94	24	Atlas		5,779,432	1
	4/7/2014 11:00	4/7/2014 12:45	105	0.76	63.354	3.58	0.49	1	Atlas		48,149	1
	4/27/2014 20:15	4/28/2014 7:30	675	1.82	318.787	1.58	0.72	3	Atlas		580,192	1
	5/9/2014 19:45	5/9/2014 20:00	15	1.83	54.133	0.49	0.70	24	Atlas		99,063	1
	5/10/2014 7:15	5/10/2014 15:15	480	1.83	94.802	1.91	0.70	24	Atlas		173,488	1
	7/13/2014 21:45	7/13/2014 23:30	105	1.04	300.801	1.31	0.65	1	Atlas		312,833	1
	7/26/2014 21:45	7/26/2014 22:30	45	1.48	103.799	0.61	0.67	12	Atlas		153,622	1
	8/11/2014 15:45	8/11/2014 16:00	15	0.24	388.825	1.38	0.13	6	Atlas		93,318	1
	8/22/2014 19:30	8/22/2014 19:45	15	0.66	95.230	1.25	0.50	1	Atlas		62,852	1
	8/23/2014 20:15	8/23/2014 21:00	45	0.89	94.296	1.97	0.41	12	Atlas		83,923	1
	8/27/2014 16:45	8/27/2014 17:45	60	0.75	742.209	2.30	0.60	1	Atlas		556,657	1
	9/2/2014 8:45	9/2/2014 8:45	-	0.32	47.728	1.36	0.21	3	Atlas		15,273	1
	9/11/2014 0:45	9/11/2014 8:15	450	2.16	1,993.182	2.18	2.21	3	Atlas		4,305,274	1
	10/13/2014 23:45	10/14/2014 0:00	15	1.08	5.844	1.74	0.49	12	Atlas		6,311	1
	12/6/2014 3:15	12/6/2014 7:30	255	1.78	85.174	2.48	0.58	48	Atlas		151,610	1
	3/4/2015 3:45	3/4/2015 20:00	975	1.84	531.403	1.61	0.60	48	Atlas		977,781	1
	3/10/2015 11:00	3/10/2015 21:00	600	1.37	1,839.528	3.20	0.62	12	Atlas		2,520,154	1
	3/13/2015 15:15	3/14/2015 18:15	1,620	1.75	715.363	3.12	0.65	24	Atlas		1,251,885	1
	4/2/2015 11:00	4/5/2015 9:15	4,215	6.12	9,279.658	6.25	46.87	6	Cloudburst		56,791,509	1
	4/7/2015 9:45	4/7/2015 18:00	495	0.84	74.233	6.96	0.35	12	Atlas		62,356	1
	4/8/2015 18:15	4/8/2015 19:30	75	0.36	403.972	7.33	0.26	1	Atlas		145,430	1
	4/9/2015 11:45	4/9/2015 12:45	60	0.43	89.112	7.17	0.37	1	Atlas		38,318	1
	5/11/2015 18:00	5/11/2015 18:15	15	0.38	38.332	0.57	0.33	1	Atlas		14,566	1
	6/18/2015 16:30	6/18/2015 23:15	405	3.00	1,651.637	2.38	0.99	3	Atlas		4,964,910	1
	6/20/2015 8:00	6/20/2015 9:00	60	3.00	53.137	3.83	0.99	3	Atlas		159,411	1
	6/26/2015 0:15	6/26/2015 0:30	15	0.71	92.776	2.08	0.38	6	Atlas		65,871	1
	6/26/2015 17:30	6/26/2015 17:45	15	0.68	69.224	2.57	0.31	1	Atlas		47,072	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/29/2015 13:30	6/29/2015 14:15	45	0.23	2,608.748	1.62	0.17	1	Atlas		600.012	1
	7/10/2015 10:30	7/10/2015 14:45	255	0.81	107.093	1.94	0.41	1	Atlas		86.745	1
	7/12/2015 6:00	7/12/2015 18:15	735	1.02	8,715.149	2.76	0.69	1	Atlas		8,889.452	1
	7/13/2015 14:30	7/13/2015 15:30	60	0.57	125.698	3.33	0.47	1	Atlas		71.648	1
	7/14/2015 4:15	7/14/2015 13:00	525	0.62	3,181.142	3.95	0.43	1	Atlas		1,972.308	1
	7/17/2015 23:45	7/18/2015 4:30	285	1.25	985.606	3.50	0.83	3	Atlas		1,232.008	1
	8/6/2015 15:00	8/6/2015 15:15	15	1.32	46.837	1.63	0.46	24	Atlas		61.825	1
	8/19/2015 17:15	8/19/2015 17:15	-	0.55	50.705	0.54	0.25	1	Atlas		27.888	1
	9/7/2015 18:15	9/7/2015 18:45	30	1.37	177.825	1.41	1.96	1	Atlas		243.620	1
	10/29/2015 2:15	10/29/2015 7:30	315	3.01	1.937	3.46	0.91	48	Atlas		5.831	1
	11/6/2015 3:45	11/6/2015 4:45	60	1.05	139.764	1.15	0.65	3	Atlas		146.752	1
	11/18/2015 11:00	11/18/2015 14:00	180	1.83	759.737	2.27	0.94	6	Atlas		1,390.319	1
	11/21/2015 19:30	11/22/2015 10:15	885	0.16	121.881	2.13	0.13	1	Atlas		19.501	1
	12/2/2015 22:30	12/3/2015 11:45	795	0.03	2,665.900	1.71	0.02	1	Atlas		79.977	1
	12/23/2015 19:15	12/24/2015 11:30	975	0.99	2,915.995	1.90	0.75	1	Atlas		2,886.835	1
	12/27/2015 10:45	12/28/2015 17:15	1,830	3.13	4,002.487	5.14	0.89	48	Atlas		12,527.784	1
	12/29/2015 8:30	12/29/2015 18:30	600	0.01	2,593.300	4.33	0.01	1	Atlas		25.933	1
	1/4/2016 6:15	1/4/2016 10:45	270	0.02	400.000	0.65	0.01	3	Atlas		8.000	1
	1/10/2016 4:15	1/11/2016 6:30	1,575	0.18	1,253.900	0.39	0.08	12	Atlas		225.702	1
	1/12/2016 15:45	1/13/2016 6:15	870	0.02	3,161.300	0.39	0.02	1	Atlas		63.226	1
	1/17/2016 18:15	1/18/2016 8:45	870	0.01	3,900.000	0.12	0.01	1	Atlas		39.000	1
	2/2/2016 23:30	2/3/2016 3:15	225	1.59	363.931	1.73	0.77	6	Atlas		578.650	1
	2/24/2016 3:00	2/24/2016 12:00	540	1.95	673.529	2.46	0.75	12	Atlas		1,313.382	1
	3/24/2016 17:45	3/24/2016 18:15	30	0.43	410.714	0.62	0.33	1	Atlas		176.607	1
	3/27/2016 21:15	3/27/2016 22:15	60	0.96	326.999	1.36	0.62	3	Atlas		313.919	1
	3/31/2016 22:30	3/31/2016 22:30	-	1.42	10.036	2.25	0.54	24	Atlas		14.251	1
	5/1/2016 14:45	5/1/2016 15:30	45	0.38	667.689	2.14	0.25	3	Atlas		253.722	1
	5/10/2016 19:00	5/10/2016 22:00	180	0.89	51.183	1.65	0.33	24	Atlas		45.553	1
	5/20/2016 15:00	5/20/2016 16:00	60	0.81	81.294	1.45	0.47	3	Atlas		65.848	1
	6/23/2016 16:30	6/24/2016 0:00	450	1.38	166.659	1.52	0.73	6	Atlas		229.989	1
	7/27/2016 18:30	7/27/2016 18:45	15	1.22	402.111	0.81	0.54	1	Atlas		490.576	1
	8/1/2016 20:15	8/1/2016 21:30	75	1.54	1,413.926	3.34	0.99	1	Atlas		2,177.446	1
	8/15/2016 3:00	8/15/2016 3:15	15	1.60	79.772	1.41	0.76	3	Atlas		127.635	1
	8/31/2016 17:00	8/31/2016 17:00	-	0.09	1,521.911	0.06	0.04	1	Atlas		136.972	1
	12/17/2016 19:15	12/20/2016 10:15	3,780	2.71	13,112.411	3.04	2.40	6	Cloudburst		35,534.635	1
	3/1/2017 3:45	3/2/2017 10:45	1,860	1.22	1,395.626	2.78	0.64	6	Atlas		1,702.664	1
	4/16/2017 17:30	4/16/2017 22:00	270	1.27	229.710	1.80	0.60	3	Atlas		291.732	1
	4/29/2017 2:00	4/29/2017 11:45	585	1.50	934.195	2.15	0.90	1	Atlas		1,401.292	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.28	310.757	0.36	0.23	1	Atlas		87.012	1
	6/23/2017 16:00	6/24/2017 6:30	870	1.20	29.997	1.90	0.65	3	Atlas		35.996	1
	6/30/2017 21:15	6/30/2017 21:15	-	0.44	66.273	0.66	0.38	1	Atlas		29.160	1
	8/17/2017 14:45	8/17/2017 14:45	-	0.95	278	0.10	0.55	3	Atlas		264	1
	8/29/2017 14:30	8/29/2017 14:45	15	0.16	2.800	0.51	0.09	1	Atlas		448	1
	9/1/2017 17:45	9/2/2017 1:30	465	4.02	454.263	3.87	4.36	24	Cloudburst		1,826.139	1
	10/8/2017 7:30	10/9/2017 20:15	2,205	2.15	99	2.16	0.81	24	Atlas		212	1
	11/3/2017 4:30	11/3/2017 5:45	75	1.54	943.280	3.06	2.84	1	Atlas		1,452.651	1
	2/14/2018 6:45	2/21/2018 11:15	10,350	0.44	8.248	2.86	0.20	12	Atlas		3.629	1
	2/22/2018 4:15	2/22/2018 11:00	405	2.01	871.545	3.33	0.72	24	Atlas		1,751.806	1
	2/23/2018 4:45	2/23/2018 17:00	735	1.43	1,739.022	4.32	0.66	12	Atlas		2,486.801	1
	2/24/2018 18:45	2/24/2018 23:45	300	2.43	1,747.284	5.63	1.16	12	Cloudburst		4,245.900	1
	3/29/2018 19:45	3/29/2018 19:45	-	1.26	16.867	2.00	0.34	48	Atlas		21.253	1
	5/5/2018 13:45	5/5/2018 21:00	435	3.22	573.859	3.10	5.77	1	Atlas		1,847.825	1
	6/1/2018 0:30	6/1/2018 1:45	75	1.42	377.559	1.51	0.63	3	Atlas		536.134	1
	6/11/2018 13:15	6/11/2018 13:15	-	0.53	75.843	0.88	0.22	6	Atlas		40.197	1
	6/26/2018 12:30	6/26/2018 13:00	30	1.84	1,669.053	3.32	0.89	1	Atlas		3,071.057	1
	6/26/2018 21:30	6/26/2018 21:30	-	1.84	115.074	3.93	0.89	1	Atlas		211.736	1
	7/2/2018 17:30	7/2/2018 18:00	30	0.81	2,328.391	2.58	0.63	1	Atlas		1,885.997	1
	7/15/2018 18:00	7/15/2018 18:45	45	0.53	600.287	0.54	0.37	1	Atlas		318.152	1
	7/20/2018 20:45	7/21/2018 0:00	195	1.45	725.848	2.16	0.58	12	Atlas		1,052.480	1
	7/31/2018 4:45	7/31/2018 4:45	-	1.56	49.313	1.44	0.58	12	Atlas		76.929	1
	8/1/2018 17:00	8/1/2018 17:30	30	0.25	1,409.052	1.90	0.20	1	Atlas		352.263	1
	8/16/2018 3:15	8/16/2018 15:00	705	4.17	7,679.389	4.18	7.66	24	Cloudburst		32,023.054	1
	8/19/2018 20:30	8/20/2018 6:00	570	2.94	2,180.930	7.33	22.27	1	Atlas		6,411.933	1
	8/31/2018 17:15	8/31/2018 18:00	45	0.71	2,437.004	0.69	0.53	1	Atlas		1,730.273	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/8/2018 19:45	9/9/2018 5:45	600	2.66	8,684.476	3.40	3.10	6	Cloudburst		23,100,706	1
	9/21/2018 17:45	9/21/2018 17:45	-	0.50	327.084	0.62	0.42	1	Atlas		163,542	1
	9/23/2018 5:15	9/23/2018 13:00	465	2.38	3,728.495	3.00	0.93	3	Atlas		8,873,818	1
	9/24/2018 7:00	9/24/2018 21:30	870	2.39	16,645.346	5.30	1.28	12	Cloudburst		39,782,377	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.15	2,775.673	5.42	0.13	1	Atlas		416,351	1
	9/25/2018 16:45	9/25/2018 17:15	30	1.01	1,088.739	5.95	0.45	12	Atlas		1,099,626	1
	9/26/2018 2:00	9/26/2018 5:00	180	1.01	1,397.714	6.40	0.45	12	Atlas		1,411,691	1
	11/1/2018 0:45	11/1/2018 1:15	30	2.38	307.036	2.16	0.85	24	Atlas		730,745	1
CSO108	11/5/2018 22:00	11/5/2018 23:15	75	1.39	785.525	3.62	0.75	6	Atlas		1,091,880	1
CSO108 Total											**519,386,870**	**157**
CSO109	9/26/2012 21:15	9/26/2012 23:00	105	0.87	49.510	1.53	0.51	3	Atlas		43,074	1
	12/9/2012 22:30	12/9/2012 22:45	15	1.23	217.327	3.39	0.56	3	Atlas		267,312	1
	1/13/2013 3:30	1/13/2013 20:00	990	2.43	336.562	3.20	0.93	24	Atlas		817,846	1
	3/18/2013 4:15	3/18/2013 4:15	-	1.67	1.907	1.53	0.54	48	Atlas		3,185	1
	4/11/2013 7:15	4/11/2013 7:15	-	1.14	36.636	0.36	0.44	24	Atlas		41,765	1
	4/16/2013 20:15	4/16/2013 20:15	-	0.49	62.843	1.58	0.38	1	Atlas		30,793	1
	4/19/2013 2:45	4/19/2013 2:45	-	0.85	57.482	1.05	0.47	3	Atlas		48,860	1
	6/17/2013 16:30	6/17/2013 21:30	300	1.14	135.193	1.32	0.61	1	Atlas		154,120	1
	6/21/2013 19:00	6/21/2013 19:30	30	0.84	1,636.479	2.20	0.60	1	Atlas		1,374,642	1
	6/26/2013 3:15	6/26/2013 4:45	90	0.53	562.764	1.69	0.35	3	Atlas		298,265	1
	6/26/2013 16:30	6/27/2013 3:00	630	2.33	4,501.359	4.01	2.06	6	Cloudburst		10,488,166	1
	6/29/2013 20:15	6/29/2013 20:15	-	0.49	293.776	3.52	0.32	3	Atlas		143,950	1
	7/10/2013 12:45	7/10/2013 14:30	105	0.76	1,063.322	2.27	0.50	3	Atlas		808,125	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.17	1,425.400	1.04	0.15	1	Atlas		242,318	1
	7/18/2013 16:15	7/18/2013 16:30	15	0.19	1,504.868	0.39	0.15	1	Atlas		285,925	1
	7/21/2013 19:15	7/21/2013 19:45	30	3.65	117.241	2.63	10.00	1	Atlas		427,929	1
	7/22/2013 8:00	7/22/2013 16:15	495	3.65	315.192	3.86	10.00	1	Atlas		1,150,452	1
	8/9/2013 17:30	8/9/2013 17:45	15	0.48	100.302	0.51	0.30	1	Atlas		48,145	1
	8/12/2013 15:00	8/12/2013 15:15	15	1.01	1,293.493	1.23	0.47	1	Atlas		1,306,428	1
	8/20/2013 18:15	8/20/2013 18:15	-	0.35	164.794	0.35	0.28	1	Atlas		57,678	1
	8/31/2013 19:45	8/31/2013 20:00	15	1.31	350.496	0.49	0.60	12	Atlas		459,150	1
	9/2/2013 14:00	9/2/2013 14:15	15	0.68	998.804	1.99	0.59	1	Atlas		679,187	1
	9/20/2013 19:30	9/20/2013 19:30	-	1.70	4.888	0.59	0.75	12	Atlas		8,309	1
	10/5/2013 13:15	10/6/2013 15:45	1,590	5.29	17,567.074	5.44	21.54	24	Atlas		92,929,821	1
	10/30/2013 5:00	10/30/2013 6:00	60	1.57	631.436	1.52	0.82	1	Atlas		991,354	1
	11/17/2013 6:30	11/17/2013 18:30	720	2.88	2,887.576	2.88	2.52	6	Cloudburst		8,316,218	1
	12/21/2013 21:30	12/22/2013 3:45	375	3.51	2,385.929	3.53	4.71	3	Atlas		8,374,610	1
	2/17/2014 16:15	2/17/2014 16:30	15	0.51	387.169	1.04	0.31	3	Atlas		197,456	1
	4/3/2014 12:15	4/4/2014 7:45	1,170	2.57	527.446	4.27	0.91	24	Atlas		1,355,535	1
	4/7/2014 11:00	4/7/2014 12:00	60	0.73	312.142	3.43	0.44	1	Atlas		227,864	1
	4/27/2014 20:15	4/28/2014 7:00	645	1.64	577.547	1.37	0.65	3	Atlas		947,177	1
	5/9/2014 19:30	5/9/2014 19:30	-	1.86	58.830	0.41	0.72	24	Atlas		109,424	1
	5/10/2014 5:45	5/10/2014 15:15	570	1.86	512.220	1.93	0.72	24	Atlas		952,730	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.22	192.837	2.23	0.43	24	Atlas		235,261	1
	5/29/2014 21:15	5/29/2014 21:45	30	0.21	3,303.714	0.32	0.16	1	Atlas		693,780	1
	7/13/2014 22:00	7/13/2014 23:00	60	0.75	525.328	1.39	0.41	3	Atlas		393,996	1
	7/26/2014 21:45	7/26/2014 22:00	15	1.50	370.233	0.58	0.67	12	Atlas		555,350	1
	8/8/2014 6:15	8/8/2014 6:30	15	1.02	97.717	0.77	0.52	3	Atlas		99,671	1
	8/11/2014 15:45	8/11/2014 15:45	-	0.26	162.227	1.42	0.14	6	Atlas		42,179	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.45	1,017.680	1.00	0.32	1	Atlas		457,956	1
	8/23/2014 20:15	8/23/2014 20:15	-	0.82	184.523	1.58	0.38	12	Atlas		151,309	1
	8/27/2014 17:00	8/27/2014 17:15	15	0.84	794.017	2.12	0.65	1	Atlas		666,974	1
	9/2/2014 8:30	9/2/2014 8:30	-	0.25	390.920	1.57	0.17	3	Atlas		97,730	1
	9/11/2014 0:45	9/11/2014 6:45	360	1.87	2,554.805	1.84	1.47	3	Atlas		4,777,486	1
	10/10/2014 3:00	10/10/2014 3:00	-	0.73	63.095	0.95	0.30	3	Atlas		46,059	1
	12/6/2014 3:15	12/6/2014 5:45	150	1.86	31.227	2.52	0.60	48	Atlas		58,083	1
	3/4/2015 7:30	3/4/2015 7:30	-	1.75	256	0.90	0.57	48	Atlas		448	1
	3/10/2015 11:00	3/10/2015 17:15	375	1.30	1,457.760	3.04	0.59	12	Atlas		1,895,088	1
	3/14/2015 3:45	3/14/2015 8:00	255	1.68	331.485	2.94	0.63	24	Atlas		556,895	1
	4/2/2015 10:45	4/2/2015 15:15	270	6.05	131.593	0.96	50.00	6	Cloudburst		796,137	1
	4/3/2015 0:15	4/4/2015 0:30	1,455	6.05	25,120.123	6.07	50.00	6	Cloudburst		151,976,742	1
	4/7/2015 9:30	4/7/2015 17:15	465	0.68	440.838	6.73	0.30	1	Atlas		299,770	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/8/2015 18:15	4/8/2015 18:30	15	0.28	2,390,850	7.02	0.19	1	Atlas		669,438	1
	4/9/2015 11:45	4/9/2015 11:45	-	0.59	377,397	7.16	0.51	1	Atlas		222,664	1
	4/19/2015 14:30	4/19/2015 14:30	-	0.70	42,537	1.26	0.28	12	Atlas		29,776	1
	5/11/2015 17:45	5/11/2015 17:45	-	0.25	326,352	0.43	0.22	1	Atlas		81,588	1
	6/18/2015 16:15	6/18/2015 18:30	135	1.37	1,789,673	2.13	0.79	3	Atlas		2,451,852	1
	6/20/2015 7:45	6/20/2015 8:15	30	1.28	208,788	3.57	0.56	12	Atlas		267,249	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.65	554,325	1.95	0.35	6	Atlas		360,311	1
	6/26/2015 17:00	6/26/2015 17:15	15	0.70	329,330	2.48	0.35	1	Atlas		230,531	1
	6/29/2015 13:30	6/29/2015 13:45	15	0.15	2,825,920	1.50	0.10	1	Atlas		423,888	1
	7/2/2015 21:00	7/2/2015 21:00	-	0.78	99,303	2.38	0.41	3	Atlas		77,456	1
	7/10/2015 10:15	7/10/2015 16:15	360	0.70	80,087	2.03	0.36	1	Atlas		56,061	1
	7/12/2015 6:00	7/12/2015 16:15	615	0.87	16,591,417	2.61	0.58	1	Atlas		14,434,533	1
	7/13/2015 15:00	7/13/2015 15:15	15	0.56	139,354	3.17	0.46	1	Atlas		78,038	1
	7/14/2015 4:15	7/14/2015 9:45	330	0.60	2,314,543	3.77	0.43	1	Atlas		1,388,726	1
	7/17/2015 23:15	7/18/2015 1:00	105	1.12	824,695	3.18	0.75	3	Atlas		923,658	1
	8/6/2015 14:30	8/6/2015 15:00	30	1.29	206,516	1.51	0.45	24	Atlas		266,406	1
	8/19/2015 8:15	8/19/2015 8:15	-	0.53	43,626	0.17	0.26	1	Atlas		23,122	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.53	21,706	0.53	0.26	1	Atlas		11,504	1
	9/7/2015 18:00	9/7/2015 18:30	30	1.43	1,216,887	1.49	2.47	1	Atlas		1,740,148	1
	11/6/2015 3:30	11/6/2015 4:15	45	1.01	384,639	1.05	0.63	3	Atlas		388,485	1
	11/12/2015 0:00	11/12/2015 0:00	-	0.41	113,715	1.80	0.26	3	Atlas		46,623	1
	11/18/2015 10:45	11/18/2015 15:00	255	1.87	622,953	2.36	0.96	6	Atlas		1,164,923	1
	12/22/2015 3:15	12/22/2015 4:00	45	0.87	262,216	0.90	0.37	6	Atlas		228,128	1
	12/23/2015 19:30	12/23/2015 21:00	90	1.03	1,953,081	1.93	0.77	1	Atlas		2,011,673	1
	12/27/2015 10:45	12/27/2015 20:45	600	2.50	6,140,475	4.09	0.81	48	Atlas		15,351,187	1
	2/2/2016 23:45	2/3/2016 2:00	135	1.61	273,441	1.72	0.78	6	Atlas		440,240	1
	2/21/2016 9:00	2/21/2016 10:30	90	0.74	67,518	0.92	0.34	12	Atlas		49,963	1
	2/24/2016 5:30	2/24/2016 7:45	135	1.96	318,473	2.39	0.76	12	Atlas		624,208	1
	3/12/2016 22:45	3/12/2016 22:45	-	0.89	42,865	1.80	0.33	24	Atlas		38,150	1
	3/13/2016 9:00	3/13/2016 9:00	-	0.89	6,751	2.10	0.33	24	Atlas		6,008	1
	3/24/2016 17:45	3/24/2016 18:00	15	0.35	899,540	0.56	0.25	1	Atlas		314,839	1
	3/27/2016 21:30	3/27/2016 21:45	15	0.99	696,819	1.25	0.65	3	Atlas		689,861	1
	3/31/2016 22:15	3/31/2016 22:15	-	1.40	76,757	2.24	0.53	24	Atlas		107,460	1
	4/11/2016 18:00	4/11/2016 18:00	-	0.80	22,208	0.74	0.38	6	Atlas		17,766	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.70	104,851	1.34	0.32	3	Atlas		73,396	1
	5/1/2016 15:00	5/1/2016 15:15	15	0.36	2,863,436	1.97	0.24	3	Atlas		1,030,837	1
	5/10/2016 18:45	5/10/2016 22:00	195	0.78	887,956	1.65	0.28	24	Atlas		692,606	1
	5/20/2016 14:45	5/20/2016 15:15	30	0.84	257,314	1.43	0.49	3	Atlas		216,144	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.55	151,445	0.66	0.46	1	Atlas		83,295	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.64	299,342	0.61	0.54	1	Atlas		191,579	1
	6/23/2016 16:30	6/23/2016 21:00	270	1.38	571,204	1.41	0.70	6	Atlas		788,262	1
	7/4/2016 14:30	7/4/2016 14:30	-	1.02	4,677	0.93	0.33	48	Atlas		4,771	1
	7/27/2016 18:30	7/27/2016 19:00	30	1.61	1,275,072	1.28	0.92	1	Atlas		2,052,866	1
	7/30/2016 14:30	7/30/2016 14:30	-	0.32	424,709	2.21	0.28	1	Atlas		135,907	1
	8/1/2016 20:30	8/1/2016 21:45	75	1.08	2,285,938	3.36	0.60	1	Atlas		2,468,813	1
	8/4/2016 13:45	8/4/2016 14:00	15	0.20	2,028,510	1.80	0.13	3	Atlas		405,702	1
	8/15/2016 3:00	8/15/2016 3:30	30	1.68	364,794	1.48	0.76	3	Atlas		612,864	1
	8/17/2016 6:15	8/17/2016 6:15	-	0.63	55,392	2.22	0.28	3	Atlas		34,897	1
	8/20/2016 15:45	8/20/2016 20:00	255	0.89	153,317	2.94	0.40	1	Atlas		136,452	1
	8/31/2016 17:15	8/31/2016 18:00	45	0.04	8,908,525	0.06	0.02	3	Atlas		356,341	1
	12/17/2016 18:45	12/18/2016 5:15	630	2.78	2,709,410	3.09	2.52	6	Cloudburst		7,532,160	1
	1/17/2017 3:45	1/17/2017 3:45	-	0.71	100,497	2.28	0.32	12	Atlas		71,353	1
	1/19/2017 23:30	1/19/2017 23:30	-	1.26	13,656	2.24	0.58	12	Atlas		17,206	1
	2/24/2017 19:15	2/24/2017 19:30	15	0.78	938,194	0.86	0.66	1	Atlas		731,791	1
	3/1/2017 3:30	3/1/2017 10:45	435	1.17	1,555,442	2.55	0.62	6	Atlas		1,819,867	1
	4/16/2017 13:30	4/16/2017 19:30	360	1.19	540,979	1.28	0.55	6	Atlas		643,765	1
	4/27/2017 7:00	4/27/2017 7:00	-	0.35	181,743	0.92	0.24	1	Atlas		63,610	1
	4/29/2017 2:00	4/29/2017 3:15	75	1.34	1,206,365	1.80	0.83	1	Atlas		1,616,529	1
	5/4/2017 20:00	5/4/2017 20:30	30	1.75	184,595	2.46	0.57	48	Atlas		323,042	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.75	5,023	2.92	0.57	48	Atlas		8,790	1
	5/21/2017 4:00	5/21/2017 4:15	15	1.19	38,343	0.85	0.49	12	Atlas		45,628	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.37	762,762	0.45	0.32	1	Atlas		282,222	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.86	240,447	0.53	0.55	3	Atlas		204,380	1
	6/23/2017 15:45	6/23/2017 16:15	30	1.13	388,089	1.41	0.62	3	Atlas		438,541	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/30/2017 21:15	6/30/2017 21:15	-	0.55	541.453	0.73	0.48	1	Atlas		297,799	1
	7/6/2017 5:00	7/6/2017 5:00	-	0.97	11,315	1.09	0.41	12	Atlas		10,976	1
	7/7/2017 21:15	7/7/2017 21:15	-	0.30	142,193	1.33	0.21	1	Atlas		42,658	1
	7/23/2017 3:00	7/23/2017 7:15	255	1.41	107,016	0.99	0.65	12	Atlas		150,892	1
	7/28/2017 9:45	7/28/2017 10:15	30	0.53	383,957	1.94	0.42	1	Atlas		203,497	1
	8/2/2017 13:15	8/2/2017 13:15	-	0.13	333,954	0.71	0.10	1	Atlas		43,414	1
	8/17/2017 15:15	8/17/2017 18:00	165	0.96	170,692	0.93	0.52	6	Atlas		163,864	1
	8/22/2017 16:15	8/22/2017 16:15	-	0.50	405,530	1.46	0.34	1	Atlas		202,765	1
	9/1/2017 14:45	9/1/2017 14:45	-	4.03	12,294	2.20	4.32	24	Cloudburst		49,546	1
	9/1/2017 23:00	9/2/2017 1:00	120	4.03	32,309	3.87	4.32	24	Cloudburst		130,206	1
	10/7/2017 22:00	10/7/2017 22:15	15	2.15	236,729	0.53	0.81	24	Atlas		508,967	1
	10/8/2017 14:00	10/8/2017 14:00	-	2.15	46,087	1.91	0.81	24	Atlas		99,088	1
	11/3/2017 4:45	11/3/2017 5:30	45	1.57	225,173	3.03	3.03	1	Atlas		353,521	1
	12/5/2017 4:15	12/5/2017 4:15	-	0.84	11,640	0.63	0.50	3	Atlas		9,778	1
	2/22/2018 4:30	2/22/2018 9:15	285	1.85	124,033	3.06	0.66	24	Atlas		229,461	1
	2/23/2018 4:30	2/23/2018 12:00	450	1.38	224,978	4.07	0.63	12	Atlas		310,470	1
	2/24/2018 10:30	2/24/2018 10:30	-	2.22	319	3.65	0.94	12	Atlas		708	1
	2/24/2018 19:00	2/24/2018 23:15	255	2.22	494,392	5.17	0.94	12	Atlas		1,097,551	1
	3/29/2018 19:15	3/29/2018 19:30	15	1.19	40,542	1.93	0.32	48	Atlas		48,245	1
	5/5/2018 14:15	5/5/2018 18:30	255	3.19	128,751	3.02	6.15	1	Atlas		410,717	1
	6/1/2018 0:30	6/1/2018 1:30	60	1.34	27,669	1.46	0.64	3	Atlas		37,077	1
	6/25/2018 10:45	6/25/2018 10:45	-	1.07	35,678	1.69	0.44	12	Atlas		38,175	1
	6/26/2018 12:45	6/26/2018 12:45	-	1.77	65,883	3.04	1.13	1	Atlas		116,613	1
	7/2/2018 18:15	7/2/2018 18:15	-	0.78	82,927	2.50	0.62	1	Atlas		64,683	1
	7/3/2018 15:45	7/3/2018 15:45	-	0.47	1,123	1.60	0.30	1	Atlas		528	1
	7/15/2018 18:15	7/15/2018 18:15	-	0.34	293,012	0.33	0.20	1	Atlas		99,624	1
	7/20/2018 20:00	7/20/2018 21:15	75	1.23	164,941	1.72	0.53	12	Atlas		202,877	1
	7/31/2018 1:45	7/31/2018 1:45	-	2.05	25,122	1.19	0.80	12	Atlas		51,500	1
	8/16/2018 3:30	8/16/2018 13:30	600	3.85	768,924	3.85	5.00	24	Cloudburst		2,960,358	1
	8/19/2018 20:15	8/19/2018 22:15	120	1.70	767,974	5.68	1.67	3	Atlas		1,305,555	1
	8/29/2018 15:45	8/29/2018 22:15	390	0.01	351,500	0.06	0.01	1	Atlas		3,515	1
	9/8/2018 18:45	9/8/2018 22:15	210	2.51	456,421	3.10	1.97	6	Cloudburst		1,145,616	1
	9/21/2018 17:45	9/21/2018 18:00	15	0.40	575,658	0.53	0.34	1	Atlas		230,263	1
	9/23/2018 5:30	9/23/2018 9:45	255	2.07	233,270	2.57	0.81	3	Atlas		482,869	1
	9/24/2018 7:30	9/24/2018 17:45	615	2.27	172,417	4.77	0.99	12	Atlas		391,386	1
	11/1/2018 0:45	11/1/2018 1:15	30	2.41	46,434	2.30	0.87	24	Atlas		111,906	1
	11/5/2018 22:00	11/5/2018 22:15	15	1.42	69,234	3.42	0.77	6	Atlas		98,312	1
	12/15/2018 4:15	12/15/2018 4:15	-	1.69	8,080	0.97	0.69	12	Atlas		13,655	1
	2/6/2019 7:15	2/6/2019 9:45	150	1.95	82,490	0.65	0.63	48	Atlas		160,856	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.95	93,866	1.38	0.63	48	Atlas		183,039	1
	2/12/2019 4:45	2/12/2019 5:45	60	3.02	54,379	4.64	0.95	48	Atlas		164,225	1
	2/20/2019 5:30	2/20/2019 6:30	60	1.90	115,634	1.74	0.86	6	Atlas		219,705	1
	3/9/2019 13:30	3/9/2019 15:15	105	1.23	244,235	0.85	0.62	6	Atlas		300,409	1
	3/14/2019 17:15	3/14/2019 19:00	105	0.56	526,314	2.36	0.37	3	Atlas		294,736	1
	3/30/2019 19:00	3/30/2019 19:00	-	1.06	4,878	1.27	0.52	6	Atlas		5,171	1
	4/7/2019 12:15	4/7/2019 12:15	-	0.70	64,906	0.83	0.32	12	Atlas		45,434	1
	4/14/2019 3:00	4/14/2019 3:00	-	1.33	7,118	1.89	0.63	6	Atlas		9,467	1
	4/23/2019 18:00	4/23/2019 18:15	15	0.07	2,579,214	3.96	0.06	1	Atlas		180,545	1
	4/24/2019 21:00	4/24/2019 21:00	-	0.47	20,011	4.24	0.22	1	Atlas		9,405	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.77	118,623	4.99	0.46	1	Atlas		91,340	1
	5/2/2019 11:45	5/2/2019 11:45	-	0.39	100,333	1.21	0.34	1	Atlas		39,130	1
	5/3/2019 5:00	5/3/2019 5:00	-	1.01	1,346	0.78	0.55	6	Atlas		1,359	1
	5/19/2019 23:15	5/19/2019 23:15	-	0.24	64,371	0.42	0.20	1	Atlas		15,449	1
	5/26/2019 14:00	5/26/2019 14:00	-	0.44	147,584	0.43	0.25	3	Atlas		64,937	1
	5/29/2019 9:15	5/29/2019 9:15	-	0.87	77,357	0.81	0.48	6	Atlas		67,301	1
	6/5/2019 21:15	6/5/2019 21:15	-	0.73	63,856	0.87	0.52	1	Atlas		46,615	1
	6/9/2019 16:30	6/9/2019 19:30	180	1.20	378,122	2.87	0.71	1	Atlas		453,746	1
	6/16/2019 20:00	6/16/2019 21:00	60	1.38	97,454	1.42	0.68	6	Atlas		134,486	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.51	372,598	3.72	0.37	1	Atlas		190,025	1
	6/24/2019 14:00	6/24/2019 14:00	-	0.55	193,073	2.99	0.35	3	Atlas		106,190	1
	7/18/2019 1:15	7/18/2019 1:30	15	0.67	194,754	0.72	0.50	1	Atlas		130,485	1
	7/30/2019 0:00	7/30/2019 0:00	-	0.75	212,688	0.75	0.53	1	Atlas		159,516	1
	8/22/2019 3:00	8/22/2019 3:00	-	0.50	105,278	0.48	0.36	1	Atlas		52,639	1
	8/26/2019 11:45	8/26/2019 11:45	-	0.37	1,797	0.98	0.18	6	Atlas		665	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/15/2019 22:45	10/15/2019 22:45	-	0.81	67,760	0.97	0.64	1	Atlas		54,886	1
	10/30/2019 14:15	10/30/2019 14:45	30	0.88	70,726	2.05	0.43	3	Atlas		62,239	1
	1/11/2020 11:15	1/11/2020 11:15	-	1.60	9,699	0.91	0.60	24	Atlas		15,518	1
	2/12/2020 18:00	2/12/2020 18:30	30	1.11	20,253	1.47	0.49	3	Atlas		22,481	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.36	123,122	0.36	0.16	12	Atlas		44,324	1
	3/12/2020 20:00	3/12/2020 20:00	-	0.55	17,049	0.78	0.25	12	Atlas		9,377	1
	3/19/2020 12:15	3/19/2020 12:30	15	0.61	253,798	2.02	0.23	24	Atlas		154,817	1
	3/28/2020 22:30	3/28/2020 22:45	15	0.35	132,191	0.53	0.29	1	Atlas		46,267	1
	5/16/2020 2:30	5/16/2020 2:30	-	1.55	37,510	1.27	0.57	24	Atlas		58,140	1
	5/23/2020 17:45	5/23/2020 18:00	15	0.56	238,041	1.04	0.39	1	Atlas		133,303	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.62	137,973	0.41	0.32	1	Atlas		85,543	1
	6/23/2020 0:00	6/23/2020 0:00	-	1.63	57,075	2.15	0.79	6	Atlas		93,033	1
	6/29/2020 3:30	6/29/2020 4:30	60	1.44	111,249	3.63	0.91	3	Atlas		160,198	1
	CSO109 Total										**381,474,422**	**193**
CSO110	6/11/2009 17:45	6/11/2009 20:45	180	2.28	67,086	3.23	0.88	24	Atlas		152,955	1
	6/16/2009 9:15	6/16/2009 10:00	45	0.78	220,694	4.34	0.48	1	Atlas		172,141	1
	6/18/2009 10:00	6/18/2009 17:00	420	1.20	1,752,924	3.81	0.75	1	Atlas		2,103,509	1
	6/22/2009 9:00	6/22/2009 11:00	120	1.22	499,788	4.28	0.80	1	Atlas		609,741	1
	6/26/2009 3:15	6/26/2009 6:45	210	2.11	619,439	3.57	0.97	12	Atlas		1,307,017	1
	6/26/2009 15:45	6/26/2009 16:30	45	0.20	794,795	3.77	0.17	1	Atlas		158,959	1
	7/15/2009 10:30	7/15/2009 11:45	75	0.40	907,415	0.42	0.25	3	Atlas		362,966	1
	7/17/2009 3:45	7/17/2009 4:30	45	0.41	273,229	0.81	0.27	3	Atlas		112,024	1
	7/22/2009 7:00	7/22/2009 19:00	720	1.49	1,050,730	2.30	0.66	12	Atlas		1,565,588	1
	7/29/2009 1:15	7/29/2009 13:00	705	2.37	2,028,375	4.26	1.81	6	Cloudburst		4,807,248	1
	7/30/2009 19:30	7/31/2009 2:00	390	0.83	873,307	3.63	0.35	12	Atlas		724,845	1
	8/4/2009 7:30	8/5/2009 16:30	1,980	6.23	2,755,869	9.45					17,169,063	1
	8/10/2009 19:00	8/10/2009 21:15	135	1.01	577,559	7.19	0.64	3	Atlas		583,335	1
	9/20/2009 10:45	9/21/2009 3:45	1,020	3.49	1,768,305	3.51	3.60	24	Cloudburst		6,171,386	1
	9/22/2009 18:30	9/23/2009 0:30	360	0.66	457,194	4.18	0.34	6	Atlas		301,748	1
	9/24/2009 7:15	9/24/2009 8:00	45	0.76	152,391	4.35	0.26	24	Atlas		115,817	1
	9/24/2009 18:45	9/24/2009 22:45	240	0.76	245,237	4.90	0.26	24	Atlas		186,380	1
	9/26/2009 20:15	9/26/2009 21:45	90	0.36	1,827,339	5.32	0.29	1	Atlas		657,842	1
	10/2/2009 3:45	10/2/2009 7:15	210	0.76	900,532	1.20	0.47	3	Atlas		684,404	1
	10/8/2009 13:45	10/9/2009 22:45	1,980	2.04	1,852,714	2.89	0.68	24	Atlas		3,779,536	1
	10/14/2009 5:30	10/14/2009 7:45	135	0.63	1,018,800	2.67	0.41	3	Atlas		641,844	1
	10/15/2009 4:30	10/15/2009 5:45	75	0.15	693,693	2.77	0.10	3	Atlas		104,054	1
	10/23/2009 6:30	10/23/2009 10:45	255	0.51	408,102	0.53	0.22	12	Atlas		208,132	1
	10/27/2009 20:30	10/28/2009 0:45	255	1.07	1,335,679	1.58	0.48	12	Atlas		1,429,176	1
	10/30/2009 20:15	10/31/2009 5:30	555	1.03	885,263	2.08	0.47	12	Atlas		911,821	1
	11/17/2009 8:45	11/17/2009 21:30	765	0.86	655,330	0.83	0.33	24	Atlas		563,584	1
	12/8/2009 15:30	12/8/2009 23:30	480	1.57	1,477,258	1.80	0.65	12	Atlas		2,319,295	1
	12/13/2009 6:45	12/13/2009 7:30	45	0.28	212,729	1.91	0.18	3	Atlas		59,564	1
	12/19/2009 2:45	12/19/2009 3:30	45	0.48	116,760	0.39	0.17	24	Atlas		56,045	1
	1/20/2010 10:00	1/20/2010 12:45	165	0.48	605,729	0.72	0.25	6	Atlas		290,750	1
	1/20/2010 23:45	1/21/2010 0:30	45	0.15	575,727	0.89	0.13	1	Atlas		86,359	1
	1/21/2010 11:30	1/21/2010 20:30	540	0.93	1,797,954	1.82	0.43	12	Atlas		1,672,097	1
	1/24/2010 3:45	1/24/2010 11:15	450	0.89	797,434	2.39	0.34	24	Atlas		709,716	1
	1/24/2010 21:00	1/24/2010 23:45	165	0.89	435,254	2.45	0.34	24	Atlas		387,376	1
	2/5/2010 6:45	2/5/2010 21:00	855	1.02	1,661,586	1.04	0.36	24	Atlas		1,694,818	1
	3/12/2010 14:15	3/12/2010 14:15	-	0.27	34,322	0.26	0.17	3	Atlas		9,267	1
	3/21/2010 19:30	3/22/2010 1:30	360	0.57	345,940	0.57	0.26	12	Atlas		197,186	1
	3/25/2010 21:30	3/25/2010 22:15	45	0.56	180,498	1.12	0.33	1	Atlas		101,079	1
	4/8/2010 1:15	4/8/2010 6:30	315	1.07	791,050	1.14	0.53	6	Atlas		846,423	1
	4/24/2010 14:30	4/24/2010 21:00	390	1.82	725,280	2.06	0.85	6	Atlas		1,320,010	1
	4/27/2010 7:45	4/27/2010 10:45	180	0.34	861,929	2.55	0.16	6	Atlas		293,056	1
	5/1/2010 4:30	5/1/2010 9:30	300	4.38	316,555	3.32	4.38	48	Atlas		1,386,511	1
	5/2/2010 1:00	5/3/2010 4:00	1,620	4.38	2,542,299	4.89	4.38	48	Atlas		11,135,268	1
	5/7/2010 23:00	5/7/2010 23:30	30	0.20	466,775	4.59	0.15	1	Atlas		93,355	1
	5/12/2010 9:30	5/12/2010 10:45	75	0.96	560,673	1.27	0.74	1	Atlas		538,246	1
	5/13/2010 12:15	5/13/2010 12:45	30	0.23	694,991	1.50	0.19	1	Atlas		159,848	1
	5/16/2010 9:45	5/16/2010 9:45	-	0.69	10,207	1.64	0.32	12	Atlas		7,043	1
	5/16/2010 18:15	5/16/2010 18:15	-	0.69	6,325	1.98	0.32	12	Atlas		4,364	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/17/2010 19:30	5/17/2010 20:30	60	0.30	547.547	2.27	0.21	1	Atlas		164,264	1
	5/21/2010 19:45	5/22/2010 1:00	315	1.05	898.005	2.04	0.82	1	Atlas		942,905	1
	5/30/2010 20:00	5/30/2010 20:30	30	0.34	554.676	0.59	0.19	6	Atlas		188,590	1
	6/9/2010 4:00	6/9/2010 12:45	525	2.42	513.236	2.56	2.43	3	Atlas		1,242,031	1
	6/12/2010 1:15	6/12/2010 1:30	15	0.26	186.896	2.68	0.15	1	Atlas		48,593	1
	6/13/2010 23:00	6/13/2010 23:15	15	0.29	134.238	2.85	0.13	1	Atlas		38,929	1
	6/19/2010 5:30	6/19/2010 8:15	165	0.79	1,186.263	1.62	0.47	3	Atlas		937,148	1
	6/28/2010 1:45	6/28/2010 2:30	45	0.27	405.407	0.24	0.17	1	Atlas		109,460	1
	7/13/2010 4:30	7/13/2010 7:00	150	1.99	225.262	1.96	0.91	12	Atlas		448,271	1
	7/20/2010 4:30	7/20/2010 6:15	105	0.83	869.754	2.25	0.52	1	Atlas		721,896	1
	7/21/2010 6:00	7/21/2010 6:30	30	0.39	504.021	1.47	0.30	1	Atlas		196,568	1
	7/22/2010 14:15	7/22/2010 14:45	30	0.20	728.060	1.69	0.17	1	Atlas		145,612	1
	7/27/2010 14:15	7/27/2010 16:30	135	1.13	471.356	1.69	0.73	3	Atlas		532,632	1
	7/31/2010 4:30	7/31/2010 6:15	105	0.52	689.356	1.80	0.29	3	Atlas		358,465	1
	7/31/2010 20:45	7/31/2010 21:15	30	0.16	863.456	1.96	0.14	1	Atlas		138,153	1
	8/5/2010 9:15	8/5/2010 9:15	-	0.25	21.524	0.91	0.20	1	Atlas		5,381	1
	8/11/2010 17:15	8/11/2010 17:15	-	0.10	175.220	0.35	0.08	1	Atlas		17,522	1
	8/13/2010 18:15	8/13/2010 18:15	-	0.37	13.765	0.52	0.30	1	Atlas		5,093	1
	8/14/2010 16:15	8/14/2010 17:30	75	0.61	751.525	1.13	0.50	1	Atlas		458,430	1
	8/21/2010 6:45	8/21/2010 9:00	135	0.52	448.710	1.16	0.32	3	Atlas		233,329	1
	9/7/2010 9:15	9/7/2010 9:15	-	0.15	302.353	0.15	0.13	1	Atlas		45,353	1
	10/13/2010 19:15	10/13/2010 20:45	90	0.37	685.403	0.41	0.25	3	Atlas		253,599	1
	10/26/2010 11:15	10/26/2010 11:30	15	0.57	38.153	0.32	0.31	6	Atlas		21,747	1
	11/16/2010 12:15	11/16/2010 20:30	495	0.71	1,256.680	0.81	0.32	12	Atlas		892,243	1
	11/23/2010 3:45	11/23/2010 4:00	15	0.24	1,551.417	0.95	0.13	6	Atlas		372,340	1
	11/24/2010 12:30	11/24/2010 15:30	180	0.70	878.723	0.98	0.34	3	Atlas		615,106	1
	11/25/2010 10:00	11/25/2010 23:45	825	2.38	1,109.927	3.17	0.91	24	Atlas		2,641,626	1
	11/29/2010 21:30	11/30/2010 13:30	960	1.64	807.441	4.92	0.63	24	Atlas		1,324,204	1
	12/30/2010 3:00	12/30/2010 8:15	315	0.51	556.194	0.57	0.23	12	Atlas		283,659	1
	1/1/2011 4:30	1/1/2011 7:30	180	0.59	873.769	1.05	0.27	6	Atlas		515,524	1
	2/1/2011 18:15	2/1/2011 20:30	135	0.93	668.991	0.84	0.36	6	Atlas		622,162	1
	2/24/2011 20:00	2/25/2011 7:15	675	2.17	2,624.627	2.36	0.84	6	Atlas		5,695,441	1
	2/27/2011 17:45	2/27/2011 17:45	-	0.13	166.192	2.45	0.07	3	Atlas		21,605	1
	2/28/2011 5:00	2/28/2011 13:15	495	1.33	1,781.230	3.79	0.65	6	Atlas		2,369,036	1
	3/5/2011 7:00	3/5/2011 19:00	720	0.97	784.209	2.41	0.32	24	Atlas		760,683	1
	3/8/2011 22:45	3/10/2011 2:30	1,665	3.08	3,479.887	4.08	1.94	24	Cloudburst		10,718,053	1
	3/14/2011 3:30	3/14/2011 16:15	765	0.94	478.218	3.86	0.31	48	Atlas		449,525	1
	3/15/2011 7:00	3/15/2011 13:00	360	0.94	353.279	4.05	0.31	48	Atlas		332,082	1
	3/18/2011 22:00	3/18/2011 22:00	-	0.25	55.848	1.17	0.11	12	Atlas		13,962	1
	4/4/2011 13:15	4/4/2011 17:15	240	0.89	1,223.327	1.01	0.45	6	Atlas		1,088,761	1
	4/9/2011 10:30	4/9/2011 12:00	90	0.61	706.584	1.55	0.43	1	Atlas		431,016	1
	4/11/2011 10:15	4/12/2011 16:15	1,800	3.58	3,269.442	5.09	3.96	24	Cloudburst		11,704,603	1
	4/15/2011 12:30	4/15/2011 14:00	90	0.38	587.034	4.36	0.15	24	Atlas		223,073	1
	4/15/2011 22:45	4/15/2011 22:45	-	0.38	30.447	4.47	0.15	24	Atlas		11,570	1
	4/20/2011 0:15	4/20/2011 5:00	285	0.74	1,103.197	1.18	0.40	6	Atlas		816,366	1
	4/22/2011 16:30	4/25/2011 7:30	3,780	4.64	1,683.083	5.59	2.73	48	Cloudburst		7,809,505	1
	4/27/2011 0:45	4/28/2011 22:00	2,715	2.64	4,987.875	8.09	1.10	24	Cloudburst		13,167,989	1
	5/1/2011 4:15	5/1/2011 7:00	165	0.73	1,054.719	4.84	0.38	3	Atlas		769,945	1
	5/1/2011 19:15	5/2/2011 8:30	795	2.77	471.690	4.93	0.90	48	Atlas		1,306,582	1
	5/2/2011 16:45	5/3/2011 23:15	1,830	2.77	2,169.187	6.45	0.90	48	Atlas		6,008,648	1
	5/8/2011 0:45	5/8/2011 2:00	75	0.45	719.898	3.88	0.32	1	Atlas		323,954	1
	5/21/2011 18:15	5/21/2011 19:30	75	0.49	793.635	0.94	0.36	1	Atlas		388,881	1
	5/23/2011 3:45	5/23/2011 5:00	75	0.41	566.312	1.05	0.31	1	Atlas		232,188	1
	5/23/2011 17:30	5/23/2011 22:00	270	0.81	1,619.628	1.88	0.51	3	Atlas		1,311,899	1
	5/25/2011 22:45	5/26/2011 16:30	1,065	1.40	1,491.418	3.23	0.62	3	Atlas		2,087,985	1
	6/11/2011 5:00	6/11/2011 5:00	-	0.34	17.488	0.35	0.28	1	Atlas		5,946	1
	6/15/2011 9:30	6/15/2011 11:00	90	1.01	565.598	1.39	0.61	3	Atlas		571,254	1
	6/18/2011 6:15	6/18/2011 8:45	150	0.87	693.631	1.94	0.55	3	Atlas		603,459	1
	6/19/2011 7:30	6/19/2011 9:45	135	0.53	737.287	2.45	0.33	3	Atlas		390,762	1
	6/20/2011 1:30	6/20/2011 2:30	60	0.51	727.514	2.96	0.43	1	Atlas		371,032	1
	6/21/2011 14:15	6/21/2011 17:00	165	0.43	342.558	3.35	0.25	3	Atlas		147,300	1
	6/22/2011 19:15	6/23/2011 10:30	915	3.80	1,892.700	6.15	29.49	3	Cloudburst		7,192,261	1
	6/26/2011 4:30	6/26/2011 5:15	45	0.30	191.883	5.50	0.16	6	Atlas		57,565	1
	7/12/2011 16:45	7/12/2011 18:00	75	0.54	194.798	1.07	0.29	6	Atlas		105,191	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/19/2011 22:45	7/20/2011 0:00	75	1.41	316.872	1.50	0.98	1	Atlas		446,789	1
	8/7/2011 3:00	8/7/2011 7:15	255	1.81	938.664	1.83	1.50	3	Atlas		1,698,982	1
	8/8/2011 15:00	8/8/2011 15:00	-	0.18	66.317	2.01	0.11	3	Atlas		11,937	1
	8/13/2011 17:00	8/13/2011 18:30	90	0.95	842.020	3.06	0.75	1	Atlas		799,919	1
	8/18/2011 8:00	8/18/2011 9:00	60	0.45	912.098	1.40	0.38	1	Atlas		410,444	1
	9/19/2011 7:00	9/19/2011 7:45	45	0.72	251.918	0.63	0.29	12	Atlas		181,381	1
	9/23/2011 3:00	9/23/2011 8:15	315	0.81	465.298	1.56	0.37	12	Atlas		376,891	1
	9/25/2011 20:00	9/26/2011 8:45	765	3.87	2,101.357	5.56	12.50	12	Atlas		8,132,253	1
	10/13/2011 7:30	10/13/2011 8:15	45	0.44	569.093	0.29	0.21	3	Atlas		250,401	1
	10/26/2011 23:45	10/27/2011 5:30	345	1.18	1,478.925	1.54	0.48	12	Atlas		1,745,131	1
	11/3/2011 10:00	11/3/2011 11:15	75	0.52	191.227	0.43	0.24	3	Atlas		99,438	1
	11/14/2011 21:30	11/14/2011 23:30	120	2.19	333.657	0.38	0.71	48	Atlas		730,708	1
	11/15/2011 8:15	11/15/2011 15:15	420	2.19	326.274	1.53	0.71	48	Atlas		714,540	1
	11/16/2011 5:30	11/16/2011 11:45	375	2.19	263.248	2.17	0.71	48	Atlas		576,514	1
	11/20/2011 17:15	11/20/2011 20:30	195	2.22	158.830	2.97	0.67	48	Atlas		352,602	1
	11/21/2011 10:30	11/21/2011 10:30	-	2.22	2.060	3.15	0.67	48	Atlas		4,573	1
	11/22/2011 0:00	11/22/2011 12:00	720	2.22	625.833	3.98	0.67	48	Atlas		1,389,350	1
	11/27/2011 5:45	11/29/2011 5:30	2,865	3.13	1,654.407	5.29	0.98	48	Atlas		5,178,293	1
	11/29/2011 18:30	11/29/2011 20:00	90	0.06	957.600	3.22	0.04	3	Atlas		57,456	1
	12/4/2011 16:00	12/6/2011 8:45	2,445	2.91	3,096.853	5.44	0.94	48	Atlas		9,011,843	1
	12/15/2011 14:00	12/15/2011 8:45	285	0.42	862.652	0.42	0.22	6	Atlas		362,314	1
	12/21/2011 5:15	12/21/2011 7:45	150	0.55	1,495.867	0.99	0.25	12	Atlas		822,727	1
	12/22/2011 12:00	12/22/2011 18:00	360	0.61	943.889	1.14	0.27	12	Atlas		575,772	1
	12/27/2011 2:30	12/27/2011 12:15	585	0.69	851.867	1.84	0.28	12	Atlas		587,788	1
	1/11/2012 5:00	1/11/2012 11:15	375	0.77	1,429.677	0.66	0.30	6	Atlas		1,100,851	1
	1/11/2012 20:15	1/11/2012 20:15	-	0.77	39.591	0.76	0.30	6	Atlas		30,485	1
	1/17/2012 3:45	1/17/2012 12:45	540	0.35	1,797.126	1.22	0.16	12	Atlas		628,994	1
	1/23/2012 2:45	1/23/2012 5:15	150	0.54	2,010.491	0.90	0.27	3	Atlas		1,085,665	1
	1/25/2012 17:00	1/25/2012 19:15	135	1.93	34.181	0.85	0.63	48	Atlas		65,969	1
	1/26/2012 5:15	1/26/2012 7:15	120	1.93	268.418	1.35	0.63	48	Atlas		518,047	1
	1/26/2012 18:30	1/27/2012 3:00	510	1.93	1,667.167	2.47	0.63	48	Atlas		3,217,633	1
	2/4/2012 9:15	2/4/2012 12:00	165	0.43	931.563	0.46	0.24	3	Atlas		400,572	1
	2/22/2012 23:00	2/22/2012 23:15	15	0.15	359.267	0.37	0.11	1	Atlas		53,890	1
	2/29/2012 6:00	2/29/2012 9:30	210	0.66	310.836	0.80	0.30	12	Atlas		205,152	1
	3/8/2012 10:00	3/8/2012 17:30	450	0.83	1,503.694	1.21	0.38	6	Atlas		1,248,066	1
	3/15/2012 19:15	3/16/2012 3:45	510	1.05	992.860	1.25	0.46	12	Atlas		1,042,503	1
	3/17/2012 18:30	3/18/2012 1:30	420	1.06	857.371	2.30	0.59	1	Atlas		908,813	1
	3/23/2012 5:00	3/24/2012 0:00	1,140	1.66	1,483.337	2.73	0.63	24	Atlas		2,462,340	1
	4/1/2012 8:30	4/1/2012 13:15	285	1.86	1,116.949	2.04	1.23	3	Atlas		2,077,525	1
	4/28/2012 19:15	4/29/2012 0:30	315	0.78	718.267	0.92	0.58	1	Atlas		560,248	1
	4/30/2012 18:00	4/30/2012 18:45	45	0.27	694.663	1.16	0.18	3	Atlas		187,559	1
	5/4/2012 23:45	5/5/2012 4:45	300	1.35	851.496	2.40	0.69	6	Atlas		1,149,520	1
	5/13/2012 1:45	5/13/2012 14:45	780	2.12	1,370.516	2.16	0.87	12	Atlas		2,905,494	1
	5/29/2012 6:30	5/29/2012 16:45	615	3.15	1,467.635	3.15	22.55	3	Atlas		4,623,051	1
	5/31/2012 18:30	6/1/2012 5:15	645	1.22	992.700	4.31	0.53	12	Atlas		1,211,094	1
	7/1/2012 19:45	7/1/2012 20:30	45	0.49	446.063	0.42	0.37	1	Atlas		218,571	1
	7/8/2012 13:15	7/8/2012 13:30	15	0.14	245.100	0.65	0.10	1	Atlas		34,314	1
	7/14/2012 12:30	7/14/2012 14:45	135	0.61	957.338	0.79	0.39	3	Atlas		583,976	1
	7/19/2012 18:00	7/19/2012 19:30	90	0.93	1,088.587	1.52	0.75	1	Atlas		1,012,386	1
	7/24/2012 20:00	7/24/2012 20:00	-	0.22	56.282	1.25	0.17	1	Atlas		12,382	1
	7/27/2012 3:15	7/27/2012 3:15	-	0.10	135.380	0.43	0.05	1	Atlas		13,538	1
	7/27/2012 19:45	7/27/2012 21:30	105	0.69	918.217	1.01	0.50	1	Atlas		633,570	1
	8/16/2012 20:15	8/16/2012 22:45	150	0.72	1,320.293	0.77	0.41	3	Atlas		950,611	1
	8/21/2012 13:45	8/21/2012 14:15	30	0.16	995.988	0.89	0.14	1	Atlas		159,358	1
	9/1/2012 15:00	9/1/2012 16:15	75	0.58	641.859	0.41	0.36	3	Atlas		372,278	1
	9/2/2012 11:45	9/2/2012 22:15	630	0.75	1,302.327	1.38	0.29	24	Atlas		976,745	1
	9/5/2012 15:15	9/5/2012 17:15	120	0.80	817.076	2.20	0.62	1	Atlas		653,661	1
	9/7/2012 23:30	9/8/2012 2:30	180	1.20	611.398	3.28	0.67	3	Atlas		733,678	1
	9/26/2012 21:00	9/27/2012 1:15	255	0.85	1,662.844	1.67	0.47	3	Atlas		1,413,417	1
	10/1/2012 15:00	10/1/2012 19:30	270	0.80	1,200.975	2.50	0.33	12	Atlas		960,780	1
	10/26/2012 14:45	10/26/2012 17:30	165	0.86	248.138	0.78	0.39	6	Atlas		213,399	1
	12/4/2012 16:45	12/4/2012 19:00	135	0.53	632.111	0.70	0.35	3	Atlas		335,019	1
	12/7/2012 3:45	12/7/2012 18:30	885	1.38	1,320.155	2.08	0.59	12	Atlas		1,821,814	1
	12/8/2012 5:30	12/8/2012 10:15	285	0.60	1,227.475	2.68	0.32	6	Atlas		736,485	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/9/2012 8:45	12/9/2012 9:15	30	1.07	28,721	2.79	0.47	3	Atlas		30,732	1
	12/9/2012 22:00	12/10/2012 3:30	330	1.07	1,752,630	3.52	0.47	3	Atlas		1,875,314	1
	12/15/2012 11:30	12/15/2012 11:30	-	0.19	2,974	1.23	0.11	3	Atlas		565	1
	12/20/2012 7:00	12/20/2012 12:45	345	0.66	1,491,547	1.00	0.36	6	Atlas		984,421	1
	12/26/2012 5:30	12/26/2012 11:45	375	0.77	759,792	1.45	0.30	12	Atlas		585,040	1
	1/11/2013 5:45	1/11/2013 8:15	150	0.60	1,331,020	0.79	0.31	6	Atlas		798,612	1
	1/13/2013 3:15	1/14/2013 0:00	1,245	2.36	2,884,898	3.14	0.91	24	Atlas		6,808,359	1
	1/30/2013 4:45	1/30/2013 9:45	300	0.84	1,206,844	1.10	0.42	6	Atlas		1,013,749	1
	2/19/2013 5:00	2/19/2013 5:00	-	0.38	16,750	0.43	0.17	12	Atlas		6,365	1
	2/22/2013 0:30	2/22/2013 1:45	75	0.40	668,508	0.77	0.18	12	Atlas		267,403	1
	2/26/2013 13:30	2/26/2013 17:00	210	0.62	869,029	0.95	0.24	12	Atlas		538,798	1
	3/5/2013 16:00	3/5/2013 19:00	180	0.43	1,427,186	0.55	0.16	24	Atlas		613,690	1
	3/11/2013 3:30	3/11/2013 13:00	570	1.00	1,757,093	1.44	0.40	12	Atlas		1,757,093	1
	3/17/2013 10:15	3/18/2013 11:15	1,500	1.82	2,288,827	2.83	0.59	48	Atlas		4,165,665	1
	3/24/2013 7:45	3/24/2013 17:30	585	0.48	828,608	1.83	0.18	24	Atlas		397,732	1
	4/11/2013 6:15	4/11/2013 8:00	105	1.18	543,462	0.45	0.45	24	Atlas		641,285	1
	4/11/2013 16:15	4/12/2013 1:15	540	1.18	302,292	1.18	0.45	24	Atlas		356,705	1
	4/16/2013 20:00	4/16/2013 21:15	75	0.57	608,568	1.71	0.44	1	Atlas		346,884	1
	4/19/2013 2:00	4/19/2013 5:15	195	0.86	1,687,080	1.44	0.47	6	Atlas		1,450,889	1
	4/24/2013 7:15	4/24/2013 10:30	195	0.75	1,441,721	1.65	0.43	3	Atlas		1,081,291	1
	5/4/2013 13:15	5/4/2013 15:30	135	1.53	123,729	0.67	0.49	24	Atlas		189,306	1
	5/5/2013 4:00	5/5/2013 9:00	300	1.53	436,733	1.42	0.49	24	Atlas		668,201	1
	5/10/2013 12:30	5/11/2013 1:00	750	1.04	1,017,190	2.71	0.47	6	Atlas		1,057,878	1
	5/22/2013 15:30	5/22/2013 15:30	-	0.27	145,437	0.75	0.18	1	Atlas		39,268	1
	7/4/2013 11:30	7/4/2013 14:15	165	0.59	119,220	1.41	0.24	12	Atlas		70,340	1
	7/6/2013 1:30	7/6/2013 8:45	435	0.65	893,238	2.17	0.28	12	Atlas		580,605	1
	7/10/2013 14:30	7/10/2013 15:45	75	0.62	411,118	2.02	0.41	3	Atlas		254,893	1
	7/14/2013 19:45	7/14/2013 20:15	30	0.16	919,919	0.87	0.14	1	Atlas		147,187	1
	7/18/2013 17:00	7/18/2013 17:00	-	0.21	23,376	0.40	0.14	3	Atlas		4,909	1
	7/21/2013 19:30	7/21/2013 21:45	135	3.27	201,447	2.50	5.14	3	Atlas		658,732	1
	7/22/2013 7:45	7/22/2013 17:30	585	3.27	360,584	3.50	5.14	3	Atlas		1,179,110	1
	8/9/2013 17:30	8/9/2013 18:45	75	0.44	1,419,641	0.36	0.19	1	Atlas		624,642	1
	8/12/2013 15:15	8/12/2013 16:45	90	0.86	919,006	1.05	0.37	1	Atlas		790,345	1
	8/13/2013 2:45	8/13/2013 4:45	120	0.86	381,398	1.33	0.37	1	Atlas		328,002	1
	8/20/2013 18:15	8/20/2013 19:30	75	0.30	1,509,740	0.32	0.17	3	Atlas		452,922	1
	8/31/2013 20:00	9/1/2013 4:30	510	0.91	823,789	0.90	0.42	12	Atlas		749,648	1
	9/2/2013 14:15	9/2/2013 15:45	90	0.59	1,405,005	1.50	0.51	1	Atlas		828,953	1
	9/20/2013 19:30	9/21/2013 6:00	630	1.30	2,091,835	1.33	0.53	12	Atlas		2,719,385	1
	10/5/2013 12:45	10/7/2013 0:15	2,130	4.79	1,825,465	5.03	13.46	24	Atlas		8,743,978	1
	10/30/2013 2:30	10/30/2013 5:45	195	1.97	854,136	1.93	1.39	1	Atlas		1,682,648	1
	10/31/2013 20:45	10/31/2013 23:30	165	0.58	981,057	2.55	0.22	12	Atlas		569,013	1
	11/17/2013 5:45	11/18/2013 0:15	1,110	2.49	531,214	2.64	1.81	6	Cloudburst		1,322,723	1
	12/5/2013 7:30	12/5/2013 10:15	165	0.69	499,084	0.19	0.22	48	Atlas		344,368	1
	12/6/2013 12:15	12/6/2013 13:30	75	0.69	59,574	0.42	0.22	48	Atlas		41,106	1
	12/14/2013 7:45	12/14/2013 13:00	315	0.97	745,440	1.31	0.42	6	Atlas		723,077	1
	12/21/2013 5:30	12/22/2013 19:00	2,250	2.47	2,218,626	3.10	0.93	24	Atlas		5,480,006	1
	12/29/2013 3:00	12/29/2013 7:30	270	0.56	358,793	0.54	0.24	12	Atlas		200,924	1
	1/5/2014 15:30	1/5/2014 20:45	315	0.51	1,353,465	0.76	0.25	6	Atlas		690,267	1
	1/11/2014 0:45	1/11/2014 6:45	360	1.08	1,343,065	1.60	0.58	6	Atlas		1,450,510	1
	1/13/2014 15:00	1/13/2014 16:30	90	0.20	638,835	1.24	0.09	12	Atlas		127,767	1
	2/2/2014 5:15	2/2/2014 8:15	180	0.43	561,479	0.18	0.16	24	Atlas		241,436	1
	2/4/2014 19:30	2/5/2014 6:15	645	0.54	3,856,620	0.97	0.26	6	Atlas		2,082,575	1
	2/14/2014 17:15	2/14/2014 19:30	135	0.52	473,519	0.55	0.28	6	Atlas		246,230	1
	2/17/2014 15:45	2/17/2014 19:45	240	0.43	1,960,347	1.01	0.27	3	Atlas		842,949	1
	2/20/2014 23:15	2/21/2014 0:30	75	0.24	574,196	1.25	0.13	6	Atlas		137,807	1
	3/2/2014 10:15	3/2/2014 12:30	135	0.66	581,879	0.34	0.25	24	Atlas		384,040	1
	3/29/2014 7:15	3/29/2014 14:00	405	1.00	1,266,841	1.29	0.47	6	Atlas		1,266,841	1
	4/3/2014 12:15	4/5/2014 0:45	2,190	2.60	2,364,458	3.97	0.90	24	Atlas		6,147,592	1
	4/7/2014 8:00	4/7/2014 21:00	780	0.73	2,060,322	3.46	0.43	1	Atlas		1,504,035	1
	4/14/2014 4:00	4/14/2014 11:15	435	0.38	129,532	1.14	0.19	6	Atlas		49,222	1
	4/14/2014 20:15	4/15/2014 3:45	450	0.61	1,464,749	1.03	0.28	12	Atlas		893,497	1
	4/27/2014 20:45	4/28/2014 21:00	1,455	1.73	1,320,518	1.84	0.67	3	Atlas		2,284,496	1
	5/9/2014 19:30	5/10/2014 16:30	1,260	1.84	1,081,389	1.91	0.71	24	Atlas		1,989,755	1
	5/14/2014 7:15	5/15/2014 1:15	1,080	1.15	1,077,050	3.10	0.43	24	Atlas		1,238,608	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/16/2014 4:30	5/16/2014 4:30	-	0.07	85,543	3.17	0.05	1	Atlas		5,988	1
	5/22/2014 3:00	5/22/2014 5:00	120	0.52	786,090	0.60	0.28	1	Atlas		408,767	1
	5/29/2014 20:45	5/29/2014 22:30	105	1.09	788,826	1.26	0.84	1	Atlas		859,820	1
	6/11/2014 14:30	6/11/2014 15:15	45	0.12	1,876,083	0.35	0.06	1	Atlas		225,130	1
	6/20/2014 16:45	6/20/2014 18:15	90	0.22	643,759	0.22	0.15	3	Atlas		141,627	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.24	27,858	0.49	0.17	1	Atlas		6,686	1
	7/2/2014 17:00	7/2/2014 17:00	-	0.15	166,007	0.37	0.12	1	Atlas		24,901	1
	7/13/2014 22:00	7/14/2014 0:30	150	0.70	1,379,729	1.61	0.37	3	Atlas		965,810	1
	7/26/2014 21:45	7/27/2014 10:30	765	1.30	1,294,992	1.32	0.59	12	Atlas		1,683,489	1
	8/8/2014 6:15	8/8/2014 8:45	150	1.02	1,180,426	0.81	0.46	6	Atlas		1,204,035	1
	8/11/2014 15:45	8/11/2014 16:45	60	0.36	813,119	1.62	0.24	1	Atlas		292,723	1
	8/17/2014 10:15	8/17/2014 10:45	30	0.71	175,642	0.96	0.26	24	Atlas		124,706	1
	8/22/2014 19:30	8/22/2014 20:15	45	0.40	616,203	1.05	0.28	1	Atlas		246,481	1
	8/23/2014 16:00	8/23/2014 22:15	375	0.63	506,294	1.71	0.29	12	Atlas		318,965	1
	8/27/2014 15:15	8/27/2014 18:45	210	0.48	2,542,106	1.53	0.31	3	Atlas		1,220,211	1
	8/30/2014 15:30	8/30/2014 16:45	75	0.45	873,824	1.42	0.24	1	Atlas		393,221	1
	9/2/2014 8:45	9/2/2014 9:45	60	0.34	614,124	1.25	0.21	3	Atlas		208,802	1
	9/11/2014 0:45	9/11/2014 9:30	525	1.97	1,680,231	1.97	1.60	3	Atlas		3,310,056	1
	10/10/2014 2:15	10/10/2014 3:45	90	0.75	1,148,500	0.98	0.29	24	Atlas		861,375	1
	10/13/2014 5:45	10/13/2014 7:00	75	0.42	606,402	1.48	0.27	3	Atlas		254,689	1
	10/13/2014 23:45	10/14/2014 10:45	660	1.24	782,606	2.62	0.56	12	Atlas		970,431	1
	11/23/2014 17:45	11/23/2014 21:00	195	0.81	697,019	1.15	0.37	6	Atlas		564,585	1
	12/1/2014 4:15	12/1/2014 6:00	105	0.82	250,789	0.37	0.31	24	Atlas		205,647	1
	12/5/2014 23:15	12/6/2014 9:00	585	1.86	1,049,311	2.68	0.60	48	Atlas		1,951,719	1
	12/28/2014 1:30	12/28/2014 2:30	60	0.27	405,833	0.68	0.12	1	Atlas		109,575	1
	2/1/2015 14:00	2/1/2015 14:30	30	0.36	34,678	0.42	0.17	12	Atlas		12,484	1
	2/21/2015 15:15	2/21/2015 18:15	180	1.25	200,168	1.41	0.48	24	Atlas		250,210	1
	3/3/2015 19:45	3/4/2015 21:30	1,545	1.62	2,390,089	1.47	0.53	48	Atlas		3,871,944	1
	3/10/2015 7:15	3/11/2015 1:45	1,110	1.34	2,193,867	2.96	0.61	12	Atlas		2,939,782	1
	3/13/2015 10:45	3/14/2015 22:00	2,115	1.71	2,507,177	3.05	0.64	24	Atlas		4,287,273	1
	3/26/2015 4:45	3/26/2015 7:15	150	0.43	624,142	0.57	0.18	12	Atlas		268,381	1
	4/2/2015 11:00	4/5/2015 3:45	3,885	5.83	2,069,098	5.96	36.46	6	Cloudburst		12,062,840	1
	4/7/2015 8:00	4/7/2015 21:00	780	0.74	1,307,612	6.58	0.31	12	Atlas		967,633	1
	4/8/2015 18:15	4/8/2015 20:30	135	0.24	3,203,650	6.82	0.17	1	Atlas		768,876	1
	4/9/2015 11:45	4/9/2015 14:00	135	0.23	2,388,722	6.64	0.20	1	Atlas		549,406	1
	4/10/2015 2:45	4/10/2015 4:15	90	0.15	774,980	3.32	0.10	3	Atlas		116,247	1
	4/13/2015 21:00	4/13/2015 22:00	60	0.45	217,233	1.47	0.18	6	Atlas		97,755	1
	4/14/2015 10:00	4/14/2015 12:15	135	0.45	259,176	1.37	0.18	6	Atlas		116,629	1
	4/19/2015 14:15	4/19/2015 16:00	105	0.75	550,936	1.22	0.32	12	Atlas		413,202	1
	4/20/2015 3:30	4/20/2015 4:00	30	0.07	301,814	1.38	0.06	1	Atlas		21,127	1
	5/17/2015 14:30	5/17/2015 14:45	15	0.17	720,788	0.59	0.12	1	Atlas		122,534	1
	5/26/2015 14:15	5/26/2015 15:00	45	0.42	371,800	0.64	0.30	1	Atlas		156,156	1
	6/17/2015 5:00	6/17/2015 7:15	135	0.70	847,541	1.04	0.37	3	Atlas		593,279	1
	6/18/2015 16:15	6/19/2015 0:15	480	2.11	683,662	2.08	0.69	48	Atlas		1,442,526	1
	6/20/2015 2:00	6/20/2015 12:45	645	2.11	430,832	3.28	0.69	48	Atlas		909,056	1
	6/26/2015 0:15	6/26/2015 4:45	270	0.51	723,957	1.93	0.27	6	Atlas		369,218	1
	6/26/2015 17:15	6/27/2015 2:15	540	0.77	1,043,238	2.48	0.37	1	Atlas		803,293	1
	6/29/2015 13:45	6/29/2015 14:45	60	0.17	987,065	1.45	0.10	1	Atlas		167,801	1
	7/2/2015 1:00	7/2/2015 3:30	150	0.77	463,156	2.15	0.41	3	Atlas		356,630	1
	7/2/2015 21:15	7/2/2015 22:15	60	0.77	186,934	2.27	0.41	3	Atlas		143,939	1
	7/3/2015 15:15	7/3/2015 20:15	300	0.28	588,561	2.02	0.17	1	Atlas		164,797	1
	7/7/2015 12:00	7/7/2015 17:30	330	0.72	497,651	1.80	0.37	6	Atlas		358,309	1
	7/9/2015 6:45	7/9/2015 8:30	105	0.22	386,623	1.39	0.13	3	Atlas		85,057	1
	7/10/2015 10:30	7/10/2015 17:30	420	0.56	1,078,845	1.88	0.26	6	Atlas		604,153	1
	7/12/2015 6:15	7/12/2015 21:45	930	0.94	1,801,463	2.54	0.63	1	Atlas		1,693,375	1
	7/13/2015 14:45	7/14/2015 20:15	1,770	0.36	5,038,233	3.31	0.30	1	Atlas		1,813,764	1
	7/17/2015 23:00	7/18/2015 6:45	465	0.86	1,627,843	2.57	0.57	3	Atlas		1,399,945	1
	7/29/2015 17:45	7/29/2015 17:45	-	0.05	76,040	0.14	0.04	1	Atlas		3,802	1
	8/4/2015 19:45	8/4/2015 20:00	15	0.18	204,556	0.23	0.15	1	Atlas		36,820	1
	8/6/2015 8:15	8/6/2015 16:30	495	1.08	535,276	1.25	0.40	24	Atlas		578,098	1
	8/19/2015 8:45	8/19/2015 9:00	15	0.69	115,446	0.50	0.33	1	Atlas		79,658	1
	8/19/2015 17:15	8/19/2015 17:45	30	0.69	84,220	0.72	0.33	1	Atlas		58,112	1
	9/7/2015 18:15	9/7/2015 19:15	60	0.24	2,002,950	0.31	0.21	1	Atlas		480,708	1
	10/2/2015 19:00	10/2/2015 20:30	90	0.62	191,339	1.63	0.30	6	Atlas		118,630	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/12/2015 19:30	10/12/2015 20:15	45	0.29	346.190	0.42	0.19	3	Atlas		100.395	1
	10/27/2015 15:45	10/28/2015 9:15	1.050	2.65	855.402	3.09	0.86	48	Atlas		2.266.815	1
	10/28/2015 23:00	10/28/2015 23:00	-	0.17	29.235	3.24	0.09	6	Atlas		4.970	1
	11/6/2015 3:45	11/6/2015 7:45	240	0.66	1.419.661	0.81	0.40	3	Atlas		936.976	1
	11/9/2015 19:30	11/9/2015 23:00	210	0.49	627.020	1.15	0.22	12	Atlas		307.240	1
	11/12/2015 0:15	11/12/2015 2:15	120	0.32	1.060.947	1.46	0.19	3	Atlas		339.503	1
	11/18/2015 9:30	11/18/2015 20:45	675	1.76	2.114.265	2.21	0.90	6	Atlas		3.721.106	1
	11/28/2015 14:15	11/28/2015 22:00	465	0.68	1.197.974	0.94	0.28	12	Atlas		814.622	1
	11/30/2015 22:15	12/1/2015 8:30	615	0.73	1.545.123	1.64	0.33	12	Atlas		1.127.940	1
	12/14/2015 7:15	12/14/2015 8:30	75	0.26	81.104	0.25	0.14	6	Atlas		21.087	1
	12/22/2015 0:00	12/22/2015 5:45	345	0.56	1.707.321	0.76	0.30	6	Atlas		956.100	1
	12/23/2015 19:45	12/24/2015 2:15	390	0.95	1.612.413	1.72	0.67	1	Atlas		1.531.792	1
	12/25/2015 9:30	12/25/2015 10:45	75	0.11	572.236	1.81	0.06	6	Atlas		62.946	1
	12/26/2015 11:30	12/26/2015 19:00	450	0.31	938.713	2.13	0.14	12	Atlas		291.001	1
	12/27/2015 10:15	12/29/2015 0:15	2.280	2.05	2.334.384	4.18	0.67	48	Atlas		4.785.488	1
	2/2/2016 20:00	2/3/2016 5:15	555	1.28	1.738.809	1.37	0.61	6	Atlas		2.225.676	1
	2/21/2016 4:45	2/21/2016 12:45	480	0.94	965.120	1.12	0.43	12	Atlas		907.213	1
	2/23/2016 23:15	2/24/2016 23:15	1.440	2.03	1.536.967	2.96	0.79	12	Atlas		3.120.044	1
	2/29/2016 2:00	2/29/2016 2:30	30	0.02	1.989.250	2.05	0.01	3	Atlas		39.785	1
	3/1/2016 12:15	3/1/2016 15:30	195	0.29	1.571.466	2.33	0.17	3	Atlas		455.725	1
	3/10/2016 13:45	3/10/2016 21:45	480	1.07	949.738	1.11	0.36	12	Atlas		1.016.220	1
	3/12/2016 20:30	3/13/2016 13:30	1.020	0.90	1.147.581	1.98	0.34	24	Atlas		1.032.823	1
	3/24/2016 18:00	3/24/2016 19:30	90	0.43	692.842	0.60	0.32	1	Atlas		297.922	1
	3/27/2016 21:30	3/27/2016 23:45	135	0.97	923.155	1.40	0.65	1	Atlas		895.460	1
	3/31/2016 4:00	4/1/2016 1:45	1.305	1.15	924.207	2.55	0.44	24	Atlas		1.062.838	1
	4/11/2016 17:00	4/11/2016 21:45	285	0.91	557.651	1.02	0.42	6	Atlas		507.462	1
	4/21/2016 16:15	4/21/2016 17:00	45	0.30	244.157	0.22	0.11	3	Atlas		73.247	1
	4/26/2016 21:30	4/26/2016 23:00	90	0.32	350.628	0.63	0.16	6	Atlas		112.201	1
	4/27/2016 14:15	4/27/2016 23:30	555	0.60	785.835	1.23	0.29	1	Atlas		471.501	1
	4/30/2016 11:30	4/30/2016 14:15	165	0.48	223.758	1.28	0.18	24	Atlas		107.404	1
	5/1/2016 15:15	5/1/2016 17:15	120	0.53	592.758	1.93	0.37	1	Atlas		314.162	1
	5/4/2016 11:45	5/4/2016 12:45	60	0.19	353.321	1.77	0.11	3	Atlas		67.131	1
	5/7/2016 17:00	5/7/2016 23:15	375	0.82	434.287	1.65	0.43	6	Atlas		356.115	1
	5/10/2016 14:45	5/10/2016 23:30	525	0.76	860.224	1.80	0.28	24	Atlas		653.770	1
	5/11/2016 19:30	5/11/2016 23:30	240	0.27	447.800	1.87	0.14	3	Atlas		120.906	1
	5/12/2016 17:30	5/12/2016 18:30	60	0.10	228.290	1.99	0.08	1	Atlas		22.829	1
	5/17/2016 6:45	5/17/2016 8:15	90	0.35	279.583	1.48	0.15	12	Atlas		97.854	1
	5/17/2016 20:45	5/17/2016 22:15	90	0.26	379.792	1.22	0.13	6	Atlas		98.746	1
	5/20/2016 14:00	5/20/2016 17:30	210	0.69	1.232.662	1.33	0.39	3	Atlas		850.537	1
	5/26/2016 15:15	5/26/2016 16:30	75	0.26	324.800	1.02	0.17	3	Atlas		84.448	1
	6/2/2016 15:45	6/2/2016 17:00	75	0.51	370.457	0.62	0.43	1	Atlas		188.933	1
	6/12/2016 18:15	6/12/2016 19:30	75	0.39	439.662	0.43	0.33	1	Atlas		171.468	1
	6/14/2016 17:00	6/14/2016 19:15	135	0.66	616.818	1.05	0.43	3	Atlas		407.100	1
	6/23/2016 16:15	6/23/2016 23:45	450	1.68	699.183	1.79	0.89	6	Atlas		1.174.627	1
	7/3/2016 11:45	7/4/2016 0:15	750	1.06	279.847	0.64	0.34	48	Atlas		296.638	1
	7/4/2016 9:00	7/4/2016 17:30	510	1.06	396.263	1.06	0.34	48	Atlas		420.039	1
	7/6/2016 13:15	7/6/2016 14:15	60	0.13	752.562	1.17	0.09	1	Atlas		97.833	1
	7/12/2016 9:45	7/12/2016 12:15	150	0.26	1.114.500	0.51	0.18	1	Atlas		289.770	1
	7/27/2016 18:30	7/27/2016 19:45	75	0.56	1.495.946	0.36	0.22	12	Atlas		837.730	1
	7/28/2016 5:15	7/28/2016 5:45	30	0.56	57.061	0.72	0.22	12	Atlas		31.954	1
	7/30/2016 14:30	7/30/2016 15:30	60	0.28	487.929	1.14	0.24	1	Atlas		136.620	1
	8/1/2016 20:15	8/1/2016 23:00	165	0.41	3.784.846	1.54	0.19	1	Atlas		1.551.787	1
	8/4/2016 13:45	8/4/2016 14:15	30	0.20	210.850	1.07	0.13	3	Atlas		42.170	1
	8/5/2016 14:15	8/5/2016 14:30	15	0.16	131.600	1.31	0.11	3	Atlas		21.056	1
	8/15/2016 2:45	8/15/2016 8:15	330	1.51	653.221	1.77	0.71	6	Atlas		986.364	1
	8/17/2016 5:15	8/17/2016 8:00	165	0.47	630.598	1.92	0.20	12	Atlas		296.381	1
	8/20/2016 15:30	8/20/2016 22:00	390	0.65	813.049	2.58	0.27	12	Atlas		528.482	1
	8/31/2016 18:00	8/31/2016 18:00	-	0.05	138.060	0.22	0.03	1	Atlas		6.903	1
	9/10/2016 15:15	9/10/2016 16:00	45	0.19	314.711	0.16	0.12	1	Atlas		59.795	1
	9/26/2016 11:15	9/26/2016 11:45	30	0.37	98.130	0.37	0.25	3	Atlas		36.308	1
	9/28/2016 13:00	9/28/2016 14:45	105	0.45	372.589	0.82	0.25	6	Atlas		167.665	1
	9/30/2016 1:45	9/30/2016 3:15	90	0.70	425.149	1.46	0.35	3	Atlas		297.604	1
	10/20/2016 10:15	10/20/2016 16:45	390	0.51	331.422	0.39	0.20	3	Atlas		169.025	1
	11/23/2016 21:15	11/23/2016 21:45	30	0.21	60.905	0.43	0.11	6	Atlas		12.790	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/28/2016 17:30	11/28/2016 22:45	315	0.78	712,991	1.05	0.34	12	Atlas		556,133	1
	12/6/2016 5:30	12/6/2016 13:30	480	0.96	771,519	0.99	0.44	12	Atlas		740,658	1
	12/11/2016 22:00	12/11/2016 23:00	60	0.30	128,000	1.24	0.14	12	Atlas		38,400	1
	12/17/2016 19:00	12/18/2016 7:15	735	2.59	1,153,037	2.89	1.78	6	Cloudburst		2,986,366	1
	12/23/2016 23:00	12/24/2016 2:15	195	0.16	1,329,300	2.73	0.07	12	Atlas		212,688	1
	12/26/2016 20:45	12/26/2016 23:15	150	0.25	457,396	0.40	0.12	6	Atlas		114,349	1
	1/10/2017 20:00	1/10/2017 20:30	30	0.15	686,787	0.40	0.11	1	Atlas		103,018	1
	1/11/2017 12:45	1/11/2017 14:30	105	0.21	254,995	0.61	0.14	3	Atlas		53,549	1
	1/12/2017 16:00	1/12/2017 22:15	375	0.49	615,982	0.88	0.24	6	Atlas		301,831	1
	1/13/2017 16:00	1/13/2017 16:30	30	0.25	52,516	1.10	0.15	3	Atlas		13,129	1
	1/14/2017 11:30	1/14/2017 15:15	225	0.20	986,860	1.31	0.09	12	Atlas		197,372	1
	1/15/2017 17:00	1/15/2017 19:30	150	0.11	103,427	1.42	0.05	6	Atlas		11,377	1
	1/16/2017 19:00	1/17/2017 5:15	615	0.54	1,203,130	1.96	0.24	12	Atlas		649,690	1
	1/19/2017 18:45	1/20/2017 9:00	855	1.20	1,167,289	2.47	0.55	12	Atlas		1,400,747	1
	2/7/2017 13:15	2/7/2017 13:15	-	0.43	7,135	0.42	0.18	6	Atlas		3,068	1
	2/24/2017 19:15	2/24/2017 20:30	75	0.62	849,123	0.70	0.53	1	Atlas		526,456	1
	2/28/2017 10:45	2/28/2017 11:15	30	0.25	302,212	0.91	0.11	12	Atlas		75,553	1
	3/1/2017 3:30	3/1/2017 14:30	660	0.95	1,849,908	1.87	0.50	6	Atlas		1,757,413	1
	3/7/2017 8:00	3/7/2017 15:45	465	0.51	571,549	1.63	0.17	48	Atlas		291,490	1
	3/26/2017 2:30	3/26/2017 4:00	90	0.46	87,515	0.36	0.21	6	Atlas		40,257	1
	3/27/2017 18:30	3/27/2017 20:00	90	0.27	684,759	0.73	0.15	3	Atlas		184,885	1
	3/30/2017 20:45	3/30/2017 23:15	150	0.52	172,242	1.22	0.26	6	Atlas		89,566	1
	4/11/2017 11:30	4/11/2017 12:45	75	0.37	66,019	0.37	0.17	12	Atlas		24,427	1
	4/16/2017 17:45	4/16/2017 22:30	285	1.18	657,754	1.53	0.56	6	Atlas		776,150	1
	4/22/2017 0:30	4/22/2017 0:45	15	0.58	16,995	1.65	0.21	24	Atlas		9,857	1
	4/27/2017 7:00	4/27/2017 7:45	45	0.16	544,000	0.77	0.09	6	Atlas		87,040	1
	4/29/2017 2:00	4/29/2017 7:00	300	0.91	1,818,497	1.20	0.53	3	Atlas		1,654,832	1
	5/1/2017 4:00	5/1/2017 5:00	60	0.30	551,677	1.37	0.17	3	Atlas		165,503	1
	5/4/2017 20:15	5/5/2017 21:15	1,500	1.85	831,430	3.06	0.61	24	Atlas		1,538,145	1
	5/6/2017 9:00	5/6/2017 10:00	60	0.10	286,150	2.24	0.05	3	Atlas		28,615	1
	5/20/2017 19:00	5/21/2017 8:45	825	1.14	851,151	1.16	0.50	12	Atlas		970,312	1
	5/24/2017 18:15	5/24/2017 22:15	240	0.72	565,329	1.78	0.26	24	Atlas		407,037	1
	6/5/2017 9:15	6/5/2017 10:00	45	0.06	2,173,267	0.06	0.03	12	Atlas		130,396	1
	6/5/2017 18:45	6/5/2017 19:30	45	0.22	518,927	0.28	0.19	1	Atlas		114,164	1
	6/15/2017 3:15	6/15/2017 6:45	210	0.76	617,784	0.93	0.49	3	Atlas		469,516	1
	6/22/2017 19:00	6/22/2017 20:15	75	0.37	438,551	0.53	0.20	6	Atlas		162,264	1
	6/23/2017 15:30	6/23/2017 19:30	240	0.84	850,342	1.37	0.45	6	Atlas		714,287	1
	6/30/2017 21:15	6/30/2017 22:15	60	0.72	1,180,275	0.79	0.63	1	Atlas		849,798	1
	7/6/2017 5:00	7/6/2017 14:15	555	0.58	582,869	1.36	0.27	3	Atlas		338,064	1
	7/7/2017 21:15	7/7/2017 22:30	75	0.35	730,466	1.05	0.24	1	Atlas		255,663	1
	7/23/2017 3:00	7/23/2017 11:00	480	1.08	840,266	1.07	0.50	12	Atlas		907,487	1
	7/28/2017 10:00	7/28/2017 11:30	90	0.28	1,042,861	1.35	0.20	1	Atlas		292,001	1
	8/2/2017 13:30	8/2/2017 14:00	30	0.33	101,209	0.66	0.29	1	Atlas		33,399	1
	8/6/2017 17:00	8/7/2017 1:15	495	0.60	436,768	0.99	0.27	12	Atlas		262,061	1
	8/17/2017 15:15	8/17/2017 20:00	285	0.69	767,599	0.72	0.38	6	Atlas		529,643	1
	8/22/2017 16:15	8/22/2017 17:15	60	0.55	484,958	1.26	0.39	1	Atlas		266,727	1
	8/29/2017 19:45	8/29/2017 20:00	15	0.14	207,786	0.17	0.10	1	Atlas		29,090	1
	9/1/2017 8:15	9/2/2017 11:30	1,635	3.88	965,379	4.05	4.00	24	Cloudburst		3,745,672	1
	9/19/2017 9:15	9/19/2017 10:45	90	0.46	381,285	0.86	0.29	3	Atlas		175,391	1
	10/7/2017 22:15	10/8/2017 0:00	105	1.83	230,962	0.60	0.70	24	Atlas		422,660	1
	10/8/2017 11:30	10/8/2017 20:30	540	1.83	407,620	1.82	0.70	24	Atlas		745,945	1
	10/10/2017 15:00	10/10/2017 22:00	420	0.69	775,100	2.52	0.35	3	Atlas		534,819	1
	10/23/2017 7:00	10/23/2017 8:15	75	0.57	234,919	0.51	0.30	6	Atlas		133,904	1
	10/27/2017 18:15	10/28/2017 4:00	585	0.86	710,274	1.52	0.39	12	Atlas		610,836	1
	11/3/2017 5:00	11/3/2017 6:45	105	1.51	311,074	2.49	2.75	1	Atlas		469,722	1
	11/6/2017 2:15	11/6/2017 3:30	75	0.16	1,754,031	1.79	0.10	1	Atlas		280,645	1
	11/15/2017 14:00	11/15/2017 14:45	45	0.25	212,020	0.29	0.16	1	Atlas		53,005	1
	11/18/2017 17:30	11/18/2017 18:15	45	0.32	110,931	0.56	0.20	1	Atlas		35,498	1
	12/5/2017 3:45	12/5/2017 7:30	225	0.58	1,202,431	0.59	0.33	3	Atlas		697,410	1
	12/22/2017 23:30	12/23/2017 6:00	390	1.05	816,940	0.93	0.42	12	Atlas		857,787	1
	2/11/2018 10:30	2/11/2018 10:30	-	0.35	78,363	0.82	0.16	12	Atlas		27,427	1
	2/22/2018 4:00	2/22/2018 6:00	120	1.62	205,279	2.61	0.60	24	Atlas		332,552	1
	2/23/2018 4:30	2/23/2018 5:30	60	1.21	99,567	2.91	0.56	12	Atlas		120,476	1
	2/24/2018 10:45	2/24/2018 10:45	-	1.73	5,541	3.15	0.72	12	Atlas		9,586	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/24/2018 19:00	2/25/2018 0:15	315	1.73	831,846	4.40	0.72	12	Atlas		1,439,093	1
	3/29/2018 19:15	3/29/2018 19:45	30	1.07	49,897	1.76	0.29	48	Atlas		53,390	1
	5/5/2018 14:45	5/5/2018 18:45	240	1.58	391,692	1.44	0.61	12	Atlas		618,873	1
	6/1/2018 0:45	6/1/2018 1:45	60	1.21	146,076	1.51	0.60	3	Atlas		176,752	1
	6/11/2018 13:45	6/11/2018 13:45	-	0.48	134,783	0.87	0.28	3	Atlas		64,696	1
	8/16/2018 3:45	8/16/2018 11:30	465	2.49	1,274,407	2.49	0.96	24	Atlas		3,173,274	1
	8/19/2018 20:15	8/19/2018 23:15	180	1.34	1,825,316	3.90	1.13	1	Atlas		2,445,923	1
	8/20/2018 11:45	8/20/2018 12:15	30	0.42	708,076	4.22	0.28	1	Atlas		297,392	1
	8/31/2018 18:00	8/31/2018 18:00	-	0.44	196,532	0.36	0.29	1	Atlas		86,474	1
	9/8/2018 16:45	9/8/2018 22:45	240	2.15	1,095,104	2.81	1.25	6	Cloudburst		2,354,473	1
	9/21/2018 18:00	9/21/2018 18:15	15	0.33	64,464	0.45	0.26	1	Atlas		21,273	1
	9/23/2018 4:45	9/23/2018 8:45	240	1.30	1,357,748	1.73	0.49	3	Atlas		1,765,072	1
	9/24/2018 7:15	9/24/2018 16:00	525	1.65	1,682,886	3.29	0.73	6	Atlas		2,776,762	1
	9/25/2018 6:15	9/25/2018 6:30	15	0.09	689,644	3.37	0.08	1	Atlas		62,068	1
	9/25/2018 17:15	9/26/2018 3:30	615	0.76	1,233,229	4.11	0.34	12	Atlas		937,254	1
	11/1/2018 0:45	11/1/2018 1:15	30	1.72	180,363	1.47	0.62	24	Atlas		310,225	1
	11/5/2018 22:15	11/6/2018 1:15	180	1.13	366,901	2.93	0.61	6	Atlas		414,598	1
	12/1/2018 10:30	12/1/2018 15:00	270	1.42	193,618	1.52	0.63	12	Atlas		274,938	1
	12/15/2018 3:15	12/15/2018 11:45	510	1.70	329,291	1.69	0.70	12	Atlas		559,794	1
	12/31/2018 16:45	12/31/2018 17:45	60	1.20	211,614	1.54	0.46	24	Atlas		253,937	1
	2/6/2019 7:15	2/6/2019 10:00	165	1.37	67,916	0.56	0.44	48	Atlas		93,045	1
	2/7/2019 9:00	2/7/2019 20:00	660	1.37	285,507	1.49	0.44	48	Atlas		391,145	1
	2/11/2019 3:00	2/12/2019 14:45	2,145	2.43	782,558	3.90	0.76	48	Atlas		1,901,615	1
	4/23/2019 18:00	4/23/2019 18:15	15	0.25	338,628	3.70	0.22	1	Atlas		84,657	1
	4/24/2019 21:00	4/24/2019 21:15	15	0.42	148,962	3.97	0.20	1	Atlas		62,564	1
	4/26/2019 0:45	4/26/2019 0:45	-	0.43	14,916	3.79	0.23	1	Atlas		6,414	1
	5/3/2019 3:00	5/3/2019 5:15	135	1.04	75,343	0.67	0.46	6	Atlas		78,357	1
	5/19/2019 21:15	5/19/2019 21:15	-	0.10	153,370	0.13	0.07	1	Atlas		15,337	1
	5/29/2019 9:30	5/29/2019 9:30	-	0.59	2,797	0.68	0.32	6	Atlas		1,650	1
	6/5/2019 21:30	6/5/2019 21:30	-	0.71	73,831	0.84	0.52	1	Atlas		52,420	1
	6/9/2019 16:45	6/9/2019 19:00	135	0.68	806,965	2.31	0.36	3	Atlas		548,736	1
	6/16/2019 20:15	6/16/2019 22:45	150	1.21	215,962	1.25	0.55	12	Atlas		261,314	1
	6/18/2019 17:30	6/18/2019 17:30	-	0.43	48,300	1.93	0.17	24	Atlas		20,769	1
	6/23/2019 16:30	6/23/2019 16:45	15	0.47	491,513	2.94	0.37	1	Atlas		231,011	1
	6/24/2019 14:00	6/24/2019 14:30	30	0.45	553,887	2.27	0.28	3	Atlas		249,249	1
	7/18/2019 1:15	7/18/2019 1:45	30	0.56	618,891	0.61	0.33	1	Atlas		346,579	1
	7/30/2019 0:15	7/30/2019 0:15	-	0.37	370,297	0.37	0.24	3	Atlas		137,010	1
	8/7/2019 5:00	8/7/2019 5:00	-	0.25	38,224	0.26	0.22	1	Atlas		9,556	1
	8/26/2019 11:30	8/26/2019 12:15	45	0.39	227,933	0.78	0.19	6	Atlas		88,894	1
	10/6/2019 14:45	10/6/2019 14:45	-	1.17	21,637	0.32	0.48	6	Atlas		25,315	1
	10/30/2019 14:15	10/30/2019 14:45	30	0.84	203,160	1.90	0.43	3	Atlas		170,654	1
	10/31/2019 6:45	10/31/2019 6:45	-	0.65	13,108	2.44	0.35	6	Atlas		8,520	1
	11/30/2019 4:45	11/30/2019 11:30	405	1.94	30,038	2.34	0.76	12	Atlas		58,273	1
	12/16/2019 17:30	12/16/2019 18:15	45	0.77	17,536	1.32	0.36	6	Atlas		13,503	1
	12/29/2019 20:30	12/29/2019 20:45	15	1.33	19,460	1.21	0.49	24	Atlas		25,882	1
	CSO110 Total										**458,668,103**	**477**
CSO111	9/26/2012 1:45	9/26/2012 2:00	15	0.42	32,407	0.67	0.19	12	Atlas		13,611	1
	9/26/2012 21:15	9/27/2012 0:00	165	0.85	144,395	1.65	0.47	3	Atlas		122,736	1
	10/1/2012 15:15	10/1/2012 19:00	225	0.80	102,914	2.45	0.33	12	Atlas		82,331	1
	10/26/2012 15:15	10/26/2012 15:15	-	0.86	2,771	0.70	0.39	6	Atlas		2,383	1
	12/4/2012 17:15	12/4/2012 18:30	75	0.53	10,983	0.70	0.35	3	Atlas		5,821	1
	12/7/2012 4:00	12/7/2012 16:15	735	1.38	31,130	2.07	0.59	12	Atlas		42,959	1
	12/8/2012 5:45	12/8/2012 9:45	240	0.60	24,763	2.68	0.32	6	Atlas		14,868	1
	12/9/2012 22:15	12/10/2012 0:30	135	1.07	189,411	3.45	0.47	3	Atlas		202,670	1
	12/20/2012 6:45	12/20/2012 12:00	315	0.66	24,582	1.00	0.36	6	Atlas		16,224	1
	12/26/2012 5:45	12/26/2012 6:15	30	0.77	10,836	1.27	0.30	12	Atlas		8,344	1
	1/1/2013 6:00	1/1/2013 7:45	105	0.60	39,197	0.79	0.31	6	Atlas		23,518	1
	1/13/2013 3:15	1/13/2013 19:45	990	2.36	287,704	3.14	0.91	24	Atlas		678,982	1
	1/30/2013 5:00	1/30/2013 8:30	210	0.84	177,543	1.07	0.42	6	Atlas		149,136	1
	2/22/2013 1:00	2/22/2013 1:00	-	0.40	27,545	0.76	0.18	12	Atlas		11,018	1
	2/26/2013 13:45	2/26/2013 14:00	15	0.62	12,519	0.81	0.24	12	Atlas		7,762	1
	3/5/2013 17:15	3/5/2013 17:15	-	0.43	3,972	0.47	0.16	24	Atlas		1,708	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/11/2013 4:00	3/11/2013 7:30	210	1.00	74,971	1.33	0.40	12	Atlas		74,971	1
	3/17/2013 14:00	3/17/2013 15:30	90	1.82	45,170	1.70	0.59	48	Atlas		82,209	1
	3/18/2013 4:15	3/18/2013 6:00	105	1.82	34,837	2.03	0.59	48	Atlas		63,403	1
	3/24/2013 8:00	3/24/2013 8:15	15	0.48	7,285	1.68	0.18	24	Atlas		3,497	1
	4/11/2013 6:30	4/11/2013 15:15	525	1.18	98,489	0.66	0.45	24	Atlas		116,217	1
	4/12/2013 4:30	4/14/2013 8:30	3,120	1.18	690,103	1.18	0.45	24	Atlas		814,321	1
	4/16/2013 20:15	4/17/2013 11:30	915	0.57	135,919	1.75	0.44	1	Atlas		77,474	1
	4/24/2013 7:30	4/26/2013 17:15	3,465	0.75	2,945,125	1.66	0.43	3	Atlas		2,208,844	1
	5/5/2013 5:15	5/5/2013 8:30	195	1.53	23,669	1.42	0.49	24	Atlas		36,213	1
	5/10/2013 14:00	5/13/2013 3:15	3,675	1.04	498,814	2.74	0.47	6	Atlas		518,767	1
	5/22/2013 15:45	5/24/2013 14:15	2,790	0.27	6,539,874	0.83	0.18	1	Atlas		1,765,766	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.36	9,000	0.27	0.16	6	Atlas		3,240	1
	6/17/2013 16:30	6/17/2013 21:00	270	0.92	18,425	1.05	0.46	6	Atlas		16,951	1
	6/21/2013 19:00	6/21/2013 20:15	75	0.62	330,535	1.77	0.49	1	Atlas		204,932	1
	6/24/2013 8:30	6/24/2013 8:30	-	0.11	47,164	1.72	0.07	3	Atlas		5,188	1
	6/26/2013 3:30	6/26/2013 4:45	75	0.58	5,507	1.45	0.38	3	Atlas		3,194	1
	6/26/2013 16:30	6/26/2013 20:45	255	2.45	105,200	3.58	3.13	1	Atlas		257,741	1
	7/1/2013 8:45	7/1/2013 8:45	-	0.35	1,891	3.66	0.17	1	Atlas		662	1
	7/6/2013 1:15	7/6/2013 5:00	225	0.65	53,952	2.06	0.28	12	Atlas		35,069	1
	7/10/2013 12:45	7/13/2013 16:45	4,560	0.62	2,531,794	2.04	0.41	3	Atlas		1,569,712	1
	7/14/2013 19:30	7/14/2013 19:45	15	0.16	119,044	0.87	0.14	1	Atlas		19,047	1
	7/21/2013 19:30	7/21/2013 20:30	60	3.27	26,880	2.44	5.14	3	Atlas		87,896	1
	7/22/2013 7:45	7/22/2013 14:15	390	3.27	30,345	3.39	5.14	3	Atlas		99,227	1
	8/9/2013 17:15	8/9/2013 18:00	45	0.44	165,902	0.36	0.19	1	Atlas		72,997	1
	8/12/2013 15:00	8/12/2013 15:30	30	0.86	124,271	0.95	0.37	1	Atlas		106,873	1
	8/13/2013 3:15	8/13/2013 3:15	-	0.86	3,503	1.29	0.37	1	Atlas		3,013	1
	9/20/2013 19:30	9/21/2013 4:00	510	1.30	75,592	1.22	0.53	12	Atlas		98,270	1
	10/4/2013 19:00	10/4/2013 19:00	-	0.17	67,194	0.24	0.15	1	Atlas		11,423	1
	10/5/2013 12:45	10/5/2013 23:30	645	4.79	135,233	3.68	13.46	24	Atlas		647,766	1
	10/30/2013 3:00	10/30/2013 6:30	210	1.97	433,516	1.96	1.39	1	Atlas		854,026	1
	10/31/2013 20:45	10/31/2013 22:15	90	0.58	65,167	2.42	0.22	12	Atlas		37,797	1
	11/17/2013 5:45	11/17/2013 19:45	840	2.49	935,693	2.64	1.81	6	Cloudburst		2,329,875	1
	12/5/2013 7:15	12/5/2013 8:30	75	0.69	318,161	0.16	0.22	48	Atlas		219,531	1
	12/14/2013 10:45	12/14/2013 11:15	30	0.97	69,295	1.31	0.42	6	Atlas		67,216	1
	12/21/2013 5:45	12/21/2013 12:45	420	2.47	78,093	1.41	0.93	24	Atlas		192,890	1
	12/21/2013 21:30	12/23/2013 0:30	1,620	2.47	3,956,311	2.60	0.93	24	Atlas		9,772,088	1
	1/5/2014 17:45	1/6/2014 5:00	675	0.51	6,506,200	0.78	0.25	6	Atlas		3,318,162	1
	1/11/2014 0:45	1/11/2014 5:15	270	1.08	493,656	1.60	0.58	6	Atlas		533,148	1
	2/2/2014 5:15	2/2/2014 5:30	15	0.43	25,405	0.13	0.16	24	Atlas		10,924	1
	2/4/2014 20:00	2/5/2014 1:00	300	0.54	2,535,820	0.96	0.26	6	Atlas		1,369,343	1
	2/17/2014 16:15	2/17/2014 17:45	90	0.43	529,553	1.01	0.27	3	Atlas		227,708	1
	2/20/2014 23:15	2/20/2014 23:15	-	0.24	7,892	1.24	0.13	6	Atlas		1,894	1
	3/2/2014 10:30	3/2/2014 11:30	60	0.66	104,567	0.34	0.25	24	Atlas		69,014	1
	3/29/2014 7:00	3/29/2014 9:00	120	1.00	20,823	0.96	0.47	6	Atlas		20,823	1
	4/3/2014 12:30	4/4/2014 8:00	1,170	2.60	30,613	3.97	0.90	24	Atlas		79,593	1
	4/7/2014 11:00	4/7/2014 12:30	90	0.73	56,399	3.43	0.43	1	Atlas		41,171	1
	4/14/2014 20:15	4/14/2014 21:15	60	0.61	15,108	0.72	0.28	12	Atlas		9,216	1
	4/28/2014 4:15	4/28/2014 7:15	180	1.73	135,668	1.40	0.67	3	Atlas		234,706	1
	4/28/2014 17:45	4/28/2014 17:45	-	1.73	718	1.75	0.67	3	Atlas		1,243	1
	5/9/2014 19:30	5/9/2014 19:30	-	1.84	1,414	0.30	0.71	24	Atlas		2,602	1
	5/10/2014 5:45	5/10/2014 15:30	585	1.84	25,666	1.89	0.71	24	Atlas		47,225	1
	5/14/2014 7:15	5/14/2014 7:15	-	1.15	1,665	2.09	0.43	24	Atlas		1,915	1
	5/14/2014 18:15	5/14/2014 18:15	-	1.15	1,241	2.75	0.43	24	Atlas		1,427	1
	5/29/2014 21:00	5/29/2014 21:30	30	1.09	7,991	1.24	0.84	1	Atlas		8,710	1
	7/13/2014 22:00	7/13/2014 23:15	75	0.70	54,663	1.59	0.37	3	Atlas		38,264	1
	7/26/2014 21:45	7/26/2014 22:15	30	1.30	45,236	0.54	0.59	12	Atlas		58,807	1
	7/27/2014 6:45	7/27/2014 9:15	150	1.30	13,988	1.32	0.59	12	Atlas		18,184	1
	8/8/2014 6:00	8/8/2014 7:30	90	1.02	13,324	0.80	0.46	6	Atlas		13,590	1
	8/11/2014 15:30	8/11/2014 15:45	15	0.36	151,169	1.62	0.24	1	Atlas		54,421	1
	8/22/2014 19:30	8/22/2014 19:30	-	0.40	2,863	1.04	0.28	1	Atlas		1,145	1
	8/23/2014 20:15	8/23/2014 20:15	-	0.63	3,178	1.46	0.29	12	Atlas		2,002	1
	8/27/2014 15:15	8/27/2014 17:30	135	0.48	380,354	1.51	0.31	3	Atlas		182,570	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.45	262,764	1.40	0.24	1	Atlas		118,244	1
	9/2/2014 8:30	9/2/2014 8:30	-	0.34	13,303	1.16	0.21	3	Atlas		4,523	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/11/2014 0:45	9/11/2014 6:15	330	1.97	209.335	1.92	1.60	3	Atlas		412.390	1
	10/10/2014 1:45	10/10/2014 3:00	75	0.75	38.491	0.96	0.29	24	Atlas		28.868	1
	10/13/2014 23:30	10/13/2014 23:45	15	1.24	9.422	1.75	0.56	12	Atlas		11.683	1
	10/14/2014 8:00	10/14/2014 8:15	15	1.24	2.873	2.49	0.56	12	Atlas		3.563	1
	12/6/2014 2:45	12/6/2014 7:00	255	1.86	16.634	2.68	0.60	48	Atlas		30.940	1
	4/9/2015 11:45	4/9/2015 12:00	15	0.23	173.791	6.64	0.20	1	Atlas		39.972	1
	4/19/2015 14:15	4/19/2015 14:30	15	0.75	47.535	1.22	0.32	12	Atlas		35.651	1
	4/20/2015 3:15	4/20/2015 3:15	-	0.07	115.086	1.37	0.06	1	Atlas		8.056	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.17	59.865	0.59	0.12	1	Atlas		10.177	1
	5/26/2015 13:45	5/26/2015 14:00	15	0.42	16.045	0.64	0.30	1	Atlas		6.739	1
	6/18/2015 18:00	6/18/2015 18:15	15	2.11	2.896	2.01	0.69	48	Atlas		6.111	1
	6/20/2015 7:30	6/20/2015 8:30	60	2.11	7.788	3.26	0.69	48	Atlas		16.433	1
	7/10/2015 10:15	7/10/2015 10:15	-	0.56	838	1.49	0.26	6	Atlas		469	1
	7/12/2015 6:00	7/12/2015 6:30	30	0.94	35.364	2.32	0.63	1	Atlas		33.242	1
	7/14/2015 4:15	7/14/2015 4:15	-	0.34	8.185	3.15	0.23	1	Atlas		2.783	1
	8/6/2015 14:30	8/6/2015 15:15	45	1.08	9.841	1.25	0.40	24	Atlas		10.628	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.69	3.313	0.72	0.33	1	Atlas		2.286	1
	10/27/2015 18:00	10/27/2015 18:00	-	2.65	301	1.87	0.86	48	Atlas		798	1
	11/6/2015 3:45	11/6/2015 4:15	30	0.66	4.186	0.68	0.40	3	Atlas		2.763	1
	11/18/2015 9:30	11/18/2015 11:00	90	1.76	1.082	1.41	0.90	6	Atlas		1.904	1
	11/30/2015 21:45	11/30/2015 21:45	-	0.73	611	1.06	0.33	12	Atlas		446	1
	12/22/2015 3:15	12/22/2015 4:00	45	0.56	6.859	0.76	0.30	6	Atlas		3.841	1
	12/23/2015 19:30	12/23/2015 20:30	60	0.95	276.732	1.72	0.67	1	Atlas		262.895	1
	2/3/2016 1:00	2/3/2016 22:30	1,290	1.28	889.352	1.37	0.61	6	Atlas		1,138.370	1
	2/24/2016 5:45	2/24/2016 6:00	15	2.03	656	2.47	0.79	12	Atlas		1.332	1
	3/27/2016 21:30	3/28/2016 13:45	975	0.97	527.324	1.40	0.65	1	Atlas		511.504	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.53	35.332	1.82	0.37	1	Atlas		18.726	1
	6/14/2016 17:00	6/14/2016 17:15	15	0.66	5.071	0.83	0.43	3	Atlas		3.347	1
	6/23/2016 20:45	6/23/2016 20:45	-	1.68	880	1.73	0.89	6	Atlas		1.478	1
	7/27/2016 18:45	7/27/2016 18:45	-	0.56	129.095	0.36	0.22	12	Atlas		72.293	1
	8/1/2016 20:30	8/1/2016 21:15	45	0.41	353.500	1.54	0.19	1	Atlas		144.935	1
	8/15/2016 3:15	8/15/2016 3:15	-	1.51	2.650	1.20	0.71	6	Atlas		4.001	1
	12/17/2016 20:30	12/18/2016 1:30	300	2.59	6.294	2.88	1.78	6	Cloudburst		16.302	1
	2/24/2017 19:15	2/24/2017 19:15	-	0.62	5.197	0.70	0.53	1	Atlas		3.222	1
	3/1/2017 4:00	3/1/2017 4:00	-	0.95	1.253	1.27	0.50	6	Atlas		1.190	1
	4/16/2017 18:00	4/16/2017 19:30	90	1.18	2.064	1.15	0.56	6	Atlas		2.436	1
	4/29/2017 2:00	4/29/2017 2:45	45	0.91	38.737	1.14	0.53	3	Atlas		35.251	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.76	20.126	0.56	0.49	3	Atlas		15.296	1
	6/30/2017 21:15	6/30/2017 21:30	15	0.72	82.814	0.79	0.63	1	Atlas		59.626	1
	7/6/2017 13:15	7/6/2017 13:15	-	0.58	948	1.32	0.27	3	Atlas		550	1
	7/7/2017 21:15	7/7/2017 21:15	-	0.35	6.117	1.02	0.24	1	Atlas		2.141	1
	7/23/2017 2:45	7/23/2017 7:15	270	1.08	8.082	0.78	0.50	12	Atlas		8.729	1
	7/28/2017 10:00	7/28/2017 10:30	30	0.28	53.554	1.35	0.20	1	Atlas		14.995	1
	8/2/2017 13:15	8/2/2017 13:15	-	0.33	2.370	0.66	0.29	1	Atlas		782	1
	9/1/2017 15:00	9/1/2017 22:00	420	3.88	1.362	3.48	4.00	24	Cloudburst		5.285	1
	10/7/2017 22:00	10/7/2017 22:15	15	1.83	43.226	0.52	0.70	24	Atlas		79.104	1
	10/8/2017 14:00	10/8/2017 14:15	15	1.83	3.870	1.66	0.70	24	Atlas		7.082	1
	11/3/2017 4:45	11/3/2017 5:15	30	1.51	44.581	2.47	2.75	1	Atlas		67.318	1
	11/6/2017 8:45	11/6/2017 21:30	765	0.16	1,433.238	1.80	0.10	1	Atlas		229.318	1
	11/15/2017 13:45	11/15/2017 14:45	60	0.25	21.308	0.29	0.16	1	Atlas		5.327	1
	12/5/2017 3:30	12/5/2017 6:15	165	0.58	66.971	0.58	0.33	3	Atlas		38.843	1
	12/23/2017 1:15	12/23/2017 5:30	255	1.05	153.690	0.92	0.42	12	Atlas		161.375	1
	2/11/2018 10:30	2/11/2018 10:30	-	0.35	14.463	0.82	0.16	12	Atlas		5.062	1
	2/22/2018 3:30	2/22/2018 6:00	150	1.62	29.749	2.61	0.60	24	Atlas		48.193	1
	2/23/2018 3:45	2/23/2018 9:45	360	1.21	10.198	3.32	0.56	12	Atlas		12.339	1
	2/24/2018 10:30	2/24/2018 23:00	750	1.73	158.210	4.44	0.72	12	Atlas		273.704	1
	2/25/2018 8:30	2/25/2018 9:30	60	1.73	92.333	4.56	0.72	12	Atlas		159.736	1
	3/24/2018 10:45	3/24/2018 14:30	225	0.88	39.130	1.56	0.35	12	Atlas		34.434	1
	3/29/2018 19:15	3/29/2018 20:00	45	1.07	39.732	1.76	0.29	48	Atlas		42.513	1
	4/1/2018 20:15	4/1/2018 23:30	195	0.55	53.869	1.89	0.30	6	Atlas		29.628	1
	4/14/2018 9:45	4/14/2018 9:45	-	1.29	697	0.32	0.42	48	Atlas		899	1
	4/15/2018 5:45	4/15/2018 5:45	-	1.29	3.760	0.97	0.42	48	Atlas		4.850	1
	5/5/2018 15:45	5/5/2018 18:45	180	1.58	42.766	1.44	0.61	12	Atlas		67.571	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.31	47.103	0.32	0.25	1	Atlas		14.602	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/1/2018 0:45	6/1/2018 2:15	90	1.21	53,536	1.60	0.60	3	Atlas		64,778	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.44	12,827	0.21	0.20	12	Atlas		5,644	1
	6/11/2018 11:30	6/11/2018 13:30	120	0.48	49,873	0.86	0.28	3	Atlas		23,939	1
	6/25/2018 9:30	6/25/2018 9:45	15	0.91	27,666	1.10	0.37	12	Atlas		25,176	1
	6/26/2018 20:15	6/26/2018 20:15	-	0.75	2,876	1.91	0.33	12	Atlas		2,157	1
	7/3/2018 14:15	7/3/2018 15:00	45	0.47	69,262	0.93	0.32	1	Atlas		32,553	1
	7/15/2018 17:15	7/15/2018 17:15	-	0.13	394,846	0.08	0.06	12	Atlas		51,330	1
	7/20/2018 12:45	7/20/2018 20:15	450	0.88	186,623	0.73	0.37	1	Atlas		164,228	1
	7/30/2018 22:15	7/31/2018 12:00	825	2.08	139,672	1.98	0.84	12	Atlas		290,518	1
	8/16/2018 2:15	8/16/2018 9:30	435	2.49	379,272	2.41	0.96	24	Atlas		944,387	1
	8/31/2018 17:30	8/31/2018 17:45	15	0.44	57,782	0.35	0.29	1	Atlas		25,424	1
	9/8/2018 17:45	9/8/2018 22:30	285	2.15	257,215	2.81	1.25	6	Cloudburst		553,012	1
	9/21/2018 17:45	9/21/2018 17:45	-	0.33	67,518	0.45	0.26	1	Atlas		22,281	1
	9/23/2018 4:30	9/23/2018 8:00	210	1.30	424,061	1.73	0.49	3	Atlas		551,279	1
	9/24/2018 6:45	9/24/2018 14:30	465	1.65	646,430	3.28	0.73	6	Atlas		1,066,610	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.09	584,100	3.37	0.08	1	Atlas		52,569	1
	9/25/2018 16:45	9/25/2018 17:00	15	0.76	61,686	3.73	0.34	12	Atlas		46,881	1
	9/26/2018 2:00	9/26/2018 2:45	45	0.76	137,793	4.10	0.34	12	Atlas		104,723	1
	11/1/2018 0:30	11/1/2018 1:15	45	1.72	10,857	1.47	0.62	24	Atlas		18,674	1
	11/5/2018 23:00	11/6/2018 0:00	60	1.13	70,345	2.89	0.61	6	Atlas		79,490	1
	12/1/2018 10:00	12/1/2018 13:00	180	1.42	29,081	1.45	0.63	12	Atlas		41,295	1
	12/15/2018 8:45	12/15/2018 9:15	30	1.70	5,366	1.56	0.70	12	Atlas		9,123	1
	12/31/2018 12:00	12/31/2018 17:15	315	1.20	101,606	1.54	0.46	24	Atlas		121,927	1
	1/4/2019 15:15	1/4/2019 15:30	15	0.68	1,725	1.65	0.31	12	Atlas		1,173	1
	2/6/2019 7:15	2/6/2019 7:15	-	1.37	9,769	0.38	0.44	48	Atlas		13,383	1
	2/7/2019 19:45	2/7/2019 19:45	-	1.37	131	1.48	0.44	48	Atlas		179	1
	2/11/2019 20:15	2/12/2019 13:30	1,035	2.43	132,574	3.81	0.76	48	Atlas		322,155	1
	2/20/2019 3:15	2/20/2019 15:00	705	1.52	164,857	1.55	0.69	6	Atlas		250,582	1
	2/23/2019 17:45	2/23/2019 22:15	270	0.82	360,961	2.39	0.44	6	Atlas		295,988	1
	4/7/2019 12:30	4/7/2019 12:30	-	0.70	13,909	0.69	0.38	3	Atlas		9,736	1
	4/14/2019 1:45	4/14/2019 5:00	195	1.04	111,163	1.92	0.50	6	Atlas		115,610	1
	4/19/2019 19:00	4/20/2019 9:15	855	3.45	251,106	4.26	1.62	48	Cloudburst		866,317	1
	4/24/2019 20:30	4/24/2019 21:15	45	0.42	87,400	3.97	0.20	1	Atlas		36,708	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.43	48,719	4.40	0.23	1	Atlas		20,949	1
	4/26/2019 2:30	4/26/2019 3:30	60	0.43	242,114	3.81	0.23	1	Atlas		104,109	1
	5/26/2019 14:00	5/26/2019 15:30	90	0.46	13,909	0.65	0.28	3	Atlas		6,398	1
	5/29/2019 9:15	5/29/2019 9:15	-	0.59	31,744	0.68	0.32	6	Atlas		18,729	1
	5/30/2019 11:15	5/30/2019 11:15	-	0.20	34,020	1.26	0.10	1	Atlas		6,804	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.33	5,509	1.67	0.17	6	Atlas		1,818	1
	6/9/2019 16:30	6/9/2019 18:30	120	0.68	539,543	2.28	0.36	3	Atlas		366,889	1
	6/16/2019 20:00	6/17/2019 1:00	300	1.21	201,237	1.54	0.55	12	Atlas		243,497	1
	6/18/2019 17:15	6/18/2019 17:15	-	0.43	37,623	1.93	0.17	24	Atlas		16,178	1
	6/22/2019 7:00	6/22/2019 7:00	-	0.83	11,427	2.51	0.32	24	Atlas		9,484	1
	6/23/2019 16:00	6/23/2019 16:30	30	0.47	181,051	2.97	0.37	1	Atlas		85,094	1
	6/24/2019 13:45	6/24/2019 14:15	30	0.45	371,327	2.27	0.28	3	Atlas		167,097	1
	7/18/2019 1:15	7/18/2019 1:45	30	0.56	132,541	0.61	0.33	1	Atlas		74,223	1
	7/29/2019 23:45	7/30/2019 0:15	30	0.37	124,100	0.37	0.24	3	Atlas		45,917	1
	8/7/2019 4:30	8/7/2019 5:00	30	0.25	132,636	0.26	0.22	1	Atlas		33,159	1
	8/22/2019 3:00	8/22/2019 3:00	-	0.29	18,900	0.21	0.19	3	Atlas		5,481	1
	8/26/2019 11:15	8/26/2019 12:15	60	0.39	55,513	0.78	0.19	6	Atlas		21,650	1
	10/26/2019 7:15	10/26/2019 7:15	-	1.19	6,012	0.82	0.46	24	Atlas		7,154	1
	10/31/2019 6:30	10/31/2019 6:45	15	0.65	16,032	2.44	0.35	6	Atlas		10,421	1
	11/30/2019 10:15	11/30/2019 16:30	375	1.94	41,577	2.65	0.76	12	Atlas		80,659	1
	1/11/2020 16:00	1/11/2020 16:30	30	0.86	13,036	1.24	0.40	6	Atlas		11,211	1
	3/10/2020 8:30	3/10/2020 8:45	15	0.33	74,330	0.34	0.15	12	Atlas		24,529	1
	3/12/2020 16:00	3/12/2020 23:15	435	0.47	242,423	0.81	0.22	12	Atlas		113,939	1
	3/14/2020 12:30	3/14/2020 18:00	330	0.47	54,136	1.27	0.22	12	Atlas		25,444	1
	3/18/2020 14:00	3/18/2020 18:30	270	0.38	226,179	1.34	0.19	6	Atlas		85,948	1
	3/19/2020 12:00	3/19/2020 14:00	120	0.57	236,968	1.68	0.22	24	Atlas		135,072	1
	3/20/2020 3:45	3/20/2020 4:30	45	0.57	30,872	1.45	0.22	24	Atlas		17,597	1
	3/24/2020 18:00	3/24/2020 21:45	225	0.13	330,785	1.09	0.07	6	Atlas		43,002	1
	3/28/2020 22:30	3/28/2020 23:30	60	0.31	223,839	0.46	0.27	1	Atlas		69,390	1
	4/8/2020 22:30	4/8/2020 22:30	-	0.51	3,949	0.30	0.34	3	Atlas		2,014	1
	4/12/2020 18:00	4/13/2020 3:30	570	0.95	80,722	1.44	0.38	12	Atlas		76,686	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/8/2020 10:45	5/8/2020 11:15	30	0.59	16.537	0.64	0.27	6	Atlas		9,757	1
	5/16/2020 0:00	5/16/2020 2:45	165	1.25	11.777	0.95	0.46	24	Atlas		14,721	1
	5/18/2020 7:30	5/18/2020 7:30	-	0.38	5.379	1.77	0.17	1	Atlas		2,044	1
	5/23/2020 17:45	5/23/2020 18:00	15	0.14	89.950	0.62	0.10	1	Atlas		12,593	1
	6/4/2020 18:30	6/4/2020 18:30	-	0.59	3.027	0.48	0.29	6	Atlas		1,786	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.51	33.992	0.35	0.26	6	Atlas		17,336	1
	6/29/2020 5:30	6/29/2020 6:00	30	0.70	306.470	2.04	0.42	3	Atlas		214,529	1
	CSO111 Total										**43,022,405**	**215**
CSO113	9/25/2012 9:00	9/25/2012 10:45	105	0.39	24.849	0.38	0.21	6	Atlas		9,691	1
	9/25/2012 23:45	9/26/2012 6:00	375	0.43	134.251	0.78	0.20	6	Atlas		57,728	1
	9/26/2012 21:15	9/27/2012 3:00	345	1.18	233.795	2.00	0.67	3	Atlas		275,878	1
	10/1/2012 14:15	10/1/2012 21:15	420	0.78	151.753	2.83	0.32	12	Atlas		118,367	1
	12/7/2012 3:15	12/7/2012 5:45	150	1.35	18.344	1.62	0.57	12	Atlas		24,764	1
	12/9/2012 22:15	12/9/2012 23:30	75	1.13	215.962	3.55	0.53	3	Atlas		244,060	1
	12/20/2012 6:45	12/20/2012 10:15	210	0.65	9.345	0.83	0.36	6	Atlas		6,074	1
	12/26/2012 5:45	12/26/2012 6:00	15	0.74	15.182	1.24	0.29	12	Atlas		11,235	1
	1/11/2013 6:00	1/11/2013 6:30	30	0.85	14.312	0.78	0.37	6	Atlas		12,165	1
	1/12/2013 21:00	1/13/2013 19:30	1,350	2.32	138.371	3.17	0.89	24	Atlas		321,021	1
	1/30/2013 4:45	1/30/2013 9:15	270	0.89	46.473	1.13	0.44	6	Atlas		41,361	1
	2/4/2013 18:30	2/4/2013 18:30	-	0.10	30.810	1.09	0.06	3	Atlas		3,081	1
	2/10/2013 16:15	2/10/2013 16:15	-	0.16	5.531	0.34	0.08	3	Atlas		885	1
	2/19/2013 0:00	2/19/2013 5:00	300	0.38	44.739	0.43	0.17	12	Atlas		17,001	1
	2/21/2013 23:45	2/22/2013 1:30	105	0.42	53.907	0.79	0.19	12	Atlas		22,641	1
	2/26/2013 7:30	2/26/2013 17:00	570	0.55	53.722	0.91	0.21	24	Atlas		29,547	1
	3/5/2013 16:15	3/5/2013 19:45	210	0.43	80.230	0.55	0.17	24	Atlas		34,499	1
	3/11/2013 3:30	3/11/2013 13:30	600	0.99	165.748	1.44	0.39	12	Atlas		164,091	1
	3/17/2013 13:45	3/18/2013 8:00	1,095	1.79	193.164	2.69	0.58	48	Atlas		345,763	1
	3/24/2013 8:00	3/24/2013 16:45	525	0.50	57.470	1.78	0.18	24	Atlas		28,735	1
	4/11/2013 6:30	4/12/2013 1:30	1,140	1.19	176.545	1.18	0.46	24	Atlas		210,068	1
	4/16/2013 20:15	4/16/2013 21:00	45	0.63	241.271	1.79	0.52	1	Atlas		152,001	1
	4/19/2013 1:30	4/19/2013 3:45	135	0.93	143.360	1.52	0.51	6	Atlas		133,325	1
	4/23/2013 22:15	4/23/2013 22:15	-	0.02	943.900	0.99	0.01	3	Atlas		18,878	1
	4/24/2013 8:45	4/24/2013 9:15	30	0.72	8.129	1.61	0.41	3	Atlas		5,853	1
	4/28/2013 3:00	4/28/2013 3:00	-	0.07	266.629	0.80	0.03	6	Atlas		18,664	1
	5/5/2013 5:45	5/5/2013 5:45	-	1.50	169	1.09	0.46	24	Atlas		254	1
	5/10/2013 14:00	5/10/2013 14:15	15	1.00	4.270	2.38	0.44	6	Atlas		4,270	1
	5/18/2013 19:45	5/18/2013 19:45	-	0.01	1,726.300	0.45	0.01	1	Atlas		17,263	1
	5/22/2013 16:00	5/22/2013 16:15	15	0.17	92.406	0.57	0.11	3	Atlas		15,709	1
	5/31/2013 18:30	5/31/2013 18:45	15	0.20	39.200	0.26	0.09	6	Atlas		7,840	1
	6/10/2013 0:15	6/10/2013 0:30	15	0.34	12.556	0.27	0.16	6	Atlas		4,269	1
	6/17/2013 16:30	6/17/2013 21:00	270	0.99	90.054	1.16	0.51	6	Atlas		89,153	1
	6/21/2013 18:45	6/21/2013 20:00	75	0.44	421.748	1.71	0.33	1	Atlas		185,569	1
	6/26/2013 3:15	6/26/2013 5:30	135	0.73	53.919	1.54	0.49	3	Atlas		39,361	1
	7/2/2013 13:30	7/2/2013 16:15	165	0.10	201.470	4.06	0.09	1	Atlas		20,147	1
	7/6/2013 1:15	7/6/2013 5:45	270	0.62	87.131	2.04	0.27	12	Atlas		54,021	1
	7/10/2013 12:45	7/10/2013 15:45	180	0.66	451.456	1.98	0.43	1	Atlas		297,961	1
	7/14/2013 19:30	7/14/2013 22:30	180	0.12	476.950	0.86	0.10	1	Atlas		57,234	1
	7/18/2013 16:15	7/19/2013 0:00	465	0.21	312.662	0.35	0.14	3	Atlas		65,659	1
	7/21/2013 19:30	7/26/2013 9:30	6,600	2.92	663.120	3.15	2.21	3	Atlas		1,936,311	1
	8/20/2013 18:15	8/20/2013 18:45	30	0.25	616.128	0.25	0.16	1	Atlas		154,032	1
	8/31/2013 19:45	8/31/2013 23:45	240	1.13	69.048	0.87	0.52	6	Atlas		78,024	1
	9/2/2013 14:00	9/2/2013 14:30	30	0.56	615.370	1.69	0.49	1	Atlas		344,607	1
	9/11/2013 10:30	9/11/2013 10:30	-	0.04	40.025	0.04	0.03	1	Atlas		1,601	1
	9/20/2013 19:30	9/21/2013 4:00	510	1.26	108.160	1.22	0.52	12	Atlas		136,282	1
	10/4/2013 19:15	10/4/2013 19:15	-	0.10	11.260	0.17	0.09	1	Atlas		1,126	1
	10/5/2013 13:00	10/6/2013 10:15	1,275	4.59	318.992	4.70	10.90	24	Cloudburst		1,464,175	1
	10/30/2013 3:00	10/30/2013 6:15	195	1.48	131.611	1.47	0.77	1	Atlas		194,784	1
	10/31/2013 21:00	10/31/2013 21:30	30	0.59	10.188	1.98	0.23	12	Atlas		6,011	1
	11/17/2013 5:45	11/17/2013 20:00	855	2.53	291.047	2.69	1.64	6	Cloudburst		736,348	1
	12/5/2013 5:45	12/5/2013 8:30	165	0.72	17.636	0.15	0.23	48	Atlas		12,698	1
	12/14/2013 10:45	12/14/2013 11:00	15	0.85	5.961	1.14	0.36	6	Atlas		5,067	1
	12/21/2013 8:15	12/21/2013 12:45	270	2.40	22.258	1.17	0.90	24	Atlas		53,418	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2013 21:30	12/22/2013 2:15	285	2.40	201.569	2.41	0.90	24	Atlas		483,766	1
	1/11/2014 0:45	1/11/2014 4:15	210	0.99	38.559	1.41	0.53	6	Atlas		38,173	1
	2/4/2014 20:00	2/4/2014 23:45	225	0.51	64.910	0.94	0.24	6	Atlas		33,104	1
	2/17/2014 16:15	2/17/2014 17:45	90	0.51	117.824	1.06	0.31	3	Atlas		60,090	1
	3/2/2014 10:00	3/2/2014 11:15	75	0.61	23.744	0.31	0.23	24	Atlas		14,484	1
	3/28/2014 4:45	3/28/2014 5:00	15	0.26	30.023	0.31	0.12	6	Atlas		7,806	1
	3/29/2014 6:30	3/29/2014 13:00	390	1.00	82.946	1.29	0.46	12	Atlas		82,946	1
	4/3/2014 12:15	4/4/2014 8:15	1,200	2.65	242.749	4.02	0.93	24	Atlas		643,285	1
	4/7/2014 10:45	4/7/2014 12:30	105	0.73	226.345	3.47	0.43	1	Atlas		165,232	1
	4/14/2014 20:15	4/14/2014 21:15	60	0.63	21.906	0.75	0.29	12	Atlas		13,801	1
	4/28/2014 4:15	4/28/2014 7:15	180	1.77	255.075	1.42	0.71	3	Atlas		451,483	1
	4/28/2014 17:45	4/28/2014 17:45	-	1.77	650	1.76	0.71	3	Atlas		1,151	1
	5/9/2014 19:30	5/9/2014 19:45	15	1.60	22.316	0.31	0.58	24	Atlas		35,706	1
	5/10/2014 5:45	5/10/2014 15:30	585	1.60	218.341	1.57	0.58	24	Atlas		349,345	1
	5/14/2014 7:15	5/14/2014 7:15	-	1.11	4.344	1.78	0.43	24	Atlas		4,822	1
	5/14/2014 18:15	5/14/2014 18:30	15	1.11	5.947	2.45	0.43	24	Atlas		6,601	1
	5/22/2014 3:00	5/22/2014 3:45	45	0.45	30.658	0.50	0.23	1	Atlas		13,796	1
	5/29/2014 20:45	5/29/2014 22:00	75	0.85	281.207	1.08	0.70	1	Atlas		239,026	1
	6/11/2014 14:30	6/11/2014 14:45	15	0.11	287.836	0.30	0.06	1	Atlas		31,662	1
	6/20/2014 16:15	6/20/2014 16:15	-	0.24	8.079	0.16	0.16	3	Atlas		1,939	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.24	25.263	0.47	0.17	1	Atlas		6,063	1
	7/2/2014 16:30	7/2/2014 16:45	15	0.11	60.555	0.37	0.10	1	Atlas		6,661	1
	7/7/2014 19:45	7/7/2014 19:45	-	0.80	5.753	1.09	0.70	1	Atlas		4,602	1
	7/13/2014 22:30	7/13/2014 23:30	60	0.76	69.960	1.83	0.40	3	Atlas		53,185	1
	7/14/2014 20:30	7/14/2014 20:30	-	0.13	10.377	1.32	0.10	1	Atlas		1,349	1
	7/26/2014 21:45	7/27/2014 9:30	705	1.19	281.701	1.22	0.54	12	Atlas		335,224	1
	8/8/2014 6:00	8/8/2014 8:00	120	0.98	162.137	0.76	0.45	6	Atlas		158,894	1
	8/10/2014 4:00	8/10/2014 4:15	15	0.41	10.437	1.45	0.34	1	Atlas		4,279	1
	8/11/2014 15:30	8/11/2014 16:00	30	0.44	792.468	1.85	0.35	1	Atlas		348,686	1
	8/17/2014 9:45	8/17/2014 10:30	45	0.71	28.356	1.04	0.27	24	Atlas		20,133	1
	8/22/2014 19:15	8/22/2014 19:45	30	0.42	230.517	1.10	0.30	1	Atlas		96,817	1
	8/23/2014 20:15	8/23/2014 20:45	30	0.59	36.269	1.50	0.27	12	Atlas		21,399	1
	8/27/2014 15:15	8/27/2014 17:30	135	0.26	546.592	1.34	0.17	3	Atlas		142,114	1
	8/30/2014 15:15	8/30/2014 16:15	60	0.53	650.330	1.25	0.32	1	Atlas		344,675	1
	9/2/2014 8:30	9/2/2014 8:45	15	0.36	34.714	1.09	0.22	3	Atlas		12,497	1
	9/11/2014 0:45	9/11/2014 6:15	330	1.92	282.631	1.87	1.43	3	Atlas		542,651	1
	10/7/2014 12:00	10/7/2014 12:15	15	0.16	28.200	0.67	0.14	1	Atlas		4,512	1
	10/10/2014 1:45	10/10/2014 3:00	75	0.93	65.500	1.26	0.39	3	Atlas		60,915	1
	10/13/2014 5:00	10/13/2014 6:00	60	0.42	20.600	1.82	0.27	3	Atlas		8,652	1
	10/13/2014 23:30	10/14/2014 8:30	540	1.10	76.907	2.54	0.49	12	Atlas		84,598	1
	11/23/2014 17:45	11/23/2014 19:45	120	0.71	24.166	1.04	0.33	6	Atlas		17,158	1
	12/1/2014 4:00	12/1/2014 5:00	60	0.79	20.742	0.39	0.30	24	Atlas		16,386	1
	12/6/2014 23:15	12/6/2014 7:00	465	1.84	66.583	2.62	0.59	48	Atlas		122,513	1
	12/28/2014 1:15	12/28/2014 1:30	15	0.30	14.603	0.69	0.12	1	Atlas		4,381	1
	3/3/2015 23:30	3/4/2015 13:00	810	1.61	52.289	1.11	0.52	48	Atlas		84,185	1
	3/10/2015 7:15	3/10/2015 15:15	480	1.26	68.458	2.86	0.57	12	Atlas		86,257	1
	3/13/2015 14:45	3/14/2015 5:15	870	1.67	36.772	2.89	0.63	24	Atlas		61,409	1
	3/26/2015 4:30	3/26/2015 5:00	30	0.42	19.074	0.49	0.17	12	Atlas		8,011	1
	4/2/2015 10:45	4/2/2015 16:00	315	5.12	66.326	0.97	13.81	6	Cloudburst		339,588	1
	4/3/2015 0:15	4/4/2015 7:15	1,860	5.12	963.380	5.14	13.81	6	Cloudburst		4,932,504	1
	4/7/2015 8:30	4/7/2015 19:00	630	0.78	157.858	5.91	0.33	12	Atlas		123,129	1
	4/8/2015 18:15	4/8/2015 19:45	90	0.16	208.131	6.06	0.09	3	Atlas		33,301	1
	4/9/2015 11:45	4/9/2015 13:30	105	0.25	154.372	5.95	0.22	1	Atlas		38,593	1
	4/10/2015 2:30	4/10/2015 4:45	135	0.14	162.650	3.40	0.09	3	Atlas		22,771	1
	4/13/2015 20:30	4/13/2015 22:15	105	0.38	73.584	1.41	0.16	6	Atlas		27,962	1
	4/14/2015 7:30	4/14/2015 12:45	315	0.38	95.421	1.62	0.16	6	Atlas		36,260	1
	4/16/2015 10:30	4/16/2015 11:15	45	0.04	105.675	0.87	0.03	1	Atlas		4,227	1
	4/19/2015 6:30	4/20/2015 4:30	1,320	0.75	247.152	1.29	0.31	12	Atlas		185,364	1
	4/25/2015 9:15	4/25/2015 10:30	75	0.12	127.108	0.94	0.06	6	Atlas		15,253	1
	4/25/2015 19:00	4/25/2015 20:00	60	0.10	156.250	1.01	0.06	3	Atlas		15,625	1
	4/30/2015 13:00	4/30/2015 13:30	30	0.02	122.100	0.23	0.01	6	Atlas		2,442	1
	5/9/2015 3:30	5/9/2015 5:15	105	0.11	35.091	0.11	0.06	3	Atlas		3,860	1
	5/11/2015 17:45	5/11/2015 18:15	30	0.09	72.300	0.21	0.08	1	Atlas		6,507	1
	5/16/2015 12:45	5/16/2015 14:15	90	0.33	29.385	0.40	0.15	3	Atlas		9,697	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/17/2015 14:15	5/17/2015 15:00	45	0.10	361.550	0.50	0.06	1	Atlas		36.155	1
	5/25/2015 7:00	5/25/2015 8:30	90	0.23	22.296	0.19	0.11	12	Atlas		5.128	1
	5/26/2015 13:45	5/26/2015 14:45	60	0.24	616.825	0.42	0.16	1	Atlas		148.038	1
	5/27/2015 13:45	5/27/2015 14:30	45	0.14	104.564	0.62	0.12	1	Atlas		14.639	1
	6/8/2015 8:30	6/8/2015 8:30	-	0.32	7.969	0.32	0.19	3	Atlas		2.550	1
	6/17/2015 4:45	6/17/2015 6:45	120	0.60	47.023	0.68	0.33	3	Atlas		28.214	1
	6/18/2015 16:15	6/18/2015 19:00	165	1.84	373.625	1.58	0.60	48	Atlas		687.470	1
	6/19/2015 13:15	6/19/2015 13:45	30	1.84	3.716	1.74	0.60	48	Atlas		6.838	1
	6/20/2015 1:30	6/20/2015 9:15	465	1.84	112.096	2.64	0.60	48	Atlas		206.256	1
	6/25/2015 23:45	6/26/2015 3:15	210	0.62	254.115	1.82	0.34	6	Atlas		157.551	1
	6/26/2015 17:00	6/27/2015 3:15	615	0.81	470.840	2.56	0.38	1	Atlas		381.380	1
	6/29/2015 13:30	6/29/2015 14:15	45	0.18	395.200	1.60	0.11	1	Atlas		71.136	1
	7/2/2015 0:30	7/2/2015 3:15	165	0.87	79.146	2.31	0.40	3	Atlas		68.867	1
	7/2/2015 20:30	7/2/2015 22:30	120	0.87	145.210	2.55	0.40	3	Atlas		126.333	1
	7/3/2015 14:45	7/3/2015 19:30	285	0.35	242.603	2.27	0.21	1	Atlas		84.911	1
	7/7/2015 11:30	7/8/2015 0:15	765	0.75	234.875	2.04	0.38	6	Atlas		176.156	1
	7/8/2015 12:45	7/8/2015 13:15	30	0.06	25.833	2.09	0.04	1	Atlas		1.550	1
	7/9/2015 6:15	7/9/2015 8:30	135	0.28	135.054	1.64	0.17	3	Atlas		37.815	1
	7/10/2015 10:15	7/10/2015 17:45	450	0.39	176.987	1.85	0.19	6	Atlas		69.025	1
	7/12/2015 6:00	7/12/2015 12:15	375	0.84	602.996	2.33	0.55	3	Atlas		506.517	1
	7/13/2015 14:30	7/13/2015 17:15	165	0.32	350.691	2.66	0.27	1	Atlas		112.221	1
	7/14/2015 4:15	7/14/2015 20:15	960	0.56	519.486	3.24	0.37	3	Atlas		290.912	1
	7/17/2015 22:30	7/18/2015 2:00	210	0.87	699.717	2.61	0.58	3	Atlas		782.754	1
	8/4/2015 19:30	8/4/2015 19:30	-	0.11	10.200	0.18	0.09	1	Atlas		1.122	1
	8/5/2015 15:15	8/5/2015 15:30	15	0.91	3.085	0.30	0.33	24	Atlas		2.807	1
	8/6/2015 2:15	8/6/2015 15:45	810	0.91	482.856	1.02	0.33	24	Atlas		439.399	1
	8/10/2015 21:00	8/10/2015 21:00	-	0.09	13.156	1.11	0.08	1	Atlas		1.184	1
	8/19/2015 7:45	8/19/2015 17:30	585	0.57	263.851	0.61	0.24	1	Atlas		150.395	1
	9/7/2015 18:30	9/7/2015 18:30	-	0.09	22.367	0.17	0.08	1	Atlas		2.013	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.21	14.810	0.38	0.16	1	Atlas		3.110	1
	9/11/2015 18:30	9/11/2015 19:45	75	0.20	29.475	0.73	0.14	1	Atlas		5.895	1
	12/15/2018 4:00	12/15/2018 4:00	-	1.76	383	0.91	0.73	12	Atlas		674	1
	2/7/2019 8:45	2/7/2019 8:45	-	1.39	6.099	0.96	0.45	48	Atlas		8.477	1
	2/12/2019 4:15	2/12/2019 5:15	60	2.42	22.815	3.54	0.76	48	Atlas		55.213	1
	2/20/2019 4:00	2/20/2019 6:30	150	1.43	113.582	1.37	0.66	6	Atlas		162.422	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.21	51.629	1.40	0.14	3	Atlas		10.842	1
	4/7/2019 11:45	4/7/2019 11:45	-	0.49	3.598	0.52	0.25	3	Atlas		1.763	1
	4/14/2019 2:45	4/14/2019 2:45	-	0.92	2.176	1.35	0.43	6	Atlas		2.002	1
	4/19/2019 22:15	4/19/2019 22:15	-	3.06	219	2.29	0.99	48	Atlas		671	1
	4/23/2019 17:30	4/23/2019 18:00	30	0.34	840.056	3.40	0.30	1	Atlas		285.619	1
	4/24/2019 20:30	4/24/2019 20:30	-	0.47	35.374	3.61	0.22	12	Atlas		16.626	1
	6/5/2019 20:45	6/5/2019 20:45	-	0.80	6.443	0.86	0.58	1	Atlas		5.154	1
	6/9/2019 16:15	6/9/2019 16:45	30	0.72	248.592	2.36	0.40	3	Atlas		178.986	1
	6/16/2019 20:30	6/16/2019 20:45	15	1.43	49.302	1.24	0.65	12	Atlas		70.502	1
	6/23/2019 15:45	6/23/2019 16:00	15	0.46	172.685	3.13	0.37	1	Atlas		79.435	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.44	374.507	2.18	0.28	3	Atlas		164.783	1
	7/18/2019 0:30	7/18/2019 1:00	30	0.42	710.343	0.49	0.25	1	Atlas		298.344	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.45	92.733	0.44	0.29	3	Atlas		41.730	1
	10/30/2019 14:15	10/30/2019 14:45	30	0.83	24.858	1.93	0.41	3	Atlas		20.632	1
	1/11/2020 11:15	1/11/2020 11:15	-	0.79	9.272	0.61	0.38	6	Atlas		7.325	1
	2/12/2020 18:00	2/12/2020 18:30	30	0.87	5.986	1.18	0.40	3	Atlas		5.208	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.37	234.162	0.38	0.17	12	Atlas		86.640	1
	3/12/2020 20:00	3/12/2020 20:00	-	0.59	11.644	0.74	0.27	12	Atlas		6.870	1
	3/19/2020 12:15	3/19/2020 12:30	15	0.32	226.906	1.67	0.16	1	Atlas		72.610	1
	3/28/2020 22:30	3/28/2020 22:45	15	0.30	639.040	0.46	0.25	1	Atlas		191.712	1
	5/16/2020 2:30	5/16/2020 7:30	300	1.39	44.684	1.53	0.53	24	Atlas		62.111	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.55	149.555	0.38	0.31	1	Atlas		82.255	1
	6/22/2020 22:45	6/22/2020 22:45	-	0.75	45.399	1.06	0.36	6	Atlas		34.049	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.87	116.740	1.86	0.56	3	Atlas		101.564	1
	CSO113 Total										26,086,647	177
CSO117	6/11/2009 17:45	6/11/2009 21:45	240	1.86	1,230.094	2.74	0.72	24	Atlas		2,287.975	1
	6/16/2009 9:45	6/16/2009 17:30	465	0.99	814.683	4.34	0.67	1	Atlas		806.536	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/18/2009 10:15	6/18/2009 12:30	135	1.38	2,235,549	3.87	0.90	1	Atlas		3,085,058	1
	6/22/2009 9:30	6/22/2009 11:00	90	1.26	1,658,510	4.45	0.83	1	Atlas		2,089,722	1
	6/26/2009 16:15	6/26/2009 16:45	30	0.13	1,253,554	3.63	0.11	1	Atlas		162,962	1
	7/8/2009 6:45	7/8/2009 7:00	15	0.14	433,821	0.57	0.12	1	Atlas		60,735	1
	7/13/2009 1:15	7/13/2009 1:15	-	0.01	38,300	0.17	0.01	1	Atlas		383	1
	7/15/2009 10:45	7/15/2009 12:30	105	0.40	2,882,633	0.42	0.25	3	Atlas		1,153,053	1
	7/17/2009 3:45	7/17/2009 5:30	105	0.35	2,528,603	0.77	0.23	3	Atlas		885,011	1
	7/22/2009 6:30	7/22/2009 13:45	435	1.58	2,128,933	2.32	0.70	12	Atlas		3,363,714	1
	7/29/2009 1:45	7/29/2009 8:15	390	2.01	3,605,926	4.16	0.97	6	Atlas		7,247,911	1
	7/30/2009 19:45	7/30/2009 23:45	240	1.30	1,370,844	3.86	0.55	12	Atlas		1,782,097	1
	8/4/2009 7:45	8/4/2009 20:45	780	6.62	4,547,420	9.78					30,103,923	1
	8/10/2009 19:15	8/10/2009 22:45	210	1.24	1,634,365	7.82	0.80	3	Atlas		2,026,612	1
	8/20/2009 9:45	8/20/2009 10:15	30	0.32	243,603	0.35	0.21	3	Atlas		77,953	1
	9/20/2009 6:00	9/21/2009 1:00	1,140	3.54	3,220,662	3.54	3.80	24	Cloudburst		11,401,144	1
	9/22/2009 18:30	9/23/2009 0:30	360	0.60	1,468,483	4.16	0.30	6	Atlas		881,090	1
	9/24/2009 7:30	9/24/2009 8:15	45	0.84	336,065	4.33	0.28	24	Atlas		282,295	1
	9/24/2009 19:15	9/24/2009 21:30	135	0.84	119,787	4.91	0.28	24	Atlas		100,621	1
	9/26/2009 20:30	9/26/2009 21:30	60	0.39	2,446,477	5.40	0.31	1	Atlas		954,126	1
	10/2/2009 3:45	10/2/2009 7:00	195	0.78	1,990,082	1.28	0.49	3	Atlas		1,552,264	1
	10/6/2009 11:00	10/6/2009 11:45	45	0.11	2,573,155	0.89	0.07	3	Atlas		283,047	1
	10/8/2009 14:00	10/9/2009 12:45	1,365	2.05	2,343,572	2.80	0.68	24	Atlas		4,804,322	1
	10/9/2009 22:00	10/9/2009 22:30	30	2.05	40,341	2.16	0.68	24	Atlas		82,699	1
	10/14/2009 5:45	10/14/2009 7:45	120	0.67	2,353,940	2.72	0.44	3	Atlas		1,577,140	1
	10/15/2009 4:30	10/15/2009 5:30	60	0.15	2,569,053	2.81	0.09	3	Atlas		385,358	1
	10/23/2009 3:00	10/23/2009 10:45	465	0.58	1,599,938	0.60	0.26	12	Atlas		927,964	1
	10/27/2009 16:15	10/27/2009 23:45	450	1.16	2,439,594	1.75	0.52	12	Atlas		2,829,929	1
	10/30/2009 19:45	10/31/2009 5:15	570	1.05	2,521,659	2.19	0.47	12	Atlas		2,647,742	1
	11/17/2009 8:45	11/17/2009 21:30	765	0.84	2,025,996	0.82	0.32	24	Atlas		1,701,837	1
	12/8/2009 15:45	12/8/2009 23:15	450	1.81	1,975,804	2.08	0.75	12	Atlas		3,576,206	1
	12/13/2009 6:45	12/13/2009 7:45	60	0.29	974,610	2.18	0.19	3	Atlas		282,637	1
	12/25/2009 11:00	12/25/2009 11:30	30	0.27	364,159	0.65	0.09	24	Atlas		98,323	1
	1/20/2010 10:00	1/20/2010 13:00	180	0.46	1,644,478	0.70	0.24	6	Atlas		756,460	1
	1/21/2010 0:00	1/21/2010 1:00	60	0.83	513,090	0.82	0.32	12	Atlas		425,865	1
	1/21/2010 10:30	1/21/2010 19:45	555	0.83	3,116,790	1.53	0.32	12	Atlas		2,586,936	1
	1/24/2010 4:00	1/24/2010 9:30	330	0.93	1,535,404	2.05	0.36	24	Atlas		1,427,926	1
	1/24/2010 21:15	1/24/2010 23:15	120	0.93	860,357	2.22	0.36	24	Atlas		800,132	1
	2/5/2010 11:45	2/5/2010 20:15	510	1.06	2,633,042	0.97	0.38	24	Atlas		2,791,024	1
	3/12/2010 13:45	3/12/2010 15:45	120	0.28	1,312,061	0.30	0.17	3	Atlas		367,377	1
	3/21/2010 23:15	3/22/2010 2:00	165	0.57	1,481,042	0.57	0.26	12	Atlas		844,194	1
	3/25/2010 21:30	3/25/2010 23:15	105	0.42	900,955	0.98	0.21	1	Atlas		378,401	1
	4/8/2010 0:45	4/8/2010 6:45	360	1.16	2,705,351	1.24	0.55	6	Atlas		3,138,207	1
	4/24/2010 14:30	4/24/2010 21:00	390	1.63	2,419,546	1.86	0.77	6	Atlas		3,943,860	1
	4/27/2010 8:15	4/27/2010 11:00	165	0.33	2,117,085	2.34	0.16	6	Atlas		698,638	1
	5/1/2010 4:45	5/1/2010 9:45	300	4.30	844,035	3.13	4.10	48	Atlas		3,629,352	1
	5/2/2010 1:00	5/2/2010 21:30	1,230	4.30	2,597,038	4.80	4.10	48	Atlas		11,167,262	1
	5/7/2010 23:30	5/8/2010 0:00	30	0.38	341,008	4.70	0.31	1	Atlas		129,583	1
	5/12/2010 9:45	5/12/2010 11:15	90	0.87	2,163,486	1.33	0.67	1	Atlas		1,882,233	1
	5/16/2010 10:15	5/16/2010 10:15	-	0.50	1,296	1.28	0.23	12	Atlas		648	1
	5/17/2010 19:45	5/17/2010 20:45	60	0.40	1,880,055	1.93	0.26	3	Atlas		752,022	1
	5/21/2010 19:45	5/21/2010 23:00	195	1.05	1,828,637	1.95	0.76	1	Atlas		1,920,069	1
	5/30/2010 20:15	5/30/2010 21:00	45	0.44	2,708,259	0.52	0.24	6	Atlas		1,191,634	1
	6/9/2010 3:45	6/9/2010 13:15	570	2.36	2,033,711	2.49	2.29	3	Atlas		4,799,559	1
	6/11/2010 23:15	6/11/2010 23:15	-	0.23	90,678	2.46	0.13	6	Atlas		20,856	1
	6/13/2010 23:00	6/13/2010 23:45	45	0.50	1,527,576	2.87	0.24	1	Atlas		763,788	1
	6/19/2010 5:45	6/19/2010 8:30	165	0.88	2,401,867	1.81	0.51	3	Atlas		2,113,643	1
	6/28/2010 1:45	6/28/2010 3:00	75	0.29	2,095,610	0.27	0.20	1	Atlas		607,727	1
	7/13/2010 4:00	7/13/2010 11:00	420	1.86	2,210,128	2.34	0.85	12	Atlas		4,110,839	1
	7/20/2010 4:45	7/20/2010 6:45	120	0.66	3,744,038	2.16	0.42	1	Atlas		2,471,065	1
	7/21/2010 6:00	7/21/2010 7:00	60	0.54	1,594,870	1.50	0.43	1	Atlas		861,230	1
	7/22/2010 14:45	7/22/2010 15:15	30	0.26	277,673	1.76	0.23	1	Atlas		72,195	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/27/2010 16:00	7/27/2010 17:00	60	0.96	1,126,042	1.75	0.64	1	Atlas		1,081,000	1
	7/31/2010 4:30	7/31/2010 6:45	135	0.45	3,689,547	1.55	0.25	3	Atlas		1,660,296	1
	7/31/2010 21:00	7/31/2010 22:00	60	0.27	2,090,696	1.82	0.23	1	Atlas		564,488	1
	8/5/2010 9:15	8/5/2010 10:00	45	0.24	1,849,713	0.94	0.18	1	Atlas		443,931	1
	8/11/2010 17:30	8/11/2010 18:00	30	0.10	1,571,140	0.34	0.08	1	Atlas		157,114	1
	8/14/2010 16:30	8/14/2010 17:30	60	0.56	1,710,463	0.84	0.45	1	Atlas		957,859	1
	8/21/2010 7:00	8/21/2010 9:15	135	0.43	2,386,665	1.06	0.26	3	Atlas		1,026,266	1
	10/13/2010 19:00	10/13/2010 21:15	135	0.48	2,019,946	0.51	0.32	3	Atlas		969,574	1
	10/26/2010 11:15	10/26/2010 15:00	225	0.67	1,071,316	0.62	0.37	6	Atlas		717,782	1
	11/16/2010 12:30	11/16/2010 22:15	585	0.81	3,193,516	0.92	0.36	12	Atlas		2,586,748	1
	11/23/2010 2:30	11/23/2010 4:45	135	0.26	1,723,262	1.13	0.15	3	Atlas		448,048	1
	11/24/2010 12:45	11/26/2010 8:15	2,610	0.82	12,980,015	3.55	0.38	12	Atlas		10,643,612	1
	11/29/2010 21:30	11/30/2010 13:45	975	1.71	2,388,282	5.15	0.66	24	Atlas		4,083,962	1
	12/30/2010 3:15	12/30/2010 9:00	345	0.55	1,041,898	0.63	0.25	12	Atlas		573,044	1
	1/1/2011 4:30	1/1/2011 8:00	210	0.60	2,468,058	1.11	0.27	12	Atlas		1,480,835	1
	2/1/2011 17:00	2/1/2011 20:45	225	0.90	3,177,687	0.82	0.36	6	Atlas		2,859,918	1
	2/7/2011 13:00	2/7/2011 13:15	15	0.24	43,946	1.25	0.09	24	Atlas		10,547	1
	2/24/2011 17:00	2/25/2011 4:45	705	2.42	3,869,004	2.63	0.93	12	Atlas		9,362,990	1
	2/28/2011 5:15	2/28/2011 12:45	450	1.36	2,639,749	4.12	0.64	6	Atlas		3,590,059	1
	3/5/2011 4:45	3/5/2011 10:30	345	0.89	2,022,155	2.34	0.30	24	Atlas		1,799,718	1
	3/8/2011 22:45	3/9/2011 19:30	1,245	3.12	4,637,003	4.01	1.96	24	Cloudburst		14,467,448	1
	3/14/2011 4:15	3/14/2011 5:15	60	0.86	361,338	3.48	0.30	12	Atlas		310,751	1
	3/14/2011 14:15	3/14/2011 16:00	105	0.86	69,102	3.84	0.30	12	Atlas		59,428	1
	3/15/2011 7:45	3/15/2011 13:00	315	0.86	106,852	3.97	0.30	12	Atlas		91,893	1
	3/18/2011 21:30	3/18/2011 22:30	60	0.19	2,137,584	1.03	0.10	1	Atlas		406,141	1
	4/4/2011 13:15	4/4/2011 17:30	255	0.81	3,394,011	0.95	0.41	6	Atlas		2,749,149	1
	4/9/2011 10:30	4/9/2011 12:45	135	0.51	2,704,149	1.37	0.36	1	Atlas		1,379,116	1
	4/11/2011 11:15	4/12/2011 11:45	1,470	3.10	4,680,993	4.40	2.04	24	Cloudburst		14,511,077	1
	4/15/2011 13:00	4/15/2011 14:00	60	0.38	770,408	3.78	0.15	24	Atlas		292,755	1
	4/20/2011 0:45	4/20/2011 5:15	270	0.73	2,800,221	1.19	0.39	6	Atlas		2,044,161	1
	4/22/2011 16:30	4/25/2011 7:00	3,750	4.87	3,203,505	5.81	3.83	48	Atlas		15,601,067	1
	4/25/2011 23:45	4/26/2011 7:15	450	4.87	1,847	5.67	3.83	48	Atlas		8,994	1
	4/27/2011 1:00	4/28/2011 0:45	1,425	2.57	5,411,571	8.07	0.98	24	Atlas		13,907,737	1
	4/28/2011 18:45	4/28/2011 20:15	90	0.20	3,279,285	7.69	0.13	3	Atlas		655,857	1
	5/1/2011 4:30	5/1/2011 7:15	165	0.75	2,597,951	4.75	0.39	3	Atlas		1,948,463	1
	5/1/2011 19:45	5/2/2011 8:00	735	2.81	1,060,621	4.89	0.91	48	Atlas		2,980,344	1
	5/2/2011 17:00	5/3/2011 14:00	1,260	2.81	3,035,671	6.46	0.91	48	Atlas		8,530,235	1
	5/8/2011 1:00	5/8/2011 2:30	90	0.27	4,831,941	3.76	0.16	1	Atlas		1,304,624	1
	5/14/2011 15:00	5/14/2011 15:45	45	0.35	1,166,597	0.65	0.27	1	Atlas		408,309	1
	5/21/2011 18:15	5/21/2011 19:45	90	0.48	2,914,623	0.94	0.33	1	Atlas		1,399,019	1
	5/23/2011 4:00	5/23/2011 5:15	75	0.36	1,722,833	0.99	0.24	1	Atlas		620,220	1
	5/23/2011 17:45	5/23/2011 21:45	240	0.79	3,782,263	1.79	0.49	3	Atlas		2,987,988	1
	5/25/2011 23:00	5/26/2011 2:15	195	1.48	1,856,855	2.73	0.66	3	Atlas		2,748,146	1
	5/26/2011 11:30	5/26/2011 12:15	45	1.48	261,282	3.05	0.66	3	Atlas		386,697	1
	6/11/2011 4:30	6/15/2011 11:30	6,180	0.29	13,735,628	1.36	0.24	1	Atlas		3,983,332	1
	6/18/2011 6:30	6/18/2011 9:15	165	0.81	2,224,189	1.85	0.51	3	Atlas		1,801,593	1
	6/19/2011 8:00	6/19/2011 10:00	120	0.49	2,482,980	2.33	0.30	3	Atlas		1,216,660	1
	6/20/2011 1:45	6/20/2011 3:00	75	0.54	2,217,357	2.87	0.46	1	Atlas		1,197,373	1
	6/21/2011 16:30	6/21/2011 17:15	45	0.34	671,497	3.16	0.19	3	Atlas		228,309	1
	6/22/2011 19:30	6/23/2011 9:00	810	4.19	2,984,486	6.38	37.18	3	Cloudburst		12,504,998	1
	6/26/2011 5:15	6/26/2011 5:30	15	0.32	26,706	5.83	0.17	6	Atlas		8,546	1
	7/5/2011 18:15	7/5/2011 18:15	-	0.28	19,300	0.28	0.17	3	Atlas		5,404	1
	7/8/2011 4:00	7/8/2011 5:30	90	0.44	547,266	0.75	0.23	3	Atlas		240,797	1
	7/12/2011 17:15	7/12/2011 18:30	75	0.36	1,586,139	0.76	0.19	6	Atlas		571,010	1
	7/19/2011 23:00	7/20/2011 0:30	90	1.56	2,020,065	1.58	2.19	1	Atlas		3,151,301	1
	8/7/2011 3:15	8/7/2011 7:15	240	1.97	1,796,180	2.00	1.90	3	Atlas		3,538,474	1
	8/10/2011 3:00	8/10/2011 3:30	30	0.18	1,013,639	2.33	0.12	3	Atlas		182,455	1
	8/13/2011 17:15	8/13/2011 18:30	75	0.75	1,222,347	3.05	0.57	1	Atlas		916,760	1
	8/18/2011 8:30	8/18/2011 9:00	30	0.28	784,786	1.03	0.23	1	Atlas		219,740	1
	9/10/2011 20:15	9/10/2011 20:45	30	0.05	2,006,020	0.41	0.03	3	Atlas		100,301	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/15/2011 8:00	9/15/2011 17:45	585	0.21	189.181	0.51	0.11	3	Atlas		39,728	1
	9/19/2011 7:15	9/19/2011 8:30	75	0.73	1,418.890	0.66	0.29	12	Atlas		1,035,790	1
	9/23/2011 1:45	9/23/2011 8:30	405	0.80	1,856.064	1.58	0.37	12	Atlas		1,484,851	1
	9/25/2011 20:15	9/26/2011 6:30	615	3.81	3,357.032	5.53	11.67	12	Atlas		12,790,292	1
	10/13/2011 7:45	10/13/2011 9:00	75	0.40	1,635.273	0.29	0.20	3	Atlas		654,109	1
	10/27/2011 0:15	10/27/2011 5:30	315	1.04	1,936.968	1.40	0.43	12	Atlas		2,014,447	1
	11/3/2011 9:45	11/3/2011 17:15	450	0.52	828.962	0.56	0.25	3	Atlas		431,060	1
	11/14/2011 21:45	11/15/2011 14:45	1,020	2.01	1,074.035	1.41	0.65	48	Atlas		2,158,810	1
	11/16/2011 5:45	11/16/2011 11:45	360	2.01	597.313	2.00	0.65	48	Atlas		1,200,600	1
	11/20/2011 17:45	11/20/2011 19:00	75	0.79	641.772	2.52	0.28	24	Atlas		507,000	1
	11/22/2011 0:15	11/22/2011 11:45	690	1.08	3,476.393	3.50	0.46	12	Atlas		3,754,504	1
	11/27/2011 6:30	11/27/2011 9:45	195	3.00	284.941	2.37	0.93	48	Atlas		854,822	1
	11/27/2011 22:15	11/29/2011 3:00	1,725	3.00	2,919.429	4.33	0.93	48	Atlas		8,758,286	1
	12/4/2011 16:30	12/5/2011 19:30	1,620	3.23	4,117.721	5.60	1.25	48	Cloudburst		13,300,240	1
	12/15/2011 4:15	12/15/2011 8:30	255	0.43	1,529.542	0.40	0.21	6	Atlas		657,703	1
	12/21/2011 5:15	12/21/2011 8:00	165	0.69	1,937.996	1.14	0.32	12	Atlas		1,337,217	1
	12/22/2011 12:15	12/22/2011 18:15	360	0.57	2,252.604	1.23	0.25	12	Atlas		1,283,984	1
	12/27/2011 3:15	12/27/2011 12:15	540	0.66	1,871.882	1.89	0.26	12	Atlas		1,235,442	1
	1/11/2012 4:45	1/11/2012 12:00	435	0.69	3,488.616	0.58	0.27	24	Atlas		2,407,145	1
	1/17/2012 4:15	1/17/2012 13:15	540	0.32	3,007.725	1.13	0.15	12	Atlas		962,472	1
	1/23/2012 3:00	1/23/2012 5:30	150	0.56	3,452.232	0.91	0.31	3	Atlas		1,933,250	1
	1/25/2012 19:15	1/25/2012 19:45	30	1.63	23.861	0.82	0.53	48	Atlas		38,893	1
	1/26/2012 5:45	1/26/2012 7:30	105	1.63	932.306	1.25	0.53	48	Atlas		1,519,658	1
	1/26/2012 18:00	1/27/2012 1:45	465	1.63	2,963.152	2.18	0.53	48	Atlas		4,829,938	1
	2/4/2012 9:45	2/4/2012 11:15	90	0.39	1,066.192	0.44	0.23	3	Atlas		415,815	1
	2/22/2012 23:15	2/23/2012 0:00	45	0.13	2,279.023	0.38	0.09	1	Atlas		296,273	1
	2/29/2012 8:45	2/29/2012 10:00	75	0.59	1,225.015	0.70	0.28	1	Atlas		722,759	1
	3/8/2012 10:30	3/8/2012 16:00	330	0.80	2,177.298	1.10	0.38	6	Atlas		1,741,838	1
	3/15/2012 19:00	3/16/2012 4:00	540	0.94	2,548.585	1.13	0.41	12	Atlas		2,395,670	1
	3/17/2012 18:45	3/17/2012 23:00	255	0.93	1,041.063	2.00	0.52	1	Atlas		968,189	1
	3/23/2012 5:30	3/23/2012 23:45	1,095	1.46	3,180.324	2.39	0.53	24	Atlas		4,643,273	1
	3/31/2012 0:30	3/31/2012 0:45	15	0.15	138.333	0.17	0.09	3	Atlas		20,750	1
	4/1/2012 8:45	4/1/2012 12:00	195	1.83	1,879.386	2.01	1.00	6	Cloudburst		3,439,277	1
	4/4/2012 17:45	4/4/2012 18:00	15	0.23	112.104	2.08	0.11	12	Atlas		25,784	1
	4/28/2012 19:30	4/29/2012 1:00	330	0.79	2,357.549	0.93	0.61	1	Atlas		1,862,464	1
	4/30/2012 18:15	4/30/2012 19:15	60	0.36	1,888.678	1.19	0.24	3	Atlas		679,924	1
	5/5/2012 0:00	5/5/2012 5:30	330	1.60	2,181.847	2.77	0.84	3	Atlas		3,490,965	1
	5/13/2012 2:00	5/13/2012 15:00	780	2.11	3,082.173	2.15	0.83	12	Atlas		6,503,386	1
	5/16/2012 18:15	5/16/2012 18:45	30	0.21	1,013.900	2.32	0.18	1	Atlas		212,919	1
	5/29/2012 6:45	5/29/2012 16:45	600	2.76	3,025.745	2.76	11.53	3	Atlas		8,351,057	1
	5/31/2012 18:45	6/1/2012 5:45	660	1.27	2,370.092	3.97	0.55	12	Atlas		3,010,017	1
	7/1/2012 20:00	7/1/2012 21:00	60	0.46	1,645.565	0.40	0.32	1	Atlas		756,960	1
	7/8/2012 13:00	7/8/2012 14:15	75	0.25	4,498.820	0.72	0.19	1	Atlas		1,124,705	1
	7/14/2012 13:00	7/14/2012 15:30	150	0.53	2,787.360	0.83	0.33	3	Atlas		1,477,301	1
	7/19/2012 18:15	7/19/2012 20:00	105	0.83	4,200.002	1.34	0.67	1	Atlas		3,486,002	1
	7/24/2012 20:15	7/24/2012 21:00	45	0.32	1,853.866	1.19	0.26	1	Atlas		593,237	1
	7/27/2012 20:00	7/27/2012 21:45	105	0.72	2,330.561	1.15	0.50	1	Atlas		1,678,004	1
	8/3/2012 10:00	8/3/2012 10:45	45	0.23	241.926	0.96	0.11	3	Atlas		55,643	1
	8/16/2012 20:30	8/17/2012 0:00	210	0.63	2,856.632	0.75	0.35	3	Atlas		1,799,678	1
	8/21/2012 14:00	8/21/2012 15:00	60	0.22	3,073.941	0.86	0.18	1	Atlas		676,267	1
	9/1/2012 15:15	9/1/2012 18:30	195	0.59	2,617.786	0.62	0.37	3	Atlas		1,544,494	1
	9/2/2012 12:15	9/2/2012 22:30	615	0.67	3,368.334	1.29	0.26	24	Atlas		2,256,784	1
	9/3/2012 14:45	9/3/2012 15:30	45	0.06	4,524.867	1.34	0.04	1	Atlas		271,492	1
	9/5/2012 15:30	9/5/2012 17:30	120	0.59	5,418.334	1.93	0.46	1	Atlas		3,196,817	1
	9/7/2012 23:45	9/8/2012 7:30	465	1.49	1,715.163	3.40	0.82	3	Atlas		2,555,593	1
	9/25/2012 9:45	9/25/2012 10:30	45	0.41	97.637	0.39	0.22	6	Atlas		40,031	1
	9/26/2012 0:15	9/26/2012 6:15	360	0.49	1,237.671	0.84	0.22	12	Atlas		606,459	1
	9/26/2012 21:15	9/27/2012 1:00	225	1.28	2,848.104	2.16	0.68	6	Atlas		3,645,573	1
	10/1/2012 15:00	10/1/2012 19:45	285	0.67	3,215.533	2.82	0.26	12	Atlas		2,154,407	1
	10/6/2012 1:00	10/6/2012 1:15	15	0.12	208.067	0.78	0.07	3	Atlas		24,968	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/18/2012 1:30	10/18/2012 2:45	75	0.27	1,542,878	0.43	0.17	3	Atlas		416,577	1
	10/26/2012 14:30	10/26/2012 16:30	120	0.73	649,116	0.65	0.33	6	Atlas		473,855	1
	11/12/2012 7:15	11/12/2012 7:45	30	0.42	358,812	0.43	0.19	12	Atlas		150,701	1
	12/4/2012 17:15	12/4/2012 19:00	105	0.61	1,079,675	0.81	0.39	3	Atlas		658,602	1
	12/7/2012 4:30	12/7/2012 18:30	840	1.19	2,659,329	2.00	0.50	12	Atlas		3,164,601	1
	12/8/2012 6:00	12/8/2012 10:30	270	0.48	1,406,356	2.48	0.26	6	Atlas		675,051	1
	12/9/2012 9:15	12/9/2012 9:45	30	1.08	84,652	2.54	0.49	3	Atlas		91,424	1
	12/9/2012 22:00	12/10/2012 1:15	195	1.08	2,678,937	3.26	0.49	3	Atlas		2,893,252	1
	12/15/2012 12:00	12/15/2012 12:45	45	0.16	1,473,094	1.24	0.09	3	Atlas		235,695	1
	12/20/2012 7:15	12/20/2012 13:00	345	0.67	3,526,376	1.01	0.36	6	Atlas		2,362,672	1
	12/26/2012 4:15	12/26/2012 10:30	375	0.64	3,155,188	1.32	0.25	12	Atlas		2,019,320	1
	1/2/2013 22:15	1/2/2013 23:00	45	Discharge	-	0.19					30,155	1
	1/5/2013 19:30	1/5/2013 19:30	-	0.02	115,550	0.16	0.02	1	Atlas		2,311	1
	1/11/2013 6:00	1/11/2013 8:15	135	0.64	2,440,000	0.82	0.34	6	Atlas		1,561,600	1
	1/13/2013 3:30	1/13/2013 20:15	1,005	2.33	4,066,448	3.13	0.90	24	Atlas		9,474,824	1
	1/30/2013 5:00	1/30/2013 9:45	285	0.81	3,153,802	1.08	0.42	6	Atlas		2,554,580	1
	2/19/2013 4:45	2/19/2013 5:00	15	0.40	44,333	0.46	0.18	12	Atlas		17,733	1
	2/22/2013 0:30	2/22/2013 2:00	90	0.39	1,600,400	0.78	0.18	12	Atlas		624,156	1
	2/26/2013 14:00	2/26/2013 17:15	195	0.54	1,273,441	0.88	0.21	24	Atlas		687,658	1
	3/5/2013 16:30	3/5/2013 18:45	135	0.46	1,316,352	0.55	0.18	24	Atlas		605,522	1
	3/11/2013 3:45	3/11/2013 13:00	555	0.99	3,442,426	1.47	0.39	12	Atlas		3,408,002	1
	3/17/2013 11:00	3/18/2013 8:30	1,290	1.68	3,189,617	2.59	0.55	48	Atlas		5,358,556	1
	3/24/2013 8:00	3/24/2013 17:15	555	0.52	1,141,900	1.75	0.20	24	Atlas		593,788	1
	4/11/2013 6:30	4/11/2013 23:30	1,020	1.22	1,937,665	1.19	0.47	24	Atlas		2,363,951	1
	4/16/2013 20:15	4/16/2013 21:15	60	0.63	2,190,195	1.82	0.51	1	Atlas		1,379,823	1
	4/19/2013 2:00	4/19/2013 5:15	195	0.94	2,953,923	1.58	0.51	6	Atlas		2,776,688	1
	4/24/2013 7:15	4/24/2013 10:45	210	0.68	2,961,471	1.66	0.39	3	Atlas		2,013,800	1
	5/4/2013 13:15	5/5/2013 9:15	1,200	1.54	1,655,666	1.42	0.48	24	Atlas		2,549,725	1
	5/10/2013 12:30	5/11/2013 1:00	750	0.95	1,996,237	2.62	0.43	6	Atlas		1,896,425	1
	5/22/2013 16:00	5/22/2013 16:45	45	0.14	2,075,893	0.36	0.09	3	Atlas		290,625	1
	6/10/2013 0:00	6/10/2013 1:15	75	0.32	2,450,063	0.27	0.14	6	Atlas		784,020	1
	6/17/2013 16:30	6/17/2013 22:30	360	0.97	2,161,826	1.32	0.50	6	Atlas		2,096,971	1
	6/21/2013 19:00	6/21/2013 20:00	60	0.27	1,657,159	1.64	0.22	1	Atlas		447,433	1
	6/26/2013 3:30	6/26/2013 5:45	135	0.79	2,137,982	1.42	0.53	3	Atlas		1,689,006	1
	6/26/2013 16:15	6/27/2013 4:00	705	2.25	3,902,221	3.67	1.91	1	Atlas		8,779,998	1
	6/29/2013 19:45	6/29/2013 22:30	165	0.41	3,539,280	3.78	0.22	3	Atlas		1,451,105	1
	7/1/2013 19:00	7/1/2013 19:45	45	0.29	966,645	3.78	0.14	3	Atlas		280,327	1
	7/2/2013 13:15	7/2/2013 14:15	60	0.08	11,581,025	3.86	0.07	1	Atlas		926,482	1
	7/4/2013 7:15	7/4/2013 12:30	315	0.54	235,207	1.18	0.22	12	Atlas		127,012	1
	7/6/2013 1:15	7/6/2013 8:00	405	0.62	2,606,347	1.99	0.27	12	Atlas		1,615,935	1
	7/10/2013 14:15	7/10/2013 15:30	75	0.65	2,515,734	1.91	0.44	1	Atlas		1,635,227	1
	7/14/2013 19:45	7/14/2013 20:30	45	0.10	4,677,790	0.82	0.09	1	Atlas		467,779	1
	7/18/2013 16:45	7/18/2013 17:00	15	0.22	117,641	0.36	0.17	1	Atlas		25,881	1
	7/21/2013 19:45	7/21/2013 21:30	105	2.13	672,808	1.36	0.82	24	Atlas		1,433,081	1
	7/22/2013 7:15	7/22/2013 17:00	585	2.13	2,520,358	2.38	0.82	24	Atlas		5,368,362	1
	8/9/2013 18:00	8/9/2013 18:15	15	0.18	66,611	0.24	0.10	1	Atlas		11,990	1
	8/12/2013 14:45	8/12/2013 16:15	90	0.94	1,844,390	0.89	0.43	1	Atlas		1,733,727	1
	8/13/2013 3:15	8/13/2013 4:15	60	0.94	499,041	1.25	0.43	1	Atlas		469,099	1
	8/20/2013 18:30	8/20/2013 19:30	60	0.22	1,862,605	0.24	0.13	3	Atlas		409,773	1
	8/31/2013 20:00	9/1/2013 4:00	480	1.34	1,802,301	1.31	0.62	6	Atlas		2,415,084	1
	9/2/2013 14:00	9/2/2013 15:15	75	0.46	3,068,589	1.80	0.40	1	Atlas		1,411,551	1
	9/20/2013 16:30	9/21/2013 5:30	780	1.23	4,227,820	1.34	0.51	12	Atlas		5,200,219	1
	10/4/2013 19:45	10/4/2013 19:45	-	0.08	94,563	0.14	0.07	1	Atlas		7,565	1
	10/5/2013 13:00	10/6/2013 14:45	1,545	4.20	4,669,841	4.29	7.34	24	Cloudburst		19,613,331	1
	10/30/2013 2:00	10/30/2013 7:45	345	1.50	3,082,317	1.50	0.74	6	Atlas		4,623,476	1
	10/31/2013 19:45	10/31/2013 22:15	150	0.68	1,242,459	2.13	0.27	12	Atlas		844,872	1
	11/17/2013 5:45	11/17/2013 19:30	825	2.16	2,975,765	2.31	0.92	6	Atlas		6,427,653	1
	12/5/2013 5:45	12/5/2013 9:00	195	0.82	1,438,533	0.19	0.27	48	Atlas		1,179,597	1
	12/6/2013 12:15	12/6/2013 12:30	15	0.82	3,148	0.48	0.27	48	Atlas		2,581	1
	12/14/2013 9:15	12/14/2013 12:15	180	0.83	948,712	1.27	0.34	12	Atlas		787,431	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2013 5:45	12/21/2013 13:30	465	1.01	3,672,122	1.49	0.46	12	Atlas		3,708,843	1
	12/21/2013 21:45	12/22/2013 4:00	375	1.56	3,610,158	2.64	0.83	3	Atlas		5,631,846	1
	12/29/2013 6:30	12/29/2013 7:15	45	0.50	345,558	0.42	0.22	12	Atlas		172,779	1
	1/5/2014 15:30	1/5/2014 20:00	270	0.51	1,705,292	0.71	0.25	6	Atlas		869,699	1
	1/11/2014 0:30	1/11/2014 6:15	345	1.01	3,503,718	1.53	0.54	6	Atlas		3,538,755	1
	2/2/2014 4:30	2/2/2014 6:15	105	0.23	1,982,443	0.18	0.12	6	Atlas		455,962	1
	2/4/2014 19:30	2/5/2014 2:15	405	0.52	8,945,075	1.00	0.25	6	Atlas		4,651,439	1
	2/14/2014 17:15	2/14/2014 18:45	90	0.53	473,770	0.54	0.28	6	Atlas		251,098	1
	2/17/2014 16:15	2/17/2014 19:00	165	0.63	2,924,006	1.22	0.37	3	Atlas		1,842,124	1
	2/20/2014 23:30	2/21/2014 0:15	45	0.18	741,222	1.40	0.10	6	Atlas		133,420	1
	3/2/2014 10:15	3/2/2014 12:15	120	0.59	1,647,886	0.30	0.22	24	Atlas		972,253	1
	3/28/2014 4:45	3/28/2014 5:30	45	0.25	947,336	0.30	0.12	6	Atlas		236,834	1
	3/29/2014 6:30	3/29/2014 13:30	420	0.89	3,263,444	1.18	0.41	12	Atlas		2,904,465	1
	4/3/2014 12:15	4/4/2014 9:15	1,260	2.69	3,666,151	3.93	0.94	24	Atlas		9,861,945	1
	4/7/2014 9:15	4/7/2014 16:30	435	0.79	4,386,075	3.58	0.46	3	Atlas		3,464,999	1
	4/14/2014 4:15	4/14/2014 4:15	-	1.03	10,447	1.01	0.39	24	Atlas		10,760	1
	4/14/2014 20:15	4/15/2014 3:15	420	1.03	1,649,392	1.07	0.39	24	Atlas		1,698,874	1
	4/28/2014 4:15	4/28/2014 8:45	270	1.80	2,808,056	1.48	0.74	3	Atlas		5,054,500	1
	4/28/2014 17:15	4/28/2014 20:45	210	1.80	468,883	1.88	0.74	3	Atlas		843,989	1
	5/9/2014 19:30	5/10/2014 16:15	1,245	1.64	3,525,683	1.72	0.63	24	Atlas		5,782,120	1
	5/14/2014 7:15	5/14/2014 10:00	165	0.98	870,042	2.10	0.38	24	Atlas		852,641	1
	5/14/2014 18:15	5/15/2014 0:00	345	0.98	1,320,190	2.73	0.38	24	Atlas		1,293,786	1
	5/21/2014 21:30	5/22/2014 4:45	435	0.44	2,503,327	0.57	0.23	1	Atlas		1,101,464	1
	5/28/2014 20:30	5/28/2014 21:30	60	0.38	2,896,818	0.83	0.32	1	Atlas		1,100,791	1
	5/29/2014 20:45	5/29/2014 22:45	120	0.47	5,308,577	0.87	0.38	1	Atlas		2,495,031	1
	5/30/2014 14:45	5/30/2014 14:45	-	0.04	318,550	0.91	0.02	6	Atlas		12,742	1
	6/11/2014 14:30	6/11/2014 15:15	45	0.08	6,716,775	0.25	0.05	1	Atlas		537,342	1
	6/20/2014 16:45	6/20/2014 18:15	90	0.22	1,292,441	0.22	0.15	3	Atlas		284,337	1
	6/24/2014 13:45	6/24/2014 15:00	75	0.11	6,204,018	0.37	0.06	1	Atlas		682,442	1
	7/2/2014 16:30	7/2/2014 17:30	60	0.09	3,287,533	0.28	0.08	1	Atlas		295,878	1
	7/7/2014 19:45	7/7/2014 20:30	45	1.10	631,990	1.33	0.96	1	Atlas		695,189	1
	7/13/2014 22:30	7/14/2014 0:30	120	0.81	1,994,448	2.14	0.43	1	Atlas		1,615,503	1
	7/14/2014 20:15	7/14/2014 21:00	45	0.19	2,524,368	1.43	0.17	1	Atlas		479,630	1
	7/26/2014 21:45	7/27/2014 10:30	765	1.22	3,035,462	1.25	0.56	12	Atlas		3,703,264	1
	8/8/2014 6:00	8/8/2014 8:45	165	0.87	3,481,839	0.64	0.39	6	Atlas		3,029,200	1
	8/10/2014 4:00	8/10/2014 5:15	75	0.98	797,874	1.92	0.82	1	Atlas		781,917	1
	8/11/2014 15:30	8/11/2014 16:45	75	0.46	2,867,102	2.36	0.38	1	Atlas		1,318,867	1
	8/17/2014 9:45	8/17/2014 11:15	90	0.72	1,233,444	1.09	0.27	24	Atlas		888,080	1
	8/17/2014 23:15	8/18/2014 0:00	45	0.72	525,226	1.18	0.27	24	Atlas		378,163	1
	8/22/2014 19:15	8/22/2014 20:15	60	0.38	2,390,779	1.14	0.30	1	Atlas		908,496	1
	8/23/2014 16:00	8/23/2014 22:30	390	0.60	4,373,522	1.75	0.29	3	Atlas		2,624,113	1
	8/27/2014 15:15	8/27/2014 18:15	180	0.24	3,224,658	1.40	0.16	3	Atlas		773,918	1
	8/30/2014 15:15	8/30/2014 17:00	105	0.58	3,545,224	1.40	0.36	1	Atlas		2,056,230	1
	9/2/2014 8:45	9/2/2014 9:45	60	0.39	667,008	1.30	0.25	3	Atlas		260,133	1
	9/11/2014 0:45	9/11/2014 7:00	375	1.88	2,542,902	1.85	1.33	3	Atlas		4,780,655	1
	10/3/2014 3:45	10/3/2014 4:00	15	0.24	130,463	0.07	0.09	24	Atlas		31,311	1
	10/6/2014 9:45	10/6/2014 10:30	45	0.26	2,307,027	0.46	0.12	1	Atlas		599,827	1
	10/7/2014 12:15	10/7/2014 12:45	30	0.20	747,665	0.71	0.17	1	Atlas		149,533	1
	10/10/2014 2:00	10/10/2014 4:00	120	1.20	1,573,638	1.56	0.55	3	Atlas		1,888,365	1
	10/13/2014 4:45	10/13/2014 7:15	150	0.49	2,279,135	2.18	0.32	3	Atlas		1,116,776	1
	10/13/2014 23:30	10/14/2014 10:45	675	0.94	2,378,162	2.86	0.41	12	Atlas		2,235,472	1
	11/23/2014 17:30	11/23/2014 23:30	360	0.64	2,517,894	1.00	0.27	12	Atlas		1,611,452	1
	12/1/2014 3:30	12/1/2014 6:15	165	0.88	1,045,958	0.46	0.33	24	Atlas		920,443	1
	12/1/2014 15:15	12/1/2014 16:15	60	0.88	93,869	0.81	0.33	24	Atlas		82,605	1
	12/5/2014 6:45	12/5/2014 7:15	30	1.86	9,247	1.25	0.60	48	Atlas		17,200	1
	12/6/2014 21:00	12/6/2014 7:45	645	1.86	2,389,290	2.74	0.60	48	Atlas		4,444,080	1
	12/16/2014 5:30	12/16/2014 6:00	30	0.16	500,194	0.15	0.10	1	Atlas		80,031	1
	12/23/2014 0:00	12/23/2014 0:30	30	0.19	509,116	0.34	0.12	3	Atlas		96,732	1
	12/28/2014 1:15	12/28/2014 2:15	60	0.29	1,409,307	0.67	0.11	24	Atlas		408,699	1
	1/4/2015 4:15	1/4/2015 4:30	15	0.33	58,827	0.34	0.12	24	Atlas		19,413	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/1/2015 13:15	2/1/2015 14:30	75	0.42	579,526	0.49	0.19	3	Atlas		243,401	1
	2/21/2015 14:45	2/21/2015 16:45	120	1.23	244,208	1.47	0.47	24	Atlas		300,376	1
	3/3/2015 19:30	3/4/2015 17:15	1,305	1.70	4,270,698	1.33	0.55	48	Atlas		7,260,187	1
	3/10/2015 7:15	3/10/2015 18:00	645	1.30	4,334,998	3.00	0.59	12	Atlas		5,635,498	1
	3/13/2015 10:30	3/14/2015 6:45	1,215	1.85	3,445,381	3.11	0.70	24	Atlas		6,373,955	1
	3/26/2015 4:30	3/26/2015 7:00	150	0.53	1,532,798	0.68	0.21	3	Atlas		812,383	1
	4/2/2015 10:45	4/3/2015 22:30	2,145	5.14	5,947,683	5.29	12.54	6	Cloudburst		30,571,089	1
	4/7/2015 9:15	4/7/2015 18:45	570	0.93	2,766,381	6.07	0.41	1	Atlas		2,572,734	1
	4/8/2015 18:15	4/8/2015 19:30	75	0.14	4,743,343	6.20	0.09	3	Atlas		664,068	1
	4/9/2015 11:45	4/9/2015 13:00	75	0.19	3,954,405	5.96	0.17	1	Atlas		751,337	1
	4/10/2015 2:30	4/10/2015 3:45	75	0.20	3,340,820	3.45	0.13	3	Atlas		668,164	1
	4/13/2015 21:00	4/13/2015 21:45	45	0.39	632,505	1.56	0.15	24	Atlas		246,677	1
	4/14/2015 10:15	4/14/2015 12:15	120	0.39	326,662	1.22	0.15	24	Atlas		127,398	1
	4/19/2015 7:45	4/19/2015 15:45	480	0.67	1,818,030	1.05	0.28	12	Atlas		1,218,080	1
	4/25/2015 9:30	4/25/2015 9:45	15	0.10	323,370	0.87	0.05	6	Atlas		32,337	1
	5/16/2015 12:00	5/16/2015 14:00	120	0.43	547,909	0.45	0.21	3	Atlas		235,601	1
	5/17/2015 14:15	5/17/2015 15:15	60	0.06	7,571,350	0.53	0.03	12	Atlas		454,281	1
	5/25/2015 6:45	5/25/2015 9:00	135	0.27	92,293	0.26	0.12	12	Atlas		24,919	1
	5/26/2015 13:45	5/26/2015 15:00	75	0.27	818,200	0.49	0.19	1	Atlas		220,914	1
	5/27/2015 13:45	5/27/2015 14:00	15	0.08	32,525	0.62	0.07	1	Atlas		2,602	1
	6/8/2015 7:30	6/8/2015 9:15	105	0.30	1,014,003	0.35	0.16	3	Atlas		304,201	1
	6/17/2015 5:00	6/17/2015 7:15	135	0.55	2,695,635	0.61	0.29	3	Atlas		1,482,599	1
	6/18/2015 16:15	6/18/2015 23:15	420	1.48	2,290,384	1.22	0.48	48	Atlas		3,389,768	1
	6/20/2015 1:45	6/20/2015 9:30	465	1.48	2,329,374	2.19	0.48	48	Atlas		3,447,473	1
	6/22/2015 6:30	6/22/2015 7:15	45	0.21	483,533	2.33	0.10	3	Atlas		101,542	1
	6/26/2015 0:00	6/26/2015 1:45	105	0.44	1,920,505	1.47	0.23	6	Atlas		845,022	1
	6/26/2015 17:00	6/27/2015 1:45	525	0.89	2,516,008	2.41	0.49	1	Atlas		2,239,247	1
	6/29/2015 13:45	6/29/2015 14:30	45	0.19	1,923,279	1.52	0.10	1	Atlas		365,423	1
	7/2/2015 0:30	7/2/2015 3:15	165	1.19	1,103,211	2.23	0.46	24	Atlas		1,312,821	1
	7/2/2015 14:45	7/2/2015 21:45	420	1.19	1,111,694	2.77	0.46	24	Atlas		1,322,916	1
	7/3/2015 15:00	7/3/2015 19:45	285	0.37	2,593,362	2.69	0.26	1	Atlas		959,544	1
	7/7/2015 11:45	7/7/2015 17:15	330	0.74	2,068,265	2.34	0.38	3	Atlas		1,530,516	1
	7/8/2015 12:45	7/8/2015 13:15	30	0.13	1,108,038	2.47	0.10	1	Atlas		144,045	1
	7/9/2015 6:30	7/9/2015 8:15	105	0.31	2,046,687	2.00	0.17	3	Atlas		634,473	1
	7/10/2015 10:45	7/10/2015 17:00	375	0.51	1,734,216	2.08	0.26	6	Atlas		884,450	1
	7/12/2015 6:00	7/12/2015 18:45	765	1.14	2,937,559	2.85	0.80	1	Atlas		3,348,817	1
	7/13/2015 15:00	7/13/2015 16:00	60	0.37	1,789,489	3.22	0.31	1	Atlas		662,111	1
	7/14/2015 4:15	7/14/2015 11:00	405	0.64	2,240,614	3.86	0.50	1	Atlas		1,433,993	1
	7/14/2015 19:15	7/14/2015 19:30	15	0.02	3,823,550	3.16	0.02	1	Atlas		76,471	1
	7/17/2015 22:45	7/18/2015 2:30	225	1.13	3,376,815	3.30	0.75	3	Atlas		3,815,801	1
	8/4/2015 19:30	8/4/2015 20:00	30	0.18	360,150	0.22	0.14	1	Atlas		64,827	1
	8/5/2015 15:15	8/5/2015 16:00	45	0.14	1,499,450	0.36	0.12	1	Atlas		209,923	1
	8/6/2015 2:30	8/6/2015 16:00	810	0.54	3,242,567	0.86	0.21	1	Atlas		1,750,986	1
	8/15/2015 16:45	8/15/2015 17:15	30	0.14	1,127,621	0.25	0.12	1	Atlas		157,867	1
	8/19/2015 8:15	8/19/2015 17:45	570	0.36	3,000,397	0.52	0.14	3	Atlas		1,080,143	1
	9/9/2015 11:30	9/9/2015 12:15	45	0.23	2,390,961	0.31	0.17	1	Atlas		549,921	1
	9/11/2015 18:30	9/11/2015 19:00	30	0.15	559,187	0.56	0.10	1	Atlas		83,878	1
	9/29/2015 19:30	9/29/2015 19:45	15	0.77	24,206	0.75	0.25	48	Atlas		18,639	1
	10/2/2015 18:00	10/2/2015 20:30	150	0.63	961,397	1.44	0.30	6	Atlas		605,680	1
	10/12/2015 19:15	10/12/2015 20:15	60	0.26	1,525,958	0.33	0.17	3	Atlas		396,749	1
	10/27/2015 15:45	10/28/2015 9:00	1,035	2.25	3,245,748	2.59	0.74	24	Atlas		7,302,934	1
	10/28/2015 23:00	10/28/2015 23:15	15	0.13	38,554	2.71	0.07	1	Atlas		5,012	1
	11/6/2015 3:15	11/6/2015 5:45	150	0.80	2,925,416	0.92	0.49	3	Atlas		2,340,333	1
	11/9/2015 19:30	11/9/2015 22:30	180	0.50	1,152,848	1.30	0.22	12	Atlas		576,424	1
	11/12/2015 0:15	11/12/2015 2:00	105	0.26	3,697,138	1.55	0.15	3	Atlas		961,256	1
	11/18/2015 9:15	11/18/2015 18:45	570	1.37	3,749,700	1.77	0.69	6	Atlas		5,137,089	1
	11/28/2015 14:15	11/28/2015 21:00	405	0.70	1,366,783	0.87	0.28	12	Atlas		956,748	1
	11/30/2015 22:00	12/1/2015 5:30	450	0.85	2,587,989	1.75	0.39	12	Atlas		2,199,791	1
	12/14/2015 5:45	12/14/2015 7:30	105	0.25	938,148	0.21	0.13	3	Atlas		234,537	1
	12/21/2015 11:45	12/21/2015 12:00	15	0.18	207,456	0.22	0.09	6	Atlas		37,342	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2015 23:45	12/22/2015 5:00	315	0.41	4,957,068	0.62	0.21	6	Atlas		2,032,398	1
	12/23/2015 19:15	12/24/2015 0:15	300	0.90	3,907,164	1.55	0.71	1	Atlas		3,516,448	1
	12/26/2015 12:30	12/26/2015 18:30	360	0.31	2,670,594	1.96	0.14	12	Atlas		827,884	1
	12/27/2015 10:30	12/28/2015 7:00	1,230	1.92	4,354,297	3.43	0.65	3	Atlas		8,360,251	1
	12/28/2015 15:45	12/28/2015 18:00	135	1.92	503,480	3.66	0.65	3	Atlas		966,681	1
	2/2/2016 19:15	2/3/2016 3:00	465	1.21	4,845,845	1.28	0.59	6	Atlas		5,863,473	1
	2/21/2016 4:15	2/21/2016 11:45	450	1.12	3,425,217	1.29	0.51	12	Atlas		3,836,243	1
	2/23/2016 22:45	2/24/2016 9:00	615	1.99	4,053,740	2.80	0.77	12	Atlas		8,066,942	1
	12/1/2018 10:15	12/1/2018 14:45	270	1.27	1,060,160	1.30	0.53	12	Atlas		1,346,403	1
	12/15/2018 7:30	12/15/2018 11:00	210	1.65	1,384,378	1.62	0.69	12	Atlas		2,284,224	1
	12/31/2018 16:15	12/31/2018 17:30	75	1.17	1,202,815	1.58	0.45	24	Atlas		1,407,293	1
	2/7/2019 16:45	2/7/2019 20:15	210	1.52	1,097,805	1.65	0.49	48	Atlas		1,668,664	1
	2/11/2019 3:00	2/12/2019 17:45	2,325	2.55	4,387,012	4.17	0.80	48	Atlas		11,186,880	1
	2/20/2019 5:15	2/20/2019 15:00	585	1.44	3,516,596	1.46	0.66	6	Atlas		5,063,898	1
	2/23/2019 18:00	2/23/2019 22:30	270	0.72	5,737,615	2.21	0.39	6	Atlas		4,131,083	1
	3/30/2019 20:30	3/30/2019 20:30	-	0.88	7,947	1.19	0.42	6	Atlas		6,993	1
	4/14/2019 5:15	4/14/2019 5:45	30	0.73	93,181	1.46	0.35	6	Atlas		68,022	1
	4/19/2019 22:00	4/20/2019 14:15	975	2.08	4,320,839	3.16	0.78	24	Atlas		8,987,345	1
	4/26/2019 2:45	4/26/2019 3:45	60	0.34	1,915,024	3.10	0.15	12	Atlas		651,108	1
	5/3/2019 7:45	5/3/2019 8:45	60	0.88	689,182	1.06	0.48	6	Atlas		606,480	1
	6/9/2019 16:45	6/9/2019 19:00	135	0.60	2,309,317	2.35	0.33	3	Atlas		1,385,590	1
	6/16/2019 20:45	6/17/2019 1:30	285	1.79	609,322	2.07	0.81	12	Atlas		1,090,687	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.29	474,014	3.55	0.22	1	Atlas		137,464	1
	6/24/2019 13:45	6/24/2019 15:00	75	0.41	1,023,202	2.23	0.26	3	Atlas		419,513	1
	7/18/2019 0:30	7/18/2019 1:00	30	0.33	2,423,106	0.50	0.25	1	Atlas		799,625	1
	10/31/2019 7:30	10/31/2019 9:00	90	0.66	590,502	2.75	0.36	6	Atlas		389,731	1
	11/30/2019 8:00	11/30/2019 23:00	900	2.09	3,212,172	2.89	0.83	12	Atlas		6,713,440	1
	1/11/2020 16:00	1/11/2020 17:45	105	0.68	1,064,681	1.03	0.33	6	Atlas		723,983	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.23	49,357	0.41	0.18	1	Atlas		11,352	1
	4/13/2020 5:15	4/13/2020 5:30	15	0.85	2,989	1.48	0.34	12	Atlas		2,541	1
	5/16/2020 7:15	5/16/2020 8:30	75	1.32	805,470	1.52	0.51	24	Atlas		1,063,220	1
	6/22/2020 22:30	6/22/2020 22:30	-	0.90	3,934	0.99	0.41	3	Atlas		3,541	1
	CSO117 Total										858,097,991	394
CSO118	6/18/2009 10:00	6/18/2009 10:00	-	1.43	6,527	3.48	0.93	1	Atlas		9,334	1
	6/20/2009 4:00	6/20/2009 4:30	30	0.12	185,617	3.12	0.10	1	Atlas		22,274	1
	6/22/2009 8:30	6/22/2009 9:00	30	1.14	461	3.97	0.77	1	Atlas		525	1
	7/5/2009 5:45	7/5/2009 5:45	-	0.16	2,756	0.29	0.07	12	Atlas		441	1
	7/8/2009 6:15	7/8/2009 6:15	-	0.18	22,639	0.56	0.15	1	Atlas		4,075	1
	7/17/2009 3:30	7/17/2009 3:30	-	0.32	8,513	0.55	0.21	3	Atlas		2,724	1
	7/22/2009 12:15	7/22/2009 19:00	405	1.52	24,844	1.84	0.67	12	Atlas		37,763	1
	7/25/2009 21:15	7/25/2009 21:15	-	0.62	8,889	2.11	0.24	24	Atlas		5,511	1
	7/28/2009 13:30	7/28/2009 13:30	-	2.35	913	2.31	1.78	6	Cloudburst		2,146	1
	7/28/2009 23:30	7/29/2009 4:15	285	2.35	25,070	2.93	1.78	6	Cloudburst		58,915	1
	7/30/2009 19:30	7/30/2009 19:30	-	1.28	2,119	3.71	0.54	12	Atlas		2,712	1
	8/4/2009 7:30	8/4/2009 9:45	135	6.24	244,482	9.20					1,525,566	1
	8/10/2009 20:30	8/10/2009 20:30	-	1.17	3,985	7.35	0.75	1	Atlas		4,663	1
	10/6/2009 10:15	10/6/2009 11:45	90	0.10	1,967,050	0.87	0.06	1	Atlas		196,705	1
	10/8/2009 12:45	10/9/2009 22:30	2,025	1.98	2,667,935	2.85	0.66	24	Atlas		5,282,512	1
	10/14/2009 5:15	10/14/2009 7:45	150	0.70	2,130,809	2.68	0.46	3	Atlas		1,491,566	1
	10/15/2009 3:45	10/15/2009 5:30	105	0.14	1,671,114	2.77	0.09	3	Atlas		233,956	1
	10/23/2009 1:45	10/23/2009 10:30	525	0.62	563,987	0.64	0.27	12	Atlas		349,672	1
	10/27/2009 13:30	10/27/2009 23:45	615	1.18	2,194,244	1.80	0.53	12	Atlas		2,589,208	1
	10/30/2009 19:00	10/31/2009 5:15	615	1.02	1,655,717	2.18	0.46	12	Atlas		1,688,831	1
	11/17/2009 6:30	11/17/2009 22:45	975	0.88	1,184,956	0.89	0.34	24	Atlas		1,042,761	1
	12/8/2009 12:30	12/8/2009 23:15	645	1.73	1,553,639	1.94	0.71	12	Atlas		2,687,795	1
	12/13/2009 6:15	12/13/2009 7:30	75	0.29	609,466	2.08	0.19	3	Atlas		176,745	1
	12/18/2009 19:45	12/19/2009 8:00	735	0.37	7,314	0.42	0.13	24	Atlas		2,706	1
	12/24/2009 21:00	12/25/2009 11:15	855	0.28	20,961	0.65	0.10	24	Atlas		5,869	1
	12/30/2009 23:00	12/31/2009 1:00	120	0.08	7,088	0.53	0.05	3	Atlas		567	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/17/2010 8:45	1/17/2010 12:30	225	0.26	1,862	0.26	0.11	12	Atlas		484	1
	1/20/2010 8:45	1/20/2010 14:00	315	0.44	391,059	0.71	0.23	6	Atlas		172,066	1
	1/20/2010 23:30	1/21/2010 0:30	60	0.88	413,717	0.82	0.35	12	Atlas		364,071	1
	1/21/2010 9:30	1/21/2010 19:45	615	0.88	1,905,541	1.58	0.35	12	Atlas		1,676,876	1
	1/24/2010 3:30	1/24/2010 23:30	1,200	0.95	2,147,773	2.52	0.37	24	Atlas		2,040,384	1
	1/30/2010 4:30	1/30/2010 11:00	390	0.08	22,750	1.19	0.03	12	Atlas		1,820	1
	2/5/2010 2:15	2/6/2010 4:45	1,590	1.13	1,082,419	1.31	0.40	24	Atlas		1,223,134	1
	2/9/2010 0:00	2/9/2010 0:15	15	0.37	3,343	1.30	0.13	24	Atlas		1,237	1
	2/9/2010 12:00	2/9/2010 13:15	75	0.37	2,938	1.43	0.13	24	Atlas		1,087	1
	2/15/2010 13:15	2/15/2010 14:45	90	0.17	13,612	0.56	0.06	24	Atlas		2,314	1
	3/12/2010 13:00	3/12/2010 14:45	105	0.25	730,492	0.26	0.15	3	Atlas		182,623	1
	3/14/2010 9:00	3/14/2010 11:45	165	0.08	45,638	0.37	0.05	3	Atlas		3,651	1
	3/21/2010 17:45	3/22/2010 1:45	480	0.56	484,777	0.56	0.25	12	Atlas		271,475	1
	3/25/2010 13:15	3/26/2010 1:45	750	0.52	421,556	1.10	0.30	1	Atlas		219,209	1
	3/28/2010 10:30	3/28/2010 21:30	660	0.20	35,750	1.29	0.08	24	Atlas		7,150	1
	4/3/2010 9:45	4/3/2010 10:00	15	0.07	11,843	0.27	0.05	1	Atlas		829	1
	4/7/2010 22:45	4/8/2010 6:30	465	1.10	2,175,200	1.18	0.51	6	Atlas		2,392,720	1
	4/16/2010 18:00	4/16/2010 19:45	105	0.17	27,094	0.14	0.10	3	Atlas		4,606	1
	4/23/2010 5:00	4/23/2010 9:15	255	0.20	45,200	0.40	0.10	6	Atlas		9,040	1
	4/24/2010 2:45	4/24/2010 20:30	1,065	1.63	3,152,534	1.86	0.76	6	Atlas		5,138,630	1
	4/25/2010 17:15	4/25/2010 18:15	60	0.19	16,432	2.02	0.10	6	Atlas		3,122	1
	4/27/2010 7:00	4/27/2010 10:45	225	0.32	612,734	2.35	0.16	6	Atlas		196,075	1
	5/1/2010 4:30	5/1/2010 16:30	720	4.15	779,144	3.33	3.59	48	Atlas		3,233,446	1
	5/2/2010 0:45	5/3/2010 1:30	1,485	4.15	2,455,957	4.66	3.59	48	Atlas		10,192,222	1
	5/7/2010 23:00	5/7/2010 23:30	30	0.16	729,475	4.33	0.13	1	Atlas		116,716	1
	5/12/2010 6:15	5/12/2010 11:00	285	0.86	3,016,324	1.11	0.65	1	Atlas		2,594,039	1
	5/13/2010 12:15	5/13/2010 12:30	15	0.09	6,700	1.20	0.08	1	Atlas		603	1
	5/16/2010 9:00	5/16/2010 18:45	585	0.54	10,580	1.58	0.25	12	Atlas		5,713	1
	5/17/2010 18:00	5/17/2010 20:15	135	0.39	2,335,749	1.96	0.26	3	Atlas		910,942	1
	5/21/2010 19:30	5/21/2010 22:45	195	1.15	2,467,202	2.09	0.85	1	Atlas		2,837,282	1
	5/30/2010 16:15	5/30/2010 21:00	285	0.39	4,290,874	0.48	0.21	6	Atlas		1,673,441	1
	6/3/2010 6:00	6/3/2010 6:00	-	0.08	11,038	0.60	0.04	6	Atlas		883	1
	6/9/2010 3:00	6/9/2010 13:15	615	2.35	2,360,136	2.48	2.57	3	Atlas		5,546,319	1
	6/11/2010 22:45	6/11/2010 22:45	-	0.19	979	2.43	0.10	6	Atlas		186	1
	6/13/2010 22:30	6/14/2010 6:30	480	0.53	3,442,343	3.07	0.25	1	Atlas		1,824,442	1
	6/15/2010 20:30	6/15/2010 20:45	15	0.42	3,917	3.47	0.27	3	Atlas		1,645	1
	6/19/2010 5:00	6/19/2010 8:15	195	0.90	3,576,252	1.88	0.52	3	Atlas		3,218,627	1
	6/28/2010 1:15	6/28/2010 2:45	90	0.26	3,030,673	0.24	0.18	1	Atlas		787,975	1
	7/9/2010 7:30	7/9/2010 9:45	135	0.49	11,322	0.45	0.19	24	Atlas		5,548	1
	7/13/2010 3:45	7/13/2010 11:15	450	1.83	2,443,850	2.30	0.84	12	Atlas		4,472,246	1
	7/19/2010 19:30	7/19/2010 19:45	15	0.16	11,913	2.15	0.12	1	Atlas		1,906	1
	7/20/2010 4:30	7/20/2010 6:15	105	0.70	5,495,486	2.26	0.44	1	Atlas		3,846,840	1
	7/21/2010 5:45	7/21/2010 6:30	45	0.46	1,746,272	1.46	0.37	1	Atlas		803,285	1
	7/27/2010 15:00	7/27/2010 16:45	105	1.00	1,328,779	1.55	0.64	3	Atlas		1,328,779	1
	7/31/2010 3:45	7/31/2010 6:15	150	0.43	3,349,823	1.61	0.23	3	Atlas		1,440,424	1
	7/31/2010 20:45	7/31/2010 21:15	30	0.26	279,588	1.87	0.23	1	Atlas		72,693	1
	8/5/2010 9:00	8/5/2010 9:45	45	0.22	1,955,995	0.89	0.17	1	Atlas		430,319	1
	8/11/2010 16:45	8/11/2010 17:15	30	0.10	31,420	0.32	0.07	1	Atlas		3,142	1
	8/12/2010 14:45	8/12/2010 15:00	15	0.06	30,400	0.15	0.04	1	Atlas		1,824	1
	8/14/2010 16:15	8/14/2010 17:00	45	0.53	3,199,370	0.86	0.43	1	Atlas		1,695,666	1
	8/21/2010 6:45	8/21/2010 8:45	120	0.49	1,235,633	1.08	0.30	3	Atlas		605,460	1
	9/7/2010 9:15	9/7/2010 10:30	75	0.06	15,867	0.06	0.05	1	Atlas		952	1
	10/13/2010 18:00	10/13/2010 21:00	180	0.43	1,620,891	0.47	0.29	3	Atlas		696,983	1
	10/25/2010 6:15	10/25/2010 6:15	-	0.02	14,050	0.03	0.02	1	Atlas		281	1
	10/26/2010 10:45	10/26/2010 15:15	270	0.58	1,378,788	0.55	0.32	6	Atlas		799,697	1
	11/4/2010 12:30	11/4/2010 12:45	15	Discharge	-	0.01					176	1
	11/14/2010 1:15	11/14/2010 2:45	90	0.12	6,183	0.12	0.06	12	Atlas		742	1
	11/16/2010 10:30	11/16/2010 20:30	600	0.79	2,043,741	0.90	0.36	12	Atlas		1,614,555	1
	11/23/2010 1:45	11/23/2010 4:30	165	0.27	1,060,204	1.11	0.15	6	Atlas		286,255	1
	11/29/2010 20:15	11/30/2010 13:45	1,050	1.69	2,477,943	5.00	0.65	24	Atlas		4,187,723	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/11/2010 17:00	12/12/2010 3:45	645	0.34	33,450	0.40	0.12	12	Atlas		11,373	1
	12/16/2010 1:30	12/16/2010 4:45	195	0.36	1,828	0.69	0.16	12	Atlas		658	1
	12/30/2010 0:45	12/30/2010 10:15	570	0.54	295,563	0.64	0.24	12	Atlas		159,604	1
	1/1/2011 0:30	1/1/2011 9:30	540	0.61	1,312,357	1.18	0.27	12	Atlas		800,538	1
	1/11/2011 7:45	1/11/2011 11:15	210	0.05	89,000	0.10	0.02	12	Atlas		4,450	1
	1/18/2011 4:00	1/18/2011 15:45	705	0.38	49,926	0.41	0.13	24	Atlas		18,972	1
	1/20/2011 14:15	1/20/2011 16:15	120	0.28	2,696	0.63	0.11	24	Atlas		755	1
	2/1/2011 8:45	2/1/2011 20:45	720	0.91	2,417,487	0.83	0.37	6	Atlas		2,199,913	1
	2/5/2011 3:45	2/5/2011 6:45	180	0.22	14,355	1.06	0.10	12	Atlas		3,158	1
	2/7/2011 10:45	2/7/2011 16:15	330	0.25	17,760	1.33	0.10	24	Atlas		4,440	1
	2/20/2011 9:45	2/20/2011 9:45	-	0.03	17,767	0.03	0.03	1	Atlas		533	1
	2/21/2011 18:00	2/21/2011 19:15	75	0.17	15,088	0.20	0.10	3	Atlas		2,565	1
	2/24/2011 4:30	2/25/2011 8:45	1,695	2.24	4,894,488	2.45	0.87	12	Atlas		10,963,652	1
	2/27/2011 16:30	2/27/2011 17:15	45	0.13	6,408	2.50	0.07	3	Atlas		833	1
	2/28/2011 4:45	2/28/2011 12:30	465	1.35	2,486,639	3.89	0.63	6	Atlas		3,356,962	1
	3/4/2011 22:00	3/5/2011 19:00	1,260	0.92	1,579,737	2.40	0.30	24	Atlas		1,453,358	1
	3/8/2011 20:00	3/9/2011 20:00	1,440	3.15	5,453,228	4.07	2.04	24	Cloudburst		17,177,667	1
	3/10/2011 22:45	3/12/2011 6:15	1,890	0.02	1,284,500	4.09	0.01	3	Atlas		25,690	1
	3/14/2011 3:30	3/15/2011 12:45	1,995	0.88	156,055	4.05	0.29	12	Atlas		137,328	1
	4/1/2011 20:15	4/1/2011 20:45	30	0.13	5,123	0.30	0.08	1	Atlas		666	1
	4/4/2011 13:00	4/4/2011 18:15	315	0.84	3,098,881	1.00	0.43	6	Atlas		2,603,060	1
	4/9/2011 10:30	4/9/2011 12:45	135	0.53	2,411,940	1.43	0.37	1	Atlas		1,278,328	1
	4/11/2011 10:15	4/12/2011 6:15	1,200	3.23	5,103,997	4.61	2.56	24	Cloudburst		16,485,909	1
	4/15/2011 12:15	4/15/2011 14:00	105	0.18	1,263,994	3.94	0.11	3	Atlas		227,519	1
	4/15/2011 22:45	4/16/2011 10:15	690	0.21	42,129	4.15	0.10	12	Atlas		8,847	1
	4/18/2011 23:45	4/18/2011 23:45	-	0.05	13,580	1.41	0.03	1	Atlas		679	1
	4/20/2011 0:00	4/20/2011 10:30	630	0.79	2,345,542	1.28	0.43	6	Atlas		1,852,978	1
	4/22/2011 16:30	4/28/2011 3:30	7,860	4.73	7,994,856	8.74	3.28	48	Atlas		37,815,669	1
	4/30/2011 21:45	5/4/2011 4:30	4,725	0.73	20,258,882	7.93	0.38	3	Atlas		14,788,984	1
	5/8/2011 0:45	5/8/2011 2:15	90	0.21	9,994,829	3.72	0.12	3	Atlas		2,098,914	1
	5/14/2011 14:45	5/14/2011 16:00	75	0.26	855,058	0.50	0.19	1	Atlas		222,315	1
	5/15/2011 12:00	5/16/2011 1:15	795	0.30	13,227	0.59	0.17	3	Atlas		3,968	1
	5/18/2011 7:45	5/18/2011 9:00	75	0.04	63,575	0.61	0.02	6	Atlas		2,543	1
	5/18/2011 23:30	5/19/2011 1:15	105	0.10	45,070	0.71	0.05	6	Atlas		4,507	1
	5/21/2011 18:15	5/21/2011 19:45	90	0.44	3,585,725	0.89	0.30	1	Atlas		1,577,719	1
	5/23/2011 4:00	5/23/2011 5:30	90	0.38	1,315,413	0.96	0.26	1	Atlas		499,857	1
	5/23/2011 17:45	5/23/2011 22:00	255	0.80	4,386,646	1.77	0.51	3	Atlas		3,509,317	1
	5/25/2011 22:45	5/26/2011 17:00	1,095	1.48	2,463,135	3.19	0.67	3	Atlas		3,645,440	1
	6/11/2011 4:30	6/11/2011 5:45	75	0.31	2,013,929	0.34	0.26	1	Atlas		624,318	1
	6/15/2011 7:45	6/15/2011 11:00	195	1.04	3,295,705	1.41	0.65	1	Atlas		3,427,533	1
	6/18/2011 6:15	6/18/2011 8:45	150	0.82	1,451,896	1.91	0.51	3	Atlas		1,190,555	1
	6/19/2011 7:30	6/19/2011 9:30	120	0.46	2,143,933	2.37	0.28	3	Atlas		986,209	1
	6/20/2011 1:15	6/20/2011 2:30	75	0.52	3,888,281	2.89	0.45	1	Atlas		2,021,906	1
	6/21/2011 14:00	6/21/2011 17:00	180	0.41	317,149	3.24	0.24	3	Atlas		130,031	1
	6/22/2011 19:00	6/23/2011 3:45	525	4.11	3,313,388	6.33	32.05	3	Cloudburst		13,618,023	1
	6/26/2011 2:00	6/26/2011 4:45	165	0.32	6,975	5.74	0.17	6	Atlas		2,232	1
	7/5/2011 17:15	7/5/2011 18:00	45	0.21	118,010	0.17	0.13	3	Atlas		24,782	1
	7/8/2011 2:45	7/8/2011 5:00	135	0.44	211,748	0.69	0.23	3	Atlas		93,169	1
	7/12/2011 16:45	7/12/2011 21:00	255	0.35	632,500	0.96	0.18	6	Atlas		221,375	1
	7/19/2011 22:30	7/20/2011 0:15	105	1.58	2,464,434	1.64	1.61	1	Atlas		3,893,805	1
	8/7/2011 2:45	8/7/2011 6:45	240	1.90	2,196,016	1.92	1.70	3	Atlas		4,172,431	1
	8/8/2011 14:30	8/8/2011 15:00	30	0.17	1,318	2.10	0.11	3	Atlas		224	1
	8/10/2011 2:30	8/10/2011 3:15	45	0.16	543,750	2.20	0.10	3	Atlas		87,000	1
	8/13/2011 17:00	8/13/2011 18:00	60	0.73	1,192,848	2.90	0.57	1	Atlas		870,779	1
	8/18/2011 7:30	8/18/2011 8:45	75	0.32	271,288	1.04	0.25	1	Atlas		86,812	1
	9/4/2011 20:30	9/4/2011 21:00	30	0.13	649,977	0.11	0.05	1	Atlas		84,497	1
	9/6/2011 3:15	9/6/2011 3:15	-	0.22	259	0.28	0.09	12	Atlas		57	1
	9/10/2011 19:45	9/10/2011 20:00	15	0.05	13,440	0.40	0.03	1	Atlas		672	1
	9/11/2011 19:00	9/11/2011 20:30	90	0.27	6,296	0.61	0.17	1	Atlas		1,700	1
	9/14/2011 21:30	9/14/2011 21:30	-	0.21	262	0.41	0.11	3	Atlas		55	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/19/2011 6:45	9/19/2011 23:00	975	0.70	1,770,209	0.93	0.28	12	Atlas		1,239,146	1
	9/21/2011 12:15	9/21/2011 12:15	-	0.02	2,600	0.95	0.01	6	Atlas		52	1
	9/23/2011 0:45	9/23/2011 8:15	450	0.79	564,843	1.53	0.36	12	Atlas		446,226	1
	9/25/2011 18:45	9/26/2011 9:15	870	3.64	4,683,927	5.29	9.04	12	Cloudburst		17,049,494	1
	10/13/2011 6:45	10/13/2011 18:00	675	0.39	1,493,103	0.37	0.19	3	Atlas		582,310	1
	10/18/2011 19:30	10/18/2011 20:45	75	0.10	161,660	0.49	0.07	1	Atlas		16,166	1
	10/19/2011 17:15	10/20/2011 7:45	870	0.43	3,870	0.90	0.17	24	Atlas		1,664	1
	10/26/2011 20:30	10/27/2011 5:15	525	1.14	1,798,446	1.52	0.47	12	Atlas		2,050,228	1
	11/3/2011 9:00	11/3/2011 22:15	795	0.56	364,745	0.62	0.26	3	Atlas		204,257	1
	11/14/2011 21:15	11/15/2011 15:00	1,065	2.04	583,988	1.41	0.66	48	Atlas		1,191,335	1
	11/16/2011 4:30	11/16/2011 11:15	405	2.04	328,857	2.04	0.66	48	Atlas		670,868	1
	11/20/2011 3:30	11/20/2011 3:45	15	0.86	148	2.10	0.30	24	Atlas		127	1
	11/20/2011 12:15	11/21/2011 10:30	1,335	0.86	265,066	2.91	0.30	24	Atlas		227,957	1
	11/21/2011 23:30	11/22/2011 19:15	1,185	1.14	2,127,354	3.75	0.49	12	Atlas		2,425,184	1
	11/27/2011 2:30	11/29/2011 3:45	2,955	3.13	2,927,179	5.12	0.97	48	Atlas		9,162,070	1
	11/29/2011 18:00	11/29/2011 19:30	90	0.07	9,071	3.21	0.04	1	Atlas		635	1
	12/4/2011 14:30	12/6/2011 0:45	2,055	3.10	2,798,409	5.67	1.03	48	Cloudburst		8,675,068	1
	12/15/2011 3:30	12/15/2011 8:45	315	0.45	695,204	0.41	0.22	6	Atlas		312,842	1
	12/20/2011 23:00	12/21/2011 7:30	510	0.63	1,792,030	1.11	0.29	12	Atlas		1,128,979	1
	12/22/2011 10:45	12/22/2011 19:45	540	0.59	1,371,758	1.25	0.26	12	Atlas		809,337	1
	12/27/2011 0:45	12/27/2011 14:00	795	0.65	1,001,737	1.87	0.26	12	Atlas		651,129	1
	1/11/2012 4:00	1/11/2012 21:15	1,035	0.73	2,418,673	0.73	0.28	24	Atlas		1,765,631	1
	1/12/2012 11:45	1/12/2012 14:15	150	0.08	7,950	0.80	0.04	3	Atlas		636	1
	1/17/2012 2:15	1/17/2012 12:45	630	0.33	1,515,633	1.16	0.15	12	Atlas		500,159	1
	1/22/2012 22:00	1/23/2012 11:30	810	0.52	3,437,600	0.88	0.29	3	Atlas		1,787,552	1
	1/25/2012 15:00	1/27/2012 2:45	2,145	1.72	4,402,057	2.25	0.56	48	Atlas		7,571,538	1
	2/4/2012 8:00	2/4/2012 12:00	240	0.39	433,664	0.44	0.23	3	Atlas		169,129	1
	2/4/2012 21:15	2/4/2012 21:45	30	0.02	1,800	0.45	0.01	3	Atlas		36	1
	2/14/2012 3:00	2/14/2012 11:30	510	0.21	9,900	0.26	0.10	6	Atlas		2,079	1
	2/15/2012 22:45	2/16/2012 8:00	555	0.32	9,063	0.55	0.13	12	Atlas		2,900	1
	2/21/2012 5:45	2/21/2012 10:15	270	0.08	6,675	0.42	0.05	1	Atlas		534	1
	2/22/2012 22:30	2/22/2012 23:45	75	0.16	1,350,288	0.44	0.12	1	Atlas		216,046	1
	2/29/2012 1:15	2/29/2012 9:30	495	0.66	920,005	0.79	0.30	1	Atlas		607,203	1
	3/2/2012 6:45	3/2/2012 17:30	645	0.10	3,750	0.77	0.05	12	Atlas		375	1
	3/4/2012 22:00	3/5/2012 4:00	360	0.25	5,880	1.02	0.13	6	Atlas		1,470	1
	3/8/2012 9:15	3/8/2012 17:15	480	0.80	1,599,184	1.12	0.38	6	Atlas		1,279,347	1
	3/12/2012 3:30	3/12/2012 12:15	525	0.19	7,911	0.99	0.09	12	Atlas		1,503	1
	3/15/2012 17:45	3/16/2012 3:30	585	0.95	2,116,576	1.19	0.41	12	Atlas		2,010,747	1
	3/17/2012 18:15	3/17/2012 22:30	255	1.08	853,017	2.18	0.65	1	Atlas		921,258	1
	3/22/2012 23:45	3/23/2012 23:15	1,410	1.55	3,305,710	3.05	0.58	24	Atlas		5,123,850	1
	3/30/2012 22:30	3/31/2012 0:30	120	0.13	43,408	0.16	0.09	1	Atlas		5,643	1
	4/1/2012 6:45	4/1/2012 12:15	330	1.58	3,140,877	1.75	0.86	6	Atlas		4,962,586	1
	4/4/2012 6:15	4/4/2012 6:45	30	0.04	8,750	1.79	0.03	3	Atlas		350	1
	4/4/2012 16:15	4/5/2012 1:30	555	0.25	463,496	1.99	0.11	12	Atlas		115,874	1
	4/14/2012 8:45	4/14/2012 9:15	30	0.20	550	0.08	0.10	6	Atlas		110	1
	4/16/2012 6:45	4/16/2012 8:00	75	0.13	6,985	0.32	0.09	3	Atlas		908	1
	4/20/2012 23:15	4/21/2012 4:30	315	0.23	2,500	0.52	0.11	12	Atlas		575	1
	4/26/2012 4:30	4/26/2012 5:00	30	0.08	3,038	0.37	0.05	3	Atlas		243	1
	4/28/2012 19:00	4/29/2012 0:45	345	0.78	2,934,404	0.91	0.59	1	Atlas		2,288,835	1
	4/30/2012 18:00	4/30/2012 19:30	90	0.34	2,515,879	1.19	0.23	3	Atlas		855,399	1
	5/4/2012 16:15	5/5/2012 5:15	780	1.69	3,229,249	2.82	0.90	3	Atlas		5,457,431	1
	5/12/2012 23:30	5/13/2012 14:45	915	2.10	3,241,532	2.13	0.84	12	Atlas		6,807,217	1
	5/16/2012 17:30	5/16/2012 18:45	75	0.19	2,158,874	2.29	0.17	1	Atlas		410,186	1
	5/29/2012 6:30	5/29/2012 19:00	750	2.72	3,899,903	2.72	10.31	3	Atlas		10,607,737	1
	5/31/2012 18:15	6/1/2012 6:45	750	1.22	1,933,216	3.94	0.52	12	Atlas		2,358,524	1
	6/4/2012 14:00	6/4/2012 18:15	255	0.21	2,329	4.13	0.10	12	Atlas		489	1
	6/17/2012 11:15	6/17/2012 12:15	60	0.41	107,539	0.30	0.26	3	Atlas		44,091	1
	7/1/2012 19:45	7/1/2012 20:45	60	0.46	1,422,061	0.39	0.33	1	Atlas		654,148	1
	7/8/2012 12:45	7/8/2012 13:45	60	0.21	4,143,795	0.68	0.15	1	Atlas		870,197	1
	7/14/2012 12:00	7/14/2012 15:15	195	0.49	3,495,773	0.73	0.30	3	Atlas		1,712,929	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/19/2012 18:00	7/19/2012 19:45	105	0.81	4,017.204	1.28	0.66	1	Atlas		3,253,935	1
	7/24/2012 19:45	7/24/2012 20:45	60	0.25	2,014.300	1.08	0.20	1	Atlas		503,575	1
	7/26/2012 21:30	7/27/2012 3:30	360	0.12	2.708	0.41	0.06	12	Atlas		325	1
	7/27/2012 19:45	7/27/2012 21:30	105	0.63	3,177.924	1.01	0.41	3	Atlas		2,002,092	1
	8/3/2012 8:00	8/3/2012 10:30	150	0.23	46.478	0.87	0.11	3	Atlas		10,690	1
	8/5/2012 17:30	8/5/2012 17:30	-	0.04	1.075	0.36	0.03	1	Atlas		43	1
	8/13/2012 11:30	8/13/2012 11:45	15	0.11	1.791	0.11	0.07	3	Atlas		197	1
	8/16/2012 20:00	8/16/2012 23:45	225	0.59	2,390.356	0.72	0.34	3	Atlas		1,410,310	1
	8/21/2012 13:45	8/21/2012 14:45	60	0.21	3,983.957	0.82	0.18	1	Atlas		836,631	1
	9/1/2012 15:00	9/1/2012 18:15	195	0.58	2,176.488	0.62	0.36	3	Atlas		1,262,363	1
	9/2/2012 11:45	9/2/2012 22:15	630	0.67	1,683.776	1.29	0.26	24	Atlas		1,128,130	1
	9/3/2012 14:15	9/3/2012 15:15	60	0.09	3,554.200	1.37	0.07	1	Atlas		319,878	1
	9/5/2012 15:15	9/5/2012 17:15	120	0.63	5,044.163	1.99	0.50	1	Atlas		3,177,823	1
	9/7/2012 23:00	9/8/2012 7:00	480	1.45	1,196.436	3.42	0.81	3	Atlas		1,734,832	1
	9/25/2012 8:45	9/25/2012 9:15	30	0.42	2.329	0.28	0.23	6	Atlas		978	1
	9/25/2012 23:30	9/26/2012 5:45	375	0.43	846.593	0.81	0.20	6	Atlas		364,035	1
	9/26/2012 19:45	9/27/2012 1:15	330	1.21	2,923.446	2.05	0.64	6	Atlas		3,537,370	1
	10/1/2012 13:30	10/1/2012 20:15	405	0.73	1,897.849	2.78	0.29	12	Atlas		1,385,430	1
	10/5/2012 23:45	10/6/2012 1:00	75	0.11	20.491	0.83	0.06	6	Atlas		2,254	1
	10/14/2012 18:45	10/14/2012 20:30	105	0.14	5.700	0.13	0.09	1	Atlas		798	1
	10/18/2012 0:30	10/18/2012 2:30	120	0.25	558.220	0.39	0.16	3	Atlas		139,555	1
	10/26/2012 10:30	10/26/2012 23:00	750	0.77	289.727	0.80	0.36	6	Atlas		223,090	1
	11/3/2012 10:45	11/3/2012 10:45	-	0.18	1.194	0.11	0.08	12	Atlas		215	1
	11/12/2012 6:30	11/12/2012 9:30	180	0.44	63.030	0.45	0.20	12	Atlas		27,733	1
	12/2/2012 11:15	12/2/2012 12:15	60	0.19	5.684	0.26	0.11	3	Atlas		1,080	1
	12/4/2012 15:00	12/4/2012 19:00	240	0.60	1,731.910	0.79	0.38	3	Atlas		1,039,146	1
	12/6/2012 22:30	12/7/2012 18:00	1,170	1.16	1,332.883	1.95	0.49	12	Atlas		1,546,144	1
	12/8/2012 4:30	12/8/2012 9:45	315	0.42	942.814	2.37	0.22	6	Atlas		395,982	1
	12/9/2012 8:15	12/9/2012 9:00	45	1.16	5.364	2.45	0.55	3	Atlas		6,222	1
	12/9/2012 20:45	12/10/2012 0:45	240	1.16	2,473.456	3.21	0.55	3	Atlas		2,869,209	1
	12/15/2012 11:00	12/15/2012 12:15	75	0.18	326.106	1.33	0.11	3	Atlas		58,699	1
	12/17/2012 17:00	12/17/2012 17:00	-	0.18	1.511	0.37	0.09	6	Atlas		272	1
	12/20/2012 6:30	12/20/2012 12:30	360	0.67	1,992.581	1.03	0.36	6	Atlas		1,335,029	1
	12/24/2012 4:45	12/24/2012 4:45	-	0.06	617	0.94	0.03	3	Atlas		37	1
	12/26/2012 0:45	12/26/2012 11:00	615	0.66	1,321.712	1.35	0.26	12	Atlas		872,330	1
	12/28/2012 22:15	12/29/2012 3:15	300	0.05	4.740	0.76	0.02	12	Atlas		237	1
	12/31/2012 23:00	1/1/2013 0:00	60	0.11	3.536	0.81	0.04	24	Atlas		389	1
	1/10/2013 12:30	1/10/2013 14:45	135	0.15	5.193	0.16	0.08	6	Atlas		779	1
	1/11/2013 2:15	1/11/2013 7:45	330	0.65	1,813.820	0.81	0.34	6	Atlas		1,178,983	1
	1/12/2013 20:45	1/13/2013 20:30	1,425	2.24	3,283.111	3.04	0.86	24	Atlas		7,354,168	1
	1/15/2013 19:45	1/16/2013 2:30	405	0.22	659	3.26	0.08	24	Atlas		145	1
	1/27/2013 19:45	1/27/2013 20:45	60	0.20	4.360	0.10	0.09	12	Atlas		872	1
	1/28/2013 10:45	1/28/2013 17:00	375	0.07	15.129	0.29	0.05	1	Atlas		1,059	1
	1/30/2013 4:30	1/30/2013 17:45	795	0.83	3,744.573	1.12	0.42	6	Atlas		3,107,996	1
	2/2/2013 10:15	2/2/2013 10:15	-	0.02	1.750	1.18	0.01	3	Atlas		35	1
	2/4/2013 17:15	2/4/2013 18:30	75	0.10	7.980	1.02	0.06	3	Atlas		798	1
	2/6/2013 2:15	2/6/2013 4:45	150	0.08	5.113	0.22	0.04	6	Atlas		409	1
	2/10/2013 15:15	2/10/2013 16:15	60	0.16	7.288	0.34	0.08	3	Atlas		1,166	1
	2/18/2013 22:00	2/19/2013 4:15	375	0.36	3.747	0.41	0.17	12	Atlas		1,349	1
	2/21/2013 22:45	2/22/2013 3:45	300	0.42	636.476	0.78	0.19	12	Atlas		267,320	1
	2/26/2013 5:15	2/26/2013 19:30	855	0.56	529.179	0.96	0.22	12	Atlas		296,340	1
	3/5/2013 14:00	3/5/2013 18:45	285	0.45	596.202	0.67	0.17	24	Atlas		268,291	1
	3/10/2013 23:00	3/11/2013 12:30	810	0.99	2,215.790	1.46	0.39	12	Atlas		2,193,632	1
	3/17/2013 4:15	3/18/2013 8:00	1,665	1.68	1,858.858	2.59	0.55	48	Atlas		3,122,881	1
	3/24/2013 4:45	3/24/2013 16:45	720	0.51	452.127	1.92	0.19	24	Atlas		230,585	1
	4/11/2013 4:45	4/12/2013 1:00	1,215	1.25	1,357.155	1.24	0.48	24	Atlas		1,696,444	1
	4/16/2013 20:00	4/16/2013 21:15	75	0.60	2,853.382	1.83	0.50	1	Atlas		1,712,029	1
	4/19/2013 1:00	4/19/2013 5:00	240	0.92	3,237.680	1.54	0.50	6	Atlas		2,978,666	1
	4/24/2013 6:00	4/24/2013 10:30	270	0.68	2,195.746	1.63	0.37	3	Atlas		1,493,107	1
	4/27/2013 21:00	4/27/2013 21:00	-	0.06	350	0.73	0.03	12	Atlas		21	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/28/2013 8:45	4/28/2013 9:00	15	0.06	583	0.77	0.03	12	Atlas		35	1
	5/4/2013 11:00	5/5/2013 19:30	1,950	1.47	661.640	1.49	0.46	24	Atlas		972,611	1
	5/6/2013 17:15	5/6/2013 17:30	15	1.47	244	1.57	0.46	24	Atlas		358	1
	5/10/2013 9:45	5/11/2013 1:00	915	0.97	1,529.697	2.58	0.43	6	Atlas		1,483,806	1
	5/16/2013 10:15	5/16/2013 10:30	15	0.25	7.280	1.27	0.22	1	Atlas		1,820	1
	5/18/2013 18:45	5/18/2013 19:15	30	0.01	28,827.600	0.32	0.01	1	Atlas		288,276	1
	5/22/2013 15:45	5/22/2013 16:15	30	0.15	245.120	0.38	0.10	3	Atlas		36,768	1
	5/31/2013 15:30	5/31/2013 18:15	165	0.17	3,818	0.24	0.08	12	Atlas		649	1
	6/1/2013 5:45	6/1/2013 6:15	30	0.14	3.343	0.28	0.06	12	Atlas		468	1
	6/1/2013 16:15	6/1/2013 16:15	-	0.14	3,179	0.37	0.06	12	Atlas		445	1
	6/9/2013 23:00	6/10/2013 1:30	150	0.33	2,056.924	0.30	0.15	6	Atlas		678,785	1
	6/16/2013 16:45	6/16/2013 17:30	45	0.45	43,727	0.76	0.32	1	Atlas		19,677	1
	6/17/2013 16:15	6/17/2013 22:15	360	1.05	2,107.427	1.45	0.55	1	Atlas		2,212,798	1
	6/21/2013 18:45	6/21/2013 19:30	45	0.25	298.336	1.75	0.19	1	Atlas		74,584	1
	6/23/2013 12:30	6/23/2013 13:00	30	0.28	4,221	2.00	0.21	1	Atlas		1,182	1
	6/24/2013 9:00	6/24/2013 9:30	30	0.07	4,000	1.66	0.05	3	Atlas		280	1
	6/26/2013 3:15	6/26/2013 5:30	135	0.82	2,625.450	1.43	0.55	3	Atlas		2,152,869	1
	6/26/2013 16:15	6/26/2013 22:15	360	2.33	4,659.469	3.70	1.97	6	Cloudburst		10,856,563	1
	6/29/2013 19:30	6/29/2013 22:15	165	0.47	2,571.013	3.97	0.26	3	Atlas		1,208,376	1
	7/1/2013 18:45	7/1/2013 19:45	60	0.33	206.830	4.02	0.16	3	Atlas		68,254	1
	7/2/2013 13:15	7/2/2013 14:00	45	0.09	12,858.089	4.12	0.08	1	Atlas		1,157,228	1
	7/4/2013 6:30	7/4/2013 12:00	330	0.54	24.383	1.30	0.23	12	Atlas		13,167	1
	7/6/2013 0:30	7/6/2013 7:45	435	0.66	1,408.382	2.19	0.28	12	Atlas		929,532	1
	7/10/2013 14:00	7/10/2013 15:15	75	0.75	3,209.813	2.07	0.50	1	Atlas		2,407,360	1
	7/14/2013 19:30	7/14/2013 20:30	60	0.12	3,464.625	0.95	0.10	1	Atlas		415,755	1
	7/18/2013 16:30	7/18/2013 16:30	-	0.18	456	0.33	0.13	1	Atlas		82	1
	7/21/2013 19:30	7/21/2013 21:00	90	2.39	385.534	1.49	0.92	24	Atlas		921,426	1
	7/22/2013 6:30	7/22/2013 16:45	615	2.39	2,567.155	2.59	0.92	24	Atlas		6,135,500	1
	7/30/2013 18:00	7/30/2013 18:00	-	0.14	771	0.15	0.08	3	Atlas		108	1
	8/12/2013 14:30	8/12/2013 15:45	75	0.92	2,857.923	0.81	0.42	1	Atlas		2,629,289	1
	8/13/2013 2:15	8/13/2013 3:45	90	0.92	375.337	1.18	0.42	1	Atlas		345,310	1
	8/20/2013 17:45	8/20/2013 19:15	90	0.19	2,037.553	0.21	0.10	1	Atlas		387,135	1
	8/31/2013 19:30	9/1/2013 3:30	480	1.19	2,013.693	1.15	0.55	6	Atlas		2,396,295	1
	9/2/2013 13:30	9/2/2013 14:30	60	0.41	4,538.254	1.60	0.36	1	Atlas		1,860,684	1
	9/11/2013 10:00	9/11/2013 10:15	15	0.03	3,467	0.04	0.03	1	Atlas		104	1
	9/12/2013 12:45	9/12/2013 12:45	-	0.02	11,700	0.05	0.02	1	Atlas		234	1
	9/20/2013 15:45	9/21/2013 4:45	780	1.26	3,170.921	1.28	0.53	12	Atlas		3,995,361	1
	10/5/2013 12:00	10/6/2013 8:45	1,245	4.28	4,016.904	4.33	7.90	24	Cloudburst		17,192,351	1
	10/17/2013 9:45	10/17/2013 9:45	-	0.02	3,400	0.03	0.01	3	Atlas		68	1
	10/19/2013 7:15	10/19/2013 7:15	-	0.19	737	0.09	0.10	6	Atlas		140	1
	10/30/2013 1:00	10/30/2013 7:00	360	1.30	2,109.055	1.30	0.63	6	Atlas		2,741,772	1
	10/31/2013 11:30	10/31/2013 22:45	675	0.60	1,036.990	1.90	0.23	24	Atlas		622,194	1
	11/6/2013 18:30	11/6/2013 21:00	150	0.21	1,148	0.75	0.09	12	Atlas		241	1
	11/17/2013 5:15	11/17/2013 19:45	870	2.68	4,107.715	2.87	1.89	6	Cloudburst		11,008,675	1
	11/21/2013 19:00	11/21/2013 19:15	15	0.12	542	2.92	0.09	1	Atlas		65	1
	12/5/2013 5:15	12/5/2013 18:00	765	0.78	1,070.283	0.29	0.25	48	Atlas		834,821	1
	12/6/2013 2:15	12/6/2013 11:30	555	0.78	1,174	0.45	0.25	48	Atlas		916	1
	12/14/2013 3:45	12/14/2013 14:45	660	0.81	337.188	1.11	0.33	12	Atlas		273,122	1
	12/21/2013 1:45	12/21/2013 13:00	675	2.57	899.420	1.78	0.95	24	Atlas		2,311,509	1
	12/21/2013 21:15	12/22/2013 6:00	525	2.57	2,789.370	2.66	0.95	24	Atlas		7,168,682	1
	12/29/2013 0:15	12/29/2013 10:00	585	0.51	89.388	0.75	0.22	12	Atlas		45,588	1
	1/2/2014 3:15	1/2/2014 10:15	420	0.24	1,354	0.73	0.13	3	Atlas		325	1
	1/5/2014 14:30	1/5/2014 19:30	300	0.47	504.609	0.66	0.23	6	Atlas		237,166	1
	1/10/2014 23:45	1/11/2014 5:30	345	0.95	2,312.185	1.43	0.51	6	Atlas		2,196,576	1
	1/13/2014 14:00	1/13/2014 17:30	210	0.20	4,285	1.16	0.09	12	Atlas		857	1
	1/21/2014 3:15	1/21/2014 13:15	600	0.15	2,340	0.17	0.07	12	Atlas		351	1
	1/25/2014 11:45	1/25/2014 13:30	105	0.05	4,060	0.22	0.03	6	Atlas		203	1
	2/2/2014 2:45	2/2/2014 7:00	255	0.21	1,051.852	0.20	0.11	6	Atlas		220,889	1
	2/2/2014 16:30	2/2/2014 16:45	15	0.25	440	0.23	0.11	12	Atlas		110	1
	2/3/2014 9:45	2/3/2014 14:45	300	0.25	4,580	0.46	0.11	12	Atlas		1,145	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/4/2014 18:00	2/5/2014 3:15	555	0.51	6,058.204	0.97	0.26	6	Atlas		3,089,684	1
	2/14/2014 15:45	2/14/2014 19:45	240	0.50	10,784	0.52	0.26	6	Atlas		5,392	1
	2/17/2014 14:15	2/17/2014 18:30	255	0.55	2,441.264	1.11	0.33	3	Atlas		1,342,695	1
	2/20/2014 19:00	2/20/2014 23:45	285	0.17	354.229	1.27	0.09	6	Atlas		60,219	1
	3/2/2014 9:15	3/2/2014 18:45	570	0.57	820.956	0.34	0.22	24	Atlas		467,945	1
	3/3/2014 13:30	3/3/2014 16:00	150	0.57	1,058	0.58	0.22	24	Atlas		603	1
	3/12/2014 7:15	3/12/2014 7:30	15	0.06	6,317	0.06	0.03	12	Atlas		379	1
	3/16/2014 17:30	3/16/2014 19:30	120	0.08	3,088	0.15	0.05	3	Atlas		247	1
	3/19/2014 8:00	3/19/2014 8:30	30	0.07	4,100	0.15	0.04	1	Atlas		287	1
	3/28/2014 4:30	3/28/2014 5:30	60	0.25	638.288	0.30	0.12	6	Atlas		159,572	1
	3/29/2014 5:15	3/29/2014 13:15	480	0.94	2,168.282	1.22	0.43	12	Atlas		2,038,185	1
	4/1/2014 20:30	4/1/2014 20:45	15	0.08	2,288	1.32	0.06	1	Atlas		183	1
	4/3/2014 5:00	4/4/2014 12:45	1,905	2.63	2,648.219	3.94	0.92	24	Atlas		6,964,815	1
	4/7/2014 7:45	4/7/2014 16:45	540	0.74	4,747.576	3.47	0.43	3	Atlas		3,513,206	1
	4/14/2014 3:30	4/14/2014 10:30	420	1.02	1,057	1.18	0.39	24	Atlas		1,078	1
	4/14/2014 19:30	4/15/2014 3:00	450	1.02	925.568	1.07	0.39	24	Atlas		944,079	1
	4/25/2014 2:30	4/25/2014 10:30	480	0.10	1,110	0.11	0.05	3	Atlas		111	1
	4/27/2014 20:30	4/28/2014 20:30	1,440	1.80	2,946.833	1.90	0.71	3	Atlas		5,304,299	1
	4/29/2014 19:00	4/29/2014 22:15	195	0.20	1,115	2.06	0.09	12	Atlas		223	1
	5/9/2014 19:15	5/10/2014 16:15	1,260	1.50	4,171.467	1.58	0.58	24	Atlas		6,257,200	1
	5/14/2014 7:00	5/15/2014 1:00	1,080	1.09	1,025.905	2.72	0.42	24	Atlas		1,118,236	1
	5/16/2014 3:30	5/16/2014 4:15	45	0.06	6,567	2.78	0.04	1	Atlas		394	1
	5/21/2014 21:00	5/22/2014 4:30	450	0.43	2,319.456	0.57	0.20	12	Atlas		997,366	1
	5/28/2014 20:15	5/28/2014 21:30	75	0.35	4,628.860	0.79	0.30	1	Atlas		1,620,101	1
	5/29/2014 20:45	5/29/2014 22:00	75	0.76	2,476.350	1.14	0.64	1	Atlas		1,882,026	1
	6/1/2014 22:30	6/1/2014 22:30	-	0.09	12,511	1.26	0.04	6	Atlas		1,126	1
	6/2/2014 22:15	6/2/2014 22:15	-	0.01	164,600	1.29	0.01	1	Atlas		1,646	1
	6/5/2014 21:00	6/5/2014 22:00	60	Discharge	-	0.23					5,599	1
	6/10/2014 15:30	6/10/2014 17:00	90	0.14	40,457	0.21	0.09	3	Atlas		5,664	1
	6/11/2014 14:15	6/11/2014 15:00	45	0.07	5,792.614	0.28	0.04	1	Atlas		405,483	1
	6/20/2014 16:00	6/20/2014 18:15	135	0.22	718.791	0.22	0.15	3	Atlas		158,134	1
	6/24/2014 13:30	6/24/2014 14:45	75	0.16	2,393.606	0.41	0.10	1	Atlas		382,977	1
	6/30/2014 8:30	6/30/2014 8:30	-	0.02	3,600	0.32	0.02	1	Atlas		72	1
	7/1/2014 20:00	7/1/2014 20:00	-	0.13	1,085	0.11	0.08	3	Atlas		141	1
	7/2/2014 16:15	7/2/2014 17:00	45	0.08	801.813	0.29	0.07	1	Atlas		64,145	1
	7/7/2014 19:30	7/7/2014 20:30	60	1.04	991.536	1.25	0.90	1	Atlas		1,031,197	1
	7/8/2014 7:15	7/8/2014 7:15	-	0.36	314	1.61	0.30	1	Atlas		113	1
	7/13/2014 22:00	7/14/2014 4:15	375	0.68	1,995.628	2.02	0.39	1	Atlas		1,357,027	1
	7/14/2014 20:00	7/14/2014 21:00	60	0.10	6,931.960	1.14	0.09	1	Atlas		693,196	1
	7/26/2014 21:45	7/27/2014 10:15	750	1.22	2,710.659	1.25	0.56	12	Atlas		3,307,004	1
	8/8/2014 3:45	8/8/2014 10:45	420	0.90	3,770.032	0.90	0.43	6	Atlas		3,393,029	1
	8/10/2014 3:45	8/10/2014 5:15	90	0.62	1,823.556	1.61	0.50	1	Atlas		1,130,605	1
	8/11/2014 15:30	8/11/2014 16:15	45	0.44	1,676.645	2.04	0.37	1	Atlas		737,724	1
	8/17/2014 0:00	8/17/2014 0:15	15	0.70	439	1.38	0.27	24	Atlas		307	1
	8/17/2014 9:00	8/17/2014 11:00	120	0.70	806.813	1.06	0.27	24	Atlas		564,769	1
	8/17/2014 23:00	8/17/2014 23:45	45	0.70	124.460	1.15	0.27	24	Atlas		87,122	1
	8/20/2014 16:00	8/20/2014 16:00	-	0.08	1,550	0.79	0.07	1	Atlas		124	1
	8/22/2014 19:15	8/22/2014 20:00	45	0.45	2,432.813	1.18	0.35	1	Atlas		1,094,766	1
	8/23/2014 15:45	8/23/2014 22:15	390	0.55	2,938.480	1.74	0.25	3	Atlas		1,616,164	1
	8/26/2014 20:00	8/26/2014 20:00	-	0.15	1,060	1.23	0.13	1	Atlas		159	1
	8/27/2014 15:00	8/27/2014 18:00	180	0.24	2,421.017	1.47	0.17	1	Atlas		581,044	1
	8/30/2014 15:15	8/30/2014 16:45	90	0.50	4,268.784	1.32	0.30	1	Atlas		2,134,392	1
	9/2/2014 8:15	9/2/2014 9:15	60	0.34	195.338	1.22	0.22	3	Atlas		66,415	1
	9/11/2014 0:15	9/11/2014 6:30	375	1.93	2,891.012	1.88	1.47	3	Atlas		5,579,653	1
	9/15/2014 22:45	9/15/2014 22:45	-	0.03	2,833	1.96	0.03	1	Atlas		85	1
	10/3/2014 3:30	10/3/2014 4:15	45	0.25	138.276	0.09	0.10	1	Atlas		34,569	1
	10/3/2014 19:15	10/3/2014 20:15	60	0.25	2,736	0.26	0.10	1	Atlas		684	1
	10/6/2014 7:45	10/6/2014 11:00	195	0.39	1,546.185	0.60	0.23	1	Atlas		603,012	1
	10/7/2014 11:30	10/7/2014 12:30	60	0.18	920.672	0.82	0.16	1	Atlas		165,721	1
	10/10/2014 1:45	10/10/2014 3:45	120	1.17	1,833.456	1.66	0.55	3	Atlas		2,145,144	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/10/2014 17:15	10/10/2014 21:00	225	1.17	1.080	1.85	0.55	3	Atlas		1,264	1
	10/13/2014 4:30	10/13/2014 7:00	150	0.48	1,600.171	2.22	0.31	3	Atlas		768,082	1
	10/13/2014 23:30	10/14/2014 10:30	660	0.96	1,971.781	2.81	0.42	12	Atlas		1,892,910	1
	10/20/2014 7:15	10/20/2014 7:15	-	0.05	2.820	1.19	0.04	1	Atlas		141	1
	10/20/2014 20:00	10/20/2014 20:00	-	0.08	11.763	1.26	0.07	1	Atlas		941	1
	10/28/2014 13:00	10/28/2014 13:00	-	0.12	5.100	0.11	0.07	3	Atlas		612	1
	11/23/2014 17:30	11/23/2014 23:30	360	0.68	1,970.554	1.05	0.31	6	Atlas		1,339,977	1
	11/24/2014 11:30	11/24/2014 11:30	-	0.02	1.850	0.74	0.02	1	Atlas		37	1
	12/1/2014 3:45	12/1/2014 16:15	750	0.81	263.259	0.76	0.31	24	Atlas		213,240	1
	12/4/2014 14:30	12/5/2014 6:15	945	1.74	719	1.18	0.56	48	Atlas		1,251	1
	12/5/2014 20:30	12/6/2014 7:30	660	1.74	1,866.987	2.55	0.56	48	Atlas		3,248,557	1
	12/16/2014 5:00	12/16/2014 5:45	45	0.10	238.870	0.10	0.06	1	Atlas		23,887	1
	12/22/2014 22:30	12/23/2014 0:15	105	0.21	9.910	0.30	0.13	3	Atlas		2,081	1
	12/23/2014 20:00	12/23/2014 20:15	15	0.04	10.250	0.26	0.03	3	Atlas		410	1
	12/24/2014 12:45	12/24/2014 14:15	90	0.14	4.579	0.35	0.06	3	Atlas		641	1
	12/27/2014 17:00	12/28/2014 2:00	540	0.30	662.130	0.69	0.12	24	Atlas		198,639	1
	1/3/2015 5:45	1/4/2015 4:00	1,335	0.33	6.267	0.64	0.12	24	Atlas		2,068	1
	2/1/2015 12:00	2/1/2015 18:00	360	0.39	163.269	0.51	0.18	3	Atlas		63,675	1
	2/21/2015 3:30	2/21/2015 15:45	735	1.20	8.208	1.44	0.46	24	Atlas		9,849	1
	3/3/2015 18:45	3/4/2015 17:00	1,335	1.67	2,568.702	1.31	0.54	48	Atlas		4,289,732	1
	3/10/2015 6:45	3/10/2015 15:30	525	1.21	5,313.545	2.88	0.55	12	Atlas		6,429,390	1
	3/13/2015 10:00	3/15/2015 20:00	3,480	1.72	6,384.212	2.93	0.65	24	Atlas		10,980,845	1
	3/19/2015 19:00	3/19/2015 19:45	45	0.19	1.921	1.90	0.08	6	Atlas		365	1
	3/24/2015 14:45	3/24/2015 20:30	345	0.12	6.300	0.29	0.06	1	Atlas		756	1
	3/26/2015 4:15	3/26/2015 6:45	150	0.47	1,248.694	0.62	0.18	12	Atlas		586,886	1
	3/26/2015 15:15	3/26/2015 16:00	45	0.47	657	0.72	0.18	12	Atlas		309	1
	4/2/2015 9:30	4/3/2015 17:15	1,905	4.71	4,007.100	4.87	8.02	6	Cloudburst		18,873,439	1
	4/7/2015 9:15	4/7/2015 19:15	600	0.86	5,075.043	5.58	0.39	1	Atlas		4,364,537	1
	4/8/2015 18:15	4/8/2015 19:15	60	0.11	3,398.900	5.68	0.06	3	Atlas		373,879	1
	4/9/2015 11:30	4/9/2015 12:45	75	0.26	2,865.842	5.60	0.23	1	Atlas		745,119	1
	4/10/2015 2:15	4/10/2015 3:45	90	0.17	4,968.018	3.42	0.10	3	Atlas		844,563	1
	4/13/2015 20:15	4/13/2015 22:00	105	0.37	1,325.754	1.48	0.15	6	Atlas		490,529	1
	4/14/2015 7:15	4/14/2015 12:30	315	0.37	619.130	1.68	0.15	6	Atlas		229,078	1
	4/16/2015 10:15	4/16/2015 10:15	-	0.04	1.850	0.88	0.03	1	Atlas		74	1
	4/19/2015 6:30	4/19/2015 18:30	720	0.70	1,287.766	1.15	0.29	12	Atlas		901,436	1
	4/20/2015 3:30	4/20/2015 3:30	-	0.07	3.614	1.21	0.06	1	Atlas		253	1
	4/25/2015 9:00	4/25/2015 9:45	45	0.21	42.762	0.90	0.08	24	Atlas		8,980	1
	4/25/2015 19:00	4/25/2015 19:00	-	0.21	1.281	0.96	0.08	24	Atlas		269	1
	4/30/2015 13:00	4/30/2015 13:30	30	0.09	7.178	0.30	0.08	1	Atlas		646	1
	5/9/2015 3:30	5/9/2015 3:30	-	0.09	411	0.06	0.05	3	Atlas		37	1
	5/11/2015 17:45	5/11/2015 17:45	-	0.07	514	0.16	0.06	1	Atlas		36	1
	5/16/2015 11:45	5/16/2015 13:45	120	0.37	772.295	0.39	0.17	3	Atlas		285,749	1
	5/17/2015 14:15	5/17/2015 15:00	45	0.08	5,401.775	0.50	0.05	1	Atlas		432,142	1
	5/25/2015 6:30	5/25/2015 8:45	135	0.25	39.068	0.22	0.11	12	Atlas		9,767	1
	5/26/2015 13:45	5/26/2015 15:00	75	0.28	2,389.021	0.48	0.20	1	Atlas		668,926	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.10	3.960	0.63	0.09	1	Atlas		396	1
	5/30/2015 16:15	5/30/2015 16:15	-	0.10	1.180	0.71	0.07	1	Atlas		118	1
	6/8/2015 7:15	6/8/2015 9:00	105	0.22	1,890.391	0.29	0.12	6	Atlas		415,886	1
	6/17/2015 4:45	6/17/2015 7:15	150	0.54	2,934.880	0.61	0.29	3	Atlas		1,584,835	1
	6/17/2015 17:15	6/17/2015 17:15	-	0.09	2.100	0.69	0.07	1	Atlas		189	1
	6/18/2015 16:15	6/18/2015 17:15	60	1.61	434.594	1.07	0.52	48	Atlas		699,696	1
	7/12/2015 6:30	7/12/2015 6:30	-	1.06	808	2.51	0.78	1	Atlas		856	1
	2/2/2016 19:00	2/3/2016 2:00	420	1.20	5,034.349	1.28	0.57	6	Atlas		6,041,219	1
	2/21/2016 4:00	2/21/2016 11:15	435	1.12	2,506.411	1.29	0.51	12	Atlas		2,807,180	1
	2/23/2016 22:30	2/24/2016 8:15	585	2.02	3,598.251	2.85	0.79	12	Atlas		7,268,467	1
	3/1/2016 12:00	3/1/2016 14:15	135	0.25	1,921.484	2.29	0.15	3	Atlas		480,371	1
	3/9/2016 15:45	3/9/2016 16:45	60	1.03	19.087	0.27	0.33	48	Atlas		19,660	1
	3/10/2016 13:30	3/10/2016 19:45	375	1.03	2,008.361	1.07	0.33	48	Atlas		2,068,612	1
	3/12/2016 20:30	3/13/2016 0:00	210	0.92	2,324.761	1.71	0.37	6	Atlas		2,138,780	1
	3/13/2016 8:45	3/13/2016 11:00	135	0.92	1,591.801	1.99	0.37	6	Atlas		1,464,457	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/24/2016 17:15	3/24/2016 18:00	45	0.59	1,172,647	0.68	0.45	1	Atlas		691,862	1
	3/27/2016 21:00	3/27/2016 22:30	90	0.80	3,228,528	1.39	0.54	1	Atlas		2,582,822	1
	3/31/2016 4:00	3/31/2016 7:45	225	0.99	717,117	1.99	0.37	24	Atlas		709,946	1
	3/31/2016 22:00	4/1/2016 0:15	135	0.99	1,117,088	1.79	0.37	24	Atlas		1,105,917	1
	4/11/2016 16:15	4/11/2016 19:30	195	0.89	2,111,356	0.94	0.42	6	Atlas		1,879,107	1
	4/21/2016 14:15	4/21/2016 16:00	105	0.29	1,438,279	0.22	0.13	3	Atlas		417,101	1
	4/22/2016 0:45	4/22/2016 0:45	-	0.29	272	0.27	0.13	3	Atlas		79	1
	4/26/2016 16:00	4/26/2016 22:00	360	0.39	1,823,110	0.72	0.20	6	Atlas		711,013	1
	4/27/2016 13:45	4/27/2016 22:30	525	0.51	3,004,943	1.19	0.23	3	Atlas		1,532,521	1
	4/30/2016 11:00	4/30/2016 13:15	135	0.48	1,429,531	1.26	0.19	6	Atlas		686,175	1
	5/1/2016 14:45	5/1/2016 15:15	30	0.23	784,687	1.52	0.15	3	Atlas		180,478	1
	5/4/2016 11:30	5/4/2016 11:45	15	0.20	303,035	1.39	0.12	1	Atlas		60,607	1
	5/7/2016 16:15	5/7/2016 22:15	360	0.61	417,316	1.16	0.32	6	Atlas		254,563	1
	5/10/2016 14:15	5/10/2016 22:15	480	0.79	3,354,059	1.62	0.29	24	Atlas		2,649,707	1
	5/11/2016 21:30	5/11/2016 22:15	45	0.21	1,335,362	1.62	0.12	3	Atlas		280,426	1
	5/12/2016 16:00	5/12/2016 16:15	15	0.12	616,217	1.68	0.08	3	Atlas		73,946	1
	5/17/2016 6:30	5/17/2016 7:00	30	0.63	56,575	1.45	0.21	24	Atlas		35,642	1
	5/17/2016 20:15	5/17/2016 20:45	30	0.63	78,781	1.15	0.21	24	Atlas		49,632	1
	5/20/2016 13:30	5/20/2016 16:15	165	0.57	4,241,474	1.24	0.32	3	Atlas		2,417,640	1
	5/26/2016 13:30	5/26/2016 15:15	105	0.23	657,339	0.87	0.15	3	Atlas		151,188	1
	6/2/2016 15:15	6/2/2016 16:15	60	0.34	3,316,285	0.49	0.26	1	Atlas		1,127,537	1
	6/4/2016 16:30	6/4/2016 17:00	30	0.13	7,040,969	0.58	0.06	12	Atlas		915,326	1
	6/12/2016 17:45	6/12/2016 18:15	30	0.17	985,276	0.19	0.14	1	Atlas		167,497	1
	6/14/2016 16:30	6/14/2016 18:45	135	0.68	5,042,584	0.83	0.43	3	Atlas		3,428,957	1
	6/22/2016 8:15	6/22/2016 8:30	15	0.18	2,681,267	0.11	0.11	3	Atlas		482,628	1
	6/23/2016 15:45	6/23/2016 21:30	345	1.87	3,603,761	2.04	1.11	6	Cloudburst		6,739,034	1
	7/3/2016 10:15	7/3/2016 23:15	780	1.08	1,527,659	0.67	0.35	48	Atlas		1,649,872	1
	7/4/2016 8:15	7/4/2016 16:30	495	1.08	425,894	1.08	0.35	48	Atlas		459,966	1
	7/6/2016 13:00	7/6/2016 13:30	30	0.11	1,912,936	1.17	0.07	1	Atlas		210,423	1
	7/12/2016 9:30	7/12/2016 10:15	45	0.17	2,071,535	0.33	0.11	3	Atlas		352,161	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.04	35,375	0.24	0.03	1	Atlas		1,415	1
	7/27/2016 23:30	7/28/2016 5:15	345	0.60	4,513,003	0.75	0.28	12	Atlas		2,707,802	1
	7/30/2016 14:00	7/30/2016 14:45	45	0.40	2,706,518	1.26	0.35	1	Atlas		1,082,607	1
	8/1/2016 11:00	8/1/2016 11:30	30	0.35	1,433,197	1.61	0.30	1	Atlas		501,619	1
	8/5/2016 13:45	8/5/2016 14:15	30	0.09	855,733	1.10	0.07	1	Atlas		77,016	1
	8/15/2016 2:30	8/15/2016 7:45	315	0.98	3,246,431	1.19	0.49	6	Atlas		3,181,502	1
	8/17/2016 4:30	8/17/2016 7:30	180	0.70	3,439,486	1.62	0.30	12	Atlas		2,407,640	1
	8/20/2016 14:15	8/20/2016 21:00	405	0.89	4,106,626	2.52	0.39	1	Atlas		3,654,897	1
	8/28/2016 17:15	8/28/2016 17:45	30	0.21	1,680,652	0.22	0.18	1	Atlas		352,937	1
	9/10/2016 15:00	9/10/2016 15:30	30	0.19	932,189	0.17	0.12	3	Atlas		177,116	1
	9/28/2016 12:30	9/28/2016 14:00	90	0.35	832,429	0.53	0.19	6	Atlas		291,350	1
	9/30/2016 0:00	9/30/2016 2:45	165	0.68	1,313,701	1.16	0.35	3	Atlas		893,317	1
	10/20/2016 9:15	10/20/2016 11:30	135	0.53	1,850,774	0.30	0.20	24	Atlas		980,910	1
	11/8/2016 19:45	11/8/2016 20:00	15	0.20	952,130	0.23	0.10	1	Atlas		190,426	1
	11/23/2016 21:00	11/23/2016 21:00	-	0.26	1,142	0.39	0.11	6	Atlas		297	1
	11/28/2016 17:00	11/28/2016 22:00	300	0.66	853,398	0.92	0.29	12	Atlas		563,243	1
	12/6/2016 5:15	12/6/2016 12:30	435	0.86	1,577,764	0.90	0.39	12	Atlas		1,356,877	1
	12/17/2016 16:30	12/18/2016 1:45	555	2.60	4,877,596	2.90	1.77	12	Cloudburst		12,681,749	1
	12/23/2016 22:45	12/24/2016 1:00	135	0.19	491,979	2.77	0.09	6	Atlas		93,476	1
	12/26/2016 20:45	12/26/2016 20:45	-	0.28	821	0.43	0.14	6	Atlas		230	1
	1/10/2017 19:30	1/10/2017 20:00	30	0.11	1,463,464	0.35	0.08	1	Atlas		160,981	1
	1/11/2017 12:15	1/11/2017 12:45	30	0.22	259,377	0.53	0.15	1	Atlas		57,063	1
	1/12/2017 15:30	1/12/2017 18:45	195	0.33	707,258	0.57	0.16	6	Atlas		233,395	1
	1/14/2017 11:15	1/14/2017 14:00	165	0.22	846,964	1.20	0.10	6	Atlas		186,332	1
	1/16/2017 23:45	1/17/2017 3:45	240	0.48	2,082,940	1.82	0.22	12	Atlas		999,811	1
	1/19/2017 18:45	1/20/2017 3:45	540	1.08	3,147,135	2.38	0.50	12	Atlas		3,398,906	1
	2/24/2017 19:00	2/24/2017 19:30	30	0.53	1,443,898	0.59	0.45	1	Atlas		765,266	1
	2/28/2017 10:15	2/28/2017 10:30	15	0.26	331,708	0.83	0.12	6	Atlas		86,244	1
	3/1/2017 3:00	3/1/2017 9:15	375	1.07	3,707,590	1.91	0.57	6	Atlas		3,967,121	1
	3/7/2017 7:30	3/7/2017 12:45	315	0.51	1,239,875	1.72	0.17	48	Atlas		632,336	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/26/2017 1:15	3/26/2017 2:30	75	0.45	192,358	0.31	0.21	6	Atlas		86,561	1
	3/27/2017 18:00	3/27/2017 19:00	60	0.29	1,846,679	0.74	0.17	3	Atlas		535,537	1
	3/31/2017 1:00	3/31/2017 1:00	-	0.36	731	1.18	0.17	6	Atlas		263	1
	4/3/2017 19:15	4/3/2017 19:30	15	0.11	435,645	0.59	0.07	1	Atlas		47,921	1
	4/16/2017 4:30	4/16/2017 21:30	1,020	1.20	1,678,884	1.50	0.47	6	Atlas		2,014,661	1
	4/21/2017 22:15	4/22/2017 0:30	135	0.59	835,603	1.66	0.21	24	Atlas		493,006	1
	4/27/2017 6:45	4/27/2017 7:15	30	0.21	1,204,352	0.81	0.16	1	Atlas		252,914	1
	4/29/2017 1:30	4/29/2017 3:30	120	0.89	6,402,938	1.21	0.46	6	Atlas		5,698,615	1
	5/1/2017 2:45	5/1/2017 4:00	75	0.19	442,968	1.29	0.11	3	Atlas		84,164	1
	5/4/2017 19:30	5/5/2017 10:00	870	1.70	2,490,846	2.66	0.57	24	Atlas		4,234,439	1
	5/20/2017 18:30	5/21/2017 6:00	690	1.04	6,447,411	1.05	0.46	12	Atlas		6,705,307	1
	5/24/2017 18:15	5/25/2017 9:30	915	0.56	732,996	1.64	0.20	24	Atlas		410,478	1
	5/27/2017 14:00	5/27/2017 14:30	30	0.22	3,895,936	1.80	0.17	1	Atlas		857,106	1
	6/5/2017 8:45	6/5/2017 9:15	30	0.07	26,653,914	0.08	0.03	1	Atlas		1,865,774	1
	6/5/2017 18:15	6/5/2017 18:45	30	0.32	3,057,044	0.40	0.28	1	Atlas		978,254	1
	6/15/2017 3:00	6/15/2017 4:30	90	0.75	2,873,113	0.75	0.48	3	Atlas		2,154,835	1
	6/22/2017 18:30	6/22/2017 19:30	60	0.31	1,025,374	0.48	0.17	6	Atlas		317,866	1
	6/23/2017 7:45	6/23/2017 18:15	630	0.68	2,689,994	1.15	0.33	6	Atlas		1,829,196	1
	6/30/2017 21:00	6/30/2017 21:30	30	0.31	5,827,323	0.43	0.26	1	Atlas		1,806,470	1
	7/6/2017 4:30	7/6/2017 17:30	780	0.51	737,420	0.94	0.23	6	Atlas		376,084	1
	7/7/2017 20:30	7/7/2017 21:15	45	0.26	1,415,458	1.17	0.17	1	Atlas		368,019	1
	7/23/2017 1:45	7/23/2017 10:00	495	1.18	2,644,900	1.18	0.54	12	Atlas		3,120,982	1
	7/28/2017 9:15	7/28/2017 10:30	75	0.52	3,373,352	1.71	0.40	1	Atlas		1,754,143	1
	8/1/2017 21:15	8/1/2017 21:45	30	0.23	1,913,883	0.75	0.19	1	Atlas		440,193	1
	8/6/2017 17:00	8/7/2017 0:15	435	0.56	527,700	0.80	0.25	12	Atlas		295,512	1
	8/17/2017 15:00	8/17/2017 18:30	210	0.53	2,596,868	0.56	0.29	6	Atlas		1,376,340	1
	8/22/2017 16:00	8/22/2017 16:45	45	0.76	2,322,134	1.32	0.51	1	Atlas		1,764,822	1
	9/1/2017 7:45	9/2/2017 5:30	1,305	3.29	3,441,859	3.36	1.92	24	Cloudburst		11,323,715	1
	9/19/2017 8:00	9/19/2017 10:30	150	0.43	5,269,835	0.86	0.27	3	Atlas		2,266,029	1
	10/7/2017 21:30	10/7/2017 23:15	105	1.60	1,671,391	0.55	0.60	24	Atlas		2,674,225	1
	10/8/2017 10:15	10/8/2017 19:45	570	1.60	1,826,112	1.59	0.60	24	Atlas		2,921,779	1
	10/10/2017 14:00	10/10/2017 21:00	420	0.68	2,225,931	2.29	0.36	6	Atlas		1,513,633	1
	10/23/2017 6:30	10/23/2017 8:00	90	0.47	1,436,738	0.40	0.25	6	Atlas		675,267	1
	10/27/2017 17:15	10/28/2017 0:45	450	0.80	1,035,870	1.32	0.37	12	Atlas		828,696	1
	11/3/2017 4:30	11/3/2017 6:00	90	1.00	3,940,038	1.93	0.79	1	Atlas		3,940,038	1
	11/6/2017 1:45	11/6/2017 2:15	30	0.31	3,427,981	1.44	0.21	1	Atlas		1,062,674	1
	11/15/2017 13:15	11/15/2017 14:00	45	0.26	1,355,585	0.28	0.16	3	Atlas		352,452	1
	11/18/2017 16:30	11/18/2017 17:45	75	0.31	1,398,206	0.55	0.17	3	Atlas		433,444	1
	12/5/2017 3:45	12/5/2017 6:15	150	0.77	3,098,619	0.77	0.45	3	Atlas		2,385,937	1
	12/22/2017 23:00	12/23/2017 12:15	795	1.09	3,423,971	1.08	0.42	24	Atlas		3,732,128	1
	1/11/2018 10:15	1/11/2018 10:30	15	0.08	5,988	0.20	0.05	3	Atlas		479	1
	1/12/2018 4:00	1/12/2018 9:45	345	0.31	4,410	0.35	0.12	24	Atlas		1,367	1
	1/22/2018 19:45	1/22/2018 19:45	-	0.20	447,800	0.29	0.10	1	Atlas		89,560	1
	1/27/2018 14:30	1/27/2018 16:00	90	0.31	49,735	0.45	0.16	3	Atlas		15,418	1
	2/7/2018 1:15	2/7/2018 4:30	195	0.51	2,063,620	0.74	0.28	6	Atlas		1,052,446	1
	2/11/2018 4:00	2/11/2018 11:00	420	0.37	2,632,397	1.00	0.17	12	Atlas		973,987	1
	2/14/2018 7:15	2/14/2018 9:45	150	0.35	382,746	0.78	0.17	3	Atlas		133,961	1
	2/16/2018 2:30	2/16/2018 11:30	540	0.68	2,497,775	1.58	0.31	12	Atlas		1,698,487	1
	2/17/2018 14:00	2/17/2018 16:15	135	0.18	658,356	1.71	0.11	3	Atlas		118,504	1
	2/21/2018 7:15	2/22/2018 16:00	1,965	1.58	5,506,142	2.71	0.58	24	Atlas		8,699,704	1
	2/23/2018 2:30	2/23/2018 22:15	1,185	1.15	12,127,850	3.52	0.53	12	Atlas		13,947,028	1
	2/24/2018 9:30	2/26/2018 17:30	3,360	1.65	11,616,313	4.57	0.66	12	Atlas		19,166,916	1
	2/28/2018 14:15	2/28/2018 15:15	60	0.07	512,457	4.15	0.04	6	Atlas		35,872	1
	3/1/2018 6:30	3/1/2018 14:00	450	0.01	1,274,800	2.88	0.01	1	Atlas		12,748	1
	3/10/2018 0:45	3/10/2018 3:00	135	0.53	1,382,683	0.55	0.33	3	Atlas		732,822	1
	3/19/2018 19:30	3/19/2018 20:00	30	0.28	232,371	0.31	0.17	3	Atlas		65,064	1
	3/24/2018 8:45	3/24/2018 19:45	660	0.94	1,561,395	1.68	0.36	24	Atlas		1,467,711	1
	3/28/2018 5:30	3/28/2018 6:30	60	1.10	151,318	1.37	0.28	48	Atlas		166,450	1
	3/29/2018 14:00	3/30/2018 6:45	1,005	1.10	714,692	2.01	0.28	48	Atlas		786,161	1
	3/31/2018 22:00	3/31/2018 23:45	105	0.23	609,330	1.35	0.12	1	Atlas		140,146	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/1/2018 20:00	4/2/2018 0:30	270	0.60	3,911.302	1.99	0.33	6	Atlas		2,346.781	1
	4/3/2018 16:15	4/4/2018 17:15	1,500	0.51	2,994.900	2.50	0.28	6	Atlas		1,527.399	1
	4/14/2018 8:45	4/14/2018 10:00	75	1.04	412.684	0.27	0.34	48	Atlas		429.191	1
	4/14/2018 21:15	4/15/2018 9:45	750	1.04	869.125	1.05	0.34	48	Atlas		903.890	1
	4/23/2018 5:00	4/23/2018 11:30	390	0.65	744.391	0.78	0.30	12	Atlas		483.854	1
	5/5/2018 14:00	5/5/2018 19:00	300	1.24	4,174.334	1.09	0.47	12	Atlas		5,176.174	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.26	1.808	0.26	0.22	1	Atlas		470	1
	5/27/2018 4:00	5/27/2018 4:45	45	0.30	4,202.107	0.36	0.22	1	Atlas		1,260.632	1
	5/30/2018 10:15	5/30/2018 10:30	15	0.05	1.780	0.48	0.03	1	Atlas		89	1
	5/31/2018 14:15	5/31/2018 14:15	-	0.12	2.008	0.53	0.08	3	Atlas		241	1
	6/1/2018 0:30	6/1/2018 3:45	195	1.42	2,484.856	2.02	0.83	3	Atlas		3,528.495	1
	6/10/2018 15:00	6/10/2018 15:15	15	0.40	1,094.838	0.18	0.18	12	Atlas		437.935	1
	6/11/2018 11:15	6/11/2018 14:00	165	0.54	1,869.009	0.63	0.18	48	Atlas		1,009.265	1
	6/12/2018 0:00	6/12/2018 0:00	-	0.54	289	0.68	0.18	48	Atlas		156	1
	6/12/2018 12:15	6/12/2018 12:30	15	0.54	3.411	0.86	0.18	48	Atlas		1.842	1
	6/16/2018 19:30	6/16/2018 19:30	-	0.23	4.065	1.21	0.20	1	Atlas		935	1
	6/22/2018 13:00	6/22/2018 15:00	120	0.27	1,802.381	0.73	0.14	1	Atlas		486.643	1
	6/25/2018 10:45	6/25/2018 12:15	90	0.92	2,137.247	1.47	0.38	12	Atlas		1,966.267	1
	6/26/2018 13:00	6/26/2018 22:30	570	0.61	2,154.187	2.03	0.25	12	Atlas		1,314.054	1
	6/27/2018 7:15	6/27/2018 7:15	-	0.61	1.223	2.10	0.25	12	Atlas		746	1
	7/2/2018 17:30	7/2/2018 18:30	60	0.52	3,772.894	1.13	0.43	1	Atlas		1,961.905	1
	7/3/2018 15:45	7/3/2018 16:30	45	0.53	2,276.196	1.38	0.37	1	Atlas		1,206.384	1
	7/16/2018 9:45	7/16/2018 10:15	30	0.12	1,096.683	0.23	0.09	1	Atlas		131.602	1
	7/20/2018 5:15	7/20/2018 5:15	-	1.21	5.472	0.40	0.61	3	Atlas		6.621	1
	7/20/2018 19:45	7/20/2018 22:00	135	1.21	4,377.832	1.43	0.61	3	Atlas		5,297.177	1
	7/22/2018 17:45	7/22/2018 18:15	30	0.21	1,411.967	1.59	0.15	1	Atlas		296.513	1
	7/30/2018 23:45	7/31/2018 13:15	810	1.94	3,842.111	1.96	0.80	6	Atlas		7,453.696	1
	8/15/2018 19:45	8/16/2018 11:00	915	2.46	4,747.586	2.47	0.95	24	Atlas		11,679.062	1
	8/19/2018 20:30	8/19/2018 22:15	105	0.28	1,406.918	2.77	0.19	3	Atlas		393.937	1
	8/20/2018 11:15	8/20/2018 20:00	525	0.46	3,978.178	3.21	0.33	1	Atlas		1,829.962	1
	8/31/2018 17:45	8/31/2018 17:45	-	0.26	308	0.17	0.13	3	Atlas		80	1
	9/6/2018 11:30	9/6/2018 12:15	45	0.25	2,673.448	0.51	0.18	1	Atlas		668.362	1
	9/8/2018 1:30	9/8/2018 5:45	255	2.23	1.052	0.70	0.90	6	Atlas		2.345	1
	9/8/2018 15:30	9/8/2018 23:45	495	2.23	6,362.749	2.49	0.90	6	Atlas		14,188.931	1
	9/21/2018 17:30	9/21/2018 18:00	30	0.17	2,273.765	0.25	0.10	1	Atlas		386.540	1
	9/22/2018 15:15	9/22/2018 17:45	150	1.22	940.156	0.59	0.45	24	Atlas		1,146.990	1
	9/23/2018 4:00	9/24/2018 0:30	240	1.22	3,291.831	1.44	0.45	24	Atlas		4,016.034	1
	9/24/2018 0:30	9/24/2018 14:15	825	1.41	5,949.878	2.81	0.65	6	Atlas		8,389.328	1
	9/25/2018 5:45	9/25/2018 6:15	30	0.11	3,756.891	2.91	0.10	1	Atlas		413.258	1
	9/25/2018 16:30	9/26/2018 2:45	615	0.71	4,671.261	3.59	0.32	12	Atlas		3,316.595	1
	10/10/2018 17:15	10/10/2018 17:30	15	0.09	2.667	0.10	0.06	1	Atlas		240	1
	10/15/2018 9:00	10/15/2018 9:45	45	0.15	1,075.153	0.56	0.10	1	Atlas		161.273	1
	10/26/2018 15:15	10/26/2018 16:00	45	0.27	99.148	0.35	0.10	1	Atlas		26.770	1
	10/31/2018 15:00	11/1/2018 18:15	1,635	1.65	2,387.195	1.94	0.59	24	Atlas		3,938.871	1
	3/30/2019 15:45	3/30/2019 20:45	300	0.79	5,512.772	1.08	0.38	6	Atlas		4,355.090	1
	4/7/2019 6:30	4/7/2019 18:30	720	0.53	2,880.060	0.71	0.26	3	Atlas		1,526.432	1
	4/12/2019 6:15	4/12/2019 6:30	15	0.07	776.543	0.59	0.05	3	Atlas		54.358	1
	4/14/2019 1:30	4/14/2019 13:45	735	0.84	4,156.585	1.46	0.40	6	Atlas		3,491.531	1
	4/18/2019 23:00	4/19/2019 5:30	390	0.46	242.178	1.41	0.21	12	Atlas		111.402	1
	4/19/2019 18:15	4/21/2019 12:45	2,550	2.29	5,381.883	3.63	0.86	24	Atlas		12,324.511	1
	4/23/2019 18:15	4/23/2019 18:45	30	0.05	3,214.420	2.80	0.04	1	Atlas		160.721	1
	4/24/2019 20:45	4/25/2019 2:30	345	0.47	4,490.566	3.21	0.22	12	Atlas		2,110.566	1
	4/25/2019 18:15	4/26/2019 4:00	585	0.32	3,119.169	3.59	0.16	1	Atlas		998.134	1
	5/3/2019 5:00	5/3/2019 9:15	255	0.90	5,602.262	1.08	0.49	6	Atlas		5,042.036	1
	5/4/2019 17:15	5/4/2019 18:00	45	0.22	1,267.968	1.26	0.13	3	Atlas		278.953	1
	5/19/2019 23:30	5/19/2019 23:45	15	0.27	431.830	0.28	0.11	12	Atlas		116.594	1
	5/23/2019 16:00	5/23/2019 16:30	30	0.10	4,394.330	0.39	0.06	1	Atlas		439.433	1
	5/26/2019 14:00	5/26/2019 16:00	120	0.42	2,754.119	0.62	0.26	3	Atlas		1,156.730	1
	5/29/2019 9:15	5/29/2019 14:15	300	0.75	1,302.209	1.27	0.41	6	Atlas		976.657	1
	5/30/2019 11:30	5/30/2019 12:00	30	0.18	1,030.206	1.41	0.07	12	Atlas		185.437	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/5/2019 21:00	6/5/2019 22:00	60	0.82	2,439,977	0.99	0.61	1	Atlas		2,000,781	1
	6/7/2019 21:30	6/8/2019 3:00	330	0.57	491,868	1.39	0.24	6	Atlas		280,365	1
	6/9/2019 0:30	6/9/2019 1:15	45	0.31	1,333,826	1.74	0.16	6	Atlas		413,486	1
	6/9/2019 16:45	6/9/2019 19:15	150	0.69	5,176,643	2.41	0.37	3	Atlas		3,571,884	1
	6/16/2019 6:15	6/16/2019 6:15	-	0.15	404,133	0.96	0.10	1	Atlas		60,620	1
	6/16/2019 20:00	6/17/2019 1:45	345	1.52	3,726,622	1.81	0.68	12	Atlas		5,664,465	1
	6/18/2019 5:15	6/18/2019 5:15	-	0.29	190	1.96	0.11	24	Atlas		55	1
	6/18/2019 16:30	6/18/2019 18:15	105	0.29	11,702,883	2.10	0.11	24	Atlas		3,393,836	1
	6/21/2019 19:30	6/21/2019 22:00	150	0.58	3,189,526	2.74	0.39	3	Atlas		1,849,925	1
	6/22/2019 7:15	6/22/2019 10:00	165	0.41	2,461,222	3.03	0.27	3	Atlas		1,009,101	1
	6/23/2019 16:15	6/23/2019 17:15	60	0.33	6,544,533	2.96	0.25	1	Atlas		2,159,696	1
	6/24/2019 13:30	6/24/2019 15:45	135	0.43	5,745,991	2.11	0.27	3	Atlas		2,470,776	1
	6/30/2019 18:00	6/30/2019 18:00	-	0.10	426,060	0.55	0.07	1	Atlas		42,606	1
	7/3/2019 13:00	7/3/2019 13:15	15	0.21	2,297,152	0.33	0.17	1	Atlas		482,402	1
	7/16/2019 11:45	7/16/2019 14:45	180	0.11	71,845	0.09	0.05	1	Atlas		7,903	1
	7/18/2019 0:45	7/18/2019 2:00	75	0.26	11,869,835	0.39	0.17	1	Atlas		3,086,157	1
	7/29/2019 23:45	7/30/2019 0:30	45	0.55	3,484,720	0.55	0.35	1	Atlas		1,916,596	1
	8/7/2019 5:00	8/7/2019 5:30	30	0.05	2,631,820	0.06	0.04	1	Atlas		131,591	1
	8/22/2019 4:45	8/22/2019 5:00	15	0.19	358,042	0.33	0.13	3	Atlas		68,028	1
	8/26/2019 10:30	8/26/2019 15:15	285	0.45	8,315,531	0.82	0.21	6	Atlas		3,741,989	1
	10/6/2019 17:30	10/6/2019 20:15	165	0.98	1,088,522	0.81	0.38	6	Atlas		1,066,752	1
	10/11/2019 11:00	10/11/2019 11:45	45	0.38	461,097	1.36	0.19	1	Atlas		175,217	1
	10/15/2019 22:45	10/16/2019 0:15	90	0.52	1,463,577	0.85	0.39	1	Atlas		761,060	1
	10/26/2019 5:30	10/26/2019 9:45	255	1.28	1,694,827	1.10	0.49	24	Atlas		2,169,379	1
	10/26/2019 19:30	10/26/2019 20:15	45	1.28	260,755	1.38	0.49	24	Atlas		333,766	1
	10/30/2019 14:15	10/30/2019 15:45	90	0.85	2,808,906	2.09	0.43	3	Atlas		2,387,570	1
	10/31/2019 6:00	10/31/2019 8:30	150	0.65	2,402,232	2.75	0.35	6	Atlas		1,561,451	1
	11/7/2019 8:00	11/7/2019 10:30	150	0.67	91,318	0.70	0.26	24	Atlas		61,183	1
	11/22/2019 6:00	11/22/2019 7:00	60	0.34	344,888	0.42	0.18	6	Atlas		117,262	1
	11/26/2019 21:45	11/27/2019 5:45	480	0.63	2,599,668	1.15	0.28	12	Atlas		1,637,791	1
	11/30/2019 3:00	11/30/2019 17:30	870	1.89	4,434,533	2.67	0.75	12	Atlas		8,381,267	1
	12/9/2019 20:30	12/9/2019 20:45	15	0.21	178,890	0.25	0.08	1	Atlas		37,567	1
	12/16/2019 14:30	12/16/2019 19:30	300	0.69	2,181,588	1.25	0.31	6	Atlas		1,505,296	1
	12/29/2019 13:30	12/30/2019 1:45	735	1.11	1,617,347	1.09	0.41	24	Atlas		1,795,255	1
	1/3/2020 6:30	1/3/2020 8:30	120	0.68	58,631	1.65	0.22	48	Atlas		39,869	1
	1/3/2020 18:00	1/3/2020 18:30	30	0.68	326,754	1.75	0.22	48	Atlas		222,193	1
	1/10/2020 19:45	1/10/2020 21:15	90	0.34	1,731,168	0.32	0.15	3	Atlas		588,597	1
	1/11/2020 11:15	1/11/2020 17:30	375	0.71	2,656,001	1.03	0.33	6	Atlas		1,885,761	1
	1/18/2020 11:00	1/18/2020 11:45	45	0.34	854,044	0.86	0.14	12	Atlas		290,375	1
	1/24/2020 6:30	1/24/2020 7:15	45	0.53	201,965	0.82	0.18	24	Atlas		107,052	1
	2/12/2020 17:15	2/12/2020 23:15	360	0.77	5,492,913	1.31	0.37	3	Atlas		4,229,543	1
	2/24/2020 19:45	2/25/2020 2:45	420	0.66	245,598	0.91	0.25	24	Atlas		162,095	1
	3/10/2020 8:15	3/10/2020 8:45	30	0.36	1,700,928	0.37	0.17	12	Atlas		612,334	1
	3/12/2020 16:00	3/12/2020 23:45	465	0.52	4,505,742	0.89	0.24	12	Atlas		2,342,986	1
	3/14/2020 12:45	3/14/2020 18:00	315	0.45	1,147,116	1.33	0.21	12	Atlas		516,202	1
	3/18/2020 14:15	3/18/2020 18:45	270	0.41	1,235,768	1.39	0.18	12	Atlas		506,665	1
	3/19/2020 12:15	3/19/2020 14:00	105	0.42	3,957,148	1.70	0.18	1	Atlas		1,662,002	1
	3/20/2020 4:15	3/20/2020 4:30	15	0.42	102,733	1.30	0.18	1	Atlas		43,148	1
	3/24/2020 18:30	3/24/2020 22:00	210	0.15	4,184,900	1.00	0.08	6	Atlas		627,735	1
	3/28/2020 22:30	3/28/2020 23:45	75	0.24	7,702,825	0.42	0.20	1	Atlas		1,848,678	1
	4/8/2020 22:30	4/8/2020 22:45	15	0.59	335,124	0.46	0.39	3	Atlas		197,723	1
	4/12/2020 16:30	4/13/2020 4:00	690	0.83	3,315,990	1.44	0.33	12	Atlas		2,752,272	1
	4/23/2020 8:30	4/23/2020 15:45	435	0.50	169,812	0.87	0.20	12	Atlas		84,906	1
	4/26/2020 6:45	4/26/2020 7:15	30	0.52	63,833	0.90	0.18	24	Atlas		33,193	1
	5/5/2020 6:45	5/5/2020 6:45	-	0.23	23,491	0.39	0.12	6	Atlas		5,403	1
	5/8/2020 10:15	5/8/2020 13:15	180	0.60	1,053,873	0.83	0.28	12	Atlas		632,324	1
	5/15/2020 17:00	5/16/2020 8:45	945	1.26	2,656,227	1.39	0.47	24	Atlas		3,346,846	1
	5/18/2020 7:30	5/18/2020 12:45	315	0.30	1,375,147	1.74	0.14	1	Atlas		412,544	1
	5/25/2020 16:45	5/25/2020 17:15	30	0.23	2,339,091	0.34	0.17	1	Atlas		537,991	1
	5/29/2020 0:45	5/29/2020 1:00	15	0.22	463,945	0.93	0.10	1	Atlas		102,068	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/4/2020 18:30	6/4/2020 21:00	150	0.50	1,339,448	0.56	0.25	3	Atlas		669,724	1
	6/21/2020 11:45	6/21/2020 12:45	60	0.45	2,328,616	0.40	0.24	1	Atlas		1,047,877	1
	6/22/2020 22:45	6/23/2020 9:30	645	0.88	2,838,135	1.39	0.38	6	Atlas		2,497,559	1
	6/29/2020 3:15	6/29/2020 5:15	120	0.56	4,729,727	1.59	0.37	3	Atlas		2,648,647	1
CSO118 Total											1,040,371,304	690
CSO119	9/25/2012 23:30	9/26/2012 5:15	345	0.43	240,437	0.81	0.20	6	Atlas		103,388	1
	9/26/2012 20:45	9/27/2012 0:00	195	1.21	463,044	2.03	0.64	6	Atlas		560,283	1
	10/1/2012 14:45	10/1/2012 18:45	240	0.73	500,149	2.73	0.29	12	Atlas		365,109	1
	10/18/2012 1:15	10/18/2012 1:30	15	0.25	61,664	0.36	0.16	3	Atlas		15,416	1
	10/26/2012 14:45	10/26/2012 15:00	15	0.77	64,427	0.60	0.36	6	Atlas		49,609	1
	12/4/2012 16:00	12/4/2012 18:30	150	0.60	402,442	0.79	0.38	3	Atlas		241,465	1
	12/7/2012 4:30	12/7/2012 17:15	765	1.16	270,802	1.95	0.49	12	Atlas		314,130	1
	12/8/2012 5:30	12/8/2012 9:15	225	0.42	287,969	2.37	0.22	6	Atlas		120,947	1
	12/9/2012 21:30	12/10/2012 0:15	165	1.16	389,041	3.19	0.55	3	Atlas		451,288	1
	12/15/2012 11:15	12/15/2012 11:30	15	0.18	69,317	1.30	0.11	3	Atlas		12,477	1
	12/20/2012 6:30	12/20/2012 12:00	330	0.67	558,524	1.03	0.36	6	Atlas		374,211	1
	12/26/2012 5:00	12/26/2012 9:00	240	0.66	309,306	1.31	0.26	12	Atlas		204,142	1
	1/11/2013 5:30	1/11/2013 7:15	105	0.65	376,980	0.79	0.34	6	Atlas		245,037	1
	1/13/2013 3:00	1/13/2013 19:15	975	2.24	638,302	3.04	0.86	24	Atlas		1,429,796	1
	1/30/2013 4:30	1/30/2013 8:45	255	0.83	602,913	1.05	0.42	6	Atlas		500,418	1
	2/22/2013 0:00	2/22/2013 1:00	60	0.42	257,460	0.75	0.19	12	Atlas		108,133	1
	2/26/2013 13:30	2/26/2013 16:00	150	0.56	91,139	0.90	0.22	12	Atlas		51,038	1
	3/5/2013 16:45	3/5/2013 17:15	30	0.45	143,282	0.51	0.17	24	Atlas		64,477	1
	3/11/2013 3:30	3/11/2013 11:45	495	0.99	521,643	1.46	0.39	12	Atlas		516,427	1
	3/17/2013 13:30	3/18/2013 7:30	1,080	1.68	451,577	2.58	0.55	48	Atlas		758,649	1
	3/24/2013 7:45	3/24/2013 16:00	495	0.51	139,927	1.72	0.19	24	Atlas		71,363	1
	4/11/2013 6:00	4/11/2013 7:15	75	1.25	191,435	0.48	0.48	24	Atlas		239,294	1
	4/11/2013 15:45	4/11/2013 18:15	150	1.25	88,985	1.14	0.48	24	Atlas		111,231	1
	4/16/2013 19:45	4/16/2013 20:30	45	0.60	345,907	1.82	0.50	1	Atlas		207,544	1
	4/19/2013 1:30	4/19/2013 4:15	165	0.92	530,840	1.52	0.50	6	Atlas		488,373	1
	4/24/2013 7:00	4/24/2013 9:45	165	0.68	548,651	1.63	0.37	3	Atlas		373,083	1
	5/5/2013 4:45	5/5/2013 8:15	210	1.47	134,761	1.30	0.46	24	Atlas		198,098	1
	5/10/2013 12:00	5/11/2013 0:00	720	0.97	319,572	2.57	0.43	6	Atlas		309,985	1
	5/16/2013 10:00	5/16/2013 10:15	15	0.25	195,216	1.27	0.22	1	Atlas		48,804	1
	5/22/2013 15:30	5/22/2013 16:00	30	0.15	495,073	0.38	0.10	3	Atlas		74,261	1
	6/9/2013 23:45	6/10/2013 0:15	30	0.33	244,376	0.26	0.15	6	Atlas		80,644	1
	6/17/2013 16:00	6/17/2013 21:30	330	1.05	434,245	1.44	0.55	1	Atlas		455,967	1
	6/21/2013 18:30	6/21/2013 19:30	60	0.25	839,976	1.75	0.19	1	Atlas		209,994	1
	6/23/2013 12:45	6/23/2013 12:45	-	0.28	9,061	2.00	0.21	1	Atlas		2,537	1
	6/26/2013 3:00	6/26/2013 5:00	120	0.82	378,573	1.43	0.55	3	Atlas		310,430	1
	6/26/2013 16:00	6/26/2013 23:00	420	2.33	538,097	3.75	1.97	6	Cloudburst		1,253,766	1
	6/29/2013 19:15	6/29/2013 21:45	150	0.47	575,217	3.97	0.26	3	Atlas		270,352	1
	7/1/2013 18:45	7/1/2013 19:00	15	0.33	55,094	3.99	0.16	3	Atlas		18,181	1
	7/2/2013 13:00	7/2/2013 13:30	30	0.09	1,305,756	4.11	0.08	1	Atlas		117,518	1
	7/4/2013 11:15	7/4/2013 11:45	30	0.54	46,681	1.28	0.23	12	Atlas		25,208	1
	7/6/2013 0:45	7/6/2013 5:30	285	0.66	886,008	2.09	0.28	12	Atlas		584,765	1
	7/10/2013 13:45	7/10/2013 14:45	60	0.75	365,289	2.04	0.50	1	Atlas		273,967	1
	7/14/2013 19:15	7/14/2013 19:30	15	0.12	772,858	0.95	0.10	1	Atlas		92,743	1
	7/18/2013 16:15	7/18/2013 16:15	-	0.18	13,389	0.32	0.13	1	Atlas		2,410	1
	7/21/2013 19:15	7/21/2013 20:30	75	2.39	68,333	1.51	0.92	24	Atlas		163,317	1
	7/22/2013 7:00	7/22/2013 16:00	540	2.39	313,006	2.59	0.92	24	Atlas		748,084	1
	8/12/2013 14:30	8/12/2013 15:15	45	0.92	266,864	0.80	0.42	1	Atlas		245,515	1
	8/13/2013 3:00	8/13/2013 3:30	30	0.92	95,676	1.17	0.42	1	Atlas		88,022	1
	8/20/2013 18:00	8/20/2013 18:30	30	0.19	621,884	0.18	0.10	1	Atlas		118,158	1
	8/31/2013 19:30	9/1/2013 0:45	315	1.19	273,629	0.99	0.55	6	Atlas		325,619	1
	9/2/2013 13:30	9/2/2013 14:15	45	0.41	460,488	1.60	0.36	1	Atlas		188,800	1
	9/20/2013 16:15	9/21/2013 4:00	705	1.26	620,670	1.24	0.53	12	Atlas		782,044	1
	10/5/2013 12:45	10/6/2013 12:15	1,410	4.28	1,197,041	4.33	7.90	24	Cloudburst		5,123,334	1
	10/30/2013 2:00	10/30/2013 6:00	240	1.30	435,026	1.27	0.63	6	Atlas		565,534	1
	10/31/2013 19:45	10/31/2013 21:15	90	0.60	203,773	1.84	0.23	24	Atlas		122,264	1
	11/17/2013 5:15	11/17/2013 19:15	840	2.68	504,965	2.87	1.89	6	Cloudburst		1,353,306	1
	12/5/2013 5:15	12/5/2013 8:00	165	0.78	230,849	0.19	0.25	48	Atlas		180,062	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/14/2013 10:15	12/14/2013 11:00	45	0.81	99.169	1.11	0.33	12	Atlas		80,327	1
	12/21/2013 5:15	12/21/2013 12:30	435	2.57	208.562	1.51	0.95	24	Atlas		536,004	1
	12/21/2013 21:15	12/22/2013 3:15	360	2.57	343.526	2.63	0.95	24	Atlas		882,861	1
	1/5/2014 15:15	1/5/2014 17:45	150	0.47	48.832	0.62	0.23	6	Atlas		22,951	1
	1/6/2014 3:45	1/7/2014 3:30	1,425	0.47	2,510.019	0.71	0.23	6	Atlas		1,179,709	1
	1/11/2014 0:15	1/11/2014 3:00	165	0.95	4.455	1.19	0.51	6	Atlas		4,232	1
	2/2/2014 4:45	2/2/2014 5:30	45	0.21	333.971	0.16	0.11	6	Atlas		70,134	1
	2/4/2014 19:15	2/5/2014 0:45	330	0.51	1,502.843	0.97	0.26	6	Atlas		766,450	1
	2/17/2014 16:00	2/17/2014 17:00	60	0.55	135.547	1.06	0.33	3	Atlas		74,551	1
	3/2/2014 9:45	3/2/2014 11:15	90	0.57	265.218	0.28	0.22	24	Atlas		151,174	1
	3/28/2014 4:15	3/28/2014 4:45	30	0.25	177.196	0.30	0.12	6	Atlas		44,299	1
	3/29/2014 6:15	3/29/2014 12:15	360	0.94	511.441	1.16	0.43	12	Atlas		480,755	1
	4/3/2014 11:45	4/4/2014 8:00	1,215	2.63	652.121	3.92	0.92	24	Atlas		1,715,077	1
	4/7/2014 9:00	4/7/2014 15:30	390	0.74	729.270	3.47	0.43	3	Atlas		539,660	1
	4/14/2014 3:30	4/14/2014 3:30	-	1.02	8.627	0.93	0.39	24	Atlas		8,800	1
	4/14/2014 20:00	4/15/2014 1:15	315	1.02	206.286	1.01	0.39	24	Atlas		210,412	1
	4/28/2014 3:45	4/28/2014 7:45	240	1.80	345.223	1.51	0.71	3	Atlas		621,401	1
	4/28/2014 17:15	4/28/2014 20:00	165	1.80	67.821	1.90	0.71	3	Atlas		122,077	1
	5/9/2014 19:00	5/10/2014 15:30	1,230	1.50	516.757	1.56	0.58	24	Atlas		775,135	1
	5/14/2014 6:45	5/14/2014 9:00	135	1.09	60.167	1.99	0.42	24	Atlas		65,582	1
	5/14/2014 18:00	5/14/2014 20:15	135	1.09	115.427	2.62	0.42	24	Atlas		125,815	1
	5/21/2014 20:45	5/22/2014 3:30	405	0.43	530.740	0.54	0.20	12	Atlas		228,218	1
	5/28/2014 20:00	5/28/2014 20:45	45	0.35	282.843	0.79	0.30	1	Atlas		98,995	1
	5/29/2014 20:30	5/29/2014 21:45	75	0.76	414.642	1.14	0.64	1	Atlas		315,128	1
	6/11/2014 14:00	6/11/2014 14:30	30	0.07	1,132.914	0.28	0.04	1	Atlas		79,304	1
	6/20/2014 17:15	6/20/2014 17:30	15	0.22	106.127	0.22	0.15	3	Atlas		23,348	1
	6/24/2014 13:30	6/24/2014 13:45	15	0.16	244.525	0.40	0.10	1	Atlas		39,124	1
	7/2/2014 16:15	7/2/2014 16:30	15	0.08	466.200	0.28	0.07	1	Atlas		37,296	1
	7/7/2014 19:15	7/7/2014 19:45	30	1.04	139.295	1.25	0.90	1	Atlas		144,867	1
	7/13/2014 22:00	7/13/2014 23:15	75	0.68	316.113	1.90	0.39	1	Atlas		214,957	1
	7/14/2014 19:45	7/14/2014 20:15	30	0.10	819.250	1.14	0.09	1	Atlas		81,925	1
	7/26/2014 21:30	7/27/2014 9:15	705	1.22	445.020	1.25	0.56	12	Atlas		542,924	1
	8/8/2014 5:30	8/8/2014 7:45	135	0.90	405.096	0.69	0.43	6	Atlas		364,586	1
	8/10/2014 3:45	8/10/2014 4:15	30	0.62	140.847	1.60	0.50	1	Atlas		87,325	1
	8/11/2014 15:00	8/11/2014 15:30	30	0.44	234.182	2.04	0.37	1	Atlas		103,040	1
	8/17/2014 9:15	8/17/2014 10:15	60	0.70	199.839	1.04	0.27	24	Atlas		139,887	1
	8/22/2014 19:00	8/22/2014 19:15	15	0.45	231.229	1.18	0.35	1	Atlas		104,053	1
	8/23/2014 19:45	8/23/2014 21:30	105	0.55	348.520	1.67	0.25	3	Atlas		191,686	1
	8/27/2014 14:45	8/27/2014 15:00	15	0.24	204.546	1.42	0.17	1	Atlas		49,091	1
	8/30/2014 15:00	8/30/2014 16:00	60	0.50	487.410	1.29	0.30	1	Atlas		243,705	1
	9/2/2014 8:15	9/2/2014 8:30	15	0.34	147.094	1.12	0.22	3	Atlas		50,012	1
	9/11/2014 0:15	9/11/2014 6:00	345	1.93	320.365	1.88	1.47	3	Atlas		618,304	1
	10/6/2014 9:30	10/6/2014 9:45	15	0.39	188.221	0.58	0.23	1	Atlas		73,406	1
	10/7/2014 11:45	10/7/2014 12:00	15	0.18	146.611	0.82	0.16	1	Atlas		26,390	1
	10/10/2014 1:30	10/10/2014 3:00	90	1.17	217.962	1.64	0.55	3	Atlas		255,015	1
	10/13/2014 4:30	10/13/2014 6:00	90	0.48	390.888	2.20	0.31	3	Atlas		187,626	1
	10/13/2014 23:15	10/14/2014 9:45	630	0.96	301.648	2.79	0.42	12	Atlas		289,582	1
	11/23/2014 17:15	11/23/2014 19:30	135	0.68	446.187	0.97	0.31	6	Atlas		303,407	1
	12/1/2014 3:00	12/1/2014 4:30	90	0.81	58.393	0.39	0.31	24	Atlas		47,298	1
	12/5/2014 23:00	12/6/2014 6:45	465	1.74	372.710	2.54	0.56	48	Atlas		648,515	1
	12/16/2014 5:00	12/16/2014 5:00	-	0.10	80.970	0.09	0.06	1	Atlas		8,097	1
	12/28/2014 0:45	12/28/2014 1:15	30	0.30	154.343	0.68	0.12	24	Atlas		46,303	1
	3/3/2015 23:15	3/4/2015 13:15	840	1.67	584.235	1.19	0.54	48	Atlas		975,672	1
	3/10/2015 7:00	3/10/2015 21:15	855	1.21	1,121.507	2.88	0.55	12	Atlas		1,357,023	1
	3/13/2015 10:15	3/15/2015 0:45	2,310	1.72	1,528.186	2.93	0.65	24	Atlas		2,628,480	1
	3/26/2015 4:15	3/26/2015 6:00	105	0.47	265.600	0.61	0.18	12	Atlas		124,832	1
	4/2/2015 10:15	4/2/2015 15:45	330	4.71	92.941	0.99	8.02	6	Cloudburst		437,751	1
	4/3/2015 0:00	4/3/2015 19:00	1,140	4.71	1,448.772	4.73	8.02	6	Cloudburst		6,823,717	1
	4/7/2015 9:00	4/7/2015 17:45	525	0.86	519.343	5.58	0.39	1	Atlas		446,635	1
	4/8/2015 18:00	4/8/2015 18:15	15	0.11	403.864	5.68	0.06	3	Atlas		44,425	1
	4/9/2015 11:15	4/9/2015 12:00	45	0.26	367.235	5.60	0.23	1	Atlas		95,481	1
	4/10/2015 2:15	4/10/2015 2:45	30	0.17	179.106	3.42	0.10	3	Atlas		30,448	1
	4/13/2015 20:15	4/13/2015 21:15	60	0.37	413.773	1.48	0.15	6	Atlas		153,096	1
	4/14/2015 10:00	4/14/2015 11:45	105	0.37	107.424	1.18	0.15	6	Atlas		39,747	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2015 7:30	4/19/2015 15:00	450	0.70	263.929	1.08	0.29	12	Atlas		184.750	1
	5/17/2015 14:00	5/17/2015 14:30	30	0.08	1,103.600	0.50	0.05	1	Atlas		88.288	1
	5/26/2015 13:30	5/26/2015 14:15	45	0.28	486.800	0.48	0.20	1	Atlas		136.304	1
	5/27/2015 13:30	5/27/2015 13:30	-	0.10	58.690	0.61	0.09	1	Atlas		5.869	1
	6/8/2015 8:00	6/8/2015 8:15	15	0.22	172.059	0.25	0.12	6	Atlas		37.853	1
	6/17/2015 4:30	6/17/2015 6:30	120	0.54	562.998	0.61	0.29	3	Atlas		304.019	1
	6/18/2015 16:00	6/18/2015 18:15	135	1.61	273.548	1.17	0.52	48	Atlas		440.412	1
	6/20/2015 1:15	6/20/2015 8:45	450	1.61	333.258	2.31	0.52	48	Atlas		536.545	1
	6/25/2015 23:45	6/26/2015 0:00	15	0.50	176.636	1.53	0.27	6	Atlas		88.318	1
	6/26/2015 16:45	6/27/2015 1:00	495	0.90	423.911	2.58	0.52	1	Atlas		381.520	1
	6/29/2015 13:30	6/29/2015 13:45	15	0.22	83.005	1.61	0.12	1	Atlas		18.261	1
	7/2/2015 0:30	7/2/2015 2:00	90	1.30	134.786	2.24	0.50	24	Atlas		175.222	1
	7/2/2015 19:00	7/2/2015 21:00	120	1.30	257.128	2.96	0.50	24	Atlas		334.267	1
	7/3/2015 14:30	7/3/2015 18:45	255	0.33	410.868	2.79	0.18	1	Atlas		135.593	1
	7/7/2015 11:30	7/7/2015 13:00	90	0.80	309.128	2.27	0.42	6	Atlas		247.302	1
	7/8/2015 12:15	7/8/2015 12:30	15	0.07	846.986	2.54	0.05	1	Atlas		59.289	1
	7/9/2015 6:00	7/9/2015 7:15	75	0.28	342.300	2.08	0.15	3	Atlas		95.844	1
	7/10/2015 10:30	7/10/2015 16:15	345	0.43	252.602	1.93	0.21	6	Atlas		108.619	1
	7/12/2015 5:30	7/12/2015 16:00	630	1.06	1,380.845	2.66	0.78	1	Atlas		1,463.696	1
	7/13/2015 14:45	7/13/2015 15:00	15	0.40	130.170	3.06	0.34	1	Atlas		52.068	1
	7/14/2015 3:45	7/14/2015 4:45	60	0.51	409.557	3.54	0.39	1	Atlas		208.874	1
	7/17/2015 22:15	7/18/2015 1:45	210	1.18	694.244	3.16	0.79	3	Atlas		819.208	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.14	294.336	0.19	0.10	1	Atlas		41.207	1
	8/5/2015 14:45	8/5/2015 15:15	30	0.87	108.687	0.41	0.31	24	Atlas		94.558	1
	8/6/2015 2:00	8/6/2015 15:00	780	0.87	320.703	1.01	0.31	24	Atlas		279.012	1
	8/19/2015 8:00	8/19/2015 8:30	30	0.35	389.714	0.27	0.13	24	Atlas		136.400	1
	8/19/2015 16:45	8/19/2015 17:00	15	0.35	148.691	0.42	0.13	24	Atlas		52.042	1
	9/9/2015 11:15	9/9/2015 11:30	15	0.23	337.313	0.55	0.18	1	Atlas		77.582	1
	9/11/2015 18:15	9/11/2015 18:15	-	0.14	65.221	0.73	0.10	1	Atlas		9.131	1
	10/12/2015 19:00	10/12/2015 19:15	15	0.22	231.300	0.27	0.15	3	Atlas		50.886	1
	10/27/2015 16:45	10/28/2015 6:15	810	2.34	406.940	2.51	0.77	24	Atlas		952.239	1
	11/6/2015 2:45	11/6/2015 4:45	120	0.83	453.496	0.90	0.50	3	Atlas		376.402	1
	11/11/2015 23:45	11/12/2015 1:00	75	0.28	641.929	1.60	0.17	3	Atlas		179.740	1
	11/18/2015 9:00	11/18/2015 14:30	330	1.57	623.166	1.92	0.80	6	Atlas		978.371	1
	11/30/2015 21:45	12/1/2015 4:30	405	0.73	458.327	1.60	0.33	12	Atlas		334.579	1
	12/21/2015 23:30	12/22/2015 4:00	270	0.50	561.740	0.69	0.26	6	Atlas		280.870	1
	12/23/2015 19:00	12/23/2015 20:30	90	0.82	502.373	1.53	0.64	1	Atlas		411.946	1
	12/26/2015 13:45	12/26/2015 17:30	225	0.25	164.960	1.89	0.11	12	Atlas		41.240	1
	12/27/2015 10:15	12/27/2015 17:15	420	2.01	539.933	3.16	0.65	3	Atlas		1,085.266	1
	12/28/2015 5:45	12/28/2015 5:45	-	2.01	9.380	3.36	0.65	3	Atlas		18.853	1
	12/28/2015 15:15	12/28/2015 16:45	90	2.01	88.495	3.69	0.65	3	Atlas		177.874	1
	2/2/2016 19:00	2/3/2016 1:30	390	1.20	641.251	1.27	0.57	6	Atlas		769.501	1
	2/21/2016 4:00	2/21/2016 10:45	405	1.12	411.269	1.29	0.51	12	Atlas		460.621	1
	2/23/2016 23:00	2/24/2016 7:45	525	2.02	611.210	2.85	0.79	12	Atlas		1,234.645	1
	3/1/2016 12:00	3/1/2016 13:00	60	0.25	533.740	2.24	0.15	3	Atlas		133.435	1
	3/10/2016 13:30	3/10/2016 18:45	315	1.03	322.434	1.03	0.33	48	Atlas		332.107	1
	3/12/2016 22:30	3/12/2016 23:30	60	0.92	201.034	1.70	0.37	6	Atlas		184.951	1
	3/13/2016 8:45	3/13/2016 10:15	90	0.92	256.996	1.98	0.37	6	Atlas		236.436	1
	3/24/2016 17:15	3/24/2016 17:45	30	0.59	210.637	0.67	0.45	1	Atlas		124.276	1
	3/27/2016 21:00	3/27/2016 22:15	75	0.80	349.489	1.39	0.54	1	Atlas		279.591	1
	3/31/2016 4:15	3/31/2016 7:15	180	0.99	117.527	1.98	0.37	24	Atlas		116.352	1
	3/31/2016 22:00	3/31/2016 23:45	105	0.99	216.229	1.79	0.37	24	Atlas		214.067	1
	4/11/2016 16:15	4/11/2016 18:15	120	0.89	309.334	0.86	0.42	6	Atlas		275.307	1
	4/21/2016 14:15	4/21/2016 14:30	15	0.29	67.407	0.14	0.13	3	Atlas		19.548	1
	4/26/2016 16:00	4/26/2016 21:30	330	0.39	258.308	0.70	0.20	6	Atlas		100.740	1
	4/27/2016 13:45	4/27/2016 22:00	495	0.51	484.416	1.19	0.23	3	Atlas		247.052	1
	4/30/2016 11:00	4/30/2016 11:15	15	0.48	148.027	1.16	0.19	6	Atlas		71.053	1
	5/1/2016 14:45	5/1/2016 15:00	15	0.23	242.957	1.52	0.15	3	Atlas		55.880	1
	5/7/2016 16:15	5/7/2016 16:15	-	0.61	14.967	0.78	0.32	6	Atlas		9.130	1
	5/10/2016 14:15	5/10/2016 22:00	465	0.79	377.937	1.62	0.29	24	Atlas		298.570	1
	5/11/2016 21:30	5/11/2016 22:00	30	0.21	338.838	1.61	0.12	3	Atlas		71.156	1
	5/20/2016 13:30	5/20/2016 15:45	135	0.57	651.642	1.24	0.32	3	Atlas		371.436	1
	5/26/2016 13:30	5/26/2016 13:45	15	0.23	96.222	0.75	0.15	3	Atlas		22.131	1
	6/2/2016 15:15	6/2/2016 15:45	30	0.34	414.426	0.48	0.26	1	Atlas		140.905	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/4/2016 16:30	6/4/2016 16:45	15	0.13	695.654	0.58	0.06	12	Atlas		90.435	1
	6/12/2016 17:45	6/12/2016 18:00	15	0.17	430.441	0.19	0.14	1	Atlas		73.175	1
	6/14/2016 16:15	6/14/2016 18:00	105	0.68	424.476	0.78	0.43	3	Atlas		288.644	1
	6/22/2016 8:00	6/22/2016 8:15	15	0.18	271.089	0.11	0.11	3	Atlas		48.796	1
	6/23/2016 15:45	6/23/2016 21:00	315	1.87	361.784	2.04	1.11	6	Cloudburst		676.536	1
	7/3/2016 11:30	7/3/2016 23:00	690	1.08	269.938	0.67	0.35	48	Atlas		291.533	1
	7/4/2016 14:00	7/4/2016 14:45	45	1.08	98.478	1.03	0.35	48	Atlas		106.356	1
	7/6/2016 13:00	7/6/2016 13:15	15	0.11	594.645	1.17	0.07	1	Atlas		65.411	1
	7/12/2016 8:45	7/12/2016 10:00	75	0.17	648.124	0.33	0.11	3	Atlas		110.181	1
	7/28/2016 3:00	7/28/2016 5:00	120	0.60	213.177	0.75	0.28	12	Atlas		127.906	1
	7/30/2016 14:00	7/30/2016 14:30	30	0.40	293.090	1.26	0.35	1	Atlas		117.236	1
	8/1/2016 11:00	8/1/2016 11:15	15	0.35	192.994	1.61	0.30	1	Atlas		67.548	1
	8/4/2016 13:15	8/4/2016 13:45	30	0.22	355.655	0.94	0.14	3	Atlas		78.244	1
	8/15/2016 2:30	8/15/2016 7:30	300	0.98	431.395	1.19	0.49	6	Atlas		422.767	1
	8/17/2016 5:30	8/17/2016 7:15	105	0.70	401.711	1.62	0.30	12	Atlas		281.198	1
	8/20/2016 14:30	8/20/2016 20:45	375	0.89	368.781	2.52	0.39	1	Atlas		328.215	1
	8/28/2016 17:15	8/28/2016 17:15	-	0.21	68.619	0.19	0.18	1	Atlas		14.410	1
	8/31/2016 17:30	8/31/2016 17:30	-	0.10	244.490	0.29	0.08	1	Atlas		24.449	1
	9/10/2016 15:00	9/10/2016 15:15	15	0.19	272.295	0.17	0.12	3	Atlas		51.736	1
	9/28/2016 12:30	9/28/2016 13:00	30	0.35	203.834	0.46	0.19	6	Atlas		71.342	1
	9/30/2016 1:15	9/30/2016 2:30	75	0.68	268.622	1.16	0.35	3	Atlas		182.663	1
	10/20/2016 9:00	10/20/2016 11:00	120	0.53	430.847	0.29	0.20	24	Atlas		228.349	1
	11/8/2016 19:30	11/8/2016 20:00	30	0.20	284.365	0.23	0.10	1	Atlas		56.873	1
	11/28/2016 17:30	11/28/2016 21:30	240	0.66	105.953	0.91	0.29	12	Atlas		69.929	1
	12/6/2016 5:30	12/6/2016 12:00	390	0.86	200.593	0.88	0.39	12	Atlas		172.510	1
	12/17/2016 16:15	12/18/2016 1:30	555	2.60	593.358	2.90	1.77	12	Cloudburst		1.542.731	1
	1/10/2017 19:30	1/10/2017 19:45	15	0.11	324.673	0.35	0.08	1	Atlas		35.714	1
	1/11/2017 12:30	1/11/2017 12:30	-	0.22	64.614	0.52	0.15	1	Atlas		14.215	1
	1/12/2017 15:30	1/12/2017 18:30	180	0.33	169.297	0.56	0.16	6	Atlas		55.868	1
	1/14/2017 11:15	1/14/2017 13:45	150	0.22	296.818	1.19	0.10	6	Atlas		65.300	1
	1/17/2017 0:00	1/17/2017 3:45	225	0.48	618.106	1.82	0.22	12	Atlas		296.691	1
	1/19/2017 19:00	1/20/2017 3:30	510	1.08	709.459	2.37	0.50	12	Atlas		766.216	1
	2/24/2017 18:45	2/24/2017 19:15	30	0.53	221.836	0.59	0.45	1	Atlas		117.573	1
	2/28/2017 10:15	2/28/2017 10:15	-	0.26	87.515	0.82	0.12	6	Atlas		22.754	1
	3/1/2017 3:00	3/1/2017 9:00	360	1.07	521.889	1.91	0.57	6	Atlas		558.421	1
	3/7/2017 7:30	3/7/2017 8:00	30	0.51	208.635	1.62	0.17	48	Atlas		106.404	1
	3/27/2017 18:00	3/27/2017 18:45	45	0.29	470.766	0.73	0.17	3	Atlas		136.522	1
	3/30/2017 20:30	3/30/2017 21:45	75	0.36	108.794	1.08	0.17	6	Atlas		39.166	1
	4/16/2017 5:15	4/16/2017 20:30	915	1.20	292.288	1.41	0.47	6	Atlas		350.745	1
	4/21/2017 23:15	4/22/2017 0:00	45	0.59	110.188	1.65	0.21	24	Atlas		65.011	1
	4/27/2017 6:45	4/27/2017 7:00	15	0.21	253.986	0.81	0.16	1	Atlas		53.337	1
	4/29/2017 1:30	4/29/2017 3:15	105	0.89	562.020	1.21	0.46	6	Atlas		500.198	1
	5/1/2017 3:45	5/1/2017 3:45	-	0.19	177.279	1.29	0.11	3	Atlas		33.683	1
	5/4/2017 19:45	5/5/2017 9:00	795	1.70	362.260	2.62	0.57	24	Atlas		615.842	1
	5/20/2017 18:30	5/21/2017 5:45	675	1.04	753.499	1.05	0.46	12	Atlas		783.639	1
	5/24/2017 18:15	5/24/2017 19:00	45	0.56	200.563	1.47	0.20	24	Atlas		112.315	1
	5/27/2017 14:00	5/27/2017 14:15	15	0.22	300.691	1.80	0.17	1	Atlas		66.152	1
	6/5/2017 8:30	6/5/2017 9:00	30	0.07	2.140.314	0.08	0.03	1	Atlas		149.822	1
	6/5/2017 18:00	6/5/2017 18:30	30	0.32	281.694	0.40	0.28	1	Atlas		90.142	1
	6/15/2017 2:45	6/15/2017 4:15	90	0.75	350.704	0.73	0.48	3	Atlas		263.028	1
	6/22/2017 18:30	6/22/2017 19:15	45	0.31	343.235	0.48	0.17	6	Atlas		106.403	1
	6/23/2017 15:00	6/23/2017 16:15	75	0.68	336.174	0.97	0.33	6	Atlas		228.598	1
	6/30/2017 20:45	6/30/2017 21:15	30	0.31	523.971	0.43	0.26	1	Atlas		162.431	1
	7/6/2017 4:30	7/6/2017 13:00	510	0.51	237.741	0.82	0.23	6	Atlas		121.248	1
	7/7/2017 20:30	7/7/2017 21:00	30	0.26	227.638	1.14	0.17	1	Atlas		59.186	1
	7/23/2017 2:15	7/23/2017 9:30	435	1.18	317.164	1.16	0.54	12	Atlas		374.253	1
	7/28/2017 9:15	7/28/2017 10:15	60	0.52	336.738	1.71	0.40	1	Atlas		175.104	1
	8/6/2017 16:45	8/6/2017 23:45	420	0.56	69.127	0.78	0.25	12	Atlas		38.711	1
	8/17/2017 14:45	8/17/2017 23:00	495	0.53	1.089.206	0.56	0.29	6	Atlas		577.279	1
	8/22/2017 15:45	8/22/2017 16:30	45	0.76	237.589	1.32	0.51	1	Atlas		180.568	1
	9/1/2017 8:00	9/2/2017 4:30	1.230	3.29	621.255	3.30	1.92	24	Cloudburst		2.043.930	1
	9/19/2017 7:45	9/19/2017 9:45	120	0.43	656.653	0.84	0.27	3	Atlas		282.361	1
	10/7/2017 21:30	10/7/2017 22:45	75	1.60	139.853	0.54	0.60	24	Atlas		223.765	1
	10/8/2017 10:30	10/8/2017 15:00	270	1.60	252.877	1.52	0.60	24	Atlas		404.603	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/10/2017 14:30	10/10/2017 16:30	120	0.68	388.732	2.20	0.36	6	Atlas		264,338	1
	10/23/2017 6:15	10/23/2017 7:00	45	0.47	212,732	0.31	0.25	6	Atlas		99,984	1
	10/27/2017 17:30	10/28/2017 0:15	405	0.80	184,750	1.29	0.37	12	Atlas		147,800	1
	11/3/2017 4:15	11/3/2017 5:45	90	1.00	430,245	1.93	0.79	1	Atlas		430,245	1
	11/6/2017 1:45	11/6/2017 2:15	30	0.31	350,648	1.44	0.21	1	Atlas		108,701	1
	11/15/2017 13:15	11/15/2017 13:45	30	0.26	249,277	0.28	0.16	3	Atlas		64,812	1
	11/18/2017 17:00	11/18/2017 17:30	30	0.31	213,784	0.55	0.17	3	Atlas		66,273	1
	12/5/2017 3:15	12/5/2017 6:00	165	0.77	536,662	0.77	0.45	3	Atlas		413,230	1
	12/22/2017 23:15	12/23/2017 5:15	360	1.09	781,611	0.90	0.42	24	Atlas		851,956	1
	2/7/2018 2:45	2/7/2018 4:00	75	0.51	359,145	0.73	0.28	6	Atlas		183,164	1
	2/11/2018 4:00	2/11/2018 10:45	405	0.37	500,149	1.00	0.17	12	Atlas		185,055	1
	2/16/2018 2:30	2/16/2018 11:00	510	0.68	615,157	1.56	0.31	12	Atlas		418,307	1
	2/22/2018 0:45	2/22/2018 15:00	855	1.58	1,942,846	2.51	0.58	24	Atlas		3,069,696	1
	2/23/2018 2:45	2/23/2018 17:00	855	1.15	2,033,961	3.49	0.53	12	Atlas		2,339,055	1
	2/24/2018 9:45	2/26/2018 16:45	3,300	1.65	6,156,818	4.57	0.66	12	Atlas		10,158,750	1
	3/10/2018 0:45	3/10/2018 2:45	120	0.53	621,189	0.54	0.33	3	Atlas		329,230	1
	3/24/2018 8:45	3/24/2018 19:30	645	0.94	550,817	1.67	0.36	24	Atlas		517,768	1
	3/28/2018 5:45	3/28/2018 5:45	-	1.10	10,066	1.31	0.28	48	Atlas		11,073	1
	3/29/2018 19:00	3/29/2018 19:45	45	1.10	51,727	1.83	0.28	48	Atlas		56,900	1
	4/1/2018 20:00	4/1/2018 23:30	210	0.60	907,012	1.99	0.33	6	Atlas		544,207	1
	4/23/2018 5:15	4/23/2018 6:45	90	0.65	97,742	0.65	0.30	12	Atlas		63,532	1
	5/5/2018 14:00	5/5/2018 18:45	285	1.24	675,280	1.09	0.47	12	Atlas		837,347	1
	5/27/2018 4:00	5/27/2018 4:30	30	0.30	345,740	0.35	0.22	1	Atlas		103,722	1
	6/1/2018 0:30	6/1/2018 3:00	150	1.42	335,014	1.94	0.83	3	Atlas		475,720	1
	6/10/2018 14:45	6/10/2018 15:00	15	0.40	153,400	0.17	0.18	12	Atlas		61,360	1
	6/11/2018 11:00	6/11/2018 13:45	165	0.54	342,824	0.62	0.18	48	Atlas		185,125	1
	8/15/2018 19:45	8/16/2018 10:45	900	2.46	655,152	2.47	0.95	24	Atlas		1,611,674	1
	8/19/2018 20:30	8/19/2018 21:45	75	0.28	937,736	2.76	0.19	3	Atlas		262,566	1
	8/20/2018 11:15	8/20/2018 12:00	45	0.46	463,733	3.15	0.33	1	Atlas		213,317	1
	8/31/2018 17:45	8/31/2018 17:45	-	0.26	43,235	0.17	0.13	3	Atlas		11,241	1
	9/6/2018 11:15	9/6/2018 12:00	45	0.25	760,344	0.50	0.18	1	Atlas		190,086	1
	9/8/2018 5:30	9/8/2018 5:45	15	2.23	20,785	0.64	0.90	6	Atlas		46,350	1
	9/8/2018 15:45	9/9/2018 3:00	675	2.23	935,738	2.49	0.90	6	Atlas		2,086,695	1
	9/21/2018 17:30	9/21/2018 17:45	15	0.17	351,812	0.25	0.10	1	Atlas		59,808	1
	9/22/2018 16:15	9/22/2018 17:15	60	1.22	186,549	0.58	0.45	24	Atlas		227,590	1
	9/23/2018 4:15	9/23/2018 7:30	195	1.22	557,517	1.44	0.45	24	Atlas		680,171	1
	9/24/2018 6:45	9/24/2018 14:30	465	1.41	907,881	2.78	0.65	6	Atlas		1,280,112	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.11	665,473	2.91	0.10	1	Atlas		73,202	1
	9/25/2018 16:30	9/26/2018 2:30	600	0.71	718,311	3.59	0.32	12	Atlas		510,001	1
	10/15/2018 9:00	10/15/2018 9:15	15	0.15	293,860	0.56	0.10	1	Atlas		44,079	1
	10/31/2018 15:00	11/1/2018 18:00	1,620	1.65	491,151	1.94	0.59	24	Atlas		810,399	1
	11/5/2018 21:00	11/6/2018 0:45	225	0.94	694,982	2.64	0.51	6	Atlas		653,283	1
	11/14/2018 22:30	11/15/2018 1:00	150	0.43	853,737	0.45	0.20	12	Atlas		367,107	1
	12/1/2018 5:30	12/1/2018 14:30	540	1.34	708,003	1.39	0.57	12	Atlas		948,724	1
	12/15/2018 2:30	12/15/2018 10:45	495	1.66	648,140	1.65	0.70	12	Atlas		1,075,912	1
	12/27/2018 17:30	12/27/2018 18:45	75	0.33	644,215	0.59	0.19	1	Atlas		212,591	1
	12/31/2018 5:00	12/31/2018 17:45	765	1.20	887,591	1.54	0.46	12	Atlas		1,065,109	1
	1/4/2019 14:00	1/4/2019 16:30	150	0.61	552,648	1.68	0.29	3	Atlas		337,115	1
	1/19/2019 6:45	1/19/2019 19:30	765	0.75	353,723	0.81	0.29	24	Atlas		265,292	1
	1/23/2019 9:30	1/23/2019 17:45	495	0.78	1,001,656	1.60	0.31	12	Atlas		781,292	1
	2/5/2019 23:00	2/6/2019 10:30	690	1.50	223,087	0.74	0.48	48	Atlas		334,630	1
	2/7/2019 8:45	2/7/2019 21:45	780	1.50	642,867	1.60	0.48	48	Atlas		964,301	1
	2/10/2019 18:45	2/12/2019 19:30	2,925	2.50	2,944,720	4.07	0.78	48	Atlas		7,361,799	1
	2/20/2019 2:45	2/20/2019 18:15	930	1.43	1,018,872	1.49	0.65	6	Atlas		1,456,987	1
	2/23/2019 17:00	2/24/2019 1:30	510	0.72	1,711,767	2.21	0.39	6	Atlas		1,232,472	1
	3/9/2019 13:30	3/9/2019 19:30	360	0.93	669,447	1.07	0.43	6	Atlas		622,586	1
	3/14/2019 6:30	3/14/2019 7:45	75	0.34	244,135	1.40	0.19	6	Atlas		83,006	1
	3/14/2019 17:00	3/14/2019 19:15	135	0.40	921,823	1.77	0.27	3	Atlas		368,729	1
	3/30/2019 15:30	3/30/2019 20:15	285	0.79	810,508	1.08	0.38	6	Atlas		640,301	1
	4/7/2019 6:15	4/7/2019 13:45	450	0.53	556,498	0.71	0.26	3	Atlas		294,944	1
	4/12/2019 5:45	4/12/2019 6:00	15	0.07	558,486	0.59	0.05	3	Atlas		39,094	1
	4/14/2019 1:00	4/14/2019 5:30	270	0.84	736,943	1.44	0.40	6	Atlas		619,032	1
	4/18/2019 21:15	4/18/2019 23:00	105	0.46	93,337	1.18	0.21	12	Atlas		42,935	1
	4/19/2019 18:15	4/20/2019 14:15	1,200	2.29	821,954	3.54	0.86	24	Atlas		1,882,275	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/23/2019 17:45	4/23/2019 18:15	30	0.05	1,735.940	2.80	0.04	1	Atlas		86,797	1
	4/24/2019 20:30	4/24/2019 21:30	60	0.47	502.053	3.11	0.22	12	Atlas		235,965	1
	4/25/2019 18:00	4/26/2019 3:00	540	0.32	670.678	3.58	0.16	1	Atlas		214,617	1
	5/3/2019 4:45	5/3/2019 8:30	225	0.90	753.584	1.08	0.49	6	Atlas		678,226	1
	5/4/2019 16:45	5/4/2019 17:45	60	0.22	565.200	1.27	0.13	3	Atlas		124,344	1
	5/19/2019 13:15	5/19/2019 13:15	-	0.27	26.274	0.12	0.11	12	Atlas		7,094	1
	5/19/2019 23:15	5/19/2019 23:30	15	0.27	183.063	0.28	0.11	12	Atlas		49,427	1
	5/23/2019 15:45	5/23/2019 16:00	15	0.10	616.190	0.39	0.06	1	Atlas		61,619	1
	5/26/2019 13:45	5/26/2019 15:30	105	0.42	454.762	0.61	0.26	3	Atlas		191,000	1
	5/29/2019 9:00	5/29/2019 13:45	285	0.75	450.888	1.27	0.41	6	Atlas		338,166	1
	5/30/2019 11:15	5/30/2019 11:30	15	0.18	239.967	1.41	0.07	12	Atlas		43,194	1
	6/5/2019 20:45	6/5/2019 21:30	45	0.82	201.713	0.92	0.61	1	Atlas		165,405	1
	6/7/2019 21:15	6/7/2019 22:30	75	0.57	102.181	1.21	0.24	6	Atlas		58,243	1
	6/9/2019 0:15	6/9/2019 0:45	30	0.31	273.455	1.74	0.16	6	Atlas		84,771	1
	6/9/2019 16:30	6/9/2019 18:30	120	0.69	662.654	2.40	0.37	3	Atlas		457,231	1
	6/16/2019 19:45	6/17/2019 1:15	330	1.52	423.034	1.81	0.68	12	Atlas		643,012	1
	6/18/2019 4:45	6/18/2019 4:45	-	0.29	35.372	1.94	0.11	24	Atlas		10,258	1
	6/18/2019 16:15	6/18/2019 17:15	60	0.29	850.941	2.10	0.11	24	Atlas		246,773	1
	6/21/2019 19:15	6/21/2019 21:15	120	0.58	487.538	2.74	0.39	3	Atlas		282,772	1
	6/22/2019 7:00	6/22/2019 9:15	135	0.41	518.712	3.03	0.27	3	Atlas		212,672	1
	6/23/2019 16:00	6/23/2019 16:45	45	0.33	598.836	3.15	0.25	1	Atlas		197,616	1
	6/24/2019 13:15	6/24/2019 14:30	75	0.43	707.472	2.11	0.27	3	Atlas		304,213	1
	7/3/2019 12:45	7/3/2019 12:45	-	0.21	165.029	0.33	0.17	1	Atlas		34,656	1
	7/18/2019 0:30	7/18/2019 1:30	60	0.26	1,118.650	0.39	0.17	1	Atlas		290,849	1
	7/29/2019 23:30	7/30/2019 0:15	45	0.55	409.075	0.55	0.35	1	Atlas		224,991	1
	8/26/2019 10:45	8/26/2019 14:30	225	0.45	1,114.131	0.82	0.21	6	Atlas		501,359	1
	10/6/2019 14:45	10/6/2019 20:00	315	0.98	324.532	0.81	0.38	6	Atlas		318,041	1
	10/15/2019 22:30	10/15/2019 23:30	60	0.52	258.438	0.85	0.39	1	Atlas		134,388	1
	10/26/2019 5:15	10/26/2019 9:00	225	1.28	301.453	1.08	0.49	24	Atlas		385,860	1
	10/26/2019 19:15	10/26/2019 19:30	15	1.28	35.341	1.38	0.49	24	Atlas		45,236	1
	10/30/2019 14:00	10/30/2019 15:15	75	0.85	341.806	2.06	0.43	3	Atlas		290,535	1
	10/31/2019 6:00	10/31/2019 8:00	120	0.65	454.920	2.72	0.35	6	Atlas		295,698	1
	11/26/2019 21:30	11/27/2019 1:00	210	0.63	419.106	1.07	0.28	12	Atlas		264,037	1
	11/30/2019 2:45	11/30/2019 16:45	840	1.89	770.820	2.67	0.75	12	Atlas		1,456,850	1
	12/9/2019 20:15	12/9/2019 20:15	-	0.21	54.329	0.25	0.08	1	Atlas		11,409	1
	12/16/2019 14:15	12/16/2019 18:45	270	0.69	519.265	1.24	0.31	6	Atlas		358,293	1
	12/29/2019 13:15	12/29/2019 22:00	525	1.11	235.814	1.05	0.41	24	Atlas		261,753	1
	1/3/2020 18:00	1/3/2020 18:15	15	0.68	90.132	1.75	0.22	48	Atlas		61,290	1
	1/10/2020 20:00	1/10/2020 20:45	45	0.34	332.144	0.32	0.15	3	Atlas		112,929	1
	1/11/2020 11:00	1/11/2020 16:45	345	0.71	660.600	1.03	0.33	6	Atlas		469,026	1
	1/18/2020 10:45	1/18/2020 11:15	30	0.34	280.421	0.90	0.14	12	Atlas		95,343	1
	1/24/2020 6:30	1/24/2020 6:45	15	0.53	99.894	0.81	0.18	24	Atlas		52,944	1
	2/12/2020 17:00	2/12/2020 20:30	210	0.77	806.251	1.33	0.37	3	Atlas		620,813	1
	2/24/2020 19:45	2/24/2020 19:45	-	0.66	49.764	0.73	0.25	24	Atlas		32,844	1
	3/2/2020 7:00	3/2/2020 7:15	15	0.49	55.851	0.97	0.23	3	Atlas		27,367	1
	3/10/2020 8:00	3/10/2020 8:30	30	0.36	406.703	0.37	0.17	12	Atlas		146,413	1
	3/12/2020 15:45	3/12/2020 23:15	450	0.52	980.763	0.89	0.24	12	Atlas		509,997	1
	3/14/2020 12:30	3/14/2020 14:30	120	0.45	282.736	1.20	0.21	12	Atlas		127,231	1
	3/18/2020 15:45	3/18/2020 16:30	45	0.41	369.544	1.31	0.18	12	Atlas		151,513	1
	3/19/2020 11:45	3/19/2020 13:00	75	0.42	631.169	1.69	0.18	1	Atlas		265,091	1
	3/20/2020 3:45	3/20/2020 4:00	15	0.42	119.333	1.29	0.18	1	Atlas		50,120	1
	3/24/2020 18:30	3/24/2020 19:45	75	0.15	1,256.167	0.99	0.08	6	Atlas		188,425	1
	3/28/2020 22:15	3/28/2020 23:15	60	0.24	1,031.821	0.42	0.20	1	Atlas		247,637	1
	4/8/2020 22:15	4/8/2020 22:30	15	0.59	111.929	0.41	0.39	3	Atlas		66,038	1
	4/12/2020 16:30	4/13/2020 3:30	660	0.83	866.172	1.43	0.33	12	Atlas		718,923	1
	4/23/2020 12:45	4/23/2020 13:00	15	0.50	111.146	0.83	0.20	12	Atlas		55,573	1
	5/8/2020 10:30	5/8/2020 12:30	120	0.60	384.112	0.81	0.28	12	Atlas		230,467	1
	5/15/2020 16:30	5/16/2020 8:00	930	1.26	558.430	1.37	0.47	24	Atlas		703,622	1
	5/18/2020 7:15	5/18/2020 8:00	45	0.30	447.413	1.68	0.14	1	Atlas		134,224	1
	5/25/2020 16:45	5/25/2020 16:45	-	0.23	121.439	0.33	0.17	1	Atlas		27,931	1
	5/29/2020 0:30	5/29/2020 0:30	-	0.22	150.882	0.93	0.10	1	Atlas		33,194	1
	6/4/2020 18:15	6/4/2020 19:15	60	0.50	227.486	0.42	0.25	3	Atlas		113,743	1
	6/21/2020 11:30	6/21/2020 12:00	30	0.45	291.469	0.33	0.24	1	Atlas		131,161	1
	6/22/2020 22:30	6/23/2020 0:30	120	0.88	514.581	1.20	0.38	6	Atlas		452,831	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/23/2020 8:45	6/23/2020 9:00	15	0.88	64.076	1.39	0.38	6	Atlas		56,387	1
	6/29/2020 3:00	6/29/2020 4:45	105	0.56	520.579	1.58	0.37	3	Atlas		291,524	1
CSO119 Total											150,210,842	379
CSO120	11/14/2011 21:30	11/14/2011 21:45	15	2.00	59.694	0.32	0.65	48	Atlas		119,387	1
	11/15/2011 12:00	11/15/2011 12:00	-	2.00	1.793	1.18	0.65	48	Atlas		3,585	1
	11/16/2011 5:30	11/16/2011 7:00	90	2.00	4.281	1.76	0.65	48	Atlas		8,561	1
	11/20/2011 17:15	11/20/2011 17:15	-	0.76	6.700	2.44	0.27	24	Atlas		5,092	1
	11/21/2011 4:15	11/21/2011 4:15	-	0.76	7.205	2.65	0.27	24	Atlas		5,476	1
	11/22/2011 0:15	11/22/2011 10:15	600	1.00	306.739	3.25	0.43	12	Atlas		306,739	1
	11/27/2011 22:15	11/28/2011 0:45	150	3.04	8.191	2.39	0.94	48	Atlas		24,900	1
	11/28/2011 11:30	11/29/2011 0:30	780	3.04	114.127	3.99	0.94	48	Atlas		346,946	1
	12/4/2011 16:45	12/4/2011 17:00	15	3.14	9.445	2.92	1.10	48	Cloudburst		29,658	1
	12/5/2011 3:15	12/5/2011 17:30	855	3.14	215.270	4.90	1.10	48	Cloudburst		675,949	1
	12/15/2011 3:45	12/15/2011 7:30	225	0.48	56.492	0.41	0.23	6	Atlas		27,116	1
	12/21/2011 5:00	12/21/2011 6:45	105	0.65	182.425	1.15	0.29	12	Atlas		118,576	1
	12/22/2011 15:15	12/22/2011 15:15	-	0.55	4.071	1.09	0.24	12	Atlas		2,239	1
	12/27/2011 10:45	12/27/2011 11:00	15	0.66	23.168	1.77	0.26	12	Atlas		15,291	1
	1/11/2012 4:30	1/11/2012 6:45	135	0.73	217.534	0.44	0.28	24	Atlas		158,800	1
	1/17/2012 11:30	1/17/2012 12:00	30	0.38	61.532	1.22	0.17	12	Atlas		23,382	1
	1/23/2012 2:45	1/23/2012 4:30	105	0.60	390.535	0.98	0.31	3	Atlas		234,321	1
	1/26/2012 5:45	1/26/2012 6:30	45	1.68	123.492	1.35	0.55	48	Atlas		207,466	1
	1/26/2012 18:45	1/26/2012 22:45	240	1.68	348.317	2.22	0.55	48	Atlas		585,172	1
	2/4/2012 9:45	2/4/2012 9:45	-	0.39	5.808	0.32	0.23	3	Atlas		2,265	1
	2/22/2012 22:45	2/22/2012 23:00	15	0.17	501.471	0.45	0.13	1	Atlas		85,250	1
	2/29/2012 8:45	2/29/2012 8:45	-	0.67	95.006	0.77	0.30	1	Atlas		63,654	1
	3/8/2012 12:45	3/8/2012 13:30	45	0.81	133.402	1.03	0.39	6	Atlas		108,056	1
	3/15/2012 18:45	3/16/2012 2:30	465	0.96	125.263	1.16	0.42	12	Atlas		120,252	1
	3/17/2012 18:30	3/17/2012 21:45	195	0.83	50.119	1.95	0.48	1	Atlas		41,599	1
	3/23/2012 5:00	3/23/2012 22:30	1,050	1.58	464.582	2.41	0.58	24	Atlas		734,040	1
	4/1/2012 8:30	4/1/2012 10:45	135	1.56	361.072	1.73	0.84	6	Atlas		563,273	1
	4/4/2012 16:30	4/4/2012 17:15	45	0.24	77.721	1.88	0.11	12	Atlas		18,653	1
	4/28/2012 19:15	4/28/2012 19:15	-	0.73	50.562	0.77	0.54	1	Atlas		36,910	1
	5/5/2012 0:15	5/5/2012 1:15	60	1.43	1.003	2.38	0.75	3	Atlas		1,434	1
	5/13/2012 1:45	5/13/2012 8:45	420	2.10	2.644	1.95	0.83	12	Atlas		5,553	1
	5/16/2012 17:45	5/16/2012 17:45	-	0.23	6.404	2.32	0.19	1	Atlas		1,473	1
	5/29/2012 6:45	5/29/2012 17:45	660	2.71	239.011	2.71	9.86	3	Atlas		647,721	1
	5/31/2012 18:30	6/1/2012 4:45	615	1.24	171.550	3.86	0.54	12	Atlas		212,722	1
	6/17/2012 11:30	6/17/2012 12:00	30	0.43	73.837	0.36	0.27	3	Atlas		31,750	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.42	117.500	0.33	0.30	1	Atlas		49,350	1
	7/8/2012 13:15	7/8/2012 13:15	-	0.17	29.824	0.58	0.11	1	Atlas		5,070	1
	7/14/2012 12:15	7/14/2012 14:30	135	0.54	493.311	0.70	0.33	3	Atlas		266,388	1
	10/26/2012 15:00	10/26/2012 15:00	-	0.71	18.524	0.54	0.32	6	Atlas		13,152	1
	12/2/2012 11:15	12/2/2012 11:15	-	0.19	103.116	0.24	0.11	3	Atlas		19,592	1
	12/4/2012 15:15	12/4/2012 18:30	195	0.59	220.644	0.78	0.37	3	Atlas		130,180	1
	12/7/2012 4:45	12/7/2012 16:00	675	1.14	72.013	1.89	0.48	12	Atlas		82,095	1
	12/8/2012 5:45	12/8/2012 6:00	15	0.40	134.345	2.20	0.22	6	Atlas		53,738	1
	12/9/2012 20:45	12/9/2012 23:15	150	1.10	328.879	3.00	0.53	3	Atlas		361,767	1
	12/17/2012 17:00	12/17/2012 17:00	-	0.28	70.418	0.48	0.14	6	Atlas		19,717	1
	12/20/2012 6:45	12/20/2012 11:45	300	0.71	155.794	1.18	0.39	6	Atlas		110,614	1
	12/26/2012 5:30	12/26/2012 6:00	30	0.71	95.158	1.28	0.28	12	Atlas		67,562	1
	1/11/2013 5:15	1/11/2013 7:00	105	0.59	209.329	0.72	0.31	6	Atlas		123,504	1
	1/13/2013 3:00	1/13/2013 18:30	930	2.30	276.424	3.01	0.88	24	Atlas		635,775	1
	1/30/2013 4:30	1/30/2013 8:00	210	0.90	129.349	1.05	0.46	6	Atlas		116,414	1
	2/22/2013 0:00	2/22/2013 0:45	45	0.43	99.488	0.78	0.20	12	Atlas		42,780	1
	2/26/2013 13:30	2/26/2013 13:30	-	0.59	18.020	0.77	0.23	24	Atlas		10,632	1
	3/5/2013 17:00	3/5/2013 17:00	-	0.47	29.689	0.50	0.18	6	Atlas		13,954	1
	3/11/2013 3:45	3/11/2013 10:15	390	1.01	142.318	1.43	0.40	12	Atlas		143,741	1
	3/17/2013 13:30	3/17/2013 14:45	75	1.69	65.170	1.70	0.55	48	Atlas		110,137	1
	3/18/2013 4:00	3/18/2013 6:15	135	1.69	152.585	1.95	0.55	48	Atlas		257,868	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/24/2013 7:45	3/24/2013 15:45	480	0.51	76.024	1.70	0.19	24	Atlas		38,772	1
	4/11/2013 6:15	4/11/2013 7:00	45	1.29	89,439	0.52	0.50	24	Atlas		115,376	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.56	227,748	1.81	0.46	1	Atlas		127,539	1
	4/19/2013 2:00	4/19/2013 4:00	120	0.98	301,569	1.54	0.53	6	Atlas		295,538	1
	4/24/2013 7:15	4/24/2013 9:00	105	0.69	135,746	1.62	0.38	6	Atlas		93,665	1
	5/5/2013 5:00	5/5/2013 8:00	180	1.43	20,038	1.24	0.44	24	Atlas		28,655	1
	5/10/2013 12:00	5/10/2013 15:15	195	0.90	74,829	2.31	0.40	6	Atlas		67,346	1
	5/10/2013 23:30	5/10/2013 23:45	15	0.90	104,268	2.37	0.40	6	Atlas		93,841	1
	5/16/2013 10:00	5/16/2013 10:15	15	0.24	99,892	1.18	0.21	1	Atlas		23,974	1
	5/22/2013 15:45	5/22/2013 15:45	-	0.16	37,525	0.37	0.11	3	Atlas		6,004	1
	6/1/2013 16:00	6/1/2013 16:00	-	0.13	104,508	0.39	0.06	12	Atlas		13,586	1
	6/9/2013 23:45	6/10/2013 0:00	15	0.30	193,917	0.20	0.13	6	Atlas		58,175	1
	6/16/2013 16:30	6/16/2013 16:45	15	0.48	109,619	0.69	0.33	1	Atlas		52,617	1
	6/17/2013 16:15	6/17/2013 20:45	270	1.23	184,886	1.60	0.67	1	Atlas		227,410	1
	6/21/2013 18:45	6/21/2013 19:00	15	0.16	584,938	1.86	0.12	1	Atlas		93,590	1
	6/23/2013 12:15	6/23/2013 12:15	-	0.26	55,708	2.01	0.19	1	Atlas		14,484	1
	6/26/2013 3:00	6/26/2013 4:30	90	0.79	362,533	1.29	0.53	3	Atlas		286,401	1
	6/26/2013 16:00	6/26/2013 22:00	360	2.48	218,773	3.66	4.06	1	Atlas		542,557	1
	6/29/2013 19:15	6/29/2013 20:00	45	0.40	219,820	3.83	0.21	3	Atlas		87,928	1
	7/2/2013 13:00	7/2/2013 13:15	15	0.15	84,807	4.20	0.13	1	Atlas		12,721	1
	7/6/2013 1:00	7/6/2013 1:30	30	0.67	110,594	1.73	0.29	12	Atlas		74,098	1
	7/10/2013 13:45	7/10/2013 14:15	30	0.91	238,610	2.15	0.61	1	Atlas		217,135	1
	7/14/2013 19:15	7/14/2013 19:15	-	0.19	569,621	1.13	0.17	1	Atlas		108,228	1
	7/21/2013 20:00	7/21/2013 20:15	15	2.15	18,918	1.15	0.83	24	Atlas		40,674	1
	7/22/2013 7:00	7/22/2013 13:45	405	2.15	139,494	2.35	0.83	24	Atlas		299,912	1
	8/12/2013 14:30	8/12/2013 14:45	15	0.76	288,282	0.66	0.30	1	Atlas		219,094	1
	8/13/2013 2:45	8/13/2013 3:00	15	0.76	24,620	0.96	0.30	1	Atlas		18,711	1
	8/20/2013 18:00	8/20/2013 18:15	15	0.16	642,713	0.16	0.10	1	Atlas		102,834	1
	8/31/2013 19:30	8/31/2013 22:30	180	1.29	187,691	0.90	0.63	1	Atlas		242,122	1
	9/2/2013 13:30	9/2/2013 13:45	15	0.25	482,752	1.54	0.22	1	Atlas		120,688	1
	9/20/2013 16:15	9/21/2013 3:45	690	1.23	279,493	1.21	0.51	12	Atlas		343,776	1
	10/5/2013 12:45	10/6/2013 9:15	1,230	4.21	280,110	4.28	7.58	24	Cloudburst		1,179,261	1
	10/30/2013 1:15	10/30/2013 5:30	255	1.35	233,708	1.27	0.67	6	Atlas		315,506	1
	10/31/2013 20:45	10/31/2013 20:45	-	0.65	35,809	1.90	0.25	24	Atlas		23,276	1
	11/17/2013 5:15	11/17/2013 19:00	825	2.23	485,411	2.36	0.93	6	Atlas		1,082,467	1
	12/5/2013 5:15	12/5/2013 8:00	165	0.81	167,457	0.21	0.26	48	Atlas		135,640	1
	12/14/2013 10:30	12/14/2013 10:30	-	0.77	17,229	1.10	0.31	12	Atlas		13,266	1
	12/21/2013 7:30	12/21/2013 12:00	270	1.07	149,826	1.35	0.49	12	Atlas		160,314	1
	12/21/2013 21:15	12/22/2013 2:30	315	1.67	337,147	2.74	0.89	3	Atlas		563,035	1
	1/10/2014 23:45	1/11/2014 3:45	240	0.81	163,843	1.21	0.43	6	Atlas		132,713	1
	2/2/2014 5:00	2/2/2014 5:00	-	0.22	76,945	0.15	0.11	6	Atlas		16,928	1
	2/4/2014 19:30	2/4/2014 23:30	240	0.51	660,192	0.96	0.25	6	Atlas		336,698	1
	2/17/2014 16:00	2/17/2014 16:45	45	0.65	262,538	1.13	0.39	3	Atlas		170,650	1
	2/20/2014 23:00	2/20/2014 23:00	-	0.17	20,465	1.36	0.09	6	Atlas		3,479	1
	3/2/2014 9:45	3/2/2014 11:00	75	0.53	80,364	0.25	0.20	24	Atlas		42,593	1
	3/28/2014 4:30	3/28/2014 4:30	-	0.32	76,109	0.34	0.17	1	Atlas		24,355	1
	3/29/2014 6:30	3/29/2014 8:45	135	0.94	191,632	1.05	0.43	6	Atlas		180,134	1
	4/3/2014 12:00	4/4/2014 7:30	1,170	2.61	214,161	3.92	0.91	24	Atlas		558,961	1
	4/7/2014 9:15	4/7/2014 15:30	375	0.76	295,680	3.46	0.46	3	Atlas		224,717	1
	4/14/2014 20:00	4/14/2014 20:45	45	1.03	46,421	0.78	0.39	24	Atlas		47,814	1
	4/27/2014 20:15	4/28/2014 7:00	645	1.87	166,719	1.46	0.73	3	Atlas		311,764	1
	4/28/2014 17:30	4/28/2014 19:45	135	1.87	28,963	1.96	0.73	3	Atlas		54,161	1
	5/9/2014 19:15	5/10/2014 15:00	1,185	1.90	262,749	1.88	0.70	24	Atlas		499,224	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.00	30,013	2.11	0.38	24	Atlas		30,013	1
	5/14/2014 18:00	5/14/2014 19:00	60	1.00	74,885	2.68	0.38	24	Atlas		74,885	1
	5/21/2014 21:00	5/22/2014 3:30	390	0.49	315,522	0.59	0.22	12	Atlas		154,606	1
	5/28/2014 20:30	5/28/2014 20:45	15	0.25	484,752	0.73	0.21	1	Atlas		121,188	1
	5/29/2014 20:45	5/29/2014 21:30	45	0.45	431,389	0.71	0.38	1	Atlas		194,125	1
	6/11/2014 14:15	6/11/2014 14:30	15	0.12	294,633	0.30	0.09	1	Atlas		35,356	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.12	548,033	0.32	0.07	1	Atlas		65,764	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/2/2014 16:30	7/2/2014 16:30	-	0.12	115,567	0.40	0.10	1	Atlas		13,868	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.62	149,747	0.95	0.54	1	Atlas		92,843	1
	7/13/2014 22:30	7/13/2014 23:00	30	0.69	177,646	1.50	0.34	1	Atlas		122,576	1
	7/14/2014 20:15	7/14/2014 20:15	-	0.30	327,413	1.41	0.20	3	Atlas		98,224	1
	7/26/2014 21:45	7/26/2014 22:15	30	0.97	185,090	0.49	0.43	12	Atlas		179,537	1
	7/27/2014 6:45	7/27/2014 8:00	75	0.97	118,139	0.96	0.43	12	Atlas		114,595	1
	8/8/2014 6:00	8/8/2014 7:30	90	0.87	283,641	0.66	0.42	6	Atlas		246,768	1
	8/10/2014 4:00	8/10/2014 4:15	15	0.78	42,724	1.74	0.65	1	Atlas		33,325	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.35	373,943	2.10	0.30	1	Atlas		130,880	1
	8/17/2014 9:30	8/17/2014 10:15	45	0.72	99,968	0.95	0.27	24	Atlas		71,977	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.22	507,100	0.94	0.13	3	Atlas		111,562	1
	8/23/2014 20:00	8/23/2014 20:30	30	0.52	180,910	1.28	0.26	3	Atlas		94,073	1
	8/27/2014 15:00	8/27/2014 15:00	-	0.12	321,717	1.01	0.09	1	Atlas		38,606	1
	8/30/2014 15:15	8/30/2014 15:30	15	0.54	223,183	1.03	0.31	1	Atlas		120,519	1
	9/11/2014 0:45	9/11/2014 6:00	315	1.86	192,281	1.81	1.27	3	Atlas		357,643	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.22	621,541	0.42	0.09	6	Atlas		136,739	1
	10/7/2014 12:00	10/7/2014 12:00	-	0.22	64,645	0.70	0.18	1	Atlas		14,222	1
	10/10/2014 2:00	10/10/2014 3:00	60	1.19	130,846	1.50	0.55	1	Atlas		155,707	1
	10/13/2014 4:30	10/13/2014 6:00	90	0.42	74,248	2.03	0.27	3	Atlas		31,184	1
	10/13/2014 23:30	10/13/2014 23:45	15	0.88	190,242	2.14	0.39	12	Atlas		167,413	1
	10/14/2014 8:00	10/14/2014 8:15	15	0.88	113,072	2.65	0.39	12	Atlas		99,503	1
	11/23/2014 17:30	11/23/2014 19:30	120	0.74	89,889	1.00	0.32	12	Atlas		66,518	1
	12/1/2014 3:15	12/1/2014 3:15	-	0.87	362	0.22	0.33	24	Atlas		315	1
	12/5/2014 23:15	12/6/2014 6:45	450	1.85	143,258	2.71	0.60	48	Atlas		265,028	1
	12/16/2014 5:15	12/16/2014 5:15	-	0.12	37,242	0.11	0.07	3	Atlas		4,469	1
	12/28/2014 1:00	12/28/2014 1:15	15	0.30	113,703	0.75	0.12	24	Atlas		34,111	1
	3/3/2015 23:30	3/4/2015 12:45	795	1.76	123,291	1.24	0.57	24	Atlas		216,992	1
	3/10/2015 7:15	3/10/2015 15:45	510	1.13	583,834	2.89	0.51	12	Atlas		659,732	1
	3/13/2015 10:45	3/14/2015 6:15	1,170	1.81	233,099	2.91	0.68	24	Atlas		421,909	1
	3/26/2015 4:30	3/26/2015 6:00	90	0.48	142,610	0.62	0.19	3	Atlas		68,453	1
	4/2/2015 10:45	4/2/2015 15:15	270	4.76	35,327	1.07	7.33	6	Cloudburst		168,155	1
	4/3/2015 0:15	4/3/2015 23:15	1,380	4.76	320,808	4.79	7.33	6	Cloudburst		1,527,048	1
	4/7/2015 9:15	4/7/2015 17:45	510	0.92	451,113	5.68	0.46	1	Atlas		415,024	1
	4/8/2015 18:15	4/8/2015 18:15	-	0.28	281,254	5.96	0.21	1	Atlas		78,751	1
	4/9/2015 11:30	4/9/2015 12:00	30	0.18	417,317	5.71	0.16	1	Atlas		75,117	1
	4/10/2015 2:15	4/10/2015 3:00	45	0.19	355,605	3.47	0.12	3	Atlas		67,565	1
	4/13/2015 20:45	4/13/2015 21:15	30	0.37	117,641	1.66	0.15	6	Atlas		43,527	1
	4/19/2015 14:15	4/19/2015 14:45	30	0.76	121,276	1.10	0.32	12	Atlas		92,170	1
	4/25/2015 9:15	4/25/2015 9:15	-	0.13	137,962	0.99	0.06	12	Atlas		17,935	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.46	7,080	0.33	0.23	3	Atlas		3,257	1
	5/17/2015 14:30	5/17/2015 14:30	-	0.08	393,950	0.58	0.05	1	Atlas		31,516	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.23	232,509	0.49	0.17	1	Atlas		53,477	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.13	150,231	0.65	0.11	1	Atlas		19,530	1
	6/8/2015 8:30	6/8/2015 8:30	-	0.22	591	0.24	0.13	3	Atlas		130	1
	6/17/2015 4:45	6/17/2015 6:15	90	0.63	306,035	0.67	0.36	3	Atlas		192,802	1
	6/18/2015 16:15	6/18/2015 18:00	105	1.38	129,054	1.11	0.45	48	Atlas		178,095	1
	6/20/2015 1:45	6/20/2015 8:30	405	1.38	243,582	2.13	0.45	48	Atlas		336,143	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.49	208,529	1.39	0.26	6	Atlas		102,179	1
	6/26/2015 17:15	6/27/2015 0:00	405	0.93	140,843	2.45	0.53	1	Atlas		130,984	1
	7/2/2015 0:30	7/2/2015 1:30	60	1.66	36,665	2.40	0.64	24	Atlas		60,864	1
	7/2/2015 19:15	7/2/2015 20:45	90	1.66	177,931	3.44	0.64	24	Atlas		295,366	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.35	133,934	3.30	0.19	1	Atlas		46,877	1
	7/7/2015 11:30	7/7/2015 12:45	75	0.87	187,747	2.64	0.41	6	Atlas		163,340	1
	7/8/2015 12:15	7/8/2015 12:45	30	0.87	32,726	2.91	0.41	6	Atlas		28,472	1
	7/9/2015 6:15	7/9/2015 6:30	15	0.31	79,910	2.21	0.15	3	Atlas		24,772	1
	7/10/2015 14:00	7/10/2015 16:15	135	0.43	68,128	1.98	0.21	6	Atlas		29,295	1
	7/12/2015 6:00	7/12/2015 7:45	105	1.35	255,832	2.98	0.91	1	Atlas		345,373	1
	7/13/2015 14:15	7/13/2015 15:00	45	0.50	162,834	3.48	0.41	1	Atlas		81,417	1
	7/14/2015 4:00	7/14/2015 12:45	525	0.73	259,808	4.21	0.57	1	Atlas		189,660	1
	7/17/2015 22:30	7/18/2015 1:30	180	1.60	221,023	4.32	1.33	3	Atlas		353,637	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/29/2015 17:30	7/29/2015 17:30	-	0.08	409.275	0.10	0.07	1	Atlas		32,742	1
	8/4/2015 19:00	8/4/2015 19:15	15	0.44	245.536	0.50	0.37	1	Atlas		108,036	1
	8/5/2015 15:00	8/5/2015 15:00	-	0.77	49.091	0.77	0.28	24	Atlas		37,800	1
	8/6/2015 2:00	8/6/2015 15:15	795	0.77	237.922	1.21	0.28	24	Atlas		183,200	1
	8/19/2015 8:30	8/19/2015 8:30	-	0.28	259.182	0.27	0.11	24	Atlas		72,571	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.28	368.250	0.41	0.11	24	Atlas		103,110	1
	9/5/2015 17:15	9/5/2015 17:30	15	0.12	242.758	0.08	0.07	1	Atlas		29,131	1
	9/7/2015 17:15	9/7/2015 17:15	-	0.60	10.970	0.72	0.52	1	Atlas		6,582	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.27	297.596	0.99	0.23	1	Atlas		80,351	1
	9/11/2015 18:30	9/11/2015 18:30	-	0.19	212.937	1.14	0.12	1	Atlas		40,458	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.27	194.515	0.32	0.18	3	Atlas		52,519	1
	10/27/2015 17:00	10/28/2015 6:15	795	2.51	139.958	2.51	0.78	48	Atlas		351,295	1
	11/6/2015 3:00	11/6/2015 4:30	90	0.85	425.329	0.87	0.49	3	Atlas		361,530	1
	11/12/2015 0:00	11/12/2015 1:00	60	0.28	330.043	1.67	0.16	3	Atlas		92,412	1
	11/18/2015 9:15	11/18/2015 14:15	300	1.40	396.586	1.76	0.72	6	Atlas		555,221	1
	11/21/2015 15:00	11/21/2015 15:00	-	0.08	9.075	1.62	0.07	1	Atlas		726	1
	11/30/2015 21:45	12/1/2015 4:30	405	0.64	197.478	1.52	0.29	12	Atlas		126,386	1
	12/21/2015 23:45	12/22/2015 4:00	255	0.74	208.768	0.76	0.30	1	Atlas		154,488	1
	12/23/2015 19:15	12/23/2015 20:30	75	0.72	291.365	1.49	0.57	1	Atlas		209,783	1
	12/26/2015 12:45	12/26/2015 17:45	300	0.36	156.847	1.96	0.17	12	Atlas		56,465	1
	12/27/2015 10:30	12/27/2015 21:45	675	1.97	323.481	3.25	0.65	3	Atlas		637,258	1
	12/28/2015 15:30	12/28/2015 16:45	75	1.97	29.996	3.70	0.65	3	Atlas		59,092	1
	2/2/2016 14:45	2/3/2016 0:15	570	1.34	320.418	1.30	0.62	6	Atlas		429,360	1
	2/21/2016 4:15	2/21/2016 10:45	390	1.10	197.303	1.27	0.50	12	Atlas		217,033	1
	2/23/2016 23:15	2/24/2016 7:30	495	2.04	265.127	2.82	0.79	12	Atlas		540,860	1
	3/1/2016 12:15	3/1/2016 13:00	45	0.29	293.731	2.29	0.15	3	Atlas		85,182	1
	3/10/2016 13:45	3/10/2016 16:45	180	1.11	44.996	0.91	0.36	48	Atlas		49,946	1
	3/12/2016 22:45	3/12/2016 23:15	30	0.80	176.151	1.67	0.31	6	Atlas		140,921	1
	3/13/2016 9:00	3/13/2016 10:00	60	0.80	117.096	1.92	0.31	6	Atlas		93,677	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.51	229.806	0.57	0.38	1	Atlas		117,201	1
	3/27/2016 21:15	3/27/2016 22:00	45	0.75	346.832	1.24	0.51	1	Atlas		260,124	1
	3/31/2016 4:45	3/31/2016 4:45	-	1.04	1.502	1.65	0.40	24	Atlas		1,562	1
	3/31/2016 22:00	3/31/2016 23:15	75	1.04	63.039	1.74	0.40	24	Atlas		65,561	1
	4/11/2016 17:00	4/11/2016 18:15	75	1.04	118.819	1.00	0.46	6	Atlas		123,572	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.31	136.800	0.13	0.13	3	Atlas		42,408	1
	4/26/2016 16:15	4/26/2016 21:30	315	0.43	133.584	0.74	0.22	6	Atlas		57,441	1
	4/27/2016 14:00	4/27/2016 22:00	480	0.58	270.188	1.29	0.25	12	Atlas		156,709	1
	4/30/2016 11:15	4/30/2016 11:15	-	0.53	62.111	1.30	0.20	6	Atlas		32,919	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.26	93.342	1.69	0.17	3	Atlas		24,269	1
	5/7/2016 16:30	5/7/2016 21:45	315	0.50	64.884	1.09	0.26	6	Atlas		32,442	1
	5/10/2016 18:45	5/10/2016 22:00	195	0.70	165.024	1.44	0.26	24	Atlas		115,517	1
	5/12/2016 16:15	5/12/2016 16:15	-	0.21	132.948	1.56	0.14	3	Atlas		27,919	1
	5/20/2016 14:00	5/20/2016 15:45	105	0.53	327.987	1.22	0.29	3	Atlas		173,833	1
	5/26/2016 13:45	5/26/2016 14:00	15	0.23	21.378	0.75	0.15	3	Atlas		4,917	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.34	587.582	0.47	0.26	1	Atlas		199,778	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.22	467.236	0.66	0.13	1	Atlas		102,792	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.09	1,085.267	0.13	0.08	1	Atlas		97,674	1
	6/14/2016 16:45	6/14/2016 17:15	30	0.82	188.420	0.73	0.53	3	Atlas		154,504	1
	6/22/2016 8:15	6/22/2016 8:30	15	0.26	140.858	0.13	0.16	3	Atlas		36,623	1
	6/23/2016 16:00	6/23/2016 21:00	300	2.15	147.255	2.41	1.92	6	Cloudburst		316,599	1
	7/3/2016 10:15	7/3/2016 20:15	600	1.23	61.193	0.66	0.40	48	Atlas		75,268	1
	7/4/2016 14:15	7/4/2016 14:15	-	1.23	4.365	1.11	0.40	48	Atlas		5,369	1
	7/6/2016 13:15	7/6/2016 13:15	-	0.06	1,142.633	1.27	0.04	3	Atlas		68,558	1
	7/12/2016 9:00	7/12/2016 10:00	60	0.20	340.020	0.33	0.13	3	Atlas		68,004	1
	7/27/2016 23:45	7/28/2016 5:00	315	0.65	226.508	0.85	0.30	12	Atlas		147,230	1
	7/30/2016 14:15	7/30/2016 14:30	15	0.27	528.448	1.22	0.23	1	Atlas		142,681	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.38	215.142	1.58	0.31	1	Atlas		81,754	1
	8/4/2016 13:45	8/4/2016 13:45	-	0.25	119.980	0.86	0.14	6	Atlas		29,995	1
	8/15/2016 2:45	8/15/2016 7:30	285	0.81	273.460	1.09	0.43	6	Atlas		221,503	1
	8/17/2016 5:45	8/17/2016 7:15	90	0.72	316.001	1.54	0.32	6	Atlas		227,521	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/20/2016 14:45	8/20/2016 20:30	345	1.10	183.660	2.64	0.46	12	Atlas		202.026	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.13	110.808	0.14	0.11	1	Atlas		14.405	1
	8/31/2016 17:00	8/31/2016 17:45	45	0.16	672.163	0.29	0.12	1	Atlas		107.546	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.20	113.040	0.20	0.12	1	Atlas		22.608	1
	9/30/2016 0:00	9/30/2016 2:15	135	0.68	108.707	1.22	0.37	3	Atlas		73.921	1
	10/20/2016 9:15	10/20/2016 10:00	45	0.58	175.531	0.26	0.26	3	Atlas		101.808	1
	11/8/2016 19:45	11/8/2016 20:00	15	0.16	213.506	0.18	0.07	12	Atlas		34.161	1
	12/6/2016 5:30	12/6/2016 9:30	240	0.86	26.530	0.58	0.39	12	Atlas		22.816	1
	12/17/2016 16:30	12/18/2016 2:00	570	2.61	321.982	2.94	1.70	12	Cloudburst		840.373	1
	12/24/2016 1:00	12/24/2016 1:00	-	0.23	69.426	2.75	0.11	12	Atlas		15.968	1
	1/10/2017 19:45	1/10/2017 19:45	-	0.12	102.817	0.35	0.09	1	Atlas		12.338	1
	1/12/2017 15:45	1/12/2017 18:30	165	0.39	122.841	0.58	0.19	6	Atlas		47.908	1
	1/14/2017 11:15	1/14/2017 13:45	150	0.24	91.933	1.29	0.11	6	Atlas		22.064	1
	1/16/2017 23:45	1/17/2017 3:45	240	0.50	100.354	1.92	0.23	12	Atlas		50.177	1
	1/19/2017 19:15	1/20/2017 3:30	495	1.03	197.885	2.37	0.47	12	Atlas		203.822	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.42	259.255	0.47	0.36	1	Atlas		108.887	1
	2/28/2017 10:15	2/28/2017 10:30	15	0.26	85.581	0.72	0.12	6	Atlas		22.251	1
	3/1/2017 3:15	3/1/2017 9:00	345	1.05	369.070	1.78	0.55	6	Atlas		387.523	1
	3/7/2017 7:45	3/7/2017 8:00	15	0.56	186.593	1.66	0.18	48	Atlas		104.492	1
	3/26/2017 2:15	3/26/2017 2:15	-	0.45	6.491	0.29	0.21	6	Atlas		2.921	1
	3/27/2017 18:15	3/27/2017 19:00	45	0.31	140.010	0.76	0.19	3	Atlas		43.403	1
	3/30/2017 9:00	3/30/2017 9:00	-	0.06	223.050	0.82	0.05	1	Atlas		13.383	1
	3/30/2017 22:00	3/30/2017 22:00	-	0.26	23.838	0.92	0.12	6	Atlas		6.198	1
	4/3/2017 19:30	4/3/2017 19:30	-	0.15	58.167	0.43	0.10	1	Atlas		8.725	1
	4/11/2017 4:45	4/11/2017 4:45	-	0.34	64.065	0.10	0.16	12	Atlas		21.782	1
	4/16/2017 13:30	4/16/2017 20:30	420	1.29	164.731	1.49	0.50	24	Atlas		212.503	1
	4/21/2017 23:45	4/21/2017 23:45	-	0.67	8.546	1.79	0.24	24	Atlas		5.726	1
	4/27/2017 6:45	4/27/2017 7:00	15	0.10	393.800	0.79	0.05	6	Atlas		39.380	1
	4/29/2017 0:15	4/29/2017 3:15	180	0.90	397.091	1.14	0.46	6	Atlas		357.382	1
	5/1/2017 4:00	5/1/2017 4:00	-	0.24	125.592	1.22	0.13	3	Atlas		30.142	1
	5/4/2017 19:45	5/5/2017 9:00	795	1.69	207.329	2.63	0.57	24	Atlas		350.386	1
	5/11/2017 3:45	5/11/2017 3:45	-	0.18	24.772	1.88	0.10	6	Atlas		4.459	1
	5/20/2017 18:45	5/21/2017 5:45	660	1.04	506.356	1.06	0.47	12	Atlas		526.610	1
	5/24/2017 18:30	5/24/2017 19:00	30	0.54	82.857	1.43	0.19	24	Atlas		44.743	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.29	450.290	1.85	0.23	1	Atlas		130.584	1
	6/5/2017 9:00	6/5/2017 9:00	-	0.04	901.375	0.05	0.02	12	Atlas		36.055	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.19	30.484	0.24	0.17	1	Atlas		5.792	1
	6/15/2017 3:15	6/15/2017 4:15	60	0.71	190.454	0.72	0.44	3	Atlas		135.222	1
	6/22/2017 18:45	6/22/2017 19:15	30	0.33	148.776	0.51	0.17	6	Atlas		49.096	1
	6/23/2017 15:30	6/23/2017 16:15	45	0.78	251.317	1.10	0.39	6	Atlas		196.027	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.25	442.084	0.34	0.21	1	Atlas		110.521	1
	7/6/2017 4:45	7/6/2017 13:00	495	0.50	111.550	0.76	0.25	3	Atlas		55.775	1
	7/7/2017 20:45	7/7/2017 20:45	-	0.22	2.500	0.96	0.15	3	Atlas		550	1
	7/23/2017 1:45	7/23/2017 6:45	300	1.02	257.735	0.71	0.47	12	Atlas		262.890	1
	7/28/2017 9:30	7/28/2017 10:15	45	0.52	424.004	1.53	0.39	1	Atlas		220.482	1
	8/6/2017 17:00	8/7/2017 0:00	420	0.52	81.315	0.86	0.23	12	Atlas		42.284	1
	8/17/2017 15:00	8/18/2017 10:15	1,155	0.36	7,384.708	0.40	0.21	1	Atlas		2,658.495	1
	8/22/2017 12:30	8/22/2017 16:45	255	0.74	220.942	1.13	0.43	1	Atlas		163.497	1
	9/1/2017 10:15	9/2/2017 3:30	1,035	2.98	284.155	2.91	1.31	24	Cloudburst		846.781	1
	9/19/2017 8:00	9/19/2017 9:00	60	0.47	211.553	0.74	0.30	3	Atlas		99.430	1
	10/7/2017 21:30	10/7/2017 22:45	75	1.59	116.277	0.63	0.60	24	Atlas		184.881	1
	10/8/2017 10:30	10/8/2017 14:30	240	1.59	136.472	1.50	0.60	24	Atlas		216.990	1
	10/10/2017 14:45	10/10/2017 16:15	90	0.66	166.379	2.16	0.34	3	Atlas		109.810	1
	10/23/2017 6:45	10/23/2017 6:45	-	0.46	11.583	0.30	0.24	6	Atlas		5.328	1
	10/27/2017 17:45	10/28/2017 0:00	375	0.81	17.935	1.25	0.37	12	Atlas		14.527	1
	11/3/2017 5:15	11/3/2017 5:30	15	1.05	21.365	1.99	0.83	1	Atlas		22.433	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.46	23.885	1.64	0.32	1	Atlas		10.987	1
	11/15/2017 13:00	11/15/2017 13:15	15	0.31	140.684	0.26	0.20	3	Atlas		43.612	1
	11/18/2017 17:00	11/18/2017 17:00	-	0.31	987	0.56	0.17	3	Atlas		306	1
	12/5/2017 3:15	12/5/2017 5:45	150	0.63	158.471	0.63	0.33	3	Atlas		99.837	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/22/2017 22:30	12/23/2017 11:45	795	1.15	340.843	1.08	0.44	24	Atlas		391,969	1
	1/11/2018 9:00	1/11/2018 9:00	-	0.06	320.817	0.14	0.03	3	Atlas		19,249	1
	1/22/2018 19:45	1/22/2018 19:45	-	0.33	50.848	0.41	0.20	1	Atlas		16,780	1
	1/27/2018 13:45	1/27/2018 15:45	120	0.32	59.813	0.59	0.17	3	Atlas		19,140	1
	2/7/2018 1:15	2/7/2018 4:15	180	0.62	97.876	0.86	0.33	6	Atlas		60,683	1
	2/11/2018 9:15	2/11/2018 9:15	-	0.41	28.734	0.89	0.20	3	Atlas		11,781	1
	2/14/2018 7:30	2/14/2018 9:30	120	0.45	97.882	0.91	0.23	3	Atlas		44,047	1
	2/16/2018 3:15	2/16/2018 10:45	450	0.72	150.528	1.66	0.31	12	Atlas		108,380	1
	2/21/2018 5:15	2/21/2018 7:15	120	1.70	22.086	1.53	0.63	24	Atlas		37,546	1
	2/22/2018 1:00	2/22/2018 8:45	465	1.70	86.867	2.64	0.63	24	Atlas		147,674	1
	2/23/2018 3:15	2/23/2018 16:30	795	1.29	135.522	3.71	0.59	12	Atlas		174,823	1
	2/24/2018 10:45	2/24/2018 21:45	660	1.67	44.235	4.20	0.67	12	Atlas		73,872	1
	3/29/2018 19:45	3/29/2018 22:30	165	1.04	19.331	1.83	0.27	48	Atlas		20,104	1
	4/1/2018 20:00	4/1/2018 23:15	195	0.63	290.673	1.95	0.34	6	Atlas		183,124	1
	4/3/2018 21:30	4/3/2018 21:30	-	0.49	86.927	2.41	0.28	1	Atlas		42,594	1
	4/7/2018 4:00	4/8/2018 0:30	1,230	0.04	4,002.850	1.44	0.02	12	Atlas		160,114	1
	4/14/2018 9:00	4/14/2018 9:45	45	0.95	30.620	0.26	0.31	48	Atlas		29,089	1
	4/15/2018 5:45	4/15/2018 9:00	195	0.95	35.728	0.94	0.31	48	Atlas		33,942	1
	4/23/2018 5:30	4/23/2018 5:30	-	0.67	2.058	0.56	0.31	12	Atlas		1,379	1
	5/5/2018 15:30	5/5/2018 18:45	195	1.31	74.600	1.21	0.51	6	Atlas		97,726	1
	5/17/2018 15:30	5/17/2018 15:30	-	0.14	79.550	0.14	0.11	1	Atlas		11,137	1
	5/27/2018 4:30	5/27/2018 4:30	-	0.33	56.700	0.43	0.24	1	Atlas		18,711	1
	6/1/2018 1:45	6/1/2018 5:15	210	1.35	119.444	2.07	0.79	3	Atlas		161,249	1
	6/2/2018 20:00	6/3/2018 6:45	645	Discharge	-	2.09					30,792	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.40	1.855	0.19	0.18	12	Atlas		742	1
	6/11/2018 13:15	6/11/2018 13:30	15	0.24	307.725	0.60	0.15	1	Atlas		73,854	1
	6/11/2018 23:45	6/11/2018 23:45	-	0.29	158.903	0.65	0.14	1	Atlas		46,082	1
	6/25/2018 10:30	6/25/2018 11:30	60	0.93	113.171	1.58	0.38	12	Atlas		105,249	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.69	102.680	1.85	0.28	12	Atlas		70,849	1
	9/8/2018 5:30	9/8/2018 5:45	15	2.44	41.018	0.62	1.14	6	Cloudburst		100,085	1
	9/8/2018 15:45	9/8/2018 22:15	390	2.44	379.558	2.71	1.14	6	Cloudburst		926,122	1
	9/21/2018 17:30	9/21/2018 17:30	-	0.37	219.224	0.43	0.20	6	Atlas		81,113	1
	9/22/2018 16:30	9/22/2018 17:15	45	1.24	117.016	0.77	0.47	24	Atlas		145,100	1
	9/23/2018 4:15	9/23/2018 7:15	180	1.24	612.722	1.63	0.47	24	Atlas		759,775	1
	9/24/2018 0:45	9/24/2018 14:00	795	1.32	771.121	2.94	0.61	6	Atlas		1,017,880	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.05	2,198.820	2.98	0.04	1	Atlas		109,941	1
	9/25/2018 16:30	9/26/2018 2:30	600	0.72	959.358	3.68	0.32	12	Atlas		690,738	1
	10/15/2018 9:00	10/15/2018 9:00	-	0.13	290.738	0.54	0.08	1	Atlas		37,796	1
	10/31/2018 17:30	11/1/2018 17:00	1,410	1.64	558.177	1.86	0.59	24	Atlas		915,411	1
	11/5/2018 21:30	11/6/2018 0:30	180	0.83	491.852	2.52	0.45	6	Atlas		408,237	1
	11/14/2018 22:45	11/15/2018 1:00	135	0.39	579.692	0.45	0.17	12	Atlas		226,080	1
	12/1/2018 3:00	12/1/2018 14:15	675	1.46	190.041	1.47	0.60	12	Atlas		277,460	1
	12/15/2018 2:45	12/15/2018 10:15	450	1.60	146.547	1.55	0.68	12	Atlas		234,475	1
	12/27/2018 17:45	12/27/2018 18:30	45	0.32	166.778	0.57	0.18	1	Atlas		53,369	1
	12/31/2018 5:15	12/31/2018 17:00	705	1.21	305.653	1.54	0.47	24	Atlas		369,840	1
	1/4/2019 14:00	1/4/2019 16:00	120	0.58	254.434	1.65	0.27	3	Atlas		147,572	1
	1/19/2019 6:45	1/19/2019 11:15	270	0.77	52.191	0.55	0.30	24	Atlas		40,187	1
	1/23/2019 10:15	1/23/2019 15:15	300	0.80	126.731	1.57	0.31	12	Atlas		101,385	1
	2/6/2019 7:00	2/6/2019 10:00	180	1.40	180.979	0.64	0.45	48	Atlas		253,371	1
	2/7/2019 9:00	2/7/2019 19:45	645	1.40	244.109	1.49	0.45	48	Atlas		341,752	1
	2/11/2019 0:30	2/12/2019 19:00	2,550	2.61	298.774	4.08	0.81	48	Atlas		779,799	1
	2/17/2019 13:15	2/18/2019 1:30	735	0.01	81,251.000	2.48	0.01	1	Atlas		812,510	1
	2/20/2019 2:45	2/20/2019 17:30	885	1.49	931.147	1.54	0.68	6	Atlas		1,387,409	1
	2/22/2019 5:45	2/22/2019 10:15	270	0.02	3,967.650	1.56	0.01	3	Atlas		79,353	1
	2/23/2019 17:15	2/24/2019 10:30	1,035	0.72	1,992.901	2.27	0.39	6	Atlas		1,434,889	1
	3/9/2019 13:30	3/9/2019 18:45	315	0.97	243.745	1.10	0.44	12	Atlas		236,433	1
	3/14/2019 7:45	3/14/2019 7:45	-	0.33	2.415	1.43	0.18	6	Atlas		797	1
	3/14/2019 17:15	3/14/2019 18:45	90	0.52	213.521	1.92	0.38	1	Atlas		111,031	1
	3/30/2019 15:45	3/30/2019 20:00	255	0.86	336.126	1.17	0.40	6	Atlas		285,707	1
	4/7/2019 6:00	4/7/2019 13:30	450	0.47	137.677	0.66	0.22	3	Atlas		64,708	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/12/2019 6:00	4/12/2019 6:00	-	0.08	56,638	0.53	0.05	3	Atlas		4,531	1
	4/14/2019 1:00	4/14/2019 5:00	240	0.80	318,513	1.29	0.37	6	Atlas		254,810	1
	4/19/2019 18:15	4/20/2019 9:00	885	2.57	264,291	3.11	0.83	48	Atlas		679,227	1
	4/23/2019 18:15	4/23/2019 18:15	-	0.02	26,400	2.59	0.02	1	Atlas		528	1
	4/24/2019 20:30	4/24/2019 21:00	30	0.54	313,491	2.95	0.26	1	Atlas		169,285	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.31	186,858	3.27	0.14	12	Atlas		57,926	1
	4/26/2019 2:30	4/26/2019 2:45	15	0.31	144,465	3.09	0.14	12	Atlas		44,784	1
	5/3/2019 3:15	5/3/2019 8:00	285	0.88	391,492	1.06	0.48	6	Atlas		344,513	1
	5/4/2019 16:45	5/4/2019 17:00	15	0.19	87,311	1.22	0.12	3	Atlas		16,589	1
	5/19/2019 23:00	5/19/2019 23:15	15	0.14	471,250	0.24	0.10	1	Atlas		65,975	1
	5/23/2019 15:45	5/23/2019 15:45	-	0.11	628,900	0.35	0.07	1	Atlas		69,179	1
	5/26/2019 13:45	5/26/2019 15:30	105	0.51	239,696	0.70	0.33	3	Atlas		122,245	1
	5/29/2019 9:15	5/29/2019 13:15	240	0.59	58,593	1.18	0.32	6	Atlas		34,570	1
	5/30/2019 11:15	5/30/2019 11:15	-	0.21	4,738	1.35	0.09	3	Atlas		995	1
	6/7/2019 21:00	6/7/2019 22:15	75	0.52	68,612	1.14	0.22	6	Atlas		35,678	1
	6/9/2019 0:15	6/9/2019 0:30	15	0.30	74,157	1.66	0.15	6	Atlas		22,247	1
	6/9/2019 15:15	6/9/2019 17:45	150	0.72	265,560	2.28	0.39	3	Atlas		191,203	1
	6/16/2019 21:15	6/17/2019 8:15	660	1.68	74,129	2.06	0.77	12	Atlas		124,537	1
	6/18/2019 4:45	6/18/2019 4:45	-	0.14	125,443	2.18	0.06	12	Atlas		17,562	1
CSO120 Total											63,134,205	375
CSO121	1/17/2010 10:15	1/17/2010 13:00	165	0.25	7,128	0.25	0.11	12	Atlas		1,782	1
	1/20/2010 9:30	1/20/2010 11:15	105	1.26	379	0.51	0.41	48	Atlas		477	1
	1/20/2010 23:45	1/20/2010 23:45	-	1.26	12,164	0.77	0.41	48	Atlas		15,327	1
	1/21/2010 10:15	1/21/2010 18:30	495	1.26	36,910	1.49	0.41	48	Atlas		46,506	1
	1/24/2010 3:15	1/24/2010 4:30	75	0.91	45,410	1.84	0.35	24	Atlas		41,323	1
	1/24/2010 21:00	1/24/2010 21:15	15	0.91	35,903	2.08	0.35	24	Atlas		32,672	1
	2/5/2010 16:30	2/5/2010 16:45	15	1.20	13,184	0.64	0.44	12	Atlas		15,821	1
	3/12/2010 14:00	3/12/2010 14:00	-	0.24	69,658	0.23	0.15	3	Atlas		16,718	1
	3/25/2010 21:15	3/25/2010 21:15	-	0.63	7,957	1.11	0.37	1	Atlas		5,013	1
	4/8/2010 1:15	4/8/2010 5:15	240	1.22	86,846	1.24	0.57	6	Atlas		105,952	1
	4/24/2010 14:30	4/24/2010 19:45	315	1.63	283,177	1.85	0.77	6	Atlas		461,579	1
	4/27/2010 10:00	4/27/2010 10:00	-	0.33	4,782	2.35	0.16	6	Atlas		1,578	1
	5/1/2010 5:00	5/1/2010 7:00	120	3.87	28,241	2.70	2.63	48	Cloudburst		109,291	1
	5/2/2010 1:00	5/2/2010 16:00	900	3.87	388,972	4.32	2.63	48	Cloudburst		1,505,322	1
	5/7/2010 23:00	5/7/2010 23:15	15	0.25	199,100	4.15	0.22	1	Atlas		49,775	1
	5/12/2010 9:30	5/12/2010 10:15	45	0.79	402,268	1.12	0.58	1	Atlas		317,792	1
	5/13/2010 16:30	5/13/2010 16:30	-	0.09	13,856	1.22	0.08	1	Atlas		1,247	1
	5/17/2010 19:45	5/17/2010 19:45	-	0.57	26,518	2.02	0.37	3	Atlas		15,115	1
	5/21/2010 19:45	5/21/2010 20:00	15	0.92	415,798	1.99	0.66	1	Atlas		382,534	1
	5/30/2010 16:15	5/30/2010 20:15	240	0.49	402,876	0.54	0.30	1	Atlas		197,409	1
	6/2/2010 16:15	6/2/2010 16:45	30	0.04	10,225	0.59	0.03	1	Atlas		409	1
	6/9/2010 4:00	6/9/2010 12:00	480	2.27	64,663	2.41	2.50	3	Atlas		146,786	1
	6/13/2010 22:45	6/13/2010 23:15	30	0.55	79,465	2.87	0.26	1	Atlas		43,706	1
	6/19/2010 5:30	6/19/2010 6:30	60	1.06	232,686	2.01	0.61	3	Atlas		246,647	1
	6/28/2010 1:45	6/28/2010 1:45	-	0.29	15,734	0.22	0.21	1	Atlas		4,563	1
	7/13/2010 4:00	7/13/2010 5:30	90	1.79	64,242	1.48	0.82	12	Atlas		114,993	1
	7/19/2010 18:45	7/19/2010 18:45	-	0.16	20,288	2.08	0.13	1	Atlas		3,246	1
	7/20/2010 4:30	7/20/2010 5:45	75	0.71	30,785	2.31	0.45	1	Atlas		21,857	1
	7/21/2010 6:00	7/21/2010 6:00	-	0.46	87,802	1.48	0.37	1	Atlas		40,389	1
	7/27/2010 15:15	7/27/2010 16:30	75	0.88	257,041	1.38	0.62	1	Atlas		226,196	1
	7/31/2010 4:30	7/31/2010 5:00	30	0.38	38,634	1.33	0.21	3	Atlas		14,681	1
	7/31/2010 21:00	7/31/2010 21:00	-	0.25	2,844	1.66	0.22	1	Atlas		711	1
	8/5/2010 9:30	8/5/2010 9:30	-	0.24	17,054	0.85	0.18	1	Atlas		4,093	1
	8/14/2010 16:30	8/14/2010 16:30	-	0.68	169,843	0.88	0.55	1	Atlas		115,493	1
	8/21/2010 7:00	8/21/2010 8:30	90	0.38	29,129	1.15	0.23	3	Atlas		11,069	1
	10/13/2010 20:30	10/13/2010 20:30	-	0.49	3,624	0.52	0.33	3	Atlas		1,776	1
	10/26/2010 11:00	10/26/2010 11:15	15	0.62	31,281	0.34	0.34	6	Atlas		19,394	1
	11/16/2010 15:30	11/16/2010 15:30	-	0.77	3,313	0.71	0.34	12	Atlas		2,551	1
	11/24/2010 14:45	11/24/2010 14:45	-	0.82	23,524	1.06	0.39	3	Atlas		19,290	1
	11/25/2010 11:00	11/25/2010 11:30	30	2.39	7,981	1.68	0.92	24	Atlas		19,075	1
	11/30/2010 1:15	11/30/2010 3:30	135	1.75	43,238	4.77	0.67	24	Atlas		75,666	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/15/2010 23:00	12/15/2010 23:00	-	0.37	3,168	0.59	0.17	12	Atlas		1,172	1
	12/29/2010 21:45	12/29/2010 21:45	-	0.53	2,536	0.12	0.24	12	Atlas		1,344	1
	1/1/2011 6:00	1/1/2011 6:00	-	0.58	6,476	1.02	0.25	12	Atlas		3,756	1
	1/11/2011 16:00	1/11/2011 21:30	330	0.05	217,400	0.11	0.02	12	Atlas		10,870	1
	1/17/2011 15:00	1/17/2011 16:00	60	0.38	12,411	0.08	0.13	24	Atlas		4,716	1
	1/30/2011 7:15	1/30/2011 20:45	810	0.01	1,176,400	0.12	0.01	1	Atlas		11,764	1
	2/21/2011 18:15	2/21/2011 18:15	-	0.19	6,105	0.17	0.11	3	Atlas		1,160	1
	2/24/2011 7:30	2/24/2011 8:00	30	2.28	557	0.42	0.88	24	Atlas		1,270	1
	2/24/2011 17:45	2/25/2011 1:45	480	2.28	196,011	2.49	0.88	24	Atlas		446,905	1
	2/28/2011 5:00	2/28/2011 11:45	405	1.34	154,885	3.96	0.65	6	Atlas		207,546	1
	3/5/2011 7:15	3/5/2011 7:30	15	0.89	23,876	2.21	0.30	24	Atlas		21,250	1
	3/8/2011 23:30	3/9/2011 17:45	1,095	3.20	473,774	4.08	2.34	12	Cloudburst		1,516,077	1
	3/14/2011 13:15	3/14/2011 13:45	30	0.80	845	3.79	0.26	12	Atlas		676	1
	3/15/2011 12:30	3/15/2011 12:30	-	0.80	259	3.99	0.26	12	Atlas		207	1
	4/1/2011 20:15	4/1/2011 20:45	30	0.14	3,993	0.31	0.10	1	Atlas		559	1
	4/4/2011 13:15	4/4/2011 16:30	195	0.83	120,498	1.00	0.43	6	Atlas		100,013	1
	4/9/2011 10:30	4/9/2011 11:30	60	0.51	119,671	1.39	0.36	1	Atlas		61,032	1
	4/11/2011 15:15	4/12/2011 12:45	1,290	3.15	683,044	3.94	2.24	24	Cloudburst		2,151,590	1
	4/20/2011 1:00	4/21/2011 10:30	2,010	0.76	182,992	1.33	0.41	6	Atlas		139,074	1
	4/22/2011 16:30	4/24/2011 21:00	3,150	4.74	585,886	5.56	3.59	48	Atlas		2,777,098	1
	4/25/2011 5:30	4/25/2011 14:45	555	4.74	12,675	5.52	3.59	48	Atlas		60,081	1
	4/26/2011 21:15	4/28/2011 2:15	1,740	2.82	1,469,370	8.42	1.45	24	Cloudburst		4,143,624	1
	5/1/2011 23:30	5/3/2011 10:15	2,085	2.82	521,031	6.93	0.92	48	Atlas		1,469,307	1
	5/8/2011 1:45	5/8/2011 1:45	-	0.21	1,619	3.64	0.12	3	Atlas		340	1
	5/14/2011 15:00	5/14/2011 15:00	-	0.25	57,792	0.46	0.17	1	Atlas		14,448	1
	5/15/2011 23:30	5/15/2011 23:30	-	0.27	6,507	0.55	0.15	3	Atlas		1,757	1
	5/21/2011 18:15	5/21/2011 18:45	30	0.42	121,029	0.78	0.30	1	Atlas		50,832	1
	5/23/2011 4:00	5/23/2011 4:15	15	0.36	83,936	0.83	0.23	1	Atlas		30,217	1
	5/23/2011 17:45	5/23/2011 21:00	195	0.87	210,938	1.77	0.57	3	Atlas		183,516	1
	5/25/2011 23:00	5/26/2011 1:30	150	1.21	64,016	2.51	0.51	3	Atlas		77,459	1
	5/26/2011 11:45	5/26/2011 11:45	-	1.21	10,455	2.83	0.51	3	Atlas		12,650	1
	6/11/2011 4:30	6/11/2011 5:00	30	0.29	80,059	0.33	0.23	1	Atlas		23,217	1
	6/15/2011 9:30	6/15/2011 11:15	105	1.03	522,332	1.39	0.61	1	Atlas		538,002	1
	6/18/2011 6:15	6/18/2011 13:45	450	0.79	258,487	1.87	0.48	3	Atlas		204,205	1
	6/19/2011 7:00	6/20/2011 1:45	1,125	0.54	1,463,083	2.87	0.33	3	Atlas		790,065	1
	6/22/2011 19:30	6/23/2011 3:00	450	4.12	500,587	6.23	37.82	3	Cloudburst		2,062,420	1
	7/8/2011 3:15	7/8/2011 3:15	-	0.40	2,473	0.44	0.21	3	Atlas		989	1
	7/19/2011 23:00	7/19/2011 23:45	45	1.71	306,849	1.74	2.75	1	Atlas		524,711	1
	8/7/2011 3:15	8/7/2011 5:30	135	1.89	268,788	1.74	1.67	3	Atlas		508,009	1
	8/13/2011 17:30	8/13/2011 17:30	-	0.70	8,053	2.80	0.54	1	Atlas		5,637	1
	8/18/2011 8:15	8/18/2011 8:15	-	0.32	36,481	1.00	0.26	1	Atlas		11,674	1
	9/4/2011 20:45	9/4/2011 20:45	-	0.14	130,421	0.13	0.05	24	Atlas		18,259	1
	9/11/2011 20:30	9/11/2011 20:30	-	0.27	28,178	0.52	0.17	3	Atlas		7,608	1
	9/19/2011 7:15	9/19/2011 7:45	30	0.64	40,469	0.54	0.26	12	Atlas		25,900	1
	9/23/2011 5:00	9/23/2011 7:15	135	0.80	20,329	1.45	0.37	12	Atlas		16,263	1
	9/25/2011 20:00	9/26/2011 5:15	555	3.39	639,158	5.00	6.73	12	Cloudburst		2,166,745	1
	10/13/2011 7:15	10/13/2011 7:45	30	0.40	136,718	0.23	0.19	3	Atlas		54,687	1
	10/27/2011 0:15	10/27/2011 0:45	30	1.05	120,334	1.22	0.44	12	Atlas		126,351	1
	11/14/2011 21:30	11/14/2011 21:30	-	2.00	3,990	0.30	0.65	48	Atlas		7,979	1
	11/16/2011 7:15	11/16/2011 7:15	-	2.00	444	1.76	0.65	48	Atlas		887	1
	11/21/2011 4:00	11/21/2011 4:00	-	0.76	26,057	2.64	0.27	24	Atlas		19,803	1
	11/22/2011 3:00	11/22/2011 10:00	420	1.00	52,252	3.13	0.43	12	Atlas		52,252	1
	11/27/2011 22:45	11/29/2011 2:00	1,635	3.04	201,144	4.25	0.94	48	Atlas		611,477	1
	12/4/2011 15:15	12/4/2011 17:00	105	3.14	1,160	2.95	1.10	48	Cloudburst		3,642	1
	12/5/2011 4:45	12/5/2011 17:45	780	3.14	121,592	4.88	1.10	48	Cloudburst		381,798	1
	12/21/2011 6:30	12/21/2011 6:45	15	0.65	34,777	1.15	0.29	12	Atlas		22,605	1
	1/11/2012 6:00	1/11/2012 6:45	45	0.73	39,058	0.44	0.28	24	Atlas		28,512	1
	1/23/2012 2:30	1/23/2012 4:15	105	0.60	86,237	0.98	0.31	3	Atlas		51,742	1
	1/25/2012 17:30	1/25/2012 17:30	-	1.68	955	0.87	0.55	48	Atlas		1,604	1
	1/26/2012 5:30	1/26/2012 6:30	60	1.68	83,333	1.35	0.55	48	Atlas		139,999	1
	1/26/2012 18:30	1/27/2012 2:00	450	1.68	264,474	2.29	0.55	48	Atlas		444,316	1
	2/22/2012 22:45	2/22/2012 22:45	-	0.17	84,235	0.44	0.13	1	Atlas		14,320	1
	2/29/2012 8:30	2/29/2012 8:45	15	0.67	14,800	0.77	0.30	1	Atlas		9,916	1
	3/4/2012 22:00	3/4/2012 23:00	60	0.21	6,133	0.83	0.11	6	Atlas		1,288	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/8/2012 12:45	3/8/2012 13:15	30	0.81	27.256	1.03	0.39	6	Atlas		22,077	1
	3/16/2012 1:45	3/16/2012 2:30	45	0.96	50,977	1.14	0.42	12	Atlas		48,938	1
	3/17/2012 18:30	3/17/2012 18:30	-	0.83	18,654	1.71	0.48	1	Atlas		15,483	1
	3/23/2012 5:15	3/23/2012 22:15	1,020	1.58	136,722	2.41	0.58	24	Atlas		216,020	1
	4/1/2012 8:15	4/1/2012 10:45	150	1.56	84,371	1.73	0.84	6	Atlas		131,618	1
	4/4/2012 16:30	4/4/2012 16:30	-	0.24	38,429	1.86	0.11	12	Atlas		9,223	1
	4/28/2012 19:00	4/29/2012 0:00	300	0.73	238,490	0.88	0.54	1	Atlas		174,098	1
	4/30/2012 17:45	4/30/2012 18:00	15	0.46	102,887	1.11	0.31	3	Atlas		47,328	1
	5/4/2012 23:30	5/5/2012 1:30	120	1.43	320,485	2.41	0.75	3	Atlas		458,293	1
	5/13/2012 1:45	5/13/2012 8:45	420	2.10	237,666	1.95	0.83	12	Atlas		499,098	1
	5/16/2012 17:30	5/16/2012 17:45	15	0.23	166,148	2.32	0.19	1	Atlas		38,214	1
	5/29/2012 6:30	5/29/2012 9:45	195	2.71	532,218	2.65	9.86	3	Atlas		1,442,312	1
	5/31/2012 18:15	6/1/2012 1:15	420	1.24	139,347	3.73	0.54	12	Atlas		172,790	1
	6/4/2012 14:30	6/4/2012 14:30	-	0.21	4,771	4.03	0.10	12	Atlas		1,002	1
	6/17/2012 11:45	6/17/2012 11:45	-	0.43	38,414	0.36	0.27	3	Atlas		16,518	1
	7/1/2012 19:45	7/1/2012 19:45	-	0.42	42,117	0.32	0.30	1	Atlas		17,689	1
	7/8/2012 13:15	7/8/2012 13:15	-	0.17	59,347	0.58	0.11	1	Atlas		10,089	1
	7/14/2012 12:15	7/14/2012 14:00	105	0.54	40,126	0.67	0.33	3	Atlas		21,668	1
	7/19/2012 18:00	7/19/2012 18:30	30	0.88	1,106,186	1.40	0.71	1	Atlas		973,444	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.65	55,526	1.07	0.43	3	Atlas		36,092	1
	8/13/2012 11:15	8/13/2012 11:15	-	0.11	3,209	0.08	0.07	3	Atlas		353	1
	8/16/2012 20:00	8/16/2012 22:00	120	0.56	92,188	0.54	0.33	3	Atlas		51,625	1
	8/21/2012 14:00	8/21/2012 14:00	-	0.23	21,213	0.79	0.20	1	Atlas		4,879	1
	9/1/2012 15:00	9/1/2012 17:30	150	0.39	234,700	0.41	0.25	3	Atlas		91,533	1
	9/2/2012 12:00	9/2/2012 21:15	555	0.63	147,489	1.02	0.24	24	Atlas		92,918	1
	9/3/2012 14:15	9/3/2012 14:30	15	0.06	1,482,450	1.10	0.05	1	Atlas		88,947	1
	9/5/2012 15:15	9/5/2012 16:30	75	0.74	338,795	1.84	0.57	1	Atlas		250,708	1
	9/7/2012 23:30	9/8/2012 1:30	120	1.44	61,111	3.10	0.82	3	Atlas		88,000	1
	9/25/2012 23:45	9/26/2012 5:00	315	0.47	52,815	0.80	0.22	12	Atlas		24,823	1
	9/26/2012 19:45	9/26/2012 23:45	240	1.59	87,366	2.44	0.84	6	Atlas		138,912	1
	10/1/2012 15:00	10/1/2012 18:30	210	0.68	53,101	3.11	0.28	12	Atlas		36,109	1
	10/26/2012 15:00	10/26/2012 15:00	-	0.71	21,349	0.54	0.32	6	Atlas		15,158	1
	12/4/2012 17:00	12/4/2012 18:15	75	0.59	49,481	0.78	0.37	3	Atlas		29,194	1
	12/7/2012 5:15	12/7/2012 5:45	30	1.14	7,292	1.41	0.48	12	Atlas		8,313	1
	12/9/2012 21:30	12/9/2012 23:00	90	1.10	163,597	2.97	0.53	3	Atlas		179,957	1
	12/20/2012 8:00	12/20/2012 11:45	225	0.71	96,862	1.18	0.39	6	Atlas		68,772	1
	12/26/2012 5:30	12/26/2012 6:00	30	0.71	92,090	1.28	0.28	12	Atlas		65,384	1
	1/11/2013 5:15	1/11/2013 6:30	75	0.59	40,585	0.67	0.31	6	Atlas		23,945	1
	1/13/2013 3:00	1/13/2013 18:45	945	2.30	155,871	3.02	0.88	24	Atlas		358,504	1
	1/30/2013 4:45	1/30/2013 8:00	195	0.90	150,388	1.05	0.46	6	Atlas		135,349	1
	2/26/2013 16:00	2/26/2013 16:00	-	0.59	822	0.93	0.23	24	Atlas		485	1
	3/5/2013 14:45	3/5/2013 14:45	-	0.47	2,132	0.46	0.18	6	Atlas		1,002	1
	3/11/2013 5:30	3/11/2013 6:30	60	1.01	76,167	1.34	0.40	12	Atlas		76,929	1
	3/17/2013 14:00	3/17/2013 19:15	315	1.69	16,440	1.77	0.55	48	Atlas		27,784	1
	3/18/2013 4:15	3/18/2013 5:45	90	1.69	63,880	1.85	0.55	48	Atlas		107,957	1
	3/24/2013 16:00	3/24/2013 16:00	-	0.51	16,216	1.39	0.19	24	Atlas		8,270	1
	4/11/2013 6:45	4/11/2013 7:15	30	1.29	172,816	0.53	0.50	24	Atlas		222,932	1
	4/16/2013 20:00	4/16/2013 20:30	30	0.56	768,300	1.82	0.46	1	Atlas		430,248	1
	4/19/2013 3:00	4/19/2013 4:15	75	0.98	44,933	1.55	0.53	6	Atlas		44,034	1
	4/24/2013 7:00	4/24/2013 9:15	135	0.69	71,341	1.63	0.38	6	Atlas		49,225	1
	5/5/2013 8:00	5/5/2013 8:00	-	1.43	6,169	1.23	0.44	24	Atlas		8,822	1
	5/10/2013 12:30	5/10/2013 12:30	-	0.90	4,541	2.10	0.40	6	Atlas		4,087	1
	5/10/2013 23:45	5/10/2013 23:45	-	0.90	9,093	2.37	0.40	6	Atlas		8,184	1
	5/16/2013 10:15	5/16/2013 10:15	-	0.24	56,425	1.18	0.21	1	Atlas		13,542	1
	5/22/2013 15:45	5/22/2013 15:45	-	0.16	152,100	0.37	0.11	3	Atlas		24,336	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.30	48,160	0.20	0.13	6	Atlas		14,448	1
	6/16/2013 17:00	6/16/2013 17:00	-	0.48	29,502	0.71	0.33	1	Atlas		14,161	1
	6/17/2013 16:15	6/17/2013 21:00	285	1.23	335,172	1.62	0.67	1	Atlas		412,261	1
	6/23/2013 12:30	6/23/2013 12:45	15	0.26	116,215	2.10	0.19	1	Atlas		30,216	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.79	96,830	1.29	0.53	3	Atlas		76,496	1
	6/26/2013 16:00	6/26/2013 22:00	360	2.48	575,483	3.66	4.06	1	Atlas		1,427,198	1
	7/6/2013 1:00	7/6/2013 5:15	255	0.67	75,304	2.03	0.29	12	Atlas		50,454	1
	7/10/2013 14:00	7/10/2013 14:30	30	0.91	313,351	2.15	0.61	1	Atlas		285,149	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.19	28,526	1.18	0.17	1	Atlas		5,420	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/21/2013 20:30	7/21/2013 20:30	-	2.15	3,055	1.18	0.83	24	Atlas		6,569	1
	7/22/2013 7:00	7/22/2013 16:00	540	2.15	136,899	2.38	0.83	24	Atlas		294,332	1
	8/12/2013 14:30	8/12/2013 14:45	15	0.76	227,012	0.66	0.30	1	Atlas		172,529	1
	8/13/2013 3:00	8/13/2013 3:15	15	0.76	31,771	0.99	0.30	1	Atlas		24,146	1
	8/20/2013 18:15	8/20/2013 18:15	-	0.16	334,481	0.16	0.10	1	Atlas		53,517	1
	8/31/2013 20:00	9/1/2013 0:30	270	1.29	73,742	1.06	0.63	1	Atlas		95,127	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.25	206,908	1.54	0.22	1	Atlas		51,727	1
	9/20/2013 16:15	9/21/2013 4:00	705	1.23	133,694	1.22	0.51	12	Atlas		164,444	1
	10/5/2013 13:00	10/6/2013 10:00	1,260	4.21	1,054,583	4.28	7.58	24	Cloudburst		4,439,794	1
	10/30/2013 2:15	10/30/2013 5:45	210	1.35	41,849	1.31	0.67	6	Atlas		56,496	1
	10/31/2013 18:45	10/31/2013 21:00	135	0.65	58,058	1.91	0.25	24	Atlas		37,738	1
	11/17/2013 5:30	11/17/2013 19:15	825	2.23	102,408	2.36	0.93	6	Atlas		228,370	1
	12/5/2013 5:15	12/5/2013 7:45	150	0.81	48,796	0.20	0.26	48	Atlas		39,525	1
	12/14/2013 10:30	12/14/2013 10:30	-	0.77	536	1.10	0.31	12	Atlas		413	1
	12/21/2013 7:45	12/21/2013 10:00	135	1.07	27,980	1.12	0.49	12	Atlas		29,939	1
	12/21/2013 21:30	12/22/2013 0:45	195	1.67	637,108	2.64	0.89	3	Atlas		1,063,971	1
	1/11/2014 0:15	1/11/2014 3:15	180	0.81	158,254	1.16	0.43	6	Atlas		128,186	1
	2/4/2014 20:00	2/4/2014 23:45	225	0.51	444,659	0.96	0.25	6	Atlas		226,776	1
	2/14/2014 16:00	2/14/2014 17:15	75	0.49	3,480	0.36	0.26	6	Atlas		1,705	1
	2/17/2014 16:00	2/17/2014 16:45	45	0.65	85,092	1.13	0.39	3	Atlas		55,310	1
	3/19/2014 8:30	3/19/2014 8:30	-	0.06	17,150	0.14	0.03	1	Atlas		1,029	1
	3/28/2014 4:30	3/28/2014 4:30	-	0.32	11,428	0.34	0.17	1	Atlas		3,657	1
	3/29/2014 6:15	3/29/2014 8:15	120	0.94	69,272	1.02	0.43	6	Atlas		65,116	1
	4/3/2014 12:30	4/4/2014 7:30	1,140	2.61	119,245	3.92	0.91	24	Atlas		311,229	1
	4/7/2014 9:15	4/7/2014 15:30	375	0.76	382,893	3.46	0.46	3	Atlas		290,999	1
	4/14/2014 20:00	4/14/2014 21:00	60	1.03	18,894	0.80	0.39	24	Atlas		19,461	1
	4/25/2014 2:15	4/25/2014 2:15	-	0.10	5,410	0.06	0.05	6	Atlas		541	1
	4/28/2014 4:00	4/28/2014 7:15	195	1.87	301,445	1.48	0.73	3	Atlas		563,702	1
	4/28/2014 17:30	4/28/2014 17:45	15	1.87	16,407	1.85	0.73	3	Atlas		30,682	1
	5/9/2014 19:30	5/10/2014 14:45	1,155	1.90	51,374	1.61	0.70	24	Atlas		97,611	1
	5/14/2014 7:15	5/14/2014 7:15	-	1.00	12,739	2.13	0.38	24	Atlas		12,739	1
	5/14/2014 18:00	5/14/2014 18:15	15	1.00	17,795	2.63	0.38	24	Atlas		17,795	1
	5/21/2014 21:00	5/22/2014 3:00	360	0.49	239,382	0.53	0.22	12	Atlas		117,297	1
	5/28/2014 20:15	5/28/2014 20:15	-	0.25	53,172	0.71	0.21	1	Atlas		13,293	1
	5/29/2014 21:00	5/29/2014 21:00	-	0.45	472,216	0.69	0.38	1	Atlas		212,497	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.12	59,592	0.30	0.09	1	Atlas		7,151	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.12	217,567	0.32	0.07	1	Atlas		26,108	1
	7/2/2014 16:15	7/2/2014 16:15	-	0.12	46,183	0.38	0.10	1	Atlas		5,542	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.62	236,902	0.95	0.54	1	Atlas		146,879	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.69	203,493	1.48	0.34	1	Atlas		140,410	1
	7/14/2014 20:15	7/14/2014 20:15	-	0.30	139,627	1.41	0.20	3	Atlas		41,888	1
	7/26/2014 21:30	7/26/2014 22:45	75	0.97	64,980	0.56	0.43	12	Atlas		63,031	1
	7/27/2014 7:15	7/27/2014 9:15	120	0.97	34,729	1.01	0.43	12	Atlas		33,687	1
	8/8/2014 5:45	8/8/2014 7:30	105	0.87	193,354	0.66	0.42	6	Atlas		168,218	1
	8/10/2014 4:15	8/10/2014 4:15	-	0.78	22,168	1.74	0.65	1	Atlas		17,291	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.35	65,849	2.10	0.30	1	Atlas		23,047	1
	8/17/2014 9:30	8/17/2014 9:45	15	0.72	41,438	0.89	0.27	24	Atlas		29,835	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.22	440,505	0.94	0.13	3	Atlas		96,911	1
	8/23/2014 20:15	8/23/2014 20:15	-	0.52	112,508	1.27	0.26	3	Atlas		58,504	1
	8/27/2014 15:00	8/27/2014 15:00	-	0.12	242,217	1.01	0.09	1	Atlas		29,066	1
	8/30/2014 15:00	8/30/2014 16:00	60	0.54	435,104	1.12	0.31	1	Atlas		234,956	1
	9/2/2014 8:15	9/2/2014 8:15	-	0.40	35,158	1.00	0.25	3	Atlas		14,063	1
	9/11/2014 1:00	9/11/2014 6:00	300	1.86	92,490	1.81	1.27	3	Atlas		172,031	1
	10/6/2014 9:30	10/6/2014 9:45	15	0.22	264,777	0.42	0.09	6	Atlas		58,251	1
	10/7/2014 11:45	10/7/2014 11:45	-	0.22	87,091	0.70	0.18	1	Atlas		19,160	1
	10/10/2014 1:45	10/10/2014 2:15	30	1.19	19,100	1.10	0.55	1	Atlas		22,729	1
	10/13/2014 4:15	10/13/2014 4:30	15	0.42	143,802	1.78	0.27	3	Atlas		60,397	1
	10/13/2014 23:15	10/13/2014 23:45	30	0.88	39,432	2.14	0.39	12	Atlas		34,700	1
	10/14/2014 8:00	10/14/2014 8:15	15	0.88	43,142	2.65	0.39	12	Atlas		37,965	1
	11/5/2014 0:15	11/5/2014 0:15	-	0.10	10,010	0.23	0.05	3	Atlas		1,001	1
	11/23/2014 13:30	11/23/2014 19:00	330	0.74	54,489	0.97	0.32	12	Atlas		40,322	1
	12/6/2014 1:45	12/6/2014 6:00	255	1.85	98,581	2.68	0.60	48	Atlas		182,375	1
	12/28/2014 1:00	12/28/2014 1:00	-	0.30	61,807	0.74	0.12	24	Atlas		18,542	1
	1/3/2015 11:45	1/3/2015 11:45	-	0.36	1,900	0.37	0.13	24	Atlas		684	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/21/2015 5:00	2/21/2015 22:00	1,020	1.24	47,329	1.53	0.48	24	Atlas		58,688	1
	3/1/2015 7:45	3/1/2015 12:15	270	0.06	208,350	0.11	0.02	24	Atlas		12,501	1
	3/5/2015 11:15	3/8/2015 1:00	3,705	1.76	172,498	1.87	0.57	24	Atlas		303,597	1
	3/10/2015 4:30	3/11/2015 0:45	1,215	1.13	1,302,597	2.89	0.51	12	Atlas		1,471,935	1
	3/13/2015 10:30	3/15/2015 19:15	3,405	1.81	1,803,050	2.94	0.68	24	Atlas		3,263,521	1
	3/19/2015 20:30	3/20/2015 7:45	675	0.20	38,845	2.01	0.08	12	Atlas		7,769	1
	3/24/2015 14:15	3/24/2015 20:45	390	0.12	11,450	0.31	0.07	1	Atlas		1,374	1
	3/26/2015 4:00	3/26/2015 6:00	120	0.48	109,721	0.62	0.19	3	Atlas		52,666	1
	3/26/2015 15:30	3/26/2015 15:45	15	0.48	6,992	0.74	0.19	3	Atlas		3,356	1
	4/2/2015 9:15	4/2/2015 15:30	375	4.76	54,556	1.09	7.33	6	Cloudburst		259,687	1
	4/3/2015 0:00	4/3/2015 17:30	1,050	4.76	750,468	4.79	7.33	6	Cloudburst		3,572,226	1
	4/7/2015 7:30	4/7/2015 19:15	705	0.92	194,075	5.68	0.46	1	Atlas		178,549	1
	4/8/2015 18:00	4/8/2015 18:15	15	0.28	144,318	5.96	0.21	1	Atlas		40,409	1
	4/9/2015 12:00	4/9/2015 12:00	-	0.18	189,183	5.71	0.16	1	Atlas		34,053	1
	4/10/2015 2:15	4/10/2015 2:30	15	0.19	606,563	3.44	0.12	3	Atlas		115,247	1
	4/13/2015 20:30	4/13/2015 21:00	30	0.37	101,641	1.66	0.15	6	Atlas		37,607	1
	4/14/2015 7:15	4/14/2015 7:45	30	0.37	6,908	1.69	0.15	6	Atlas		2,556	1
	4/19/2015 6:45	4/19/2015 14:45	480	0.76	149,168	1.10	0.32	12	Atlas		113,368	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.46	50,941	0.33	0.23	3	Atlas		23,433	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	310,650	0.58	0.05	1	Atlas		24,852	1
	6/8/2015 8:15	6/8/2015 8:15	-	0.22	296,286	0.24	0.13	3	Atlas		65,183	1
	6/17/2015 4:45	6/17/2015 6:00	75	0.63	38,819	0.61	0.36	3	Atlas		24,456	1
	6/18/2015 17:15	6/18/2015 18:00	45	1.38	83,175	1.11	0.45	48	Atlas		114,782	1
	6/20/2015 0:30	6/20/2015 8:30	480	1.38	277,841	2.13	0.45	48	Atlas		383,421	1
	6/25/2015 23:45	6/26/2015 0:00	15	0.49	129,739	1.40	0.26	6	Atlas		63,572	1
	6/26/2015 17:00	6/27/2015 0:00	420	0.93	396,135	2.45	0.53	1	Atlas		368,406	1
	7/2/2015 0:15	7/2/2015 1:30	75	1.66	15,701	2.40	0.64	24	Atlas		26,063	1
	7/2/2015 15:00	7/2/2015 21:00	360	1.66	458,683	3.44	0.64	24	Atlas		761,414	1
	7/3/2015 18:45	7/3/2015 18:45	-	0.35	63,889	2.67	0.19	1	Atlas		22,361	1
	7/7/2015 12:00	7/7/2015 12:45	45	0.87	33,124	2.64	0.41	6	Atlas		28,818	1
	7/8/2015 0:15	7/8/2015 0:15	-	0.87	11,641	2.84	0.41	6	Atlas		10,128	1
	7/8/2015 12:15	7/8/2015 12:30	15	0.87	65,243	2.91	0.41	6	Atlas		56,761	1
	7/9/2015 6:15	7/9/2015 13:30	435	0.31	192,032	2.38	0.15	3	Atlas		59,530	1
	7/10/2015 14:00	7/10/2015 16:15	135	0.43	149,812	1.98	0.21	6	Atlas		64,419	1
	7/12/2015 6:15	7/12/2015 16:00	585	1.35	328,942	2.98	0.91	1	Atlas		444,072	1
	7/13/2015 14:15	7/13/2015 14:15	-	0.50	35,794	3.23	0.41	1	Atlas		17,897	1
	7/14/2015 4:15	7/14/2015 11:45	450	0.73	108,940	4.21	0.57	1	Atlas		79,526	1
	7/17/2015 22:30	7/18/2015 2:00	210	1.60	197,861	4.32	1.33	3	Atlas		316,577	1
	7/29/2015 17:30	7/29/2015 17:30	-	0.08	153,688	0.10	0.07	1	Atlas		12,295	1
	8/4/2015 19:15	8/4/2015 19:15	-	0.44	64,752	0.50	0.37	1	Atlas		28,491	1
	8/5/2015 15:00	8/5/2015 15:00	-	0.77	181,608	0.77	0.28	24	Atlas		139,838	1
	8/6/2015 8:00	8/6/2015 15:15	435	0.77	238,564	1.21	0.28	24	Atlas		183,694	1
	8/19/2015 8:15	8/19/2015 8:30	15	0.28	100,093	0.27	0.11	24	Atlas		28,026	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.28	185,843	0.41	0.11	24	Atlas		52,036	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.27	96,493	0.99	0.23	1	Atlas		26,053	1
	9/11/2015 18:30	9/11/2015 18:30	-	0.19	68,500	1.14	0.12	1	Atlas		13,015	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.27	108,281	0.32	0.18	3	Atlas		29,236	1
	10/27/2015 17:00	10/28/2015 6:15	795	2.51	112,968	2.51	0.78	48	Atlas		283,550	1
	11/6/2015 3:00	11/6/2015 4:45	105	0.85	199,165	0.89	0.49	3	Atlas		169,290	1
	11/12/2015 0:45	11/12/2015 1:00	15	0.28	95,686	1.67	0.16	3	Atlas		26,792	1
	11/18/2015 8:45	11/18/2015 14:30	345	1.40	307,458	1.76	0.72	6	Atlas		430,441	1
	11/30/2015 22:00	12/1/2015 4:30	390	0.64	236,505	1.52	0.29	12	Atlas		151,363	1
	12/22/2015 3:15	12/22/2015 4:00	45	0.74	47,566	0.76	0.30	1	Atlas		35,199	1
	12/23/2015 19:15	12/23/2015 20:30	75	0.72	280,469	1.49	0.57	1	Atlas		201,938	1
	12/26/2015 12:45	12/26/2015 17:45	300	0.36	147,114	1.96	0.17	12	Atlas		52,961	1
	12/27/2015 10:15	12/28/2015 6:00	1,185	1.97	311,892	3.44	0.65	3	Atlas		614,427	1
	12/28/2015 16:30	12/28/2015 16:45	15	1.97	13,972	3.69	0.65	3	Atlas		27,525	1
	2/3/2016 0:00	2/3/2016 0:15	15	1.34	128,190	1.30	0.62	6	Atlas		171,774	1
	2/21/2016 4:15	2/21/2016 10:45	390	1.10	73,774	1.27	0.50	12	Atlas		81,151	1
	2/23/2016 23:00	2/24/2016 7:30	510	2.04	242,653	2.82	0.79	12	Atlas		495,013	1
	3/1/2016 12:00	3/1/2016 13:00	60	0.29	125,138	2.29	0.15	3	Atlas		36,290	1
	3/10/2016 13:45	3/10/2016 16:45	180	1.11	86,566	0.91	0.36	48	Atlas		96,088	1
	3/12/2016 22:45	3/12/2016 23:30	45	0.80	65,120	1.68	0.31	6	Atlas		52,096	1
	3/13/2016 9:15	3/13/2016 10:00	45	0.80	294,399	1.92	0.31	6	Atlas		235,519	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/24/2016 17:45	3/24/2016 17:45	-	0.51	28,841	0.57	0.38	1	Atlas		14,709	1
	3/27/2016 21:15	3/27/2016 22:00	45	0.75	110,393	1.24	0.51	1	Atlas		82,795	1
	3/31/2016 22:15	3/31/2016 23:15	60	1.04	43,463	1.74	0.40	24	Atlas		45,202	1
	4/11/2016 17:00	4/11/2016 18:15	75	1.04	247,526	1.00	0.46	6	Atlas		257,427	1
	4/26/2016 21:15	4/26/2016 21:30	15	0.43	14,772	0.74	0.22	6	Atlas		6,352	1
	4/27/2016 14:00	4/27/2016 22:00	480	0.58	437,472	1.29	0.25	12	Atlas		253,734	1
	4/30/2016 11:00	4/30/2016 11:15	15	0.53	261,221	1.30	0.20	6	Atlas		138,447	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.26	5,481	1.69	0.17	3	Atlas		1,425	1
	5/10/2016 14:15	5/10/2016 22:00	465	0.70	81,503	1.44	0.26	24	Atlas		57,052	1
	5/11/2016 21:45	5/11/2016 22:00	15	0.21	30,476	1.43	0.12	3	Atlas		6,400	1
	5/12/2016 16:15	5/12/2016 16:15	-	0.21	62,686	1.56	0.14	3	Atlas		13,164	1
	5/20/2016 14:00	5/20/2016 15:45	105	0.53	311,906	1.22	0.29	3	Atlas		165,310	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.34	93,435	0.47	0.26	1	Atlas		31,768	1
	6/4/2016 16:45	6/4/2016 17:00	15	0.22	445,132	0.66	0.13	1	Atlas		97,929	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.09	8,122	0.13	0.08	1	Atlas		731	1
	6/14/2016 16:30	6/14/2016 17:15	45	0.82	217,223	0.73	0.53	3	Atlas		178,123	1
	6/22/2016 8:30	6/22/2016 8:30	-	0.26	28,742	0.13	0.16	3	Atlas		7,473	1
	7/3/2016 20:15	7/3/2016 20:15	-	1.23	29,089	0.66	0.40	48	Atlas		35,779	1
	7/4/2016 14:30	7/4/2016 14:30	-	1.23	1,524	1.14	0.40	48	Atlas		1,875	1
	7/6/2016 13:15	7/6/2016 13:15	-	0.06	126,483	1.27	0.04	3	Atlas		7,589	1
	7/27/2016 23:45	7/27/2016 23:45	-	0.65	54,526	0.42	0.30	12	Atlas		35,442	1
	7/30/2016 14:30	7/30/2016 14:30	-	0.27	4,863	1.22	0.23	1	Atlas		1,313	1
	8/4/2016 13:30	8/4/2016 13:45	15	0.25	279,716	0.86	0.14	6	Atlas		69,929	1
	8/15/2016 3:00	8/15/2016 7:30	270	0.81	209,296	1.09	0.43	6	Atlas		169,530	1
	8/17/2016 6:15	8/17/2016 7:00	45	0.72	420,161	1.53	0.32	6	Atlas		302,516	1
	8/20/2016 14:45	8/20/2016 20:30	345	1.10	84,320	2.64	0.46	12	Atlas		92,752	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.13	38,054	0.14	0.11	1	Atlas		4,947	1
	8/31/2016 17:45	8/31/2016 17:45	-	0.16	98,350	0.29	0.12	1	Atlas		15,736	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.20	577,375	0.20	0.12	1	Atlas		115,475	1
	10/20/2016 9:15	10/20/2016 10:00	45	0.58	219,667	0.26	0.26	3	Atlas		127,407	1
	11/8/2016 20:00	11/8/2016 20:00	-	0.16	39,131	0.18	0.07	12	Atlas		6,261	1
	12/6/2016 9:15	12/6/2016 9:30	15	0.86	33,001	0.58	0.39	12	Atlas		28,381	1
	12/17/2016 18:30	12/18/2016 1:30	420	2.61	111,890	2.94	1.70	12	Cloudburst		292,033	1
	3/1/2017 3:15	3/1/2017 8:30	315	1.05	45,432	1.71	0.55	6	Atlas		47,704	1
	5/21/2017 3:45	5/21/2017 3:45	-	1.04	20,499	0.83	0.47	12	Atlas		21,319	1
	6/5/2017 8:45	6/5/2017 9:15	30	0.04	5,655,750	0.05	0.02	12	Atlas		226,230	1
	6/5/2017 18:15	6/5/2017 18:30	15	0.19	129,842	0.24	0.17	1	Atlas		24,670	1
	6/13/2017 17:15	6/13/2017 17:15	-	0.15	1,060	0.18	0.13	1	Atlas		159	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.71	47,837	0.54	0.44	3	Atlas		33,964	1
	6/18/2017 21:45	6/18/2017 21:45	-	0.18	18,928	1.04	0.11	3	Atlas		3,407	1
	6/22/2017 18:45	6/22/2017 19:15	30	0.33	134,645	0.51	0.17	6	Atlas		44,433	1
	6/23/2017 8:00	6/23/2017 16:15	495	0.78	265,645	1.10	0.39	6	Atlas		207,203	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.25	441,468	0.34	0.21	1	Atlas		110,367	1
	7/6/2017 5:00	7/6/2017 13:00	480	0.50	87,070	0.76	0.25	3	Atlas		43,535	1
	7/7/2017 20:45	7/7/2017 20:45	-	0.22	88,255	0.96	0.15	3	Atlas		19,416	1
	7/23/2017 2:00	7/23/2017 9:45	465	1.02	117,523	1.02	0.47	12	Atlas		119,873	1
	7/28/2017 9:30	7/28/2017 10:15	45	0.52	124,635	1.53	0.39	1	Atlas		64,810	1
	8/1/2017 21:30	8/1/2017 21:45	15	0.32	59,797	0.82	0.26	1	Atlas		19,135	1
	8/6/2017 14:45	8/6/2017 14:45	-	0.52	15,533	0.49	0.23	12	Atlas		8,077	1
	8/7/2017 0:00	8/7/2017 0:00	-	0.52	53,523	0.86	0.23	12	Atlas		27,832	1
	8/17/2017 15:00	8/17/2017 18:15	195	0.36	840,094	0.39	0.21	1	Atlas		302,434	1
	8/22/2017 16:00	8/22/2017 16:45	45	0.74	177,435	1.13	0.43	1	Atlas		131,302	1
	9/1/2017 8:30	9/2/2017 4:00	1,170	2.98	303,046	2.94	1.31	24	Cloudburst		903,078	1
	9/19/2017 8:15	9/19/2017 10:00	105	0.47	419,298	0.88	0.30	3	Atlas		197,070	1
	10/7/2017 22:00	10/7/2017 23:00	60	1.59	48,313	0.64	0.60	24	Atlas		76,817	1
	10/8/2017 10:30	10/8/2017 19:30	540	1.59	85,174	1.59	0.60	24	Atlas		135,426	1
	10/10/2017 15:00	10/10/2017 21:00	360	0.66	211,711	2.26	0.34	3	Atlas		139,729	1
	10/23/2017 6:30	10/23/2017 7:00	30	0.46	74,517	0.31	0.24	6	Atlas		34,278	1
	10/27/2017 17:30	10/28/2017 0:15	405	0.81	32,702	1.28	0.37	12	Atlas		26,489	1
	11/3/2017 4:30	11/3/2017 5:45	75	1.05	255,604	1.99	0.83	1	Atlas		268,384	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.46	451,448	1.64	0.32	1	Atlas		207,666	1
	11/15/2017 13:30	11/15/2017 13:45	15	0.31	86,206	0.33	0.20	3	Atlas		26,724	1
	11/18/2017 16:45	11/18/2017 17:30	45	0.31	96,581	0.61	0.17	3	Atlas		29,940	1
	12/5/2017 3:30	12/5/2017 5:15	105	0.63	172,470	0.57	0.33	3	Atlas		108,656	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/22/2017 23:30	12/23/2017 5:30	360	1.15	289,915	0.91	0.44	24	Atlas		333,402	1
	1/22/2018 20:00	1/22/2018 20:00	-	0.33	2,155	0.40	0.20	1	Atlas		711	1
	2/7/2018 3:15	2/7/2018 3:45	30	0.62	75,790	0.83	0.33	6	Atlas		46,990	1
	2/11/2018 4:15	2/11/2018 11:00	405	0.41	180,207	1.15	0.20	3	Atlas		73,885	1
	2/14/2018 7:15	2/14/2018 7:30	15	0.45	95,702	0.81	0.23	3	Atlas		43,066	1
	2/16/2018 2:45	2/16/2018 11:00	495	0.72	233,494	1.68	0.31	12	Atlas		168,116	1
	2/17/2018 15:30	2/17/2018 15:30	-	0.21	22,371	1.85	0.13	3	Atlas		4,698	1
	2/21/2018 20:45	2/22/2018 16:30	1,185	1.70	478,409	2.65	0.63	24	Atlas		813,296	1
	2/23/2018 3:00	2/23/2018 22:30	1,170	1.29	2,176,255	3.73	0.59	12	Atlas		2,807,369	1
	2/24/2018 9:45	2/25/2018 0:15	870	1.67	1,606,081	4.74	0.67	12	Atlas		2,682,156	1
	2/28/2018 13:45	2/28/2018 17:00	195	0.08	839,800	4.41	0.04	6	Atlas		67,184	1
	3/10/2018 1:00	3/10/2018 2:15	75	0.56	115,046	0.53	0.35	3	Atlas		64,426	1
	3/19/2018 19:45	3/19/2018 19:45	-	0.29	11,372	0.31	0.17	3	Atlas		3,298	1
	3/20/2018 16:15	3/20/2018 16:15	-	0.47	2,515	0.38	0.18	24	Atlas		1,182	1
	3/24/2018 9:15	3/24/2018 19:30	615	0.93	107,948	1.67	0.35	24	Atlas		100,392	1
	3/28/2018 5:45	3/28/2018 5:45	-	1.04	14,066	1.31	0.27	48	Atlas		14,629	1
	3/29/2018 19:15	3/29/2018 19:45	30	1.04	53,791	1.78	0.27	48	Atlas		55,943	1
	4/1/2018 20:15	4/1/2018 23:30	195	0.63	401,500	1.95	0.34	6	Atlas		252,945	1
	4/3/2018 16:30	4/3/2018 21:45	315	0.49	445,839	2.44	0.28	1	Atlas		218,461	1
	4/14/2018 8:45	4/14/2018 9:45	60	0.95	51,325	0.26	0.31	48	Atlas		48,759	1
	4/15/2018 5:45	4/15/2018 9:00	195	0.95	36,588	0.94	0.31	48	Atlas		34,759	1
	4/23/2018 5:30	4/23/2018 7:00	90	0.67	5,161	0.67	0.31	12	Atlas		3,458	1
	5/5/2018 14:15	5/5/2018 18:45	270	1.31	556,242	1.21	0.51	6	Atlas		728,677	1
	5/27/2018 4:30	5/27/2018 4:30	-	0.33	18,112	0.43	0.24	1	Atlas		5,977	1
	6/1/2018 0:30	6/1/2018 3:00	150	1.35	224,376	2.00	0.79	3	Atlas		302,908	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.40	44,635	0.19	0.18	12	Atlas		17,854	1
	6/11/2018 11:30	6/11/2018 13:45	135	0.24	279,517	0.60	0.15	1	Atlas		67,084	1
	6/11/2018 23:45	6/11/2018 23:45	-	0.29	9,779	0.65	0.14	1	Atlas		2,836	1
	6/12/2018 12:15	6/12/2018 18:15	360	0.29	87,479	0.86	0.14	1	Atlas		25,369	1
	6/20/2018 13:15	6/20/2018 13:15	-	0.29	38,238	0.21	0.19	3	Atlas		11,089	1
	6/21/2018 8:00	6/21/2018 15:30	450	0.18	160,333	0.41	0.11	1	Atlas		28,860	1
	6/22/2018 12:15	6/22/2018 13:00	45	0.23	523,243	0.61	0.11	3	Atlas		120,346	1
	6/24/2018 23:00	6/25/2018 10:00	660	0.93	268,315	1.22	0.38	12	Atlas		249,533	1
	6/26/2018 19:45	6/26/2018 19:45	-	0.69	54,441	1.96	0.28	12	Atlas		37,564	1
	7/3/2018 13:45	7/3/2018 14:15	30	0.56	154,498	0.92	0.42	1	Atlas		86,519	1
	7/15/2018 16:45	7/15/2018 16:45	-	0.10	742,200	0.08	0.05	12	Atlas		74,220	1
	7/20/2018 3:30	7/20/2018 3:30	-	1.61	76,427	0.25	0.92	3	Atlas		123,048	1
	7/20/2018 17:30	7/20/2018 19:45	135	1.61	311,309	1.43	0.92	3	Atlas		501,207	1
	7/22/2018 16:00	7/22/2018 16:15	15	0.17	101,841	1.82	0.12	1	Atlas		17,313	1
	7/30/2018 22:15	7/31/2018 11:15	780	2.10	181,620	2.00	0.93	6	Atlas		381,402	1
	8/15/2018 20:15	8/16/2018 15:30	1,155	2.51	901,924	2.52	0.96	24	Atlas		2,263,830	1
	8/19/2018 20:45	8/19/2018 21:15	30	0.11	807,655	2.63	0.08	1	Atlas		88,842	1
	8/20/2018 11:45	8/20/2018 11:45	-	0.63	63,640	3.20	0.49	1	Atlas		40,093	1
	9/6/2018 11:30	9/6/2018 12:00	30	0.27	650,315	0.50	0.21	1	Atlas		175,585	1
	9/8/2018 15:45	9/9/2018 3:00	675	2.44	767,348	2.72	1.14	6	Cloudburst		1,872,329	1
	9/22/2018 16:30	9/22/2018 17:15	45	1.24	120,046	0.77	0.47	24	Atlas		148,857	1
	9/23/2018 4:30	9/23/2018 7:30	180	1.24	274,750	1.63	0.47	24	Atlas		340,690	1
	9/24/2018 0:45	9/24/2018 14:15	810	1.32	528,269	2.95	0.61	6	Atlas		697,315	1
	9/25/2018 6:00	9/25/2018 6:00	-	0.05	130,680	2.98	0.04	1	Atlas		6,534	1
	9/25/2018 16:45	9/26/2018 2:30	585	0.72	69,347	3.68	0.32	12	Atlas		49,930	1
	10/31/2018 15:15	11/1/2018 18:15	1,620	1.64	228,871	1.89	0.59	24	Atlas		375,349	1
	11/5/2018 21:15	11/6/2018 0:45	210	0.83	344,501	2.52	0.45	6	Atlas		285,936	1
	11/14/2018 22:45	11/15/2018 1:00	135	0.39	508,256	0.45	0.17	12	Atlas		198,220	1
	12/1/2018 3:15	12/1/2018 14:45	690	1.46	308,896	1.46	0.60	12	Atlas		450,988	1
	12/15/2018 2:45	12/15/2018 10:45	480	1.60	341,118	1.60	0.68	12	Atlas		545,789	1
	12/27/2018 18:00	12/27/2018 19:00	60	0.32	141,181	0.56	0.18	1	Atlas		45,178	1
	12/31/2018 5:15	12/31/2018 19:15	840	1.21	372,348	1.54	0.47	24	Atlas		450,541	1
	1/4/2019 14:15	1/4/2019 17:00	165	0.58	310,445	1.68	0.27	3	Atlas		180,058	1
	1/19/2019 6:45	1/19/2019 20:00	795	0.77	129,803	0.82	0.30	24	Atlas		99,948	1
	1/23/2019 9:15	1/23/2019 19:15	600	0.80	516,578	1.64	0.31	12	Atlas		413,262	1
	2/5/2019 23:15	2/6/2019 10:00	645	1.40	110,952	0.64	0.45	48	Atlas		155,333	1
	2/7/2019 9:00	2/7/2019 23:30	870	1.40	213,240	1.50	0.45	48	Atlas		298,536	1
	2/10/2019 17:15	2/12/2019 21:45	3,150	2.61	1,406,921	4.08	0.81	48	Atlas		3,672,064	1
	2/20/2019 3:00	2/20/2019 18:00	900	1.49	422,634	1.54	0.68	6	Atlas		629,724	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/23/2019 17:00	2/24/2019 2:15	555	0.72	1,571.254	2.27	0.39	6	Atlas		1,131.303	1
	3/9/2019 15:30	3/9/2019 19:15	225	0.97	94.005	1.12	0.44	12	Atlas		91.185	1
	3/14/2019 7:00	3/14/2019 8:00	60	0.33	20.964	1.43	0.18	6	Atlas		6.918	1
	3/14/2019 17:30	3/14/2019 19:15	105	0.52	126.138	1.92	0.38	1	Atlas		65.592	1
	3/30/2019 15:15	3/30/2019 20:15	300	0.85	256.365	1.18	0.40	6	Atlas		217.910	1
	4/7/2019 6:15	4/7/2019 13:45	450	0.47	248.630	0.66	0.22	3	Atlas		116.856	1
	4/14/2019 1:15	4/14/2019 5:30	255	0.80	351.706	1.31	0.37	6	Atlas		281.365	1
	4/18/2019 23:00	4/18/2019 23:00	-	2.57	3.489	1.08	0.83	48	Atlas		8.967	1
	4/19/2019 15:45	4/20/2019 14:45	1,380	2.57	461.016	3.30	0.83	48	Atlas		1,184.811	1
	4/24/2019 21:15	4/24/2019 21:30	15	0.64	104.850	2.97	0.26	1	Atlas		56.619	1
	4/25/2019 18:30	4/25/2019 18:30	-	0.31	106.255	3.28	0.14	12	Atlas		32.939	1
	4/26/2019 2:45	4/26/2019 3:00	15	0.31	150.706	3.08	0.14	12	Atlas		46.719	1
	5/2/2019 11:45	5/2/2019 11:45	-	0.11	3.955	0.51	0.10	1	Atlas		435	1
	5/3/2019 6:15	5/3/2019 8:00	105	0.88	215.236	1.05	0.48	6	Atlas		189.408	1
	5/4/2019 17:30	5/4/2019 17:30	-	0.19	83.574	1.24	0.12	3	Atlas		15.879	1
	5/19/2019 13:30	5/19/2019 13:30	-	0.09	55.322	0.11	0.06	1	Atlas		4.979	1
	5/19/2019 23:15	5/19/2019 23:15	-	0.14	92.636	0.24	0.10	1	Atlas		12.969	1
	5/23/2019 16:00	5/23/2019 16:00	-	0.11	157.318	0.35	0.07	1	Atlas		17.305	1
	5/26/2019 14:15	5/26/2019 15:30	75	0.51	159.459	0.70	0.33	3	Atlas		81.324	1
	5/29/2019 9:15	5/29/2019 13:45	270	0.59	157.286	1.21	0.32	6	Atlas		92.799	1
	5/30/2019 11:30	5/30/2019 11:30	-	0.21	46.076	1.37	0.09	3	Atlas		9.676	1
	6/5/2019 20:45	6/5/2019 21:30	45	0.81	259.637	0.95	0.61	1	Atlas		210.306	1
	6/7/2019 21:15	6/8/2019 2:30	315	0.52	46.190	1.31	0.22	6	Atlas		24.019	1
	6/9/2019 0:30	6/9/2019 0:45	15	0.30	98.440	1.66	0.15	6	Atlas		29.532	1
	6/9/2019 17:45	6/9/2019 18:30	45	0.72	56.331	2.34	0.39	3	Atlas		40.558	1
	6/16/2019 6:00	6/16/2019 6:15	15	0.24	76.463	1.07	0.17	1	Atlas		18.351	1
	6/16/2019 20:15	6/17/2019 1:15	300	1.68	114.978	2.08	0.77	12	Atlas		193.163	1
	6/18/2019 16:30	6/18/2019 18:00	90	0.38	5,253.124	2.58	0.31	1	Atlas		1,996.187	1
	6/21/2019 19:30	6/21/2019 21:15	105	0.58	2,590.079	3.22	0.38	3	Atlas		1,502.246	1
	6/22/2019 7:00	6/22/2019 9:30	150	0.35	4,692.234	3.46	0.23	3	Atlas		1,642.282	1
	6/23/2019 16:30	6/23/2019 16:45	15	0.38	780.734	3.30	0.30	1	Atlas		296.679	1
	6/24/2019 13:30	6/24/2019 14:45	75	0.40	2,948.463	2.31	0.25	3	Atlas		1,179.385	1
	7/3/2019 13:00	7/3/2019 13:00	-	0.12	2,566.458	0.18	0.07	3	Atlas		307.975	1
	7/16/2019 11:30	7/16/2019 14:30	180	0.21	56.148	0.20	0.10	1	Atlas		11.791	1
	7/18/2019 0:45	7/18/2019 1:15	30	0.18	200.017	0.45	0.14	1	Atlas		36.003	1
	7/30/2019 0:00	7/30/2019 0:00	-	0.58	2.379	0.58	0.36	3	Atlas		1.380	1
	8/22/2019 3:00	8/22/2019 4:45	105	0.19	44.411	0.35	0.13	3	Atlas		8.438	1
	8/26/2019 10:15	8/26/2019 14:30	255	0.49	114.727	0.83	0.23	6	Atlas		56.216	1
	8/27/2019 17:15	8/27/2019 17:15	-	0.23	500	1.03	0.20	1	Atlas		115	1
	3/10/2020 8:15	3/10/2020 8:30	15	0.48	65.385	0.49	0.23	1	Atlas		31.385	1
	3/12/2020 16:00	3/12/2020 23:15	435	0.59	190.685	1.07	0.28	6	Atlas		112.504	1
	3/18/2020 16:00	3/18/2020 16:30	30	0.42	39.921	1.43	0.19	12	Atlas		16.767	1
	3/19/2020 12:00	3/19/2020 12:45	45	0.42	216.940	1.77	0.17	1	Atlas		91.115	1
	3/28/2020 22:30	3/28/2020 23:00	30	0.18	452.283	0.36	0.14	1	Atlas		81.411	1
	4/8/2020 22:30	4/8/2020 22:30	-	0.59	17.719	0.42	0.39	3	Atlas		10.454	1
	4/12/2020 18:00	4/12/2020 18:00	-	0.87	5.301	1.06	0.36	12	Atlas		4.612	1
	5/8/2020 11:00	5/8/2020 11:00	-	0.60	5.480	0.64	0.28	12	Atlas		3.288	1
	5/15/2020 16:45	5/16/2020 8:00	915	1.22	117.417	1.35	0.47	24	Atlas		143.249	1
	5/18/2020 7:30	5/18/2020 8:00	30	0.33	125.048	1.68	0.15	1	Atlas		41.266	1
	5/23/2020 18:00	5/23/2020 18:00	-	0.19	81.779	0.59	0.11	3	Atlas		15.538	1
	5/29/2020 0:45	5/29/2020 0:45	-	0.19	100.647	0.94	0.10	1	Atlas		19.123	1
	6/4/2020 18:15	6/4/2020 19:30	75	0.49	214.086	0.48	0.27	3	Atlas		104.902	1
	6/21/2020 11:45	6/21/2020 12:00	15	0.37	147.514	0.26	0.20	1	Atlas		54.580	1
	6/22/2020 22:45	6/23/2020 0:30	105	0.81	197.636	1.07	0.36	6	Atlas		160.085	1
	6/23/2020 8:45	6/23/2020 9:00	15	0.81	60.823	1.23	0.36	6	Atlas		49.267	1
	6/29/2020 3:00	6/29/2020 4:45	105	0.46	378.143	1.32	0.29	3	Atlas		173.946	1
	CSO121 Total										105,870,991	481
CSO125	6/16/2009 16:45	6/16/2009 17:00	15	0.78	202.003	3.86	0.51	1	Atlas		157.562	1
	6/18/2009 10:30	6/18/2009 18:30	480	1.46	1,312.518	3.41	0.92	1	Atlas		1,916.276	1
	6/20/2009 4:15	6/20/2009 4:15	-	0.10	87.460	2.95	0.08	1	Atlas		8.746	1
	6/22/2009 10:15	6/22/2009 10:15	-	0.97	12.009	3.88	0.67	1	Atlas		11.649	1
	6/26/2009 3:30	6/26/2009 4:00	30	1.06	42.414	2.01	0.49	12	Atlas		44.959	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/8/2009 6:30	7/8/2009 6:45	15	0.12	295.942	0.49	0.10	1	Atlas		35,513	1
	7/15/2009 11:00	7/15/2009 11:30	30	0.30	204.440	0.33	0.19	3	Atlas		61,332	1
	7/22/2009 8:30	7/22/2009 11:15	165	1.55	65.395	2.08	0.67	12	Atlas		101,363	1
	7/29/2009 1:30	7/29/2009 18:15	1,005	2.54	1,888.328	4.72	1.94	6	Cloudburst		4,796,353	1
	7/30/2009 20:00	7/30/2009 23:00	180	1.35	63.004	4.42	0.56	12	Atlas		85,055	1
	8/10/2009 20:00	8/11/2009 0:15	255	1.20	49.012	6.46	0.76	3	Atlas		58,814	1
	9/20/2009 11:00	9/20/2009 11:00	-	3.99	2.503	0.90	6.21	24	Cloudburst		9,987	1
	9/20/2009 20:00	9/21/2009 1:30	330	3.99	999.429	3.98	6.21	24	Cloudburst		3,987,722	1
	9/22/2009 18:45	9/23/2009 0:00	315	0.68	61.734	4.68	0.34	6	Atlas		41,979	1
	9/26/2009 21:30	9/26/2009 21:30	-	0.36	62.600	5.80	0.29	1	Atlas		22,536	1
	10/2/2009 5:15	10/2/2009 6:45	90	0.77	38.081	1.22	0.46	3	Atlas		29,322	1
	10/8/2009 14:30	10/8/2009 18:45	255	2.12	63.960	2.06	0.70	24	Atlas		135,596	1
	10/9/2009 3:15	10/9/2009 15:30	735	2.12	1,661.304	2.60	0.70	24	Atlas		3,521,964	1
	10/14/2009 7:00	10/14/2009 7:00	-	0.73	42.008	2.84	0.47	3	Atlas		30,666	1
	10/27/2009 20:45	10/27/2009 23:15	150	1.11	488.888	1.67	0.50	12	Atlas		542,666	1
	10/30/2009 20:00	10/31/2009 0:00	240	0.93	128.095	1.67	0.42	12	Atlas		119,128	1
	11/17/2009 7:45	11/17/2009 7:45	-	0.99	9.176	0.28	0.38	24	Atlas		9,084	1
	11/17/2009 17:00	11/17/2009 20:15	195	0.99	194.498	0.95	0.38	24	Atlas		192,553	1
	1/20/2010 12:15	1/20/2010 12:15	-	0.49	12.849	0.66	0.19	6	Atlas		6,296	1
	1/21/2010 0:00	1/21/2010 0:15	15	0.49	111.812	0.80	0.19	6	Atlas		54,788	1
	2/5/2010 13:15	2/5/2010 17:15	240	1.27	40.819	0.74	0.47	12	Atlas		51,840	1
	4/8/2010 5:30	4/8/2010 5:30	-	1.17	21.964	1.28	0.56	6	Atlas		25,698	1
	4/24/2010 20:00	4/25/2010 1:45	345	1.47	36.210	1.72	0.67	6	Atlas		53,228	1
	4/27/2010 10:00	4/27/2010 10:15	15	0.36	169.906	2.24	0.18	6	Atlas		61,166	1
	5/1/2010 5:30	5/1/2010 12:45	435	4.14	5.315	3.01	3.55	48	Atlas		22,003	1
	5/2/2010 2:30	5/2/2010 2:45	15	4.14	15.348	2.82	3.55	48	Atlas		63,542	1
	5/16/2010 9:45	5/16/2010 9:45	-	0.54	35.215	1.21	0.25	12	Atlas		19,016	1
	5/17/2010 20:00	5/17/2010 20:00	-	0.54	28.576	2.07	0.37	1	Atlas		15,431	1
	5/30/2010 16:30	5/30/2010 16:30	-	0.34	72.297	0.30	0.20	1	Atlas		24,581	1
	6/9/2010 4:30	6/9/2010 15:30	660	2.06	152.543	2.16	1.70	3	Atlas		314,238	1
	6/13/2010 23:15	6/13/2010 23:15	-	0.58	91.062	2.67	0.30	1	Atlas		52,816	1
	6/19/2010 5:30	6/19/2010 5:45	15	0.89	68.981	1.90	0.51	3	Atlas		61,393	1
	6/28/2010 1:45	6/28/2010 1:45	-	0.48	15.377	0.38	0.35	1	Atlas		7,381	1
	7/8/2010 23:45	7/9/2010 1:00	75	0.56	310.775	0.31	0.21	24	Atlas		174,034	1
	7/13/2010 16:45	7/13/2010 17:30	45	1.77	77.617	2.33	0.81	12	Atlas		137,382	1
	7/20/2010 4:45	7/20/2010 4:45	-	0.90	114.024	2.19	0.51	1	Atlas		102,622	1
	7/31/2010 4:45	7/31/2010 4:45	-	0.33	55.930	1.08	0.17	3	Atlas		18,457	1
	8/5/2010 9:30	8/5/2010 9:30	-	0.21	60.390	0.59	0.16	1	Atlas		12,682	1
	8/14/2010 22:45	8/14/2010 23:30	45	0.70	52.901	1.01	0.54	1	Atlas		37,031	1
	11/16/2010 12:30	11/16/2010 15:15	165	0.75	109.332	0.71	0.33	12	Atlas		81,999	1
	11/23/2010 4:00	11/23/2010 4:00	-	0.31	108.081	1.07	0.17	6	Atlas		33,505	1
	11/24/2010 13:00	11/24/2010 15:00	120	0.78	369.596	1.05	0.37	3	Atlas		288,285	1
	11/25/2010 9:30	11/26/2010 4:00	1,110	2.33	1,263.911	3.45	0.89	24	Atlas		2,944,912	1
	11/30/2010 0:45	11/30/2010 9:30	525	1.70	501.589	4.81	0.65	24	Atlas		852,701	1
	2/24/2011 22:45	2/25/2011 14:00	915	2.23	4,426.587	2.41	0.86	24	Atlas		9,871,290	1
	2/28/2011 5:30	2/28/2011 18:15	765	1.17	2,350.311	3.73	0.56	6	Atlas		2,749,864	1
	3/9/2011 1:00	3/10/2011 5:15	1,695	2.81	6,378.247	3.71	1.35	24	Cloudburst		17,922,875	1
	4/4/2011 16:00	4/4/2011 16:15	15	0.92	20.267	1.07	0.47	6	Atlas		18,646	1
	4/9/2011 10:45	4/9/2011 11:00	15	0.54	59.007	1.40	0.37	1	Atlas		31,864	1
	4/11/2011 16:00	4/12/2011 21:00	1,740	3.26	7,106.821	3.91	2.68	24	Cloudburst		23,168,236	1
	4/20/2011 0:15	4/20/2011 3:30	195	0.67	77.869	1.11	0.37	6	Atlas		52,172	1
	4/23/2011 1:30	4/25/2011 16:15	3,765	4.75	3,925.300	5.54	3.34	48	Atlas		18,645,177	1
	4/27/2011 1:15	4/28/2011 6:30	1,755	2.95	6,968.323	8.29	1.71	24	Cloudburst		20,556,552	1
	4/28/2011 19:00	4/28/2011 19:00	-	0.20	75.905	7.95	0.13	3	Atlas		15,181	1
	5/1/2011 4:45	5/1/2011 5:00	15	0.67	85.604	4.86	0.34	3	Atlas		57,355	1
	5/1/2011 23:30	5/3/2011 19:45	2,655	2.77	7,395.838	6.94	0.90	48	Atlas		20,486,471	1
	5/21/2011 19:00	5/21/2011 19:00	-	0.45	17.376	0.78	0.32	1	Atlas		7,819	1
	5/23/2011 4:15	5/23/2011 4:15	-	0.30	71.033	0.79	0.23	1	Atlas		21,310	1
	5/23/2011 21:00	5/24/2011 1:45	285	1.16	14.808	2.02	0.75	3	Atlas		17,177	1
	5/26/2011 0:15	5/26/2011 0:15	-	1.21	14.358	2.53	0.52	3	Atlas		17,373	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/26/2011 12:00	5/26/2011 12:30	30	1.21	252.769	3.10	0.52	3	Atlas		305.850	1
	6/15/2011 9:45	6/15/2011 9:45	-	0.98	125.979	1.31	0.63	1	Atlas		123.459	1
	6/18/2011 6:30	6/18/2011 8:00	90	0.82	82.845	1.79	0.50	3	Atlas		67.933	1
	6/21/2011 16:15	6/21/2011 16:15	-	0.36	27.406	3.20	0.21	3	Atlas		9.866	1
	6/22/2011 20:30	6/23/2011 2:45	375	3.71	2,145.558	5.96	25.00	3	Atlas		7,960.022	1
	7/12/2011 17:45	7/12/2011 17:45	-	0.43	31.281	0.83	0.23	6	Atlas		13.451	1
	7/24/2011 17:15	7/24/2011 17:15	-	0.80	66.720	2.76	0.61	1	Atlas		53.376	1
	7/30/2011 20:30	7/30/2011 20:30	-	0.66	43.229	1.39	0.49	1	Atlas		28.531	1
	8/7/2011 4:15	8/7/2011 7:00	165	1.67	150.619	1.71	0.97	3	Atlas		251.534	1
	8/13/2011 21:15	8/13/2011 22:45	90	0.90	41.492	2.74	0.70	1	Atlas		37.343	1
	9/10/2011 20:15	9/10/2011 20:15	-	0.05	424.440	0.41	0.03	3	Atlas		21.222	1
	9/11/2011 20:00	9/11/2011 20:00	-	0.30	178.233	0.64	0.19	1	Atlas		53.470	1
	9/19/2011 7:30	9/19/2011 7:30	-	0.74	20.028	0.62	0.30	12	Atlas		14.821	1
	9/23/2011 3:00	9/23/2011 3:00	-	0.81	30.336	1.13	0.37	12	Atlas		24.572	1
	9/26/2011 1:00	9/26/2011 5:15	255	3.24	3,387.650	4.83	5.19	12	Cloudburst		10,975.986	1
	10/13/2011 7:30	10/13/2011 8:15	45	0.50	52.042	0.37	0.27	3	Atlas		26.021	1
	10/27/2011 0:45	10/27/2011 1:15	30	0.98	201.258	1.15	0.41	3	Atlas		197.233	1
	11/14/2011 22:00	11/14/2011 22:45	45	2.07	35.815	0.35	0.67	48	Atlas		74.137	1
	11/15/2011 12:15	11/15/2011 12:15	-	2.07	26.195	1.21	0.67	48	Atlas		54.223	1
	11/16/2011 7:00	11/16/2011 7:30	30	2.07	55.016	1.86	0.67	48	Atlas		113.883	1
	11/20/2011 17:30	11/20/2011 17:45	15	0.90	49.587	2.61	0.31	24	Atlas		44.628	1
	11/21/2011 4:30	11/21/2011 4:30	-	0.90	86.418	2.82	0.31	24	Atlas		77.776	1
	11/22/2011 3:15	11/22/2011 10:45	450	1.15	320.253	3.57	0.49	12	Atlas		368.291	1
	12/22/2011 15:15	12/22/2011 15:45	30	0.64	117.200	1.21	0.28	12	Atlas		75.008	1
	12/27/2011 4:45	12/27/2011 11:45	420	0.76	111.383	2.03	0.30	12	Atlas		84.651	1
	1/11/2012 5:00	1/11/2012 6:45	105	0.88	176.050	0.54	0.34	12	Atlas		154.924	1
	1/17/2012 4:00	1/17/2012 12:15	495	0.33	950.555	1.30	0.15	12	Atlas		313.683	1
	1/23/2012 3:15	1/23/2012 4:45	90	0.61	1,185.780	0.93	0.32	3	Atlas		705.026	1
	1/26/2012 5:45	1/26/2012 6:45	60	1.82	117.757	1.40	0.59	48	Atlas		214.318	1
	1/26/2012 18:45	1/27/2012 1:30	405	1.82	2,336.143	2.44	0.59	48	Atlas		4,251.780	1
	3/8/2012 13:00	3/8/2012 15:00	120	0.77	538.284	1.03	0.37	6	Atlas		414.479	1
	3/15/2012 19:15	3/16/2012 3:00	465	0.99	568.796	1.20	0.43	12	Atlas		563.108	1
	4/1/2012 10:45	4/1/2012 17:00	375	1.28	259.749	1.49	0.68	6	Atlas		332.479	1
	5/16/2012 18:00	5/16/2012 18:15	15	0.21	1,673.486	2.25	0.18	1	Atlas		351.432	1
	5/29/2012 6:45	5/29/2012 20:30	825	2.28	2,100.916	2.28	4.57	3	Atlas		4,790.089	1
	5/31/2012 18:45	6/1/2012 1:45	420	1.14	873.502	3.26	0.49	12	Atlas		995.792	1
	7/1/2012 20:00	7/1/2012 20:15	15	0.40	705.750	0.32	0.28	1	Atlas		282.300	1
	7/14/2012 12:15	7/14/2012 14:30	135	0.80	631.639	0.88	0.51	3	Atlas		505.311	1
	7/19/2012 18:15	7/19/2012 19:00	45	0.53	1,982.238	1.36	0.43	1	Atlas		1,050.586	1
	7/26/2012 21:45	7/27/2012 3:30	345	0.19	1,098.147	0.31	0.09	12	Atlas		208.648	1
	7/27/2012 20:00	7/27/2012 21:00	60	0.55	775.200	0.83	0.36	3	Atlas		426.360	1
	8/16/2012 20:15	8/16/2012 22:15	120	0.57	830.647	0.57	0.34	3	Atlas		473.469	1
	9/1/2012 15:30	9/1/2012 16:15	45	0.36	283.997	0.24	0.23	3	Atlas		102.239	1
	9/2/2012 12:00	9/2/2012 22:00	600	0.95	359.112	1.32	0.37	24	Atlas		341.156	1
	9/5/2012 15:30	9/5/2012 16:45	75	0.87	1,879.830	2.28	0.70	1	Atlas		1,635.452	1
	9/7/2012 23:15	9/8/2012 6:15	420	1.16	907.284	3.41	0.63	3	Atlas		1,052.449	1
	9/26/2012 1:45	9/26/2012 2:00	15	0.41	431.754	0.70	0.20	6	Atlas		177.019	1
	9/26/2012 21:15	9/27/2012 0:00	165	1.38	884.301	2.19	0.73	6	Atlas		1,220.335	1
	10/1/2012 14:45	10/1/2012 19:00	255	0.81	1,092.394	3.02	0.34	12	Atlas		884.839	1
	10/26/2012 15:15	10/26/2012 15:15	-	0.78	68.849	0.62	0.36	6	Atlas		53.702	1
	12/2/2012 11:30	12/2/2012 11:30	-	0.15	48.807	0.20	0.09	3	Atlas		7.321	1
	12/4/2012 16:15	12/4/2012 18:30	135	0.55	507.382	0.69	0.35	3	Atlas		279.060	1
	12/7/2012 4:00	12/7/2012 17:45	825	1.18	370.277	1.88	0.49	6	Atlas		436.927	1
	12/8/2012 5:45	12/8/2012 9:45	240	0.47	442.070	2.35	0.26	6	Atlas		207.773	1
	12/9/2012 22:00	12/10/2012 0:30	150	1.17	2,119.159	3.23	0.55	3	Atlas		2,479.416	1
	12/10/2012 10:15	12/10/2012 10:15	-	1.17	22.475	3.33	0.55	3	Atlas		26.296	1
	12/15/2012 11:30	12/15/2012 11:45	15	0.17	262.253	1.32	0.09	3	Atlas		44.583	1
	12/20/2012 7:00	12/20/2012 12:15	315	0.59	1,108.231	0.93	0.32	6	Atlas		653.856	1
	12/26/2012 5:45	12/26/2012 15:45	600	0.93	988.806	1.60	0.36	12	Atlas		919.590	1
	1/11/2013 6:00	1/11/2013 7:30	90	0.60	1,763.353	0.73	0.32	6	Atlas		1,058.012	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/13/2013 3:15	1/13/2013 21:30	1,095	2.20	7,711.919	2.94	0.84	24	Atlas		16,966,222	1
	1/30/2013 5:00	1/30/2013 9:00	240	0.85	1,113.715	1.04	0.43	6	Atlas		946,658	1
	2/22/2013 1:00	2/22/2013 1:15	15	0.39	269.315	0.69	0.18	12	Atlas		105,033	1
	3/5/2013 17:30	3/5/2013 17:30	-	0.41	5.805	0.48	0.15	24	Atlas		2,380	1
	3/11/2013 4:00	3/11/2013 11:15	435	1.05	100.807	1.46	0.42	12	Atlas		105,847	1
	3/18/2013 4:30	3/18/2013 8:15	225	1.61	114.122	1.99	0.52	48	Atlas		183,736	1
	3/24/2013 8:30	3/24/2013 16:15	465	0.47	31.168	1.60	0.18	24	Atlas		14,649	1
	4/11/2013 5:45	4/11/2013 7:30	105	1.23	125.659	0.46	0.47	24	Atlas		154,560	1
	4/16/2013 20:15	4/16/2013 20:30	15	0.65	330.454	1.84	0.53	1	Atlas		214,795	1
	4/19/2013 2:00	4/19/2013 4:30	150	0.91	502.580	1.57	0.50	3	Atlas		457,348	1
	4/24/2013 7:30	4/24/2013 10:00	150	0.59	750.768	1.54	0.32	6	Atlas		442,953	1
	5/5/2013 6:15	5/5/2013 8:30	135	1.26	82.007	1.13	0.38	24	Atlas		103,329	1
	5/10/2013 14:00	5/10/2013 15:45	105	0.94	172.910	2.21	0.42	6	Atlas		162,535	1
	5/11/2013 0:00	5/11/2013 0:15	15	0.94	62.203	2.24	0.42	6	Atlas		58,471	1
	5/16/2013 10:30	5/16/2013 10:30	-	0.37	170.684	1.34	0.31	1	Atlas		63,153	1
	5/22/2013 16:00	5/22/2013 17:30	90	0.29	54.303	0.67	0.19	3	Atlas		15,748	1
	5/31/2013 15:00	5/31/2013 18:30	210	0.31	163.016	0.36	0.14	12	Atlas		50,535	1
	6/10/2013 0:15	6/10/2013 0:15	-	0.33	33.048	0.25	0.15	6	Atlas		10,906	1
	6/16/2013 17:15	6/16/2013 17:15	-	0.35	11.097	0.64	0.22	1	Atlas		3,884	1
	6/17/2013 16:30	6/18/2013 1:00	510	1.51	2,415.665	1.87	0.82	1	Atlas		3,647,654	1
	6/26/2013 16:30	6/27/2013 8:00	930	2.82	10,533.455	4.24	5.00	1	Atlas		29,704,343	1
	6/30/2013 18:30	6/30/2013 19:00	30	0.24	292.850	4.26	0.19	1	Atlas		70,284	1
	7/10/2013 14:15	7/10/2013 14:45	30	1.07	10.950	2.40	0.82	1	Atlas		11,717	1
	7/14/2013 19:30	7/14/2013 19:45	15	0.30	118.440	1.47	0.26	1	Atlas		35,532	1
	8/12/2013 15:00	8/12/2013 15:00	-	0.70	3.401	0.61	0.27	1	Atlas		2,381	1
	9/20/2013 19:45	9/20/2013 19:45	-	1.77	1.553	0.83	0.74	12	Atlas		2,748	1
	10/5/2013 13:15	10/6/2013 17:00	1,665	5.16	5,290.390	5.14	16.26	24	Atlas		27,298,414	1
	10/30/2013 2:15	10/30/2013 5:30	195	1.04	20.489	0.98	0.49	6	Atlas		21,309	1
	11/17/2013 6:15	11/17/2013 21:30	915	2.54	1,120.122	2.70	1.94	6	Cloudburst		2,845,111	1
	12/5/2013 5:45	12/5/2013 8:00	135	0.79	77.149	0.25	0.26	48	Atlas		60,948	1
	12/14/2013 10:45	12/14/2013 11:15	30	0.98	49.671	1.02	0.42	6	Atlas		48,678	1
	12/21/2013 6:00	12/21/2013 12:45	405	2.67	180.899	1.41	1.02	24	Cloudburst		482,999	1
	12/21/2013 21:30	12/22/2013 9:15	705	2.67	4,514.749	2.73	1.02	24	Cloudburst		12,054,379	1
	1/11/2014 0:45	1/11/2014 5:30	285	1.07	758.474	1.53	0.58	6	Atlas		811,567	1
	2/2/2014 5:30	2/2/2014 5:30	-	0.37	14.784	0.12	0.14	24	Atlas		5,470	1
	2/4/2014 20:00	2/5/2014 1:45	345	0.40	2,930.345	0.76	0.20	6	Atlas		1,172,138	1
	2/17/2014 16:30	2/17/2014 18:15	105	0.38	1,008.953	0.78	0.23	3	Atlas		383,402	1
	2/20/2014 23:30	2/20/2014 23:30	-	0.20	149.970	0.99	0.11	6	Atlas		29,994	1
	3/2/2014 10:15	3/2/2014 11:30	75	0.53	261.504	0.29	0.20	24	Atlas		138,597	1
	3/28/2014 4:45	3/28/2014 5:00	15	0.27	249.544	0.32	0.14	1	Atlas		67,377	1
	3/29/2014 7:00	3/29/2014 12:30	330	1.23	474.680	1.48	0.56	12	Atlas		583,857	1
	4/3/2014 12:15	4/4/2014 16:15	1,680	2.07	5,379.835	3.68	0.71	24	Atlas		11,136,258	1
	4/7/2014 11:00	4/7/2014 12:45	105	1.07	559.616	3.20	0.61	3	Atlas		598,789	1
	4/14/2014 20:15	4/14/2014 21:30	75	0.87	273.246	0.65	0.33	24	Atlas		237,724	1
	4/27/2014 20:15	4/28/2014 7:30	675	2.12	49.342	1.68	0.80	3	Atlas		104,606	1
	4/28/2014 17:45	4/28/2014 18:00	15	2.12	4.367	1.99	0.80	3	Atlas		9,257	1
	5/9/2014 19:30	5/10/2014 16:00	1,230	1.75	422.381	1.82	0.67	24	Atlas		739,166	1
	5/14/2014 7:15	5/15/2014 0:00	1,005	1.15	228.659	3.00	0.42	24	Atlas		262,958	1
	5/21/2014 21:15	5/22/2014 3:15	360	0.58	178.162	0.73	0.27	12	Atlas		103,334	1
	5/28/2014 20:45	5/28/2014 20:45	-	0.17	39.494	0.59	0.13	1	Atlas		6,714	1
	5/29/2014 21:15	5/29/2014 22:15	60	1.02	515.119	1.20	0.85	1	Atlas		525,421	1
	6/11/2014 14:45	6/11/2014 15:00	15	0.14	315.964	0.42	0.07	1	Atlas		44,235	1
	7/2/2014 16:30	7/2/2014 16:45	15	0.20	838.220	0.59	0.17	1	Atlas		167,644	1
	7/7/2014 19:45	7/7/2014 20:00	15	0.76	175.778	1.13	0.66	1	Atlas		133,591	1
	7/13/2014 23:00	7/13/2014 23:15	15	0.51	92.347	1.41	0.24	3	Atlas		47,097	1
	7/14/2014 20:30	7/14/2014 20:30	-	0.20	185.400	1.02	0.13	3	Atlas		37,080	1
	7/26/2014 21:45	7/26/2014 22:15	30	1.12	158.842	0.56	0.49	12	Atlas		177,903	1
	7/27/2014 7:15	7/27/2014 8:00	45	1.12	97.757	1.09	0.49	12	Atlas		109,488	1
	8/8/2014 6:00	8/8/2014 7:45	105	1.08	59.183	0.84	0.55	6	Atlas		63,918	1
	8/10/2014 4:15	8/10/2014 4:30	15	0.27	239.885	1.43	0.23	1	Atlas		64,769	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/11/2014 15:30	8/11/2014 15:45	15	0.28	193.018	1.70	0.23	1	Atlas		54,045	1
	8/17/2014 20:15	8/17/2014 20:15	-	0.73	5,107	1.00	0.27	24	Atlas		3,728	1
	8/22/2014 19:00	8/22/2014 19:30	30	0.39	779,774	1.00	0.25	3	Atlas		304,112	1
	8/23/2014 16:00	8/23/2014 21:45	345	0.73	1,083,579	1.79	0.35	6	Atlas		791,013	1
	8/27/2014 16:45	8/27/2014 17:30	45	0.42	1,008,398	1.57	0.27	3	Atlas		423,527	1
	8/30/2014 15:30	8/30/2014 16:00	30	0.42	449,036	1.44	0.22	1	Atlas		188,595	1
	9/2/2014 8:30	9/2/2014 8:45	15	0.37	449,946	1.16	0.23	3	Atlas		166,480	1
	9/11/2014 0:45	9/11/2014 7:00	375	1.90	917,277	1.86	1.33	3	Atlas		1,742,827	1
	9/28/2014 19:45	9/28/2014 20:00	15	0.15	1,747,593	0.15	0.13	1	Atlas		262,139	1
	10/6/2014 9:45	10/6/2014 10:00	15	0.37	210,765	0.56	0.19	3	Atlas		77,983	1
	10/7/2014 12:00	10/7/2014 12:00	-	0.18	321,394	0.79	0.15	1	Atlas		57,851	1
	10/10/2014 2:00	10/10/2014 3:15	75	1.06	508,707	1.58	0.52	3	Atlas		539,229	1
	10/13/2014 5:30	10/13/2014 6:30	60	0.50	198,344	2.12	0.32	3	Atlas		99,172	1
	10/13/2014 23:30	10/14/2014 10:30	660	1.19	584,295	2.95	0.53	12	Atlas		695,311	1
	11/23/2014 17:30	11/23/2014 19:45	135	0.77	322,194	1.05	0.34	6	Atlas		248,089	1
	12/1/2014 3:30	12/1/2014 3:30	-	0.76	20,393	0.22	0.29	24	Atlas		15,499	1
	12/5/2014 23:15	12/6/2014 7:15	480	1.69	1,027,943	2.44	0.55	48	Atlas		1,737,224	1
	12/28/2014 1:15	12/28/2014 1:30	15	0.32	131,625	0.84	0.13	1	Atlas		42,120	1
	3/3/2015 23:30	3/4/2015 17:00	1,050	1.66	1,211,256	1.31	0.54	48	Atlas		2,010,685	1
	3/10/2015 7:15	3/10/2015 20:30	795	1.08	2,475,740	2.74	0.49	12	Atlas		2,673,799	1
	3/13/2015 10:45	3/14/2015 12:45	1,560	1.50	1,620,259	2.59	0.56	24	Atlas		2,430,389	1
	3/26/2015 4:30	3/26/2015 5:00	30	0.40	375,825	0.47	0.17	12	Atlas		150,330	1
	4/2/2015 10:45	4/4/2015 4:30	2,505	4.31	12,072,626	4.46	4.56	24	Cloudburst		52,033,016	1
	4/7/2015 9:30	4/7/2015 18:15	525	0.77	1,465,030	5.08	0.37	1	Atlas		1,128,073	1
	4/8/2015 18:15	4/8/2015 18:45	30	0.12	2,236,575	5.21	0.08	1	Atlas		268,389	1
	4/9/2015 11:45	4/9/2015 12:15	30	0.26	1,099,458	5.11	0.22	1	Atlas		285,859	1
	4/10/2015 2:30	4/10/2015 3:15	45	0.14	786,586	2.92	0.09	3	Atlas		110,122	1
	4/13/2015 21:15	4/13/2015 21:30	15	0.12	1,378,583	1.41	0.07	3	Atlas		165,430	1
	4/19/2015 6:45	4/19/2015 15:15	510	0.83	604,214	1.25	0.33	12	Atlas		501,498	1
	4/25/2015 19:15	4/25/2015 19:15	-	0.15	195,173	1.17	0.10	1	Atlas		29,276	1
	5/11/2015 18:00	5/11/2015 18:00	-	0.07	366,214	0.22	0.06	1	Atlas		25,635	1
	5/26/2015 14:00	5/26/2015 14:30	30	0.36	501,525	0.63	0.23	1	Atlas		180,549	1
	5/27/2015 14:00	5/27/2015 14:00	-	0.09	533,067	0.82	0.08	1	Atlas		47,976	1
	6/5/2015 0:45	6/5/2015 1:30	45	Discharge	-	0.17					46,960	1
	6/17/2015 5:00	6/17/2015 6:00	60	0.61	111,711	0.63	0.35	3	Atlas		68,144	1
	6/18/2015 2:00	6/18/2015 5:45	225	0.06	59,887,733	0.74	0.04	1	Atlas		3,593,264	1
	6/18/2015 16:30	6/20/2015 8:45	2,415	1.94	573,960	2.67	0.63	48	Atlas		1,113,483	1
	6/26/2015 0:00	6/26/2015 7:30	450	0.38	124,437	1.77	0.21	6	Atlas		47,286	1
	6/26/2015 17:15	6/27/2015 1:15	480	0.70	511,697	2.34	0.35	1	Atlas		358,188	1
	7/2/2015 1:00	7/2/2015 2:00	60	1.64	12,773	1.84	0.63	24	Atlas		20,947	1
	7/2/2015 19:15	7/2/2015 21:45	150	1.64	400,552	2.94	0.63	24	Atlas		656,906	1
	7/3/2015 15:30	7/3/2015 19:00	210	0.35	119,389	2.90	0.19	1	Atlas		41,786	1
	7/7/2015 11:45	7/7/2015 13:15	90	0.77	357,642	2.50	0.33	6	Atlas		275,384	1
	7/8/2015 12:45	7/8/2015 12:45	-	0.77	62,039	2.79	0.33	6	Atlas		47,770	1
	7/9/2015 6:30	7/9/2015 7:45	75	0.30	51,283	2.36	0.14	12	Atlas		15,385	1
	7/10/2015 10:30	7/10/2015 16:30	360	0.42	185,960	1.86	0.21	6	Atlas		78,103	1
	7/12/2015 6:00	7/12/2015 6:45	45	1.80	393,094	2.84	2.00	3	Atlas		707,570	1
	8/5/2015 15:15	8/5/2015 15:15	-	1.03	3,523	0.63	0.35	24	Atlas		3,629	1
	8/6/2015 8:00	8/6/2015 15:15	435	1.03	23,049	1.36	0.35	24	Atlas		23,740	1
	8/19/2015 8:30	8/19/2015 17:15	525	0.62	521,029	0.69	0.27	1	Atlas		323,038	1
	9/10/2015 4:45	9/10/2015 5:00	15	0.34	329,891	1.11	0.23	1	Atlas		112,163	1
	9/29/2015 9:30	9/29/2015 10:00	30	1.04	207,646	0.69	0.34	48	Atlas		215,952	1
	10/12/2015 19:15	10/12/2015 19:30	15	0.26	433,912	0.31	0.17	3	Atlas		112,817	1
	10/16/2015 20:00	10/16/2015 21:00	60	Discharge	-	0.26					188,082	1
	10/27/2015 17:15	10/28/2015 6:45	810	2.73	428,269	2.93	0.89	48	Atlas		1,169,174	1
	11/6/2015 3:15	11/6/2015 5:00	105	1.00	867,508	1.10	0.62	3	Atlas		867,508	1
	11/12/2015 0:00	11/12/2015 1:15	75	0.30	883,113	1.81	0.18	3	Atlas		264,934	1
	11/18/2015 9:15	11/18/2015 14:30	315	1.96	194,748	2.33	1.08	6	Cloudburst		381,706	1
	11/28/2015 17:00	11/28/2015 18:00	60	0.59	95,827	0.53	0.24	12	Atlas		56,538	1
	11/30/2015 22:00	12/1/2015 4:45	405	0.69	335,461	1.44	0.31	12	Atlas		231,468	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/22/2015 0:00	12/22/2015 4:30	270	0.80	756.556	0.82	0.34	6	Atlas		605.245	1
	12/23/2015 19:30	12/24/2015 3:30	480	0.86	760.197	1.70	0.69	1	Atlas		653.769	1
	12/27/2015 10:45	12/28/2015 6:00	1,155	2.17	11,907.297	3.84	0.73	3	Atlas		25,838.834	1
	12/28/2015 16:15	12/28/2015 17:00	45	2.17	12.428	4.17	0.73	3	Atlas		26.968	1
	2/2/2016 20:00	2/3/2016 2:00	360	1.61	52.251	1.68	0.74	6	Atlas		84.124	1
	2/21/2016 4:30	2/21/2016 10:45	375	0.83	20.480	1.00	0.38	12	Atlas		16.998	1
	2/23/2016 23:30	2/24/2016 9:45	615	2.03	148.118	2.59	0.81	12	Atlas		300.679	1
	3/1/2016 12:30	3/1/2016 13:15	45	0.37	58.730	2.37	0.22	3	Atlas		21.730	1
	3/10/2016 14:00	3/10/2016 19:00	300	1.18	78.064	1.20	0.38	48	Atlas		92.115	1
	3/12/2016 20:15	3/12/2016 23:30	195	0.89	63.617	1.68	0.34	24	Atlas		56.619	1
	3/13/2016 9:15	3/13/2016 10:15	60	0.89	58.828	2.07	0.34	24	Atlas		52.357	1
	3/24/2016 17:45	3/24/2016 18:15	30	0.47	397.047	0.55	0.34	1	Atlas		186.612	1
	3/27/2016 21:30	3/27/2016 22:15	45	0.86	178.267	1.32	0.57	3	Atlas		153.310	1
	3/31/2016 4:45	3/31/2016 7:30	165	1.10	49.700	2.00	0.42	24	Atlas		54.670	1
	3/31/2016 22:15	4/1/2016 0:00	105	1.10	90.435	1.96	0.42	24	Atlas		99.478	1
	4/11/2016 17:15	4/11/2016 18:30	75	0.86	155.153	0.84	0.38	12	Atlas		131.880	1
	4/26/2016 21:30	4/26/2016 22:00	30	0.38	53.616	0.70	0.20	6	Atlas		20.374	1
	4/27/2016 21:15	4/27/2016 22:15	60	0.62	32.826	1.28	0.28	3	Atlas		20.352	1
	5/1/2016 15:15	5/1/2016 15:15	-	0.16	115.088	1.59	0.11	3	Atlas		18.414	1
	5/7/2016 21:00	5/7/2016 21:00	-	0.49	14.527	0.85	0.25	6	Atlas		7.118	1
	5/10/2016 18:45	5/10/2016 22:30	225	1.02	496.823	1.73	0.38	24	Atlas		506.759	1
	5/11/2016 22:15	5/11/2016 22:15	-	0.22	23.136	1.75	0.12	3	Atlas		5.090	1
	5/20/2016 14:15	5/20/2016 16:00	105	0.85	155.818	1.40	0.50	3	Atlas		132.445	1
	6/12/2016 18:00	6/12/2016 18:15	15	0.27	307.893	0.30	0.23	1	Atlas		83.131	1
	6/14/2016 17:00	6/14/2016 17:30	30	0.85	132.282	0.94	0.55	3	Atlas		112.440	1
	6/22/2016 8:30	6/22/2016 8:45	15	0.29	882.052	0.22	0.18	3	Atlas		255.795	1
	6/23/2016 16:15	6/23/2016 23:00	405	1.88	993.873	2.17	1.00	6	Cloudburst		1,868.481	1
	7/3/2016 12:00	7/3/2016 20:30	510	1.02	37.932	0.50	0.33	48	Atlas		38.691	1
	7/4/2016 14:30	7/4/2016 15:15	45	1.02	63.308	0.98	0.33	48	Atlas		64.574	1
	7/12/2016 10:00	7/12/2016 12:00	120	0.32	112.038	0.48	0.21	3	Atlas		35.852	1
	7/27/2016 18:30	7/27/2016 19:00	30	0.59	60.107	0.28	0.24	12	Atlas		35.463	1
	7/28/2016 4:45	7/28/2016 17:30	765	0.59	240.090	0.81	0.24	12	Atlas		141.653	1
	7/30/2016 14:30	7/30/2016 14:30	-	0.32	8.169	1.16	0.28	1	Atlas		2.614	1
	8/9/2016 15:30	8/9/2016 15:30	-	0.24	37.025	0.77	0.16	1	Atlas		8.886	1
	8/15/2016 3:00	8/15/2016 7:45	285	1.20	693.723	1.44	0.61	6	Atlas		832.467	1
	8/17/2016 6:00	8/17/2016 7:30	90	0.68	1,045.284	1.82	0.31	6	Atlas		710.793	1
	8/20/2016 15:30	8/20/2016 21:15	345	0.80	864.198	2.68	0.33	1	Atlas		691.358	1
	8/31/2016 17:00	8/31/2016 18:15	75	0.60	565.828	0.77	0.45	1	Atlas		339.497	1
	9/10/2016 15:15	9/10/2016 15:30	15	0.14	856.064	0.12	0.09	1	Atlas		119.849	1
	9/28/2016 13:00	9/28/2016 13:15	15	0.37	270.230	0.51	0.20	6	Atlas		99.985	1
	9/30/2016 1:30	9/30/2016 2:45	75	0.59	471.617	1.16	0.31	3	Atlas		278.254	1
	10/20/2016 9:30	10/20/2016 11:30	120	0.69	270.243	0.46	0.28	3	Atlas		186.468	1
	11/23/2016 20:30	11/23/2016 20:30	-	0.24	33.071	0.41	0.10	6	Atlas		7.937	1
	11/28/2016 18:00	11/28/2016 22:00	240	0.90	98.788	1.14	0.40	12	Atlas		88.909	1
	12/6/2016 5:45	12/6/2016 12:30	405	0.82	303.210	0.87	0.38	12	Atlas		248.632	1
	12/17/2016 18:45	12/20/2016 8:45	3,720	2.67	30,907.254	2.94	1.93	12	Cloudburst		82,522.367	1
	1/2/2017 20:00	1/2/2017 20:15	15	0.24	67.688	0.23	0.10	6	Atlas		16.245	1
	1/3/2017 4:30	1/3/2017 5:15	45	0.24	246.742	0.29	0.10	6	Atlas		59.218	1
	1/10/2017 19:45	1/10/2017 20:15	30	0.16	252.881	0.40	0.12	1	Atlas		40.461	1
	1/11/2017 12:45	1/11/2017 13:00	15	0.21	290.867	0.57	0.13	3	Atlas		61.082	1
	1/12/2017 15:45	1/12/2017 19:00	195	0.32	261.447	0.62	0.16	6	Atlas		83.663	1
	1/14/2017 11:30	1/14/2017 14:15	165	0.23	359.470	1.22	0.11	6	Atlas		82.678	1
	1/17/2017 0:15	1/17/2017 4:15	240	0.55	515.124	1.91	0.25	12	Atlas		283.318	1
	1/19/2017 19:30	1/20/2017 4:15	525	1.12	526.310	2.43	0.51	12	Atlas		589.467	1
	2/24/2017 19:15	2/24/2017 19:45	30	0.70	475.709	0.75	0.59	1	Atlas		332.996	1
	2/28/2017 10:30	2/28/2017 10:45	15	0.23	157.100	0.98	0.11	12	Atlas		36.133	1
	3/1/2017 3:30	3/1/2017 9:45	375	1.07	899.991	2.06	0.52	6	Atlas		962.990	1
	3/26/2017 1:45	3/26/2017 1:45	-	0.50	14.636	0.27	0.22	12	Atlas		7.318	1
	4/11/2017 9:15	4/11/2017 9:15	-	0.36	19.525	0.32	0.17	12	Atlas		7.029	1
	4/16/2017 5:45	4/16/2017 21:00	915	1.10	645.127	1.39	0.45	6	Atlas		709.640	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/21/2017 22:15	4/21/2017 22:15	-	0.57	30,811	1.43	0.21	24	Atlas		17,562	1
	4/27/2017 7:00	4/27/2017 7:30	30	0.19	813,442	0.77	0.13	1	Atlas		154,554	1
	4/29/2017 0:30	4/29/2017 13:00	750	1.43	1,085,219	1.77	0.81	3	Atlas		1,551,863	1
	5/1/2017 4:00	5/1/2017 4:15	15	0.32	301,906	1.92	0.17	3	Atlas		96,610	1
	5/4/2017 19:45	5/5/2017 10:00	855	1.95	925,521	3.59	0.65	24	Atlas		1,804,765	1
	5/11/2017 4:00	5/11/2017 4:15	15	0.14	487,536	2.11	0.08	6	Atlas		68,255	1
	5/20/2017 19:15	5/21/2017 6:15	660	1.21	681,607	1.22	0.54	12	Atlas		824,744	1
	5/24/2017 18:15	5/24/2017 19:45	90	0.92	277,886	1.85	0.34	24	Atlas		255,655	1
	5/27/2017 14:30	5/27/2017 14:45	15	0.38	310,934	2.49	0.32	1	Atlas		118,155	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.19	472,979	0.31	0.17	1	Atlas		89,866	1
	6/15/2017 3:15	6/15/2017 4:30	75	0.85	403,689	0.84	0.53	3	Atlas		343,136	1
	6/22/2017 18:45	6/22/2017 19:30	45	0.40	550,083	0.57	0.21	6	Atlas		220,033	1
	6/23/2017 15:30	6/23/2017 18:15	165	0.88	755,241	1.46	0.43	6	Atlas		664,612	1
	6/30/2017 21:15	6/30/2017 21:30	15	0.23	1,163,696	0.30	0.19	1	Atlas		267,650	1
	7/6/2017 4:30	7/6/2017 13:30	540	0.54	693,026	0.75	0.22	6	Atlas		374,234	1
	7/23/2017 2:45	7/23/2017 10:00	435	1.10	573,405	1.11	0.50	12	Atlas		630,745	1
	7/28/2017 9:45	7/28/2017 10:15	30	0.57	455,816	1.66	0.43	1	Atlas		259,815	1
	8/1/2017 22:00	8/1/2017 22:00	-	0.13	121,431	0.68	0.09	1	Atlas		15,786	1
	8/2/2017 13:15	8/2/2017 13:30	15	0.05	3,276,320	0.74	0.03	1	Atlas		163,816	1
	8/6/2017 17:15	8/7/2017 0:15	420	0.55	329,482	0.74	0.25	12	Atlas		181,215	1
	8/17/2017 15:15	8/17/2017 18:30	195	0.45	740,507	0.48	0.25	6	Atlas		333,228	1
	8/22/2017 16:15	8/22/2017 17:00	45	0.52	674,721	0.99	0.31	1	Atlas		350,855	1
	9/1/2017 13:15	9/2/2017 5:00	945	4.15	237,090	4.20	5.32	24	Cloudburst		983,922	1
	9/19/2017 8:15	9/19/2017 10:15	120	0.45	55,911	0.93	0.29	3	Atlas		25,160	1
	10/7/2017 22:15	10/7/2017 23:15	60	2.09	57,797	0.78	0.78	24	Atlas		120,795	1
	10/8/2017 10:45	10/8/2017 19:45	540	2.09	255,884	2.07	0.78	24	Atlas		534,798	1
	10/10/2017 15:00	10/10/2017 17:00	120	0.84	212,729	2.82	0.42	3	Atlas		178,692	1
	10/23/2017 6:15	10/23/2017 7:15	60	0.66	240,898	0.37	0.30	6	Atlas		158,993	1
	10/27/2017 18:00	10/28/2017 0:30	390	1.06	100,629	1.64	0.49	12	Atlas		106,667	1
	11/3/2017 4:45	11/3/2017 13:00	495	0.88	617,005	2.09	0.65	1	Atlas		542,964	1
	11/6/2017 2:00	11/6/2017 2:30	30	0.56	79,000	1.59	0.43	1	Atlas		44,240	1
	11/15/2017 13:30	11/15/2017 14:00	30	0.23	26,726	0.25	0.15	1	Atlas		6,147	1
	11/18/2017 17:00	11/18/2017 18:00	60	0.26	219,135	0.49	0.14	3	Atlas		56,975	1
	12/5/2017 4:00	12/5/2017 6:15	135	0.75	66,525	0.76	0.43	3	Atlas		49,894	1
	12/22/2017 23:45	12/23/2017 6:00	375	1.25	214,230	1.07	0.49	12	Atlas		267,787	1
	1/11/2018 9:15	1/11/2018 10:00	45	0.52	35,496	0.20	0.17	48	Atlas		18,458	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.37	5,986	0.88	0.18	3	Atlas		2,215	1
	2/16/2018 2:45	2/16/2018 12:00	555	0.77	114,156	1.66	0.35	12	Atlas		87,900	1
	2/17/2018 14:00	2/17/2018 15:30	90	0.21	118,310	1.83	0.13	3	Atlas		24,845	1
	2/21/2018 7:30	2/21/2018 7:45	15	1.89	1,286	1.54	0.65	24	Atlas		2,430	1
	2/21/2018 21:45	2/22/2018 16:45	1,140	1.89	718,349	2.90	0.65	24	Atlas		1,357,680	1
	2/23/2018 3:00	2/23/2018 23:45	1,245	1.26	2,081,492	3.91	0.58	12	Atlas		2,622,680	1
	2/24/2018 10:15	2/25/2018 20:45	2,070	1.66	3,478,254	5.02	0.69	12	Atlas		5,773,902	1
	3/10/2018 1:15	3/10/2018 8:00	405	0.53	76,738	0.55	0.31	3	Atlas		40,671	1
	3/19/2018 18:00	3/19/2018 18:00	-	0.30	6,937	0.18	0.17	3	Atlas		2,081	1
	3/24/2018 9:15	3/24/2018 21:45	750	0.89	849,672	1.70	0.34	24	Atlas		756,208	1
	3/28/2018 5:45	3/28/2018 6:45	60	1.07	25,263	1.33	0.28	48	Atlas		27,031	1
	3/29/2018 19:15	3/29/2018 23:15	240	1.07	127,764	1.82	0.28	48	Atlas		136,708	1
	3/30/2018 8:00	3/30/2018 8:15	15	1.07	852	2.03	0.28	48	Atlas		912	1
	3/31/2018 22:15	3/31/2018 23:00	45	0.22	77,318	1.30	0.11	3	Atlas		17,010	1
	4/1/2018 20:15	4/2/2018 0:15	240	0.69	398,480	2.05	0.38	6	Atlas		274,951	1
	4/3/2018 16:30	4/3/2018 22:30	360	0.53	504,302	2.51	0.23	6	Atlas		267,280	1
	4/14/2018 9:30	4/14/2018 10:15	45	1.39	80,717	0.35	0.45	48	Atlas		112,196	1
	4/14/2018 23:30	4/15/2018 10:15	645	1.39	54,214	1.42	0.45	48	Atlas		75,358	1
	4/23/2018 5:45	4/23/2018 6:00	15	0.69	14,490	0.60	0.32	12	Atlas		9,998	1
	5/5/2018 14:15	5/5/2018 19:00	285	2.10	169,356	2.00	0.95	6	Atlas		355,648	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.08	236	1.06	0.55	3	Atlas		255	1
	6/10/2018 15:15	6/10/2018 15:15	-	0.40	1,050	0.17	0.18	12	Atlas		420	1
	6/11/2018 11:15	6/11/2018 13:15	120	0.33	57,597	0.65	0.18	1	Atlas		19,007	1
	6/22/2018 14:15	6/22/2018 15:15	60	0.43	69,640	0.81	0.21	6	Atlas		29,945	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/24/2018 5:00	6/24/2018 5:00	-	0.01	388.800	0.84	0.01	1	Atlas		3,888	1
	6/25/2018 10:45	6/25/2018 12:15	90	0.87	65.552	1.69	0.35	12	Atlas		57,030	1
	6/26/2018 18:45	6/26/2018 19:30	45	0.82	30.491	2.20	0.34	12	Atlas		25,003	1
	7/3/2018 16:15	7/3/2018 16:15	-	0.61	462	2.27	0.43	1	Atlas		282	1
	7/15/2018 18:30	7/15/2018 19:00	30	0.26	39.092	0.26	0.14	1	Atlas		10,164	1
	7/16/2018 10:00	7/16/2018 10:15	15	0.16	16.156	0.42	0.11	1	Atlas		2,585	1
	7/20/2018 20:00	7/21/2018 5:45	585	1.31	198.228	1.73	0.71	3	Atlas		259,679	1
	7/30/2018 23:45	7/31/2018 7:30	465	2.34	1.376	2.14	0.92	6	Atlas		3,220	1
	8/16/2018 8:45	8/16/2018 18:15	570	2.77	597.433	2.77	1.35	24	Cloudburst		1,654,889	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.44	916	1.02	0.34	1	Atlas		403	1
	9/8/2018 2:15	9/8/2018 2:15	-	2.57	1.450	0.77	1.44	6	Cloudburst		3,726	1
	9/8/2018 17:45	9/9/2018 10:45	1,020	2.57	1,344.408	3.04	1.44	6	Cloudburst		3,455,128	1
	9/21/2018 17:45	9/21/2018 18:00	15	0.15	8.260	0.24	0.08	6	Atlas		1,239	1
	9/22/2018 16:00	9/22/2018 17:30	90	1.29	4.305	0.63	0.48	24	Atlas		5,553	1
	9/23/2018 4:15	9/23/2018 15:45	690	1.29	134.549	1.53	0.48	24	Atlas		173,568	1
	9/24/2018 7:15	9/25/2018 6:15	1,380	1.72	1,779.190	3.30	0.78	6	Atlas		3,060,206	1
	9/25/2018 16:45	9/25/2018 17:00	15	0.68	10.975	3.57	0.31	12	Atlas		7,463	1
	9/26/2018 2:45	9/26/2018 3:30	45	0.68	357	3.95	0.31	12	Atlas		243	1
	10/15/2018 9:15	10/15/2018 9:30	15	0.13	2.500	0.57	0.09	1	Atlas		325	1
	10/31/2018 15:15	11/1/2018 0:30	555	1.77	2.579	1.26	0.60	24	Atlas		4,565	1
	11/5/2018 20:45	11/6/2018 1:15	270	1.02	355.792	2.87	0.55	6	Atlas		362,908	1
	11/14/2018 22:45	11/15/2018 1:30	165	0.50	355.448	0.52	0.23	12	Atlas		177,724	1
	11/23/2018 22:15	11/24/2018 15:45	1,050	0.33	13.888	0.35	0.17	6	Atlas		4,583	1
	12/1/2018 3:15	12/1/2018 15:30	735	1.63	195.245	1.76	0.71	12	Atlas		318,249	1
	12/15/2018 3:00	12/15/2018 21:15	1,095	1.51	323.918	1.52	0.61	12	Atlas		489,116	1
	12/27/2018 17:45	12/27/2018 18:45	60	0.31	151.674	0.64	0.17	1	Atlas		47,019	1
	12/31/2018 5:30	12/31/2018 18:30	780	1.36	276.979	1.69	0.52	24	Atlas		376,692	1
	1/4/2019 14:15	1/4/2019 16:30	135	0.62	194.108	1.82	0.28	12	Atlas		120,347	1
	1/19/2019 7:00	1/19/2019 23:00	960	0.87	159.122	1.02	0.33	24	Atlas		138,436	1
	1/23/2019 10:00	1/23/2019 18:00	480	0.87	355.434	1.80	0.34	12	Atlas		309,228	1
	2/5/2019 23:30	2/6/2019 17:15	1,065	1.56	208.148	0.74	0.50	48	Atlas		324,711	1
	2/7/2019 9:00	2/7/2019 23:15	855	1.56	715.587	1.66	0.50	48	Atlas		1,116,315	1
	2/11/2019 1:00	2/13/2019 0:15	2,835	2.75	2,547.617	4.38	0.85	48	Atlas		7,005,948	1
	2/20/2019 3:00	2/20/2019 18:30	930	1.85	1,002.254	1.90	0.86	6	Atlas		1,854,170	1
	2/23/2019 17:15	2/24/2019 0:00	405	0.89	838.166	2.80	0.48	6	Atlas		745,968	1
	3/9/2019 13:45	3/9/2019 19:45	360	1.24	556.371	1.37	0.62	6	Atlas		689,900	1
	3/14/2019 7:00	3/14/2019 7:15	15	0.41	13.761	1.74	0.22	6	Atlas		5,642	1
	3/14/2019 17:15	3/14/2019 19:30	135	0.74	196.664	2.47	0.50	1	Atlas		145,531	1
	3/30/2019 15:45	3/30/2019 20:45	300	0.69	403.975	1.10	0.37	6	Atlas		278,743	1
	4/7/2019 6:15	4/7/2019 14:00	465	0.51	72.982	0.72	0.26	3	Atlas		37,221	1
	4/12/2019 6:15	4/12/2019 6:15	-	0.06	89.517	0.57	0.04	3	Atlas		5,371	1
	4/14/2019 1:15	4/14/2019 5:45	270	1.19	140.425	1.78	0.57	6	Atlas		167,106	1
	4/18/2019 23:00	4/18/2019 23:15	15	3.71	3.657	1.80	2.10	48	Cloudburst		13,566	1
	4/19/2019 18:30	4/20/2019 19:15	1,485	3.71	1,650.353	4.94	2.10	48	Cloudburst		6,122,810	1
	4/24/2019 20:45	4/24/2019 21:45	60	0.48	154.840	4.03	0.23	1	Atlas		74,323	1
	4/25/2019 18:30	4/26/2019 3:30	540	0.42	393.455	4.61	0.19	12	Atlas		165,251	1
	5/2/2019 12:00	5/2/2019 12:00	-	0.14	55.807	0.62	0.12	1	Atlas		7,813	1
	5/3/2019 5:00	5/3/2019 9:00	240	0.96	416.723	1.16	0.52	6	Atlas		400,054	1
	5/4/2019 17:15	5/4/2019 18:00	45	0.28	89.836	1.41	0.16	3	Atlas		25,154	1
	5/16/2019 21:15	5/16/2019 22:45	90	0.03	313.667	0.27	0.03	1	Atlas		9,410	1
	5/19/2019 23:15	5/19/2019 23:45	30	0.28	340.611	0.30	0.11	12	Atlas		95,371	1
	5/26/2019 14:15	5/26/2019 15:45	90	0.55	115.835	0.64	0.31	3	Atlas		63,709	1
	5/29/2019 9:15	5/29/2019 14:00	285	0.81	257.163	1.42	0.44	6	Atlas		208,302	1
	5/30/2019 11:30	5/30/2019 11:45	15	0.19	111.626	1.59	0.10	1	Atlas		21,209	1
	6/5/2019 21:00	6/5/2019 21:30	30	0.57	108.349	0.68	0.39	1	Atlas		61,759	1
	6/7/2019 21:15	6/8/2019 8:30	675	0.59	137.863	1.24	0.24	12	Atlas		81,339	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.27	23.256	1.49	0.14	6	Atlas		6,279	1
	6/9/2019 15:45	6/9/2019 23:15	450	1.24	117.967	2.75	0.71	3	Atlas		146,279	1
	6/16/2019 6:00	6/16/2019 6:15	15	0.20	12.655	1.56	0.13	3	Atlas		2,531	1
	6/16/2019 20:15	6/17/2019 1:15	300	1.55	1.960	1.86	0.69	12	Atlas		3,038	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/18/2019 5:00	6/18/2019 5:00	-	1.20	190	2.11	0.73	1	Atlas		228	1
	6/18/2019 16:45	6/18/2019 17:45	60	1.20	324	3.09	0.73	1	Atlas		389	1
	6/21/2019 19:45	6/21/2019 21:15	90	0.43	1,202	3.59	0.29	3	Atlas		517	1
	6/24/2019 13:45	6/24/2019 14:30	45	0.56	861	3.13	0.35	3	Atlas		482	1
	6/30/2019 17:45	6/30/2019 17:45	-	0.04	2,825	0.65	0.03	3	Atlas		113	1
	7/3/2019 14:00	7/3/2019 14:30	30	0.20	3,020	0.19	0.13	3	Atlas		604	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.47	2,189	0.47	0.31	3	Atlas		1,029	1
	8/22/2019 3:15	8/22/2019 4:45	90	0.27	4,033	0.37	0.18	3	Atlas		1,089	1
	8/26/2019 11:15	8/26/2019 13:45	150	0.56	166,843	0.96	0.27	6	Atlas		93,432	1
	8/27/2019 17:30	8/27/2019 17:30	-	0.40	4,705	1.36	0.34	1	Atlas		1,882	1
	10/6/2019 15:00	10/6/2019 20:15	315	1.09	113,264	0.90	0.44	6	Atlas		123,458	1
	10/15/2019 22:45	10/15/2019 23:00	15	0.42	214,369	0.71	0.30	1	Atlas		90,035	1
	10/26/2019 5:30	10/26/2019 9:15	225	1.22	181,456	1.07	0.48	6	Atlas		221,376	1
	10/26/2019 19:45	10/26/2019 20:00	15	1.22	21,532	1.32	0.48	6	Atlas		26,269	1
	10/30/2019 13:15	10/30/2019 20:30	435	0.91	443,400	2.13	0.47	3	Atlas		403,494	1
	10/31/2019 6:15	10/31/2019 11:30	315	0.70	371,731	2.83	0.38	6	Atlas		260,212	1
	11/22/2019 6:15	11/22/2019 6:15	-	0.35	7,426	0.41	0.19	6	Atlas		2,599	1
	11/26/2019 22:00	11/27/2019 5:30	450	0.80	243,911	1.25	0.36	12	Atlas		195,129	1
	11/30/2019 3:00	11/30/2019 21:00	1,080	1.55	985,581	2.51	0.60	24	Atlas		1,527,651	1
	12/9/2019 20:30	12/9/2019 20:45	15	0.28	76,357	0.31	0.10	24	Atlas		21,380	1
	12/16/2019 14:30	12/16/2019 19:30	300	0.70	542,493	1.41	0.32	6	Atlas		379,745	1
	12/29/2019 10:00	12/30/2019 1:45	945	1.32	299,399	1.30	0.49	24	Atlas		395,207	1
	1/3/2020 6:45	1/3/2020 7:45	60	0.80	12,338	1.88	0.26	48	Atlas		9,870	1
	1/3/2020 18:15	1/3/2020 19:15	60	0.80	60,695	2.08	0.26	48	Atlas		48,556	1
	1/10/2020 19:45	1/10/2020 21:00	75	0.38	392,897	0.37	0.19	3	Atlas		149,301	1
	1/11/2020 11:15	1/11/2020 17:30	375	0.83	442,170	1.23	0.40	6	Atlas		367,001	1
	1/18/2020 11:15	1/18/2020 11:30	15	0.35	30,226	0.89	0.15	12	Atlas		10,579	1
	2/9/2020 2:15	2/9/2020 8:30	6,135	0.33	788,627	0.71	0.12	24	Atlas		260,247	1
	2/9/2020 21:15	2/12/2020 21:30	4,335	0.23	2,605,600	1.94	0.09	24	Atlas		599,288	1
	2/24/2020 20:00	2/24/2020 20:15	15	0.69	36,812	0.79	0.26	24	Atlas		25,400	1
	2/26/2020 17:00	2/26/2020 17:15	15	0.11	20,882	0.79	0.06	3	Atlas		2,297	1
	3/2/2020 7:15	3/2/2020 20:30	795	0.45	49,800	1.15	0.21	6	Atlas		22,410	1
	3/10/2020 8:30	3/10/2020 8:45	15	0.42	112,964	0.43	0.21	1	Atlas		47,445	1
	3/12/2020 16:00	3/12/2020 23:45	465	0.55	520,707	0.98	0.25	12	Atlas		286,389	1
	3/14/2020 12:45	3/14/2020 18:15	330	0.47	240,672	1.44	0.22	12	Atlas		113,116	1
	3/18/2020 14:15	3/18/2020 18:45	270	0.46	326,415	1.49	0.21	6	Atlas		150,151	1
	3/19/2020 12:15	3/19/2020 14:00	105	0.49	498,504	1.84	0.21	3	Atlas		244,267	1
	3/20/2020 4:00	3/20/2020 4:30	30	0.49	60,098	1.44	0.21	3	Atlas		29,448	1
	3/24/2020 18:45	3/24/2020 20:00	75	0.15	501,513	1.10	0.08	6	Atlas		75,227	1
	3/28/2020 23:00	3/28/2020 23:15	15	0.27	13,374	0.44	0.23	1	Atlas		3,611	1
	4/8/2020 22:30	4/9/2020 1:00	150	0.53	81,138	0.53	0.35	3	Atlas		43,003	1
	4/12/2020 17:00	4/13/2020 5:45	765	1.03	429,601	1.62	0.41	12	Atlas		442,489	1
	4/23/2020 13:00	4/23/2020 20:00	420	0.62	64,318	1.09	0.25	12	Atlas		39,877	1
	4/25/2020 17:30	4/25/2020 17:45	15	0.69	37,270	0.97	0.25	24	Atlas		25,716	1
	4/29/2020 11:00	4/29/2020 11:15	15	0.21	43,500	1.44	0.08	3	Atlas		9,135	1
	5/5/2020 6:45	5/5/2020 6:45	-	0.20	26,735	0.42	0.11	3	Atlas		5,347	1
	5/8/2020 11:00	5/8/2020 12:15	75	0.57	75,544	0.71	0.26	12	Atlas		43,060	1
	5/15/2020 16:45	5/16/2020 8:00	915	1.45	46,828	1.52	0.54	24	Atlas		67,901	1
	5/18/2020 7:45	5/18/2020 8:00	15	0.59	11,327	2.02	0.23	1	Atlas		6,683	1
	5/23/2020 17:00	5/23/2020 17:00	-	0.30	24,010	0.78	0.19	3	Atlas		7,203	1
	5/29/2020 0:45	5/29/2020 0:45	-	0.16	2,975	0.99	0.10	1	Atlas		476	1
	6/21/2020 12:45	6/21/2020 15:30	165	0.63	894	0.55	0.37	1	Atlas		563	1
	CSO125 Total										561,224,709	477
CSO126	8/7/2011 3:15	8/7/2011 11:00	465	1.67	141,523	1.72	0.97	3	Atlas		236,344	1
	8/13/2011 17:15	8/14/2011 0:00	405	0.90	182,740	2.74	0.70	1	Atlas		164,466	1
	9/19/2011 7:30	9/19/2011 7:30	-	0.74	8,341	0.62	0.30	12	Atlas		6,172	1
	9/25/2011 23:45	9/26/2011 15:15	930	3.24	365,794	4.85	5.19	12	Cloudburst		1,185,171	1
	10/27/2011 4:15	10/27/2011 5:45	90	0.98	26,602	1.21	0.41	3	Atlas		26,070	1
	11/20/2011 12:15	11/22/2011 21:30	3,435	0.90	246,239	4.13	0.31	24	Atlas		221,615	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/27/2011 12:00	11/30/2011 22:00	4,920	3.23	115,017	5.26	1.00	48	Atlas		371,506	1
	12/4/2011 20:30	12/6/2011 3:00	1,830	2.98	305,710	5.48	0.97	48	Atlas		911,017	1
	12/15/2011 7:00	12/16/2011 12:30	1,770	0.46	1,407	0.48	0.24	6	Atlas		647	1
	12/21/2011 6:45	12/23/2011 15:30	3,405	0.66	572,000	1.79	0.30	12	Atlas		377,520	1
	1/11/2012 19:15	1/12/2012 19:00	1,425	0.88	41,356	0.94	0.34	12	Atlas		36,393	1
	1/17/2012 11:45	1/18/2012 9:15	1,290	0.33	389,118	1.30	0.15	12	Atlas		128,409	1
	1/23/2012 3:00	1/27/2012 23:45	7,005	0.61	1,667,130	2.80	0.32	3	Atlas		1,016,949	1
	1/28/2012 9:15	1/28/2012 10:30	75	0.01	381,800	2.45	0.01	1	Atlas		3,818	1
	2/1/2012 21:15	2/1/2012 22:30	75	0.01	1,278,200	1.57	0.01	1	Atlas		12,782	1
	2/16/2012 8:15	2/17/2012 2:30	1,095	0.31	634,732	0.51	0.12	12	Atlas		196,767	1
	2/29/2012 7:30	3/3/2012 2:45	4,035	0.47	2,092,177	0.77	0.21	12	Atlas		983,323	1
	3/8/2012 7:45	3/9/2012 19:30	2,145	0.77	325,923	1.12	0.37	6	Atlas		250,961	1
	3/12/2012 7:15	3/13/2012 8:15	1,500	0.20	1,189,080	0.97	0.09	6	Atlas		237,816	1
	3/17/2012 20:15	3/18/2012 2:15	360	1.11	3,364	2.31	0.67	1	Atlas		3,734	1
	3/23/2012 17:15	3/23/2012 23:30	375	1.77	17,771	2.88	0.67	24	Atlas		31,455	1
	4/1/2012 10:15	4/1/2012 18:30	495	1.28	125,132	1.49	0.68	6	Atlas		160,169	1
	5/5/2012 0:15	5/5/2012 7:15	420	1.44	173,386	2.67	0.79	3	Atlas		249,676	1
	5/13/2012 7:00	5/13/2012 14:15	435	2.04	287,327	2.07	0.82	12	Atlas		586,147	1
	5/16/2012 17:45	5/16/2012 18:00	15	0.21	38,471	2.25	0.18	1	Atlas		8,079	1
	5/29/2012 6:45	5/31/2012 7:15	2,910	2.28	1,305,137	2.28	4.57	3	Atlas		2,975,713	1
	5/31/2012 21:00	6/1/2012 1:45	285	1.14	30,509	3.26	0.49	12	Atlas		34,780	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.40	2,968	0.32	0.28	1	Atlas		1,187	1
	7/14/2012 12:15	7/14/2012 12:15	-	0.80	4,921	0.63	0.51	3	Atlas		3,937	1
	7/19/2012 18:15	7/19/2012 18:30	15	0.53	97,713	1.35	0.43	1	Atlas		51,788	1
	7/27/2012 20:00	7/27/2012 20:00	-	0.55	11,691	0.71	0.36	3	Atlas		6,430	1
	9/3/2012 2:00	9/3/2012 5:15	195	0.95	61,388	1.33	0.37	24	Atlas		58,319	1
	9/5/2012 15:30	9/5/2012 15:45	15	0.87	39,091	2.19	0.70	1	Atlas		34,009	1
	9/8/2012 2:45	9/8/2012 9:45	420	1.16	101,873	3.43	0.63	3	Atlas		118,173	1
	9/26/2012 23:00	9/26/2012 23:15	15	1.38	29,553	2.12	0.73	6	Atlas		40,783	1
	10/1/2012 21:15	10/1/2012 23:15	120	0.81	37,606	3.10	0.34	12	Atlas		30,461	1
	12/7/2012 8:45	12/7/2012 15:15	390	1.18	34,047	1.80	0.49	6	Atlas		40,175	1
	12/8/2012 10:15	12/8/2012 15:45	330	0.47	100,532	2.35	0.26	6	Atlas		47,250	1
	12/9/2012 22:15	12/10/2012 8:15	600	1.17	182,191	3.32	0.55	3	Atlas		213,163	1
	12/26/2012 11:15	12/26/2012 18:00	405	0.93	54,457	1.61	0.36	12	Atlas		50,645	1
	1/13/2013 5:30	1/14/2013 2:15	1,245	2.20	804,434	2.94	0.84	24	Atlas		1,769,755	1
	3/11/2013 10:15	3/11/2013 18:45	510	1.05	68,410	1.49	0.42	12	Atlas		71,831	1
	3/17/2013 18:45	3/17/2013 19:15	30	1.61	2,266	1.77	0.52	48	Atlas		3,649	1
	3/18/2013 4:15	3/18/2013 16:45	750	1.61	211,547	2.09	0.52	48	Atlas		340,591	1
	4/11/2013 7:15	4/11/2013 7:15	-	1.23	3,833	0.46	0.47	24	Atlas		4,715	1
	4/16/2013 20:15	4/18/2013 4:00	1,905	0.65	2,202,566	1.89	0.53	1	Atlas		1,431,668	1
	4/19/2013 2:30	4/19/2013 10:45	495	0.91	65,526	1.57	0.50	3	Atlas		59,629	1
	4/24/2013 9:00	4/24/2013 9:00	-	0.59	3,405	1.48	0.32	6	Atlas		2,009	1
	5/5/2013 10:30	5/5/2013 16:30	360	1.26	1,942	1.22	0.38	24	Atlas		2,447	1
	5/6/2013 5:00	5/6/2013 5:00	-	1.26	1,132	1.28	0.38	24	Atlas		1,426	1
	5/6/2013 19:45	5/7/2013 5:30	585	1.26	3,654	1.41	0.38	24	Atlas		4,604	1
	5/9/2013 23:45	5/10/2013 2:45	180	0.01	257,200	1.41	0.01	1	Atlas		2,572	1
	5/10/2013 17:15	5/11/2013 2:45	570	0.94	68,729	2.33	0.42	6	Atlas		64,605	1
	6/17/2013 16:30	6/19/2013 15:45	2,835	1.51	2,063,802	1.91	0.82	1	Atlas		3,116,341	1
	6/21/2013 19:30	6/23/2013 22:45	3,075	0.28	5,988,989	2.51	0.19	3	Atlas		1,676,917	1
	6/26/2013 3:30	6/28/2013 7:00	3,090	0.73	10,183,803	4.25	0.49	3	Atlas		7,434,176	1
	8/31/2013 19:45	9/1/2013 6:45	660	1.44	149,030	1.44	0.73	1	Atlas		214,603	1
	9/21/2013 1:00	9/22/2013 12:15	2,115	1.77	1,947,572	1.86	0.74	12	Atlas		3,447,202	1
	10/5/2013 14:15	10/7/2013 8:00	2,505	5.16	2,747,858	5.28	16.26	24	Atlas		14,178,945	1
	10/30/2013 9:00	10/30/2013 9:00	-	1.04	933	1.05	0.49	6	Atlas		970	1
	11/1/2013 1:00	11/1/2013 1:00	-	0.58	2,488	1.62	0.22	12	Atlas		1,443	1
	11/17/2013 7:45	11/19/2013 11:15	3,090	2.54	2,703,904	2.70	1.94	6	Cloudburst		6,867,915	1
	12/5/2013 8:45	12/13/2013 0:45	11,040	0.79	27,123,848	0.84	0.26	48	Atlas		21,427,840	1
	12/14/2013 4:45	12/14/2013 11:45	420	0.98	77,061	1.02	0.42	6	Atlas		75,520	1
	12/21/2013 12:00	12/21/2013 12:30	30	2.67	3,782	0.99	1.02	24	Cloudburst		10,097	1
	12/21/2013 22:00	12/22/2013 8:00	600	2.67	454,236	2.73	1.02	24	Cloudburst		1,212,811	1
	2/4/2014 23:30	2/5/2014 0:30	60	0.40	63,713	0.76	0.20	6	Atlas		25,485	1
	2/17/2014 16:15	2/17/2014 16:15	-	0.38	9,511	0.69	0.23	3	Atlas		3,614	1
	3/2/2014 15:30	3/4/2014 10:45	2,595	0.53	1,261,343	0.55	0.20	24	Atlas		668,512	1
	4/3/2014 15:30	4/6/2014 0:45	3,435	2.07	1,607,877	3.68	0.71	24	Atlas		3,328,306	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/7/2014 10:45	4/7/2014 14:00	195	1.07	76.290	3.20	0.61	3	Atlas		81.630	1
	4/27/2014 20:00	4/27/2014 20:00	-	2.12	8.644	0.28	0.80	3	Atlas		18.325	1
	4/28/2014 6:00	4/28/2014 10:15	255	2.12	105.077	1.72	0.80	3	Atlas		222.763	1
	5/10/2014 5:45	5/10/2014 5:45	-	1.75	4.543	1.02	0.67	24	Atlas		7.951	1
	5/10/2014 14:15	5/10/2014 18:30	255	1.75	46.003	1.82	0.67	24	Atlas		80.505	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.15	10.979	2.09	0.42	24	Atlas		12.626	1
	5/14/2014 21:15	5/15/2014 1:15	240	1.15	13.808	3.00	0.42	24	Atlas		15.879	1
	5/21/2014 21:00	5/22/2014 8:30	690	0.58	82.776	0.76	0.27	12	Atlas		48.010	1
	5/29/2014 21:00	5/31/2014 3:45	1,845	1.02	1,036.255	1.23	0.85	1	Atlas		1,056.980	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.76	29.212	1.05	0.66	1	Atlas		22.201	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.12	12.579	0.48	0.49	12	Atlas		14.089	1
	7/27/2014 7:45	7/27/2014 7:45	-	1.12	5.821	1.09	0.49	12	Atlas		6.520	1
	8/22/2014 19:00	8/23/2014 2:15	435	0.39	104.190	1.12	0.25	3	Atlas		40.634	1
	8/23/2014 20:00	8/23/2014 20:15	15	0.73	45.667	1.53	0.35	6	Atlas		33.337	1
	8/27/2014 17:15	8/27/2014 20:15	180	0.42	41.745	1.58	0.27	3	Atlas		17.533	1
	8/30/2014 17:15	8/31/2014 14:15	1,260	0.42	726.350	1.43	0.22	1	Atlas		305.067	1
	9/11/2014 1:00	9/11/2014 11:30	630	1.90	497.516	1.90	1.33	3	Atlas		945.281	1
	10/14/2014 15:45	10/14/2014 22:45	420	1.19	49.898	2.78	0.53	12	Atlas		59.379	1
	12/6/2014 2:45	12/6/2014 7:00	255	1.69	191.909	2.44	0.55	48	Atlas		324.327	1
	3/4/2015 3:30	3/4/2015 13:15	585	1.66	229.121	1.18	0.54	48	Atlas		380.341	1
	3/10/2015 10:45	3/11/2015 2:00	915	1.08	3,479.404	2.73	0.49	12	Atlas		3,757.756	1
	3/13/2015 10:45	3/14/2015 21:15	2,070	1.50	5,150.788	2.59	0.56	24	Atlas		7,726.182	1
	4/2/2015 15:00	4/2/2015 16:00	60	4.31	37.595	1.14	4.56	24	Cloudburst		162.033	1
	4/3/2015 0:15	4/5/2015 11:15	3,540	4.31	4,190.233	4.35	4.56	24	Cloudburst		18,059.905	1
	4/7/2015 9:30	4/7/2015 18:15	525	0.77	83.944	5.08	0.37	1	Atlas		64.637	1
	4/9/2015 12:00	4/9/2015 12:15	15	0.26	20.527	5.11	0.22	1	Atlas		5.337	1
	4/19/2015 14:15	4/19/2015 15:00	45	0.83	13.157	1.25	0.33	12	Atlas		10.920	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.11	151.373	0.54	0.08	1	Atlas		16.651	1
	6/18/2015 3:00	6/18/2015 4:15	75	0.06	363.700	0.74	0.04	1	Atlas		21.822	1
	6/18/2015 17:15	6/18/2015 21:15	240	1.94	179.797	1.45	0.63	48	Atlas		348.807	1
	6/20/2015 8:15	6/22/2015 4:45	2,670	1.94	987.595	2.73	0.63	48	Atlas		1,915.934	1
	6/26/2015 0:45	6/28/2015 19:15	3,990	0.38	2,274.416	2.47	0.21	6	Atlas		864.278	1
	6/29/2015 16:00	6/30/2015 10:45	1,125	0.18	883.211	1.26	0.10	1	Atlas		158.978	1
	7/2/2015 4:15	7/2/2015 14:15	600	1.64	16.685	2.04	0.63	24	Atlas		27.364	1
	7/7/2015 11:45	7/8/2015 21:45	2,040	0.77	409.036	2.80	0.33	6	Atlas		314.958	1
	7/12/2015 6:15	7/13/2015 16:00	2,025	1.80	4,008.297	3.93	2.00	3	Atlas		7,214.934	1
	7/14/2015 4:15	7/16/2015 20:30	3,855	0.60	4,784.332	4.65	0.44	1	Atlas		2,870.599	1
	7/17/2015 23:15	7/19/2015 0:30	1,515	1.46	1,163.267	4.60	0.97	3	Atlas		1,698.370	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.34	49.259	0.38	0.29	1	Atlas		16.748	1
	8/19/2015 8:15	8/19/2015 8:15	-	0.62	14.416	0.45	0.27	1	Atlas		8.938	1
	10/27/2015 22:45	10/27/2015 22:45	-	2.73	590	2.28	0.89	48	Atlas		1.610	1
	11/18/2015 11:15	11/18/2015 15:15	240	1.96	186.726	2.34	1.08	6	Cloudburst		365.982	1
	12/22/2015 3:15	12/22/2015 4:00	45	0.80	9.738	0.82	0.34	6	Atlas		7.790	1
	12/23/2015 20:00	12/23/2015 21:45	105	0.86	445.843	1.70	0.69	1	Atlas		383.425	1
	12/27/2015 11:00	12/28/2015 8:00	1,260	2.17	1,052.752	3.84	0.73	3	Atlas		2,284.472	1
	2/2/2016 23:15	2/3/2016 2:15	180	1.61	122.737	1.68	0.74	6	Atlas		197.606	1
	2/21/2016 10:30	2/21/2016 10:45	15	0.83	6.967	0.98	0.38	12	Atlas		5.783	1
	2/24/2016 3:00	2/24/2016 15:00	720	2.03	695.025	2.74	0.81	12	Atlas		1,410.900	1
	3/10/2016 17:00	3/10/2016 19:15	135	1.18	3.412	1.21	0.38	48	Atlas		4.026	1
	3/12/2016 23:30	3/12/2016 23:30	-	0.89	5.327	1.68	0.34	24	Atlas		4.741	1
	3/13/2016 9:45	3/13/2016 10:00	15	0.89	11.036	2.06	0.34	24	Atlas		9.822	1
	3/24/2016 17:45	3/24/2016 17:45	-	0.47	9.383	0.54	0.34	1	Atlas		4.410	1
	3/27/2016 21:45	3/27/2016 21:45	-	0.86	7.381	1.27	0.57	3	Atlas		6.348	1
	3/31/2016 23:15	4/1/2016 0:00	45	1.10	12.612	1.96	0.42	24	Atlas		13.873	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.62	6.547	1.05	0.28	3	Atlas		4.059	1
	5/10/2016 21:45	5/10/2016 22:30	45	1.02	179.815	1.73	0.38	24	Atlas		183.411	1
	5/20/2016 15:15	5/20/2016 15:15	-	0.86	6.109	1.30	0.50	3	Atlas		5.193	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.19	33.516	0.57	0.10	1	Atlas		6.368	1
	8/20/2016 20:00	8/20/2016 21:15	75	0.80	486.158	2.68	0.33	1	Atlas		388.926	1
	8/31/2016 17:15	8/31/2016 18:00	45	0.60	175.548	0.77	0.45	1	Atlas		105.329	1
	12/17/2016 18:45	12/18/2016 6:45	720	2.67	1,508.684	2.94	1.93	12	Cloudburst		4,028.186	1
	1/20/2017 1:15	1/20/2017 4:00	165	1.12	213.474	2.30	0.51	12	Atlas		239.091	1
	3/1/2017 3:15	3/1/2017 9:45	390	1.07	483.720	2.06	0.52	6	Atlas		517.580	1
	4/16/2017 20:15	4/16/2017 21:15	60	1.10	72.493	1.41	0.45	6	Atlas		79.742	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/29/2017 2:00	4/29/2017 5:00	180	1.43	531.617	1.74	0.81	3	Atlas		760.212	1
	5/4/2017 20:15	5/4/2017 20:45	30	1.95	9.469	2.71	0.65	24	Atlas		18.465	1
	5/5/2017 5:15	5/5/2017 10:45	330	1.95	286.336	3.59	0.65	24	Atlas		558.356	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.38	42.342	2.49	0.32	1	Atlas		16.090	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.19	22.642	0.30	0.17	1	Atlas		4.302	1
	6/23/2017 15:30	6/23/2017 15:30	-	0.88	9.142	1.04	0.43	6	Atlas		8.045	1
	7/23/2017 2:45	7/23/2017 3:30	45	1.10	6.833	0.56	0.50	12	Atlas		7.516	1
	7/28/2017 9:45	7/28/2017 9:45	-	0.57	2.425	1.62	0.43	1	Atlas		1.382	1
	8/1/2017 21:45	8/1/2017 21:45	-	0.13	36.864	0.67	0.09	1	Atlas		4.791	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.52	12.671	0.93	0.31	1	Atlas		6.589	1
	9/1/2017 22:00	9/2/2017 5:45	465	4.15	8.710	4.23	5.32	24	Cloudburst		36.147	1
	10/7/2017 22:15	10/7/2017 22:15	-	2.09	156	0.71	0.78	24	Atlas		325	1
	10/8/2017 14:00	10/8/2017 15:15	75	2.09	12.272	1.95	0.78	24	Atlas		25.648	1
	11/3/2017 4:45	11/3/2017 7:00	135	0.88	100.327	2.09	0.65	1	Atlas		88.288	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.56	27.195	1.59	0.43	1	Atlas		15.229	1
	12/5/2017 4:00	12/5/2017 4:00	-	0.75	259	0.51	0.43	3	Atlas		194	1
	12/23/2017 4:15	12/23/2017 6:00	105	1.25	709	1.07	0.49	12	Atlas		886	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.37	4.462	0.88	0.18	3	Atlas		1.651	1
	2/16/2018 4:00	2/16/2018 13:00	540	0.77	27.739	1.66	0.35	12	Atlas		21.359	1
	2/17/2018 14:30	2/17/2018 16:15	105	0.21	56.386	1.83	0.13	3	Atlas		11.841	1
	2/21/2018 21:45	2/22/2018 6:15	510	1.89	385.870	2.90	0.65	24	Atlas		729.295	1
	3/24/2018 10:45	3/24/2018 13:15	150	0.89	29.848	1.53	0.34	24	Atlas		26.565	1
	3/29/2018 19:30	3/29/2018 20:00	30	1.07	4.566	1.77	0.28	48	Atlas		4.886	1
	3/31/2018 23:00	4/1/2018 0:00	60	0.22	19.359	1.33	0.11	3	Atlas		4.259	1
	4/1/2018 20:45	4/2/2018 2:00	315	0.69	195.451	2.05	0.38	6	Atlas		134.861	1
	4/3/2018 16:30	4/3/2018 23:15	405	0.53	140.162	2.51	0.23	6	Atlas		74.286	1
	5/5/2018 14:15	5/5/2018 19:45	330	2.10	44.790	2.01	0.95	6	Atlas		94.060	1
	6/1/2018 1:15	6/1/2018 3:00	105	1.08	26.868	1.36	0.55	3	Atlas		29.017	1
	6/22/2018 14:30	6/22/2018 14:30	-	0.43	22.144	0.81	0.21	6	Atlas		9.522	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.87	28.886	1.51	0.35	12	Atlas		25.131	1
	6/26/2018 13:15	6/26/2018 23:00	585	0.82	25.744	2.46	0.34	12	Atlas		21.110	1
	7/2/2018 17:15	7/3/2018 1:00	465	1.40	119.646	2.24	1.70	1	Atlas		167.505	1
	7/3/2018 15:30	7/3/2018 18:30	180	0.61	56.546	2.35	0.43	1	Atlas		34.493	1
	7/15/2018 18:30	7/15/2018 18:30	-	0.26	700	0.26	0.14	1	Atlas		182	1
	7/20/2018 19:15	7/21/2018 6:45	690	1.31	65.889	1.73	0.71	3	Atlas		86.314	1
	7/31/2018 2:00	7/31/2018 13:00	660	2.34	11.212	2.37	0.92	6	Atlas		26.235	1
	8/31/2018 17:30	9/1/2018 2:30	540	0.63	128.952	0.66	0.43	1	Atlas		81.240	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.44	16.634	0.99	0.34	1	Atlas		7.319	1
	9/8/2018 18:15	9/9/2018 11:45	1,050	2.57	358.656	3.04	1.44	6	Cloudburst		921.747	1
	9/22/2018 17:00	9/22/2018 17:00	-	1.29	1.384	0.61	0.48	24	Atlas		1.786	1
	9/23/2018 5:30	9/23/2018 17:15	705	1.29	121.524	1.53	0.48	24	Atlas		156.766	1
	9/24/2018 7:15	9/25/2018 1:45	1,110	1.72	444.808	3.18	0.78	6	Atlas		765.070	1
	9/25/2018 16:45	9/26/2018 4:15	690	0.68	239.007	3.95	0.31	12	Atlas		162.525	1
	11/1/2018 0:45	11/1/2018 18:30	1,065	1.77	41.803	2.14	0.60	24	Atlas		73.992	1
	11/5/2018 22:00	11/6/2018 8:00	600	1.02	174.625	2.88	0.55	6	Atlas		178.117	1
	11/15/2018 4:30	11/15/2018 9:00	270	0.50	29.544	0.69	0.23	12	Atlas		14.772	1
	12/1/2018 10:15	12/1/2018 14:45	270	1.63	503.561	1.74	0.71	12	Atlas		820.804	1
	12/15/2018 4:30	12/15/2018 17:30	780	1.51	524.748	1.52	0.61	12	Atlas		792.370	1
	12/31/2018 9:00	12/31/2018 23:30	870	1.36	367.314	1.69	0.52	24	Atlas		499.547	1
	1/4/2019 14:45	1/4/2019 21:00	375	0.62	132.106	1.97	0.28	12	Atlas		81.906	1
	1/19/2019 17:30	1/19/2019 21:00	210	0.87	22.567	0.92	0.33	24	Atlas		19.633	1
	1/23/2019 10:15	1/23/2019 22:45	750	0.87	322.154	1.84	0.34	12	Atlas		280.274	1
	2/6/2019 10:00	2/6/2019 12:00	120	1.56	7.843	0.74	0.50	48	Atlas		12.235	1
	2/7/2019 9:15	2/8/2019 0:45	930	1.56	1,375.918	1.66	0.50	48	Atlas		2,146.432	1
	2/10/2019 17:15	2/12/2019 6:15	2,220	2.75	2,161.793	4.14	0.85	48	Atlas		5,944.930	1
	2/12/2019 19:00	2/13/2019 14:15	1,155	2.75	533.305	4.29	0.85	48	Atlas		1,466.590	1
	2/20/2019 3:30	2/20/2019 22:45	1,155	1.85	817.359	1.90	0.86	6	Atlas		1,512.114	1
	2/23/2019 17:30	2/24/2019 10:00	990	0.89	1,690.906	2.80	0.48	6	Atlas		1,504.906	1
	3/9/2019 15:30	3/12/2019 19:15	4,545	1.24	128.497	1.37	0.62	6	Atlas		159.336	1
	3/13/2019 7:00	3/13/2019 8:15	75	0.01	47.200	1.35	0.01	1	Atlas		472	1
	3/14/2019 17:15	3/15/2019 2:00	525	0.74	282.661	2.47	0.50	1	Atlas		209.169	1
	3/30/2019 17:15	3/30/2019 21:00	225	0.69	51.622	1.10	0.37	6	Atlas		35.619	1
	4/7/2019 12:00	4/7/2019 12:30	30	0.51	8.449	0.63	0.26	3	Atlas		4.309	1
	4/14/2019 2:00	4/14/2019 5:00	180	1.19	53.420	1.74	0.57	6	Atlas		63.570	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2019 19:00	4/21/2019 0:45	1,785	3.71	572.911	4.94	2.10	48	Cloudburst		2,125,501	1
	4/24/2019 21:00	4/24/2019 22:15	75	0.48	47.098	4.04	0.23	1	Atlas		22,607	1
	4/25/2019 18:15	4/26/2019 4:15	600	0.42	183.348	4.62	0.19	12	Atlas		77,006	1
	5/3/2019 7:00	5/3/2019 17:30	630	0.96	103.260	1.16	0.52	6	Atlas		99,130	1
	5/26/2019 14:00	5/26/2019 14:00	-	0.55	5.956	0.49	0.31	3	Atlas		3,276	1
	5/29/2019 9:15	5/29/2019 9:15	-	0.81	16.580	1.02	0.44	6	Atlas		13,430	1
	6/5/2019 21:15	6/5/2019 21:15	-	0.57	2.863	0.67	0.39	1	Atlas		1,632	1
	6/9/2019 4:30	6/9/2019 4:30	-	0.27	3.400	1.51	0.14	6	Atlas		918	1
	6/9/2019 15:45	6/9/2019 21:00	315	1.24	790.382	2.75	0.71	3	Atlas		980,074	1
	6/16/2019 21:00	6/17/2019 2:00	300	1.55	49.574	1.85	0.69	12	Atlas		76,839	1
	6/18/2019 17:15	6/18/2019 18:15	60	1.20	37.783	3.09	0.73	1	Atlas		45,339	1
	6/21/2019 20:45	6/21/2019 21:45	60	0.43	12.788	3.59	0.29	3	Atlas		5,499	1
	6/22/2019 8:45	6/22/2019 10:00	75	0.33	33.312	3.80	0.22	3	Atlas		10,993	1
	6/23/2019 16:30	6/23/2019 17:00	30	0.52	7.623	3.93	0.41	1	Atlas		3,964	1
	6/24/2019 14:15	6/24/2019 15:30	75	0.56	99.848	3.13	0.35	3	Atlas		55,915	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.47	59.664	0.47	0.31	3	Atlas		28,042	1
	8/27/2019 17:15	8/27/2019 17:15	-	0.40	2.100	1.37	0.34	1	Atlas		840	1
	10/30/2019 14:15	10/30/2019 15:00	45	0.91	33.984	2.02	0.47	3	Atlas		30,925	1
	10/31/2019 6:45	10/31/2019 6:45	-	0.70	443	2.59	0.38	6	Atlas		310	1
	11/27/2019 0:30	11/27/2019 0:30	-	0.80	268	1.14	0.36	12	Atlas		214	1
	11/30/2019 5:15	11/30/2019 18:45	810	1.55	23.759	2.50	0.60	24	Atlas		36,827	1
	12/16/2019 17:45	12/16/2019 19:30	105	0.70	22.811	1.39	0.32	6	Atlas		15,968	1
	12/29/2019 21:00	12/29/2019 21:00	-	1.32	913	1.20	0.49	24	Atlas		1,205	1
	1/10/2020 20:30	1/10/2020 20:30	-	0.38	297	0.37	0.19	3	Atlas		113	1
	1/11/2020 12:00	1/11/2020 12:15	15	0.83	5.142	0.85	0.40	6	Atlas		4,268	1
	2/12/2020 18:00	2/12/2020 19:00	60	0.95	68.480	1.38	0.44	12	Atlas		65,056	1
	3/12/2020 20:15	3/12/2020 23:30	195	0.55	2.878	0.98	0.25	12	Atlas		1,583	1
	3/19/2020 12:15	3/19/2020 15:15	180	0.49	37.743	1.85	0.21	3	Atlas		18,494	1
	3/20/2020 4:15	3/20/2020 4:15	-	0.49	2.304	1.44	0.21	3	Atlas		1,129	1
	3/24/2020 19:30	3/24/2020 20:15	45	0.15	34.013	1.10	0.08	6	Atlas		5,102	1
	5/16/2020 7:45	5/16/2020 8:30	45	1.45	17.534	1.53	0.54	24	Atlas		25,425	1
	6/4/2020 18:15	6/4/2020 18:15	-	0.56	8.113	0.43	0.31	3	Atlas		4,543	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.63	26.594	0.46	0.37	1	Atlas		16,754	1
	6/23/2020 0:15	6/23/2020 0:30	15	1.10	3.599	1.61	0.51	3	Atlas		3,959	1
	6/29/2020 2:45	6/29/2020 2:45	-	0.91	100	1.76	0.59	3	Atlas		91	1
	CSO126 Total										162,536,777	233
CSO127	9/3/2008 9:00	9/3/2008 9:00	-	0.30	28.750	0.22	0.20	3	Atlas		8,625	1
	9/29/2008 23:00	9/30/2008 0:00	60	0.31	70.700	0.23	0.21	3	Atlas		21,917	1
	10/7/2008 15:00	10/7/2008 15:45	45	0.83	23.670	0.25	0.32	24	Atlas		19,646	1
	10/8/2008 1:00	10/8/2008 3:45	165	0.83	54.229	0.79	0.32	24	Atlas		45,010	1
	10/24/2008 4:00	10/24/2008 13:15	555	1.55	118.972	1.55	0.71	12	Atlas		184,406	1
	11/12/2008 23:45	11/13/2008 0:30	45	0.34	70.559	0.49	0.14	12	Atlas		23,990	1
	11/15/2008 0:30	11/15/2008 7:00	390	0.99	23.821	0.86	0.41	12	Atlas		23,583	1
	11/24/2008 3:30	11/24/2008 7:15	225	0.66	40.405	0.61	0.33	6	Atlas		26,667	1
	12/3/2008 23:30	12/4/2008 0:30	60	0.27	83.719	0.42	0.13	3	Atlas		22,604	1
	12/9/2008 11:30	12/9/2008 16:15	285	1.13	142.561	1.27	0.52	6	Atlas		161,094	1
	12/19/2008 6:45	12/19/2008 10:00	195	0.64	145.655	1.04	0.35	6	Atlas		93,219	1
	12/23/2008 23:00	12/24/2008 14:45	945	2.49	256.957	3.27	0.81	48	Atlas		639,823	1
	12/28/2008 0:15	12/28/2008 2:15	120	0.50	390.896	3.00	0.33	3	Atlas		195,448	1
	1/10/2009 7:30	1/10/2009 15:00	450	0.42	120.783	1.10	0.26	3	Atlas		50,729	1
	1/28/2009 2:15	1/28/2009 8:00	345	1.68	58.141	1.76	0.55	24	Atlas		97,677	1
	2/10/2009 5:15	2/10/2009 6:00	45	1.11	8.371	0.33	0.36	48	Atlas		9,292	1
	2/10/2009 18:30	2/10/2009 19:15	45	1.11	12.134	0.72	0.36	48	Atlas		13,469	1
	2/11/2009 4:45	2/11/2009 5:30	45	1.11	53.707	0.90	0.36	48	Atlas		59,615	1
	2/11/2009 13:45	2/11/2009 14:30	45	1.11	81.991	1.09	0.36	48	Atlas		91,010	1
	2/18/2009 5:15	2/18/2009 5:30	15	0.19	9.921	0.35	0.10	1	Atlas		1,885	1
	2/27/2009 3:15	2/27/2009 5:00	105	0.68	1,023.899	1.08	0.39	3	Atlas		696,115	1
	3/25/2009 5:30	3/25/2009 5:45	15	0.30	42.397	0.53	0.13	12	Atlas		12,719	1
	3/28/2009 20:45	3/28/2009 21:15	30	0.42	363.864	0.92	0.24	1	Atlas		152,823	1
	4/2/2009 19:15	4/3/2009 4:00	525	1.09	660.159	1.59	0.49	12	Atlas		719,573	1
	4/5/2009 17:30	4/5/2009 17:45	15	0.30	237.710	1.38	0.19	3	Atlas		71,313	1
	4/10/2009 11:30	4/10/2009 11:30	-	0.38	19.571	0.46	0.15	12	Atlas		7,437	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/13/2009 16:15	4/13/2009 22:15	360	0.87	188.948	1.23	0.35	12	Atlas		164.385	1
	4/14/2009 9:00	4/14/2009 9:15	15	0.87	13.625	1.25	0.35	12	Atlas		11.854	1
	4/19/2009 7:45	4/19/2009 23:45	960	1.22	200.700	2.06	0.47	12	Atlas		244.854	1
	4/28/2009 8:15	4/28/2009 9:30	75	0.26	229.646	0.26	0.16	3	Atlas		59.708	1
	5/1/2009 1:45	5/1/2009 2:00	15	0.03	1.267.700	0.39	0.02	1	Atlas		38.031	1
	6/4/2009 11:15	6/4/2009 11:15	-	0.24	1.129	0.28	0.11	12	Atlas		271	1
	6/10/2009 9:45	6/10/2009 13:00	195	0.84	905.865	1.14	0.43	3	Atlas		760.927	1
	6/11/2009 2:30	6/11/2009 4:45	135	1.65	1.432.140	2.13	0.65	3	Atlas		2.363.031	1
	6/11/2009 17:15	6/11/2009 20:45	210	1.65	658.327	2.53	0.65	3	Atlas		1.086.240	1
	6/16/2009 9:30	6/16/2009 17:00	450	0.81	131.667	3.91	0.52	1	Atlas		106.650	1
	6/18/2009 10:15	6/18/2009 12:15	120	1.37	1.657.094	3.37	0.86	1	Atlas		2.270.219	1
	6/20/2009 4:15	6/20/2009 4:30	15	0.08	54.663	2.86	0.06	1	Atlas		4.373	1
	6/22/2009 9:00	6/22/2009 10:45	105	1.12	602.251	4.01	0.77	1	Atlas		674.521	1
	6/26/2009 3:30	6/26/2009 6:15	165	1.18	587.805	2.46	0.54	12	Atlas		693.610	1
	6/26/2009 16:00	6/26/2009 16:30	30	0.12	225.025	2.62	0.10	1	Atlas		27.003	1
	7/8/2009 6:30	7/8/2009 7:00	30	0.10	135.740	0.49	0.09	1	Atlas		13.574	1
	7/15/2009 10:45	7/15/2009 12:00	75	0.30	269.457	0.34	0.19	3	Atlas		80.837	1
	7/17/2009 3:30	7/17/2009 4:15	45	0.35	85.637	0.62	0.23	3	Atlas		29.973	1
	7/22/2009 6:15	7/22/2009 11:30	315	1.46	186.523	2.04	0.64	12	Atlas		272.324	1
	7/25/2009 6:45	7/25/2009 6:45	-	0.61	521	1.65	0.23	24	Atlas		318	1
	7/25/2009 21:15	7/25/2009 21:45	30	0.61	29.280	2.07	0.23	24	Atlas		17.861	1
	7/28/2009 13:30	7/28/2009 13:45	15	2.63	2.146	2.28	2.52	6	Cloudburst		5.645	1
	7/29/2009 1:15	7/29/2009 8:30	435	2.63	922.290	4.61	2.52	6	Cloudburst		2.425.623	1
	7/30/2009 11:15	7/30/2009 23:00	705	1.04	200.855	4.10	0.44	12	Atlas		208.889	1
	8/4/2009 7:30	8/5/2009 1:15	1.065	5.46	2.063.410	9.15	424.75	3	Cloudburst		11.266.218	1
	8/10/2009 18:45	8/10/2009 21:00	135	1.06	1.858.769	6.47	0.67	3	Atlas		1.970.295	1
	8/20/2009 9:15	8/20/2009 9:30	15	0.30	76.090	0.33	0.20	3	Atlas		22.827	1
	9/6/2009 1:00	9/6/2009 1:15	15	0.27	145.967	0.21	0.18	1	Atlas		39.411	1
	9/20/2009 6:00	9/20/2009 22:15	975	3.67	345.233	3.44	4.28	24	Cloudburst		1.267.005	1
	9/22/2009 18:30	9/22/2009 18:30	-	0.65	98.635	3.92	0.33	6	Atlas		64.113	1
	10/23/2009 6:30	10/23/2009 10:30	240	0.58	39.071	0.61	0.25	12	Atlas		22.661	1
	10/27/2009 20:30	10/27/2009 23:30	180	1.11	30.909	1.69	0.50	12	Atlas		34.309	1
	10/30/2009 19:45	10/31/2009 0:45	300	0.98	55.807	1.73	0.44	12	Atlas		54.691	1
	11/17/2009 7:30	11/17/2009 20:30	780	0.94	41.939	0.90	0.36	24	Atlas		39.423	1
	12/8/2009 15:30	12/8/2009 23:00	450	1.58	92.736	1.85	0.68	12	Atlas		146.523	1
	12/13/2009 6:45	12/13/2009 7:15	30	0.26	44.362	1.89	0.17	3	Atlas		11.534	1
	1/20/2010 10:00	1/20/2010 12:45	165	0.40	119.833	0.70	0.21	6	Atlas		47.933	1
	1/21/2010 0:15	1/21/2010 0:30	15	0.15	42.700	0.86	0.13	1	Atlas		6.405	1
	1/21/2010 10:30	1/21/2010 19:45	555	0.90	160.251	1.76	0.41	12	Atlas		144.226	1
	1/24/2010 4:00	1/24/2010 6:00	120	1.03	73.576	2.15	0.40	24	Atlas		75.783	1
	1/24/2010 21:30	1/24/2010 22:45	75	1.03	61.869	2.47	0.40	24	Atlas		63.725	1
	2/5/2010 11:45	2/5/2010 19:30	465	1.18	214.254	1.12	0.42	24	Atlas		252.820	1
	3/12/2010 13:30	3/12/2010 14:30	60	0.25	208.704	0.25	0.15	3	Atlas		52.176	1
	3/21/2010 23:15	3/22/2010 1:30	135	0.47	21.998	0.47	0.22	12	Atlas		10.339	1
	3/25/2010 21:30	3/25/2010 22:15	45	0.56	40.264	1.01	0.31	1	Atlas		22.548	1
	4/7/2010 23:30	4/8/2010 6:00	390	1.15	160.174	1.26	0.56	6	Atlas		184.200	1
	4/24/2010 14:45	4/24/2010 20:30	345	1.57	1.044.522	1.82	0.72	6	Atlas		1.639.899	1
	4/27/2010 7:45	4/27/2010 10:45	180	0.34	196.788	2.34	0.16	6	Atlas		66.908	1
	5/1/2010 4:45	5/1/2010 9:15	270	4.23	12.427	3.01	3.86	48	Atlas		52.567	1
	5/2/2010 1:15	5/3/2010 0:45	1.410	4.23	1.572.908	4.77	3.86	48	Atlas		6.653.401	1
	5/7/2010 23:15	5/7/2010 23:15	-	0.20	7.825	4.44	0.16	1	Atlas		1.565	1
	5/12/2010 9:45	5/12/2010 10:45	60	0.75	4.220.172	1.04	0.57	1	Atlas		3.165.129	1
	5/13/2010 12:45	5/13/2010 13:00	15	0.16	99.256	1.21	0.14	1	Atlas		15.881	1
	5/16/2010 9:30	5/16/2010 10:00	30	0.55	119.276	1.24	0.25	12	Atlas		65.602	1
	5/17/2010 19:45	5/17/2010 20:15	30	0.44	2.823.080	1.99	0.32	1	Atlas		1.242.155	1
	5/21/2010 19:45	5/21/2010 21:00	75	1.12	784.524	2.12	0.85	1	Atlas		878.667	1
	5/30/2010 16:15	5/30/2010 20:30	255	0.39	195.654	0.46	0.23	1	Atlas		76.305	1
	6/9/2010 4:30	6/9/2010 12:45	495	2.08	131.719	2.19	1.57	3	Atlas		273.975	1
	6/12/2010 1:30	6/12/2010 1:45	15	0.29	34.545	2.37	0.17	1	Atlas		10.018	1
	6/13/2010 23:00	6/13/2010 23:30	30	0.47	1.195.804	2.72	0.29	1	Atlas		562.028	1
	6/15/2010 21:00	6/15/2010 21:15	15	0.50	14.698	3.40	0.36	1	Atlas		7.349	1
	6/19/2010 5:15	6/19/2010 7:15	120	0.85	1.765.160	1.82	0.49	3	Atlas		1.500.386	1
	6/28/2010 1:45	6/28/2010 2:45	60	0.40	163.598	0.38	0.28	1	Atlas		65.439	1
	7/13/2010 4:00	7/13/2010 7:30	210	1.79	428.166	1.77	0.82	12	Atlas		766.418	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/13/2010 16:00	7/13/2010 16:00	-	1.79	750	2.38	0.82	12	Atlas		1,342	1
	7/20/2010 4:45	7/20/2010 6:15	90	0.72	339,958	2.30	0.50	1	Atlas		244,770	1
	7/21/2010 6:00	7/21/2010 6:30	30	0.41	191,944	1.42	0.32	1	Atlas		78,697	1
	7/22/2010 14:45	7/22/2010 15:00	15	0.07	379,414	1.51	0.06	1	Atlas		26,559	1
	7/27/2010 16:15	7/27/2010 16:45	30	0.78	131,349	1.23	0.50	3	Atlas		102,452	1
	7/28/2010 16:30	7/28/2010 16:45	15	0.31	43,423	1.14	0.23	1	Atlas		13,461	1
	7/31/2010 4:30	7/31/2010 6:30	120	0.35	247,003	1.44	0.19	3	Atlas		86,451	1
	7/31/2010 21:00	7/31/2010 21:15	15	0.12	78,433	1.56	0.10	1	Atlas		9,412	1
	8/5/2010 9:15	8/5/2010 9:45	30	0.24	184,183	0.68	0.18	1	Atlas		44,204	1
	8/14/2010 16:30	8/14/2010 17:30	60	0.58	590,278	0.82	0.47	1	Atlas		342,361	1
	8/21/2010 7:15	8/21/2010 9:00	105	0.49	108,659	1.19	0.30	3	Atlas		53,243	1
	9/7/2010 9:45	9/7/2010 9:45	-	0.05	159,220	0.03	0.03	1	Atlas		7,961	1
	10/13/2010 18:30	10/13/2010 21:00	150	0.45	236,233	0.56	0.29	3	Atlas		106,305	1
	10/26/2010 11:15	10/26/2010 11:45	30	0.51	238,127	0.24	0.28	6	Atlas		121,445	1
	11/16/2010 12:30	11/16/2010 18:45	375	0.77	157,452	0.81	0.34	12	Atlas		121,238	1
	11/23/2010 4:00	11/23/2010 4:30	30	0.31	75,855	1.11	0.17	6	Atlas		23,515	1
	11/24/2010 12:45	11/24/2010 15:30	165	0.76	576,405	1.07	0.37	3	Atlas		438,068	1
	11/25/2010 9:45	11/25/2010 23:30	825	2.32	461,906	3.29	0.89	24	Atlas		1,071,623	1
	11/29/2010 20:45	11/30/2010 12:15	930	1.71	182,915	5.01	0.66	24	Atlas		312,785	1
	12/30/2010 3:30	12/30/2010 8:15	285	0.53	225,796	0.59	0.24	12	Atlas		119,672	1
	1/1/2011 4:30	1/1/2011 7:30	180	0.65	417,326	1.14	0.28	12	Atlas		271,262	1
	2/1/2011 16:45	2/1/2011 20:15	210	1.00	433,620	0.91	0.42	6	Atlas		433,620	1
	2/21/2011 18:30	2/21/2011 18:30	-	0.18	13,794	0.20	0.11	3	Atlas		2,483	1
	2/24/2011 17:00	2/25/2011 6:30	810	2.23	1,005,833	2.45	0.86	24	Atlas		2,243,007	1
	2/28/2011 5:15	2/28/2011 12:30	435	1.13	517,588	3.68	0.54	6	Atlas		584,874	1
	3/5/2011 4:30	3/5/2011 10:15	345	0.88	172,850	2.06	0.29	24	Atlas		152,108	1
	3/5/2011 19:00	3/5/2011 19:00	-	0.88	584	2.14	0.29	24	Atlas		514	1
	3/8/2011 22:45	3/9/2011 23:15	1,470	2.82	1,112,548	3.73	1.43	24	Cloudburst		3,137,385	1
	3/14/2011 4:15	3/14/2011 4:45	30	0.81	19,542	3.12	0.26	48	Atlas		15,829	1
	3/15/2011 7:30	3/15/2011 13:00	330	0.81	59,594	3.67	0.26	48	Atlas		48,271	1
	3/18/2011 21:15	3/18/2011 22:00	45	0.22	584,727	1.02	0.11	6	Atlas		128,640	1
	4/1/2011 20:45	4/1/2011 21:15	30	0.14	254,929	0.31	0.10	1	Atlas		35,690	1
	4/4/2011 13:30	4/4/2011 16:45	195	0.93	151,154	1.10	0.48	6	Atlas		140,573	1
	4/9/2011 10:45	4/9/2011 11:45	60	0.63	380,340	1.62	0.45	1	Atlas		239,614	1
	4/11/2011 10:30	4/12/2011 17:15	1,845	3.26	2,575,113	4.82	2.68	24	Cloudburst		8,394,870	1
	4/15/2011 13:15	4/15/2011 13:45	30	0.45	92,756	4.10	0.17	24	Atlas		41,740	1
	4/20/2011 0:30	4/20/2011 4:45	255	0.68	273,032	1.20	0.37	6	Atlas		185,662	1
	4/22/2011 16:45	4/25/2011 8:30	3,825	4.61	1,379,166	5.56	2.66	48	Cloudburst		6,357,957	1
	4/25/2011 17:30	4/25/2011 17:45	15	4.61	4,157	5.35	2.66	48	Cloudburst		19,166	1
	4/26/2011 10:15	4/26/2011 10:30	15	0.07	69,957	5.41	0.04	1	Atlas		4,897	1
	4/27/2011 1:00	4/28/2011 20:30	2,610	3.09	3,319,104	8.51	1.98	24	Cloudburst		10,256,032	1
	5/1/2011 4:30	5/1/2011 6:45	135	0.71	570,548	5.28	0.37	3	Atlas		405,089	1
	5/1/2011 19:30	5/2/2011 7:45	735	2.81	189,374	5.33	0.91	48	Atlas		532,141	1
	5/2/2011 17:00	5/3/2011 21:15	1,695	2.81	1,138,215	6.90	0.91	48	Atlas		3,198,384	1
	5/8/2011 1:15	5/8/2011 2:00	45	0.21	2,990,486	3.66	0.12	3	Atlas		628,002	1
	5/14/2011 15:00	5/14/2011 15:00	-	0.12	135,533	0.34	0.07	1	Atlas		16,264	1
	5/21/2011 18:30	5/21/2011 19:30	60	0.47	619,357	0.83	0.35	1	Atlas		291,098	1
	5/23/2011 4:15	5/23/2011 5:00	45	0.29	284,383	0.87	0.22	1	Atlas		82,471	1
	5/23/2011 17:45	5/23/2011 21:15	210	0.92	894,075	1.81	0.59	3	Atlas		822,549	1
	5/25/2011 23:00	5/26/2011 2:00	180	1.28	944,269	2.65	0.57	3	Atlas		1,208,664	1
	5/26/2011 11:30	5/26/2011 12:30	60	1.28	1,088,484	2.98	0.57	3	Atlas		1,393,260	1
	6/11/2011 4:45	6/11/2011 5:15	30	0.33	115,321	0.37	0.28	1	Atlas		38,056	1
	6/15/2011 9:45	6/15/2011 10:30	45	1.04	1,229,565	1.43	0.67	1	Atlas		1,278,748	1
	6/18/2011 6:30	6/18/2011 8:45	135	0.82	255,280	1.91	0.51	3	Atlas		209,330	1
	6/19/2011 7:45	6/19/2011 9:15	90	0.48	382,015	2.38	0.29	3	Atlas		183,367	1
	6/20/2011 1:45	6/20/2011 2:15	30	0.61	77,697	2.98	0.51	1	Atlas		47,395	1
	6/21/2011 14:15	6/21/2011 16:45	150	0.43	620,309	3.38	0.26	3	Atlas		266,733	1
	6/22/2011 19:30	6/23/2011 7:00	690	3.96	1,218,872	6.31	41.03	3	Cloudburst		4,826,735	1
	6/26/2011 4:45	6/26/2011 5:00	15	0.27	111,778	5.68	0.14	6	Atlas		30,180	1
	7/3/2011 20:45	7/3/2011 20:45	-	0.07	26,614	0.08	0.05	3	Atlas		1,863	1
	7/8/2011 3:15	7/8/2011 4:00	45	0.47	169,545	0.70	0.25	3	Atlas		79,686	1
	7/19/2011 22:45	7/19/2011 23:45	60	1.70	1,213,121	1.90	1.13	1	Atlas		2,062,306	1
	7/20/2011 16:00	7/20/2011 16:00	-	0.20	2,150	2.09	0.17	1	Atlas		430	1
	7/30/2011 21:15	7/30/2011 21:30	15	0.82	46,837	1.64	0.61	1	Atlas		38,406	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/7/2011 3:15	8/7/2011 6:30	195	1.80	537.834	1.82	1.37	3	Atlas		968.101	1
	9/10/2011 20:00	9/10/2011 20:15	15	0.05	443.260	0.44	0.03	1	Atlas		22.163	1
	9/11/2011 21:00	9/11/2011 22:00	60	0.28	12.614	0.65	0.17	3	Atlas		3.532	1
	9/19/2011 7:00	9/19/2011 8:00	60	0.72	87.517	0.64	0.29	12	Atlas		63.012	1
	9/23/2011 2:15	9/23/2011 8:00	345	0.83	300.293	1.57	0.38	12	Atlas		249.243	1
	9/25/2011 20:00	9/26/2011 7:00	660	3.17	578.531	4.84	4.71	12	Cloudburst		1.833.944	1
	10/13/2011 7:30	10/13/2011 8:15	45	0.45	49.176	0.33	0.24	3	Atlas		22.129	1
	10/27/2011 0:00	10/27/2011 5:00	300	0.94	30.100	1.32	0.39	12	Atlas		28.294	1
	11/3/2011 9:30	11/3/2011 11:45	135	0.65	55.529	0.52	0.29	3	Atlas		36.094	1
	11/14/2011 21:45	11/15/2011 14:15	990	2.13	46.698	1.50	0.69	48	Atlas		99.466	1
	11/16/2011 5:15	11/16/2011 11:15	360	2.13	35.656	2.12	0.69	48	Atlas		75.948	1
	11/20/2011 12:45	11/20/2011 18:15	330	2.15	14.952	2.79	0.65	48	Atlas		32.146	1
	11/21/2011 10:30	11/21/2011 10:45	15	2.15	2.590	3.13	0.65	48	Atlas		5.569	1
	11/22/2011 0:15	11/22/2011 11:30	675	2.15	129.040	3.87	0.65	48	Atlas		277.435	1
	11/27/2011 6:15	11/29/2011 3:45	2,730	3.31	513.490	5.40	1.17	48	Cloudburst		1.699.653	1
	11/29/2011 19:00	11/29/2011 19:45	45	0.08	114.013	3.38	0.05	1	Atlas		9.121	1
	12/4/2011 16:15	12/6/2011 4:15	2,160	3.12	714.386	5.77	1.07	48	Cloudburst		2.228.884	1
	12/15/2011 4:00	12/15/2011 8:00	240	0.42	168.464	0.39	0.22	6	Atlas		70.755	1
	12/21/2011 5:15	12/21/2011 7:15	120	0.59	90.381	1.03	0.27	12	Atlas		53.325	1
	12/22/2011 11:45	12/22/2011 17:30	345	0.66	354.139	1.22	0.29	12	Atlas		233.732	1
	12/27/2011 2:45	12/27/2011 11:45	540	0.83	323.199	2.04	0.34	12	Atlas		268.255	1
	1/11/2012 5:00	1/11/2012 10:15	315	0.86	248.607	0.67	0.33	24	Atlas		213.802	1
	1/11/2012 20:30	1/11/2012 20:30	-	0.86	2.210	0.84	0.33	24	Atlas		1.901	1
	1/17/2012 4:00	1/17/2012 12:30	510	0.31	320.281	1.27	0.14	12	Atlas		99.287	1
	1/22/2012 22:45	1/23/2012 5:00	375	0.63	327.352	0.95	0.33	3	Atlas		206.232	1
	1/26/2012 5:30	1/26/2012 7:00	90	1.89	75.611	1.38	0.61	48	Atlas		142.905	1
	1/26/2012 17:45	1/27/2012 1:45	480	1.89	267.751	2.52	0.61	48	Atlas		506.049	1
	2/4/2012 9:00	2/4/2012 10:30	90	0.35	119.357	0.37	0.20	3	Atlas		41.775	1
	2/22/2012 23:00	2/22/2012 23:30	30	0.19	95.642	0.40	0.14	1	Atlas		18.172	1
	2/29/2012 6:15	2/29/2012 9:15	180	0.62	58.516	0.78	0.28	12	Atlas		36.280	1
	3/8/2012 10:15	3/8/2012 17:15	420	0.82	200.120	1.15	0.38	6	Atlas		164.098	1
	3/15/2012 19:00	3/16/2012 3:30	510	0.98	293.857	1.19	0.44	12	Atlas		287.980	1
	3/17/2012 18:30	3/17/2012 22:30	240	1.24	195.312	2.37	0.74	1	Atlas		242.187	1
	3/23/2012 5:00	3/23/2012 23:00	1,080	1.59	459.549	2.84	0.61	24	Atlas		730.683	1
	4/1/2012 8:30	4/1/2012 11:45	195	1.26	935.573	1.45	0.68	6	Atlas		1.178.822	1
	4/16/2012 7:00	4/16/2012 7:15	15	0.17	143.818	0.32	0.11	3	Atlas		24.449	1
	4/28/2012 19:15	4/29/2012 0:30	315	0.75	309.432	0.88	0.52	1	Atlas		232.074	1
	4/30/2012 18:15	4/30/2012 18:30	15	0.44	94.289	1.15	0.29	3	Atlas		41.487	1
	5/4/2012 23:45	5/5/2012 5:00	315	1.49	821.038	2.69	0.80	3	Atlas		1.223.347	1
	5/13/2012 1:45	5/13/2012 13:30	705	2.23	341.056	2.24	0.91	12	Atlas		760.555	1
	5/16/2012 18:00	5/16/2012 18:30	30	0.24	353.888	2.47	0.21	1	Atlas		84.933	1
	5/29/2012 6:45	5/29/2012 17:00	615	2.50	1,609.942	2.50	7.08	3	Atlas		4.024.855	1
	5/31/2012 18:30	6/1/2012 5:15	645	1.19	96.252	3.63	0.52	12	Atlas		114.540	1
	6/17/2012 12:15	6/17/2012 12:15	-	0.41	14.910	0.34	0.25	3	Atlas		6.113	1
	7/1/2012 20:00	7/1/2012 20:30	30	0.40	448.840	0.33	0.29	1	Atlas		179.536	1
	7/8/2012 13:30	7/8/2012 13:45	15	0.08	95.013	0.48	0.05	1	Atlas		7.601	1
	7/14/2012 12:15	7/14/2012 14:45	150	0.92	496.410	1.00	0.59	3	Atlas		456.697	1
	10/26/2012 12:15	10/26/2012 15:45	210	0.85	32.778	0.78	0.40	6	Atlas		27.861	1
	11/3/2012 16:30	11/3/2012 16:30	-	0.16	24.175	0.18	0.07	12	Atlas		3.868	1
	11/12/2012 7:00	11/12/2012 7:30	30	0.50	18.166	0.48	0.23	12	Atlas		9.083	1
	12/2/2012 11:30	12/2/2012 11:30	-	0.20	18.735	0.25	0.12	3	Atlas		3.747	1
	12/4/2012 16:15	12/4/2012 18:45	150	0.50	177.384	0.70	0.33	3	Atlas		88.692	1
	12/7/2012 2:15	12/7/2012 18:15	960	1.27	176.077	1.97	0.54	12	Atlas		223.618	1
	12/8/2012 5:45	12/8/2012 10:00	255	0.56	109.805	2.53	0.30	6	Atlas		61.491	1
	12/9/2012 9:00	12/9/2012 9:15	15	1.21	8.974	2.62	0.56	3	Atlas		10.859	1
	12/9/2012 21:00	12/10/2012 1:00	240	1.21	202.445	3.42	0.56	3	Atlas		244.958	1
	12/20/2012 6:45	12/20/2012 12:30	345	0.59	246.132	0.92	0.32	6	Atlas		145.218	1
	12/26/2012 4:00	12/26/2012 10:00	360	0.94	85.641	1.46	0.37	12	Atlas		80.503	1
	1/1/2013 5:45	1/1/2013 8:00	135	0.67	222.604	0.83	0.36	6	Atlas		149.145	1
	1/13/2013 3:15	1/13/2013 21:30	1,095	2.31	291.883	3.13	0.88	24	Atlas		674.249	1
	1/28/2013 11:00	1/28/2013 17:30	390	0.06	276.817	0.29	0.04	1	Atlas		16.609	1
	1/30/2013 4:45	1/30/2013 9:15	270	0.85	249.094	1.07	0.43	6	Atlas		211.730	1
	1/30/2013 17:45	1/30/2013 18:00	15	0.85	9.965	1.14	0.43	6	Atlas		8.470	1
	2/4/2013 18:15	2/4/2013 18:30	15	0.11	27.736	1.06	0.08	1	Atlas		3.051	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/19/2013 4:00	2/19/2013 4:30	30	0.30	33.587	0.36	0.14	12	Atlas		10,076	1
	2/22/2013 0:15	2/22/2013 1:15	60	0.39	181.397	0.68	0.18	12	Atlas		70,745	1
	2/26/2013 13:30	2/26/2013 16:30	180	0.68	135.815	0.99	0.26	24	Atlas		92,354	1
	3/5/2013 16:15	3/5/2013 18:00	105	0.40	195.798	0.51	0.15	24	Atlas		78,319	1
	3/11/2013 3:30	3/11/2013 12:30	540	1.09	284.502	1.51	0.43	12	Atlas		310,107	1
	3/17/2013 10:30	3/18/2013 8:45	1,335	1.68	441.768	2.70	0.55	48	Atlas		742,170	1
	3/24/2013 8:00	3/24/2013 17:00	540	0.48	201.073	1.71	0.18	24	Atlas		96,515	1
	4/11/2013 5:30	4/12/2013 0:30	1,140	1.20	211.983	1.19	0.46	24	Atlas		254,379	1
	4/16/2013 20:00	4/16/2013 20:45	45	0.66	1,167.876	1.86	0.55	1	Atlas		770,798	1
	4/19/2013 1:30	4/19/2013 4:45	195	0.97	624.326	1.65	0.53	6	Atlas		605,596	1
	4/24/2013 6:30	4/24/2013 10:15	225	0.57	802.539	1.59	0.31	6	Atlas		457,447	1
	4/28/2013 9:00	4/28/2013 9:00	-	0.08	117.250	0.68	0.03	6	Atlas		9,380	1
	5/3/2013 18:45	5/3/2013 19:00	15	0.10	169.900	0.18	0.06	1	Atlas		16,990	1
	5/4/2013 14:00	5/5/2013 8:45	1,125	1.37	239.672	1.25	0.41	24	Atlas		328,351	1
	5/10/2013 12:15	5/11/2013 0:15	720	0.98	315.115	2.45	0.43	6	Atlas		308,813	1
	5/16/2013 10:30	5/16/2013 10:45	15	0.36	55.789	1.36	0.30	1	Atlas		20,084	1
	5/22/2013 16:00	5/22/2013 16:15	15	0.27	153.200	0.55	0.18	3	Atlas		41,364	1
	5/31/2013 18:30	5/31/2013 18:30	-	0.19	110.579	0.26	0.09	12	Atlas		21,010	1
	6/10/2013 0:00	6/10/2013 0:45	45	0.36	102.889	0.32	0.17	6	Atlas		37,040	1
	6/17/2013 16:15	6/18/2013 3:45	690	1.55	955.517	1.91	0.88	1	Atlas		1,481,051	1
	6/21/2013 18:45	6/21/2013 18:45	-	0.46	522.959	2.18	0.31	3	Atlas		240,561	1
	10/30/2013 1:30	10/30/2013 6:45	315	0.91	485.390	0.92	0.42	6	Atlas		441,705	1
	10/31/2013 20:45	10/31/2013 22:30	105	0.47	59.969	1.38	0.18	24	Atlas		28,195	1
	11/15/2013 18:45	11/15/2013 18:45	-	0.11	16.473	0.17	0.08	1	Atlas		1,812	1
	11/17/2013 5:15	11/17/2013 21:45	990	2.71	252.688	2.88	2.52	6	Cloudburst		684,784	1
	12/5/2013 5:45	12/5/2013 10:30	285	0.78	127.569	0.27	0.25	48	Atlas		99,504	1
	12/6/2013 4:00	12/6/2013 11:45	465	0.78	16.928	0.45	0.25	48	Atlas		13,204	1
	12/14/2013 9:00	12/14/2013 11:30	150	1.04	102.616	1.09	0.45	6	Atlas		106,721	1
	12/21/2013 5:30	12/21/2013 13:15	465	2.81	163.335	1.53	1.33	3	Atlas		458,971	1
	12/21/2013 21:30	12/22/2013 7:00	570	2.81	919.185	2.87	1.33	3	Atlas		2,582,909	1
	12/29/2013 5:30	12/29/2013 6:45	75	0.63	23.097	0.54	0.28	12	Atlas		14,551	1
	1/5/2014 15:00	1/5/2014 20:15	315	0.47	279.679	0.70	0.23	6	Atlas		131,449	1
	1/11/2014 0:30	1/11/2014 5:45	315	1.03	390.610	1.51	0.55	6	Atlas		402,328	1
	1/13/2014 15:00	1/13/2014 15:00	-	0.23	326	1.19	0.11	3	Atlas		75	1
	2/2/2014 4:00	2/2/2014 7:45	225	0.41	456.812	0.16	0.15	24	Atlas		187,293	1
	2/4/2014 19:00	2/5/2014 2:15	435	0.46	1,535.096	0.87	0.22	6	Atlas		706,144	1
	2/14/2014 16:45	2/14/2014 18:45	120	0.39	244.469	0.40	0.20	6	Atlas		95,343	1
	2/17/2014 16:15	2/17/2014 18:30	135	0.44	197.873	0.88	0.27	3	Atlas		87,064	1
	2/20/2014 20:45	2/21/2014 0:00	195	0.22	167.250	1.10	0.12	6	Atlas		36,795	1
	3/2/2014 10:00	3/2/2014 11:30	90	0.59	226.398	0.31	0.22	24	Atlas		133,575	1
	3/28/2014 4:30	3/28/2014 5:00	30	0.19	72.474	0.23	0.09	6	Atlas		13,770	1
	3/29/2014 5:30	3/29/2014 13:00	450	1.44	268.274	1.64	0.66	12	Atlas		386,314	1
	4/1/2014 20:45	4/1/2014 20:45	-	0.11	6.573	1.77	0.07	3	Atlas		723	1
	4/3/2014 12:15	4/4/2014 19:00	1,845	2.19	1,527.184	3.95	0.77	24	Atlas		3,344,533	1
	4/7/2014 8:15	4/7/2014 13:30	315	0.98	520.744	3.24	0.58	1	Atlas		510,329	1
	4/14/2014 3:45	4/14/2014 10:30	405	0.39	78.154	1.36	0.20	6	Atlas		30,480	1
	4/14/2014 19:45	4/15/2014 2:15	390	0.48	553.825	0.87	0.22	12	Atlas		265,836	1
	4/27/2014 20:00	4/28/2014 8:45	765	2.25	883.252	1.84	0.88	3	Atlas		1,987,317	1
	4/28/2014 17:15	4/28/2014 20:30	195	2.25	44.036	2.36	0.88	3	Atlas		99,082	1
	4/29/2014 19:15	4/29/2014 22:15	180	0.25	4.912	2.56	0.11	12	Atlas		1,228	1
	5/9/2014 19:15	5/10/2014 16:00	1,245	1.80	367.714	1.79	0.66	24	Atlas		661,886	1
	5/14/2014 7:00	5/15/2014 0:00	1,020	1.26	395.894	3.09	0.45	24	Atlas		498,827	1
	5/21/2014 21:00	5/22/2014 4:00	420	0.48	298.390	0.66	0.22	12	Atlas		143,227	1
	5/28/2014 20:45	5/28/2014 20:45	-	0.19	2.232	0.63	0.13	1	Atlas		424	1
	5/29/2014 21:00	5/29/2014 22:15	75	0.83	1,759.841	1.06	0.70	1	Atlas		1,460,668	1
	6/11/2014 9:00	6/11/2014 15:00	360	0.21	116.419	0.47	0.14	1	Atlas		24,448	1
	6/20/2014 16:00	6/20/2014 18:00	120	0.14	651.707	0.15	0.09	3	Atlas		91,239	1
	6/24/2014 13:45	6/24/2014 14:00	15	0.16	292.519	0.36	0.10	1	Atlas		46,803	1
	7/2/2014 16:15	7/2/2014 17:00	45	0.22	158.045	0.49	0.19	1	Atlas		34,770	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.75	64.611	1.14	0.65	1	Atlas		48,458	1
	7/13/2014 22:00	7/13/2014 23:30	90	0.63	117.894	1.52	0.33	3	Atlas		74,273	1
	7/14/2014 20:15	7/14/2014 20:30	15	0.09	368.656	1.01	0.07	1	Atlas		33,179	1
	7/26/2014 21:45	7/27/2014 8:15	630	1.24	1,315.685	1.19	0.54	12	Atlas		1,631,450	1
	8/8/2014 5:45	8/8/2014 8:00	135	1.05	235.835	0.84	0.53	6	Atlas		247,627	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/9/2014 4:00	8/9/2014 4:15	15	0.06	473.600	1.11	0.03	1	Atlas		28,416	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.17	791.500	1.31	0.15	1	Atlas		134,555	1
	8/11/2014 15:30	8/11/2014 16:00	30	0.35	755.723	1.64	0.29	1	Atlas		264,503	1
	8/17/2014 0:30	8/17/2014 0:45	15	0.70	1.969	0.85	0.26	24	Atlas		1,378	1
	8/17/2014 9:30	8/17/2014 10:45	75	0.70	93.879	0.95	0.26	24	Atlas		65,715	1
	8/17/2014 20:00	8/17/2014 20:15	15	0.70	29.854	1.04	0.26	24	Atlas		20,898	1
	8/22/2014 19:00	8/23/2014 2:30	450	0.53	1,467.343	1.25	0.36	1	Atlas		777,692	1
	8/23/2014 15:30	8/23/2014 22:00	390	0.75	622.829	1.95	0.39	3	Atlas		467,122	1
	8/27/2014 14:45	8/27/2014 17:45	180	0.42	3,181.124	1.74	0.28	3	Atlas		1,336,072	1
	8/30/2014 15:15	8/30/2014 16:15	60	0.55	1,331.104	1.53	0.30	1	Atlas		732,107	1
	9/2/2014 8:15	9/2/2014 9:00	45	0.33	328.603	1.29	0.21	3	Atlas		108,439	1
	9/11/2014 0:30	9/11/2014 7:15	405	2.01	1,532.223	1.99	1.67	3	Atlas		3,079,769	1
	10/3/2014 4:15	10/3/2014 4:30	15	0.18	24.967	0.18	0.07	24	Atlas		4,494	1
	10/3/2014 19:30	10/3/2014 19:30	-	0.18	711	0.26	0.07	24	Atlas		128	1
	10/6/2014 8:00	10/6/2014 10:00	120	0.19	157.537	0.33	0.09	3	Atlas		29,932	1
	10/7/2014 11:45	10/7/2014 12:15	30	0.17	760.500	0.55	0.14	1	Atlas		129,285	1
	10/10/2014 17:30	10/10/2014 21:30	240	1.15	15.394	1.61	0.57	3	Atlas		17,703	1
	10/13/2014 4:45	10/13/2014 6:45	120	0.50	694.540	2.03	0.32	3	Atlas		347,270	1
	10/13/2014 23:30	10/14/2014 10:30	660	1.26	541.451	3.09	0.56	12	Atlas		682,228	1
	11/23/2014 14:45	11/23/2014 20:15	330	0.79	506.996	1.07	0.36	6	Atlas		400,527	1
	12/1/2014 3:30	12/1/2014 5:45	135	0.71	192.397	0.37	0.27	24	Atlas		136,602	1
	12/1/2014 14:45	12/1/2014 15:30	45	0.71	36.161	0.64	0.27	24	Atlas		25,674	1
	12/5/2014 4:45	12/5/2014 7:00	135	1.64	20.557	1.18	0.53	48	Atlas		33,713	1
	12/5/2014 20:45	12/6/2014 7:45	660	1.64	586.066	2.34	0.53	48	Atlas		961,148	1
	12/16/2014 5:30	12/16/2014 5:45	15	0.12	48.592	0.11	0.07	3	Atlas		5,831	1
	12/22/2014 23:00	12/23/2014 0:15	75	0.28	92.561	0.39	0.17	3	Atlas		25,917	1
	12/23/2014 20:15	12/23/2014 20:30	15	0.06	180.917	0.36	0.04	1	Atlas		10,865	1
	12/24/2014 13:45	12/24/2014 14:00	15	0.17	59.147	0.47	0.09	3	Atlas		10,055	1
	12/28/2014 1:15	12/28/2014 2:00	45	0.31	481.145	0.82	0.14	1	Atlas		149,155	1
	1/3/2015 11:00	1/3/2015 11:15	15	0.45	90.696	0.44	0.17	24	Atlas		40,813	1
	1/4/2015 3:45	1/4/2015 4:00	15	0.45	3.149	0.46	0.17	24	Atlas		1,417	1
	2/1/2015 13:00	2/1/2015 18:15	315	0.37	122.959	0.49	0.17	12	Atlas		45,495	1
	2/21/2015 14:15	2/21/2015 15:45	90	1.07	10.654	1.19	0.41	24	Atlas		11,400	1
	3/3/2015 19:00	3/4/2015 18:00	1,380	1.67	544.313	1.35	0.54	48	Atlas		909,003	1
	3/10/2015 7:00	3/10/2015 21:15	855	1.09	1,037.840	2.76	0.50	12	Atlas		1,131,246	1
	3/13/2015 8:45	3/14/2015 13:00	1,695	1.55	928.951	2.64	0.58	24	Atlas		1,439,874	1
	3/26/2015 4:45	3/26/2015 6:30	105	0.42	94.500	0.56	0.17	3	Atlas		39,690	1
	4/2/2015 10:00	4/4/2015 4:15	2,535	4.73	3,750.368	4.87	7.44	6	Cloudburst		17,739,239	1
	4/7/2015 9:15	4/7/2015 18:15	540	0.73	167.230	5.47	0.33	1	Atlas		122,078	1
	4/8/2015 18:15	4/8/2015 19:00	45	0.15	1,299.440	5.61	0.08	6	Atlas		194,916	1
	4/9/2015 11:45	4/9/2015 12:30	45	0.28	210.757	5.52	0.24	1	Atlas		59,012	1
	4/10/2015 2:30	4/10/2015 3:30	60	0.13	771.177	3.04	0.09	3	Atlas		100,253	1
	4/13/2015 20:45	4/13/2015 21:30	45	0.49	165.984	1.39	0.20	6	Atlas		81,332	1
	4/14/2015 10:15	4/14/2015 12:00	105	0.49	28.588	1.27	0.20	6	Atlas		14,008	1
	4/19/2015 8:00	4/19/2015 18:45	645	0.94	232.394	1.39	0.36	24	Atlas		218,450	1
	4/20/2015 3:30	4/20/2015 3:45	15	0.94	67.628	1.51	0.36	24	Atlas		63,570	1
	4/25/2015 9:30	4/25/2015 9:30	-	0.19	24.542	1.05	0.07	24	Atlas		4,663	1
	4/25/2015 19:00	4/25/2015 19:15	15	0.19	180.153	1.11	0.07	24	Atlas		34,229	1
	5/11/2015 17:45	5/11/2015 18:00	15	0.10	1,684.540	0.26	0.09	1	Atlas		168,454	1
	5/16/2015 13:15	5/16/2015 13:30	15	0.36	4.481	0.41	0.15	3	Atlas		1,613	1
	5/17/2015 14:30	5/17/2015 14:45	15	0.15	827.187	0.60	0.10	1	Atlas		124,078	1
	5/25/2015 7:00	5/25/2015 8:45	105	0.32	55.928	0.25	0.15	12	Atlas		17,897	1
	5/26/2015 13:45	5/26/2015 14:30	45	0.36	330.483	0.57	0.22	1	Atlas		118,974	1
	5/27/2015 13:45	5/27/2015 14:15	30	0.07	1,614.243	0.75	0.06	1	Atlas		112,997	1
	6/8/2015 8:30	6/8/2015 8:45	15	0.19	431.000	0.22	0.10	6	Atlas		81,890	1
	6/13/2015 14:45	6/13/2015 14:45	-	0.14	26.857	0.33	0.12	1	Atlas		3,760	1
	6/18/2015 16:15	6/18/2015 18:45	150	2.15	817.443	1.76	0.70	48	Atlas		1,757,503	1
	6/20/2015 1:45	6/20/2015 11:15	570	2.15	193.668	3.09	0.70	48	Atlas		416,387	1
	6/22/2015 6:30	6/22/2015 6:45	15	0.18	98.789	3.10	0.08	12	Atlas		17,782	1
	6/26/2015 0:00	6/26/2015 1:45	105	0.46	1,308.326	1.73	0.25	6	Atlas		601,830	1
	6/26/2015 17:00	6/27/2015 1:30	510	0.77	1,437.309	2.51	0.41	1	Atlas		1,106,728	1
	6/29/2015 13:30	6/29/2015 14:15	45	0.20	678.085	1.41	0.12	1	Atlas		135,617	1
	7/2/2015 0:30	7/2/2015 2:45	135	1.68	183.807	2.13	0.63	24	Atlas		308,795	1
	7/2/2015 20:30	7/2/2015 21:45	75	1.68	415.642	3.12	0.63	24	Atlas		698,278	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/3/2015 15:00	7/3/2015 19:30	270	0.63	337.159	3.27	0.44	1	Atlas		212.410	1
	7/7/2015 11:30	7/8/2015 0:30	780	0.73	406.114	2.96	0.33	6	Atlas		296.463	1
	7/8/2015 12:15	7/8/2015 13:00	45	0.73	145.684	3.04	0.33	6	Atlas		106.349	1
	7/9/2015 6:15	7/9/2015 8:00	105	0.30	839.557	2.57	0.17	3	Atlas		251.867	1
	7/10/2015 10:15	7/10/2015 16:45	390	0.50	433.402	2.18	0.25	6	Atlas		216.701	1
	7/12/2015 6:00	7/12/2015 6:15	15	2.04	1,457.272	2.78	3.71	3	Atlas		2,972.834	1
	7/29/2015 17:30	7/29/2015 18:15	45	0.07	622.886	0.09	0.06	1	Atlas		43.602	1
	8/4/2015 19:00	8/4/2015 21:15	135	0.23	557.774	0.30	0.18	1	Atlas		128.288	1
	8/5/2015 15:00	8/5/2015 18:15	195	1.14	103.422	0.52	0.40	24	Atlas		117.901	1
	8/6/2015 2:30	8/7/2015 19:00	2,430	1.14	402.468	1.37	0.40	24	Atlas		458.813	1
	8/19/2015 7:45	8/19/2015 8:45	60	0.62	113.889	0.48	0.30	1	Atlas		70.611	1
	8/19/2015 17:00	8/19/2015 17:30	30	0.62	28.281	0.66	0.30	1	Atlas		17.534	1
	9/5/2015 17:30	9/5/2015 17:30	-	0.25	12.508	0.21	0.18	1	Atlas		3.127	1
	9/7/2015 18:00	9/7/2015 18:45	45	0.64	95.703	0.89	0.53	1	Atlas		61.250	1
	9/9/2015 11:30	9/9/2015 11:45	15	0.17	18.929	0.98	0.08	1	Atlas		3.218	1
	9/10/2015 5:15	9/10/2015 5:15	-	0.17	12.559	1.06	0.08	1	Atlas		2.135	1
	9/29/2015 9:45	9/29/2015 19:30	585	1.07	43.844	0.99	0.35	48	Atlas		46.913	1
	10/2/2015 17:30	10/2/2015 19:45	135	0.52	57.298	1.65	0.26	6	Atlas		29.795	1
	10/12/2015 18:15	10/12/2015 19:30	75	0.29	58.890	0.35	0.19	3	Atlas		17.078	1
	10/24/2015 20:00	10/24/2015 20:00	-	0.31	12.145	0.27	0.13	12	Atlas		3.765	1
	10/27/2015 11:30	10/28/2015 7:15	1,186	2.65	187.392	2.92	0.86	48	Atlas		496.589	1
	10/28/2015 22:30	10/28/2015 23:00	30	0.18	102.389	3.13	0.10	1	Atlas		18.430	1
	10/31/2015 23:15	10/31/2015 23:30	15	0.18	35.633	3.01	0.11	3	Atlas		6.414	1
	11/6/2015 3:00	11/6/2015 5:15	135	1.04	124.663	1.15	0.64	3	Atlas		129.649	1
	11/9/2015 18:30	11/9/2015 22:15	225	0.51	65.551	1.55	0.22	12	Atlas		33.431	1
	11/12/2015 0:00	11/12/2015 1:30	90	0.35	189.977	1.90	0.22	3	Atlas		66.492	1
	11/18/2015 8:45	11/18/2015 18:15	570	1.93	140.847	2.41	0.98	6	Atlas		271.835	1
	11/21/2015 15:00	11/21/2015 15:30	30	0.14	58.186	2.20	0.12	1	Atlas		8.146	1
	11/28/2015 12:30	11/28/2015 20:15	465	0.65	76.760	0.83	0.26	12	Atlas		49.894	1
	11/30/2015 22:00	12/1/2015 5:15	435	0.63	182.968	1.47	0.28	12	Atlas		115.270	1
	12/14/2015 6:45	12/14/2015 9:30	165	0.28	55.868	0.28	0.15	6	Atlas		15.643	1
	12/21/2015 11:30	12/21/2015 11:45	15	0.18	70.433	0.19	0.09	6	Atlas		12.678	1
	12/21/2015 23:15	12/22/2015 4:45	330	0.52	341.275	0.72	0.28	1	Atlas		177.463	1
	12/23/2015 19:30	12/23/2015 22:15	165	0.85	1,654.838	1.59	0.69	1	Atlas		1,406.612	1
	12/25/2015 9:30	12/25/2015 9:45	15	0.11	69.136	1.67	0.06	6	Atlas		7.605	1
	12/26/2015 12:15	12/26/2015 18:00	345	0.28	153.661	1.97	0.14	3	Atlas		43.025	1
	12/27/2015 10:15	12/28/2015 6:45	1,230	2.23	1,504.916	3.67	0.75	3	Atlas		3,355.962	1
	12/28/2015 15:00	12/28/2015 18:00	180	2.23	155.806	4.02	0.75	3	Atlas		347.448	1
	2/2/2016 15:00	2/3/2016 2:45	705	1.63	421.155	1.71	0.76	6	Atlas		686.482	1
	2/21/2016 4:15	2/21/2016 11:30	435	1.02	408.785	1.20	0.47	12	Atlas		416.961	1
	2/23/2016 22:30	2/24/2016 9:30	660	2.05	346.904	2.76	0.80	12	Atlas		711.153	1
	3/1/2016 12:15	3/1/2016 14:30	135	0.33	296.330	2.39	0.17	6	Atlas		97.789	1
	3/9/2016 15:45	3/9/2016 17:00	75	1.24	24.992	0.29	0.40	12	Atlas		30.990	1
	3/10/2016 13:45	3/10/2016 20:45	420	1.24	349.939	1.29	0.40	12	Atlas		433.924	1
	3/12/2016 20:15	3/13/2016 0:00	225	0.88	136.902	1.78	0.33	24	Atlas		120.474	1
	3/13/2016 9:00	3/13/2016 11:30	150	0.88	325.336	2.13	0.33	24	Atlas		286.296	1
	3/24/2016 17:45	3/24/2016 18:30	45	0.46	54.811	0.60	0.33	1	Atlas		25.213	1
	3/27/2016 21:00	3/27/2016 23:00	120	0.85	1,342.139	1.31	0.56	3	Atlas		1,140.818	1
	3/31/2016 2:00	4/1/2016 0:45	1,365	1.15	436.636	2.46	0.44	24	Atlas		502.131	1
	4/11/2016 16:30	4/11/2016 19:45	195	0.84	214.324	0.91	0.40	6	Atlas		180.032	1
	4/21/2016 14:45	4/21/2016 16:30	105	0.32	204.925	0.23	0.12	3	Atlas		65.576	1
	4/26/2016 21:15	4/26/2016 22:00	45	0.34	146.532	0.68	0.17	6	Atlas		49.821	1
	4/27/2016 13:15	4/27/2016 22:30	555	0.66	401.815	1.31	0.29	3	Atlas		265.198	1
	4/30/2016 9:00	4/30/2016 13:45	285	0.54	118.087	1.38	0.20	24	Atlas		63.767	1
	4/30/2016 23:30	4/30/2016 23:45	15	0.54	5.946	1.51	0.20	24	Atlas		3.211	1
	5/1/2016 15:00	5/1/2016 16:45	105	0.33	1,247.145	1.87	0.23	1	Atlas		411.558	1
	5/4/2016 11:30	5/4/2016 12:15	45	0.19	181.858	1.70	0.12	1	Atlas		34.553	1
	5/7/2016 16:45	5/7/2016 22:30	345	0.58	74.002	1.27	0.30	6	Atlas		42.921	1
	5/10/2016 8:45	5/10/2016 22:45	840	1.04	489.523	1.85	0.38	24	Atlas		509.104	1
	5/11/2016 21:45	5/11/2016 22:45	60	0.21	521.471	1.84	0.11	3	Atlas		109.509	1
	5/17/2016 6:30	5/17/2016 7:30	60	0.55	63.700	1.61	0.18	24	Atlas		35.035	1
	5/17/2016 20:30	5/17/2016 21:00	30	0.55	63.378	1.15	0.18	24	Atlas		34.858	1
	5/20/2016 13:30	5/20/2016 16:30	180	0.94	559.772	1.51	0.56	3	Atlas		526.186	1
	5/26/2016 13:45	5/26/2016 15:45	120	0.21	357.157	1.25	0.14	3	Atlas		75.003	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/2/2016 15:30	6/2/2016 16:15	45	0.51	151,073	0.64	0.42	1	Atlas		77,047	1
	6/4/2016 17:00	6/4/2016 18:45	105	0.15	235,573	0.76	0.07	1	Atlas		35,336	1
	6/12/2016 18:00	6/12/2016 18:45	45	0.60	1,419,633	0.63	0.51	1	Atlas		851,780	1
	6/14/2016 17:00	6/14/2016 19:00	120	0.68	178,349	1.27	0.44	3	Atlas		121,277	1
	6/22/2016 8:30	6/22/2016 8:45	15	0.30	425,557	0.21	0.19	3	Atlas		127,667	1
	6/23/2016 16:15	6/23/2016 22:15	360	1.69	1,216,297	1.99	0.91	6	Atlas		2,055,542	1
	7/3/2016 8:00	7/3/2016 23:45	945	0.99	342,433	0.57	0.32	48	Atlas		339,009	1
	7/4/2016 8:30	7/4/2016 17:00	510	0.99	174,715	0.99	0.32	48	Atlas		172,968	1
	7/6/2016 13:30	7/6/2016 13:45	15	0.12	319,492	1.10	0.09	1	Atlas		38,339	1
	7/12/2016 9:15	7/12/2016 12:15	180	0.39	294,741	0.59	0.25	3	Atlas		114,949	1
	7/27/2016 18:15	7/28/2016 5:30	675	0.64	1,293,014	0.80	0.25	12	Atlas		827,529	1
	7/30/2016 14:15	7/30/2016 15:00	45	0.30	235,980	1.23	0.26	1	Atlas		70,794	1
	8/1/2016 11:15	8/1/2016 11:45	30	0.39	90,323	1.55	0.27	1	Atlas		35,226	1
	8/1/2016 20:30	8/1/2016 22:00	90	0.39	275,677	1.41	0.27	1	Atlas		107,514	1
	8/4/2016 13:45	8/4/2016 14:30	45	0.60	563,042	1.23	0.40	3	Atlas		337,825	1
	8/5/2016 14:15	8/5/2016 14:30	15	0.07	345,514	1.39	0.05	1	Atlas		24,186	1
	8/9/2016 15:30	8/9/2016 23:15	465	0.27	301,948	0.92	0.16	1	Atlas		81,526	1
	8/15/2016 2:45	8/15/2016 8:00	315	1.28	1,523,657	1.55	0.64	3	Atlas		1,950,281	1
	8/17/2016 4:15	8/17/2016 7:45	210	0.57	1,097,375	1.78	0.24	12	Atlas		625,504	1
	8/20/2016 10:30	8/20/2016 21:30	660	0.72	663,331	2.55	0.33	1	Atlas		477,598	1
	8/31/2016 16:45	8/31/2016 18:30	105	0.88	458,739	0.93	0.69	1	Atlas		403,690	1
	9/10/2016 15:15	9/10/2016 15:45	30	0.17	443,029	0.16	0.12	1	Atlas		75,315	1
	9/26/2016 9:45	9/26/2016 11:15	90	0.22	114,541	0.22	0.15	3	Atlas		25,199	1
	9/28/2016 8:45	9/28/2016 14:30	345	0.36	256,144	0.57	0.19	6	Atlas		92,212	1
	9/29/2016 9:15	9/29/2016 9:30	15	0.07	76,743	0.64	0.04	1	Atlas		5,372	1
	9/30/2016 0:30	9/30/2016 3:00	150	0.59	232,739	1.15	0.31	3	Atlas		137,316	1
	10/20/2016 9:30	10/20/2016 17:00	450	0.71	308,018	0.58	0.27	24	Atlas		218,693	1
	11/8/2016 20:00	11/8/2016 20:30	30	0.17	61,159	0.20	0.09	1	Atlas		10,397	1
	11/19/2016 3:00	11/19/2016 3:30	30	0.18	159,283	0.18	0.11	3	Atlas		28,671	1
	11/23/2016 20:15	11/23/2016 21:30	75	0.24	256,858	0.42	0.10	6	Atlas		61,646	1
	11/28/2016 16:45	11/28/2016 22:15	330	0.93	287,349	1.16	0.41	12	Atlas		267,235	1
	12/6/2016 4:30	12/6/2016 12:45	495	0.89	488,580	0.95	0.41	12	Atlas		434,836	1
	12/11/2016 21:45	12/11/2016 22:15	30	0.28	159,021	1.14	0.12	12	Atlas		44,526	1
	12/17/2016 16:30	12/18/2016 5:00	750	2.88	528,033	3.15	2.92	6	Cloudburst		1,520,735	1
	12/23/2016 22:30	12/24/2016 1:30	180	0.17	1,000,718	3.03	0.08	6	Atlas		170,122	1
	12/26/2016 20:30	12/26/2016 22:45	135	0.27	198,244	0.44	0.14	6	Atlas		53,526	1
	1/3/2017 2:30	1/3/2017 5:00	150	0.21	133,910	0.29	0.10	6	Atlas		28,121	1
	1/10/2017 20:00	1/10/2017 20:30	30	0.16	261,956	0.43	0.12	1	Atlas		41,913	1
	1/11/2017 12:30	1/11/2017 14:15	105	0.23	701,435	0.65	0.15	3	Atlas		161,330	1
	1/12/2017 15:45	1/12/2017 22:00	375	0.43	637,919	0.87	0.22	6	Atlas		274,305	1
	1/13/2017 15:15	1/13/2017 16:15	60	0.32	268,359	1.13	0.19	3	Atlas		85,875	1
	1/14/2017 11:15	1/14/2017 14:30	195	0.21	1,231,424	1.35	0.10	6	Atlas		258,599	1
	1/16/2017 23:45	1/17/2017 4:30	285	0.55	980,878	2.02	0.25	12	Atlas		539,483	1
	1/19/2017 18:45	1/20/2017 4:30	585	1.19	1,429,269	2.55	0.55	12	Atlas		1,700,830	1
	2/7/2017 9:45	2/7/2017 10:45	60	0.34	201,168	0.24	0.16	6	Atlas		68,397	1
	2/24/2017 19:00	2/24/2017 19:30	30	0.83	1,842,548	0.88	0.70	1	Atlas		1,529,315	1
	2/28/2017 5:45	2/28/2017 10:30	285	0.27	241,241	1.14	0.13	6	Atlas		65,135	1
	3/1/2017 4:00	3/1/2017 12:00	480	1.02	187,178	2.18	0.50	6	Atlas		190,922	1
	3/7/2017 7:45	3/7/2017 15:00	435	0.48	676,283	1.65	0.16	48	Atlas		324,616	1
	3/26/2017 1:15	3/26/2017 2:30	75	0.54	344,657	0.35	0.24	12	Atlas		186,115	1
	3/27/2017 18:00	3/27/2017 19:00	60	0.30	554,230	0.84	0.17	3	Atlas		166,269	1
	3/30/2017 20:45	3/30/2017 20:45	-	0.60	64,278	1.18	0.30	6	Atlas		38,567	1
	4/11/2017 9:00	4/11/2017 11:15	135	0.38	98,987	0.39	0.17	12	Atlas		37,615	1
	4/16/2017 5:30	4/16/2017 21:00	930	1.10	768,389	1.43	0.49	3	Atlas		845,228	1
	4/21/2017 22:00	4/22/2017 0:30	150	0.56	195,098	1.53	0.20	24	Atlas		109,255	1
	4/27/2017 6:45	4/27/2017 7:15	30	0.24	202,192	0.80	0.16	1	Atlas		48,526	1
	4/29/2017 0:30	4/29/2017 4:00	210	1.30	6,125,356	1.66	0.76	3	Atlas		7,962,963	1
	5/1/2017 4:00	5/1/2017 4:00	-	0.26	1,308,458	1.77	0.14	3	Atlas		340,199	1
	5/4/2017 19:45	5/5/2017 9:45	840	1.88	3,679,715	3.33	0.61	48	Atlas		6,917,865	1
	5/11/2017 4:00	5/11/2017 4:00	-	0.14	870,007	2.01	0.07	3	Atlas		121,801	1
	5/21/2017 2:15	5/21/2017 7:15	300	1.21	1,529,690	1.24	0.53	12	Atlas		1,850,925	1
	5/24/2017 17:15	5/24/2017 20:30	195	0.85	3,198,359	1.86	0.31	24	Atlas		2,718,605	1
	5/27/2017 14:15	5/27/2017 14:30	15	0.22	1,602,527	2.25	0.17	1	Atlas		352,556	1
	6/5/2017 9:00	6/5/2017 9:15	15	0.18	5,632,283	0.19	0.12	1	Atlas		1,013,811	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/5/2017 18:45	6/5/2017 18:45	30	0.20	11,112.575	0.39	0.17	1	Atlas		2,222.515	1
	6/15/2017 3:00	6/15/2017 4:30	90	0.93	1,565.657	0.89	0.59	3	Atlas		1,456.061	1
	6/18/2017 21:45	6/18/2017 21:45	-	0.17	366.659	1.20	0.11	3	Atlas		62.332	1
	6/22/2017 18:30	6/22/2017 19:30	60	1.26	149.542	0.57	0.45	6	Atlas		188.423	1
	6/23/2017 15:00	6/23/2017 18:30	210	1.26	2,671.136	1.44	0.45	6	Atlas		3,365.631	1
	6/27/2017 2:15	6/27/2017 2:30	15	0.08	15.000	1.34	0.07	1	Atlas		1.200	1
	6/30/2017 21:00	6/30/2017 22:00	60	0.37	3,191.692	0.45	0.32	1	Atlas		1,180.926	1
	7/6/2017 4:15	7/7/2017 9:15	1,740	0.61	2,726.579	1.08	0.25	6	Atlas		1,663.213	1
	7/7/2017 21:00	7/7/2017 21:00	-	0.13	788.515	0.79	0.09	3	Atlas		102.507	1
	7/23/2017 2:45	7/23/2017 10:30	465	1.21	222.303	1.21	0.56	12	Atlas		268.987	1
	7/28/2017 9:45	7/28/2017 11:00	75	0.76	182.641	1.97	0.61	1	Atlas		138.807	1
	8/1/2017 21:45	8/1/2017 22:15	30	0.19	301.858	0.94	0.15	1	Atlas		57.353	1
	8/2/2017 13:15	8/2/2017 13:45	30	0.22	127.668	1.17	0.19	1	Atlas		28.087	1
	8/6/2017 15:00	8/7/2017 0:45	585	0.62	154.594	1.04	0.28	12	Atlas		95.848	1
	8/17/2017 15:15	8/17/2017 19:00	225	0.51	173.533	0.55	0.28	6	Atlas		88.502	1
	8/22/2017 16:30	8/22/2017 17:15	45	0.43	140.740	0.96	0.24	1	Atlas		60.518	1
	9/1/2017 7:45	9/2/2017 6:30	1,365	4.20	346.686	4.28	5.56	24	Cloudburst		1,456.080	1
	9/12/2017 6:45	9/12/2017 8:00	75	0.28	10.711	0.33	0.14	6	Atlas		2.999	1
	9/12/2017 21:30	9/12/2017 21:30	-	0.44	218	0.37	0.16	24	Atlas		96	1
	9/13/2017 12:45	9/13/2017 13:00	15	0.44	67.761	0.58	0.16	24	Atlas		29.815	1
	9/19/2017 8:15	9/19/2017 10:45	150	0.46	248.200	0.91	0.29	3	Atlas		114.172	1
	10/7/2017 22:00	10/8/2017 20:00	1,320	2.08	387.993	2.06	0.78	24	Atlas		807.026	1
	10/10/2017 14:15	10/10/2017 21:30	435	0.89	153.565	2.97	0.46	3	Atlas		136.673	1
	10/23/2017 7:00	10/23/2017 8:15	75	0.67	19.721	0.50	0.30	6	Atlas		13.213	1
	10/27/2017 17:45	10/28/2017 1:30	465	1.18	95.731	1.79	0.54	12	Atlas		112.962	1
	11/3/2017 4:45	11/3/2017 7:15	150	1.47	1,017.722	2.80	2.00	1	Atlas		1,496.052	1
	11/6/2017 2:00	11/6/2017 3:00	60	0.50	160.600	2.12	0.37	1	Atlas		80.300	1
	11/7/2017 2:30	11/7/2017 2:45	15	0.26	12.823	2.35	0.12	12	Atlas		3.334	1
	11/15/2017 13:30	11/15/2017 14:30	60	0.24	168.563	0.27	0.17	1	Atlas		40.455	1
	11/18/2017 16:45	11/18/2017 18:15	90	0.30	163.060	0.55	0.17	3	Atlas		48.918	1
	12/6/2017 3:30	12/6/2017 6:45	195	0.85	84.779	0.86	0.49	3	Atlas		72.062	1
	12/22/2017 18:45	12/23/2017 12:30	1,065	1.35	321.910	1.36	0.54	12	Atlas		434.578	1
	1/12/2018 4:15	1/12/2018 10:30	375	0.44	102.261	0.46	0.17	24	Atlas		44.995	1
	1/27/2018 14:15	1/27/2018 16:30	135	0.36	131.694	0.44	0.19	6	Atlas		47.410	1
	2/7/2018 1:30	2/7/2018 4:45	195	0.49	291.427	0.74	0.27	6	Atlas		142.799	1
	2/11/2018 4:30	2/11/2018 11:45	435	0.46	346.643	1.06	0.22	3	Atlas		159.456	1
	2/14/2018 7:30	2/14/2018 16:00	510	0.38	108.113	0.96	0.18	3	Atlas		41.083	1
	2/16/2018 2:45	2/16/2018 12:00	555	0.81	314.128	1.81	0.37	12	Atlas		254.444	1
	2/17/2018 13:45	2/17/2018 16:00	135	0.21	70.690	1.98	0.13	3	Atlas		14.845	1
	2/21/2018 5:30	2/21/2018 8:15	165	2.07	12.646	1.90	0.72	24	Atlas		26.177	1
	2/21/2018 19:00	2/22/2018 14:00	1,140	2.07	707.059	3.14	0.72	24	Atlas		1,463.612	1
	2/23/2018 1:45	2/23/2018 21:00	1,155	1.25	908.430	4.35	0.57	12	Atlas		1,135.537	1
	2/24/2018 10:15	2/26/2018 3:00	2,445	1.73	4,604.188	5.27	0.71	12	Atlas		7,965.245	1
	3/10/2018 0:45	3/10/2018 3:45	180	0.62	231.556	0.64	0.38	3	Atlas		143.565	1
	3/19/2018 17:45	3/19/2018 20:15	150	0.33	83.591	0.33	0.19	3	Atlas		27.585	1
	3/24/2018 5:45	3/24/2018 20:15	870	0.91	245.004	1.77	0.35	24	Atlas		222.954	1
	3/28/2018 5:45	3/28/2018 7:00	75	0.44	156.680	1.36	0.19	12	Atlas		68.939	1
	3/29/2018 19:15	3/29/2018 23:15	240	0.71	238.289	1.92	0.24	24	Atlas		169.185	1
	4/1/2018 20:15	4/2/2018 0:15	240	0.66	292.147	2.12	0.36	6	Atlas		192.817	1
	4/3/2018 16:15	4/3/2018 22:30	375	0.55	351.064	2.59	0.23	6	Atlas		193.085	1
	4/14/2018 9:00	4/14/2018 10:15	75	1.46	34.117	0.38	0.47	48	Atlas		49.811	1
	4/14/2018 22:45	4/15/2018 10:15	690	1.46	241.147	1.49	0.47	48	Atlas		352.075	1
	4/23/2018 5:15	4/23/2018 11:30	375	0.72	164.860	0.87	0.32	12	Atlas		118.699	1
	5/5/2018 13:45	5/5/2018 19:15	330	2.06	174.512	1.96	0.89	6	Atlas		359.494	1
	5/17/2018 15:45	5/17/2018 16:00	15	0.19	337.379	0.21	0.16	1	Atlas		64.102	1
	6/1/2018 0:30	6/1/2018 3:45	195	1.07	345.236	1.43	0.53	3	Atlas		369.403	1
	6/10/2018 14:45	6/10/2018 21:30	405	0.39	80.946	0.38	0.18	12	Atlas		31.569	1
	6/11/2018 11:00	6/11/2018 14:15	195	0.60	166.133	0.83	0.28	3	Atlas		99.680	1
	6/12/2018 12:00	6/12/2018 12:30	30	0.29	70.138	1.18	0.15	1	Atlas		20.340	1
	6/22/2018 14:00	6/22/2018 15:00	60	0.40	163.338	0.64	0.21	1	Atlas		65.335	1
	6/25/2018 10:30	6/25/2018 12:30	120	0.97	194.482	1.59	0.40	12	Atlas		188.648	1
	6/26/2018 12:45	6/26/2018 22:45	600	0.83	1,041.289	2.38	0.35	12	Atlas		864.270	1
	7/2/2018 17:00	7/2/2018 19:15	135	1.14	2,147.844	1.95	0.86	1	Atlas		2,448.542	1
	7/3/2018 15:30	7/3/2018 16:45	75	0.64	1,721.548	2.08	0.47	1	Atlas		1,101.791	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/15/2018 18:15	7/15/2018 19:00	45	0.38	1,202,832	0.38	0.23	1	Atlas		457,076	1
	7/16/2018 9:45	7/16/2018 10:15	30	0.15	741,893	0.53	0.10	1	Atlas		111,284	1
	7/20/2018 3:30	7/20/2018 3:45	15	1.32	22,344	0.55	0.71	3	Atlas		29,494	1
	7/20/2018 14:00	7/21/2018 5:15	915	1.32	1,240,402	1.85	0.71	3	Atlas		1,637,330	1
	7/22/2018 17:30	7/22/2018 18:00	30	0.56	241,207	2.32	0.43	1	Atlas		135,076	1
	7/30/2018 23:30	7/31/2018 13:45	855	2.20	170,747	2.27	0.89	12	Atlas		375,643	1
	8/8/2018 1:00	8/8/2018 2:45	105	0.31	195,574	0.29	0.17	3	Atlas		60,628	1
	8/15/2018 12:45	8/16/2018 13:45	1,500	2.90	577,615	2.90	1.63	24	Cloudburst		1,675,083	1
	8/18/2018 19:00	8/18/2018 19:15	15	0.07	238,614	2.98	0.03	1	Atlas		16,703	1
	8/19/2018 20:30	8/19/2018 23:00	150	1.18	2,774,732	4.17	0.80	1	Atlas		3,274,184	1
	8/20/2018 11:30	8/20/2018 12:15	45	0.60	116,053	4.53	0.31	1	Atlas		69,632	1
	8/31/2018 17:30	8/31/2018 18:30	60	0.76	1,282,703	0.69	0.54	1	Atlas		974,854	1
	9/6/2018 12:00	9/6/2018 12:00	-	0.31	6,700	1.05	0.23	1	Atlas		2,077	1
	9/8/2018 2:00	9/8/2018 2:30	30	0.39	105,736	0.64	0.19	6	Atlas		41,237	1
	9/8/2018 16:00	9/9/2018 9:00	1,020	2.46	2,069,450	3.17	2.29	6	Cloudburst		5,090,848	1
	9/21/2018 17:45	9/21/2018 18:15	30	0.21	14,629	0.32	0.15	1	Atlas		3,072	1
	9/22/2018 15:15	9/22/2018 18:00	165	1.53	33,111	0.79	0.56	24	Atlas		50,660	1
	9/23/2018 4:15	9/23/2018 9:15	300	1.53	59,741	1.81	0.56	24	Atlas		91,404	1
	9/24/2018 1:00	9/24/2018 19:30	1,110	2.06	968,583	3.86	0.90	12	Atlas		1,995,281	1
	9/25/2018 6:00	9/25/2018 6:45	45	0.12	311,933	3.92	0.10	1	Atlas		37,432	1
	9/25/2018 16:45	9/26/2018 3:30	645	0.80	181,551	4.70	0.37	1	Atlas		145,241	1
	10/10/2018 17:15	10/10/2018 17:45	30	0.12	70,400	0.13	0.10	1	Atlas		8,448	1
	10/14/2018 5:00	10/14/2018 5:00	-	0.23	7,430	0.43	0.12	3	Atlas		1,709	1
	10/15/2018 9:15	10/15/2018 9:45	30	0.14	44,086	0.59	0.10	1	Atlas		6,172	1
	10/26/2018 15:15	10/26/2018 16:00	45	0.38	38,168	0.48	0.16	1	Atlas		14,504	1
	10/31/2018 15:00	11/1/2018 19:00	1,680	1.99	122,537	2.39	0.68	24	Atlas		243,848	1
	11/5/2018 20:15	11/6/2018 1:45	330	1.13	304,630	3.21	0.61	6	Atlas		344,232	1
	11/14/2018 22:15	11/15/2018 4:30	375	0.47	201,047	0.66	0.22	12	Atlas		94,492	1
	11/23/2018 22:45	11/23/2018 22:45	-	0.29	9,148	0.12	0.15	6	Atlas		2,653	1
	11/26/2018 0:15	11/26/2018 0:45	30	0.10	52,950	0.43	0.07	1	Atlas		5,295	1
	12/1/2018 3:15	12/1/2018 15:30	735	1.59	137,727	1.72	0.70	12	Atlas		218,986	1
	12/14/2018 14:30	12/14/2018 14:45	15	1.52	822	0.12	0.62	12	Atlas		1,249	1
	12/15/2018 2:30	12/15/2018 12:00	570	1.52	197,566	1.51	0.62	12	Atlas		300,300	1
	12/20/2018 15:45	12/20/2018 21:15	330	0.58	6,621	1.96	0.22	12	Atlas		3,840	1
	12/27/2018 17:45	12/27/2018 19:00	75	0.35	132,866	0.68	0.19	1	Atlas		46,503	1
	12/31/2018 5:15	12/31/2018 18:30	795	1.47	292,795	1.84	0.57	24	Atlas		430,408	1
	1/4/2019 13:45	1/4/2019 21:00	435	0.65	219,838	2.10	0.29	12	Atlas		142,895	1
	1/13/2019 0:30	1/13/2019 0:45	15	0.20	21,990	0.24	0.09	1	Atlas		4,398	1
	1/19/2019 6:30	1/19/2019 21:00	870	0.92	202,786	1.04	0.35	24	Atlas		186,563	1
	1/23/2019 8:45	1/23/2019 18:15	570	0.88	268,184	1.86	0.35	12	Atlas		236,002	1
	2/4/2019 14:30	2/4/2019 14:45	15	0.06	107,500	0.11	0.04	3	Atlas		6,450	1
	2/5/2019 3:45	2/5/2019 4:00	15	0.03	366,267	0.12	0.02	1	Atlas		10,988	1
	2/5/2019 23:15	2/6/2019 11:45	750	1.62	146,566	0.75	0.52	48	Atlas		237,437	1
	2/7/2019 5:15	2/7/2019 21:15	960	1.62	211,883	1.74	0.52	48	Atlas		343,250	1
	2/10/2019 19:15	2/12/2019 23:00	3,105	2.84	1,510,652	4.55	0.88	48	Atlas		4,290,252	1
	2/20/2019 2:30	2/20/2019 18:45	975	1.98	373,561	2.04	0.93	6	Atlas		739,650	1
	2/23/2019 17:00	2/23/2019 23:45	405	1.01	173,899	3.06	0.55	6	Atlas		175,638	1
	3/9/2019 13:45	3/9/2019 20:00	375	1.19	300,839	1.33	0.60	6	Atlas		357,998	1
	3/14/2019 4:45	3/14/2019 8:15	210	0.41	211,434	1.72	0.22	6	Atlas		86,688	1
	3/14/2019 17:15	3/14/2019 20:00	165	0.65	264,469	2.34	0.44	1	Atlas		171,905	1
	3/25/2019 0:45	3/25/2019 5:30	285	0.24	102,163	0.30	0.13	6	Atlas		24,519	1
	3/30/2019 15:45	3/30/2019 21:00	315	0.82	235,061	1.13	0.38	6	Atlas		192,750	1
	4/7/2019 6:00	4/7/2019 14:15	495	0.62	299,287	0.85	0.31	1	Atlas		185,568	1
	4/12/2019 6:00	4/12/2019 6:15	15	0.06	370,983	0.66	0.04	1	Atlas		22,259	1
	4/14/2019 1:00	4/14/2019 6:15	315	1.22	169,058	1.93	0.58	6	Atlas		206,251	1
	4/18/2019 23:00	4/19/2019 5:15	375	3.83	3,254	1.94	2.49	48	Cloudburst		12,462	1
	4/19/2019 18:15	4/20/2019 18:45	1,470	3.83	701,662	5.09	2.49	48	Cloudburst		2,687,367	1
	4/23/2019 18:00	4/23/2019 18:45	45	0.15	1,176,947	3.98	0.13	1	Atlas		176,542	1
	4/24/2019 20:45	4/24/2019 22:15	90	0.52	182,315	4.33	0.27	1	Atlas		94,804	1
	4/25/2019 18:30	4/26/2019 4:00	570	0.44	156,432	4.93	0.19	12	Atlas		68,830	1
	5/3/2019 3:30	5/3/2019 9:15	345	1.07	262,294	1.32	0.58	6	Atlas		280,655	1
	5/4/2019 17:15	5/4/2019 18:30	75	0.26	533,477	1.54	0.15	3	Atlas		138,704	1
	5/11/2019 21:15	5/11/2019 21:30	15	0.24	27,688	0.26	0.13	3	Atlas		6,645	1
	5/19/2019 13:30	5/19/2019 13:45	15	0.15	166,153	0.20	0.10	1	Atlas		24,923	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/19/2019 23:30	5/19/2019 23:30	-	0.13	94.215	0.30	0.09	1	Atlas		12,248	1
	5/23/2019 16:00	5/23/2019 16:15	15	0.11	237.055	0.43	0.07	1	Atlas		26,076	1
	5/26/2019 14:00	5/26/2019 17:30	210	0.50	608.532	0.75	0.31	3	Atlas		304,266	1
	5/29/2019 9:15	5/29/2019 14:15	300	0.77	814.838	1.39	0.42	6	Atlas		627,425	1
	5/30/2019 11:15	5/30/2019 12:00	45	0.23	336.548	1.57	0.10	1	Atlas		77,406	1
	6/5/2019 21:00	6/5/2019 21:45	45	0.62	211.068	0.79	0.42	1	Atlas		130,862	1
	6/7/2019 21:15	6/8/2019 9:00	705	0.65	258.446	1.30	0.24	12	Atlas		167,990	1
	6/9/2019 0:30	6/9/2019 0:45	15	0.30	56.313	1.57	0.15	6	Atlas		16,894	1
	6/9/2019 15:15	6/9/2019 20:00	285	1.45	1,952.596	3.01	0.89	3	Atlas		2,831,264	1
	6/16/2019 6:15	6/16/2019 6:45	30	0.17	223.565	1.75	0.11	3	Atlas		38,006	1
	6/16/2019 20:00	6/17/2019 1:45	345	1.66	105.511	1.94	0.73	12	Atlas		175,148	1
	6/17/2019 21:30	6/18/2019 18:15	1,245	0.80	90.604	2.77	0.33	1	Atlas		72,483	1
	6/19/2019 21:15	6/19/2019 21:30	15	0.09	127.567	2.86	0.06	1	Atlas		11,481	1
	6/21/2019 19:45	6/21/2019 21:45	120	0.57	116.951	3.43	0.38	3	Atlas		66,662	1
	6/22/2019 7:00	6/22/2019 10:00	180	0.32	364.091	3.62	0.21	3	Atlas		116,509	1
	6/23/2019 16:15	6/23/2019 17:15	60	0.70	832.149	3.89	0.57	1	Atlas		582,504	1
	6/24/2019 13:30	6/24/2019 15:15	105	0.61	299.616	3.10	0.38	3	Atlas		182,766	1
	7/18/2019 1:00	7/18/2019 2:00	60	0.21	1,086.214	0.32	0.17	1	Atlas		228,105	1
	7/29/2019 23:15	7/30/2019 0:30	75	0.65	122.840	0.65	0.42	1	Atlas		79,846	1
	8/7/2019 4:45	8/7/2019 5:15	30	0.04	497.675	0.06	0.03	1	Atlas		19,907	1
	8/13/2019 8:15	8/13/2019 8:15	-	0.24	20.008	0.22	0.14	3	Atlas		4,802	1
	8/22/2019 3:15	8/22/2019 5:00	105	0.34	94.682	0.42	0.23	3	Atlas		32,192	1
	8/26/2019 11:00	8/26/2019 15:00	240	0.52	230.883	1.01	0.25	6	Atlas		120,059	1
	8/27/2019 17:15	8/27/2019 17:30	15	0.27	12.222	1.26	0.23	1	Atlas		3,300	1
	10/6/2019 14:45	10/6/2019 23:15	510	1.12	101.627	1.00	0.46	6	Atlas		113,822	1
	10/11/2019 11:15	10/11/2019 12:00	45	0.37	51.989	1.47	0.17	12	Atlas		19,236	1
	10/15/2019 22:45	10/16/2019 0:00	75	0.50	311.684	0.83	0.37	1	Atlas		155,842	1
	10/26/2019 5:15	10/26/2019 9:30	255	1.21	87.099	1.06	0.46	24	Atlas		105,390	1
	10/26/2019 18:45	10/26/2019 20:15	90	1.21	23.999	1.32	0.46	24	Atlas		29,039	1
	11/22/2019 4:45	11/22/2019 7:00	135	0.37	42.419	0.44	0.20	6	Atlas		15,695	1
	11/26/2019 21:45	11/27/2019 6:00	495	0.81	136.357	1.38	0.36	12	Atlas		110,449	1
	11/30/2019 2:30	11/30/2019 21:00	1,110	1.68	302.495	2.67	0.65	24	Atlas		508,191	1
	12/9/2019 3:00	12/9/2019 3:00	-	0.30	560	0.17	0.11	24	Atlas		168	1
	12/13/2019 19:45	12/13/2019 19:45	-	0.57	13.314	0.46	0.22	24	Atlas		7,589	1
	12/16/2019 1:00	12/16/2019 2:00	60	0.11	38.227	0.98	0.05	6	Atlas		4,205	1
	12/16/2019 14:45	12/16/2019 21:45	420	0.79	89.463	1.55	0.37	6	Atlas		70,676	1
	12/29/2019 10:30	12/30/2019 2:00	930	1.47	134.818	1.45	0.55	24	Atlas		198,183	1
	1/3/2020 6:30	1/3/2020 9:00	150	0.87	52.717	2.16	0.28	48	Atlas		45,864	1
	1/3/2020 18:15	1/3/2020 19:45	90	0.87	139.257	2.30	0.28	48	Atlas		121,154	1
	1/10/2020 19:30	1/10/2020 21:00	90	1.45	81.059	0.46	0.55	24	Atlas		117,536	1
	1/11/2020 11:00	1/11/2020 21:00	600	1.45	140.079	1.48	0.55	24	Atlas		203,115	1
	1/18/2020 10:45	1/18/2020 11:45	60	0.34	91.324	1.13	0.14	12	Atlas		31,050	1
	1/24/2020 6:15	1/24/2020 14:15	480	0.67	58.484	1.00	0.23	24	Atlas		39,184	1
	2/4/2020 18:30	2/4/2020 19:45	75	0.35	58.886	0.50	0.13	24	Atlas		20,610	1
	2/5/2020 17:45	2/5/2020 18:15	30	0.16	94.094	0.65	0.09	3	Atlas		15,055	1
	2/11/2020 3:30	2/11/2020 3:30	-	0.24	12.617	0.93	0.12	6	Atlas		3,028	1
	2/12/2020 17:00	2/12/2020 21:15	255	1.04	545.619	1.71	0.49	3	Atlas		567,444	1
	2/18/2020 8:45	2/18/2020 8:45	-	0.25	14.404	1.20	0.13	6	Atlas		3,601	1
	2/24/2020 16:00	2/25/2020 3:15	675	0.74	78.536	0.99	0.28	24	Atlas		58,117	1
	3/2/2020 7:00	3/2/2020 11:00	240	0.48	132.283	1.15	0.23	3	Atlas		63,496	1
	3/3/2020 2:00	3/3/2020 3:00	60	0.17	41.871	0.75	0.10	3	Atlas		7,118	1
	3/10/2020 8:15	3/10/2020 9:00	45	0.40	49.910	0.41	0.18	1	Atlas		19,964	1
	3/12/2020 16:00	3/12/2020 23:45	465	0.58	24.897	0.98	0.27	12	Atlas		14,440	1
	3/14/2020 13:15	3/14/2020 18:30	315	0.47	26.719	1.45	0.22	12	Atlas		12,558	1
	3/18/2020 11:15	3/18/2020 19:00	465	0.53	14.553	1.60	0.24	12	Atlas		7,713	1
	3/19/2020 12:00	3/19/2020 19:30	450	0.52	198.352	2.03	0.22	1	Atlas		103,143	1
	3/20/2020 4:00	3/20/2020 4:45	45	0.52	4.350	1.55	0.22	1	Atlas		2,262	1
	3/24/2020 18:30	3/24/2020 22:00	210	0.14	43.779	1.21	0.08	6	Atlas		6,129	1
	3/28/2020 22:30	3/28/2020 23:15	45	0.27	1,674.563	0.44	0.23	1	Atlas		452,132	1
	4/8/2020 23:00	4/8/2020 23:15	15	0.48	2.365	0.44	0.32	3	Atlas		1,135	1
	4/12/2020 16:30	4/13/2020 6:00	810	1.19	50.751	1.73	0.47	12	Atlas		60,394	1
	4/17/2020 18:45	4/17/2020 19:00	15	0.49	17.857	1.69	0.22	12	Atlas		8,750	1
	4/23/2020 8:15	4/23/2020 15:45	450	0.65	14.706	1.12	0.27	12	Atlas		9,559	1
	4/25/2020 17:00	4/25/2020 17:15	15	0.66	7.167	0.89	0.23	24	Atlas		4,730	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/26/2020 6:45	4/26/2020 7:15	30	0.66	4.883	1.20	0.23	24	Atlas		3,223	1
	4/29/2020 11:00	4/29/2020 11:15	15	0.20	6.640	1.43	0.08	24	Atlas		1,328	1
	4/29/2020 21:45	4/29/2020 21:45	-	0.20	2.105	1.50	0.08	24	Atlas		421	1
	5/5/2020 6:30	5/5/2020 7:00	30	0.21	8.343	0.43	0.11	3	Atlas		1,752	1
	5/8/2020 9:00	5/8/2020 13:15	255	0.56	38.246	0.77	0.26	12	Atlas		21,418	1
	5/15/2020 17:15	5/16/2020 8:30	915	1.67	59.252	1.77	0.62	24	Atlas		98,951	1
	5/18/2020 7:30	5/18/2020 12:45	315	0.49	49.769	2.34	0.21	6	Atlas		24,387	1
	5/23/2020 17:00	5/23/2020 18:30	90	0.32	678.106	0.93	0.20	3	Atlas		216,994	1
	5/25/2020 17:00	5/25/2020 17:00	-	0.24	3.558	0.54	0.17	1	Atlas		854	1
	5/29/2020 0:45	5/29/2020 1:00	15	0.11	85.382	1.05	0.08	1	Atlas		9,392	1
	6/4/2020 15:45	6/4/2020 21:00	315	0.61	81.272	0.68	0.30	6	Atlas		49,576	1
	6/21/2020 11:45	6/21/2020 17:45	360	0.61	139.579	0.65	0.34	1	Atlas		85,143	1
	6/22/2020 21:15	6/23/2020 0:45	210	1.25	267.759	1.76	0.61	3	Atlas		334,699	1
	6/23/2020 9:15	6/23/2020 9:15	-	1.25	1.919	1.91	0.61	3	Atlas		2,399	1
	6/27/2020 18:30	6/27/2020 18:45	15	0.18	13.083	1.98	0.10	1	Atlas		2,355	1
	6/29/2020 2:45	6/29/2020 5:00	135	0.94	89.662	2.33	0.60	3	Atlas		84,282	1
	CSO127 Total										**316,609,283**	**682**
CSO130	1/18/2011 5:00	1/18/2011 16:00	660	0.35	91.329	0.39	0.12	24	Atlas		31,965	1
	2/1/2011 9:00	2/2/2011 5:15	1,215	0.93	419.597	0.87	0.36	6	Atlas		390,225	1
	2/2/2011 22:30	2/2/2011 22:30	-	0.93	128	0.95	0.36	6	Atlas		119	1
	2/5/2011 4:30	2/5/2011 15:15	645	0.22	53.545	1.16	0.10	12	Atlas		11,780	1
	2/7/2011 11:15	2/7/2011 19:30	495	0.21	283.843	1.36	0.08	24	Atlas		59,607	1
	2/21/2011 18:00	2/22/2011 14:15	1,215	0.17	33.035	0.21	0.11	3	Atlas		5,616	1
	2/24/2011 4:30	2/25/2011 18:45	2,295	2.26	1,095.053	2.47	0.87	24	Atlas		2,474,820	1
	2/28/2011 5:00	2/28/2011 10:30	330	1.27	432.793	3.73	0.61	6	Atlas		549,647	1
	3/8/2011 23:30	3/13/2011 6:00	6,150	3.04	5,897.904	4.02	1.88	12	Cloudburst		17,929,627	1
	3/15/2011 16:30	3/15/2011 20:15	225	0.76	243.280	3.81	0.25	48	Atlas		184,893	1
	4/1/2011 20:15	4/1/2011 20:45	30	0.14	2.607	0.31	0.09	1	Atlas		365	1
	4/4/2011 13:30	4/4/2011 18:30	300	0.83	341.504	1.00	0.42	6	Atlas		283,448	1
	4/9/2011 10:30	4/9/2011 13:15	165	0.54	426.320	1.42	0.38	1	Atlas		230,213	1
	4/11/2011 11:00	4/28/2011 18:45	24,945	3.10	20,415.510	13.61	2.04	24	Cloudburst		63,288,080	1
	5/1/2011 5:45	5/1/2011 6:15	30	0.66	94.259	4.76	0.35	3	Atlas		62,211	1
	5/2/2011 4:15	5/6/2011 20:45	6,750	2.83	5,465.841	6.73	0.92	48	Atlas		15,468,329	1
	5/8/2011 0:45	5/8/2011 3:00	135	0.18	556.350	3.63	0.10	6	Atlas		100,143	1
	5/15/2011 12:00	5/15/2011 12:30	30	0.23	765	0.33	0.13	3	Atlas		176	1
	5/18/2011 23:30	5/18/2011 23:45	15	0.04	7.450	0.48	0.02	6	Atlas		298	1
	5/21/2011 18:15	5/21/2011 18:15	-	0.40	52.345	0.61	0.29	1	Atlas		20,938	1
	5/23/2011 17:45	5/23/2011 23:45	360	0.89	756.839	1.77	0.57	3	Atlas		673,587	1
	5/24/2011 14:15	5/24/2011 14:15	-	0.04	552.675	1.81	0.02	6	Atlas		22,107	1
	6/11/2011 4:30	6/11/2011 5:00	30	0.33	33.936	0.39	0.29	1	Atlas		11,199	1
	6/16/2011 0:15	6/16/2011 0:15	-	0.01	56.700	1.52	0.01	1	Atlas		567	1
	6/18/2011 6:00	6/18/2011 8:15	135	0.76	16.607	1.89	0.45	3	Atlas		12,621	1
	6/19/2011 7:45	6/19/2011 15:15	450	0.53	117.962	2.44	0.33	3	Atlas		62,520	1
	6/20/2011 1:30	6/20/2011 3:00	90	0.50	247.668	2.94	0.43	1	Atlas		123,834	1
	6/21/2011 14:00	6/21/2011 17:30	210	0.26	171.835	3.16	0.14	3	Atlas		44,677	1
	6/22/2011 19:15	6/23/2011 13:15	1,080	3.65	600.528	5.71	15.51	3	Atlas		2,191,928	1
	7/8/2011 3:00	7/8/2011 5:00	120	0.39	23.413	0.61	0.21	3	Atlas		9,131	1
	7/12/2011 17:30	7/13/2011 13:30	1,200	0.35	94.140	0.88	0.19	6	Atlas		32,949	1
	7/17/2011 22:15	7/17/2011 22:15	-	0.04	10.600	0.39	0.03	1	Atlas		424	1
	7/19/2011 22:30	7/20/2011 15:45	1,035	1.78	221.270	1.95	2.00	1	Atlas		393,860	1
	7/25/2011 0:00	7/25/2011 0:00	-	0.36	22.947	2.28	0.29	1	Atlas		8,261	1
	7/30/2011 22:45	7/31/2011 0:30	105	0.19	88.195	0.58	0.16	1	Atlas		16,757	1
	8/7/2011 3:00	8/7/2011 12:30	570	1.85	190.178	1.89	1.43	3	Atlas		351,829	1
	8/8/2011 14:00	8/8/2011 14:45	45	0.23	4.017	2.12	0.15	3	Atlas		924	1
	8/10/2011 2:45	8/10/2011 2:45	-	0.08	1.925	2.18	0.05	1	Atlas		154	1
	8/13/2011 17:15	8/14/2011 1:00	465	0.80	90.734	2.92	0.63	1	Atlas		72,587	1
	8/18/2011 8:15	8/18/2011 8:30	15	0.56	5.732	1.33	0.45	1	Atlas		3,210	1
	9/4/2011 20:45	9/4/2011 20:45	-	0.12	9.025	0.11	0.05	24	Atlas		1,083	1
	9/6/2011 3:15	9/6/2011 3:45	30	0.20	1.120	0.26	0.08	12	Atlas		224	1
	9/7/2011 5:30	9/8/2011 6:45	1,515	0.01	363.000	0.34	0.01	1	Atlas		3,630	1
	9/10/2011 20:00	9/10/2011 20:15	15	0.03	23.400	0.36	0.02	3	Atlas		702	1
	9/11/2011 19:15	9/11/2011 21:45	150	0.31	223.923	0.61	0.20	3	Atlas		69,416	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/14/2011 21:45	9/15/2011 6:00	495	0.22	4.468	0.56	0.12	3	Atlas		983	1
	9/18/2011 21:45	9/18/2011 22:45	60	0.69	1.141	0.30	0.28	12	Atlas		787	1
	9/19/2011 7:00	9/19/2011 8:15	75	0.69	88.593	0.59	0.28	12	Atlas		61,129	1
	9/21/2011 12:30	9/21/2011 12:30	-	0.03	7.933	0.95	0.02	1	Atlas		238	1
	9/23/2011 0:30	9/23/2011 8:45	495	0.80	35.480	1.53	0.37	12	Atlas		28,384	1
	9/25/2011 19:45	9/27/2011 1:00	1,755	3.46	456.581	5.14	7.40	12	Cloudburst		1,579,770	1
	9/30/2011 1:00	9/30/2011 1:00	-	0.01	52.700	4.23	0.01	1	Atlas		527	1
	10/13/2011 7:45	10/13/2011 9:00	75	0.48	4.346	0.35	0.25	3	Atlas		2,086	1
	10/27/2011 0:00	10/27/2011 5:30	330	0.99	127.290	1.39	0.42	3	Atlas		126,017	1
	1/2/2012 15:45	1/2/2012 16:15	30	0.03	12.733	0.70	0.01	12	Atlas		382	1
	1/11/2012 4:30	1/11/2012 12:00	450	0.77	112.935	0.65	0.30	12	Atlas		86,960	1
	1/17/2012 11:30	1/17/2012 13:15	105	0.39	30.915	1.27	0.18	12	Atlas		12,057	1
	1/23/2012 2:45	1/23/2012 5:45	180	0.70	198.197	1.07	0.33	3	Atlas		138,738	1
	1/25/2012 18:30	1/25/2012 20:30	120	1.69	62.772	1.00	0.55	48	Atlas		106,085	1
	1/26/2012 5:30	1/28/2012 15:30	3,480	1.69	3,045.810	2.44	0.55	48	Atlas		5,147,419	1
	2/22/2012 22:45	2/22/2012 23:00	15	0.14	31.264	0.43	0.10	1	Atlas		4,377	1
	2/29/2012 4:15	2/29/2012 10:15	360	0.59	20.697	0.63	0.27	12	Atlas		12,211	1
	3/8/2012 10:00	3/8/2012 17:45	465	0.77	320.930	1.07	0.37	6	Atlas		247,116	1
	3/15/2012 19:00	3/16/2012 4:30	570	0.98	236.934	1.19	0.43	12	Atlas		232,195	1
	3/23/2012 5:00	3/24/2012 0:30	1,170	1.53	305.898	2.40	0.56	24	Atlas		468,024	1
	4/1/2012 8:15	4/1/2012 18:00	585	1.27	521.313	1.48	0.68	6	Atlas		662,068	1
	4/4/2012 9:00	4/4/2012 16:45	465	0.07	9.514	1.63	0.05	1	Atlas		666	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.74	146.928	0.86	0.54	1	Atlas		108,727	1
	4/30/2012 18:00	4/30/2012 19:15	75	0.48	178.608	1.25	0.32	3	Atlas		85,732	1
	5/4/2012 23:45	5/5/2012 5:45	360	1.36	375.019	2.61	0.73	3	Atlas		510,026	1
	5/13/2012 2:00	5/13/2012 16:45	885	2.07	824.892	2.12	0.81	12	Atlas		1,707,526	1
	5/14/2012 14:30	5/14/2012 23:00	510	0.01	173.800	2.13	0.01	1	Atlas		1,738	1
	5/16/2012 17:45	5/16/2012 19:30	105	0.24	308.213	2.32	0.20	1	Atlas		73,971	1
	5/29/2012 6:45	5/31/2012 0:45	2,520	2.34	529.094	2.34	5.14	3	Atlas		1,238,080	1
	6/17/2012 11:30	6/17/2012 12:00	30	0.40	3.670	0.39	0.23	3	Atlas		1,468	1
	7/1/2012 20:00	7/1/2012 21:15	75	0.40	16.543	0.35	0.28	1	Atlas		6,617	1
	7/8/2012 13:45	7/8/2012 13:45	-	0.14	1.514	0.53	0.09	1	Atlas		212	1
	7/14/2012 12:15	7/14/2012 15:45	210	0.73	195.796	0.88	0.46	3	Atlas		142,931	1
	7/19/2012 18:15	7/19/2012 20:00	105	0.61	531.474	1.33	0.48	1	Atlas		324,199	1
	7/24/2012 20:00	7/24/2012 20:15	15	0.11	10.673	0.74	0.09	1	Atlas		1,174	1
	7/26/2012 21:30	7/26/2012 21:30	-	0.20	30.135	0.29	0.12	1	Atlas		6,027	1
	7/27/2012 20:00	7/27/2012 23:45	225	0.60	161.385	0.93	0.39	3	Atlas		96,831	1
	8/16/2012 20:15	8/17/2012 0:30	255	0.56	258.240	0.67	0.32	3	Atlas		142,032	1
	8/21/2012 14:00	8/21/2012 14:30	30	0.12	4.908	0.68	0.10	1	Atlas		589	1
	9/1/2012 15:15	9/1/2012 19:00	225	0.32	320.928	0.35	0.19	3	Atlas		102,697	1
	9/2/2012 12:00	9/2/2012 23:30	690	0.64	284.475	0.99	0.25	24	Atlas		182,064	1
	9/3/2012 14:30	9/3/2012 14:45	15	0.11	64.418	1.10	0.10	1	Atlas		7,086	1
	9/5/2012 15:30	9/5/2012 18:00	150	0.91	447.669	2.00	0.72	1	Atlas		407,379	1
	9/7/2012 23:15	9/8/2012 8:30	555	1.29	346.304	3.27	0.71	3	Atlas		446,732	1
	9/25/2012 23:45	9/26/2012 5:30	345	0.42	20.052	0.78	0.19	12	Atlas		8,422	1
	9/26/2012 20:00	9/27/2012 2:15	375	1.81	331.789	2.63	0.97	6	Atlas		600,538	1
	10/1/2012 15:00	10/1/2012 20:15	315	0.71	229.503	3.32	0.28	12	Atlas		162,947	1
	10/26/2012 15:00	10/26/2012 16:15	75	0.73	833	0.63	0.33	6	Atlas		608	1
	12/2/2012 11:15	12/2/2012 11:15	-	0.26	10.196	0.31	0.17	1	Atlas		2,651	1
	12/4/2012 15:15	12/4/2012 19:30	255	0.53	156.477	0.79	0.33	3	Atlas		82,933	1
	12/7/2012 4:45	12/7/2012 18:45	840	1.09	332.969	1.88	0.47	12	Atlas		362,936	1
	12/8/2012 5:45	12/8/2012 10:30	285	0.37	59.908	2.25	0.21	1	Atlas		22,166	1
	12/9/2012 8:30	12/9/2012 9:00	30	1.15	271	2.30	0.56	3	Atlas		312	1
	12/9/2012 20:45	12/10/2012 5:15	510	1.15	433.219	3.06	0.56	3	Atlas		498,202	1
	12/17/2012 17:00	12/17/2012 17:00	-	0.22	16.100	0.40	0.11	6	Atlas		3,542	1
	12/20/2012 7:00	12/20/2012 14:00	420	0.68	194.743	1.07	0.37	6	Atlas		132,425	1
	12/26/2012 5:30	12/26/2012 15:00	570	0.74	260.446	1.50	0.29	12	Atlas		192,730	1
	1/11/2013 5:45	1/11/2013 8:45	180	0.63	88.502	0.78	0.33	6	Atlas		55,756	1
	1/13/2013 3:15	1/15/2013 0:45	2,730	2.09	854.753	2.91	0.80	24	Atlas		1,786,433	1
	1/30/2013 5:00	1/30/2013 17:45	765	0.89	357.365	1.19	0.45	6	Atlas		318,055	1
	2/22/2013 1:00	2/22/2013 2:00	60	0.41	2.561	0.74	0.19	12	Atlas		1,050	1
	2/26/2013 13:45	2/26/2013 21:15	450	0.60	57.978	1.00	0.23	24	Atlas		34,787	1
	3/5/2013 17:15	3/5/2013 19:00	105	0.41	30.846	0.50	0.16	24	Atlas		12,647	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/11/2013 4:30	3/11/2013 14:15	585	1.00	554.972	1.44	0.40	12	Atlas		554.972	1
	3/17/2013 13:00	3/18/2013 13:45	1,485	1.67	512.186	2.68	0.54	48	Atlas		855.350	1
	3/24/2013 16:00	3/24/2013 18:00	120	0.48	8.956	1.42	0.18	24	Atlas		4.299	1
	4/11/2013 6:30	4/12/2013 2:30	1,200	1.28	143.484	1.28	0.49	24	Atlas		183.659	1
	4/16/2013 20:30	4/16/2013 22:00	90	0.55	88.576	1.81	0.44	1	Atlas		48.717	1
	4/19/2013 2:30	4/19/2013 6:00	210	0.91	416.730	1.48	0.50	6	Atlas		379.224	1
	4/24/2013 8:15	4/24/2013 11:30	195	0.72	212.271	1.67	0.39	6	Atlas		152.835	1
	5/5/2013 5:15	5/5/2013 9:15	240	1.34	31.137	1.22	0.41	24	Atlas		41.723	1
	5/10/2013 12:15	5/11/2013 1:45	810	0.91	375.530	2.42	0.41	6	Atlas		341.732	1
	5/12/2013 0:15	5/12/2013 2:30	135	0.05	4.340	1.81	0.04	1	Atlas		217	1
	5/16/2013 10:30	5/16/2013 11:45	75	0.21	45.829	1.19	0.18	1	Atlas		9.624	1
	5/22/2013 16:00	5/22/2013 16:00	-	0.13	9.846	0.33	0.09	1	Atlas		1.280	1
	5/31/2013 23:00	5/31/2013 23:00	-	0.24	20.517	0.34	0.11	12	Atlas		4.924	1
	6/10/2013 0:00	6/10/2013 0:15	15	0.31	4.206	0.22	0.14	6	Atlas		1.304	1
	6/16/2013 16:45	6/16/2013 17:00	15	0.53	43.660	0.78	0.36	1	Atlas		23.140	1
	6/17/2013 16:30	6/18/2013 4:15	705	1.30	665.942	1.84	0.72	1	Atlas		865.724	1
	6/21/2013 19:30	6/21/2013 20:45	75	0.14	50.314	1.98	0.09	3	Atlas		7.044	1
	6/23/2013 12:30	6/23/2013 13:00	30	0.52	1.665	2.45	0.41	1	Atlas		866	1
	6/26/2013 3:15	6/26/2013 7:15	240	0.67	417.142	1.40	0.45	3	Atlas		279.485	1
	6/26/2013 16:15	6/28/2013 16:30	2,895	2.64	662.965	4.04	5.00	1	Atlas		1,750.228	1
	6/29/2013 20:00	6/30/2013 6:45	645	0.44	589.191	4.33	0.23	6	Atlas		259.244	1
	7/1/2013 19:15	7/1/2013 19:15	-	0.20	27.855	4.15	0.11	3	Atlas		5.571	1
	7/2/2013 13:45	7/2/2013 13:45	-	0.14	35.879	4.31	0.12	1	Atlas		5.023	1
	7/4/2013 12:00	7/4/2013 16:30	270	0.51	29.818	1.47	0.22	12	Atlas		15.207	1
	7/6/2013 1:15	7/6/2013 9:00	465	0.65	290.538	2.16	0.28	12	Atlas		188.850	1
	7/10/2013 14:15	7/10/2013 17:00	165	0.96	132.915	2.19	0.66	1	Atlas		127.598	1
	7/14/2013 19:30	7/14/2013 21:00	90	0.23	87.691	1.25	0.20	1	Atlas		20.169	1
	7/21/2013 20:15	7/21/2013 20:45	30	1.91	27.035	0.90	0.73	24	Atlas		51.637	1
	7/22/2013 7:15	7/22/2013 18:15	660	1.91	346.371	2.03	0.73	24	Atlas		661.568	1
	8/12/2013 15:00	8/12/2013 16:15	75	0.53	36.766	0.52	0.20	24	Atlas		19.486	1
	8/13/2013 3:15	8/13/2013 4:30	75	0.53	8.532	0.76	0.20	24	Atlas		4.522	1
	8/20/2013 18:15	8/20/2013 18:45	30	0.17	122.218	0.18	0.10	1	Atlas		20.777	1
	8/31/2013 19:45	9/1/2013 4:00	495	1.34	468.880	1.32	0.67	3	Atlas		628.299	1
	9/2/2013 14:00	9/2/2013 15:00	60	0.11	90.209	1.45	0.10	1	Atlas		9.923	1
	9/20/2013 16:30	9/21/2013 6:15	825	1.48	345.493	1.55	0.62	12	Atlas		511.330	1
	10/5/2013 13:00	10/8/2013 3:00	3,720	3.89	363.383	4.00	5.08	24	Cloudburst		1,413.561	1
	10/30/2013 3:30	10/30/2013 8:00	270	1.16	194.731	1.16	0.56	6	Atlas		225.888	1
	11/17/2013 5:45	11/19/2013 13:30	3,345	2.17	1,085.849	2.30	0.89	6	Atlas		2,356.292	1
	12/5/2013 5:30	12/5/2013 9:15	225	0.78	13.296	0.17	0.25	48	Atlas		10.371	1
	12/14/2013 0:30	12/14/2013 14:30	840	0.77	51.095	1.04	0.31	12	Atlas		39.343	1
	12/21/2013 7:45	12/22/2013 23:00	2,355	2.81	377.698	3.14	1.24	24	Cloudburst		1,061.330	1
	12/29/2013 6:15	12/29/2013 7:30	75	0.48	93.842	0.41	0.21	12	Atlas		45.044	1
	1/5/2014 18:00	1/5/2014 21:00	180	0.47	32.396	0.66	0.23	6	Atlas		15.226	1
	1/11/2014 1:15	1/11/2014 7:15	360	0.80	263.398	1.28	0.43	6	Atlas		210.718	1
	2/4/2014 20:00	2/5/2014 9:30	810	0.51	1,519.345	0.95	0.25	6	Atlas		774.866	1
	2/17/2014 16:15	2/17/2014 21:15	300	0.55	653.456	1.08	0.33	3	Atlas		359.401	1
	2/20/2014 23:15	2/21/2014 1:15	120	0.19	272.837	1.27	0.10	6	Atlas		51.839	1
	3/2/2014 11:15	3/2/2014 12:00	45	0.48	6.148	0.23	0.18	24	Atlas		2.951	1
	3/29/2014 6:30	3/29/2014 14:30	480	0.98	283.712	1.31	0.45	6	Atlas		278.038	1
	4/3/2014 12:15	4/5/2014 15:30	3,075	2.59	786.758	3.93	0.90	24	Atlas		2,037.703	1
	4/7/2014 9:00	4/7/2014 22:45	825	0.82	1,374.227	3.50	0.49	3	Atlas		1,126.866	1
	4/14/2014 20:30	4/15/2014 4:00	450	0.62	84.335	1.10	0.28	12	Atlas		52.288	1
	4/27/2014 20:30	4/28/2014 21:30	1,500	1.86	357.758	1.92	0.70	3	Atlas		661.863	1
	4/29/2014 20:45	4/30/2014 2:00	315	0.19	107.089	2.12	0.09	6	Atlas		20.347	1
	5/9/2014 19:30	5/10/2014 17:15	1,305	1.59	271.225	1.66	0.61	24	Atlas		431.248	1
	5/14/2014 7:15	5/14/2014 21:30	855	0.98	66.879	2.60	0.37	24	Atlas		65.541	1
	5/21/2014 21:00	5/22/2014 4:45	465	0.58	149.167	0.72	0.27	12	Atlas		86.517	1
	5/28/2014 20:30	5/28/2014 21:45	75	0.21	73.067	0.80	0.18	1	Atlas		15.344	1
	5/29/2014 21:00	5/29/2014 22:45	105	0.41	170.937	0.65	0.35	1	Atlas		70.084	1
	6/11/2014 14:30	6/11/2014 14:30	-	0.11	3.891	0.30	0.07	1	Atlas		428	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.14	15.821	0.23	0.09	1	Atlas		2.215	1
	7/2/2014 16:15	7/2/2014 17:30	75	0.13	37.946	0.42	0.10	1	Atlas		4.933	1
	7/7/2014 19:45	7/7/2014 19:45	-	0.49	10.873	0.82	0.43	1	Atlas		5.328	1
	7/13/2014 22:30	7/13/2014 23:45	75	0.62	27.521	1.24	0.28	12	Atlas		17.063	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/14/2014 20:15	7/14/2014 20:15	-	0.34	20.024	1.31	0.23	3	Atlas		6.808	1
	7/26/2014 21:45	7/28/2014 16:15	2.550	0.94	1.529.106	0.97	0.41	12	Atlas		1.437.360	1
	8/8/2014 6:00	8/8/2014 8:45	165	0.84	125.051	0.63	0.41	6	Atlas		105.043	1
	8/10/2014 4:15	8/10/2014 5:00	45	0.53	16.470	1.46	0.44	1	Atlas		8.729	1
	8/11/2014 15:30	8/11/2014 16:00	30	0.30	93.080	1.75	0.21	1	Atlas		27.924	1
	8/17/2014 9:45	8/17/2014 9:45	-	0.70	5.630	0.82	0.26	24	Atlas		3.941	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.31	110.845	0.95	0.21	1	Atlas		34.362	1
	8/26/2014 21:00	8/26/2014 22:45	105	0.22	944.609	1.02	0.19	1	Atlas		207.814	1
	8/27/2014 15:00	8/27/2014 15:00	-	0.18	17.856	1.15	0.11	1	Atlas		3.214	1
	9/11/2014 0:30	9/11/2014 11:45	675	1.92	412.598	1.92	1.43	3	Atlas		792.189	1
	9/21/2014 6:30	9/21/2014 6:30	-	0.01	137.500	0.03	0.01	1	Atlas		1.375	1
	10/3/2014 3:30	10/3/2014 4:30	60	0.23	24.322	0.10	0.09	24	Atlas		5.594	1
	10/6/2014 8:00	10/6/2014 10:00	120	0.38	27.229	0.55	0.20	1	Atlas		10.347	1
	10/7/2014 11:45	10/7/2014 12:15	30	0.23	24.317	0.83	0.18	1	Atlas		5.593	1
	10/10/2014 2:00	10/10/2014 3:45	105	0.83	138.408	1.64	0.53	3	Atlas		114.879	1
	10/10/2014 21:15	10/10/2014 21:15	-	0.27	26.333	1.69	0.12	12	Atlas		7.110	1
	10/13/2014 4:30	10/13/2014 6:15	105	0.41	42.824	2.11	0.27	3	Atlas		17.558	1
	10/13/2014 23:30	10/14/2014 12:00	750	0.95	210.417	2.71	0.42	12	Atlas		199.896	1
	10/20/2014 20:00	10/20/2014 20:00	-	0.03	42.433	1.21	0.03	1	Atlas		1.273	1
	10/31/2014 20:15	10/31/2014 21:15	60	0.17	14.765	0.27	0.06	12	Atlas		2.510	1
	11/4/2014 22:45	11/5/2014 4:30	345	0.11	20.445	0.28	0.05	12	Atlas		2.249	1
	11/5/2014 18:45	11/5/2014 19:15	30	0.01	271.700	0.29	0.01	1	Atlas		2.717	1
	11/11/2014 18:00	11/11/2014 19:00	60	0.05	130.140	0.15	0.02	12	Atlas		6.507	1
	11/23/2014 13:30	11/23/2014 19:30	360	0.81	15.249	1.07	0.37	12	Atlas		12.352	1
	12/1/2014 1:00	12/1/2014 15:00	840	0.86	17.070	0.74	0.33	24	Atlas		14.680	1
	12/4/2014 8:30	12/5/2014 6:45	1.335	1.82	8.166	1.28	0.59	48	Atlas		14.862	1
	12/6/2014 17:30	12/6/2014 2:00	510	1.82	4.042	2.26	0.59	48	Atlas		7.356	1
	12/16/2014 5:00	12/16/2014 5:00	-	0.12	26.358	0.12	0.08	1	Atlas		3.163	1
	12/22/2014 22:15	12/23/2014 0:00	105	0.25	16.980	0.36	0.15	3	Atlas		4.245	1
	12/23/2014 19:45	12/23/2014 20:15	30	0.05	32.780	0.30	0.03	1	Atlas		1.639	1
	12/24/2014 12:30	12/24/2014 13:30	60	0.16	8.638	0.36	0.07	12	Atlas		1.382	1
	12/27/2014 17:00	12/28/2014 1:30	510	0.31	17.171	0.77	0.12	24	Atlas		5.323	1
	1/3/2015 5:15	1/4/2015 3:15	1.320	0.34	13.929	0.64	0.13	24	Atlas		4.736	1
	1/11/2015 23:45	1/12/2015 5:30	345	0.16	25.381	0.14	0.06	24	Atlas		4.061	1
	1/23/2015 19:00	1/23/2015 20:00	60	0.08	5.063	0.15	0.05	3	Atlas		405	1
	1/25/2015 16:00	1/25/2015 22:15	375	0.15	6.540	0.23	0.07	12	Atlas		981	1
	1/29/2015 5:15	1/29/2015 6:00	45	0.03	27.933	0.26	0.02	3	Atlas		838	1
	2/1/2015 11:15	2/1/2015 20:00	525	0.39	30.859	0.59	0.18	3	Atlas		12.035	1
	2/14/2015 13:45	2/14/2015 13:45	-	0.04	1.625	0.05	0.03	3	Atlas		65	1
	2/21/2015 3:15	2/22/2015 17:15	2.280	1.15	58.970	1.39	0.44	12	Atlas		67.815	1
	3/10/2015 12:30	3/10/2015 12:30	-	1.09	1.522	2.58	0.49	12	Atlas		1.659	1
	4/2/2015 15:00	4/2/2015 15:00	-	3.87	22.203	0.90	3.28	24	Cloudburst		85.926	1
	4/3/2015 0:15	4/3/2015 0:15	-	3.87	20.600	1.58	3.28	24	Cloudburst		79.723	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.47	54.588	1.04	0.48	48	Atlas		80.245	1
	6/26/2015 17:15	6/26/2015 17:15	-	0.95	76.015	2.06	0.51	1	Atlas		72.214	1
	7/2/2015 19:30	7/2/2015 19:30	-	1.67	562	2.71	0.63	24	Atlas		938	1
	7/12/2015 6:00	7/12/2015 7:15	75	1.75	96.406	3.28	2.28	1	Atlas		168.710	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.68	167.934	4.62	0.55	1	Atlas		114.195	1
	7/18/2015 0:30	7/18/2015 0:30	-	1.54	6.147	4.76	1.10	3	Atlas		9.467	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.52	43.490	0.57	0.44	1	Atlas		22.615	1
	11/6/2015 4:00	11/6/2015 4:00	-	0.74	5.827	0.76	0.45	3	Atlas		4.312	1
	12/23/2015 19:30	12/23/2015 19:30	-	0.83	14.339	1.19	0.63	1	Atlas		11.901	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.49	6.524	1.42	0.68	12	Atlas		9.721	1
	4/26/2016 16:15	4/26/2016 16:15	-	0.26	3.685	0.36	0.15	3	Atlas		958	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.31	1.758	0.60	0.17	1	Atlas		545	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.81	54.154	0.74	0.53	3	Atlas		43.865	1
	6/23/2016 16:15	6/23/2016 20:30	255	2.04	29.935	2.44	1.56	6	Cloudburst		61.067	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.15	60.000	1.20	0.13	1	Atlas		9.000	1
	8/1/2016 11:15	8/1/2016 11:30	15	0.60	2.773	1.74	0.47	1	Atlas		1.664	1
	8/15/2016 3:15	8/15/2016 3:15	-	0.88	244	0.75	0.45	6	Atlas		215	1
	8/17/2016 4:30	8/17/2016 7:30	180	0.72	26.364	1.58	0.33	3	Atlas		18.982	1
	8/20/2016 14:30	8/20/2016 14:45	15	1.36	30.379	2.68	0.66	1	Atlas		41.316	1
	9/28/2016 12:30	9/28/2016 12:30	-	0.49	1.292	0.61	0.26	6	Atlas		633	1
	9/29/2016 9:15	9/29/2016 9:15	-	0.07	6.086	0.79	0.04	1	Atlas		426	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/30/2016 1:30	9/30/2016 2:45	75	0.64	12,444	1.36	0.34	3	Atlas		7,964	1
	12/17/2016 18:30	12/17/2016 19:15	45	2.75	5,495	1.42	2.05	12	Cloudburst		15,111	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.35	3,386	0.43	0.30	1	Atlas		1,185	1
	3/1/2017 3:15	3/1/2017 3:15	-	0.98	16,459	0.98	0.46	6	Atlas		16,130	1
	4/29/2017 2:15	4/29/2017 2:45	30	1.12	1,388	1.36	0.58	6	Atlas		1,555	1
	5/4/2017 20:15	5/4/2017 20:15	-	1.69	317	2.02	0.57	24	Atlas		536	1
	5/21/2017 2:15	5/21/2017 5:45	210	1.05	12,473	1.07	0.47	12	Atlas		13,097	1
	5/24/2017 18:00	5/24/2017 20:30	150	0.59	54,780	1.47	0.21	24	Atlas		32,320	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.12	98,175	0.13	0.10	1	Atlas		11,781	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.70	25,577	0.54	0.44	3	Atlas		17,904	1
	7/6/2017 4:45	7/6/2017 5:00	15	0.46	3,193	0.43	0.21	6	Atlas		1,469	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.02	977	0.44	0.47	12	Atlas		997	1
	2/24/2018 23:45	2/25/2018 0:00	15	1.62	1,796	4.49	0.67	12	Atlas		2,910	1
	2/25/2018 9:30	2/25/2018 11:45	135	1.62	2,092	4.62	0.67	12	Atlas		3,389	1
	5/5/2018 14:30	5/5/2018 14:30	-	1.58	10,122	0.93	0.68	6	Atlas		15,993	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.53	39,101	1.63	0.81	3	Atlas		59,825	1
	6/25/2018 10:45	6/25/2018 11:00	15	0.86	14,554	1.92	0.35	12	Atlas		12,371	1
	6/26/2018 13:00	6/26/2018 13:15	15	0.65	940	2.29	0.25	12	Atlas		611	1
	7/3/2018 16:00	7/3/2018 16:00	-	0.53	20,243	1.42	0.36	1	Atlas		10,729	1
	7/20/2018 21:00	7/20/2018 21:00	-	1.61	44,566	1.88	0.91	3	Atlas		71,752	1
	9/8/2018 18:30	9/8/2018 19:45	75	2.34	21,904	2.18	1.83	6	Cloudburst		51,256	1
	CSO130 Total										**148,734,454**	**258**
CSO131	12/9/2012 22:00	12/9/2012 22:15	15	1.15	439,659	2.74	0.56	3	Atlas		505,608	1
	1/13/2013 3:00	1/13/2013 3:00	-	2.09	73,251	0.95	0.80	24	Atlas		153,095	1
	1/30/2013 4:30	1/30/2013 4:45	15	0.89	639,070	0.55	0.45	6	Atlas		568,772	1
	4/11/2013 7:00	4/11/2013 7:00	-	1.28	24,437	0.51	0.49	24	Atlas		31,279	1
	4/16/2013 19:45	4/16/2013 20:00	15	0.55	1,321,240	1.79	0.44	1	Atlas		726,682	1
	4/19/2013 2:15	4/19/2013 2:30	15	0.91	300,776	1.07	0.50	6	Atlas		273,706	1
	6/16/2013 16:30	6/16/2013 16:45	15	0.53	478,970	0.76	0.36	1	Atlas		253,854	1
	6/17/2013 16:00	6/17/2013 16:30	30	1.30	1,183,452	1.28	0.72	1	Atlas		1,538,488	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.67	258,570	1.39	0.45	3	Atlas		173,242	1
	6/26/2013 16:00	6/26/2013 20:30	270	2.64	1,814,137	3.60	5.00	1	Atlas		4,789,322	1
	7/10/2013 14:00	7/10/2013 14:00	-	0.96	713,100	2.09	0.66	1	Atlas		684,576	1
	7/14/2013 19:15	7/14/2013 19:30	15	0.23	1,735,352	1.25	0.20	1	Atlas		399,131	1
	7/22/2013 7:45	7/22/2013 13:45	360	1.91	1,200,758	2.01	0.73	24	Atlas		2,293,447	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.53	93,068	0.50	0.20	24	Atlas		49,326	1
	8/31/2013 20:00	8/31/2013 22:15	135	1.34	219,746	1.01	0.67	3	Atlas		294,460	1
	10/5/2013 14:00	10/6/2013 6:00	960	3.89	745,991	3.27	5.08	24	Cloudburst		2,901,906	1
	11/17/2013 6:15	11/17/2013 8:15	120	2.17	425,659	1.58	0.89	6	Atlas		923,681	1
	11/17/2013 17:45	11/17/2013 17:45	-	2.17	58,076	2.17	0.89	6	Atlas		126,025	1
	12/21/2013 21:30	12/21/2013 22:45	75	2.81	351,085	2.38	1.24	24	Cloudburst		986,550	1
	2/17/2014 16:00	2/17/2014 16:15	15	0.55	126,865	0.97	0.33	3	Atlas		69,776	1
	3/29/2014 6:30	3/29/2014 6:30	-	0.98	28,234	0.70	0.45	6	Atlas		27,669	1
	4/3/2014 12:15	4/3/2014 12:15	-	2.59	33,329	1.92	0.90	24	Atlas		86,322	1
	4/4/2014 3:00	4/4/2014 3:15	15	2.59	122,401	3.29	0.90	24	Atlas		317,018	1
	4/7/2014 10:30	4/7/2014 11:30	60	0.82	239,882	3.43	0.49	3	Atlas		196,703	1
	4/27/2014 19:45	4/27/2014 19:45	-	1.85	50,075	0.15	0.70	3	Atlas		92,638	1
	4/28/2014 4:00	4/28/2014 6:00	120	1.85	877,788	1.32	0.70	3	Atlas		1,623,908	1
	5/9/2014 19:00	5/9/2014 19:00	-	1.59	103,096	0.09	0.61	24	Atlas		163,923	1
	5/10/2014 5:30	5/10/2014 5:30	-	1.59	133,742	0.68	0.61	24	Atlas		212,650	1
	5/10/2014 14:00	5/10/2014 15:00	60	1.59	467,434	1.64	0.61	24	Atlas		743,220	1
	5/14/2014 6:45	5/14/2014 6:45	-	0.98	8,898	1.76	0.37	24	Atlas		8,720	1
	5/29/2014 20:30	5/29/2014 21:00	30	0.41	3,728,202	0.61	0.35	1	Atlas		1,528,563	1
	7/7/2014 19:15	7/7/2014 19:15	-	0.49	1,166,904	0.45	0.43	1	Atlas		571,783	1
	7/26/2014 21:30	7/26/2014 21:30	-	0.94	158,067	0.29	0.41	12	Atlas		148,583	1
	8/22/2014 18:45	8/22/2014 18:45	-	0.31	1,704,742	0.79	0.21	1	Atlas		528,470	1
	8/23/2014 19:45	8/23/2014 19:45	-	0.48	493,777	1.16	0.23	3	Atlas		237,013	1
	8/30/2014 15:00	8/30/2014 15:15	15	0.55	1,637,882	1.17	0.34	1	Atlas		900,835	1
	9/11/2014 0:15	9/11/2014 2:00	105	1.92	803,800	1.58	1.43	3	Atlas		1,543,296	1
	3/10/2015 12:15	3/10/2015 12:15	-	1.09	138,798	2.55	0.49	12	Atlas		151,290	1
	4/2/2015 10:15	4/2/2015 15:00	285	3.87	312,437	0.98	3.28	24	Cloudburst		1,209,133	1
	4/3/2015 0:00	4/3/2015 4:30	270	3.87	715,262	2.91	3.28	24	Cloudburst		2,768,064	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/7/2015 9:00	4/7/2015 16:45	465	0.93	913.653	4.68	0.44	1	Atlas		849.697	1
	4/9/2015 11:15	4/9/2015 11:15	-	0.11	1,211.309	4.78	0.10	1	Atlas		133.244	1
	4/19/2015 14:00	4/19/2015 14:00	-	0.69	283.341	1.04	0.29	12	Atlas		195.505	1
	5/17/2015 14:00	5/17/2015 14:00	-	0.10	772.980	0.60	0.05	1	Atlas		77.298	1
	5/26/2015 13:30	5/26/2015 13:45	15	0.41	850.244	0.50	0.31	1	Atlas		348.600	1
	6/17/2015 4:30	6/17/2015 4:30	-	0.62	146.505	0.28	0.36	3	Atlas		90.833	1
	6/18/2015 17:00	6/18/2015 17:15	15	1.47	924.029	1.04	0.48	48	Atlas		1,358.323	1
	6/26/2015 16:45	6/26/2015 17:00	15	0.95	924.501	2.01	0.51	1	Atlas		878.276	1
	7/2/2015 19:15	7/2/2015 20:15	60	1.67	752.129	3.18	0.63	24	Atlas		1,256.055	1
	7/12/2015 5:45	7/12/2015 7:00	75	1.75	2,280.085	3.28	2.28	1	Atlas		3,990.148	1
	7/14/2015 4:00	7/14/2015 4:15	15	0.68	1,729.484	4.62	0.55	1	Atlas		1,176.049	1
	7/17/2015 23:00	7/18/2015 0:45	105	1.54	1,494.327	4.82	1.10	3	Atlas		2,301.264	1
	8/4/2015 18:30	8/4/2015 18:45	15	0.52	974.058	0.53	0.44	1	Atlas		506.510	1
	8/5/2015 14:45	8/5/2015 14:45	-	0.29	135.862	0.77	0.24	1	Atlas		39.400	1
	8/19/2015 8:00	8/19/2015 8:00	-	0.34	81.379	0.20	0.13	12	Atlas		27.669	1
	9/5/2015 16:45	9/5/2015 16:45	-	0.23	230.152	0.02	0.17	1	Atlas		52.935	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.33	576.033	0.83	0.29	1	Atlas		190.091	1
	11/6/2015 3:45	11/6/2015 3:45	-	0.74	289.803	0.72	0.45	3	Atlas		214.454	1
	11/18/2015 10:45	11/18/2015 13:15	150	1.38	193.107	1.56	0.70	6	Atlas		266.487	1
	12/23/2015 19:00	12/23/2015 19:30	30	0.83	1,915.569	1.19	0.63	1	Atlas		1,589.922	1
	12/27/2015 10:15	12/27/2015 13:00	165	1.98	329.029	3.06	0.65	3	Atlas		651.477	1
	2/2/2016 23:45	2/2/2016 23:45	-	1.49	142.718	1.38	0.68	12	Atlas		212.650	1
	3/24/2016 17:15	3/24/2016 17:15	-	0.27	426.656	0.26	0.17	1	Atlas		115.197	1
	3/27/2016 21:00	3/27/2016 21:15	15	0.75	703.019	0.91	0.50	3	Atlas		527.264	1
	4/27/2016 20:45	4/27/2016 20:45	-	0.66	87.041	0.98	0.28	12	Atlas		57.447	1
	5/10/2016 18:15	5/10/2016 21:30	195	0.65	375.274	1.40	0.24	24	Atlas		243.928	1
	6/2/2016 15:15	6/2/2016 15:30	15	0.25	419.868	0.35	0.18	1	Atlas		104.967	1
	6/4/2016 16:30	6/4/2016 16:30	-	0.31	252.261	0.60	0.17	1	Atlas		78.201	1
	6/12/2016 17:30	6/12/2016 17:45	15	0.17	1,748.041	0.20	0.15	1	Atlas		297.167	1
	6/14/2016 16:15	6/14/2016 16:30	15	0.81	1,126.623	0.64	0.53	3	Atlas		912.565	1
	6/22/2016 8:00	6/22/2016 8:00	-	0.41	239.151	0.22	0.25	3	Atlas		98.052	1
	6/23/2016 16:00	6/23/2016 20:30	270	2.04	1,261.947	2.44	1.56	6	Cloudburst		2,574.371	1
	7/30/2016 14:00	7/30/2016 14:00	-	0.15	1,405.633	1.19	0.13	1	Atlas		210.845	1
	8/1/2016 11:00	8/1/2016 11:00	-	0.60	136.350	1.73	0.47	1	Atlas		81.810	1
	8/15/2016 2:45	8/15/2016 3:00	15	0.88	714.008	0.71	0.45	6	Atlas		628.327	1
	8/17/2016 6:30	8/17/2016 6:45	15	0.72	197.172	1.56	0.33	3	Atlas		141.964	1
	8/20/2016 14:15	8/20/2016 19:30	315	1.36	256.988	2.88	0.66	1	Atlas		349.503	1
	8/31/2016 16:30	8/31/2016 17:30	60	0.50	642.454	0.59	0.40	1	Atlas		321.227	1
	10/20/2016 9:00	10/20/2016 9:00	-	0.58	122.383	0.24	0.28	3	Atlas		70.982	1
	12/17/2016 18:15	12/17/2016 19:00	45	2.75	450.074	1.38	2.05	12	Cloudburst		1,237.704	1
	2/24/2017 18:45	2/24/2017 18:45	-	0.35	455.460	0.36	0.30	1	Atlas		159.411	1
	3/1/2017 3:00	3/1/2017 6:45	225	0.98	290.341	1.10	0.46	6	Atlas		284.534	1
	4/29/2017 1:30	4/29/2017 2:45	75	1.12	849.427	1.36	0.58	6	Atlas		951.358	1
	5/21/2017 3:15	5/21/2017 3:15	-	1.05	153.539	0.76	0.47	12	Atlas		161.216	1
	5/27/2017 14:00	5/27/2017 14:00	-	0.35	218.274	1.97	0.29	1	Atlas		76.396	1
	6/5/2017 18:00	6/5/2017 18:00	-	0.12	516.317	0.11	0.10	1	Atlas		61.958	1
	6/15/2017 2:45	6/15/2017 3:00	15	0.70	866.673	0.53	0.44	3	Atlas		606.671	1
	6/30/2017 20:45	6/30/2017 20:45	-	0.23	1,006.952	0.30	0.17	1	Atlas		231.599	1
	7/23/2017 2:30	7/23/2017 3:00	30	1.02	64.870	0.51	0.47	12	Atlas		66.167	1
	8/17/2017 14:45	8/17/2017 14:45	-	0.34	1,089.882	0.14	0.19	6	Atlas		370.560	1
	8/22/2017 15:45	8/22/2017 15:45	-	0.47	270.057	0.80	0.28	1	Atlas		126.927	1
	10/7/2017 21:30	10/7/2017 21:45	15	1.73	143.607	0.57	0.65	24	Atlas		248.440	1
	10/8/2017 13:45	10/8/2017 13:45	-	1.73	19.123	1.54	0.65	24	Atlas		33.083	1
	11/3/2017 4:15	11/3/2017 5:00	45	1.16	1,073.987	2.07	0.94	1	Atlas		1,245.825	1
	11/6/2017 1:30	11/6/2017 1:45	15	0.74	512.541	2.03	0.57	1	Atlas		379.280	1
	12/5/2017 3:30	12/5/2017 3:30	-	0.55	293.120	0.25	0.29	3	Atlas		161.216	1
	11/1/2018 0:45	11/1/2018 1:15	30	1.60	41.399	1.30	0.58	24	Atlas		66.238	1
	11/5/2018 22:00	11/5/2018 22:15	15	0.79	56.781	2.14	0.43	6	Atlas		44.857	1
	12/1/2018 10:15	12/1/2018 10:15	-	1.32	3.976	1.20	0.56	12	Atlas		5.248	1
	12/27/2018 17:45	12/27/2018 17:45	-	0.30	93.663	0.46	0.19	1	Atlas		28.099	1
	12/31/2018 16:30	12/31/2018 16:45	15	1.22	34.838	1.53	0.47	24	Atlas		42.502	1
	1/4/2019 15:15	1/4/2019 15:45	30	0.55	11.418	1.64	0.27	3	Atlas		6.280	1
	1/19/2019 6:45	1/19/2019 19:45	780	0.77	55.390	0.82	0.30	24	Atlas		42.650	1
	1/23/2019 10:00	1/23/2019 13:15	195	0.82	81.570	1.52	0.32	12	Atlas		66.887	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/6/2019 7:15	2/6/2019 7:15	-	1.35	22,681	0.41	0.44	48	Atlas		30,619	1
	2/7/2019 9:15	2/7/2019 9:15	-	1.35	26,455	1.01	0.44	48	Atlas		35,714	1
	2/12/2019 4:45	2/12/2019 4:45	-	2.50	11,130	3.47	0.77	48	Atlas		27,824	1
	2/20/2019 4:15	2/20/2019 6:15	120	1.46	80,440	1.33	0.67	6	Atlas		117,442	1
	3/14/2019 18:45	3/14/2019 18:45	-	0.66	20,098	2.11	0.49	1	Atlas		13,265	1
	3/30/2019 17:30	3/30/2019 17:30	-	0.81	880	0.90	0.43	6	Atlas		713	1
	4/14/2019 2:15	4/14/2019 2:15	-	0.80	30,703	1.10	0.39	6	Atlas		24,562	1
	4/24/2019 21:00	4/24/2019 21:00	-	0.55	37,607	3.09	0.26	6	Atlas		20,684	1
	4/25/2019 18:15	4/25/2019 18:30	15	0.36	54,931	3.51	0.17	1	Atlas		19,775	1
	5/26/2019 14:00	5/26/2019 14:00	-	0.78	53,727	0.64	0.49	3	Atlas		41,907	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.66	4,794	0.78	0.48	1	Atlas		3,164	1
	6/9/2019 15:30	6/9/2019 17:15	105	0.73	79,804	2.13	0.40	3	Atlas		58,257	1
	6/16/2019 20:00	6/16/2019 21:00	60	1.40	65,686	1.26	0.64	12	Atlas		91,961	1
	6/18/2019 17:15	6/18/2019 17:15	-	1.05	16,864	2.87	0.87	1	Atlas		17,707	1
	6/23/2019 16:15	6/23/2019 16:30	15	0.45	148,816	3.60	0.36	1	Atlas		66,967	1
	6/24/2019 14:15	6/24/2019 14:15	-	0.42	54,355	2.90	0.26	3	Atlas		22,829	1
	7/30/2019 0:00	7/30/2019 0:00	-	0.41	64,624	0.41	0.25	3	Atlas		26,496	1
	8/27/2019 17:15	8/27/2019 17:15	-	0.33	109,421	1.10	0.28	1	Atlas		36,109	1
	10/30/2019 14:30	10/30/2019 15:00	30	0.80	101,593	1.94	0.41	3	Atlas		81,274	1
	2/12/2020 18:30	2/12/2020 18:30	-	0.74	916	1.16	0.34	12	Atlas		678	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.41	88,576	0.42	0.19	1	Atlas		36,316	1
	3/12/2020 16:00	3/12/2020 20:00	240	0.48	78,104	0.83	0.23	6	Atlas		37,490	1
	3/19/2020 12:30	3/19/2020 12:45	15	0.49	84,886	1.65	0.19	24	Atlas		41,594	1
	3/28/2020 22:45	3/28/2020 22:45	-	0.21	221,500	0.39	0.17	1	Atlas		46,515	1
	5/16/2020 2:30	5/16/2020 7:45	315	1.07	57,536	1.24	0.41	24	Atlas		61,564	1
	6/21/2020 12:00	6/21/2020 12:00	-	0.35	282,271	0.28	0.19	6	Atlas		98,795	1
	6/23/2020 0:15	6/23/2020 0:15	-	0.80	37,095	1.09	0.35	3	Atlas		29,676	1
	6/29/2020 3:00	6/29/2020 4:15	75	0.44	174,955	1.28	0.29	3	Atlas		76,980	1
	CSO131 Total										61,895,414	132
CSO132	9/3/2008 9:00	9/3/2008 10:00	60	0.34	13,388	0.41	0.23	3	Atlas		4,552	1
	9/5/2008 5:00	9/5/2008 5:00	-	0.34	826	0.79	0.13	24	Atlas		281	1
	9/9/2008 8:00	9/9/2008 9:00	60	0.29	72,521	0.97	0.13	12	Atlas		21,031	1
	10/7/2008 15:30	10/7/2008 15:45	15	0.84	47,383	0.27	0.32	24	Atlas		39,802	1
	10/8/2008 1:00	10/8/2008 3:15	135	0.84	131,436	0.75	0.32	24	Atlas		110,406	1
	11/14/2008 23:15	11/15/2008 12:00	765	1.09	692,737	1.51	0.44	12	Atlas		755,083	1
	11/24/2008 3:15	11/24/2008 10:15	420	0.65	710,417	0.70	0.32	6	Atlas		461,771	1
	12/3/2008 23:30	12/4/2008 1:00	90	0.23	898,143	0.39	0.12	1	Atlas		206,573	1
	12/9/2008 11:15	12/9/2008 19:00	465	1.21	2,210,855	1.37	0.57	6	Atlas		2,675,135	1
	12/10/2008 4:45	12/10/2008 5:00	15	1.21	22,374	1.46	0.57	6	Atlas		27,073	1
	12/15/2008 8:45	12/15/2008 9:15	30	0.22	110,841	1.41	0.09	12	Atlas		24,385	1
	12/19/2008 6:15	12/19/2008 11:15	300	0.50	1,242,292	0.91	0.27	3	Atlas		621,146	1
	12/23/2008 21:30	12/24/2008 23:15	1,545	2.12	976,199	2.76	0.69	24	Atlas		2,069,542	1
	12/28/2008 0:15	12/28/2008 3:30	195	0.51	890,053	2.65	0.34	3	Atlas		453,927	1
	1/3/2009 16:15	1/3/2009 17:15	60	0.15	301,387	0.60	0.08	3	Atlas		45,208	1
	1/6/2009 14:15	1/6/2009 20:45	390	0.18	1,108,333	0.40	0.07	12	Atlas		199,500	1
	1/10/2009 6:15	1/10/2009 10:15	240	0.47	410,196	1.08	0.29	3	Atlas		192,792	1
	1/27/2009 17:45	1/28/2009 17:30	1,425	1.76	536,979	1.82	0.57	24	Atlas		945,083	1
	2/10/2009 5:15	2/10/2009 6:30	75	0.92	52,321	0.34	0.31	24	Atlas		48,135	1
	2/10/2009 18:15	2/10/2009 20:45	150	0.92	55,174	0.78	0.31	24	Atlas		50,760	1
	2/11/2009 5:00	2/11/2009 17:30	750	0.92	309,828	1.12	0.31	24	Atlas		285,042	1
	2/18/2009 4:15	2/18/2009 6:00	105	0.21	169,248	0.46	0.11	1	Atlas		35,542	1
	2/21/2009 14:15	2/21/2009 15:45	90	0.23	274,183	0.48	0.10	6	Atlas		63,062	1
	2/26/2009 8:15	2/26/2009 10:45	150	0.25	122,624	0.46	0.14	6	Atlas		30,656	1
	2/27/2009 0:00	2/27/2009 9:30	570	0.78	199,599	1.26	0.45	3	Atlas		155,687	1
	3/28/2009 20:30	3/28/2009 21:45	75	0.48	240,429	1.02	0.31	1	Atlas		115,406	1
	4/2/2009 19:15	4/3/2009 5:45	630	1.03	2,553,044	1.59	0.47	12	Atlas		2,629,635	1
	4/5/2009 17:15	4/5/2009 19:30	135	0.30	445,033	1.38	0.19	3	Atlas		133,510	1
	4/10/2009 11:30	4/10/2009 21:45	615	0.34	355,853	0.69	0.14	12	Atlas		120,990	1
	4/13/2009 16:00	4/13/2009 23:00	420	0.82	290,028	1.24	0.37	12	Atlas		237,823	1
	4/19/2009 7:45	4/20/2009 0:45	1,020	1.31	1,998,322	2.17	0.50	24	Atlas		2,617,802	1
	4/28/2009 8:30	4/28/2009 10:15	105	0.24	942,971	0.25	0.14	3	Atlas		226,313	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/1/2009 1:15	5/1/2009 2:30	75	0.03	8,344,433	0.37	0.02	1	Atlas		250,333	1
	6/4/2009 11:00	6/4/2009 11:45	45	0.24	142,317	0.38	0.11	12	Atlas		34,156	1
	6/10/2009 9:45	6/10/2009 13:45	240	0.84	170,114	1.16	0.43	3	Atlas		142,896	1
	6/11/2009 2:30	6/11/2009 6:15	225	1.34	122,816	2.09	0.57	3	Atlas		164,573	1
	6/11/2009 17:30	6/11/2009 22:00	270	1.34	102,052	2.24	0.57	3	Atlas		136,750	1
	6/16/2009 9:00	6/16/2009 17:15	495	1.23	299,433	3.93	0.89	1	Atlas		368,302	1
	6/18/2009 9:45	6/18/2009 18:45	540	1.43	410,300	3.57	0.90	1	Atlas		586,729	1
	6/20/2009 4:15	6/20/2009 5:00	45	0.14	151,950	3.31	0.11	1	Atlas		21,273	1
	6/21/2009 10:15	6/21/2009 10:30	15	0.11	26,791	3.33	0.07	1	Atlas		2,947	1
	6/22/2009 10:15	6/22/2009 11:30	75	1.01	36,406	4.27	0.71	1	Atlas		36,770	1
	6/26/2009 4:00	6/26/2009 6:30	150	1.33	69,595	2.59	0.61	12	Atlas		92,561	1
	7/8/2009 6:30	7/8/2009 7:00	30	0.13	153,577	0.47	0.11	1	Atlas		19,965	1
	7/15/2009 10:30	7/15/2009 12:00	90	0.36	116,444	0.40	0.23	3	Atlas		41,920	1
	7/17/2009 3:45	7/17/2009 4:45	60	0.38	56,647	0.77	0.25	3	Atlas		21,526	1
	7/22/2009 6:15	7/22/2009 20:00	825	1.55	380,585	2.29	0.67	12	Atlas		589,907	1
	7/25/2009 6:15	7/25/2009 22:30	975	0.84	514,370	2.39	0.32	24	Atlas		432,071	1
	7/28/2009 13:30	7/28/2009 14:15	45	2.11	25,501	2.60	0.97	6	Atlas		53,808	1
	7/28/2009 23:45	7/29/2009 23:15	1,410	2.11	5,694,028	4.47	0.97	6	Atlas		12,014,399	1
	7/30/2009 17:00	8/1/2009 0:00	1,860	1.61	6,387,707	4.57	0.69	6	Atlas		10,284,209	1
	8/4/2009 7:15	8/7/2009 20:00	5,085	5.23	5,851,920	8.98	341.58	3	Cloudburst		30,605,542	1
	8/10/2009 18:45	8/11/2009 12:15	1,050	1.30	4,994,975	6.53	0.83	3	Atlas		6,493,467	1
	8/20/2009 9:15	8/20/2009 10:00	45	0.27	430,974	0.28	0.18	3	Atlas		116,363	1
	8/29/2009 0:30	8/29/2009 2:15	15	0.08	369,738	0.53	0.06	1	Atlas		29,579	1
	9/6/2009 1:45	9/6/2009 2:15	30	0.29	45,372	0.32	0.19	3	Atlas		13,158	1
	9/7/2009 7:00	9/7/2009 7:30	30	0.37	55,532	0.69	0.22	1	Atlas		20,547	1
	9/20/2009 6:00	9/21/2009 9:45	1,665	3.69	206,953	3.71	4.40	24	Cloudburst		763,655	1
	9/22/2009 19:00	9/23/2009 1:15	375	0.62	129,102	4.33	0.32	6	Atlas		80,043	1
	9/24/2009 7:30	9/25/2009 6:30	1,380	0.82	209,240	5.11	0.27	24	Atlas		171,577	1
	9/26/2009 21:30	9/27/2009 0:45	195	0.34	220,182	5.51	0.28	1	Atlas		74,862	1
	10/2/2009 3:30	10/2/2009 8:15	285	0.80	238,193	1.26	0.50	3	Atlas		190,554	1
	10/6/2009 10:30	10/6/2009 12:00	90	0.10	999,120	0.90	0.07	3	Atlas		99,912	1
	10/8/2009 13:00	10/10/2009 19:00	3,240	2.21	642,931	3.12	0.73	24	Atlas		1,420,878	1
	10/14/2009 5:15	10/14/2009 13:30	495	0.72	329,331	2.93	0.47	3	Atlas		237,118	1
	10/15/2009 4:15	10/15/2009 7:00	165	0.15	762,927	3.03	0.10	3	Atlas		114,439	1
	10/23/2009 2:15	10/23/2009 11:15	540	0.56	503,725	0.59	0.24	12	Atlas		282,086	1
	10/27/2009 15:30	10/28/2009 3:00	690	1.09	236,373	1.65	0.49	12	Atlas		257,647	1
	10/30/2009 19:15	10/31/2009 20:45	1,530	0.96	708,482	2.07	0.44	12	Atlas		680,143	1
	11/17/2009 6:45	11/17/2009 23:00	975	1.02	1,309,468	1.02	0.39	24	Atlas		1,335,657	1
	12/2/2009 16:30	12/2/2009 16:45	15	0.30	23,980	0.48	0.14	12	Atlas		7,194	1
	12/8/2009 0:30	12/8/2009 0:45	15	Discharge	-	0.31					8,447	1
	12/8/2009 13:15	12/9/2009 1:15	720	1.74	401,012	1.94	0.72	12	Atlas		697,761	1
	12/25/2009 10:45	12/25/2009 11:30	45	0.27	112,581	0.68	0.10	24	Atlas		30,397	1
	12/31/2009 0:45	12/31/2009 1:15	30	0.07	643,100	0.52	0.04	3	Atlas		45,017	1
	1/17/2010 10:45	1/17/2010 12:45	120	0.27	44,185	0.27	0.12	12	Atlas		11,930	1
	1/20/2010 9:45	1/20/2010 13:00	195	1.36	384,306	0.64	0.44	48	Atlas		522,656	1
	1/21/2010 0:15	1/21/2010 1:00	45	1.36	77,375	0.76	0.44	48	Atlas		105,230	1
	1/21/2010 10:15	1/22/2010 17:00	1,845	1.36	1,574,779	1.64	0.44	48	Atlas		2,141,699	1
	1/24/2010 3:45	1/26/2010 9:45	3,240	0.81	2,661,609	2.58	0.31	24	Atlas		2,155,903	1
	2/5/2010 6:00	2/6/2010 17:30	2,130	1.21	4,604,569	1.37	0.44	12	Atlas		5,571,529	1
	3/12/2010 13:30	3/12/2010 15:00	90	0.25	606,032	0.26	0.16	3	Atlas		151,508	1
	3/21/2010 19:30	3/22/2010 2:00	390	0.51	463,143	0.51	0.23	12	Atlas		236,203	1
	3/25/2010 14:00	3/26/2010 1:00	660	0.48	295,246	1.01	0.25	1	Atlas		141,718	1
	3/28/2010 21:15	3/28/2010 21:30	15	0.19	17,137	0.91	0.07	24	Atlas		3,256	1
	4/3/2010 10:30	4/3/2010 10:30	-	0.08	2,988	0.27	0.05	3	Atlas		239	1
	4/7/2010 23:30	4/8/2010 8:15	525	1.16	680,154	1.25	0.55	6	Atlas		788,979	1
	4/24/2010 3:45	4/24/2010 3:45	-	1.82	521	0.34	0.86	6	Atlas		949	1
	4/24/2010 14:45	4/24/2010 23:30	525	1.82	1,567,877	2.05	0.86	6	Atlas		2,853,536	1
	4/25/2010 17:45	4/25/2010 18:15	30	0.17	54,382	2.20	0.09	3	Atlas		9,245	1
	4/27/2010 7:45	4/27/2010 11:30	225	0.32	1,365,953	2.54	0.15	6	Atlas		437,105	1
	5/1/2010 4:45	5/6/2010 22:30	8,265	3.88	4,431,947	6.08	2.66	48	Cloudburst		17,195,953	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/7/2010 23:15	5/8/2010 0:15	60	0.30	501.890	4.20	0.24	1	Atlas		150.567	1
	5/12/2010 9:45	5/12/2010 12:00	135	0.66	1.692.712	1.03	0.50	1	Atlas		1.117.190	1
	5/16/2010 9:30	5/16/2010 20:00	630	0.49	1.831.051	1.32	0.22	12	Atlas		897.215	1
	5/17/2010 19:45	5/17/2010 21:15	90	0.60	2.554.600	1.91	0.40	1	Atlas		1.532.760	1
	5/21/2010 19:45	5/21/2010 23:00	195	0.99	1.214.029	2.10	0.65	3	Atlas		1.201.889	1
	5/30/2010 16:00	5/30/2010 17:15	75	0.41	724.195	0.38	0.24	1	Atlas		296.920	1
	6/9/2010 3:15	6/9/2010 14:30	675	2.11	420.545	2.24	1.83	3	Atlas		887.350	1
	6/13/2010 22:45	6/14/2010 7:00	495	0.60	1.971.180	3.03	0.28	1	Atlas		1.182.708	1
	6/15/2010 21:00	6/15/2010 21:30	30	0.55	305.333	3.62	0.37	1	Atlas		167.933	1
	6/19/2010 5:15	6/19/2010 10:00	285	0.96	2.680.148	2.17	0.56	3	Atlas		2.572.942	1
	6/28/2010 1:45	6/28/2010 3:15	90	0.45	260.213	0.44	0.33	1	Atlas		117.096	1
	7/9/2010 8:45	7/9/2010 9:00	15	0.52	37.071	0.45	0.20	24	Atlas		19.277	1
	7/13/2010 4:30	7/13/2010 12:00	450	1.66	3.312.481	2.18	0.76	12	Atlas		5.498.719	1
	7/19/2010 19:00	7/19/2010 20:00	60	0.94	318.943	2.07	0.47	1	Atlas		299.806	1
	7/20/2010 4:45	7/20/2010 6:45	120	0.94	2.232.293	2.38	0.47	1	Atlas		2.098.355	1
	7/21/2010 6:00	7/21/2010 6:45	45	0.45	649.918	1.56	0.36	1	Atlas		292.463	1
	7/27/2010 16:00	7/27/2010 16:45	45	0.64	1.260.605	1.15	0.41	3	Atlas		806.787	1
	7/28/2010 16:15	7/28/2010 16:45	30	0.14	681.521	0.85	0.10	1	Atlas		95.413	1
	7/31/2010 4:45	7/31/2010 6:30	105	0.35	1.734.363	1.14	0.19	3	Atlas		607.027	1
	8/5/2010 9:15	8/5/2010 9:45	30	0.22	782.755	0.66	0.17	1	Atlas		172.206	1
	8/14/2010 16:30	8/14/2010 18:00	90	0.74	1.031.543	1.04	0.57	1	Atlas		763.342	1
	8/21/2010 7:00	8/21/2010 9:00	120	0.39	1.361.333	1.35	0.24	3	Atlas		530.920	1
	9/11/2010 5:00	9/11/2010 5:15	15	0.05	555.980	0.12	0.03	3	Atlas		27.799	1
	10/13/2010 18:15	10/13/2010 21:15	180	0.51	239.282	0.54	0.33	3	Atlas		122.034	1
	10/26/2010 11:15	10/26/2010 11:45	30	0.72	113.992	0.45	0.39	6	Atlas		82.074	1
	11/16/2010 10:45	11/16/2010 20:45	600	0.71	458.707	0.81	0.32	12	Atlas		325.682	1
	11/23/2010 2:15	11/23/2010 4:30	135	0.30	120.970	1.05	0.17	3	Atlas		36.291	1
	11/24/2010 12:45	11/24/2010 21:15	510	0.78	99.159	1.14	0.37	3	Atlas		77.344	1
	11/25/2010 9:15	11/26/2010 0:45	930	2.38	302.736	3.43	0.91	24	Atlas		720.512	1
	11/29/2010 20:45	11/30/2010 14:00	1.035	1.60	434.641	5.03	0.62	24	Atlas		695.425	1
	12/30/2010 3:30	12/30/2010 8:30	300	0.51	75.175	0.58	0.23	12	Atlas		38.339	1
	1/1/2011 4:45	1/1/2011 7:45	180	0.54	535.081	1.00	0.24	12	Atlas		288.944	1
	2/1/2011 16:45	2/1/2011 21:00	255	0.93	390.199	0.85	0.36	6	Atlas		362.885	1
	2/7/2011 13:00	2/7/2011 13:30	30	0.21	41.833	1.29	0.08	12	Atlas		8.785	1
	2/21/2011 18:30	2/21/2011 19:00	30	0.20	97.155	0.22	0.12	1	Atlas		19.431	1
	2/24/2011 17:00	2/25/2011 18:15	1.515	2.19	3.251.641	2.42	0.84	24	Atlas		7.121.094	1
	2/28/2011 5:00	2/28/2011 15:30	630	1.37	902.760	3.92	0.67	6	Atlas		1.236.781	1
	3/4/2011 21:45	3/5/2011 20:00	1.335	0.94	3.236.634	2.47	0.32	24	Atlas		3.042.436	1
	3/8/2011 20:45	3/17/2011 13:30	12.525	3.04	25.207.302	4.76	1.82	24	Cloudburst		76.630.198	1
	3/18/2011 21:15	3/19/2011 11:45	870	0.17	2.045.453	0.93	0.10	1	Atlas		347.727	1
	4/1/2011 21:00	4/1/2011 21:15	15	0.16	14.094	0.32	0.10	1	Atlas		2.255	1
	4/4/2011 13:30	4/4/2011 17:30	240	0.83	967.113	1.02	0.42	6	Atlas		802.704	1
	4/9/2011 10:30	4/9/2011 12:15	105	0.55	223.009	1.43	0.38	1	Atlas		122.655	1
	4/11/2011 10:30	4/13/2011 15:00	3.150	3.03	2.695.792	4.41	1.88	24	Cloudburst		8.168.251	1
	4/20/2011 0:15	5/6/2011 14:00	23.865	0.76	384.356.584	12.57	0.42	6	Atlas		292.111.004	1
	5/8/2011 0:45	5/8/2011 2:15	90	0.18	1.766.800	3.55	0.09	3	Atlas		318.024	1
	5/14/2011 15:00	5/14/2011 15:15	15	0.12	463.233	0.31	0.08	1	Atlas		55.588	1
	5/21/2011 18:30	5/21/2011 19:45	75	0.40	325.368	0.75	0.29	1	Atlas		130.147	1
	5/23/2011 4:15	5/23/2011 5:00	45	0.36	157.442	0.85	0.25	1	Atlas		56.679	1
	5/23/2011 17:45	5/23/2011 22:00	255	0.96	316.319	1.83	0.62	3	Atlas		303.666	1
	5/25/2011 23:00	5/26/2011 13:30	870	1.32	540.746	2.91	0.51	24	Atlas		713.785	1
	6/11/2011 4:45	6/11/2011 5:15	30	0.24	184.200	0.28	0.20	1	Atlas		44.208	1
	6/15/2011 9:30	6/15/2011 11:15	105	1.01	3.725.982	1.31	0.64	1	Atlas		3.763.242	1
	6/18/2011 6:45	6/18/2011 9:00	135	0.79	414.082	1.83	0.47	3	Atlas		327.125	1
	6/19/2011 7:45	6/19/2011 9:30	105	0.46	322.476	2.29	0.28	3	Atlas		148.339	1
	6/20/2011 1:30	6/20/2011 2:30	60	0.49	1.539.680	2.78	0.42	1	Atlas		764.443	1
	6/21/2011 14:30	6/21/2011 17:00	150	0.28	259.479	3.02	0.16	3	Atlas		72.654	1
	6/22/2011 19:45	6/23/2011 19:00	1.395	3.91	6.021.230	5.93	26.28	3	Cloudburst		23.543.010	1
	6/26/2011 2:30	6/26/2011 5:15	165	0.30	84.557	5.38	0.16	6	Atlas		25.367	1
	7/8/2011 3:45	7/8/2011 5:15	90	0.37	130.562	0.63	0.19	3	Atlas		48.308	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/12/2011 17:45	7/12/2011 18:15	30	0.41	220.488	0.76	0.21	6	Atlas		90,400	1
	7/19/2011 22:30	7/20/2011 0:00	90	1.60	930.863	1.66	1.17	1	Atlas		1,489,381	1
	8/7/2011 3:15	8/7/2011 7:00	225	1.89	1,444.230	1.95	1.50	3	Atlas		2,729,594	1
	8/13/2011 17:15	8/13/2011 18:00	45	0.84	151.093	2.92	0.67	1	Atlas		126,918	1
	8/18/2011 8:15	8/18/2011 8:45	30	0.57	959.032	1.40	0.48	1	Atlas		546,648	1
	9/4/2011 21:00	9/4/2011 21:15	15	0.11	130.818	0.08	0.04	24	Atlas		14,390	1
	9/10/2011 20:00	9/10/2011 20:30	-	0.03	184.800	0.33	0.02	3	Atlas		5,544	1
	9/11/2011 19:30	9/11/2011 21:00	90	0.33	274.309	0.61	0.21	3	Atlas		90,522	1
	9/19/2011 7:00	9/19/2011 8:15	75	0.74	649.549	0.60	0.30	12	Atlas		480,666	1
	9/23/2011 2:45	9/23/2011 8:15	330	0.82	147.845	1.60	0.38	12	Atlas		121,233	1
	9/25/2011 20:00	9/26/2011 11:00	900	3.32	1,416.664	5.04	5.96	12	Cloudburst		4,703,324	1
	10/13/2011 7:30	10/13/2011 8:30	60	0.47	437.600	0.35	0.25	3	Atlas		205,672	1
	10/27/2011 0:00	10/27/2011 5:15	315	0.99	292.900	1.39	0.42	6	Atlas		289,971	1
	11/3/2011 9:30	11/3/2011 11:45	135	0.65	379.105	0.50	0.29	3	Atlas		246,418	1
	11/14/2011 21:30	11/15/2011 15:00	1,050	2.06	157.220	1.52	0.67	48	Atlas		323,873	1
	11/16/2011 5:30	11/16/2011 11:30	360	2.06	140.062	2.04	0.67	48	Atlas		288,528	1
	11/20/2011 17:30	11/20/2011 18:45	75	0.82	74.538	2.57	0.28	24	Atlas		61,121	1
	11/21/2011 4:15	11/21/2011 9:00	285	0.82	87.980	2.86	0.28	24	Atlas		72,144	1
	11/22/2011 0:15	11/22/2011 12:45	750	1.00	702.500	3.40	0.43	6	Atlas		702,500	1
	11/27/2011 6:15	11/30/2011 3:15	4,140	3.07	5,441.493	4.88	0.95	48	Atlas		16,705,383	1
	12/4/2011 16:30	12/7/2011 2:15	3,465	3.04	8,288.664	5.54	0.99	48	Atlas		25,197,539	1
	12/15/2011 4:00	12/15/2011 8:15	255	0.47	1,259.823	0.44	0.23	6	Atlas		592,117	1
	12/21/2011 5:15	12/21/2011 7:45	150	0.63	3,173.592	1.12	0.29	12	Atlas		1,999,363	1
	12/22/2011 11:45	12/22/2011 18:30	405	0.60	2,675.660	1.20	0.27	12	Atlas		1,605,396	1
	12/27/2011 3:00	12/27/2011 14:00	660	0.75	1,855.356	1.97	0.30	12	Atlas		1,391,517	1
	1/11/2012 5:00	1/11/2012 11:30	390	0.85	648.205	0.72	0.34	6	Atlas		550,974	1
	1/11/2012 20:30	1/11/2012 20:45	15	0.85	9.228	0.84	0.34	6	Atlas		7,844	1
	1/17/2012 4:15	1/17/2012 12:45	510	0.36	953.544	1.31	0.17	12	Atlas		343,276	1
	1/23/2012 2:45	1/23/2012 5:15	150	0.76	145.795	1.12	0.39	3	Atlas		110,804	1
	1/25/2012 18:45	1/25/2012 19:45	60	1.82	18.422	1.04	0.60	24	Atlas		33,528	1
	1/26/2012 5:30	1/26/2012 8:30	180	1.82	722.381	1.51	0.60	24	Atlas		1,314,734	1
	1/26/2012 17:45	1/28/2012 3:00	1,995	1.82	1,972.608	2.60	0.60	24	Atlas		3,590,147	1
	2/4/2012 9:45	2/4/2012 12:15	150	0.39	379.536	0.44	0.21	3	Atlas		148,019	1
	2/22/2012 23:00	2/22/2012 23:30	30	0.16	834.700	0.43	0.12	1	Atlas		133,552	1
	2/29/2012 4:30	2/29/2012 9:30	300	0.51	159.094	0.63	0.23	12	Atlas		81,138	1
	3/8/2012 10:30	3/8/2012 17:45	435	0.75	340.836	1.03	0.36	6	Atlas		255,627	1
	3/15/2012 19:00	3/16/2012 4:00	540	0.95	840.512	1.17	0.42	12	Atlas		798,486	1
	3/17/2012 18:45	3/17/2012 22:45	240	1.08	59.173	2.19	0.68	1	Atlas		63,907	1
	3/23/2012 5:15	3/24/2012 0:30	1,155	1.50	1,519.775	2.58	0.57	24	Atlas		2,279,663	1
	3/28/2012 14:30	3/28/2012 15:00	30	0.07	1,297.443	1.57	0.06	1	Atlas		90,821	1
	3/31/2012 0:00	3/31/2012 0:30	30	0.16	46.675	0.23	0.10	3	Atlas		7,468	1
	4/1/2012 7:30	4/1/2012 15:00	450	1.18	3,808.894	1.42	0.63	6	Atlas		4,494,495	1
	4/4/2012 16:15	4/4/2012 17:45	90	0.23	887.483	1.51	0.11	12	Atlas		204,121	1
	4/16/2012 7:00	4/16/2012 7:15	15	0.15	281.513	0.28	0.09	3	Atlas		42,227	1
	4/28/2012 19:15	4/29/2012 0:30	315	0.70	836.746	0.83	0.50	1	Atlas		585,722	1
	4/30/2012 18:00	4/30/2012 18:45	45	0.45	919.573	1.22	0.30	3	Atlas		413,808	1
	5/4/2012 23:45	5/5/2012 5:15	330	1.42	716.804	2.60	0.79	3	Atlas		1,017,861	1
	5/13/2012 2:00	5/13/2012 16:30	870	1.97	1,521.398	2.02	0.77	12	Atlas		2,997,155	1
	5/16/2012 17:45	5/16/2012 18:45	60	0.26	3,270.031	2.23	0.21	1	Atlas		850,208	1
	5/29/2012 6:45	5/29/2012 15:00	495	2.22	658.680	2.22	4.14	3	Atlas		1,462,270	1
	5/31/2012 18:45	6/1/2012 6:15	690	1.24	217.681	3.43	0.54	12	Atlas		269,925	1
	6/17/2012 12:00	6/17/2012 14:45	165	0.48	213.931	0.77	0.31	1	Atlas		102,687	1
	7/1/2012 20:00	7/1/2012 20:30	30	0.39	379.346	0.32	0.27	1	Atlas		147,945	1
	7/14/2012 12:30	7/14/2012 15:00	150	0.81	1,216.506	0.93	0.51	3	Atlas		985,370	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.57	3,185.488	1.40	0.46	1	Atlas		1,815,728	1
	7/26/2012 21:30	7/26/2012 22:00	30	0.20	1,069.690	0.26	0.11	1	Atlas		213,938	1
	7/27/2012 21:15	7/27/2012 21:15	75	0.62	1,793.926	0.92	0.41	3	Atlas		1,112,234	1
	8/5/2012 23:15	8/5/2012 23:30	15	0.08	762.263	0.39	0.06	1	Atlas		60,981	1
	8/16/2012 20:15	8/16/2012 23:45	210	0.55	856.076	0.67	0.33	3	Atlas		470,842	1
	8/21/2012 14:00	8/21/2012 14:15	15	0.09	99.533	0.65	0.07	1	Atlas		8,958	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/1/2012 15:15	9/1/2012 18:00	165	1.00	255,963	0.34	0.32	48	Atlas		255,963	1
	9/2/2012 12:00	9/2/2012 22:30	630	1.00	666,842	1.02	0.32	48	Atlas		666,842	1
	9/5/2012 15:45	9/5/2012 17:15	90	0.84	144,817	1.96	0.67	1	Atlas		121,646	1
	9/7/2012 23:15	9/8/2012 7:15	480	1.21	257,182	3.16	0.67	3	Atlas		311,190	1
	9/25/2012 9:30	9/25/2012 9:45	15	0.43	30,679	0.33	0.23	6	Atlas		13,192	1
	9/26/2012 0:15	9/26/2012 6:00	345	0.40	155,773	0.76	0.18	12	Atlas		62,309	1
	9/26/2012 20:00	9/27/2012 1:45	345	1.61	360,150	2.42	0.86	6	Atlas		579,842	1
	10/1/2012 14:45	10/1/2012 19:45	300	0.76	610,512	3.17	0.32	12	Atlas		463,989	1
	10/18/2012 1:30	10/18/2012 2:00	30	0.22	110,777	0.38	0.14	3	Atlas		24,371	1
	10/26/2012 14:45	10/26/2012 16:15	90	0.75	145,637	0.65	0.34	6	Atlas		109,228	1
	12/2/2012 11:45	12/2/2012 11:45	-	0.21	27,543	0.27	0.13	1	Atlas		5,784	1
	12/4/2012 15:30	12/4/2012 19:15	225	0.52	324,310	0.73	0.33	3	Atlas		168,641	1
	12/7/2012 4:15	12/7/2012 18:30	855	1.12	867,571	1.85	0.47	12	Atlas		971,680	1
	12/8/2012 5:45	12/8/2012 6:45	60	0.40	398,848	2.14	0.21	6	Atlas		159,539	1
	12/10/2012 0:15	12/10/2012 1:15	60	1.17	32,480	3.10	0.56	3	Atlas		38,002	1
	12/15/2012 11:30	12/15/2012 12:30	60	0.17	199,594	1.34	0.10	3	Atlas		33,931	1
	12/17/2012 17:15	12/17/2012 17:30	15	0.18	44,067	0.34	0.08	6	Atlas		7,932	1
	12/20/2012 6:45	12/20/2012 12:45	360	0.65	184,300	1.00	0.36	6	Atlas		119,795	1
	12/26/2012 5:15	12/26/2012 12:15	420	0.79	523,637	1.49	0.31	12	Atlas		413,673	1
	1/11/2013 5:45	1/11/2013 8:15	150	0.61	305,307	0.76	0.33	6	Atlas		186,237	1
	1/13/2013 3:15	1/14/2013 9:45	1,830	2.12	967,300	2.87	0.81	24	Atlas		2,050,676	1
	1/30/2013 4:45	1/30/2013 9:45	300	0.93	402,720	1.16	0.47	6	Atlas		374,530	1
	1/30/2013 18:00	1/30/2013 18:00	-	0.93	2,027	1.22	0.47	6	Atlas		1,885	1
	2/22/2013 0:30	2/22/2013 1:30	60	0.40	545,745	0.71	0.18	12	Atlas		218,298	1
	2/26/2013 13:45	2/26/2013 20:00	375	0.64	192,359	1.02	0.25	24	Atlas		123,110	1
	3/5/2013 16:30	3/5/2013 18:45	135	0.44	164,445	0.56	0.17	24	Atlas		72,356	1
	3/11/2013 3:45	3/11/2013 13:45	600	1.01	281,196	1.48	0.41	12	Atlas		284,008	1
	3/17/2013 10:45	3/18/2013 13:00	1,575	1.75	596,445	2.77	0.57	48	Atlas		1,043,779	1
	3/24/2013 8:00	3/24/2013 17:15	555	0.45	500,247	1.74	0.17	24	Atlas		225,111	1
	4/11/2013 5:45	4/12/2013 1:30	1,185	1.21	428,190	1.21	0.47	24	Atlas		518,110	1
	4/16/2013 20:30	4/16/2013 21:15	45	0.55	248,802	1.72	0.43	1	Atlas		136,841	1
	4/19/2013 1:45	4/19/2013 5:45	240	0.87	1,447,031	1.43	0.48	6	Atlas		1,258,917	1
	4/24/2013 7:15	4/24/2013 10:45	210	0.68	1,953,032	1.59	0.37	3	Atlas		1,328,062	1
	4/28/2013 9:15	4/28/2013 9:15	-	0.01	94,100	0.77	0.01	1	Atlas		941	1
	5/4/2013 21:15	5/5/2013 9:00	705	1.33	601,423	1.24	0.40	24	Atlas		799,892	1
	5/6/2013 17:30	5/6/2013 17:30	-	1.33	3,427	1.43	0.40	24	Atlas		4,558	1
	5/10/2013 12:30	5/11/2013 1:00	750	0.87	1,273,995	2.34	0.38	6	Atlas		1,108,376	1
	5/16/2013 10:30	5/16/2013 11:00	30	0.20	476,040	1.11	0.17	1	Atlas		95,208	1
	5/22/2013 16:00	5/22/2013 17:45	105	0.19	1,072,053	0.40	0.13	3	Atlas		203,690	1
	5/31/2013 18:45	5/31/2013 18:45	-	0.27	45,678	0.36	0.12	12	Atlas		12,333	1
	6/10/2013 0:15	6/10/2013 1:00	45	0.31	530,787	0.25	0.14	6	Atlas		164,544	1
	6/16/2013 17:00	6/16/2013 18:00	60	0.44	291,936	0.73	0.29	1	Atlas		128,452	1
	6/17/2013 16:30	6/17/2013 22:30	360	1.38	2,801,176	1.79	0.77	1	Atlas		3,865,623	1
	6/21/2013 19:00	6/21/2013 19:30	30	0.16	1,519,288	2.00	0.11	1	Atlas		243,086	1
	6/23/2013 12:00	6/23/2013 12:15	15	0.48	13,885	2.34	0.37	1	Atlas		6,665	1
	6/26/2013 3:30	6/26/2013 5:45	135	3.29	285,756	1.40	4.06	1	Atlas		940,138	1
	6/26/2013 16:15	6/27/2013 14:00	1,305	3.29	1,683,002	4.00	4.06	1	Atlas		5,537,075	1
	6/29/2013 19:45	6/29/2013 22:30	165	0.45	1,267,547	4.28	0.24	6	Atlas		570,396	1
	6/30/2013 19:00	6/30/2013 19:00	-	0.24	138,025	4.05	0.19	1	Atlas		33,126	1
	7/1/2013 19:15	7/1/2013 19:30	15	0.21	516,005	4.19	0.11	3	Atlas		108,361	1
	7/2/2013 13:30	7/2/2013 13:45	15	0.12	118,067	4.32	0.10	1	Atlas		14,168	1
	7/4/2013 7:30	7/4/2013 14:30	420	0.51	756,588	1.46	0.22	12	Atlas		385,860	1
	7/6/2013 1:15	7/6/2013 9:15	480	0.68	1,553,954	2.22	0.30	12	Atlas		1,056,689	1
	7/10/2013 14:15	7/10/2013 15:30	75	0.94	164,544	2.21	0.70	1	Atlas		154,671	1
	7/14/2013 19:30	7/14/2013 20:30	60	0.19	5,457,921	1.20	0.17	1	Atlas		1,037,005	1
	7/21/2013 20:30	7/21/2013 20:45	15	1.97	7,348	0.85	0.76	24	Atlas		14,475	1
	7/22/2013 7:15	7/22/2013 16:45	570	1.97	552,964	2.03	0.76	24	Atlas		1,089,339	1
	8/12/2013 14:45	8/12/2013 15:30	45	0.59	143,707	0.54	0.23	24	Atlas		84,787	1
	8/13/2013 2:30	8/13/2013 3:45	75	0.59	182,144	0.81	0.23	24	Atlas		107,465	1
	8/20/2013 18:15	8/20/2013 18:30	15	0.18	90,822	0.19	0.12	1	Atlas		16,348	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/31/2013 19:45	9/1/2013 3:00	435	1.30	656.025	1.24	0.63	3	Atlas		852,833	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.10	46.390	1.40	0.09	1	Atlas		4,639	1
	9/19/2013 11:15	9/19/2013 11:30	15	0.05	344.120	0.09	0.04	1	Atlas		17,206	1
	9/20/2013 19:30	9/21/2013 4:45	555	1.61	801.673	1.63	0.67	12	Atlas		1,290,694	1
	10/5/2013 13:00	10/6/2013 22:00	1,980	4.40	775.274	4.49	8.39	24	Cloudburst		3,411,205	1
	10/30/2013 1:30	10/30/2013 7:15	345	1.04	64.406	1.04	0.49	6	Atlas		66,982	1
	10/31/2013 20:00	10/31/2013 22:00	120	0.61	28.323	1.58	0.23	24	Atlas		17,277	1
	11/17/2013 4:30	11/18/2013 2:45	1,335	2.78	380.695	2.94	2.00	6	Cloudburst		1,058,333	1
	12/5/2013 5:30	12/5/2013 8:30	180	0.72	428.882	0.14	0.23	48	Atlas		308,795	1
	12/6/2013 11:45	12/6/2013 11:45	-	0.72	1.832	0.39	0.23	48	Atlas		1,319	1
	12/14/2013 9:00	12/14/2013 11:45	165	0.83	581.299	1.02	0.33	12	Atlas		482,478	1
	12/21/2013 5:30	12/21/2013 14:00	510	1.03	1,072.782	1.52	0.47	12	Atlas		1,104,965	1
	12/21/2013 22:15	12/22/2013 23:00	1,485	1.55	687.535	2.66	0.83	3	Atlas		1,065,679	1
	12/29/2013 5:30	12/29/2013 7:15	105	0.49	131.408	0.43	0.22	12	Atlas		64,390	1
	1/5/2014 15:00	1/5/2014 20:30	330	0.45	360.918	0.62	0.22	6	Atlas		162,413	1
	1/7/2014 1:30	1/7/2014 2:45	75	Discharge	-	0.66					23,900	1
	1/11/2014 0:15	1/11/2014 9:15	540	0.91	261.614	1.37	0.49	6	Atlas		238,069	1
	1/13/2014 15:00	1/13/2014 17:45	165	0.22	70.123	1.14	0.11	3	Atlas		15,427	1
	2/2/2014 4:15	2/2/2014 7:45	210	0.43	146.465	0.18	0.16	24	Atlas		62,980	1
	2/4/2014 19:00	2/5/2014 10:30	930	0.51	503.741	0.94	0.25	6	Atlas		256,908	1
	2/14/2014 17:00	2/14/2014 18:00	60	0.46	30.089	0.39	0.24	6	Atlas		13,841	1
	2/17/2014 16:30	2/17/2014 19:15	165	0.47	162.089	0.99	0.29	3	Atlas		76,182	1
	2/20/2014 20:45	2/21/2014 0:00	195	0.21	239.090	1.20	0.11	6	Atlas		50,209	1
	3/2/2014 9:45	3/2/2014 11:45	120	0.47	141.440	0.24	0.18	24	Atlas		66,477	1
	3/12/2014 7:30	3/12/2014 7:45	15	0.09	35.178	0.08	0.04	12	Atlas		3,166	1
	3/28/2014 4:45	3/28/2014 5:15	30	0.23	1,365.048	0.29	0.11	6	Atlas		313,961	1
	3/29/2014 6:30	3/29/2014 13:45	435	1.00	752.182	1.29	0.46	6	Atlas		752,182	1
	4/3/2014 5:45	4/5/2014 22:30	3,885	2.55	919.625	3.90	0.89	24	Atlas		2,345,045	1
	4/7/2014 8:15	4/7/2014 23:00	885	0.84	841.627	3.49	0.50	1	Atlas		706,967	1
	4/8/2014 16:45	4/8/2014 17:00	15	0.14	95.700	3.58	0.10	1	Atlas		13,398	1
	4/14/2014 3:45	4/14/2014 10:45	420	0.36	164.600	1.33	0.18	6	Atlas		59,256	1
	4/14/2014 19:30	4/15/2014 3:45	495	0.61	1,818.270	1.11	0.28	12	Atlas		1,109,145	1
	4/27/2014 19:15	4/28/2014 21:45	1,590	2.03	645.689	2.12	0.75	3	Atlas		1,310,748	1
	5/9/2014 19:15	5/10/2014 18:15	1,380	1.66	1,073.523	1.73	0.64	24	Atlas		1,782,048	1
	5/14/2014 7:00	5/15/2014 1:30	1,110	1.03	1,398.650	2.81	0.40	24	Atlas		1,440,610	1
	5/21/2014 21:00	5/22/2014 4:15	435	0.71	849.327	0.86	0.33	12	Atlas		603,022	1
	5/29/2014 20:45	5/29/2014 22:45	120	0.74	3,675.004	0.94	0.63	1	Atlas		2,719,503	1
	6/11/2014 14:15	6/11/2014 15:00	45	0.09	2,030.856	0.33	0.04	1	Atlas		182,777	1
	6/24/2014 13:45	6/24/2014 14:00	15	0.14	122.507	0.24	0.09	1	Atlas		17,151	1
	6/27/2014 18:15	6/27/2014 18:30	15	0.13	260.685	0.30	0.07	6	Atlas		33,889	1
	7/2/2014 16:45	7/2/2014 17:00	15	0.15	209.453	0.53	0.12	1	Atlas		31,418	1
	7/7/2014 19:30	7/7/2014 20:15	45	0.74	842.453	1.09	0.64	1	Atlas		623,415	1
	7/13/2014 23:15	7/13/2014 23:30	15	0.59	32.993	1.43	0.27	3	Atlas		19,466	1
	7/14/2014 19:30	7/14/2014 20:45	75	0.30	1,007.417	1.36	0.20	3	Atlas		302,225	1
	7/26/2014 21:45	7/27/2014 9:45	720	0.98	459.559	1.01	0.43	12	Atlas		450,368	1
	8/8/2014 6:00	8/8/2014 8:15	135	0.89	677.603	0.65	0.43	6	Atlas		603,067	1
	8/10/2014 4:15	8/10/2014 4:45	30	0.44	1,011.405	1.40	0.37	1	Atlas		445,018	1
	8/11/2014 15:30	8/11/2014 16:00	30	0.22	1,135.568	1.61	0.16	1	Atlas		249,825	1
	8/17/2014 0:45	8/17/2014 0:45	-	0.66	42.820	0.96	0.25	24	Atlas		28,261	1
	8/17/2014 9:45	8/17/2014 10:45	60	0.66	427.717	0.77	0.25	24	Atlas		282,293	1
	8/22/2014 19:30	8/22/2014 19:45	15	0.45	104.664	1.04	0.32	1	Atlas		47,099	1
	8/23/2014 16:15	8/23/2014 22:15	360	0.49	126.139	1.57	0.25	3	Atlas		61,808	1
	8/27/2014 15:00	8/27/2014 17:30	150	0.21	587.310	1.21	0.13	1	Atlas		123,335	1
	8/30/2014 15:45	8/30/2014 16:30	45	0.51	254.535	1.06	0.31	1	Atlas		129,813	1
	9/2/2014 9:00	9/2/2014 9:30	30	0.40	18.233	1.16	0.25	3	Atlas		7,293	1
	9/11/2014 0:45	9/11/2014 7:00	375	1.95	570.757	1.91	1.60	3	Atlas		1,112,976	1
	9/28/2014 20:00	9/28/2014 20:15	15	0.07	186.371	0.07	0.06	1	Atlas		13,046	1
	10/6/2014 9:30	10/6/2014 10:15	45	0.45	178.644	0.63	0.28	1	Atlas		80,390	1
	10/10/2014 2:00	10/10/2014 3:45	105	1.02	276.843	1.65	0.49	3	Atlas		282,380	1
	10/10/2014 21:30	10/10/2014 21:45	15	1.02	9.307	1.69	0.49	3	Atlas		9,493	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/13/2014 4:45	10/13/2014 7:00	135	0.46	90.787	2.16	0.29	3	Atlas		41.762	1
	10/14/2014 0:15	10/14/2014 11:15	660	1.04	176.193	2.77	0.47	12	Atlas		183.241	1
	11/23/2014 17:45	11/23/2014 20:30	165	0.85	207.185	1.12	0.39	6	Atlas		176.107	1
	12/1/2014 2:30	12/1/2014 5:00	150	0.80	76.038	0.38	0.30	24	Atlas		60.830	1
	12/1/2014 14:45	12/1/2014 16:15	90	0.80	54.906	0.74	0.30	24	Atlas		43.925	1
	12/6/2014 6:15	12/6/2014 6:45	30	1.79	6.050	1.21	0.58	48	Atlas		10.830	1
	12/6/2014 20:45	12/6/2014 10:30	825	1.79	166.925	2.59	0.58	48	Atlas		298.796	1
	12/16/2014 5:15	12/16/2014 5:30	15	0.14	149.543	0.13	0.09	1	Atlas		20.936	1
	12/22/2014 23:45	12/23/2014 0:00	15	0.26	40.046	0.39	0.16	3	Atlas		10.412	1
	12/24/2014 13:45	12/24/2014 14:15	30	0.17	3.953	0.42	0.08	12	Atlas		672	1
	12/28/2014 1:45	12/28/2014 2:00	15	0.31	23.984	0.80	0.12	12	Atlas		7.435	1
	1/3/2015 11:00	1/3/2015 11:00	-	0.38	18.808	0.37	0.14	24	Atlas		7.147	1
	1/4/2015 3:45	1/4/2015 4:00	15	0.38	3.418	0.39	0.14	24	Atlas		1.299	1
	2/1/2015 13:15	2/1/2015 18:00	285	0.38	70.153	0.51	0.17	12	Atlas		26.658	1
	2/21/2015 14:15	2/21/2015 17:15	180	1.09	161.067	1.27	0.42	12	Atlas		175.563	1
	3/3/2015 19:00	3/5/2015 20:45	2,985	1.67	666.932	1.78	0.55	24	Atlas		1,113.777	1
	3/24/2015 20:30	3/24/2015 20:30	-	0.12	127.133	0.28	0.06	1	Atlas		15.256	1
	3/26/2015 4:30	3/26/2015 6:45	135	0.40	866.858	0.56	0.16	12	Atlas		346.743	1
	4/2/2015 10:00	4/5/2015 12:45	4,485	4.03	3,638.340	4.18	3.72	24	Cloudburst		14,662.509	1
	4/8/2015 7:30	4/8/2015 22:00	3,750	0.01	619,298.300	4.99	0.01	1	Atlas		6,192.983	1
	4/9/2015 11:30	4/9/2015 14:45	195	0.15	1,765.167	4.80	0.12	1	Atlas		264.775	1
	4/10/2015 2:15	4/10/2015 5:15	180	0.16	1,296.906	2.92	0.11	3	Atlas		207.505	1
	4/25/2015 9:15	4/25/2015 9:45	30	0.12	481.983	0.91	0.05	12	Atlas		57.838	1
	4/25/2015 19:00	4/25/2015 19:30	30	0.25	396.964	1.12	0.18	1	Atlas		99.241	1
	5/16/2015 13:30	5/16/2015 13:30	-	0.36	2.836	0.41	0.21	3	Atlas		1.021	1
	5/17/2015 14:15	5/17/2015 14:45	30	0.08	7,584.950	0.53	0.05	1	Atlas		606.796	1
	5/25/2015 7:00	5/25/2015 7:15	15	0.28	163.443	0.20	0.13	3	Atlas		45.764	1
	5/26/2015 13:45	5/26/2015 14:30	45	0.50	3,466.828	0.74	0.39	1	Atlas		1,733.414	1
	5/27/2015 13:45	5/27/2015 14:15	30	0.08	3,420.200	0.87	0.07	1	Atlas		273.616	1
	6/8/2015 8:30	6/8/2015 8:45	15	0.24	128.696	0.24	0.14	3	Atlas		30.887	1
	6/17/2015 4:45	6/17/2015 7:00	135	0.68	2,497.569	0.72	0.39	3	Atlas		1,698.347	1
	6/18/2015 16:30	6/18/2015 20:15	225	1.42	3,057.153	1.20	0.46	48	Atlas		4,341.157	1
	6/19/2015 17:45	6/20/2015 11:45	1,080	1.42	2,879.356	2.20	0.46	48	Atlas		4,088.685	1
	6/26/2015 0:00	6/26/2015 3:00	180	0.36	892.658	1.51	0.19	6	Atlas		321.357	1
	6/26/2015 17:00	6/27/2015 1:30	510	0.84	2,629.106	2.30	0.47	1	Atlas		2,208.449	1
	6/29/2015 14:00	6/29/2015 14:00	-	0.15	32.247	1.35	0.08	1	Atlas		4.837	1
	7/2/2015 0:45	7/2/2015 2:30	105	1.77	68.621	1.99	0.67	24	Atlas		121.459	1
	7/2/2015 15:15	7/2/2015 23:00	465	1.77	3,444.921	3.13	0.67	24	Atlas		6,097.510	1
	7/3/2015 15:30	7/3/2015 19:15	225	0.25	138.144	3.00	0.13	6	Atlas		34.536	1
	7/7/2015 11:45	7/7/2015 15:15	210	0.72	644.294	2.55	0.30	6	Atlas		463.892	1
	7/8/2015 0:15	7/8/2015 0:45	30	0.72	243.392	2.61	0.30	6	Atlas		175.242	1
	7/8/2015 12:15	7/8/2015 13:15	60	0.72	320.303	2.74	0.30	6	Atlas		230.618	1
	7/9/2015 6:15	7/9/2015 14:00	465	0.34	919.682	2.38	0.20	1	Atlas		312.692	1
	7/10/2015 10:30	7/10/2015 17:00	390	0.36	707.611	1.70	0.17	6	Atlas		254.740	1
	7/12/2015 6:00	7/12/2015 6:00	-	1.86	28.969	2.63	2.66	1	Atlas		53.882	1
	11/6/2015 4:30	11/6/2015 5:45	75	0.79	113.276	0.88	0.49	3	Atlas		89.488	1
	11/9/2015 19:30	11/9/2015 22:45	195	0.55	489.400	1.34	0.24	12	Atlas		269.170	1
	11/12/2015 0:00	11/12/2015 1:45	105	0.31	510.871	1.64	0.18	3	Atlas		158.370	1
	11/18/2015 9:00	11/18/2015 20:30	690	1.51	511.932	1.96	0.78	6	Atlas		773.017	1
	11/21/2015 15:00	11/21/2015 15:30	30	0.09	291.411	1.74	0.08	1	Atlas		26.227	1
	11/28/2015 12:45	11/28/2015 21:30	525	0.63	541.259	0.80	0.26	12	Atlas		340.993	1
	11/30/2015 21:45	12/1/2015 6:30	525	0.68	593.457	1.48	0.31	12	Atlas		403.551	1
	12/14/2015 5:15	12/14/2015 7:15	120	0.24	364.008	0.19	0.13	3	Atlas		87.362	1
	12/21/2015 11:15	12/21/2015 11:45	30	0.67	47.442	0.17	0.33	1	Atlas		31.786	1
	12/21/2015 23:30	12/22/2015 5:15	345	0.67	238.767	0.69	0.33	1	Atlas		159.974	1
	12/23/2015 19:30	12/24/2015 1:00	330	0.81	477.768	1.52	0.63	1	Atlas		386.992	1
	12/25/2015 9:15	12/25/2015 9:45	30	0.11	307.982	1.60	0.07	3	Atlas		33.878	1
	12/26/2015 12:15	12/26/2015 18:15	360	0.34	556.515	1.96	0.16	12	Atlas		189.215	1
	12/27/2015 10:00	12/30/2015 14:15	4,575	1.96	10,215.586	3.92	0.65	3	Atlas		20,022.548	1
	2/2/2016 14:45	2/3/2016 7:45	1,020	1.51	938.607	1.57	0.69	12	Atlas		1,417.296	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/21/2016 4:15	2/21/2016 11:45	450	0.94	643.366	1.12	0.43	12	Atlas		604,764	1
	2/23/2016 22:30	2/25/2016 9:30	2,100	1.99	5,026.061	2.93	0.77	12	Atlas		10,001,862	1
	3/1/2016 12:00	3/1/2016 14:45	165	0.34	2,840.853	2.33	0.19	3	Atlas		965,890	1
	3/9/2016 15:45	3/9/2016 17:00	75	1.12	187.823	0.31	0.36	48	Atlas		210,362	1
	3/10/2016 13:30	3/10/2016 21:30	480	1.12	1,703.926	1.16	0.36	48	Atlas		1,908,397	1
	3/12/2016 20:00	3/13/2016 0:45	285	0.81	694.036	1.62	0.30	24	Atlas		562,169	1
	3/13/2016 9:00	3/13/2016 13:45	285	0.81	2,176.233	1.95	0.30	24	Atlas		1,762,749	1
	3/24/2016 17:30	3/24/2016 18:30	60	0.29	5,312.900	0.34	0.19	1	Atlas		1,540,741	1
	3/27/2016 21:30	3/27/2016 23:00	90	0.73	164.995	1.02	0.48	3	Atlas		120,446	1
	3/31/2016 2:00	4/1/2016 1:00	1,380	0.99	410.965	2.01	0.38	24	Atlas		406,855	1
	4/11/2016 16:15	4/11/2016 21:00	285	0.86	491.994	0.98	0.38	6	Atlas		423,115	1
	4/21/2016 14:45	4/21/2016 16:15	90	0.30	189.890	0.20	0.11	3	Atlas		56,967	1
	4/22/2016 1:15	4/22/2016 1:15	-	0.30	13.760	0.26	0.11	3	Atlas		4,128	1
	4/26/2016 16:00	4/26/2016 22:15	375	0.34	88.374	0.66	0.17	6	Atlas		30,047	1
	4/27/2016 14:15	4/27/2016 22:45	510	0.63	151.633	1.25	0.29	3	Atlas		95,529	1
	4/30/2016 9:15	4/30/2016 13:30	255	0.50	131.266	1.33	0.19	6	Atlas		65,633	1
	4/30/2016 23:30	4/30/2016 23:30	-	0.50	24.810	1.44	0.19	6	Atlas		12,405	1
	5/1/2016 15:15	5/1/2016 15:15	-	0.20	46.940	1.60	0.13	3	Atlas		9,388	1
	5/4/2016 11:30	5/4/2016 12:00	30	0.17	136.871	1.48	0.11	3	Atlas		23,268	1
	5/7/2016 16:30	5/7/2016 22:30	360	0.51	173.486	1.03	0.26	6	Atlas		88,478	1
	5/10/2016 8:45	5/10/2016 23:00	855	0.75	468.935	1.47	0.28	24	Atlas		351,701	1
	5/11/2016 21:45	5/11/2016 22:45	60	0.19	270.600	1.47	0.11	3	Atlas		51,414	1
	5/17/2016 7:00	5/17/2016 7:15	15	0.61	29.564	1.36	0.20	24	Atlas		18,034	1
	5/17/2016 20:30	5/17/2016 21:00	30	0.61	46.726	1.05	0.20	24	Atlas		28,503	1
	5/20/2016 13:30	5/20/2016 16:30	180	0.66	613.959	1.27	0.37	3	Atlas		405,213	1
	5/26/2016 13:45	5/26/2016 15:30	105	0.22	525.482	1.01	0.15	3	Atlas		115,606	1
	6/2/2016 15:30	6/2/2016 16:15	45	0.28	172.393	0.43	0.22	1	Atlas		48,270	1
	6/4/2016 16:30	6/4/2016 17:15	45	0.27	465.948	0.60	0.14	3	Atlas		125,806	1
	6/12/2016 17:45	6/12/2016 18:30	45	0.18	5,689.200	0.21	0.16	1	Atlas		1,024,056	1
	6/14/2016 16:30	6/14/2016 19:00	150	0.90	832.479	1.07	0.58	3	Atlas		749,231	1
	6/15/2016 13:30	6/15/2016 13:45	15	0.13	130.454	1.21	0.10	1	Atlas		16,959	1
	6/22/2016 8:45	6/22/2016 11:00	135	0.39	49.059	0.51	0.24	3	Atlas		19,133	1
	6/23/2016 16:00	6/23/2016 23:45	465	1.87	1,484.236	2.26	1.00	6	Cloudburst		2,775,522	1
	7/3/2016 10:15	7/3/2016 11:45	90	1.08	134.504	0.31	0.35	48	Atlas		145,264	1
	7/3/2016 20:00	7/3/2016 23:30	210	1.08	30.087	0.66	0.35	48	Atlas		32,494	1
	7/4/2016 8:45	7/4/2016 16:45	480	1.08	33.250	1.07	0.35	48	Atlas		35,910	1
	7/12/2016 10:00	7/12/2016 12:15	135	0.19	383.684	0.33	0.12	3	Atlas		72,900	1
	7/28/2016 3:15	7/28/2016 5:30	135	0.67	512.760	0.80	0.31	6	Atlas		343,549	1
	7/30/2016 14:15	7/30/2016 15:00	45	0.16	1,856.394	1.06	0.14	1	Atlas		297,023	1
	8/1/2016 11:00	8/1/2016 11:45	45	0.56	350.663	1.53	0.41	1	Atlas		196,371	1
	8/9/2016 15:30	8/9/2016 15:45	15	0.20	252.760	0.48	0.08	3	Atlas		50,552	1
	8/15/2016 2:45	8/15/2016 7:45	300	0.91	354.715	1.18	0.49	6	Atlas		322,791	1
	8/17/2016 5:45	8/17/2016 7:45	120	0.65	326.217	1.54	0.29	3	Atlas		212,041	1
	8/20/2016 14:15	8/20/2016 21:15	420	1.23	229.605	2.92	0.57	1	Atlas		282,414	1
	8/31/2016 17:00	8/31/2016 18:15	75	0.48	783.679	0.70	0.37	1	Atlas		376,166	1
	9/10/2016 15:15	9/10/2016 15:30	15	0.22	436.941	0.22	0.15	1	Atlas		96,127	1
	9/28/2016 12:30	9/28/2016 13:15	45	0.38	113.695	0.55	0.20	6	Atlas		43,204	1
	9/30/2016 0:00	9/30/2016 2:45	165	0.64	203.330	1.25	0.35	3	Atlas		130,131	1
	10/20/2016 9:30	10/20/2016 11:30	120	0.52	306.248	0.37	0.23	3	Atlas		159,249	1
	11/28/2016 17:30	11/28/2016 22:15	285	0.72	609.269	0.98	0.32	12	Atlas		438,674	1
	12/6/2016 5:30	12/6/2016 12:45	435	0.78	646.346	0.82	0.36	12	Atlas		504,150	1
	12/17/2016 16:30	12/18/2016 6:00	810	2.71	138.230	2.97	1.95	12	Cloudburst		374,604	1
	12/23/2016 23:00	12/24/2016 1:15	135	0.21	526.890	2.86	0.10	6	Atlas		110,647	1
	12/26/2016 21:00	12/26/2016 21:00	-	0.22	7.545	0.40	0.11	6	Atlas		1,660	1
	1/2/2017 20:00	1/2/2017 20:00	-	0.19	74.237	0.19	0.09	6	Atlas		14,105	1
	1/3/2017 4:15	1/3/2017 5:30	75	0.19	937.174	0.27	0.09	6	Atlas		178,063	1
	1/10/2017 19:45	1/10/2017 20:15	30	0.13	590.369	0.36	0.10	1	Atlas		76,748	1
	1/11/2017 12:30	1/11/2017 13:00	30	0.20	376.440	0.51	0.13	3	Atlas		75,288	1
	1/12/2017 15:30	1/12/2017 19:15	225	0.32	497.978	0.60	0.15	6	Atlas		159,353	1
	1/13/2017 15:45	1/13/2017 16:00	15	0.31	113.429	0.97	0.19	3	Atlas		35,163	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/14/2017 11:30	1/14/2017 15:00	210	0.22	859,141	1.21	0.10	12	Atlas		189,011	1
	1/17/2017 0:00	1/17/2017 4:30	270	0.50	709,422	1.80	0.22	12	Atlas		354,711	1
	1/19/2017 19:00	1/20/2017 6:00	660	1.05	652,175	2.29	0.48	12	Atlas		684,784	1
	2/24/2017 19:00	2/24/2017 19:45	45	0.37	57,430	0.42	0.31	1	Atlas		21,249	1
	2/28/2017 10:15	2/28/2017 10:45	30	0.24	306,246	0.64	0.11	12	Atlas		73,499	1
	3/1/2017 3:00	3/1/2017 10:00	420	1.03	1,463,975	1.70	0.49	6	Atlas		1,507,894	1
	3/7/2017 7:30	3/7/2017 13:00	330	0.31	1,087,145	1.68	0.14	12	Atlas		337,015	1
	3/26/2017 1:15	3/26/2017 2:45	90	0.49	269,804	0.34	0.22	6	Atlas		132,204	1
	3/27/2017 18:00	3/27/2017 19:15	75	0.25	970,264	0.74	0.15	3	Atlas		242,566	1
	3/30/2017 20:30	3/30/2017 20:45	15	0.27	151,259	0.82	0.13	6	Atlas		40,840	1
	4/3/2017 19:30	4/3/2017 19:45	15	0.12	110,150	0.41	0.07	1	Atlas		13,218	1
	4/11/2017 4:45	4/11/2017 4:45	-	0.31	7,519	0.09	0.14	12	Atlas		2,331	1
	4/16/2017 5:30	4/16/2017 21:30	960	1.04	2,584,922	1.31	0.43	6	Atlas		2,688,319	1
	4/21/2017 22:15	4/22/2017 0:45	150	0.56	1,033,255	1.47	0.20	24	Atlas		578,623	1
	4/27/2017 6:45	4/27/2017 7:30	45	0.18	2,598,722	0.75	0.13	1	Atlas		467,770	1
	4/29/2017 0:15	4/29/2017 5:15	300	1.28	3,943,839	1.57	0.67	6	Atlas		5,048,114	1
	5/1/2017 3:45	5/1/2017 4:15	30	0.23	723,339	1.68	0.13	3	Atlas		166,368	1
	5/4/2017 19:45	5/5/2017 13:15	1,050	1.83	857,353	3.28	0.62	24	Atlas		1,568,956	1
	5/11/2017 4:00	5/11/2017 4:15	15	0.14	252,743	1.98	0.08	6	Atlas		35,384	1
	5/20/2017 19:00	5/21/2017 6:30	690	1.10	951,509	1.13	0.50	12	Atlas		1,046,660	1
	5/24/2017 17:15	5/25/2017 3:00	585	0.72	539,700	1.80	0.26	24	Atlas		388,584	1
	5/27/2017 14:00	5/27/2017 14:45	45	0.37	44,803	2.18	0.30	1	Atlas		16,577	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.04	180,375	0.05	0.02	12	Atlas		7,215	1
	6/5/2017 18:00	6/5/2017 18:30	30	0.21	496,129	0.25	0.18	1	Atlas		104,187	1
	6/22/2017 18:45	6/22/2017 19:30	45	0.34	907,456	0.51	0.19	6	Atlas		308,535	1
	6/23/2017 15:00	6/23/2017 18:30	210	0.77	1,240,097	1.29	0.37	6	Atlas		954,875	1
	6/30/2017 21:00	6/30/2017 21:30	30	0.18	1,848,767	0.31	0.15	1	Atlas		332,778	1
	7/6/2017 4:30	7/6/2017 13:30	540	0.48	457,635	0.66	0.20	6	Atlas		219,665	1
	7/7/2017 20:30	7/7/2017 20:30	-	0.12	192,125	0.80	0.08	3	Atlas		23,055	1
	7/28/2017 10:30	7/28/2017 10:30	-	0.42	1,919	1.41	0.30	1	Atlas		806	1
	8/6/2017 17:00	8/7/2017 0:15	435	0.43	767,165	0.58	0.19	12	Atlas		329,881	1
	8/17/2017 15:00	8/17/2017 18:30	210	0.32	1,353,203	0.36	0.18	1	Atlas		433,025	1
	8/22/2017 12:30	8/22/2017 17:00	270	0.44	402,798	0.78	0.24	1	Atlas		177,231	1
	9/1/2017 8:00	9/2/2017 6:45	1,365	3.57	952,244	3.65	3.00	24	Cloudburst		3,399,512	1
	9/12/2017 7:15	9/12/2017 7:15	-	0.30	83,310	0.24	0.15	6	Atlas		24,993	1
	9/19/2017 8:00	9/19/2017 10:15	135	0.41	807,010	0.87	0.27	3	Atlas		330,874	1
	10/7/2017 21:45	10/7/2017 23:30	105	1.74	49,911	0.65	0.66	24	Atlas		86,845	1
	10/8/2017 10:30	10/8/2017 20:00	570	1.74	432,748	1.74	0.66	24	Atlas		752,982	1
	10/10/2017 14:15	10/10/2017 21:15	420	0.68	921,184	2.44	0.35	3	Atlas		626,405	1
	10/23/2017 6:30	10/23/2017 8:00	90	0.53	436,943	0.44	0.28	6	Atlas		231,580	1
	10/27/2017 17:45	10/28/2017 1:15	450	0.89	612,456	1.47	0.41	12	Atlas		545,086	1
	11/3/2017 4:30	11/3/2017 6:45	135	0.86	1,262,727	1.89	0.66	1	Atlas		1,085,945	1
	11/6/2017 1:30	11/6/2017 3:00	90	0.68	135,201	1.68	0.53	1	Atlas		91,937	1
	11/15/2017 13:15	11/15/2017 14:00	45	0.26	833,646	0.27	0.17	1	Atlas		216,748	1
	11/18/2017 16:45	11/18/2017 18:00	75	0.24	297,658	0.49	0.13	3	Atlas		71,438	1
	12/6/2017 3:15	12/6/2017 6:30	195	0.67	310,825	0.68	0.36	3	Atlas		208,253	1
	12/22/2017 23:00	12/23/2017 12:30	810	1.18	201,842	1.18	0.45	24	Atlas		238,173	1
	1/11/2018 9:00	1/11/2018 9:15	15	0.06	510,933	0.14	0.04	3	Atlas		30,656	1
	1/12/2018 4:15	1/12/2018 10:15	360	0.34	283,015	0.36	0.13	24	Atlas		96,225	1
	1/27/2018 14:15	1/27/2018 16:15	120	0.32	491,906	0.44	0.17	3	Atlas		157,410	1
	2/7/2018 1:15	2/7/2018 4:45	210	0.43	254,658	0.66	0.23	6	Atlas		109,503	1
	2/11/2018 4:30	2/11/2018 11:30	420	0.34	253,732	0.87	0.17	3	Atlas		86,269	1
	2/14/2018 7:15	2/14/2018 10:00	165	0.38	221,826	0.75	0.19	3	Atlas		84,294	1
	2/16/2018 2:30	2/16/2018 15:45	795	0.67	3,154,285	1.51	0.31	12	Atlas		2,113,371	1
	2/17/2018 14:00	2/17/2018 18:15	255	0.18	5,025,728	1.65	0.11	3	Atlas		904,631	1
	3/10/2018 0:45	3/10/2018 3:30	165	0.47	1,608,228	0.50	0.29	3	Atlas		755,867	1
	3/19/2018 17:45	3/19/2018 20:00	135	0.32	297,066	0.33	0.19	3	Atlas		95,061	1
	3/24/2018 9:00	3/24/2018 22:45	825	0.87	2,338,926	1.63	0.33	24	Atlas		2,034,866	1
	3/28/2018 5:30	3/28/2018 10:45	315	1.02	235,187	1.46	0.25	48	Atlas		239,891	1
	3/29/2018 19:00	3/29/2018 23:15	255	1.02	600,352	1.75	0.25	48	Atlas		612,359	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/30/2018 7:45	3/30/2018 8:00	15	1.02	18,346	1.94	0.25	48	Atlas		18,713	1
	3/31/2018 22:00	4/1/2018 0:45	165	0.21	1,148,090	1.26	0.11	3	Atlas		241,099	1
	4/1/2018 20:00	4/2/2018 4:15	495	0.68	2,152,479	1.97	0.37	6	Atlas		1,463,686	1
	4/3/2018 2:00	4/4/2018 2:45	1,485	0.07	18,790,086	2.29	0.05	1	Atlas		1,315,306	1
	4/14/2018 9:15	4/14/2018 10:15	60	1.07	159,113	0.25	0.35	24	Atlas		170,251	1
	4/14/2018 22:45	4/15/2018 10:30	705	1.07	543,140	1.10	0.35	24	Atlas		581,160	1
	4/23/2018 5:15	4/23/2018 11:30	375	0.67	110,266	0.80	0.31	12	Atlas		73,878	1
	5/5/2018 13:45	5/5/2018 19:15	330	1.49	358,442	1.40	0.63	6	Atlas		534,079	1
	6/10/2018 14:30	6/10/2018 15:15	45	0.41	317,361	0.20	0.19	12	Atlas		130,118	1
	6/11/2018 11:15	6/11/2018 13:45	150	0.25	1,078,664	0.63	0.17	1	Atlas		269,666	1
	6/20/2018 12:45	6/20/2018 13:00	15	0.37	45,284	0.27	0.24	3	Atlas		16,755	1
	6/22/2018 13:45	6/22/2018 15:00	75	0.40	271,400	0.99	0.21	1	Atlas		108,560	1
	6/25/2018 10:15	6/25/2018 12:15	120	0.88	345,130	1.85	0.36	12	Atlas		303,714	1
	7/15/2018 18:30	7/15/2018 18:45	15	0.13	64,415	0.13	0.06	12	Atlas		8,374	1
	7/16/2018 9:30	7/16/2018 10:00	30	0.17	350,341	0.28	0.13	1	Atlas		59,558	1
	7/20/2018 4:30	7/20/2018 5:15	45	1.45	43,291	0.50	0.78	3	Atlas		62,772	1
	7/20/2018 19:00	7/20/2018 22:15	195	1.45	2,165,543	1.74	0.78	3	Atlas		3,140,037	1
	7/22/2018 16:45	7/22/2018 18:00	75	0.51	1,086,302	2.19	0.37	1	Atlas		554,014	1
	7/30/2018 23:30	7/31/2018 13:30	840	1.99	557,295	2.06	0.87	6	Atlas		1,109,018	1
	8/8/2018 1:00	8/8/2018 3:30	150	0.11	704,973	0.46	0.06	3	Atlas		77,547	1
	8/15/2018 19:45	8/16/2018 15:30	1,185	2.38	732,429	2.39	0.92	24	Atlas		1,743,181	1
	8/19/2018 21:15	8/19/2018 22:00	45	0.20	186,075	2.61	0.16	1	Atlas		37,215	1
	8/20/2018 11:30	8/20/2018 14:15	165	0.34	993,612	2.88	0.23	1	Atlas		337,828	1
	8/31/2018 17:15	8/31/2018 18:45	90	0.42	909,136	0.41	0.28	1	Atlas		381,837	1
	9/6/2018 11:30	9/6/2018 12:15	45	0.46	537,502	0.87	0.37	1	Atlas		247,251	1
	9/8/2018 1:15	9/8/2018 6:00	285	2.43	31,898	0.83	1.11	6	Cloudburst		77,511	1
	9/8/2018 15:45	9/9/2018 10:45	1,140	2.43	1,197,126	2.91	1.11	6	Cloudburst		2,909,017	1
	9/21/2018 17:15	9/21/2018 18:00	45	0.41	60,439	0.47	0.24	1	Atlas		24,780	1
	9/22/2018 15:30	9/22/2018 18:00	150	1.21	80,550	0.83	0.46	24	Atlas		97,466	1
	9/23/2018 4:15	9/23/2018 9:00	285	1.21	467,709	1.66	0.46	24	Atlas		565,928	1
	9/24/2018 0:45	9/25/2018 7:30	1,845	1.30	775,201	3.05	0.57	6	Atlas		1,007,761	1
	9/25/2018 16:30	9/26/2018 10:30	1,080	0.68	3,102,510	3.69	0.30	12	Atlas		2,109,707	1
	10/10/2018 17:45	10/10/2018 17:45	-	0.10	65,240	0.12	0.08	1	Atlas		6,524	1
	10/15/2018 9:00	10/15/2018 9:45	45	0.12	879,658	0.55	0.09	1	Atlas		105,559	1
	10/26/2018 15:15	10/26/2018 16:00	45	0.25	242,452	0.34	0.10	24	Atlas		60,613	1
	10/31/2018 15:00	11/1/2018 20:00	1,740	1.54	786,322	1.81	0.55	24	Atlas		1,210,936	1
	11/5/2018 20:15	11/6/2018 3:15	420	0.82	940,701	2.42	0.44	6	Atlas		771,375	1
	11/14/2018 22:15	11/15/2018 5:30	435	0.43	2,149,098	0.62	0.20	12	Atlas		924,112	1
	11/23/2018 22:15	11/23/2018 22:30	15	0.25	83,856	0.09	0.13	6	Atlas		20,964	1
	11/26/2018 0:15	11/26/2018 0:30	15	0.07	349,200	0.34	0.04	1	Atlas		24,444	1
	12/1/2018 3:15	12/1/2018 20:15	1,020	1.38	824,580	1.51	0.60	12	Atlas		1,137,920	1
	12/20/2018 17:00	12/20/2018 23:45	405	0.51	536,535	2.00	0.20	12	Atlas		273,633	1
	12/27/2018 13:15	12/27/2018 19:30	375	0.29	597,062	0.76	0.18	1	Atlas		173,148	1
	12/31/2018 5:30	1/1/2019 2:00	1,230	1.20	817,352	1.50	0.46	24	Atlas		980,822	1
	1/4/2019 14:15	1/4/2019 23:30	555	0.59	2,632,080	1.79	0.29	3	Atlas		1,552,927	1
	1/19/2019 6:30	1/19/2019 22:00	930	0.77	1,752,581	0.85	0.30	24	Atlas		1,349,487	1
	1/23/2019 8:30	1/24/2019 11:15	1,605	0.82	6,560,117	1.69	0.32	12	Atlas		5,379,296	1
	2/5/2019 23:15	2/6/2019 12:30	795	1.35	1,674,181	0.70	0.43	48	Atlas		2,260,145	1
	2/7/2019 5:30	2/17/2019 14:00	14,910	1.35	52,515,512	4.03	0.43	48	Atlas		70,895,941	1
	2/20/2019 2:45	2/21/2019 23:15	2,670	1.55	7,262,487	1.60	0.72	6	Atlas		11,256,855	1
	2/23/2019 17:00	2/25/2019 3:00	2,040	0.76	9,875,761	2.38	0.42	6	Atlas		7,505,578	1
	2/25/2019 12:30	3/1/2019 17:15	6,045	Discharge	-	2.46					19,869,171	1
	3/7/2019 14:30	3/7/2019 20:30	360	0.10	2,396,190	0.14	0.04	24	Atlas		239,619	1
	3/14/2019 5:30	3/14/2019 8:30	180	0.36	302,350	1.49	0.20	6	Atlas		108,846	1
	3/14/2019 17:00	3/14/2019 21:15	255	0.67	465,336	2.13	0.48	1	Atlas		311,775	1
	3/30/2019 15:45	3/30/2019 21:00	315	0.74	564,454	1.14	0.39	6	Atlas		417,696	1
	4/7/2019 6:45	4/7/2019 14:15	450	0.57	340,896	0.77	0.29	3	Atlas		194,311	1
	4/12/2019 6:00	4/12/2019 6:15	15	0.08	2,503,238	0.67	0.05	3	Atlas		200,259	1
	4/14/2019 1:15	4/14/2019 7:15	360	0.91	343,873	1.61	0.44	6	Atlas		312,924	1
	4/18/2019 22:45	4/18/2019 23:30	45	3.01	4,325	1.44	0.98	48	Atlas		13,018	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2019 18:30	4/21/2019 7:00	2,190	3.01	3,607,134	3.99	0.98	48	Atlas		10,857,473	1
	4/24/2019 20:30	4/24/2019 22:15	105	0.59	1,045,741	3.45	0.32	1	Atlas		616,987	1
	4/25/2019 18:00	4/26/2019 4:30	630	0.43	874,437	4.04	0.23	1	Atlas		376,008	1
	5/3/2019 5:00	5/3/2019 9:30	270	0.95	1,099,032	1.11	0.51	6	Atlas		1,044,080	1
	5/4/2019 17:00	5/4/2019 18:15	75	0.19	561,847	1.27	0.11	3	Atlas		106,751	1
	5/19/2019 13:30	5/19/2019 13:45	15	0.13	312,615	0.18	0.08	1	Atlas		40,640	1
	5/19/2019 23:00	5/19/2019 23:45	45	0.09	3,611,978	0.27	0.08	1	Atlas		325,078	1
	5/26/2019 13:45	5/26/2019 16:00	135	0.69	633,013	0.82	0.43	3	Atlas		436,779	1
	5/29/2019 9:00	5/29/2019 14:15	315	0.64	1,107,314	1.41	0.35	6	Atlas		708,681	1
	5/30/2019 11:15	5/30/2019 12:00	45	0.19	648,379	1.56	0.09	1	Atlas		123,192	1
	6/5/2019 20:45	6/5/2019 22:15	90	0.53	2,007,040	0.70	0.37	1	Atlas		1,063,731	1
	6/7/2019 21:15	6/8/2019 8:45	690	0.60	617,120	1.20	0.26	12	Atlas		370,272	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.30	36,750	1.48	0.15	6	Atlas		11,025	1
	6/9/2019 15:15	6/9/2019 22:30	435	1.03	3,746,359	2.53	0.59	3	Atlas		3,858,750	1
	6/16/2019 5:45	6/16/2019 6:30	45	0.16	1,508,213	1.28	0.11	3	Atlas		241,314	1
	6/16/2019 19:45	6/17/2019 8:45	780	1.23	2,156,437	1.56	0.55	12	Atlas		2,652,417	1
	6/18/2019 4:45	6/18/2019 5:15	30	1.50	55,441	1.66	1.52	1	Atlas		83,161	1
	6/18/2019 16:00	6/18/2019 22:45	405	1.50	4,948,429	3.03	1.52	1	Atlas		7,422,644	1
	6/21/2019 19:30	6/21/2019 22:00	150	0.34	940,765	3.44	0.23	3	Atlas		319,860	1
	6/22/2019 7:15	6/22/2019 10:15	180	0.29	2,058,759	3.60	0.19	3	Atlas		597,040	1
	6/23/2019 16:00	6/23/2019 17:15	75	0.42	425,155	3.79	0.33	1	Atlas		178,565	1
	6/24/2019 13:30	6/24/2019 17:00	210	0.48	3,513,723	3.11	0.30	3	Atlas		1,686,587	1
	7/3/2019 14:00	7/3/2019 14:30	30	0.18	910,628	0.21	0.11	3	Atlas		163,913	1
	7/18/2019 1:00	7/18/2019 1:30	30	0.16	2,748,550	0.29	0.14	1	Atlas		439,768	1
	7/29/2019 23:30	7/30/2019 0:15	45	0.44	370,464	0.44	0.27	3	Atlas		163,004	1
	1/11/2020 10:45	1/12/2020 0:00	795	0.74	34,958	1.12	0.34	6	Atlas		25,869	1
	3/10/2020 7:45	3/16/2020 23:00	9,555	0.46	3,310,220	1.37	0.24	1	Atlas		1,522,701	1
	3/19/2020 12:00	3/19/2020 23:00	660	0.53	605,287	1.78	0.20	24	Atlas		320,802	1
	3/28/2020 22:15	3/28/2020 23:00	45	0.22	78,536	0.41	0.18	1	Atlas		17,278	1
	5/16/2020 3:00	5/17/2020 0:00	1,260	1.05	368,677	1.25	0.40	24	Atlas		387,111	1
	5/23/2020 17:45	5/24/2020 0:00	375	0.22	66,032	0.76	0.13	3	Atlas		14,527	1
	6/4/2020 19:00	6/5/2020 0:00	300	0.46	100,585	0.56	0.26	3	Atlas		46,269	1
	6/21/2020 12:30	6/22/2020 0:00	690	0.37	828,265	0.47	0.21	1	Atlas		306,458	1
	6/22/2020 23:15	6/24/2020 0:00	1,485	0.75	869,456	1.22	0.35	3	Atlas		652,092	1
	6/29/2020 3:30	6/30/2020 0:00	1,230	0.54	324,622	1.58	0.35	1	Atlas		175,296	1
	CSO132 Total										1,026,616,174	607
CSO137	1/11/2014 0:30	1/11/2014 5:30	300	1.08	358,728	1.61	0.58	6	Atlas		387,426	1
	2/2/2014 4:15	2/2/2014 5:45	90	0.16	192,950	0.12	0.09	6	Atlas		30,872	1
	2/4/2014 19:15	2/5/2014 1:15	360	0.48	1,322,838	0.88	0.23	6	Atlas		634,962	1
	2/14/2014 17:15	2/14/2014 18:00	45	0.39	18,767	0.36	0.21	6	Atlas		7,319	1
	2/17/2014 16:30	2/18/2014 10:00	1,050	0.39	2,605,454	0.84	0.23	3	Atlas		1,016,127	1
	2/20/2014 23:15	2/20/2014 23:30	15	0.24	49,475	1.08	0.13	6	Atlas		11,874	1
	3/2/2014 9:45	3/2/2014 11:30	105	0.64	252,380	0.33	0.24	24	Atlas		161,523	1
	3/28/2014 4:45	3/28/2014 5:00	15	0.24	114,550	0.28	0.12	6	Atlas		27,492	1
	3/29/2014 7:00	3/29/2014 12:30	330	1.21	260,041	1.42	0.56	6	Atlas		314,650	1
	4/3/2014 12:15	4/5/2014 13:15	2,940	2.63	1,349,062	4.23	0.92	24	Atlas		3,548,033	1
	4/7/2014 11:00	4/7/2014 12:15	75	0.74	118,339	3.49	0.46	1	Atlas		87,571	1
	4/24/2014 12:30	4/24/2014 14:00	90	Discharge	-	-					55,106	1
	4/27/2014 20:15	4/27/2014 20:30	15	1.75	15,172	0.34	0.65	24	Atlas		26,551	1
	10/6/2014 8:00	10/6/2014 8:00	-	0.14	16,879	0.27	0.05	24	Atlas		2,363	1
	10/7/2014 12:00	10/7/2014 12:00	-	0.16	271,531	0.48	0.13	1	Atlas		43,445	1
	10/10/2014 2:00	10/10/2014 3:15	75	0.82	209,552	1.02	0.36	3	Atlas		171,833	1
	10/13/2014 5:15	10/13/2014 6:00	45	0.50	26,778	1.57	0.33	3	Atlas		13,389	1
	10/13/2014 23:30	10/14/2014 10:15	645	1.21	133,282	2.71	0.54	12	Atlas		161,271	1
	12/1/2014 3:15	12/1/2014 4:45	90	0.73	25,034	0.31	0.28	24	Atlas		18,275	1
	12/5/2014 6:15	12/5/2014 6:30	15	1.84	910	1.23	0.59	48	Atlas		1,674	1
	12/16/2014 20:45	12/17/2014 18:00	2,715	1.84	940,371	2.57	0.59	48	Atlas		1,730,283	1
	12/16/2014 9:30	12/16/2014 11:15	105	0.06	231,533	0.07	0.04	3	Atlas		13,892	1
	12/28/2014 1:15	12/28/2014 1:15	-	0.28	34,379	0.74	0.13	1	Atlas		9,626	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/3/2015 10:45	1/3/2015 11:00	15	0.32	20.788	0.37	0.12	24	Atlas		6,652	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.29	126.903	0.38	0.19	3	Atlas		36,802	1
	10/27/2015 17:00	10/28/2015 6:15	795	2.68	71.262	2.99	0.87	48	Atlas		190,981	1
	10/28/2015 22:30	10/28/2015 22:30	-	0.15	7.680	3.23	0.08	6	Atlas		1,152	1
	11/6/2015 3:15	11/6/2015 4:45	90	0.66	665.339	0.77	0.41	3	Atlas		439,124	1
	CSO137 Total										9,150,268	27
CSO140	8/5/2008 10:00	8/5/2008 10:00	-	0.32	391	1.28	0.16	3	Atlas		125	1
	10/24/2008 5:00	10/24/2008 11:00	360	1.36	5,086	1.05	0.62	12	Atlas		6,917	1
	11/12/2008 23:45	11/12/2008 23:45	-	0.39	2,085	0.42	0.17	3	Atlas		813	1
	11/15/2008 6:00	11/15/2008 6:15	15	1.16	4,059	0.84	0.48	12	Atlas		4,708	1
	12/9/2008 12:30	12/9/2008 22:45	615	1.19	967.340	1.39	0.57	6	Atlas		1,151,135	1
	12/19/2008 6:30	12/19/2008 9:30	180	0.59	84.058	0.91	0.32	6	Atlas		49,594	1
	12/24/2008 4:15	12/24/2008 20:00	945	2.04	458.594	2.75	0.68	24	Atlas		935,531	1
	12/28/2008 0:00	12/28/2008 1:45	105	0.51	241.339	2.51	0.34	3	Atlas		123,083	1
	1/10/2009 7:30	1/10/2009 7:45	15	0.47	5,985	1.03	0.30	3	Atlas		2,813	1
	2/11/2009 4:45	2/11/2009 4:45	-	1.19	18,418	0.91	0.39	48	Atlas		21,917	1
	2/11/2009 13:45	2/11/2009 14:00	15	1.19	20,509	1.16	0.39	48	Atlas		24,406	1
	2/27/2009 3:15	2/27/2009 4:15	60	0.74	362,472	1.06	0.42	3	Atlas		268,229	1
	3/28/2009 20:45	3/28/2009 20:45	-	0.46	8,039	0.96	0.29	1	Atlas		3,698	1
	4/2/2009 21:15	4/3/2009 2:30	315	1.09	183,266	1.58	0.50	12	Atlas		199,760	1
	4/5/2009 17:15	4/5/2009 17:30	15	0.29	618,607	1.38	0.18	3	Atlas		179,396	1
	4/13/2009 20:30	4/13/2009 20:45	15	0.98	116,529	0.97	0.42	1	Atlas		114,198	1
	4/19/2009 13:30	4/19/2009 14:45	75	1.32	14,315	2.05	0.50	24	Atlas		18,896	1
	6/10/2009 9:30	6/10/2009 12:30	180	0.84	13,814	1.08	0.45	3	Atlas		11,604	1
	6/11/2009 2:30	6/11/2009 3:30	60	1.45	12,119	1.73	0.58	3	Atlas		17,573	1
	6/11/2009 17:15	6/11/2009 20:15	180	1.45	13,872	2.30	0.58	3	Atlas		20,115	1
	6/16/2009 16:00	6/16/2009 16:30	30	1.04	15,169	4.02	0.72	1	Atlas		15,776	1
	6/18/2009 10:00	6/18/2009 11:00	60	1.49	492,789	3.67	0.95	1	Atlas		734,256	1
	6/20/2009 4:00	6/20/2009 4:00	-	0.15	29,953	3.37	0.12	1	Atlas		4,493	1
	6/22/2009 8:30	6/22/2009 9:45	75	0.87	215,982	4.22	0.58	1	Atlas		187,904	1
	6/26/2009 3:00	6/26/2009 5:30	150	1.42	178,925	2.44	0.65	12	Atlas		254,073	1
	7/8/2009 6:15	7/8/2009 6:15	-	0.16	42,531	0.52	0.14	1	Atlas		6,805	1
	7/15/2009 10:30	7/15/2009 10:30	-	0.34	38,668	0.17	0.21	3	Atlas		13,147	1
	7/22/2009 8:15	7/22/2009 10:45	150	1.51	91	2.02	0.67	12	Atlas		138	1
	7/30/2009 16:45	7/30/2009 22:45	360	1.43	1,653	4.23	0.60	6	Atlas		2,364	1
	8/4/2009 7:30	8/5/2009 7:45	1,455	5.43	268,294	9.06	416.83	3	Cloudburst		1,456,834	1
	8/10/2009 18:45	8/11/2009 3:30	525	1.07	526,971	6.50	0.67	3	Atlas		563,859	1
	9/6/2009 0:45	9/6/2009 1:00	15	0.23	166,043	0.19	0.17	1	Atlas		38,190	1
	9/25/2009 9:00	9/25/2009 20:15	675	0.77	4,474	4.94	0.27	24	Atlas		3,445	1
	9/26/2009 5:45	9/26/2009 5:45	-	0.01	38,800	4.95	0.01	1	Atlas		388	1
	10/14/2009 5:30	10/14/2009 6:45	75	0.73	64,673	2.84	0.47	3	Atlas		47,211	1
	10/23/2009 6:45	10/23/2009 6:45	-	0.59	7,454	0.56	0.26	12	Atlas		4,398	1
	10/27/2009 20:30	10/28/2009 5:30	540	1.07	129,242	1.66	0.48	12	Atlas		138,289	1
	10/30/2009 21:00	10/31/2009 7:30	630	1.01	220,241	2.10	0.45	12	Atlas		222,443	1
	11/17/2009 18:15	11/17/2009 18:15	-	0.91	2,370	0.76	0.35	24	Atlas		2,157	1
	12/8/2009 17:45	12/9/2009 5:15	690	1.68	54,535	1.98	0.70	12	Atlas		91,618	1
	1/20/2010 23:45	1/21/2010 0:00	15	1.25	73,673	0.75	0.41	48	Atlas		92,091	1
	1/21/2010 14:15	1/22/2010 7:15	1,020	1.25	333,836	1.52	0.41	48	Atlas		417,295	1
	1/24/2010 3:45	1/24/2010 4:00	15	0.91	65,778	1.80	0.35	24	Atlas		59,858	1
	1/24/2010 21:15	1/24/2010 21:30	15	0.91	12,545	2.10	0.35	24	Atlas		11,416	1
	2/5/2010 16:45	2/6/2010 2:45	600	1.25	12,322	1.37	0.46	12	Atlas		15,402	1
	4/8/2010 1:30	4/8/2010 11:00	570	1.19	301,537	1.26	0.56	6	Atlas		358,829	1
	4/24/2010 14:30	4/25/2010 0:15	585	1.56	356,953	1.79	0.72	6	Atlas		556,847	1
	5/1/2010 4:30	5/1/2010 16:00	690	3.92	56,043	3.11	2.79	48	Atlas		219,689	1
	5/2/2010 1:00	5/3/2010 5:15	1,695	3.92	850,481	4.49	2.79	48	Atlas		3,333,886	1
	5/12/2010 9:45	5/12/2010 10:15	30	0.80	225,653	1.15	0.61	1	Atlas		180,522	1
	5/17/2010 19:30	5/17/2010 19:45	15	0.61	323,313	2.12	0.40	3	Atlas		197,221	1
	5/21/2010 19:45	5/22/2010 7:45	720	0.97	1,222,423	2.10	0.70	1	Atlas		1,185,750	1
	5/30/2010 16:15	5/30/2010 20:15	240	0.51	570,996	0.61	0.32	1	Atlas		291,208	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/9/2010 3:30	6/9/2010 17:00	810	2.18	687,675	2.31	1.97	3	Atlas		1,499,131	1
	6/13/2010 22:45	6/14/2010 6:00	435	0.52	192,235	3.04	0.24	12	Atlas		99,962	1
	6/15/2010 20:45	6/15/2010 20:45	-	0.50	9,910	3.54	0.34	1	Atlas		4,955	1
	6/19/2010 5:00	6/19/2010 12:45	465	0.94	1,170,160	2.01	0.55	3	Atlas		1,099,950	1
	6/28/2010 1:30	6/28/2010 1:30	-	0.29	137,783	0.17	0.19	1	Atlas		39,957	1
	7/8/2010 21:45	7/9/2010 3:00	315	0.52	947,450	0.29	0.20	24	Atlas		492,674	1
	7/13/2010 4:00	7/13/2010 19:15	915	1.72	1,065,680	2.24	0.79	12	Atlas		1,832,969	1
	7/19/2010 18:45	7/19/2010 18:45	-	0.17	274,506	1.99	0.13	1	Atlas		46,666	1
	7/20/2010 4:45	7/20/2010 5:45	60	0.67	347,552	2.20	0.45	1	Atlas		232,860	1
	7/21/2010 5:45	7/21/2010 6:00	15	0.38	104,579	1.36	0.30	1	Atlas		39,740	1
	7/27/2010 16:00	7/27/2010 16:15	15	0.88	237,551	1.30	0.62	1	Atlas		209,045	1
	7/31/2010 4:45	7/31/2010 6:00	75	0.37	133,578	1.42	0.21	3	Atlas		49,424	1
	8/5/2010 9:00	8/5/2010 9:15	15	0.22	321,905	0.79	0.17	1	Atlas		70,819	1
	8/14/2010 16:15	8/14/2010 16:45	30	0.69	174,967	0.94	0.55	1	Atlas		120,727	1
	8/21/2010 7:00	8/21/2010 8:15	75	0.35	55,903	1.15	0.21	3	Atlas		19,566	1
	10/13/2010 18:15	10/13/2010 20:15	120	0.47	55,017	0.52	0.31	3	Atlas		25,858	1
	10/26/2010 11:00	10/26/2010 11:00	-	0.65	65,612	0.35	0.36	6	Atlas		42,648	1
	11/16/2010 15:15	11/16/2010 15:15	-	0.76	8,097	0.71	0.34	12	Atlas		6,154	1
	11/23/2010 4:00	11/23/2010 4:00	-	0.29	7,669	1.06	0.16	3	Atlas		2,224	1
	11/24/2010 13:15	11/24/2010 14:45	90	0.80	29,446	1.03	0.37	3	Atlas		23,557	1
	11/25/2010 9:15	11/25/2010 21:30	735	2.34	295,720	3.15	0.90	24	Atlas		691,984	1
	11/26/2010 6:45	11/26/2010 8:00	75	2.34	387	3.43	0.90	24	Atlas		906	1
	11/29/2010 20:30	11/30/2010 9:30	780	1.73	117,314	4.86	0.67	24	Atlas		202,954	1
	1/1/2011 5:45	1/1/2011 5:45	-	0.56	18,341	0.99	0.25	6	Atlas		10,271	1
	2/1/2011 18:30	2/1/2011 19:30	60	0.85	88,318	0.75	0.33	6	Atlas		75,070	1
	2/24/2011 19:45	2/25/2011 14:15	1,110	2.18	1,102,172	2.37	0.84	24	Atlas		2,402,735	1
	2/28/2011 4:45	2/28/2011 17:30	765	1.37	1,228,255	3.85	0.67	6	Atlas		1,682,709	1
	3/5/2011 7:00	3/5/2011 7:15	15	0.86	70,694	2.15	0.28	24	Atlas		60,797	1
	3/8/2011 22:30	3/10/2011 9:00	2,070	3.14	974,761	4.00	2.00	24	Cloudburst		3,060,748	1
	3/15/2011 7:15	3/15/2011 7:15	-	0.80	2,031	3.85	0.26	48	Atlas		1,625	1
	4/4/2011 13:15	4/4/2011 16:15	180	0.86	98,429	1.04	0.44	6	Atlas		84,649	1
	4/9/2011 10:30	4/9/2011 11:15	45	0.55	73,782	1.43	0.38	1	Atlas		40,580	1
	4/11/2011 15:00	4/12/2011 19:00	1,680	3.08	983,918	3.99	1.98	24	Cloudburst		3,030,466	1
	4/20/2011 0:00	4/20/2011 3:45	225	0.72	42,857	1.18	0.39	6	Atlas		30,857	1
	4/22/2011 16:15	4/25/2011 22:30	4,695	4.54	1,900,332	5.62	3.00	48	Atlas		8,627,507	1
	4/27/2011 1:00	4/28/2011 4:45	1,665	2.81	820,892	7.98	1.41	24	Cloudburst		2,306,706	1
	4/28/2011 17:30	4/29/2011 2:45	555	0.17	386,129	7.57	0.11	3	Atlas		65,642	1
	5/1/2011 5:00	5/1/2011 12:30	450	0.70	110,223	4.87	0.35	3	Atlas		77,156	1
	5/1/2011 22:15	5/4/2011 6:45	3,390	2.78	1,169,742	6.79	0.90	48	Atlas		3,251,883	1
	5/8/2011 0:30	5/8/2011 1:15	45	0.20	37,045	3.59	0.11	3	Atlas		7,409	1
	5/21/2011 18:15	5/21/2011 18:30	15	0.41	250,776	0.70	0.29	1	Atlas		102,818	1
	5/23/2011 4:00	5/23/2011 4:00	-	0.31	14,100	0.73	0.22	1	Atlas		4,371	1
	5/23/2011 17:30	5/23/2011 20:45	195	0.84	213,652	1.67	0.54	3	Atlas		179,468	1
	5/25/2011 22:45	5/26/2011 14:15	930	1.27	155,819	2.81	0.49	24	Atlas		197,890	1
	6/11/2011 4:30	6/11/2011 4:30	-	0.29	107,962	0.32	0.23	1	Atlas		31,309	1
	6/15/2011 9:30	6/15/2011 10:00	30	1.02	181,901	1.35	0.65	1	Atlas		185,539	1
	6/18/2011 6:15	6/18/2011 7:45	90	0.84	25,344	1.80	0.51	3	Atlas		21,289	1
	6/19/2011 7:30	6/19/2011 7:45	15	0.56	41,855	2.24	0.35	3	Atlas		23,439	1
	6/20/2011 1:15	6/20/2011 1:45	30	0.50	231,184	2.95	0.43	1	Atlas		115,592	1
	6/22/2011 19:15	6/23/2011 16:15	1,260	3.78	1,088,716	6.00	22.24	3	Atlas		4,115,346	1
	6/26/2011 2:00	6/26/2011 2:00	-	0.32	80,309	5.19	0.17	6	Atlas		25,699	1
	7/19/2011 22:30	7/19/2011 23:30	60	1.79	326,596	1.86	2.09	1	Atlas		584,607	1
	8/7/2011 3:00	8/7/2011 11:15	495	1.96	173,353	2.00	1.87	3	Atlas		339,772	1
	8/13/2011 17:00	8/13/2011 17:15	15	0.79	127,081	2.94	0.61	1	Atlas		100,394	1
	8/18/2011 8:00	8/18/2011 8:00	-	0.48	38,608	1.26	0.40	1	Atlas		18,532	1
	9/4/2011 20:30	9/4/2011 20:30	-	0.12	55,600	0.10	0.05	24	Atlas		6,672	1
	9/11/2011 19:30	9/11/2011 19:30	-	0.30	97,010	0.55	0.19	1	Atlas		29,103	1
	9/19/2011 6:45	9/19/2011 7:30	45	0.69	139,499	0.60	0.28	12	Atlas		96,254	1
	9/23/2011 7:00	9/23/2011 7:00	-	0.81	9,801	1.48	0.37	12	Atlas		7,939	1
	9/25/2011 19:45	9/26/2011 14:30	1,125	3.27	1,223,747	4.93	5.48	12	Cloudburst		4,001,652	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/13/2011 7:30	10/13/2011 7:30	-	0.41	77,651	0.21	0.20	3	Atlas		31,837	1
	10/26/2011 23:45	10/27/2011 0:45	60	1.02	105,630	1.20	0.42	12	Atlas		107,743	1
	11/14/2011 21:15	11/14/2011 21:30	15	2.00	15,707	0.30	0.65	48	Atlas		31,414	1
	11/21/2011 4:00	11/21/2011 4:00	-	0.79	55,247	2.68	0.28	24	Atlas		43,645	1
	11/22/2011 2:45	11/22/2011 10:00	435	1.02	49,904	3.20	0.44	12	Atlas		50,902	1
	11/27/2011 22:45	11/29/2011 12:45	2,280	3.08	517,113	4.32	0.95	48	Atlas		1,592,709	1
	12/5/2011 3:15	12/6/2011 10:45	1,890	3.06	949,300	4.93	0.99	48	Atlas		2,904,857	1
	12/15/2011 3:30	12/15/2011 7:15	225	0.49	53,055	0.43	0.24	6	Atlas		25,997	1
	12/21/2011 4:45	12/21/2011 6:45	120	0.62	75,919	1.14	0.28	12	Atlas		47,070	1
	12/27/2011 10:45	12/27/2011 10:45	-	0.71	941	1.77	0.28	12	Atlas		668	1
	1/11/2012 6:30	1/11/2012 6:30	-	0.78	16,592	0.46	0.31	6	Atlas		12,942	1
	1/17/2012 11:45	1/17/2012 11:45	-	0.40	12,098	1.25	0.18	12	Atlas		4,839	1
	1/23/2012 2:30	1/23/2012 4:15	105	0.70	43,359	1.08	0.35	3	Atlas		30,351	1
	1/26/2012 5:30	1/26/2012 6:15	45	1.86	82,772	1.49	0.60	48	Atlas		153,956	1
	1/26/2012 18:15	1/27/2012 10:45	990	1.86	831,626	2.58	0.60	48	Atlas		1,546,824	1
	2/22/2012 22:30	2/22/2012 22:45	15	0.17	48,847	0.45	0.12	1	Atlas		8,304	1
	2/29/2012 8:30	2/29/2012 8:30	-	0.58	124,238	0.67	0.27	12	Atlas		72,058	1
	3/8/2012 12:30	3/8/2012 14:30	120	0.80	24,445	1.03	0.38	6	Atlas		19,556	1
	3/16/2012 1:15	3/16/2012 2:30	75	0.96	38,868	1.14	0.42	12	Atlas		37,313	1
	3/17/2012 18:30	3/17/2012 18:30	-	1.03	4,083	1.89	0.64	1	Atlas		4,206	1
	3/23/2012 4:45	3/24/2012 0:00	1,155	1.58	122,665	2.61	0.60	24	Atlas		193,811	1
	4/1/2012 8:15	4/1/2012 20:15	720	1.52	664,222	1.73	0.82	6	Atlas		1,009,618	1
	4/4/2012 16:30	4/4/2012 16:30	-	0.24	13,458	1.83	0.11	12	Atlas		3,230	1
	4/28/2012 19:00	4/29/2012 0:00	300	0.74	75,269	0.87	0.54	1	Atlas		55,699	1
	4/30/2012 18:00	4/30/2012 18:00	-	0.49	12,447	1.13	0.33	3	Atlas		6,099	1
	5/29/2012 6:45	5/30/2012 0:45	1,080	2.39	999,016	2.39	5.69	3	Atlas		2,387,648	1
	5/31/2012 18:30	6/1/2012 4:15	585	1.18	145,504	3.44	0.50	12	Atlas		171,695	1
	6/17/2012 11:30	6/17/2012 12:00	30	0.52	29,223	0.47	0.32	3	Atlas		15,196	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.40	107,243	0.32	0.29	1	Atlas		42,897	1
	7/14/2012 12:15	7/14/2012 14:30	135	0.61	522,841	0.75	0.38	3	Atlas		318,933	1
	7/19/2012 18:15	7/19/2012 19:00	45	0.88	640,089	1.47	0.72	1	Atlas		563,278	1
	7/26/2012 21:30	7/26/2012 21:30	-	0.18	70,217	0.26	0.08	12	Atlas		12,639	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.62	192,794	0.95	0.41	3	Atlas		119,532	1
	8/3/2012 9:30	8/3/2012 9:30	-	0.21	28,524	0.83	0.10	3	Atlas		5,990	1
	8/16/2012 20:15	8/16/2012 21:15	60	0.59	71,759	0.43	0.34	3	Atlas		42,338	1
	8/21/2012 13:45	8/21/2012 14:00	15	0.19	228,447	0.79	0.17	1	Atlas		43,405	1
	9/1/2012 15:15	9/1/2012 17:30	135	0.38	140,576	0.40	0.23	3	Atlas		53,419	1
	9/2/2012 12:00	9/2/2012 21:00	540	0.68	119,025	1.03	0.26	24	Atlas		80,937	1
	9/5/2012 15:30	9/5/2012 16:30	60	0.82	600,201	2.00	0.65	1	Atlas		492,165	1
	9/7/2012 23:30	9/8/2012 10:15	645	1.31	107,752	3.30	0.73	3	Atlas		141,155	1
	9/25/2012 23:45	9/26/2012 1:45	120	0.44	40,189	0.68	0.20	6	Atlas		17,683	1
	9/26/2012 21:00	9/26/2012 23:45	165	1.46	298,237	2.27	0.78	6	Atlas		435,426	1
	10/1/2012 15:00	10/1/2012 18:45	225	0.75	111,785	3.00	0.30	12	Atlas		83,839	1
	10/26/2012 14:00	10/26/2012 15:15	75	0.76	33,961	0.60	0.34	6	Atlas		25,810	1
	12/2/2012 11:15	12/2/2012 11:15	-	0.20	59,580	0.24	0.12	3	Atlas		11,916	1
	12/4/2012 15:15	12/4/2012 16:15	60	0.56	4,784	0.53	0.35	3	Atlas		2,679	1
	12/7/2012 4:45	12/7/2012 5:30	45	1.11	14,054	1.30	0.47	6	Atlas		15,600	1
	12/8/2012 5:45	12/8/2012 5:45	-	0.45	22,847	2.19	0.25	6	Atlas		10,281	1
	12/9/2012 20:45	12/10/2012 9:00	735	1.14	1,049,486	3.20	0.55	3	Atlas		1,196,414	1
	12/17/2012 17:00	12/17/2012 17:00	-	0.21	14,195	0.40	0.10	6	Atlas		2,981	1
	12/20/2012 6:30	12/20/2012 10:00	210	0.75	57,513	0.94	0.38	6	Atlas		43,135	1
	12/26/2012 5:30	12/26/2012 5:30	-	0.71	22,110	1.25	0.28	12	Atlas		15,698	1
	1/11/2013 5:45	1/11/2013 7:15	90	0.74	72,418	0.73	0.31	6	Atlas		53,589	1
	1/13/2013 3:15	1/14/2013 8:30	1,755	2.21	1,424,118	2.95	0.85	24	Atlas		3,147,300	1
	1/30/2013 4:45	1/30/2013 8:00	195	0.94	445,600	1.05	0.46	6	Atlas		418,864	1
	2/22/2013 1:00	2/22/2013 1:00	-	0.39	282	0.72	0.18	12	Atlas		110	1
	3/11/2013 5:30	3/11/2013 19:15	825	0.99	52,824	1.44	0.40	12	Atlas		52,296	1
	3/17/2013 13:45	3/17/2013 20:00	375	1.64	19,327	1.79	0.53	48	Atlas		31,697	1
	3/18/2013 4:15	3/18/2013 18:00	825	1.64	291,134	2.11	0.53	48	Atlas		477,460	1
	3/24/2013 16:00	3/24/2013 16:00	-	0.49	11,788	1.34	0.18	24	Atlas		5,776	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/11/2013 5:15	4/11/2013 7:15	120	1.34	88,894	0.57	0.52	24	Atlas		119,118	1
	4/16/2013 20:00	4/16/2013 20:30	30	0.61	320,034	1.92	0.50	1	Atlas		195,221	1
	4/19/2013 2:15	4/19/2013 11:00	525	0.92	221,047	1.55	0.50	6	Atlas		203,363	1
	4/24/2013 7:00	4/24/2013 9:15	135	0.65	97,585	1.52	0.36	3	Atlas		63,430	1
	5/6/2013 17:15	5/6/2013 17:15	-	1.41	20,099	1.50	0.42	24	Atlas		28,340	1
	5/10/2013 12:45	5/10/2013 15:30	165	0.93	15,280	2.33	0.42	6	Atlas		14,210	1
	5/10/2013 23:45	5/11/2013 3:15	210	0.93	101,531	2.37	0.42	6	Atlas		94,424	1
	5/16/2013 10:15	5/16/2013 10:30	15	0.25	14,256	1.23	0.22	1	Atlas		3,564	1
	5/22/2013 15:45	5/22/2013 15:45	-	0.14	1,051,114	0.37	0.09	3	Atlas		147,156	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.29	19,183	0.20	0.13	6	Atlas		5,563	1
	6/16/2013 16:45	6/16/2013 17:00	15	0.50	93,780	0.74	0.36	1	Atlas		46,890	1
	6/17/2013 16:15	6/18/2013 6:15	840	1.41	1,366,422	1.94	0.82	1	Atlas		1,926,655	1
	6/21/2013 19:00	6/21/2013 19:00	-	0.17	21,000	2.06	0.11	3	Atlas		3,570	1
	6/23/2013 12:30	6/23/2013 12:30	-	0.35	13,906	2.39	0.27	1	Atlas		4,867	1
	6/26/2013 3:15	6/26/2013 4:45	90	0.71	265,321	1.31	0.47	3	Atlas		188,378	1
	6/26/2013 16:15	6/27/2013 10:30	1,095	2.58	1,290,704	3.89	4.16	1	Atlas		3,330,017	1
	6/29/2013 19:30	6/29/2013 21:45	135	0.41	82,859	4.14	0.23	3	Atlas		33,972	1
	7/1/2013 19:00	7/1/2013 19:00	-	0.23	38,604	4.12	0.11	3	Atlas		8,879	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.15	156,107	4.29	0.13	1	Atlas		23,416	1
	7/6/2013 1:15	7/6/2013 1:45	30	0.68	33,997	1.81	0.29	12	Atlas		23,118	1
	7/10/2013 14:00	7/10/2013 14:30	30	0.93	319,576	2.20	0.65	1	Atlas		297,206	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.23	332,370	1.24	0.20	1	Atlas		76,445	1
	7/21/2013 19:30	7/21/2013 19:30	-	2.21	3,871	0.69	0.85	24	Atlas		8,555	1
	7/22/2013 7:00	7/22/2013 19:45	765	2.21	434,442	2.35	0.85	24	Atlas		960,116	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.71	190,480	0.63	0.29	1	Atlas		135,241	1
	8/13/2013 2:30	8/13/2013 3:00	30	0.71	9,934	0.90	0.29	1	Atlas		7,053	1
	8/20/2013 18:00	8/20/2013 18:15	15	0.16	175,125	0.17	0.10	1	Atlas		28,020	1
	8/31/2013 19:45	9/1/2013 7:45	720	1.20	1,169,813	1.20	0.55	12	Atlas		1,403,775	1
	9/2/2013 13:45	9/2/2013 13:45	-	0.22	297,982	1.42	0.19	1	Atlas		65,556	1
	9/20/2013 19:30	9/21/2013 7:30	720	1.52	639,864	1.60	0.63	12	Atlas		972,578	1
	10/5/2013 13:00	10/6/2013 16:45	1,665	4.30	769,148	4.38	8.06	24	Cloudburst		3,307,335	1
	10/30/2013 2:15	10/30/2013 5:30	195	1.24	69,570	1.15	0.58	6	Atlas		86,267	1
	10/31/2013 20:45	10/31/2013 20:45	-	0.66	9,609	1.76	0.26	12	Atlas		6,342	1
	11/17/2013 5:30	11/18/2013 6:00	1,470	2.65	1,350,632	2.79	1.81	6	Cloudburst		3,579,174	1
	12/5/2013 6:45	12/5/2013 7:30	45	0.80	37,011	0.21	0.26	48	Atlas		29,609	1
	12/14/2013 10:30	12/14/2013 10:30	-	0.79	2,156	0.98	0.32	6	Atlas		1,703	1
	12/21/2013 8:00	12/22/2013 10:45	1,605	1.01	2,658,101	2.93	0.46	12	Atlas		2,684,682	1
	1/11/2014 0:15	1/11/2014 3:15	180	0.84	72,545	1.13	0.45	6	Atlas		60,938	1
	2/4/2014 19:45	2/5/2014 11:45	960	0.50	571,402	0.94	0.25	6	Atlas		285,701	1
	2/17/2014 16:00	2/17/2014 16:30	30	0.57	142,495	1.04	0.35	3	Atlas		81,222	1
	3/12/2014 7:15	3/12/2014 7:15	-	0.07	4,771	0.06	0.03	12	Atlas		334	1
	3/29/2014 6:15	3/29/2014 6:45	30	1.03	76,407	0.77	0.47	12	Atlas		78,699	1
	4/3/2014 12:00	4/5/2014 1:00	2,220	2.48	1,488,496	3.90	0.87	24	Atlas		3,691,470	1
	4/7/2014 10:30	4/7/2014 12:15	105	0.78	268,219	3.33	0.46	3	Atlas		209,211	1
	4/14/2014 3:30	4/14/2014 3:30	-	0.38	23,897	1.00	0.19	6	Atlas		9,081	1
	4/14/2014 20:00	4/15/2014 0:15	255	0.64	36,645	0.93	0.29	12	Atlas		23,453	1
	4/27/2014 20:00	4/28/2014 17:30	1,290	1.96	418,310	1.92	0.75	3	Atlas		819,887	1
	5/9/2014 19:15	5/9/2014 19:15	-	1.76	66,960	0.38	0.68	24	Atlas		117,850	1
	5/10/2014 5:30	5/10/2014 16:15	645	1.76	255,348	1.83	0.68	24	Atlas		449,413	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.08	22,312	2.08	0.41	24	Atlas		24,097	1
	5/14/2014 18:00	5/15/2014 6:15	735	1.08	1,023,722	2.94	0.41	24	Atlas		1,105,620	1
	5/21/2014 21:00	5/22/2014 8:45	705	0.49	59,945	0.63	0.22	12	Atlas		29,373	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.25	23,592	0.75	0.21	1	Atlas		5,898	1
	5/29/2014 20:45	5/29/2014 21:15	30	0.61	430,625	0.86	0.50	1	Atlas		262,681	1
	6/11/2014 14:15	6/11/2014 14:30	15	0.15	293,593	0.36	0.11	1	Atlas		44,039	1
	6/20/2014 17:30	6/20/2014 17:30	-	0.15	9,093	0.16	0.10	3	Atlas		1,364	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.16	283,056	0.34	0.10	1	Atlas		45,289	1
	7/7/2014 19:45	7/7/2014 19:45	-	0.66	155,458	1.00	0.57	1	Atlas		102,602	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.65	200,340	1.46	0.31	3	Atlas		130,221	1
	7/14/2014 20:15	7/14/2014 20:30	15	0.27	177,915	1.28	0.18	3	Atlas		48,037	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/26/2014 21:45	7/26/2014 22:00	15	1.02	92,808	0.45	0.45	12	Atlas		94,664	1
	7/27/2014 7:00	7/27/2014 8:00	60	1.02	55,634	1.00	0.45	12	Atlas		56,747	1
	8/8/2014 6:00	8/8/2014 7:30	90	0.97	163,198	0.72	0.46	6	Atlas		158,302	1
	8/10/2014 4:15	8/10/2014 4:15	-	0.50	91,378	1.52	0.41	1	Atlas		45,689	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.30	504,980	1.83	0.24	1	Atlas		151,494	1
	8/17/2014 9:45	8/17/2014 9:45	-	0.71	23,010	0.84	0.27	24	Atlas		16,337	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.27	521,659	0.96	0.17	3	Atlas		140,848	1
	8/23/2014 16:00	8/23/2014 20:30	270	0.55	109,025	1.38	0.27	3	Atlas		59,964	1
	8/27/2014 14:45	8/27/2014 17:15	150	0.20	155,635	1.20	0.13	1	Atlas		31,127	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.61	357,764	1.33	0.39	1	Atlas		218,236	1
	9/2/2014 8:30	9/2/2014 8:30	-	0.36	6,817	1.18	0.23	3	Atlas		2,454	1
	9/11/2014 0:45	9/11/2014 14:45	840	1.92	415,229	1.92	1.47	3	Atlas		797,239	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.31	141,013	0.48	0.17	1	Atlas		43,714	1
	10/7/2014 12:00	10/7/2014 12:00	-	0.21	51,852	0.75	0.17	1	Atlas		10,889	1
	10/10/2014 2:15	10/10/2014 3:00	45	1.09	78,583	1.48	0.49	3	Atlas		85,655	1
	10/13/2014 23:30	10/14/2014 0:00	30	1.08	75,860	2.02	0.48	12	Atlas		81,929	1
	10/14/2014 8:15	10/14/2014 10:00	105	1.08	42,436	2.78	0.48	12	Atlas		45,831	1
	10/20/2014 20:00	10/20/2014 20:00	-	0.04	123,400	1.35	0.03	1	Atlas		4,936	1
	11/23/2014 14:30	11/23/2014 17:45	195	0.85	236,734	0.89	0.38	6	Atlas		201,224	1
	12/6/2014 2:45	12/6/2014 10:30	465	1.76	461,119	2.58	0.57	48	Atlas		811,570	1
	12/28/2014 1:00	12/28/2014 1:00	-	0.30	27,680	0.73	0.12	24	Atlas		8,304	1
	3/3/2015 23:15	3/4/2015 12:45	810	1.67	163,078	1.18	0.54	24	Atlas		272,341	1
	3/10/2015 9:30	3/10/2015 23:00	810	1.10	729,977	2.77	0.50	12	Atlas		802,975	1
	3/13/2015 10:30	3/14/2015 4:30	1,080	1.63	799,566	2.68	0.61	24	Atlas		1,303,292	1
	3/26/2015 4:30	3/26/2015 4:30	-	0.45	27,040	0.51	0.17	12	Atlas		12,168	1
	4/2/2015 10:45	4/3/2015 23:45	2,220	4.42	790,361	4.55	5.24	24	Cloudburst		3,493,395	1
	4/7/2015 9:15	4/7/2015 18:15	540	0.86	506,257	5.29	0.42	1	Atlas		435,381	1
	4/8/2015 18:15	4/8/2015 18:15	-	0.15	122,513	5.43	0.10	1	Atlas		18,377	1
	4/9/2015 11:30	4/9/2015 12:15	45	0.29	742,341	5.37	0.25	1	Atlas		215,279	1
	4/10/2015 2:15	4/10/2015 2:30	15	0.16	105,281	3.17	0.11	3	Atlas		16,845	1
	4/13/2015 20:45	4/13/2015 21:00	15	0.38	38,718	1.56	0.15	6	Atlas		14,713	1
	4/19/2015 14:15	4/19/2015 14:45	30	0.78	110,353	1.16	0.33	12	Atlas		86,075	1
	5/17/2015 14:15	5/17/2015 14:30	15	0.16	846,625	0.60	0.12	1	Atlas		135,460	1
	5/26/2015 13:45	5/26/2015 14:00	15	0.36	224,400	0.57	0.26	1	Atlas		80,784	1
	6/8/2015 8:15	6/8/2015 8:15	-	0.20	146,735	0.21	0.12	3	Atlas		29,347	1
	6/17/2015 4:45	6/17/2015 6:00	75	0.65	97,309	0.62	0.37	3	Atlas		63,251	1
	6/18/2015 16:15	6/18/2015 18:45	150	1.48	375,424	1.20	0.48	48	Atlas		555,628	1
	6/19/2015 13:00	6/19/2015 13:15	15	1.48	6,934	1.36	0.48	48	Atlas		10,262	1
	6/20/2015 1:30	6/20/2015 11:15	585	1.48	225,750	2.23	0.48	48	Atlas		334,110	1
	6/21/2015 23:15	6/23/2015 13:15	2,280	0.21	1,287,629	2.39	0.10	3	Atlas		270,402	1
	6/24/2015 7:45	6/24/2015 7:45	-	Discharge	-	1.74					129	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.45	7,827	1.39	0.24	6	Atlas		3,522	1
	6/26/2015 17:00	6/27/2015 0:00	420	0.88	263,865	2.36	0.52	1	Atlas		232,201	1
	7/2/2015 0:45	7/2/2015 0:45	-	1.53	270	2.12	0.59	24	Atlas		413	1
	7/2/2015 19:30	7/2/2015 21:00	90	1.53	270,597	3.25	0.59	24	Atlas		414,013	1
	7/7/2015 11:45	7/7/2015 12:45	60	0.72	22,407	2.46	0.37	6	Atlas		16,133	1
	7/8/2015 12:30	7/8/2015 12:30	-	0.10	116,070	2.74	0.07	1	Atlas		11,607	1
	7/9/2015 6:15	7/9/2015 13:15	420	0.29	57,138	2.31	0.13	12	Atlas		16,570	1
	7/10/2015 14:00	7/10/2015 21:15	435	0.45	43,004	1.94	0.21	6	Atlas		19,352	1
	7/12/2015 6:00	7/12/2015 9:00	180	1.36	934,860	2.93	1.04	1	Atlas		1,271,409	1
	7/13/2015 14:15	7/14/2015 9:15	1,140	0.49	1,614,814	4.08	0.41	1	Atlas		791,259	1
	7/14/2015 18:45	7/14/2015 20:00	75	0.18	1,314,717	3.56	0.16	1	Atlas		236,649	1
	7/17/2015 22:30	7/18/2015 2:00	210	1.40	599,306	4.08	0.93	3	Atlas		839,028	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.35	473,291	0.40	0.30	1	Atlas		165,652	1
	8/5/2015 15:00	8/5/2015 15:15	15	0.90	17,209	0.66	0.32	24	Atlas		15,488	1
	8/6/2015 2:15	8/6/2015 15:15	780	0.90	102,189	1.24	0.32	24	Atlas		91,970	1
	8/19/2015 8:15	8/19/2015 8:30	15	0.38	246,561	0.36	0.15	12	Atlas		93,693	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.38	36,308	0.54	0.15	12	Atlas		13,797	1
	9/5/2015 17:15	9/5/2015 17:15	-	0.28	64,132	0.23	0.20	1	Atlas		17,957	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.26	193,508	1.26	0.23	1	Atlas		50,312	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/11/2015 18:30	9/11/2015 18:30	-	0.19	511	1.42	0.13	3	Atlas		97	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.28	19,486	0.32	0.19	3	Atlas		5,456	1
	10/27/2015 18:00	10/28/2015 6:00	720	2.51	154,183	2.66	0.82	24	Atlas		386,999	1
	10/28/2015 22:15	10/28/2015 22:15	-	0.17	46,018	2.98	0.09	6	Atlas		7,823	1
	11/6/2015 4:00	11/6/2015 4:30	30	0.85	94,341	0.92	0.52	3	Atlas		80,190	1
	11/18/2015 11:00	11/18/2015 13:45	165	1.51	154,728	1.80	0.78	6	Atlas		233,640	1
	12/21/2015 23:45	12/22/2015 4:00	255	0.59	70,715	0.76	0.33	1	Atlas		41,722	1
	12/23/2015 19:15	12/23/2015 20:30	75	0.87	480,411	1.65	0.70	1	Atlas		417,958	1
	12/27/2015 10:15	12/28/2015 0:15	840	2.06	521,065	3.40	0.69	3	Atlas		1,073,394	1
	12/28/2015 15:15	12/28/2015 16:45	90	2.06	14,625	3.91	0.69	3	Atlas		30,128	1
	2/2/2016 19:00	2/3/2016 1:30	390	1.45	235,073	1.51	0.67	6	Atlas		340,856	1
	2/21/2016 5:45	2/21/2016 10:30	285	1.07	64,075	1.24	0.49	12	Atlas		68,560	1
	2/23/2016 23:30	2/24/2016 7:45	495	2.09	185,996	2.87	0.83	12	Atlas		388,732	1
	3/1/2016 12:45	3/1/2016 12:45	-	0.29	15,590	2.34	0.16	3	Atlas		4,521	1
	3/10/2016 13:30	3/10/2016 16:45	195	1.10	50,399	0.91	0.36	12	Atlas		55,439	1
	3/12/2016 22:45	3/12/2016 23:15	30	0.86	17,887	1.68	0.33	24	Atlas		15,383	1
	3/13/2016 8:45	3/13/2016 10:00	75	0.86	66,286	1.97	0.33	24	Atlas		57,006	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.46	84,933	0.53	0.34	1	Atlas		39,069	1
	3/27/2016 21:15	3/27/2016 22:00	45	0.82	365,082	1.25	0.57	1	Atlas		299,367	1
	3/31/2016 4:30	3/31/2016 4:30	-	1.01	5,352	1.66	0.38	24	Atlas		5,406	1
	3/31/2016 22:00	3/31/2016 23:15	75	1.01	27,264	1.79	0.38	24	Atlas		27,537	1
	4/11/2016 16:45	4/11/2016 18:00	75	0.96	72,407	0.90	0.42	12	Atlas		69,511	1
	4/26/2016 21:00	4/26/2016 21:00	-	0.47	560	0.67	0.24	6	Atlas		263	1
	4/27/2016 20:45	4/27/2016 22:00	75	0.57	215,723	1.29	0.25	12	Atlas		122,962	1
	4/30/2016 11:15	4/30/2016 11:15	-	0.50	13,380	1.31	0.19	6	Atlas		6,690	1
	5/10/2016 21:30	5/10/2016 22:00	30	0.64	176,813	1.51	0.24	24	Atlas		113,160	1
	5/20/2016 14:00	5/20/2016 15:30	90	0.58	101,447	1.21	0.32	3	Atlas		58,839	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.36	44,353	0.49	0.28	1	Atlas		15,967	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.19	24,163	0.61	0.10	3	Atlas		4,591	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.15	31,393	0.19	0.13	1	Atlas		4,709	1
	6/14/2016 17:00	6/14/2016 17:15	15	0.74	8,039	0.69	0.48	3	Atlas		5,949	1
	6/22/2016 8:15	6/22/2016 8:15	-	0.26	65,731	0.13	0.17	3	Atlas		17,090	1
	6/23/2016 16:00	6/23/2016 21:00	300	1.94	306,582	2.19	1.31	6	Cloudburst		594,769	1
	7/3/2016 12:00	7/3/2016 20:00	480	1.13	8,235	0.58	0.37	48	Atlas		9,306	1
	7/4/2016 14:15	7/4/2016 14:15	-	1.13	581	1.02	0.37	48	Atlas		657	1
	7/12/2016 9:45	7/12/2016 9:45	-	0.25	37,364	0.34	0.16	3	Atlas		9,341	1
	7/28/2016 3:15	7/28/2016 5:00	105	0.67	112,469	0.81	0.31	12	Atlas		75,354	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.19	91,426	1.11	0.17	1	Atlas		17,371	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.39	9,992	1.47	0.31	1	Atlas		3,897	1
	8/15/2016 2:45	8/15/2016 4:00	75	0.94	371,789	0.97	0.50	6	Atlas		349,482	1
	8/17/2016 6:00	8/17/2016 7:00	60	0.67	205,943	1.58	0.29	6	Atlas		137,982	1
	8/20/2016 14:30	8/20/2016 20:30	360	0.85	331,355	2.47	0.35	12	Atlas		281,652	1
	8/31/2016 16:45	8/31/2016 17:45	60	0.24	582,075	0.39	0.17	1	Atlas		139,698	1
	10/20/2016 10:00	10/20/2016 10:00	-	0.54	15,465	0.24	0.23	3	Atlas		8,351	1
	12/17/2016 18:45	12/18/2016 0:30	345	2.66	230,702	2.83	1.86	12	Cloudburst		613,666	1
	3/1/2017 7:00	3/1/2017 7:00	-	1.06	49,571	1.48	0.54	6	Atlas		52,545	1
	4/29/2017 1:45	4/29/2017 3:15	90	0.96	2,161,696	1.18	0.50	6	Atlas		2,075,228	1
	5/4/2017 19:45	5/5/2017 8:45	780	1.82	2,001,195	2.85	0.61	24	Atlas		3,642,174	1
	5/21/2017 2:00	5/21/2017 5:45	225	1.02	2,973,124	1.04	0.46	12	Atlas		3,032,586	1
	5/24/2017 17:15	5/24/2017 18:45	90	0.58	1,067,988	1.41	0.21	24	Atlas		619,433	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.30	830,187	1.88	0.24	1	Atlas		249,056	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.24	1,165,929	0.30	0.21	1	Atlas		279,823	1
	6/15/2017 4:00	6/15/2017 4:00	-	0.73	356,345	0.68	0.46	3	Atlas		260,132	1
	6/22/2017 18:45	6/22/2017 18:45	-	0.32	712,919	0.46	0.17	6	Atlas		228,134	1
	6/23/2017 15:15	6/23/2017 16:00	45	0.76	1,410,282	1.03	0.37	6	Atlas		1,071,814	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.31	769,555	0.43	0.26	1	Atlas		238,562	1
	7/6/2017 4:45	7/6/2017 12:45	480	0.48	892,260	0.76	0.23	3	Atlas		428,285	1
	7/23/2017 2:45	7/23/2017 3:30	45	1.12	924,128	0.63	0.51	12	Atlas		1,035,023	1
	7/28/2017 9:30	7/28/2017 9:45	15	0.58	945,141	1.68	0.44	1	Atlas		548,182	1
	8/6/2017 23:45	8/6/2017 23:45	-	0.49	376,614	0.73	0.22	12	Atlas		184,541	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/17/2017 15:00	8/17/2017 15:00	-	0.37	750.503	0.10	0.20	1	Atlas		277.686	1
	8/22/2017 12:30	8/22/2017 16:30	240	0.53	1,619.226	0.90	0.30	1	Atlas		858.190	1
	9/1/2017 11:45	9/2/2017 3:30	945	3.46	3,299.165	3.41	2.48	24	Cloudburst		11,415.111	1
	9/19/2017 8:00	9/19/2017 9:30	90	0.50	2,141.814	0.93	0.32	3	Atlas		1,070.907	1
	10/7/2017 21:45	10/7/2017 22:15	30	1.77	429.557	0.62	0.66	24	Atlas		760.316	1
	10/8/2017 10:30	10/8/2017 14:45	255	1.77	724.517	1.69	0.66	24	Atlas		1,282.395	1
	10/10/2017 14:45	10/10/2017 16:15	90	0.75	918.235	2.38	0.37	3	Atlas		688.676	1
	12/23/2017 4:00	12/23/2017 15:30	690	1.17	4.302	1.18	0.45	24	Atlas		5.033	1
	2/16/2018 16:30	2/16/2018 22:00	330	0.67	1.597	1.59	0.29	12	Atlas		1.070	1
	2/22/2018 2:00	2/24/2018 23:30	4,170	1.64	2,530.940	5.20	0.60	24	Atlas		4,150.742	1
	2/28/2018 13:30	2/28/2018 17:00	210	0.08	902.000	4.26	0.04	6	Atlas		72.160	1
	3/24/2018 13:00	3/25/2018 4:30	930	0.86	4.598	1.64	0.33	24	Atlas		3.954	1
	3/29/2018 22:00	3/30/2018 8:00	600	1.02	1.175	1.94	0.26	48	Atlas		1.199	1
	4/1/2018 20:45	4/2/2018 9:15	750	0.65	101.297	1.94	0.36	6	Atlas		65.843	1
	4/3/2018 19:30	4/4/2018 4:00	510	0.45	193.531	2.36	0.25	6	Atlas		87.069	1
	5/5/2018 14:45	5/6/2018 2:45	720	1.44	27.374	1.47	0.59	6	Atlas		39.419	1
	7/2/2018 17:45	7/3/2018 2:00	495	0.65	145.365	1.26	0.52	1	Atlas		94.487	1
	7/20/2018 19:45	7/20/2018 21:15	90	1.63	246.383	1.88	0.93	3	Atlas		401.604	1
	7/31/2018 2:00	7/31/2018 14:15	735	2.06	44.115	2.12	0.91	6	Atlas		90.877	1
	9/1/2018 2:00	9/1/2018 3:45	105	0.31	4.590	0.35	0.18	3	Atlas		1.423	1
	9/8/2018 18:30	9/8/2018 21:15	165	2.37	680.646	2.62	1.06	6	Cloudburst		1,613.131	1
	9/9/2018 12:30	9/9/2018 18:30	360	0.03	69.533	2.78	0.02	6	Atlas		2.086	1
	9/23/2018 6:30	9/23/2018 7:00	30	1.23	47.611	1.51	0.46	24	Atlas		58.562	1
	9/23/2018 18:45	9/23/2018 21:00	135	1.23	1.219	1.53	0.46	24	Atlas		1.499	1
	9/24/2018 7:30	9/24/2018 14:00	390	1.35	181.983	2.81	0.61	6	Atlas		245.677	1
	9/25/2018 0:00	9/26/2018 19:45	2,625	1.35	48.736	3.60	0.61	6	Atlas		65.794	1
	11/1/2018 1:00	11/1/2018 16:15	915	1.59	12.270	1.81	0.57	24	Atlas		19.509	1
	11/6/2018 22:45	11/6/2018 12:00	795	0.84	4.064	2.49	0.45	6	Atlas		3.414	1
	11/15/2018 4:00	11/15/2018 12:30	510	0.43	2.228	0.62	0.20	12	Atlas		958	1
	12/1/2018 23:00	12/2/2018 5:45	405	1.52	2.704	1.66	0.61	12	Atlas		4.110	1
	12/15/2018 8:00	12/15/2018 20:15	735	1.66	13.082	1.66	0.69	12	Atlas		21.716	1
	12/31/2018 9:30	1/1/2019 5:15	1,186	1.23	353.019	1.53	0.47	24	Atlas		434.213	1
	1/4/2019 15:00	1/4/2019 22:45	465	0.59	146.680	1.81	0.27	3	Atlas		86.541	1
	1/19/2019 22:15	1/20/2019 3:45	330	0.74	3.455	0.94	0.28	24	Atlas		2.557	1
	1/23/2019 10:15	1/24/2019 2:30	975	0.80	1,175.680	1.64	0.31	24	Atlas		940.544	1
	2/6/2019 15:30	2/6/2019 19:00	210	1.45	914	0.73	0.47	48	Atlas		1.325	1
	2/7/2019 9:15	2/7/2019 20:15	660	1.45	1,151.570	1.55	0.47	48	Atlas		1,669.776	1
	2/10/2019 16:45	2/13/2019 15:00	4,215	2.63	2,293.458	4.15	0.82	48	Atlas		6,031.795	1
	2/20/2019 3:30	2/21/2019 4:15	1,485	1.46	629.051	1.51	0.67	6	Atlas		918.415	1
	2/23/2019 17:30	2/24/2019 15:00	1,290	0.75	2,557.389	2.26	0.40	6	Atlas		1,918.042	1
	3/9/2019 16:30	3/10/2019 5:45	795	0.95	18.318	1.09	0.45	6	Atlas		17.402	1
	3/14/2019 17:45	3/15/2019 3:45	600	0.54	193.787	1.90	0.39	1	Atlas		104.645	1
	4/19/2019 21:15	4/19/2019 23:15	120	2.88	33.941	2.40	0.94	48	Atlas		97.749	1
	4/20/2019 9:30	4/20/2019 9:45	15	2.88	35.894	3.54	0.94	48	Atlas		103.375	1
	4/24/2019 20:45	4/24/2019 21:15	30	0.54	30.739	3.24	0.25	1	Atlas		16.599	1
	2/12/2020 17:45	2/12/2020 19:15	90	0.82	306.654	1.25	0.37	3	Atlas		251.456	1
	3/19/2020 12:30	3/19/2020 12:30	-	0.43	180.435	1.68	0.17	1	Atlas		77.587	1
	6/23/2020 0:00	6/23/2020 0:00	-	0.81	28.527	1.11	0.39	3	Atlas		23.107	1
	CSO140 Total										**173,801.470**	**400**
CSO141	6/10/2014 15:45	6/10/2014 15:45	-	0.11	1.591	0.14	0.07	3	Atlas		175	1
	6/11/2014 14:15	6/11/2014 14:30	15	0.12	16.750	0.30	0.09	1	Atlas		2.010	1
	6/20/2014 17:45	6/20/2014 17:45	-	0.18	10.511	0.18	0.12	3	Atlas		1.892	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.12	10.500	0.32	0.07	1	Atlas		1.260	1
	7/1/2014 22:15	7/1/2014 22:15	-	0.21	2.029	0.26	0.13	3	Atlas		426	1
	7/2/2014 16:30	7/2/2014 17:00	30	0.12	37.767	0.40	0.10	1	Atlas		4.532	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.62	42.544	0.95	0.54	1	Atlas		26.377	1
	7/8/2014 7:00	7/8/2014 7:30	30	0.42	3.429	1.37	0.37	1	Atlas		1.440	1
	7/13/2014 22:15	7/14/2014 8:45	630	0.69	27.187	1.71	0.34	1	Atlas		18.759	1
	7/26/2014 21:45	7/27/2014 12:45	900	0.97	44.165	1.01	0.43	12	Atlas		42.840	1
	8/8/2014 4:00	8/8/2014 12:45	525	0.87	24.113	0.91	0.42	6	Atlas		20.978	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/9/2014 4:00	8/9/2014 7:00	180	0.07	35,686	0.98	0.05	1	Atlas		2,498	1
	8/10/2014 3:45	8/10/2014 4:30	45	0.78	15,788	1.75	0.65	1	Atlas		12,315	1
	8/11/2014 15:30	8/11/2014 15:45	15	0.35	27,820	2.10	0.30	1	Atlas		9,737	1
	8/16/2014 22:15	8/17/2014 20:15	1,320	0.72	30,582	1.84	0.27	24	Atlas		22,019	1
	8/22/2014 19:15	8/23/2014 0:30	315	0.22	75,609	1.00	0.13	3	Atlas		16,634	1
	8/23/2014 15:45	8/23/2014 21:45	360	0.52	20,621	1.47	0.26	3	Atlas		10,723	1
	8/26/2014 20:00	8/26/2014 20:15	15	0.11	19,191	0.91	0.10	1	Atlas		2,111	1
	8/27/2014 15:00	8/28/2014 2:15	675	0.12	109,350	1.03	0.09	1	Atlas		13,122	1
	8/30/2014 15:15	8/30/2014 17:30	135	0.54	31,067	1.19	0.31	1	Atlas		16,776	1
	8/31/2014 3:45	8/31/2014 5:00	75	0.54	7,526	0.76	0.31	1	Atlas		4,064	1
	9/2/2014 7:00	9/2/2014 9:30	150	0.40	13,890	1.14	0.25	3	Atlas		5,556	1
	9/2/2014 19:15	9/2/2014 19:15	-	0.40	10,660	1.17	0.25	3	Atlas		4,264	1
	9/11/2014 0:15	9/11/2014 10:00	585	1.86	72,147	1.86	1.27	3	Atlas		134,194	1
	9/21/2014 7:45	9/21/2014 22:15	870	0.01	7,217,500	0.03	0.01	1	Atlas		72,175	1
	10/3/2014 3:30	10/3/2014 5:00	90	0.26	15,296	0.11	0.10	24	Atlas		3,977	1
	10/3/2014 19:15	10/3/2014 20:15	60	0.26	9,208	0.26	0.10	24	Atlas		2,394	1
	10/6/2014 7:45	10/6/2014 11:15	210	0.22	74,618	0.44	0.09	6	Atlas		16,416	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.19	7,299	1.51	0.55	1	Atlas		8,686	1
	10/10/2014 21:15	10/10/2014 21:30	15	1.19	434	1.61	0.55	1	Atlas		517	1
	10/13/2014 23:30	10/13/2014 23:30	-	0.88	3,649	2.10	0.39	12	Atlas		3,211	1
	10/14/2014 7:45	10/14/2014 8:15	30	0.88	6,095	2.65	0.39	12	Atlas		5,364	1
	10/28/2014 10:45	10/28/2014 18:30	465	0.13	128,615	0.12	0.07	3	Atlas		16,720	1
	10/31/2014 20:15	10/31/2014 20:15	-	0.16	6,706	0.26	0.06	24	Atlas		1,073	1
	11/5/2014 18:45	11/6/2014 1:30	405	0.01	51,500	0.27	0.01	1	Atlas		515	1
	11/23/2014 13:45	11/23/2014 23:30	585	0.74	173,953	1.09	0.32	12	Atlas		128,725	1
	12/6/2014 2:30	12/6/2014 6:45	255	1.85	5,520	2.71	0.60	48	Atlas		10,212	1
	12/16/2014 5:00	12/16/2014 9:15	255	0.12	214,600	0.11	0.07	3	Atlas		25,752	1
	12/24/2014 8:45	12/24/2014 9:30	45	0.19	24,716	0.29	0.08	12	Atlas		4,696	1
	12/24/2014 18:15	12/25/2014 0:30	375	0.19	99,495	0.46	0.08	12	Atlas		18,904	1
	12/28/2014 1:00	12/28/2014 1:30	30	0.30	2,483	0.76	0.12	24	Atlas		745	1
	1/4/2015 0:30	1/4/2015 3:45	195	0.36	1,758	0.47	0.13	24	Atlas		633	1
	2/1/2015 11:45	2/1/2015 19:15	450	0.39	7,400	0.58	0.19	3	Atlas		2,886	1
	2/21/2015 4:15	2/21/2015 16:15	720	1.24	28,327	1.52	0.48	24	Atlas		35,126	1
	3/13/2015 8:30	3/14/2015 12:45	1,695	1.81	60,722	2.94	0.68	24	Atlas		109,906	1
	3/19/2015 8:15	3/20/2015 5:15	1,260	0.20	115,045	2.01	0.08	12	Atlas		23,009	1
	3/24/2015 14:15	3/24/2015 20:15	360	0.12	51,700	0.31	0.07	1	Atlas		6,204	1
	3/26/2015 3:00	3/26/2015 15:45	765	0.48	59,327	0.79	0.19	3	Atlas		28,477	1
	4/2/2015 9:15	4/3/2015 22:45	2,250	4.76	165,250	4.92	7.33	6	Cloudburst		786,588	1
	4/7/2015 16:30	4/7/2015 23:00	390	0.92	18,193	5.68	0.46	1	Atlas		16,738	1
	4/9/2015 11:30	4/9/2015 13:30	120	0.18	14,572	5.71	0.16	1	Atlas		2,623	1
	4/10/2015 1:45	4/10/2015 3:00	75	0.19	48,574	3.92	0.12	3	Atlas		9,229	1
	4/13/2015 19:45	4/13/2015 21:00	75	0.37	14,868	1.66	0.15	6	Atlas		5,501	1
	4/14/2015 6:45	4/14/2015 11:45	300	0.37	41,073	1.87	0.15	6	Atlas		15,197	1
	4/16/2015 9:45	4/16/2015 11:45	120	0.04	83,975	0.83	0.03	1	Atlas		3,359	1
	4/19/2015 8:45	4/19/2015 17:00	495	0.76	24,242	1.14	0.32	12	Atlas		18,424	1
	5/16/2015 11:30	5/16/2015 20:00	510	0.46	20,109	0.52	0.23	3	Atlas		9,250	1
	5/17/2015 14:15	5/17/2015 14:30	15	0.08	3,763	0.58	0.05	1	Atlas		301	1
	5/25/2015 6:15	5/25/2015 14:15	480	0.29	19,283	0.34	0.13	12	Atlas		5,592	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.23	10,196	0.49	0.17	1	Atlas		2,345	1
	5/27/2015 13:30	5/27/2015 13:45	15	0.13	19,400	0.65	0.11	1	Atlas		2,522	1
	6/1/2015 7:30	6/1/2015 9:30	120	0.11	24,800	0.66	0.05	6	Atlas		2,728	1
	6/17/2015 3:00	6/17/2015 8:15	315	0.63	30,597	0.70	0.36	3	Atlas		19,276	1
	6/18/2015 16:00	6/18/2015 18:00	120	1.38	44,375	1.11	0.45	48	Atlas		61,238	1
	6/19/2015 13:00	6/19/2015 13:15	15	1.38	46	1.30	0.45	48	Atlas		63	1
	6/20/2015 1:15	6/20/2015 12:30	675	1.38	13,110	2.14	0.45	48	Atlas		18,092	1
	6/22/2015 5:15	6/26/2015 18:30	6,555	0.22	7,112,686	3.42	0.10	12	Atlas		1,564,791	1
	7/2/2015 20:15	7/2/2015 23:00	165	1.66	82,477	3.45	0.64	24	Atlas		136,912	1
	7/7/2015 10:30	7/7/2015 17:15	405	0.87	137,785	2.84	0.41	6	Atlas		119,873	1
	7/12/2015 5:45	7/12/2015 8:00	135	1.35	137,084	2.98	0.91	1	Atlas		185,063	1
	7/14/2015 4:00	7/14/2015 6:15	135	0.73	68,936	4.21	0.57	1	Atlas		50,323	1
	7/17/2015 22:45	7/18/2015 3:30	285	1.60	111,374	4.32	1.33	3	Atlas		178,199	1
	8/4/2015 18:45	8/4/2015 22:15	210	0.44	69,295	0.52	0.37	1	Atlas		30,490	1
	8/19/2015 7:45	8/19/2015 17:30	585	0.28	47,679	0.41	0.11	24	Atlas		13,350	1
	9/5/2015 17:15	9/5/2015 17:45	30	0.12	7,383	0.08	0.07	1	Atlas		886	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/9/2015 11:30	9/9/2015 11:45	15	0.27	96,459	0.99	0.23	1	Atlas		26,044	1
	9/11/2015 18:30	9/11/2015 18:30	-	0.19	7,347	1.14	0.12	1	Atlas		1,396	1
	6/1/2018 0:30	6/1/2018 1:15	45	1.35	18,103	1.71	0.79	3	Atlas		24,439	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.40	903	0.19	0.18	12	Atlas		361	1
	6/11/2018 23:45	6/11/2018 23:45	-	0.29	352	0.65	0.14	1	Atlas		102	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.69	11,036	1.85	0.28	12	Atlas		7,615	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.43	104,991	1.04	0.35	1	Atlas		45,146	1
	7/3/2018 15:15	7/3/2018 15:45	30	0.56	77,995	1.26	0.42	1	Atlas		43,677	1
	7/20/2018 20:45	7/20/2018 20:45	-	1.61	16,026	1.78	0.92	3	Atlas		25,802	1
	7/31/2018 2:00	7/31/2018 2:00	-	2.10	5,615	1.23	0.93	6	Atlas		11,792	1
	9/8/2018 19:45	9/8/2018 20:15	30	2.44	48,146	2.28	1.14	6	Cloudburst		117,477	1
	11/15/2018 1:45	11/15/2018 3:45	120	0.39	8,982	0.56	0.17	12	Atlas		3,503	1
	3/9/2019 13:45	3/9/2019 18:45	300	0.97	226	1.10	0.44	12	Atlas		219	1
	3/14/2019 18:30	3/14/2019 18:30	-	0.52	687	1.92	0.38	1	Atlas		357	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.31	14,745	3.27	0.14	12	Atlas		4,571	1
	6/9/2019 16:30	6/9/2019 16:30	-	0.72	84,921	1.90	0.39	3	Atlas		61,143	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.38	22,313	3.48	0.30	1	Atlas		8,479	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.58	2,984	0.58	0.36	3	Atlas		1,731	1
	10/30/2019 14:45	10/30/2019 14:45	-	0.77	156	2.01	0.37	3	Atlas		120	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.18	43,961	0.36	0.14	1	Atlas		7,913	1
	6/22/2020 22:30	6/22/2020 22:30	-	0.81	5,932	0.87	0.36	6	Atlas		4,805	1
	6/23/2020 8:45	6/23/2020 8:45	-	0.81	621	1.23	0.36	6	Atlas		503	1
CSO141 Total											**4,557,173**	**97**
CSO142	11/17/2013 5:45	11/17/2013 8:00	135	2.68	13,983	2.02	1.89	6	Cloudburst		37,475	1
	11/17/2013 17:45	11/17/2013 17:45	-	2.68	2,273	2.83	1.89	6	Cloudburst		6,091	1
	12/21/2013 21:15	12/21/2013 22:30	75	2.41	16,891	1.95	0.90	24	Atlas		40,707	1
	2/17/2014 16:00	2/17/2014 16:00	-	0.56	29,623	0.99	0.34	3	Atlas	Retained by Sneads Branch	16,589	1
	3/29/2014 6:30	3/29/2014 6:30	-	1.05	6,994	0.66	0.48	12	Atlas	Retained by Sneads Branch	7,344	1
	4/3/2014 12:00	4/3/2014 18:15	375	2.67	1,119	2.61	0.93	24	Atlas	Retained by Sneads Branch	2,988	1
	4/4/2014 3:00	4/4/2014 3:00	-	2.67	8,857	3.38	0.93	24	Atlas		23,647	1
	4/7/2014 10:30	4/7/2014 11:15	45	0.79	21,563	3.46	0.47	3	Atlas		17,035	1
	4/28/2014 4:00	4/28/2014 6:00	120	1.70	20,532	1.23	0.70	3	Atlas		34,905	1
	5/10/2014 5:30	5/10/2014 14:15	525	1.63	15,589	1.60	0.63	24	Atlas	Retained by Sneads Branch	25,410	1
	5/22/2014 2:30	5/22/2014 2:30	-	0.37	2,808	0.27	0.17	12	Atlas	Retained by Sneads Branch	1,039	1
	5/17/2015 14:00	5/17/2015 14:00	-	0.12	5,050	0.57	0.09	1	Atlas	Retained by Sneads Branch	606	1
	5/26/2015 13:45	5/26/2015 13:45	-	0.35	52,500	0.53	0.26	1	Atlas	Retained by Sneads Branch	18,375	1
	6/17/2015 4:30	6/17/2015 4:45	15	0.58	59,641	0.45	0.31	3	Atlas	Retained by Sneads Branch	34,592	1
	6/18/2015 16:00	6/20/2015 15:15	2,835	1.82	8,754,717	2.74	0.59	48	Atlas	Retained by Sneads Branch	15,933,585	1
	6/25/2015 23:45	6/25/2015 23:45	-	0.59	89,714	1.53	0.32	6	Atlas	Retained by Sneads Branch	52,931	1
	6/26/2015 17:00	6/26/2015 17:00	-	0.89	34,606	2.19	0.50	1	Atlas	Retained by Sneads Branch	30,799	1
	6/29/2015 13:15	6/29/2015 13:15	-	0.19	96,711	1.62	0.11	1	Atlas	Retained by Sneads Branch	18,375	1
	7/2/2015 20:15	7/2/2015 20:45	30	0.93	32,052	2.66	0.45	3	Atlas	Retained by Sneads Branch	29,808	1
	7/3/2015 14:30	7/3/2015 18:45	255	0.33	102,255	2.39	0.23	1	Atlas	Retained by Sneads Branch	33,744	1
	7/7/2015 11:30	7/7/2015 11:30	-	0.72	14,486	1.64	0.37	6	Atlas	Retained by Sneads Branch	10,430	1
	7/12/2015 5:45	7/12/2015 6:15	30	0.84	121,515	2.35	0.60	1	Atlas	Retained by Sneads Branch	102,073	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/13/2015 14:45	7/13/2015 14:45	-	0.25	63,972	2.75	0.21	1	Atlas	Retained by Sneads Branch	15,993	1
	7/14/2015 4:00	7/14/2015 4:15	15	0.53	174,151	3.22	0.39	1	Atlas	Retained by Sneads Branch	92,300	1
	7/17/2015 22:15	7/18/2015 0:30	135	0.94	46,796	2.55	0.62	3	Atlas	Retained by Sneads Branch	43,988	1
	8/6/2015 2:15	8/6/2015 15:00	765	0.71	13,958	0.90	0.27	24	Atlas	Retained by Sneads Branch	9,910	1
	8/19/2015 8:30	8/19/2015 8:30	-	0.54	2,767	0.43	0.23	1	Atlas	Retained by Sneads Branch	1,494	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.54	1,383	0.65	0.23	1	Atlas	Retained by Sneads Branch	747	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.21	4,533	0.28	0.14	1	Atlas	Retained by Sneads Branch	952	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.25	3,320	0.32	0.17	3	Atlas	Retained by Sneads Branch	830	1
	11/6/2015 3:30	11/6/2015 4:00	30	0.77	41,675	0.78	0.47	3	Atlas	Retained by Sneads Branch	32,090	1
	11/12/2015 0:00	11/12/2015 0:00	-	0.29	6,969	1.45	0.18	3	Atlas	Retained by Sneads Branch	2,021	1
	11/18/2015 10:45	11/18/2015 13:45	180	1.42	16,151	1.70	0.71	6	Atlas	Retained by Sneads Branch	22,935	1
	12/1/2015 3:45	12/1/2015 3:45	-	0.74	3,028	1.58	0.33	12	Atlas	Retained by Sneads Branch	2,241	1
	12/22/2015 3:15	12/22/2015 3:15	-	0.51	7,286	0.64	0.27	6	Atlas	Retained by Sneads Branch	3,716	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.76	55,413	1.36	0.58	1	Atlas	Retained by Sneads Branch	42,114	1
	12/27/2015 10:45	12/27/2015 13:15	150	1.85	24,518	2.96	0.61	3	Atlas	Retained by Sneads Branch	45,358	1
	2/2/2016 19:45	2/3/2016 0:00	255	1.21	25,785	1.19	0.57	6	Atlas	Retained by Sneads Branch	31,200	1
	2/21/2016 4:15	2/21/2016 10:15	360	1.09	14,793	1.25	0.50	12	Atlas	Retained by Sneads Branch	16,124	1
	3/12/2016 22:45	3/12/2016 23:15	30	0.85	28,761	1.67	0.32	24	Atlas	Retained by Sneads Branch	24,447	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.60	8,028	0.75	0.46	1	Atlas	Retained by Sneads Branch	4,817	1
	3/27/2016 21:15	3/27/2016 21:30	15	0.85	55,013	1.37	0.60	1	Atlas	Retained by Sneads Branch	46,761	1
	4/11/2016 17:45	4/11/2016 17:45	-	0.91	1,400	0.79	0.44	6	Atlas	Retained by Sneads Branch	1,274	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.29	6,683	0.11	0.12	3	Atlas	Retained by Sneads Branch	1,938	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.64	13,388	1.04	0.32	1	Atlas	Retained by Sneads Branch	8,568	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.28	7,796	1.62	0.19	3	Atlas	Retained by Sneads Branch	2,183	1
	5/7/2016 16:30	5/7/2016 16:30	-	0.84	1,267	0.95	0.44	6	Atlas	Retained by Sneads Branch	1,064	1
	5/20/2016 15:15	5/20/2016 15:30	15	0.57	1,482	1.25	0.32	3	Atlas	Retained by Sneads Branch	845	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.46	38,983	0.57	0.37	1	Atlas	Retained by Sneads Branch	17,932	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.12	115,025	0.62	0.06	1	Atlas	Retained by Sneads Branch	13,803	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.26	58,873	0.30	0.21	1	Atlas	Retained by Sneads Branch	15,307	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.64	16,414	0.61	0.41	3	Atlas	Retained by Sneads Branch	10,505	1
	6/23/2016 16:15	6/23/2016 20:45	270	1.60	64,475	1.74	0.86	6	Atlas	Retained by Sneads Branch	103,160	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.54	25,785	0.07	0.21	24	Atlas	Retained by Sneads Branch	13,924	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/17/2016 18:45	12/18/2016 0:30	345	2.52	29.676	2.67	1.58	12	Cloudburst	Retained by Sneads Branch	74,783	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.57	48.963	0.64	0.49	1	Atlas	Retained by Sneads Branch	27,909	1
	3/1/2017 3:15	3/1/2017 7:15	240	1.00	41.650	1.46	0.52	6	Atlas	Retained by Sneads Branch	41,650	1
	3/7/2017 7:45	3/7/2017 7:45	-	0.54	18.894	1.56	0.18	48	Atlas	Retained by Sneads Branch	10,203	1
	4/16/2017 17:30	4/16/2017 17:45	15	1.09	17.772	0.77	0.48	6	Atlas	Retained by Sneads Branch	19,371	1
	4/29/2017 2:00	4/29/2017 3:00	60	1.01	48.303	1.31	0.51	3	Atlas	Retained by Sneads Branch	48,786	1
	5/4/2017 20:00	5/4/2017 20:30	30	1.73	1.420	1.83	0.58	24	Atlas	Retained by Sneads Branch	2,456	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.73	169	2.33	0.58	24	Atlas	Retained by Sneads Branch	293	1
	5/20/2017 18:45	5/21/2017 4:15	570	1.03	31.792	0.93	0.46	12	Atlas	Retained by Sneads Branch	32,746	1
	6/5/2017 8:45	6/5/2017 9:00	15	0.07	295.800	0.08	0.03	12	Atlas	Retained by Sneads Branch	20,706	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.24	28.788	0.31	0.20	1	Atlas	Retained by Sneads Branch	6,909	1
	6/15/2017 3:15	6/15/2017 4:00	45	0.70	31.601	0.66	0.45	3	Atlas	Retained by Sneads Branch	22,121	1
	6/23/2017 15:30	6/23/2017 16:00	30	0.75	20.772	1.03	0.36	6	Atlas	Retained by Sneads Branch	15,579	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.64	124.131	0.71	0.53	1	Atlas	Retained by Sneads Branch	79,444	1
	7/7/2017 21:00	7/7/2017 21:00	-	0.27	1.230	0.88	0.18	1	Atlas	Retained by Sneads Branch	332	1
	7/23/2017 2:45	7/23/2017 6:45	240	1.05	16.098	0.73	0.48	12	Atlas	Retained by Sneads Branch	16,903	1
	7/28/2017 9:45	7/28/2017 9:45	-	0.27	11.915	1.31	0.20	1	Atlas	Retained by Sneads Branch	3,217	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.72	39.885	0.37	0.39	6	Atlas	Retained by Sneads Branch	28,717	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.54	45.213	1.17	0.35	1	Atlas	Retained by Sneads Branch	24,415	1
	9/1/2017 14:45	9/1/2017 14:45	-	3.08	560	1.67	1.53	24	Cloudburst	Retained by Sneads Branch	1,724	1
	9/19/2017 8:00	9/19/2017 8:00	-	0.40	8.635	0.56	0.26	3	Atlas		3,454	1
	10/7/2017 21:45	10/7/2017 22:00	15	1.68	13.451	0.53	0.64	24	Atlas	Retained by Sneads Branch	22,598	1
	10/8/2017 13:45	10/8/2017 14:00	15	1.68	5.179	1.49	0.64	24	Atlas	Retained by Sneads Branch	8,701	1
	11/3/2017 4:30	11/3/2017 5:15	45	1.52	56.059	2.41	2.66	1	Atlas	Retained by Sneads Branch	85,210	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.19	88.405	1.83	0.11	1	Atlas	Retained by Sneads Branch	16,797	1
	12/5/2017 4:00	12/5/2017 4:00	-	0.62	1.300	0.37	0.35	3	Atlas	Retained by Sneads Branch	806	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.36	8.669	0.86	0.17	3	Atlas	Retained by Sneads Branch	3,121	1
	2/22/2018 4:30	2/22/2018 5:15	45	1.64	13.509	2.65	0.61	24	Atlas	Retained by Sneads Branch	22,155	1
	2/23/2018 4:15	2/23/2018 5:00	45	1.17	6.598	2.83	0.54	12	Atlas	Retained by Sneads Branch	7,720	1
	2/24/2018 18:45	2/24/2018 23:15	270	1.79	24.345	4.37	0.73	12	Atlas	Retained by Sneads Branch	43,578	1
	3/29/2018 19:00	3/29/2018 19:00	-	1.15	10.869	1.81	0.30	48	Atlas	Retained by Sneads Branch	12,499	1
	4/3/2018 19:15	4/3/2018 19:15	-	0.48	5.719	2.32	0.26	6	Atlas	Retained by Sneads Branch	2,745	1
	5/5/2018 14:15	5/5/2018 15:15	60	1.31	32.348	0.83	0.50	12	Atlas		42,376	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/1/2018 0:30	6/1/2018 1:15	45	1.57	17,103	1.74	0.84	1	Atlas	Retained by Sneads Branch	26,851	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.47	6,660	0.21	0.22	12	Atlas	Retained by Sneads Branch	3,130	1
	6/11/2018 11:15	6/11/2018 13:15	120	0.41	41,976	0.80	0.24	3	Atlas	Retained by Sneads Branch	17,210	1
	8/15/2018 20:00	8/16/2018 8:45	765	2.55	25,845	2.42	0.98	24	Atlas	Retained by Sneads Branch	65,904	1
	8/19/2018 20:45	8/19/2018 20:45	-	0.21	73,719	2.76	0.14	3	Atlas		15,481	1
	8/20/2018 11:30	8/20/2018 11:30	-	0.50	15,628	3.23	0.38	1	Atlas		7,814	1
	9/6/2018 11:30	9/6/2018 11:45	15	0.19	98,937	0.38	0.12	3	Atlas	Retained by Sneads Branch	18,798	1
	9/8/2018 5:30	9/8/2018 5:30	-	2.36	1,159	0.56	0.97	6	Atlas	Retained by Sneads Branch	2,736	1
	9/8/2018 17:30	9/8/2018 21:15	225	2.36	63,239	2.42	0.97	6	Atlas	Retained by Sneads Branch	149,244	1
	9/23/2018 4:30	9/23/2018 6:30	120	1.28	9,708	1.46	0.48	24	Atlas		12,426	1
	9/24/2018 7:30	9/24/2018 13:30	360	1.29	22,175	2.74	0.60	6	Atlas		28,606	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.08	139,575	2.83	0.07	1	Atlas		11,166	1
	9/25/2018 17:00	9/25/2018 17:00	-	0.67	35,240	3.08	0.30	12	Atlas		23,611	1
	11/1/2018 0:30	11/1/2018 1:00	30	1.73	4,150	1.38	0.62	24	Atlas	Retained by Sneads Branch	7,180	1
	11/5/2018 22:00	11/5/2018 22:00	-	0.95	11,948	2.34	0.51	6	Atlas	Retained by Sneads Branch	11,351	1
	12/31/2018 16:15	12/31/2018 16:15	-	1.18	1,386	1.47	0.45	24	Atlas	Retained by Sneads Branch	1,636	1
	2/6/2019 7:00	2/6/2019 7:00	-	1.40	621	0.50	0.45	48	Atlas	Retained by Sneads Branch	869	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.40	9,821	1.01	0.45	48	Atlas	Retained by Sneads Branch	13,749	1
	2/12/2019 4:45	2/12/2019 4:45	-	2.48	415	3.52	0.77	48	Atlas		1,030	1
	2/20/2019 3:30	2/20/2019 6:15	165	1.42	12,682	1.31	0.67	6	Atlas		18,009	1
	3/9/2019 13:30	3/9/2019 15:15	105	0.82	34,361	0.58	0.38	6	Atlas	Retained by Sneads Branch	28,176	1
	3/14/2019 17:30	3/14/2019 17:30	-	0.21	52,229	1.42	0.14	3	Atlas	Retained by Sneads Branch	10,968	1
	3/30/2019 17:15	3/30/2019 17:15	-	0.77	2,822	0.83	0.37	6	Atlas	Retained by Sneads Branch	2,173	1
	4/7/2019 12:00	4/7/2019 12:00	-	0.58	2,838	0.57	0.30	3	Atlas	Retained by Sneads Branch	1,646	1
	4/14/2019 2:00	4/14/2019 3:00	60	0.77	14,483	1.42	0.36	6	Atlas	Retained by Sneads Branch	11,152	1
	4/19/2019 21:30	4/19/2019 21:30	-	2.79	322	1.85	0.91	48	Atlas		898	1
	4/23/2019 18:00	4/23/2019 18:00	-	0.24	99,538	3.03	0.21	1	Atlas	Retained by Sneads Branch	23,889	1
	4/24/2019 20:30	4/24/2019 20:45	15	0.58	9,778	3.35	0.28	1	Atlas	Retained by Sneads Branch	5,671	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.33	21,394	3.75	0.15	12	Atlas	Retained by Sneads Branch	7,060	1
	5/29/2019 9:15	5/29/2019 9:15	-	0.64	11,394	0.83	0.35	6	Atlas	Retained by Sneads Branch	7,292	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.80	9,579	0.91	0.58	1	Atlas	Retained by Sneads Branch	7,663	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.59	35,859	2.16	0.31	3	Atlas		21,157	1
	6/16/2019 6:00	6/16/2019 6:00	-	0.12	1,667	0.81	0.08	3	Atlas	Retained by Sneads Branch	200	1
	6/16/2019 20:45	6/16/2019 21:45	60	1.40	24,284	1.36	0.63	6	Atlas	Retained by Sneads Branch	33,997	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.41	35,861	3.00	0.32	1	Atlas		14,703	1
	6/24/2019 13:45	6/24/2019 14:00	15	0.42	88,064	2.15	0.26	3	Atlas		36,987	1
	7/17/2019 17:00	7/18/2019 1:15	495	0.44	135,184	0.53	0.30	1	Atlas	Retained by Sneads Branch	59,481	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.51	35,122	0.51	0.33	3	Atlas	Retained by Sneads Branch	17,912	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/7/2019 4:30	8/7/2019 4:30	-	0.20	1.345	0.18	0.17	1	Atlas	Retained by Sneads Branch	269	1
	8/26/2019 11:15	8/26/2019 11:30	15	0.34	7.553	0.63	0.16	6	Atlas	Retained by Sneads Branch	2,568	1
	10/6/2019 14:45	10/6/2019 14:45	-	1.02	8,581	0.19	0.39	6	Atlas	Retained by Sneads Branch	8,753	1
	10/15/2019 22:45	10/15/2019 22:45	-	0.57	3,667	0.80	0.44	1	Atlas	Retained by Sneads Branch	2,090	1
	10/30/2019 14:15	10/30/2019 14:30	15	0.84	16,106	1.90	0.43	3	Atlas	Retained by Sneads Branch	13,529	1
	2/12/2020 18:15	2/12/2020 18:15	-	0.77	310	1.11	0.37	3	Atlas	Retained by Sneads Branch	239	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.33	33,342	0.34	0.15	12	Atlas	Retained by Sneads Branch	11,003	1
	3/12/2020 19:45	3/12/2020 19:45	-	0.49	1,155	0.68	0.22	12	Atlas	Retained by Sneads Branch	566	1
	3/19/2020 12:15	3/19/2020 12:30	15	0.30	67,747	1.62	0.15	3	Atlas	Retained by Sneads Branch	20,324	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.27	170,000	0.45	0.23	1	Atlas		45,900	1
	5/16/2020 2:15	5/16/2020 7:30	315	1.37	3,274	1.51	0.51	24	Atlas	Retained by Sneads Branch	4,486	1
	5/18/2020 7:30	5/18/2020 7:30	-	0.41	4,763	1.90	0.17	12	Atlas	Retained by Sneads Branch	1,953	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.47	49,545	0.33	0.26	1	Atlas		23,286	1
	6/22/2020 22:30	6/23/2020 0:00	90	0.79	55,705	1.17	0.35	3	Atlas		44,007	1
	6/27/2020 18:15	6/27/2020 18:15	-	0.24	8,383	1.39	0.13	1	Atlas	Retained by Sneads Branch	2,012	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.60	42,837	1.59	0.37	3	Atlas	Retained by Sneads Branch	25,702	1
	CSO142 Total										18,793,626	141
CSO144	9/26/2012 23:00	9/26/2012 23:00	-	1.38	11,708	2.03	0.73	6	Atlas		16,157	1
	1/13/2013 3:15	1/13/2013 3:15	-	2.15	439	1.01	0.83	24	Atlas		943	1
	4/19/2013 2:15	4/19/2013 2:15	-	0.88	1,044	1.03	0.48	6	Atlas		919	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.65	5,375	1.34	0.43	3	Atlas		3,494	1
	6/26/2013 16:30	6/26/2013 20:45	255	2.82	11,739	3.70	6.35	1	Atlas		33,104	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.23	357	1.32	0.20	1	Atlas		82	1
	7/22/2013 13:45	7/22/2013 13:45	-	2.13	4,395	2.19	0.82	24	Atlas		9,361	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.68	12,029	0.56	0.26	24	Atlas		8,180	1
	8/31/2013 19:30	8/31/2013 19:30	-	1.33	1,056	0.09	0.64	1	Atlas		1,405	1
	10/6/2013 14:00	10/6/2013 13:15	1,395	4.39	169,124	4.39	7.74	24	Cloudburst		742,454	1
	11/7/2013 2:15	11/7/2013 5:30	195	0.22	295	0.88	0.10	12	Atlas		65	1
	11/17/2013 5:30	11/17/2013 8:15	165	2.61	739	2.09	1.89	6	Cloudburst		1,930	1
	12/21/2013 21:45	12/21/2013 22:45	60	2.61	3,524	2.11	0.96	24	Atlas		9,197	1
	2/17/2014 16:00	2/17/2014 16:00	-	0.52	825	0.90	0.32	3	Atlas		429	1
	4/3/2014 12:15	4/3/2014 12:15	-	2.49	765	2.02	0.88	24	Atlas		1,905	1
	4/4/2014 3:00	4/4/2014 3:15	15	2.49	5,027	3.34	0.88	24	Atlas		12,517	1
	4/7/2014 10:30	4/7/2014 11:30	60	0.80	5,594	3.32	0.47	1	Atlas		4,475	1
	4/27/2014 20:00	4/27/2014 20:00	-	2.04	281	0.33	0.75	3	Atlas		573	1
	4/28/2014 5:45	4/28/2014 6:15	30	2.04	5,259	1.54	0.75	3	Atlas		10,728	1
	5/10/2014 14:30	5/10/2014 15:00	30	1.87	1,511	1.85	0.69	24	Atlas		2,825	1
	5/14/2014 7:00	5/14/2014 7:00	-	1.11	1,103	2.09	0.40	24	Atlas		1,224	1
	5/29/2014 21:00	5/29/2014 21:00	-	0.85	8,527	0.94	0.73	1	Atlas		7,248	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.71	10,628	0.99	0.62	1	Atlas		7,546	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.58	21,307	1.45	0.28	3	Atlas		12,358	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.11	2,050	0.44	0.49	12	Atlas		2,275	1
	8/22/2014 19:00	8/22/2014 19:00	-	0.31	41,352	0.95	0.20	3	Atlas		12,819	1
	8/23/2014 20:00	8/23/2014 20:00	-	0.54	3,035	1.29	0.26	3	Atlas		1,639	1
	8/27/2014 17:00	8/27/2014 17:00	-	0.35	2,574	1.26	0.23	3	Atlas		901	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.56	2,679	1.32	0.34	1	Atlas		1,500	1
	9/11/2014 0:45	9/11/2014 2:15	90	1.94	3,182	1.66	1.53	3	Atlas		6,173	1
	10/6/2014 9:30	10/6/2014 9:30	-	0.33	755	0.49	0.17	1	Atlas		249	1
	12/6/2014 2:30	12/6/2014 2:30	-	1.75	178	2.28	0.57	48	Atlas		312	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/2/2015 10:30	4/2/2015 10:30	-	4.17	734	0.44	4.00	24	Cloudburst		3,060	1
	4/3/2015 1:30	4/3/2015 2:45	75	4.17	4,426	2.78	4.00	24	Cloudburst		18,456	1
	4/7/2015 9:15	4/7/2015 17:00	465	0.74	34,588	4.88	0.33	1	Atlas		25,595	1
	4/8/2015 18:00	4/8/2015 18:00	-	0.12	592	5.02	0.09	1	Atlas		71	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.28	11,257	4.84	0.24	1	Atlas		3,152	1
	4/19/2015 14:00	4/19/2015 14:15	15	0.82	4,883	1.20	0.34	12	Atlas		4,004	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.14	65,764	0.54	0.10	1	Atlas		9,207	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.62	168	0.44	0.36	3	Atlas		104	1
	6/18/2015 16:15	6/18/2015 16:15	-	1.63	220	0.78	0.53	48	Atlas		358	1
	7/2/2015 20:30	7/2/2015 20:30	-	1.55	99	3.00	0.60	24	Atlas		154	1
	7/12/2015 5:45	7/12/2015 7:15	90	1.47	10,474	2.97	1.17	1	Atlas		15,397	1
	7/14/2015 4:00	7/14/2015 4:15	15	0.57	12,340	4.13	0.45	1	Atlas		7,034	1
	7/18/2015 0:00	7/18/2015 1:00	60	1.45	1,985	4.26	0.97	3	Atlas		2,878	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.34	55,326	0.37	0.29	1	Atlas		18,811	1
	8/5/2015 14:45	8/5/2015 14:45	-	0.96	11,617	0.55	0.33	24	Atlas		11,152	1
	12/23/2015 19:15	12/23/2015 19:30	15	0.91	27,980	1.39	0.74	1	Atlas		25,462	1
	12/27/2015 10:45	12/27/2015 10:45	-	2.13	1,697	2.60	0.71	3	Atlas		3,615	1
	3/27/2016 21:15	3/27/2016 21:15	-	0.84	9,973	1.12	0.56	3	Atlas		8,377	1
	5/10/2016 21:45	5/10/2016 21:45	-	0.71	224	1.53	0.27	24	Atlas		159	1
	6/23/2016 20:15	6/23/2016 20:30	15	1.97	57,118	2.26	1.33	6	Cloudburst		112,522	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.28	9,064	1.10	0.24	1	Atlas		2,538	1
	8/15/2016 3:00	8/15/2016 3:00	-	1.07	54,618	0.80	0.57	6	Atlas		58,441	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.69	317	1.76	0.32	3	Atlas		219	1
	12/17/2016 19:15	12/17/2016 19:15	-	2.58	6,514	1.29	1.72	12	Cloudburst		16,807	1
	4/29/2017 1:45	4/29/2017 1:45	-	1.14	39,404	0.86	0.60	6	Atlas		44,920	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.30	78,100	0.41	0.26	1	Atlas		23,430	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.35	144,589	0.12	0.19	1	Atlas		50,606	1
	11/3/2017 4:30	11/3/2017 5:00	30	0.81	120,183	1.79	0.61	1	Atlas		97,348	1
	2/24/2018 23:00	2/24/2018 23:15	15	1.60	61,846	4.43	0.67	12	Atlas		98,953	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.16	59,067	1.20	0.60	3	Atlas		68,518	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.90	36,456	1.48	0.72	1	Atlas		32,810	1
	7/20/2018 19:30	7/20/2018 21:00	90	1.34	21,769	1.70	0.73	3	Atlas		29,170	1
	7/31/2018 2:00	7/31/2018 2:15	15	2.23	4,157	1.44	0.92	6	Atlas		9,271	1
	8/16/2018 8:30	8/16/2018 8:45	15	2.55	4,909	2.42	0.98	24	Atlas		12,518	1
	8/31/2018 17:30	8/31/2018 17:30	-	0.46	31,348	0.36	0.33	1	Atlas		14,420	1
	9/8/2018 17:30	9/8/2018 20:30	180	2.48	28,388	2.67	1.31	6	Cloudburst		70,401	1
	9/24/2018 19:15	9/24/2018 19:15	-	1.47	132	2.92	0.66	6	Atlas		194	1
	6/9/2019 15:15	6/9/2019 17:00	105	1.00	45,126	2.35	0.57	3	Atlas		45,126	1
	6/18/2019 16:45	6/18/2019 16:45	-	0.99	16,224	2.97	0.64	1	Atlas		16,062	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.52	1,460	3.71	0.42	1	Atlas		759	1
	6/24/2019 13:45	6/24/2019 14:00	15	0.50	92,416	2.85	0.31	3	Atlas		46,208	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.23	416,222	0.40	0.18	1	Atlas		95,731	1
	6/23/2020 0:00	6/23/2020 0:00	-	0.84	3,932	1.18	0.39	3	Atlas		3,303	1
CSO144 Total											**2,022,308**	**75**
CSO146	7/4/2008 4:00	7/4/2008 6:00	120	0.61	110,467	0.28	0.23	24	Atlas		67,385	1
	7/4/2008 20:00	7/4/2008 20:00	-	0.61	132,292	0.60	0.23	24	Atlas		80,698	1
	7/20/2008 20:00	7/20/2008 21:00	60	0.18	593,406	0.17	0.13	1	Atlas		106,813	1
	7/28/2008 8:00	7/28/2008 9:00	60	0.59	184,975	0.64	0.39	3	Atlas		109,135	1
	7/30/2008 9:00	7/30/2008 10:00	60	1.24	72,748	1.05	0.48	24	Atlas		90,208	1
	7/31/2008 1:00	7/31/2008 4:00	180	1.24	132,711	1.78	0.48	24	Atlas		164,562	1
	8/5/2008 10:00	8/5/2008 10:00	-	0.29	7,003	1.26	0.16	3	Atlas		2,031	1
	8/14/2008 13:00	8/14/2008 13:00	-	0.14	313,321	0.10	0.10	1	Atlas		43,865	1
	9/9/2008 3:00	9/9/2008 9:00	360	0.24	41,579	0.69	0.11	12	Atlas		9,979	1
	9/29/2008 23:00	9/30/2008 0:00	60	0.25	500,040	0.19	0.17	3	Atlas		125,010	1
	10/7/2008 15:15	10/7/2008 15:45	30	0.96	50,901	0.30	0.37	24	Atlas		48,865	1
	10/8/2008 3:00	10/8/2008 4:00	60	0.96	269,379	0.93	0.37	24	Atlas		258,604	1
	10/24/2008 4:15	10/24/2008 13:30	555	1.38	798,958	1.39	0.63	12	Atlas		1,102,562	1
	11/12/2008 23:45	11/13/2008 0:30	45	0.37	507,911	0.51	0.17	3	Atlas		187,927	1
	11/15/2008 6:30	11/15/2008 6:45	15	1.11	58,361	0.88	0.45	12	Atlas		64,781	1
	11/24/2008 3:30	11/24/2008 7:30	240	0.60	492,622	0.57	0.28	6	Atlas		295,573	1
	12/3/2008 23:45	12/4/2008 0:45	60	0.29	491,917	0.45	0.15	3	Atlas		142,656	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/9/2008 11:30	12/9/2008 16:45	315	1.18	922.104	1.34	0.55	6	Atlas		1,088.083	1
	12/19/2008 6:45	12/19/2008 10:00	195	0.74	806.138	1.13	0.40	6	Atlas		596.542	1
	12/23/2008 23:15	12/24/2008 14:30	915	2.25	1,218.931	3.11	0.77	24	Atlas		2,742.594	1
	12/28/2008 0:15	12/28/2008 2:30	135	0.43	1,308.188	2.69	0.29	3	Atlas		562.521	1
	1/3/2009 16:30	1/3/2009 16:45	15	0.16	229.363	0.54	0.10	1	Atlas		36.698	1
	1/10/2009 7:30	1/10/2009 8:30	60	0.41	801.905	1.02	0.25	3	Atlas		328.781	1
	1/28/2009 1:15	1/28/2009 8:30	435	1.78	678.821	1.80	0.58	48	Atlas		1,208.302	1
	2/10/2009 5:15	2/10/2009 6:00	45	0.96	158.063	0.25	0.31	48	Atlas		151.740	1
	2/10/2009 18:30	2/10/2009 19:30	60	0.96	157.758	0.61	0.31	48	Atlas		151.448	1
	2/11/2009 4:45	2/11/2009 14:45	600	0.96	839.128	0.95	0.31	48	Atlas		805.563	1
	2/18/2009 5:15	2/18/2009 5:45	30	0.23	353.396	0.37	0.13	1	Atlas		81.281	1
	2/21/2009 14:15	2/21/2009 15:30	75	0.26	321.554	0.53	0.11	12	Atlas		83.604	1
	2/26/2009 10:15	2/26/2009 10:15	-	0.24	64.842	0.46	0.13	6	Atlas		15.562	1
	2/27/2009 3:15	2/27/2009 5:30	135	0.82	1,829.027	1.30	0.45	3	Atlas		1,499.802	1
	4/2/2009 16:45	4/3/2009 4:15	690	1.10	1,890.313	1.76	0.50	12	Atlas		2,079.344	1
	4/5/2009 17:15	4/5/2009 18:15	60	0.27	1,815.278	1.37	0.17	3	Atlas		490.125	1
	4/10/2009 11:30	4/10/2009 11:45	15	0.41	92.480	0.44	0.17	12	Atlas		37.917	1
	4/10/2009 20:30	4/10/2009 21:30	60	0.41	621.849	0.71	0.17	12	Atlas		254.958	1
	4/13/2009 16:00	4/13/2009 22:30	390	0.85	934.865	1.33	0.39	12	Atlas		794.635	1
	4/14/2009 8:45	4/14/2009 9:15	30	0.04	1,112.250	1.36	0.03	3	Atlas		44.490	1
	4/19/2009 7:45	4/20/2009 0:00	975	1.33	1,347.744	2.25	0.52	12	Atlas		1,792.500	1
	4/28/2009 8:30	4/28/2009 9:45	75	0.26	1,059.296	0.28	0.16	3	Atlas		275.417	1
	5/1/2009 1:45	5/1/2009 2:15	30	0.05	3,742.700	0.41	0.03	6	Atlas		187.135	1
	6/10/2009 10:00	6/10/2009 13:30	210	0.87	3,557.021	1.12	0.45	3	Atlas		3,094.608	1
	6/11/2009 2:45	6/11/2009 5:30	165	1.86	2,371.415	2.16	0.72	24	Atlas		4,410.832	1
	6/11/2009 17:45	6/11/2009 21:45	240	1.86	1,578.483	2.78	0.72	24	Atlas		2,935.979	1
	6/16/2009 9:30	6/16/2009 17:15	465	0.81	1,428.675	4.17	0.51	1	Atlas		1,157.227	1
	6/18/2009 10:15	6/18/2009 12:45	150	1.42	2,315.919	3.64	0.96	1	Atlas		3,288.605	1
	6/20/2009 4:45	6/20/2009 4:45	-	0.13	228.608	2.99	0.10	1	Atlas		29.719	1
	6/22/2009 9:15	6/22/2009 11:15	120	1.34	1,468.928	4.39	0.90	1	Atlas		1,968.364	1
	6/25/2009 23:30	6/26/2009 7:00	450	1.98	2,228.419	3.58	0.91	12	Atlas		4,412.269	1
	6/26/2009 16:00	6/26/2009 16:45	45	0.16	2,992.100	3.74	0.14	1	Atlas		478.736	1
	7/15/2009 10:30	7/15/2009 11:45	75	0.42	2,302.290	0.44	0.26	3	Atlas		966.962	1
	7/17/2009 3:30	7/17/2009 4:45	75	0.36	2,258.131	0.81	0.24	3	Atlas		812.927	1
	7/22/2009 6:15	7/22/2009 13:00	405	1.56	1,862.151	2.33	0.69	12	Atlas		2,904.956	1
	7/25/2009 6:45	7/25/2009 6:45	-	0.63	15.949	1.74	0.24	24	Atlas		10.048	1
	7/29/2009 1:15	7/29/2009 8:30	435	2.04	3,240.090	4.12	0.98	6	Atlas		6,609.784	1
	7/30/2009 19:30	7/30/2009 23:15	225	1.04	1,139.364	3.55	0.43	12	Atlas		1,184.939	1
	8/4/2009 7:30	8/4/2009 19:45	735	6.41	1,956.641	9.35					12,542.069	1
	8/10/2009 18:45	8/10/2009 20:45	120	1.07	1,009.307	7.43	0.68	3	Atlas		1,079.959	1
	8/20/2009 9:15	8/20/2009 9:45	30	0.39	336.072	0.42	0.25	3	Atlas		131.068	1
	9/3/2009 16:30	9/3/2009 16:30	-	0.01	1,976.400	0.14	0.01	1	Atlas		19.764	1
	9/6/2009 1:30	9/6/2009 1:30	-	0.18	25.006	0.17	0.12	3	Atlas		4.501	1
	9/7/2009 2:00	9/7/2009 2:00	-	0.22	35.823	0.36	0.09	12	Atlas		7.881	1
	9/20/2009 6:00	9/21/2009 0:45	1,125	3.66	3,277.050	3.66	4.24	24	Cloudburst		11,994.003	1
	9/22/2009 18:15	9/23/2009 0:15	360	0.64	1,625.275	4.32	0.33	6	Atlas		1,040.176	1
	9/24/2009 7:30	9/24/2009 8:00	30	0.79	745.937	4.48	0.26	24	Atlas		589.290	1
	9/24/2009 19:00	9/24/2009 23:00	240	0.79	297.985	5.04	0.26	24	Atlas		235.408	1
	9/26/2009 20:15	9/26/2009 21:30	75	0.53	2,776.070	5.65	0.44	1	Atlas		1,471.317	1
	10/2/2009 3:45	10/2/2009 7:00	195	0.77	2,664.910	1.41	0.48	3	Atlas		2,051.981	1
	10/6/2009 10:45	10/6/2009 11:45	60	0.11	4,779.936	0.87	0.07	1	Atlas		525.793	1
	10/8/2009 13:45	10/9/2009 12:45	1,380	2.04	3,334.214	2.76	0.68	24	Atlas		6,801.796	1
	10/9/2009 21:15	10/9/2009 22:30	75	2.04	146.300	2.14	0.68	24	Atlas		298.451	1
	10/14/2009 5:30	10/14/2009 7:30	120	0.60	2,970.218	2.63	0.39	3	Atlas		1,782.131	1
	10/15/2009 4:15	10/15/2009 5:30	75	0.15	3,299.547	2.74	0.10	3	Atlas		494.932	1
	10/23/2009 2:30	10/23/2009 10:30	480	0.58	1,083.241	0.60	0.25	12	Atlas		628.280	1
	10/27/2009 15:45	10/27/2009 23:45	480	1.12	1,814.038	1.70	0.50	12	Atlas		2,031.723	1
	10/30/2009 19:30	10/31/2009 5:15	585	1.05	1,445.432	2.15	0.47	12	Atlas		1,517.704	1
	11/17/2009 7:30	11/17/2009 21:15	825	0.95	938.557	0.94	0.37	24	Atlas		891.629	1
	12/8/2009 15:45	12/8/2009 23:00	435	1.77	826.402	2.04	0.74	12	Atlas		1,462.732	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/13/2009 6:45	12/13/2009 7:15	30	0.32	575,672	2.16	0.21	3	Atlas		184,215	1
	12/19/2009 3:00	12/19/2009 3:00	-	0.39	6,179	0.42	0.13	24	Atlas		2,410	1
	12/25/2009 11:00	12/25/2009 11:15	15	0.27	135,704	0.65	0.09	24	Atlas		36,640	1
	1/20/2010 9:45	1/20/2010 12:45	180	1.33	731,329	0.69	0.43	48	Atlas		972,667	1
	1/20/2010 23:45	1/21/2010 0:45	60	1.33	240,541	0.83	0.43	48	Atlas		319,919	1
	1/21/2010 10:15	1/21/2010 19:45	570	1.33	1,470,889	1.59	0.43	48	Atlas		1,956,282	1
	1/24/2010 3:45	1/24/2010 9:30	345	0.88	1,118,317	2.09	0.34	24	Atlas		984,119	1
	1/24/2010 21:15	1/24/2010 23:00	105	0.88	321,194	2.22	0.34	24	Atlas		282,651	1
	2/5/2010 11:30	2/5/2010 20:15	525	1.05	619,115	0.97	0.38	24	Atlas		650,071	1
	3/12/2010 13:45	3/12/2010 14:45	60	0.27	314,085	0.28	0.17	3	Atlas		84,803	1
	3/21/2010 19:45	3/22/2010 1:45	360	0.59	347,212	0.59	0.27	12	Atlas		204,855	1
	3/25/2010 14:15	3/25/2010 22:30	495	0.59	572,942	1.15	0.35	1	Atlas		338,036	1
	4/7/2010 23:45	4/8/2010 6:30	405	1.16	884,657	1.24	0.55	6	Atlas		1,026,202	1
	4/24/2010 14:30	4/24/2010 20:45	375	1.77	2,978,983	2.01	0.84	6	Atlas		5,272,800	1
	4/27/2010 7:45	4/27/2010 10:45	180	0.36	1,948,308	2.51	0.17	6	Atlas		701,391	1
	5/1/2010 4:30	5/2/2010 23:15	2,565	4.60	3,532,064	6.78	5.28	48	Atlas		16,247,493	1
	5/7/2010 23:00	5/7/2010 23:45	45	0.29	612,817	4.92	0.25	1	Atlas		177,717	1
	5/12/2010 9:30	5/12/2010 11:00	90	0.97	815,184	1.35	0.75	1	Atlas		790,728	1
	5/13/2010 12:30	5/13/2010 13:00	30	0.19	657,874	1.54	0.17	1	Atlas		124,996	1
	5/16/2010 9:30	5/16/2010 18:45	555	0.53	152,266	1.78	0.24	12	Atlas		80,701	1
	5/17/2010 19:30	5/17/2010 20:15	45	0.27	1,581,774	2.04	0.17	3	Atlas		427,079	1
	5/21/2010 19:30	5/21/2010 21:15	105	1.16	1,661,172	1.97	0.88	1	Atlas		1,926,960	1
	5/30/2010 20:00	5/30/2010 20:45	45	0.37	1,384,116	0.54	0.20	6	Atlas		512,123	1
	6/9/2010 3:30	6/9/2010 13:00	570	2.31	743,877	2.44	1.77	3	Atlas		1,718,355	1
	6/12/2010 1:30	6/12/2010 1:45	15	0.26	403,400	2.56	0.14	6	Atlas		104,884	1
	6/13/2010 22:45	6/13/2010 23:30	45	0.40	638,448	2.79	0.19	1	Atlas		255,379	1
	6/14/2010 22:00	6/14/2010 22:00	-	0.05	487,940	3.01	0.03	1	Atlas		24,397	1
	6/15/2010 20:45	6/15/2010 21:15	30	0.37	152,238	3.37	0.24	3	Atlas		56,328	1
	6/19/2010 5:30	6/19/2010 8:00	150	0.78	1,538,667	1.59	0.45	3	Atlas		1,200,160	1
	6/28/2010 1:30	6/28/2010 2:45	75	0.28	384,736	0.27	0.19	1	Atlas		107,726	1
	7/9/2010 7:15	7/9/2010 7:30	15	0.45	24,622	0.27	0.17	12	Atlas		11,080	1
	7/13/2010 3:45	7/13/2010 11:15	450	1.96	825,421	2.39	0.90	12	Atlas		1,617,825	1
	7/20/2010 4:30	7/20/2010 6:30	120	0.69	1,183,828	2.13	0.41	3	Atlas		816,841	1
	7/21/2010 5:45	7/21/2010 6:45	60	0.42	602,098	1.35	0.32	1	Atlas		252,881	1
	7/22/2010 14:15	7/22/2010 15:00	45	0.31	732,348	1.67	0.27	1	Atlas		227,028	1
	7/27/2010 14:30	7/27/2010 17:00	150	0.87	368,346	1.59	0.56	3	Atlas		320,461	1
	7/31/2010 4:00	7/31/2010 6:30	150	0.56	682,241	1.55	0.33	3	Atlas		382,055	1
	7/31/2010 20:45	7/31/2010 21:45	60	0.29	842,862	1.84	0.25	1	Atlas		244,430	1
	8/5/2010 9:00	8/5/2010 9:45	45	0.18	336,711	1.01	0.14	1	Atlas		60,608	1
	8/11/2010 17:15	8/11/2010 18:00	45	0.10	1,273,800	0.28	0.08	1	Atlas		127,380	1
	8/14/2010 16:15	8/14/2010 17:15	60	0.61	409,074	0.96	0.50	1	Atlas		249,535	1
	8/21/2010 7:00	8/21/2010 9:00	120	0.47	651,343	1.11	0.29	3	Atlas		306,131	1
	9/7/2010 9:30	9/7/2010 9:45	15	0.18	61,928	0.18	0.16	1	Atlas		11,147	1
	10/13/2010 18:45	10/13/2010 21:00	135	0.42	209,574	0.45	0.28	3	Atlas		88,021	1
	10/26/2010 11:00	10/26/2010 11:45	45	0.57	256,142	0.32	0.31	6	Atlas		146,001	1
	11/16/2010 11:00	11/16/2010 18:45	465	0.78	381,465	0.83	0.35	12	Atlas		297,543	1
	11/23/2010 2:15	11/23/2010 4:30	135	0.28	229,407	1.10	0.15	6	Atlas		64,234	1
	11/24/2010 12:30	11/24/2010 15:30	180	0.71	448,420	1.01	0.33	3	Atlas		318,378	1
	11/25/2010 9:30	11/25/2010 23:30	840	2.36	622,277	3.24	0.90	24	Atlas		1,468,573	1
	11/29/2010 20:45	11/30/2010 13:30	1,005	1.68	423,414	4.99	0.65	24	Atlas		711,335	1
	12/30/2010 2:45	12/30/2010 8:15	330	0.53	98,066	0.59	0.24	12	Atlas		51,975	1
	1/1/2011 4:15	1/1/2011 7:30	195	0.62	120,192	1.11	0.28	6	Atlas		74,519	1
	2/1/2011 16:30	2/1/2011 20:30	240	0.85	1,297,219	0.77	0.34	6	Atlas		1,102,636	1
	2/7/2011 12:15	2/7/2011 13:00	45	0.25	234,116	1.18	0.10	24	Atlas		58,529	1
	2/21/2011 18:30	2/21/2011 19:00	30	0.16	209,113	0.19	0.10	3	Atlas		33,458	1
	2/24/2011 16:45	2/25/2011 4:30	705	2.27	965,822	2.47	0.89	12	Atlas		2,192,417	1
	2/27/2011 18:15	2/27/2011 18:15	-	0.15	81,980	2.57	0.09	3	Atlas		12,297	1
	2/28/2011 5:00	2/28/2011 12:45	465	1.30	373,708	3.88	0.61	6	Atlas		485,820	1
	3/5/2011 4:15	3/5/2011 19:15	900	0.90	238,304	2.33	0.30	24	Atlas		214,474	1
	3/8/2011 22:30	3/9/2011 20:30	1,320	3.03	433,547	3.93	1.76	24	Cloudburst		1,313,646	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/14/2011 3:45	3/14/2011 5:00	75	0.94	95,339	3.42	0.31	12	Atlas		89,619	1
	3/14/2011 13:15	3/14/2011 16:00	165	0.94	71,480	3.80	0.31	12	Atlas		67,191	1
	3/15/2011 7:15	3/15/2011 13:00	345	0.94	21,849	3.96	0.31	12	Atlas		20,538	1
	3/18/2011 21:15	3/18/2011 22:15	60	0.19	136,668	1.12	0.09	6	Atlas		25,967	1
	4/4/2011 13:30	4/4/2011 17:15	225	0.85	134,538	0.99	0.44	6	Atlas		114,357	1
	4/9/2011 10:30	4/9/2011 12:15	105	0.57	213,430	1.47	0.38	1	Atlas		121,655	1
	4/11/2011 10:30	4/12/2011 10:00	1,410	3.26	715,366	4.68	2.68	24	Cloudburst		2,332,094	1
	4/15/2011 12:45	4/15/2011 13:45	60	0.18	81,894	4.01	0.11	3	Atlas		14,741	1
	4/20/2011 0:30	4/20/2011 5:00	270	0.70	416,596	1.14	0.38	6	Atlas		291,617	1
	4/22/2011 16:30	4/23/2011 21:00	1,710	4.87	387,718	4.47	3.76	48	Atlas		1,888,186	1
	4/24/2011 7:45	4/25/2011 7:30	1,425	4.87	215,438	5.55	3.76	48	Atlas		1,049,185	1
	4/27/2011 1:00	4/28/2011 0:45	1,425	2.56	1,771,368	8.04	0.98	24	Atlas		4,534,701	1
	4/28/2011 18:45	4/28/2011 20:15	90	0.19	703,526	7.68	0.13	3	Atlas		133,670	1
	5/1/2011 4:15	5/1/2011 7:00	165	0.74	840,799	4.77	0.38	3	Atlas		622,191	1
	5/1/2011 19:15	5/2/2011 8:00	765	2.71	308,825	4.77	0.88	48	Atlas		836,917	1
	5/2/2011 16:45	5/3/2011 15:00	1,335	2.71	796,418	6.33	0.88	48	Atlas		2,158,293	1
	5/8/2011 0:45	5/8/2011 2:00	75	0.36	955,419	3.73	0.24	1	Atlas		343,951	1
	5/14/2011 14:45	5/14/2011 15:30	45	0.36	386,981	0.75	0.28	1	Atlas		139,313	1
	5/21/2011 18:30	5/21/2011 19:30	60	0.45	597,518	0.90	0.33	1	Atlas		268,883	1
	5/23/2011 4:00	5/23/2011 5:00	60	0.39	354,044	0.96	0.28	1	Atlas		138,077	1
	5/23/2011 17:45	5/23/2011 21:30	225	0.89	661,742	1.87	0.56	3	Atlas		588,950	1
	5/25/2011 22:45	5/26/2011 17:15	1,110	1.56	873,313	3.39	0.67	3	Atlas		1,362,369	1
	6/11/2011 4:45	6/11/2011 5:15	30	0.25	119,880	0.28	0.21	1	Atlas		29,970	1
	6/15/2011 9:15	6/15/2011 10:45	90	1.04	526,070	1.34	0.63	3	Atlas		547,113	1
	6/18/2011 6:15	6/18/2011 9:15	180	0.86	529,899	1.95	0.53	3	Atlas		455,713	1
	6/19/2011 7:45	6/19/2011 10:00	135	0.54	367,248	2.47	0.33	3	Atlas		198,314	1
	6/20/2011 1:30	6/20/2011 2:30	60	0.46	372,004	2.94	0.40	1	Atlas		171,122	1
	6/21/2011 14:15	6/21/2011 17:00	165	0.38	95,839	3.28	0.22	3	Atlas		36,419	1
	6/22/2011 19:15	6/23/2011 4:45	570	3.57	915,196	5.82	18.27	3	Atlas		3,267,249	1
	6/26/2011 4:45	6/26/2011 5:15	30	0.33	73,848	5.21	0.17	6	Atlas		24,370	1
	7/8/2011 3:30	7/8/2011 5:00	90	0.46	164,952	0.89	0.23	3	Atlas		75,878	1
	7/12/2011 17:00	7/12/2011 21:00	240	0.49	413,020	1.12	0.26	6	Atlas		202,380	1
	7/19/2011 22:45	7/20/2011 0:00	75	1.43	842,645	1.47	1.39	1	Atlas		1,204,982	1
	8/7/2011 3:15	8/7/2011 6:45	210	1.88	860,592	1.91	1.70	3	Atlas		1,617,913	1
	8/8/2011 15:15	8/8/2011 15:30	15	0.20	254,485	2.12	0.13	3	Atlas		50,897	1
	8/10/2011 2:45	8/10/2011 3:15	30	0.22	187,291	2.24	0.15	3	Atlas		41,204	1
	8/11/2011 20:15	8/12/2011 3:15	420	Discharge	-	2.32					551,710	1
	8/13/2011 17:00	8/13/2011 18:00	60	0.91	879,175	3.15	0.72	1	Atlas		800,049	1
	8/18/2011 8:00	8/18/2011 9:00	60	0.24	1,340,733	1.15	0.20	1	Atlas		321,776	1
	9/10/2011 20:00	9/10/2011 20:15	15	0.06	179,383	0.41	0.04	3	Atlas		10,763	1
	9/19/2011 7:00	9/19/2011 8:00	60	0.70	471,420	0.61	0.28	12	Atlas		329,994	1
	9/23/2011 2:30	9/23/2011 8:00	330	0.82	398,863	1.56	0.38	12	Atlas		327,068	1
	9/25/2011 20:00	9/26/2011 6:30	630	3.94	2,749,018	5.63	13.96	12	Atlas		10,831,130	1
	10/13/2011 7:30	10/13/2011 8:15	45	0.40	631,460	0.27	0.19	3	Atlas		252,584	1
	10/27/2011 0:00	10/27/2011 5:15	315	1.12	432,151	1.50	0.46	12	Atlas		484,009	1
	11/3/2011 9:45	11/3/2011 16:45	420	0.53	124,379	0.57	0.23	12	Atlas		65,921	1
	11/14/2011 21:30	11/14/2011 23:15	105	2.23	94,763	0.42	0.72	48	Atlas		211,321	1
	11/15/2011 8:00	11/15/2011 14:15	375	2.23	36,037	1.55	0.72	48	Atlas		80,363	1
	11/16/2011 5:30	11/16/2011 11:30	360	2.23	38,158	2.21	0.72	48	Atlas		85,092	1
	11/20/2011 17:30	11/20/2011 18:30	60	0.94	11,504	2.85	0.33	24	Atlas		10,814	1
	11/22/2011 0:00	11/22/2011 11:30	690	1.15	323,516	3.85	0.49	12	Atlas		372,043	1
	11/27/2011 6:15	11/29/2011 3:15	2,700	3.03	492,237	5.04	0.94	48	Atlas		1,491,478	1
	12/4/2011 16:15	12/5/2011 22:00	1,785	3.04	908,013	5.49	0.99	48	Atlas		2,760,361	1
	12/15/2011 4:00	12/15/2011 8:00	240	0.45	208,729	0.42	0.23	6	Atlas		93,928	1
	12/21/2011 5:15	12/21/2011 7:30	135	0.66	417,755	1.13	0.30	12	Atlas		275,718	1
	12/22/2011 12:00	12/22/2011 18:00	360	0.58	561,579	1.22	0.26	12	Atlas		325,716	1
	12/27/2011 2:45	12/27/2011 12:00	555	0.64	420,656	1.84	0.25	12	Atlas		269,220	1
	1/11/2012 4:45	1/11/2012 11:30	405	0.71	488,946	0.60	0.28	12	Atlas		347,152	1
	1/11/2012 20:45	1/11/2012 20:45	-	0.71	6,694	0.71	0.28	12	Atlas		4,753	1
	1/17/2012 4:00	1/17/2012 12:45	525	0.36	495,344	1.17	0.17	12	Atlas		178,324	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/23/2012 2:45	1/23/2012 5:00	135	0.54	518,169	0.91	0.29	3	Atlas		279,811	1
	1/25/2012 19:00	1/25/2012 19:15	15	1.70	9,105	0.81	0.56	24	Atlas		15,478	1
	1/26/2012 5:30	1/26/2012 7:00	90	1.70	200,883	1.20	0.56	24	Atlas		341,501	1
	1/26/2012 17:45	1/27/2012 1:45	480	1.70	712,925	2.25	0.56	24	Atlas		1,211,972	1
	2/4/2012 9:30	2/4/2012 10:45	75	0.43	52,547	0.46	0.25	3	Atlas		22,595	1
	2/22/2012 23:00	2/22/2012 23:30	30	0.12	348,333	0.38	0.09	1	Atlas		41,800	1
	2/29/2012 6:15	2/29/2012 9:30	195	0.66	217,765	0.77	0.31	1	Atlas		143,725	1
	3/8/2012 10:15	3/8/2012 17:30	435	0.84	361,000	1.17	0.39	6	Atlas		303,240	1
	3/15/2012 19:00	3/16/2012 3:45	525	1.17	513,492	1.36	0.52	12	Atlas		600,786	1
	3/17/2012 18:45	3/17/2012 22:30	225	1.02	233,392	2.33	0.58	1	Atlas		238,060	1
	3/23/2012 5:15	3/23/2012 23:45	1,110	1.42	1,286,504	2.45	0.53	24	Atlas		1,826,836	1
	4/1/2012 8:30	4/1/2012 11:45	195	1.88	659,548	2.06	1.20	3	Atlas		1,239,960	1
	4/4/2012 17:45	4/4/2012 17:45	-	0.28	25,439	2.15	0.12	12	Atlas		7,123	1
	4/16/2012 7:15	4/16/2012 7:15	-	0.13	138,392	0.30	0.09	3	Atlas		17,991	1
	4/28/2012 19:15	4/29/2012 0:45	330	0.78	964,923	0.90	0.58	1	Atlas		752,640	1
	4/30/2012 18:00	4/30/2012 18:45	45	0.32	1,358,634	1.17	0.21	3	Atlas		434,763	1
	5/4/2012 23:45	5/5/2012 5:15	330	1.35	1,950,269	2.47	0.69	6	Atlas		2,632,863	1
	5/13/2012 2:00	5/13/2012 14:45	765	2.09	3,784,578	2.13	0.85	12	Atlas		7,909,767	1
	5/16/2012 18:00	5/16/2012 18:00	-	0.18	98,078	2.28	0.16	1	Atlas		17,654	1
	5/29/2012 6:45	5/29/2012 13:15	390	3.09	1,721,984	3.09	21.94	3	Atlas		5,320,932	1
	5/31/2012 18:30	6/1/2012 5:45	675	1.21	2,895,351	4.24	0.52	12	Atlas		3,503,375	1
	7/1/2012 20:00	7/1/2012 20:30	30	0.44	1,720,084	0.37	0.31	1	Atlas		756,837	1
	7/8/2012 13:15	7/8/2012 13:45	30	0.21	834,086	0.68	0.15	1	Atlas		175,158	1
	7/14/2012 12:45	7/14/2012 15:00	135	0.53	1,927,757	0.79	0.32	3	Atlas		1,021,711	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.86	2,554,545	1.37	0.70	1	Atlas		2,196,909	1
	7/24/2012 20:15	7/24/2012 20:45	30	0.36	1,678,153	1.29	0.30	1	Atlas		604,135	1
	7/27/2012 3:30	7/27/2012 3:45	15	0.08	1,727,600	0.53	0.04	6	Atlas		138,208	1
	7/27/2012 20:00	7/27/2012 21:30	90	0.67	2,904,325	1.12	0.50	1	Atlas		1,945,898	1
	8/3/2012 9:30	8/3/2012 10:15	45	0.26	819,485	0.94	0.13	3	Atlas		213,066	1
	8/16/2012 20:15	8/16/2012 23:45	210	0.69	2,577,017	0.82	0.40	3	Atlas		1,778,142	1
	8/21/2012 14:00	8/21/2012 14:45	45	0.22	3,731,918	0.93	0.18	1	Atlas		821,022	1
	9/1/2012 15:00	9/1/2012 18:00	180	0.57	2,766,447	0.60	0.36	3	Atlas		1,576,875	1
	9/2/2012 12:00	9/2/2012 22:15	615	0.71	3,502,170	1.31	0.27	24	Atlas		2,486,541	1
	9/3/2012 14:15	9/3/2012 15:00	45	0.06	8,596,317	1.35	0.03	1	Atlas		515,779	1
	9/5/2012 15:30	9/5/2012 17:15	105	0.68	1,373,113	2.04	0.53	1	Atlas		933,717	1
	9/7/2012 23:45	9/8/2012 7:15	450	1.38	729,741	3.40	0.77	3	Atlas		1,007,043	1
	9/25/2012 9:00	9/25/2012 10:30	90	0.40	141,325	0.36	0.22	6	Atlas		56,530	1
	9/26/2012 0:15	9/26/2012 6:00	345	0.48	339,775	0.80	0.22	12	Atlas		163,092	1
	9/26/2012 21:15	9/27/2012 0:45	210	1.17	1,356,138	2.02	0.67	3	Atlas		1,586,681	1
	10/1/2012 14:45	10/1/2012 19:30	285	0.73	1,366,079	2.77	0.29	12	Atlas		997,238	1
	10/18/2012 1:30	10/18/2012 2:15	45	0.30	248,867	0.45	0.19	3	Atlas		74,660	1
	10/26/2012 11:45	10/26/2012 16:15	270	0.81	188,695	0.72	0.37	6	Atlas		152,843	1
	11/3/2012 16:45	11/3/2012 16:45	-	0.16	118,531	0.17	0.07	12	Atlas		18,965	1
	11/12/2012 7:00	11/12/2012 7:45	45	0.43	152,128	0.43	0.20	12	Atlas		65,415	1
	12/4/2012 16:15	12/4/2012 19:00	165	0.61	428,128	0.80	0.39	3	Atlas		261,158	1
	12/7/2012 2:30	12/7/2012 18:15	945	1.27	895,068	2.08	0.55	12	Atlas		1,136,736	1
	12/8/2012 5:45	12/8/2012 10:15	270	0.71	376,238	2.79	0.39	6	Atlas		267,129	1
	12/9/2012 9:00	12/9/2012 9:30	30	1.14	68,836	2.88	0.52	3	Atlas		78,473	1
	12/9/2012 22:00	12/10/2012 1:15	195	1.14	910,967	3.63	0.52	3	Atlas		1,038,502	1
	12/15/2012 11:30	12/15/2012 12:30	60	0.18	537,433	1.33	0.11	3	Atlas		96,738	1
	12/20/2012 7:00	12/20/2012 12:45	345	0.64	850,545	0.97	0.34	6	Atlas		544,349	1
	12/26/2012 4:15	12/26/2012 10:00	345	0.74	598,812	1.34	0.28	24	Atlas		443,121	1
	1/10/2013 15:15	1/10/2013 15:15	-	0.16	33,444	0.17	0.08	6	Atlas		5,351	1
	1/11/2013 6:00	1/11/2013 8:15	135	0.64	620,988	0.81	0.34	6	Atlas		397,432	1
	1/13/2013 3:15	1/13/2013 20:45	1,050	2.30	1,211,169	3.10	0.88	24	Atlas		2,785,689	1
	1/28/2013 17:30	1/28/2013 17:45	15	0.08	279,850	0.35	0.05	1	Atlas		22,388	1
	1/30/2013 4:45	1/30/2013 9:30	285	0.83	771,104	1.11	0.42	6	Atlas		640,016	1
	2/4/2013 18:30	2/4/2013 18:45	15	0.10	254,660	1.03	0.06	3	Atlas		25,466	1
	2/10/2013 16:15	2/10/2013 16:30	15	0.15	212,420	0.34	0.07	3	Atlas		31,863	1
	2/19/2013 4:15	2/19/2013 5:00	45	0.39	298,582	0.45	0.18	12	Atlas		116,447	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/22/2013 0:15	2/22/2013 1:45	90	0.42	468.086	0.79	0.19	12	Atlas		196,596	1
	2/26/2013 13:45	2/26/2013 17:00	195	0.53	422.113	0.89	0.21	12	Atlas		223,720	1
	3/5/2013 16:30	3/5/2013 18:30	120	0.46	589.776	0.57	0.18	24	Atlas		271,297	1
	3/11/2013 3:45	3/11/2013 12:45	540	1.00	954.373	1.48	0.40	12	Atlas		954,373	1
	3/17/2013 10:45	3/18/2013 8:45	1,320	1.78	1,038.984	2.73	0.58	48	Atlas		1,849,391	1
	3/24/2013 8:00	3/24/2013 17:00	540	0.49	509.008	1.80	0.18	24	Atlas		249,414	1
	4/11/2013 5:45	4/11/2013 23:15	1,050	1.24	482.243	1.21	0.48	24	Atlas		597,981	1
	4/16/2013 20:15	4/16/2013 21:00	45	0.64	380.672	1.86	0.52	1	Atlas		243,630	1
	4/19/2013 1:45	4/19/2013 5:15	210	0.89	1,022.622	1.55	0.49	3	Atlas		910,134	1
	4/24/2013 7:15	4/24/2013 10:30	195	0.74	792.632	1.66	0.43	3	Atlas		586,548	1
	5/4/2013 13:00	5/5/2013 9:00	1,200	1.57	384.442	1.46	0.49	24	Atlas		603,574	1
	5/10/2013 12:30	5/11/2013 0:45	735	1.02	397.446	2.69	0.44	6	Atlas		405,395	1
	5/22/2013 16:00	5/22/2013 16:30	30	0.12	1,372.117	0.43	0.09	1	Atlas		164,654	1
	5/31/2013 18:30	5/31/2013 18:45	15	0.17	314.200	0.25	0.08	6	Atlas		53,414	1
	6/10/2013 0:15	6/10/2013 1:00	45	0.33	557.788	0.28	0.15	6	Atlas		184,070	1
	6/17/2013 16:30	6/17/2013 22:15	345	0.83	1,169.853	1.03	0.42	6	Atlas		970,978	1
	6/21/2013 19:00	6/21/2013 20:00	60	0.43	2,410.656	1.50	0.33	1	Atlas		1,036,582	1
	6/24/2013 9:00	6/24/2013 9:00	-	0.08	88.225	1.58	0.05	3	Atlas		7,058	1
	6/26/2013 3:30	6/26/2013 5:30	120	0.66	1,220.548	1.42	0.44	3	Atlas		805,562	1
	6/26/2013 16:15	6/26/2013 23:30	435	2.48	1,960.964	3.90	2.87	6	Cloudburst		4,863,190	1
	6/29/2013 19:45	6/29/2013 22:30	165	0.44	1,962.377	3.89	0.24	3	Atlas		863,446	1
	7/1/2013 9:00	7/1/2013 9:15	15	0.31	433.419	3.71	0.15	3	Atlas		134,360	1
	7/1/2013 19:15	7/1/2013 19:30	15	0.31	311.481	3.90	0.15	3	Atlas		96,559	1
	7/2/2013 13:30	7/2/2013 14:00	30	0.12	953.775	4.02	0.10	1	Atlas		114,453	1
	7/4/2013 7:15	7/4/2013 12:15	300	0.54	321.956	1.24	0.23	12	Atlas		173,856	1
	7/6/2013 1:15	7/6/2013 8:00	405	0.60	2,259.072	2.05	0.26	12	Atlas		1,355,443	1
	7/10/2013 14:15	7/10/2013 15:15	60	0.68	1,467.444	1.94	0.46	1	Atlas		997,862	1
	7/14/2013 19:45	7/14/2013 20:15	30	0.09	3,186.211	0.84	0.08	1	Atlas		286,759	1
	7/21/2013 19:30	7/21/2013 21:00	90	2.70	523.949	1.84	1.24	24	Cloudburst		1,414,663	1
	7/22/2013 7:15	7/22/2013 16:45	570	2.70	1,462.148	3.01	1.24	24	Cloudburst		3,947,800	1
	8/9/2013 17:30	8/9/2013 18:15	45	0.24	1,931.613	0.29	0.14	1	Atlas		463,587	1
	8/12/2013 15:00	8/12/2013 15:45	45	0.81	1,787.980	0.89	0.39	1	Atlas		1,448,264	1
	8/13/2013 3:00	8/13/2013 4:30	90	0.81	686.193	1.19	0.39	1	Atlas		555,816	1
	8/20/2013 18:15	8/20/2013 19:00	45	0.28	2,752.054	0.29	0.15	3	Atlas		770,575	1
	8/31/2013 19:45	9/1/2013 3:30	465	1.10	1,262.684	1.06	0.50	12	Atlas		1,388,952	1
	9/2/2013 14:00	9/2/2013 15:00	60	0.56	2,536.877	1.66	0.49	1	Atlas		1,420,661	1
	9/11/2013 10:45	9/11/2013 10:45	-	0.03	1,497.333	0.04	0.03	1	Atlas		44,920	1
	9/20/2013 16:30	9/21/2013 5:00	750	1.13	2,812.427	1.17	0.46	12	Atlas		3,178,043	1
	10/4/2013 19:15	10/4/2013 19:30	15	0.12	1,850.083	0.19	0.10	1	Atlas		222,010	1
	10/5/2013 13:00	10/6/2013 13:00	1,440	4.40	14,646.182	4.55	9.19	24	Cloudburst		64,443,202	1
	10/30/2013 1:30	10/30/2013 7:30	360	1.69	1,261.363	1.69	0.93	1	Atlas		2,131,704	1
	10/31/2013 20:15	10/31/2013 22:30	135	0.62	351.113	2.27	0.24	24	Atlas		217,690	1
	11/17/2013 5:30	11/17/2013 20:30	900	2.68	882.731	2.86	1.89	6	Cloudburst		2,365,719	1
	12/5/2013 5:30	12/5/2013 8:45	195	0.76	309.779	0.17	0.25	48	Atlas		235,432	1
	12/6/2013 4:15	12/6/2013 12:00	465	0.76	33.634	0.43	0.25	48	Atlas		25,562	1
	12/14/2013 8:45	12/14/2013 11:45	180	0.86	311.666	1.28	0.33	12	Atlas		268,033	1
	12/21/2013 5:15	12/21/2013 13:15	480	2.41	336.127	1.50	0.90	24	Atlas		810,065	1
	12/21/2013 21:30	12/22/2013 6:15	525	2.41	1,493.977	2.50	0.90	24	Atlas		3,600,484	1
	12/29/2013 5:30	12/29/2013 7:15	105	0.51	311.898	0.42	0.22	12	Atlas		159,068	1
	1/5/2014 15:15	1/5/2014 20:15	300	0.48	865.267	0.69	0.24	6	Atlas		415,328	1
	1/11/2014 0:30	1/11/2014 6:00	330	1.03	678.444	1.52	0.55	6	Atlas		698,797	1
	1/13/2014 15:00	1/13/2014 15:45	45	0.20	274.160	1.18	0.09	12	Atlas		54,832	1
	2/2/2014 4:00	2/2/2014 7:45	225	0.47	592.496	0.21	0.18	24	Atlas		278,473	1
	2/4/2014 19:00	2/5/2014 3:00	480	0.51	2,920.349	0.98	0.25	6	Atlas		1,489,378	1
	2/14/2014 16:45	2/14/2014 19:00	135	0.50	325.486	0.53	0.27	6	Atlas		162,743	1
	2/17/2014 15:30	2/17/2014 19:00	210	0.56	1,812.082	1.12	0.34	3	Atlas		1,014,766	1
	2/20/2014 20:45	2/21/2014 0:00	195	0.18	917.978	1.30	0.10	6	Atlas		165,236	1
	3/2/2014 9:45	3/2/2014 12:00	135	0.62	543.661	0.34	0.24	24	Atlas		337,070	1
	3/28/2014 4:30	3/28/2014 5:15	45	0.25	562.564	0.31	0.11	6	Atlas		140,641	1
	3/29/2014 6:30	3/29/2014 13:45	435	1.05	1,041.116	1.35	0.48	12	Atlas		1,093,172	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/3/2014 12:15	4/4/2014 10:45	1,350	2.67	1,876,181	4.08	0.93	24	Atlas		5,009,404	1
	4/7/2014 8:15	4/7/2014 16:15	480	0.79	3,082,868	3.57	0.47	3	Atlas		2,435,466	1
	4/14/2014 4:00	4/14/2014 4:30	30	1.02	50,781	1.00	0.39	24	Atlas		51,797	1
	4/14/2014 20:15	4/15/2014 3:15	420	1.02	1,573,506	1.06	0.39	24	Atlas		1,604,976	1
	4/28/2014 4:15	4/28/2014 8:30	255	1.70	2,228,791	1.41	0.70	3	Atlas		3,788,945	1
	4/28/2014 17:30	4/28/2014 20:30	180	1.70	269,944	1.80	0.70	3	Atlas		458,905	1
	5/9/2014 19:15	5/10/2014 16:15	1,260	1.63	1,345,501	1.71	0.63	24	Atlas		2,193,166	1
	5/14/2014 7:00	5/14/2014 23:45	1,005	1.09	487,277	2.84	0.42	24	Atlas		531,132	1
	5/22/2014 3:00	5/22/2014 4:30	90	0.37	844,951	0.43	0.17	12	Atlas		312,632	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.33	40,939	0.71	0.27	1	Atlas		13,510	1
	5/29/2014 20:30	5/29/2014 22:30	120	0.66	3,617,102	1.02	0.56	1	Atlas		2,387,287	1
	5/30/2014 14:00	5/30/2014 14:45	45	0.13	4,928,062	1.13	0.08	3	Atlas		640,648	1
	6/11/2014 14:15	6/11/2014 15:00	45	0.12	3,048,475	0.27	0.08	1	Atlas		365,817	1
	6/20/2014 16:15	6/20/2014 18:00	105	0.29	405,297	0.29	0.19	3	Atlas		117,536	1
	6/24/2014 13:30	6/24/2014 14:15	45	0.20	1,510,650	0.53	0.15	1	Atlas		302,130	1
	7/2/2014 16:15	7/2/2014 17:15	60	0.08	2,239,638	0.28	0.07	1	Atlas		179,171	1
	7/7/2014 19:30	7/7/2014 19:45	15	1.01	175,156	1.25	0.88	1	Atlas		176,908	1
	7/13/2014 22:00	7/14/2014 0:00	120	0.70	1,394,437	2.09	0.35	3	Atlas		976,106	1
	7/14/2014 20:15	7/14/2014 20:15	-	0.08	128,200	1.33	0.07	1	Atlas		10,256	1
	7/26/2014 21:30	7/27/2014 9:45	735	1.43	1,304,910	1.47	0.66	12	Atlas		1,866,022	1
	8/8/2014 5:45	8/8/2014 8:15	150	0.90	1,372,653	0.73	0.43	6	Atlas		1,235,388	1
	8/9/2014 4:00	8/9/2014 4:15	15	0.07	336,486	0.97	0.04	1	Atlas		23,554	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.71	49,548	1.74	0.58	1	Atlas		35,179	1
	8/11/2014 15:15	8/11/2014 16:15	60	0.51	1,845,361	2.20	0.40	1	Atlas		941,134	1
	8/17/2014 0:15	8/17/2014 1:00	45	0.72	46,579	1.54	0.27	24	Atlas		33,537	1
	8/17/2014 9:30	8/17/2014 11:30	120	0.72	532,539	1.15	0.27	24	Atlas		383,428	1
	8/17/2014 23:15	8/17/2014 23:30	15	0.72	30,694	1.23	0.27	24	Atlas		22,100	1
	8/22/2014 19:15	8/22/2014 20:00	45	0.35	1,470,054	1.05	0.26	1	Atlas		514,519	1
	8/23/2014 16:00	8/23/2014 22:15	375	0.59	1,222,705	1.65	0.28	3	Atlas		721,396	1
	8/27/2014 15:00	8/27/2014 18:00	180	0.27	3,011,370	1.33	0.18	3	Atlas		813,070	1
	8/30/2014 15:15	8/30/2014 16:30	75	0.60	1,828,483	1.41	0.38	1	Atlas		1,097,090	1
	9/2/2014 8:15	9/2/2014 9:30	75	0.40	512,988	1.32	0.24	3	Atlas		205,195	1
	9/11/2014 0:30	9/11/2014 6:45	375	1.90	1,961,204	1.85	1.37	3	Atlas		3,726,287	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.37	97,008	0.56	0.22	1	Atlas		35,893	1
	10/7/2014 12:00	10/7/2014 12:30	30	0.17	583,524	0.78	0.14	1	Atlas		99,199	1
	10/10/2014 1:45	10/10/2014 3:30	105	1.09	757,894	1.51	0.47	3	Atlas		826,105	1
	10/10/2014 17:45	10/10/2014 18:00	15	1.09	30,448	1.60	0.47	3	Atlas		33,188	1
	10/13/2014 5:00	10/13/2014 7:00	120	0.42	789,831	2.05	0.27	3	Atlas		331,729	1
	10/13/2014 23:30	10/14/2014 10:30	660	1.00	1,155,932	2.70	0.44	12	Atlas		1,155,932	1
	11/23/2014 17:30	11/23/2014 20:15	165	0.66	678,055	1.01	0.31	6	Atlas		447,516	1
	12/1/2014 3:30	12/1/2014 5:45	135	0.88	226,164	0.46	0.33	24	Atlas		199,024	1
	12/1/2014 15:00	12/1/2014 15:30	30	0.88	43,578	0.79	0.33	24	Atlas		38,349	1
	12/5/2014 6:30	12/5/2014 7:00	30	1.77	36,760	1.27	0.57	48	Atlas		65,065	1
	12/5/2014 20:45	12/6/2014 7:30	645	1.77	917,871	2.64	0.57	48	Atlas		1,624,631	1
	12/16/2014 5:30	12/16/2014 5:30	-	0.13	59,046	0.12	0.09	1	Atlas		7,676	1
	12/23/2014 0:00	12/23/2014 0:15	15	0.21	57,810	0.33	0.13	3	Atlas		12,140	1
	12/28/2014 1:15	12/28/2014 2:00	45	0.28	316,914	0.66	0.11	1	Atlas		88,736	1
	2/1/2015 13:00	2/1/2015 18:00	300	0.38	325,211	0.52	0.17	12	Atlas		123,580	1
	2/21/2015 13:45	2/21/2015 17:30	225	1.24	204,000	1.45	0.48	24	Atlas		252,960	1
	3/3/2015 19:15	3/4/2015 18:00	1,365	1.66	1,397,782	1.33	0.54	48	Atlas		2,320,318	1
	3/10/2015 7:00	3/10/2015 19:15	735	1.31	3,073,212	2.97	0.59	12	Atlas		4,025,908	1
	3/13/2015 10:30	3/14/2015 12:15	1,545	1.84	3,390,893	3.15	0.69	24	Atlas		6,239,243	1
	3/26/2015 4:30	3/26/2015 6:45	135	0.42	1,381,250	0.57	0.17	12	Atlas		580,125	1
	4/2/2015 10:30	4/3/2015 23:00	2,190	5.36	4,170,733	5.50	20.93	6	Cloudburst		22,355,129	1
	4/7/2015 9:15	4/7/2015 18:45	570	0.84	816,576	6.20	0.36	12	Atlas		685,924	1
	4/8/2015 18:30	4/8/2015 19:30	60	0.16	842,050	6.36	0.09	3	Atlas		134,728	1
	4/9/2015 11:30	4/9/2015 13:00	90	0.22	534,227	6.11	0.19	1	Atlas		117,530	1
	4/10/2015 2:30	4/10/2015 3:45	75	0.17	679,776	3.49	0.11	3	Atlas		115,562	1
	4/13/2015 20:45	4/13/2015 21:45	60	0.37	181,614	1.47	0.15	6	Atlas		67,197	1
	4/14/2015 10:00	4/14/2015 12:15	135	0.37	243,008	1.23	0.15	6	Atlas		89,913	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2015 7:15	4/19/2015 18:45	690	0.71	527.941	1.17	0.30	12	Atlas		374,838	1
	4/20/2015 3:30	4/20/2015 4:00	30	0.07	1,290.329	1.23	0.05	1	Atlas		90,323	1
	4/25/2015 9:30	4/25/2015 9:45	15	0.12	89.308	0.92	0.06	6	Atlas		10,717	1
	5/11/2015 18:00	5/11/2015 18:15	15	0.08	232.488	0.19	0.07	1	Atlas		18,599	1
	5/16/2015 13:15	5/16/2015 13:45	30	0.39	71.372	0.43	0.19	3	Atlas		27,835	1
	5/17/2015 14:15	5/17/2015 15:00	45	0.12	1,377.483	0.58	0.09	1	Atlas		165,298	1
	5/25/2015 7:15	5/25/2015 7:15	-	0.24	26.125	0.14	0.11	12	Atlas		6,270	1
	5/26/2015 13:45	5/26/2015 14:45	60	0.35	1,285.123	0.54	0.26	1	Atlas		449,793	1
	5/27/2015 13:45	5/27/2015 14:00	15	0.09	918.400	0.68	0.08	1	Atlas		82,656	1
	6/8/2015 8:30	6/8/2015 8:45	15	0.26	75.585	0.28	0.16	3	Atlas		19,652	1
	6/13/2015 14:45	6/13/2015 14:45	-	0.12	65.808	0.38	0.10	1	Atlas		7,897	1
	6/17/2015 4:45	6/17/2015 7:00	135	0.58	1,205.234	0.71	0.31	3	Atlas		699,036	1
	6/18/2015 16:15	6/18/2015 19:00	165	1.82	1,674.610	1.69	0.59	48	Atlas		3,047,790	1
	6/19/2015 13:30	6/19/2015 13:30	-	1.82	7.307	1.86	0.59	48	Atlas		13,298	1
	6/20/2015 1:30	6/20/2015 9:30	480	1.82	1,411.063	2.74	0.59	48	Atlas		2,568,135	1
	6/22/2015 6:30	6/22/2015 7:00	30	0.24	321.879	2.83	0.11	3	Atlas		77,251	1
	6/25/2015 23:45	6/26/2015 3:00	195	0.59	2,057.393	1.77	0.32	6	Atlas		1,213,862	1
	6/26/2015 17:00	6/27/2015 1:45	525	0.89	2,769.409	2.60	0.50	1	Atlas		2,464,774	1
	6/29/2015 13:30	6/29/2015 14:15	45	0.19	2,553.305	1.65	0.11	1	Atlas		485,128	1
	7/1/2015 14:30	7/1/2015 14:45	15	0.05	1,696.280	1.73	0.04	1	Atlas		84,814	1
	7/2/2015 0:30	7/2/2015 3:00	150	0.93	1,275.529	2.46	0.45	3	Atlas		1,186,242	1
	7/2/2015 20:30	7/2/2015 21:30	60	0.93	594.153	2.66	0.45	3	Atlas		552,562	1
	7/3/2015 14:45	7/3/2015 19:30	285	0.33	1,995.012	2.39	0.23	1	Atlas		658,354	1
	7/7/2015 11:30	7/7/2015 17:00	330	0.72	1,778.651	2.03	0.37	6	Atlas		1,280,629	1
	7/9/2015 6:30	7/9/2015 8:00	90	0.37	1,023.543	1.67	0.23	3	Atlas		378,711	1
	7/10/2015 10:15	7/10/2015 17:00	405	0.46	2,445.965	1.99	0.23	6	Atlas		1,125,144	1
	7/12/2015 6:00	7/12/2015 8:45	165	0.84	3,802.251	2.50	0.60	1	Atlas		3,193,891	1
	7/13/2015 14:45	7/13/2015 16:00	75	0.25	3,271.652	2.76	0.21	1	Atlas		817,913	1
	7/14/2015 3:30	7/14/2015 5:45	135	0.53	3,368.502	3.28	0.39	1	Atlas		1,785,306	1
	7/14/2015 18:45	7/14/2015 19:30	45	0.03	11,664.033	2.61	0.03	1	Atlas		349,921	1
	7/17/2015 22:30	7/18/2015 2:30	240	0.94	4,619.301	2.60	0.62	3	Atlas		4,342,143	1
	8/6/2015 2:30	8/6/2015 15:45	795	0.71	2,079.282	0.90	0.27	24	Atlas		1,476,290	1
	8/10/2015 21:00	8/10/2015 22:30	90	0.06	891.567	1.11	0.05	1	Atlas		53,494	1
	8/19/2015 8:00	8/19/2015 9:00	60	0.54	2,502.578	0.46	0.23	1	Atlas		1,351,392	1
	8/19/2015 17:15	8/19/2015 17:45	30	0.54	207.589	0.65	0.23	1	Atlas		112,098	1
	9/29/2015 12:45	9/29/2015 19:45	420	0.81	63.380	0.78	0.26	48	Atlas		51,338	1
	10/2/2015 18:00	10/2/2015 20:15	135	0.64	698.930	1.49	0.30	6	Atlas		447,315	1
	10/12/2015 18:45	10/12/2015 20:00	75	0.25	848.276	0.35	0.17	3	Atlas		212,069	1
	10/24/2015 20:15	10/24/2015 20:30	15	0.32	87.694	0.30	0.15	3	Atlas		28,062	1
	10/27/2015 12:15	10/28/2015 8:45	1,230	2.33	1,806.892	2.65	0.77	24	Atlas		4,210,059	1
	10/28/2015 22:45	10/28/2015 23:15	30	0.17	855.024	2.81	0.09	6	Atlas		145,354	1
	10/31/2015 23:45	11/1/2015 0:00	15	0.17	124.435	2.67	0.11	3	Atlas		21,154	1
	11/6/2015 3:15	11/6/2015 5:45	150	0.77	2,815.042	0.91	0.47	3	Atlas		2,167,582	1
	11/9/2015 19:45	11/9/2015 22:30	165	0.50	258.086	1.27	0.22	12	Atlas		129,043	1
	11/12/2015 0:15	11/12/2015 1:45	90	0.29	1,796.552	1.55	0.18	3	Atlas		521,000	1
	11/18/2015 9:00	11/18/2015 18:45	585	1.42	1,973.817	1.85	0.71	6	Atlas		2,802,820	1
	11/28/2015 14:00	11/28/2015 21:15	435	0.74	439.803	0.94	0.30	12	Atlas		325,454	1
	11/30/2015 22:00	12/1/2015 5:45	465	0.74	1,022.372	1.69	0.33	12	Atlas		756,555	1
	12/14/2015 5:45	12/14/2015 7:45	120	0.24	243.154	0.21	0.13	6	Atlas		58,357	1
	12/21/2015 11:45	12/21/2015 12:00	15	0.18	91.683	0.21	0.09	6	Atlas		16,503	1
	12/21/2015 23:30	12/22/2015 5:00	330	0.51	1,420.120	0.72	0.27	6	Atlas		724,261	1
	12/23/2015 19:30	12/23/2015 22:00	150	0.76	4,014.574	1.50	0.58	1	Atlas		3,051,076	1
	12/25/2015 9:45	12/25/2015 10:00	15	0.11	403.191	1.58	0.06	6	Atlas		44,351	1
	12/26/2015 12:15	12/26/2015 18:15	360	0.34	1,599.791	1.93	0.15	12	Atlas		543,929	1
	12/27/2015 10:30	12/28/2015 18:30	1,920	1.85	5,202.960	3.77	0.61	3	Atlas		9,625,476	1
	2/2/2016 15:15	2/3/2016 3:00	705	1.21	2,410.249	1.29	0.57	6	Atlas		2,916,401	1
	12/31/2018 16:30	12/31/2018 16:45	15	1.18	26.851	1.52	0.45	24	Atlas		31,684	1
	2/6/2019 10:00	2/6/2019 10:00	-	1.40	2.838	0.63	0.45	48	Atlas		3,973	1
	2/7/2019 9:15	2/7/2019 17:30	495	1.40	16.847	1.35	0.45	48	Atlas		23,586	1
	2/12/2019 4:15	2/12/2019 6:15	120	2.48	175.370	3.67	0.77	48	Atlas		434,917	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/20/2019 4:30	2/20/2019 7:15	165	1.42	450,949	1.40	0.67	6	Atlas		640,347	1
	2/23/2019 19:00	2/23/2019 19:15	15	0.80	686	2.09	0.44	6	Atlas		549	1
	3/14/2019 17:30	3/14/2019 17:30	-	0.21	8,290	1.42	0.14	3	Atlas		1,741	1
	4/19/2019 22:00	4/19/2019 23:30	90	2.79	30,237	2.27	0.91	48	Atlas		84,360	1
	4/23/2019 18:00	4/23/2019 18:00	-	0.24	130,683	3.03	0.21	1	Atlas		31,364	1
	5/3/2019 5:30	5/3/2019 5:30	-	0.85	69	0.65	0.46	6	Atlas		59	1
	6/5/2019 21:15	6/5/2019 21:15	-	0.80	12,305	0.91	0.58	1	Atlas		9,844	1
	7/18/2019 1:00	7/18/2019 1:00	-	0.44	132,259	0.53	0.30	1	Atlas		58,194	1
	8/7/2019 5:00	8/7/2019 5:00	-	0.20	22,720	0.21	0.17	1	Atlas		4,544	1
	8/26/2019 11:45	8/26/2019 11:45	-	0.34	8,897	0.67	0.16	6	Atlas		3,025	1
	10/30/2019 15:00	10/30/2019 15:00	-	0.84	3,779	1.97	0.43	3	Atlas		3,174	1
	11/30/2019 11:00	11/30/2019 12:30	90	2.05	8,191	2.42	0.82	12	Atlas		16,792	1
	3/28/2020 22:45	3/28/2020 22:45	-	0.27	97,448	0.45	0.23	1	Atlas		26,311	1
	5/16/2020 7:45	5/16/2020 7:45	-	1.37	7,508	1.51	0.51	24	Atlas		10,286	1
	6/22/2020 23:00	6/22/2020 23:15	15	0.79	109,281	1.07	0.35	3	Atlas		86,332	1
	CSO146 Total										**499,950,308**	**452**
CSO148	11/3/2011 9:15	11/3/2011 16:30	435	0.51	48,243	0.51	0.23	3	Atlas		24,604	1
	11/14/2011 21:30	11/15/2011 13:45	975	2.17	31,040	1.46	0.70	48	Atlas		67,356	1
	11/16/2011 5:00	11/16/2011 8:15	195	2.17	3,754	2.00	0.70	48	Atlas		8,146	1
	11/20/2011 12:30	11/20/2011 19:30	420	0.94	14,345	2.89	0.33	24	Atlas		13,484	1
	11/21/2011 8:15	11/21/2011 10:15	120	0.94	4,384	3.11	0.33	24	Atlas		4,121	1
	11/21/2011 23:45	11/22/2011 11:00	675	1.35	43,716	4.04	0.57	12	Atlas		59,016	1
	11/27/2011 6:00	11/29/2011 1:45	2,625	3.29	33,459	5.52	1.15	48	Cloudburst		110,081	1
	12/4/2011 16:00	12/5/2011 18:00	1,560	2.87	106,227	5.50	0.93	48	Atlas		304,871	1
	12/15/2011 3:45	12/15/2011 7:30	225	0.45	23,887	0.42	0.24	6	Atlas		10,749	1
	12/21/2011 5:00	12/21/2011 7:00	120	0.56	66,814	1.03	0.26	12	Atlas		37,416	1
	12/22/2011 11:30	12/22/2011 17:30	360	0.65	30,288	1.18	0.29	12	Atlas		19,687	1
	12/27/2011 2:15	12/27/2011 11:15	540	0.80	30,921	1.91	0.33	12	Atlas		24,737	1
	1/11/2012 4:30	1/11/2012 11:00	390	0.75	64,092	0.64	0.29	6	Atlas		48,069	1
	1/11/2012 20:15	1/11/2012 20:15	-	0.75	512	0.75	0.29	6	Atlas		384	1
	1/17/2012 3:45	1/17/2012 12:15	510	0.37	148,976	1.24	0.17	12	Atlas		55,121	1
	1/22/2012 22:30	1/23/2012 4:30	360	0.58	158,081	0.96	0.30	3	Atlas		91,687	1
	1/25/2012 15:15	1/25/2012 19:00	225	1.96	1,188	0.88	0.64	24	Atlas		2,328	1
	1/26/2012 5:15	1/26/2012 6:30	75	1.96	26,668	1.35	0.64	24	Atlas		52,269	1
	1/26/2012 17:30	1/26/2012 23:15	345	1.96	120,146	2.50	0.64	24	Atlas		235,487	1
	2/4/2012 8:45	2/4/2012 11:45	180	0.40	105,495	0.44	0.22	3	Atlas		42,198	1
	2/10/2012 8:30	2/11/2012 0:30	960	Discharge	-	0.47					7,305	1
	2/11/2012 9:15	2/12/2012 0:15	900	Discharge	-	0.29					4,200	1
	2/12/2012 9:00	2/13/2012 11:15	1,575	Discharge	-	0.05					6,941	1
	2/15/2012 23:30	2/15/2012 23:30	-	0.27	4,096	0.37	0.11	12	Atlas		1,106	1
	2/22/2012 23:00	2/22/2012 23:00	-	0.15	136,660	0.35	0.11	1	Atlas		20,499	1
	2/29/2012 6:00	2/29/2012 9:00	180	0.64	39,578	0.78	0.29	12	Atlas		25,330	1
	3/2/2012 9:00	3/2/2012 9:00	-	0.14	11,207	0.71	0.06	12	Atlas		1,569	1
	3/4/2012 22:30	3/7/2012 14:15	3,825	0.27	639,422	1.06	0.14	6	Atlas		172,644	1
	3/8/2012 10:00	3/8/2012 17:00	420	0.83	30,208	1.21	0.38	12	Atlas		25,073	1
	3/12/2012 7:15	3/12/2012 7:30	15	0.18	2,650	0.99	0.08	12	Atlas		477	1
	3/15/2012 18:00	3/16/2012 3:00	540	1.05	36,731	1.26	0.46	12	Atlas		38,568	1
	3/17/2012 18:30	3/18/2012 1:30	420	1.14	114,407	2.37	0.69	1	Atlas		130,424	1
	3/23/2012 5:00	3/23/2012 22:30	1,050	1.60	128,502	2.74	0.61	24	Atlas		205,603	1
	3/31/2012 0:00	3/31/2012 0:00	-	0.13	5,600	0.16	0.09	3	Atlas		728	1
	4/1/2012 8:30	4/1/2012 11:00	150	1.87	89,671	2.03	1.14	6	Cloudburst		167,684	1
	4/16/2012 6:45	4/16/2012 7:00	15	0.14	9,443	0.23	0.09	3	Atlas		1,322	1
	5/13/2012 13:00	5/13/2012 13:00	-	2.20	60	2.15	0.90	12	Atlas		133	1
	5/16/2012 18:00	5/16/2012 18:00	-	0.29	1,248	2.49	0.25	1	Atlas		362	1
	5/29/2012 6:45	5/29/2012 9:15	150	3.11	72,282	2.99	21.33	3	Atlas		224,797	1
	5/31/2012 18:30	6/1/2012 5:15	645	1.32	31,697	4.37	0.58	12	Atlas		41,840	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.52	30,831	0.44	0.39	1	Atlas		16,032	1
	7/8/2012 13:15	7/8/2012 13:30	15	0.13	89,423	0.68	0.09	1	Atlas		11,625	1
	7/14/2012 12:15	7/14/2012 14:15	120	0.70	123,221	0.88	0.45	3	Atlas		86,255	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/19/2012 18:30	7/19/2012 18:45	15	0.81	46.517	1.50	0.65	1	Atlas		37,679	1
	7/24/2012 20:00	7/24/2012 20:15	15	0.20	49.825	1.10	0.17	1	Atlas		9,965	1
	7/27/2012 3:30	7/27/2012 3:30	-	0.14	17.443	0.44	0.06	12	Atlas		2,442	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.71	38.818	1.05	0.51	1	Atlas		27,561	1
	8/3/2012 9:15	8/3/2012 9:45	30	0.29	10.100	1.00	0.14	3	Atlas		2,929	1
	8/16/2012 20:15	8/16/2012 22:30	135	0.63	33.130	0.66	0.36	3	Atlas		20,872	1
	8/21/2012 14:00	8/21/2012 14:15	15	0.16	5.719	0.80	0.14	1	Atlas		915	1
	8/27/2012 15:15	8/27/2012 15:15	-	0.03	23.100	0.19	0.03	1	Atlas		693	1
	9/1/2012 15:00	9/1/2012 16:15	75	0.63	19.625	0.48	0.39	3	Atlas		12,364	1
	9/2/2012 12:00	9/2/2012 21:45	585	0.82	63.977	1.50	0.32	24	Atlas		52,461	1
	9/5/2012 15:30	9/5/2012 16:30	60	0.97	74.371	2.49	0.75	1	Atlas		72,140	1
	9/7/2012 23:30	9/8/2012 6:30	420	1.17	87,138	3.62	0.65	3	Atlas		101,952	1
	9/12/2012 6:00	9/12/2012 12:30	390	Discharge	-	2.14					10,358	1
	9/25/2012 8:45	9/25/2012 9:30	45	0.44	2.620	0.35	0.25	3	Atlas		1,153	1
	9/25/2012 23:45	9/26/2012 5:45	360	0.40	82.115	0.81	0.19	6	Atlas		32,846	1
	9/26/2012 21:00	9/26/2012 23:45	165	0.94	87.339	1.74	0.53	3	Atlas		82,099	1
	10/1/2012 14:30	10/1/2012 18:45	255	0.85	62.275	2.61	0.36	12	Atlas		52,934	1
	10/18/2012 1:15	10/18/2012 1:45	30	0.23	15.748	0.31	0.15	3	Atlas		3,622	1
	10/26/2012 11:15	10/26/2012 22:45	690	0.82	5,852	0.85	0.37	6	Atlas		4,799	1
	11/3/2012 16:15	11/3/2012 16:15	-	0.17	20.541	0.19	0.08	12	Atlas		3,492	1
	11/12/2012 5:30	11/12/2012 7:15	105	0.56	12,877	0.54	0.25	12	Atlas		7,211	1
	12/2/2012 11:15	12/2/2012 11:15	-	0.18	572	0.24	0.11	3	Atlas		103	1
	12/4/2012 16:00	12/4/2012 18:30	150	0.50	24.506	0.68	0.32	3	Atlas		12,253	1
	12/7/2012 2:00	12/7/2012 18:00	960	1.37	40.108	2.06	0.58	12	Atlas		54,948	1
	12/8/2012 4:45	12/8/2012 9:45	300	0.65	26.334	2.71	0.35	6	Atlas		17,117	1
	12/9/2012 8:45	12/9/2012 9:00	15	1.14	2.591	2.81	0.52	3	Atlas		2,954	1
	12/9/2012 20:45	12/10/2012 0:15	210	1.14	115.270	3.52	0.52	3	Atlas		131,408	1
	12/15/2012 11:15	12/15/2012 12:00	45	0.17	39.441	1.31	0.10	3	Atlas		6,705	1
	12/17/2012 17:00	12/17/2012 17:15	15	0.14	1.600	0.35	0.08	3	Atlas		224	1
	12/20/2012 6:30	12/20/2012 12:15	345	0.76	49.700	1.07	0.39	6	Atlas		37,772	1
	12/24/2012 4:45	12/24/2012 4:45	-	0.07	1.686	0.96	0.04	3	Atlas		118	1
	12/26/2012 3:45	12/26/2012 9:15	330	0.81	46.398	1.48	0.32	12	Atlas		37,582	1
	1/10/2013 14:30	1/10/2013 14:45	15	0.17	15.406	0.18	0.08	6	Atlas		2,619	1
	1/11/2013 5:30	1/11/2013 7:30	120	0.62	55.019	0.78	0.32	6	Atlas		34,112	1
	1/13/2013 3:15	1/13/2013 19:15	960	2.42	125.397	3.21	0.93	24	Atlas		303,461	1
	1/28/2013 10:45	1/28/2013 17:15	390	0.07	77.386	0.34	0.04	1	Atlas		5,417	1
	1/30/2013 4:45	1/30/2013 8:45	240	0.80	141.519	1.07	0.40	6	Atlas		113,215	1
	2/4/2013 17:45	2/4/2013 18:00	15	0.12	7.467	1.01	0.07	3	Atlas		896	1
	2/10/2013 15:15	2/10/2013 15:30	15	0.17	5.082	0.35	0.09	3	Atlas		864	1
	2/19/2013 3:30	2/19/2013 4:15	45	0.33	15.561	0.38	0.15	12	Atlas		5,135	1
	2/21/2013 23:45	2/22/2013 0:45	60	0.38	23.576	0.69	0.17	12	Atlas		8,959	1
	2/26/2013 5:15	2/26/2013 16:00	645	0.65	19.442	0.94	0.25	12	Atlas		12,637	1
	3/5/2013 15:45	3/5/2013 17:15	90	0.43	22.412	0.53	0.17	24	Atlas		9,637	1
	3/11/2013 3:00	3/11/2013 11:45	525	1.00	44.213	1.44	0.39	12	Atlas		44,213	1
	3/17/2013 10:00	3/18/2013 7:30	1,290	1.71	73.518	2.61	0.56	48	Atlas		125,715	1
	3/24/2013 7:30	3/24/2013 16:15	525	0.49	36.522	1.76	0.18	24	Atlas		17,896	1
	4/11/2013 5:00	4/11/2013 7:00	120	1.22	42.410	0.45	0.47	24	Atlas		51,740	1
	4/11/2013 15:15	4/11/2013 22:30	435	1.22	3.545	1.17	0.47	24	Atlas		4,325	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.48	40.927	1.85	0.38	1	Atlas		19,645	1
	4/19/2013 1:45	4/19/2013 4:15	150	0.85	118.122	1.35	0.46	6	Atlas		100,404	1
	4/24/2013 6:00	4/24/2013 9:45	225	0.74	33.886	1.62	0.41	3	Atlas		25,076	1
	4/28/2013 8:30	4/28/2013 8:30	-	0.09	29.311	0.85	0.04	6	Atlas		2,638	1
	5/4/2013 13:00	5/4/2013 14:45	105	1.43	1.144	0.64	0.45	24	Atlas		1,636	1
	5/5/2013 4:15	5/5/2013 8:00	225	1.43	11.448	1.34	0.45	24	Atlas		16,370	1
	5/10/2013 12:00	5/10/2013 15:15	195	1.11	31.938	2.53	0.50	6	Atlas		35,451	1
	5/10/2013 23:30	5/11/2013 0:15	45	1.11	13.767	2.58	0.50	6	Atlas		15,281	1
	5/16/2013 10:00	5/16/2013 10:00	-	0.50	10.264	1.56	0.43	1	Atlas		5,132	1
	5/22/2013 15:30	5/22/2013 15:30	-	0.32	155.544	0.71	0.21	3	Atlas		49,774	1
	5/31/2013 18:00	5/31/2013 18:00	-	0.22	68.500	0.27	0.10	12	Atlas		15,070	1
	6/1/2013 5:30	6/1/2013 6:00	30	0.15	95.107	0.34	0.07	12	Atlas		14,266	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/1/2013 16:00	6/1/2013 16:00	-	0.15	7,067	0.41	0.07	12	Atlas		1,060	1
	6/9/2013 23:45	6/10/2013 0:15	30	0.37	43,032	0.33	0.17	6	Atlas		15,922	1
	6/17/2013 16:15	6/17/2013 20:45	270	1.05	81,788	1.21	0.54	6	Atlas		85,877	1
	6/21/2013 18:30	6/21/2013 19:15	45	0.64	127,317	1.94	0.49	1	Atlas		81,483	1
	6/24/2013 8:00	6/24/2013 8:15	15	0.14	155,064	1.90	0.09	3	Atlas		21,709	1
	6/26/2013 3:00	6/26/2013 4:30	90	0.54	100,500	1.49	0.36	3	Atlas		54,270	1
	6/26/2013 16:00	6/26/2013 21:45	345	2.50	102,000	3.86	3.50	1	Atlas		255,000	1
	6/29/2013 19:15	6/29/2013 21:30	135	0.47	88,794	3.81	0.30	3	Atlas		41,733	1
	7/1/2013 8:30	7/1/2013 8:30	-	0.38	1,066	3.70	0.19	3	Atlas		405	1
	7/1/2013 18:30	7/1/2013 18:30	-	0.38	1,229	3.83	0.19	3	Atlas		467	1
	7/2/2013 13:00	7/2/2013 13:00	-	0.06	75,983	3.97	0.05	1	Atlas		4,559	1
	7/3/2013 18:00	7/3/2013 18:15	15	0.07	108,314	1.82	0.05	3	Atlas		7,582	1
	7/4/2013 7:45	7/4/2013 11:15	210	0.61	3,405	1.23	0.26	12	Atlas		2,077	1
	7/6/2013 0:30	7/6/2013 3:00	150	0.66	124,920	1.96	0.28	12	Atlas		82,447	1
	7/10/2013 12:30	7/10/2013 14:15	105	0.80	102,288	2.18	0.53	3	Atlas		81,830	1
	7/14/2013 19:15	7/14/2013 19:15	-	0.20	64,620	1.11	0.17	1	Atlas		12,924	1
	7/21/2013 19:00	7/21/2013 20:00	60	3.37	13,902	2.53	5.14	3	Atlas		46,849	1
	7/22/2013 6:45	7/22/2013 13:45	420	3.37	21,790	3.45	5.14	3	Atlas		73,432	1
	7/27/2013 5:30	7/27/2013 5:30	-	0.04	2,900	3.42	0.02	12	Atlas		116	1
	8/9/2013 17:00	8/9/2013 17:15	15	0.50	72,546	0.41	0.24	1	Atlas		36,273	1
	8/12/2013 14:30	8/12/2013 14:45	15	0.89	80,447	1.02	0.37	3	Atlas		71,598	1
	8/13/2013 2:15	8/13/2013 3:15	60	0.89	34,434	1.37	0.37	3	Atlas		30,646	1
	8/20/2013 17:45	8/20/2013 18:00	15	0.28	207,407	0.27	0.19	1	Atlas		58,074	1
	8/31/2013 19:30	8/31/2013 23:15	225	1.14	85,108	0.83	0.52	6	Atlas		97,023	1
	9/2/2013 13:30	9/2/2013 14:00	30	0.64	45,616	1.78	0.56	1	Atlas		29,194	1
	9/11/2013 10:15	9/11/2013 10:15	-	0.04	255,200	0.05	0.03	1	Atlas		10,208	1
	9/20/2013 19:15	9/21/2013 4:00	525	1.59	61,265	1.49	0.66	12	Atlas		97,412	1
	10/4/2013 18:45	10/4/2013 19:00	15	0.15	79,960	0.23	0.13	1	Atlas		11,994	1
	10/5/2013 12:15	10/6/2013 17:45	1,770	5.83	103,266	6.06	34.87	24	Atlas		602,040	1
	10/19/2013 9:30	10/19/2013 9:30	-	0.23	843	0.18	0.12	6	Atlas		194	1
	10/30/2013 1:15	10/30/2013 7:00	345	1.96	94,723	1.96	1.57	1	Atlas		185,658	1
	10/31/2013 20:15	10/31/2013 22:00	105	0.59	13,105	2.46	0.23	12	Atlas		7,732	1
	11/15/2013 18:15	11/15/2013 18:15	-	0.09	10,722	0.16	0.07	1	Atlas		965	1
	11/17/2013 4:45	11/17/2013 19:00	855	2.64	239,019	2.81	2.29	6	Cloudburst		631,009	1
	12/5/2013 5:15	12/5/2013 9:45	270	0.70	47,186	0.18	0.23	48	Atlas		33,030	1
	12/6/2013 3:30	12/6/2013 11:15	465	0.70	326	0.38	0.23	48	Atlas		228	1
	12/14/2013 8:30	12/14/2013 11:00	150	1.09	11,977	1.29	0.48	6	Atlas		13,065	1
	12/21/2013 5:00	12/21/2013 12:15	435	2.81	32,310	1.66	1.33	3	Atlas		90,790	1
	12/21/2013 21:00	12/22/2013 1:15	255	2.81	100,061	2.80	1.33	3	Atlas		281,171	1
	12/29/2013 4:45	12/29/2013 6:15	90	0.58	3,610	0.50	0.26	12	Atlas		2,094	1
	1/5/2014 14:45	1/5/2014 18:45	240	0.51	31,167	0.69	0.26	6	Atlas		15,895	1
	1/11/2014 0:15	1/11/2014 5:15	300	1.08	90,847	1.60	0.58	6	Atlas		98,115	1
	1/13/2014 14:45	1/13/2014 14:45	-	0.21	952	1.21	0.10	6	Atlas		200	1
	2/2/2014 3:00	2/2/2014 7:15	255	0.16	105,338	0.15	0.09	6	Atlas		16,854	1
	2/4/2014 18:45	2/5/2014 0:45	360	0.48	254,017	0.88	0.23	6	Atlas		121,928	1
	2/14/2014 16:45	2/14/2014 18:30	105	0.39	24,118	0.40	0.21	6	Atlas		9,406	1
	2/17/2014 15:00	2/17/2014 18:00	180	0.39	300,995	0.84	0.23	3	Atlas		117,388	1
	2/20/2014 23:00	2/20/2014 23:15	15	0.24	9,246	1.07	0.13	6	Atlas		2,219	1
	3/2/2014 9:30	3/2/2014 11:30	120	0.64	59,286	0.33	0.24	24	Atlas		37,943	1
	3/28/2014 4:15	3/28/2014 4:45	30	0.24	87,333	0.28	0.12	6	Atlas		20,960	1
	3/29/2014 5:00	3/29/2014 12:15	435	1.21	54,003	1.39	0.56	6	Atlas		65,344	1
	4/3/2014 5:15	4/4/2014 7:30	1,575	2.63	90,341	4.20	0.92	24	Atlas		237,597	1
	4/7/2014 9:00	4/7/2014 12:00	180	0.74	70,397	3.49	0.46	1	Atlas		52,094	1
	4/14/2014 3:30	4/14/2014 3:30	-	0.38	224	0.89	0.19	6	Atlas		85	1
	4/14/2014 19:15	4/15/2014 1:00	345	0.61	59,252	0.95	0.28	12	Atlas		36,144	1
	4/27/2014 20:00	4/28/2014 7:00	660	1.75	103,174	1.42	0.65	24	Atlas		180,555	1
	4/28/2014 17:15	4/28/2014 19:00	105	1.75	9,098	1.82	0.65	24	Atlas		15,922	1
	4/29/2014 18:45	4/29/2014 18:45	-	0.22	277	1.93	0.10	12	Atlas		61	1
	5/9/2014 19:00	5/10/2014 15:15	1,215	1.74	140,932	1.79	0.67	24	Atlas		245,222	1
	5/14/2014 6:45	5/14/2014 8:30	105	1.18	30,827	2.14	0.42	24	Atlas		36,376	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/14/2014 17:45	5/14/2014 19:00	75	1.18	11.760	2.77	0.42	24	Atlas		13,877	1
	5/21/2014 20:45	5/22/2014 3:30	405	0.52	94.467	0.68	0.26	1	Atlas		49,123	1
	5/29/2014 20:45	5/29/2014 21:45	60	0.67	146.721	0.78	0.47	1	Atlas		98,303	1
	6/11/2014 14:15	6/11/2014 14:45	30	0.16	443.963	0.40	0.10	1	Atlas		71,034	1
	6/20/2014 16:00	6/20/2014 17:45	105	0.22	51.655	0.22	0.15	3	Atlas		11,364	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.27	47.956	0.53	0.19	1	Atlas		12,948	1
	7/2/2014 16:15	7/2/2014 16:15	-	0.16	306.900	0.35	0.14	1	Atlas		49,104	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.62	1.332	0.95	0.54	1	Atlas		826	1
	7/13/2014 22:00	7/13/2014 23:00	60	0.73	63.516	1.56	0.39	3	Atlas		46,367	1
	7/14/2014 20:15	7/14/2014 20:15	-	0.07	6.500	1.18	0.06	1	Atlas		455	1
	7/26/2014 21:45	7/26/2014 22:15	30	1.39	48.829	0.59	0.63	12	Atlas		67,873	1
	7/27/2014 6:45	7/27/2014 9:15	150	1.39	36.692	1.41	0.63	12	Atlas		51,002	1
	8/8/2014 5:30	8/8/2014 7:45	135	1.01	82.660	0.85	0.50	3	Atlas		83,487	1
	8/9/2014 4:00	8/9/2014 4:00	-	0.08	19.813	1.10	0.04	6	Atlas		1,585	1
	8/10/2014 4:00	8/10/2014 4:00	-	0.18	578	1.30	0.15	1	Atlas		104	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.32	151.706	1.57	0.22	1	Atlas		48,546	1
	8/17/2014 9:30	8/17/2014 10:15	45	0.69	3.981	0.89	0.25	24	Atlas		2,747	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.63	169.456	1.25	0.48	1	Atlas		106,757	1
	8/23/2014 16:45	8/23/2014 20:15	210	0.61	45.362	1.68	0.28	12	Atlas		27,671	1
	8/27/2014 15:15	8/27/2014 17:15	120	0.62	150.790	1.87	0.41	3	Atlas		93,490	1
	8/30/2014 15:45	8/30/2014 15:45	30	0.52	178.277	1.56	0.30	1	Atlas		92,704	1
	9/2/2014 8:15	9/2/2014 8:30	15	0.30	132.757	1.36	0.20	3	Atlas		39,827	1
	9/11/2014 0:30	9/11/2014 6:00	330	2.03	117.187	2.00	1.70	3	Atlas		237,889	1
	9/28/2014 19:00	9/28/2014 19:00	-	0.07	25.514	0.03	0.06	1	Atlas		1,786	1
	10/3/2014 3:30	10/3/2014 4:15	45	0.18	4.694	0.13	0.07	24	Atlas		845	1
	10/6/2014 8:00	10/6/2014 11:00	180	0.14	122.493	0.29	0.05	24	Atlas		17,149	1
	10/7/2014 11:45	10/7/2014 12:00	15	0.16	27.481	0.48	0.13	1	Atlas		4,397	1
	10/10/2014 1:45	10/10/2014 3:00	75	0.82	148.441	1.02	0.36	3	Atlas		121,722	1
	10/13/2014 4:30	10/13/2014 6:30	120	0.50	28.870	1.60	0.33	3	Atlas		14,435	1
	10/13/2014 23:30	10/14/2014 10:00	630	1.21	51.774	2.71	0.54	12	Atlas		62,646	1
	11/23/2014 14:30	11/23/2014 19:45	315	0.81	39.496	1.13	0.37	6	Atlas		31,992	1
	12/1/2014 3:15	12/1/2014 4:45	90	0.73	15.500	0.31	0.28	24	Atlas		11,315	1
	12/1/2014 14:30	12/1/2014 15:00	30	0.73	827	0.63	0.28	24	Atlas		604	1
	12/5/2014 4:30	12/5/2014 6:30	120	1.84	2.642	1.23	0.59	48	Atlas		4,862	1
	12/6/2014 17:30	12/6/2014 6:45	795	1.84	49.578	2.56	0.59	48	Atlas		91,224	1
	12/16/2014 5:15	12/16/2014 5:15	-	0.06	42.850	0.07	0.04	3	Atlas		2,571	1
	12/22/2014 22:30	12/22/2014 23:45	75	0.24	20.250	0.29	0.15	3	Atlas		4,860	1
	12/23/2014 20:00	12/23/2014 20:00	-	0.05	34.200	0.30	0.04	1	Atlas		1,710	1
	12/24/2014 13:30	12/24/2014 13:30	-	0.17	3.424	0.41	0.10	3	Atlas		582	1
	12/28/2014 1:00	12/28/2014 1:30	30	0.28	30.257	0.75	0.13	1	Atlas		8,472	1
	1/3/2015 10:30	1/3/2015 15:00	270	0.32	11.159	0.44	0.12	24	Atlas		3,571	1
	2/1/2015 13:00	2/1/2015 17:45	285	0.36	13.708	0.47	0.17	12	Atlas		4,935	1
	2/21/2015 14:15	2/21/2015 15:30	75	1.17	2.652	1.27	0.45	24	Atlas		3,103	1
	3/3/2015 18:45	3/4/2015 15:00	1,215	1.63	59.930	1.20	0.53	48	Atlas		97,686	1
	3/10/2015 6:45	3/10/2015 14:30	465	1.20	130.005	2.83	0.54	12	Atlas		156,006	1
	3/13/2015 8:30	3/14/2015 4:45	1,215	1.59	53.470	2.74	0.60	24	Atlas		85,017	1
	3/26/2015 4:15	3/26/2015 6:15	120	0.46	43.215	0.58	0.20	3	Atlas		19,879	1
	4/2/2015 9:45	4/2/2015 15:30	345	5.54	20.640	0.92	28.12	6	Cloudburst		114,348	1
	4/3/2015 0:15	4/3/2015 17:15	1,020	5.54	208.186	5.53	28.12	6	Cloudburst		1,153,350	1
	4/7/2015 9:15	4/7/2015 17:30	495	0.69	128.441	6.23	0.29	12	Atlas		88,624	1
	4/8/2015 18:00	4/8/2015 18:30	30	0.17	204.253	6.41	0.11	1	Atlas		34,723	1
	4/9/2015 11:30	4/9/2015 12:00	30	0.36	46.675	6.39	0.31	1	Atlas		16,803	1
	4/10/2015 2:30	4/10/2015 2:30	-	0.15	12.333	3.43	0.09	3	Atlas		1,850	1
	4/13/2015 21:00	4/13/2015 21:00	-	0.49	7.627	1.49	0.19	6	Atlas		3,737	1
	4/14/2015 11:45	4/14/2015 11:45	-	0.49	339	1.45	0.19	6	Atlas		166	1
	4/19/2015 7:30	4/19/2015 14:30	420	0.72	75.379	1.25	0.31	12	Atlas		54,273	1
	4/20/2015 3:15	4/20/2015 3:15	-	0.07	304.200	1.37	0.06	1	Atlas		21,294	1
	4/25/2015 9:15	4/25/2015 9:15	-	0.10	5.300	0.91	0.05	6	Atlas		530	1
	4/25/2015 19:00	4/25/2015 19:00	-	0.05	2.560	0.92	0.03	3	Atlas		128	1
	5/11/2015 17:30	5/11/2015 17:45	15	0.14	14.286	0.30	0.12	1	Atlas		2,000	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/16/2015 12:45	5/16/2015 12:45	-	0.29	314	0.34	0.13	3	Atlas		91	1
	5/17/2015 14:15	5/17/2015 14:30	15	0.11	224.309	0.52	0.08	1	Atlas		24,674	1
	5/25/2015 7:00	5/25/2015 8:15	75	0.30	6.903	0.22	0.14	12	Atlas		2,071	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.25	101.852	0.47	0.15	1	Atlas		25,463	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.27	3.948	0.81	0.23	1	Atlas		1,066	1
	6/8/2015 8:15	6/8/2015 8:30	15	0.35	32.537	0.38	0.19	3	Atlas		11,388	1
	6/13/2015 14:15	6/13/2015 14:15	-	0.31	9.771	0.66	0.27	1	Atlas		3,029	1
	6/17/2015 4:45	6/17/2015 6:15	90	0.60	71.732	0.89	0.33	3	Atlas		43,039	1
	6/18/2015 16:15	6/18/2015 17:45	90	2.28	26.085	1.96	0.74	48	Atlas		59,474	1
	6/20/2015 1:30	6/20/2015 8:30	420	2.28	42.533	3.29	0.74	48	Atlas		96,975	1
	6/25/2015 23:45	6/26/2015 0:00	15	0.63	61.129	1.84	0.34	6	Atlas		38,511	1
	6/26/2015 17:00	6/27/2015 1:15	495	0.75	128.509	2.68	0.35	1	Atlas		96,382	1
	6/29/2015 13:30	6/29/2015 13:45	15	0.14	207.486	1.52	0.10	1	Atlas		29,048	1
	7/1/2015 14:15	7/1/2015 14:15	-	0.06	2.850	1.58	0.05	1	Atlas		171	1
	7/2/2015 0:15	7/2/2015 2:15	120	0.74	50.393	2.16	0.37	3	Atlas		37,291	1
	7/2/2015 20:45	7/2/2015 21:15	30	0.74	31.112	2.33	0.37	3	Atlas		23,023	1
	7/3/2015 14:45	7/3/2015 19:00	255	0.30	69.290	1.99	0.17	1	Atlas		20,787	1
	7/7/2015 11:30	7/7/2015 16:30	300	0.68	74.109	1.77	0.35	6	Atlas		50,394	1
	7/9/2015 6:15	7/9/2015 7:30	75	0.21	52.881	1.38	0.13	3	Atlas		11,105	1
	7/10/2015 10:00	7/10/2015 16:15	375	0.67	57.922	1.95	0.33	6	Atlas		38,808	1
	7/12/2015 6:00	7/12/2015 7:45	105	0.90	194.371	2.55	0.63	1	Atlas		174,934	1
	7/13/2015 14:15	7/13/2015 15:15	60	0.40	36.388	2.96	0.33	1	Atlas		14,555	1
	7/14/2015 3:15	7/14/2015 7:45	270	0.50	144.680	3.46	0.37	1	Atlas		72,340	1
	7/17/2015 22:30	7/18/2015 1:00	150	0.87	132.448	2.72	0.58	3	Atlas		115,230	1
	7/28/2015 17:30	7/28/2015 17:30	-	0.03	7.700	0.09	0.03	1	Atlas		231	1
	7/29/2015 17:30	7/29/2015 17:30	-	0.06	31.550	0.15	0.05	1	Atlas		1,893	1
	8/4/2015 19:00	8/4/2015 19:30	30	0.18	21.572	0.21	0.14	1	Atlas		3,883	1
	8/5/2015 15:15	8/5/2015 15:15	-	1.08	740	0.33	0.40	24	Atlas		799	1
	8/6/2015 2:15	8/6/2015 15:15	780	1.08	66.150	1.26	0.40	24	Atlas		71,442	1
	8/10/2015 20:45	8/10/2015 20:45	-	0.09	20.856	1.36	0.08	1	Atlas		1,877	1
	8/19/2015 7:45	8/19/2015 8:30	45	0.65	27.725	0.31	0.27	1	Atlas		18,021	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.65	12.694	0.68	0.27	1	Atlas		8,251	1
	9/7/2015 18:00	9/7/2015 18:30	30	1.05	17.830	1.15	0.91	1	Atlas		18,721	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.10	18.730	1.25	0.08	1	Atlas		1,873	1
	9/29/2015 12:00	9/29/2015 19:00	420	1.02	944	0.95	0.33	48	Atlas		963	1
	10/2/2015 17:30	10/2/2015 19:15	105	0.60	7.053	1.66	0.29	6	Atlas		4,232	1
	11/6/2015 3:00	11/6/2015 4:30	90	0.66	112.197	0.74	0.41	3	Atlas		74,050	1
	11/12/2015 0:00	11/12/2015 1:00	60	0.31	106.906	1.45	0.19	3	Atlas		33,141	1
	11/18/2015 9:15	11/18/2015 14:00	285	1.91	46.474	2.23	0.98	6	Atlas		88,765	1
	11/30/2015 21:45	12/1/2015 3:45	360	0.74	14.236	1.54	0.33	12	Atlas		10,535	1
	12/21/2015 23:00	12/22/2015 4:00	300	0.78	35.244	0.81	0.33	6	Atlas		27,490	1
	12/23/2015 19:15	12/23/2015 20:15	60	0.95	215.371	1.75	0.65	1	Atlas		204,602	1
	12/27/2015 10:45	12/27/2015 16:30	345	2.22	99.104	3.57	0.72	48	Atlas		220,010	1
	12/28/2015 16:00	12/28/2015 16:30	30	2.22	1.008	4.20	0.72	48	Atlas		2,238	1
	2/21/2016 4:15	2/21/2016 10:45	390	0.84	55.238	1.03	0.39	12	Atlas		46,400	1
	2/23/2016 23:45	2/24/2016 7:30	465	2.10	38.873	2.64	0.83	12	Atlas		81,633	1
	3/1/2016 12:15	3/1/2016 12:45	30	0.36	7.261	2.40	0.21	3	Atlas		2,614	1
	3/10/2016 15:30	3/10/2016 16:45	75	1.12	5.263	0.91	0.37	12	Atlas		5,894	1
	3/12/2016 20:15	3/12/2016 22:45	150	0.90	1.020	1.64	0.33	24	Atlas		918	1
	3/13/2016 9:00	3/13/2016 9:45	45	0.90	10.672	1.99	0.33	24	Atlas		9,605	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.44	80.580	0.59	0.31	1	Atlas		35,455	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.86	93.417	1.22	0.57	3	Atlas		80,339	1
	3/31/2016 4:30	3/31/2016 4:30	-	1.15	1.776	1.69	0.44	24	Atlas		2,042	1
	3/31/2016 22:00	3/31/2016 23:15	75	1.15	14.879	1.96	0.44	24	Atlas		17,111	1
	4/11/2016 17:00	4/11/2016 18:00	60	0.81	15.346	0.75	0.39	6	Atlas		12,430	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.35	211	0.16	0.16	3	Atlas		74	1
	4/27/2016 14:00	4/27/2016 22:00	480	0.60	13.922	1.29	0.28	3	Atlas		8,353	1
	4/30/2016 11:15	4/30/2016 11:15	-	0.50	86	1.17	0.19	24	Atlas		43	1
	5/1/2016 14:45	5/1/2016 15:00	15	0.48	40.983	1.80	0.34	1	Atlas		19,672	1
	5/7/2016 16:30	5/7/2016 16:30	-	0.59	800	1.03	0.31	6	Atlas		472	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/10/2016 14:15	5/10/2016 21:45	450	0.68	76.013	1.47	0.25	24	Atlas		51,689	1
	5/20/2016 14:00	5/20/2016 15:45	105	0.79	27.497	1.37	0.45	3	Atlas		21,723	1
	6/2/2016 15:30	6/2/2016 15:30	-	0.52	24,146	0.60	0.42	1	Atlas		12,556	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.48	18,735	0.48	0.41	1	Atlas		8,993	1
	6/14/2016 16:45	6/14/2016 17:00	15	0.63	14,849	0.84	0.40	3	Atlas		9,355	1
	6/23/2016 16:00	6/23/2016 22:15	375	1.71	134,699	1.86	0.90	6	Atlas		230,335	1
	7/3/2016 10:15	7/3/2016 23:00	765	0.98	13,303	0.57	0.32	48	Atlas		13,037	1
	7/4/2016 14:15	7/4/2016 14:15	-	0.98	8,942	0.87	0.32	48	Atlas		8,763	1
	7/6/2016 13:15	7/6/2016 13:15	-	0.11	40,264	1.07	0.07	1	Atlas		4,429	1
	7/12/2016 9:30	7/12/2016 9:45	15	0.34	35,259	0.48	0.24	1	Atlas		11,988	1
	7/27/2016 18:15	7/27/2016 18:45	30	0.84	25,077	0.56	0.33	12	Atlas		21,065	1
	7/28/2016 3:00	7/28/2016 5:00	120	0.84	4,415	0.94	0.33	12	Atlas		3,709	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.33	104,930	1.41	0.29	1	Atlas		34,627	1
	7/31/2016 17:15	7/31/2016 17:15	-	0.22	5,309	1.63	0.17	1	Atlas		1,168	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.52	3,573	1.83	0.24	12	Atlas		1,858	1
	8/1/2016 20:15	8/1/2016 21:15	60	0.52	331,952	1.97	0.24	12	Atlas		172,615	1
	8/4/2016 13:30	8/4/2016 13:45	15	0.22	87,359	1.20	0.14	3	Atlas		19,219	1
	8/9/2016 15:30	8/9/2016 15:30	-	0.18	8,156	0.56	0.11	3	Atlas		1,468	1
	8/15/2016 2:30	8/15/2016 7:15	285	1.64	68,174	1.83	0.78	6	Atlas		111,806	1
	8/17/2016 6:00	8/17/2016 6:15	15	0.48	5,448	2.04	0.20	12	Atlas		2,615	1
	8/20/2016 19:45	8/20/2016 20:00	15	0.63	11,860	2.52	0.28	1	Atlas		7,472	1
	8/31/2016 17:00	8/31/2016 17:00	-	0.04	429,275	0.08	0.03	1	Atlas		17,171	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.24	3,725	0.20	0.17	1	Atlas		894	1
	9/28/2016 12:45	9/28/2016 12:45	-	0.42	10,610	0.61	0.23	6	Atlas		4,456	1
	9/30/2016 1:30	9/30/2016 2:15	45	0.69	7,020	1.30	0.35	3	Atlas		4,844	1
	10/20/2016 10:00	10/20/2016 10:00	-	0.55	6,667	0.20	0.23	3	Atlas		3,667	1
	11/8/2016 20:00	11/8/2016 20:00	-	0.18	1,033	0.23	0.09	1	Atlas		186	1
	12/6/2016 9:15	12/6/2016 11:30	135	0.98	1,332	0.93	0.45	12	Atlas		1,305	1
	12/17/2016 18:30	12/18/2016 1:15	405	2.52	75,454	2.76	1.56	12	Cloudburst		190,145	1
	1/10/2017 19:30	1/10/2017 19:45	15	0.18	10,611	0.46	0.14	1	Atlas		1,910	1
	1/11/2017 12:30	1/11/2017 12:30	-	0.21	967	0.60	0.13	3	Atlas		203	1
	1/12/2017 15:30	1/12/2017 18:30	180	0.50	756	0.78	0.25	6	Atlas		378	1
	1/14/2017 11:30	1/14/2017 13:45	135	0.20	1,165	1.35	0.09	12	Atlas		233	1
	1/17/2017 0:15	1/17/2017 3:30	195	0.52	31,129	2.00	0.23	12	Atlas		16,187	1
	1/19/2017 19:00	1/20/2017 0:45	345	1.16	5,480	2.25	0.53	12	Atlas		6,357	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.80	67,524	0.88	0.69	1	Atlas		54,019	1
	2/28/2017 5:30	2/28/2017 5:30	-	0.27	4,659	0.94	0.12	12	Atlas		1,258	1
	3/1/2017 3:15	3/1/2017 8:45	330	0.99	85,881	2.12	0.52	6	Atlas		85,022	1
	3/7/2017 7:45	3/7/2017 8:00	15	0.55	21,669	1.60	0.18	48	Atlas		11,918	1
	3/27/2017 18:00	3/27/2017 18:15	15	0.29	13,045	0.70	0.17	3	Atlas		3,783	1
	3/30/2017 20:30	3/30/2017 21:45	75	0.49	47,439	1.11	0.24	6	Atlas		23,245	1
	4/16/2017 5:30	4/16/2017 5:30	-	1.23	3,224	0.48	0.58	3	Atlas		3,966	1
	4/16/2017 17:30	4/16/2017 20:15	165	1.23	42,242	1.47	0.58	3	Atlas		51,958	1
	4/21/2017 22:00	4/21/2017 22:00	-	0.56	2,363	1.51	0.20	24	Atlas		1,323	1
	4/27/2017 6:45	4/27/2017 7:00	15	0.21	24,995	0.78	0.14	1	Atlas		5,249	1
	4/29/2017 0:15	4/29/2017 3:15	180	0.97	156,707	1.31	0.57	3	Atlas		152,006	1
	5/1/2017 3:45	5/1/2017 3:45	-	0.40	14,418	1.56	0.21	3	Atlas		5,767	1
	5/4/2017 19:45	5/5/2017 6:45	660	1.83	19,037	2.80	0.61	24	Atlas		34,838	1
	5/11/2017 3:45	5/11/2017 3:45	-	0.14	15,793	2.00	0.08	3	Atlas		2,211	1
	5/20/2017 18:45	5/20/2017 18:45	-	1.21	1,492	0.28	0.52	12	Atlas		1,805	1
	5/21/2017 3:30	5/21/2017 4:30	60	1.21	22,671	1.03	0.52	12	Atlas		27,432	1
	5/24/2017 18:00	5/24/2017 18:45	45	0.77	2,996	1.74	0.28	24	Atlas		2,307	1
	6/5/2017 9:00	6/5/2017 9:00	-	0.07	92,243	0.07	0.03	12	Atlas		6,457	1
	6/5/2017 18:15	6/5/2017 18:30	15	0.22	12,332	0.29	0.19	1	Atlas		2,713	1
	6/15/2017 3:00	6/15/2017 4:00	60	0.95	27,878	0.87	0.62	3	Atlas		26,484	1
	6/22/2017 18:45	6/22/2017 18:45	-	0.42	5,181	0.55	0.23	6	Atlas		2,176	1
	6/23/2017 15:30	6/23/2017 16:00	30	0.97	21,811	1.21	0.53	3	Atlas		21,157	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.41	286,307	0.49	0.35	1	Atlas		117,386	1
	7/6/2017 4:15	7/6/2017 13:00	525	0.64	11,197	1.04	0.27	3	Atlas		7,166	1
	7/7/2017 20:30	7/7/2017 21:00	30	0.24	52,596	1.34	0.17	1	Atlas		12,623	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/23/2017 2:30	7/23/2017 7:00	270	1.08	33,938	0.75	0.50	12	Atlas		36,653	1
	7/28/2017 9:30	7/28/2017 10:15	45	0.43	67,065	1.52	0.33	1	Atlas		28,838	1
	8/2/2017 13:00	8/2/2017 13:00	-	0.39	72,231	0.90	0.34	1	Atlas		28,170	1
	8/6/2017 14:30	8/6/2017 23:45	555	0.71	18,913	1.18	0.31	12	Atlas		13,428	1
	8/17/2017 15:00	8/17/2017 17:45	165	0.77	45,838	0.69	0.42	6	Atlas		35,295	1
	8/22/2017 16:00	8/22/2017 16:30	30	0.39	111,823	1.16	0.25	1	Atlas		43,611	1
	8/29/2017 19:15	8/29/2017 19:15	-	0.13	123,269	0.17	0.09	1	Atlas		16,025	1
	9/1/2017 10:15	9/2/2017 0:30	855	4.13	15,469	3.92	4.92	24	Cloudburst		63,885	1
	9/19/2017 8:00	9/19/2017 9:30	90	0.43	6,237	0.76	0.27	3	Atlas		2,682	1
	10/7/2017 21:45	10/7/2017 22:15	30	1.88	7,343	0.51	0.71	24	Atlas		13,805	1
	10/8/2017 10:30	10/8/2017 14:00	210	1.88	9,428	1.66	0.71	24	Atlas		17,725	1
	10/10/2017 15:00	10/10/2017 20:45	345	0.79	897	2.68	0.42	3	Atlas		709	1
	10/23/2017 6:30	10/23/2017 7:00	30	0.54	7,833	0.35	0.29	6	Atlas		4,230	1
	10/27/2017 17:30	10/28/2017 0:15	405	1.03	1,181	1.57	0.47	12	Atlas		1,216	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.87	90,427	3.04	6.92	1	Atlas		169,099	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.19	65,484	2.19	0.12	1	Atlas		12,442	1
	11/15/2017 13:30	11/15/2017 13:45	15	0.23	1,596	0.25	0.15	1	Atlas		367	1
	11/18/2017 17:15	11/18/2017 17:15	-	0.33	16,318	0.55	0.21	1	Atlas		5,385	1
	12/6/2017 3:15	12/6/2017 5:00	105	0.62	67,416	0.55	0.35	3	Atlas		41,798	1
	12/22/2017 23:15	12/23/2017 5:15	360	1.16	18,565	1.04	0.47	12	Atlas		21,535	1
	1/11/2018 8:45	1/11/2018 8:45	-	0.09	6,578	0.18	0.05	3	Atlas		592	1
	2/7/2018 3:15	2/7/2018 3:30	15	0.41	20,290	0.58	0.22	6	Atlas		8,319	1
	2/11/2018 9:15	2/11/2018 10:45	90	0.35	28,980	0.81	0.17	3	Atlas		10,143	1
	2/14/2018 7:30	2/14/2018 7:30	-	0.44	725	0.64	0.20	12	Atlas		319	1
	2/16/2018 2:30	2/16/2018 2:45	15	0.73	7,190	1.18	0.33	12	Atlas		5,249	1
	2/22/2018 3:30	2/22/2018 5:30	120	1.69	69,554	2.68	0.62	24	Atlas		117,547	1
	2/23/2018 4:00	2/23/2018 9:15	315	1.14	51,768	3.30	0.52	12	Atlas		59,015	1
	2/24/2018 10:30	2/24/2018 23:45	795	1.78	245,503	4.60	0.74	12	Atlas		436,996	1
	3/24/2018 10:30	3/24/2018 14:15	225	0.85	13,702	1.57	0.33	12	Atlas		11,647	1
	3/29/2018 19:00	3/29/2018 19:30	30	0.72	39,256	1.76	0.24	24	Atlas		28,264	1
	4/1/2018 20:00	4/1/2018 23:00	180	0.57	21,981	1.98	0.31	6	Atlas		12,529	1
	4/3/2018 19:15	4/3/2018 19:15	-	0.55	15,618	2.36	0.30	6	Atlas		8,590	1
	4/14/2018 9:00	4/14/2018 9:45	45	1.51	7,188	0.45	0.49	48	Atlas		10,864	1
	4/15/2018 5:45	4/15/2018 5:45	-	1.51	2,636	1.14	0.49	48	Atlas		3,981	1
	5/5/2018 14:00	5/5/2018 18:30	270	2.10	59,058	1.94	0.89	6	Atlas		124,021	1
	5/27/2018 4:30	5/27/2018 4:30	-	0.26	12,742	0.24	0.18	1	Atlas		3,313	1
	5/31/2018 14:00	5/31/2018 14:00	-	1.23	4,354	0.62	0.61	3	Atlas		5,356	1
	6/1/2018 0:30	6/1/2018 2:00	90	1.23	52,260	1.49	0.61	3	Atlas		64,280	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.44	8,270	0.21	0.20	12	Atlas		3,639	1
	6/11/2018 11:00	6/11/2018 13:15	135	0.92	41,368	0.84	0.30	48	Atlas		38,059	1
	6/22/2018 13:45	6/22/2018 13:45	-	0.21	1,376	0.71	0.11	6	Atlas		289	1
	6/25/2018 10:15	6/25/2018 10:30	15	0.93	17,215	1.18	0.38	12	Atlas		16,010	1
	6/26/2018 12:30	6/26/2018 12:45	15	0.90	145,318	1.87	0.45	1	Atlas		130,786	1
	6/26/2018 21:15	6/26/2018 21:15	-	0.90	9,332	2.11	0.45	1	Atlas		8,399	1
	7/2/2018 17:30	7/2/2018 18:00	30	0.65	267,645	1.52	0.52	1	Atlas		173,969	1
	7/3/2018 15:15	7/3/2018 15:45	30	0.56	215,527	1.39	0.39	1	Atlas		120,695	1
	7/15/2018 18:15	7/15/2018 18:15	-	0.22	441,023	0.21	0.11	1	Atlas		97,025	1
	7/20/2018 13:45	7/20/2018 21:00	435	0.93	188,670	1.26	0.39	12	Atlas		175,463	1
	7/22/2018 12:15	7/22/2018 17:15	300	0.30	91,363	1.45	0.17	1	Atlas		27,409	1
	7/30/2018 23:15	7/31/2018 12:45	810	2.22	77,494	2.33	0.90	12	Atlas		172,036	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.61	44,995	6.17	0.34	1	Atlas		27,447	1
	8/31/2018 17:30	8/31/2018 17:45	15	0.58	44,760	0.50	0.41	1	Atlas		25,961	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.30	123,407	0.82	0.19	3	Atlas		37,022	1
	9/8/2018 17:30	9/8/2018 22:15	285	2.08	210,907	2.73	0.98	6	Atlas		438,687	1
	9/21/2018 17:45	9/21/2018 17:45	-	0.36	12,292	0.49	0.30	1	Atlas		4,425	1
	9/22/2018 15:45	9/22/2018 17:00	75	1.41	4,085	0.84	0.54	3	Atlas		5,760	1
	9/23/2018 4:00	9/23/2018 7:00	180	1.41	130,445	1.86	0.54	3	Atlas		183,928	1
	9/24/2018 6:30	9/24/2018 13:45	435	2.00	72,304	3.76	0.88	6	Atlas		144,608	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.10	42,350	3.87	0.09	1	Atlas		4,235	1
	9/25/2018 16:45	9/25/2018 17:30	45	0.77	92,896	4.28	0.34	12	Atlas		71,530	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/26/2018 1:45	9/26/2018 2:15	30	0.77	25.738	4.61	0.34	12	Atlas		19,818	1
	10/10/2018 17:00	10/10/2018 17:00	-	0.12	5.667	0.14	0.10	1	Atlas		680	1
	10/15/2018 9:00	10/15/2018 9:15	15	0.17	20.471	0.66	0.10	1	Atlas		3,480	1
	10/31/2018 15:00	11/1/2018 1:15	615	2.04	42.676	1.78	0.73	24	Atlas		87,059	1
	11/1/2018 17:45	11/1/2018 17:45	-	2.04	102	2.44	0.73	24	Atlas		208	1
	11/5/2018 21:45	11/5/2018 23:45	120	1.24	27.743	3.31	0.67	6	Atlas		34,401	1
	11/14/2018 23:15	11/15/2018 0:15	60	0.48	2.452	0.47	0.22	12	Atlas		1,177	1
	12/1/2018 3:00	12/1/2018 14:15	675	1.50	5.487	1.62	0.66	12	Atlas		8,230	1
	12/15/2018 3:00	12/15/2018 8:00	300	1.70	15.975	1.40	0.70	12	Atlas		27,158	1
	12/27/2018 17:45	12/27/2018 17:45	-	0.32	21.281	0.53	0.18	1	Atlas		6,810	1
	12/31/2018 8:00	12/31/2018 16:45	525	1.36	21.459	1.69	0.52	24	Atlas		29,184	1
	1/4/2019 14:15	1/4/2019 15:30	75	0.64	1.469	1.78	0.29	12	Atlas		940	1
	1/19/2019 6:45	1/19/2019 11:15	270	0.84	4.381	0.72	0.32	24	Atlas		3,680	1
	1/23/2019 10:15	1/23/2019 10:30	15	0.75	11.239	1.34	0.29	12	Atlas		8,429	1
	2/4/2019 14:15	2/4/2019 14:15	-	0.05	76.960	0.11	0.03	1	Atlas		3,848	1
	2/6/2019 7:00	2/6/2019 10:00	180	1.48	13.668	0.52	0.48	48	Atlas		20,228	1
	2/7/2019 9:00	2/7/2019 17:15	495	1.48	46.224	1.38	0.48	48	Atlas		68,411	1
	2/11/2019 1:45	2/11/2019 2:00	15	2.59	3.366	2.01	0.81	48	Atlas		8,717	1
	2/11/2019 22:30	2/12/2019 5:45	435	2.59	36.161	3.82	0.81	48	Atlas		93,656	1
	2/20/2019 2:45	2/20/2019 14:45	720	1.76	160.591	1.79	0.80	6	Atlas		282,641	1
	2/23/2019 17:00	2/23/2019 19:15	135	0.90	21.110	2.51	0.49	6	Atlas		18,999	1
	3/9/2019 13:30	3/9/2019 19:15	345	1.11	51.715	1.27	0.56	6	Atlas		57,404	1
	3/14/2019 17:15	3/14/2019 19:00	105	0.17	158.447	1.77	0.11	3	Atlas		26,936	1
	3/25/2019 4:45	3/25/2019 4:45	-	0.25	1.160	0.32	0.14	6	Atlas		290	1
	3/30/2019 15:30	3/30/2019 20:00	270	0.79	54.306	1.09	0.37	6	Atlas		42,902	1
	4/7/2019 6:00	4/7/2019 13:30	450	0.61	67.080	0.81	0.31	3	Atlas		40,919	1
	4/14/2019 1:00	4/14/2019 3:15	135	1.18	29.688	1.68	0.57	6	Atlas		35,032	1
	4/18/2019 22:45	4/18/2019 22:45	-	3.64	1.530	1.70	1.92	48	Cloudburst		5,568	1
	4/19/2019 19:00	4/20/2019 6:30	690	3.64	43.035	4.25	1.92	48	Cloudburst		156,648	1
	4/23/2019 17:45	4/23/2019 18:15	30	0.24	464.821	3.88	0.21	1	Atlas		111,557	1
	4/24/2019 20:30	4/24/2019 21:15	45	0.46	46.439	4.17	0.22	1	Atlas		21,362	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.51	23.782	4.69	0.28	1	Atlas		12,129	1
	4/26/2019 2:30	4/26/2019 2:45	15	0.51	27.684	4.22	0.28	1	Atlas		14,119	1
	5/3/2019 4:45	5/3/2019 7:30	165	0.95	41.900	1.27	0.51	6	Atlas		39,805	1
	5/19/2019 23:00	5/19/2019 23:15	15	0.38	49.129	0.40	0.19	1	Atlas		18,669	1
	5/23/2019 15:45	5/23/2019 15:45	-	0.04	85.225	0.44	0.03	1	Atlas		3,409	1
	5/26/2019 14:00	5/26/2019 15:00	60	0.43	14.188	0.62	0.25	3	Atlas		6,101	1
	5/29/2019 9:15	5/29/2019 13:15	240	0.78	15.995	1.21	0.43	6	Atlas		12,476	1
	5/30/2019 11:00	5/30/2019 11:15	15	0.21	29.519	1.41	0.11	1	Atlas		6,199	1
	6/5/2019 21:00	6/5/2019 21:15	15	0.65	37.097	0.78	0.47	1	Atlas		24,113	1
	6/7/2019 21:00	6/7/2019 21:00	-	0.63	4.627	0.92	0.25	6	Atlas		2,915	1
	6/9/2019 0:15	6/9/2019 0:30	15	0.32	5.056	1.60	0.16	6	Atlas		1,618	1
	6/9/2019 16:30	6/9/2019 17:30	60	0.83	211.983	2.22	0.48	3	Atlas		175,946	1
	6/16/2019 6:00	6/16/2019 6:00	-	0.22	47.414	1.12	0.17	1	Atlas		10,431	1
	6/16/2019 19:45	6/17/2019 1:00	315	1.28	109.317	1.63	0.58	12	Atlas		139,926	1
	6/18/2019 4:45	6/18/2019 4:45	-	0.52	9.906	1.84	0.20	24	Atlas		5,151	1
	6/18/2019 17:15	6/18/2019 17:15	-	0.52	18.810	2.12	0.20	24	Atlas		9,781	1
	6/22/2019 7:00	6/22/2019 7:00	-	0.77	7.531	2.68	0.30	24	Atlas		5,799	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.47	71.991	3.05	0.36	1	Atlas		33,836	1
	6/24/2019 13:45	6/24/2019 14:00	15	0.48	129.304	2.36	0.30	3	Atlas		62,066	1
	7/18/2019 0:45	7/18/2019 1:15	30	0.57	226.514	0.65	0.37	1	Atlas		129,113	1
	7/29/2019 23:45	7/30/2019 0:00	15	0.46	143.435	0.46	0.31	3	Atlas		65,980	1
	8/7/2019 4:30	8/7/2019 4:45	15	0.28	57.596	0.29	0.24	1	Atlas		16,127	1
	8/22/2019 3:00	8/22/2019 4:30	90	0.27	84.448	0.34	0.18	3	Atlas		22,801	1
	8/26/2019 11:30	8/26/2019 13:15	105	0.45	63.769	0.85	0.22	6	Atlas		28,696	1
	8/27/2019 17:00	8/27/2019 17:00	-	0.17	46.447	1.03	0.14	1	Atlas		7,896	1
	10/6/2019 14:45	10/6/2019 19:45	300	1.20	8.784	1.01	0.50	6	Atlas		10,541	1
	10/11/2019 21:15	10/11/2019 21:15	-	0.34	374	1.63	0.16	12	Atlas		127	1
	10/15/2019 22:45	10/15/2019 23:15	30	0.73	22.689	1.00	0.57	1	Atlas		16,563	1
	10/26/2019 5:15	10/26/2019 8:45	210	1.24	21.398	1.04	0.47	24	Atlas		26,534	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/26/2019 19:30	10/26/2019 19:30	-	1.24	543	1.34	0.47	24	Atlas		673	1
	10/30/2019 12:45	10/30/2019 14:45	120	0.82	56,013	1.93	0.41	3	Atlas		45,931	1
	10/31/2019 6:30	10/31/2019 7:00	30	0.69	16,909	2.54	0.37	6	Atlas		11,667	1
	11/27/2019 0:15	11/27/2019 5:15	300	0.80	12,135	1.39	0.36	12	Atlas		9,708	1
	11/30/2019 3:00	11/30/2019 16:15	795	1.83	27,622	2.80	0.71	12	Atlas		50,549	1
	12/16/2019 17:00	12/16/2019 18:15	75	0.78	11,700	1.41	0.38	6	Atlas		9,126	1
	12/29/2019 20:15	12/29/2019 20:45	30	1.45	8,339	1.30	0.53	24	Atlas		12,092	1
	1/10/2020 19:30	1/10/2020 20:30	60	1.46	8,742	0.44	0.55	24	Atlas		12,764	1
	1/11/2020 11:00	1/11/2020 16:30	330	1.46	25,671	1.46	0.55	24	Atlas		37,479	1
	1/24/2020 13:45	1/24/2020 13:45	-	0.60	730	0.94	0.20	24	Atlas		438	1
	2/12/2020 17:15	2/12/2020 18:45	90	0.97	85,856	1.37	0.45	3	Atlas		83,280	1
	2/24/2020 19:45	2/24/2020 19:45	-	0.68	141	0.76	0.26	24	Atlas		96	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.41	35,349	0.41	0.19	1	Atlas		14,493	1
	3/12/2020 15:45	3/12/2020 22:45	420	0.49	72,657	0.90	0.22	12	Atlas		35,602	1
	3/14/2020 12:45	3/14/2020 12:45	-	0.47	849	1.17	0.22	12	Atlas		399	1
	3/18/2020 14:00	3/18/2020 18:00	240	0.39	21,872	1.36	0.19	6	Atlas		8,530	1
	3/19/2020 12:00	3/19/2020 12:30	30	0.66	67,429	1.76	0.27	1	Atlas		44,503	1
	3/24/2020 18:30	3/24/2020 18:30	-	0.13	88,262	1.16	0.07	6	Atlas		11,474	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.34	211,585	0.48	0.29	1	Atlas		71,939	1
	4/8/2020 22:15	4/8/2020 22:15	-	0.51	17,165	0.24	0.34	3	Atlas		8,754	1
	4/12/2020 16:30	4/13/2020 3:15	645	1.10	13,146	1.56	0.44	12	Atlas		14,461	1
	4/23/2020 12:45	4/23/2020 12:45	-	0.65	963	1.02	0.26	12	Atlas		626	1
	5/8/2020 10:30	5/8/2020 11:00	30	0.61	22,064	0.63	0.28	6	Atlas		13,459	1
	5/15/2020 23:00	5/16/2020 7:30	510	1.36	26,549	1.42	0.49	24	Atlas		36,107	1
	5/18/2020 7:30	5/18/2020 7:30	-	0.39	5,577	1.85	0.16	12	Atlas		2,175	1
	5/23/2020 16:45	5/23/2020 17:45	60	0.41	57,402	0.87	0.23	3	Atlas		23,535	1
	6/4/2020 15:30	6/4/2020 18:30	180	0.67	24,360	0.55	0.33	6	Atlas		16,321	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.55	19,687	0.35	0.26	6	Atlas		10,828	1
	6/22/2020 22:30	6/23/2020 0:00	90	1.26	103,862	1.81	0.63	6	Atlas		130,866	1
	6/27/2020 18:15	6/27/2020 18:15	-	0.50	24,700	2.15	0.33	1	Atlas		12,350	1
	6/29/2020 3:00	6/29/2020 4:30	90	1.09	66,731	2.70	0.63	3	Atlas		72,737	1
CSO148 Total											22,288,411	494
CSO149	11/17/2009 18:00	11/17/2009 21:15	195	0.95	629,993	0.94	0.37	24	Atlas		598,493	1
	12/8/2009 16:00	12/8/2009 21:45	345	1.77	1,060,296	2.00	0.74	12	Atlas		1,876,724	1
	12/13/2009 7:00	12/13/2009 7:30	30	0.32	279,466	2.16	0.21	3	Atlas		89,429	1
	12/25/2009 11:00	12/25/2009 11:15	15	0.27	45,656	0.65	0.09	24	Atlas		12,327	1
	1/20/2010 9:45	1/20/2010 12:45	180	1.33	49,245	0.69	0.43	48	Atlas		65,496	1
	1/20/2010 23:45	1/21/2010 0:30	45	1.33	488,607	0.83	0.43	48	Atlas		649,847	1
	1/21/2010 10:30	1/21/2010 19:15	525	1.33	1,053,040	1.58	0.43	48	Atlas		1,400,543	1
	1/24/2010 3:45	1/24/2010 5:30	105	0.88	1,178,670	1.93	0.34	24	Atlas		1,037,230	1
	1/24/2010 21:15	1/24/2010 22:30	75	0.88	553,384	2.20	0.34	24	Atlas		486,978	1
	2/5/2010 12:00	2/5/2010 17:45	345	1.05	659,566	0.71	0.38	24	Atlas		692,544	1
	3/12/2010 13:30	3/12/2010 14:45	75	0.27	343,822	0.28	0.17	3	Atlas		92,832	1
	3/21/2010 23:15	3/22/2010 1:30	135	0.59	460,992	0.59	0.27	12	Atlas		271,985	1
	3/25/2010 21:15	3/25/2010 22:15	60	0.59	312,792	1.15	0.35	1	Atlas		184,547	1
	4/7/2010 23:45	4/8/2010 6:15	390	1.16	1,460,659	1.24	0.55	6	Atlas		1,694,364	1
	4/24/2010 14:30	4/24/2010 20:30	360	1.77	2,757,938	2.01	0.84	6	Atlas		4,881,551	1
	4/27/2010 9:00	4/27/2010 10:45	105	0.36	262,158	2.51	0.17	6	Atlas		94,377	1
	5/1/2010 4:45	5/1/2010 9:00	255	4.60	382,834	3.36	5.28	48	Atlas		1,761,038	1
	5/2/2010 1:00	5/2/2010 22:00	1,260	4.60	2,490,556	5.12	5.28	48	Atlas		11,456,559	1
	5/7/2010 23:15	5/7/2010 23:45	30	0.29	448,469	4.92	0.25	1	Atlas		130,056	1
	5/12/2010 9:45	5/12/2010 11:00	75	0.97	2,233,709	1.35	0.75	1	Atlas		2,166,698	1
	5/17/2010 19:45	5/17/2010 20:15	30	0.27	2,570,285	2.04	0.17	3	Atlas		693,977	1
	5/21/2010 19:45	5/22/2010 0:15	270	1.16	1,501,489	1.97	0.88	1	Atlas		1,741,727	1
	5/30/2010 20:15	5/30/2010 21:00	45	0.37	1,564,159	0.54	0.20	6	Atlas		578,739	1
	6/9/2010 3:45	6/9/2010 12:45	540	2.31	1,194,154	2.44	1.77	3	Atlas		2,758,496	1
	6/11/2010 23:00	6/11/2010 23:00	-	0.26	136,950	2.41	0.14	6	Atlas		35,607	1
	6/13/2010 23:00	6/13/2010 23:45	45	0.40	1,359,778	2.79	0.19	1	Atlas		543,911	1
	6/19/2010 5:45	6/19/2010 7:15	90	0.78	2,314,044	1.56	0.45	3	Atlas		1,804,954	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/28/2010 1:45	6/28/2010 2:45	60	0.28	826.982	0.27	0.19	1	Atlas		231,555	1
	7/13/2010 4:00	7/13/2010 9:30	330	1.96	1,378.221	2.13	0.90	12	Atlas		2,701,314	1
	7/20/2010 4:45	7/20/2010 6:30	105	0.69	2,443.272	2.10	0.41	3	Atlas		1,685,858	1
	7/21/2010 6:00	7/21/2010 6:45	45	0.42	995.605	1.35	0.32	1	Atlas		418,154	1
	7/22/2010 14:30	7/22/2010 15:00	30	0.31	1,190.503	1.67	0.27	1	Atlas		369,056	1
	7/27/2010 16:00	7/27/2010 17:00	60	0.87	497.208	1.59	0.56	3	Atlas		432,571	1
	7/31/2010 4:30	7/31/2010 6:30	120	0.56	1,177.361	1.55	0.33	3	Atlas		659,322	1
	7/31/2010 21:00	7/31/2010 21:45	45	0.29	1,211.276	1.84	0.25	1	Atlas		351,270	1
	8/5/2010 9:15	8/5/2010 9:45	30	0.18	748.650	1.01	0.14	1	Atlas		134,757	1
	8/11/2010 17:30	8/11/2010 18:00	30	0.10	944.240	0.28	0.08	1	Atlas		94,424	1
	8/14/2010 16:30	8/14/2010 17:15	45	0.61	670.898	0.96	0.50	1	Atlas		409,248	1
	8/21/2010 7:00	8/21/2010 9:00	120	0.47	1,057.434	1.11	0.29	3	Atlas		496,994	1
	9/7/2010 9:45	9/7/2010 9:45	-	0.18	10.150	0.18	0.16	1	Atlas		1,827	1
	10/13/2010 19:00	10/13/2010 21:00	120	0.42	608.240	0.45	0.28	3	Atlas		255,461	1
	10/26/2010 11:00	10/26/2010 14:45	225	0.57	193.877	0.50	0.31	6	Atlas		110,510	1
	11/16/2010 12:15	11/16/2010 18:45	390	0.78	914.717	0.83	0.35	12	Atlas		713,479	1
	11/23/2010 2:15	11/23/2010 4:30	135	0.28	413.961	1.10	0.15	6	Atlas		115,909	1
	11/24/2010 12:45	11/24/2010 15:30	165	0.71	631.885	1.01	0.33	3	Atlas		448,638	1
	11/25/2010 9:30	11/25/2010 23:30	840	2.36	932.459	3.24	0.90	24	Atlas		2,200,604	1
	11/29/2010 21:30	11/30/2010 10:30	780	1.68	676.150	4.80	0.65	24	Atlas		1,135,932	1
	12/30/2010 3:15	12/30/2010 8:15	300	0.53	108.813	0.59	0.24	12	Atlas		57,671	1
	1/1/2011 4:30	1/1/2011 7:30	180	0.62	427.340	1.11	0.28	6	Atlas		264,951	1
	2/1/2011 16:45	2/1/2011 20:30	225	0.85	729.907	0.77	0.34	6	Atlas		620,421	1
	2/24/2011 17:00	2/25/2011 5:15	735	2.27	1,378.731	2.47	0.89	12	Atlas		3,129,719	1
	2/28/2011 5:15	2/28/2011 12:00	405	1.30	707.294	3.88	0.61	6	Atlas		919,482	1
	3/5/2011 4:30	3/5/2011 9:30	300	0.90	182.279	2.26	0.30	24	Atlas		164,051	1
	3/8/2011 22:45	3/9/2011 17:45	1,140	3.03	1,389.584	3.92	1.76	24	Cloudburst		4,210,439	1
	3/14/2011 4:00	3/14/2011 4:45	45	0.94	84.445	3.42	0.31	12	Atlas		79,378	1
	3/15/2011 7:30	3/15/2011 12:45	315	0.94	2.574	3.96	0.31	12	Atlas		2,420	1
	3/18/2011 21:30	3/18/2011 22:15	45	0.19	468.911	1.12	0.09	6	Atlas		89,093	1
	4/4/2011 13:30	4/4/2011 17:00	210	0.85	801.949	0.99	0.44	6	Atlas		681,657	1
	4/9/2011 10:30	4/9/2011 12:15	105	0.57	1,020.060	1.47	0.38	1	Atlas		581,434	1
	4/11/2011 12:00	4/12/2011 11:15	1,395	3.26	2,016.829	4.65	2.68	24	Cloudburst		6,574,861	1
	4/15/2011 13:00	4/15/2011 13:30	30	0.18	226.106	4.01	0.11	3	Atlas		40,699	1
	4/20/2011 1:30	4/20/2011 4:45	195	0.70	1,113.471	1.14	0.38	6	Atlas		779,430	1
	4/22/2011 16:30	4/23/2011 21:00	1,710	4.87	883.159	4.47	3.76	48	Atlas		4,300,983	1
	4/24/2011 8:15	4/24/2011 20:30	735	4.87	194.737	5.35	3.76	48	Atlas		948,368	1
	4/25/2011 5:45	4/25/2011 6:15	30	4.87	50.308	5.51	3.76	48	Atlas		245,000	1
	4/27/2011 1:30	4/27/2011 17:15	945	2.56	5,240.806	7.92	0.98	24	Atlas		13,416,464	1
	4/28/2011 19:00	4/28/2011 19:45	45	0.19	809.921	7.68	0.13	3	Atlas		153,885	1
	5/1/2011 4:30	5/1/2011 6:45	135	0.74	1,143.455	4.77	0.38	3	Atlas		846,157	1
	5/1/2011 22:45	5/2/2011 7:00	495	2.71	312.045	4.69	0.88	48	Atlas		845,643	1
	5/2/2011 17:00	5/3/2011 12:30	1,170	2.71	715.218	6.33	0.88	48	Atlas		1,938,240	1
	5/8/2011 1:00	5/8/2011 2:00	60	0.36	2,357.589	3.72	0.24	1	Atlas		848,732	1
	5/14/2011 15:00	5/14/2011 15:30	30	0.36	951.083	0.75	0.28	1	Atlas		342,390	1
	5/21/2011 18:15	5/21/2011 19:30	75	0.45	2,480.591	0.90	0.33	1	Atlas		1,116,266	1
	5/23/2011 4:15	5/23/2011 5:00	45	0.39	1,009.956	0.96	0.28	1	Atlas		393,883	1
	5/23/2011 17:45	5/23/2011 21:15	210	0.89	3,319.780	1.87	0.56	3	Atlas		2,954,604	1
	5/25/2011 23:00	5/26/2011 2:00	180	1.56	1,616.170	2.84	0.67	3	Atlas		2,521,225	1
	5/26/2011 11:30	5/26/2011 12:00	30	1.56	191.683	3.27	0.67	3	Atlas		299,026	1
	6/11/2011 4:30	6/11/2011 5:15	45	0.25	667.296	0.28	0.21	1	Atlas		166,824	1
	6/15/2011 9:30	6/15/2011 11:00	90	1.04	2,444.537	1.34	0.63	3	Atlas		2,542,318	1
	6/18/2011 6:30	6/18/2011 9:00	150	0.86	838.090	1.95	0.53	3	Atlas		720,757	1
	6/19/2011 7:45	6/19/2011 9:30	105	0.54	607.404	2.47	0.33	3	Atlas		327,998	1
	6/20/2011 1:30	6/20/2011 2:30	60	0.46	986.926	2.94	0.40	1	Atlas		453,986	1
	6/21/2011 16:15	6/21/2011 16:45	30	0.38	83.153	3.28	0.22	3	Atlas		31,598	1
	6/22/2011 19:15	6/23/2011 9:00	825	3.57	3,339.061	5.82	18.27	3	Atlas		11,920,447	1
	7/5/2011 17:45	7/5/2011 18:15	30	0.41	51.085	0.40	0.27	3	Atlas		20,945	1
	7/8/2011 3:45	7/8/2011 4:15	30	0.46	97.852	0.83	0.23	3	Atlas		45,012	1
	7/12/2011 17:00	7/12/2011 17:45	45	0.49	615.263	0.94	0.26	6	Atlas		301,479	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/19/2011 22:45	7/20/2011 0:15	90	1.43	1,854.959	1.47	1.39	1	Atlas		2,652,591	1
	8/7/2011 3:15	8/7/2011 6:30	195	1.88	1,699,586	1.90	1.70	3	Atlas		3,195,222	1
	8/10/2011 2:45	8/10/2011 3:15	30	0.22	454.145	2.24	0.15	3	Atlas		99,912	1
	8/13/2011 17:15	8/13/2011 18:00	45	0.91	1,025,744	3.15	0.72	1	Atlas		933,427	1
	8/18/2011 8:15	8/18/2011 8:45	30	0.24	1,065.217	1.15	0.20	1	Atlas		255,652	1
	9/4/2011 20:45	9/4/2011 20:45	-	0.16	134.488	0.13	0.06	24	Atlas		21,518	1
	9/10/2011 20:00	9/10/2011 20:15	15	0.06	1,023.000	0.41	0.04	3	Atlas		61,380	1
	9/19/2011 7:00	9/19/2011 8:15	75	0.70	681.430	0.62	0.28	12	Atlas		477,001	1
	9/23/2011 1:15	9/23/2011 8:00	405	0.82	259.263	1.56	0.38	12	Atlas		212,596	1
	9/25/2011 20:00	9/26/2011 7:30	690	3.94	2,408.671	5.63	13.96	12	Atlas		9,490,164	1
	10/13/2011 7:30	10/13/2011 8:15	45	0.40	1,023.548	0.27	0.19	3	Atlas		409,419	1
	10/18/2011 20:30	10/18/2011 20:45	15	0.15	73.427	0.56	0.11	1	Atlas		11,014	1
	10/27/2011 0:00	10/27/2011 5:00	300	1.12	605.501	1.50	0.46	12	Atlas		678,161	1
	11/3/2011 9:30	11/3/2011 16:30	420	0.53	182.596	0.57	0.23	12	Atlas		96,776	1
	11/14/2011 21:30	11/14/2011 23:15	105	2.23	133.397	0.42	0.72	48	Atlas		297,475	1
	11/15/2011 8:45	11/15/2011 14:00	315	2.23	46.222	1.53	0.72	48	Atlas		103,074	1
	11/16/2011 5:30	11/16/2011 8:15	165	2.23	83.709	2.03	0.72	48	Atlas		186,670	1
	11/20/2011 17:30	11/20/2011 18:30	60	0.94	159.952	2.85	0.33	24	Atlas		150,355	1
	11/21/2011 23:45	11/22/2011 11:15	690	1.15	971.557	3.86	0.49	12	Atlas		1,117,291	1
	11/27/2011 6:15	11/27/2011 9:00	165	3.03	23.533	2.51	0.94	48	Atlas		71,304	1
	11/27/2011 22:30	11/28/2011 2:15	225	3.03	64.936	2.59	0.94	48	Atlas		196,756	1
	11/28/2011 10:45	11/29/2011 2:00	915	3.03	392.597	4.18	0.94	48	Atlas		1,189,568	1
	12/4/2011 16:15	12/5/2011 19:45	1,650	3.04	1,302.996	5.47	0.99	48	Atlas		3,961,107	1
	12/15/2011 4:00	12/15/2011 8:00	240	0.45	305.973	0.42	0.23	6	Atlas		137,688	1
	12/21/2011 5:00	12/21/2011 7:30	150	0.66	566.070	1.13	0.30	12	Atlas		373,606	1
	12/22/2011 14:30	12/22/2011 17:30	180	0.58	343.136	1.22	0.26	12	Atlas		199,019	1
	12/27/2011 3:00	12/27/2011 11:45	525	0.64	329.531	1.83	0.25	12	Atlas		210,900	1
	1/11/2012 4:45	1/11/2012 11:15	390	0.71	921.734	0.60	0.28	12	Atlas		654,431	1
	1/17/2012 4:00	1/17/2012 12:45	525	0.36	623.581	1.17	0.17	12	Atlas		224,489	1
	1/23/2012 2:45	1/23/2012 5:00	135	0.54	1,483.989	0.91	0.29	3	Atlas		801,354	1
	1/26/2012 5:30	1/26/2012 7:00	90	1.70	230.688	1.20	0.56	24	Atlas		392,170	1
	1/26/2012 18:45	1/26/2012 23:45	300	1.70	810.034	2.22	0.56	24	Atlas		1,377,057	1
	2/4/2012 9:45	2/4/2012 10:30	45	0.43	190.895	0.46	0.25	3	Atlas		82,085	1
	2/22/2012 23:00	2/22/2012 23:30	30	0.12	1,124.858	0.38	0.09	1	Atlas		134,983	1
	2/29/2012 8:45	2/29/2012 9:30	45	0.66	520.545	0.77	0.31	1	Atlas		343,560	1
	3/8/2012 10:15	3/8/2012 15:15	300	0.84	712.582	1.11	0.39	6	Atlas		598,569	1
	3/15/2012 19:00	3/16/2012 3:30	510	1.17	408.480	1.36	0.52	12	Atlas		477,922	1
	3/17/2012 18:30	3/17/2012 22:30	240	1.02	273.532	2.33	0.58	1	Atlas		279,003	1
	3/23/2012 5:15	3/23/2012 23:15	1,080	1.42	1,459.601	2.45	0.53	24	Atlas		2,072,633	1
	3/31/2012 0:15	3/31/2012 0:15	-	0.15	2.767	0.18	0.10	1	Atlas		415	1
	4/1/2012 8:30	4/1/2012 11:30	180	1.88	516.205	2.06	1.20	3	Atlas		970,465	1
	4/28/2012 19:15	4/29/2012 0:45	330	0.78	1,848.732	0.90	0.58	1	Atlas		1,442,011	1
	4/30/2012 18:00	4/30/2012 18:45	45	0.32	1,521.400	1.17	0.21	3	Atlas		486,848	1
	5/4/2012 23:45	5/5/2012 5:00	315	1.35	1,260.586	2.46	0.69	6	Atlas		1,701,791	1
	5/13/2012 1:45	5/13/2012 14:15	750	2.09	809.275	2.13	0.85	12	Atlas		1,691,385	1
	5/16/2012 18:00	5/16/2012 18:15	15	0.18	316.383	2.28	0.16	1	Atlas		56,949	1
	5/29/2012 6:45	5/29/2012 16:30	585	3.09	3,108.641	3.09	21.94	3	Atlas		9,605,702	1
	5/31/2012 18:30	6/1/2012 5:00	630	1.21	697.223	4.22	0.52	12	Atlas		843,640	1
	6/17/2012 12:00	6/17/2012 12:00	-	0.22	6.459	0.21	0.15	1	Atlas		1,421	1
	7/1/2012 19:45	7/1/2012 20:30	45	0.44	825.714	0.37	0.31	1	Atlas		363,314	1
	7/8/2012 12:45	7/8/2012 14:00	75	0.21	2,041.805	0.68	0.15	1	Atlas		428,779	1
	7/14/2012 12:30	7/14/2012 15:00	150	0.53	1,096.587	0.79	0.32	3	Atlas		581,191	1
	7/19/2012 18:00	7/19/2012 19:30	90	0.86	4,160.486	1.37	0.70	1	Atlas		3,578,018	1
	7/24/2012 20:00	7/24/2012 20:45	45	0.36	762.125	1.29	0.30	1	Atlas		274,365	1
	7/27/2012 3:30	7/27/2012 3:45	15	0.08	175.613	0.53	0.04	6	Atlas		14,049	1
	7/27/2012 19:45	7/27/2012 21:15	90	0.67	506.457	1.12	0.50	1	Atlas		339,326	1
	8/3/2012 9:30	8/3/2012 9:45	15	0.26	63.154	0.94	0.13	3	Atlas		16,420	1
	8/16/2012 20:15	8/16/2012 23:30	195	0.69	707.638	0.82	0.40	3	Atlas		488,270	1
	8/21/2012 14:00	8/21/2012 14:30	30	0.22	955.577	0.93	0.18	1	Atlas		210,227	1
	9/1/2012 15:00	9/1/2012 18:00	180	0.57	1,687.111	0.60	0.36	3	Atlas		961,653	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/2/2012 12:00	9/2/2012 21:45	585	0.71	1,541,383	1.30	0.27	24	Atlas		1,094,382	1
	9/3/2012 14:30	9/3/2012 15:00	30	0.06	609,383	1.35	0.03	1	Atlas		36,563	1
	9/5/2012 15:15	9/5/2012 17:00	105	0.68	4,674,682	2.04	0.53	1	Atlas		3,178,784	1
	9/7/2012 23:30	9/8/2012 7:00	450	1.38	673,594	3.40	0.77	3	Atlas		929,560	1
	9/25/2012 9:15	9/25/2012 9:30	15	0.40	8,758	0.29	0.22	6	Atlas		3,503	1
	9/25/2012 23:45	9/26/2012 5:45	360	0.48	785,163	0.80	0.22	12	Atlas		376,878	1
	9/26/2012 21:00	9/27/2012 0:30	210	1.17	2,249,603	2.01	0.67	3	Atlas		2,632,035	1
	10/1/2012 14:45	10/1/2012 19:15	270	0.73	1,077,904	2.76	0.29	12	Atlas		786,870	1
	10/6/2012 0:15	10/6/2012 0:45	30	0.09	6,378	0.81	0.05	6	Atlas		574	1
	10/18/2012 1:15	10/18/2012 2:15	60	0.30	440,553	0.45	0.19	3	Atlas		132,166	1
	10/26/2012 14:15	10/26/2012 15:45	90	0.81	206,260	0.70	0.37	6	Atlas		167,071	1
	11/3/2012 16:30	11/3/2012 16:30	-	0.16	11,931	0.17	0.07	12	Atlas		1,909	1
	11/12/2012 7:00	11/12/2012 7:30	30	0.43	39,367	0.43	0.20	12	Atlas		16,928	1
	12/4/2012 15:30	12/4/2012 18:45	195	0.61	865,762	0.80	0.39	3	Atlas		528,115	1
	12/7/2012 4:15	12/7/2012 18:00	825	1.27	698,991	2.08	0.55	12	Atlas		887,718	1
	12/8/2012 5:45	12/8/2012 10:00	255	0.71	477,630	2.79	0.39	6	Atlas		339,117	1
	12/9/2012 8:45	12/9/2012 9:15	30	1.14	30,425	2.88	0.52	3	Atlas		34,684	1
	12/9/2012 21:45	12/10/2012 0:45	180	1.14	1,415,280	3.61	0.52	3	Atlas		1,613,419	1
	12/15/2012 11:30	12/15/2012 12:15	45	0.18	417,106	1.32	0.11	3	Atlas		75,079	1
	12/20/2012 7:00	12/20/2012 12:30	330	0.64	1,911,845	0.97	0.34	6	Atlas		1,223,581	1
	12/26/2012 4:00	12/26/2012 9:45	345	0.74	1,762,238	1.33	0.28	24	Atlas		1,304,056	1
	1/2/2013 21:45	1/2/2013 23:15	90	Discharge	-	0.20					70,163	1
	1/5/2013 18:30	1/5/2013 19:30	60	0.01	3,095,700	0.16	0.01	1	Atlas		30,957	1
	1/11/2013 5:45	1/11/2013 7:45	120	0.64	1,957,206	0.81	0.34	6	Atlas		1,252,612	1
	1/13/2013 3:15	1/15/2013 7:30	3,135	2.30	2,888,245	3.15	0.88	24	Atlas		6,642,964	1
	1/28/2013 17:30	1/28/2013 17:30	-	0.08	50,250	0.35	0.05	1	Atlas		4,020	1
	1/30/2013 4:45	1/30/2013 9:15	270	0.83	2,196,958	1.10	0.42	6	Atlas		1,823,475	1
	2/19/2013 4:15	2/19/2013 4:30	15	0.39	19,482	0.44	0.18	12	Atlas		7,598	1
	2/22/2013 0:15	2/22/2013 1:30	75	0.42	563,107	0.79	0.19	12	Atlas		236,505	1
	2/26/2013 13:45	2/26/2013 16:45	180	0.53	507,862	0.89	0.21	12	Atlas		269,167	1
	3/5/2013 16:15	3/5/2013 18:00	105	0.46	460,133	0.56	0.18	24	Atlas		211,661	1
	3/11/2013 3:30	3/11/2013 12:15	525	1.00	1,622,802	1.48	0.40	12	Atlas		1,622,802	1
	3/17/2013 10:45	3/18/2013 8:00	1,275	1.78	1,653,985	2.71	0.58	48	Atlas		2,944,094	1
	3/24/2013 7:45	3/24/2013 16:45	540	0.49	586,841	1.80	0.18	24	Atlas		287,552	1
	4/11/2013 6:15	4/11/2013 23:00	1,005	1.24	882,715	1.21	0.48	24	Atlas		1,094,567	1
	4/16/2013 20:00	4/16/2013 20:45	45	0.64	1,263,334	1.85	0.52	1	Atlas		808,534	1
	4/19/2013 1:30	4/19/2013 4:45	195	0.89	2,343,845	1.55	0.49	3	Atlas		2,086,022	1
	4/24/2013 7:00	4/24/2013 10:15	195	0.74	2,013,043	1.66	0.43	3	Atlas		1,489,652	1
	5/4/2013 13:15	5/4/2013 15:30	135	1.57	98,287	0.66	0.49	24	Atlas		154,311	1
	5/5/2013 4:30	5/5/2013 8:45	255	1.57	473,936	1.40	0.49	24	Atlas		744,079	1
	5/10/2013 12:15	5/11/2013 0:30	735	1.02	1,001,573	2.69	0.44	6	Atlas		1,021,604	1
	5/22/2013 15:45	5/22/2013 16:15	30	0.12	4,411,158	0.43	0.09	1	Atlas		529,339	1
	5/31/2013 18:30	5/31/2013 18:30	-	0.17	27,300	0.25	0.08	6	Atlas		4,641	1
	6/1/2013 6:15	6/1/2013 6:30	15	0.16	39,569	0.31	0.07	12	Atlas		6,331	1
	6/9/2013 23:45	6/10/2013 0:45	60	0.33	1,961,242	0.27	0.15	6	Atlas		647,210	1
	6/17/2013 16:30	6/17/2013 21:30	300	0.83	1,147,229	1.01	0.42	6	Atlas		952,200	1
	6/21/2013 19:00	6/21/2013 19:30	30	0.43	349,209	1.49	0.33	1	Atlas		150,160	1
	6/26/2013 3:15	6/26/2013 5:15	120	0.66	1,045,652	1.42	0.44	3	Atlas		690,130	1
	6/26/2013 16:15	6/27/2013 3:45	690	2.48	3,694,652	3.90	2.87	6	Cloudburst		9,162,736	1
	6/29/2013 19:30	6/29/2013 22:00	150	0.44	2,425,718	3.89	0.24	3	Atlas		1,067,316	1
	7/1/2013 9:00	7/1/2013 9:00	-	0.31	21,423	3.71	0.15	3	Atlas		6,641	1
	7/1/2013 18:45	7/1/2013 19:30	45	0.31	353,477	3.90	0.15	3	Atlas		109,578	1
	7/2/2013 13:15	7/2/2013 14:00	45	0.12	5,201,150	4.02	0.10	1	Atlas		624,138	1
	7/4/2013 6:45	7/4/2013 11:45	300	0.54	67,570	1.22	0.23	12	Atlas		36,488	1
	7/6/2013 1:00	7/6/2013 7:15	375	0.60	1,058,895	2.03	0.26	12	Atlas		635,337	1
	7/10/2013 14:00	7/10/2013 15:00	60	0.68	3,233,487	1.93	0.46	1	Atlas		2,198,771	1
	7/14/2013 19:30	7/14/2013 20:15	45	0.09	6,238,111	0.84	0.08	1	Atlas		561,430	1
	7/18/2013 16:15	7/18/2013 16:30	15	0.28	67,975	0.41	0.20	1	Atlas		19,033	1
	7/21/2013 19:30	7/21/2013 21:00	90	2.70	548,427	1.84	1.24	24	Cloudburst		1,480,753	1
	7/22/2013 7:00	7/22/2013 16:15	555	2.70	2,886,693	3.01	1.24	24	Cloudburst		7,794,071	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/9/2013 17:30	8/9/2013 18:00	30	0.24	164.604	0.29	0.14	1	Atlas		39,505	1
	8/12/2013 14:45	8/12/2013 15:45	60	0.81	4,078.891	0.89	0.39	1	Atlas		3,303,902	1
	8/13/2013 3:00	8/13/2013 4:00	60	0.81	318.536	1.19	0.39	1	Atlas		258,014	1
	8/20/2013 18:15	8/20/2013 18:45	30	0.28	1,148.229	0.28	0.15	3	Atlas		321,504	1
	8/31/2013 19:45	9/1/2013 1:00	315	1.10	1,231.345	0.91	0.50	12	Atlas		1,354,479	1
	9/2/2013 13:45	9/2/2013 14:45	60	0.56	2,732.138	1.66	0.49	1	Atlas		1,529,997	1
	9/20/2013 16:15	9/21/2013 4:30	735	1.13	2,375.030	1.13	0.46	12	Atlas		2,683,784	1
	10/4/2013 19:15	10/6/2013 14:45	2,610	0.12	176,273.042	4.55	0.10	1	Atlas		21,152,765	1
	10/30/2013 1:30	10/30/2013 6:30	300	1.69	3,062.124	1.69	0.93	1	Atlas		5,174,989	1
	10/31/2013 19:30	10/31/2013 21:45	135	0.62	386.108	2.25	0.24	24	Atlas		239,387	1
	11/17/2013 5:15	11/17/2013 19:45	870	2.68	1,440.603	2.86	1.89	6	Cloudburst		3,860,817	1
	12/5/2013 5:30	12/5/2013 8:30	180	0.76	644.625	0.17	0.25	48	Atlas		489,915	1
	12/14/2013 9:00	12/14/2013 11:30	150	0.86	175.265	1.28	0.33	12	Atlas		150,728	1
	12/21/2013 5:30	12/21/2013 12:45	435	2.41	555.952	1.47	0.90	24	Atlas		1,339,845	1
	12/21/2013 21:30	12/22/2013 3:15	345	2.41	2,248.927	2.47	0.90	24	Atlas		5,419,915	1
	12/29/2013 6:15	12/29/2013 6:30	15	0.51	5.782	0.41	0.22	12	Atlas		2,949	1
	1/5/2014 15:15	1/5/2014 18:15	180	0.48	160.960	0.65	0.24	6	Atlas		77,261	1
	1/11/2014 0:15	1/11/2014 5:30	315	1.03	1,669.114	1.51	0.55	6	Atlas		1,719,187	1
	2/2/2014 4:00	2/2/2014 5:45	105	0.47	281.547	0.16	0.18	24	Atlas		132,327	1
	2/4/2014 19:00	2/5/2014 1:15	375	0.51	3,920.814	0.98	0.25	6	Atlas		1,999,615	1
	2/14/2014 17:00	2/14/2014 18:15	75	0.50	37.496	0.48	0.27	6	Atlas		18,748	1
	2/17/2014 16:15	2/17/2014 18:15	120	0.56	1,539.552	1.12	0.34	3	Atlas		862,149	1
	2/20/2014 23:15	2/20/2014 23:30	15	0.18	109.189	1.30	0.10	6	Atlas		19,654	1
	3/2/2014 9:45	3/2/2014 11:30	105	0.62	625.447	0.34	0.24	24	Atlas		387,777	1
	3/28/2014 4:30	3/28/2014 5:15	45	0.25	369.464	0.31	0.11	6	Atlas		92,366	1
	3/29/2014 6:15	3/29/2014 12:45	390	1.05	971.986	1.32	0.48	12	Atlas		1,020,585	1
	4/3/2014 12:00	4/4/2014 8:15	1,215	2.67	1,761.045	4.08	0.93	24	Atlas		4,701,989	1
	4/7/2014 9:15	4/7/2014 15:45	390	0.79	2,869.082	3.57	0.47	3	Atlas		2,266,575	1
	4/14/2014 3:45	4/14/2014 3:45	-	1.02	2.233	0.96	0.39	24	Atlas		2,278	1
	4/14/2014 20:00	4/15/2014 1:45	345	1.02	613.427	1.02	0.39	24	Atlas		625,696	1
	4/28/2014 4:15	4/28/2014 8:15	240	1.70	2,164.909	1.41	0.70	3	Atlas		3,680,346	1
	4/28/2014 17:15	4/28/2014 20:30	195	1.70	137.471	1.80	0.70	3	Atlas		233,700	1
	5/9/2014 19:30	5/10/2014 16:00	1,230	1.63	1,794.832	1.70	0.63	24	Atlas		2,925,576	1
	5/14/2014 7:15	5/14/2014 23:45	990	1.09	581.647	2.84	0.42	24	Atlas		633,995	1
	5/21/2014 21:15	5/22/2014 4:15	420	0.37	1,347.946	0.50	0.17	12	Atlas		498,740	1
	5/28/2014 20:30	5/28/2014 21:00	30	0.33	739.200	0.71	0.27	1	Atlas		243,936	1
	5/29/2014 21:00	5/29/2014 22:30	90	0.66	4,149.314	1.02	0.56	1	Atlas		2,738,547	1
	5/30/2014 14:15	5/30/2014 14:45	30	0.13	109.108	1.13	0.08	3	Atlas		14,184	1
	6/11/2014 14:15	6/11/2014 15:00	45	0.12	599.633	0.27	0.08	1	Atlas		71,956	1
	6/20/2014 16:15	6/20/2014 18:00	105	0.29	208.821	0.29	0.19	3	Atlas		60,558	1
	6/24/2014 13:45	6/24/2014 14:30	45	0.20	611.665	0.53	0.15	1	Atlas		122,333	1
	7/2/2014 16:30	7/2/2014 17:15	45	0.08	754.388	0.28	0.07	1	Atlas		60,351	1
	7/7/2014 19:30	7/7/2014 20:15	45	1.01	273.319	1.25	0.88	1	Atlas		276,052	1
	7/13/2014 22:15	7/14/2014 0:00	105	0.70	683.443	2.09	0.35	3	Atlas		478,410	1
	7/14/2014 20:15	7/14/2014 20:45	30	0.08	1,082.400	1.33	0.07	1	Atlas		86,592	1
	7/26/2014 21:45	7/27/2014 10:00	735	1.43	1,021.853	1.47	0.66	12	Atlas		1,461,250	1
	8/8/2014 5:45	8/8/2014 8:15	150	0.90	1,277.383	0.73	0.43	6	Atlas		1,149,645	1
	8/10/2014 4:00	8/10/2014 5:00	60	0.71	321.214	1.74	0.58	1	Atlas		228,062	1
	8/11/2014 15:30	8/11/2014 16:30	60	0.51	2,426.767	2.20	0.40	1	Atlas		1,237,651	1
	8/17/2014 9:30	8/17/2014 11:00	90	0.72	133.413	1.14	0.27	24	Atlas		96,057	1
	8/17/2014 23:15	8/17/2014 23:45	30	0.72	61.153	1.23	0.27	24	Atlas		44,030	1
	8/22/2014 19:15	8/22/2014 20:00	45	0.35	227.414	1.05	0.26	1	Atlas		79,595	1
	8/23/2014 16:00	8/23/2014 22:15	375	0.59	1,628.922	1.65	0.28	3	Atlas		961,064	1
	8/27/2014 15:15	8/27/2014 18:00	165	0.27	1,661.563	1.32	0.18	3	Atlas		448,622	1
	8/30/2014 15:15	8/30/2014 16:30	75	0.60	1,733.972	1.41	0.38	1	Atlas		1,040,383	1
	9/2/2014 8:30	9/2/2014 9:30	60	0.40	102.400	1.32	0.24	3	Atlas		40,960	1
	9/11/2014 0:45	9/11/2014 1:15	30	1.90	971.018	1.24	1.37	3	Atlas		1,844,935	1
	4/3/2015 18:30	4/3/2015 18:45	15	5.36	1.167	5.38	20.93	6	Cloudburst		6,256	1
	5/16/2015 11:45	5/16/2015 13:45	120	0.39	541.977	0.43	0.19	3	Atlas		211,371	1
	5/17/2015 14:15	5/17/2015 15:00	45	0.12	4,897.267	0.58	0.09	1	Atlas		587,672	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/25/2015 7:15	5/25/2015 8:30	75	0.24	17.338	0.21	0.11	12	Atlas		4,161	1
	5/26/2015 14:00	5/26/2015 14:45	45	0.35	2,031,886	0.54	0.26	1	Atlas		711,160	1
	5/27/2015 14:00	5/27/2015 14:00	-	0.09	71,278	0.68	0.08	1	Atlas		6,415	1
	6/8/2015 7:15	6/8/2015 9:00	105	0.26	511,335	0.33	0.16	3	Atlas		132,947	1
	6/17/2015 4:45	6/17/2015 7:00	135	0.58	2,675,341	0.71	0.31	3	Atlas		1,551,698	1
	6/18/2015 16:15	6/19/2015 0:30	495	1.82	3,039,839	1.75	0.59	48	Atlas		5,532,507	1
	6/20/2015 1:30	6/20/2015 9:45	495	1.82	1,510,888	2.74	0.59	48	Atlas		2,749,817	1
	6/22/2015 6:15	6/22/2015 6:45	30	0.24	96,438	2.82	0.11	3	Atlas		23,145	1
	6/26/2015 0:00	6/26/2015 6:00	360	0.59	2,359,253	1.82	0.32	6	Atlas		1,391,959	1
	6/26/2015 17:00	6/27/2015 1:30	510	0.89	2,422,053	2.60	0.50	1	Atlas		2,155,627	1
	6/29/2015 13:30	6/29/2015 14:15	45	0.19	5,065,679	1.65	0.11	1	Atlas		962,479	1
	7/2/2015 0:30	7/2/2015 2:45	135	0.93	1,180,918	2.46	0.45	3	Atlas		1,098,254	1
	7/2/2015 14:30	7/2/2015 21:30	420	0.93	1,104,217	2.66	0.45	3	Atlas		1,026,922	1
	7/3/2015 15:00	7/3/2015 19:30	270	0.33	2,311,670	2.39	0.23	1	Atlas		762,861	1
	7/7/2015 11:30	7/7/2015 17:00	330	0.72	2,256,593	2.03	0.37	6	Atlas		1,624,747	1
	7/8/2015 12:30	7/8/2015 13:00	30	0.09	356,089	2.12	0.06	1	Atlas		32,048	1
	7/9/2015 6:15	7/9/2015 8:00	105	0.37	536,924	1.67	0.23	3	Atlas		198,662	1
	7/10/2015 10:30	7/10/2015 16:45	375	0.46	905,000	1.99	0.23	6	Atlas		416,300	1
	7/12/2015 6:00	7/12/2015 20:00	840	0.84	5,286,743	2.51	0.60	1	Atlas		4,440,864	1
	7/13/2015 15:00	7/13/2015 18:45	225	0.25	3,206,672	2.76	0.21	1	Atlas		801,668	1
	7/14/2015 4:15	7/14/2015 19:30	915	0.53	3,345,634	3.32	0.39	1	Atlas		1,773,186	1
	7/17/2015 22:30	7/18/2015 7:15	525	0.94	4,660,384	2.60	0.62	3	Atlas		4,380,761	1
	8/4/2015 19:15	8/4/2015 19:45	30	0.10	275,890	0.15	0.07	1	Atlas		27,589	1
	8/5/2015 15:00	8/5/2015 15:45	45	0.09	576,978	0.25	0.08	1	Atlas		51,928	1
	8/6/2015 2:15	8/6/2015 15:45	810	0.71	3,260,542	0.90	0.27	24	Atlas		2,314,985	1
	8/10/2015 21:00	8/10/2015 21:15	15	0.06	467,683	1.11	0.05	1	Atlas		28,061	1
	8/15/2015 16:45	8/15/2015 17:15	30	0.13	370,531	0.34	0.11	1	Atlas		48,169	1
	8/19/2015 8:30	8/19/2015 9:00	30	0.54	1,999,831	0.46	0.23	1	Atlas		1,079,909	1
	8/19/2015 17:15	8/19/2015 17:30	15	0.54	257,106	0.65	0.23	1	Atlas		138,837	1
	9/29/2015 19:15	9/29/2015 19:15	-	0.81	4,422	0.78	0.26	48	Atlas		3,582	1
	10/2/2015 18:00	10/2/2015 19:45	105	0.64	215,541	1.48	0.30	6	Atlas		137,946	1
	10/12/2015 19:15	10/12/2015 19:45	30	0.25	1,201,668	0.34	0.17	3	Atlas		300,417	1
	10/27/2015 17:00	10/28/2015 8:30	930	2.33	1,699,467	2.65	0.77	24	Atlas		3,959,757	1
	11/6/2015 3:15	11/6/2015 5:15	120	0.77	2,115,656	0.90	0.47	3	Atlas		1,629,055	1
	11/9/2015 19:30	11/9/2015 21:45	135	0.50	185,420	1.26	0.22	12	Atlas		92,710	1
	11/12/2015 0:15	11/12/2015 1:30	75	0.29	2,932,297	1.55	0.18	3	Atlas		850,366	1
	11/18/2015 9:00	11/18/2015 18:15	555	1.42	3,450,415	1.85	0.71	6	Atlas		4,899,590	1
	11/28/2015 14:15	11/28/2015 18:15	240	0.74	232,411	0.78	0.30	12	Atlas		171,984	1
	11/30/2015 22:00	12/1/2015 5:15	435	0.74	1,725,359	1.69	0.33	12	Atlas		1,276,766	1
	12/14/2015 5:30	12/14/2015 7:15	105	0.24	126,683	0.18	0.13	6	Atlas		30,404	1
	12/21/2015 11:30	12/21/2015 11:30	-	0.18	48,328	0.20	0.09	6	Atlas		8,699	1
	12/21/2015 23:45	12/22/2015 4:45	300	0.51	2,412,165	0.72	0.27	6	Atlas		1,230,204	1
	12/23/2015 19:30	12/23/2015 21:15	105	0.76	2,237,487	1.50	0.58	1	Atlas		1,700,490	1
	12/26/2015 12:45	12/26/2015 14:00	75	0.34	2,024	1.83	0.15	12	Atlas		688	1
	12/27/2015 10:45	12/28/2015 6:00	1,155	1.85	274,748	3.34	0.61	3	Atlas		508,283	1
	12/28/2015 16:15	12/28/2015 17:00	45	1.85	1,302	3.58	0.61	3	Atlas		2,408	1
	2/2/2016 19:15	2/3/2016 2:00	405	1.21	180,088	1.29	0.57	6	Atlas		217,906	1
	2/21/2016 4:15	2/21/2016 10:30	375	1.09	12,561	1.26	0.50	12	Atlas		13,692	1
	2/23/2016 23:15	2/24/2016 8:15	540	2.08	130,946	2.86	0.81	12	Atlas		272,368	1
	3/1/2016 12:15	3/1/2016 13:15	60	0.27	8,415	2.32	0.14	3	Atlas		2,272	1
	3/10/2016 13:45	3/10/2016 19:30	345	1.12	40,258	1.15	0.36	48	Atlas		45,089	1
	3/12/2016 20:45	3/13/2016 0:00	195	0.85	36,589	1.69	0.32	24	Atlas		31,101	1
	3/13/2016 9:30	3/13/2016 10:45	75	0.85	12,168	1.98	0.32	24	Atlas		10,343	1
	3/24/2016 17:45	3/24/2016 18:00	15	0.60	8,817	0.75	0.46	1	Atlas		5,290	1
	3/27/2016 21:30	3/27/2016 22:00	30	0.85	47,948	1.42	0.60	1	Atlas		40,756	1
	3/31/2016 22:15	4/1/2016 0:00	105	1.18	6,797	2.03	0.45	24	Atlas		8,021	1
	4/11/2016 17:15	4/11/2016 18:30	75	0.91	7,162	0.88	0.44	6	Atlas		6,517	1
	4/26/2016 21:15	4/26/2016 22:00	45	0.29	16,700	0.62	0.15	3	Atlas		4,843	1
	4/27/2016 14:00	4/27/2016 22:30	510	0.64	19,925	1.23	0.32	1	Atlas		12,752	1
	4/30/2016 11:15	4/30/2016 11:45	30	0.51	6,002	1.18	0.19	24	Atlas		3,061	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/7/2016 16:45	5/7/2016 22:15	330	0.84	5,520	1.47	0.44	6	Atlas		4,637	1
	5/10/2016 14:45	5/10/2016 22:30	465	0.90	3,538	1.96	0.34	12	Atlas		3,184	1
	5/11/2016 21:45	5/11/2016 22:15	30	0.25	19,900	2.01	0.13	3	Atlas		4,975	1
	5/17/2016 6:45	5/17/2016 7:00	15	0.65	543	1.62	0.22	24	Atlas		353	1
	5/20/2016 13:45	5/20/2016 15:15	90	0.57	15,851	1.24	0.32	3	Atlas		9,035	1
	5/26/2016 14:00	5/26/2016 14:00	-	0.23	5,183	0.75	0.15	3	Atlas		1,192	1
	6/2/2016 15:30	6/2/2016 16:00	30	0.46	10,187	0.57	0.37	1	Atlas		4,686	1
	6/4/2016 16:45	6/4/2016 17:00	15	0.12	14,558	0.62	0.06	1	Atlas		1,747	1
	6/14/2016 16:45	6/14/2016 18:30	105	0.64	1,694,783	0.88	0.41	3	Atlas		1,084,661	1
	6/22/2016 8:30	6/22/2016 8:30	-	0.15	9,460	0.18	0.10	3	Atlas		1,419	1
	6/23/2016 16:15	6/23/2016 23:15	420	1.60	858,868	1.75	0.86	6	Atlas		1,374,189	1
	7/3/2016 12:15	7/3/2016 23:30	675	1.16	211,998	0.70	0.38	48	Atlas		245,918	1
	7/4/2016 8:45	7/4/2016 16:45	480	1.16	187,806	1.16	0.38	48	Atlas		217,855	1
	7/6/2016 13:30	7/6/2016 13:30	-	0.18	39,572	1.31	0.12	1	Atlas		7,123	1
	7/12/2016 10:00	7/12/2016 10:30	30	0.24	85,033	0.50	0.15	3	Atlas		20,408	1
	7/28/2016 3:30	7/28/2016 5:30	120	0.52	1,400,904	0.61	0.24	12	Atlas		728,470	1
	7/30/2016 14:15	7/30/2016 15:00	45	0.43	6,427,965	1.14	0.37	1	Atlas		2,764,025	1
	7/31/2016 17:45	7/31/2016 17:45	-	0.08	153,525	1.22	0.06	1	Atlas		12,282	1
	8/1/2016 11:15	8/1/2016 11:45	30	0.39	1,819,733	1.56	0.30	1	Atlas		709,696	1
	8/5/2016 14:00	8/5/2016 14:30	30	0.17	595,288	1.40	0.11	3	Atlas		101,199	1
	9/30/2016 1:45	9/30/2016 3:00	75	0.71	361,499	1.28	0.36	3	Atlas		256,664	1
	10/20/2016 9:45	10/20/2016 11:45	120	0.54	206,098	0.30	0.21	24	Atlas		111,293	1
	11/8/2016 20:00	11/8/2016 20:30	30	0.19	289,916	0.24	0.09	12	Atlas		55,084	1
	11/28/2016 17:00	11/28/2016 22:15	315	0.68	155,116	0.95	0.29	12	Atlas		105,479	1
	12/6/2016 5:00	12/6/2016 12:45	465	0.86	475,183	0.89	0.39	12	Atlas		408,657	1
	12/17/2016 16:30	12/18/2016 2:15	585	2.52	166,826	2.81	1.58	12	Cloudburst		420,401	1
	12/23/2016 23:00	12/24/2016 1:30	150	0.18	49,006	2.67	0.08	12	Atlas		8,821	1
	12/26/2016 20:45	12/26/2016 21:00	15	0.24	18,325	0.39	0.13	6	Atlas		4,398	1
	1/10/2017 19:45	1/10/2017 19:45	-	0.15	960	0.38	0.10	1	Atlas		144	1
	1/11/2017 12:45	1/11/2017 13:15	30	0.22	70,573	0.56	0.14	3	Atlas		15,526	1
	1/12/2017 16:00	1/12/2017 19:00	180	0.51	79,098	0.72	0.26	6	Atlas		40,340	1
	1/13/2017 16:00	1/13/2017 16:00	-	0.29	6,348	1.16	0.17	3	Atlas		1,841	1
	1/14/2017 11:30	1/14/2017 14:15	165	0.21	203,490	1.39	0.10	12	Atlas		42,733	1
	1/17/2017 0:00	1/17/2017 4:15	255	0.52	313,413	2.02	0.24	12	Atlas		162,975	1
	1/19/2017 19:15	1/20/2017 4:00	525	1.13	569,555	2.47	0.52	12	Atlas		643,597	1
	2/7/2017 10:45	2/7/2017 10:45	-	0.37	703	0.32	0.19	6	Atlas		260	1
	2/24/2017 19:45	2/24/2017 20:00	15	0.57	80,767	0.64	0.49	1	Atlas		46,037	1
	2/28/2017 10:30	2/28/2017 11:00	30	0.26	166,950	0.86	0.12	12	Atlas		43,407	1
	3/1/2017 3:45	3/1/2017 9:45	360	1.00	784,331	1.87	0.52	6	Atlas		784,331	1
	3/7/2017 8:45	3/7/2017 13:15	270	0.54	18,602	1.65	0.18	48	Atlas		10,045	1
	3/26/2017 1:45	3/26/2017 2:45	60	0.40	42,650	0.29	0.19	6	Atlas		17,060	1
	3/27/2017 18:15	3/27/2017 19:30	75	0.26	547,654	0.66	0.15	3	Atlas		142,390	1
	3/30/2017 22:15	3/31/2017 1:15	180	0.47	8,991	1.21	0.23	6	Atlas		4,226	1
	4/3/2017 19:45	4/3/2017 19:45	-	0.13	23,538	0.71	0.09	1	Atlas		3,060	1
	4/16/2017 6:15	4/16/2017 21:15	900	1.09	621,962	1.42	0.48	6	Atlas		677,939	1
	4/22/2017 0:30	4/22/2017 0:45	15	0.64	55,964	1.59	0.23	24	Atlas		35,817	1
	4/27/2017 7:00	4/27/2017 7:15	15	0.21	415,971	0.86	0.14	1	Atlas		87,354	1
	4/29/2017 0:30	4/29/2017 4:00	210	1.01	406,347	1.32	0.51	3	Atlas		410,410	1
	5/5/2017 4:45	5/5/2017 10:30	345	1.73	430,764	2.85	0.58	24	Atlas		745,222	1
	6/15/2017 3:15	6/15/2017 5:00	105	0.70	1,296,819	0.76	0.45	3	Atlas		907,773	1
	6/18/2017 22:00	6/18/2017 22:00	-	0.15	11,180	0.95	0.09	3	Atlas		1,677	1
	6/22/2017 19:00	6/22/2017 19:45	45	0.33	876,591	0.49	0.18	6	Atlas		289,275	1
	6/23/2017 15:30	6/23/2017 18:30	180	0.75	2,135,181	1.24	0.36	6	Atlas		1,601,386	1
	6/30/2017 21:15	6/30/2017 22:00	45	0.64	1,922,841	0.72	0.53	1	Atlas		1,230,618	1
	7/6/2017 5:00	7/6/2017 13:45	525	0.53	573,647	1.20	0.26	6	Atlas		304,033	1
	7/7/2017 20:45	7/7/2017 22:00	75	0.27	952,681	1.24	0.18	1	Atlas		257,224	1
	7/23/2017 2:45	7/23/2017 10:15	450	1.05	689,767	1.05	0.48	12	Atlas		724,255	1
	7/28/2017 9:45	7/28/2017 10:45	60	0.27	670,378	1.32	0.20	1	Atlas		181,002	1
	8/2/2017 13:30	8/2/2017 13:30	-	0.01	642,000	0.42	0.01	1	Atlas		6,420	1
	8/6/2017 17:00	8/7/2017 0:30	450	0.53	376,845	0.67	0.23	12	Atlas		199,728	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/17/2017 15:00	8/17/2017 18:45	225	0.72	1,640.413	0.75	0.39	6	Atlas		1,181,097	1
	8/22/2017 16:15	8/22/2017 17:15	60	0.54	1,504.883	1.27	0.35	1	Atlas		812,637	1
	8/29/2017 19:30	8/29/2017 20:00	30	0.12	1,862.675	0.16	0.09	1	Atlas		223,521	1
	9/1/2017 8:00	9/2/2017 5:45	1,305	3.08	3,299.112	3.22	1.53	24	Cloudburst		10,161,265	1
	9/12/2017 8:00	9/12/2017 8:00	-	0.68	4,753	0.40	0.22	48	Atlas		3,232	1
	9/13/2017 15:00	9/13/2017 15:00	-	0.68	107	0.60	0.22	48	Atlas		73	1
	9/19/2017 8:15	9/19/2017 10:30	135	0.40	3,920.770	0.80	0.26	3	Atlas		1,568,308	1
	10/7/2017 21:45	10/8/2017 19:45	1,320	1.68	1,315.202	1.67	0.64	24	Atlas		2,209,539	1
	10/10/2017 14:30	10/10/2017 21:15	405	0.65	2,184.352	2.33	0.32	3	Atlas		1,419,829	1
	10/23/2017 6:30	10/23/2017 8:15	105	0.49	1,312.178	0.44	0.26	6	Atlas		642,967	1
	10/27/2017 17:45	10/28/2017 1:15	450	0.80	839.555	1.35	0.37	12	Atlas		671,644	1
	11/3/2017 5:00	11/3/2017 6:30	90	1.52	2,089.722	2.44	2.66	1	Atlas		3,176,377	1
	11/6/2017 2:00	11/6/2017 2:45	45	0.19	2,856.163	1.83	0.11	1	Atlas		542,671	1
	11/15/2017 13:30	11/15/2017 14:15	45	0.28	386.046	0.31	0.17	3	Atlas		108,093	1
	11/18/2017 17:00	11/18/2017 18:00	60	0.35	744.546	0.62	0.20	1	Atlas		260,591	1
	12/5/2017 3:30	12/5/2017 6:30	180	0.62	2,165.118	0.62	0.35	3	Atlas		1,342,373	1
	12/12/2017 8:15	12/12/2017 16:15	480	0.01	262,387.000	0.01	0.01	1	Atlas		2,623,870	1
	12/22/2017 22:30	12/23/2017 5:45	435	1.09	1,386.318	0.91	0.42	24	Atlas		1,511,087	1
	2/23/2018 4:15	2/23/2018 4:45	30	1.17	167.279	2.80	0.54	12	Atlas		195,716	1
	2/24/2018 23:30	2/24/2018 23:45	15	1.79	230.747	4.40	0.73	12	Atlas		413,037	1
	7/31/2018 2:15	7/31/2018 8:15	360	2.14	2,196.904	2.00	0.89	6	Atlas		4,701,375	1
	8/16/2018 4:45	8/16/2018 11:30	405	2.55	4,644.859	2.54	0.98	24	Atlas		11,844,391	1
	8/19/2018 21:00	8/19/2018 22:15	75	0.21	5,146.438	2.79	0.14	3	Atlas		1,080,752	1
	8/20/2018 11:30	8/20/2018 12:30	60	0.50	3,468.712	3.23	0.38	1	Atlas		1,734,356	1
	9/8/2018 19:30	9/8/2018 20:30	60	2.36	228.275	2.25	0.97	6	Atlas		538,729	1
	9/23/2018 6:00	9/23/2018 8:15	135	1.28	1,997.889	1.52	0.48	24	Atlas		2,557,298	1
	9/24/2018 1:00	9/24/2018 14:45	825	1.29	8,253.778	2.78	0.60	6	Atlas		10,647,374	1
	9/25/2018 6:00	9/25/2018 6:30	30	0.08	8,546.113	2.83	0.07	1	Atlas		683,689	1
	9/25/2018 17:15	9/26/2018 3:00	585	0.67	5,488.037	3.47	0.30	12	Atlas		3,676,985	1
	11/6/2018 0:00	11/6/2018 1:15	75	0.95	1,043.595	2.74	0.51	6	Atlas		991,415	1
	12/1/2018 10:30	12/1/2018 15:00	270	1.29	2,220.322	1.38	0.57	12	Atlas		2,864,216	1
	2/7/2019 17:00	2/7/2019 20:30	210	1.40	1,968.221	1.53	0.45	48	Atlas		2,755,509	1
	2/11/2019 3:00	2/12/2019 16:15	2,235	2.48	4,649.681	3.98	0.77	48	Atlas		11,531,208	1
	2/20/2019 5:30	2/20/2019 15:30	600	1.42	2,419.185	1.47	0.67	6	Atlas		3,435,243	1
	2/23/2019 18:15	2/23/2019 22:45	270	0.80	9,194.828	2.28	0.44	6	Atlas		7,355,862	1
	4/14/2019 5:30	4/14/2019 6:00	30	0.77	365.636	1.59	0.36	6	Atlas		281,540	1
	4/19/2019 22:15	4/20/2019 10:15	720	2.79	3,834.350	3.38	0.91	48	Atlas		10,697,836	1
	4/26/2019 2:45	4/26/2019 3:45	60	0.33	3,630.112	3.45	0.15	12	Atlas		1,197,937	1
	5/3/2019 8:00	5/3/2019 9:00	60	0.85	1,441.439	1.07	0.46	6	Atlas		1,225,223	1
	6/9/2019 17:30	6/9/2019 19:00	90	0.59	2,387.117	2.29	0.31	3	Atlas		1,408,399	1
	6/16/2019 22:00	6/17/2019 1:45	225	1.40	1,439.966	1.62	0.63	6	Atlas		2,015,953	1
	7/18/2019 1:00	7/18/2019 1:15	15	0.44	273.270	0.53	0.30	1	Atlas		120,239	1
	CSO149 Total										**506,247,582**	**429**
CSO150	4/1/2012 9:15	4/1/2012 12:30	195	1.63	71.271	1.85	0.89	6	Atlas		116,171	1
	4/28/2012 19:15	4/28/2012 19:15	-	0.72	16.501	0.73	0.54	1	Atlas		11,881	1
	4/30/2012 18:00	4/30/2012 18:00	-	0.46	3.661	1.06	0.30	3	Atlas		1,684	1
	5/4/2012 23:30	5/5/2012 2:00	150	1.40	39.666	2.38	0.75	3	Atlas		55,533	1
	5/13/2012 3:15	5/13/2012 9:15	360	2.18	52.456	1.96	0.83	24	Atlas		114,354	1
	5/16/2012 17:30	5/16/2012 17:30	-	0.26	4.065	2.44	0.23	1	Atlas		1,057	1
	5/29/2012 6:45	5/29/2012 10:30	225	2.89	52.628	2.88	15.82	3	Atlas		152,096	1
	5/31/2012 18:15	5/31/2012 18:15	-	1.23	5.315	3.21	0.53	12	Atlas		6,537	1
	6/17/2012 11:15	6/17/2012 11:15	-	0.23	6.591	0.22	0.18	1	Atlas		1,516	1
	7/8/2012 13:00	7/8/2012 13:00	-	0.28	43.593	0.82	0.20	1	Atlas		12,206	1
	7/14/2012 13:30	7/14/2012 14:00	30	0.62	7.140	0.87	0.39	3	Atlas		4,427	1
	7/18/2012 17:00	7/18/2012 17:15	15	0.01	2,451.000	0.64	0.01	1	Atlas		24,510	1
	7/19/2012 18:00	7/19/2012 19:30	90	0.95	72.895	1.57	0.75	1	Atlas		69,250	1
	7/27/2012 19:45	7/27/2012 20:30	45	0.71	24.268	1.29	0.48	1	Atlas		17,230	1
	8/21/2012 13:30	8/21/2012 13:45	15	0.22	17.682	0.87	0.19	1	Atlas		3,890	1
	9/1/2012 15:00	9/1/2012 15:00	-	0.40	178	0.33	0.26	1	Atlas		71	1
	9/5/2012 15:15	9/5/2012 16:30	75	0.60	76.915	1.79	0.43	1	Atlas		46,149	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/26/2012 20:45	9/26/2012 23:45	180	1.73	64.956	2.52	0.92	6	Atlas		112,374	1
	10/1/2012 18:30	10/1/2012 19:15	45	0.61	54.187	3.11	0.24	12	Atlas		33,054	1
	12/7/2012 9:45	12/7/2012 20:00	615	1.14	138.123	2.07	0.47	12	Atlas		157,460	1
	12/8/2012 9:00	12/8/2012 11:00	120	0.37	93.643	2.44	0.23	1	Atlas		34,648	1
	12/9/2012 22:15	12/10/2012 3:45	330	1.13	165.565	3.27	0.55	3	Atlas		187,089	1
	12/20/2012 12:00	12/20/2012 12:00	-	0.70	4.824	1.22	0.38	6	Atlas		3,377	1
	1/13/2013 4:30	1/13/2013 19:00	870	2.30	58.283	3.11	0.88	24	Atlas		134,051	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.80	19.323	0.60	0.40	6	Atlas		15,458	1
	3/17/2013 14:30	3/17/2013 15:45	75	1.76	23.117	1.73	0.57	48	Atlas		40,686	1
	3/18/2013 5:30	3/18/2013 11:15	345	1.76	42.827	2.10	0.57	48	Atlas		75,376	1
	4/11/2013 7:00	4/11/2013 7:00	-	1.27	13.298	0.49	0.49	24	Atlas		16,888	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.59	18.754	1.80	0.46	1	Atlas		11,065	1
	4/19/2013 2:15	4/19/2013 2:15	-	0.80	3.561	1.02	0.44	6	Atlas		2,849	1
	4/24/2013 9:30	4/24/2013 9:45	15	0.70	7.201	1.55	0.40	3	Atlas		5,041	1
	5/5/2013 7:00	5/5/2013 8:30	90	1.56	9.601	1.35	0.48	24	Atlas		14,977	1
	5/16/2013 10:15	5/16/2013 10:15	-	0.24	40.150	1.13	0.20	1	Atlas		9,636	1
	6/9/2013 19:30	6/9/2013 19:30	-	0.33	2.297	0.09	0.13	6	Atlas		758	1
	7/2/2013 13:00	7/2/2013 13:00	-	0.09	381.756	4.10	0.08	1	Atlas		34,358	1
	7/10/2013 13:45	7/10/2013 14:30	45	0.64	54.600	1.76	0.43	1	Atlas		34,944	1
	7/18/2013 15:45	7/18/2013 16:00	15	0.29	41.886	0.39	0.23	1	Atlas		12,147	1
	7/22/2013 7:45	7/22/2013 14:15	390	1.96	34.321	2.27	0.75	24	Atlas		67,270	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.83	5.622	0.66	0.37	1	Atlas		4,666	1
	8/31/2013 20:00	8/31/2013 20:00	-	1.34	3.538	0.71	0.63	1	Atlas		4,741	1
	9/2/2013 13:30	9/2/2013 13:45	15	0.25	136.700	1.59	0.22	1	Atlas		34,175	1
	9/20/2013 23:00	9/20/2013 23:00	-	1.36	2.351	0.83	0.56	12	Atlas		3,197	1
	10/5/2013 14:00	10/6/2013 9:00	1,140	4.23	124.501	4.38	7.98	24	Cloudburst		526,639	1
	10/30/2013 5:30	10/30/2013 6:00	30	1.06	31.736	1.03	0.50	6	Atlas		33,640	1
	10/31/2013 19:15	10/31/2013 19:15	-	0.71	186	1.69	0.28	12	Atlas		132	1
	11/17/2013 6:30	11/17/2013 10:45	255	2.59	113.060	2.30	1.61	6	Cloudburst		292,826	1
	12/21/2013 12:15	12/21/2013 12:30	15	2.75	2.454	1.18	1.08	24	Cloudburst		6,748	1
	12/21/2013 21:45	12/22/2013 0:45	180	2.75	82.597	2.62	1.08	24	Cloudburst		227,143	1
	2/4/2014 22:15	2/4/2014 23:15	60	0.53	34.930	0.99	0.26	6	Atlas		18,513	1
	2/17/2014 15:45	2/17/2014 15:45	-	0.49	3.908	0.57	0.29	3	Atlas		1,915	1
	4/3/2014 15:15	4/4/2014 8:00	1,005	2.91	230.276	4.09	1.04	24	Cloudburst		670,104	1
	4/7/2014 10:30	4/7/2014 13:15	165	0.82	202.085	3.82	0.52	1	Atlas		165,710	1
	4/28/2014 3:45	4/28/2014 8:00	255	1.69	107.311	1.34	0.63	24	Atlas		181,355	1
	5/10/2014 5:15	5/10/2014 16:00	645	1.47	89.379	1.54	0.57	24	Atlas		131,387	1
	5/14/2014 10:30	5/14/2014 11:15	45	0.72	28.229	1.87	0.27	24	Atlas		20,325	1
	5/14/2014 19:45	5/15/2014 1:00	315	0.72	121.618	2.32	0.27	24	Atlas		87,565	1
	5/22/2014 4:15	5/22/2014 4:15	-	0.73	1.363	0.83	0.33	12	Atlas		995	1
	5/28/2014 20:15	5/28/2014 20:15	-	0.49	1.639	1.13	0.41	1	Atlas		803	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.07	3.700	0.30	0.03	1	Atlas		259	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.31	6.768	0.76	0.27	1	Atlas		2,098	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.92	1.403	1.27	0.52	1	Atlas		1,291	1
	7/26/2014 21:30	7/26/2014 21:45	15	0.89	12.907	0.36	0.39	12	Atlas		11,487	1
	8/8/2014 6:30	8/8/2014 8:15	105	0.79	128.925	0.59	0.38	6	Atlas		101,851	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.73	47.299	1.60	0.57	1	Atlas		34,528	1
	8/22/2014 19:00	8/22/2014 19:00	-	0.16	11.250	0.80	0.10	3	Atlas		1,800	1
	8/23/2014 19:45	8/23/2014 23:00	195	0.83	135.786	1.62	0.43	3	Atlas		112,702	1
	8/27/2014 17:00	8/27/2014 17:00	-	0.11	49.836	1.21	0.08	1	Atlas		5,482	1
	8/30/2014 15:00	8/30/2014 17:30	150	0.72	63.499	1.67	0.44	1	Atlas		45,719	1
	9/11/2014 0:30	9/11/2014 8:00	450	2.08	103.407	2.08	1.67	3	Atlas		215,087	1
	10/10/2014 2:45	10/10/2014 4:00	75	1.18	62.677	1.72	0.54	3	Atlas		73,959	1
	10/14/2014 8:00	10/14/2014 11:00	180	1.07	145.042	2.77	0.48	12	Atlas		155,195	1
	12/6/2014 1:45	12/6/2014 7:15	330	1.97	110.682	2.98	0.64	48	Atlas		218,043	1
	3/4/2015 2:30	3/4/2015 7:30	300	1.92	46.489	1.03	0.62	48	Atlas		89,259	1
	3/10/2015 10:30	3/10/2015 17:30	420	1.15	316.377	3.06	0.52	12	Atlas		363,834	1
	3/13/2015 13:00	3/14/2015 7:00	1,080	2.00	285.345	3.10	0.75	24	Atlas		570,689	1
	4/2/2015 15:00	4/2/2015 16:00	60	4.94	2.407	1.01	9.44	24	Cloudburst		11,892	1
	4/3/2015 0:15	4/3/2015 17:30	1,035	4.94	144.860	4.97	9.44	24	Cloudburst		715,609	1
	4/7/2015 9:15	4/7/2015 19:00	585	1.11	153.775	6.05	0.54	1	Atlas		170,690	1
	4/9/2015 11:30	4/9/2015 17:15	345	0.26	820.008	5.99	0.23	1	Atlas		213,202	1
	4/10/2015 2:30	4/10/2015 8:00	330	0.22	1,267.777	3.53	0.14	3	Atlas		278,911	1
	4/14/2015 11:00	4/14/2015 12:30	90	0.66	8.380	1.49	0.25	24	Atlas		5,531	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2015 14:30	4/19/2015 15:15	45	0.68	34.459	1.21	0.28	12	Atlas		23,432	1
	6/17/2015 4:45	6/17/2015 7:00	135	0.64	4,261	0.66	0.35	3	Atlas		2,727	1
	6/18/2015 17:15	6/18/2015 18:45	90	0.67	58,409	1.21	0.38	1	Atlas		39,134	1
	6/20/2015 5:15	6/20/2015 9:15	240	0.95	127,632	2.35	0.39	12	Atlas		121,250	1
	6/26/2015 17:00	6/26/2015 18:45	105	1.05	32,229	2.40	0.54	1	Atlas		33,840	1
	7/2/2015 20:15	7/2/2015 21:45	90	2.57	18,419	4.45	0.98	1	Atlas		47,336	1
	7/10/2015 16:45	7/10/2015 17:30	45	0.43	20,530	1.94	0.22	6	Atlas		8,828	1
	7/12/2015 6:00	7/12/2015 9:15	195	1.10	121,816	3.01	0.79	1	Atlas		133,998	1
	7/13/2015 15:15	7/13/2015 16:15	60	0.47	54,570	3.49	0.39	1	Atlas		25,648	1
	7/14/2015 4:15	7/14/2015 6:15	120	0.99	71,599	4.48	0.81	1	Atlas		70,883	1
	7/17/2015 22:15	7/18/2015 3:15	300	1.66	131,419	4.28	1.53	3	Atlas		218,155	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.55	13,691	0.68	0.46	1	Atlas		7,530	1
	8/5/2015 14:45	8/5/2015 14:45	-	0.31	1,271	0.95	0.27	1	Atlas		394	1
	10/24/2015 14:45	10/24/2015 16:45	120	0.31	24,858	0.18	0.14	6	Atlas		7,706	1
	10/27/2015 17:15	10/28/2015 8:45	930	2.55	217,403	2.86	0.86	24	Atlas		554,377	1
	11/6/2015 4:00	11/6/2015 5:30	90	0.95	97,024	1.04	0.59	3	Atlas		92,173	1
	11/18/2015 10:45	11/18/2015 18:30	465	1.25	236,242	1.76	0.62	6	Atlas		295,302	1
	12/1/2015 4:15	12/1/2015 5:30	75	0.66	26,477	1.57	0.30	12	Atlas		17,475	1
	12/14/2015 8:15	12/14/2015 8:15	-	0.26	2,908	0.23	0.14	6	Atlas		756	1
	12/23/2015 19:15	12/23/2015 22:00	165	0.74	149,458	1.39	0.56	1	Atlas		110,599	1
	12/26/2015 14:15	12/26/2015 14:30	15	0.54	18,407	1.93	0.26	3	Atlas		9,940	1
	12/27/2015 10:30	12/28/2015 1:45	915	2.21	190,979	3.59	0.72	6	Atlas		422,064	1
	12/28/2015 16:30	12/29/2015 21:30	300	2.21	40,637	4.03	0.72	6	Atlas		89,808	1
	2/2/2016 22:00	2/3/2016 1:15	195	1.49	166,453	1.52	0.72	6	Atlas		248,015	1
	2/21/2016 10:15	2/21/2016 11:00	45	0.86	53,085	1.01	0.39	12	Atlas		45,653	1
	2/24/2016 1:00	2/24/2016 8:15	435	1.90	252,481	2.41	0.72	24	Atlas		479,713	1
	3/10/2016 16:00	3/10/2016 20:00	240	1.32	94,480	1.34	0.44	12	Atlas		124,713	1
	3/12/2016 22:45	3/13/2016 0:15	90	0.87	57,799	2.04	0.37	6	Atlas		50,285	1
	3/27/2016 21:00	3/27/2016 23:00	120	0.73	105,482	1.02	0.49	3	Atlas		77,002	1
	3/31/2016 6:30	3/31/2016 8:15	105	1.33	45,271	1.83	0.50	24	Atlas		60,210	1
	4/11/2016 17:45	4/1/2016 0:45	60	1.33	32,925	2.06	0.50	24	Atlas		43,790	1
	4/26/2016 16:00	4/11/2016 20:30	165	1.03	113,716	1.15	0.47	6	Atlas		117,127	1
	4/27/2016 20:45	4/26/2016 16:00	-	0.31	8,126	0.43	0.20	1	Atlas		2,519	1
	4/30/2016 12:45	4/28/2016 0:00	195	0.82	64,710	1.52	0.36	12	Atlas		53,062	1
	5/7/2016 23:00	4/30/2016 13:45	60	0.83	52,307	1.70	0.32	24	Atlas		43,415	1
	5/10/2016 17:00	5/7/2016 23:00	-	0.69	1,213	1.27	0.36	6	Atlas		837	1
	5/20/2016 15:15	5/10/2016 23:15	375	0.90	208,969	1.83	0.34	24	Atlas		188,072	1
	6/2/2016 15:15	5/20/2016 16:15	60	0.53	86,813	1.21	0.29	3	Atlas		46,011	1
	6/4/2016 16:30	6/2/2016 15:30	15	0.68	29,738	0.74	0.51	1	Atlas		20,222	1
	6/14/2016 16:30	6/4/2016 16:30	-	0.53	39,740	1.19	0.27	1	Atlas		21,062	1
	6/23/2016 16:00	6/14/2016 19:15	165	1.07	140,198	1.09	0.69	3	Atlas		150,012	1
	7/3/2016 10:00	6/23/2016 22:45	405	2.37	79,653	2.92	2.92	6	Cloudburst		188,777	1
	7/3/2016 21:15	7/3/2016 10:00	-	1.31	33	0.23	0.43	48	Atlas		43	1
	7/4/2016 15:15	7/4/2016 0:30	195	1.31	52,938	0.76	0.43	48	Atlas		69,349	1
	7/28/2016 3:15	7/4/2016 18:30	195	1.31	62,663	1.32	0.43	48	Atlas		82,088	1
	7/30/2016 14:00	7/28/2016 5:15	120	0.85	11,547	1.09	0.43	1	Atlas		9,815	1
	8/12/2016 13:45	7/30/2016 14:00	-	0.18	4,672	1.44	0.16	1	Atlas		841	1
	8/15/2016 2:30	8/12/2016 13:45	-	0.37	1,203	0.38	0.30	1	Atlas		445	1
	8/17/2016 6:45	8/15/2016 8:00	330	0.74	223,323	1.23	0.39	6	Atlas		165,259	1
	8/20/2016 14:15	8/17/2016 9:30	165	1.11	49,093	2.23	0.51	3	Atlas		54,493	1
	9/30/2016 2:30	8/20/2016 21:15	420	1.48	120,869	3.57	0.64	12	Atlas		178,886	1
	10/20/2016 11:30	9/30/2016 3:30	60	0.52	95,056	1.29	0.28	3	Atlas		49,429	1
	11/28/2016 19:15	10/20/2016 11:30	-	0.67	1,570	0.48	0.28	3	Atlas		1,052	1
	12/6/2016 7:30	11/28/2016 22:00	165	0.70	48,629	1.04	0.30	12	Atlas		34,040	1
	12/17/2016 18:15	12/6/2016 12:45	315	0.95	205,857	1.00	0.44	12	Atlas		195,564	1
	12/24/2016 1:00	12/18/2016 3:45	570	3.07	193,538	3.40	3.65	12	Cloudburst		594,161	1
	1/17/2017 2:00	12/24/2016 2:00	60	0.29	51,238	3.27	0.13	12	Atlas		14,859	1
	1/19/2017 20:30	1/17/2017 5:00	180	0.60	108,473	2.19	0.28	12	Atlas		65,084	1
	2/24/2017 18:45	1/20/2017 4:30	480	0.95	367,851	2.42	0.43	12	Atlas		349,458	1
	3/1/2017 3:00	2/24/2017 18:45	-	0.44	8,536	0.47	0.36	1	Atlas		3,756	1
	4/11/2017 6:00	3/1/2017 10:30	450	1.35	102,611	2.24	0.71	3	Atlas		138,525	1
	4/16/2017 13:00	4/11/2017 6:00	-	0.39	4,969	0.18	0.18	12	Atlas		1,938	1
	4/29/2017 1:45	4/16/2017 21:45	525	1.24	68,793	1.58	0.48	24	Atlas		85,303	1
		4/29/2017 9:00	435	1.25	153,966	1.56	0.66	3	Atlas		192,457	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/4/2017 20:45	5/5/2017 13:30	1,005	1.66	206.146	3.06	0.57	24	Atlas		342.203	1
	5/21/2017 3:00	5/21/2017 7:30	270	1.34	108.549	1.39	0.60	12	Atlas		145.456	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.26	23.796	0.27	0.22	1	Atlas		6.187	1
	6/15/2017 3:00	6/15/2017 5:15	135	0.53	34.472	0.74	0.33	3	Atlas		18.270	1
	6/23/2017 16:15	6/23/2017 20:00	225	1.22	126.130	1.45	0.43	6	Atlas		153.879	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.33	6.112	0.42	0.28	1	Atlas		2.017	1
	7/23/2017 3:00	7/23/2017 11:30	510	1.15	105.872	1.22	0.53	12	Atlas		121.753	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.63	20.302	1.06	0.50	1	Atlas		12.790	1
	8/22/2017 16:00	8/22/2017 17:30	90	0.35	13.029	0.77	0.24	1	Atlas		4.560	1
	9/1/2017 9:30	9/2/2017 8:00	1,350	2.71	413.953	2.82	0.95	24	Atlas		1,121.813	1
	9/19/2017 8:15	9/19/2017 8:15	-	0.54	1.215	0.73	0.35	3	Atlas		656	1
	10/7/2017 21:45	10/7/2017 23:30	105	1.91	17.210	0.86	0.71	24	Atlas		32.872	1
	10/8/2017 13:00	10/8/2017 16:00	180	1.91	89.323	1.86	0.71	24	Atlas		170.607	1
	10/10/2017 16:00	10/10/2017 21:45	345	0.65	195.963	2.57	0.35	3	Atlas		127.376	1
	10/23/2017 6:15	10/23/2017 6:15	-	0.38	1.455	0.19	0.20	6	Atlas		553	1
	10/27/2017 20:00	10/28/2017 2:45	405	0.92	223.698	1.42	0.42	12	Atlas		205.802	1
	11/3/2017 4:30	11/3/2017 9:30	300	1.00	93.672	2.09	0.73	1	Atlas		93.672	1
	11/6/2017 1:30	11/6/2017 3:45	135	0.91	10.453	2.08	0.70	1	Atlas		9.512	1
	12/5/2017 5:00	12/5/2017 6:15	75	0.60	72.953	0.60	0.31	3	Atlas		43.772	1
	12/22/2017 23:45	12/23/2017 12:15	750	1.36	145.700	1.36	0.52	24	Atlas		198.152	1
	2/2/2018 2:45	2/2/2018 5:30	165	0.12	89.508	0.48	0.07	3	Atlas		10.741	1
	2/7/2018 3:45	2/7/2018 4:30	45	0.60	27.627	0.90	0.33	6	Atlas		16.576	1
	2/11/2018 11:30	2/11/2018 11:45	15	0.41	16.888	1.13	0.22	3	Atlas		6.924	1
	2/14/2018 10:00	2/14/2018 10:00	-	0.55	1.451	1.01	0.26	3	Atlas		798	1
	2/16/2018 5:45	2/16/2018 12:30	405	0.98	123.660	2.12	0.44	12	Atlas		121.187	1
	2/21/2018 21:45	2/22/2018 11:45	840	1.89	201.719	3.15	0.71	24	Atlas		381.249	1
	2/23/2018 1:45	2/23/2018 22:00	1,215	1.84	368.960	4.94	0.84	12	Atlas		678.886	1
	2/24/2018 10:30	3/1/2018 19:30	7,740	2.13	3,652.571	6.21	0.90	12	Atlas		7,779.977	1
	3/10/2018 3:00	3/10/2018 3:45	45	0.59	14.702	0.62	0.37	3	Atlas		8.674	1
	3/24/2018 9:45	3/24/2018 20:00	615	1.13	161.065	1.93	0.43	24	Atlas		182.003	1
	3/29/2018 20:45	3/29/2018 23:00	135	0.67	18.849	2.15	0.22	24	Atlas		12.629	1
	4/1/2018 21:15	4/2/2018 0:30	195	0.62	132.695	2.07	0.34	6	Atlas		82.271	1
	4/3/2018 21:15	4/3/2018 22:00	45	0.39	51.408	2.44	0.21	6	Atlas		20.049	1
	4/15/2018 9:00	4/15/2018 9:30	30	0.89	12.000	0.91	0.29	24	Atlas		10.680	1
	5/5/2018 14:30	5/5/2018 20:15	345	1.66	128.986	1.57	0.70	6	Atlas		214.117	1
	5/22/2018 7:45	5/22/2018 7:45	-	0.25	6.772	0.45	0.20	1	Atlas		1.693	1
	5/27/2018 4:00	5/27/2018 4:00	-	0.93	1.087	0.79	0.50	1	Atlas		1.011	1
	6/1/2018 1:00	6/1/2018 4:45	225	1.72	61.918	2.83	0.87	3	Atlas		106.499	1
	6/11/2018 14:15	6/11/2018 14:45	30	0.94	2.794	0.94	0.35	24	Atlas		2.626	1
	6/21/2018 16:00	6/21/2018 16:00	-	0.39	11.921	0.85	0.23	1	Atlas		4.649	1
	6/22/2018 13:45	6/22/2018 13:45	-	0.41	4.005	1.32	0.20	6	Atlas		1.642	1
	6/25/2018 9:45	6/25/2018 13:15	210	0.82	109.051	2.35	0.32	12	Atlas		89.422	1
	7/20/2018 4:45	7/20/2018 4:45	-	1.69	2.313	0.45	1.07	3	Atlas		3.909	1
	7/20/2018 19:15	7/20/2018 23:15	240	1.69	85.473	2.06	1.07	3	Atlas		144.450	1
	7/31/2018 1:30	7/31/2018 10:00	510	1.73	158.692	1.65	0.73	6	Atlas		274.537	1
	8/15/2018 19:45	8/16/2018 12:45	1,020	3.06	138.486	3.06	1.94	24	Cloudburst		423.766	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.81	42.025	3.77	0.53	1	Atlas		34.040	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.19	2.626	0.60	0.13	1	Atlas		499	1
	9/8/2018 17:30	9/8/2018 21:30	240	3.08	12.120	3.33	5.81	6	Cloudburst		37.331	1
	9/21/2018 14:00	9/21/2018 14:00	-	0.52	21.169	0.35	0.28	6	Atlas		11.008	1
	9/25/2018 17:00	9/25/2018 17:00	-	0.81	105	4.22	0.35	12	Atlas		85	1
	12/15/2018 4:30	12/15/2018 9:30	300	1.56	26.240	1.46	0.65	12	Atlas		40.935	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.35	1.551	0.47	0.21	1	Atlas		543	1
	12/31/2018 10:00	12/31/2018 17:30	450	1.43	57.155	1.79	0.55	24	Atlas		81.731	1
	2/11/2019 13:00	2/12/2019 15:15	1,575	2.98	150.619	4.57	0.94	48	Atlas		448.846	1
	2/20/2019 4:00	2/20/2019 8:15	255	1.41	87.941	1.35	0.63	6	Atlas		123.997	1
	2/23/2019 18:30	2/23/2019 22:15	225	0.82	107.923	2.29	0.45	6	Atlas		88.497	1
	3/9/2019 16:30	3/9/2019 19:15	165	1.06	40.942	1.23	0.52	6	Atlas		43.398	1
	3/14/2019 17:00	3/14/2019 19:00	120	0.42	134.000	1.95	0.28	3	Atlas		56.280	1
	3/30/2019 17:00	3/30/2019 20:45	225	1.02	122.113	1.39	0.46	6	Atlas		124.555	1
	4/7/2019 12:30	4/7/2019 14:30	120	0.57	77.147	0.78	0.27	3	Atlas		43.974	1
	4/14/2019 2:15	4/14/2019 6:15	240	0.79	131.852	1.47	0.38	6	Atlas		104.163	1
	4/19/2019 19:00	4/20/2019 16:15	1,275	2.39	234.351	3.18	0.77	48	Atlas		560.100	1
	4/24/2019 21:00	4/24/2019 21:45	45	1.04	19.700	2.86	0.34	48	Atlas		20.488	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/25/2019 18:00	4/25/2019 18:00	-	1.04	768	3.24	0.34	48	Atlas		799	1
	5/3/2019 5:00	5/3/2019 9:45	285	0.95	173.887	1.28	0.51	6	Atlas		165,193	1
	5/26/2019 13:45	5/26/2019 17:15	210	0.79	23.262	1.00	0.45	3	Atlas		18,377	1
	5/29/2019 9:00	5/29/2019 14:00	300	0.80	64.609	1.62	0.44	6	Atlas		51,687	1
	6/5/2019 20:30	6/5/2019 21:30	60	0.95	31.782	1.05	0.70	1	Atlas		30,193	1
	6/9/2019 16:45	6/9/2019 21:45	300	0.37	151.400	2.03	0.17	6	Atlas		56,018	1
	6/16/2019 5:45	6/16/2019 5:45	-	0.58	2.450	1.01	0.42	1	Atlas		1,421	1
	6/16/2019 19:30	6/17/2019 1:30	360	2.25	71.665	3.02	1.19	12	Cloudburst		161,246	1
	6/18/2019 16:15	6/18/2019 18:45	150	0.42	88.326	3.54	0.33	1	Atlas		37,097	1
	6/21/2019 19:30	6/21/2019 21:30	120	0.46	75.539	4.09	0.31	3	Atlas		34,748	1
	6/22/2019 8:30	6/22/2019 9:30	60	0.52	41.663	4.46	0.34	3	Atlas		21,665	1
	6/23/2019 16:00	6/23/2019 17:15	75	0.27	49.748	3.92	0.20	1	Atlas		13,432	1
	6/24/2019 13:45	6/24/2019 15:30	105	0.48	78.210	2.38	0.31	3	Atlas		37,541	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.30	65.960	0.43	0.21	1	Atlas		19,788	1
	7/29/2019 23:30	7/30/2019 0:00	30	0.61	36.800	0.61	0.37	3	Atlas		22,448	1
	8/22/2019 2:45	8/22/2019 2:45	-	0.20	825	0.34	0.13	3	Atlas		165	1
	8/26/2019 11:30	8/26/2019 15:00	210	0.52	217.571	0.94	0.23	6	Atlas		113,137	1
	10/26/2019 7:30	10/26/2019 9:45	135	1.41	37.448	1.25	0.56	6	Atlas		52,801	1
	10/30/2019 14:15	10/30/2019 17:30	195	0.70	89.280	2.11	0.35	3	Atlas		62,496	1
	10/31/2019 6:45	10/31/2019 10:30	225	0.62	144.069	2.73	0.33	6	Atlas		89,323	1
	11/27/2019 0:30	11/27/2019 1:00	30	0.74	28.843	1.17	0.33	6	Atlas		21,344	1
	11/30/2019 5:00	11/30/2019 17:00	720	2.31	104.849	3.19	0.93	12	Atlas		242,202	1
	12/16/2019 17:15	12/16/2019 22:00	285	0.79	45.659	1.42	0.34	6	Atlas		36,071	1
	12/29/2019 14:15	12/30/2019 2:15	720	1.13	132.612	1.10	0.41	24	Atlas		149,851	1
	1/11/2020 12:15	1/11/2020 17:00	285	0.78	73.894	1.19	0.37	6	Atlas		57,637	1
	2/12/2020 17:45	2/12/2020 22:00	255	0.77	130.284	1.39	0.35	3	Atlas		100,319	1
	3/10/2020 7:45	3/10/2020 7:45	-	0.46	2.750	0.40	0.21	12	Atlas		1,265	1
	3/12/2020 19:30	3/12/2020 23:00	210	0.67	27.142	1.14	0.34	6	Atlas		18,185	1
	3/19/2020 12:15	3/19/2020 13:15	60	0.52	45.285	2.14	0.21	3	Atlas		23,548	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.19	38.153	0.41	0.16	1	Atlas		7,249	1
	CSO150 Total										**30,895,045**	**239**
CSO151	6/26/2013 3:30	6/26/2013 6:15	165	0.64	988.627	1.51	0.43	3	Atlas		632,721	1
	6/26/2013 16:30	6/27/2013 11:30	1,140	2.42	2,061.248	3.93	2.66	1	Atlas		4,988,221	1
	6/29/2013 20:00	6/29/2013 23:15	195	0.50	1,530.306	3.95	0.28	3	Atlas		765,153	1
	7/1/2013 19:15	7/1/2013 19:45	30	0.30	374.017	3.91	0.15	3	Atlas		112,205	1
	7/2/2013 13:45	7/2/2013 14:00	15	0.10	573.070	4.01	0.09	1	Atlas		57,307	1
	7/3/2013 18:45	7/3/2013 19:15	30	0.07	2,743.057	1.82	0.05	3	Atlas		192,014	1
	7/4/2013 7:00	7/4/2013 18:00	660	0.59	1,891.271	1.58	0.25	12	Atlas		1,115,850	1
	7/6/2013 1:15	7/6/2013 10:45	570	0.66	2,513.602	2.25	0.28	12	Atlas		1,658,977	1
	7/10/2013 13:00	7/10/2013 16:45	225	0.75	1,560.355	2.15	0.52	1	Atlas		1,170,266	1
	7/14/2013 19:45	7/14/2013 21:00	75	0.16	1,969.381	1.00	0.14	1	Atlas		315,101	1
	7/18/2013 16:30	7/18/2013 17:30	60	0.16	1,835.050	0.35	0.11	3	Atlas		293,608	1
	7/21/2013 19:45	7/21/2013 22:00	135	2.88	265.950	2.01	1.93	3	Atlas		765,936	1
	7/22/2013 7:15	7/22/2013 19:45	750	2.88	935.266	3.05	1.93	3	Atlas		2,693,567	1
	7/27/2013 6:15	7/27/2013 6:15	-	0.04	410.000	2.92	0.02	12	Atlas		16,400	1
	8/9/2013 17:15	8/9/2013 18:30	75	0.23	1,199.296	0.28	0.14	1	Atlas		275,838	1
	8/12/2013 15:00	8/12/2013 16:30	90	0.80	1,078.959	0.89	0.37	1	Atlas		863,167	1
	8/13/2013 2:45	8/13/2013 4:45	120	0.80	570.949	1.15	0.37	1	Atlas		456,759	1
	8/20/2013 18:00	8/20/2013 19:30	90	0.24	1,255.463	0.25	0.17	1	Atlas		301,311	1
	9/11/2013 10:45	9/11/2013 11:15	30	0.05	2,516.520	0.06	0.04	1	Atlas		125,826	1
	9/20/2013 16:15	9/21/2013 7:00	885	1.46	1,786.821	1.53	0.61	12	Atlas		2,608,758	1
	10/4/2013 19:00	10/4/2013 20:00	60	0.06	2,226.267	0.11	0.05	1	Atlas		133,576	1
	10/5/2013 12:30	10/7/2013 21:00	3,390	3.89	2,321.851	4.00	4.84	24	Cloudburst		9,032,002	1
	10/19/2013 9:45	10/19/2013 11:15	90	0.19	356.916	0.23	0.10	6	Atlas		67,814	1
	10/29/2013 21:45	10/30/2013 9:30	705	1.27	1,365.391	1.27	0.63	6	Atlas		1,734,047	1
	10/31/2013 15:45	11/1/2013 0:00	495	0.50	1,715.550	1.77	0.19	12	Atlas		857,775	1
	11/6/2013 19:15	11/6/2013 23:00	225	0.19	340.426	0.76	0.08	12	Atlas		64,681	1
	11/15/2013 18:30	11/15/2013 19:00	30	0.10	485.760	0.17	0.09	1	Atlas		48,576	1
	11/17/2013 5:00	11/18/2013 22:30	2,490	2.56	1,856.496	2.73	1.92	6	Cloudburst		4,752,631	1
	11/21/2013 19:30	11/21/2013 20:15	45	0.09	325.167	2.75	0.07	1	Atlas		29,265	1
	12/5/2013 5:30	12/5/2013 12:30	420	0.69	949.893	0.21	0.22	48	Atlas		655,426	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/6/2013 3:00	12/6/2013 15:00	720	0.69	958,748	0.52	0.22	48	Atlas		661,536	1
	12/14/2013 4:30	12/14/2013 19:15	885	0.93	1,029,213	1.11	0.40	6	Atlas		957,168	1
	12/21/2013 4:00	12/24/2013 16:45	5,085	2.64	2,334,007	3.50	1.00	24	Cloudburst		6,161,779	1
	12/29/2013 2:00	12/29/2013 13:00	660	0.56	1,578,270	0.72	0.24	12	Atlas		883,831	1
	1/2/2014 4:00	1/2/2014 11:30	450	0.25	93,168	0.80	0.13	3	Atlas		23,292	1
	1/5/2014 15:00	1/5/2014 21:45	405	0.44	2,509,632	0.69	0.22	6	Atlas		1,104,238	1
	1/11/2014 0:30	1/11/2014 19:45	1,155	1.00	1,486,608	1.45	0.54	6	Atlas		1,486,608	1
	1/13/2014 14:30	1/13/2014 21:00	390	0.20	2,381,830	1.21	0.09	6	Atlas		476,366	1
	2/2/2014 3:15	2/2/2014 8:45	330	0.16	2,430,663	0.16	0.09	6	Atlas		388,906	1
	2/4/2014 18:45	2/5/2014 23:00	1,695	0.46	4,638,226	0.85	0.22	6	Atlas		2,133,584	1
	2/20/2014 19:15	2/21/2014 1:00	345	0.19	3,082,416	0.96	0.10	6	Atlas		585,659	1
	3/2/2014 9:45	3/2/2014 13:45	240	0.58	1,595,064	0.30	0.22	24	Atlas		925,137	1
	3/12/2014 7:30	3/12/2014 8:00	30	0.07	468,371	0.07	0.03	1	Atlas		32,786	1
	3/19/2014 9:00	3/19/2014 9:15	15	0.17	41,694	0.25	0.13	1	Atlas		7,088	1
	3/28/2014 4:30	3/28/2014 6:00	90	0.25	1,249,940	0.30	0.11	12	Atlas		312,485	1
	3/29/2014 5:15	3/29/2014 17:15	720	1.07	2,511,054	1.37	0.49	12	Atlas		2,686,828	1
	4/1/2014 20:15	4/1/2014 21:15	60	0.10	932,750	1.46	0.08	1	Atlas		93,275	1
	4/3/2014 5:15	4/11/2014 19:45	12,390	2.63	7,826,707	4.89	0.92	24	Atlas		20,584,240	1
	4/14/2014 3:45	4/15/2014 11:45	1,920	0.37	7,922,097	1.80	0.19	6	Atlas		2,931,176	1
	4/24/2014 12:30	4/25/2014 11:00	1,350	Discharge	-	0.11					4,056,505	1
	9/11/2014 1:15	9/11/2014 10:15	540	1.88	1,845,393	1.88	1.33	3	Atlas		3,469,339	1
	10/3/2014 3:45	10/3/2014 4:30	45	0.20	384,910	0.15	0.09	1	Atlas		76,982	1
	10/3/2014 19:30	10/3/2014 20:30	60	0.20	110,520	0.29	0.09	1	Atlas		22,104	1
	10/6/2014 8:15	10/6/2014 10:00	105	0.12	1,027,975	0.28	0.05	24	Atlas		123,357	1
	10/7/2014 12:00	10/7/2014 13:00	60	0.16	1,501,831	0.49	0.14	1	Atlas		240,293	1
	10/10/2014 2:00	10/10/2014 4:30	150	0.82	1,136,690	1.01	0.34	3	Atlas		932,086	1
	10/10/2014 17:30	10/10/2014 22:00	270	0.82	238,734	1.21	0.34	3	Atlas		195,762	1
	10/13/2014 4:45	10/13/2014 8:00	195	0.47	1,964,866	1.58	0.30	3	Atlas		923,487	1
	10/13/2014 23:45	10/14/2014 11:45	720	1.13	2,134,412	2.60	0.50	12	Atlas		2,411,886	1
	10/15/2014 17:15	10/15/2014 19:00	105	0.17	331,882	2.59	0.08	12	Atlas		56,420	1
	10/20/2014 7:30	10/20/2014 7:30	-	0.06	66,300	1.37	0.04	1	Atlas		3,978	1
	11/16/2014 22:30	11/16/2014 22:30	-	0.32	11,797	0.14	0.13	12	Atlas		3,775	1
	11/23/2014 14:45	11/23/2014 23:45	540	0.80	1,965,676	1.14	0.37	6	Atlas		1,572,541	1
	12/1/2014 3:15	12/1/2014 17:00	825	0.72	1,939,110	0.68	0.27	24	Atlas		1,396,159	1
	12/4/2014 20:15	12/6/2014 16:15	2,640	1.78	2,613,730	2.50	0.57	48	Atlas		4,652,439	1
	12/16/2014 5:30	12/16/2014 6:15	45	0.09	626,000	0.09	0.05	3	Atlas		56,340	1
	12/22/2014 23:00	12/23/2014 1:00	120	0.21	743,843	0.30	0.13	3	Atlas		156,207	1
	12/23/2014 20:15	12/23/2014 20:45	30	0.05	1,070,260	0.28	0.03	1	Atlas		53,513	1
	12/24/2014 13:45	12/24/2014 15:30	105	0.16	1,124,150	0.41	0.08	3	Atlas		179,864	1
	12/28/2014 1:15	12/28/2014 2:45	90	0.31	1,081,990	0.73	0.13	1	Atlas		335,417	1
	1/3/2015 11:30	1/3/2015 15:30	240	0.33	11,815	0.46	0.12	24	Atlas		3,899	1
	1/4/2015 3:45	1/4/2015 4:45	60	0.33	202,864	0.34	0.12	24	Atlas		66,945	1
	2/1/2015 12:45	2/1/2015 20:00	435	0.37	1,049,846	0.53	0.17	12	Atlas		388,443	1
	2/21/2015 12:45	2/21/2015 20:45	480	1.16	603,103	1.32	0.45	24	Atlas		699,600	1
	3/3/2015 19:00	3/5/2015 21:00	3,000	1.62	5,868,860	1.71	0.53	48	Atlas		9,507,553	1
	3/10/2015 5:30	3/12/2015 5:45	2,895	1.20	5,210,964	2.82	0.54	12	Atlas		6,253,157	1
	3/13/2015 8:45	3/16/2015 23:15	5,190	1.55	6,807,935	2.75	0.58	24	Atlas		10,552,299	1
	3/19/2015 19:15	3/19/2015 23:00	225	0.17	687,035	1.72	0.07	6	Atlas		116,796	1
	3/24/2015 20:30	3/24/2015 20:45	15	0.10	210,720	0.25	0.05	1	Atlas		21,072	1
	3/26/2015 4:45	3/26/2015 16:30	705	0.42	1,396,986	0.69	0.17	12	Atlas		586,734	1
	4/2/2015 10:15	4/11/2015 21:45	13,650	5.00	8,038,820	6.54	12.80	6	Cloudburst		40,194,100	1
	4/13/2015 19:30	4/13/2015 23:00	210	0.43	1,304,879	1.48	0.17	6	Atlas		561,098	1
	4/14/2015 7:30	4/14/2015 13:45	375	0.43	2,393,300	1.72	0.17	6	Atlas		1,029,119	1
	4/16/2015 10:30	4/16/2015 11:00	30	0.04	1,005,625	1.04	0.03	1	Atlas		40,225	1
	4/19/2015 7:00	4/20/2015 4:45	1,305	0.81	1,767,106	1.43	0.34	12	Atlas		1,431,356	1
	4/25/2015 9:30	4/25/2015 10:30	60	0.12	983,442	1.03	0.06	6	Atlas		118,013	1
	4/25/2015 19:15	4/25/2015 19:30	15	0.15	668,807	1.14	0.10	1	Atlas		100,321	1
	5/9/2015 5:15	5/9/2015 5:30	15	0.12	237,783	0.12	0.07	3	Atlas		28,534	1
	5/11/2015 18:00	5/11/2015 18:45	45	0.09	1,771,433	0.21	0.08	1	Atlas		159,429	1
	5/16/2015 13:00	5/16/2015 14:45	105	0.24	486,204	0.38	0.13	3	Atlas		116,689	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/17/2015 14:30	5/17/2015 15:30	60	0.12	1,549,667	0.49	0.08	1	Atlas		185,960	1
	5/25/2015 6:45	5/25/2015 9:45	180	0.26	648,642	0.24	0.12	12	Atlas		168,647	1
	5/26/2015 14:00	5/26/2015 15:30	90	0.25	1,403,884	0.44	0.16	1	Atlas		350,971	1
	5/27/2015 14:00	5/27/2015 14:45	45	0.22	623,764	0.73	0.19	1	Atlas		137,228	1
	6/8/2015 7:30	6/8/2015 9:30	120	0.26	401,058	0.32	0.14	3	Atlas		104,275	1
	6/13/2015 14:45	6/13/2015 15:00	15	0.12	749,042	0.38	0.10	1	Atlas		89,885	1
	6/17/2015 5:00	6/17/2015 8:00	180	0.56	1,911,095	0.68	0.31	3	Atlas		1,070,213	1
	6/17/2015 17:30	6/17/2015 17:45	15	0.09	440,856	0.77	0.08	1	Atlas		39,677	1
	6/18/2015 16:30	6/19/2015 0:15	465	2.08	911,665	1.67	0.68	48	Atlas		1,896,264	1
	6/20/2015 1:45	6/20/2015 15:45	840	2.08	1,185,751	2.85	0.68	48	Atlas		2,466,362	1
	6/22/2015 6:30	6/22/2015 7:45	75	0.21	858,557	2.94	0.10	12	Atlas		180,297	1
	6/26/2015 0:00	6/26/2015 5:30	330	0.55	1,694,133	1.95	0.30	6	Atlas		931,773	1
	6/26/2015 17:15	6/27/2015 4:30	675	0.81	1,988,516	2.62	0.38	1	Atlas		1,610,698	1
	6/29/2015 13:45	6/29/2015 15:45	120	0.20	1,365,430	1.56	0.12	1	Atlas		273,086	1
	7/1/2015 14:45	7/1/2015 14:45	-	0.04	172,175	1.61	0.03	1	Atlas		6,887	1
	7/7/2015 11:30	7/8/2015 0:45	795	0.78	435,405	2.02	0.40	6	Atlas		339,616	1
	7/8/2015 12:30	7/8/2015 13:45	75	0.08	1,768,375	2.09	0.06	1	Atlas		141,470	1
	7/9/2015 6:30	7/9/2015 9:30	180	0.22	2,153,223	1.63	0.12	3	Atlas		473,709	1
	7/10/2015 10:15	7/10/2015 20:00	585	0.56	1,882,964	1.93	0.27	6	Atlas		1,054,460	1
	7/12/2015 6:15	7/12/2015 6:45	30	1.12	592,924	2.52	0.74	3	Atlas		664,075	1
	7/14/2015 3:30	7/14/2015 4:15	45	0.56	205,746	3.58	0.41	1	Atlas		115,218	1
	7/17/2015 22:45	7/18/2015 16:30	1,065	0.87	1,733,733	2.95	0.58	3	Atlas		1,508,348	1
	7/29/2015 17:45	8/4/2015 19:30	30	0.09	169,744	0.15	0.08	1	Atlas		15,277	1
	8/4/2015 19:30	8/4/2015 20:45	75	0.16	1,225,456	0.25	0.12	1	Atlas		196,073	1
	8/5/2015 15:15	8/5/2015 16:15	60	0.97	206,880	0.38	0.34	24	Atlas		200,674	1
	8/6/2015 2:30	8/6/2015 17:30	900	0.97	871,175	1.13	0.34	24	Atlas		845,040	1
	8/10/2015 21:15	8/10/2015 21:30	15	0.06	152,517	1.19	0.05	1	Atlas		9,151	1
	8/19/2015 8:00	8/19/2015 18:30	630	0.62	911,069	0.66	0.26	12	Atlas		564,863	1
	9/5/2015 17:45	9/5/2015 17:45	-	0.13	6,362	0.09	0.08	1	Atlas		827	1
	9/7/2015 18:30	9/7/2015 20:00	90	0.31	1,253,419	0.44	0.27	1	Atlas		388,560	1
	9/9/2015 11:45	9/9/2015 12:15	30	0.15	697,500	0.59	0.13	1	Atlas		104,625	1
	9/10/2015 5:30	9/10/2015 5:45	15	0.14	335,036	0.73	0.06	12	Atlas		46,905	1
	9/29/2015 9:45	9/29/2015 13:15	210	1.00	217,666	0.81	0.32	48	Atlas		217,666	1
	10/2/2015 17:30	10/2/2015 22:00	270	0.59	763,264	1.69	0.28	6	Atlas		450,326	1
	10/9/2015 11:45	10/9/2015 11:45	-	0.11	15,827	0.69	0.06	1	Atlas		1,741	1
	10/12/2015 18:30	10/12/2015 20:45	135	0.29	753,283	0.40	0.19	3	Atlas		218,452	1
	10/24/2015 20:00	10/24/2015 20:00	-	0.32	82,775	0.30	0.15	6	Atlas		26,488	1
	10/27/2015 12:00	10/28/2015 10:00	1,320	2.66	1,372,112	2.99	0.86	48	Atlas		3,649,817	1
	10/28/2015 22:45	10/29/2015 0:00	75	0.17	939,441	3.16	0.09	6	Atlas		159,705	1
	10/31/2015 23:30	11/1/2015 0:15	45	0.17	546,576	3.00	0.10	3	Atlas		92,918	1
	11/6/2015 3:15	11/6/2015 8:45	330	0.77	627,855	0.94	0.47	3	Atlas		483,448	1
	11/9/2015 16:30	11/9/2015 23:45	435	0.51	1,636,302	1.28	0.22	12	Atlas		834,514	1
	11/12/2015 0:15	11/12/2015 2:15	120	0.30	891,453	1.57	0.19	3	Atlas		267,436	1
	11/18/2015 9:00	11/18/2015 23:15	855	1.81	1,144,716	2.24	0.92	6	Atlas		2,071,936	1
	11/21/2015 15:15	11/21/2015 15:30	15	0.13	418,777	2.07	0.11	1	Atlas		54,441	1
	11/28/2015 12:45	11/29/2015 0:00	675	0.69	2,397,970	0.97	0.28	12	Atlas		1,654,599	1
	11/30/2015 22:00	12/1/2015 10:15	735	0.69	2,245,665	1.60	0.32	12	Atlas		1,549,509	1
	12/14/2015 5:30	12/14/2015 9:30	240	0.25	1,232,716	0.26	0.14	6	Atlas		308,179	1
	12/21/2015 11:45	12/21/2015 12:30	45	0.70	48,951	0.17	0.30	1	Atlas		34,266	1
	12/21/2015 23:15	12/22/2015 6:15	420	0.70	1,480,306	0.73	0.30	1	Atlas		1,036,214	1
	12/23/2015 20:15	12/24/2015 3:45	450	0.86	943,340	1.61	0.65	1	Atlas		811,272	1
	12/26/2015 11:15	12/26/2015 19:30	495	0.26	2,832,538	1.95	0.12	3	Atlas		736,460	1
	12/27/2015 6:30	12/27/2015 21:30	900	2.25	1,165,724	3.41	0.76	3	Atlas		2,622,878	1
	1/9/2016 19:45	1/9/2016 23:15	210	0.22	131,664	0.31	0.09	12	Atlas		28,966	1
	2/1/2016 6:00	2/1/2016 6:15	15	0.07	87,414	0.10	0.05	3	Atlas		6,119	1
	2/2/2016 15:00	2/3/2016 23:45	1,965	1.38	1,754,370	1.45	0.64	6	Atlas		2,421,030	1
	2/21/2016 4:30	2/21/2016 14:00	570	0.99	887,873	1.17	0.45	12	Atlas		878,994	1
	2/23/2016 22:30	2/26/2016 0:30	3,000	2.04	2,335,262	3.04	0.80	12	Atlas		4,763,935	1
	2/29/2016 1:45	2/29/2016 3:00	75	0.02	3,545,200	2.06	0.01	3	Atlas		70,904	1
	3/1/2016 12:00	3/1/2016 16:00	240	0.38	1,216,129	2.43	0.21	3	Atlas		462,129	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/3/2016 13:30	3/3/2016 14:00	30	0.01	443.600	0.42	0.01	1	Atlas		4,436	1
	3/9/2016 15:45	3/9/2016 17:45	120	1.05	238.618	0.24	0.34	12	Atlas		250,549	1
	3/10/2016 10:00	3/11/2016 1:30	930	1.05	1,860.741	1.12	0.34	12	Atlas		1,953,778	1
	3/12/2016 20:15	3/14/2016 0:00	1,665	0.85	2,103.713	1.92	0.32	24	Atlas		1,788,156	1
	3/19/2016 9:15	3/19/2016 11:00	105	0.15	480.180	1.11	0.10	1	Atlas		72,027	1
	3/24/2016 18:00	3/24/2016 20:00	120	0.57	327.763	0.72	0.43	1	Atlas		186,825	1
	3/27/2016 21:00	3/28/2016 0:15	195	0.82	926.013	1.39	0.54	3	Atlas		759,331	1
	3/31/2016 1:45	3/31/2016 23:45	1,320	1.07	1,845.534	2.46	0.41	24	Atlas		1,974,721	1
	4/11/2016 14:00	4/11/2016 22:15	495	0.81	1,265.295	0.94	0.38	6	Atlas		1,024,889	1
	4/21/2016 14:45	4/21/2016 17:15	150	0.30	894.583	0.22	0.13	3	Atlas		268,375	1
	4/26/2016 21:00	4/26/2016 23:00	120	0.37	926.381	0.68	0.19	6	Atlas		342,761	1
	4/27/2016 13:15	4/28/2016 0:00	645	0.54	1,760.526	1.21	0.25	3	Atlas		950,684	1
	4/30/2016 9:00	5/1/2016 0:15	915	0.45	1,753.504	1.33	0.17	6	Atlas		789,077	1
	5/1/2016 15:15	5/1/2016 18:15	180	0.29	2,273.355	1.65	0.19	3	Atlas		659,273	1
	5/4/2016 11:15	5/4/2016 13:00	105	0.20	1,230.675	1.46	0.12	1	Atlas		246,135	1
	5/7/2016 16:45	5/7/2016 23:30	405	0.56	1,173.677	1.16	0.28	6	Atlas		657,259	1
	5/10/2016 8:30	5/11/2016 0:15	945	0.75	2,390.815	1.54	0.28	24	Atlas		1,793,111	1
	5/11/2016 19:30	5/12/2016 0:00	270	0.24	1,897.079	1.56	0.13	3	Atlas		455,299	1
	5/17/2016 6:00	5/17/2016 9:00	180	0.59	615.036	1.37	0.19	24	Atlas		362,871	1
	5/17/2016 20:15	5/18/2016 2:15	360	0.59	744.678	1.05	0.19	24	Atlas		439,360	1
	5/20/2016 13:30	5/20/2016 18:45	315	0.73	1,480.847	1.34	0.41	3	Atlas		1,081,018	1
	5/26/2016 14:00	5/26/2016 16:45	165	0.22	2,350.364	1.04	0.15	3	Atlas		517,080	1
	6/2/2016 15:45	6/2/2016 17:15	90	0.44	742.534	0.57	0.35	1	Atlas		326,715	1
	6/4/2016 18:30	6/4/2016 19:15	45	0.18	797.817	0.65	0.07	12	Atlas		143,607	1
	6/12/2016 18:30	6/12/2016 19:30	60	0.46	427.911	0.49	0.38	1	Atlas		196,839	1
	6/14/2016 17:00	6/14/2016 20:00	180	0.54	1,359.191	1.00	0.34	3	Atlas		733,963	1
	6/22/2016 8:45	6/22/2016 9:15	30	0.17	809.747	0.20	0.11	3	Atlas		137,657	1
	6/23/2016 16:15	6/24/2016 1:00	525	1.76	835.319	1.93	0.93	6	Atlas		1,470,161	1
	7/3/2016 8:00	7/4/2016 1:15	1,035	1.05	1,716.370	0.67	0.34	48	Atlas		1,802,188	1
	7/4/2016 14:30	7/4/2016 19:00	270	1.05	1,201.539	1.05	0.34	48	Atlas		1,261,616	1
	7/6/2016 13:30	7/6/2016 14:45	75	0.12	3,577.050	1.16	0.09	1	Atlas		429,246	1
	7/12/2016 9:15	7/12/2016 13:00	225	0.23	4,538.600	0.44	0.15	1	Atlas		1,043,878	1
	7/27/2016 18:30	7/28/2016 9:45	915	0.49	5,076.947	0.74	0.20	12	Atlas		2,487,704	1
	7/30/2016 14:30	7/30/2016 16:15	105	0.37	1,359.011	1.13	0.32	1	Atlas		502,834	1
	7/31/2016 17:45	7/31/2016 18:00	15	0.06	549.583	1.19	0.03	1	Atlas		32,975	1
	8/1/2016 11:30	8/1/2016 12:15	45	0.43	568.335	1.49	0.26	1	Atlas		244,384	1
	8/1/2016 20:30	8/2/2016 0:00	210	0.43	2,688.063	1.40	0.26	1	Atlas		1,155,867	1
	8/4/2016 13:45	8/4/2016 15:00	75	0.48	1,043.446	1.31	0.32	3	Atlas		500,854	1
	8/5/2016 14:15	8/5/2016 15:15	60	0.12	1,711.917	1.50	0.08	3	Atlas		205,430	1
	8/9/2016 15:45	8/9/2016 23:30	465	0.18	2,121.706	0.79	0.13	1	Atlas		381,907	1
	8/14/2016 16:00	8/14/2016 16:15	15	1.23	43.064	0.30	0.61	3	Atlas		52,969	1
	8/15/2016 3:00	8/15/2016 9:45	405	1.23	1,572.617	1.44	0.61	3	Atlas		1,934,319	1
	8/17/2016 4:15	8/17/2016 14:15	600	0.55	2,833.376	1.81	0.23	12	Atlas		1,558,357	1
	8/31/2016 17:15	8/31/2016 18:45	90	0.12	3,998.125	0.25	0.08	1	Atlas		479,775	1
	9/10/2016 15:15	9/10/2016 16:30	75	0.19	2,449.495	0.18	0.12	1	Atlas		465,404	1
	9/26/2016 9:45	9/26/2016 12:00	135	0.24	1,681.325	0.24	0.16	3	Atlas		403,518	1
	9/28/2016 8:45	9/28/2016 15:15	390	0.33	2,471.442	0.57	0.17	6	Atlas		815,576	1
	9/29/2016 9:30	9/29/2016 10:00	30	0.08	743.500	0.64	0.05	3	Atlas		59,480	1
	9/30/2016 0:30	9/30/2016 4:00	210	0.70	2,071.290	1.24	0.37	3	Atlas		1,449,903	1
	10/20/2016 10:15	10/20/2016 17:30	435	0.51	1,693.373	0.39	0.20	24	Atlas		863,620	1
	11/8/2016 20:30	11/8/2016 21:00	30	0.22	235.105	0.25	0.11	1	Atlas		51,723	1
	11/19/2016 1:45	11/19/2016 3:45	120	0.15	619.520	0.15	0.10	3	Atlas		92,928	1
	11/23/2016 20:15	11/23/2016 22:15	120	0.25	881.940	0.40	0.10	6	Atlas		220,485	1
	11/28/2016 14:15	11/28/2016 23:15	540	0.79	1,396.095	1.04	0.35	12	Atlas		1,102,915	1
	12/6/2016 4:30	12/6/2016 14:00	570	0.91	1,722.136	0.94	0.42	12	Atlas		1,567,144	1
	12/11/2016 21:30	12/11/2016 23:45	135	0.26	1,123.146	1.16	0.11	12	Atlas		292,018	1
	12/17/2016 16:30	12/18/2016 23:00	1,830	2.64	2,493.089	2.90	1.91	12	Cloudburst		6,581,756	1
	12/23/2016 22:15	12/24/2016 3:00	285	0.16	4,295.944	2.79	0.07	12	Atlas		687,351	1
	12/26/2016 20:30	12/27/2016 0:00	210	0.24	1,817.375	0.40	0.11	6	Atlas		436,170	1
	1/3/2017 2:15	1/3/2017 6:00	225	0.20	2,090.205	0.27	0.08	6	Atlas		418,041	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/10/2017 19:45	1/10/2017 21:30	105	0.13	2,692,908	0.39	0.10	1	Atlas		350,078	1
	1/11/2017 12:30	1/11/2017 16:00	210	0.24	1,806,096	0.63	0.16	3	Atlas		433,463	1
	1/12/2017 16:00	1/13/2017 0:30	510	0.40	2,888,360	0.82	0.20	6	Atlas		1,155,344	1
	1/13/2017 14:45	1/13/2017 21:15	390	0.29	1,394,521	1.08	0.19	3	Atlas		404,411	1
	1/14/2017 10:00	1/14/2017 20:00	600	0.21	4,133,714	1.29	0.10	12	Atlas		868,080	1
	1/15/2017 13:00	1/15/2017 21:15	495	0.13	2,444,154	1.41	0.07	3	Atlas		317,740	1
	1/16/2017 18:30	1/17/2017 23:45	1,755	0.49	4,515,618	1.90	0.22	12	Atlas		2,212,653	1
	1/19/2017 18:45	1/21/2017 0:30	1,785	1.18	3,120,616	2.47	0.54	12	Atlas		3,682,327	1
	2/7/2017 9:45	2/7/2017 15:30	345	0.33	1,304,103	0.33	0.16	6	Atlas		430,354	1
	2/8/2017 17:15	2/8/2017 17:45	30	0.08	1,981,588	0.36	0.04	6	Atlas		158,527	1
	2/24/2017 19:15	2/24/2017 22:45	210	0.48	2,370,688	0.57	0.41	1	Atlas		1,137,930	1
	2/28/2017 5:45	2/28/2017 12:00	375	0.30	1,484,020	0.81	0.14	12	Atlas		445,206	1
	3/1/2017 3:30	3/2/2017 0:15	1,245	1.01	4,207,599	1.84	0.53	6	Atlas		4,249,675	1
	3/7/2017 8:00	3/7/2017 17:15	555	0.54	2,805,117	1.73	0.18	48	Atlas		1,514,763	1
	3/20/2017 12:00	3/20/2017 12:00	-	0.02	173,650	0.09	0.02	1	Atlas		3,473	1
	3/26/2017 1:30	3/26/2017 11:00	570	0.50	1,416,890	0.52	0.22	12	Atlas		708,445	1
	3/27/2017 17:45	3/27/2017 21:15	210	0.29	2,074,114	0.79	0.17	3	Atlas		601,493	1
	3/30/2017 21:00	3/31/2017 3:15	375	0.63	749,035	1.60	0.32	6	Atlas		471,892	1
	4/3/2017 19:45	4/3/2017 20:15	30	0.12	284,358	0.92	0.07	1	Atlas		34,123	1
	4/5/2017 16:45	4/5/2017 17:15	30	0.02	819,650	0.98	0.02	1	Atlas		16,393	1
	4/11/2017 7:30	4/11/2017 21:45	855	0.38	1,391,679	0.45	0.17	12	Atlas		528,838	1
	4/12/2017 7:00	4/12/2017 8:30	90	Discharge	-	0.45					7,945	1
	4/14/2017 8:00	4/14/2017 10:45	165	Discharge	-	0.38					5,820	1
	4/16/2017 4:45	4/17/2017 21:15	2,430	1.14	1,802,295	1.55	0.50	6	Atlas		2,054,616	1
	4/21/2017 21:15	4/22/2017 14:45	1,050	0.55	320,665	1.73	0.20	24	Atlas		176,366	1
	4/27/2017 6:45	4/29/2017 23:15	3,870	0.17	30,024,035	1.76	0.10	1	Atlas		5,104,086	1
	5/4/2017 7:30	5/8/2017 12:30	6,060	1.90	3,557,655	3.31	0.63	24	Atlas		6,759,544	1
	5/9/2017 6:45	5/9/2017 7:45	60	Discharge	-	2.00					7,764	1
	5/9/2017 20:00	5/9/2017 22:00	120	Discharge	-	2.00					5,418	1
	5/12/2017 11:15	5/12/2017 11:30	15	0.04	185,850	0.38	0.02	6	Atlas		7,434	1
	5/15/2017 9:30	5/15/2017 16:15	405	Discharge	-	0.20					2,439	1
	5/20/2017 19:00	5/21/2017 12:45	1,065	1.31	1,908,392	1.34	0.58	12	Atlas		2,499,994	1
	5/24/2017 17:30	5/25/2017 10:45	1,035	0.70	2,264,277	2.05	0.26	6	Atlas		1,584,994	1
	5/27/2017 14:30	5/27/2017 14:45	15	0.11	64,027	2.11	0.09	1	Atlas		7,043	1
	6/5/2017 9:15	6/5/2017 10:30	75	0.10	4,935,630	0.11	0.06	1	Atlas		493,563	1
	6/5/2017 18:45	6/5/2017 20:00	75	0.41	900,239	0.52	0.36	1	Atlas		369,098	1
	6/15/2017 3:30	6/15/2017 8:00	270	0.92	590,768	1.07	0.59	3	Atlas		543,507	1
	6/18/2017 22:00	6/19/2017 0:30	150	0.13	1,291,731	1.21	0.08	3	Atlas		167,925	1
	6/22/2017 15:45	6/22/2017 21:00	315	0.41	1,063,149	0.55	0.22	6	Atlas		435,891	1
	6/23/2017 14:30	6/23/2017 22:00	450	0.88	1,302,848	1.43	0.46	6	Atlas		1,146,506	1
	6/27/2017 2:15	6/27/2017 3:15	60	0.08	759,638	1.37	0.07	1	Atlas		60,771	1
	6/28/2017 14:45	6/29/2017 13:30	1,365	Discharge	-	1.37					41,851	1
	6/30/2017 21:15	6/30/2017 23:30	135	0.32	3,102,109	0.40	0.28	1	Atlas		992,675	1
	7/6/2017 4:30	7/6/2017 18:30	840	0.55	2,153,144	0.98	0.25	6	Atlas		1,184,229	1
	7/7/2017 21:00	7/8/2017 0:00	180	0.32	1,523,597	0.99	0.23	1	Atlas		487,551	1
	7/23/2017 2:30	7/23/2017 14:30	720	1.14	2,383,801	1.14	0.52	12	Atlas		2,717,533	1
	7/28/2017 9:45	7/28/2017 12:30	165	0.62	1,427,887	1.78	0.46	1	Atlas		885,290	1
	8/1/2017 22:00	8/1/2017 22:30	30	0.17	531,694	0.80	0.13	1	Atlas		90,388	1
	8/2/2017 13:30	8/2/2017 15:00	90	0.31	955,045	1.12	0.27	1	Atlas		296,064	1
	8/6/2017 15:00	8/7/2017 2:45	705	0.66	1,860,444	1.15	0.29	12	Atlas		1,227,893	1
	8/17/2017 15:15	8/17/2017 21:00	345	0.66	1,680,474	0.70	0.36	6	Atlas		1,109,113	1
	8/22/2017 13:30	8/22/2017 18:00	270	0.57	1,334,588	1.26	0.40	1	Atlas		760,715	1
	8/29/2017 19:45	8/29/2017 20:30	45	0.08	2,932,525	0.11	0.04	6	Atlas		234,602	1
	9/1/2017 6:00	9/3/2017 16:45	3,525	3.98	2,275,277	4.09	4.40	24	Cloudburst		9,055,603	1
	9/12/2017 6:30	9/12/2017 9:00	150	0.29	579,724	0.49	0.14	6	Atlas		168,120	1
	9/12/2017 20:30	9/12/2017 22:45	135	0.42	284,952	0.42	0.15	24	Atlas		119,680	1
	9/13/2017 11:15	9/13/2017 22:45	690	0.42	428,224	0.71	0.15	24	Atlas		179,864	1
	9/19/2017 8:15	9/19/2017 12:15	240	0.42	1,601,155	0.87	0.27	3	Atlas		672,485	1
	10/7/2017 22:00	10/9/2017 0:30	1,590	1.82	1,849,103	1.83	0.69	24	Atlas		3,365,367	1
	10/10/2017 14:15	10/10/2017 23:00	525	0.75	1,792,975	2.58	0.39	3	Atlas		1,344,731	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/23/2017 5:45	10/23/2017 9:45	240	0.52	1,287,313	0.51	0.27	6	Atlas		669,403	1
	10/24/2017 2:00	10/24/2017 2:00	-	0.09	49,622	0.61	0.04	1	Atlas		4,466	1
	10/27/2017 17:45	10/28/2017 4:45	660	0.90	1,734,298	1.52	0.41	12	Atlas		1,560,868	1
	11/3/2017 4:45	11/3/2017 9:30	285	1.96	1,529,042	2.99	8.46	1	Atlas		2,996,922	1
	11/6/2017 2:15	11/6/2017 4:15	120	0.25	2,742,628	2.34	0.16	1	Atlas		685,657	1
	11/7/2017 2:15	11/7/2017 7:45	330	0.22	1,083,095	2.56	0.10	12	Atlas		238,281	1
	11/15/2017 13:30	11/15/2017 16:15	165	0.25	1,295,780	0.28	0.16	1	Atlas		323,945	1
	11/18/2017 17:00	11/18/2017 18:30	90	0.38	768,755	0.62	0.24	1	Atlas		292,127	1
	2/11/2018 9:30	2/11/2018 10:45	75	0.39	318,915	0.92	0.19	3	Atlas		124,377	1
	2/14/2018 7:45	2/14/2018 7:45	-	0.37	26,876	0.66	0.17	12	Atlas		9,944	1
	2/16/2018 3:00	2/16/2018 3:30	30	0.73	98,922	1.22	0.33	12	Atlas		72,213	1
	2/21/2018 7:30	2/21/2018 7:30	-	1.55	6,506	1.37	0.57	24	Atlas		10,084	1
	2/22/2018 1:30	2/22/2018 6:30	300	1.55	533,537	2.57	0.57	24	Atlas		826,983	1
	2/23/2018 3:30	2/23/2018 11:45	495	1.13	846,586	3.35	0.52	12	Atlas		956,642	1
	2/24/2018 10:45	2/25/2018 1:00	855	1.75	1,063,159	4.55	0.72	12	Atlas		1,860,528	1
	3/10/2018 1:30	3/10/2018 1:30	-	0.56	9,668	0.36	0.35	3	Atlas		5,414	1
	3/24/2018 12:30	3/24/2018 14:45	135	0.87	63,407	1.53	0.33	24	Atlas		55,164	1
	3/28/2018 6:15	3/28/2018 6:15	-	0.44	7,345	1.25	0.19	12	Atlas		3,232	1
	3/29/2018 19:30	3/29/2018 20:15	45	0.67	384,612	1.78	0.23	24	Atlas		257,690	1
	3/31/2018 22:30	3/31/2018 22:30	-	0.22	52,918	1.32	0.11	3	Atlas		11,642	1
	4/1/2018 20:30	4/1/2018 23:45	195	0.60	234,983	1.99	0.33	6	Atlas		140,990	1
	4/3/2018 16:45	4/3/2018 21:45	300	0.32	286,300	2.30	0.17	6	Atlas		91,616	1
	4/14/2018 10:00	4/14/2018 10:15	15	1.36	14,721	0.37	0.44	48	Atlas		20,020	1
	4/15/2018 6:00	4/15/2018 6:15	15	1.36	41,563	1.04	0.44	48	Atlas		56,526	1
	5/5/2018 14:15	5/5/2018 19:00	285	1.57	440,337	1.44	0.61	12	Atlas		691,329	1
	5/17/2018 16:15	5/17/2018 16:15	-	0.28	23,736	0.31	0.23	1	Atlas		6,646	1
	5/27/2018 5:00	5/27/2018 5:00	-	0.22	16,891	0.22	0.15	1	Atlas		3,716	1
	5/31/2018 14:30	5/31/2018 14:30	-	1.40	17,782	0.53	0.74	3	Atlas		24,895	1
	6/1/2018 0:45	6/1/2018 3:00	135	1.40	298,276	1.79	0.74	3	Atlas		417,586	1
	6/10/2018 15:15	6/10/2018 15:30	15	0.42	140,012	0.18	0.19	12	Atlas		58,805	1
	6/11/2018 11:30	6/11/2018 13:45	135	0.47	367,440	0.78	0.23	3	Atlas		172,697	1
	6/22/2018 13:00	6/22/2018 13:45	45	0.14	806,764	0.58	0.07	6	Atlas		112,947	1
	6/25/2018 9:30	6/25/2018 11:15	105	0.85	553,624	1.09	0.35	12	Atlas		470,580	1
	6/26/2018 11:30	6/26/2018 21:15	585	0.03	31,090,933	1.64	0.03	1	Atlas		932,728	1
	7/2/2018 17:00	7/2/2018 18:30	90	0.72	1,944,963	1.34	0.55	1	Atlas		1,400,373	1
	7/3/2018 15:15	7/3/2018 16:15	60	0.63	775,851	1.63	0.39	1	Atlas		488,786	1
	7/15/2018 18:00	7/15/2018 18:45	45	0.16	1,427,888	0.16	0.07	12	Atlas		228,462	1
	7/16/2018 9:30	7/16/2018 9:45	15	0.16	374,056	0.28	0.10	1	Atlas		59,849	1
	7/20/2018 13:45	7/20/2018 21:45	480	1.11	979,484	1.43	0.53	3	Atlas		1,087,227	1
	7/22/2018 12:15	7/22/2018 17:45	330	0.40	295,205	1.79	0.28	1	Atlas		118,082	1
	7/30/2018 23:15	7/31/2018 13:15	840	2.04	1,175,870	2.06	0.82	12	Atlas		2,398,774	1
	8/31/2018 17:45	8/31/2018 18:30	45	0.53	1,036,400	0.45	0.33	1	Atlas		549,292	1
	9/6/2018 11:45	9/6/2018 12:15	30	0.36	500,861	0.87	0.25	1	Atlas		180,310	1
	9/8/2018 2:15	9/8/2018 2:30	15	2.37	33,438	0.65	0.96	6	Atlas		79,249	1
	9/8/2018 17:45	9/9/2018 0:15	390	2.37	1,612,527	2.74	0.96	6	Atlas		3,821,689	1
	9/9/2018 17:30	9/9/2018 18:00	30	0.03	13,948,067	2.77	0.01	12	Atlas		418,442	1
	9/21/2018 18:00	9/21/2018 18:30	30	0.22	794,918	0.33	0.15	1	Atlas		174,882	1
	9/22/2018 16:00	9/22/2018 17:45	105	1.35	150,544	0.70	0.51	3	Atlas		203,234	1
	9/23/2018 4:15	9/23/2018 10:00	345	1.35	3,364,673	1.67	0.51	3	Atlas		4,542,309	1
	9/24/2018 1:00	9/25/2018 7:30	1,830	1.65	6,280,842	3.41	0.74	6	Atlas		10,363,390	1
	9/25/2018 17:00	9/26/2018 6:00	780	0.67	4,770,155	4.00	0.30	12	Atlas		3,196,004	1
	10/15/2018 9:30	10/15/2018 10:00	30	0.19	538,353	0.63	0.12	1	Atlas		102,287	1
	10/31/2018 15:15	11/1/2018 18:45	1,650	1.78	797,663	2.16	0.63	24	Atlas		1,419,840	1
	11/5/2018 20:45	11/6/2018 2:30	345	1.05	2,191,770	2.90	0.57	6	Atlas		2,301,358	1
	11/14/2018 22:30	11/15/2018 1:30	180	0.48	1,028,029	0.50	0.22	12	Atlas		493,454	1
	12/1/2018 5:45	12/1/2018 16:15	630	1.42	2,128,256	1.53	0.62	12	Atlas		3,022,124	1
	12/15/2018 2:45	12/15/2018 15:15	750	1.76	2,034,595	1.76	0.73	12	Atlas		3,580,888	1
	12/27/2018 18:00	12/27/2018 19:15	75	0.35	565,589	0.65	0.20	1	Atlas		197,956	1
	12/31/2018 5:15	12/31/2018 19:30	855	1.29	1,160,894	1.65	0.50	24	Atlas		1,497,553	1
	1/4/2019 14:30	1/4/2019 16:45	135	0.62	327,989	1.75	0.28	12	Atlas		203,353	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/19/2019 6:45	1/19/2019 19:45	780	0.79	161.623	0.88	0.30	24	Atlas		127,682	1
	1/23/2019 10:15	1/23/2019 17:45	450	0.76	281.920	1.61	0.30	12	Atlas		214,259	1
	2/6/2019 7:30	2/6/2019 11:30	240	1.39	444.184	0.60	0.45	48	Atlas		617,416	1
	2/7/2019 5:30	2/7/2019 22:45	1,035	1.39	2,800.858	1.49	0.45	48	Atlas		3,893,193	1
	2/10/2019 19:30	2/13/2019 0:45	3,195	2.56	9,357.848	4.03	0.80	48	Atlas		23,956,092	1
	2/20/2019 3:00	2/20/2019 20:30	1,050	1.54	5,023.123	1.61	0.69	6	Atlas		7,735,610	1
	2/23/2019 17:15	2/24/2019 1:15	480	0.87	4,514.016	2.46	0.46	6	Atlas		3,927,194	1
	3/9/2019 13:45	3/9/2019 20:00	375	0.99	1,191.339	1.13	0.48	6	Atlas		1,179,426	1
	3/14/2019 6:00	3/14/2019 8:15	135	0.36	371.294	1.47	0.20	6	Atlas		133,666	1
	3/14/2019 17:30	3/14/2019 20:00	150	0.25	3,400.832	1.69	0.17	3	Atlas		850,208	1
	3/30/2019 16:00	3/30/2019 21:30	330	0.80	1,638.320	1.19	0.43	6	Atlas		1,310,656	1
	4/7/2019 6:15	4/7/2019 14:15	480	0.52	1,751.633	0.71	0.25	3	Atlas		910,849	1
	4/12/2019 6:15	4/12/2019 6:15	-	0.05	604.260	0.55	0.03	3	Atlas		30,213	1
	4/14/2019 1:15	4/14/2019 7:15	360	1.09	1,671.786	1.68	0.52	6	Atlas		1,822,247	1
	4/18/2019 23:00	4/18/2019 23:30	30	3.32	20.306	1.55	1.40	48	Cloudburst		67,416	1
	4/19/2019 18:45	4/20/2019 21:30	1,605	3.32	3,820.082	4.47	1.40	48	Cloudburst		12,682,672	1
	4/23/2019 18:15	4/23/2019 18:15	-	0.30	1,211.280	3.62	0.26	1	Atlas		363,384	1
	8/7/2019 4:45	8/7/2019 5:15	30	0.14	662.621	0.15	0.12	1	Atlas		92,767	1
	8/22/2019 3:15	8/22/2019 5:00	105	0.21	696.214	0.29	0.14	3	Atlas		146,205	1
	8/26/2019 11:15	8/26/2019 15:00	225	0.46	1,828.259	0.85	0.22	6	Atlas		840,999	1
	8/27/2019 17:15	8/27/2019 17:30	15	0.23	160.461	1.05	0.19	1	Atlas		36,906	1
	10/6/2019 15:15	10/6/2019 20:30	315	1.21	280.033	1.03	0.50	6	Atlas		338,840	1
	10/15/2019 23:00	10/15/2019 23:00	-	0.56	128.284	0.82	0.43	1	Atlas		71,839	1
	10/26/2019 19:45	10/26/2019 20:00	15	1.19	27.194	1.29	0.45	24	Atlas		32,361	1
	10/30/2019 14:00	10/30/2019 15:45	105	0.81	644.407	1.96	0.42	3	Atlas		521,970	1
	10/31/2019 6:30	10/31/2019 8:30	120	0.66	529.511	2.63	0.36	6	Atlas		349,477	1
	11/7/2019 8:00	11/7/2019 8:15	15	0.65	1.642	0.56	0.25	24	Atlas		1,067	1
	11/22/2019 6:15	11/22/2019 6:15	-	0.36	29.147	0.43	0.19	6	Atlas		10,493	1
	11/26/2019 22:00	11/27/2019 5:45	465	0.73	279.133	1.29	0.33	12	Atlas		203,767	1
	11/30/2019 3:15	11/30/2019 17:15	840	1.81	758.846	2.70	0.72	12	Atlas		1,373,511	1
	12/16/2019 2:00	12/16/2019 2:00	-	0.10	16.640	0.83	0.05	6	Atlas		1,664	1
	12/16/2019 14:30	12/16/2019 19:30	300	0.73	542.538	1.35	0.34	6	Atlas		396,053	1
	12/29/2019 19:45	12/30/2019 1:30	345	1.29	175.043	1.26	0.47	24	Atlas		225,805	1
	1/3/2020 18:30	1/3/2020 18:45	15	0.74	17.555	1.99	0.24	48	Atlas		12,991	1
	1/10/2020 19:45	1/10/2020 21:00	75	0.39	316.562	0.37	0.21	3	Atlas		123,459	1
	1/11/2020 11:15	1/11/2020 17:00	345	0.92	326.004	1.30	0.44	6	Atlas		299,924	1
	1/18/2020 11:15	1/18/2020 11:30	15	0.35	157.297	0.90	0.15	12	Atlas		55,054	1
	1/24/2020 7:00	1/24/2020 7:15	15	0.62	25.113	0.89	0.21	24	Atlas		15,570	1
	2/12/2020 17:30	2/12/2020 19:30	120	0.91	318.885	1.38	0.42	3	Atlas		290,185	1
	2/24/2020 20:00	2/24/2020 20:00	-	0.66	10.239	0.75	0.25	24	Atlas		6,758	1
	3/10/2020 8:30	3/10/2020 8:45	15	0.39	390.277	0.40	0.18	1	Atlas		152,208	1
	3/12/2020 17:30	3/12/2020 23:15	345	0.49	370.112	0.89	0.22	12	Atlas		181,355	1
	3/14/2020 13:00	3/14/2020 13:15	15	0.45	95.093	1.15	0.21	12	Atlas		42,792	1
	3/18/2020 14:30	3/18/2020 16:45	135	0.40	202.955	1.28	0.18	6	Atlas		81,182	1
	3/19/2020 12:15	3/19/2020 13:00	45	0.48	472.531	1.85	0.19	1	Atlas		226,815	1
	3/20/2020 4:00	3/20/2020 4:15	15	0.48	66.479	1.35	0.19	1	Atlas		31,910	1
	3/24/2020 19:00	3/24/2020 19:00	-	0.14	160.050	1.00	0.07	6	Atlas		22,407	1
	3/28/2020 22:45	3/28/2020 23:15	30	0.25	851.628	0.40	0.21	1	Atlas		212,907	1
	4/8/2020 22:45	4/8/2020 23:00	15	0.56	75.725	0.50	0.37	3	Atlas		42,406	1
	4/12/2020 17:00	4/13/2020 5:45	765	0.93	547.385	1.56	0.36	12	Atlas		509,068	1
	4/23/2020 8:00	4/23/2020 16:00	480	0.59	178.180	0.95	0.23	12	Atlas		105,126	1
	4/25/2020 17:15	4/25/2020 17:15	-	0.57	9.675	0.77	0.21	24	Atlas		5,515	1
	4/26/2020 6:45	4/26/2020 10:30	225	0.57	51.807	1.10	0.21	24	Atlas		29,530	1
	4/29/2020 11:15	4/29/2020 11:15	-	0.17	159.624	1.26	0.07	24	Atlas		27,136	1
	4/29/2020 21:45	4/29/2020 21:45	-	0.17	140.129	1.32	0.07	24	Atlas		23,822	1
	5/5/2020 6:45	5/5/2020 7:15	30	0.22	466.300	0.41	0.11	6	Atlas		102,586	1
	5/8/2020 9:00	5/8/2020 13:45	285	0.60	1,360.452	0.83	0.28	12	Atlas		816,271	1
	5/15/2020 23:30	5/16/2020 8:15	525	1.42	458.246	1.50	0.53	24	Atlas		650,709	1
	5/18/2020 7:45	5/18/2020 12:15	270	0.38	250.800	2.01	0.16	6	Atlas		95,304	1
	5/23/2020 17:15	5/23/2020 18:45	90	0.20	1,870.745	0.67	0.13	3	Atlas		374,149	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/29/2020 1:00	5/29/2020 1:00	-	0.22	45,141	0.97	0.10	12	Atlas		9,931	1
	6/4/2020 16:00	6/4/2020 21:00	300	0.50	563,778	0.69	0.24	6	Atlas		281,889	1
	6/21/2020 12:15	6/21/2020 12:30	15	0.60	54,455	0.50	0.34	1	Atlas		32,673	1
	6/22/2020 22:45	6/23/2020 0:45	120	0.95	285,048	1.52	0.47	3	Atlas		270,796	1
	6/23/2020 9:15	6/23/2020 9:15	-	0.95	8,788	1.62	0.47	3	Atlas		8,349	1
	6/27/2020 18:30	6/27/2020 18:45	15	0.34	82,515	1.81	0.22	1	Atlas		28,055	1
	6/29/2020 3:45	6/29/2020 8:00	255	0.78	187,095	2.07	0.50	3	Atlas		145,934	1
	CSO151 Total										**455,554,523**	**397**
CSO152	6/11/2009 17:45	6/11/2009 21:30	225	2.19	184,729	3.12	0.84	24	Atlas		404,556	1
	6/16/2009 9:30	6/16/2009 17:00	450	0.84	146,812	4.89	0.53	1	Atlas		123,322	1
	6/18/2009 10:15	6/18/2009 12:30	135	1.29	426,719	4.01	0.83	1	Atlas		550,468	1
	6/20/2009 4:15	6/20/2009 4:30	15	0.15	125,700	3.26	0.13	1	Atlas		18,855	1
	6/22/2009 9:00	6/22/2009 10:45	105	1.33	164,485	4.65	0.86	1	Atlas		218,765	1
	6/26/2009 3:15	6/26/2009 6:30	195	1.93	186,550	3.54	0.89	12	Atlas		360,042	1
	6/26/2009 16:15	6/26/2009 16:45	30	0.20	311,305	3.74	0.17	1	Atlas		62,261	1
	7/4/2009 16:00	7/4/2009 16:00	-	0.42	324	0.18	0.15	24	Atlas		136	1
	7/8/2009 6:30	7/8/2009 6:30	-	0.14	450,843	0.56	0.12	1	Atlas		63,118	1
	7/15/2009 10:45	7/15/2009 12:00	75	0.42	309,448	0.45	0.27	3	Atlas		129,968	1
	7/17/2009 3:45	7/17/2009 4:45	60	0.36	376,836	0.80	0.24	3	Atlas		135,661	1
	7/22/2009 6:15	7/22/2009 17:00	645	1.51	370,671	2.29	0.67	12	Atlas		559,713	1
	7/25/2009 6:30	7/25/2009 6:45	15	0.54	18,556	1.69	0.21	24	Atlas		10,020	1
	7/25/2009 15:00	7/25/2009 21:45	405	0.54	45,369	2.05	0.21	24	Atlas		24,499	1
	7/28/2009 23:45	7/29/2009 9:00	555	2.48	490,448	4.48	2.17	6	Cloudburst		1,216,310	1
	7/30/2009 11:30	7/30/2009 23:15	705	1.03	191,490	3.89	0.44	12	Atlas		197,235	1
	8/4/2009 7:45	8/4/2009 23:45	960	6.36	1,565,249	9.89					9,954,983	1
	8/10/2009 19:00	8/10/2009 21:00	120	1.09	403,406	7.39	0.69	3	Atlas		439,713	1
	8/20/2009 9:15	8/20/2009 9:45	30	0.39	109,367	0.43	0.26	3	Atlas		42,653	1
	9/6/2009 1:00	9/6/2009 1:30	30	0.19	602,095	0.18	0.13	3	Atlas		114,398	1
	9/20/2009 5:45	9/21/2009 1:00	1,155	3.51	689,868	3.51	3.68	24	Cloudburst		2,421,437	1
	9/22/2009 18:15	9/23/2009 0:15	360	0.67	1,068,696	4.21	0.34	6	Atlas		716,026	1
	9/24/2009 7:30	9/25/2009 5:45	1,335	0.78	651,831	4.97	0.27	24	Atlas		508,428	1
	9/26/2009 20:30	9/26/2009 21:30	60	0.40	501,755	5.41	0.32	1	Atlas		200,702	1
	10/2/2009 3:30	10/2/2009 7:15	225	0.75	1,090,651	1.24	0.47	3	Atlas		817,988	1
	10/6/2009 10:30	10/6/2009 11:30	60	0.10	883,050	0.85	0.07	1	Atlas		88,305	1
	10/8/2009 12:30	10/9/2009 12:45	1,455	1.99	1,011,092	2.68	0.66	24	Atlas		2,012,073	1
	10/9/2009 21:15	10/9/2009 22:15	60	1.99	33,732	2.09	0.66	24	Atlas		67,126	1
	10/14/2009 5:30	10/14/2009 7:30	120	0.61	931,062	2.60	0.40	3	Atlas		567,948	1
	10/15/2009 4:15	10/15/2009 5:30	75	0.17	1,633,965	2.72	0.11	3	Atlas		277,774	1
	10/23/2009 2:15	10/23/2009 10:30	495	0.59	888,971	0.61	0.26	12	Atlas		524,493	1
	10/27/2009 15:45	10/27/2009 23:30	465	1.11	852,439	1.70	0.50	12	Atlas		946,207	1
	10/30/2009 19:45	10/31/2009 5:30	585	1.04	1,584,674	2.13	0.47	12	Atlas		1,648,061	1
	11/17/2009 7:15	11/17/2009 21:30	855	0.94	736,120	0.91	0.36	24	Atlas		691,953	1
	12/2/2009 16:30	12/2/2009 16:45	15	0.32	42,544	0.49	0.15	12	Atlas		13,614	1
	12/8/2009 15:30	12/8/2009 23:15	465	1.67	1,502,901	1.92	0.70	12	Atlas		2,509,845	1
	12/13/2009 6:45	12/13/2009 7:30	45	0.31	2,489,942	2.04	0.20	3	Atlas		771,882	1
	12/19/2009 2:30	12/19/2009 3:30	60	0.38	698,547	0.42	0.13	24	Atlas		265,448	1
	12/25/2009 10:45	12/25/2009 11:30	45	0.29	882,666	0.67	0.10	24	Atlas		255,973	1
	12/31/2009 0:45	12/31/2009 1:15	30	0.07	2,303,886	0.53	0.05	3	Atlas		161,272	1
	1/20/2010 9:15	1/20/2010 12:45	210	0.43	3,608,774	0.69	0.22	6	Atlas		1,551,773	1
	1/20/2010 23:45	1/21/2010 0:30	45	0.98	779,116	0.83	0.39	12	Atlas		763,534	1
	1/21/2010 10:15	1/21/2010 19:30	555	0.98	5,185,086	1.67	0.39	12	Atlas		5,081,384	1
	1/24/2010 3:45	1/24/2010 9:30	345	0.90	3,662,698	2.17	0.35	24	Atlas		3,296,428	1
	1/24/2010 21:00	1/24/2010 23:30	150	0.90	1,810,513	2.31	0.35	24	Atlas		1,629,462	1
	2/5/2010 6:45	2/5/2010 20:15	810	1.13	3,687,738	1.03	0.41	24	Atlas		4,167,144	1
	3/12/2010 13:15	3/12/2010 14:45	90	0.27	3,105,189	0.27	0.17	3	Atlas		838,401	1
	3/21/2010 19:00	3/22/2010 1:30	390	0.57	3,294,182	0.57	0.26	12	Atlas		1,877,684	1
	3/25/2010 13:45	3/25/2010 22:15	510	0.66	1,213,038	1.22	0.43	1	Atlas		800,605	1
	4/7/2010 23:15	4/8/2010 6:30	435	1.10	7,615,489	1.18	0.52	6	Atlas		8,377,038	1
	4/24/2010 3:15	4/24/2010 3:15	-	1.78	47,564	0.34	0.85	6	Atlas		84,664	1
	4/24/2010 14:30	4/24/2010 20:30	360	1.78	4,644,340	2.02	0.85	6	Atlas		8,266,926	1
	4/27/2010 7:30	4/27/2010 10:45	195	0.35	5,064,820	2.53	0.17	6	Atlas		1,772,687	1
	5/1/2010 4:30	5/1/2010 16:45	735	4.40	809,843	3.57	4.45	48	Atlas		3,563,307	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/2/2010 1:15	5/2/2010 20:45	1,170	4.40	5,007,718	4.92	4.45	48	Atlas		22,033,961	1
	5/7/2010 23:00	5/7/2010 23:30	30	0.16	6,207,319	4.57	0.12	1	Atlas		993,171	1
	5/12/2010 9:45	5/12/2010 10:45	60	0.93	1,893,606	1.19	0.72	1	Atlas		1,761,064	1
	5/13/2010 12:30	5/13/2010 12:45	15	0.22	1,170,805	1.41	0.18	1	Atlas		257,577	1
	5/16/2010 9:30	5/16/2010 18:30	540	0.59	1,307,731	1.84	0.27	12	Atlas		771,561	1
	5/17/2010 19:30	5/17/2010 20:15	45	0.31	3,392,542	2.14	0.20	3	Atlas		1,051,688	1
	5/21/2010 19:45	5/21/2010 21:00	75	1.13	4,295,228	2.03	0.83	1	Atlas		4,853,608	1
	5/30/2010 16:30	5/30/2010 20:45	255	0.37	4,757,386	0.55	0.20	6	Atlas		1,760,233	1
	6/9/2010 3:30	6/9/2010 12:45	555	2.54	2,674,222	2.67	3.36	3	Atlas		6,792,523	1
	6/12/2010 1:15	6/12/2010 1:30	15	0.26	1,266,335	2.79	0.14	1	Atlas		329,247	1
	6/13/2010 22:45	6/14/2010 6:15	450	0.40	2,593,170	3.20	0.18	12	Atlas		1,037,268	1
	6/15/2010 20:45	6/15/2010 21:00	15	0.52	570,123	3.76	0.36	1	Atlas		296,464	1
	6/19/2010 5:00	6/19/2010 8:15	195	0.85	4,569,006	1.81	0.49	3	Atlas		3,883,655	1
	6/28/2010 1:30	6/28/2010 2:45	75	0.26	4,817,688	0.24	0.17	1	Atlas		1,252,599	1
	7/9/2010 8:45	7/9/2010 8:45	-	0.50	250	0.40	0.19	24	Atlas		125	1
	7/13/2010 4:00	7/13/2010 11:00	420	1.95	2,960,033	2.41	0.89	12	Atlas		5,772,064	1
	7/20/2010 4:30	7/20/2010 6:15	105	0.72	749,333	2.22	0.45	1	Atlas		539,520	1
	7/21/2010 5:45	7/21/2010 6:30	45	0.42	524,460	1.42	0.32	1	Atlas		220,273	1
	7/22/2010 14:30	7/22/2010 14:45	15	0.19	551,284	1.63	0.17	1	Atlas		104,744	1
	7/27/2010 16:00	7/27/2010 16:45	45	0.89	621,834	1.48	0.58	3	Atlas		553,432	1
	7/28/2010 16:15	7/28/2010 16:30	15	0.15	1,505,433	1.21	0.09	1	Atlas		225,815	1
	7/31/2010 4:15	7/31/2010 6:15	120	0.49	2,844,416	1.53	0.29	3	Atlas		1,393,764	1
	7/31/2010 20:45	7/31/2010 21:15	30	0.22	1,850,891	1.75	0.19	1	Atlas		407,196	1
	8/5/2010 9:00	8/5/2010 9:45	45	0.23	3,408,243	0.92	0.18	1	Atlas		783,896	1
	8/11/2010 17:15	8/11/2010 17:30	15	0.10	1,609,550	0.33	0.08	1	Atlas		160,955	1
	8/12/2010 14:45	8/12/2010 15:00	15	0.05	4,717,480	0.14	0.03	1	Atlas		235,874	1
	8/14/2010 16:15	8/14/2010 17:15	60	0.58	886,436	1.00	0.48	1	Atlas		514,133	1
	8/21/2010 6:45	8/21/2010 9:00	135	0.55	3,081,718	1.17	0.34	3	Atlas		1,694,945	1
	9/7/2010 9:30	9/7/2010 9:45	15	0.15	965,980	0.15	0.13	1	Atlas		144,897	1
	10/13/2010 18:15	10/13/2010 21:00	165	0.42	5,051,355	0.46	0.28	3	Atlas		2,121,569	1
	10/26/2010 11:00	10/26/2010 14:45	225	0.57	1,658,789	0.49	0.31	6	Atlas		945,510	1
	11/16/2010 10:45	11/16/2010 20:30	585	0.77	4,876,797	0.88	0.35	12	Atlas		3,755,134	1
	11/23/2010 2:00	11/23/2010 4:30	150	0.22	2,857,986	1.05	0.13	3	Atlas		628,757	1
	2/7/2011 23:15	2/7/2011 23:45	30	0.25	91,672	1.37	0.10	24	Atlas		22,918	1
	2/21/2011 18:15	2/21/2011 19:00	45	0.15	223,313	0.18	0.09	3	Atlas		33,497	1
	2/24/2011 8:00	2/24/2011 8:00	-	2.21	6,123	0.36	0.85	12	Atlas		13,532	1
	2/24/2011 16:45	2/25/2011 5:00	735	2.21	4,023,219	2.40	0.85	12	Atlas		8,891,315	1
	2/28/2011 5:00	2/28/2011 12:30	450	1.31	1,406,275	3.80	0.62	6	Atlas		1,842,220	1
	3/5/2011 4:30	3/5/2011 19:00	870	0.92	1,419,096	2.34	0.30	24	Atlas		1,305,568	1
	3/8/2011 22:45	3/9/2011 20:30	1,305	3.02	2,892,878	3.97	1.82	24	Cloudburst		8,736,491	1
	3/14/2011 3:45	3/14/2011 5:00	75	0.93	535,069	3.42	0.30	48	Atlas		497,614	1
	3/14/2011 13:15	3/14/2011 21:15	480	0.93	514,326	3.81	0.30	48	Atlas		478,323	1
	3/15/2011 7:15	3/15/2011 15:45	510	0.93	783,392	3.99	0.30	48	Atlas		728,555	1
	4/1/2011 20:30	4/3/2011 1:15	1,725	0.12	20,529,858	0.30	0.07	1	Atlas		2,463,583	1
	4/4/2011 13:15	4/4/2011 17:15	240	0.90	1,280,943	1.06	0.46	6	Atlas		1,152,849	1
	4/9/2011 10:45	4/9/2011 12:15	90	0.55	988,211	1.50	0.38	1	Atlas		543,516	1
	4/11/2011 10:15	4/12/2011 12:00	1,545	3.24	2,318,563	4.71	2.60	24	Cloudburst		7,512,144	1
	4/15/2011 12:30	4/15/2011 13:45	75	0.19	1,536,126	3.98	0.12	3	Atlas		291,864	1
	4/15/2011 22:45	4/15/2011 23:00	15	0.20	262,040	4.08	0.09	12	Atlas		52,408	1
	4/20/2011 0:15	4/20/2011 5:00	285	0.78	2,027,028	1.24	0.43	6	Atlas		1,581,082	1
	4/22/2011 16:30	4/25/2011 8:00	3,810	4.82	1,686,526	5.78	3.38	48	Atlas		8,129,053	1
	4/25/2011 17:15	4/25/2011 17:30	15	4.82	5,033	5.60	3.38	48	Atlas		24,259	1
	4/26/2011 10:00	4/26/2011 10:15	15	0.05	827,140	5.70	0.03	3	Atlas		41,357	1
	4/27/2011 1:00	4/28/2011 8:00	1,860	2.70	2,584,774	8.12	1.22	24	Cloudburst		6,978,891	1
	4/28/2011 17:45	4/28/2011 20:45	180	0.18	2,567,789	7.75	0.12	3	Atlas		462,202	1
	5/1/2011 4:00	5/1/2011 7:00	180	0.73	1,953,141	4.92	0.39	3	Atlas		1,425,793	1
	5/1/2011 19:00	5/2/2011 8:15	795	2.75	654,217	4.98	0.89	48	Atlas		1,799,097	1
	5/2/2011 16:45	5/3/2011 18:15	1,530	2.75	1,834,207	6.50	0.89	48	Atlas		5,044,070	1
	5/8/2011 0:45	5/8/2011 2:15	90	0.32	1,086,697	3.73	0.21	1	Atlas		347,743	1
	5/14/2011 14:45	5/14/2011 15:30	45	0.25	1,295,368	0.59	0.17	1	Atlas		323,842	1
	5/15/2011 12:30	5/15/2011 13:00	30	0.27	153,241	0.41	0.16	3	Atlas		41,375	1
	5/21/2011 18:15	5/21/2011 19:45	90	0.45	422,229	0.85	0.32	1	Atlas		190,003	1
	5/23/2011 4:15	5/23/2011 5:15	60	0.42	449,574	1.00	0.32	1	Atlas		188,821	1
	5/23/2011 18:00	5/23/2011 21:30	210	0.73	2,004,297	1.74	0.46	3	Atlas		1,463,137	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/25/2011 22:45	5/26/2011 3:30	285	1.56	895.153	2.76	0.65	3	Atlas		1,396,439	1
	5/26/2011 11:45	5/26/2011 17:00	315	1.56	107.361	3.22	0.65	3	Atlas		167,483	1
	6/11/2011 4:30	6/11/2011 5:15	45	0.33	621.945	0.36	0.28	1	Atlas		205,242	1
	6/15/2011 9:30	6/15/2011 11:00	90	1.03	1,054.187	1.41	0.61	3	Atlas		1,085,813	1
	6/18/2011 6:15	6/18/2011 9:00	165	0.84	1,326.417	1.91	0.52	3	Atlas		1,114,190	1
	6/19/2011 8:00	6/19/2011 9:45	105	0.52	944.988	2.41	0.31	3	Atlas		491,394	1
	6/20/2011 1:45	6/20/2011 2:30	45	0.46	637.526	2.87	0.39	1	Atlas		293,262	1
	7/8/2011 3:00	7/8/2011 5:00	120	0.46	661.972	0.74	0.24	3	Atlas		304,507	1
	7/12/2011 17:15	7/12/2011 21:15	240	0.55	620.662	1.14	0.29	6	Atlas		341,364	1
	7/19/2011 22:45	7/20/2011 0:00	75	1.51	544.720	1.58	1.26	1	Atlas		822,527	1
	7/30/2011 21:15	7/30/2011 21:30	15	0.33	292.430	0.45	0.25	1	Atlas		96,502	1
	8/7/2011 3:15	8/7/2011 7:00	225	1.82	1,423.936	1.85	1.47	3	Atlas		2,591,564	1
	8/10/2011 2:45	8/10/2011 3:00	15	0.18	902.794	2.15	0.11	3	Atlas		162,503	1
	8/13/2011 17:00	8/13/2011 18:00	60	0.87	811.462	3.01	0.69	1	Atlas		705,972	1
	8/18/2011 8:15	8/18/2011 8:45	30	0.24	682.075	1.10	0.19	1	Atlas		163,698	1
	9/4/2011 20:45	9/4/2011 21:00	15	0.12	534.500	0.09	0.05	24	Atlas		64,140	1
	9/10/2011 20:00	9/10/2011 20:15	15	0.07	1,786.071	0.40	0.05	3	Atlas		125,025	1
	9/11/2011 20:45	9/11/2011 20:45	-	0.22	136.786	0.54	0.14	3	Atlas		30,093	1
	9/19/2011 7:00	9/19/2011 8:00	60	0.69	574.651	0.60	0.28	12	Atlas		396,509	1
	9/23/2011 2:15	9/23/2011 8:15	360	0.76	1,627.575	1.48	0.35	12	Atlas		1,236,957	1
	9/25/2011 19:45	9/26/2011 6:45	660	3.71	1,314.886	5.31	9.71	12	Cloudburst		4,878,227	1
	10/13/2011 7:15	10/13/2011 8:30	75	0.39	945.213	0.25	0.18	3	Atlas		368,633	1
	10/20/2011 6:30	10/20/2011 6:45	15	0.47	22.364	0.94	0.18	24	Atlas		10,511	1
	10/26/2011 23:45	10/27/2011 5:15	330	1.20	838.931	1.56	0.50	12	Atlas		1,006,717	1
	11/3/2011 9:15	11/3/2011 16:45	450	0.52	899.946	0.55	0.23	3	Atlas		467,972	1
	11/14/2011 21:30	11/15/2011 15:00	1,050	2.22	728.704	1.55	0.72	48	Atlas		1,617,723	1
	11/16/2011 5:00	11/16/2011 11:30	390	2.22	391.949	2.22	0.72	48	Atlas		870,126	1
	11/20/2011 12:30	11/21/2011 10:45	1,335	0.96	581.102	3.19	0.33	24	Atlas		557,858	1
	11/21/2011 23:45	11/22/2011 11:30	705	1.25	1,821.702	3.99	0.53	12	Atlas		2,277,127	1
	11/27/2011 5:45	11/29/2011 3:00	2,715	3.11	2,253.885	5.24	0.97	48	Atlas		7,009,582	1
	11/29/2011 19:00	11/29/2011 19:30	30	0.06	820.867	3.17	0.04	3	Atlas		49,252	1
	12/4/2011 15:45	12/5/2011 22:30	1,845	2.92	3,586.168	5.47	0.95	48	Atlas		10,471,610	1
	12/15/2011 3:45	12/15/2011 8:45	300	0.42	1,144.071	0.42	0.22	6	Atlas		480,510	1
	12/21/2011 5:00	12/21/2011 7:30	150	0.60	1,673.642	1.04	0.28	12	Atlas		1,004,185	1
	12/22/2011 11:30	12/22/2011 18:00	390	0.60	1,817.758	1.18	0.27	12	Atlas		1,090,655	1
	12/27/2011 2:15	12/27/2011 12:00	585	0.71	2,279.915	1.86	0.28	12	Atlas		1,618,740	1
	1/11/2012 4:30	1/11/2012 11:15	405	0.75	2,370.783	0.63	0.29	6	Atlas		1,778,087	1
	1/11/2012 20:00	1/11/2012 21:00	60	0.75	155.764	0.75	0.29	6	Atlas		116,823	1
	1/17/2012 3:45	1/17/2012 12:45	540	0.32	2,869.872	1.16	0.14	12	Atlas		918,359	1
	1/22/2012 22:30	1/23/2012 5:00	390	0.55	2,710.915	0.87	0.29	3	Atlas		1,491,003	1
	1/25/2012 15:45	1/25/2012 19:15	210	1.65	130.433	0.84	0.54	48	Atlas		215,214	1
	1/26/2012 5:15	1/26/2012 7:00	105	1.65	561.077	1.21	0.54	48	Atlas		925,777	1
	1/26/2012 17:30	1/27/2012 1:45	495	1.65	2,484.773	2.21	0.54	48	Atlas		4,099,876	1
	2/4/2012 9:00	2/4/2012 12:00	180	0.42	1,080.024	0.47	0.25	3	Atlas		453,610	1
	2/15/2012 23:45	2/15/2012 23:45	-	0.31	18.394	0.39	0.13	12	Atlas		5,702	1
	2/22/2012 22:45	2/22/2012 23:30	45	0.14	2,741.671	0.41	0.10	1	Atlas		383,834	1
	2/29/2012 5:45	2/29/2012 9:15	210	0.58	924.628	0.71	0.27	12	Atlas		536,284	1
	3/8/2012 9:45	3/8/2012 17:15	450	0.79	2,115.077	1.12	0.37	6	Atlas		1,670,911	1
	3/12/2012 7:30	3/12/2012 7:30	-	0.19	129.963	0.95	0.08	12	Atlas		24,693	1
	3/15/2012 18:45	3/16/2012 3:15	510	1.06	2,131.111	1.28	0.47	12	Atlas		2,258,978	1
	3/17/2012 18:30	3/17/2012 22:30	240	1.03	984.273	2.25	0.58	1	Atlas		1,013,801	1
	3/23/2012 4:45	3/23/2012 23:15	1,110	1.52	1,098.497	2.56	0.57	24	Atlas		1,669,716	1
	3/30/2012 23:45	3/31/2012 0:15	30	0.14	931.129	0.17	0.09	1	Atlas		130,358	1
	4/1/2012 8:15	4/1/2012 11:30	195	1.85	448.450	2.02	1.08	6	Cloudburst		829,632	1
	4/4/2012 16:30	4/4/2012 17:30	60	0.28	518.271	2.10	0.12	12	Atlas		145,116	1
	4/16/2012 6:45	4/16/2012 7:15	30	0.14	426.664	0.28	0.09	3	Atlas		59,733	1
	4/28/2012 19:15	4/29/2012 0:45	330	0.76	838.945	0.89	0.57	1	Atlas		637,598	1
	4/30/2012 18:15	4/30/2012 18:45	30	0.27	1,039.007	1.11	0.18	3	Atlas		280,532	1
	5/4/2012 23:45	5/5/2012 5:15	330	1.40	1,329.190	2.44	0.72	6	Atlas		1,860,866	1
	5/13/2012 0:15	5/13/2012 15:15	900	2.11	2,637.197	2.15	0.86	12	Atlas		5,564,485	1
	5/16/2012 18:00	5/16/2012 18:30	30	0.21	1,709.190	2.33	0.18	1	Atlas		358,930	1
	5/29/2012 6:45	5/29/2012 13:45	420	2.97	1,019.489	2.97	17.65	3	Atlas		3,027,881	1
	5/31/2012 18:30	6/1/2012 5:45	675	1.20	1,473.808	4.13	0.52	12	Atlas		1,768,570	1
	6/17/2012 12:00	6/17/2012 12:15	15	0.22	390.914	0.20	0.14	3	Atlas		86,001	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/1/2012 20:00	7/1/2012 20:30	30	0.46	1,013,654	0.39	0.33	1	Atlas		466,281	1
	7/8/2012 13:15	7/8/2012 14:00	45	0.16	2,637,638	0.64	0.11	1	Atlas		422,022	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.85	607,669	1.38	0.68	1	Atlas		516,519	1
	7/24/2012 20:15	7/24/2012 20:30	15	0.26	1,002,612	1.15	0.22	1	Atlas		260,679	1
	7/26/2012 21:45	7/27/2012 3:45	360	0.08	2,214,588	0.40	0.04	12	Atlas		177,167	1
	7/27/2012 20:00	7/27/2012 21:15	75	0.61	781,851	0.96	0.43	1	Atlas		476,929	1
	8/3/2012 9:30	8/3/2012 10:45	75	0.25	861,852	0.87	0.12	3	Atlas		215,463	1
	8/16/2012 20:15	8/16/2012 23:45	210	0.66	1,751,174	0.78	0.38	3	Atlas		1,155,775	1
	8/21/2012 14:00	8/21/2012 14:30	30	0.21	698,957	0.88	0.18	1	Atlas		146,781	1
	9/1/2012 15:30	9/1/2012 18:00	150	0.58	468,002	0.61	0.37	3	Atlas		271,441	1
	9/2/2012 12:00	9/2/2012 22:15	615	0.74	1,663,512	1.35	0.28	24	Atlas		1,230,999	1
	9/3/2012 14:30	9/3/2012 15:00	30	0.06	1,180,400	1.41	0.05	1	Atlas		70,824	1
	9/5/2012 15:30	9/5/2012 17:15	105	0.67	650,764	2.07	0.52	1	Atlas		436,012	1
	9/7/2012 23:30	9/8/2012 7:15	465	1.27	1,258,678	3.31	0.69	3	Atlas		1,598,521	1
	9/25/2012 9:15	9/25/2012 10:30	75	0.39	532,446	0.36	0.21	6	Atlas		207,654	1
	9/25/2012 23:45	9/26/2012 6:00	375	0.43	721,267	0.78	0.20	6	Atlas		310,145	1
	9/26/2012 21:00	9/27/2012 0:45	225	1.18	705,284	1.97	0.67	3	Atlas		832,235	1
	10/1/2012 14:30	10/1/2012 19:30	300	0.78	1,480,576	2.77	0.32	12	Atlas		1,154,849	1
	10/6/2012 0:15	10/6/2012 1:00	45	0.09	1,565,900	0.85	0.05	6	Atlas		140,931	1
	10/18/2012 1:15	10/18/2012 2:15	60	0.27	863,778	0.40	0.17	3	Atlas		233,220	1
	10/26/2012 11:30	10/26/2012 17:45	375	0.79	1,007,051	0.74	0.36	6	Atlas		795,570	1
	11/3/2012 16:15	11/3/2012 16:30	15	0.17	403,706	0.18	0.08	12	Atlas		68,630	1
	11/12/2012 6:45	11/12/2012 10:00	195	0.48	459,846	0.50	0.22	12	Atlas		220,726	1
	12/4/2012 15:15	12/4/2012 19:00	225	0.58	2,157,788	0.78	0.38	3	Atlas		1,251,517	1
	12/7/2012 2:00	12/7/2012 18:15	975	1.35	2,904,317	2.13	0.57	12	Atlas		3,920,828	1
	12/8/2012 5:45	12/8/2012 10:15	270	0.69	1,523,038	2.82	0.38	3	Atlas		1,050,896	1
	12/9/2012 8:45	12/9/2012 9:15	30	1.13	201,158	2.92	0.53	3	Atlas		227,309	1
	12/9/2012 21:00	12/10/2012 1:15	255	1.13	2,083,024	3.66	0.53	3	Atlas		2,353,817	1
	12/15/2012 11:15	12/15/2012 12:30	75	0.19	2,811,811	1.32	0.11	3	Atlas		534,244	1
	12/17/2012 17:00	12/17/2012 17:15	15	0.15	475,287	0.34	0.07	3	Atlas		71,293	1
	12/20/2012 6:30	12/20/2012 12:45	375	0.65	3,440,800	0.99	0.36	6	Atlas		2,236,520	1
	12/26/2012 3:45	12/26/2012 11:30	465	0.74	2,785,786	1.40	0.29	12	Atlas		2,061,482	1
	1/10/2013 14:45	1/10/2013 15:00	15	0.85	183,242	0.18	0.37	6	Atlas		155,756	1
	1/11/2013 5:30	1/11/2013 8:00	150	0.85	1,505,162	0.87	0.37	6	Atlas		1,279,388	1
	1/12/2013 21:00	1/13/2013 20:45	1,425	2.32	2,283,059	3.17	0.89	24	Atlas		5,296,698	1
	1/28/2013 11:00	1/28/2013 17:30	390	0.06	8,438,467	0.33	0.04	1	Atlas		506,308	1
	1/30/2013 5:00	1/30/2013 9:30	270	0.89	2,051,592	1.14	0.44	6	Atlas		1,825,917	1
	1/30/2013 17:45	1/30/2013 18:00	15	0.89	43,902	1.22	0.44	6	Atlas		39,073	1
	2/4/2013 18:00	2/4/2013 18:30	30	0.10	1,431,550	1.09	0.06	3	Atlas		143,155	1
	2/10/2013 15:45	2/10/2013 16:15	30	0.16	1,015,344	0.34	0.08	3	Atlas		162,455	1
	2/19/2013 3:45	2/19/2013 5:00	75	0.38	806,595	0.43	0.17	12	Atlas		306,506	1
	2/22/2013 0:00	2/22/2013 1:30	90	0.42	2,012,198	0.79	0.19	12	Atlas		845,123	1
	2/26/2013 5:45	2/26/2013 19:45	840	0.55	1,915,342	0.95	0.21	24	Atlas		1,053,438	1
	3/5/2013 16:00	3/5/2013 18:45	165	0.43	2,091,909	0.56	0.17	24	Atlas		899,521	1
	3/11/2013 3:15	3/11/2013 12:45	570	0.99	3,464,981	1.44	0.39	12	Atlas		3,430,331	1
	3/17/2013 7:00	3/18/2013 8:30	1,530	1.79	2,046,315	2.72	0.58	48	Atlas		3,662,904	1
	3/24/2013 7:45	3/24/2013 17:00	555	0.50	685,244	1.79	0.18	24	Atlas		342,622	1
	4/11/2013 5:15	4/12/2013 1:15	1,200	1.19	799,876	1.18	0.46	24	Atlas		951,852	1
	4/16/2013 20:00	4/16/2013 21:00	60	0.63	272,002	1.79	0.52	1	Atlas		171,361	1
	4/19/2013 1:15	4/19/2013 5:00	225	0.93	1,058,502	1.58	0.51	6	Atlas		984,407	1
	4/24/2013 6:15	4/24/2013 10:15	240	0.72	1,618,917	1.68	0.41	3	Atlas		1,165,620	1
	4/28/2013 8:45	4/28/2013 9:00	15	0.07	1,150,486	0.81	0.03	6	Atlas		80,534	1
	5/3/2013 18:45	5/3/2013 18:45	-	0.10	256,040	0.17	0.08	1	Atlas		25,604	1
	5/4/2013 12:15	5/5/2013 8:45	1,230	1.50	888,230	1.38	0.46	24	Atlas		1,332,345	1
	5/6/2013 17:15	5/6/2013 17:30	15	1.50	66,520	1.58	0.46	24	Atlas		99,780	1
	5/10/2013 10:00	5/11/2013 0:45	885	1.00	1,018,616	2.61	0.44	6	Atlas		1,018,616	1
	5/16/2013 10:15	5/16/2013 10:30	15	0.41	279,215	1.46	0.36	1	Atlas		114,478	1
	5/22/2013 16:00	5/22/2013 16:15	15	0.17	405,635	0.57	0.11	3	Atlas		68,958	1
	5/31/2013 18:15	5/31/2013 18:30	15	0.20	656,230	0.26	0.09	6	Atlas		131,246	1
	6/10/2013 0:00	6/10/2013 0:45	45	0.34	861,124	0.27	0.16	6	Atlas		292,782	1
	6/17/2013 16:15	6/17/2013 22:15	360	0.99	1,586,408	1.22	0.51	6	Atlas		1,570,544	1
	6/26/2013 3:30	6/26/2013 5:45	135	0.73	1,323,541	1.54	0.49	3	Atlas		966,185	1
	6/26/2013 16:30	6/27/2013 0:30	480	2.43	2,739,230	3.97	2.66	1	Atlas		6,656,329	1
	6/29/2013 20:00	6/29/2013 22:45	165	0.47	1,913,826	4.00	0.26	3	Atlas		899,498	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/1/2013 19:15	7/1/2013 19:45	30	0.30	732.217	3.96	0.14	3	Atlas		219.665	1
	7/2/2013 13:45	7/2/2013 14:00	15	0.10	1.925.110	4.06	0.09	1	Atlas		192.511	1
	7/3/2013 18:45	7/3/2013 19:00	15	0.07	1.838.700	1.79	0.05	3	Atlas		128.709	1
	7/4/2013 7:15	7/4/2013 14:15	420	0.56	847.086	1.40	0.24	12	Atlas		474.368	1
	7/6/2013 1:15	7/6/2013 8:30	435	0.62	2.779.603	2.13	0.27	12	Atlas		1.723.354	1
	7/10/2013 13:00	7/10/2013 15:30	150	0.66	2.023.318	1.98	0.43	1	Atlas		1.335.390	1
	7/14/2013 20:00	7/14/2013 20:15	15	0.12	2.665.925	0.86	0.10	1	Atlas		319.911	1
	7/18/2013 16:30	7/18/2013 17:15	45	0.21	2.177.562	0.35	0.14	3	Atlas		457.288	1
	7/21/2013 19:45	7/21/2013 21:15	90	2.92	376.207	2.05	2.21	3	Atlas		1.098.525	1
	7/22/2013 7:15	7/22/2013 17:00	585	2.92	1.098.292	3.14	2.21	3	Atlas		3.207.013	1
	8/9/2013 18:00	8/9/2013 18:00	-	0.22	119.950	0.26	0.13	1	Atlas		26.389	1
	8/12/2013 15:00	8/12/2013 15:45	45	0.85	2.067.753	0.89	0.40	1	Atlas		1.757.590	1
	8/13/2013 3:15	8/13/2013 4:00	45	0.85	422.855	1.20	0.40	1	Atlas		359.427	1
	8/20/2013 18:15	8/20/2013 19:00	45	0.25	2.265.720	0.26	0.16	1	Atlas		566.430	1
	8/31/2013 20:15	9/1/2013 4:00	465	1.13	941.742	1.10	0.52	6	Atlas		1.064.169	1
	9/2/2013 14:00	9/2/2013 15:00	60	0.56	960.036	1.69	0.49	1	Atlas		537.620	1
	9/11/2013 10:30	9/11/2013 11:00	30	0.04	1.860.400	0.04	0.03	1	Atlas		74.416	1
	9/20/2013 16:45	9/21/2013 5:45	780	1.26	2.120.913	1.32	0.52	12	Atlas		2.672.350	1
	10/4/2013 19:15	10/4/2013 19:45	30	0.10	710.130	0.17	0.09	1	Atlas		71.013	1
	10/5/2013 12:45	10/6/2013 18:30	1.785	4.59	2.345.049	4.76	10.90	24	Cloudburst		10.763.774	1
	10/30/2013 1:45	10/30/2013 7:30	345	1.48	1.412.702	1.48	0.77	1	Atlas		2.090.799	1
	10/31/2013 20:00	10/31/2013 22:45	165	0.59	1.120.798	2.06	0.23	12	Atlas		661.271	1
	11/15/2013 18:45	11/15/2013 18:45	-	0.11	231.609	0.16	0.10	1	Atlas		25.477	1
	11/17/2013 5:15	11/17/2013 20:30	915	2.53	1.047.748	2.69	1.64	6	Cloudburst		2.650.803	1
	12/5/2013 5:45	12/5/2013 10:45	300	0.72	894.111	0.21	0.23	48	Atlas		643.760	1
	12/6/2013 4:00	12/6/2013 13:00	540	0.72	215.072	0.42	0.23	48	Atlas		154.852	1
	12/14/2013 7:30	12/14/2013 12:15	285	0.85	939.146	1.14	0.36	6	Atlas		798.274	1
	12/21/2013 5:30	12/22/2013 6:15	1.485	2.40	2.638.763	2.96	0.90	24	Atlas		6.333.032	1
	12/29/2013 3:00	12/29/2013 7:15	255	0.51	913.008	0.48	0.22	12	Atlas		465.634	1
	1/5/2014 15:15	1/5/2014 20:30	315	0.48	2.410.781	0.70	0.24	6	Atlas		1.157.175	1
	1/11/2014 0:30	1/11/2014 6:00	330	0.99	3.421.402	1.48	0.53	6	Atlas		3.387.188	1
	1/13/2014 15:00	1/13/2014 16:15	75	0.20	714.020	1.14	0.09	12	Atlas		142.804	1
	2/2/2014 4:15	2/2/2014 8:00	225	0.20	4.048.185	0.20	0.10	6	Atlas		809.637	1
	2/4/2014 19:00	2/5/2014 3:30	510	0.51	9.018.608	0.96	0.24	6	Atlas		4.599.490	1
	2/14/2014 16:45	2/14/2014 19:00	135	0.50	1.119.530	0.52	0.26	6	Atlas		559.765	1
	2/17/2014 15:15	2/17/2014 19:00	225	0.51	1.680.625	1.07	0.31	3	Atlas		857.119	1
	2/20/2014 20:45	2/21/2014 0:15	210	0.20	1.285.290	1.27	0.11	6	Atlas		257.058	1
	3/2/2014 9:45	3/2/2014 12:00	135	0.61	1.615.461	0.32	0.23	24	Atlas		985.431	1
	3/12/2014 7:45	3/12/2014 7:45	-	0.08	332.313	0.07	0.04	1	Atlas		26.585	1
	3/28/2014 4:45	3/28/2014 5:30	45	0.26	1.271.685	0.31	0.12	6	Atlas		330.638	1
	3/29/2014 6:45	3/29/2014 13:45	420	1.00	1.357.244	1.31	0.46	12	Atlas		1.357.244	1
	4/3/2014 12:15	4/4/2014 10:00	1.305	2.65	2.954.331	4.02	0.93	24	Atlas		7.828.978	1
	4/7/2014 8:15	4/7/2014 16:15	480	0.73	2.128.605	3.49	0.43	1	Atlas		1.563.882	1
	4/14/2014 3:45	4/14/2014 11:00	435	0.38	836.758	1.15	0.19	6	Atlas		317.968	1
	4/14/2014 19:45	4/15/2014 3:15	450	0.63	3.098.314	1.05	0.29	12	Atlas		1.951.938	1
	4/27/2014 20:30	4/28/2014 8:45	735	1.77	682.325	1.47	0.71	3	Atlas		1.207.716	1
	4/28/2014 17:00	4/28/2014 20:45	225	1.77	291.853	1.86	0.71	3	Atlas		516.580	1
	5/9/2014 19:45	5/10/2014 16:15	1.230	1.60	1.144.951	1.60	0.58	24	Atlas		1.831.921	1
	5/14/2014 7:30	5/15/2014 1:15	1.065	1.11	2.022.319	2.76	0.43	24	Atlas		2.244.774	1
	5/21/2014 21:15	5/22/2014 4:45	450	0.45	2.304.618	0.60	0.23	1	Atlas		1.037.078	1
	5/28/2014 20:45	5/28/2014 21:00	15	0.21	1.290.290	0.63	0.17	1	Atlas		270.961	1
	5/29/2014 21:00	5/29/2014 22:30	90	0.85	1.666.409	1.09	0.70	1	Atlas		1.416.448	1
	6/11/2014 14:30	6/11/2014 15:15	45	0.11	3.488.255	0.31	0.06	1	Atlas		383.708	1
	6/20/2014 16:15	6/20/2014 18:15	120	0.24	1.859.013	0.24	0.16	3	Atlas		446.163	1
	6/24/2014 13:45	6/24/2014 14:15	30	0.24	720.288	0.52	0.17	1	Atlas		172.869	1
	7/2/2014 16:45	7/2/2014 17:15	30	0.11	2.105.036	0.37	0.10	1	Atlas		231.554	1
	7/7/2014 20:00	7/7/2014 20:15	15	0.80	221.593	1.09	0.70	1	Atlas		177.274	1
	7/13/2014 22:15	7/14/2014 0:15	120	0.76	798.775	1.83	0.40	3	Atlas		607.069	1
	7/14/2014 20:30	7/14/2014 20:45	15	0.13	1.458.100	1.32	0.10	1	Atlas		189.553	1
	7/26/2014 22:00	7/27/2014 9:45	705	1.19	1.435.066	1.22	0.54	12	Atlas		1.707.728	1
	8/8/2014 6:00	8/8/2014 8:15	135	0.98	1.157.088	0.76	0.45	6	Atlas		1.133.946	1
	8/9/2014 4:15	8/9/2014 4:15	-	0.06	408.967	1.01	0.03	1	Atlas		24.538	1
	8/10/2014 4:00	8/10/2014 4:45	45	0.41	571.863	1.45	0.34	1	Atlas		234.464	1
	8/11/2014 15:30	8/11/2014 16:15	45	0.44	637.866	1.85	0.35	1	Atlas		280.661	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/17/2014 0:45	8/17/2014 0:45	-	0.71	1.282	1.16	0.27	24	Atlas		910	1
	8/17/2014 9:45	8/17/2014 10:30	45	0.71	457.621	1.04	0.27	24	Atlas		324,911	1
	8/22/2014 19:45	8/22/2014 20:00	15	0.42	335.902	1.11	0.30	1	Atlas		141,079	1
	8/23/2014 16:00	8/23/2014 22:15	375	0.59	1,042.539	1.72	0.27	12	Atlas		615,098	1
	8/27/2014 15:15	8/27/2014 17:45	150	0.26	2,079.965	1.35	0.17	3	Atlas		540,791	1
	8/30/2014 15:30	8/30/2014 16:30	60	0.53	1,291.996	1.23	0.32	1	Atlas		684,758	1
	9/2/2014 8:30	9/2/2014 9:30	60	0.36	898.003	1.16	0.22	3	Atlas		323,281	1
	9/11/2014 0:45	9/11/2014 7:00	375	1.92	500.185	1.88	1.43	3	Atlas		960,355	1
	10/3/2014 19:30	10/3/2014 19:30	-	0.19	244.789	0.18	0.07	24	Atlas		46,510	1
	10/6/2014 10:00	10/6/2014 10:15	15	0.31	368.474	0.46	0.18	1	Atlas		114,227	1
	10/7/2014 12:00	10/7/2014 12:30	30	0.16	517.950	0.67	0.14	1	Atlas		82,872	1
	10/10/2014 2:45	10/10/2014 3:45	60	0.93	582.268	1.27	0.39	3	Atlas		541,509	1
	10/10/2014 17:45	10/10/2014 21:45	240	0.93	100.835	1.51	0.39	3	Atlas		93,777	1
	10/13/2014 4:45	10/13/2014 7:15	150	0.42	1,899.086	1.85	0.27	3	Atlas		797,616	1
	10/13/2014 23:45	10/14/2014 10:45	660	1.10	1,662.101	2.65	0.49	12	Atlas		1,828,311	1
	11/23/2014 14:45	11/23/2014 20:45	360	0.71	2,181.313	1.05	0.33	6	Atlas		1,548,732	1
	12/1/2014 3:30	12/1/2014 6:00	150	0.79	1,517.484	0.40	0.30	24	Atlas		1,198,812	1
	12/1/2014 15:00	12/1/2014 16:15	75	0.79	334.901	0.73	0.30	24	Atlas		264,572	1
	12/5/2014 5:00	12/5/2014 7:15	135	1.84	210.944	1.23	0.59	48	Atlas		388,137	1
	12/5/2014 20:45	12/6/2014 7:45	660	1.84	2,299.742	2.62	0.59	48	Atlas		4,231,526	1
	12/16/2014 5:30	12/16/2014 5:45	15	0.10	2,433.300	0.11	0.07	1	Atlas		243,330	1
	12/22/2014 23:45	12/23/2014 0:30	45	0.21	1,810.471	0.31	0.13	3	Atlas		380,199	1
	12/23/2014 20:30	12/23/2014 20:30	-	0.05	375.960	0.26	0.03	3	Atlas		18,799	1
	12/24/2014 13:45	12/24/2014 14:45	60	0.13	1,370.769	0.38	0.07	3	Atlas		178,200	1
	12/28/2014 1:15	12/28/2014 2:15	60	0.30	1,112.657	0.70	0.12	1	Atlas		333,797	1
	1/3/2015 11:00	1/3/2015 11:15	15	0.32	130.838	0.38	0.12	24	Atlas		41,868	1
	1/4/2015 3:45	1/4/2015 4:15	30	0.32	237.631	0.33	0.12	24	Atlas		76,042	1
	2/1/2015 13:15	2/1/2015 18:15	300	0.37	2,177.862	0.51	0.17	12	Atlas		805,809	1
	2/21/2015 13:45	2/21/2015 18:15	270	1.21	1,588.179	1.39	0.47	24	Atlas		1,921,697	1
	3/3/2015 19:00	3/4/2015 18:15	1,395	1.61	5,268.550	1.31	0.52	48	Atlas		8,482,365	1
	3/10/2015 7:00	3/10/2015 19:15	735	1.26	4,167.706	2.87	0.57	12	Atlas		5,251,310	1
	3/13/2015 9:00	3/14/2015 12:30	1,650	1.67	3,304.404	2.93	0.63	24	Atlas		5,518,354	1
	3/19/2015 20:00	3/19/2015 20:15	15	0.19	151.226	1.84	0.07	24	Atlas		28,733	1
	3/24/2015 20:30	3/24/2015 20:30	-	0.10	271.090	0.27	0.05	1	Atlas		27,109	1
	3/26/2015 4:45	3/26/2015 7:00	135	0.42	1,762.736	0.57	0.17	12	Atlas		740,349	1
	4/2/2015 10:15	4/4/2015 2:45	2,430	5.12	4,300.136	5.26	13.81	6	Cloudburst		22,016,694	1
	4/7/2015 8:00	4/7/2015 18:45	645	0.78	1,875.821	5.91	0.33	12	Atlas		1,463,140	1
	4/8/2015 18:45	4/8/2015 19:30	45	0.16	2,094.769	6.06	0.09	3	Atlas		335,163	1
	4/9/2015 11:45	4/9/2015 13:00	75	0.25	2,169.996	5.95	0.22	1	Atlas		542,499	1
	4/10/2015 2:30	4/10/2015 4:00	90	0.14	3,799.250	3.40	0.09	3	Atlas		531,895	1
	4/13/2015 20:45	4/13/2015 22:00	75	0.38	2,033.229	1.41	0.16	6	Atlas		772,627	1
	4/14/2015 7:45	4/14/2015 12:30	285	0.38	1,369.942	1.61	0.16	6	Atlas		520,578	1
	4/19/2015 7:00	4/19/2015 19:00	720	0.75	1,240.841	1.23	0.31	12	Atlas		930,631	1
	4/20/2015 3:30	4/20/2015 4:15	45	0.06	5,624.300	1.29	0.04	1	Atlas		337,458	1
	4/25/2015 9:30	4/25/2015 10:00	30	0.12	1,485.750	0.94	0.06	6	Atlas		178,290	1
	4/25/2015 19:15	4/25/2015 19:30	15	0.10	1,246.090	1.00	0.06	3	Atlas		124,609	1
	5/11/2015 18:00	5/11/2015 18:15	15	0.09	1,640.933	0.21	0.08	1	Atlas		147,684	1
	5/16/2015 13:15	5/16/2015 14:15	60	0.33	700.148	0.40	0.15	3	Atlas		231,049	1
	5/17/2015 14:45	5/17/2015 15:15	30	0.10	2,553.200	0.50	0.06	1	Atlas		255,320	1
	5/25/2015 7:15	5/25/2015 9:00	105	0.23	1,219.422	0.22	0.11	12	Atlas		280,467	1
	5/26/2015 14:00	5/26/2015 15:00	60	0.24	2,732.317	0.42	0.16	1	Atlas		655,756	1
	5/27/2015 14:00	5/27/2015 14:30	30	0.14	1,720.857	0.62	0.12	1	Atlas		240,920	1
	6/8/2015 8:45	6/8/2015 9:00	15	0.32	733.478	0.33	0.19	3	Atlas		234,713	1
	6/17/2015 5:00	6/17/2015 7:30	150	0.60	1,971.812	0.68	0.33	3	Atlas		1,183,087	1
	6/18/2015 16:30	6/18/2015 19:30	180	1.84	1,548.884	1.62	0.60	48	Atlas		2,849,947	1
	6/19/2015 13:30	6/19/2015 13:45	15	1.84	46.380	1.74	0.60	48	Atlas		85,340	1
	6/20/2015 1:45	6/20/2015 10:00	495	1.84	1,715.971	2.64	0.60	48	Atlas		3,157,386	1
	6/22/2015 6:30	6/22/2015 7:15	45	0.22	1,045.264	2.78	0.10	12	Atlas		229,958	1
	6/26/2015 0:15	6/26/2015 3:30	195	0.62	1,484.053	1.82	0.34	6	Atlas		920,113	1
	6/26/2015 17:15	6/27/2015 2:00	525	0.81	3,373.137	2.56	0.38	1	Atlas		2,732,241	1
	6/29/2015 13:45	6/29/2015 14:30	45	0.18	3,853.961	1.61	0.11	1	Atlas		693,713	1
	7/2/2015 0:30	7/2/2015 3:15	165	0.87	1,410.098	2.31	0.40	3	Atlas		1,226,785	1
	7/2/2015 14:45	7/2/2015 22:00	435	0.87	646.159	2.55	0.40	3	Atlas		562,158	1
	7/3/2015 15:00	7/3/2015 19:45	285	0.35	2,348.031	2.27	0.21	1	Atlas		821,811	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/7/2015 11:30	7/8/2015 0:45	795	0.75	2,867,529	2.04	0.38	6	Atlas		2,150,647	1
	7/8/2015 12:30	7/8/2015 13:15	45	0.06	3,974,733	2.09	0.04	1	Atlas		238,484	1
	7/9/2015 6:30	7/9/2015 8:15	105	0.28	3,075,111	1.64	0.17	3	Atlas		861,031	1
	7/10/2015 10:30	7/10/2015 17:00	390	0.39	3,357,418	1.85	0.19	6	Atlas		1,309,393	1
	7/12/2015 6:15	7/12/2015 8:30	135	0.84	4,379,229	2.33	0.55	3	Atlas		3,678,552	1
	7/13/2015 14:30	7/13/2015 16:00	90	0.32	4,890,559	2.66	0.27	1	Atlas		1,564,979	1
	7/14/2015 4:00	7/14/2015 6:00	120	0.56	5,250,607	3.21	0.37	3	Atlas		2,940,340	1
	7/14/2015 19:15	7/14/2015 19:30	15	0.02	3,591,900	2.51	0.02	1	Atlas		71,838	1
	7/17/2015 22:45	7/18/2015 2:45	240	0.87	6,342,526	2.61	0.58	3	Atlas		5,517,998	1
	7/29/2015 17:45	7/29/2015 18:00	15	0.08	2,394,038	0.14	0.07	1	Atlas		191,523	1
	8/4/2015 19:15	8/4/2015 20:00	45	0.11	3,278,182	0.19	0.09	1	Atlas		360,600	1
	8/5/2015 15:30	8/5/2015 16:00	30	0.91	369,430	0.30	0.33	24	Atlas		336,181	1
	8/6/2015 2:30	8/6/2015 16:00	810	0.91	1,904,204	1.02	0.33	24	Atlas		1,732,826	1
	8/19/2015 8:00	8/19/2015 17:45	585	0.57	1,823,349	0.61	0.24	1	Atlas		1,039,309	1
	9/5/2015 17:45	9/5/2015 17:45	-	0.08	624,075	0.04	0.04	6	Atlas		49,926	1
	9/7/2015 18:45	9/7/2015 19:00	15	0.09	2,050,244	0.17	0.08	1	Atlas		184,522	1
	9/9/2015 11:45	9/9/2015 12:15	30	0.21	552,676	0.38	0.16	1	Atlas		116,062	1
	9/29/2015 9:45	9/29/2015 20:00	615	0.89	280,484	0.88	0.29	48	Atlas		249,631	1
	10/2/2015 17:45	10/2/2015 20:30	165	0.61	709,436	1.56	0.29	6	Atlas		432,756	1
	10/12/2015 19:00	10/12/2015 20:15	75	0.25	1,488,920	0.35	0.17	3	Atlas		372,230	1
	10/24/2015 20:15	10/24/2015 20:30	15	0.32	97,675	0.31	0.15	6	Atlas		31,256	1
	10/27/2015 11:45	10/28/2015 9:00	1,275	2.55	1,988,387	2.88	0.83	24	Atlas		5,070,388	1
	10/28/2015 22:45	10/28/2015 23:15	30	0.17	663,847	3.04	0.09	6	Atlas		112,854	1
	10/31/2015 23:45	11/1/2015 0:00	15	0.16	467,463	2.88	0.11	3	Atlas		74,794	1
	11/6/2015 3:30	11/6/2015 5:45	135	0.75	891,516	0.87	0.45	3	Atlas		668,637	1
	11/9/2015 19:30	11/9/2015 22:45	195	0.49	1,470,614	1.24	0.22	12	Atlas		720,601	1
	11/12/2015 0:15	11/12/2015 2:00	105	0.29	2,276,931	1.53	0.18	3	Atlas		660,310	1
	11/18/2015 9:15	11/18/2015 18:45	570	1.67	1,681,471	2.09	0.85	6	Atlas		2,808,056	1
	11/21/2015 15:30	11/21/2015 15:45	15	0.12	383,133	1.92	0.10	1	Atlas		45,976	1
	11/28/2015 13:00	11/28/2015 21:45	525	0.70	2,163,193	0.93	0.28	12	Atlas		1,514,235	1
	11/30/2015 22:00	12/1/2015 6:00	480	0.69	3,379,575	1.60	0.31	12	Atlas		2,331,907	1
	12/14/2015 5:45	12/14/2015 8:15	150	0.24	1,207,292	0.23	0.13	3	Atlas		289,750	1
	12/21/2015 11:30	12/21/2015 11:45	15	0.15	390,620	0.19	0.08	6	Atlas		58,593	1
	12/21/2015 23:30	12/22/2015 5:15	345	0.55	2,845,429	0.73	0.29	6	Atlas		1,564,986	1
	12/23/2015 19:45	12/23/2015 22:00	135	0.83	1,011,661	1.57	0.63	1	Atlas		839,679	1
	12/25/2015 9:45	12/25/2015 10:00	15	0.11	572,782	1.65	0.06	6	Atlas		63,006	1
	12/26/2015 12:15	12/26/2015 18:30	375	0.28	2,248,671	1.93	0.13	12	Atlas		629,628	1
	12/27/2015 10:15	12/28/2015 18:15	1,920	2.02	2,451,381	3.94	0.67	3	Atlas		4,951,790	1
	2/2/2016 15:15	2/3/2016 2:45	690	1.24	2,611,744	1.32	0.57	6	Atlas		3,238,563	1
	2/21/2016 4:30	2/21/2016 11:45	435	1.06	2,372,552	1.23	0.49	12	Atlas		2,514,905	1
	2/23/2016 22:45	2/24/2016 14:45	960	2.02	3,589,418	2.94	0.78	12	Atlas		7,250,625	1
	2/29/2016 2:15	2/29/2016 2:15	-	0.02	942,950	2.04	0.01	3	Atlas		18,859	1
	3/1/2016 12:15	3/1/2016 14:45	150	0.29	4,064,648	2.32	0.17	3	Atlas		1,178,748	1
	3/9/2016 16:00	3/9/2016 17:30	90	1.08	298,999	0.26	0.35	12	Atlas		322,919	1
	3/10/2016 13:45	3/10/2016 21:00	435	1.08	2,449,391	1.13	0.35	12	Atlas		2,645,342	1
	3/12/2016 20:30	3/13/2016 0:30	240	0.83	1,226,110	1.69	0.32	24	Atlas		1,017,671	1
	3/13/2016 9:15	3/13/2016 11:45	150	0.83	1,377,994	1.96	0.32	24	Atlas		1,143,735	1
	3/24/2016 18:15	3/24/2016 19:30	75	0.61	421,528	0.77	0.48	1	Atlas		257,132	1
	3/27/2016 21:15	3/27/2016 23:15	120	0.81	908,463	1.42	0.55	1	Atlas		735,855	1
	3/31/2016 2:15	4/1/2016 1:00	1,365	1.07	2,827,485	2.49	0.41	24	Atlas		3,025,409	1
	4/11/2016 14:15	4/11/2016 21:30	435	0.85	1,810,114	0.97	0.41	6	Atlas		1,538,597	1
	4/21/2016 15:00	4/21/2016 16:45	105	0.30	758,827	0.21	0.11	3	Atlas		227,648	1
	4/22/2016 1:30	4/22/2016 1:45	15	0.30	175,040	0.25	0.11	3	Atlas		52,512	1
	4/26/2016 21:15	4/26/2016 22:45	90	0.33	1,276,494	0.64	0.16	6	Atlas		421,243	1
	4/27/2016 13:15	4/27/2016 23:15	600	0.55	3,243,980	1.18	0.26	1	Atlas		1,784,189	1
	4/30/2016 9:15	4/30/2016 14:00	285	0.47	1,233,666	1.23	0.17	6	Atlas		579,823	1
	4/30/2016 23:45	5/1/2016 0:00	15	0.47	179,249	1.32	0.17	6	Atlas		84,247	1
	5/1/2016 15:15	5/1/2016 17:00	105	0.32	3,020,028	1.67	0.22	1	Atlas		966,409	1
	5/4/2016 11:30	5/4/2016 12:15	45	0.20	948,650	1.52	0.12	1	Atlas		189,730	1
	5/7/2016 16:45	5/7/2016 22:45	360	0.63	1,242,890	1.27	0.33	6	Atlas		783,021	1
	5/10/2016 8:45	5/10/2016 22:45	840	0.85	1,118,926	1.72	0.32	24	Atlas		951,087	1
	5/11/2016 21:45	5/11/2016 23:00	75	0.25	1,274,420	1.75	0.13	3	Atlas		318,605	1
	5/12/2016 17:30	5/12/2016 18:00	30	0.09	215,589	1.85	0.06	1	Atlas		19,403	1
	5/17/2016 6:15	5/17/2016 7:30	75	0.62	489,877	1.51	0.20	24	Atlas		303,724	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/17/2016 20:15	5/17/2016 21:30	75	0.62	352,329	1.15	0.20	24	Atlas		218,444	1
	5/20/2016 13:30	5/20/2016 16:30	180	0.63	2,658,470	1.27	0.35	3	Atlas		1,674,836	1
	5/26/2016 13:45	5/26/2016 16:00	135	0.22	1,283,827	0.92	0.15	3	Atlas		282,442	1
	6/2/2016 16:00	6/2/2016 16:00	-	0.47	153,611	0.58	0.39	1	Atlas		72,197	1
	6/4/2016 16:45	6/4/2016 18:45	120	0.11	2,456,700	0.70	0.05	1	Atlas		270,237	1
	6/12/2016 18:00	6/12/2016 18:45	45	0.34	848,782	0.35	0.28	1	Atlas		288,586	1
	6/14/2016 16:45	6/14/2016 19:15	150	0.63	1,256,792	0.97	0.41	3	Atlas		791,779	1
	6/22/2016 8:45	6/22/2016 9:00	15	0.14	540,264	0.15	0.09	3	Atlas		75,637	1
	6/23/2016 16:45	6/23/2016 22:00	315	1.62	470,651	1.76	0.87	6	Atlas		762,455	1
	7/3/2016 7:45	7/4/2016 0:00	975	1.12	1,638,448	0.69	0.36	48	Atlas		1,835,062	1
	7/4/2016 8:30	7/4/2016 17:15	525	1.12	970,294	1.12	0.36	48	Atlas		1,086,729	1
	7/6/2016 13:15	7/6/2016 14:00	45	0.12	2,675,175	1.23	0.09	1	Atlas		321,021	1
	7/12/2016 9:15	7/12/2016 12:15	180	0.20	3,254,995	0.44	0.13	3	Atlas		650,999	1
	7/27/2016 18:30	7/28/2016 5:45	675	0.48	2,312,327	0.66	0.22	12	Atlas		1,109,917	1
	7/30/2016 14:30	7/30/2016 15:00	30	0.34	1,560,800	1.08	0.30	1	Atlas		530,672	1
	8/1/2016 11:15	8/1/2016 11:45	30	0.41	417,441	1.45	0.27	1	Atlas		171,151	1
	8/1/2016 20:30	8/1/2016 22:00	90	0.41	1,706,227	1.34	0.27	1	Atlas		699,553	1
	8/4/2016 14:00	8/4/2016 14:15	15	0.34	655,847	1.09	0.23	3	Atlas		222,988	1
	8/5/2016 14:15	8/5/2016 14:30	15	0.13	1,290,923	1.29	0.09	3	Atlas		167,820	1
	8/9/2016 15:45	8/9/2016 23:00	435	0.24	283,942	0.71	0.16	3	Atlas		68,146	1
	8/15/2016 2:45	8/15/2016 8:00	315	1.04	1,188,520	1.34	0.51	6	Atlas		1,236,061	1
	8/17/2016 4:15	8/17/2016 13:45	570	0.53	2,061,577	1.63	0.22	12	Atlas		1,092,636	1
	8/20/2016 10:45	8/20/2016 21:30	645	0.75	829,883	2.29	0.30	12	Atlas		622,412	1
	8/31/2016 17:30	8/31/2016 18:15	45	0.07	2,741,729	0.32	0.05	3	Atlas		191,921	1
	9/10/2016 15:15	9/10/2016 16:00	45	0.19	1,395,163	0.17	0.12	1	Atlas		265,081	1
	9/26/2016 9:45	9/26/2016 11:30	105	0.25	966,096	0.25	0.17	3	Atlas		241,524	1
	9/28/2016 12:45	9/28/2016 14:45	120	0.36	1,460,389	0.61	0.19	6	Atlas		525,740	1
	9/29/2016 9:45	9/29/2016 9:45	-	0.07	330,157	0.68	0.05	1	Atlas		23,111	1
	9/30/2016 0:30	9/30/2016 3:15	165	0.71	1,263,607	1.27	0.37	3	Atlas		897,161	1
	10/20/2016 9:30	10/20/2016 17:00	450	0.55	740,211	0.44	0.21	24	Atlas		407,116	1
	11/8/2016 20:00	11/8/2016 20:30	30	0.19	1,379,289	0.22	0.09	12	Atlas		262,065	1
	11/19/2016 3:00	11/19/2016 3:30	30	0.16	469,981	0.16	0.10	3	Atlas		75,197	1
	11/23/2016 20:15	11/23/2016 21:45	90	0.25	874,668	0.41	0.10	6	Atlas		218,672	1
	11/28/2016 16:45	11/28/2016 22:30	345	0.72	2,045,922	0.97	0.32	12	Atlas		1,473,064	1
	12/6/2016 4:30	12/6/2016 13:00	510	0.90	2,500,899	0.94	0.41	12	Atlas		2,250,809	1
	12/11/2016 21:45	12/11/2016 22:45	60	0.28	474,175	1.14	0.12	12	Atlas		132,769	1
	12/17/2016 16:30	12/18/2016 2:45	615	2.55	1,063,545	2.83	1.70	12	Cloudburst		2,712,039	1
	12/23/2016 22:45	12/24/2016 1:45	180	0.17	3,377,412	2.71	0.08	12	Atlas		574,160	1
	12/26/2016 20:45	12/26/2016 23:00	135	0.23	467,117	0.40	0.11	6	Atlas		107,437	1
	1/3/2017 2:30	1/3/2017 5:30	180	0.16	723,344	0.27	0.08	6	Atlas		115,735	1
	1/10/2017 19:45	1/10/2017 20:30	45	0.15	2,510,640	0.39	0.10	1	Atlas		376,596	1
	1/11/2017 12:30	1/11/2017 14:30	120	0.24	1,379,558	0.62	0.15	3	Atlas		331,094	1
	1/12/2017 15:45	1/12/2017 22:00	375	0.53	1,073,338	0.95	0.27	6	Atlas		568,869	1
	1/13/2017 15:15	1/13/2017 16:15	60	0.30	375,290	1.21	0.18	3	Atlas		112,587	1
	1/14/2017 11:30	1/14/2017 14:45	195	0.20	2,635,030	1.43	0.09	6	Atlas		527,006	1
	1/17/2017 0:00	1/17/2017 4:30	270	0.48	2,479,248	2.03	0.22	12	Atlas		1,190,039	1
	1/19/2017 19:00	1/20/2017 4:30	570	1.20	2,741,597	2.48	0.55	12	Atlas		3,289,916	1
	2/7/2017 9:45	2/7/2017 13:30	225	0.37	897,962	0.36	0.16	6	Atlas		332,246	1
	2/24/2017 19:45	2/24/2017 20:00	15	0.54	301,894	0.61	0.46	1	Atlas		163,023	1
	2/28/2017 6:00	2/28/2017 11:15	315	0.27	1,004,707	0.85	0.13	6	Atlas		271,271	1
	3/1/2017 3:45	3/1/2017 9:45	360	1.01	1,385,263	1.87	0.53	6	Atlas		1,399,116	1
	3/7/2017 8:15	3/7/2017 15:15	420	0.52	692,317	1.69	0.17	48	Atlas		360,005	1
	3/26/2017 1:30	3/26/2017 4:00	150	0.44	1,458,343	0.35	0.20	6	Atlas		641,671	1
	3/27/2017 18:15	3/27/2017 19:45	90	0.27	3,828,567	0.71	0.16	3	Atlas		1,033,713	1
	3/30/2017 20:45	3/31/2017 1:30	285	0.55	816,620	1.38	0.27	6	Atlas		449,141	1
	4/11/2017 9:15	4/11/2017 12:45	210	0.36	640,794	0.37	0.17	12	Atlas		230,686	1
	4/16/2017 5:45	4/16/2017 21:45	960	1.12	1,665,482	1.44	0.51	6	Atlas		1,865,340	1
	4/21/2017 22:15	4/22/2017 1:00	165	0.58	1,138,924	1.58	0.21	24	Atlas		660,576	1
	4/27/2017 7:00	4/27/2017 7:45	45	0.18	2,481,611	0.77	0.12	1	Atlas		446,690	1
	4/29/2017 0:30	4/29/2017 4:15	225	0.97	1,300,078	1.25	0.52	3	Atlas		1,261,076	1
	5/1/2017 4:00	5/1/2017 4:30	30	0.22	1,499,659	1.37	0.11	3	Atlas		329,925	1
	5/4/2017 19:45	5/5/2017 10:15	870	1.85	1,767,286	2.92	0.62	24	Atlas		3,269,480	1
	5/11/2017 4:00	5/11/2017 4:30	30	0.16	1,064,650	2.02	0.08	6	Atlas		170,344	1
	5/20/2017 19:00	5/21/2017 7:45	765	1.11	2,685,592	1.13	0.49	12	Atlas		2,981,007	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/24/2017 18:15	5/24/2017 22:00	225	0.64	1,590,430	1.69	0.23	24	Atlas		1,017,875	1
	5/27/2017 14:30	5/27/2017 14:45	15	0.12	1,520,608	1.84	0.09	1	Atlas		182,473	1
	6/5/2017 9:00	6/5/2017 9:45	45	0.06	5,043,883	0.06	0.03	12	Atlas		302,633	1
	6/15/2017 3:15	6/15/2017 6:30	195	0.93	661,524	1.06	0.61	1	Atlas		615,217	1
	6/18/2017 22:00	6/18/2017 22:45	45	0.13	1,486,492	1.19	0.08	3	Atlas		193,244	1
	6/22/2017 18:45	6/22/2017 20:00	75	0.35	1,721,500	0.49	0.19	6	Atlas		602,525	1
	6/23/2017 15:00	6/23/2017 19:00	240	0.78	985,385	1.27	0.38	6	Atlas		768,600	1
	6/27/2017 2:30	6/27/2017 2:30	-	0.08	596,713	1.21	0.07	1	Atlas		47,737	1
	6/30/2017 21:15	6/30/2017 22:00	45	0.49	1,600,688	0.57	0.42	1	Atlas		784,337	1
	7/6/2017 4:45	7/6/2017 14:00	555	0.55	2,188,160	1.07	0.26	6	Atlas		1,203,488	1
	7/7/2017 20:45	7/7/2017 22:00	75	0.31	2,046,152	1.27	0.21	1	Atlas		634,307	1
	7/23/2017 2:15	7/23/2017 10:30	495	1.19	889,373	1.19	0.55	12	Atlas		1,058,354	1
	7/28/2017 9:45	7/28/2017 11:00	75	0.46	3,693,015	1.63	0.33	1	Atlas		1,698,787	1
	8/1/2017 22:00	8/1/2017 22:00	-	0.19	297,332	0.64	0.16	1	Atlas		56,493	1
	8/2/2017 13:15	8/2/2017 13:45	30	0.08	7,184,138	0.73	0.07	1	Atlas		574,731	1
	8/6/2017 15:00	8/7/2017 0:45	585	0.60	1,983,125	0.88	0.27	12	Atlas		1,189,875	1
	8/17/2017 15:15	8/17/2017 19:00	225	0.64	788,391	0.67	0.35	6	Atlas		504,570	1
	8/22/2017 16:15	8/22/2017 17:00	45	0.61	486,877	1.26	0.41	1	Atlas		296,995	1
	8/29/2017 20:00	8/29/2017 20:00	-	0.09	243,878	0.12	0.05	1	Atlas		21,949	1
	9/1/2017 7:15	9/2/2017 6:30	1,395	3.59	2,299,881	3.71	2.96	24	Cloudburst		8,256,571	1
	9/12/2017 6:30	9/12/2017 8:15	105	0.69	94,593	0.54	0.22	48	Atlas		65,269	1
	9/12/2017 21:45	9/12/2017 21:45	-	0.69	6,249	0.41	0.22	48	Atlas		4,312	1
	9/13/2017 12:45	9/13/2017 13:00	15	0.69	118,336	0.58	0.22	48	Atlas		81,652	1
	9/19/2017 8:30	9/19/2017 10:45	135	0.39	3,719,444	0.82	0.25	3	Atlas		1,450,583	1
	10/7/2017 21:45	10/8/2017 20:00	1,335	1.76	585,196	1.75	0.67	24	Atlas		1,029,945	1
	10/10/2017 14:15	10/10/2017 21:30	435	0.70	1,267,270	2.46	0.35	3	Atlas		887,089	1
	10/23/2017 6:30	10/23/2017 9:00	150	0.53	812,498	0.50	0.28	6	Atlas		430,624	1
	10/27/2017 17:45	10/28/2017 1:30	465	0.81	1,662,883	1.40	0.37	12	Atlas		1,346,935	1
	11/3/2017 5:15	11/3/2017 6:30	75	1.61	344,642	2.54	3.50	1	Atlas		554,873	1
	11/6/2017 2:30	11/6/2017 2:45	15	0.22	645,736	1.95	0.13	1	Atlas		142,062	1
	11/7/2017 2:30	11/7/2017 6:45	255	0.23	169,291	2.18	0.11	6	Atlas		38,937	1
	11/15/2017 13:15	11/15/2017 14:30	75	0.27	2,333,589	0.30	0.17	1	Atlas		630,069	1
	11/18/2017 16:45	11/18/2017 18:15	90	0.36	1,633,978	0.63	0.23	1	Atlas		588,232	1
	12/5/2017 3:30	12/5/2017 6:45	195	0.65	3,311,594	0.67	0.37	3	Atlas		2,152,536	1
	12/22/2017 18:30	12/23/2017 12:45	1,095	1.06	3,482,316	1.07	0.41	12	Atlas		3,691,255	1
	2/7/2018 3:15	2/7/2018 3:45	30	0.44	144,514	0.64	0.24	6	Atlas		63,586	1
	2/16/2018 3:00	2/16/2018 3:00	-	0.73	49,808	1.12	0.33	12	Atlas		36,360	1
	2/22/2018 3:45	2/22/2018 6:15	150	1.57	200,870	2.60	0.58	24	Atlas		315,366	1
	2/23/2018 3:15	2/23/2018 9:45	390	1.12	239,777	3.23	0.51	12	Atlas		268,550	1
	2/24/2018 10:30	2/25/2018 0:00	810	1.67	709,665	4.41	0.69	12	Atlas		1,185,140	1
	3/10/2018 1:15	3/10/2018 2:15	60	0.59	112,373	0.56	0.37	3	Atlas		66,300	1
	3/24/2018 9:15	3/24/2018 12:45	210	0.89	214,176	1.45	0.34	24	Atlas		190,617	1
	3/28/2018 5:45	3/28/2018 6:15	30	0.44	185,789	1.26	0.19	12	Atlas		81,747	1
	3/29/2018 19:15	3/29/2018 20:00	45	0.67	217,497	1.78	0.23	24	Atlas		145,723	1
	4/1/2018 20:30	4/1/2018 23:30	180	0.56	135,634	1.95	0.31	6	Atlas		75,955	1
	4/3/2018 21:15	4/3/2018 21:30	15	0.41	48,246	2.33	0.22	6	Atlas		19,781	1
	4/14/2018 9:45	4/14/2018 10:00	15	1.16	9,397	0.28	0.38	48	Atlas		10,900	1
	4/15/2018 6:00	4/15/2018 6:00	-	1.16	6,375	0.89	0.38	48	Atlas		7,395	1
	6/1/2018 1:30	6/1/2018 3:30	120	1.56	172,996	2.04	0.88	1	Atlas		269,873	1
	6/25/2018 11:15	6/25/2018 12:00	45	0.88	79,618	1.32	0.36	12	Atlas		70,064	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.64	359,092	1.54	0.28	12	Atlas		229,819	1
	6/26/2018 21:30	6/26/2018 21:30	-	0.64	93,819	1.80	0.28	12	Atlas		60,044	1
	7/2/2018 17:00	7/2/2018 17:45	45	0.58	1,337,752	1.14	0.46	1	Atlas		775,896	1
	7/3/2018 16:00	7/3/2018 16:00	-	0.46	16,850	1.32	0.29	1	Atlas		7,751	1
	7/20/2018 20:45	7/20/2018 20:45	-	1.06	122,286	1.19	0.51	3	Atlas		129,623	1
	7/31/2018 2:30	7/31/2018 7:30	300	2.03	439,788	1.87	0.82	6	Atlas		892,770	1
	8/16/2018 5:15	8/16/2018 11:30	375	2.56	860,503	2.56	0.98	24	Atlas		2,202,888	1
	8/19/2018 20:30	8/19/2018 23:00	150	0.78	862,742	3.38	0.52	3	Atlas		672,939	1
	8/20/2018 11:15	8/20/2018 12:15	60	0.42	931,655	3.72	0.30	1	Atlas		391,295	1
	8/31/2018 17:45	8/31/2018 18:00	15	0.37	343,224	0.30	0.23	1	Atlas		126,993	1
	9/6/2018 12:00	9/6/2018 12:00	-	0.26	1,088	0.61	0.17	1	Atlas		283	1
	9/8/2018 20:00	9/8/2018 23:45	225	2.34	1,833,000	2.60	0.95	6	Atlas		4,289,221	1
	9/23/2018 5:00	9/23/2018 8:45	225	1.35	896,810	1.66	0.51	3	Atlas		1,210,693	1
	9/24/2018 0:45	9/24/2018 16:45	960	1.44	3,464,157	3.10	0.66	6	Atlas		4,988,386	1

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	9/25/2018 6:00	9/25/2018 6:30	30	0.10	2,190,810	3.14	0.09	1	Atlas		219,081	1
	9/25/2018 16:45	9/26/2018 3:30	645	0.71	2,485,862	3.83	0.32	12	Atlas		1,764,962	1
	10/15/2018 9:15	10/15/2018 9:30	15	0.20	316,180	0.64	0.13	1	Atlas		63,236	1
	10/31/2018 17:30	11/1/2018 2:30	540	1.60	13,394	1.47	0.57	24	Atlas		21,430	1
	11/5/2018 22:00	11/6/2018 1:30	210	1.00	1,083,694	2.67	0.54	6	Atlas		1,083,694	1
	11/14/2018 23:15	11/15/2018 1:00	105	0.45	288,873	0.47	0.21	12	Atlas		129,993	1
	12/1/2018 6:15	12/1/2018 15:15	540	1.36	1,694,882	1.44	0.60	12	Atlas		2,305,040	1
	12/15/2018 2:45	12/15/2018 12:00	555	1.76	1,807,985	1.75	0.73	12	Atlas		3,182,054	1
	12/27/2018 17:45	12/27/2018 18:45	60	0.34	887,091	0.62	0.19	1	Atlas		301,611	1
	12/31/2018 5:15	12/31/2018 18:00	765	1.15	1,968,492	1.51	0.44	24	Atlas		2,263,766	1
	1/4/2019 14:15	1/4/2019 16:15	120	0.62	1,054,234	1.62	0.28	12	Atlas		653,625	1
	1/19/2019 7:00	1/19/2019 11:30	270	0.75	24,363	0.59	0.29	24	Atlas		18,272	1
	1/23/2019 10:30	1/23/2019 10:30	-	0.77	33,634	1.27	0.30	12	Atlas		25,898	1
	2/5/2019 23:15	2/6/2019 10:15	660	1.39	198,619	0.60	0.45	48	Atlas		276,080	1
	2/7/2019 9:15	2/7/2019 20:45	690	1.39	1,113,258	1.51	0.45	48	Atlas		1,547,428	1
	2/11/2019 3:00	2/12/2019 19:15	2,415	2.42	6,306,049	3.91	0.76	48	Atlas		15,260,638	1
	2/20/2019 3:00	2/20/2019 18:30	930	1.43	5,224,004	1.50	0.66	6	Atlas		7,470,326	1
	2/23/2019 17:15	2/23/2019 23:15	360	0.78	7,074,433	2.27	0.43	6	Atlas		5,518,058	1
	3/9/2019 13:45	3/9/2019 19:30	345	0.82	1,045,912	0.97	0.39	6	Atlas		857,648	1
	3/14/2019 17:30	3/14/2019 19:15	105	0.21	1,096,405	1.47	0.14	3	Atlas		230,245	1
	3/30/2019 15:45	3/30/2019 21:00	315	0.80	823,386	1.12	0.39	6	Atlas		658,709	1
	4/7/2019 6:15	4/7/2019 13:45	450	0.49	1,156,855	0.67	0.25	3	Atlas		566,859	1
	4/14/2019 1:30	4/14/2019 6:30	300	0.92	990,729	1.60	0.43	6	Atlas		911,471	1
	4/18/2019 23:00	4/18/2019 23:15	15	3.06	4,939	1.50	0.99	48	Atlas		15,112	1
	4/19/2019 19:00	4/20/2019 16:15	1,275	3.06	3,157,325	4.02	0.99	48	Atlas		9,661,413	1
	4/23/2019 18:00	4/23/2019 18:30	30	0.34	957,947	3.40	0.30	1	Atlas		325,702	1
	4/24/2019 20:45	4/24/2019 21:45	60	0.47	768,247	3.69	0.22	12	Atlas		361,076	1
	4/25/2019 18:15	4/26/2019 4:00	585	0.35	3,656,089	4.22	0.16	12	Atlas		1,279,631	1
	5/3/2019 5:00	5/3/2019 9:15	255	0.87	2,041,953	1.06	0.47	6	Atlas		1,776,499	1
	5/4/2019 17:30	5/4/2019 17:30	-	0.22	73,200	1.25	0.12	3	Atlas		16,104	1
	5/19/2019 23:15	5/19/2019 23:45	30	0.34	406,403	0.35	0.16	1	Atlas		138,177	1
	5/23/2019 16:00	5/23/2019 16:15	15	0.06	641,917	0.42	0.03	12	Atlas		38,515	1
	5/26/2019 14:00	5/26/2019 15:45	105	0.50	652,670	0.71	0.31	3	Atlas		326,335	1
	5/29/2019 9:30	5/29/2019 14:00	270	0.66	306,058	1.22	0.36	6	Atlas		201,998	1
	5/30/2019 11:30	5/30/2019 11:30	-	0.21	166,181	1.39	0.10	1	Atlas		34,898	1
	6/5/2019 21:00	6/5/2019 21:30	30	0.80	116,303	0.92	0.58	1	Atlas		93,042	1
	6/9/2019 0:45	6/9/2019 0:45	-	1.01	41,188	1.86	0.33	48	Atlas		41,600	1
	6/9/2019 16:45	6/9/2019 19:45	180	0.72	1,756,363	2.56	0.40	3	Atlas		1,264,581	1
	6/16/2019 22:15	6/17/2019 1:45	210	1.43	553,044	1.68	0.65	12	Atlas		790,853	1
	6/21/2019 20:00	6/21/2019 20:15	15	0.58	7,303	2.52	0.39	3	Atlas		4,236	1
	CSO152 Total										**743,664,754**	**606**
CSO153	12/19/2009 0:30	12/19/2009 13:45	795	0.35	1,510,983	0.46	0.12	24	Atlas		528,844	1
	12/25/2009 3:45	12/25/2009 17:00	795	0.25	726,124	0.61	0.09	24	Atlas		181,531	1
	12/31/2009 0:00	12/31/2009 2:45	165	0.08	1,609,763	0.52	0.05	3	Atlas		128,781	1
	1/15/2010 13:30	1/15/2010 19:45	375	Discharge	-	0.02					639,094	1
	1/20/2010 10:15	1/21/2010 21:00	2,085	1.26	2,397,082	1.52	0.41	48	Atlas		3,020,323	1
	1/24/2010 5:00	1/25/2010 0:00	1,140	0.91	1,526,213	2.40	0.35	24	Atlas		1,388,854	1
	2/6/2010 7:00	2/6/2010 0:00	1,020	1.20	2,278,298	1.30	0.44	12	Atlas		2,733,958	1
	2/6/2010 11:30	2/6/2010 16:30	300	1.20	19,167	1.29	0.44	12	Atlas		23,000	1
	2/9/2010 13:15	2/9/2010 14:15	60	0.39	29,192	1.51	0.13	24	Atlas		11,385	1
	3/12/2010 14:00	3/12/2010 16:00	120	0.24	1,107,683	0.26	0.15	3	Atlas		265,844	1
	3/14/2010 10:30	3/14/2010 15:30	300	0.07	72,029	0.35	0.04	1	Atlas		5,042	1
	3/21/2010 10:00	3/22/2010 6:15	1,215	0.51	2,175,776	0.56	0.23	12	Atlas		1,109,646	1
	3/25/2010 5:15	3/26/2010 2:30	1,275	0.63	3,081,002	1.15	0.37	1	Atlas		1,941,031	1
	3/28/2010 16:30	3/29/2010 1:30	540	0.20	12,373,540	1.24	0.08	24	Atlas		2,474,708	1
	4/3/2010 9:45	4/3/2010 14:30	285	0.05	29,614,160	0.25	0.03	1	Atlas		1,480,708	1
	4/7/2010 22:45	4/8/2010 11:45	780	1.22	2,378,039	1.28	0.57	6	Atlas		2,901,208	1
	4/16/2010 18:15	4/17/2010 0:15	360	0.16	550,388	0.16	0.10	3	Atlas		88,062	1
	4/22/2010 10:30	4/22/2010 13:45	195	0.03	2,018,067	0.19	0.02	6	Atlas		60,542	1
	4/23/2010 5:45	4/23/2010 15:00	555	0.20	1,892,030	0.39	0.10	6	Atlas		378,406	1
	4/24/2010 2:45	4/25/2010 0:15	1,290	1.63	1,651,470	1.86	0.77	6	Atlas		2,691,896	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/27/2010 7:15	4/27/2010 14:30	435	0.33	6,777,682	2.38	0.16	6	Atlas		2,236,635	1
	5/1/2010 4:30	5/1/2010 13:00	510	3.87	542,541	2.92	2.63	48	Cloudburst		2,099,635	1
	5/2/2010 0:45	5/3/2010 0:45	1,440	3.87	1,825,428	4.39	2.63	48	Cloudburst		7,064,406	1
	5/12/2010 10:45	5/12/2010 11:15	30	0.79	12,513	1.12	0.58	1	Atlas		9,885	1
	5/13/2010 12:30	5/13/2010 12:30	-	0.09	34,789	1.22	0.08	1	Atlas		3,131	1
	5/16/2010 9:30	5/16/2010 18:45	555	0.50	81,656	1.47	0.23	12	Atlas		40,828	1
	5/17/2010 19:30	5/17/2010 20:15	45	0.57	130,416	2.02	0.37	3	Atlas		74,337	1
	5/21/2010 19:45	5/21/2010 21:15	90	0.92	393,132	1.99	0.66	1	Atlas		361,681	1
	5/30/2010 16:30	5/30/2010 23:30	420	0.49	373,569	0.55	0.30	1	Atlas		183,049	1
	6/1/2010 6:30	6/1/2010 13:00	390	Discharge	-	0.55					7,497	1
	6/9/2010 3:30	6/9/2010 21:00	1,050	2.27	324,426	2.42	2.50	3	Atlas		736,447	1
	6/11/2010 23:00	6/11/2010 23:45	45	0.29	51,128	2.40	0.16	6	Atlas		14,827	1
	6/13/2010 22:45	6/14/2010 8:15	570	0.55	335,942	3.11	0.26	1	Atlas		184,768	1
	6/15/2010 20:45	6/15/2010 21:15	30	0.46	54,678	3.60	0.31	3	Atlas		25,152	1
	6/19/2010 5:15	6/19/2010 9:45	270	1.06	146,641	2.11	0.61	3	Atlas		155,439	1
	6/28/2010 1:30	6/28/2010 2:45	75	0.29	405,362	0.28	0.21	1	Atlas		117,555	1
	7/9/2010 8:30	7/9/2010 8:45	15	0.47	16,028	0.37	0.18	24	Atlas		7,533	1
	7/13/2010 3:45	7/13/2010 11:00	435	1.79	426,896	2.21	0.82	12	Atlas		764,143	1
	7/19/2010 18:45	7/19/2010 19:45	60	0.16	73,463	2.13	0.13	1	Atlas		11,754	1
	7/20/2010 4:30	7/20/2010 6:45	135	0.71	287,699	2.31	0.45	1	Atlas		204,266	1
	7/21/2010 5:45	7/21/2010 6:45	60	0.46	152,183	1.50	0.37	1	Atlas		70,004	1
	7/27/2010 15:00	7/27/2010 17:15	135	0.88	239,042	1.42	0.62	1	Atlas		210,357	1
	7/31/2010 4:45	7/31/2010 6:30	105	0.38	230,566	1.41	0.21	3	Atlas		87,615	1
	7/31/2010 20:30	7/31/2010 21:00	30	0.25	238,408	1.66	0.22	1	Atlas		59,602	1
	8/11/2010 10:15	8/11/2010 17:45	450	Discharge	-	0.35					4,181	1
	8/21/2010 7:00	8/21/2010 14:15	435	0.38	253,037	1.19	0.23	3	Atlas		96,154	1
	8/23/2010 22:00	8/23/2010 22:15	15	Discharge	-	0.38					474	1
	9/7/2010 9:30	9/7/2010 9:30	-	0.03	5,133	0.02	0.02	1	Atlas		154	1
	9/11/2010 4:45	9/11/2010 4:45	-	0.06	146,267	0.09	0.04	3	Atlas		8,776	1
	10/13/2010 18:15	10/13/2010 22:00	225	0.49	294,486	0.52	0.33	3	Atlas		144,298	1
	10/26/2010 11:00	10/26/2010 15:00	240	0.62	173,134	0.57	0.34	6	Atlas		107,343	1
	11/16/2010 10:30	11/16/2010 21:30	660	0.77	417,112	0.86	0.34	12	Atlas		321,176	1
	11/23/2010 1:45	11/23/2010 4:45	180	0.30	291,130	1.12	0.17	3	Atlas		87,339	1
	11/24/2010 12:00	11/24/2010 21:45	585	0.82	320,111	1.18	0.39	3	Atlas		262,491	1
	11/25/2010 8:15	11/26/2010 10:30	1,575	2.39	1,175,901	3.54	0.92	24	Atlas		2,810,403	1
	11/29/2010 20:00	11/30/2010 13:30	1,050	1.75	281,334	5.23	0.67	24	Atlas		492,334	1
	12/30/2010 2:45	12/30/2010 8:00	315	0.53	94,538	0.60	0.24	12	Atlas		50,105	1
	1/1/2011 3:45	1/1/2011 7:30	225	0.58	196,922	1.07	0.25	12	Atlas		114,215	1
	1/18/2011 7:30	1/18/2011 12:45	315	0.38	87,153	0.39	0.13	24	Atlas		33,118	1
	2/1/2011 16:15	2/1/2011 21:15	300	0.88	309,559	0.80	0.33	6	Atlas		272,412	1
	2/7/2011 12:00	2/7/2011 16:00	240	0.22	169,745	1.27	0.08	24	Atlas		37,344	1
	2/21/2011 18:00	2/21/2011 18:45	45	0.19	84,589	0.21	0.11	3	Atlas		16,072	1
	2/24/2011 4:15	2/25/2011 17:30	2,235	2.28	1,048,636	2.50	0.88	24	Atlas		2,390,889	1
	2/28/2011 4:45	3/1/2011 5:15	1,470	1.34	1,239,672	3.97	0.65	6	Atlas		1,661,161	1
	3/5/2011 4:00	3/7/2011 11:45	3,345	0.89	6,611,619	2.39	0.30	24	Atlas		5,884,341	1
	4/20/2011 14:15	4/22/2011 7:45	2,490	0.76	1,268,758	1.34	0.41	6	Atlas		964,256	1
	4/22/2011 16:15	4/23/2011 18:30	1,575	4.74	207,345	4.57	3.59	48	Atlas		982,813	1
	4/24/2011 7:45	4/24/2011 19:45	720	4.74	69,702	5.27	3.59	48	Atlas		330,389	1
	4/25/2011 5:15	4/25/2011 6:00	45	4.74	10,341	5.45	3.59	48	Atlas		49,017	1
	4/26/2011 9:45	4/26/2011 9:45	-	0.05	37,060	5.60	0.03	3	Atlas		1,853	1
	4/27/2011 1:00	4/29/2011 20:30	4,050	2.82	810,644	8.44	1.45	24	Cloudburst		2,286,016	1
	5/1/2011 4:30	5/1/2011 6:15	105	0.71	369,803	4.99	0.36	3	Atlas		262,560	1
	5/1/2011 22:15	5/2/2011 7:00	525	2.82	215,655	5.02	0.92	48	Atlas		608,147	1
	5/2/2011 16:30	5/4/2011 6:00	2,250	2.82	2,075,263	6.70	0.92	48	Atlas		5,852,242	1
	5/8/2011 0:30	5/8/2011 2:00	90	0.21	705,724	3.68	0.12	3	Atlas		148,202	1
	5/14/2011 14:45	5/14/2011 15:15	30	0.25	71,172	0.47	0.17	1	Atlas		17,793	1
	5/15/2011 12:00	5/15/2011 13:00	60	0.27	171,678	0.42	0.15	3	Atlas		46,353	1
	5/15/2011 23:45	5/15/2011 23:45	-	0.27	42,378	0.55	0.15	3	Atlas		11,442	1
	5/18/2011 23:30	5/18/2011 23:45	15	0.08	250,325	0.63	0.04	6	Atlas		20,026	1
	5/21/2011 18:15	5/21/2011 19:30	75	0.42	256,326	0.81	0.30	1	Atlas		107,657	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/23/2011 4:00	5/23/2011 6:00	120	0.36	119,067	0.89	0.23	1	Atlas		42,864	1
	5/23/2011 17:30	5/24/2011 0:30	420	0.87	759,105	1.77	0.57	3	Atlas		660,421	1
	5/25/2011 22:45	5/26/2011 17:00	1,095	1.21	328,026	2.95	0.51	3	Atlas		396,912	1
	6/2/2011 6:30	6/2/2011 6:45	15	Discharge	-	0.38					990	1
	6/11/2011 4:30	6/11/2011 5:00	30	0.29	202,214	0.33	0.23	1	Atlas		58,642	1
	6/15/2011 8:45	6/15/2011 11:00	135	1.03	269,267	1.39	0.61	1	Atlas		277,345	1
	6/18/2011 6:15	6/18/2011 8:45	150	0.79	211,852	1.86	0.48	3	Atlas		167,363	1
	6/19/2011 7:30	6/19/2011 9:15	105	0.54	175,798	2.38	0.33	3	Atlas		94,931	1
	6/20/2011 1:30	6/20/2011 2:15	45	0.49	294,804	2.87	0.42	1	Atlas		144,454	1
	6/21/2011 14:15	6/21/2011 16:45	150	0.29	137,093	3.13	0.17	3	Atlas		39,757	1
	6/22/2011 19:15	6/22/2011 20:30	75	4.12	118,176	4.70	37.82	3	Cloudburst		486,886	1
	7/19/2011 22:45	7/19/2011 22:45	-	1.71	16,412	1.34	2.75	1	Atlas		28,064	1
	8/7/2011 4:00	8/7/2011 4:00	-	1.89	563	1.39	1.67	3	Atlas		1,065	1
	9/26/2011 0:15	9/26/2011 10:45	630	3.39	254,950	4.93	6.73	12	Cloudburst		864,281	1
	11/28/2011 14:00	11/29/2011 11:45	1,305	3.04	1,123,680	4.04	0.94	48	Atlas		3,415,987	1
	12/5/2011 7:30	12/5/2011 21:00	810	3.14	1,164,182	4.80	1.10	48	Cloudburst		3,655,530	1
	1/26/2012 20:45	1/27/2012 9:15	750	1.68	497,970	2.30	0.55	48	Atlas		836,589	1
	3/23/2012 4:45	3/23/2012 23:00	1,095	1.58	474,327	2.41	0.58	24	Atlas		749,436	1
	3/30/2012 23:30	3/31/2012 0:00	30	0.16	149,388	0.18	0.10	3	Atlas		23,902	1
	4/1/2012 8:15	4/1/2012 17:15	540	1.56	715,419	1.75	0.84	6	Atlas		1,116,054	1
	4/4/2012 16:30	4/4/2012 17:15	45	0.24	164,104	1.88	0.11	12	Atlas		39,385	1
	4/16/2012 6:45	4/16/2012 6:45	-	0.15	76,080	0.27	0.10	3	Atlas		11,412	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.73	228,242	0.88	0.54	1	Atlas		166,617	1
	4/30/2012 18:00	4/30/2012 18:15	15	0.46	101,513	1.11	0.31	3	Atlas		46,696	1
	5/4/2012 23:30	5/5/2012 6:00	390	1.43	743,132	2.64	0.75	3	Atlas		1,062,679	1
	5/29/2012 6:45	5/29/2012 23:00	975	2.71	510,532	2.71	9.86	3	Atlas		1,383,541	1
	5/31/2012 18:30	6/1/2012 5:45	675	1.24	365,692	3.88	0.54	12	Atlas		453,458	1
	6/4/2012 16:45	6/4/2012 16:45	-	0.21	14,152	4.09	0.10	12	Atlas		2,972	1
	6/17/2012 11:30	6/17/2012 12:15	45	0.43	153,353	0.36	0.27	3	Atlas		65,942	1
	7/1/2012 20:00	7/1/2012 20:00	-	0.42	209,693	0.33	0.30	1	Atlas		88,071	1
	7/8/2012 13:00	7/8/2012 13:15	15	0.17	66,135	0.58	0.11	1	Atlas		11,243	1
	7/14/2012 12:00	7/14/2012 15:00	180	0.54	609,780	0.71	0.33	3	Atlas		329,281	1
	7/19/2012 18:00	7/19/2012 19:30	90	0.88	611,515	1.40	0.71	1	Atlas		538,133	1
	7/24/2012 19:45	7/24/2012 20:00	15	0.22	107,823	1.11	0.18	1	Atlas		23,721	1
	7/26/2012 21:30	7/26/2012 21:30	-	0.19	10,547	0.34	0.09	12	Atlas		2,004	1
	7/27/2012 19:45	7/27/2012 21:00	75	0.65	336,097	1.07	0.43	3	Atlas		218,463	1
	8/3/2012 8:00	8/3/2012 10:30	150	0.20	172,995	0.86	0.09	3	Atlas		34,599	1
	8/13/2012 19:00	8/13/2012 19:00	-	0.11	836	0.12	0.07	3	Atlas		92	1
	8/16/2012 20:00	8/16/2012 23:45	225	0.56	489,852	0.68	0.33	3	Atlas		274,317	1
	8/21/2012 13:45	8/21/2012 14:00	15	0.23	329,339	0.79	0.20	1	Atlas		75,748	1
	9/1/2012 15:00	9/1/2012 18:00	180	0.39	759,446	0.41	0.25	3	Atlas		296,184	1
	9/2/2012 11:45	9/2/2012 22:30	645	0.63	719,062	1.04	0.24	24	Atlas		453,009	1
	9/3/2012 14:15	9/3/2012 14:30	15	0.06	975,567	1.10	0.05	1	Atlas		58,534	1
	9/5/2012 15:15	9/5/2012 17:30	135	0.74	842,846	1.84	0.57	1	Atlas		623,706	1
	9/7/2012 23:00	9/8/2012 7:45	525	1.44	313,707	3.26	0.82	3	Atlas		451,738	1
	9/25/2012 23:30	9/26/2012 5:30	360	0.47	258,274	0.85	0.22	12	Atlas		121,389	1
	9/26/2012 19:45	9/27/2012 1:45	360	1.59	414,897	2.48	0.84	6	Atlas		659,687	1
	10/1/2012 13:45	10/1/2012 19:15	330	0.68	447,826	3.12	0.28	12	Atlas		304,522	1
	10/6/2012 0:00	10/6/2012 0:45	45	0.11	280,791	0.78	0.06	6	Atlas		30,887	1
	10/12/2012 7:15	10/12/2012 7:45	30	Discharge	-	0.12					18,534	1
	10/14/2012 18:45	10/15/2012 7:45	780	0.17	760,576	0.18	0.12	1	Atlas		129,298	1
	10/18/2012 0:45	10/18/2012 2:15	90	0.25	221,288	0.42	0.16	3	Atlas		55,322	1
	10/26/2012 10:45	10/29/2012 13:15	4,470	0.71	1,366,480	0.73	0.32	6	Atlas		970,201	1
	11/3/2012 9:30	11/3/2012 16:45	435	0.17	257,112	0.19	0.08	12	Atlas		43,709	1
	11/12/2012 3:00	11/12/2012 13:00	600	0.45	627,253	0.52	0.21	12	Atlas		282,264	1
	12/2/2012 11:15	12/2/2012 13:15	120	0.19	448,179	0.26	0.11	3	Atlas		85,154	1
	12/4/2012 11:15	12/4/2012 20:00	285	0.59	449,953	0.78	0.37	3	Atlas		265,472	1
	12/6/2012 22:45	12/7/2012 18:30	1,185	1.14	617,461	1.92	0.48	12	Atlas		703,906	1
	12/8/2012 4:45	12/8/2012 10:30	345	0.40	503,330	2.32	0.22	6	Atlas		201,332	1
	12/9/2012 8:30	12/9/2012 9:30	60	1.10	40,065	2.37	0.53	3	Atlas		44,071	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/9/2012 19:45	12/10/2012 0:30	285	1.10	527.090	3.09	0.53	3	Atlas		579,799	1
	12/15/2012 11:15	12/15/2012 13:15	120	0.20	524.525	1.30	0.11	3	Atlas		104,905	1
	12/17/2012 15:00	12/17/2012 23:30	510	0.28	383.875	0.48	0.14	6	Atlas		107,485	1
	12/20/2012 6:30	12/20/2012 19:45	795	0.71	735.993	1.19	0.39	6	Atlas		522,555	1
	12/21/2012 7:30	12/21/2012 13:45	375	0.04	640.425	1.23	0.02	6	Atlas		25,617	1
	12/31/2012 23:30	1/1/2013 0:00	30	0.11	137.555	0.86	0.04	24	Atlas		15,131	1
	1/10/2013 12:45	1/10/2013 15:00	135	0.15	319.140	0.16	0.08	6	Atlas		47,871	1
	1/11/2013 2:15	1/11/2013 8:45	390	0.59	505.620	0.75	0.31	6	Atlas		298,316	1
	1/12/2013 20:45	1/14/2013 2:00	1,755	2.30	487.311	3.04	0.88	24	Atlas		1,120,816	1
	1/27/2013 19:45	1/28/2013 18:00	1,335	0.20	765.830	0.29	0.09	12	Atlas		153,166	1
	1/30/2013 4:30	2/2/2013 11:15	4,725	0.90	1,465.978	1.28	0.46	6	Atlas		1,319,380	1
	2/4/2013 17:15	2/4/2013 18:45	90	0.10	514.460	1.11	0.07	3	Atlas		51,446	1
	2/6/2013 4:30	2/8/2013 5:00	30	0.08	206.888	0.23	0.04	6	Atlas		16,551	1
	2/10/2013 15:30	2/10/2013 16:45	75	0.17	398.406	0.37	0.09	3	Atlas		67,729	1
	2/13/2013 13:30	2/13/2013 13:45	15	0.05	90.040	0.31	0.02	12	Atlas		4,502	1
	2/18/2013 22:15	2/19/2013 4:30	375	0.38	349.508	0.43	0.17	12	Atlas		132,813	1
	2/21/2013 23:00	2/22/2013 1:30	150	0.43	301.721	0.78	0.20	12	Atlas		129,740	1
	2/26/2013 5:30	2/26/2013 19:45	855	0.59	382.651	1.00	0.23	24	Atlas		225,764	1
	3/5/2013 14:30	3/5/2013 19:15	285	0.47	351.300	0.71	0.18	6	Atlas		165,111	1
	3/11/2013 3:15	3/11/2013 13:00	585	1.01	574.362	1.49	0.40	12	Atlas		580,106	1
	3/17/2013 7:15	3/18/2013 9:45	1,590	1.69	607.836	2.66	0.55	48	Atlas		1,027,242	1
	3/24/2013 7:45	3/24/2013 16:45	540	0.51	204.037	1.73	0.19	24	Atlas		104,059	1
	4/11/2013 5:00	4/12/2013 1:00	1,200	1.29	296.747	1.28	0.50	24	Atlas		382,803	1
	4/16/2013 19:45	4/16/2013 20:45	60	0.56	250.921	1.82	0.46	1	Atlas		140,516	1
	4/19/2013 1:00	4/19/2013 5:00	240	0.98	507.703	1.56	0.53	6	Atlas		497,549	1
	4/24/2013 6:00	4/24/2013 10:00	240	0.69	383.612	1.71	0.38	6	Atlas		264,692	1
	5/3/2013 6:00	5/3/2013 10:45	285	Discharge	-	0.08					67,415	1
	5/4/2013 13:30	5/4/2013 14:45	75	1.43	9.297	0.53	0.44	24	Atlas		13,294	1
	5/5/2013 4:30	5/5/2013 8:15	225	1.43	129.885	1.25	0.44	24	Atlas		185,736	1
	5/6/2013 17:15	5/6/2013 17:15	-	1.43	2.409	1.52	0.44	24	Atlas		3,445	1
	5/10/2013 9:45	5/11/2013 0:45	900	0.90	641.212	2.46	0.40	6	Atlas		577,091	1
	5/16/2013 10:00	5/16/2013 10:15	15	0.24	347.517	1.18	0.21	1	Atlas		83,404	1
	5/22/2013 15:30	5/22/2013 15:45	15	0.16	331.525	0.37	0.11	3	Atlas		53,044	1
	6/1/2013 16:00	6/1/2013 16:00	-	0.13	64.246	0.39	0.06	12	Atlas		8,352	1
	6/9/2013 23:45	6/10/2013 0:15	30	0.30	121.193	0.21	0.13	6	Atlas		36,358	1
	6/16/2013 16:30	6/16/2013 16:45	15	0.48	58.502	0.69	0.33	1	Atlas		28,081	1
	6/17/2013 16:15	6/17/2013 20:30	255	1.23	478.760	1.56	0.67	1	Atlas		588,875	1
	6/21/2013 18:45	6/21/2013 19:00	15	0.16	167.338	1.86	0.12	1	Atlas		26,774	1
	6/23/2013 12:15	6/23/2013 12:45	30	0.26	50.123	2.10	0.19	1	Atlas		13,032	1
	6/26/2013 3:00	6/26/2013 5:45	165	0.79	447.656	1.29	0.53	3	Atlas		353,648	1
	6/26/2013 16:00	6/26/2013 20:45	285	2.48	446.689	3.42	4.06	1	Atlas		1,107,788	1
	6/29/2013 19:15	6/29/2013 22:30	195	0.40	697.073	4.00	0.21	3	Atlas		278,829	1
	7/1/2013 18:45	7/1/2013 19:00	15	0.27	59.133	4.02	0.14	3	Atlas		15,966	1
	7/2/2013 13:00	7/2/2013 13:15	15	0.15	252.173	4.20	0.13	1	Atlas		37,826	1
	7/4/2013 11:15	7/4/2013 11:45	30	0.52	70.094	1.23	0.22	12	Atlas		36,449	1
	7/6/2013 1:00	7/6/2013 7:00	360	0.67	382.870	2.10	0.29	12	Atlas		256,523	1
	7/10/2013 13:45	7/10/2013 14:30	45	0.91	276.349	2.15	0.61	1	Atlas		251,478	1
	7/14/2013 19:15	7/14/2013 19:30	15	0.19	983.332	1.18	0.17	1	Atlas		186,833	1
	7/21/2013 19:30	7/21/2013 20:30	60	2.15	29.490	1.18	0.83	24	Atlas		63,403	1
	7/22/2013 7:00	7/22/2013 13:45	405	2.15	346.814	2.35	0.83	24	Atlas		745,651	1
	8/12/2013 14:30	8/12/2013 15:00	30	0.76	219.458	0.66	0.30	1	Atlas		166,788	1
	8/13/2013 3:00	8/13/2013 3:30	30	0.76	53.553	1.01	0.30	1	Atlas		40,700	1
	8/20/2013 18:00	8/20/2013 19:15	75	0.16	892.131	0.18	0.10	1	Atlas		142,741	1
	8/31/2013 19:30	9/1/2013 0:45	315	1.29	370.231	1.07	0.63	1	Atlas		477,598	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.25	421.508	1.54	0.22	1	Atlas		105,377	1
	9/20/2013 16:15	9/21/2013 3:45	690	1.23	614.572	1.21	0.51	12	Atlas		755,924	1
	10/5/2013 12:45	10/6/2013 6:15	1,050	4.21	625.003	3.67	7.58	24	Cloudburst		2,631,262	1
	10/30/2013 1:00	10/30/2013 6:30	330	1.35	351.744	1.34	0.67	6	Atlas		474,865	1
	10/31/2013 19:15	10/31/2013 21:45	150	0.65	209.606	1.95	0.25	24	Atlas		136,244	1
	11/17/2013 4:30	11/17/2013 9:15	285	2.23	755.352	1.86	0.93	6	Atlas		1,684,435	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/17/2013 17:30	11/17/2013 18:45	75	2.23	221.876	2.29	0.93	6	Atlas		494.783	1
	12/5/2013 5:00	12/5/2013 8:00	180	0.81	152.064	0.21	0.26	48	Atlas		123.172	1
	12/14/2013 8:45	12/14/2013 11:15	150	0.77	123.900	1.11	0.31	12	Atlas		95.403	1
	12/21/2013 5:15	12/21/2013 12:45	450	1.07	410.341	1.57	0.49	12	Atlas		439.065	1
	12/21/2013 21:30	12/22/2013 0:00	150	1.67	426.935	2.53	0.89	3	Atlas		712.981	1
	12/29/2013 6:00	12/29/2013 7:15	75	0.50	127.314	0.42	0.22	12	Atlas		63.657	1
	1/5/2014 14:45	1/5/2014 20:00	315	0.49	331.937	0.67	0.25	3	Atlas		162.649	1
	1/11/2014 0:00	1/11/2014 5:15	315	0.81	504.002	1.31	0.43	6	Atlas		408.242	1
	2/2/2014 4:00	2/2/2014 7:30	210	0.22	398.650	0.21	0.11	6	Atlas		87.703	1
	2/4/2014 19:00	2/5/2014 0:45	345	0.51	1,285.229	0.98	0.25	6	Atlas		655.467	1
	2/14/2014 17:00	2/14/2014 18:15	75	0.49	68.549	0.44	0.26	6	Atlas		33.589	1
	2/17/2014 15:30	2/17/2014 19:15	225	0.65	445.043	1.20	0.39	3	Atlas		289.278	1
	2/20/2014 23:00	2/21/2014 0:15	75	0.17	364.953	1.38	0.09	6	Atlas		62.042	1
	3/2/2014 9:30	3/2/2014 11:15	105	0.53	214.140	0.25	0.20	24	Atlas		113.494	1
	3/12/2014 7:15	3/12/2014 7:15	-	0.10	115.500	0.09	0.05	1	Atlas		11.550	1
	3/28/2014 4:30	3/28/2014 4:45	15	0.32	111.059	0.37	0.17	1	Atlas		35.539	1
	3/29/2014 6:15	3/29/2014 13:15	420	0.94	489.420	1.30	0.43	6	Atlas		460.055	1
	4/3/2014 5:30	4/4/2014 3:45	1,335	2.61	634.261	3.46	0.91	24	Atlas		1,655.421	1
	4/7/2014 9:00	4/7/2014 13:30	270	0.76	738.512	3.44	0.46	3	Atlas		561.269	1
	4/14/2014 3:30	4/14/2014 10:15	405	1.03	26.015	1.24	0.39	24	Atlas		26.795	1
	4/14/2014 20:00	4/15/2014 3:00	420	1.03	309.615	1.12	0.39	24	Atlas		318.903	1
	4/27/2014 20:00	4/28/2014 20:00	1,440	1.87	438.203	1.96	0.73	3	Atlas		819.440	1
	5/9/2014 19:00	5/10/2014 15:30	1,230	1.90	448.887	1.88	0.70	24	Atlas		852.886	1
	5/14/2014 6:45	5/14/2014 23:00	975	1.00	195.310	2.91	0.38	24	Atlas		195.310	1
	5/21/2014 21:00	5/22/2014 3:45	405	0.49	498.149	0.59	0.22	12	Atlas		244.093	1
	5/28/2014 20:30	5/28/2014 20:45	15	0.25	227.220	0.73	0.21	1	Atlas		56.805	1
	5/29/2014 20:45	5/29/2014 21:00	15	0.45	560.991	0.69	0.38	1	Atlas		252.446	1
	6/11/2014 14:15	6/11/2014 14:30	15	0.12	651.825	0.30	0.09	1	Atlas		78.219	1
	6/20/2014 17:30	6/20/2014 17:30	-	0.18	68.367	0.18	0.12	3	Atlas		12.306	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.12	109.608	0.32	0.07	1	Atlas		13.153	1
	7/2/2014 16:15	7/2/2014 16:30	15	0.12	92.650	0.40	0.10	1	Atlas		11.118	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.62	388.484	0.95	0.54	1	Atlas		240.860	1
	7/13/2014 22:30	7/13/2014 23:15	45	0.69	77.943	1.50	0.34	1	Atlas		53.781	1
	7/14/2014 20:00	7/14/2014 20:30	30	0.30	369.970	1.41	0.20	3	Atlas		110.991	1
	7/26/2014 21:45	7/27/2014 17:45	1,200	0.97	1,328.313	1.01	0.43	12	Atlas		1,288.464	1
	8/8/2014 5:45	8/8/2014 8:00	135	0.87	332.456	0.67	0.42	6	Atlas		289.237	1
	8/10/2014 4:00	8/10/2014 4:15	15	0.78	70.127	1.74	0.65	1	Atlas		54.699	1
	8/11/2014 15:30	8/11/2014 15:45	15	0.35	259.334	2.10	0.30	1	Atlas		90.767	1
	8/17/2014 9:30	8/17/2014 10:30	60	0.72	99.247	0.96	0.27	24	Atlas		71.458	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.22	307.505	0.94	0.13	3	Atlas		67.651	1
	8/23/2014 16:00	8/23/2014 22:00	360	0.52	255.156	1.48	0.26	3	Atlas		132.681	1
	8/27/2014 15:00	8/27/2014 15:00	-	0.12	62.233	1.01	0.09	1	Atlas		7.468	1
	8/30/2014 15:15	8/30/2014 16:15	60	0.54	498.685	1.12	0.31	1	Atlas		269.290	1
	9/2/2014 8:30	9/2/2014 8:45	15	0.40	29.590	1.07	0.25	3	Atlas		11.836	1
	9/11/2014 0:45	9/11/2014 2:30	105	1.86	800.797	1.59	1.27	3	Atlas		1,489.483	1
	10/3/2014 4:15	10/3/2014 4:15	-	0.26	34.965	0.09	0.10	24	Atlas		9.091	1
	10/6/2014 9:45	10/6/2014 10:00	15	0.22	410.568	0.42	0.09	6	Atlas		90.325	1
	10/7/2014 11:45	10/7/2014 12:00	15	0.22	129.282	0.70	0.18	1	Atlas		28.442	1
	10/10/2014 2:00	10/10/2014 3:30	90	1.19	155.952	1.53	0.55	1	Atlas		185.583	1
	10/10/2014 21:15	10/10/2014 21:15	-	1.19	2.763	1.60	0.55	1	Atlas		3.288	1
	10/13/2014 4:30	10/13/2014 6:30	120	0.42	211.383	2.05	0.27	3	Atlas		88.781	1
	10/13/2014 23:30	10/14/2014 10:30	660	0.88	324.147	2.73	0.39	12	Atlas		285.249	1
	10/20/2014 20:00	10/20/2014 20:00	-	0.04	303.400	1.14	0.03	1	Atlas		12.136	1
	10/28/2014 13:15	10/28/2014 13:15	-	0.13	93.100	0.11	0.07	3	Atlas		12.103	1
	11/23/2014 17:15	11/23/2014 20:00	165	0.74	198.085	1.01	0.32	12	Atlas		146.583	1
	12/1/2014 3:15	12/1/2014 4:30	75	0.87	33.397	0.36	0.33	24	Atlas		29.055	1
	12/5/2014 6:00	12/5/2014 6:00	-	1.85	1.416	1.26	0.60	48	Atlas		2.619	1
	12/6/2014 20:30	12/6/2014 6:00	570	1.85	229.042	2.68	0.60	48	Atlas		423.727	1
	12/16/2014 5:00	12/16/2014 5:00	-	0.12	124.792	0.11	0.07	3	Atlas		14.975	1
	12/22/2014 23:30	12/22/2014 23:45	15	0.23	44.417	0.33	0.14	3	Atlas		10.216	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/24/2014 13:15	12/24/2014 13:15	-	0.19	24.316	0.34	0.08	12	Atlas		4,620	1
	12/28/2014 0:45	12/28/2014 1:30	45	0.30	133.393	0.76	0.12	24	Atlas		40,018	1
	2/1/2015 12:45	2/1/2015 14:30	105	0.39	126.382	0.47	0.19	3	Atlas		49,289	1
	2/21/2015 14:45	2/21/2015 14:45	-	1.24	1,751	1.44	0.48	24	Atlas		2,171	1
	3/3/2015 18:45	3/4/2015 15:00	1,215	1.76	436.607	1.32	0.57	24	Atlas		768,429	1
	3/10/2015 6:45	3/10/2015 13:45	420	1.13	726.406	2.85	0.51	12	Atlas		820,839	1
	3/13/2015 9:45	3/14/2015 3:45	1,080	1.81	446.965	2.88	0.68	24	Atlas		809,006	1
	3/24/2015 20:00	3/24/2015 20:00	-	0.12	56.975	0.31	0.07	1	Atlas		6,837	1
	3/26/2015 4:15	3/26/2015 6:15	120	0.48	268.154	0.63	0.19	3	Atlas		128,714	1
	4/2/2015 9:45	4/3/2015 17:00	1,875	4.76	664.083	4.91	7.33	6	Cloudburst		3,161,035	1
	4/7/2015 9:15	4/7/2015 17:30	495	0.92	651.139	5.68	0.46	1	Atlas		599,048	1
	4/8/2015 18:00	4/8/2015 21:15	195	0.28	525.318	5.96	0.21	1	Atlas		147,089	1
	4/9/2015 11:30	4/9/2015 13:45	135	0.18	1,161.961	5.71	0.16	1	Atlas		209,153	1
	4/10/2015 2:15	4/10/2015 4:15	120	0.19	736.826	3.48	0.12	3	Atlas		139,997	1
	4/13/2015 20:45	4/13/2015 21:00	15	0.37	227.981	1.66	0.15	6	Atlas		84,353	1
	4/19/2015 14:00	4/19/2015 14:15	15	0.76	172.359	1.10	0.32	12	Atlas		130,993	1
	4/20/2015 3:15	4/20/2015 3:15	-	0.07	1.28	1.28	0.06	1	Atlas		8,185	1
	4/25/2015 9:00	4/25/2015 9:15	15	0.13	79.485	0.99	0.06	12	Atlas		10,333	1
	5/16/2015 11:45	5/16/2015 13:15	90	0.46	62.020	0.44	0.23	3	Atlas		28,529	1
	5/17/2015 14:15	5/17/2015 14:30	15	0.08	1,505.388	0.58	0.05	1	Atlas		120,431	1
	5/25/2015 7:00	5/25/2015 8:15	75	0.29	41.717	0.25	0.13	12	Atlas		12,098	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.23	815.652	0.49	0.17	1	Atlas		187,600	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.13	17.631	0.65	0.11	1	Atlas		2,292	1
	5/30/2015 16:00	5/30/2015 16:00	-	0.04	244.175	0.66	0.02	3	Atlas		9,767	1
	6/8/2015 7:00	6/8/2015 8:15	75	0.22	261.764	0.27	0.13	3	Atlas		57,588	1
	6/17/2015 4:45	6/17/2015 6:45	120	0.63	238.530	0.69	0.36	3	Atlas		150,274	1
	6/18/2015 16:15	6/18/2015 17:45	90	1.38	281.009	1.10	0.45	48	Atlas		387,792	1
	6/20/2015 1:30	6/20/2015 10:45	555	1.38	286.520	2.14	0.45	48	Atlas		395,398	1
	6/22/2015 6:15	6/22/2015 6:15	-	0.22	23.814	2.26	0.10	12	Atlas		5,239	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.49	85.298	1.39	0.26	6	Atlas		41,796	1
	6/26/2015 17:00	6/27/2015 1:15	495	0.93	457.448	2.49	0.53	1	Atlas		425,427	1
	6/29/2015 13:45	6/29/2015 13:45	-	0.31	38.668	1.72	0.17	1	Atlas		11,987	1
	7/2/2015 0:15	7/2/2015 2:15	120	1.66	49.178	2.46	0.64	24	Atlas		81,636	1
	7/2/2015 15:15	7/2/2015 21:30	375	1.66	284.445	3.45	0.64	24	Atlas		472,179	1
	7/3/2015 15:00	7/3/2015 19:00	240	0.35	86.500	3.30	0.19	1	Atlas		30,275	1
	7/7/2015 11:30	7/8/2015 0:15	765	0.87	221.154	2.86	0.41	6	Atlas		192,404	1
	7/8/2015 12:00	7/8/2015 12:45	45	0.87	64.828	2.91	0.41	6	Atlas		56,400	1
	7/9/2015 6:15	7/9/2015 13:30	435	0.31	132.606	2.38	0.15	3	Atlas		41,108	1
	7/10/2015 10:15	7/10/2015 16:15	360	0.43	182.579	1.98	0.21	6	Atlas		78,509	1
	7/12/2015 6:00	7/12/2015 7:15	75	1.35	870.468	2.93	0.91	1	Atlas		1,175,132	1
	7/13/2015 14:15	7/13/2015 15:15	60	0.50	327.876	3.48	0.41	1	Atlas		163,938	1
	7/14/2015 4:00	7/14/2015 4:30	30	0.73	345.912	4.16	0.57	1	Atlas		252,516	1
	7/14/2015 18:45	7/14/2015 18:45	-	0.14	62.293	3.58	0.12	1	Atlas		8,721	1
	7/17/2015 22:30	7/18/2015 1:00	150	1.60	722.244	4.32	1.33	3	Atlas		1,155,591	1
	7/29/2015 17:30	7/29/2015 17:30	-	0.08	79.075	0.10	0.07	1	Atlas		6,326	1
	8/4/2015 19:00	8/4/2015 19:15	15	0.44	213.898	0.50	0.37	1	Atlas		94,115	1
	8/5/2015 15:00	8/5/2015 15:15	15	0.77	51.830	0.79	0.28	24	Atlas		39,909	1
	8/6/2015 2:15	8/6/2015 15:15	780	0.77	269.923	1.21	0.28	24	Atlas		207,841	1
	8/19/2015 8:15	8/19/2015 8:30	15	0.28	498.721	0.27	0.11	24	Atlas		139,642	1
	8/19/2015 17:00	8/19/2015 17:15	15	0.28	168.868	0.41	0.11	24	Atlas		47,283	1
	9/5/2015 17:15	9/5/2015 17:15	-	0.12	406.850	0.08	0.07	1	Atlas		48,822	1
	9/9/2015 11:30	9/9/2015 11:45	15	0.27	342.622	0.99	0.23	1	Atlas		92,508	1
	9/11/2015 18:30	9/11/2015 18:30	-	0.19	65.632	1.14	0.12	1	Atlas		12,470	1
	9/29/2015 9:30	9/29/2015 9:30	-	0.83	11.387	0.54	0.27	48	Atlas		9,451	1
	9/29/2015 19:00	9/29/2015 19:00	-	0.83	15.511	0.78	0.27	48	Atlas		12,874	1
	10/2/2015 18:15	10/2/2015 19:15	60	0.60	44.723	1.45	0.29	6	Atlas		26,834	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.27	81.589	0.32	0.18	3	Atlas		22,029	1
	10/27/2015 17:00	10/28/2015 8:30	930	2.51	264.226	2.67	0.78	48	Atlas		663,207	1
	10/28/2015 22:30	10/28/2015 22:30	-	2.51	1.162	2.83	0.78	48	Atlas		2,916	1
	11/6/2015 3:00	11/6/2015 5:15	135	0.85	541.764	0.90	0.49	3	Atlas		460,499	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/9/2015 19:15	11/9/2015 21:15	120	0.55	73.295	1.38	0.25	12	Atlas		40,312	1
	11/12/2015 0:00	11/12/2015 1:15	75	0.28	370.321	1.67	0.16	3	Atlas		103,690	1
	11/18/2015 9:00	11/18/2015 14:00	300	1.40	481.216	1.74	0.72	6	Atlas		673,702	1
	11/21/2015 15:00	11/21/2015 15:00	-	0.08	66.513	1.62	0.07	1	Atlas		5,321	1
	11/28/2015 14:00	11/28/2015 17:45	225	0.69	47.648	0.69	0.28	12	Atlas		32,877	1
	11/30/2015 21:45	12/1/2015 5:00	435	0.64	313.322	1.53	0.29	12	Atlas		200,526	1
	12/14/2015 5:15	12/14/2015 5:15	-	0.24	9.963	0.07	0.13	6	Atlas		2,391	1
	12/21/2015 11:15	12/21/2015 11:15	-	0.74	7.776	0.21	0.30	1	Atlas		5,754	1
	12/21/2015 23:45	12/22/2015 4:30	285	0.74	285.934	0.76	0.30	1	Atlas		211,591	1
	12/23/2015 19:30	12/23/2015 20:30	60	0.72	675.576	1.49	0.57	1	Atlas		486,415	1
	12/25/2015 9:15	12/25/2015 9:15	-	0.12	26.133	1.58	0.07	3	Atlas		3,136	1
	12/26/2015 12:00	12/26/2015 17:45	345	0.36	155.561	1.96	0.17	12	Atlas		56,002	1
	12/27/2015 10:15	12/27/2015 13:45	210	1.97	525.070	3.12	0.65	3	Atlas		1,034,387	1
	12/28/2015 0:15	12/28/2015 6:15	360	1.97	51.193	3.45	0.65	3	Atlas		100,850	1
	12/28/2015 15:30	12/29/2015 16:45	75	1.97	48.605	3.70	0.65	3	Atlas		95,752	1
	1/9/2016 18:30	1/9/2016 18:30	-	0.18	13.556	0.17	0.08	12	Atlas		2,440	1
	2/2/2016 19:45	2/3/2016 1:30	345	1.34	516.113	1.41	0.62	6	Atlas		691,591	1
	2/21/2016 4:00	2/21/2016 11:30	450	1.10	327.115	1.27	0.50	12	Atlas		359,827	1
	2/23/2016 22:15	2/24/2016 7:15	540	2.04	310.140	2.81	0.79	12	Atlas		632,686	1
	3/1/2016 11:45	3/1/2016 14:00	135	0.29	295.059	2.34	0.15	3	Atlas		85,567	1
	3/9/2016 15:30	3/9/2016 15:30	-	1.11	3.720	0.21	0.36	48	Atlas		4,129	1
	3/10/2016 13:15	3/10/2016 20:00	405	1.11	181.371	1.15	0.36	48	Atlas		201,322	1
	3/12/2016 20:00	3/12/2016 23:45	225	0.80	208.656	1.69	0.31	6	Atlas		166,925	1
	3/13/2016 8:45	3/13/2016 10:45	120	0.80	158.990	1.94	0.31	6	Atlas		127,192	1
	3/24/2016 17:15	3/24/2016 17:45	30	0.51	161.004	0.57	0.38	1	Atlas		82,112	1
	3/27/2016 21:00	3/27/2016 22:30	90	0.75	490.329	1.26	0.51	1	Atlas		367,747	1
	3/31/2016 4:15	3/31/2016 7:30	195	1.04	75.709	1.89	0.40	24	Atlas		78,737	1
	3/31/2016 15:45	4/1/2016 0:00	495	1.04	90.903	2.25	0.40	24	Atlas		94,539	1
	4/11/2016 13:30	4/11/2016 19:15	345	1.04	155.666	1.09	0.46	6	Atlas		161,893	1
	4/21/2016 14:30	4/21/2016 15:45	75	0.31	51.129	0.21	0.13	3	Atlas		15,860	1
	4/26/2016 16:00	4/26/2016 21:45	345	0.43	112.560	0.75	0.22	6	Atlas		48,401	1
	4/27/2016 12:45	4/27/2016 22:15	570	0.58	415.688	1.29	0.25	12	Atlas		241,099	1
	4/30/2016 11:00	4/30/2016 12:45	105	0.53	73.668	1.37	0.20	6	Atlas		39,044	1
	5/1/2016 14:45	5/1/2016 15:00	15	0.26	40.796	1.69	0.17	3	Atlas		10,607	1
	5/4/2016 11:30	5/4/2016 11:30	-	0.20	29.445	1.54	0.12	1	Atlas		5,889	1
	5/7/2016 21:45	5/7/2016 22:00	15	0.50	20.330	1.06	0.26	6	Atlas		10,165	1
	5/10/2016 8:30	5/10/2016 22:00	810	0.70	394.417	1.44	0.26	24	Atlas		276,092	1
	5/11/2016 21:30	5/11/2016 22:00	30	0.21	100.676	1.43	0.12	3	Atlas		21,142	1
	5/17/2016 6:30	5/17/2016 6:45	15	0.66	12.709	1.46	0.22	24	Atlas		8,388	1
	5/17/2016 20:00	5/17/2016 20:30	30	0.66	74.594	1.23	0.22	24	Atlas		49,232	1
	5/20/2016 13:30	5/20/2016 16:00	150	0.53	459.013	1.22	0.29	3	Atlas		243,277	1
	5/26/2016 13:30	5/26/2016 15:00	90	0.23	127.309	0.84	0.15	3	Atlas		29,281	1
	6/2/2016 15:15	6/2/2016 16:00	45	0.34	297.035	0.50	0.26	1	Atlas		100,992	1
	6/4/2016 16:30	6/4/2016 16:45	15	0.22	240.555	0.66	0.13	1	Atlas		52,922	1
	6/12/2016 17:45	6/12/2016 18:00	15	0.09	1,156.211	0.13	0.08	1	Atlas		104,059	1
	6/14/2016 16:30	6/14/2016 18:30	120	0.82	575.873	0.89	0.53	3	Atlas		472,216	1
	6/22/2016 8:15	6/22/2016 8:15	-	0.26	450.512	0.13	0.16	3	Atlas		117,133	1
	6/23/2016 16:00	6/24/2016 0:45	525	2.15	262.218	2.41	1.92	6	Cloudburst		563,768	1
	7/3/2016 10:15	7/3/2016 23:15	780	1.23	184.261	0.77	0.40	48	Atlas		226,641	1
	7/4/2016 8:00	7/4/2016 16:30	510	1.23	48.411	1.22	0.40	48	Atlas		59,545	1
	7/6/2016 13:15	7/6/2016 13:15	-	0.06	128.533	1.27	0.04	3	Atlas		7,712	1
	7/12/2016 9:00	7/12/2016 10:00	60	0.20	518.020	0.33	0.13	3	Atlas		103,604	1
	7/25/2016 12:45	7/25/2016 12:45	-	0.11	521.155	0.07	0.06	6	Atlas		57,327	1
	7/30/2016 14:15	7/30/2016 14:30	15	0.27	277.504	1.22	0.23	1	Atlas		74,926	1
	8/1/2016 11:00	8/1/2016 11:15	15	0.38	105.068	1.58	0.31	1	Atlas		39,926	1
	8/4/2016 13:15	8/4/2016 13:45	30	0.25	307.680	0.86	0.14	6	Atlas		76,920	1
	8/10/2016 3:30	8/10/2016 3:30	-	0.03	121.600	0.51	0.03	1	Atlas		3,648	1
	8/15/2016 2:30	8/15/2016 7:30	300	0.81	548.827	1.09	0.43	6	Atlas		444,550	1
	8/17/2016 4:30	8/17/2016 7:30	180	0.72	355.765	1.54	0.32	6	Atlas		256,151	1
	8/20/2016 14:30	8/20/2016 20:45	375	1.10	153.335	2.66	0.46	12	Atlas		168,668	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/28/2016 17:15	8/28/2016 17:30	15	0.13	301.069	0.14	0.11	1	Atlas		39,139	1
	8/31/2016 17:00	8/31/2016 17:45	45	0.16	200.144	0.29	0.12	1	Atlas		32,023	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.20	336.395	0.20	0.12	1	Atlas		67,279	1
	9/26/2016 9:15	9/26/2016 9:15	-	0.20	39.275	0.06	0.13	3	Atlas		7,855	1
	9/28/2016 12:30	9/28/2016 14:00	90	0.38	92.995	0.58	0.21	6	Atlas		35,338	1
	9/30/2016 0:00	9/30/2016 2:45	165	0.68	138.865	1.24	0.37	3	Atlas		94,428	1
	10/20/2016 9:15	10/20/2016 11:15	120	0.58	411.800	0.43	0.26	3	Atlas		238,844	1
	11/8/2016 19:45	11/8/2016 20:00	15	0.16	179.481	0.18	0.07	12	Atlas		28,717	1
	11/19/2016 2:45	11/19/2016 2:45	-	0.12	28.858	0.12	0.08	3	Atlas		3,463	1
	11/23/2016 21:00	11/23/2016 21:00	-	0.29	22.576	0.41	0.12	6	Atlas		6,547	1
	11/28/2016 16:45	11/28/2016 22:00	315	0.70	106.021	0.98	0.30	12	Atlas		74,215	1
	12/6/2016 5:30	12/6/2016 12:30	420	0.86	163.135	0.89	0.39	12	Atlas		140,296	1
	12/17/2016 16:30	12/18/2016 1:15	525	2.61	677.917	2.94	1.70	12	Cloudburst		1,769,364	1
	12/23/2016 23:00	12/24/2016 1:15	135	0.23	89.496	2.79	0.11	12	Atlas		20,584	1
	12/26/2016 20:45	12/26/2016 20:45	-	0.27	21.811	0.46	0.14	6	Atlas		5,889	1
	1/3/2017 3:45	1/3/2017 4:30	45	0.17	110.629	0.23	0.09	6	Atlas		18,807	1
	1/10/2017 19:45	1/10/2017 20:00	15	0.12	150.467	0.35	0.09	1	Atlas		18,056	1
	1/11/2017 12:15	1/11/2017 14:00	105	0.20	135.720	0.55	0.14	1	Atlas		27,144	1
	1/12/2017 15:45	1/12/2017 18:45	180	0.39	111.444	0.59	0.19	6	Atlas		43,463	1
	1/13/2017 15:30	1/13/2017 15:45	15	0.35	25.717	1.04	0.21	3	Atlas		9,001	1
	1/14/2017 11:15	1/14/2017 14:00	165	0.24	192.513	1.30	0.11	6	Atlas		46,203	1
	1/16/2017 23:45	1/17/2017 4:00	255	0.50	396.590	1.92	0.23	12	Atlas		198,295	1
	1/19/2017 19:00	1/20/2017 3:45	525	1.03	605.717	2.37	0.47	12	Atlas		623,889	1
	2/7/2017 10:30	2/7/2017 10:30	-	0.30	16.990	0.19	0.15	6	Atlas		5,097	1
	2/24/2017 19:00	2/24/2017 19:30	30	0.42	314.071	0.47	0.36	1	Atlas		131,910	1
	2/28/2017 10:15	2/28/2017 10:45	30	0.26	116.727	0.73	0.12	6	Atlas		30,349	1
	3/1/2017 3:15	3/1/2017 9:00	345	1.05	750.119	1.78	0.55	6	Atlas		787,625	1
	3/7/2017 7:45	3/7/2017 13:00	315	0.56	251.766	1.76	0.18	48	Atlas		140,989	1
	3/26/2017 1:15	3/26/2017 2:30	75	0.45	66.078	0.30	0.21	6	Atlas		29,735	1
	3/27/2017 18:15	3/27/2017 19:00	45	0.31	108.281	0.76	0.19	3	Atlas		33,567	1
	3/30/2017 8:45	3/30/2017 8:45	-	0.06	162.533	0.82	0.05	1	Atlas		9,752	1
	3/31/2017 1:00	3/31/2017 1:00	-	0.26	24.908	1.01	0.12	6	Atlas		6,476	1
	4/3/2017 19:15	4/3/2017 19:15	-	0.15	182.853	0.42	0.10	1	Atlas		27,428	1
	4/11/2017 4:30	4/11/2017 8:45	255	0.34	62.479	0.26	0.16	12	Atlas		21,243	1
	4/16/2017 5:15	4/16/2017 20:30	915	1.29	165.891	1.49	0.50	24	Atlas		214,000	1
	4/21/2017 22:00	4/22/2017 0:15	135	0.67	72.013	1.82	0.24	24	Atlas		48,249	1
	4/27/2017 6:30	4/27/2017 7:00	30	0.10	236.930	0.79	0.05	6	Atlas		23,693	1
	4/28/2017 23:15	4/29/2017 3:00	225	0.90	549.532	1.21	0.46	6	Atlas		494,579	1
	5/1/2017 2:15	5/1/2017 3:45	90	0.24	115.921	1.22	0.13	3	Atlas		27,821	1
	5/4/2017 19:30	5/5/2017 9:00	810	1.69	321.666	2.63	0.57	24	Atlas		543,615	1
	5/11/2017 3:45	5/11/2017 3:45	-	0.18	34.289	1.88	0.10	6	Atlas		6,172	1
	5/20/2017 18:30	5/21/2017 6:00	690	1.04	717.999	1.06	0.47	12	Atlas		746,719	1
	5/24/2017 18:00	5/24/2017 19:30	90	0.54	95.646	1.45	0.19	24	Atlas		51,649	1
	5/27/2017 14:00	5/27/2017 14:15	15	0.29	498.424	1.85	0.23	1	Atlas		144,543	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.04	1,159.875	0.05	0.02	12	Atlas		46,395	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.19	201.532	0.22	0.17	1	Atlas		38,291	1
	6/15/2017 3:00	6/15/2017 4:30	90	0.71	422.497	0.75	0.44	3	Atlas		299,973	1
	6/18/2017 21:30	6/18/2017 21:30	-	0.18	43.217	1.02	0.11	3	Atlas		7,779	1
	6/22/2017 18:30	6/22/2017 19:30	60	0.33	107.842	0.51	0.17	6	Atlas		35,588	1
	6/23/2017 7:45	6/23/2017 18:00	615	0.78	323.359	1.29	0.39	6	Atlas		252,220	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.25	311.940	0.34	0.21	1	Atlas		77,985	1
	7/6/2017 4:45	7/6/2017 13:00	495	0.50	175.426	0.76	0.25	3	Atlas		87,713	1
	7/7/2017 20:30	7/7/2017 21:00	30	0.22	53.732	1.04	0.15	3	Atlas		11,821	1
	7/23/2017 1:45	7/23/2017 9:45	480	1.02	496.808	1.02	0.47	12	Atlas		506,744	1
	7/28/2017 9:15	7/28/2017 10:15	60	0.52	331.213	1.53	0.39	1	Atlas		172,231	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.32	52.725	0.81	0.26	1	Atlas		16,872	1
	8/6/2017 14:30	8/7/2017 0:00	570	0.52	107.071	0.86	0.23	12	Atlas		55,677	1
	8/17/2017 15:00	8/17/2017 18:15	195	0.36	297.356	0.39	0.21	1	Atlas		107,048	1
	8/22/2017 12:30	8/22/2017 16:45	255	0.74	230.724	1.13	0.43	1	Atlas		170,736	1
	9/1/2017 7:30	9/2/2017 0:45	1,035	2.98	224.813	2.74	1.31	24	Cloudburst		669,943	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/12/2017 7:00	9/12/2017 7:00	-	0.71	3,230	0.26	0.23	48	Atlas		2,293	1
	9/13/2017 12:15	9/13/2017 12:15	-	0.71	11,746	0.58	0.23	48	Atlas		8,340	1
	9/19/2017 8:00	9/19/2017 11:30	210	0.47	571,947	0.89	0.30	3	Atlas		268,815	1
	10/7/2017 21:45	10/7/2017 23:15	90	1.59	122,520	0.64	0.60	24	Atlas		194,807	1
	10/8/2017 10:30	10/8/2017 19:30	540	1.59	246,026	1.59	0.60	24	Atlas		391,181	1
	10/10/2017 14:15	10/10/2017 21:00	405	0.66	190,689	2.26	0.34	3	Atlas		125,855	1
	10/23/2017 6:30	10/23/2017 7:00	30	0.46	57,970	0.31	0.24	6	Atlas		26,666	1
	10/27/2017 17:30	10/28/2017 0:45	435	0.81	133,072	1.31	0.37	12	Atlas		107,788	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.05	582,000	1.99	0.83	1	Atlas		611,100	1
	11/6/2017 1:45	11/6/2017 2:30	45	0.46	382,370	1.64	0.32	1	Atlas		175,890	1
	11/15/2017 13:15	11/15/2017 14:00	45	0.31	121,748	0.33	0.20	3	Atlas		37,742	1
	11/18/2017 16:30	11/18/2017 17:45	75	0.31	167,719	0.61	0.17	3	Atlas		51,993	1
	12/5/2017 3:15	12/5/2017 6:15	180	0.63	583,186	0.65	0.33	3	Atlas		367,407	1
	12/22/2017 22:30	12/23/2017 12:45	855	1.15	410,037	1.15	0.44	24	Atlas		471,543	1
	1/11/2018 9:00	1/11/2018 9:00	-	0.06	34,217	0.14	0.03	3	Atlas		2,053	1
	1/12/2018 4:00	1/12/2018 10:00	360	0.30	346,103	0.32	0.12	24	Atlas		103,831	1
	1/27/2018 13:45	1/27/2018 17:15	210	0.32	96,175	0.65	0.17	3	Atlas		30,776	1
	2/7/2018 1:15	2/7/2018 4:45	210	0.62	262,806	0.86	0.33	6	Atlas		162,940	1
	2/11/2018 4:15	2/11/2018 11:15	420	0.41	430,785	1.15	0.20	3	Atlas		176,622	1
	2/14/2018 7:30	2/14/2018 10:00	150	0.45	141,282	0.91	0.23	3	Atlas		63,577	1
	2/16/2018 2:30	2/16/2018 11:15	525	0.72	625,800	1.70	0.31	12	Atlas		450,576	1
	2/21/2018 5:15	2/22/2018 5:30	1,455	1.70	628,446	3.04	0.63	24	Atlas		1,068,359	1
	2/24/2018 2:00	2/24/2018 23:30	1,290	1.67	617,153	4.65	0.67	12	Atlas		1,030,646	1
	3/10/2018 0:45	3/10/2018 2:45	120	0.56	38,241	0.57	0.35	3	Atlas		21,415	1
	3/19/2018 17:45	3/19/2018 17:45	-	0.29	559	0.20	0.17	3	Atlas		162	1
	3/24/2018 9:00	3/24/2018 20:00	660	0.93	469,297	1.68	0.35	24	Atlas		436,446	1
	3/28/2018 5:30	3/28/2018 6:30	60	1.04	37,791	1.35	0.27	48	Atlas		39,303	1
	3/29/2018 19:00	3/29/2018 23:00	240	1.04	127,184	1.84	0.27	48	Atlas		132,271	1
	3/31/2018 22:00	4/1/2018 1:15	195	0.22	656,250	1.30	0.12	3	Atlas		144,375	1
	4/1/2018 20:00	4/1/2018 23:45	225	0.63	749,014	1.95	0.34	6	Atlas		471,879	1
	4/14/2018 9:00	4/14/2018 10:00	60	0.95	32,427	0.26	0.31	48	Atlas		30,806	1
	4/14/2018 23:15	4/15/2018 10:00	645	0.95	199,652	0.99	0.31	48	Atlas		189,669	1
	4/23/2018 5:15	4/23/2018 12:15	420	0.67	170,930	0.82	0.31	12	Atlas		114,523	1
	5/5/2018 14:15	5/5/2018 19:00	285	1.31	574,357	1.21	0.51	6	Atlas		752,408	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.33	252,776	0.43	0.24	1	Atlas		83,416	1
	6/1/2018 0:30	6/1/2018 3:15	165	1.35	246,532	2.02	0.79	3	Atlas		332,818	1
	6/10/2018 14:45	6/10/2018 21:15	390	0.40	127,195	0.39	0.18	12	Atlas		50,878	1
	6/11/2018 11:15	6/11/2018 13:45	150	0.24	685,354	0.60	0.15	1	Atlas		164,485	1
	6/11/2018 23:45	6/11/2018 23:45	-	0.29	13,759	0.65	0.14	1	Atlas		3,990	1
	6/26/2018 14:00	6/26/2018 14:45	45	0.69	218,372	1.96	0.28	12	Atlas		150,677	1
	7/2/2018 17:30	7/2/2018 18:15	45	0.43	807,819	1.11	0.35	1	Atlas		347,362	1
	7/3/2018 13:30	7/3/2018 16:30	180	0.56	423,291	1.41	0.42	1	Atlas		237,043	1
	7/15/2018 18:30	7/15/2018 18:30	-	0.10	142,650	0.10	0.05	12	Atlas		14,265	1
	7/16/2018 9:30	7/16/2018 9:45	15	0.14	292,600	0.19	0.11	1	Atlas		40,964	1
	7/20/2018 5:00	7/20/2018 5:00	-	1.61	16,445	0.38	0.92	3	Atlas		26,476	1
	7/20/2018 19:15	7/20/2018 21:15	120	1.61	542,969	1.84	0.92	3	Atlas		874,180	1
	7/22/2018 12:15	7/22/2018 18:00	345	0.17	2,506,388	2.01	0.12	1	Atlas		426,086	1
	7/30/2018 23:45	7/31/2018 13:00	795	2.10	801,934	2.16	0.93	6	Atlas		1,684,061	1
	8/15/2018 19:45	8/15/2018 19:45	-	2.51	7,443	0.38	0.96	24	Atlas		18,683	1
	8/16/2018 4:15	8/16/2018 8:45	270	2.51	196,046	2.34	0.96	24	Atlas		492,076	1
	8/19/2018 20:30	8/19/2018 21:15	45	0.11	1,007,036	2.63	0.08	1	Atlas		110,774	1
	8/20/2018 11:15	8/20/2018 11:45	30	0.63	40,317	3.20	0.49	1	Atlas		25,400	1
	9/6/2018 11:30	9/6/2018 11:30	-	0.27	63,974	0.47	0.21	1	Atlas		17,273	1
	9/8/2018 18:15	9/8/2018 22:00	225	2.44	483,258	2.69	1.14	6	Cloudburst		1,179,149	1
	9/22/2018 16:45	9/22/2018 16:45	-	1.24	2,052	0.74	0.47	24	Atlas		2,544	1
	9/23/2018 5:15	9/23/2018 6:45	90	1.24	63,590	1.61	0.47	24	Atlas		78,851	1
	9/24/2018 7:15	9/24/2018 13:30	375	1.32	338,994	2.90	0.61	6	Atlas		447,472	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.05	974,460	2.98	0.04	1	Atlas		48,723	1
	9/25/2018 16:30	9/26/2018 2:15	585	0.72	491,282	3.68	0.32	12	Atlas		353,723	1
	11/1/2018 0:30	11/1/2018 11:00	630	1.64	285,048	1.79	0.59	24	Atlas		467,478	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/5/2018 21:45	11/6/2018 0:15	150	0.83	255.728	2.51	0.45	6	Atlas		212.254	1
	3/30/2019 15:30	3/31/2019 3:00	690	0.85	658.314	1.18	0.40	6	Atlas		559.567	1
	4/7/2019 6:00	4/7/2019 13:45	465	0.47	366.457	0.66	0.22	3	Atlas		172.235	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.08	96.300	0.53	0.05	3	Atlas		7.704	1
	4/14/2019 1:00	4/14/2019 5:45	285	0.80	509.234	1.32	0.37	6	Atlas		407.387	1
	4/18/2019 22:45	4/18/2019 23:15	30	2.57	10.942	1.09	0.83	48	Atlas		28.122	1
	4/19/2019 18:15	4/20/2019 5:00	645	2.57	202.723	2.73	0.83	48	Atlas		520.999	1
	4/23/2019 18:15	4/23/2019 18:15	-	0.02	380.000	2.59	0.02	1	Atlas		7.600	1
	4/24/2019 20:30	4/25/2019 1:45	315	0.54	512.559	3.08	0.26	1	Atlas		276.782	1
	4/25/2019 18:00	4/26/2019 5:00	660	0.31	901.284	3.45	0.14	12	Atlas		279.398	1
	5/3/2019 3:15	5/3/2019 8:45	330	0.88	551.800	1.09	0.48	6	Atlas		485.584	1
	5/4/2019 16:45	5/4/2019 17:45	60	0.19	352.295	1.24	0.12	3	Atlas		66.936	1
	5/11/2019 21:00	5/11/2019 21:00	-	0.23	53.043	0.22	0.13	3	Atlas		12.200	1
	5/19/2019 13:15	5/19/2019 13:15	-	0.09	195.633	0.11	0.06	1	Atlas		17.607	1
	5/19/2019 23:00	5/19/2019 23:30	30	0.14	219.286	0.24	0.10	1	Atlas		30.700	1
	5/23/2019 15:45	5/23/2019 16:00	15	0.11	142.527	0.35	0.07	1	Atlas		15.678	1
	5/26/2019 13:45	5/26/2019 17:00	195	0.51	178.751	0.76	0.33	3	Atlas		91.163	1
	5/29/2019 9:15	5/29/2019 14:00	285	0.59	233.683	1.21	0.32	6	Atlas		137.873	1
	5/30/2019 11:00	5/30/2019 11:45	45	0.21	139.781	1.37	0.09	3	Atlas		29.354	1
	6/5/2019 20:45	6/5/2019 21:30	45	0.81	347.737	0.95	0.61	1	Atlas		281.667	1
	6/7/2019 21:00	6/8/2019 8:30	690	0.52	143.006	1.38	0.22	6	Atlas		74.363	1
	6/9/2019 0:15	6/9/2019 0:45	30	0.30	188.153	1.66	0.15	6	Atlas		56.446	1
	6/9/2019 16:30	6/9/2019 17:30	60	0.72	356.222	2.26	0.39	3	Atlas		256.480	1
	6/16/2019 6:00	6/16/2019 6:00	-	0.24	106.400	1.07	0.17	1	Atlas		25.536	1
	6/16/2019 16:30	6/17/2019 8:15	945	1.68	323.041	2.60	0.77	12	Atlas		542.709	1
	6/18/2019 4:45	6/18/2019 4:45	-	0.14	135.029	2.18	0.06	12	Atlas		18.904	1
	6/18/2019 16:00	6/18/2019 19:00	180	0.38	1,176.318	2.58	0.31	1	Atlas		447.001	1
	6/21/2019 19:30	6/21/2019 22:15	165	0.58	380.441	3.23	0.38	3	Atlas		220.656	1
	6/22/2019 7:00	6/22/2019 10:45	225	0.35	579.057	3.46	0.23	3	Atlas		202.670	1
	6/23/2019 16:00	6/23/2019 17:45	105	0.38	524.621	3.50	0.30	1	Atlas		199.356	1
	6/24/2019 13:00	6/24/2019 14:30	90	0.40	792.748	2.31	0.25	3	Atlas		317.099	1
	7/3/2019 13:00	7/3/2019 13:00	-	0.12	61.175	0.18	0.07	3	Atlas		7.341	1
	7/18/2019 0:45	7/18/2019 1:30	45	0.18	873.833	0.45	0.14	1	Atlas		157.290	1
	7/21/2019 23:15	7/21/2019 23:15	-	0.18	2.394	0.59	0.11	3	Atlas		431	1
	7/29/2019 23:30	7/30/2019 0:00	30	0.58	205.833	0.58	0.36	3	Atlas		119.383	1
	8/22/2019 3:00	8/22/2019 4:45	105	0.19	187.884	0.35	0.13	3	Atlas		35.698	1
	8/26/2019 10:15	8/26/2019 14:45	270	0.49	722.502	0.83	0.23	6	Atlas		354.026	1
	8/27/2019 17:00	8/27/2019 17:15	15	0.23	86.004	1.04	0.20	1	Atlas		19.781	1
	10/6/2019 14:30	10/6/2019 22:45	495	0.93	158.943	0.79	0.36	24	Atlas		147.817	1
	10/11/2019 10:45	10/11/2019 11:00	15	0.38	33.908	1.30	0.20	1	Atlas		12.885	1
	10/15/2019 22:30	10/15/2019 23:30	60	0.51	136.949	0.84	0.37	1	Atlas		69.844	1
	10/26/2019 5:00	10/26/2019 9:00	240	1.34	173.928	1.13	0.52	24	Atlas		233.063	1
	10/26/2019 18:00	10/26/2019 19:30	90	1.34	16.949	1.44	0.52	24	Atlas		22.711	1
	10/30/2019 13:45	10/30/2019 15:15	90	0.77	324.888	2.05	0.37	3	Atlas		250.164	1
	10/31/2019 5:45	10/31/2019 8:45	180	0.70	283.573	2.79	0.38	6	Atlas		198.501	1
	11/7/2019 7:30	11/7/2019 10:00	150	0.65	29.589	0.72	0.25	24	Atlas		19.233	1
	11/22/2019 5:30	11/22/2019 6:30	60	0.38	62.655	0.47	0.20	6	Atlas		23.809	1
	11/26/2019 21:30	11/27/2019 6:45	555	0.60	421.875	1.18	0.27	12	Atlas		253.125	1
	11/30/2019 2:45	11/30/2019 16:15	810	1.93	297.109	2.64	0.76	12	Atlas		573.420	1
	12/9/2019 20:15	12/9/2019 20:15	-	0.20	49.275	0.25	0.08	1	Atlas		9.855	1
	12/13/2019 19:15	12/13/2019 19:15	-	0.51	5.894	0.32	0.20	12	Atlas		3.006	1
	12/16/2019 1:30	12/16/2019 1:30	-	0.10	7.660	0.80	0.05	6	Atlas		766	1
	12/16/2019 14:00	12/16/2019 19:00	300	0.69	424.991	1.24	0.31	6	Atlas		293.244	1
	12/29/2019 10:15	12/29/2019 22:15	720	1.12	181.825	1.06	0.42	24	Atlas		203.644	1
	1/3/2020 6:00	1/3/2020 8:30	150	0.72	39.217	1.69	0.23	48	Atlas		28.236	1
	1/3/2020 17:45	1/3/2020 18:15	30	0.72	42.868	1.80	0.23	48	Atlas		30.865	1
	1/10/2020 19:15	1/10/2020 20:30	75	0.33	203.770	0.34	0.16	3	Atlas		67.244	1
	1/11/2020 10:45	1/11/2020 16:30	345	0.67	372.576	1.01	0.31	6	Atlas		249.626	1
	1/18/2020 10:30	1/18/2020 11:15	45	0.37	110.262	0.93	0.15	12	Atlas		40.797	1
	1/24/2020 5:45	1/24/2020 13:45	480	0.51	91.182	0.84	0.18	24	Atlas		46.503	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/5/2020 17:45	2/5/2020 17:45	-	0.10	66.520	0.60	0.05	6	Atlas		6,652	1
	2/12/2020 16:45	2/12/2020 20:00	195	0.74	622.149	1.26	0.33	12	Atlas		460,390	1
	2/24/2020 19:30	2/25/2020 2:45	435	0.66	34.206	0.89	0.25	24	Atlas		22,576	1
	3/2/2020 6:30	3/2/2020 10:30	240	0.47	114.251	1.09	0.22	6	Atlas		53,698	1
	3/3/2020 1:45	3/3/2020 2:15	30	0.17	53.141	0.74	0.09	3	Atlas		9,034	1
	3/10/2020 8:00	3/10/2020 8:30	30	0.48	398.771	0.49	0.23	1	Atlas		191,410	1
	3/12/2020 15:45	3/12/2020 23:15	450	0.59	815.176	1.07	0.28	6	Atlas		480,964	1
	3/14/2020 12:15	3/14/2020 18:15	360	0.50	303.312	1.57	0.23	12	Atlas		151,656	1
	3/18/2020 13:45	3/18/2020 18:45	300	0.42	317.805	1.51	0.19	12	Atlas		133,478	1
	3/19/2020 11:45	3/19/2020 19:00	435	0.42	471.731	1.85	0.17	1	Atlas		198,127	1
	3/20/2020 3:30	3/20/2020 4:45	75	0.42	100.238	1.35	0.17	1	Atlas		42,100	1
	3/24/2020 17:45	3/24/2020 22:00	255	0.16	1,339.875	1.02	0.08	6	Atlas		214,380	1
	3/28/2020 22:30	3/29/2020 1:00	150	0.18	935.144	0.37	0.14	1	Atlas		168,326	1
	4/8/2020 22:15	4/8/2020 22:30	15	0.59	59.239	0.42	0.39	3	Atlas		34,951	1
	4/12/2020 16:15	4/13/2020 3:30	675	0.87	310.548	1.47	0.36	12	Atlas		270,177	1
	4/23/2020 7:30	4/23/2020 13:00	330	0.48	92.740	0.83	0.20	12	Atlas		44,515	1
	4/26/2020 0:15	4/26/2020 6:30	375	0.52	21.075	0.88	0.18	24	Atlas		10,959	1
	5/5/2020 6:15	5/5/2020 6:30	15	0.22	60.764	0.36	0.11	6	Atlas		13,368	1
	5/8/2020 8:30	5/8/2020 13:00	270	0.60	342.527	0.83	0.28	12	Atlas		205,516	1
	5/15/2020 16:30	5/16/2020 7:45	915	1.22	389.718	1.35	0.47	24	Atlas		475,456	1
	5/18/2020 7:30	5/18/2020 12:30	300	0.33	193.091	1.75	0.15	1	Atlas		63,720	1
	5/23/2020 16:45	5/23/2020 17:45	60	0.19	286.421	0.59	0.11	3	Atlas		54,420	1
	5/29/2020 0:30	5/29/2020 0:30	-	0.19	124.837	0.94	0.10	1	Atlas		23,719	1
	6/4/2020 18:15	6/4/2020 20:30	135	0.49	153.712	0.58	0.27	3	Atlas		75,319	1
	6/21/2020 11:45	6/21/2020 12:00	15	0.37	203.430	0.26	0.20	1	Atlas		75,269	1
	6/22/2020 22:30	6/23/2020 10:00	690	0.81	718.758	1.23	0.36	6	Atlas		582,194	1
	6/29/2020 2:45	6/29/2020 6:00	195	0.46	520.761	1.34	0.29	3	Atlas		239,550	1
CSO153 Total											185,484,548	587
CSO154	11/22/2011 3:15	11/22/2011 9:45	390	1.00	7.287	3.22	0.43	6	Atlas		7,287	1
	11/27/2011 8:30	11/27/2011 9:45	75	3.07	113.807	2.22	0.95	48	Atlas		349,387	1
	11/27/2011 22:30	11/29/2011 10:30	2,160	3.07	3,363.823	4.32	0.95	48	Atlas		10,326,938	1
	11/29/2011 19:30	11/29/2011 20:30	60	0.07	4,437.886	3.13	0.04	1	Atlas		310,652	1
	12/4/2011 16:30	12/5/2011 23:30	1,860	3.04	1,465.679	5.54	0.99	48	Atlas		4,455,663	1
	12/21/2011 6:45	12/21/2011 7:00	15	0.63	33.197	1.12	0.29	12	Atlas		20,914	1
	12/27/2011 3:00	12/27/2011 15:30	750	0.75	73.775	1.98	0.30	12	Atlas		55,331	1
	1/11/2012 6:45	1/11/2012 7:00	15	0.85	626	0.52	0.34	6	Atlas		532	1
	1/23/2012 4:15	1/23/2012 4:30	15	0.76	7.287	1.11	0.39	3	Atlas		5,538	1
	1/25/2012 19:15	1/25/2012 19:30	15	1.82	936	1.04	0.60	24	Atlas		1,704	1
	1/26/2012 5:30	1/27/2012 18:15	2,205	1.82	3,687.987	2.61	0.60	24	Atlas		6,712,137	1
	3/4/2012 23:00	3/4/2012 23:00	-	0.20	10.630	0.67	0.11	6	Atlas		2,126	1
	3/8/2012 10:30	3/8/2012 17:45	435	0.75	190.579	1.03	0.36	6	Atlas		142,934	1
	3/15/2012 20:00	3/16/2012 3:00	420	0.95	36.246	1.16	0.42	12	Atlas		34,434	1
	3/23/2012 13:45	3/23/2012 22:45	540	1.50	25.098	2.58	0.57	24	Atlas		37,647	1
	4/1/2012 8:30	4/1/2012 15:45	435	1.18	356.226	1.42	0.63	6	Atlas		420,347	1
	4/28/2012 19:15	4/28/2012 19:30	15	0.70	9.789	0.70	0.50	1	Atlas		6,852	1
	4/30/2012 18:00	4/30/2012 18:00	-	0.45	32.002	1.07	0.30	3	Atlas		14,401	1
	5/4/2012 23:45	5/5/2012 1:45	120	1.42	104.397	2.42	0.79	3	Atlas		148,244	1
	5/13/2012 2:30	5/13/2012 14:15	705	1.97	95.682	2.02	0.77	12	Atlas		188,494	1
	5/16/2012 17:45	5/16/2012 18:00	15	0.26	72.500	2.23	0.21	1	Atlas		18,850	1
	5/29/2012 7:15	5/29/2012 19:45	750	2.22	1,704.710	2.22	4.14	3	Atlas		3,784,457	1
	5/31/2012 18:30	6/1/2012 1:30	420	1.24	7.171	3.28	0.54	12	Atlas		8,892	1
	6/17/2012 14:15	6/17/2012 14:15	-	0.48	6.342	0.77	0.31	1	Atlas		3,044	1
	7/14/2012 12:30	7/14/2012 14:45	135	0.81	2.044	0.93	0.51	3	Atlas		1,656	1
	7/19/2012 18:30	7/19/2012 19:15	45	0.57	821.565	1.40	0.46	1	Atlas		468,292	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.62	9.660	0.91	0.41	3	Atlas		5,989	1
	8/16/2012 22:00	8/16/2012 22:15	15	0.55	753	0.58	0.33	3	Atlas		414	1
	9/1/2012 17:45	9/1/2012 17:45	-	1.00	311	0.34	0.32	48	Atlas		311	1
	9/2/2012 13:00	9/2/2012 13:15	15	1.00	819	0.79	0.32	48	Atlas		819	1
	9/2/2012 22:00	9/2/2012 22:00	-	1.00	206	1.01	0.32	48	Atlas		206	1
	9/5/2012 15:45	9/5/2012 17:00	75	0.84	29.690	1.96	0.67	1	Atlas		24,940	1
	9/8/2012 0:15	9/8/2012 2:30	135	1.21	9.486	3.08	0.67	3	Atlas		11,478	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/26/2012 21:00	9/26/2012 23:15	135	1.61	4.448	2.31	0.86	6	Atlas		7,161	1
	12/5/2012 0:15	12/5/2012 4:30	255	0.52	11,865,383	0.73	0.33	3	Atlas		6,169,999	1
	12/9/2012 22:45	12/9/2012 22:45	-	1.17	12,809	2.88	0.56	3	Atlas		14,986	1
	1/13/2013 4:00	1/13/2013 4:00	-	2.12	45	1.06	0.81	24	Atlas		95	1
	1/30/2013 6:30	1/30/2013 6:30	-	0.93	2,041	0.85	0.47	6	Atlas		1,898	1
	3/18/2013 7:00	3/18/2013 7:15	15	1.75	6,061	1.81	0.57	48	Atlas		10,607	1
	9/20/2013 22:30	9/21/2013 4:00	330	1.61	2,190	1.58	0.67	12	Atlas		3,526	1
	10/5/2013 13:45	10/6/2013 6:00	975	4.40	485,347	3.50	8.39	24	Cloudburst		2,135,528	1
	10/30/2013 5:15	10/30/2013 5:30	15	1.04	7,327	0.94	0.49	6	Atlas		7,620	1
	11/17/2013 6:30	11/17/2013 9:15	165	2.78	295,125	2.36	2.00	6	Cloudburst		820,448	1
	11/17/2013 18:00	11/17/2013 23:00	300	2.78	519	2.94	2.00	6	Cloudburst		1,444	1
	12/21/2013 8:00	12/21/2013 12:30	270	1.03	19,844	1.33	0.47	12	Atlas		20,439	1
	12/21/2013 21:45	12/21/2013 23:15	90	1.55	437,986	2.18	0.83	3	Atlas		678,878	1
	1/11/2014 2:30	1/11/2014 3:30	60	0.91	12,359	1.23	0.49	6	Atlas		11,247	1
	2/4/2014 20:15	2/5/2014 1:30	315	0.51	262,416	0.94	0.25	6	Atlas		133,832	1
	2/17/2014 16:15	2/17/2014 17:00	45	0.47	43,394	0.96	0.29	3	Atlas		20,395	1
	3/29/2014 6:45	3/29/2014 8:45	120	1.00	25,290	1.03	0.46	6	Atlas		25,290	1
	4/3/2014 12:00	4/4/2014 13:45	1,545	2.55	424,262	3.88	0.89	24	Atlas		1,081,869	1
	4/7/2014 10:45	4/7/2014 13:00	135	0.84	4,294,201	3.45	0.50	1	Atlas		3,607,129	1
	4/14/2014 20:45	4/14/2014 21:00	15	0.61	13,305	0.81	0.28	12	Atlas		8,116	1
	4/27/2014 20:00	4/28/2014 8:30	750	2.03	563,560	1.68	0.75	3	Atlas		1,144,026	1
	5/9/2014 19:15	5/9/2014 19:15	-	1.66	440	0.26	0.64	24	Atlas		730	1
	5/10/2014 5:45	5/10/2014 5:45	-	1.66	424	0.80	0.64	24	Atlas		704	1
	5/10/2014 14:15	5/10/2014 15:45	90	1.66	137,737	1.72	0.64	24	Atlas		228,643	1
	5/21/2014 21:00	5/21/2014 23:45	165	0.71	23,066	0.47	0.33	12	Atlas		16,377	1
	5/29/2014 20:45	5/29/2014 22:00	75	0.74	365,982	0.94	0.63	1	Atlas		270,827	1
	7/7/2014 19:45	7/7/2014 19:45	-	0.74	47,597	1.09	0.64	1	Atlas		35,222	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.59	339	1.42	0.27	3	Atlas		200	1
	7/26/2014 22:00	7/27/2014 10:15	735	0.98	78,015	1.01	0.43	12	Atlas		76,455	1
	8/8/2014 7:00	8/8/2014 8:00	60	0.89	73,066	0.65	0.43	6	Atlas		65,029	1
	8/10/2014 4:15	8/10/2014 4:15	-	0.44	17,534	1.36	0.37	1	Atlas		7,715	1
	8/22/2014 19:00	8/23/2014 2:45	465	0.45	272,782	1.12	0.32	1	Atlas		122,752	1
	8/23/2014 20:30	8/23/2014 20:30	-	0.49	1,839	1.35	0.25	3	Atlas		901	1
	8/30/2014 15:30	8/30/2014 15:30	-	0.51	324,694	1.02	0.31	1	Atlas		165,594	1
	9/11/2014 0:45	9/11/2014 10:45	600	1.95	378,128	1.95	1.60	3	Atlas		737,349	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.45	4,187	0.63	0.28	1	Atlas		1,884	1
	10/10/2014 2:15	10/10/2014 3:15	60	1.02	64,721	1.64	0.49	3	Atlas		66,015	1
	10/14/2014 8:30	10/14/2014 8:30	-	1.04	520	2.65	0.47	12	Atlas		541	1
	12/6/2014 2:00	12/6/2014 12:30	630	1.79	210,268	2.59	0.58	48	Atlas		376,380	1
	5/26/2015 14:00	5/26/2015 14:15	15	0.50	16,508	0.74	0.39	1	Atlas		8,254	1
	6/18/2015 17:15	6/19/2015 0:15	420	1.42	231,722	1.21	0.46	48	Atlas		329,045	1
	6/20/2015 7:45	6/20/2015 9:00	75	1.42	22,027	2.20	0.46	48	Atlas		31,278	1
	6/26/2015 17:15	6/26/2015 18:00	45	0.84	183,489	2.03	0.47	1	Atlas		154,131	1
	7/1/2015 1:30	7/1/2015 1:30	-	0.01	4,900	1.36	0.01	1	Atlas		49	1
	7/2/2015 1:00	7/2/2015 3:00	120	1.77	20,711	1.99	0.67	24	Atlas		36,659	1
	7/2/2015 12:15	7/3/2015 6:15	1,080	1.77	475,775	3.13	0.67	24	Atlas		842,122	1
	7/7/2015 13:00	7/7/2015 13:00	-	0.72	313	2.45	0.30	6	Atlas		225	1
	7/12/2015 6:00	7/14/2015 10:00	3,120	1.86	5,082,932	4.55	2.66	1	Atlas		9,454,253	1
	7/14/2015 18:45	7/14/2015 19:45	60	0.19	2,327,605	4.18	0.17	1	Atlas		442,245	1
	7/17/2015 23:00	7/18/2015 5:45	405	1.31	2,834,126	4.60	0.87	3	Atlas		3,712,705	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.51	69,459	0.54	0.43	1	Atlas		35,424	1
	8/5/2015 15:00	8/5/2015 15:15	15	0.90	2,002	0.81	0.31	24	Atlas		1,802	1
	10/27/2015 19:00	10/27/2015 20:30	90	2.72	11,011	2.00	0.85	48	Atlas		29,949	1
	10/28/2015 6:15	10/28/2015 6:15	-	2.72	805	2.72	0.85	48	Atlas		2,189	1
	11/6/2015 4:00	11/6/2015 4:00	-	0.79	17,004	0.75	0.49	3	Atlas		13,433	1
	11/18/2015 10:45	11/18/2015 18:15	450	1.51	926,525	1.96	0.78	6	Atlas		1,399,053	1
	12/22/2015 4:00	12/22/2015 4:00	-	0.67	2,709	0.69	0.33	1	Atlas		1,815	1
	12/23/2015 19:30	12/24/2015 4:45	555	0.81	2,123,068	1.52	0.63	1	Atlas		1,719,685	1
	2/2/2016 23:00	2/3/2016 3:45	285	1.51	587,351	1.57	0.69	12	Atlas		886,900	1
	2/21/2016 10:30	2/21/2016 11:30	60	0.94	61,207	1.10	0.43	12	Atlas		57,535	1
	2/23/2016 23:45	2/25/2016 0:45	1,500	1.99	5,776,408	2.92	0.77	12	Atlas		11,495,051	1
	3/1/2016 13:15	3/1/2016 13:15	-	0.34	79,815	2.29	0.19	3	Atlas		27,137	1
	3/13/2016 10:00	3/13/2016 10:00	-	0.81	6,009	1.92	0.30	24	Atlas		4,867	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.73	38,210	0.94	0.48	3	Atlas		27,893	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/11/2016 18:00	4/11/2016 18:00	-	0.86	6.390	0.81	0.38	6	Atlas		5,495	1
	5/10/2016 22:00	5/10/2016 22:00	-	0.75	14.244	1.47	0.28	24	Atlas		10,683	1
	5/20/2016 15:00	5/20/2016 15:45	45	0.66	18.333	1.27	0.37	3	Atlas		12,100	1
	6/2/2016 16:00	6/2/2016 16:00	-	0.28	25.429	0.43	0.22	1	Atlas		7,120	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.18	515.633	0.21	0.16	1	Atlas		92,814	1
	6/14/2016 16:45	6/14/2016 17:15	30	0.90	268.550	0.87	0.58	3	Atlas		241,695	1
	6/23/2016 16:30	6/23/2016 23:45	435	1.87	888.753	2.26	1.00	6	Cloudburst		1,661,968	1
	7/28/2016 3:30	7/28/2016 3:30	-	0.67	4.263	0.73	0.31	6	Atlas		2,856	1
	8/15/2016 3:15	8/15/2016 3:30	15	0.91	195.659	0.82	0.49	6	Atlas		178,050	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.65	41.808	1.53	0.29	3	Atlas		27,175	1
	8/20/2016 14:30	8/20/2016 20:00	330	1.23	30.914	2.82	0.57	1	Atlas		38,024	1
	8/31/2016 17:00	8/31/2016 17:00	-	0.48	136.660	0.30	0.37	1	Atlas		65,597	1
	12/17/2016 18:45	12/18/2016 6:30	705	2.71	1,919.051	2.97	1.95	12	Cloudburst		5,200,628	1
	1/17/2017 0:45	1/17/2017 4:30	225	0.50	3,248.386	1.80	0.22	12	Atlas		1,624,193	1
	1/19/2017 19:30	1/20/2017 7:30	720	1.05	7,292.792	2.29	0.48	12	Atlas		7,657,432	1
	3/1/2017 3:30	3/1/2017 10:45	435	1.03	1,111.844	1.70	0.49	6	Atlas		1,145,199	1
	3/7/2017 8:00	3/7/2017 8:00	-	0.31	7.323	1.58	0.14	12	Atlas		2,270	1
	4/29/2017 2:00	4/29/2017 6:30	270	1.28	1,217.895	1.57	0.67	6	Atlas		1,558,905	1
	5/5/2017 9:45	5/5/2017 10:15	30	1.83	4,393	3.23	0.62	24	Atlas		8,040	1
	5/21/2017 3:45	5/21/2017 4:15	30	1.10	11,092	1.00	0.50	12	Atlas		12,201	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.37	6.392	2.17	0.30	1	Atlas		2,365	1
	12/5/2017 4:15	12/5/2017 5:15	60	0.67	18.960	0.61	0.36	3	Atlas		12,703	1
	12/23/2017 0:00	12/23/2017 9:15	555	1.18	20.961	0.99	0.45	24	Atlas		24,757	1
	2/11/2018 10:30	2/11/2018 11:45	75	0.34	482.509	0.83	0.17	3	Atlas		164,053	1
	2/16/2018 3:30	2/16/2018 15:00	690	0.67	2,968.693	1.51	0.31	12	Atlas		1,989,024	1
	2/17/2018 15:00	2/17/2018 15:00	-	0.18	40.433	1.65	0.11	3	Atlas		7,278	1
	2/21/2018 22:00	2/21/2018 22:00	-	1.90	6.196	1.73	0.65	24	Atlas		11,773	1
	2/23/2018 12:15	2/23/2018 12:15	-	1.27	6.535	3.35	0.58	12	Atlas		8,299	1
	2/24/2018 19:00	2/24/2018 23:15	255	1.63	24.378	4.57	0.68	12	Atlas		39,736	1
	3/24/2018 12:45	3/24/2018 19:45	420	0.87	3.008	1.62	0.33	24	Atlas		2,617	1
	3/31/2018 23:30	4/1/2018 1:00	90	0.21	1,947.919	1.26	0.11	3	Atlas		409,063	1
	4/1/2018 20:45	4/2/2018 4:00	435	0.68	1,256.353	1.97	0.37	6	Atlas		854,320	1
	4/3/2018 21:30	4/3/2018 23:45	135	0.30	900.723	2.24	0.16	6	Atlas		270,217	1
	5/5/2018 17:15	5/5/2018 18:45	90	1.49	51.109	1.40	0.63	6	Atlas		76,153	1
	6/1/2018 1:15	6/1/2018 2:15	60	1.18	123.886	1.51	0.69	3	Atlas		146,186	1
	6/11/2018 13:15	6/11/2018 13:15	-	0.25	10.852	0.62	0.17	1	Atlas		2,713	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.88	2.422	1.68	0.36	12	Atlas		2,131	1
	6/26/2018 13:15	6/26/2018 13:15	-	0.62	2.571	2.11	0.25	12	Atlas		1,594	1
	6/26/2018 21:30	6/26/2018 22:15	45	0.62	40.503	2.42	0.25	12	Atlas		25,112	1
	7/2/2018 18:00	7/2/2018 20:15	135	0.87	38.164	1.49	0.71	1	Atlas		33,203	1
	7/3/2018 15:45	7/3/2018 16:15	30	0.59	14.156	1.71	0.35	3	Atlas		8,352	1
	7/20/2018 19:30	7/20/2018 21:00	90	1.45	197.344	1.73	0.78	3	Atlas		286,149	1
	7/22/2018 17:45	7/22/2018 17:45	-	0.51	902	2.18	0.37	1	Atlas		460	1
	7/31/2018 1:30	7/31/2018 13:00	690	1.99	2,152	2.06	0.87	6	Atlas		4,282	1
	8/16/2018 4:00	8/16/2018 11:15	435	2.38	143.316	2.39	0.92	24	Atlas		341,093	1
	8/16/2018 20:45	8/16/2018 20:45	-	0.01	41.500	2.40	0.01	1	Atlas		415	1
	8/20/2018 11:30	8/20/2018 11:30	-	0.34	2.659	2.88	0.23	1	Atlas		904	1
	8/31/2018 17:45	8/31/2018 23:45	360	0.42	7.443	0.42	0.28	1	Atlas		3,126	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.46	7.900	0.83	0.37	1	Atlas		3,634	1
	9/8/2018 17:45	9/9/2018 3:30	585	2.43	179.639	2.90	1.11	6	Cloudburst		436,523	1
	9/22/2018 17:15	9/22/2018 17:15	-	1.21	864	0.82	0.46	24	Atlas		1,045	1
	9/23/2018 5:00	9/23/2018 10:15	315	1.21	23.726	1.67	0.46	24	Atlas		28,708	1
	9/24/2018 7:30	9/24/2018 18:30	660	1.30	474.815	2.93	0.57	6	Atlas		617,259	1
	9/25/2018 16:45	9/25/2018 16:45	-	0.68	2.493	3.27	0.30	12	Atlas		1,695	1
	9/26/2018 2:30	9/26/2018 2:45	15	0.68	84.466	3.66	0.30	12	Atlas		57,437	1
	11/6/2018 1:00	11/6/2018 1:15	15	0.82	52.880	2.41	0.44	6	Atlas		43,362	1
	12/27/2018 18:00	12/27/2018 18:00	-	0.29	32.669	0.52	0.18	1	Atlas		9,474	1
	12/31/2018 16:45	12/31/2018 16:45	-	1.20	14.653	1.50	0.46	24	Atlas		17,584	1
	2/7/2019 17:15	2/7/2019 17:15	-	1.35	9.405	1.30	0.43	48	Atlas		12,697	1
	2/20/2019 1:00	2/20/2019 15:45	885	1.55	716.573	1.58	0.72	6	Atlas		1,110,688	1
	2/24/2019 0:15	2/24/2019 0:15	-	0.76	32.057	2.38	0.42	6	Atlas		24,363	1
	4/19/2019 3:45	4/19/2019 5:45	120	3.01	153	1.65	0.98	48	Atlas		460	1
	4/19/2019 18:15	4/20/2019 19:45	1,530	3.01	1,179.630	3.99	0.98	48	Atlas		3,550,687	1
	5/2/2019 11:45	5/2/2019 11:45	-	0.05	20.440	0.59	0.04	1	Atlas		1,022	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/3/2019 3:15	5/3/2019 7:45	270	0.95	4.583	1.08	0.51	6	Atlas		4,354	1
	5/4/2019 15:45	5/4/2019 17:45	120	0.19	39,453	1.29	0.11	3	Atlas		7,496	1
	6/18/2019 16:15	6/18/2019 18:15	120	1.50	1,310,544	3.03	1.52	1	Atlas		1,965,816	1
	6/24/2019 11:30	6/24/2019 15:15	225	0.48	341,560	3.11	0.30	3	Atlas		163,949	1
	2/13/2020 7:00	2/13/2020 21:15	855	0.86	2,200,952	1.40	0.38	12	Atlas		1,892,819	1
	2/18/2020 18:45	2/19/2020 4:45	600	0.22	6,854,827	1.09	0.10	6	Atlas		1,508,062	1
	CSO154 Total										**112,102,117**	**167**
CSO155	2/29/2012 8:45	2/29/2012 8:45	-	0.65	988	0.82	0.34	1	Atlas		642	1
	3/8/2012 12:30	3/8/2012 12:30	-	0.75	281	1.01	0.36	6	Atlas		211	1
	3/15/2012 17:45	3/15/2012 18:00	15	0.91	286	0.40	0.40	12	Atlas		260	1
	3/17/2012 18:30	3/17/2012 18:30	-	0.54	49,998	1.36	0.28	3	Atlas		26,999	1
	3/23/2012 5:15	3/23/2012 22:15	1,020	1.68	32,785	2.23	0.60	24	Atlas		55,078	1
	4/1/2012 8:30	4/1/2012 10:30	120	1.41	31,339	1.59	0.77	6	Atlas		44,188	1
	4/26/2012 4:45	4/26/2012 4:45	-	0.06	1,250	0.36	0.04	1	Atlas		75	1
	4/28/2012 19:15	4/29/2012 0:00	285	0.71	67,442	0.82	0.52	1	Atlas		47,884	1
	4/30/2012 18:00	4/30/2012 20:00	120	0.41	3,863	1.23	0.27	3	Atlas		1,584	1
	5/4/2012 23:30	5/5/2012 1:30	120	1.38	62,737	2.30	0.74	3	Atlas		86,577	1
	5/13/2012 2:00	5/13/2012 7:45	345	2.15	5,192	1.87	0.83	24	Atlas		11,163	1
	5/16/2012 17:45	5/16/2012 18:00	15	0.22	2,077	2.37	0.19	1	Atlas		457	1
	5/29/2012 6:30	5/29/2012 9:00	150	2.74	49,908	2.66	11.84	3	Atlas		136,748	1
	5/31/2012 18:15	6/1/2012 3:45	570	1.17	11,726	3.81	0.51	12	Atlas		13,720	1
	6/17/2012 11:15	6/17/2012 11:45	30	0.20	16,850	0.22	0.16	1	Atlas		3,370	1
	7/1/2012 19:45	7/1/2012 19:45	-	0.32	6,744	0.23	0.21	1	Atlas		2,158	1
	7/8/2012 13:00	7/8/2012 13:15	15	0.25	77,396	0.67	0.18	1	Atlas		19,439	1
	7/14/2012 13:45	7/14/2012 14:15	30	0.61	16,297	0.85	0.38	3	Atlas		9,941	1
	7/19/2012 18:00	7/19/2012 18:30	30	0.97	2,638	1.57	0.77	1	Atlas		2,559	1
	7/24/2012 19:45	7/24/2012 20:00	15	0.46	13,776	1.50	0.38	1	Atlas		6,337	1
	7/27/2012 19:45	7/27/2012 20:30	45	0.72	112,115	1.25	0.49	1	Atlas		80,723	1
	8/16/2012 20:00	8/16/2012 22:45	165	0.63	852	0.69	0.37	3	Atlas		537	1
	8/21/2012 13:30	8/21/2012 13:45	15	0.16	250,800	0.80	0.14	1	Atlas		40,128	1
	9/1/2012 15:00	9/1/2012 17:15	135	0.37	46,651	0.36	0.24	1	Atlas		17,261	1
	9/2/2012 11:45	9/2/2012 11:45	-	0.61	1,800	0.80	0.24	12	Atlas		1,098	1
	9/2/2012 20:00	9/2/2012 20:00	-	0.61	6,238	0.96	0.24	12	Atlas		3,805	1
	9/5/2012 15:15	9/5/2012 16:00	45	0.80	62,135	1.84	0.60	1	Atlas		49,708	1
	9/7/2012 23:15	9/8/2012 6:15	420	1.44	19,942	3.25	0.81	3	Atlas		28,717	1
	9/17/2012 13:00	9/17/2012 13:00	-	0.08	4,675	0.03	0.04	3	Atlas		374	1
	9/25/2012 23:30	9/26/2012 5:15	345	0.45	58,358	0.75	0.21	12	Atlas		26,261	1
	9/26/2012 19:45	9/26/2012 23:15	210	1.61	53,528	2.34	0.86	6	Atlas		86,180	1
	10/1/2012 14:30	10/1/2012 18:30	240	0.61	580	3.00	0.25	12	Atlas		354	1
	10/26/2012 14:00	10/26/2012 16:45	165	0.74	588	0.68	0.34	6	Atlas		435	1
	12/8/2012 5:30	12/8/2012 5:30	-	0.33	3,076	2.26	0.19	3	Atlas		1,015	1
	12/9/2012 21:45	12/9/2012 22:45	60	1.08	45,909	2.89	0.52	3	Atlas		49,582	1
	12/20/2012 6:30	12/20/2012 10:00	210	0.70	950	1.04	0.37	6	Atlas		665	1
	12/26/2012 5:30	12/26/2012 5:45	15	0.72	588	1.25	0.28	12	Atlas		423	1
	1/10/2013 12:45	1/10/2013 12:45	-	0.16	1,481	0.15	0.08	6	Atlas		237	1
	1/11/2013 5:45	1/11/2013 6:15	30	0.67	15,030	0.77	0.37	3	Atlas		10,070	1
	1/13/2013 3:00	1/13/2013 17:30	870	2.22	7,024	2.99	0.85	24	Atlas		15,593	1
	1/30/2013 4:30	1/30/2013 4:45	15	0.86	11,185	0.60	0.43	6	Atlas		9,619	1
	3/11/2013 5:30	3/11/2013 5:45	15	1.05	609	1.26	0.42	12	Atlas		639	1
	3/17/2013 13:30	3/17/2013 13:45	15	1.80	290	1.65	0.58	48	Atlas		522	1
	3/18/2013 4:00	3/18/2013 5:00	60	1.80	7,235	1.90	0.58	48	Atlas		13,023	1
	3/24/2013 15:45	3/24/2013 17:00	75	0.54	763	1.57	0.20	24	Atlas		412	1
	4/11/2013 6:45	4/11/2013 7:00	15	1.27	1,784	0.52	0.49	24	Atlas		2,266	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.57	1,612	1.80	0.45	1	Atlas		919	1
	4/19/2013 2:00	4/19/2013 3:00	60	0.92	24,237	1.33	0.50	6	Atlas		22,298	1
	4/24/2013 8:15	4/24/2013 8:45	30	0.66	5,074	1.50	0.39	3	Atlas		3,349	1
	5/10/2013 9:30	5/10/2013 12:15	165	0.90	2,862	2.16	0.40	6	Atlas		2,576	1
	6/9/2013 23:45	6/9/2013 23:45	-	0.36	89,789	0.24	0.15	6	Atlas		32,324	1
	6/16/2013 16:30	6/16/2013 16:45	15	0.40	80,838	0.68	0.29	1	Atlas		32,335	1
	6/17/2013 19:00	6/17/2013 19:15	15	0.51	9,943	0.67	0.25	6	Atlas		5,071	1
	6/26/2013 3:15	6/26/2013 4:15	60	0.65	25,097	1.00	0.49	1	Atlas		16,313	1
	6/26/2013 16:15	6/26/2013 20:30	255	2.21	26,205	2.92	1.67	6	Cloudburst		57,913	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/2/2013 13:00	7/2/2013 13:00	-	0.05	268.680	3.77	0.04	1	Atlas		13,434	1
	7/6/2013 4:45	7/6/2013 4:45	-	0.56	189	1.95	0.24	12	Atlas		106	1
	7/10/2013 13:45	7/10/2013 14:15	30	0.68	47.422	1.84	0.44	3	Atlas		32,247	1
	7/18/2013 15:45	7/18/2013 16:15	30	0.34	96.279	0.47	0.26	1	Atlas		32,735	1
	7/21/2013 19:45	7/21/2013 20:15	30	1.85	1.646	1.17	0.71	24	Atlas		3,045	1
	7/22/2013 6:45	7/22/2013 13:30	405	1.85	24.035	2.23	0.71	24	Atlas		44,464	1
	8/12/2013 14:30	8/12/2013 14:30	-	1.04	22.781	0.82	0.50	1	Atlas		23,692	1
	8/13/2013 2:15	8/13/2013 2:15	-	1.04	858	1.08	0.50	1	Atlas		892	1
	8/31/2013 19:45	8/31/2013 22:15	150	1.38	24.294	0.89	0.63	12	Atlas		33,526	1
	9/2/2013 13:15	9/2/2013 13:30	15	0.40	60.800	1.72	0.35	1	Atlas		24,320	1
	9/20/2013 16:15	9/20/2013 22:30	375	1.57	10.250	1.03	0.65	12	Atlas		16,092	1
	10/5/2013 13:15	10/6/2013 8:00	1,125	4.32	63.537	4.38	8.63	24	Cloudburst		274,481	1
	10/30/2013 1:00	10/30/2013 5:15	255	1.27	24.117	1.18	0.61	6	Atlas		30,629	1
	10/31/2013 19:15	10/31/2013 19:30	15	0.80	4.131	2.01	0.34	1	Atlas		3,305	1
	11/17/2013 4:00	11/17/2013 9:15	315	2.95	29.027	2.31	2.00	6	Cloudburst		85,630	1
	12/5/2013 7:00	12/5/2013 7:15	15	0.79	5.937	0.18	0.26	48	Atlas		4,690	1
	12/21/2013 3:15	12/21/2013 10:30	435	3.11	571	1.57	1.82	24	Cloudburst		1,776	1
	12/21/2013 21:00	12/21/2013 23:45	165	3.11	35.876	2.82	1.82	24	Cloudburst		111,575	1
	1/10/2014 23:45	1/11/2014 0:00	15	0.77	2.452	0.64	0.41	6	Atlas		1,888	1
	2/4/2014 21:30	2/4/2014 23:00	90	0.62	558	1.09	0.30	6	Atlas		346	1
	2/17/2014 14:30	2/17/2014 16:30	120	0.52	45.135	0.77	0.31	3	Atlas		23,470	1
	2/20/2014 22:45	2/20/2014 23:00	15	0.18	8,944	1.02	0.09	6	Atlas		1,610	1
	3/29/2014 6:15	3/29/2014 6:30	15	0.82	195	0.66	0.38	12	Atlas		160	1
	4/3/2014 7:45	4/3/2014 14:45	420	3.33	5.028	2.40	1.88	24	Cloudburst		16,744	1
	4/4/2014 0:15	4/4/2014 3:00	165	3.33	1.665	3.95	1.88	24	Cloudburst		5,545	1
	4/7/2014 8:30	4/7/2014 11:45	195	0.89	40.267	4.32	0.55	1	Atlas		35,838	1
	4/14/2014 20:00	4/14/2014 20:00	-	1.15	683	0.73	0.44	24	Atlas		786	1
	4/28/2014 4:00	4/28/2014 6:45	165	1.90	40.641	1.41	0.77	3	Atlas		77,217	1
	4/28/2014 16:30	4/28/2014 16:30	-	1.90	48	1.82	0.77	3	Atlas		92	1
	5/9/2014 19:15	5/9/2014 19:15	-	1.49	2.977	0.25	0.58	1	Atlas		4,435	1
	5/10/2014 5:30	5/10/2014 5:30	-	1.49	10.650	0.68	0.58	1	Atlas		15,869	1
	5/10/2014 14:15	5/10/2014 15:00	45	1.49	16.779	1.55	0.58	1	Atlas		25,001	1
	5/21/2014 20:45	5/22/2014 3:15	390	0.65	3.823	0.84	0.30	12	Atlas		2,485	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.65	41.297	1.30	0.55	1	Atlas		26,843	1
	6/11/2014 14:00	6/11/2014 14:00	-	0.15	72.460	0.33	0.12	1	Atlas		10,869	1
	6/20/2014 17:15	6/20/2014 17:15	-	0.23	60.887	0.24	0.15	3	Atlas		14,004	1
	7/2/2014 16:00	7/2/2014 16:15	15	0.19	40.537	0.54	0.17	1	Atlas		7,702	1
	7/7/2014 19:15	7/7/2014 19:30	15	0.26	11.769	0.75	0.23	1	Atlas		3,060	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.83	3,188	0.89	0.40	1	Atlas		2,646	1
	7/14/2014 19:45	7/14/2014 20:00	15	0.45	7.007	1.47	0.30	3	Atlas		3,153	1
	7/26/2014 21:30	7/26/2014 21:45	15	1.15	9,725	0.56	0.52	12	Atlas		11,184	1
	7/27/2014 7:00	7/27/2014 7:30	30	1.15	741	1.17	0.52	12	Atlas		852	1
	8/8/2014 5:30	8/8/2014 6:45	75	0.73	40.848	0.52	0.34	6	Atlas		29,819	1
	8/10/2014 3:45	8/10/2014 4:30	45	0.49	163.588	1.31	0.34	1	Atlas		80,158	1
	8/11/2014 15:00	8/11/2014 15:00	-	0.40	26.363	1.72	0.29	1	Atlas		10,545	1
	8/17/2014 9:30	8/17/2014 9:30	-	0.70	1.180	0.86	0.27	24	Atlas		826	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.70	4.359	1.10	0.27	24	Atlas		3,051	1
	8/22/2014 19:00	8/22/2014 19:00	-	0.24	39.700	0.91	0.17	1	Atlas		9,528	1
	8/23/2014 15:30	8/23/2014 20:00	270	1.00	19.919	1.59	0.47	3	Atlas		19,919	1
	8/26/2014 19:45	8/26/2014 19:45	-	0.11	1.845	1.36	0.10	1	Atlas		203	1
	8/27/2014 17:00	8/27/2014 17:00	-	0.28	15.289	1.63	0.24	1	Atlas		4,281	1
	8/30/2014 15:00	8/30/2014 15:00	-	0.92	5.384	1.93	0.61	1	Atlas		4,953	1
	9/11/2014 0:15	9/11/2014 5:45	330	2.22	40.186	2.14	2.50	3	Atlas		89,213	1
	10/6/2014 7:45	10/6/2014 9:45	120	0.55	2.393	0.54	0.18	48	Atlas		1,316	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.00	13.342	1.49	0.45	3	Atlas		13,342	1
	10/13/2014 4:30	10/13/2014 5:15	45	0.37	1.127	1.83	0.23	3	Atlas		417	1
	10/13/2014 23:30	10/14/2014 8:15	525	1.08	14.845	2.57	0.48	12	Atlas		16,033	1
	11/23/2014 17:30	11/23/2014 18:15	45	0.60	1.630	0.78	0.26	12	Atlas		978	1
	12/6/2014 1:00	12/6/2014 3:00	120	1.88	12.951	2.78	0.61	48	Atlas		24,348	1
	3/4/2015 0:00	3/4/2015 5:00	300	1.95	764	0.89	0.63	48	Atlas		1,489	1
	3/10/2015 11:00	3/10/2015 13:15	135	1.11	11.771	2.97	0.50	12	Atlas		13,066	1
	3/14/2015 1:00	3/14/2015 3:45	165	2.10	2.793	3.13	0.78	24	Atlas		5,865	1
	3/26/2015 4:15	3/26/2015 5:45	90	0.61	9.234	0.74	0.28	3	Atlas		5,633	1
	4/2/2015 10:30	4/2/2015 15:00	270	4.74	8.332	1.13	7.98	24	Cloudburst		39,495	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/3/2015 0:15	4/3/2015 15:30	915	4.74	41,697	4.73	7.98	24	Cloudburst		197,645	1
	4/7/2015 9:15	4/7/2015 17:00	465	1.08	61,494	5.79	0.53	1	Atlas		66,414	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.17	30,659	5.64	0.15	1	Atlas		5,212	1
	4/10/2015 2:15	4/10/2015 2:15	-	0.24	44,217	3.57	0.16	3	Atlas		10,612	1
	4/13/2015 20:45	4/13/2015 20:45	-	0.78	233	1.86	0.30	24	Atlas		182	1
	4/19/2015 12:45	4/19/2015 18:15	330	0.67	3,751	1.50	0.28	12	Atlas		2,513	1
	5/16/2015 11:45	5/16/2015 12:00	15	0.70	22,159	0.54	0.41	3	Atlas		15,511	1
	5/25/2015 8:15	5/25/2015 8:15	-	0.30	2,550	0.25	0.14	12	Atlas		765	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.17	31,076	0.43	0.10	1	Atlas		5,283	1
	6/8/2015 7:00	6/8/2015 7:00	-	0.16	32,844	0.19	0.10	3	Atlas		5,255	1
	6/17/2015 4:45	6/17/2015 6:00	75	0.67	11,382	0.61	0.37	3	Atlas		7,626	1
	6/18/2015 17:15	6/18/2015 17:45	30	0.76	26,204	1.27	0.43	1	Atlas		19,915	1
	6/20/2015 1:30	6/20/2015 5:15	225	1.04	14,818	2.23	0.41	12	Atlas		15,411	1
	6/25/2015 23:45	6/25/2015 23:45	-	0.61	3,261	1.66	0.33	6	Atlas		1,989	1
	6/26/2015 17:00	6/26/2015 23:45	405	1.04	24,374	2.90	0.55	1	Atlas		25,349	1
	6/29/2015 13:45	6/29/2015 13:45	-	0.22	1,986	1.87	0.12	1	Atlas		437	1
	7/2/2015 7:00	7/2/2015 20:45	825	2.42	33,325	4.38	0.94	1	Atlas		80,647	1
	7/3/2015 14:45	7/3/2015 15:00	15	0.57	18,718	4.32	0.47	1	Atlas		10,669	1
	7/7/2015 11:45	7/7/2015 12:30	45	1.07	6,303	3.81	0.51	3	Atlas		6,744	1
	7/9/2015 6:15	7/9/2015 13:15	420	0.34	6,435	3.49	0.16	12	Atlas		2,188	1
	7/12/2015 6:00	7/12/2015 6:15	15	1.07	28,736	2.87	0.82	1	Atlas		30,748	1
	7/13/2015 14:45	7/13/2015 15:00	15	0.46	2,548	3.47	0.40	1	Atlas		1,172	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.84	18,595	4.27	0.66	1	Atlas		15,620	1
	7/17/2015 22:15	7/18/2015 1:00	165	1.58	78,203	3.99	1.27	3	Atlas		123,561	1
	7/29/2015 17:15	7/29/2015 17:15	-	0.12	42,192	0.16	0.10	1	Atlas		5,063	1
	8/4/2015 18:45	8/4/2015 19:00	15	0.52	43,750	0.62	0.44	1	Atlas		22,750	1
	8/5/2015 14:45	8/5/2015 15:00	15	1.13	14,613	1.26	0.57	1	Atlas		16,513	1
	8/6/2015 7:45	8/6/2015 8:15	30	1.13	635	1.57	0.57	1	Atlas		718	1
	9/5/2015 17:30	9/5/2015 17:30	-	0.31	77,090	0.26	0.24	1	Atlas		23,898	1
	10/12/2015 19:00	10/12/2015 19:00	-	0.35	157	0.38	0.26	1	Atlas		55	1
	10/27/2015 17:45	10/28/2015 3:15	570	2.99	7,528	2.48	0.97	24	Atlas		22,510	1
	11/6/2015 2:45	11/6/2015 3:45	60	0.80	14,719	0.75	0.49	3	Atlas		11,775	1
	11/9/2015 18:00	11/9/2015 21:45	225	0.63	1,598	1.42	0.28	12	Atlas		1,007	1
	11/12/2015 0:45	11/12/2015 0:45	-	0.31	387	1.72	0.18	3	Atlas		120	1
	11/18/2015 8:45	11/18/2015 13:30	285	1.37	28,402	1.86	0.68	6	Atlas		38,911	1
	11/30/2015 23:15	12/1/2015 4:15	300	0.63	10,057	1.49	0.28	12	Atlas		6,336	1
	12/21/2015 23:45	12/21/2015 23:45	-	0.57	1,770	0.43	0.22	24	Atlas		1,009	1
	12/23/2015 19:00	12/23/2015 19:45	45	0.84	40,498	1.27	0.56	1	Atlas		34,018	1
	12/26/2015 13:45	12/26/2015 13:45	-	0.66	91	2.06	0.31	3	Atlas		60	1
	12/27/2015 9:45	12/27/2015 13:00	195	2.49	9,947	3.49	0.81	48	Atlas		24,769	1
	2/2/2016 19:30	2/3/2016 0:00	270	1.50	19,021	1.42	0.71	6	Atlas		28,531	1
	2/21/2016 4:00	2/21/2016 10:00	360	0.83	6,413	0.93	0.38	12	Atlas		5,323	1
	2/24/2016 1:00	2/24/2016 7:00	360	1.82	6,674	2.21	0.69	24	Atlas		12,147	1
	3/10/2016 15:45	3/10/2016 15:45	-	1.34	149	0.90	0.44	12	Atlas		199	1
	3/12/2016 20:15	3/12/2016 23:15	180	0.65	86,489	1.84	0.27	6	Atlas		56,218	1
	3/24/2016 17:15	3/24/2016 17:30	15	0.33	13,088	0.35	0.21	1	Atlas		4,319	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.88	16,322	1.17	0.59	3	Atlas		14,363	1
	3/31/2016 15:45	3/31/2016 23:15	450	1.38	1,930	2.45	0.52	24	Atlas		2,664	1
	4/11/2016 17:00	4/11/2016 18:00	60	1.11	2,519	1.10	0.52	6	Atlas		2,796	1
	4/27/2016 19:30	4/27/2016 21:00	90	0.88	11,714	1.27	0.41	1	Atlas		10,308	1
	4/30/2016 11:00	4/30/2016 11:15	15	0.87	10,929	1.61	0.33	24	Atlas		9,508	1
	5/10/2016 14:15	5/10/2016 21:45	450	0.83	39,993	1.88	0.32	12	Atlas		33,194	1
	5/20/2016 15:00	5/20/2016 15:15	15	0.55	8,733	1.26	0.30	6	Atlas		4,803	1
	5/25/2016 18:00	5/25/2016 18:00	-	0.03	10,533	0.68	0.03	1	Atlas		316	1
	6/2/2016 15:45	6/2/2016 15:45	-	1.12	9,560	1.21	0.91	1	Atlas		10,707	1
	6/22/2016 8:15	6/22/2016 8:15	-	0.34	74,376	0.17	0.21	3	Atlas		25,288	1
	6/23/2016 16:00	6/23/2016 20:45	285	2.12	48,879	2.46	1.81	6	Cloudburst		103,623	1
	7/3/2016 10:15	7/3/2016 20:15	600	1.30	3,993	0.63	0.42	48	Atlas		5,191	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.15	1,867	1.30	0.13	1	Atlas		280	1
	8/1/2016 11:00	8/1/2016 11:15	15	0.65	6,994	1.90	0.51	1	Atlas		4,546	1
	8/4/2016 12:00	8/4/2016 12:00	-	0.35	1,800	0.92	0.23	1	Atlas		630	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.23	106,857	0.41	0.19	1	Atlas		24,577	1
	8/15/2016 2:45	8/15/2016 5:45	180	0.74	3,696	1.06	0.38	6	Atlas		2,735	1
	8/17/2016 6:00	8/17/2016 7:00	60	1.32	2,415	2.15	0.63	3	Atlas		3,188	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/20/2016 14:15	8/20/2016 20:00	345	1.40	38,230	3.57	0.61	12	Atlas		53,522	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.22	8,786	0.20	0.14	3	Atlas		1,933	1
	9/28/2016 12:15	9/28/2016 12:15	-	0.62	447	0.70	0.33	6	Atlas		277	1
	9/30/2016 1:30	9/30/2016 2:15	45	0.42	4,245	1.29	0.23	3	Atlas		1,783	1
	10/20/2016 10:30	10/20/2016 10:30	-	0.54	331	0.27	0.23	3	Atlas		179	1
	12/17/2016 16:45	12/18/2016 0:15	450	3.36	18,587	3.55	4.95	12	Cloudburst		62,452	1
	12/26/2016 20:15	12/26/2016 20:15	-	0.39	541	0.62	0.19	6	Atlas		211	1
	1/10/2017 19:30	1/10/2017 19:30	-	0.15	707	0.34	0.11	1	Atlas		106	1
	1/17/2017 1:00	1/17/2017 1:00	-	0.69	2,646	2.04	0.32	6	Atlas		1,826	1
	1/19/2017 19:00	1/20/2017 0:45	345	0.89	10,927	2.33	0.41	12	Atlas		9,725	1
	2/24/2017 18:45	2/24/2017 18:45	-	0.23	100,865	0.27	0.18	1	Atlas		23,199	1
	2/28/2017 10:00	2/28/2017 10:00	-	0.35	220	0.54	0.17	6	Atlas		77	1
	3/1/2017 3:00	3/1/2017 8:45	345	1.31	5,943	1.94	0.67	6	Atlas		7,785	1
	3/7/2017 7:30	3/7/2017 7:30	-	0.48	13,604	2.00	0.22	12	Atlas		6,530	1
	3/13/2017 16:45	3/13/2017 17:00	15	0.06	382,767	0.61	0.03	3	Atlas		22,966	1
	3/27/2017 18:00	3/27/2017 18:45	45	0.29	2,238	0.60	0.17	3	Atlas		649	1
	4/16/2017 5:15	4/16/2017 17:30	735	1.26	20,319	0.91	0.48	24	Atlas		25,602	1
	4/28/2017 23:15	4/29/2017 8:15	540	1.28	47,231	1.68	0.64	6	Atlas		60,456	1
	5/4/2017 19:45	5/5/2017 4:45	540	1.66	11,389	2.33	0.56	24	Atlas		18,906	1
	5/21/2017 2:00	5/21/2017 5:30	210	1.46	65,355	1.47	0.65	12	Atlas		95,419	1
	5/27/2017 13:45	5/27/2017 14:00	15	0.27	37,093	2.26	0.22	1	Atlas		10,015	1
	6/5/2017 18:00	6/5/2017 18:15	15	0.47	2,502	0.46	0.41	1	Atlas		1,176	1
	6/13/2017 16:45	6/13/2017 16:45	-	0.30	18,003	0.30	0.25	1	Atlas		5,401	1
	6/15/2017 3:00	6/15/2017 4:00	60	0.48	14,840	0.56	0.29	3	Atlas		7,123	1
	6/23/2017 15:00	6/23/2017 15:15	15	1.25	1,773	1.10	0.41	48	Atlas		2,216	1
	6/30/2017 20:45	6/30/2017 21:00	15	0.70	3,236	0.76	0.60	1	Atlas		2,265	1
	7/18/2017 7:45	7/18/2017 7:45	-	0.06	6,917	0.06	0.05	1	Atlas		415	1
	7/23/2017 1:30	7/23/2017 6:45	315	1.33	13,986	1.00	0.61	12	Atlas		18,602	1
	7/28/2017 9:00	7/28/2017 9:30	30	0.34	54,626	1.67	0.27	1	Atlas		18,573	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.87	16,622	1.08	0.72	1	Atlas		14,461	1
	8/22/2017 15:45	8/22/2017 15:45	-	0.37	46,830	0.78	0.27	1	Atlas		17,327	1
	9/1/2017 13:15	9/1/2017 15:00	105	2.80	2,370	1.48	0.97	24	Atlas		6,635	1
	9/19/2017 8:00	9/19/2017 8:15	15	0.39	26,682	0.56	0.25	3	Atlas		10,406	1
	10/7/2017 21:45	10/7/2017 22:15	30	2.05	6,082	0.80	0.76	24	Atlas		12,468	1
	10/8/2017 13:45	10/8/2017 14:15	30	2.05	1,037	1.91	0.76	24	Atlas		2,125	1
	10/23/2017 6:15	10/23/2017 6:30	15	0.40	25,830	0.23	0.21	6	Atlas		10,332	1
	11/3/2017 4:30	11/3/2017 5:15	45	1.02	89,294	2.24	0.78	1	Atlas		91,080	1
	11/6/2017 1:45	11/6/2017 2:00	15	0.82	19,683	2.00	0.63	1	Atlas		16,140	1
	11/18/2017 17:30	11/18/2017 17:30	-	0.46	3,117	0.83	0.26	3	Atlas		1,434	1
	12/5/2017 3:45	12/5/2017 3:45	-	0.65	13,902	0.30	0.35	3	Atlas		9,036	1
	12/23/2017 3:00	12/23/2017 3:15	15	1.59	610	1.09	0.61	24	Atlas		970	1
	1/22/2018 19:30	1/22/2018 19:30	-	0.29	1,572	0.38	0.13	12	Atlas		456	1
	2/7/2018 3:15	2/7/2018 3:15	-	0.70	6,576	0.98	0.38	6	Atlas		4,603	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.42	2,348	1.20	0.23	3	Atlas		986	1
	2/14/2018 7:15	2/14/2018 7:15	-	0.63	3,025	0.88	0.29	3	Atlas		1,906	1
	2/16/2018 2:45	2/16/2018 2:45	-	1.05	271	1.53	0.48	12	Atlas		285	1
	2/22/2018 3:15	2/22/2018 5:15	120	2.17	24,102	3.47	0.75	24	Atlas		52,302	1
	2/23/2018 3:00	2/23/2018 6:15	195	2.06	27,223	4.58	0.94	12	Atlas		56,080	1
	2/24/2018 18:30	2/24/2018 23:45	315	2.26	62,687	6.23	0.93	12	Atlas		141,673	1
	3/24/2018 12:00	3/24/2018 12:15	15	1.16	4,562	1.75	0.45	24	Atlas		5,292	1
	3/29/2018 19:15	3/29/2018 19:30	15	1.20	1,996	2.15	0.31	48	Atlas		2,395	1
	4/1/2018 23:00	4/1/2018 23:00	-	0.71	2,693	2.23	0.39	6	Atlas		1,912	1
	4/15/2018 5:30	4/15/2018 5:30	-	0.95	3,060	0.70	0.31	48	Atlas		2,907	1
	5/5/2018 14:30	5/5/2018 17:15	165	2.03	55,210	1.80	0.89	6	Atlas		112,076	1
	5/10/2018 2:30	5/10/2018 2:30	-	0.05	65,500	2.11	0.04	1	Atlas		3,275	1
	5/22/2018 7:45	5/22/2018 7:45	-	0.27	51,037	0.45	0.21	1	Atlas		13,780	1
	5/27/2018 3:45	5/27/2018 4:30	45	1.23	25,259	0.99	0.60	1	Atlas		31,069	1
	5/27/2018 13:30	5/27/2018 13:30	-	1.23	2,118	1.44	0.60	1	Atlas		2,605	1
	6/1/2018 0:00	6/1/2018 1:30	90	1.60	26,664	2.56	0.75	6	Atlas		42,663	1
	6/10/2018 14:45	6/10/2018 14:45	-	0.66	10,374	0.31	0.29	12	Atlas		6,847	1
	6/11/2018 13:00	6/11/2018 13:15	15	0.22	51,727	0.84	0.14	1	Atlas		11,380	1
	6/25/2018 8:15	6/25/2018 8:15	-	0.84	29,218	2.50	0.33	12	Atlas		24,543	1
	7/16/2018 9:30	7/16/2018 9:30	-	0.32	18,438	0.33	0.26	1	Atlas		5,900	1
	7/20/2018 4:45	7/20/2018 4:45	-	1.73	772	0.50	1.30	3	Atlas		1,335	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/20/2018 19:15	7/20/2018 21:00	105	1.73	39.287	2.19	1.30	3	Atlas		67.966	1
	7/31/2018 1:15	7/31/2018 12:45	690	2.08	56.641	2.12	0.86	6	Atlas		117.814	1
	8/15/2018 20:00	8/16/2018 9:30	810	3.00	37.692	2.89	1.78	24	Cloudburst		113.075	1
	8/20/2018 11:15	8/20/2018 11:15	-	0.61	79.039	3.47	0.37	1	Atlas		48.214	1
	8/20/2018 19:45	8/20/2018 19:45	-	0.61	3.828	3.64	0.37	1	Atlas		2.335	1
	8/31/2018 17:00	8/31/2018 17:00	-	0.47	43.545	0.39	0.31	3	Atlas		20.466	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.17	12.876	0.56	0.11	3	Atlas		2.189	1
	9/8/2018 17:15	9/8/2018 22:30	315	3.55	72.720	3.95	12.29	6	Cloudburst		258.157	1
	9/21/2018 14:00	9/21/2018 17:15	195	0.46	45.630	0.52	0.26	1	Atlas		20.990	1
	9/23/2018 4:15	9/23/2018 7:00	165	1.59	16.711	2.03	0.60	24	Atlas		26.571	1
	9/24/2018 7:30	9/24/2018 13:45	375	1.99	66.872	3.87	0.85	6	Atlas		133.075	1
	9/25/2018 5:45	9/25/2018 5:45	-	1.99	9.904	4.04	0.85	6	Atlas		19.708	1
	9/25/2018 16:30	9/25/2018 17:15	45	1.02	30.358	4.64	0.45	12	Atlas		30.965	1
	9/26/2018 1:30	9/26/2018 2:15	45	1.02	3.220	5.02	0.45	12	Atlas		3.284	1
	10/10/2018 16:30	10/10/2018 16:30	-	0.34	37.838	0.30	0.27	1	Atlas		12.865	1
	11/1/2018 0:30	11/1/2018 2:15	105	2.27	7.004	1.89	0.80	24	Atlas		15.900	1
	11/5/2018 21:45	11/5/2018 23:45	120	0.99	5.696	3.25	0.54	6	Atlas		5.639	1
	11/15/2018 0:00	11/15/2018 0:00	-	0.42	381	0.44	0.19	12	Atlas		160	1
	12/1/2018 6:00	12/1/2018 10:00	240	1.45	3.476	1.27	0.60	12	Atlas		5.040	1
	12/15/2018 3:15	12/15/2018 8:00	285	1.55	5.188	1.28	0.64	12	Atlas		8.042	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.36	10.039	0.49	0.21	1	Atlas		3.614	1
	12/31/2018 12:15	12/31/2018 16:30	255	1.59	4.036	1.94	0.62	12	Atlas		6.418	1
	2/6/2019 6:45	2/6/2019 9:15	150	1.61	822	0.76	0.52	48	Atlas		1.324	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.61	340	1.25	0.52	48	Atlas		548	1
	2/12/2019 3:45	2/12/2019 5:30	105	3.03	5.905	4.32	0.95	48	Atlas		17.891	1
	2/20/2019 3:15	2/20/2019 6:45	210	1.60	70.552	1.50	0.71	6	Atlas		112.883	1
	2/23/2019 18:00	2/23/2019 21:00	180	0.89	4.202	2.52	0.49	6	Atlas		3.740	1
	3/9/2019 13:30	3/9/2019 18:30	300	1.14	11.074	1.24	0.55	6	Atlas		12.624	1
	3/14/2019 17:00	3/14/2019 17:15	15	0.48	183.888	1.94	0.32	3	Atlas		88.266	1
	3/30/2019 15:15	3/30/2019 19:45	270	1.07	35.580	1.43	0.48	6	Atlas		38.071	1
	4/7/2019 11:45	4/7/2019 12:15	30	0.62	28.260	0.75	0.28	12	Atlas		17.521	1
	4/14/2019 1:45	4/14/2019 3:00	75	0.86	5.074	1.39	0.40	6	Atlas		4.364	1
	4/19/2019 19:00	4/20/2019 0:15	315	2.59	8.881	2.24	0.84	48	Atlas		23.002	1
	4/24/2019 20:30	4/24/2019 20:45	15	1.16	9.479	2.98	0.38	24	Atlas		10.996	1
	4/25/2019 18:00	4/25/2019 18:00	-	1.16	15.238	3.56	0.38	24	Atlas		17.676	1
	5/2/2019 11:15	5/2/2019 11:15	-	0.22	32.591	0.80	0.19	1	Atlas		7.170	1
	5/3/2019 4:45	5/3/2019 7:30	165	1.14	13.189	1.33	0.62	6	Atlas		15.035	1
	5/26/2019 15:00	5/26/2019 15:00	-	0.87	305	0.92	0.53	3	Atlas		265	1
	5/29/2019 9:00	5/29/2019 9:00	-	0.90	3.161	1.20	0.49	6	Atlas		2.845	1
	6/5/2019 20:30	6/5/2019 21:00	30	0.95	3.432	1.08	0.70	1	Atlas		3.260	1
	6/16/2019 5:45	6/16/2019 5:45	-	0.59	8.729	0.97	0.39	3	Atlas		5.150	1
	6/16/2019 16:00	6/16/2019 20:45	285	2.61	15.946	2.99	2.00	12	Cloudburst		41.618	1
	6/18/2019 16:15	6/18/2019 16:30	15	0.65	31.089	3.97	0.37	1	Atlas		20.208	1
	6/22/2019 6:45	6/22/2019 6:45	-	0.50	2.436	4.50	0.33	3	Atlas		1.218	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.31	23.558	4.41	0.23	1	Atlas		7.303	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.53	4.223	2.51	0.33	3	Atlas		2.238	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.23	58.691	0.34	0.18	1	Atlas		13.499	1
	7/29/2019 23:15	7/29/2019 23:15	-	0.62	42.476	0.61	0.37	3	Atlas		26.335	1
	8/22/2019 2:45	8/22/2019 2:45	-	0.22	40.495	0.33	0.15	3	Atlas		8.909	1
	8/26/2019 10:30	8/26/2019 12:00	90	0.61	34.182	0.94	0.26	6	Atlas		20.851	1
	CSO155 Total										**6,336,915**	**297**
CSO160	9/25/2012 8:45	9/25/2012 11:15	150	0.41	2.717	0.43	0.22	6	Atlas		1.114	1
	9/25/2012 23:45	9/26/2012 6:00	375	0.47	5.134	0.82	0.22	12	Atlas		2.413	1
	9/26/2012 19:45	9/27/2012 1:30	345	1.65	2.916	2.52	0.88	6	Atlas		4.812	1
	10/1/2012 13:15	10/1/2012 18:45	330	0.59	2.997	3.04	0.23	24	Atlas		1.768	1
	10/5/2012 23:15	10/6/2012 0:45	90	0.14	3.893	0.71	0.07	3	Atlas		545	1
	10/18/2012 0:30	10/18/2012 3:15	165	0.26	46.581	0.41	0.17	3	Atlas		12.111	1
	10/19/2012 13:45	10/19/2012 15:15	90	0.02	6.950	0.44	0.01	3	Atlas		139	1
	10/26/2012 10:45	10/26/2012 23:45	780	0.71	28.604	0.73	0.33	6	Atlas		20.309	1
	11/3/2012 9:15	11/3/2012 17:00	465	0.19	12.068	0.21	0.09	12	Atlas		2.293	1
	11/12/2012 2:30	11/12/2012 13:15	645	0.45	26.429	0.51	0.21	12	Atlas		11.893	1
	12/2/2012 11:00	12/2/2012 14:30	210	0.18	27.439	0.26	0.10	3	Atlas		4.939	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/4/2012 14:45	12/4/2012 19:45	300	0.61	25,495	0.79	0.39	3	Atlas		15,552	1
	12/6/2012 16:15	12/7/2012 19:00	1,605	1.24	36,174	2.03	0.52	12	Atlas		44,856	1
	12/8/2012 4:45	12/8/2012 10:30	345	0.37	32,192	2.40	0.20	6	Atlas		11,911	1
	12/9/2012 8:15	12/9/2012 9:45	90	1.09	2,599	2.47	0.51	3	Atlas		2,833	1
	12/9/2012 19:30	12/10/2012 4:15	525	1.09	31,704	3.25	0.51	3	Atlas		34,557	1
	12/15/2012 11:00	12/15/2012 11:45	45	0.16	3,019	1.23	0.09	3	Atlas		483	1
	12/17/2012 14:30	12/17/2012 17:00	150	0.26	1,781	0.44	0.14	6	Atlas		463	1
	12/20/2012 6:30	12/20/2012 12:15	345	0.67	3,436	1.09	0.36	6	Atlas		2,302	1
	12/26/2012 1:00	12/26/2012 10:45	585	0.65	3,471	1.35	0.26	12	Atlas		2,256	1
	12/28/2012 22:15	12/29/2012 3:15	300	0.05	1,120	0.76	0.02	12	Atlas		56	1
	12/31/2012 22:45	1/1/2013 0:15	90	0.12	1,767	0.81	0.05	24	Atlas		212	1
	1/10/2013 12:30	1/10/2013 15:00	150	0.82	274	0.18	0.34	6	Atlas		225	1
	1/11/2013 2:00	1/11/2013 8:00	360	0.82	2,801	0.83	0.34	6	Atlas		2,297	1
	1/12/2013 20:45	1/13/2013 19:15	1,350	2.38	4,946	3.20	0.91	24	Atlas		11,771	1
	1/27/2013 20:00	1/27/2013 20:15	15	0.26	392	0.11	0.10	24	Atlas		102	1
	1/28/2013 10:30	1/28/2013 17:15	405	0.26	1,285	0.29	0.10	24	Atlas		334	1
	1/30/2013 4:30	1/30/2013 9:00	270	0.89	2,438	1.12	0.45	6	Atlas		2,170	1
	1/30/2013 17:30	1/30/2013 17:45	15	0.89	238	1.17	0.45	6	Atlas		212	1
	2/4/2013 17:15	2/4/2013 18:30	75	0.10	4,060	1.08	0.06	3	Atlas		406	1
	2/8/2013 2:45	2/8/2013 4:30	105	0.08	988	0.22	0.04	6	Atlas		79	1
	2/10/2013 15:15	2/10/2013 16:30	75	0.16	3,819	0.35	0.08	3	Atlas		611	1
	2/18/2013 21:45	2/19/2013 4:30	405	0.35	4,111	0.42	0.16	12	Atlas		1,439	1
	2/21/2013 22:30	2/22/2013 4:00	330	0.41	5,549	0.76	0.19	12	Atlas		2,275	1
	2/26/2013 5:15	2/26/2013 19:30	855	0.53	4,862	0.91	0.20	24	Atlas		2,577	1
	3/5/2013 14:00	3/5/2013 19:00	300	0.46	3,898	0.67	0.17	24	Atlas		1,793	1
	3/10/2013 23:00	3/11/2013 12:15	795	1.04	4,992	1.51	0.41	12	Atlas		5,192	1
	3/17/2013 4:30	3/18/2013 7:45	1,635	1.75	4,579	2.71	0.57	48	Atlas		8,013	1
	3/24/2013 4:30	3/24/2013 17:30	780	0.53	2,962	2.03	0.20	24	Atlas		1,570	1
	4/11/2013 5:15	4/11/2013 7:15	120	1.32	679	0.52	0.51	24	Atlas		896	1
	4/11/2013 15:30	4/12/2013 1:30	600	1.32	1,567	1.32	0.51	24	Atlas		2,068	1
	4/16/2013 19:45	4/16/2013 20:00	15	0.55	20,185	1.83	0.44	1	Atlas		11,102	1
	4/19/2013 0:30	4/19/2013 4:45	255	0.91	3,002	1.48	0.49	6	Atlas		2,732	1
	4/24/2013 5:45	4/24/2013 9:45	240	0.70	2,740	1.66	0.38	6	Atlas		1,918	1
	5/4/2013 10:45	5/5/2013 19:45	1,980	1.54	3,309	1.51	0.47	24	Atlas		5,096	1
	5/6/2013 17:15	5/6/2013 18:00	45	1.54	65	1.59	0.47	24	Atlas		100	1
	5/10/2013 9:30	5/11/2013 0:30	900	0.97	1,965	2.61	0.43	6	Atlas		1,906	1
	5/31/2013 11:00	5/31/2013 15:30	270	0.26	1,165	0.27	0.12	12	Atlas		303	1
	6/1/2013 5:15	6/1/2013 6:30	75	0.13	2,546	0.42	0.06	12	Atlas		331	1
	6/1/2013 16:00	6/1/2013 16:15	15	0.13	1,023	0.49	0.06	12	Atlas		133	1
	6/9/2013 23:00	6/10/2013 3:45	285	0.30	4,743	0.30	0.12	6	Atlas		1,423	1
	6/16/2013 16:30	6/16/2013 17:30	60	0.38	2,239	0.64	0.24	1	Atlas		851	1
	6/17/2013 16:15	6/17/2013 21:45	330	0.87	2,749	1.19	0.44	6	Atlas		2,392	1
	6/23/2013 12:45	6/23/2013 12:45	-	0.17	1,253	1.70	0.12	1	Atlas		213	1
	6/24/2013 9:00	6/24/2013 9:15	15	0.07	3,329	1.45	0.04	3	Atlas		233	1
	6/26/2013 3:15	6/26/2013 4:45	90	0.68	3,160	1.26	0.45	3	Atlas		2,149	1
	6/26/2013 16:00	6/26/2013 22:30	390	2.26	6,765	3.50	2.56	1	Atlas		15,288	1
	6/29/2013 19:30	6/29/2013 21:45	135	0.42	2,581	3.63	0.21	3	Atlas		1,084	1
	7/1/2013 18:30	7/1/2013 19:45	75	0.26	1,092	3.67	0.13	3	Atlas		284	1
	7/2/2013 13:00	7/2/2013 13:00	-	0.12	11,217	3.75	0.10	1	Atlas		1,346	1
	7/3/2013 17:00	7/3/2013 17:15	15	0.05	2,780	1.58	0.03	1	Atlas		139	1
	7/4/2013 6:15	7/4/2013 17:30	675	0.49	2,982	1.38	0.21	12	Atlas		1,461	1
	7/6/2013 0:15	7/6/2013 8:15	480	0.61	4,298	1.97	0.27	12	Atlas		2,622	1
	7/10/2013 13:45	7/10/2013 14:30	45	0.62	2,523	1.79	0.45	1	Atlas		1,564	1
	7/14/2013 19:15	7/14/2013 19:30	15	0.10	4,020	0.78	0.09	1	Atlas		402	1
	7/18/2013 15:30	7/18/2013 16:00	30	0.26	2,977	0.38	0.19	1	Atlas		774	1
	7/21/2013 20:00	7/22/2013 16:00	1,200	1.89	5,010	2.17	0.73	24	Atlas		9,468	1
	7/30/2013 18:00	7/30/2013 19:30	90	0.12	2,675	0.16	0.07	6	Atlas		321	1
	8/10/2013 8:45	8/10/2013 10:00	75	0.07	3,043	0.25	0.05	1	Atlas		213	1
	8/12/2013 11:45	8/12/2013 16:15	270	0.82	2,894	0.77	0.37	1	Atlas		2,373	1
	8/13/2013 2:15	8/13/2013 3:45	90	0.82	2,471	1.07	0.37	1	Atlas		2,026	1
	8/20/2013 18:00	8/20/2013 19:15	75	0.17	7,924	0.19	0.09	3	Atlas		1,347	1
	8/31/2013 19:30	9/1/2013 5:00	570	1.38	2,120	1.38	0.71	1	Atlas		2,925	1
	9/2/2013 13:30	9/2/2013 14:00	30	0.56	1,471	1.94	0.49	1	Atlas		824	1
	9/12/2013 13:00	9/12/2013 13:00	-	0.04	2,900	0.05	0.03	3	Atlas		116	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/20/2013 16:15	9/21/2013 5:30	795	1.14	4,009	1.22	0.46	12	Atlas		4,570	1
	10/5/2013 12:15	10/6/2013 15:45	1,650	3.98	3,099	4.08	5.56	24	Cloudburst		12,336	1
	10/17/2013 9:30	10/17/2013 9:30	-	0.02	4,750	0.03	0.02	1	Atlas		95	1
	10/19/2013 7:15	10/19/2013 11:00	225	0.20	1,275	0.24	0.10	6	Atlas		255	1
	10/29/2013 21:00	10/30/2013 7:00	600	1.42	5,086	1.42	0.69	6	Atlas		7,222	1
	10/31/2013 10:00	10/31/2013 23:00	780	0.65	3,860	2.07	0.25	12	Atlas		2,509	1
	11/6/2013 13:30	11/7/2013 6:30	1,020	0.23	21,500	0.92	0.10	12	Atlas		4,945	1
	11/12/2013 4:00	11/12/2013 4:45	45	0.02	8,250	0.25	0.02	1	Atlas		165	1
	11/15/2013 18:00	11/15/2013 20:45	165	0.08	11,400	0.10	0.07	1	Atlas		912	1
	11/17/2013 2:45	11/17/2013 19:30	1,005	2.35	6,153	2.45	1.08	6	Cloudburst		14,460	1
	11/21/2013 18:45	11/21/2013 21:00	135	0.11	15,018	2.54	0.08	1	Atlas		1,652	1
	12/5/2013 5:00	12/6/2013 14:00	1,980	0.81	18,040	0.54	0.26	48	Atlas		14,612	1
	12/6/2013 22:15	12/7/2013 1:00	165	0.81	1,202	0.81	0.26	48	Atlas		974	1
	12/13/2013 19:45	12/14/2013 14:45	1,140	0.82	5,913	1.33	0.33	12	Atlas		4,849	1
	12/20/2013 7:15	12/20/2013 11:15	240	0.09	6,656	0.92	0.06	1	Atlas		599	1
	12/21/2013 1:45	12/22/2013 5:45	1,680	2.97	11,999	3.79	1.55	24	Cloudburst		35,638	1
	12/29/2013 0:15	12/29/2013 10:45	630	0.51	7,296	0.78	0.22	12	Atlas		3,721	1
	1/2/2014 3:00	1/2/2014 9:30	390	0.23	3,109	0.71	0.11	3	Atlas		715	1
	1/5/2014 14:30	1/5/2014 21:45	435	0.59	17,917	0.82	0.30	6	Atlas		10,571	1
	1/10/2014 23:45	1/11/2014 6:00	375	0.87	9,815	1.47	0.46	6	Atlas		8,539	1
	1/13/2014 8:15	1/13/2014 17:15	540	0.19	8,947	1.07	0.09	12	Atlas		1,700	1
	1/14/2014 18:15	1/14/2014 18:45	30	0.01	11,400	1.08	0.01	1	Atlas		114	1
	1/21/2014 3:00	1/21/2014 14:30	690	0.16	5,713	0.18	0.07	12	Atlas		914	1
	1/25/2014 12:15	1/25/2014 14:00	105	0.06	4,500	0.24	0.03	12	Atlas		270	1
	2/2/2014 1:45	2/2/2014 8:15	390	0.51	5,092	0.22	0.19	24	Atlas		2,597	1
	2/2/2014 16:45	2/2/2014 20:45	240	0.51	292	0.32	0.19	24	Atlas		149	1
	2/3/2014 9:45	2/3/2014 15:00	315	0.51	825	0.51	0.19	24	Atlas		421	1
	2/4/2014 18:30	2/5/2014 0:45	375	0.53	11,442	1.04	0.26	6	Atlas		6,064	1
	2/14/2014 16:15	2/14/2014 18:00	105	0.44	1,314	0.40	0.23	6	Atlas		578	1
	2/17/2014 14:15	2/17/2014 18:00	225	0.71	2,635	1.21	0.43	3	Atlas		1,871	1
	2/20/2014 18:45	2/21/2014 0:30	345	0.16	22,406	1.37	0.09	6	Atlas		3,585	1
	3/2/2014 9:15	3/2/2014 11:45	150	0.55	2,069	0.27	0.21	24	Atlas		1,138	1
	3/3/2014 13:00	3/3/2014 14:45	105	0.55	251	0.56	0.21	24	Atlas		138	1
	3/12/2014 7:00	3/12/2014 7:45	45	0.08	7,113	0.08	0.04	1	Atlas		569	1
	3/16/2014 17:15	3/16/2014 19:15	120	0.08	2,525	0.17	0.05	3	Atlas		202	1
	3/19/2014 8:00	3/19/2014 9:00	60	0.07	5,429	0.17	0.05	1	Atlas		380	1
	3/27/2014 23:15	3/28/2014 5:30	375	0.33	8,794	0.39	0.17	1	Atlas		2,902	1
	3/29/2014 5:00	3/29/2014 14:15	555	1.15	6,391	1.54	0.56	3	Atlas		7,350	1
	4/1/2014 20:15	4/1/2014 20:45	30	0.08	8,050	1.63	0.06	1	Atlas		644	1
	4/3/2014 4:45	4/4/2014 8:00	1,635	3.03	4,538	4.67	1.37	24	Cloudburst		13,749	1
	4/7/2014 7:30	4/7/2014 15:15	465	0.62	3,084	3.78	0.35	3	Atlas		1,912	1
	4/14/2014 3:15	4/14/2014 10:45	450	0.96	4,498	1.02	0.36	24	Atlas		4,318	1
	4/14/2014 19:15	4/15/2014 2:30	435	0.96	2,697	1.01	0.36	24	Atlas		2,589	1
	4/25/2014 2:15	4/25/2014 10:15	480	0.09	4,167	0.10	0.04	12	Atlas		375	1
	4/27/2014 20:15	4/28/2014 19:45	1,410	1.37	9,433	1.45	0.49	24	Atlas		12,923	1
	4/29/2014 19:15	4/29/2014 20:15	60	0.15	873	1.55	0.07	12	Atlas		131	1
	5/9/2014 19:00	5/10/2014 15:15	1,215	1.66	7,449	1.74	0.64	24	Atlas		12,365	1
	5/14/2014 6:45	5/15/2014 1:00	1,095	0.79	3,852	2.58	0.30	24	Atlas		3,043	1
	5/16/2014 3:15	5/16/2014 4:00	45	0.07	4,386	2.64	0.04	1	Atlas		307	1
	5/21/2014 20:45	5/22/2014 4:15	450	0.58	5,841	0.72	0.27	12	Atlas		3,388	1
	5/28/2014 20:15	5/28/2014 20:45	30	0.20	32,935	0.78	0.17	1	Atlas		6,587	1
	6/1/2014 14:15	6/1/2014 22:45	510	0.09	9,344	0.51	0.04	12	Atlas		841	1
	6/10/2014 15:30	6/10/2014 17:00	90	0.08	4,225	0.17	0.05	3	Atlas		338	1
	6/11/2014 14:00	6/11/2014 14:00	-	0.11	3,418	0.28	0.08	1	Atlas		376	1
	6/20/2014 16:00	6/20/2014 16:00	-	0.27	478	0.11	0.18	3	Atlas		129	1
	6/24/2014 13:30	6/24/2014 19:15	345	0.10	8,270	0.44	0.05	6	Atlas		827	1
	7/1/2014 21:45	7/1/2014 22:30	45	0.22	2,177	0.24	0.14	3	Atlas		479	1
	7/2/2014 16:15	7/2/2014 17:00	45	0.12	2,175	0.37	0.10	1	Atlas		261	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.48	18,721	0.82	0.42	1	Atlas		8,986	1
	7/8/2014 6:30	7/8/2014 7:30	60	0.32	2,909	1.14	0.28	1	Atlas		931	1
	7/13/2014 22:15	7/14/2014 5:00	405	0.74	6,832	1.48	0.37	1	Atlas		5,056	1
	7/14/2014 19:15	7/14/2014 20:30	75	0.35	946	1.82	0.23	3	Atlas		331	1
	7/26/2014 21:30	7/27/2014 9:30	720	0.99	7,074	1.02	0.44	12	Atlas		7,003	1
	8/8/2014 5:45	8/8/2014 11:00	315	0.80	7,234	0.76	0.35	6	Atlas		5,787	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/10/2014 4:15	8/10/2014 4:45	30	0.91	1,719	1.77	0.75	1	Atlas		1,564	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.43	286	2.19	0.36	1	Atlas		123	1
	8/17/2014 0:00	8/17/2014 0:00	-	0.72	1,438	1.66	0.27	24	Atlas		1,035	1
	8/17/2014 9:45	8/17/2014 9:45	-	0.72	253	0.98	0.27	24	Atlas		182	1
	8/17/2014 23:30	8/17/2014 23:45	15	0.72	976	1.15	0.27	24	Atlas		703	1
	8/22/2014 19:45	8/22/2014 19:45	-	0.29	531	1.01	0.22	1	Atlas		154	1
	8/23/2014 4:15	8/23/2014 4:15	-	0.29	569	1.05	0.22	1	Atlas		165	1
	8/23/2014 16:00	8/23/2014 21:00	300	0.73	2,616	1.61	0.38	3	Atlas		1,910	1
	8/27/2014 15:15	8/27/2014 15:30	15	0.12	1,417	1.20	0.08	3	Atlas		170	1
	8/30/2014 15:30	8/30/2014 16:15	45	0.58	1,690	1.29	0.37	1	Atlas		980	1
	9/2/2014 8:30	9/2/2014 9:30	60	0.45	7,798	1.09	0.22	3	Atlas		3,509	1
	9/11/2014 0:45	9/11/2014 6:15	330	1.88	840	1.82	1.30	3	Atlas		1,579	1
	10/3/2014 19:30	10/4/2014 4:15	525	0.25	6,284	0.26	0.10	24	Atlas		1,571	1
	10/6/2014 7:00	10/6/2014 10:00	180	0.21	11,038	0.40	0.09	6	Atlas		2,318	1
	10/7/2014 12:15	10/7/2014 12:30	15	0.25	6,464	0.71	0.21	1	Atlas		1,616	1
	10/10/2014 2:00	10/10/2014 3:30	90	1.17	3,188	1.52	0.53	3	Atlas		3,730	1
	10/10/2014 18:00	10/10/2014 22:15	255	1.17	1,470	1.75	0.53	3	Atlas		1,720	1
	10/13/2014 4:30	10/13/2014 7:00	150	0.44	16,255	2.08	0.28	3	Atlas		7,152	1
	10/13/2014 23:15	10/14/2014 10:30	675	1.01	8,247	2.90	0.44	12	Atlas		8,329	1
	10/28/2014 13:15	10/28/2014 13:15	-	0.15	7,600	0.14	0.09	3	Atlas		1,140	1
	11/16/2014 22:15	11/17/2014 2:00	225	0.37	3,541	0.24	0.15	12	Atlas		1,310	1
	11/23/2014 17:45	11/23/2014 23:00	315	0.72	790	1.06	0.30	12	Atlas		569	1
	12/1/2014 4:15	12/1/2014 16:45	750	0.88	9,615	0.84	0.33	24	Atlas		8,461	1
	12/4/2014 14:30	12/4/2014 21:15	405	2.01	2,979	1.23	0.65	48	Atlas		5,988	1
	12/5/2014 6:15	12/5/2014 12:00	345	2.01	1,212	1.49	0.65	48	Atlas		2,437	1
	12/6/2014 21:00	12/6/2014 7:00	600	2.01	1,849	2.88	0.65	48	Atlas		3,716	1
	12/22/2014 22:45	12/23/2014 0:00	75	0.26	6,727	0.32	0.13	3	Atlas		1,749	1
	1/4/2015 4:15	1/4/2015 4:15	-	0.36	3,081	0.37	0.13	24	Atlas		1,109	1
	1/29/2015 5:30	1/29/2015 5:30	-	0.05	8,320	0.26	0.03	3	Atlas		416	1
	2/1/2015 11:30	2/1/2015 19:15	465	0.42	4,307	0.62	0.19	3	Atlas		1,809	1
	2/21/2015 5:00	2/21/2015 21:15	975	1.30	6,205	1.61	0.50	12	Atlas		8,066	1
	3/3/2015 17:45	3/4/2015 17:45	1,440	1.81	3,993	1.47	0.59	24	Atlas		7,228	1
	3/10/2015 5:15	3/10/2015 16:00	645	1.22	7,407	3.03	0.55	12	Atlas		9,037	1
	3/13/2015 9:30	3/14/2015 10:00	1,470	1.90	11,149	3.12	0.72	24	Atlas		21,184	1
	3/19/2015 19:00	3/19/2015 20:00	60	0.20	3,740	2.09	0.08	12	Atlas		748	1
	3/26/2015 4:45	3/26/2015 4:45	-	0.52	475	0.63	0.21	3	Atlas		247	1
	4/2/2015 9:45	4/2/2015 15:15	330	5.15	466	1.17	10.13	24	Cloudburst		2,401	1
	4/3/2015 0:30	4/3/2015 17:45	1,035	5.15	1,949	5.17	10.13	24	Cloudburst		10,038	1
	4/7/2015 4:45	4/7/2015 17:15	750	0.90	5,596	6.04	0.45	1	Atlas		5,036	1
	4/9/2015 11:45	4/9/2015 11:45	-	0.10	5,150	5.80	0.08	1	Atlas		515	1
	4/10/2015 2:30	4/10/2015 2:30	-	0.21	1,429	3.33	0.13	3	Atlas		300	1
	4/13/2015 21:00	4/13/2015 21:15	15	0.43	1,507	1.49	0.17	24	Atlas		648	1
	4/19/2015 13:00	4/19/2015 14:30	90	0.71	448	1.06	0.30	12	Atlas		318	1
	4/20/2015 3:45	4/20/2015 4:00	15	0.07	13,086	1.29	0.05	1	Atlas		916	1
	5/16/2015 12:00	5/16/2015 14:00	120	0.54	2,783	0.61	0.30	3	Atlas		1,503	1
	5/17/2015 14:30	5/17/2015 14:30	-	0.04	4,275	0.69	0.03	1	Atlas		171	1
	5/26/2015 14:15	5/26/2015 14:15	-	0.16	4,069	0.40	0.10	1	Atlas		651	1
	6/8/2015 8:30	6/8/2015 8:30	-	0.24	1,288	0.25	0.13	6	Atlas		309	1
	6/17/2015 5:00	6/17/2015 6:15	75	0.67	476	0.66	0.39	3	Atlas		319	1
	6/18/2015 17:30	6/18/2015 17:30	-	1.53	697	1.16	0.50	48	Atlas		1,066	1
	6/20/2015 1:45	6/20/2015 1:45	-	1.53	180	1.66	0.50	48	Atlas		276	1
	6/26/2015 17:30	6/26/2015 17:30	-	0.89	364	2.10	0.46	1	Atlas		324	1
	6/29/2015 14:00	6/29/2015 14:00	-	0.22	727	1.60	0.12	1	Atlas		160	1
	7/2/2015 0:30	7/2/2015 20:45	1,215	2.02	538	3.69	0.78	24	Atlas		1,087	1
	7/3/2015 19:00	7/3/2015 19:00	-	0.41	512	3.04	0.32	1	Atlas		210	1
	7/7/2015 11:45	7/7/2015 14:45	180	1.04	2,150	3.25	0.45	6	Atlas		2,236	1
	7/9/2015 5:30	7/9/2015 13:30	480	0.36	10,197	2.96	0.17	3	Atlas		3,671	1
	7/10/2015 10:30	7/10/2015 16:15	345	0.44	6,234	2.27	0.22	6	Atlas		2,743	1
	7/12/2015 6:15	7/12/2015 7:15	60	1.27	5,728	3.10	0.86	3	Atlas		7,274	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.53	308	3.67	0.45	1	Atlas		163	1
	7/14/2015 4:15	7/14/2015 4:45	30	0.62	3,455	4.27	0.49	1	Atlas		2,142	1
	7/17/2015 23:15	7/18/2015 1:00	105	1.31	1,396	3.79	0.87	3	Atlas		1,829	1
	8/4/2015 19:15	8/4/2015 20:15	60	0.43	1,442	0.48	0.37	1	Atlas		620	1
	8/5/2015 15:15	8/5/2015 15:45	30	0.70	354	0.76	0.25	24	Atlas		248	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/6/2015 2:30	8/6/2015 8:45	375	0.70	2,561	1.07	0.25	24	Atlas		1,793	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.28	2,646	0.42	0.24	1	Atlas		741	1
	8/17/2016 6:45	8/17/2016 6:45	-	0.81	13,909	1.68	0.35	3	Atlas		11,266	1
	8/20/2016 14:30	8/20/2016 14:30	-	1.48	9,807	2.57	0.68	1	Atlas		14,515	1
	12/17/2016 19:15	12/17/2016 19:15	-	2.75	4,116	1.35	2.00	12	Cloudburst		11,318	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.42	25,712	0.47	0.36	1	Atlas		10,799	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.11	13,979	1.04	0.59	6	Atlas		15,517	1
	4/16/2017 5:30	4/16/2017 13:15	465	1.04	35,573	0.60	0.40	6	Atlas		36,996	1
	5/21/2017 3:00	5/21/2017 3:30	30	1.07	15,412	0.82	0.48	12	Atlas		16,491	1
	5/27/2017 14:00	5/27/2017 14:00	-	0.37	14,000	1.89	0.30	1	Atlas		5,180	1
	11/3/2017 5:00	11/3/2017 5:00	-	1.18	257	2.17	0.84	1	Atlas		303	1
	12/5/2017 3:45	12/5/2017 3:45	-	0.68	1,374	0.36	0.35	3	Atlas		934	1
	2/22/2018 5:15	2/22/2018 5:15	-	1.79	6,420	2.80	0.67	24	Atlas		11,492	1
	2/24/2018 18:45	2/24/2018 23:15	270	2.04	6,780	5.07	0.84	12	Atlas		13,831	1
	5/5/2018 14:30	5/5/2018 14:45	15	1.49	20,507	0.80	0.59	12	Atlas		30,555	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.48	18,108	1.77	0.72	3	Atlas		26,800	1
	8/16/2018 8:15	8/16/2018 8:15	-	2.75	301	2.52	1.33	24	Cloudburst		829	1
	9/8/2018 20:00	9/8/2018 20:00	-	2.96	461	2.37	3.04	6	Cloudburst		1,364	1
	6/16/2019 20:30	6/16/2019 20:30	-	1.81	1,510	1.67	0.83	12	Atlas		2,733	1
	6/18/2019 16:15	6/18/2019 16:15	-	0.15	680	2.49	0.12	1	Atlas		102	1
	7/18/2019 0:15	7/18/2019 0:15	-	0.22	514	0.24	0.18	1	Atlas		113	1
	7/29/2019 23:15	7/29/2019 23:15	-	0.62	2,635	0.57	0.39	3	Atlas		1,634	1
	CSO160 Total										**927,467**	**225**
CSO161	12/8/2012 5:45	12/8/2012 6:00	15	0.37	5,924	2.28	0.20	6	Atlas		2,192	1
	12/9/2012 21:30	12/9/2012 22:30	60	1.09	10,739	2.90	0.51	3	Atlas		11,706	1
	12/20/2012 6:45	12/20/2012 12:00	315	0.67	13,476	1.09	0.36	6	Atlas		9,029	1
	12/26/2012 3:30	12/26/2012 9:30	360	0.65	34,772	1.34	0.26	12	Atlas		22,602	1
	12/29/2012 0:15	12/29/2012 0:15	-	0.05	2,580	0.74	0.02	12	Atlas		129	1
	1/10/2013 12:45	1/10/2013 15:00	135	0.82	949	0.18	0.34	6	Atlas		778	1
	1/11/2013 2:15	1/11/2013 7:30	315	0.82	17,311	0.82	0.34	6	Atlas		14,195	1
	1/13/2013 3:15	1/13/2013 18:45	930	2.38	13,604	3.19	0.91	24	Atlas		32,378	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.89	23,361	0.59	0.45	6	Atlas		20,791	1
	4/11/2013 7:00	4/11/2013 7:00	-	1.32	2,011	0.51	0.51	24	Atlas		2,654	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.55	24,773	1.83	0.44	1	Atlas		13,625	1
	4/19/2013 2:15	4/19/2013 2:15	-	0.91	778	1.01	0.49	6	Atlas		708	1
	5/16/2013 10:15	5/16/2013 10:15	-	0.27	10,844	1.27	0.23	1	Atlas		2,928	1
	6/16/2013 16:45	6/16/2013 16:45	-	0.38	2,897	0.60	0.24	1	Atlas		1,101	1
	6/26/2013 4:30	6/26/2013 4:30	-	0.68	3,363	1.25	0.45	3	Atlas		2,287	1
	6/26/2013 16:15	6/26/2013 20:30	255	2.26	12,045	3.18	2.56	1	Atlas		27,221	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.12	2,500	3.80	0.10	1	Atlas		300	1
	7/22/2013 7:45	7/22/2013 13:30	345	1.89	15,423	2.13	0.73	24	Atlas		29,150	1
	8/12/2013 14:45	8/12/2013 14:45	-	0.82	671	0.73	0.37	1	Atlas		550	1
	8/31/2013 19:45	8/31/2013 20:00	15	1.38	2,532	0.82	0.71	1	Atlas		3,494	1
	9/2/2013 13:30	9/2/2013 13:45	15	0.56	5,259	1.94	0.49	1	Atlas		2,945	1
	9/20/2013 16:15	9/20/2013 16:15	-	1.14	1,443	0.27	0.46	12	Atlas		1,645	1
	10/5/2013 13:45	10/5/2013 23:15	570	3.98	6,386	2.73	5.56	24	Cloudburst		25,418	1
	10/30/2013 5:00	10/30/2013 5:00	-	1.42	115	1.12	0.69	6	Atlas		163	1
	10/31/2013 19:00	10/31/2013 19:00	-	0.65	4,128	1.87	0.25	12	Atlas		2,683	1
	11/17/2013 6:00	11/17/2013 7:15	75	2.35	2,719	1.45	1.08	6	Cloudburst		6,390	1
	12/21/2013 21:30	12/21/2013 22:15	45	2.97	2,649	2.33	1.55	24	Cloudburst		7,868	1
	2/17/2014 15:45	2/17/2014 15:45	-	0.71	603	0.73	0.43	3	Atlas		428	1
	4/4/2014 2:45	4/4/2014 2:45	-	3.03	5,601	3.79	1.37	24	Cloudburst		16,971	1
	4/28/2014 3:45	4/28/2014 5:45	120	1.37	8,062	0.75	0.49	24	Atlas		11,045	1
	5/10/2014 5:15	5/10/2014 5:15	-	1.66	10,154	0.63	0.64	24	Atlas		16,856	1
	5/10/2014 13:45	5/10/2014 14:45	60	1.66	9,974	1.50	0.64	24	Atlas		16,557	1
	5/28/2014 20:15	5/28/2014 20:15	-	0.20	60,030	0.77	0.17	1	Atlas		12,006	1
	6/11/2014 14:00	6/11/2014 14:00	-	0.11	61,782	0.28	0.08	1	Atlas		6,796	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.10	12,290	0.38	0.05	6	Atlas		1,229	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.74	1,153	1.26	0.37	1	Atlas		853	1
	7/26/2014 21:30	7/26/2014 21:30	-	0.99	7,120	0.30	0.44	12	Atlas		7,049	1
	8/8/2014 6:15	8/8/2014 6:15	-	0.80	426	0.50	0.35	6	Atlas		341	1
	8/10/2014 3:45	8/10/2014 4:15	30	0.91	6,144	1.74	0.75	1	Atlas		5,591	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/22/2014 19:00	8/22/2014 19:00	-	0.29	10.879	1.00	0.22	1	Atlas		3,155	1
	8/23/2014 19:45	8/23/2014 19:45	-	0.73	11.034	1.38	0.38	3	Atlas		8,055	1
	8/30/2014 15:00	8/30/2014 15:00	-	0.58	24.974	1.30	0.37	1	Atlas		14,485	1
	9/11/2014 0:30	9/11/2014 2:00	90	1.88	5.102	1.52	1.30	3	Atlas		9,592	1
	12/5/2014 23:15	12/6/2014 6:15	420	2.01	7.589	2.88	0.65	48	Atlas		15,254	1
	12/16/2014 5:15	12/16/2014 5:15	-	0.13	10.431	0.12	0.07	3	Atlas		1,356	1
	12/22/2014 22:30	12/23/2014 0:00	90	0.26	15.035	0.32	0.13	3	Atlas		3,909	1
	12/23/2014 20:00	12/23/2014 20:45	45	0.26	9.815	0.27	0.13	3	Atlas		2,552	1
	12/24/2014 12:30	12/24/2014 13:45	75	0.19	8.374	0.34	0.08	12	Atlas		1,591	1
	12/27/2014 17:00	12/28/2014 1:45	525	0.31	16.303	0.76	0.12	24	Atlas		5,054	1
	1/3/2015 11:00	1/3/2015 15:30	270	0.36	14.817	0.48	0.13	24	Atlas		5,334	1
	1/4/2015 3:15	1/4/2015 4:00	45	0.36	1.881	0.37	0.13	24	Atlas		677	1
	4/2/2015 15:00	4/2/2015 15:00	-	5.15	102	1.05	10.13	24	Cloudburst		524	1
	4/3/2015 0:15	4/3/2015 2:15	120	5.15	3.693	3.14	10.13	24	Cloudburst		19,018	1
	4/7/2015 9:15	4/7/2015 9:15	-	0.90	2.434	5.73	0.45	1	Atlas		2,191	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.54	1.476	0.43	0.30	3	Atlas		797	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.04	164.375	0.69	0.03	1	Atlas		6,575	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.67	4.734	0.38	0.39	3	Atlas		3,172	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.53	12.272	1.05	0.50	48	Atlas		18,776	1
	6/20/2015 1:30	6/20/2015 5:15	225	1.53	1.880	1.93	0.50	48	Atlas		2,876	1
	6/26/2015 17:15	6/26/2015 17:15	-	0.89	5.025	2.12	0.46	1	Atlas		4,472	1
	6/29/2015 13:45	6/29/2015 13:45	-	0.22	2.914	1.60	0.12	1	Atlas		641	1
	7/2/2015 0:15	7/2/2015 7:00	405	2.02	591	2.58	0.78	24	Atlas		1,193	1
	7/2/2015 20:15	7/2/2015 20:30	15	2.02	12.255	3.67	0.78	24	Atlas		24,755	1
	7/3/2015 18:45	7/3/2015 18:45	-	0.41	4.261	3.04	0.32	1	Atlas		1,747	1
	7/7/2015 11:45	7/7/2015 11:45	-	1.04	2.088	2.97	0.45	6	Atlas		2,172	1
	7/12/2015 6:00	7/12/2015 7:15	75	1.27	29.517	3.10	0.85	3	Atlas		37,486	1
	7/13/2015 14:45	7/13/2015 15:00	15	0.53	6.057	3.67	0.45	1	Atlas		3,210	1
	7/14/2015 4:00	7/14/2015 4:30	30	0.62	14.218	4.26	0.49	1	Atlas		8,815	1
	7/17/2015 22:15	7/18/2015 1:00	165	1.31	46.834	3.79	0.87	3	Atlas		61,352	1
	7/29/2015 17:30	7/29/2015 17:30	-	0.05	10.980	0.12	0.04	1	Atlas		549	1
	8/4/2015 19:00	8/4/2015 19:00	-	0.43	1.349	0.45	0.37	1	Atlas		580	1
	8/15/2015 16:30	8/15/2015 16:30	-	0.04	103.100	0.17	0.03	1	Atlas		4,124	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.28	4.607	0.42	0.24	1	Atlas		1,290	1
	11/18/2015 10:45	11/18/2015 10:45	-	1.29	1.257	1.06	0.65	6	Atlas		1,622	1
	12/23/2015 19:15	12/23/2015 19:30	15	0.72	21.679	1.10	0.51	1	Atlas		15,609	1
	12/27/2015 10:30	12/27/2015 10:30	-	2.10	3.352	2.51	0.72	6	Atlas		7,039	1
	3/27/2016 21:15	3/27/2016 21:15	-	0.71	5.154	0.93	0.47	1	Atlas		3,659	1
	4/26/2016 16:00	4/26/2016 16:00	-	0.31	11.303	0.37	0.17	1	Atlas		3,504	1
	4/27/2016 20:45	4/27/2016 20:45	-	0.73	7.114	1.05	0.34	3	Atlas		5,193	1
	6/2/2016 15:30	6/2/2016 15:30	-	0.34	5.900	0.44	0.27	1	Atlas		2,006	1
	6/4/2016 16:30	6/4/2016 16:30	-	0.30	94.180	0.72	0.17	1	Atlas		28,254	1
	6/14/2016 16:30	6/14/2016 16:30	-	0.95	15.393	0.63	0.61	3	Atlas		14,623	1
	6/23/2016 16:00	6/23/2016 20:30	270	2.48	4.067	2.74	3.67	6	Cloudburst		10,085	1
	7/3/2016 19:45	7/3/2016 19:45	-	1.34	1.590	0.54	0.44	48	Atlas		2,130	1
	7/6/2016 13:00	7/6/2016 13:00	-	0.11	6.427	1.43	0.08	1	Atlas		707	1
	7/12/2016 9:45	7/12/2016 9:45	-	0.38	1.161	0.49	0.24	3	Atlas		441	1
	7/26/2016 17:45	7/26/2016 17:45	-	0.14	1.300	0.39	0.12	1	Atlas		182	1
	7/28/2016 3:15	7/28/2016 3:15	-	0.75	8.803	0.95	0.34	12	Atlas		6,602	1
	7/30/2016 14:00	7/30/2016 14:00	-	0.25	35.688	1.40	0.22	1	Atlas		8,922	1
	8/1/2016 11:00	8/1/2016 11:00	-	0.35	5.214	1.74	0.29	1	Atlas		1,825	1
	8/4/2016 13:15	8/4/2016 13:15	-	0.21	6.214	0.81	0.11	6	Atlas		1,305	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.22	11.259	0.35	0.18	1	Atlas		2,477	1
	8/15/2016 2:30	8/15/2016 5:30	180	0.76	11.120	1.00	0.38	6	Atlas		8,451	1
	8/17/2016 5:45	8/17/2016 6:45	60	0.81	6.174	1.68	0.35	3	Atlas		5,001	1
	8/20/2016 10:15	8/20/2016 19:45	570	1.48	17.311	2.89	0.68	1	Atlas		25,621	1
	9/10/2016 14:45	9/10/2016 14:45	-	0.18	1.361	0.07	0.11	3	Atlas		245	1
	9/28/2016 12:15	9/28/2016 12:15	-	0.43	2.091	0.57	0.23	6	Atlas		899	1
	9/30/2016 1:15	9/30/2016 2:00	45	0.61	4.715	1.25	0.31	3	Atlas		2,876	1
	10/20/2016 9:00	10/20/2016 9:00	-	0.54	6.363	0.15	0.21	3	Atlas		3,436	1
	11/8/2016 19:30	11/8/2016 19:45	15	0.20	5.895	0.23	0.09	12	Atlas		1,179	1
	12/6/2016 9:00	12/6/2016 12:00	180	0.91	5.577	0.93	0.42	12	Atlas		5,075	1
	12/17/2016 18:15	12/17/2016 21:15	180	2.75	5.314	1.90	2.00	12	Cloudburst		14,614	1
	12/23/2016 22:45	12/24/2016 0:45	120	0.25	4.500	2.97	0.11	6	Atlas		1,125	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/26/2016 20:15	12/26/2016 20:15	-	0.39	2,205	0.59	0.19	6	Atlas		860	1
	1/3/2017 2:00	1/3/2017 4:30	150	0.18	32,883	0.26	0.09	6	Atlas		5,919	1
	1/10/2017 19:15	1/10/2017 19:45	30	0.13	43,746	0.39	0.10	1	Atlas		5,687	1
	2/24/2017 18:45	2/24/2017 18:45	-	0.42	16,095	0.43	0.36	1	Atlas		6,760	1
	3/1/2017 3:00	3/1/2017 3:00	-	1.11	14,860	0.99	0.59	6	Atlas		16,495	1
	4/16/2017 5:30	4/16/2017 5:30	-	1.04	3,714	0.54	0.40	6	Atlas		3,863	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.16	25,492	1.42	0.60	6	Atlas		29,571	1
	5/21/2017 3:00	5/21/2017 3:30	30	1.07	16,459	0.82	0.48	12	Atlas		17,611	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.04	106,300	0.05	0.02	6	Atlas		4,252	1
	6/13/2017 17:00	6/13/2017 17:00	-	0.19	1,953	0.21	0.17	1	Atlas		371	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.61	8,103	0.70	0.52	1	Atlas		4,943	1
	7/6/2017 12:00	7/6/2017 12:00	-	0.52	1,644	0.93	0.25	3	Atlas		855	1
	7/23/2017 1:45	7/23/2017 1:45	-	1.15	1,889	0.19	0.53	12	Atlas		2,172	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.46	4,874	0.75	0.38	1	Atlas		2,242	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.62	1,408	0.95	0.44	1	Atlas		873	1
	11/3/2017 4:30	11/3/2017 4:30	-	1.18	1,970	1.88	0.84	1	Atlas		2,325	1
	11/6/2017 1:45	11/6/2017 1:45	-	0.53	2,166	1.85	0.38	1	Atlas		1,148	1
	2/22/2018 5:00	2/22/2018 5:00	-	1.79	72	2.78	0.67	24	Atlas		128	1
	2/23/2018 4:00	2/23/2018 4:45	45	1.48	175	3.20	0.68	12	Atlas		259	1
	2/24/2018 18:45	2/24/2018 23:00	255	2.04	1,811	5.04	0.84	12	Atlas		3,695	1
	4/3/2018 16:15	4/3/2018 19:00	165	0.31	10,890	2.13	0.17	6	Atlas		3,376	1
	5/5/2018 14:15	5/5/2018 14:30	15	1.49	4,761	0.67	0.59	12	Atlas		7,094	1
	5/27/2018 4:00	5/27/2018 4:00	-	0.42	588	0.46	0.35	1	Atlas		247	1
	6/1/2018 1:00	6/1/2018 1:00	-	1.48	7,854	1.70	0.72	3	Atlas		11,624	1
	6/21/2018 16:15	6/21/2018 16:15	-	0.27	7,789	0.59	0.16	1	Atlas		2,103	1
	6/22/2018 14:00	6/22/2018 14:00	-	0.25	4,144	0.91	0.11	6	Atlas		1,036	1
	7/20/2018 4:45	7/20/2018 4:45	-	1.46	1,881	0.35	0.81	3	Atlas		2,746	1
	7/20/2018 19:15	7/20/2018 20:45	90	1.46	4,590	1.67	0.81	3	Atlas		6,702	1
	7/31/2018 1:15	7/31/2018 2:00	45	2.33	27,318	1.39	1.33	6	Cloudburst		63,651	1
	8/15/2018 20:00	8/16/2018 8:30	750	2.75	5,234	2.56	1.33	24	Cloudburst		14,393	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.63	30,902	3.38	0.47	1	Atlas		19,468	1
	9/6/2018 11:45	9/6/2018 11:45	-	0.21	6,810	0.37	0.15	1	Atlas		1,430	1
	9/8/2018 17:30	9/8/2018 21:30	240	2.96	5,810	3.00	3.04	6	Cloudburst		17,197	1
	9/21/2018 14:00	9/21/2018 14:00	-	0.32	2,109	0.26	0.17	6	Atlas		675	1
	9/23/2018 4:15	9/23/2018 4:15	-	1.37	180	1.14	0.52	24	Atlas		247	1
	9/24/2018 7:30	9/24/2018 10:45	195	1.35	103	2.86	0.64	6	Atlas		139	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.07	3,143	3.11	0.06	1	Atlas		220	1
	9/25/2018 16:30	9/25/2018 17:00	30	0.81	4,601	3.45	0.35	12	Atlas		3,727	1
	10/10/2018 16:30	10/10/2018 16:30	-	0.13	1,100	0.09	0.09	3	Atlas		143	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.45	387	0.53	0.30	1	Atlas		174	1
	12/31/2018 12:15	12/31/2018 16:15	240	1.20	1,303	1.61	0.46	24	Atlas		1,563	1
	2/6/2019 7:00	2/6/2019 7:00	-	1.61	22	0.51	0.52	48	Atlas		35	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.61	46	1.19	0.52	48	Atlas		74	1
	3/9/2019 18:30	3/9/2019 18:30	-	0.93	355	1.06	0.43	6	Atlas		330	1
	3/14/2019 17:00	3/14/2019 18:30	90	0.58	13,793	1.95	0.39	3	Atlas		8,000	1
	3/30/2019 17:15	3/30/2019 18:45	90	1.10	485	1.20	0.52	6	Atlas		533	1
	4/7/2019 11:45	4/7/2019 12:15	30	0.60	233	0.67	0.28	3	Atlas		140	1
	4/14/2019 2:00	4/14/2019 2:00	-	0.68	197	1.08	0.33	6	Atlas		134	1
	4/24/2019 20:30	4/24/2019 20:45	15	0.86	113	2.64	0.28	48	Atlas		97	1
	5/3/2019 5:00	5/3/2019 5:00	-	0.91	1,449	0.56	0.49	6	Atlas		1,319	1
	5/23/2019 15:45	5/23/2019 21:00	315	0.07	24,286	0.32	0.04	1	Atlas		1,700	1
	5/26/2019 13:45	5/26/2019 13:45	-	0.55	1,695	0.43	0.32	3	Atlas		932	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.92	5,451	1.04	0.70	1	Atlas		5,015	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.48	21,179	2.01	0.23	6	Atlas		10,166	1
	6/16/2019 19:30	6/16/2019 20:45	75	1.81	15,878	1.79	0.83	12	Atlas		28,740	1
	6/18/2019 16:15	6/18/2019 16:30	15	0.15	194,240	2.50	0.12	1	Atlas		29,136	1
	6/21/2019 19:30	6/21/2019 19:30	-	0.84	190	3.10	0.56	3	Atlas		160	1
	6/22/2019 6:45	6/22/2019 6:45	-	0.49	112	3.49	0.33	3	Atlas		55	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.26	18,746	3.67	0.19	1	Atlas		4,874	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.37	1,076	2.32	0.23	3	Atlas		398	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.22	53,450	0.39	0.18	1	Atlas		11,759	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.62	17,310	0.62	0.39	3	Atlas		10,732	1
	8/22/2019 2:45	8/22/2019 2:45	-	0.21	1,800	0.21	0.14	3	Atlas		378	1
	10/30/2019 14:15	10/30/2019 14:30	15	0.81	495	2.13	0.40	3	Atlas		401	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/10/2020 20:15	1/10/2020 20:15	-	0.36	119	0.35	0.17	12	Atlas		43	1
	1/18/2020 9:00	1/18/2020 10:15	75	0.36	44,656	0.97	0.15	12	Atlas		16,076	1
	2/12/2020 17:30	2/12/2020 17:30	-	0.73	278	0.93	0.33	3	Atlas		203	1
	3/12/2020 19:30	3/12/2020 19:30	-	0.57	747	1.00	0.27	6	Atlas		426	1
	3/19/2020 12:15	3/19/2020 12:15	-	0.47	3,764	1.90	0.21	3	Atlas		1,769	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.22	53,241	0.42	0.18	1	Atlas		11,713	1
	4/8/2020 22:00	4/8/2020 22:00	-	0.50	166	0.25	0.33	3	Atlas		83	1
	5/16/2020 7:15	5/16/2020 7:15	-	1.32	456	1.50	0.50	24	Atlas		602	1
	5/25/2020 16:30	5/25/2020 16:30	-	0.44	2,766	0.53	0.37	1	Atlas		1,217	1
	6/4/2020 18:00	6/4/2020 18:00	-	0.60	117	0.34	0.35	3	Atlas		70	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.35	5,791	0.22	0.19	1	Atlas		2,027	1
	6/22/2020 22:30	6/22/2020 22:45	15	0.78	8,915	0.83	0.36	3	Atlas		6,954	1
	6/29/2020 2:45	6/29/2020 4:15	90	0.34	691	1.21	0.23	1	Atlas		235	1
	6/29/2020 19:15	6/29/2020 19:15	-	0.23	6,639	1.45	0.19	1	Atlas		1,527	1
	CSO161 Total										**1,228,725**	**181**
CSO166	6/20/2009 4:45	6/20/2009 4:45	-	0.08	125,500	2.86	0.06	1	Atlas		10,040	1
	6/22/2009 9:15	6/22/2009 10:45	90	1.12	617,661	4.01	0.77	1	Atlas		691,780	1
	6/26/2009 3:45	6/26/2009 4:00	15	1.18	200,672	2.14	0.54	12	Atlas		236,793	1
	7/15/2009 11:00	7/15/2009 11:30	30	0.30	265,613	0.33	0.19	3	Atlas		79,684	1
	7/25/2009 21:30	7/25/2009 22:15	45	0.61	703,536	2.07	0.23	24	Atlas		429,157	1
	7/28/2009 14:00	7/28/2009 14:00	-	2.63	23,248	2.28	2.52	6	Cloudburst		61,142	1
	7/29/2009 3:00	7/29/2009 15:15	735	2.63	1,878,494	4.50	2.52	6	Cloudburst		4,940,438	1
	7/30/2009 17:30	7/30/2009 23:15	345	1.04	680,442	4.10	0.44	12	Atlas		707,660	1
	10/23/2009 6:45	10/23/2009 7:30	45	0.58	228,395	0.56	0.25	12	Atlas		132,469	1
	10/27/2009 20:45	10/27/2009 23:45	180	1.11	1,018,932	1.69	0.50	12	Atlas		1,131,015	1
	10/30/2009 20:15	10/31/2009 1:15	300	0.98	907,223	1.76	0.44	12	Atlas		889,079	1
	11/17/2009 17:30	11/17/2009 18:45	75	0.94	384,148	0.82	0.36	24	Atlas		361,099	1
	12/8/2009 17:45	12/8/2009 22:00	255	1.58	2,038,693	1.82	0.68	12	Atlas		3,221,135	1
	1/21/2010 10:45	1/21/2010 20:15	570	0.90	4,960,056	1.76	0.41	12	Atlas		4,464,050	1
	1/24/2010 4:00	1/24/2010 6:15	135	1.03	761,484	2.15	0.40	24	Atlas		784,329	1
	1/24/2010 21:45	1/24/2010 23:00	75	1.03	301,402	2.47	0.40	24	Atlas		310,444	1
	2/5/2010 13:00	2/5/2010 19:45	405	1.18	2,009,519	1.12	0.42	24	Atlas		2,371,232	1
	3/25/2010 22:15	3/25/2010 22:15	-	0.56	58,316	1.01	0.31	1	Atlas		32,657	1
	4/8/2010 1:45	4/8/2010 6:15	270	1.15	1,660,368	1.26	0.56	6	Atlas		1,909,423	1
	4/24/2010 14:45	4/24/2010 20:45	360	1.57	3,233,196	1.82	0.72	6	Atlas		5,076,118	1
	4/27/2010 10:15	4/27/2010 10:45	30	0.34	529,209	2.34	0.16	6	Atlas		179,931	1
	5/1/2010 4:45	5/1/2010 9:30	285	4.23	1,089,259	3.02	3.86	48	Atlas		4,607,564	1
	5/2/2010 1:15	5/3/2010 19:15	2,520	4.23	15,004,995	4.77	3.86	48	Atlas		63,471,127	1
	5/7/2010 23:30	5/7/2010 23:45	15	0.20	1,518,140	4.45	0.16	1	Atlas		303,628	1
	5/12/2010 9:45	5/12/2010 11:00	75	0.75	1,153,365	1.04	0.57	1	Atlas		865,024	1
	5/13/2010 12:45	5/13/2010 13:15	30	0.16	2,754,313	1.21	0.14	1	Atlas		440,690	1
	5/16/2010 9:30	5/16/2010 10:15	45	0.55	2,730,891	1.25	0.25	12	Atlas		1,501,990	1
	5/17/2010 19:30	5/17/2010 20:45	75	0.44	2,679,945	1.99	0.32	1	Atlas		1,179,176	1
	5/21/2010 19:45	5/21/2010 21:45	120	1.12	449,225	2.12	0.85	1	Atlas		503,132	1
	5/30/2010 16:15	5/30/2010 16:15	-	0.39	284,751	0.35	0.23	1	Atlas		111,053	1
	5/31/2010 18:00	5/31/2010 18:15	15	0.03	8,221,800	0.49	0.03	1	Atlas		246,654	1
	6/9/2010 3:30	6/9/2010 13:00	570	2.06	4,050,943	2.19	1.57	3	Atlas		8,425,962	1
	6/12/2010 1:45	6/12/2010 2:00	15	0.29	366,345	2.37	0.17	1	Atlas		106,240	1
	6/13/2010 22:45	6/13/2010 23:45	60	0.47	7,527,264	2.72	0.29	1	Atlas		3,537,814	1
	6/15/2010 21:15	6/15/2010 21:15	-	0.50	185,598	3.40	0.36	1	Atlas		92,799	1
	6/19/2010 5:45	6/19/2010 7:15	90	0.85	3,273,672	1.82	0.49	3	Atlas		2,782,621	1
	7/8/2010 15:45	7/8/2010 15:45	-	0.59	152,436	0.08	0.23	24	Atlas		89,937	1
	7/13/2010 3:45	7/13/2010 5:30	105	1.79	33,520	1.53	0.82	12	Atlas		60,001	1
	10/13/2010 20:30	10/13/2010 21:00	30	0.45	38,727	0.56	0.29	3	Atlas		17,427	1
	10/26/2010 11:15	10/26/2010 11:45	30	0.51	101,543	0.24	0.28	6	Atlas		51,787	1
	11/16/2010 12:45	11/16/2010 15:45	180	0.77	126,556	0.73	0.34	12	Atlas		97,448	1
	11/23/2010 3:45	11/23/2010 4:30	45	0.31	201,000	1.11	0.17	6	Atlas		62,310	1
	11/24/2010 13:30	11/24/2010 15:45	135	0.76	382,025	1.14	0.37	3	Atlas		290,339	1
	11/25/2010 10:00	11/25/2010 23:45	825	2.32	1,084,365	3.31	0.89	24	Atlas		2,515,726	1
	11/29/2010 22:00	11/30/2010 5:00	420	1.71	985,611	4.64	0.66	24	Atlas		1,685,395	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/30/2010 7:45	12/30/2010 8:00	15	0.53	91,908	0.59	0.24	12	Atlas		48,711	1
	1/1/2011 5:45	1/1/2011 7:00	75	0.65	232,398	1.13	0.28	12	Atlas		151,059	1
	2/1/2011 18:30	2/1/2011 20:30	120	1.00	947,261	0.92	0.42	6	Atlas		947,261	1
	2/24/2011 20:15	2/25/2011 10:45	870	2.23	2,675,777	2.45	0.86	24	Atlas		5,966,982	1
	2/28/2011 5:15	2/28/2011 13:15	480	1.13	1,473,332	3.68	0.54	6	Atlas		1,664,865	1
	3/5/2011 7:00	3/5/2011 9:00	120	0.88	596,256	2.04	0.29	24	Atlas		524,705	1
	3/8/2011 23:00	3/10/2011 17:00	2,520	2.82	6,303,736	3.75	1.43	24	Cloudburst		17,776,536	1
	3/18/2011 21:45	3/18/2011 22:00	15	0.22	8,091	1.02	0.11	6	Atlas		1,780	1
	4/4/2011 13:30	4/4/2011 17:15	225	0.93	944,156	1.10	0.48	6	Atlas		878,065	1
	4/9/2011 10:15	4/9/2011 11:45	90	0.63	492,340	1.62	0.45	1	Atlas		310,174	1
	4/11/2011 10:30	4/13/2011 10:30	2,880	3.26	8,237,942	4.82	2.68	24	Cloudburst		26,855,690	1
	4/15/2011 13:15	4/15/2011 14:00	45	0.45	234,367	4.10	0.17	24	Atlas		105,465	1
	4/20/2011 0:45	4/20/2011 5:15	270	0.68	1,198,928	1.20	0.37	6	Atlas		815,271	1
	4/22/2011 16:45	4/29/2011 23:00	10,455	4.61	19,067,435	9.01	2.66	48	Cloudburst		87,900,874	1
	5/1/2011 4:45	5/1/2011 8:00	195	0.71	2,262,489	5.29	0.37	3	Atlas		1,606,367	1
	5/1/2011 22:45	5/4/2011 22:15	4,290	2.81	7,464,108	7.22	0.91	48	Atlas		20,974,143	1
	5/8/2011 1:30	5/8/2011 2:00	30	0.21	25,600	3.65	0.12	3	Atlas		5,376	1
	5/21/2011 18:45	5/21/2011 19:30	45	0.47	1,286,381	0.83	0.35	1	Atlas		604,599	1
	5/23/2011 3:45	5/23/2011 5:00	75	0.29	1,200,052	0.87	0.22	1	Atlas		348,015	1
	5/23/2011 18:00	5/23/2011 21:45	225	0.92	1,434,504	1.81	0.59	3	Atlas		1,319,744	1
	5/25/2011 23:00	5/26/2011 2:30	210	1.28	1,456,992	2.68	0.57	3	Atlas		1,864,950	1
	5/26/2011 11:15	5/26/2011 13:15	120	1.28	487,803	2.98	0.57	3	Atlas		624,388	1
	6/11/2011 5:00	6/11/2011 5:15	15	0.33	72,630	0.37	0.28	1	Atlas		23,968	1
	6/15/2011 9:30	6/15/2011 11:00	90	1.04	1,184,668	1.43	0.67	1	Atlas		1,232,055	1
	6/18/2011 7:30	6/18/2011 8:45	75	0.82	520,700	1.91	0.51	3	Atlas		426,974	1
	6/19/2011 8:15	6/19/2011 8:30	15	0.48	28,154	2.28	0.29	3	Atlas		13,514	1
	6/20/2011 1:15	6/20/2011 2:45	90	0.61	501,484	2.98	0.51	1	Atlas		305,905	1
	6/21/2011 14:00	6/21/2011 17:15	195	0.43	4,514,721	3.38	0.26	3	Atlas		1,941,330	1
	6/22/2011 19:15	6/23/2011 19:30	1,455	3.96	4,029,124	6.31	41.03	3	Cloudburst		15,955,330	1
	6/26/2011 5:00	6/26/2011 5:15	15	0.27	59,456	5.69	0.14	6	Atlas		16,053	1
	7/3/2011 20:15	7/3/2011 21:00	45	0.07	3,741,329	0.08	0.05	3	Atlas		261,893	1
	7/19/2011 19:30	7/19/2011 23:45	255	1.70	577,164	2.07	1.13	1	Atlas		981,179	1
	7/20/2011 16:00	7/20/2011 16:30	30	0.20	1,130,150	2.09	0.17	1	Atlas		226,030	1
	7/24/2011 16:45	7/24/2011 18:15	90	0.80	1,109,338	2.87	0.59	1	Atlas		887,470	1
	7/30/2011 20:15	7/30/2011 20:45	30	0.82	61,276	1.58	0.61	1	Atlas		50,246	1
	8/7/2011 3:00	8/7/2011 7:00	240	1.80	1,112,682	1.84	1.37	3	Atlas		2,002,828	1
	8/13/2011 17:00	8/13/2011 18:30	90	0.92	798,495	2.91	0.73	1	Atlas		734,615	1
	8/18/2011 8:15	8/18/2011 9:00	45	0.55	547,424	1.47	0.45	1	Atlas		301,083	1
	9/10/2011 19:45	9/10/2011 19:45	-	0.05	7,180	0.43	0.03	1	Atlas		359	1
	9/11/2011 20:00	9/11/2011 20:45	45	0.28	171,289	0.67	0.17	3	Atlas		47,961	1
	9/19/2011 7:15	9/19/2011 7:45	30	0.72	128,756	0.63	0.29	12	Atlas		92,704	1
	9/23/2011 3:00	9/23/2011 8:00	300	0.83	205,649	1.57	0.38	12	Atlas		170,689	1
	9/25/2011 23:30	9/26/2011 11:30	720	3.17	1,405,817	4.77	4.71	12	Cloudburst		4,456,440	1
	10/13/2011 8:00	10/13/2011 8:30	30	0.45	76,133	0.34	0.24	3	Atlas		34,260	1
	10/27/2011 0:30	10/27/2011 2:00	90	0.94	514,644	1.17	0.39	12	Atlas		483,765	1
	11/3/2011 10:15	11/3/2011 10:15	-	0.65	5,726	0.42	0.29	3	Atlas		3,722	1
	11/14/2011 21:30	11/14/2011 23:15	105	2.13	81,270	0.36	0.69	48	Atlas		173,106	1
	11/15/2011 12:30	11/15/2011 14:15	105	2.13	44,686	1.50	0.69	48	Atlas		95,182	1
	11/16/2011 5:45	11/16/2011 8:45	180	2.13	97,347	2.00	0.69	48	Atlas		207,349	1
	11/20/2011 18:00	11/20/2011 18:30	30	2.15	47,093	2.79	0.65	48	Atlas		101,250	1
	11/21/2011 4:30	11/21/2011 11:00	390	2.15	57,819	3.13	0.65	48	Atlas		124,311	1
	11/22/2011 6:30	11/22/2011 12:15	345	2.15	625,254	3.66	0.65	48	Atlas		1,344,297	1
	11/27/2011 22:45	11/29/2011 21:15	2,790	3.31	2,265,512	4.82	1.17	48	Cloudburst		7,498,845	1
	12/4/2011 17:30	12/4/2011 18:00	30	3.12	15,079	3.21	1.07	48	Cloudburst		47,047	1
	12/5/2011 3:00	12/6/2011 18:45	2,385	3.12	3,254,042	5.06	1.07	48	Cloudburst		10,152,611	1
	12/15/2011 4:45	12/15/2011 4:45	-	0.42	10,862	0.25	0.22	6	Atlas		4,562	1
	12/21/2011 6:30	12/21/2011 8:00	90	0.59	604,903	1.03	0.27	12	Atlas		356,893	1
	12/22/2011 15:15	12/22/2011 18:15	180	0.66	292,935	1.22	0.29	12	Atlas		193,337	1
	12/27/2011 3:45	12/27/2011 12:30	525	0.83	285,425	2.05	0.34	12	Atlas		236,903	1
	1/11/2012 6:30	1/11/2012 7:45	75	0.86	321,045	0.53	0.33	24	Atlas		276,099	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/17/2012 4:30	1/17/2012 12:45	495	0.31	526.923	1.27	0.14	12	Atlas		163,346	1
	1/23/2012 2:45	1/23/2012 5:15	150	0.63	970.295	0.95	0.33	3	Atlas		611,286	1
	1/26/2012 5:45	1/26/2012 7:15	90	1.89	198.617	1.38	0.61	48	Atlas		375,386	1
	1/26/2012 19:00	1/27/2012 10:15	915	1.89	1,274.406	2.54	0.61	48	Atlas		2,408,627	1
	2/4/2012 10:15	2/4/2012 10:30	15	0.35	105.460	0.37	0.20	3	Atlas		36,911	1
	2/22/2012 23:15	2/22/2012 23:45	30	0.19	696.863	0.39	0.14	1	Atlas		132,404	1
	2/29/2012 9:00	2/29/2012 9:45	45	0.62	398.544	0.78	0.28	12	Atlas		247,097	1
	3/8/2012 13:15	3/8/2012 17:45	270	0.82	525.309	1.16	0.38	6	Atlas		430,753	1
	3/16/2012 1:15	3/16/2012 4:00	165	0.98	889.456	1.17	0.44	12	Atlas		871,667	1
	3/17/2012 18:30	3/17/2012 23:00	270	1.24	1,034.795	2.37	0.74	1	Atlas		1,283,146	1
	3/23/2012 5:30	3/24/2012 0:00	1,110	1.59	992.889	2.84	0.61	24	Atlas		1,578,694	1
	3/28/2012 14:45	3/28/2012 15:15	30	0.09	1,679.911	1.68	0.08	1	Atlas		151,192	1
	4/1/2012 7:45	4/1/2012 16:15	510	1.26	1,365.302	1.47	0.68	6	Atlas		1,720,281	1
	4/28/2012 19:15	4/29/2012 1:00	345	0.75	690.433	0.88	0.52	1	Atlas		517,825	1
	4/30/2012 18:00	4/30/2012 19:00	60	0.44	251.557	1.28	0.29	3	Atlas		110,685	1
	5/4/2012 23:45	5/5/2012 2:30	165	1.49	1,289.381	2.50	0.80	3	Atlas		1,921,178	1
	5/13/2012 2:00	5/13/2012 16:45	885	2.23	1,953.226	2.27	0.91	12	Atlas		4,355,694	1
	5/16/2012 18:00	5/16/2012 19:00	60	0.24	1,198.925	2.47	0.21	1	Atlas		287,742	1
	5/29/2012 7:00	5/29/2012 19:00	720	2.50	3,140.812	2.50	7.08	3	Atlas		7,852,031	1
	5/31/2012 19:00	6/1/2012 5:45	645	1.19	690.402	3.64	0.52	12	Atlas		821,578	1
	7/1/2012 20:15	7/1/2012 20:45	30	0.40	441.838	0.33	0.29	1	Atlas		176,735	1
	7/14/2012 14:00	7/14/2012 15:00	60	0.92	529.924	1.00	0.59	3	Atlas		487,530	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.79	3,071.339	1.72	0.65	1	Atlas		2,426,358	1
	7/26/2012 22:00	7/26/2012 22:15	15	0.20	430.070	0.21	0.09	12	Atlas		86,014	1
	7/27/2012 20:00	7/27/2012 21:30	90	0.55	634.675	0.86	0.36	3	Atlas		349,071	1
	8/5/2012 23:30	8/5/2012 23:30	-	0.11	124.818	0.45	0.07	1	Atlas		13,730	1
	8/16/2012 20:30	8/16/2012 22:45	135	0.63	690.771	0.67	0.37	3	Atlas		435,186	1
	9/1/2012 15:30	9/1/2012 16:00	30	0.47	104.543	0.34	0.29	3	Atlas		49,135	1
	9/2/2012 13:00	9/2/2012 13:30	30	0.94	182.709	1.11	0.36	24	Atlas		171,746	1
	9/2/2012 22:00	9/2/2012 22:00	-	0.94	19.347	1.44	0.36	24	Atlas		18,186	1
	9/5/2012 15:30	9/5/2012 17:00	90	0.85	599.456	2.37	0.68	1	Atlas		509,538	1
	9/7/2012 23:30	9/8/2012 2:45	195	1.13	820.626	3.38	0.61	3	Atlas		927,307	1
	9/26/2012 2:15	9/26/2012 2:15	-	0.39	35.833	0.63	0.17	6	Atlas		13,975	1
	9/26/2012 21:30	9/27/2012 0:45	195	1.34	869.981	2.10	0.71	6	Atlas		1,165,775	1
	10/1/2012 16:15	10/1/2012 19:45	210	0.88	771.684	3.04	0.38	12	Atlas		679,082	1
	10/26/2012 15:30	10/26/2012 15:30	-	0.85	26.045	0.75	0.40	6	Atlas		22,138	1
	12/4/2012 18:15	12/4/2012 18:45	30	0.50	63.142	0.70	0.33	3	Atlas		31,571	1
	12/7/2012 4:30	12/7/2012 18:30	840	1.27	375.198	1.97	0.54	12	Atlas		476,502	1
	12/8/2012 6:00	12/8/2012 10:00	240	0.56	404.909	2.53	0.30	6	Atlas		226,749	1
	12/9/2012 22:15	12/10/2012 7:30	555	1.21	457.545	3.49	0.56	3	Atlas		553,630	1
	12/15/2012 12:00	12/15/2012 12:15	15	0.15	128.620	1.37	0.09	3	Atlas		19,293	1
	12/20/2012 7:30	12/20/2012 12:45	315	0.59	522.380	0.92	0.32	6	Atlas		308,204	1
	12/26/2012 6:00	12/26/2012 10:30	270	0.94	515.150	1.47	0.37	12	Atlas		484,241	1
	1/11/2013 6:15	1/11/2013 8:15	120	0.67	687.815	0.83	0.36	6	Atlas		460,836	1
	1/13/2013 3:30	1/14/2013 5:15	1,545	2.31	2,427.631	3.13	0.88	24	Atlas		5,607,828	1
	1/30/2013 5:00	1/30/2013 12:00	420	0.85	540.335	1.09	0.43	6	Atlas		459,285	1
	2/8/2013 12:15	2/8/2013 12:15	-	0.08	188.550	0.24	0.04	6	Atlas		15,084	1
	2/26/2013 16:15	2/26/2013 16:45	30	0.68	87.551	0.99	0.26	24	Atlas		59,535	1
	3/5/2013 18:00	3/5/2013 18:00	-	0.40	26.675	0.48	0.15	24	Atlas		10,670	1
	3/11/2013 4:15	3/11/2013 13:00	525	1.09	833.497	1.51	0.43	12	Atlas		908,512	1
	3/17/2013 14:15	3/18/2013 14:30	1,455	1.68	1,371.357	2.76	0.55	48	Atlas		2,303,880	1
	3/24/2013 8:30	3/24/2013 17:00	510	0.48	277.975	1.70	0.18	24	Atlas		133,428	1
	4/11/2013 6:45	4/11/2013 8:00	75	1.20	180.129	0.46	0.46	24	Atlas		216,155	1
	4/16/2013 20:00	4/16/2013 21:00	60	0.66	355.071	1.86	0.55	1	Atlas		234,347	1
	4/19/2013 2:15	4/19/2013 5:15	180	0.97	1,203.339	1.65	0.53	6	Atlas		1,167,239	1
	4/24/2013 7:45	4/24/2013 10:30	165	0.57	999.461	1.59	0.31	6	Atlas		569,693	1
	5/5/2013 5:45	5/5/2013 9:00	195	1.37	149.820	1.20	0.41	24	Atlas		205,254	1
	5/10/2013 14:15	5/11/2013 1:00	645	0.98	425.290	2.45	0.43	6	Atlas		416,784	1
	5/16/2013 10:15	5/16/2013 11:00	45	0.36	270.342	1.36	0.30	1	Atlas		97,323	1
	5/22/2013 17:30	5/22/2013 18:00	30	0.27	376.622	0.64	0.18	3	Atlas		101,688	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/31/2013 12:15	5/31/2013 19:00	405	0.19	556.163	0.26	0.09	12	Atlas		105,671	1
	6/17/2013 16:30	6/18/2013 3:15	645	1.55	1.868.648	1.91	0.88	1	Atlas		2,896,404	1
	6/21/2013 19:00	6/21/2013 19:15	15	0.46	99,398	2.25	0.31	3	Atlas		45,723	1
	6/26/2013 3:30	6/26/2013 6:00	150	0.71	1,728.054	1.64	0.47	3	Atlas		1,226,918	1
	6/26/2013 16:15	6/27/2013 10:30	1,095	2.81	4,469.197	4.45	5.00	1	Atlas		12,558,443	1
	6/29/2013 20:00	6/29/2013 22:30	150	0.43	800.663	4.42	0.26	3	Atlas		344,285	1
	6/30/2013 18:30	6/30/2013 20:00	90	0.17	2,624.059	4.24	0.13	1	Atlas		446,090	1
	7/1/2013 17:45	7/1/2013 18:00	15	0.24	142.954	4.23	0.11	3	Atlas		34,309	1
	7/4/2013 7:45	7/4/2013 13:30	345	0.61	469.292	1.43	0.26	12	Atlas		286,268	1
	7/6/2013 1:45	7/6/2013 8:30	405	0.70	623.184	2.25	0.30	12	Atlas		436,229	1
	7/10/2013 14:00	7/10/2013 16:15	135	1.10	758.994	2.53	0.84	1	Atlas		834,893	1
	7/14/2013 19:30	7/14/2013 20:30	60	0.21	916.252	1.40	0.18	1	Atlas		192,413	1
	7/22/2013 7:30	7/22/2013 15:15	465	2.60	400.445	2.68	1.07	3	Atlas		1,041,156	1
	8/12/2013 15:00	8/12/2013 15:45	45	0.78	303.668	0.76	0.31	1	Atlas		236,861	1
	9/20/2013 19:45	9/21/2013 4:45	540	1.61	731.301	1.63	0.68	12	Atlas		1,177,395	1
	10/5/2013 13:00	10/6/2013 21:30	1,950	4.37	7,590.898	4.49	7.74	24	Cloudburst		33,172,223	1
	10/30/2013 2:30	10/30/2013 6:30	240	0.91	392.044	0.91	0.42	6	Atlas		356,760	1
	10/31/2013 21:00	10/31/2013 22:45	105	0.47	434.570	1.38	0.18	24	Atlas		204,248	1
	11/17/2013 6:00	11/18/2013 0:30	1,110	2.71	1,803.535	2.88	2.52	6	Cloudburst		4,887,581	1
	12/5/2013 7:45	12/5/2013 8:45	60	0.78	311.722	0.22	0.25	48	Atlas		243,143	1
	12/14/2013 10:45	12/14/2013 11:45	60	1.04	238.789	1.09	0.45	6	Atlas		248,341	1
	12/21/2013 6:00	12/22/2013 20:45	2,325	2.81	3,477.431	3.32	1.33	3	Atlas		9,771,580	1
	1/5/2014 18:00	1/5/2014 18:15	15	0.47	109.481	0.67	0.23	6	Atlas		51,456	1
	1/11/2014 0:45	1/11/2014 6:15	330	1.03	1,902.696	1.51	0.55	6	Atlas		1,959,777	1
	2/2/2014 5:30	2/2/2014 5:45	15	0.41	57.737	0.13	0.15	24	Atlas		23,672	1
	2/4/2014 20:00	2/5/2014 4:15	495	0.46	4,827.174	0.87	0.22	6	Atlas		2,220,500	1
	2/17/2014 16:30	2/17/2014 19:00	150	0.44	982.652	0.88	0.27	3	Atlas		432,367	1
	2/20/2014 23:30	2/21/2014 0:00	30	0.22	197.309	1.10	0.12	6	Atlas		43,408	1
	3/2/2014 10:15	3/2/2014 11:45	90	0.59	223.025	0.31	0.22	24	Atlas		131,585	1
	3/28/2014 4:45	3/28/2014 5:15	30	0.19	126.047	0.23	0.09	6	Atlas		23,949	1
	3/29/2014 7:15	3/29/2014 13:45	390	1.44	622.821	1.67	0.66	12	Atlas		896,862	1
	4/8/2014 17:15	4/8/2014 17:45	30	0.02	2,692.250	3.31	0.01	3	Atlas		53,845	1
	4/14/2014 21:00	4/15/2014 2:30	330	0.48	795.585	0.88	0.22	12	Atlas		381,881	1
	4/27/2014 20:00	4/28/2014 9:15	795	2.25	738.394	1.84	0.88	3	Atlas		1,661,386	1
	4/28/2014 18:00	4/28/2014 21:00	180	2.25	47.689	2.36	0.88	3	Atlas		107,301	1
	5/9/2014 19:45	5/9/2014 20:15	30	1.80	131.277	0.37	0.66	24	Atlas		236,299	1
	5/10/2014 5:45	5/10/2014 16:45	660	1.80	709.218	1.80	0.66	24	Atlas		1,276,593	1
	5/14/2014 9:30	5/15/2014 0:45	915	1.26	429.366	3.09	0.45	24	Atlas		541,001	1
	5/21/2014 21:15	5/22/2014 4:30	435	0.48	2,003.660	0.67	0.22	12	Atlas		961,757	1
	5/28/2014 20:30	5/28/2014 21:15	45	0.19	306.421	0.68	0.13	1	Atlas		58,220	1
	5/29/2014 21:00	5/29/2014 21:00	-	0.83	176	0.72	0.70	1	Atlas		146	1
	6/11/2014 15:15	6/11/2014 15:30	15	0.21	69.852	0.47	0.14	1	Atlas		14,669	1
	11/23/2014 18:00	11/23/2014 20:30	150	0.79	580.490	1.06	0.36	6	Atlas		458,587	1
	12/1/2014 3:45	12/1/2014 4:15	30	0.71	79.720	0.30	0.27	24	Atlas		56,601	1
	12/5/2014 23:30	12/6/2014 11:30	720	1.64	1,950.318	2.35	0.53	48	Atlas		3,198,521	1
	12/28/2014 1:30	12/28/2014 2:00	30	0.31	120.845	0.82	0.14	1	Atlas		37,462	1
	4/2/2015 10:30	4/5/2015 5:15	4,005	4.73	13,144.972	4.86	7.44	6	Cloudburst		62,175,717	1
	4/7/2015 9:30	4/7/2015 20:30	660	0.73	3,433.923	5.47	0.33	1	Atlas		2,506,764	1
	4/8/2015 18:30	4/8/2015 19:30	60	0.15	2,340.240	5.61	0.08	6	Atlas		351,036	1
	4/9/2015 12:00	4/9/2015 13:00	60	0.28	2,768.479	5.52	0.24	1	Atlas		775,174	1
	4/10/2015 2:45	4/10/2015 3:45	60	0.13	1,083.615	2.82	0.09	3	Atlas		140,870	1
	4/13/2015 21:15	4/13/2015 21:45	30	0.49	128.322	1.39	0.20	6	Atlas		62,878	1
	4/19/2015 14:15	4/19/2015 16:00	105	0.94	732.499	1.18	0.36	24	Atlas		688,549	1
	4/25/2015 19:30	4/25/2015 19:45	15	0.19	102.342	1.12	0.07	24	Atlas		19,445	1
	5/11/2015 18:00	5/11/2015 18:30	30	0.10	2,871.100	0.26	0.09	1	Atlas		287,110	1
	5/26/2015 14:00	5/26/2015 14:45	45	0.36	933.522	0.57	0.22	1	Atlas		336,068	1
	6/13/2015 14:45	6/13/2015 15:00	15	0.14	1,558.579	0.33	0.12	1	Atlas		218,201	1
	6/17/2015 5:15	6/17/2015 6:45	90	0.71	979.977	0.86	0.42	3	Atlas		695,784	1
	6/18/2015 16:30	6/18/2015 19:15	165	2.15	998.467	1.80	0.70	48	Atlas		2,146,705	1
	6/19/2015 17:45	6/19/2015 18:15	30	2.15	66.310	2.03	0.70	48	Atlas		142,566	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/20/2015 4:00	6/20/2015 10:15	375	2.15	970,114	3.09	0.70	48	Atlas		2,085,746	1
	6/26/2015 0:00	6/26/2015 0:45	45	0.46	889,826	1.68	0.25	6	Atlas		409,320	1
	6/26/2015 17:00	6/27/2015 2:00	540	0.77	3,730,714	2.51	0.41	1	Atlas		2,872,650	1
	6/29/2015 14:15	6/29/2015 14:30	15	0.20	93,795	1.43	0.12	1	Atlas		18,759	1
	7/2/2015 1:15	7/2/2015 2:30	75	1.68	109,180	2.13	0.63	24	Atlas		183,423	1
	7/2/2015 19:45	7/2/2015 22:30	165	1.68	1,099,376	3.12	0.63	24	Atlas		1,846,951	1
	7/3/2015 16:30	7/3/2015 20:00	270	0.63	1,172,049	3.27	0.44	1	Atlas		738,391	1
	7/7/2015 12:00	7/7/2015 17:15	315	0.73	942,615	2.93	0.33	6	Atlas		688,109	1
	7/8/2015 13:00	7/8/2015 13:30	30	0.73	205,819	3.04	0.33	6	Atlas		150,248	1
	7/9/2015 6:45	7/9/2015 8:15	90	0.30	541,790	2.57	0.17	3	Atlas		162,537	1
	7/10/2015 10:45	7/10/2015 17:15	390	0.50	1,660,810	2.18	0.25	6	Atlas		830,405	1
	7/12/2015 5:45	7/15/2015 9:45	4,560	2.04	22,939,266	4.85	3.71	3	Atlas		46,796,103	1
	7/17/2015 22:45	7/18/2015 15:15	990	1.34	9,105,283	4.64	0.89	3	Atlas		12,201,079	1
	8/4/2015 19:15	8/4/2015 19:45	30	0.23	1,685,209	0.30	0.18	1	Atlas		387,598	1
	8/5/2015 14:45	8/5/2015 16:00	75	1.14	546,946	0.52	0.40	24	Atlas		623,519	1
	8/6/2015 8:00	8/6/2015 16:00	480	1.14	639,137	1.37	0.40	24	Atlas		728,616	1
	8/19/2015 8:00	8/19/2015 17:45	585	0.62	994,955	0.66	0.30	1	Atlas		616,872	1
	9/10/2015 5:00	9/10/2015 5:15	15	0.17	412,994	1.06	0.08	1	Atlas		70,209	1
	9/29/2015 9:30	9/29/2015 10:15	45	1.07	241,196	0.69	0.35	48	Atlas		258,080	1
	10/12/2015 19:30	10/12/2015 19:45	15	0.29	150,952	0.36	0.19	3	Atlas		43,776	1
	10/27/2015 17:45	10/28/2015 7:15	810	2.65	977,180	2.92	0.86	48	Atlas		2,589,527	1
	11/6/2015 3:15	11/6/2015 5:30	135	1.04	500,995	1.15	0.64	3	Atlas		521,035	1
	11/12/2015 0:15	11/12/2015 1:45	90	0.35	1,200,751	1.90	0.22	3	Atlas		420,263	1
	11/18/2015 9:30	11/18/2015 19:00	570	1.93	815,685	2.41	0.98	6	Atlas		1,574,272	1
	11/28/2015 17:15	11/28/2015 18:15	60	0.65	137,097	0.58	0.26	12	Atlas		89,113	1
	11/30/2015 22:00	12/1/2015 5:30	450	0.63	2,195,375	1.47	0.28	12	Atlas		1,383,086	1
	12/22/2015 0:45	12/22/2015 5:00	255	0.52	1,525,750	0.72	0.28	1	Atlas		793,390	1
	12/23/2015 19:15	12/24/2015 3:45	510	0.85	4,388,838	1.59	0.69	1	Atlas		3,730,512	1
	12/26/2015 14:15	12/26/2015 14:45	30	0.28	254,018	1.93	0.14	3	Atlas		71,125	1
	12/27/2015 10:30	12/27/2015 13:45	195	2.23	755,393	3.27	0.75	3	Atlas		1,684,526	1
	12/28/2015 0:15	12/29/2015 3:45	1,650	2.23	1,104,557	4.20	0.75	3	Atlas		2,463,161	1
	2/2/2016 20:30	2/3/2016 3:30	420	1.63	1,131,334	1.71	0.76	6	Atlas		1,844,074	1
	2/21/2016 4:30	2/21/2016 12:00	450	1.02	489,933	1.20	0.47	12	Atlas		499,732	1
	2/23/2016 23:45	2/24/2016 22:00	1,335	2.05	1,678,944	3.06	0.80	12	Atlas		3,441,835	1
	3/1/2016 12:45	3/1/2016 14:00	75	0.33	725,491	2.38	0.17	6	Atlas		239,412	1
	3/10/2016 14:15	3/10/2016 21:00	405	1.24	684,690	1.29	0.40	12	Atlas		849,015	1
	3/12/2016 20:30	3/13/2016 0:30	240	0.88	456,969	1.78	0.33	24	Atlas		402,133	1
	3/13/2016 9:15	3/13/2016 11:15	120	0.88	352,493	2.13	0.33	24	Atlas		310,194	1
	3/24/2016 18:00	3/24/2016 18:45	45	0.46	312,741	0.61	0.33	1	Atlas		143,861	1
	3/27/2016 21:15	3/27/2016 23:30	135	0.85	373,285	1.31	0.56	3	Atlas		317,292	1
	3/31/2016 5:15	3/31/2016 8:15	180	1.15	54,528	2.00	0.44	24	Atlas		62,707	1
	3/31/2016 22:30	4/1/2016 1:15	165	1.15	564,770	2.00	0.44	24	Atlas		649,485	1
	4/11/2016 17:45	4/11/2016 19:15	90	0.84	380,301	0.89	0.40	6	Atlas		319,453	1
	4/26/2016 22:00	4/26/2016 22:15	15	0.34	82,226	0.68	0.17	6	Atlas		27,957	1
	4/27/2016 21:30	4/27/2016 23:15	105	0.66	379,439	1.32	0.29	3	Atlas		250,430	1
	5/1/2016 15:15	5/1/2016 15:45	30	0.33	337,979	1.84	0.23	1	Atlas		111,533	1
	5/7/2016 17:00	5/7/2016 21:15	255	0.58	38,847	1.20	0.30	6	Atlas		22,531	1
	5/10/2016 19:00	5/10/2016 23:15	255	1.04	590,011	1.85	0.38	24	Atlas		613,611	1
	5/11/2016 22:15	5/11/2016 23:00	45	0.21	97,162	1.84	0.11	3	Atlas		20,404	1
	5/20/2016 14:30	5/20/2016 17:00	150	0.94	621,623	1.51	0.56	3	Atlas		584,326	1
	6/2/2016 16:00	6/2/2016 16:45	45	0.51	251,673	0.63	0.42	1	Atlas		128,353	1
	6/12/2016 18:00	6/12/2016 18:45	45	0.60	2,419,865	0.63	0.51	1	Atlas		1,451,919	1
	6/14/2016 17:00	6/14/2016 19:15	135	0.68	1,230,544	1.28	0.44	3	Atlas		836,770	1
	6/22/2016 8:30	6/22/2016 9:15	45	0.30	2,808,447	0.24	0.19	3	Atlas		842,534	1
	6/23/2016 16:15	6/23/2016 23:30	435	1.69	2,329,409	1.99	0.91	6	Atlas		3,936,702	1
	7/3/2016 11:00	7/3/2016 13:15	135	0.99	420,655	0.29	0.32	48	Atlas		416,448	1
	7/4/2016 14:30	7/4/2016 15:45	75	0.99	411,627	0.95	0.32	48	Atlas		407,511	1
	7/6/2016 12:00	7/6/2016 12:30	30	0.12	2,687,442	1.00	0.09	1	Atlas		322,493	1
	7/12/2016 9:45	7/12/2016 12:45	180	0.39	626,162	0.59	0.25	3	Atlas		244,203	1
	7/27/2016 18:30	7/27/2016 19:30	60	0.64	1,873,758	0.37	0.25	12	Atlas		1,199,205	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/28/2016 5:45	7/28/2016 6:00	15	0.64	58,209	0.80	0.25	12	Atlas		37,254	1
	7/30/2016 14:15	7/30/2016 14:45	30	0.30	37,280	1.23	0.26	1	Atlas		11,184	1
	8/1/2016 11:45	8/1/2016 12:00	15	0.39	409,651	1.56	0.27	1	Atlas		159,764	1
	8/1/2016 21:00	8/1/2016 22:30	90	0.39	1,341,915	1.41	0.27	1	Atlas		523,347	1
	8/15/2016 3:00	8/15/2016 8:15	315	1.28	542,927	1.55	0.64	3	Atlas		694,946	1
	8/16/2016 7:00	8/16/2016 7:00	-	0.02	150,950	1.57	0.01	3	Atlas		3,019	1
	8/17/2016 6:15	8/17/2016 8:15	120	0.57	713,286	1.78	0.24	12	Atlas		406,573	1
	8/20/2016 16:00	8/20/2016 21:45	345	0.72	1,024,529	2.55	0.33	1	Atlas		737,661	1
	8/31/2016 16:45	8/31/2016 19:00	135	0.88	1,153,432	0.93	0.69	1	Atlas		1,015,020	1
	9/10/2016 15:15	9/10/2016 16:00	45	0.17	673,312	0.16	0.12	1	Atlas		114,463	1
	9/30/2016 2:00	9/30/2016 2:15	15	0.59	110,842	1.12	0.31	3	Atlas		65,397	1
	10/20/2016 10:30	10/20/2016 10:45	15	0.71	51,649	0.39	0.27	24	Atlas		36,671	1
	1/17/2017 3:45	1/17/2017 5:15	90	0.55	1,337,111	2.02	0.25	12	Atlas		735,411	1
	1/19/2017 19:00	1/20/2017 5:30	630	1.19	2,434,958	2.56	0.55	12	Atlas		2,897,600	1
	1/29/2017 15:30	1/29/2017 15:30	-	0.01	483,600	0.01	0.01	1	Atlas		4,836	1
	2/19/2017 1:45	2/19/2017 1:45	-	0.07	129,629	0.09	0.03	6	Atlas		9,074	1
	2/24/2017 19:00	2/24/2017 20:15	75	0.83	795,686	0.88	0.70	1	Atlas		660,419	1
	2/28/2017 10:45	2/28/2017 11:00	15	0.27	120,119	1.15	0.13	6	Atlas		32,432	1
	3/1/2017 3:30	3/1/2017 13:45	615	1.02	1,618,394	2.18	0.50	6	Atlas		1,650,762	1
	3/7/2017 8:00	3/7/2017 8:45	45	0.48	336,894	1.54	0.16	48	Atlas		161,709	1
	3/27/2017 18:30	3/27/2017 19:30	60	0.30	256,107	0.84	0.17	3	Atlas		76,832	1
	4/16/2017 6:00	4/16/2017 21:45	945	1.10	1,388,934	1.44	0.49	3	Atlas		1,527,827	1
	4/27/2017 7:15	4/27/2017 8:00	45	0.24	856,217	0.80	0.16	1	Atlas		205,492	1
	4/29/2017 1:00	4/29/2017 10:45	585	1.30	3,623,768	1.70	0.76	3	Atlas		4,710,899	1
	5/1/2017 4:00	5/1/2017 4:45	45	0.26	586,092	1.77	0.14	3	Atlas		152,384	1
	5/4/2017 19:45	5/5/2017 12:30	1,005	1.88	1,932,231	3.37	0.61	48	Atlas		3,632,595	1
	5/20/2017 19:15	5/20/2017 19:30	15	1.21	23,074	0.24	0.53	12	Atlas		27,920	1
	5/21/2017 3:45	5/21/2017 6:30	165	1.21	1,043,267	1.22	0.53	12	Atlas		1,262,353	1
	5/24/2017 18:45	5/24/2017 20:00	75	0.85	367,394	1.83	0.31	24	Atlas		312,285	1
	5/27/2017 14:00	5/27/2017 15:15	75	0.22	1,330,918	2.26	0.17	1	Atlas		292,802	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.18	228	0.19	0.12	1	Atlas		41	1
	6/5/2017 18:30	6/5/2017 18:45	15	0.20	124,950	0.39	0.17	1	Atlas		24,990	1
	6/15/2017 3:00	6/15/2017 3:45	45	0.93	157,365	0.74	0.59	3	Atlas		146,349	1
	6/22/2017 19:00	6/22/2017 19:15	15	1.26	81,868	0.57	0.45	6	Atlas		103,154	1
	6/23/2017 15:15	6/23/2017 18:45	210	1.26	505,887	1.44	0.45	6	Atlas		637,418	1
	6/30/2017 21:15	6/30/2017 22:00	45	0.37	885,581	0.45	0.32	1	Atlas		327,665	1
	7/6/2017 4:45	7/6/2017 13:45	540	0.61	620,487	0.98	0.25	6	Atlas		378,497	1
	7/7/2017 20:45	7/7/2017 21:00	15	0.13	67,000	1.15	0.09	3	Atlas		8,710	1
	7/23/2017 2:30	7/23/2017 10:15	465	1.21	332,938	1.21	0.56	12	Atlas		402,865	1
	7/28/2017 9:45	7/28/2017 10:30	45	0.76	396,900	1.97	0.61	1	Atlas		301,644	1
	8/2/2017 13:15	8/2/2017 13:45	30	0.22	825,345	1.17	0.19	1	Atlas		181,576	1
	8/6/2017 17:15	8/7/2017 0:30	435	0.62	407,279	1.04	0.28	12	Atlas		252,513	1
	8/11/2017 15:00	8/11/2017 15:15	15	0.01	1,989,900	0.63	0.01	1	Atlas		19,899	1
	8/17/2017 15:15	8/17/2017 15:45	30	0.51	396,755	0.26	0.28	6	Atlas		202,345	1
	8/22/2017 15:45	8/22/2017 17:15	90	0.43	643,688	0.96	0.24	1	Atlas		276,786	1
	9/1/2017 9:30	9/2/2017 6:45	1,275	4.20	1,456,470	4.28	5.56	24	Cloudburst		6,117,176	1
	9/19/2017 8:45	9/19/2017 10:45	120	0.46	213,220	0.91	0.29	3	Atlas		98,081	1
	10/7/2017 22:00	10/7/2017 23:45	105	2.08	716,166	0.70	0.78	24	Atlas		1,489,625	1
	10/8/2017 10:45	10/8/2017 20:00	555	2.08	480,787	2.06	0.78	24	Atlas		1,000,036	1
	10/23/2017 6:45	10/23/2017 8:15	90	0.67	443,430	0.50	0.30	6	Atlas		297,098	1
	10/27/2017 18:15	10/28/2017 2:00	465	1.18	231,153	1.80	0.54	12	Atlas		272,760	1
	11/3/2017 4:45	11/3/2017 13:15	510	1.47	2,426,026	2.80	2.00	1	Atlas		3,566,258	1
	11/6/2017 2:00	11/6/2017 3:15	75	0.50	4,056,744	2.12	0.37	1	Atlas		2,028,372	1
	11/15/2017 14:00	11/15/2017 14:30	30	0.24	210,467	0.27	0.17	1	Atlas		50,512	1
	11/18/2017 17:45	11/18/2017 18:15	30	0.30	354,327	0.55	0.17	3	Atlas		106,298	1
	12/5/2017 3:45	12/5/2017 6:45	180	0.85	641,919	0.86	0.49	3	Atlas		545,631	1
	12/23/2017 0:00	12/23/2017 6:30	390	1.35	940,142	1.20	0.54	12	Atlas		1,269,192	1
	1/11/2018 9:30	1/11/2018 9:45	15	0.12	209,275	0.23	0.07	3	Atlas		25,113	1
	2/7/2018 3:30	2/7/2018 4:45	75	0.49	711,041	0.74	0.27	6	Atlas		348,410	1
	2/11/2018 4:45	2/11/2018 11:45	420	0.46	870,693	1.05	0.22	3	Atlas		400,519	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/14/2018 8:00	2/14/2018 8:00	-	0.38	48.853	0.74	0.18	3	Atlas		18,564	1
	2/16/2018 3:00	2/16/2018 13:00	600	0.81	1,818.638	1.81	0.37	12	Atlas		1,473,097	1
	2/17/2018 14:15	2/17/2018 16:30	135	0.21	735.510	1.98	0.13	3	Atlas		164,457	1
	2/21/2018 21:30	2/27/2018 10:30	7,980	2.07	29,191.535	6.12	0.72	24	Atlas		60,426,477	1
	2/28/2018 14:30	2/28/2018 14:30	-	0.09	6.044	4.51	0.05	6	Atlas		544	1
	3/10/2018 1:30	3/10/2018 3:00	90	0.62	160.010	0.62	0.38	3	Atlas		99,206	1
	3/24/2018 9:30	3/24/2018 22:30	780	0.91	1,224.362	1.78	0.35	24	Atlas		1,114,169	1
	3/28/2018 6:15	3/28/2018 7:15	60	0.44	212.077	1.37	0.19	12	Atlas		93,314	1
	3/29/2018 19:15	3/30/2018 8:45	810	0.71	688.351	2.13	0.24	24	Atlas		488,729	1
	3/31/2018 22:30	4/1/2018 0:30	120	0.24	350.925	1.43	0.11	6	Atlas		84,222	1
	4/1/2018 20:30	4/2/2018 2:45	375	0.66	1,610.792	2.12	0.36	6	Atlas		1,063,123	1
	4/3/2018 17:00	4/3/2018 23:45	405	0.55	778.209	2.60	0.23	6	Atlas		428,015	1
	4/14/2018 9:45	4/14/2018 10:30	45	1.46	80.733	0.40	0.47	48	Atlas		117,870	1
	4/14/2018 23:30	4/15/2018 11:00	690	1.46	119.855	1.49	0.47	48	Atlas		174,988	1
	5/5/2018 14:30	5/5/2018 20:00	330	2.06	496.353	1.96	0.89	6	Atlas		1,022,487	1
	5/17/2018 15:15	5/17/2018 15:15	-	0.19	15.547	0.09	0.16	1	Atlas		2,954	1
	5/18/2018 16:15	5/18/2018 16:15	-	0.10	202.480	0.28	0.04	1	Atlas		20,248	1
	6/1/2018 0:30	6/1/2018 4:00	210	1.07	1,892.005	1.44	0.53	3	Atlas		2,024,445	1
	6/10/2018 15:15	6/10/2018 15:45	30	0.39	398.531	0.16	0.18	12	Atlas		155,427	1
	6/11/2018 11:30	6/11/2018 14:15	165	0.60	825.543	0.83	0.28	3	Atlas		495,326	1
	6/22/2018 11:30	6/22/2018 12:45	75	0.40	341.905	0.39	0.21	1	Atlas		136,762	1
	6/25/2018 8:15	6/25/2018 10:00	105	0.97	225.167	1.14	0.40	12	Atlas		218,412	1
	6/26/2018 10:15	6/26/2018 20:00	585	0.02	206,102.200	2.12	0.02	1	Atlas		4,122,044	1
	7/2/2018 17:00	7/2/2018 19:45	165	1.14	3,734.935	1.98	0.86	1	Atlas		4,257,826	1
	7/3/2018 14:30	7/3/2018 15:45	75	0.64	752.788	1.99	0.47	1	Atlas		481,784	1
	7/15/2018 18:15	7/15/2018 19:15	60	0.38	1,622.034	0.38	0.23	1	Atlas		616,373	1
	7/16/2018 10:00	7/16/2018 10:30	30	0.15	422.093	0.53	0.10	1	Atlas		63,314	1
	7/20/2018 19:30	7/21/2018 5:15	585	1.32	4,859.192	1.85	0.71	3	Atlas		6,414,133	1
	7/30/2018 23:45	7/31/2018 14:00	855	2.20	834.200	2.27	0.89	12	Atlas		1,835,240	1
	8/15/2018 20:15	8/16/2018 19:00	1,365	2.90	5,481.751	2.90	1.63	24	Cloudburst		15,897,078	1
	8/19/2018 20:30	8/19/2018 20:30	-	1.18	1.685	3.59	0.80	1	Atlas		1,988	1
	8/20/2018 11:15	8/20/2018 12:30	75	0.60	691.010	4.53	0.31	1	Atlas		414,606	1
	8/31/2018 17:30	8/31/2018 19:00	90	0.76	1,830.109	0.72	0.54	1	Atlas		1,390,883	1
	9/8/2018 2:00	9/8/2018 2:45	45	0.39	452.372	0.65	0.19	6	Atlas		176,425	1
	9/8/2018 18:00	9/9/2018 11:00	1,020	2.46	5,589.565	3.17	2.29	6	Cloudburst		13,750,330	1
	9/21/2018 18:00	9/21/2018 18:15	15	0.21	506.029	0.32	0.15	1	Atlas		106,266	1
	9/22/2018 16:45	9/22/2018 17:45	60	1.53	182.946	0.79	0.56	24	Atlas		279,907	1
	9/23/2018 4:30	9/23/2018 15:45	675	1.53	2,426.181	1.85	0.56	24	Atlas		3,712,057	1
	9/24/2018 6:45	9/26/2018 16:45	3,480	2.06	8,852.362	4.74	0.90	12	Atlas		18,235,866	1
	10/8/2018 20:00	10/8/2018 20:00	-	Discharge	-	0.01					9,719	1
	10/15/2018 9:30	10/15/2018 9:45	15	0.14	208.821	0.59	0.10	1	Atlas		29,235	1
	10/31/2018 15:30	11/1/2018 19:00	1,650	1.99	615.664	2.39	0.68	24	Atlas		1,225,172	1
	11/5/2018 21:45	11/6/2018 2:45	300	1.13	708.090	3.22	0.61	6	Atlas		800,142	1
	11/14/2018 23:15	11/15/2018 4:15	300	0.47	1,064.323	0.64	0.22	12	Atlas		500,232	1
	12/15/2018 3:15	12/15/2018 12:15	540	1.52	716.907	1.52	0.62	12	Atlas		1,089,699	1
	12/27/2018 18:00	12/27/2018 19:00	60	0.35	441.834	0.67	0.19	1	Atlas		154,642	1
	12/31/2018 8:15	12/31/2018 20:30	735	1.47	837.941	1.84	0.57	24	Atlas		1,231,774	1
	1/4/2019 14:30	1/4/2019 20:45	375	0.65	604.443	2.10	0.29	12	Atlas		392,888	1
	1/19/2019 7:15	1/19/2019 20:45	810	0.92	175.799	1.04	0.35	24	Atlas		161,735	1
	1/23/2019 10:15	1/23/2019 21:15	660	0.88	531.155	1.89	0.35	12	Atlas		467,416	1
	2/6/2019 7:15	2/6/2019 12:00	285	1.62	200.066	0.76	0.52	48	Atlas		324,107	1
	2/7/2019 9:00	2/8/2019 2:15	1,035	1.62	970.750	1.74	0.52	48	Atlas		1,572,615	1
	2/10/2019 19:30	2/14/2019 2:30	4,740	2.84	4,916.006	4.55	0.88	48	Atlas		13,961,456	1
	2/20/2019 3:15	2/21/2019 0:45	1,290	1.98	1,477.862	2.04	0.93	6	Atlas		2,926,166	1
	2/23/2019 17:15	2/24/2019 6:15	780	1.01	1,726.353	3.06	0.55	6	Atlas		1,743,617	1
	3/9/2019 13:45	3/9/2019 20:30	405	1.19	1,152.154	1.33	0.60	6	Atlas		1,371,063	1
	3/14/2019 7:30	3/14/2019 7:30	-	0.41	30.080	1.72	0.22	6	Atlas		12,333	1
	3/14/2019 17:30	3/14/2019 20:45	195	0.65	841.386	2.34	0.44	1	Atlas		546,901	1
	3/30/2019 16:15	3/30/2019 21:30	315	0.82	663.387	1.13	0.38	6	Atlas		543,977	1
	4/7/2019 6:45	4/7/2019 14:45	480	0.62	541.929	0.85	0.31	1	Atlas		335,996	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/14/2019 1:30	4/14/2019 7:30	360	1.22	749,932	1.93	0.58	6	Atlas		914,917	1
	4/18/2019 23:30	4/18/2019 23:30	-	3.83	1,762	1.67	2.49	48	Cloudburst		6,749	1
	4/19/2019 18:45	4/21/2019 12:45	2,520	3.83	3,215,399	5.09	2.49	48	Cloudburst		12,314,978	1
	4/24/2019 21:00	4/24/2019 22:30	90	0.52	473,383	4.33	0.27	1	Atlas		246,159	1
	4/25/2019 18:15	4/26/2019 5:00	645	0.44	1,449,845	4.93	0.19	12	Atlas		637,932	1
	5/2/2019 12:00	5/2/2019 12:45	45	0.16	924,931	0.67	0.14	1	Atlas		147,989	1
	5/3/2019 5:15	5/3/2019 10:15	300	1.07	1,060,009	1.31	0.58	6	Atlas		1,134,210	1
	5/4/2019 17:45	5/4/2019 18:45	60	0.26	191,458	1.54	0.15	3	Atlas		49,779	1
	5/19/2019 23:30	5/20/2019 0:15	45	0.13	1,681,123	0.30	0.09	1	Atlas		218,546	1
	5/26/2019 14:15	5/26/2019 16:15	120	0.50	499,874	0.70	0.31	3	Atlas		249,937	1
	5/29/2019 9:30	5/29/2019 14:15	285	0.77	350,212	1.39	0.42	6	Atlas		269,663	1
	5/30/2019 11:30	5/30/2019 11:45	15	0.23	270,935	1.57	0.10	1	Atlas		62,315	1
	6/5/2019 21:15	6/5/2019 22:15	60	0.62	279,081	0.83	0.42	1	Atlas		173,030	1
	6/7/2019 21:30	6/8/2019 3:15	345	0.65	66,765	1.18	0.24	12	Atlas		43,397	1
	6/8/2019 23:45	6/9/2019 1:00	75	0.30	381,477	1.57	0.15	6	Atlas		114,443	1
	6/9/2019 15:45	6/10/2019 3:30	705	1.45	983,491	3.04	0.89	3	Atlas		1,426,062	1
	6/16/2019 6:30	6/16/2019 6:45	15	0.17	219,700	1.75	0.11	3	Atlas		37,349	1
	6/16/2019 20:00	6/17/2019 2:45	405	1.66	827,513	1.94	0.73	12	Atlas		1,373,671	1
	6/18/2019 5:15	6/18/2019 18:15	780	0.80	114,845	2.77	0.33	1	Atlas		91,876	1
	6/21/2019 20:15	6/21/2019 22:00	105	0.57	105,902	3.43	0.38	3	Atlas		60,364	1
	6/22/2019 8:30	6/22/2019 10:15	105	0.32	285,116	3.62	0.21	3	Atlas		91,237	1
	6/23/2019 16:30	6/23/2019 17:30	60	0.70	272,249	3.89	0.57	1	Atlas		190,574	1
	6/24/2019 14:00	6/24/2019 16:00	120	0.61	658,000	3.10	0.38	3	Atlas		401,380	1
	6/30/2019 18:00	6/30/2019 18:00	-	0.10	32,980	0.75	0.08	1	Atlas		3,298	1
	7/1/2019 17:15	7/1/2019 17:45	30	0.04	2,067,500	0.13	0.03	1	Atlas		82,700	1
	7/3/2019 14:30	7/3/2019 15:15	45	0.20	1,468,595	0.32	0.12	3	Atlas		293,719	1
	7/10/2019 15:45	7/10/2019 16:15	30	0.01	8,718,900	0.04	0.01	1	Atlas		87,189	1
	7/18/2019 1:30	7/18/2019 2:00	30	0.21	187,119	0.32	0.17	1	Atlas		39,295	1
	7/30/2019 0:00	7/30/2019 0:45	45	0.65	165,451	0.65	0.42	1	Atlas		107,543	1
	8/22/2019 3:15	8/22/2019 3:45	30	0.34	431,776	0.27	0.23	3	Atlas		146,804	1
	8/26/2019 11:45	8/26/2019 14:30	165	0.52	1,134,438	1.01	0.25	6	Atlas		589,908	1
	8/27/2019 17:00	8/27/2019 18:30	90	0.27	2,126,670	1.27	0.23	1	Atlas		574,201	1
	10/6/2019 15:15	10/6/2019 20:45	330	1.12	332,766	0.95	0.46	6	Atlas		372,698	1
	10/15/2019 22:30	10/15/2019 23:30	60	0.50	215,452	0.82	0.37	1	Atlas		107,726	1
	10/26/2019 5:45	10/26/2019 9:15	210	1.21	219,424	1.05	0.46	24	Atlas		265,503	1
	10/26/2019 20:00	10/26/2019 20:15	15	1.21	13,583	1.32	0.46	24	Atlas		16,436	1
	10/30/2019 14:00	10/30/2019 16:00	120	0.88	588,873	2.05	0.45	3	Atlas		518,208	1
	10/31/2019 6:15	10/31/2019 9:45	210	0.73	1,128,841	2.82	0.39	6	Atlas		824,054	1
	11/26/2019 22:00	11/27/2019 5:45	465	0.81	366,175	1.38	0.36	12	Atlas		296,602	1
	11/30/2019 3:15	11/30/2019 23:45	1,230	1.68	2,016,148	2.69	0.65	24	Atlas		3,387,129	1
	12/16/2019 14:45	12/16/2019 20:30	345	0.79	1,849,349	1.52	0.37	6	Atlas		1,460,986	1
	12/29/2019 10:45	12/30/2019 2:30	945	1.47	707,003	1.45	0.55	24	Atlas		1,039,294	1
	1/3/2020 7:15	1/3/2020 8:00	45	0.87	11,526	2.11	0.28	48	Atlas		10,028	1
	1/3/2020 18:30	1/3/2020 20:00	90	0.87	93,985	2.30	0.28	48	Atlas		81,767	1
	1/10/2020 19:45	1/10/2020 21:15	90	1.45	259,079	0.46	0.55	24	Atlas		375,664	1
	1/11/2020 11:15	1/11/2020 21:30	615	1.45	941,539	1.48	0.55	24	Atlas		1,365,232	1
	1/18/2020 11:15	1/18/2020 11:45	30	0.34	61,579	1.00	0.14	12	Atlas		20,937	1
	2/12/2020 17:30	2/13/2020 0:00	390	1.04	1,782,870	1.65	0.49	3	Atlas		1,854,185	1
	2/24/2020 20:00	2/24/2020 20:30	30	0.74	61,122	0.82	0.28	24	Atlas		45,230	1
	3/2/2020 7:45	3/2/2020 8:15	30	0.48	68,744	1.05	0.23	3	Atlas		32,997	1
	3/10/2020 8:00	3/10/2020 9:15	75	0.40	635,280	0.41	0.18	1	Atlas		254,112	1
	3/12/2020 17:15	3/13/2020 0:15	420	0.58	1,995,405	0.98	0.27	12	Atlas		1,157,335	1
	3/14/2020 12:45	3/14/2020 18:45	360	0.47	609,915	1.45	0.22	12	Atlas		286,660	1
	3/18/2020 14:15	3/18/2020 19:30	315	0.53	716,230	1.60	0.24	12	Atlas		379,602	1
	3/19/2020 12:00	3/19/2020 16:15	255	0.52	2,201,160	1.97	0.22	1	Atlas		1,144,603	1
	3/20/2020 3:45	3/20/2020 5:15	90	0.52	476,285	1.55	0.22	1	Atlas		247,668	1
	3/24/2020 18:45	3/24/2020 20:15	90	0.14	973,307	1.20	0.08	6	Atlas		136,263	1
	3/28/2020 22:15	3/28/2020 23:45	90	0.27	1,456,470	0.44	0.23	1	Atlas		393,247	1
	4/8/2020 22:45	4/8/2020 23:15	30	0.48	58,925	0.44	0.32	3	Atlas		28,284	1
	4/12/2020 17:15	4/13/2020 6:30	795	1.19	1,679,260	1.73	0.47	12	Atlas		1,998,319	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/23/2020 13:15	4/23/2020 13:45	30	0.65	71,483	1.09	0.27	12	Atlas		46,464	1
	4/25/2020 17:30	4/25/2020 18:00	30	0.66	58,583	0.90	0.23	24	Atlas		38,665	1
	4/29/2020 11:15	4/29/2020 11:30	15	0.20	160,725	1.43	0.08	24	Atlas		32,145	1
	5/8/2020 10:45	5/8/2020 12:30	105	0.56	131,155	0.75	0.26	12	Atlas		73,447	1
	5/15/2020 23:45	5/16/2020 9:15	570	1.67	695,619	1.79	0.62	24	Atlas		1,161,683	1
	5/18/2020 8:00	5/18/2020 13:00	300	0.49	93,588	2.34	0.21	6	Atlas		45,858	1
	5/23/2020 17:30	5/23/2020 19:30	120	0.32	3,197,291	0.92	0.20	3	Atlas		1,023,133	1
	5/26/2020 15:00	5/26/2020 15:00	-	0.15	118,280	0.63	0.09	3	Atlas		17,742	1
	6/4/2020 18:15	6/4/2020 19:15	60	0.61	524,228	0.50	0.30	6	Atlas		319,779	1
	6/21/2020 12:00	6/21/2020 12:45	45	0.61	316,905	0.48	0.34	1	Atlas		193,312	1
	6/22/2020 22:45	6/23/2020 9:30	645	1.25	1,440,070	1.91	0.61	3	Atlas		1,800,087	1
	6/29/2020 3:00	6/29/2020 6:00	180	0.94	682,967	2.33	0.60	3	Atlas		641,989	1
	CSO166 Total										**915,634,216**	**477**
CSO167	10/27/2011 0:15	10/27/2011 4:45	270	0.99	184,092	1.37	0.42	6	Atlas		182,251	1
	11/3/2011 9:45	11/3/2011 10:30	45	0.65	28,268	0.43	0.29	3	Atlas		18,374	1
	11/14/2011 21:30	11/14/2011 23:00	90	2.06	55,435	0.43	0.67	48	Atlas		114,196	1
	11/15/2011 9:00	11/15/2011 14:00	300	2.06	20,453	1.49	0.67	48	Atlas		42,134	1
	11/16/2011 5:30	11/16/2011 11:15	345	2.06	32,370	2.04	0.67	48	Atlas		66,683	1
	11/20/2011 17:30	11/20/2011 18:30	60	0.82	30,677	2.57	0.28	24	Atlas		25,155	1
	11/21/2011 4:15	11/21/2011 4:45	30	0.82	98,759	2.77	0.28	24	Atlas		80,982	1
	11/22/2011 0:15	11/22/2011 11:30	675	1.00	328,996	3.40	0.43	6	Atlas		328,996	1
	11/27/2011 6:30	11/27/2011 9:15	165	3.07	12,350	2.23	0.95	48	Atlas		37,915	1
	11/27/2011 22:00	11/29/2011 20:45	2,805	3.07	412,122	4.38	0.95	48	Atlas		1,265,215	1
	12/4/2011 16:30	12/6/2011 13:45	2,715	3.04	684,528	5.54	0.99	48	Atlas		2,080,966	1
	12/15/2011 4:00	12/15/2011 8:00	240	0.47	100,015	0.42	0.23	6	Atlas		47,007	1
	12/21/2011 5:15	12/21/2011 7:30	135	0.63	264,838	1.12	0.29	12	Atlas		166,848	1
	12/22/2011 14:30	12/22/2011 18:00	210	0.60	119,023	1.20	0.27	12	Atlas		71,414	1
	12/27/2011 3:15	12/27/2011 12:00	525	0.75	108,045	1.94	0.30	12	Atlas		81,034	1
	1/11/2012 5:00	1/11/2012 11:15	375	0.85	122,102	0.72	0.34	6	Atlas		103,787	1
	1/17/2012 4:15	1/17/2012 12:30	495	0.36	163,603	1.31	0.17	12	Atlas		58,897	1
	1/23/2012 2:45	1/23/2012 5:00	135	0.76	310,714	1.12	0.39	3	Atlas		236,143	1
	1/25/2012 19:15	1/25/2012 19:15	-	1.82	47	1.04	0.60	24	Atlas		85	1
	1/26/2012 5:45	1/26/2012 7:00	75	1.82	115,495	1.51	0.60	24	Atlas		210,201	1
	1/26/2012 17:45	1/27/2012 11:45	1,080	1.82	389,052	2.60	0.60	24	Atlas		708,075	1
	2/4/2012 9:45	2/4/2012 10:45	60	0.39	62,344	0.41	0.21	3	Atlas		24,314	1
	2/22/2012 23:00	2/22/2012 23:30	30	0.16	323,400	0.43	0.12	1	Atlas		51,744	1
	2/29/2012 8:45	2/29/2012 9:15	30	0.51	144,433	0.63	0.23	12	Atlas		73,661	1
	3/8/2012 12:45	3/8/2012 17:15	270	0.75	187,517	1.02	0.36	6	Atlas		140,638	1
	3/15/2012 19:00	3/16/2012 3:30	510	0.95	238,337	1.17	0.42	12	Atlas		226,420	1
	3/17/2012 18:45	3/17/2012 22:30	225	1.08	155,038	2.19	0.68	1	Atlas		167,441	1
	3/23/2012 5:15	3/23/2012 23:15	1,080	1.50	309,164	2.58	0.57	24	Atlas		463,746	1
	3/28/2012 14:30	3/28/2012 14:45	15	0.07	592,829	1.57	0.06	1	Atlas		41,498	1
	3/31/2012 0:15	3/31/2012 0:15	-	0.16	2,775	0.23	0.10	3	Atlas		444	1
	4/1/2012 7:30	4/1/2012 11:30	240	1.18	598,459	1.38	0.63	6	Atlas		706,182	1
	4/4/2012 16:15	4/4/2012 16:30	15	0.23	15,243	1.48	0.11	12	Atlas		3,506	1
	4/28/2012 19:15	4/29/2012 0:30	315	0.70	272,361	0.83	0.50	1	Atlas		190,653	1
	4/30/2012 18:00	4/30/2012 18:30	30	0.45	219,329	1.08	0.30	3	Atlas		98,698	1
	5/4/2012 23:45	5/5/2012 5:00	315	1.42	743,584	2.59	0.79	3	Atlas		1,055,889	1
	5/13/2012 2:00	5/13/2012 15:15	795	1.97	582,949	2.02	0.77	12	Atlas		1,148,409	1
	5/16/2012 17:45	5/16/2012 18:30	45	0.26	400,165	2.23	0.21	1	Atlas		104,043	1
	5/29/2012 6:45	5/29/2012 13:15	390	2.22	402,078	2.22	4.14	3	Atlas		892,613	1
	5/31/2012 18:30	6/1/2012 1:45	435	1.24	76,718	3.28	0.54	12	Atlas		95,130	1
	7/14/2012 12:15	7/14/2012 15:00	165	0.81	474,420	0.93	0.51	3	Atlas		384,280	1
	7/19/2012 18:15	7/19/2012 19:30	75	0.57	610,288	1.40	0.46	1	Atlas		347,864	1
	7/26/2012 21:30	7/26/2012 22:00	30	0.20	274,590	0.26	0.11	1	Atlas		54,918	1
	7/27/2012 19:45	7/27/2012 21:15	90	0.62	321,576	0.92	0.41	3	Atlas		199,377	1
	8/5/2012 23:15	8/5/2012 23:30	15	0.08	677,800	0.39	0.06	1	Atlas		54,224	1
	8/16/2012 20:15	8/16/2012 22:45	150	0.55	257,509	0.63	0.33	3	Atlas		141,630	1
	8/21/2012 14:15	8/21/2012 14:15	-	0.09	22,100	0.65	0.07	1	Atlas		1,989	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/1/2012 15:15	9/1/2012 16:30	75	1.00	38,674	0.24	0.32	48	Atlas		38,674	1
	9/2/2012 12:00	9/2/2012 22:15	615	1.00	185,767	1.01	0.32	48	Atlas		185,767	1
	9/5/2012 15:30	9/5/2012 17:00	90	0.84	438,637	1.96	0.67	1	Atlas		368,455	1
	9/7/2012 23:30	9/8/2012 7:00	450	1.21	178,295	3.16	0.67	3	Atlas		215,737	1
	9/26/2012 0:00	9/26/2012 5:45	345	0.40	224,343	0.76	0.18	12	Atlas		89,737	1
	9/26/2012 20:00	9/27/2012 0:30	270	1.61	316,811	2.41	0.86	6	Atlas		510,066	1
	10/1/2012 15:00	10/1/2012 19:30	270	0.76	383,861	3.15	0.32	12	Atlas		291,734	1
	10/6/2012 0:30	10/6/2012 0:30	-	0.11	24,882	0.86	0.06	6	Atlas		2,737	1
	10/18/2012 1:45	10/18/2012 2:00	15	0.22	16,223	0.38	0.14	3	Atlas		3,569	1
	10/26/2012 15:00	10/26/2012 15:45	45	0.75	44,943	0.65	0.34	6	Atlas		33,707	1
	12/2/2012 11:15	12/2/2012 11:45	30	0.21	165,071	0.27	0.13	1	Atlas		34,665	1
	12/4/2012 15:30	12/4/2012 19:00	210	0.52	196,998	0.73	0.33	3	Atlas		102,439	1
	12/7/2012 4:30	12/7/2012 18:00	810	1.12	152,679	1.85	0.47	12	Atlas		171,000	1
	12/8/2012 5:45	12/8/2012 10:00	255	0.40	104,638	2.25	0.21	6	Atlas		41,865	1
	12/9/2012 22:00	12/10/2012 0:45	165	1.17	343,693	3.08	0.56	3	Atlas		402,121	1
	12/15/2012 11:30	12/15/2012 12:15	45	0.17	87,965	1.33	0.10	3	Atlas		14,964	1
	12/20/2012 7:00	12/20/2012 11:15	255	0.65	72,729	0.95	0.36	6	Atlas		47,274	1
	12/26/2012 5:45	12/26/2012 9:45	240	0.79	87,290	1.42	0.31	12	Atlas		68,959	1
	1/11/2013 6:00	1/11/2013 7:30	90	0.61	113,846	0.75	0.33	6	Atlas		69,446	1
	1/13/2013 3:15	1/13/2013 23:45	1,230	2.12	632,056	2.87	0.81	24	Atlas		1,339,959	1
	1/30/2013 4:45	1/30/2013 8:15	210	0.93	72,990	1.09	0.47	6	Atlas		67,881	1
	2/22/2013 0:30	2/22/2013 1:30	60	0.40	79,045	0.71	0.18	12	Atlas		31,618	1
	2/26/2013 13:45	2/26/2013 16:30	165	0.64	14,227	0.95	0.25	24	Atlas		9,105	1
	3/5/2013 17:15	3/5/2013 18:00	45	0.44	25,886	0.51	0.17	24	Atlas		11,390	1
	3/11/2013 4:00	3/11/2013 12:30	510	1.01	93,531	1.48	0.41	12	Atlas		94,466	1
	3/17/2013 13:45	3/18/2013 8:15	1,110	1.75	403,179	2.69	0.57	48	Atlas		705,564	1
	3/24/2013 8:15	3/24/2013 16:15	480	0.45	12,798	1.70	0.17	24	Atlas		5,759	1
	4/11/2013 6:30	4/11/2013 7:45	75	1.21	112,238	0.46	0.47	24	Atlas		135,808	1
	4/16/2013 20:15	4/16/2013 21:00	45	0.55	297,580	1.72	0.43	1	Atlas		163,669	1
	4/19/2013 2:30	4/19/2013 4:45	135	0.87	289,867	1.43	0.48	6	Atlas		252,184	1
	4/24/2013 7:30	4/24/2013 10:15	165	0.68	293,716	1.59	0.37	3	Atlas		199,727	1
	5/5/2013 5:00	5/5/2013 8:30	210	1.33	62,462	1.19	0.40	24	Atlas		83,075	1
	5/10/2013 12:15	5/10/2013 15:30	195	0.87	32,059	2.18	0.38	6	Atlas		27,891	1
	5/10/2013 23:45	5/11/2013 0:30	45	0.87	28,848	2.21	0.38	6	Atlas		25,098	1
	5/16/2013 10:15	5/16/2013 10:45	30	0.20	137,755	1.11	0.17	1	Atlas		27,551	1
	5/22/2013 16:00	5/22/2013 17:30	90	0.19	395,505	0.40	0.13	3	Atlas		75,146	1
	5/31/2013 18:45	5/31/2013 18:45	-	0.27	3,370	0.36	0.12	12	Atlas		910	1
	6/10/2013 0:15	6/10/2013 0:45	30	0.31	74,652	0.24	0.14	6	Atlas		23,142	1
	6/16/2013 17:00	6/16/2013 17:45	45	0.44	306,361	0.73	0.29	1	Atlas		134,799	1
	6/17/2013 16:30	6/17/2013 22:00	330	1.38	301,922	1.79	0.77	1	Atlas		416,653	1
	6/21/2013 19:00	6/21/2013 19:15	15	0.16	343,619	1.97	0.11	1	Atlas		54,979	1
	6/23/2013 12:30	6/23/2013 12:30	-	0.48	265	2.41	0.37	1	Atlas		127	1
	6/26/2013 3:30	6/26/2013 5:15	105	3.29	92,533	1.40	4.06	1	Atlas		304,433	1
	6/26/2013 16:15	6/27/2013 3:30	675	3.29	397,397	4.00	4.06	1	Atlas		1,307,435	1
	6/29/2013 19:45	6/29/2013 22:15	150	0.45	221,551	4.28	0.24	6	Atlas		99,698	1
	6/30/2013 18:45	6/30/2013 19:15	30	0.24	246,850	4.05	0.19	1	Atlas		59,244	1
	7/1/2013 19:15	7/1/2013 19:30	15	0.21	53,229	4.19	0.11	3	Atlas		11,178	1
	7/2/2013 13:30	7/2/2013 13:30	-	0.12	62,708	4.31	0.10	1	Atlas		7,525	1
	7/4/2013 8:00	7/4/2013 13:00	300	0.51	97,192	1.38	0.22	12	Atlas		49,568	1
	7/6/2013 1:30	7/6/2013 8:15	405	0.68	193,356	2.20	0.30	12	Atlas		131,482	1
	7/10/2013 14:15	7/10/2013 15:15	60	0.94	257,704	2.20	0.70	1	Atlas		242,242	1
	7/14/2013 19:30	7/14/2013 20:15	45	0.19	1,273,289	1.20	0.17	1	Atlas		241,925	1
	7/22/2013 7:15	7/22/2013 15:15	480	1.97	313,566	2.02	0.76	24	Atlas		617,726	1
	8/12/2013 15:00	8/12/2013 15:30	30	0.59	202,351	0.54	0.23	24	Atlas		119,387	1
	8/13/2013 2:45	8/13/2013 3:45	60	0.59	53,881	0.81	0.23	24	Atlas		31,790	1
	8/20/2013 18:30	8/20/2013 18:30	-	0.18	14,772	0.19	0.12	1	Atlas		2,659	1
	8/31/2013 19:45	9/1/2013 1:00	315	1.30	328,475	1.11	0.63	3	Atlas		427,017	1
	9/19/2013 11:30	9/19/2013 11:30	-	0.05	34,960	0.09	0.04	1	Atlas		1,748	1
	9/20/2013 19:30	9/21/2013 4:30	540	1.61	256,331	1.61	0.67	12	Atlas		412,693	1
	10/6/2013 13:00	10/6/2013 18:45	1,785	4.40	524,101	4.49	8.39	24	Cloudburst		2,306,046	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/30/2013 1:45	10/30/2013 7:15	330	1.04	200.400	1.04	0.49	6	Atlas		208.416	1
	10/31/2013 20:45	10/31/2013 21:45	60	0.61	65.005	1.58	0.23	24	Atlas		39.653	1
	11/17/2013 5:00	11/17/2013 21:45	1,005	2.78	579.688	2.94	2.00	6	Cloudburst		1,611.534	1
	12/5/2013 5:45	12/5/2013 8:30	165	0.72	187.557	0.14	0.23	48	Atlas		135.041	1
	12/13/2013 8:00	12/13/2013 9:45	105	Discharge	-	0.58					44.646	1
	12/14/2013 9:15	12/14/2013 11:45	150	0.83	65.849	1.02	0.33	12	Atlas		54.655	1
	12/21/2013 5:45	12/21/2013 13:15	450	1.03	365.904	1.49	0.47	12	Atlas		376.881	1
	12/21/2013 21:30	12/22/2013 12:00	870	1.55	655.949	2.66	0.83	3	Atlas		1,016.721	1
	12/29/2013 6:15	12/29/2013 7:00	45	0.49	15.518	0.43	0.22	12	Atlas		7.604	1
	1/5/2014 15:00	1/5/2014 19:45	285	0.45	94.387	0.61	0.22	6	Atlas		42.474	1
	1/11/2014 0:15	1/11/2014 9:00	525	0.91	441.564	1.37	0.49	6	Atlas		401.823	1
	2/2/2014 4:30	2/2/2014 5:30	60	0.43	72.900	0.14	0.16	24	Atlas		31.347	1
	2/4/2014 19:00	2/5/2014 3:45	525	0.51	1,096.943	0.94	0.25	6	Atlas		559.441	1
	2/14/2014 17:15	2/14/2014 18:00	45	0.46	5.893	0.39	0.24	6	Atlas		2.711	1
	2/17/2014 16:00	2/17/2014 18:15	135	0.47	615.470	0.99	0.29	3	Atlas		289.271	1
	2/20/2014 23:00	2/20/2014 23:45	45	0.21	84.986	1.20	0.11	6	Atlas		17.847	1
	3/2/2014 9:45	3/2/2014 11:30	105	0.47	166.468	0.23	0.18	24	Atlas		78.240	1
	3/28/2014 4:15	3/28/2014 5:00	45	0.23	138.930	0.29	0.11	6	Atlas		31.954	1
	3/29/2014 6:15	3/29/2014 13:00	405	1.00	335.798	1.27	0.46	6	Atlas		335.798	1
	4/3/2014 11:45	4/5/2014 4:45	2,460	2.55	775.313	3.88	0.89	24	Atlas		1,977.047	1
	4/7/2014 8:15	4/7/2014 17:30	555	0.84	566.213	3.49	0.50	1	Atlas		475.619	1
	4/8/2014 16:45	4/8/2014 16:45	-	0.14	8.114	3.58	0.10	1	Atlas		1.136	1
	4/14/2014 3:45	4/14/2014 4:00	15	0.36	32.081	1.11	0.18	6	Atlas		11.549	1
	4/14/2014 19:45	4/15/2014 2:30	405	0.61	305.872	1.10	0.28	12	Atlas		186.582	1
	4/27/2014 19:15	4/28/2014 8:45	810	2.03	444.157	1.68	0.75	3	Atlas		901.639	1
	4/28/2014 17:00	4/28/2014 20:30	210	2.03	39.073	2.12	0.75	3	Atlas		79.318	1
	5/9/2014 19:15	5/10/2014 16:45	1,290	1.66	480.189	1.73	0.64	24	Atlas		797.113	1
	5/14/2014 7:00	5/15/2014 0:00	1,020	1.03	273.421	2.81	0.40	24	Atlas		281.624	1
	5/21/2014 21:00	5/22/2014 4:00	420	0.71	376.772	0.85	0.33	12	Atlas		267.508	1
	5/29/2014 20:45	5/29/2014 22:30	105	0.74	362.864	0.94	0.63	1	Atlas		268.519	1
	6/11/2014 14:15	6/11/2014 15:00	45	0.09	1,432.811	0.33	0.04	1	Atlas		128.953	1
	6/24/2014 13:45	6/24/2014 14:00	15	0.14	75.993	0.24	0.09	1	Atlas		10.639	1
	6/27/2014 18:30	6/27/2014 18:30	-	0.13	76.731	0.30	0.07	6	Atlas		9.975	1
	7/2/2014 16:30	7/2/2014 17:00	30	0.15	450.220	0.53	0.12	1	Atlas		67.533	1
	7/7/2014 19:30	7/7/2014 20:15	45	0.74	183.157	1.09	0.64	1	Atlas		135.536	1
	7/13/2014 23:00	7/13/2014 23:30	30	0.59	170.080	1.43	0.27	3	Atlas		100.347	1
	7/14/2014 19:30	7/14/2014 20:45	75	0.30	385.317	1.36	0.20	3	Atlas		115.595	1
	7/26/2014 21:45	7/27/2014 8:30	645	0.98	386.937	0.97	0.43	12	Atlas		379.198	1
	8/8/2014 6:00	8/8/2014 8:15	135	0.89	375.419	0.65	0.43	6	Atlas		334.123	1
	8/10/2014 4:00	8/10/2014 4:45	45	0.44	281.670	1.40	0.37	1	Atlas		123.935	1
	8/11/2014 15:30	8/11/2014 16:00	30	0.22	414.541	1.61	0.16	1	Atlas		91.199	1
	8/17/2014 0:45	8/17/2014 0:45	-	0.66	10.706	0.96	0.25	24	Atlas		7.066	1
	8/17/2014 9:30	8/17/2014 10:45	75	0.66	79.168	0.77	0.25	24	Atlas		52.251	1
	8/22/2014 19:00	8/22/2014 19:45	45	0.45	451.951	1.04	0.32	1	Atlas		203.378	1
	8/23/2014 15:45	8/23/2014 22:00	375	0.49	648.708	1.57	0.25	3	Atlas		317.867	1
	8/27/2014 14:45	8/27/2014 17:30	165	0.21	638.629	1.21	0.13	1	Atlas		134.112	1
	8/30/2014 15:15	8/30/2014 16:30	75	0.51	521.010	1.14	0.31	1	Atlas		265.715	1
	9/2/2014 8:30	9/2/2014 9:00	30	0.40	174.083	1.15	0.25	3	Atlas		69.633	1
	9/11/2014 0:30	9/11/2014 6:45	375	1.95	446.524	1.91	1.60	3	Atlas		870.722	1
	9/28/2014 19:45	9/28/2014 20:15	30	0.07	1,013.386	0.07	0.06	1	Atlas		70.937	1
	10/6/2014 9:45	10/6/2014 10:15	30	0.45	257.300	0.63	0.28	1	Atlas		115.785	1
	10/7/2014 11:45	10/7/2014 12:15	30	0.22	214.491	0.90	0.18	1	Atlas		47.188	1
	10/10/2014 2:00	10/10/2014 3:30	90	1.02	311.785	1.65	0.49	3	Atlas		318.021	1
	10/10/2014 21:30	10/10/2014 21:30	-	1.02	575	1.69	0.49	3	Atlas		587	1
	10/13/2014 5:00	10/13/2014 6:45	105	0.46	141.343	2.16	0.29	3	Atlas		65.018	1
	10/13/2014 23:30	10/14/2014 10:45	675	1.04	277.741	2.77	0.47	12	Atlas		288.851	1
	11/17/2014 4:15	11/17/2014 4:15	-	0.34	653	0.28	0.13	12	Atlas		222	1
	11/23/2014 17:30	11/23/2014 20:15	165	0.85	195.380	1.12	0.39	6	Atlas		166.073	1
	12/1/2014 2:45	12/1/2014 5:00	135	0.80	24.875	0.38	0.30	24	Atlas		19.900	1
	12/1/2014 15:00	12/1/2014 16:00	60	0.80	2.643	0.74	0.30	24	Atlas		2.114	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/5/2014 20:45	12/6/2014 8:15	690	1.79	393,626	2.59	0.58	48	Atlas		704,590	1
	12/16/2014 5:15	12/16/2014 5:30	15	0.14	175,814	0.13	0.09	1	Atlas		24,614	1
	12/23/2014 0:00	12/23/2014 0:00	-	0.26	4,173	0.39	0.16	3	Atlas		1,085	1
	12/28/2014 1:00	12/28/2014 1:45	45	0.31	126,945	0.80	0.12	12	Atlas		39,353	1
	1/3/2015 11:00	1/3/2015 11:00	-	0.38	2,479	0.37	0.14	24	Atlas		942	1
	2/1/2015 13:15	2/1/2015 13:45	30	0.38	17,229	0.43	0.17	12	Atlas		6,547	1
	2/21/2015 14:45	2/21/2015 15:45	60	1.09	4,634	1.27	0.42	12	Atlas		5,051	1
	3/3/2015 19:00	3/4/2015 20:30	1,530	1.67	609,609	1.52	0.55	24	Atlas		1,018,047	1
	3/10/2015 6:15	3/20/2015 13:30	14,835	1.06	6,333,378	4.51	0.48	12	Atlas		6,713,381	1
	3/24/2015 20:30	3/24/2015 20:30	-	0.12	4,925	0.28	0.06	1	Atlas		591	1
	3/26/2015 4:30	3/26/2015 6:30	120	0.40	270,493	0.55	0.16	12	Atlas		108,197	1
	4/2/2015 10:30	4/5/2015 10:15	4,305	4.03	1,162,175	4.16	3.72	24	Cloudburst		4,683,564	1
	4/7/2015 9:15	4/7/2015 21:15	720	0.78	699,473	4.82	0.37	1	Atlas		545,589	1
	4/8/2015 18:15	4/8/2015 19:15	60	0.17	514,241	4.99	0.14	1	Atlas		87,421	1
	4/9/2015 11:30	4/9/2015 12:45	75	0.15	859,260	4.79	0.12	1	Atlas		128,889	1
	4/10/2015 2:15	4/10/2015 3:45	90	0.16	651,306	2.92	0.11	3	Atlas		104,209	1
	4/25/2015 9:30	4/25/2015 9:45	15	0.12	94,500	0.91	0.05	12	Atlas		11,340	1
	4/25/2015 19:15	4/25/2015 19:30	15	0.25	94,316	1.12	0.18	1	Atlas		23,579	1
	5/17/2015 14:30	5/17/2015 15:00	30	0.08	1,628,888	0.53	0.05	1	Atlas		130,311	1
	5/25/2015 7:15	5/25/2015 7:30	15	0.28	24,061	0.20	0.13	3	Atlas		6,737	1
	5/26/2015 14:00	5/26/2015 14:45	45	0.50	251,690	0.74	0.39	1	Atlas		125,845	1
	5/27/2015 13:45	5/27/2015 14:15	30	0.08	248,613	0.87	0.07	1	Atlas		19,889	1
	6/8/2015 8:30	6/8/2015 8:45	15	0.24	112,921	0.24	0.14	3	Atlas		27,101	1
	6/17/2015 5:00	6/17/2015 7:00	120	0.68	429,085	0.72	0.39	3	Atlas		291,778	1
	6/18/2015 16:30	6/18/2015 18:45	135	1.42	315,458	1.15	0.46	48	Atlas		447,950	1
	6/19/2015 17:45	6/20/2015 11:15	1,050	1.42	371,660	2.20	0.46	48	Atlas		527,757	1
	6/26/2015 0:15	6/26/2015 0:30	15	0.36	123,881	1.32	0.19	6	Atlas		44,597	1
	6/26/2015 17:15	6/27/2015 1:30	495	0.84	505,111	2.30	0.47	1	Atlas		424,293	1
	7/2/2015 0:45	7/2/2015 2:00	75	1.77	57,995	1.96	0.67	24	Atlas		102,652	1
	7/2/2015 15:00	7/2/2015 22:00	420	1.77	324,886	3.13	0.67	24	Atlas		575,048	1
	7/3/2015 19:00	7/3/2015 19:00	-	0.25	26,256	2.43	0.13	6	Atlas		6,564	1
	7/7/2015 11:45	7/7/2015 14:45	180	0.72	240,654	2.54	0.30	6	Atlas		173,271	1
	7/8/2015 0:30	7/8/2015 0:30	-	0.72	34,494	2.61	0.30	6	Atlas		24,836	1
	7/8/2015 12:30	7/8/2015 13:15	45	0.72	121,688	2.74	0.30	6	Atlas		87,615	1
	7/9/2015 6:30	7/9/2015 14:00	450	0.34	210,594	2.38	0.20	1	Atlas		71,602	1
	7/10/2015 10:45	7/10/2015 16:45	360	0.36	313,086	1.70	0.17	6	Atlas		112,711	1
	7/12/2015 6:00	7/12/2015 22:45	1,005	1.86	662,167	3.31	2.66	1	Atlas		1,231,630	1
	7/13/2015 14:15	7/13/2015 16:30	135	0.70	372,421	4.01	0.60	1	Atlas		260,695	1
	7/14/2015 4:00	7/14/2015 23:45	1,185	0.54	1,327,007	4.74	0.43	1	Atlas		716,584	1
	7/17/2015 22:30	7/18/2015 14:30	960	1.31	777,543	4.60	0.87	3	Atlas		1,018,581	1
	8/4/2015 19:00	8/4/2015 19:45	45	0.51	348,596	0.56	0.43	1	Atlas		177,784	1
	8/5/2015 15:00	8/5/2015 15:30	30	0.90	239,523	0.82	0.31	24	Atlas		215,571	1
	8/6/2015 7:45	8/6/2015 15:45	480	0.90	217,413	1.40	0.31	24	Atlas		195,672	1
	8/19/2015 8:30	8/19/2015 17:30	540	0.41	541,827	0.50	0.17	12	Atlas		222,149	1
	9/5/2015 17:15	9/5/2015 17:30	15	0.25	117,404	0.20	0.17	1	Atlas		29,351	1
	9/9/2015 11:30	9/9/2015 12:00	30	0.36	191,394	0.71	0.30	1	Atlas		68,902	1
	9/10/2015 3:45	9/10/2015 4:15	30	0.06	33,417	0.77	0.03	12	Atlas		2,005	1
	9/11/2015 18:45	9/11/2015 18:45	-	0.14	20,200	0.85	0.09	1	Atlas		2,828	1
	9/29/2015 9:30	9/29/2015 10:15	45	0.86	97,045	0.59	0.28	48	Atlas		83,459	1
	10/2/2015 18:15	10/2/2015 19:00	45	0.51	19,261	1.38	0.25	6	Atlas		9,823	1
	10/12/2015 18:30	10/12/2015 19:45	75	0.30	149,750	0.35	0.20	3	Atlas		44,925	1
	10/27/2015 15:45	10/28/2015 8:30	1,005	2.72	310,311	2.84	0.85	48	Atlas		844,047	1
	10/28/2015 22:45	10/28/2015 23:00	15	2.72	1,015	3.04	0.85	48	Atlas		2,760	1
	11/6/2015 3:15	11/6/2015 5:30	135	0.79	534,333	0.87	0.49	3	Atlas		422,123	1
	11/9/2015 19:45	11/9/2015 22:15	150	0.55	67,880	1.34	0.24	12	Atlas		37,334	1
	11/12/2015 0:15	11/12/2015 1:30	75	0.31	632,674	1.64	0.18	3	Atlas		196,129	1
	11/18/2015 9:15	11/18/2015 18:45	570	1.51	690,131	1.96	0.78	6	Atlas		1,042,098	1
	11/21/2015 15:30	11/21/2015 15:30	-	0.09	5,689	1.74	0.08	1	Atlas		512	1
	11/28/2015 14:15	11/28/2015 20:45	390	0.63	58,517	0.77	0.26	12	Atlas		36,866	1
	11/30/2015 22:00	12/1/2015 5:30	450	0.68	377,403	1.48	0.31	12	Atlas		256,634	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2015 11:30	12/21/2015 11:45	15	0.67	3.316	0.17	0.33	1	Atlas		2,222	1
	12/21/2015 23:30	12/22/2015 4:45	315	0.67	550.649	0.69	0.33	1	Atlas		368,935	1
	12/23/2015 19:30	12/23/2015 22:15	165	0.81	575.264	1.52	0.63	1	Atlas		465,964	1
	12/26/2015 12:45	12/26/2015 18:15	330	0.34	100.853	1.96	0.16	12	Atlas		34,290	1
	12/27/2015 10:15	12/29/2015 1:00	2,325	1.96	918.517	3.92	0.65	3	Atlas		1,800,294	1
	2/2/2016 15:00	2/3/2016 3:15	735	1.51	508.640	1.57	0.69	12	Atlas		768,046	1
	2/21/2016 4:30	2/21/2016 11:15	405	0.94	301.362	1.12	0.43	12	Atlas		283,280	1
	2/23/2016 22:45	2/24/2016 16:45	1,080	1.99	681.490	2.83	0.77	12	Atlas		1,356,165	1
	3/1/2016 12:15	3/1/2016 14:30	135	0.34	370.865	2.33	0.19	3	Atlas		126,094	1
	3/9/2016 16:00	3/9/2016 16:15	15	1.12	2.357	0.27	0.36	48	Atlas		2,640	1
	3/10/2016 13:45	3/10/2016 20:30	405	1.12	271.619	1.16	0.36	48	Atlas		304,213	1
	3/12/2016 20:15	3/13/2016 0:00	225	0.81	210.422	1.61	0.30	24	Atlas		170,442	1
	3/13/2016 9:00	3/13/2016 11:45	165	0.81	271.806	1.95	0.30	24	Atlas		220,163	1
	3/24/2016 17:30	3/24/2016 18:15	45	0.29	424.755	0.33	0.19	1	Atlas		123,179	1
	3/27/2016 21:15	3/27/2016 23:00	105	0.73	373.715	1.02	0.48	3	Atlas		272,812	1
	3/31/2016 4:45	4/1/2016 0:45	1,200	0.99	304.589	2.01	0.38	24	Atlas		301,543	1
	4/11/2016 16:30	4/11/2016 19:30	180	0.86	346.386	0.92	0.38	6	Atlas		297,892	1
	4/21/2016 16:00	4/21/2016 16:15	15	0.30	27.460	0.20	0.11	3	Atlas		8,238	1
	4/26/2016 16:15	4/26/2016 22:15	360	0.34	415.421	0.66	0.17	6	Atlas		141,243	1
	4/27/2016 14:15	4/27/2016 22:45	510	0.63	410.497	1.25	0.29	3	Atlas		258,613	1
	4/30/2016 11:30	4/30/2016 11:45	15	0.50	45.296	1.24	0.19	6	Atlas		22,648	1
	4/30/2016 23:45	4/30/2016 23:45	-	0.50	158	1.44	0.19	6	Atlas		79	1
	5/4/2016 11:45	5/4/2016 12:00	15	0.17	10.253	1.48	0.11	3	Atlas		1,743	1
	5/7/2016 16:45	5/7/2016 22:30	345	0.51	26.084	1.03	0.26	6	Atlas		13,303	1
	5/10/2016 9:00	5/10/2016 22:45	825	0.75	465.756	1.47	0.28	24	Atlas		349,317	1
	5/11/2016 22:00	5/11/2016 22:30	30	0.19	143.447	1.46	0.11	3	Atlas		27,255	1
	5/17/2016 20:45	5/17/2016 20:45	-	0.61	5.966	1.04	0.20	24	Atlas		3,639	1
	5/20/2016 14:00	5/20/2016 16:30	150	0.66	567.062	1.27	0.37	3	Atlas		374,261	1
	5/26/2016 14:00	5/26/2016 14:00	-	0.22	52.795	0.88	0.15	3	Atlas		11,615	1
	6/2/2016 15:30	6/2/2016 16:15	45	0.28	437.879	0.43	0.22	1	Atlas		122,606	1
	6/4/2016 16:45	6/4/2016 17:15	30	0.27	366.852	0.59	0.14	3	Atlas		99,050	1
	6/12/2016 18:00	6/12/2016 18:30	30	0.18	750.378	0.21	0.16	1	Atlas		135,068	1
	6/14/2016 16:45	6/14/2016 19:00	135	0.90	267.420	1.07	0.58	3	Atlas		240,678	1
	6/15/2016 13:30	6/15/2016 13:30	-	0.13	1.808	1.21	0.10	1	Atlas		235	1
	6/22/2016 8:15	6/22/2016 8:45	30	0.39	226.446	0.31	0.24	3	Atlas		88,314	1
	6/23/2016 16:15	6/23/2016 22:45	390	1.87	448.342	2.26	1.00	6	Cloudburst		838,400	1
	7/3/2016 10:30	7/3/2016 23:30	780	1.08	127.665	0.66	0.35	48	Atlas		137,878	1
	7/4/2016 14:30	7/4/2016 15:30	60	1.08	60.339	1.03	0.35	48	Atlas		65,166	1
	7/12/2016 10:00	7/12/2016 12:15	135	0.19	419.147	0.33	0.12	3	Atlas		79,638	1
	7/28/2016 3:30	7/28/2016 5:30	120	0.67	187.199	0.80	0.31	6	Atlas		125,423	1
	7/30/2016 14:30	7/30/2016 15:00	30	0.16	582.775	1.06	0.14	1	Atlas		93,244	1
	8/1/2016 11:15	8/1/2016 11:45	30	0.56	161.189	1.53	0.41	1	Atlas		90,266	1
	8/9/2016 15:45	8/9/2016 15:45	-	0.20	38.125	0.48	0.08	3	Atlas		7,625	1
	8/15/2016 2:45	8/15/2016 8:00	315	0.91	501.727	1.18	0.49	6	Atlas		456,572	1
	8/17/2016 6:00	8/17/2016 7:30	90	0.65	440.425	1.54	0.29	3	Atlas		286,276	1
	8/20/2016 14:15	8/20/2016 21:00	405	1.23	189.062	2.92	0.57	1	Atlas		232,546	1
	9/10/2016 15:30	9/10/2016 15:30	-	0.22	52.895	0.22	0.15	1	Atlas		11,637	1
	9/28/2016 12:30	9/28/2016 13:00	30	0.38	24.329	0.54	0.20	6	Atlas		9,245	1
	9/29/2016 23:45	9/30/2016 2:30	165	0.64	155.816	1.24	0.35	3	Atlas		99,722	1
	10/20/2016 9:15	10/20/2016 11:30	135	0.52	290.500	0.37	0.23	3	Atlas		151,060	1
	11/28/2016 17:45	11/28/2016 22:00	255	0.72	56.383	0.98	0.32	12	Atlas		40,596	1
	12/6/2016 5:30	12/6/2016 12:30	420	0.78	99.635	0.82	0.36	12	Atlas		77,715	1
	12/17/2016 16:30	12/18/2016 3:00	630	2.71	575.032	2.97	1.95	12	Cloudburst		1,558,338	1
	12/23/2016 23:00	12/24/2016 1:00	120	0.21	25.914	2.86	0.10	6	Atlas		5,442	1
	1/2/2017 20:00	1/2/2017 20:00	-	0.19	14.053	0.19	0.09	6	Atlas		2,670	1
	1/3/2017 4:15	1/3/2017 5:00	45	0.19	360.363	0.27	0.09	6	Atlas		68,469	1
	1/10/2017 19:30	1/10/2017 20:00	30	0.13	136.131	0.36	0.10	1	Atlas		17,697	1
	1/11/2017 12:30	1/11/2017 12:45	15	0.20	77.715	0.50	0.13	3	Atlas		15,543	1
	1/12/2017 15:30	1/12/2017 18:45	195	0.32	297.606	0.60	0.15	6	Atlas		95,234	1
	1/13/2017 15:45	1/13/2017 15:45	-	0.31	1.081	0.97	0.19	3	Atlas		335	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/14/2017 11:30	1/14/2017 14:00	150	0.22	208,600	1.20	0.10	12	Atlas		45,892	1
	1/17/2017 0:00	1/17/2017 4:00	240	0.50	391,190	1.80	0.22	12	Atlas		195,595	1
	1/19/2017 19:00	1/20/2017 4:15	555	1.05	457,655	2.28	0.48	12	Atlas		480,538	1
	2/24/2017 19:15	2/24/2017 19:30	15	0.37	270,624	0.42	0.31	1	Atlas		100,131	1
	2/28/2017 10:15	2/28/2017 10:30	15	0.24	77,200	0.64	0.11	12	Atlas		18,528	1
	3/1/2017 3:00	3/1/2017 9:30	390	1.03	510,211	1.70	0.49	6	Atlas		525,517	1
	3/7/2017 7:45	3/7/2017 8:15	30	0.31	299,126	1.59	0.14	12	Atlas		92,729	1
	3/26/2017 1:30	3/26/2017 2:45	75	0.49	30,647	0.34	0.22	6	Atlas		15,017	1
	3/27/2017 18:15	3/27/2017 19:30	75	0.25	306,632	0.74	0.15	3	Atlas		76,658	1
	3/30/2017 20:30	3/30/2017 20:45	15	0.27	45,404	0.82	0.13	6	Atlas		12,259	1
	4/3/2017 19:15	4/3/2017 19:30	15	0.12	13,317	0.40	0.07	1	Atlas		1,598	1
	4/16/2017 5:45	4/16/2017 21:15	930	1.04	297,236	1.30	0.43	6	Atlas		309,125	1
	4/21/2017 22:30	4/22/2017 0:30	120	0.56	41,254	1.47	0.20	24	Atlas		23,102	1
	4/27/2017 6:45	4/27/2017 7:15	30	0.18	420,972	0.75	0.13	1	Atlas		75,775	1
	4/29/2017 0:15	4/29/2017 4:15	240	1.28	529,395	1.57	0.67	6	Atlas		677,625	1
	5/1/2017 4:00	5/1/2017 4:15	15	0.23	120,448	1.68	0.13	3	Atlas		27,703	1
	5/4/2017 20:00	5/5/2017 10:15	855	1.83	369,784	3.23	0.62	24	Atlas		676,704	1
	5/11/2017 4:00	5/11/2017 4:00	-	0.14	27,750	1.97	0.08	6	Atlas		3,885	1
	5/21/2017 2:00	5/21/2017 6:00	240	1.10	411,449	1.12	0.50	12	Atlas		452,594	1
	5/24/2017 17:30	5/24/2017 20:45	195	0.72	162,051	1.63	0.26	24	Atlas		116,677	1
	5/27/2017 14:15	5/27/2017 14:30	15	0.37	178,811	2.17	0.30	1	Atlas		66,160	1
	6/5/2017 18:00	6/5/2017 18:30	30	0.21	226,457	0.25	0.18	1	Atlas		47,556	1
	6/15/2017 3:15	6/15/2017 4:30	75	0.76	285,726	0.73	0.48	3	Atlas		217,152	1
	6/22/2017 18:45	6/22/2017 19:30	45	0.34	150,947	0.51	0.19	6	Atlas		51,322	1
	6/23/2017 15:00	6/23/2017 18:15	195	0.77	322,844	1.29	0.37	6	Atlas		248,590	1
	6/30/2017 21:00	6/30/2017 21:30	30	0.18	488,489	0.31	0.15	1	Atlas		87,928	1
	7/6/2017 4:30	7/6/2017 13:15	525	0.48	149,298	0.65	0.20	6	Atlas		71,663	1
	7/7/2017 20:30	7/7/2017 20:30	-	0.12	12,275	0.80	0.08	3	Atlas		1,473	1
	7/23/2017 1:45	7/23/2017 10:00	495	1.00	300,030	1.05	0.46	12	Atlas		300,030	1
	7/28/2017 9:15	7/28/2017 10:15	60	0.42	284,736	1.41	0.30	1	Atlas		119,589	1
	8/1/2017 21:30	8/1/2017 22:00	30	0.14	283,386	0.55	0.10	1	Atlas		39,674	1
	8/6/2017 17:00	8/7/2017 0:15	435	0.43	140,879	0.58	0.19	12	Atlas		60,578	1
	8/17/2017 14:45	8/17/2017 18:15	210	0.32	410,622	0.35	0.18	1	Atlas		131,399	1
	8/22/2017 12:30	8/22/2017 16:45	255	0.44	429,055	0.78	0.24	1	Atlas		188,784	1
	9/1/2017 8:00	9/2/2017 5:45	1,305	3.57	481,556	3.64	3.00	24	Cloudburst		1,719,156	1
	9/12/2017 7:15	9/12/2017 7:15	-	0.30	1,037	0.24	0.15	6	Atlas		311	1
	9/19/2017 8:00	9/19/2017 10:00	120	0.41	262,534	0.86	0.27	3	Atlas		107,639	1
	10/10/2017 14:30	10/10/2017 21:15	405	0.68	154,551	2.44	0.35	3	Atlas		105,095	1
	10/23/2017 6:45	10/23/2017 7:30	45	0.53	84,253	0.39	0.28	6	Atlas		44,654	1
	10/27/2017 17:45	10/28/2017 1:15	450	0.89	78,612	1.47	0.41	12	Atlas		69,965	1
	11/3/2017 4:30	11/3/2017 6:30	120	0.86	299,598	1.89	0.66	1	Atlas		257,654	1
	11/6/2017 1:45	11/6/2017 3:00	75	0.68	187,865	1.68	0.53	1	Atlas		127,748	1
	11/15/2017 13:30	11/15/2017 14:15	45	0.26	122,285	0.27	0.17	1	Atlas		31,794	1
	11/18/2017 16:45	11/18/2017 17:45	60	0.24	279,817	0.49	0.13	3	Atlas		67,156	1
	12/5/2017 3:15	12/5/2017 6:00	165	0.67	236,718	0.67	0.36	3	Atlas		158,601	1
	12/22/2017 23:15	12/23/2017 12:15	780	1.18	235,775	1.17	0.45	24	Atlas		278,214	1
	1/11/2018 9:00	1/11/2018 9:00	-	0.06	84,533	0.13	0.04	3	Atlas		5,072	1
	1/27/2018 15:45	1/27/2018 16:15	30	0.32	3,931	0.44	0.17	3	Atlas		1,258	1
	2/7/2018 3:00	2/7/2018 4:30	90	0.43	209,870	0.66	0.23	6	Atlas		90,244	1
	2/11/2018 4:15	2/11/2018 11:15	420	0.34	245,656	0.87	0.17	3	Atlas		83,523	1
	2/14/2018 7:15	2/14/2018 9:45	150	0.38	65,895	0.75	0.19	3	Atlas		25,040	1
	2/16/2018 2:45	2/16/2018 11:45	540	0.67	264,000	1.51	0.31	12	Atlas		176,880	1
	2/17/2018 14:00	2/17/2018 16:30	150	0.18	63,528	1.65	0.11	3	Atlas		11,435	1
	2/21/2018 5:00	3/2/2018 22:00	13,980	1.90	11,016,707	6.13	0.65	24	Atlas		20,931,744	1
	3/10/2018 0:45	3/10/2018 2:45	120	0.47	137,830	0.46	0.29	3	Atlas		64,780	1
	3/19/2018 17:45	3/19/2018 19:45	120	0.32	2,188	0.33	0.19	3	Atlas		700	1
	3/24/2018 9:00	3/24/2018 20:30	690	0.87	274,825	1.62	0.33	24	Atlas		239,098	1
	3/28/2018 5:45	3/28/2018 6:45	60	1.02	32,823	1.30	0.25	48	Atlas		33,479	1
	3/29/2018 19:15	3/29/2018 23:00	225	1.02	74,904	1.75	0.25	48	Atlas		76,402	1
	3/31/2018 22:15	4/1/2018 0:00	105	0.21	47,810	1.26	0.11	3	Atlas		10,040	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/1/2018 20:00	4/2/2018 0:45	285	0.68	286.915	1.97	0.37	6	Atlas		195.102	1
	4/3/2018 16:30	4/3/2018 22:45	375	0.30	417.337	2.28	0.16	6	Atlas		125.201	1
	4/14/2018 9:15	4/14/2018 10:15	60	1.07	40.140	0.25	0.35	24	Atlas		42.950	1
	4/14/2018 23:30	4/15/2018 10:00	630	1.07	118.664	1.09	0.35	24	Atlas		126.970	1
	4/23/2018 5:45	4/23/2018 11:30	345	0.67	18.448	0.80	0.31	12	Atlas		12.360	1
	5/5/2018 14:15	5/5/2018 19:15	300	1.49	303.748	1.40	0.63	6	Atlas		452.584	1
	5/27/2018 4:15	5/27/2018 4:45	30	0.31	23.774	0.49	0.21	3	Atlas		7.370	1
	5/31/2018 14:15	5/31/2018 14:30	15	0.13	69.946	0.52	0.09	3	Atlas		9.093	1
	6/1/2018 0:45	6/1/2018 3:45	180	1.18	245.427	1.72	0.69	3	Atlas		289.604	1
	6/10/2018 15:00	6/10/2018 15:30	30	0.41	49.276	0.21	0.19	12	Atlas		20.203	1
	6/11/2018 13:15	6/11/2018 14:00	45	0.25	422.788	0.63	0.17	1	Atlas		105.697	1
	6/22/2018 12:15	6/22/2018 13:15	60	0.40	112.038	0.75	0.21	1	Atlas		44.815	1
	6/25/2018 8:45	6/25/2018 10:30	105	0.88	139.227	1.68	0.36	12	Atlas		122.520	1
	7/3/2018 13:45	7/3/2018 14:30	45	0.59	160.702	1.40	0.35	3	Atlas		94.814	1
	7/15/2018 17:00	7/15/2018 17:00	-	0.13	9.385	0.10	0.06	12	Atlas		1.220	1
	7/16/2018 8:15	7/16/2018 8:30	15	0.17	44.841	0.14	0.13	1	Atlas		7.623	1
	7/20/2018 3:15	7/20/2018 3:30	15	1.45	20.638	0.31	0.78	3	Atlas		29.925	1
	7/20/2018 17:30	7/20/2018 20:15	165	1.45	304.203	1.25	0.78	3	Atlas		441.095	1
	7/22/2018 15:30	7/22/2018 16:15	45	0.51	120.098	1.75	0.37	1	Atlas		61.250	1
	7/30/2018 22:00	7/31/2018 11:45	825	1.99	157.151	1.95	0.87	6	Atlas		312.731	1
	8/15/2018 19:45	8/16/2018 13:00	1,035	2.38	402.143	2.39	0.92	24	Atlas		957.101	1
	8/19/2018 20:30	8/19/2018 21:45	75	0.20	479.035	2.60	0.16	1	Atlas		95.807	1
	8/20/2018 11:15	8/20/2018 12:30	75	0.34	316.356	2.88	0.23	1	Atlas		107.561	1
	8/31/2018 17:15	8/31/2018 18:15	60	0.42	317.486	0.37	0.28	1	Atlas		133.344	1
	9/6/2018 11:30	9/6/2018 12:00	30	0.46	122.778	0.86	0.37	1	Atlas		56.478	1
	9/8/2018 1:30	9/8/2018 5:45	255	2.43	3.351	0.83	1.11	6	Cloudburst		8.142	1
	9/8/2018 15:45	9/9/2018 7:15	930	2.43	392.953	2.90	1.11	6	Cloudburst		954.875	1
	9/21/2018 17:30	9/21/2018 18:00	30	0.41	85.112	0.47	0.24	1	Atlas		34.896	1
	9/22/2018 15:30	9/22/2018 17:45	135	1.21	65.698	0.83	0.46	24	Atlas		79.495	1
	9/23/2018 4:15	9/23/2018 8:30	255	1.21	290.159	1.66	0.46	24	Atlas		351.092	1
	9/24/2018 0:45	9/24/2018 21:15	1,230	1.30	587.658	2.96	0.57	6	Atlas		763.955	1
	9/25/2018 5:45	9/25/2018 6:45	60	0.09	444.689	3.01	0.08	1	Atlas		40.022	1
	9/25/2018 16:30	9/26/2018 5:15	765	0.68	445.612	3.66	0.30	12	Atlas		303.016	1
	10/10/2018 17:30	10/10/2018 17:30	-	0.10	39.560	0.12	0.08	1	Atlas		3.956	1
	10/15/2018 9:15	10/15/2018 9:30	15	0.12	46.558	0.55	0.09	1	Atlas		5.587	1
	10/26/2018 15:15	10/26/2018 15:45	30	0.25	20.180	0.34	0.10	24	Atlas		5.045	1
	10/31/2018 16:15	11/1/2018 18:30	1,635	1.54	147.864	1.81	0.55	24	Atlas		227.711	1
	11/5/2018 20:30	11/6/2018 1:15	285	0.82	300.930	2.41	0.44	6	Atlas		246.763	1
	11/14/2018 22:15	11/15/2018 4:00	345	0.43	233.874	0.59	0.20	12	Atlas		100.566	1
	12/1/2018 3:15	12/1/2018 15:15	720	1.38	218.411	1.47	0.60	12	Atlas		301.407	1
	12/15/2018 3:00	12/15/2018 11:30	510	1.55	179.021	1.53	0.64	12	Atlas		277.483	1
	12/27/2018 17:45	12/27/2018 19:00	75	0.29	170.259	0.57	0.18	1	Atlas		49.375	1
	12/31/2018 5:15	12/31/2018 20:15	900	1.20	220.230	1.50	0.46	24	Atlas		264.276	1
	1/4/2019 14:15	1/4/2019 20:15	360	0.59	143.873	1.78	0.29	3	Atlas		84.885	1
	1/19/2019 6:45	1/19/2019 20:45	840	0.77	77.744	0.82	0.30	24	Atlas		59.863	1
	1/23/2019 9:45	1/23/2019 22:15	750	0.82	156.333	1.67	0.32	12	Atlas		128.193	1
	2/5/2019 23:15	2/6/2019 11:30	735	1.35	72.610	0.68	0.43	48	Atlas		98.024	1
	2/7/2019 9:00	2/7/2019 23:45	885	1.35	171.270	1.46	0.43	48	Atlas		231.215	1
	2/10/2019 17:15	2/15/2019 15:45	7,110	2.52	687.811	3.97	0.78	48	Atlas		1,733.283	1
	2/20/2019 3:00	2/20/2019 20:45	1,065	1.55	303.235	1.60	0.72	6	Atlas		470.015	1
	2/23/2019 17:00	2/24/2019 10:00	1,020	0.76	492.664	2.38	0.42	6	Atlas		374.425	1
	2/28/2019 17:15	2/28/2019 17:45	30	0.09	42.756	0.88	0.04	6	Atlas		3.848	1
	3/9/2019 13:45	3/9/2019 19:45	360	1.02	247.246	1.15	0.49	6	Atlas		252.191	1
	3/14/2019 6:00	3/14/2019 8:15	135	0.36	68.933	1.49	0.20	6	Atlas		24.816	1
	3/14/2019 17:15	3/14/2019 19:45	150	0.67	176.228	2.13	0.48	1	Atlas		118.073	1
	3/30/2019 15:45	3/30/2019 20:45	300	0.74	387.650	1.14	0.39	6	Atlas		286.861	1
	4/7/2019 6:00	4/7/2019 13:45	465	0.57	226.495	0.77	0.29	3	Atlas		129.102	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.08	113.238	0.67	0.05	3	Atlas		9.059	1
	4/14/2019 1:00	4/14/2019 5:45	285	0.91	347.903	1.60	0.44	6	Atlas		316.592	1
	4/18/2019 22:45	4/18/2019 23:15	30	3.01	6.301	1.43	0.98	48	Atlas		18.967	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/19/2019 18:15	4/20/2019 22:45	1,710	3.01	367,536	3.99	0.98	48	Atlas		1,106,284	1
	4/24/2019 20:30	4/24/2019 21:45	75	0.59	213,915	3.45	0.32	1	Atlas		126,210	1
	4/25/2019 18:00	4/26/2019 3:30	570	0.43	203,949	4.03	0.23	1	Atlas		87,698	1
	5/3/2019 4:45	5/3/2019 8:45	240	0.95	294,543	1.10	0.51	6	Atlas		279,816	1
	5/4/2019 17:00	5/4/2019 17:45	45	0.19	84,063	1.27	0.11	3	Atlas		15,972	1
	5/19/2019 23:00	5/19/2019 23:30	30	0.09	375,667	0.27	0.08	1	Atlas		33,810	1
	5/26/2019 13:45	5/26/2019 15:45	120	0.69	161,391	0.80	0.43	3	Atlas		111,360	1
	5/29/2019 9:00	5/29/2019 14:00	300	0.64	191,858	1.41	0.35	6	Atlas		122,789	1
	5/30/2019 11:15	5/30/2019 11:45	30	0.19	78,037	1.56	0.09	1	Atlas		14,827	1
	6/5/2019 20:45	6/5/2019 21:30	45	0.53	229,158	0.65	0.37	1	Atlas		121,464	1
	6/7/2019 21:15	6/8/2019 8:30	675	0.60	64,662	1.20	0.26	12	Atlas		38,797	1
	6/9/2019 15:15	6/9/2019 19:45	270	1.03	380,803	2.50	0.59	3	Atlas		392,227	1
	6/16/2019 5:45	6/16/2019 6:15	30	0.16	142,650	1.28	0.11	3	Atlas		22,824	1
	6/16/2019 19:45	6/17/2019 8:30	765	1.23	284,360	1.56	0.55	12	Atlas		349,763	1
	6/18/2019 4:45	6/18/2019 5:00	15	1.50	5,622	1.66	1.52	1	Atlas		8,433	1
	6/18/2019 16:00	6/18/2019 20:15	255	1.50	281,200	3.03	1.52	1	Atlas		421,800	1
	6/21/2019 19:30	6/21/2019 21:30	120	0.34	236,832	3.44	0.23	3	Atlas		80,523	1
	6/22/2019 7:45	6/22/2019 9:30	105	0.29	224,721	3.60	0.19	3	Atlas		65,169	1
	6/23/2019 16:00	6/23/2019 16:45	45	0.42	197,452	3.79	0.33	1	Atlas		82,930	1
	6/24/2019 13:15	6/24/2019 15:15	120	0.48	331,679	3.11	0.30	3	Atlas		159,206	1
	7/3/2019 14:00	7/3/2019 14:15	15	0.18	76,872	0.21	0.11	3	Atlas		13,837	1
	7/18/2019 1:00	7/18/2019 1:30	30	0.16	348,213	0.29	0.14	1	Atlas		55,714	1
	7/29/2019 23:30	7/30/2019 0:15	45	0.44	136,757	0.44	0.27	3	Atlas		60,173	1
	8/22/2019 3:15	8/22/2019 4:45	90	0.21	101,181	0.34	0.14	3	Atlas		21,248	1
	8/26/2019 11:15	8/26/2019 14:45	210	0.51	371,947	0.86	0.25	6	Atlas		189,693	1
	8/27/2019 17:00	8/27/2019 17:30	30	0.38	138,450	1.23	0.32	1	Atlas		52,611	1
	10/6/2019 15:00	10/6/2019 20:15	315	1.01	101,412	0.81	0.39	6	Atlas		102,426	1
	10/11/2019 11:15	10/11/2019 11:15	-	0.42	3,602	1.40	0.21	1	Atlas		1,513	1
	10/15/2019 22:45	10/15/2019 23:15	30	0.36	126,217	0.73	0.24	1	Atlas		45,438	1
	10/26/2019 5:30	10/26/2019 9:15	225	1.18	104,240	1.04	0.45	6	Atlas		123,003	1
	10/26/2019 19:45	10/26/2019 19:45	-	1.18	6,116	1.28	0.45	6	Atlas		7,217	1
	10/30/2019 14:00	10/30/2019 15:30	90	0.87	194,922	2.01	0.46	3	Atlas		169,582	1
	10/31/2019 6:15	10/31/2019 8:15	120	0.72	210,519	2.71	0.38	6	Atlas		151,574	1
	11/26/2019 22:00	11/27/2019 5:45	465	0.64	154,473	1.23	0.29	12	Atlas		98,863	1
	11/30/2019 3:15	11/30/2019 17:30	855	1.59	366,149	2.39	0.62	12	Atlas		582,177	1
	12/9/2019 20:30	12/9/2019 20:30	-	0.21	52,643	0.24	0.08	1	Atlas		11,055	1
	12/16/2019 14:30	12/16/2019 19:15	285	0.73	176,390	1.27	0.32	12	Atlas		128,765	1
	12/29/2019 13:15	12/30/2019 1:30	735	1.13	122,281	1.10	0.42	24	Atlas		138,178	1
	1/11/2020 10:45	1/12/2020 0:00	795	0.74	569	1.12	0.34	6	Atlas		421	1
	3/10/2020 7:45	3/16/2020 23:00	9,555	0.46	53,826	1.37	0.24	1	Atlas		24,760	1
	3/19/2020 12:00	3/19/2020 23:00	660	0.53	9,843	1.78	0.20	24	Atlas		5,217	1
	3/28/2020 22:15	3/28/2020 23:00	45	0.22	1,277	0.41	0.18	1	Atlas		281	1
	5/16/2020 3:00	5/17/2020 0:00	1,260	1.05	5,994	1.25	0.40	24	Atlas		6,294	1
	5/23/2020 17:45	5/24/2020 0:00	375	0.22	1,073	0.76	0.13	3	Atlas		236	1
	6/4/2020 19:00	6/5/2020 0:00	300	0.46	1,635	0.56	0.26	3	Atlas		752	1
	6/21/2020 12:30	6/22/2020 0:00	690	0.37	13,468	0.47	0.21	1	Atlas		4,983	1
	6/22/2020 23:15	6/24/2020 0:00	1,485	0.75	14,137	1.22	0.35	3	Atlas		10,603	1
CSO167 Total											**126,620,100**	**453**
CSO174	10/30/2013 5:00	10/30/2013 6:00	60	1.69	342,650	1.68	0.93	1	Atlas		579,078	1
	11/17/2013 6:00	11/17/2013 19:30	810	2.68	431,122	2.86	1.89	6	Cloudburst		1,155,407	1
	12/5/2013 7:30	12/5/2013 7:45	15	0.76	73,822	0.16	0.25	48	Atlas	Retained by Sneads Branch	56,105	1
	12/21/2013 8:30	12/21/2013 12:00	210	2.41	11,163	1.20	0.90	24	Atlas		26,904	1
	12/21/2013 21:30	12/22/2013 0:45	195	2.41	462,341	2.32	0.90	24	Atlas		1,114,242	1
	1/11/2014 0:45	1/11/2014 3:30	165	1.03	32,041	1.37	0.55	6	Atlas	Retained by Sneads Branch	33,002	1
	2/4/2014 20:15	2/4/2014 23:45	210	0.51	270,412	0.97	0.25	6	Atlas	Retained by Sneads Branch	137,910	1
	2/17/2014 16:15	2/17/2014 17:00	45	0.56	411,145	1.08	0.34	3	Atlas	Retained by Sneads Branch	230,241	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/2/2014 11:00	3/2/2014 11:00	-	0.62	77	0.33	0.24	24	Atlas	Retained by Sneads Branch	48	1
	3/29/2014 6:45	3/29/2014 7:30	45	1.05	99.331	0.87	0.48	12	Atlas	Retained by Sneads Branch	104,298	1
	4/3/2014 12:15	4/4/2014 7:00	1,125	2.67	303.192	3.96	0.93	24	Atlas		809,522	1
	4/7/2014 10:45	4/7/2014 12:15	90	0.79	610.020	3.54	0.47	3	Atlas	Retained by Sneads Branch	481,916	1
	4/14/2014 21:00	4/14/2014 21:00	-	1.02	5,453	0.73	0.39	24	Atlas	Retained by Sneads Branch	5,562	1
	4/28/2014 4:15	4/28/2014 7:00	165	1.70	640.987	1.34	0.70	3	Atlas	Retained by Sneads Branch	1,089,678	1
	4/28/2014 17:45	4/28/2014 17:45	-	1.70	5,666	1.71	0.70	3	Atlas	Retained by Sneads Branch	9,633	1
	5/9/2014 19:30	5/9/2014 19:45	15	1.63	72.155	0.33	0.63	24	Atlas	Retained by Sneads Branch	117,612	1
	5/10/2014 5:45	5/10/2014 15:15	570	1.63	506.517	1.69	0.63	24	Atlas	Retained by Sneads Branch	825,622	1
	5/14/2014 7:15	5/14/2014 7:15	-	1.09	28.353	1.94	0.42	24	Atlas	Retained by Sneads Branch	30,905	1
	5/14/2014 18:15	5/14/2014 18:30	15	1.09	9,633	2.55	0.42	24	Atlas	Retained by Sneads Branch	10,500	1
	5/22/2014 3:00	5/22/2014 3:45	45	0.37	322.568	0.42	0.17	12	Atlas	Retained by Sneads Branch	119,350	1
	5/29/2014 21:15	5/29/2014 21:15	-	0.66	2,144.521	1.00	0.56	1	Atlas	Retained by Sneads Branch	1,415,384	1
	5/30/2014 14:00	5/30/2014 14:15	15	0.13	1,272.892	1.13	0.08	3	Atlas	Retained by Sneads Branch	165,476	1
	6/11/2014 14:15	6/11/2014 14:30	15	0.12	641.183	0.27	0.08	1	Atlas	Retained by Sneads Branch	76,942	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.20	292.655	0.48	0.15	1	Atlas	Retained by Sneads Branch	58,531	1
	7/2/2014 16:30	7/2/2014 16:30	-	0.08	179.213	0.27	0.07	1	Atlas	Retained by Sneads Branch	14,337	1
	7/13/2014 22:00	7/13/2014 23:15	75	0.70	517.781	2.06	0.35	3	Atlas	Retained by Sneads Branch	362,447	1
	7/26/2014 21:45	7/27/2014 9:30	705	1.43	361.059	1.47	0.66	12	Atlas	Retained by Sneads Branch	516,314	1
	8/8/2014 5:45	8/8/2014 7:30	105	0.90	329.759	0.73	0.43	6	Atlas	Retained by Sneads Branch	296,783	1
	8/10/2014 4:00	8/10/2014 4:00	-	0.71	3.015	1.54	0.58	1	Atlas	Retained by Sneads Branch	2,141	1
	8/11/2014 15:30	8/11/2014 15:45	15	0.51	895.112	2.20	0.40	1	Atlas	Retained by Sneads Branch	456,507	1
	8/17/2014 9:45	8/17/2014 10:15	30	0.72	20.233	1.12	0.27	24	Atlas	Retained by Sneads Branch	14,568	1
	8/22/2014 19:15	8/22/2014 19:30	15	0.35	218.489	1.05	0.26	1	Atlas	Retained by Sneads Branch	76,471	1
	8/23/2014 16:45	8/23/2014 20:30	225	0.59	364.808	1.49	0.28	3	Atlas	Retained by Sneads Branch	215,237	1
	8/27/2014 16:45	8/27/2014 17:15	30	0.27	1,116.756	1.29	0.18	3	Atlas	Retained by Sneads Branch	301,524	1
	8/30/2014 15:15	8/30/2014 15:30	15	0.60	310.022	1.35	0.38	1	Atlas	Retained by Sneads Branch	186,013	1
	9/2/2014 8:30	9/2/2014 8:30	-	0.40	80.303	1.22	0.24	3	Atlas	Retained by Sneads Branch	32,121	1
	9/11/2014 0:45	9/11/2014 6:15	330	1.90	857.154	1.85	1.37	3	Atlas		1,628,592	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.09	153.190	1.50	0.47	3	Atlas	Retained by Sneads Branch	166,977	1
	10/13/2014 23:30	10/13/2014 23:45	15	1.00	108.728	1.99	0.44	12	Atlas	Retained by Sneads Branch	108,728	1
	10/14/2014 8:00	10/14/2014 8:30	30	1.00	72.086	2.60	0.44	12	Atlas	Retained by Sneads Branch	72,086	1
	11/23/2014 17:45	11/23/2014 17:45	-	0.66	10.411	0.82	0.31	6	Atlas	Retained by Sneads Branch	6,871	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/6/2014 2:45	12/6/2014 5:45	180	1.77	104.766	2.60	0.57	48	Atlas	Retained by Sneads Branch	185,435	1
	3/3/2015 23:30	3/4/2015 5:15	345	1.66	11,086	0.73	0.54	48	Atlas	Retained by Sneads Branch	18,403	1
	3/10/2015 10:45	3/10/2015 14:00	195	1.31	494.698	2.94	0.59	12	Atlas	Retained by Sneads Branch	648,055	1
	3/14/2015 1:15	3/14/2015 4:00	165	1.84	78.551	3.09	0.69	24	Atlas	Retained by Sneads Branch	144,533	1
	3/26/2015 4:30	3/26/2015 4:45	15	0.42	113.733	0.49	0.17	12	Atlas	Retained by Sneads Branch	47,768	1
	4/2/2015 10:30	4/2/2015 15:30	300	5.36	114.960	0.94	20.93	6	Cloudburst	Retained by Sneads Branch	616,183	1
	4/3/2015 0:15	4/3/2015 15:30	915	5.36	1,506.464	5.24	20.93	6	Cloudburst	Retained by Sneads Branch	8,074,648	1
	4/7/2015 9:15	4/7/2015 17:30	495	0.84	415.081	6.19	0.36	12	Atlas	Retained by Sneads Branch	348,668	1
	4/8/2015 18:00	4/8/2015 18:15	15	0.16	1,178.700	6.36	0.09	3	Atlas	Retained by Sneads Branch	188,592	1
	4/9/2015 11:30	4/9/2015 12:00	30	0.22	538.691	6.11	0.19	1	Atlas	Retained by Sneads Branch	118,512	1
	10/27/2015 18:00	10/28/2015 6:00	720	2.33	17.489	2.49	0.77	24	Atlas	Retained by Sneads Branch	40,749	1
	11/6/2015 3:15	11/6/2015 4:30	75	0.77	560.958	0.85	0.47	3	Atlas	Retained by Sneads Branch	431,938	1
	11/12/2015 0:00	11/12/2015 1:00	60	0.29	278.552	1.55	0.18	3	Atlas	Retained by Sneads Branch	80,780	1
	11/18/2015 9:15	11/18/2015 14:15	300	1.42	459.015	1.74	0.71	6	Atlas	Retained by Sneads Branch	651,802	1
	11/30/2015 21:45	12/1/2015 3:45	360	0.74	64.384	1.58	0.33	12	Atlas	Retained by Sneads Branch	47,644	1
	12/22/2015 3:00	12/22/2015 4:00	60	0.51	321.743	0.72	0.27	6	Atlas	Retained by Sneads Branch	164,089	1
	12/23/2015 19:15	12/23/2015 20:30	75	0.76	1,750.543	1.50	0.58	1	Atlas	Retained by Sneads Branch	1,330,413	1
	12/27/2015 10:30	12/27/2015 16:30	360	1.85	818.373	3.09	0.61	3	Atlas	Retained by Sneads Branch	1,513,990	1
	12/28/2015 16:15	12/28/2015 16:30	15	1.85	1.172	3.56	0.61	3	Atlas	Retained by Sneads Branch	2,169	1
	2/2/2016 20:00	2/3/2016 0:45	285	1.21	520.510	1.24	0.57	6	Atlas	Retained by Sneads Branch	629,817	1
	2/21/2016 4:30	2/21/2016 10:45	375	1.09	62.904	1.26	0.50	12	Atlas	Retained by Sneads Branch	68,565	1
	2/24/2016 0:15	2/24/2016 7:45	450	2.08	349.273	2.86	0.81	12	Atlas	Retained by Sneads Branch	726,487	1
	3/1/2016 12:15	3/1/2016 13:00	45	0.27	45.893	2.31	0.14	3	Atlas	Retained by Sneads Branch	12,391	1
	3/10/2016 16:00	3/10/2016 17:00	60	1.12	22.396	0.95	0.36	48	Atlas	Retained by Sneads Branch	25,083	1
	3/12/2016 20:30	3/12/2016 23:30	180	0.85	113.224	1.68	0.32	24	Atlas	Retained by Sneads Branch	96,240	1
	3/13/2016 9:15	3/13/2016 10:15	60	0.85	216.041	1.97	0.32	24	Atlas	Retained by Sneads Branch	183,635	1
	3/24/2016 17:45	3/24/2016 18:00	15	0.60	437.283	0.75	0.46	1	Atlas	Retained by Sneads Branch	262,370	1
	3/27/2016 21:15	3/27/2016 22:00	45	0.85	1,233.906	1.42	0.60	1	Atlas	Retained by Sneads Branch	1,048,820	1
	3/31/2016 22:15	3/31/2016 23:30	75	1.18	132.779	2.02	0.45	24	Atlas	Retained by Sneads Branch	156,679	1
	4/11/2016 17:30	4/11/2016 18:15	45	0.91	128.186	0.85	0.44	6	Atlas	Retained by Sneads Branch	116,649	1
	4/27/2016 21:00	4/27/2016 22:15	75	0.64	254.847	1.22	0.32	1	Atlas	Retained by Sneads Branch	163,102	1
	5/1/2016 15:00	5/1/2016 16:15	75	0.28	1,893.682	1.71	0.19	3	Atlas	Retained by Sneads Branch	530,231	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/7/2016 16:45	5/7/2016 20:15	210	0.84	74.865	1.29	0.44	6	Atlas	Retained by Sneads Branch	62,887	1
	5/10/2016 18:45	5/10/2016 22:00	195	0.90	379,834	1.95	0.34	12	Atlas	Retained by Sneads Branch	341,851	1
	5/20/2016 14:30	5/20/2016 16:00	90	0.57	764,949	1.25	0.32	3	Atlas	Retained by Sneads Branch	436,021	1
	6/2/2016 15:30	6/2/2016 16:00	30	0.46	580,700	0.57	0.37	1	Atlas	Retained by Sneads Branch	267,122	1
	6/14/2016 17:00	6/14/2016 17:15	15	0.64	290,011	0.68	0.41	3	Atlas	Retained by Sneads Branch	185,607	1
	6/23/2016 16:15	6/23/2016 22:45	390	1.60	919,902	1.75	0.86	6	Atlas	Retained by Sneads Branch	1,471,843	1
	10/20/2016 10:15	10/20/2016 16:45	390	0.54	82,776	0.43	0.21	24	Atlas	Retained by Sneads Branch	44,699	1
	12/6/2016 9:30	12/6/2016 9:30	-	0.86	9,852	0.60	0.39	12	Atlas	Retained by Sneads Branch	8,473	1
	12/17/2016 18:45	12/18/2016 1:30	405	2.52	865,946	2.81	1.58	12	Cloudburst	Retained by Sneads Branch	2,182,183	1
	1/10/2017 20:00	1/10/2017 20:00	-	0.15	42,893	0.38	0.10	1	Atlas	Retained by Sneads Branch	6,434	1
	1/12/2017 15:45	1/12/2017 15:45	-	0.51	15,796	0.53	0.26	6	Atlas	Retained by Sneads Branch	8,056	1
	1/17/2017 0:15	1/17/2017 3:45	210	0.52	111,077	2.02	0.24	12	Atlas	Retained by Sneads Branch	57,760	1
	1/19/2017 19:15	1/20/2017 1:00	345	1.13	62,681	2.35	0.52	12	Atlas	Retained by Sneads Branch	70,830	1
	2/24/2017 19:00	2/24/2017 19:30	30	0.57	809,942	0.64	0.49	1	Atlas	Retained by Sneads Branch	461,667	1
	3/1/2017 3:15	3/1/2017 9:00	345	1.00	925,334	1.87	0.52	6	Atlas	Retained by Sneads Branch	925,334	1
	3/7/2017 7:45	3/7/2017 8:00	15	0.54	174,393	1.57	0.18	48	Atlas	Retained by Sneads Branch	94,172	1
	3/30/2017 20:45	3/30/2017 20:45	-	0.47	1,370	0.87	0.23	6	Atlas	Retained by Sneads Branch	644	1
	4/16/2017 17:30	4/16/2017 20:15	165	1.09	379,719	1.31	0.48	6	Atlas	Retained by Sneads Branch	413,894	1
	4/27/2017 7:00	4/27/2017 7:00	-	0.21	154,348	0.86	0.14	1	Atlas	Retained by Sneads Branch	32,413	1
	4/29/2017 1:45	4/29/2017 3:30	105	1.01	1,361,152	1.31	0.51	3	Atlas	Retained by Sneads Branch	1,374,764	1
	5/1/2017 4:00	5/1/2017 4:00	-	0.25	130,000	1.45	0.13	3	Atlas	Retained by Sneads Branch	32,500	1
	5/4/2017 20:00	5/5/2017 6:45	645	1.73	162,718	2.55	0.58	24	Atlas	Retained by Sneads Branch	281,503	1
	5/20/2017 18:45	5/21/2017 5:45	660	1.03	872,391	1.03	0.46	12	Atlas	Retained by Sneads Branch	898,563	1
	5/24/2017 18:15	5/24/2017 19:00	45	0.58	106,178	1.47	0.21	24	Atlas	Retained by Sneads Branch	61,583	1
	6/5/2017 8:45	6/5/2017 9:00	15	0.07	1,304,786	0.08	0.03	12	Atlas	Retained by Sneads Branch	91,335	1
	6/5/2017 18:30	6/5/2017 18:45	15	0.24	537,329	0.31	0.20	1	Atlas	Retained by Sneads Branch	128,959	1
	6/15/2017 3:00	6/15/2017 4:15	75	0.70	739,231	0.68	0.45	3	Atlas	Retained by Sneads Branch	517,462	1
	6/22/2017 18:45	6/22/2017 19:15	30	0.33	178,400	0.49	0.18	6	Atlas	Retained by Sneads Branch	58,872	1
	6/23/2017 15:30	6/23/2017 16:15	45	0.75	525,785	1.05	0.36	6	Atlas	Retained by Sneads Branch	394,339	1
	6/30/2017 21:00	6/30/2017 21:30	30	0.64	1,733,413	0.72	0.53	1	Atlas	Retained by Sneads Branch	1,109,384	1
	7/6/2017 13:00	7/6/2017 13:00	-	0.53	2,577	1.17	0.26	6	Atlas	Retained by Sneads Branch	1,366	1
	7/7/2017 21:00	7/7/2017 21:15	15	0.27	201,052	0.91	0.18	1	Atlas	Retained by Sneads Branch	54,284	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/23/2017 2:30	7/23/2017 7:00	270	1.05	353,895	0.73	0.48	12	Atlas	Retained by Sneads Branch	371,590	1
	7/28/2017 9:45	7/28/2017 10:15	30	0.27	108,578	1.32	0.20	1	Atlas	Retained by Sneads Branch	29,316	1
	8/2/2017 13:00	8/2/2017 13:15	15	0.01	5,412,700	0.42	0.01	1	Atlas	Retained by Sneads Branch	54,127	1
	8/6/2017 16:45	8/6/2017 23:45	420	0.53	175,445	0.65	0.23	12	Atlas	Retained by Sneads Branch	92,986	1
	8/17/2017 15:00	8/17/2017 18:00	180	0.72	383,883	0.72	0.39	6	Atlas	Retained by Sneads Branch	276,396	1
	8/22/2017 16:00	8/22/2017 16:30	30	0.54	425,691	1.27	0.35	1	Atlas	Retained by Sneads Branch	229,873	1
	8/29/2017 19:15	8/29/2017 19:30	15	0.12	1,399,008	0.16	0.09	1	Atlas	Retained by Sneads Branch	167,881	1
	9/1/2017 10:15	9/2/2017 0:30	855	3.08	195,000	2.96	1.53	24	Cloudburst	Retained by Sneads Branch	600,601	1
	9/19/2017 8:00	9/19/2017 9:15	75	0.40	213,650	0.71	0.26	3	Atlas		85,460	1
	10/7/2017 21:45	10/7/2017 22:15	30	1.68	175,205	0.54	0.64	24	Atlas		294,345	1
	10/8/2017 13:45	10/8/2017 14:30	45	1.68	206,445	1.57	0.64	24	Atlas		346,827	1
	10/10/2017 15:15	10/10/2017 15:15	-	0.65	4,108	2.06	0.32	3	Atlas		2,670	1
	10/23/2017 6:30	10/23/2017 6:45	15	0.49	70,373	0.31	0.26	6	Atlas	Retained by Sneads Branch	34,483	1
	10/27/2017 17:45	10/27/2017 17:45	-	0.80	9,788	0.73	0.37	12	Atlas	Retained by Sneads Branch	7,830	1
	11/3/2017 4:30	11/3/2017 5:45	75	1.52	1,177,787	2.44	2.66	1	Atlas	Retained by Sneads Branch	1,790,236	1
	11/6/2017 2:00	11/6/2017 2:15	15	0.19	470,163	1.83	0.11	1	Atlas	Retained by Sneads Branch	89,331	1
	11/18/2017 17:15	11/18/2017 17:30	15	0.35	57,580	0.62	0.20	1	Atlas	Retained by Sneads Branch	20,153	1
	5/5/2018 14:30	5/5/2018 15:15	45	1.31	1,055,732	0.83	0.50	12	Atlas	Retained by Sneads Branch	1,383,009	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.37	464,551	0.37	0.30	1	Atlas	Retained by Sneads Branch	171,884	1
	6/1/2018 0:30	6/1/2018 1:15	45	1.57	92,623	1.74	0.84	1	Atlas	Retained by Sneads Branch	145,418	1
	6/26/2018 12:30	6/26/2018 12:45	15	0.71	1,570,682	1.70	0.30	12	Atlas		1,115,184	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.40	2,805,140	1.03	0.33	1	Atlas		1,122,056	1
	7/15/2018 18:15	7/15/2018 18:15	-	0.10	757,080	0.10	0.05	3	Atlas	Retained by Sneads Branch	75,708	1
	7/31/2018 2:00	7/31/2018 5:00	180	2.14	380,788	1.61	0.89	6	Atlas	Retained by Sneads Branch	814,887	1
	7/31/2018 13:15	7/31/2018 13:15	-	2.14	57,670	2.17	0.89	6	Atlas	Retained by Sneads Branch	123,413	1
	9/8/2018 18:30	9/8/2018 22:15	225	2.36	1,533,211	2.54	0.97	6	Atlas	Retained by Sneads Branch	3,618,378	1
	9/23/2018 5:30	9/23/2018 6:45	75	1.28	481,629	1.49	0.48	24	Atlas		616,485	1
	9/24/2018 7:30	9/24/2018 11:00	210	1.29	266,049	2.56	0.60	6	Atlas		343,203	1
	9/25/2018 17:00	9/25/2018 17:00	-	0.67	159,030	3.08	0.30	12	Atlas		106,550	1
	11/1/2018 0:45	11/1/2018 1:00	15	1.73	141,464	1.38	0.62	24	Atlas	Retained by Sneads Branch	244,733	1
	11/5/2018 22:00	11/5/2018 22:00	-	0.95	77,556	2.34	0.51	6	Atlas	Retained by Sneads Branch	73,678	1
	2/6/2019 9:45	2/6/2019 9:45	-	1.40	43,014	0.63	0.45	48	Atlas	Retained by Sneads Branch	60,219	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.40	78,091	1.01	0.45	48	Atlas	Retained by Sneads Branch	109,327	1
	2/12/2019 4:45	2/12/2019 4:45	-	2.48	44,906	3.52	0.77	48	Atlas		111,368	1
	2/20/2019 5:15	2/20/2019 6:30	75	1.42	481,074	1.37	0.67	6	Atlas		683,125	1
	3/14/2019 17:15	3/14/2019 17:30	15	0.21	196,481	1.42	0.14	3	Atlas	Retained by Sneads Branch	41,261	1
	4/14/2019 2:00	4/14/2019 2:00	-	0.77	153,690	1.24	0.36	6	Atlas	Retained by Sneads Branch	118,341	1
	4/23/2019 17:45	4/23/2019 18:00	15	0.24	4,533,275	3.03	0.21	1	Atlas		1,087,986	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/24/2019 20:45	4/24/2019 21:00	15	0.58	209.209	3.39	0.28	1	Atlas		121,341	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.80	132.138	0.91	0.58	1	Atlas	Retained by Sneads Branch	105,710	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.59	1,135.819	2.16	0.31	3	Atlas	Retained by Sneads Branch	670,133	1
	6/16/2019 20:00	6/16/2019 22:00	120	1.40	668.889	1.41	0.63	6	Atlas	Retained by Sneads Branch	936,445	1
	6/18/2019 17:15	6/18/2019 17:30	15	0.24	658.650	1.89	0.09	24	Atlas	Retained by Sneads Branch	158,076	1
	6/21/2019 20:00	6/21/2019 20:00	-	0.50	1.478	2.31	0.33	3	Atlas		739	1
	6/22/2019 7:00	6/22/2019 7:15	15	0.50	258.410	2.64	0.33	3	Atlas		129,205	1
	6/23/2019 16:15	6/23/2019 16:45	30	0.41	2,040.698	3.00	0.32	1	Atlas		836,686	1
	6/24/2019 13:45	6/24/2019 14:30	45	0.42	2,012.148	2.15	0.26	3	Atlas		845,102	1
	7/18/2019 0:45	7/18/2019 1:30	45	0.44	3,298.034	0.53	0.30	1	Atlas		1,451,135	1
	7/29/2019 23:45	7/30/2019 0:15	30	0.51	782.480	0.51	0.33	3	Atlas	Retained by Sneads Branch	399,065	1
	8/7/2019 4:45	8/7/2019 5:00	15	0.20	1,562.710	0.21	0.17	1	Atlas	Retained by Sneads Branch	312,542	1
	8/26/2019 11:15	8/26/2019 13:30	135	0.34	1,216.471	0.73	0.16	6	Atlas	Retained by Sneads Branch	413,600	1
	8/27/2019 17:15	8/27/2019 17:15	-	0.25	47.020	0.98	0.21	1	Atlas	Retained by Sneads Branch	11,755	1
	10/6/2019 14:45	10/6/2019 20:00	315	1.02	193.383	0.83	0.39	6	Atlas	Retained by Sneads Branch	197,251	1
	10/15/2019 22:45	10/15/2019 23:00	15	0.57	504.330	0.85	0.44	1	Atlas	Retained by Sneads Branch	287,468	1
	10/26/2019 5:30	10/26/2019 9:00	210	1.21	205.974	1.01	0.47	24	Atlas	Retained by Sneads Branch	249,229	1
	10/30/2019 14:15	10/30/2019 15:00	45	0.84	863.430	1.97	0.43	3	Atlas	Retained by Sneads Branch	725,281	1
	10/31/2019 6:30	10/31/2019 7:15	45	0.67	321.834	2.59	0.36	6	Atlas	Retained by Sneads Branch	215,629	1
	11/27/2019 0:30	11/27/2019 1:00	30	0.63	222.021	1.05	0.28	6	Atlas	Retained by Sneads Branch	139,873	1
	11/30/2019 4:30	11/30/2019 16:30	720	2.05	546.507	2.79	0.82	12	Atlas	Retained by Sneads Branch	1,120,339	1
	12/16/2019 17:15	12/16/2019 18:30	75	0.67	378.454	1.19	0.31	6	Atlas	Retained by Sneads Branch	253,564	1
	12/29/2019 20:30	12/29/2019 21:00	30	1.07	161.179	0.99	0.39	12	Atlas	Retained by Sneads Branch	172,461	1
	1/10/2020 20:15	1/10/2020 20:30	15	0.34	237.141	0.35	0.19	3	Atlas	Retained by Sneads Branch	80,628	1
	1/11/2020 11:00	1/11/2020 16:45	345	0.72	559.347	1.08	0.35	6	Atlas	Retained by Sneads Branch	402,730	1
	2/12/2020 17:15	2/12/2020 19:00	105	0.77	1,314.490	1.21	0.37	3	Atlas	Retained by Sneads Branch	1,012,157	1
	3/10/2020 8:15	3/10/2020 8:30	15	0.33	440.391	0.34	0.15	12	Atlas	Retained by Sneads Branch	145,329	1
	3/12/2020 17:30	3/12/2020 23:00	330	0.49	482.951	0.82	0.22	12	Atlas	Retained by Sneads Branch	236,646	1
	3/14/2020 13:00	3/14/2020 13:00	-	0.45	15.184	1.08	0.21	12	Atlas	Retained by Sneads Branch	6,833	1
	3/18/2020 16:00	3/18/2020 16:15	15	0.42	61.595	1.33	0.20	6	Atlas	Retained by Sneads Branch	25,870	1
	3/19/2020 12:00	3/19/2020 12:45	45	0.30	1,640.673	1.62	0.15	3	Atlas	Retained by Sneads Branch	492,202	1
	3/20/2020 4:00	3/20/2020 4:00	-	0.08	1,613	1.29	0.07	1	Atlas	Retained by Sneads Branch	129	1
	3/24/2020 18:45	3/24/2020 18:45	-	0.16	35.869	0.94	0.08	6	Atlas	Retained by Sneads Branch	5,739	1
	3/28/2020 22:30	3/28/2020 23:00	30	0.27	1,942.470	0.45	0.23	1	Atlas	Retained by Sneads Branch	524,467	1
	4/8/2020 22:30	4/8/2020 22:30	-	0.57	5.360	0.39	0.38	3	Atlas	Retained by Sneads Branch	3,055	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/12/2020 17:00	4/13/2020 3:15	615	0.91	128,971	1.48	0.37	12	Atlas	Retained by Sneads Branch	117,364	1
	5/8/2020 10:30	5/8/2020 11:15	45	0.59	109,664	0.65	0.27	12	Atlas	Retained by Sneads Branch	64,702	1
	5/15/2020 23:45	5/16/2020 7:30	465	1.37	115,891	1.51	0.51	24	Atlas	Retained by Sneads Branch	158,771	1
	5/18/2020 7:45	5/18/2020 7:45	-	0.41	11,156	1.92	0.17	12	Atlas	Retained by Sneads Branch	4,574	1
	5/23/2020 18:00	5/23/2020 18:00	-	0.09	270,856	0.55	0.05	6	Atlas	Retained by Sneads Branch	24,377	1
	6/4/2020 15:45	6/4/2020 15:45	-	0.46	41,772	0.28	0.23	6	Atlas	Retained by Sneads Branch	19,215	1
	6/21/2020 11:45	6/21/2020 12:00	15	0.47	447,379	0.35	0.26	1	Atlas	Retained by Sneads Branch	210,268	1
	6/22/2020 22:30	6/23/2020 0:15	105	0.79	991,415	1.17	0.35	3	Atlas	Retained by Sneads Branch	783,218	1
	6/27/2020 18:15	6/27/2020 18:30	15	0.24	361,804	1.40	0.13	1	Atlas	Retained by Sneads Branch	86,833	1
	6/29/2020 3:30	6/29/2020 4:45	75	0.60	932,103	1.59	0.37	3	Atlas	Retained by Sneads Branch	559,262	1
	CSO174 Total										**75,240,145**	**188**
CSO178	7/1/2012 19:45	7/1/2012 21:30	105	0.40	208,450	0.37	0.29	1	Atlas		83,380	1
	7/5/2012 2:15	7/5/2012 3:30	75	0.09	343,156	0.50	0.08	1	Atlas		30,884	1
	7/8/2012 12:45	7/8/2012 16:30	225	0.22	1,541,973	0.69	0.16	1	Atlas		339,234	1
	7/19/2012 13:45	7/20/2012 0:45	660	0.98	1,310,759	1.76	0.77	1	Atlas		1,284,544	1
	7/26/2012 21:45	7/27/2012 4:00	375	0.07	74,357	0.77	0.03	12	Atlas		5,205	1
	7/27/2012 19:45	7/27/2012 22:45	180	0.73	367,222	1.30	0.50	1	Atlas		268,072	1
	8/3/2012 2:15	8/3/2012 10:45	510	0.24	78,329	1.01	0.11	3	Atlas		18,799	1
	8/4/2012 22:30	8/4/2012 22:30	-	0.08	315,575	0.33	0.07	1	Atlas		25,246	1
	8/5/2012 8:15	8/5/2012 8:45	30	0.02	213,750	0.35	0.01	3	Atlas		4,275	1
	8/13/2012 11:00	8/13/2012 12:45	105	0.11	74,591	0.12	0.07	3	Atlas		8,205	1
	8/16/2012 20:15	8/17/2012 0:15	240	0.55	246,664	0.68	0.31	3	Atlas		135,665	1
	8/21/2012 14:00	8/21/2012 15:00	60	0.15	252,553	0.71	0.13	1	Atlas		37,883	1
	9/1/2012 15:00	9/1/2012 18:45	225	0.48	190,467	0.52	0.28	3	Atlas		91,424	1
	9/2/2012 11:45	9/2/2012 22:00	615	0.56	126,798	1.08	0.22	24	Atlas		71,007	1
	9/5/2012 15:15	9/5/2012 19:45	270	0.66	694,662	1.76	0.53	1	Atlas		458,477	1
	9/7/2012 23:15	9/8/2012 7:45	510	1.44	190,758	3.18	0.81	3	Atlas		274,692	1
	9/25/2012 8:30	9/25/2012 10:45	135	0.41	9,829	0.40	0.22	6	Atlas		4,030	1
	9/25/2012 23:45	9/26/2012 8:45	540	0.46	204,152	0.88	0.21	12	Atlas		93,910	1
	9/26/2012 19:45	9/27/2012 3:45	480	1.24	496,844	2.12	0.66	6	Atlas		616,086	1
	10/1/2012 13:30	10/1/2012 20:45	435	0.64	98,897	2.72	0.25	24	Atlas		63,294	1
	10/5/2012 23:30	10/6/2012 0:45	75	0.12	104,217	0.75	0.07	3	Atlas		12,506	1
	10/14/2012 19:00	10/14/2012 19:30	30	0.20	12,410	0.19	0.15	1	Atlas		2,482	1
	10/18/2012 0:45	10/18/2012 2:45	120	0.31	86,690	0.52	0.21	3	Atlas		26,874	1
	10/26/2012 10:45	10/26/2012 23:30	765	0.78	36,177	0.81	0.36	6	Atlas		28,218	1
	11/3/2012 9:45	11/3/2012 16:45	420	0.16	25,825	0.17	0.07	12	Atlas		4,132	1
	11/12/2012 2:45	11/12/2012 12:45	600	0.43	71,319	0.48	0.20	12	Atlas		30,667	1
	12/2/2012 11:15	12/2/2012 14:00	165	0.18	139,272	0.27	0.10	3	Atlas		25,069	1
	12/4/2012 15:00	12/4/2012 21:00	360	0.53	158,745	0.71	0.34	3	Atlas		84,135	1
	12/6/2012 16:30	12/7/2012 20:00	1,650	1.33	97,068	2.04	0.56	12	Atlas		129,100	1
	12/8/2012 5:00	12/8/2012 11:45	405	0.36	177,619	2.40	0.20	6	Atlas		63,943	1
	12/9/2012 8:30	12/9/2012 10:15	105	1.14	5,957	2.46	0.54	3	Atlas		6,791	1
	12/9/2012 19:45	12/10/2012 8:15	750	1.14	397,746	3.31	0.54	3	Atlas		453,430	1
	12/15/2012 11:30	12/15/2012 13:15	105	0.15	89,240	1.28	0.09	3	Atlas		13,386	1
	12/17/2012 14:45	12/17/2012 18:00	195	0.23	23,678	0.39	0.12	6	Atlas		5,446	1
	12/20/2012 6:45	12/20/2012 15:15	510	0.64	197,441	1.03	0.35	6	Atlas		126,362	1
	12/24/2012 4:45	12/24/2012 5:30	45	0.07	42,271	0.97	0.04	3	Atlas		2,959	1
	12/26/2012 0:30	12/26/2012 16:45	975	0.64	149,364	1.38	0.25	12	Atlas		95,593	1
	12/28/2012 9:30	12/28/2012 9:30	-	0.01	2,706,800	0.72	0.01	1	Atlas		27,068	1
	12/31/2012 22:45	1/1/2013 3:00	255	0.95	12,622	1.64	0.73	1	Atlas		11,991	1
	1/10/2013 11:45	1/10/2013 15:30	225	0.19	72,879	0.19	0.09	6	Atlas		13,847	1
	1/11/2013 2:15	1/11/2013 12:15	600	0.61	200,530	0.81	0.32	6	Atlas		122,323	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/12/2013 21:00	1/14/2013 3:00	1,800	2.30	252.869	3.10	0.88	24	Atlas		581.598	1
	1/15/2013 20:15	1/15/2013 20:30	15	0.21	7.500	3.23	0.08	12	Atlas		1.575	1
	1/16/2013 15:15	1/16/2013 17:00	105	0.21	19.305	3.35	0.08	12	Atlas		4.054	1
	1/27/2013 19:45	1/28/2013 1:30	345	0.23	61.822	0.25	0.10	6	Atlas		14.219	1
	1/28/2013 10:45	1/28/2013 18:00	435	0.07	156.557	0.32	0.04	1	Atlas		10.959	1
	1/30/2013 4:30	1/30/2013 21:15	1,005	0.81	427.863	1.13	0.40	6	Atlas		346.569	1
	2/2/2013 12:30	2/2/2013 13:00	30	0.02	128.800	1.20	0.01	3	Atlas		2.576	1
	2/4/2013 17:15	2/4/2013 19:15	120	0.11	55.045	1.02	0.07	1	Atlas		6.055	1
	2/8/2013 2:00	2/8/2013 7:15	315	0.09	519.644	0.24	0.05	6	Atlas		46.768	1
	2/10/2013 11:00	2/10/2013 17:30	390	0.16	279.819	0.37	0.08	3	Atlas		44.771	1
	2/13/2013 12:00	2/13/2013 14:15	135	0.06	98.917	0.32	0.03	12	Atlas		5.935	1
	2/18/2013 21:15	2/19/2013 6:30	555	0.37	106.859	0.43	0.17	12	Atlas		39.538	1
	2/21/2013 20:45	2/22/2013 7:00	615	0.43	93.816	0.80	0.20	12	Atlas		40.341	1
	2/26/2013 5:30	2/26/2013 20:15	885	0.52	131.056	0.93	0.20	24	Atlas		68.149	1
	3/5/2013 5:45	3/5/2013 19:45	840	0.48	119.298	0.86	0.18	24	Atlas		57.263	1
	3/10/2013 23:00	3/11/2013 13:45	885	1.04	209.817	1.55	0.42	12	Atlas		218.210	1
	3/16/2013 23:15	3/18/2013 13:00	2,265	1.84	156.376	2.89	0.60	48	Atlas		287.731	1
	3/24/2013 4:15	3/24/2013 20:30	975	0.52	107.000	2.11	0.20	24	Atlas		55.640	1
	3/31/2013 1:30	3/31/2013 4:00	150	0.06	92.900	0.60	0.03	6	Atlas		5.574	1
	4/11/2013 5:15	4/12/2013 2:30	1,275	1.29	258.658	1.29	0.50	24	Atlas		333.669	1
	4/16/2013 20:00	4/17/2013 1:15	315	0.58	866.345	1.86	0.48	1	Atlas		502.480	1
	4/19/2013 0:45	4/19/2013 9:45	540	0.95	370.215	1.56	0.52	3	Atlas		351.704	1
	4/24/2013 6:00	4/24/2013 13:15	435	0.69	222.064	1.70	0.39	3	Atlas		153.224	1
	4/27/2013 21:00	4/28/2013 0:30	210	0.07	108.143	0.78	0.03	6	Atlas		7.570	1
	5/3/2013 19:00	5/3/2013 19:45	45	0.09	62.778	0.16	0.05	1	Atlas		5.650	1
	5/4/2013 10:30	5/5/2013 20:45	2,055	1.53	179.333	1.57	0.49	24	Atlas		274.380	1
	5/6/2013 5:45	5/6/2013 6:15	30	1.53	1.640	1.54	0.49	24	Atlas		2.509	1
	5/6/2013 17:30	5/7/2013 3:30	600	1.53	23.550	1.66	0.49	24	Atlas		36.031	1
	5/10/2013 9:45	5/11/2013 4:00	1,095	0.95	344.872	2.62	0.43	6	Atlas		327.628	1
	5/11/2013 20:00	5/11/2013 21:00	60	0.03	232.967	2.00	0.03	1	Atlas		6.989	1
	5/16/2013 10:30	5/16/2013 11:45	75	0.31	42.410	1.30	0.27	1	Atlas		13.147	1
	5/22/2013 18:00	5/22/2013 18:15	15	0.12	7.758	0.45	0.09	1	Atlas		931	1
	5/26/2013 0:15	5/26/2013 0:45	30	0.02	107.150	0.17	0.02	1	Atlas		2.143	1
	5/31/2013 11:15	5/31/2013 16:30	315	0.26	129.965	0.22	0.12	12	Atlas		33.791	1
	6/1/2013 5:45	6/1/2013 17:30	705	0.14	470.693	0.48	0.06	12	Atlas		65.897	1
	6/6/2013 4:45	6/6/2013 6:15	90	0.04	239.325	0.48	0.03	3	Atlas		9.573	1
	6/9/2013 14:45	6/10/2013 5:30	885	0.36	375.503	0.40	0.15	6	Atlas		135.181	1
	6/13/2013 9:15	6/13/2013 9:15	-	0.01	49.300	0.38	0.01	1	Atlas		493	1
	6/16/2013 9:15	6/16/2013 19:00	585	0.39	178.979	0.77	0.29	1	Atlas		69.802	1
	6/17/2013 19:15	6/17/2013 23:15	240	0.62	172.184	0.98	0.31	6	Atlas		106.754	1
	6/26/2013 3:15	6/26/2013 8:00	285	0.63	474.314	1.24	0.42	3	Atlas		298.818	1
	6/26/2013 16:15	6/27/2013 4:00	705	2.32	707.991	3.56	2.17	6	Cloudburst		1,642.538	1
	6/29/2013 19:30	6/29/2013 23:15	225	0.47	246.004	3.60	0.25	3	Atlas		115.622	1
	7/1/2013 9:00	7/1/2013 10:00	60	0.23	66.883	3.53	0.10	12	Atlas		15.383	1
	7/1/2013 18:30	7/1/2013 21:30	180	0.23	280.300	3.67	0.10	12	Atlas		64.469	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.78	283.013	0.78	0.34	1	Atlas		220.750	1
	8/31/2013 20:15	8/31/2013 20:15	-	1.33	17.135	0.65	0.61	6	Atlas		22.789	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.42	295.855	1.75	0.37	1	Atlas		124.259	1
	9/20/2013 16:30	9/20/2013 16:30	-	1.22	9.855	0.23	0.51	12	Atlas		12.023	1
	10/5/2013 14:00	10/6/2013 6:15	975	3.21	869.174	2.79	2.28	24	Cloudburst		2,790.049	1
	10/30/2013 4:45	10/30/2013 5:30	45	1.41	196.349	1.35	0.72	1	Atlas		276.862	1
	10/31/2013 19:30	10/31/2013 19:30	-	0.65	14.151	1.97	0.25	12	Atlas		9.198	1
	11/17/2013 6:00	11/17/2013 8:30	150	2.38	87.254	1.89	1.11	6	Cloudburst		207.665	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.38	14.371	2.52	1.11	6	Cloudburst		34.204	1
	12/21/2013 21:45	12/21/2013 23:15	90	1.77	793.512	2.50	0.97	3	Atlas		1,404.516	1
	2/17/2014 16:15	2/17/2014 16:30	15	0.48	128.740	0.82	0.28	3	Atlas		61.795	1
	4/3/2014 12:15	4/3/2014 12:15	-	2.72	485	1.91	0.95	24	Atlas		1.320	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.72	25.284	3.29	0.95	24	Atlas		68.772	1
	4/7/2014 10:45	4/7/2014 11:45	60	0.66	39.967	3.48	0.38	3	Atlas		26.378	1
	4/15/2014 10:30	4/15/2014 10:45	15	0.63	9.181	1.03	0.29	6	Atlas		5.784	1
	4/28/2014 6:00	4/28/2014 6:15	15	1.63	49.789	1.16	0.66	3	Atlas		81.156	1
	5/9/2014 19:30	5/9/2014 19:30	-	1.63	892	0.37	0.63	24	Atlas		1.454	1
	5/10/2014 5:45	5/10/2014 5:45	-	1.63	44.944	0.94	0.63	24	Atlas		73.258	1
	5/10/2014 14:15	5/10/2014 15:15	60	1.63	46.412	1.71	0.63	24	Atlas		75.651	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/28/2014 20:15	5/28/2014 20:30	15	0.43	235.291	1.01	0.37	1	Atlas		101.175	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.47	281.557	0.79	0.41	1	Atlas		132.332	1
	7/26/2014 21:45	7/26/2014 22:00	15	1.06	204.848	0.45	0.48	12	Atlas		217.139	1
	8/8/2014 6:15	8/8/2014 6:45	30	0.85	96.651	0.62	0.40	6	Atlas		82.153	1
	8/10/2014 4:00	8/10/2014 4:45	45	0.52	627.119	1.51	0.41	1	Atlas		326.102	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.30	52.957	1.78	0.23	1	Atlas		15.887	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.47	165.143	1.18	0.37	1	Atlas		77.617	1
	8/23/2014 20:00	8/23/2014 20:15	15	0.65	376.398	1.59	0.37	3	Atlas		244.659	1
	8/30/2014 15:15	8/30/2014 15:30	15	0.56	279.711	1.13	0.31	1	Atlas		156.638	1
	9/11/2014 0:45	9/11/2014 2:30	105	1.91	218.959	1.62	1.37	3	Atlas		418.211	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.50	13.062	0.42	0.20	1	Atlas		6.531	1
	10/10/2014 2:15	10/10/2014 3:00	45	1.28	63.630	1.60	0.57	1	Atlas		81.447	1
	4/2/2015 10:45	4/2/2015 10:45	-	5.47	676	0.72	15.85	6	Cloudburst		3.695	1
	4/3/2015 0:15	4/3/2015 5:30	315	5.47	1,111.871	4.56	15.85	6	Cloudburst		6.061.933	1
	4/7/2015 9:30	4/7/2015 9:30	-	0.87	39.401	6.07	0.38	1	Atlas		34.279	1
	5/16/2015 12:00	5/16/2015 12:00	-	0.50	1.838	0.44	0.29	3	Atlas		919	1
	6/17/2015 5:00	6/17/2015 5:00	-	0.70	5.421	0.57	0.39	3	Atlas		3.795	1
	6/18/2015 17:15	6/18/2015 17:30	15	1.55	59.543	1.39	0.50	48	Atlas		92.291	1
	6/26/2015 17:15	6/26/2015 17:30	15	0.86	273.578	2.18	0.48	1	Atlas		235.277	1
	7/2/2015 20:30	7/2/2015 20:45	15	1.14	118.232	2.86	0.49	3	Atlas		134.784	1
	7/12/2015 6:00	7/12/2015 6:30	30	1.06	293.599	2.68	0.73	1	Atlas		311.215	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.69	22.709	3.87	0.54	1	Atlas		15.669	1
	7/17/2015 23:15	7/18/2015 0:45	90	1.06	160.328	3.17	0.71	3	Atlas		169.948	1
	8/15/2015 16:45	8/15/2015 16:45	-	0.08	30.300	0.31	0.07	1	Atlas		2.424	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.28	56.989	0.38	0.22	1	Atlas		15.957	1
	11/6/2015 3:30	11/6/2015 4:15	45	0.94	88.187	0.96	0.59	3	Atlas		82.896	1
	11/18/2015 11:00	11/18/2015 13:45	165	1.22	112.993	1.49	0.61	6	Atlas		137.852	1
	12/23/2015 19:30	12/23/2015 20:00	30	0.79	323.946	1.41	0.63	1	Atlas		255.917	1
	12/27/2015 10:45	12/27/2015 11:45	60	2.13	16.864	2.88	0.75	3	Atlas		35.921	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.29	60.863	1.25	0.63	6	Atlas		78.513	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.68	129.488	1.08	0.46	1	Atlas		88.052	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.99	13.635	1.39	0.53	1	Atlas		13.499	1
	5/10/2016 18:45	5/10/2016 18:45	-	0.89	6.538	1.73	0.33	24	Atlas		5.819	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.26	153.746	0.35	0.21	1	Atlas		39.974	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.32	309.241	0.61	0.17	3	Atlas		98.957	1
	6/14/2016 16:45	6/14/2016 17:00	15	0.88	181.557	0.69	0.56	3	Atlas		159.770	1
	6/23/2016 16:15	6/23/2016 20:45	270	2.02	182.579	2.26	1.56	6	Cloudburst		368.809	1
	7/3/2016 20:00	7/3/2016 20:00	-	1.35	1.077	0.69	0.44	48	Atlas		1.454	1
	7/28/2016 3:30	7/28/2016 3:30	-	0.70	93.021	0.85	0.32	12	Atlas		65.115	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.93	46.286	1.96	0.43	3	Atlas		43.046	1
	8/20/2016 14:30	8/20/2016 20:00	330	1.38	230.412	3.06	0.59	12	Atlas		317.968	1
	12/17/2016 18:30	12/17/2016 21:00	150	2.81	90.964	1.90	2.53	12	Cloudburst		255.610	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.45	11.089	0.49	0.37	1	Atlas		4.990	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.15	67.215	1.04	0.61	6	Atlas		77.297	1
	4/29/2017 2:00	4/29/2017 3:00	60	1.10	123.708	1.35	0.56	3	Atlas		136.079	1
	5/21/2017 2:15	5/21/2017 3:45	90	1.09	141.028	0.92	0.49	12	Atlas		153.720	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.12	15.458	1.66	0.09	1	Atlas		1.855	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.28	196.225	0.34	0.23	1	Atlas		54.943	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.43	131.877	0.25	0.27	3	Atlas		56.707	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.59	151.985	0.71	0.50	1	Atlas		89.671	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.14	30.727	0.22	0.52	12	Atlas		35.029	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.28	20.996	0.53	0.23	1	Atlas		5.879	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.61	95.131	1.01	0.38	1	Atlas		58.030	1
	9/19/2017 8:15	9/19/2017 8:15	-	0.38	4.795	0.57	0.25	3	Atlas		1.822	1
	10/7/2017 21:45	10/7/2017 22:00	15	1.65	32.254	0.53	0.62	24	Atlas		53.219	1
	11/3/2017 4:45	11/3/2017 5:30	45	0.99	233.556	1.94	0.77	1	Atlas		231.220	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.32	28.188	1.45	0.22	1	Atlas		9.020	1
	12/5/2017 4:00	12/5/2017 4:00	-	0.65	2.391	0.35	0.33	3	Atlas		1.554	1
	2/22/2018 4:45	2/22/2018 5:30	45	1.71	88.706	2.81	0.64	24	Atlas		151.688	1
	2/23/2018 4:15	2/23/2018 5:00	45	1.44	16.947	3.13	0.66	12	Atlas		24.404	1
	2/24/2018 18:45	2/25/2018 0:00	315	2.10	1,797.596	5.09	0.86	12	Atlas		3,774.952	1
	5/5/2018 14:45	5/5/2018 14:45	-	1.69	51.647	0.95	0.67	12	Atlas		87.284	1
	5/27/2018 4:15	5/27/2018 4:15	-	0.46	16.387	0.51	0.37	1	Atlas		7.538	1
	6/1/2018 1:15	6/1/2018 1:30	15	1.36	41.291	1.73	0.65	3	Atlas		56.156	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/15/2018 20:00	8/16/2018 9:15	795	2.81	300,090	2.68	1.45	24	Cloudburst		843,252	1
	8/20/2018 11:15	8/20/2018 11:45	30	0.72	254,485	3.57	0.57	1	Atlas		183,229	1
	9/8/2018 17:30	9/8/2018 22:30	300	2.68	3,284,894	2.80	1.75	6	Cloudburst		8,803,517	1
	9/22/2018 16:45	9/22/2018 17:00	15	1.42	29,491	0.83	0.53	24	Atlas		41,877	1
	9/23/2018 4:30	9/23/2018 7:15	165	1.42	340,628	1.81	0.53	24	Atlas		483,692	1
	9/24/2018 7:30	9/24/2018 11:15	225	1.45	310,440	3.06	0.68	6	Atlas		450,138	1
	9/25/2018 17:00	9/25/2018 17:30	30	0.77	158,461	3.64	0.33	12	Atlas		122,015	1
	9/26/2018 2:00	9/26/2018 2:00	-	0.77	14,268	4.02	0.33	12	Atlas		10,986	1
	11/5/2018 22:00	11/5/2018 22:15	15	0.83	41,552	2.48	0.45	6	Atlas		34,488	1
	11/14/2018 23:00	11/15/2018 1:00	120	0.36	716,742	0.45	0.17	12	Atlas		258,027	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.44	175,318	0.60	0.32	1	Atlas		77,140	1
	CSO178 Total										**44,505,075**	**180**
CSO180	4/1/2012 8:45	4/1/2012 10:45	120	1.88	78,424	2.06	1.20	3	Atlas		147,439	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.78	97,229	0.90	0.58	1	Atlas		75,840	1
	4/30/2012 18:00	4/30/2012 18:15	15	0.32	74,150	1.11	0.21	3	Atlas	Retained by Sneads Branch	23,729	1
	5/5/2012 0:00	5/5/2012 1:45	105	1.35	87,776	2.22	0.69	6	Atlas		118,498	1
	5/13/2012 2:00	5/13/2012 8:00	360	2.09	52,650	2.01	0.85	12	Atlas		110,040	1
	5/16/2012 18:00	5/16/2012 18:00	-	0.18	25,222	2.28	0.16	1	Atlas	Retained by Sneads Branch	4,541	1
	5/29/2012 6:45	5/29/2012 8:45	120	3.09	221,062	2.96	21.94	3	Atlas		683,083	1
	7/1/2012 19:45	7/1/2012 19:45	-	0.44	62,936	0.35	0.31	1	Atlas	Retained by Sneads Branch	27,693	1
	7/8/2012 13:00	7/8/2012 13:00	-	0.21	74,895	0.68	0.15	1	Atlas	Retained by Sneads Branch	15,729	1
	7/14/2012 12:15	7/14/2012 14:00	105	0.53	136,404	0.75	0.32	3	Atlas	Retained by Sneads Branch	72,295	1
	7/19/2012 18:00	7/19/2012 18:30	30	0.86	626,819	1.37	0.70	1	Atlas		539,065	1
	7/27/2012 19:45	7/27/2012 20:30	45	0.67	41,343	1.11	0.50	1	Atlas	Retained by Sneads Branch	27,701	1
	8/16/2012 20:00	8/16/2012 20:15	15	0.69	97,838	0.41	0.40	3	Atlas	Retained by Sneads Branch	67,509	1
	8/21/2012 13:45	8/21/2012 13:45	-	0.22	435,936	0.92	0.18	1	Atlas	Retained by Sneads Branch	95,907	1
	9/1/2012 15:00	9/1/2012 17:15	135	0.57	124,346	0.53	0.36	3	Atlas		70,878	1
	9/2/2012 11:45	9/2/2012 20:30	525	0.71	91,769	1.20	0.27	24	Atlas		65,157	1
	9/3/2012 14:00	9/3/2012 14:15	15	0.06	219,683	1.34	0.03	1	Atlas		13,182	1
	9/5/2012 15:15	9/5/2012 15:45	30	0.68	466,946	1.95	0.53	1	Atlas		317,524	1
	9/7/2012 23:15	9/7/2012 23:30	15	1.38	20,143	2.69	0.77	3	Atlas		27,799	1
	9/26/2012 1:30	9/26/2012 1:30	-	0.48	95,248	0.68	0.22	12	Atlas	Retained by Sneads Branch	45,720	1
	9/26/2012 22:15	9/26/2012 23:00	45	1.17	206,832	1.90	0.67	3	Atlas	Retained by Sneads Branch	241,994	1
	10/1/2012 18:15	10/1/2012 18:15	-	0.73	35,027	2.74	0.29	12	Atlas	Retained by Sneads Branch	25,571	1
	12/9/2012 22:00	12/9/2012 22:15	15	1.14	37,757	3.29	0.52	3	Atlas	Retained by Sneads Branch	43,044	1
	1/13/2013 3:00	1/13/2013 3:00	-	2.30	874	1.07	0.88	24	Atlas		2,012	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.83	4,770	0.62	0.42	6	Atlas	Retained by Sneads Branch	3,960	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.64	125,742	1.84	0.52	1	Atlas	Retained by Sneads Branch	80,476	1
	6/21/2013 18:45	6/21/2013 18:45	-	0.43	47,177	1.36	0.33	1	Atlas	Retained by Sneads Branch	20,287	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.66	7,976	1.42	0.44	3	Atlas	Retained by Sneads Branch	5,265	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.48	151,502	3.53	2.87	6	Cloudburst	Retained by Sneads Branch	375,726	1
	7/10/2013 14:00	7/10/2013 14:00	-	0.68	190,979	1.89	0.46	1	Atlas		129,867	1
	7/21/2013 19:30	7/21/2013 19:30	-	2.70	2,336	1.31	1.24	24	Cloudburst		6,307	1
	7/22/2013 13:30	7/22/2013 13:30	-	2.70	44,156	2.91	1.24	24	Cloudburst		119,223	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/12/2013 14:45	8/12/2013 15:00	15	0.81	249,611	0.86	0.39	1	Atlas		202,186	1
	8/20/2013 18:00	8/20/2013 18:00	-	0.28	8,146	0.26	0.15	3	Atlas	Retained by Sneads Branch	2,282	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.56	80,334	1.66	0.49	1	Atlas	Retained by Sneads Branch	44,988	1
	9/20/2013 19:30	9/20/2013 19:30	-	1.13	9,450	0.49	0.46	12	Atlas	Retained by Sneads Branch	10,680	1
	10/6/2013 13:00	10/6/2013 6:15	1,035	4.40	153,288	3.96	9.19	24	Cloudburst		674,470	1
	10/30/2013 4:45	10/30/2013 5:15	30	1.69	155,558	1.62	0.93	1	Atlas		262,894	1
	11/17/2013 7:30	11/17/2013 7:30	-	2.68	7,625	1.80	1.89	6	Cloudburst		20,436	1
	12/21/2013 21:45	12/21/2013 22:45	60	2.41	118,773	1.98	0.90	24	Atlas		286,245	1
	2/17/2014 16:15	2/17/2014 16:15	-	0.56	16,511	1.04	0.34	3	Atlas	Retained by Sneads Branch	9,247	1
	4/28/2014 6:00	4/28/2014 6:00	-	1.70	151,176	1.23	0.70	3	Atlas	Retained by Sneads Branch	257,000	1
	5/10/2014 14:30	5/10/2014 14:30	-	1.63	17,684	1.62	0.63	24	Atlas	Retained by Sneads Branch	28,826	1
	5/29/2014 20:45	5/29/2014 21:00	15	0.66	79,139	0.98	0.56	1	Atlas	Retained by Sneads Branch	52,233	1
	7/13/2014 22:45	7/13/2014 22:45	-	0.70	96,166	2.04	0.35	3	Atlas	Retained by Sneads Branch	67,317	1
	7/26/2014 21:30	7/26/2014 21:45	15	1.43	138,845	0.53	0.66	12	Atlas	Retained by Sneads Branch	198,549	1
	8/11/2014 15:15	8/11/2014 15:15	-	0.51	243,433	2.20	0.40	1	Atlas	Retained by Sneads Branch	124,152	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.35	35,851	1.05	0.26	1	Atlas	Retained by Sneads Branch	12,549	1
	8/27/2014 16:45	8/27/2014 16:45	-	0.27	47,841	1.22	0.18	3	Atlas		12,918	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.60	150,297	1.34	0.38	1	Atlas		90,179	1
	9/11/2014 0:30	9/11/2014 1:15	45	1.90	131,328	1.24	1.37	3	Atlas		249,525	1
	10/10/2014 1:45	10/10/2014 2:45	60	1.09	13,740	1.47	0.47	3	Atlas	Retained by Sneads Branch	14,978	1
	11/23/2014 17:30	11/23/2014 17:30	-	0.66	6,598	0.78	0.31	6	Atlas	Retained by Sneads Branch	4,356	1
	12/1/2014 4:30	12/1/2014 4:30	-	0.88	67	0.41	0.33	24	Atlas	Retained by Sneads Branch	60	1
	12/6/2014 2:30	12/6/2014 3:15	45	1.77	12,964	2.45	0.57	48	Atlas	Retained by Sneads Branch	22,947	1
	3/10/2015 10:45	3/10/2015 13:15	150	1.31	47,673	2.89	0.59	12	Atlas	Retained by Sneads Branch	62,453	1
	3/14/2015 1:00	3/14/2015 3:45	165	1.84	3,439	3.08	0.69	24	Atlas	Retained by Sneads Branch	6,329	1
	3/26/2015 4:15	3/26/2015 4:15	-	0.42	30,083	0.44	0.17	12	Atlas	Retained by Sneads Branch	12,636	1
	4/2/2015 10:30	4/2/2015 15:15	285	5.36	65,669	0.94	20.93	6	Cloudburst	Retained by Sneads Branch	351,988	1
	4/3/2015 0:15	4/3/2015 15:30	915	5.36	368,641	5.24	20.93	6	Cloudburst	Retained by Sneads Branch	1,975,917	1
	4/7/2015 9:15	4/7/2015 17:00	465	0.84	145,719	6.16	0.36	12	Atlas	Retained by Sneads Branch	122,405	1
	4/8/2015 18:00	4/8/2015 18:15	15	0.16	239,188	6.36	0.09	3	Atlas	Retained by Sneads Branch	38,271	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.22	78,868	6.05	0.19	1	Atlas	Retained by Sneads Branch	17,352	1
	4/10/2015 2:15	4/10/2015 2:15	-	0.17	33,371	3.70	0.11	3	Atlas	Retained by Sneads Branch	5,674	1
	4/19/2015 14:15	4/19/2015 14:15	-	0.71	7,873	1.09	0.30	12	Atlas	Retained by Sneads Branch	5,591	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.12	273,875	0.58	0.09	1	Atlas	Retained by Sneads Branch	32,866	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.35	141,571	0.54	0.26	1	Atlas	Retained by Sneads Branch	49,551	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/8/2015 8:15	6/8/2015 8:15	-	0.26	46.350	0.29	0.16	3	Atlas	Retained by Sneads Branch	12,052	1
	6/17/2015 4:45	6/17/2015 5:00	15	0.58	72.319	0.49	0.31	3	Atlas	Retained by Sneads Branch	41,946	1
	6/18/2015 16:00	6/18/2015 17:45	105	1.82	375.782	1.64	0.59	48	Atlas	Retained by Sneads Branch	683,924	1
	6/20/2015 1:30	6/20/2015 8:00	390	1.82	28.439	2.71	0.59	48	Atlas	Retained by Sneads Branch	51,760	1
	6/25/2015 23:45	6/26/2015 0:00	15	0.59	134.722	1.53	0.32	6	Atlas	Retained by Sneads Branch	79,487	1
	6/26/2015 17:00	6/26/2015 17:15	15	0.89	138.397	2.24	0.50	1	Atlas	Retained by Sneads Branch	123,174	1
	6/29/2015 13:15	6/29/2015 13:15	-	0.19	221.905	1.62	0.11	1	Atlas	Retained by Sneads Branch	42,163	1
	7/2/2015 20:30	7/2/2015 20:45	15	0.93	40.300	2.66	0.45	3	Atlas	Retained by Sneads Branch	37,480	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.33	93.539	2.39	0.23	1	Atlas	Retained by Sneads Branch	30,869	1
	7/7/2015 11:30	7/7/2015 11:45	15	0.72	37.961	1.72	0.37	6	Atlas	Retained by Sneads Branch	27,333	1
	7/10/2015 16:00	7/10/2015 16:00	-	0.46	31.759	1.72	0.23	6	Atlas	Retained by Sneads Branch	14,610	1
	7/12/2015 5:45	7/12/2015 7:30	105	0.84	409.274	2.50	0.60	1	Atlas	Retained by Sneads Branch	343,791	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.25	55.576	2.76	0.21	1	Atlas	Retained by Sneads Branch	13,895	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.53	81.660	3.25	0.39	1	Atlas	Retained by Sneads Branch	43,281	1
	7/17/2015 23:00	7/18/2015 0:45	105	0.94	128.777	2.57	0.62	3	Atlas	Retained by Sneads Branch	121,051	1
	8/6/2015 7:45	8/6/2015 15:00	435	0.71	70.808	0.90	0.27	24	Atlas	Retained by Sneads Branch	50,275	1
	8/19/2015 7:30	8/19/2015 8:15	45	0.54	128.950	0.43	0.23	1	Atlas	Retained by Sneads Branch	69,634	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.21	50.786	0.28	0.14	1	Atlas	Retained by Sneads Branch	10,666	1
	10/12/2015 19:00	10/12/2015 19:00	-	0.25	1.940	0.32	0.17	3	Atlas	Retained by Sneads Branch	486	1
	10/28/2015 3:15	10/28/2015 3:15	-	2.33	394	2.19	0.77	24	Atlas	Retained by Sneads Branch	919	1
	11/6/2015 3:00	11/6/2015 4:00	60	0.77	80.143	0.78	0.47	3	Atlas	Retained by Sneads Branch	61,711	1
	11/12/2015 0:30	11/12/2015 0:45	15	0.29	35.966	1.55	0.18	3	Atlas	Retained by Sneads Branch	10,431	1
	11/18/2015 9:15	11/18/2015 13:45	270	1.42	104.909	1.70	0.71	6	Atlas	Retained by Sneads Branch	148,972	1
	11/30/2015 21:45	11/30/2015 23:15	90	0.74	11.458	1.29	0.33	12	Atlas	Retained by Sneads Branch	8,480	1
	12/22/2015 3:00	12/22/2015 3:45	45	0.51	114.486	0.72	0.27	6	Atlas	Retained by Sneads Branch	58,389	1
	12/23/2015 19:15	12/23/2015 20:00	45	0.76	305.887	1.42	0.58	1	Atlas	Retained by Sneads Branch	232,475	1
	12/27/2015 10:30	12/27/2015 13:15	165	1.85	124.058	2.96	0.61	3	Atlas	Retained by Sneads Branch	229,508	1
	2/2/2016 19:30	2/3/2016 0:00	270	1.21	71.253	1.19	0.57	6	Atlas	Retained by Sneads Branch	86,217	1
	2/21/2016 4:00	2/21/2016 10:30	390	1.09	26.091	1.26	0.50	12	Atlas	Retained by Sneads Branch	28,440	1
	2/24/2016 5:00	2/24/2016 7:00	120	2.08	18.883	2.82	0.81	12	Atlas	Retained by Sneads Branch	39,278	1
	3/1/2016 12:00	3/1/2016 12:00	-	0.27	20.200	2.25	0.14	3	Atlas	Retained by Sneads Branch	5,455	1
	3/12/2016 22:45	3/12/2016 23:00	15	0.85	11.147	1.66	0.32	24	Atlas	Retained by Sneads Branch	9,476	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/13/2016 9:15	3/13/2016 9:15	-	0.85	8,704	1.89	0.32	24	Atlas	Retained by Sneads Branch	7,399	1
	3/24/2016 17:45	3/24/2016 17:45	-	0.60	39,950	0.75	0.46	1	Atlas	Retained by Sneads Branch	23,971	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.85	198,061	1.40	0.60	1	Atlas	Retained by Sneads Branch	168,353	1
	3/31/2016 22:15	3/31/2016 22:15	-	1.18	5,720	1.86	0.45	24	Atlas	Retained by Sneads Branch	6,751	1
	4/11/2016 17:30	4/11/2016 18:00	30	0.91	14,941	0.83	0.44	6	Atlas	Retained by Sneads Branch	13,597	1
	4/27/2016 21:00	4/27/2016 22:00	60	0.64	58,331	1.22	0.32	1	Atlas	Retained by Sneads Branch	37,333	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.28	154,429	1.62	0.19	3	Atlas	Retained by Sneads Branch	43,241	1
	5/7/2016 16:30	5/7/2016 20:15	225	0.84	7,373	1.29	0.44	6	Atlas	Retained by Sneads Branch	6,194	1
	5/10/2016 18:45	5/10/2016 21:45	180	0.90	31,594	1.95	0.34	12	Atlas	Retained by Sneads Branch	28,436	1
	5/20/2016 14:45	5/20/2016 15:45	60	0.57	84,011	1.25	0.32	3	Atlas	Retained by Sneads Branch	47,887	1
	6/12/2016 18:00	6/12/2016 18:00	-	0.26	44,692	0.30	0.21	1	Atlas	Retained by Sneads Branch	11,621	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.64	13,692	0.61	0.41	3	Atlas	Retained by Sneads Branch	8,764	1
	6/23/2016 16:00	6/23/2016 22:15	375	1.60	189,458	1.75	0.86	6	Atlas	Retained by Sneads Branch	303,133	1
	10/20/2016 9:15	10/20/2016 10:00	45	0.54	21,665	0.20	0.21	24	Atlas	Retained by Sneads Branch	11,700	1
	11/8/2016 19:45	11/8/2016 19:45	-	0.19	29,647	0.23	0.09	12	Atlas		5,634	1
	12/17/2016 16:15	12/18/2016 1:15	540	2.52	117,774	2.81	1.58	12	Cloudburst		296,792	1
	1/10/2017 19:30	1/10/2017 19:30	-	0.15	16,400	0.36	0.10	1	Atlas	Retained by Sneads Branch	2,461	1
	1/12/2017 15:30	1/12/2017 15:30	-	0.51	9,053	0.54	0.26	6	Atlas	Retained by Sneads Branch	4,618	1
	1/17/2017 0:15	1/17/2017 3:30	195	0.52	13,208	2.02	0.24	12	Atlas	Retained by Sneads Branch	6,869	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.57	42,179	0.64	0.49	1	Atlas	Retained by Sneads Branch	24,043	1
	3/1/2017 3:15	3/1/2017 8:45	330	1.00	82,216	1.87	0.52	6	Atlas	Retained by Sneads Branch	82,217	1
	3/7/2017 7:45	3/7/2017 7:45	-	0.54	10,546	1.56	0.18	48	Atlas	Retained by Sneads Branch	5,696	1
	3/30/2017 20:30	3/30/2017 21:45	75	0.47	3,300	1.05	0.23	6	Atlas	Retained by Sneads Branch	1,552	1
	4/16/2017 5:30	4/16/2017 5:30	-	1.09	8,766	0.48	0.48	6	Atlas	Retained by Sneads Branch	9,556	1
	4/16/2017 17:30	4/16/2017 19:15	105	1.09	53,554	0.96	0.48	6	Atlas	Retained by Sneads Branch	58,375	1
	4/27/2017 6:45	4/27/2017 6:45	-	0.21	34,162	0.86	0.14	1	Atlas	Retained by Sneads Branch	7,175	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.01	204,353	1.31	0.51	3	Atlas	Retained by Sneads Branch	206,398	1
	5/1/2017 3:45	5/1/2017 3:45	-	0.25	83,168	1.45	0.13	3	Atlas	Retained by Sneads Branch	20,793	1
	5/4/2017 19:45	5/4/2017 20:15	30	1.73	13,046	1.81	0.58	24	Atlas	Retained by Sneads Branch	22,570	1
	5/5/2017 4:30	5/5/2017 4:30	-	1.73	4,530	2.30	0.58	24	Atlas	Retained by Sneads Branch	7,838	1
	5/20/2017 18:45	5/21/2017 5:30	645	1.03	141,232	1.03	0.46	12	Atlas	Retained by Sneads Branch	145,470	1
	6/5/2017 8:45	6/5/2017 8:45	-	0.07	744,786	0.07	0.03	12	Atlas	Retained by Sneads Branch	52,136	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/5/2017 18:15	6/5/2017 18:15	-	0.24	176,771	0.30	0.20	1	Atlas	Retained by Sneads Branch	42,426	1
	6/15/2017 3:00	6/15/2017 4:00	60	0.70	211,627	0.66	0.45	3	Atlas	Retained by Sneads Branch	148,140	1
	6/22/2017 18:45	6/22/2017 19:00	15	0.33	9,782	0.48	0.18	6	Atlas	Retained by Sneads Branch	3,229	1
	6/23/2017 15:15	6/23/2017 16:00	45	0.75	84,583	1.03	0.36	6	Atlas	Retained by Sneads Branch	63,438	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.64	181,900	0.71	0.53	1	Atlas	Retained by Sneads Branch	116,417	1
	7/7/2017 20:30	7/7/2017 21:00	30	0.27	87,807	1.48	0.18	1	Atlas	Retained by Sneads Branch	23,709	1
	7/23/2017 2:30	7/23/2017 6:30	240	1.05	54,494	0.66	0.48	12	Atlas	Retained by Sneads Branch	57,220	1
	7/28/2017 9:30	7/28/2017 9:45	15	0.27	53,522	1.31	0.20	1	Atlas	Retained by Sneads Branch	14,452	1
	8/2/2017 13:00	8/2/2017 13:00	-	0.01	1,350,500	0.42	0.01	1	Atlas	Retained by Sneads Branch	13,506	1
	8/6/2017 16:45	8/6/2017 16:45	-	0.53	12,653	0.38	0.23	12	Atlas	Retained by Sneads Branch	6,707	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.72	38,653	0.37	0.39	6	Atlas	Retained by Sneads Branch	27,831	1
	8/22/2017 16:00	8/22/2017 16:30	30	0.54	54,052	1.27	0.35	1	Atlas	Retained by Sneads Branch	29,189	1
	8/29/2017 19:15	8/29/2017 19:15	-	0.12	191,583	0.16	0.09	1	Atlas	Retained by Sneads Branch	22,991	1
	9/1/2017 13:15	9/1/2017 21:45	510	3.08	11,996	2.73	1.53	24	Cloudburst		36,950	1
	9/19/2017 7:45	9/19/2017 8:45	60	0.40	33,775	0.67	0.26	3	Atlas	Retained by Sneads Branch	13,511	1
	10/7/2017 21:30	10/7/2017 22:00	30	1.68	62,663	0.53	0.64	24	Atlas	Retained by Sneads Branch	105,274	1
	10/8/2017 13:45	10/8/2017 14:00	15	1.68	25,082	1.49	0.64	24	Atlas	Retained by Sneads Branch	42,138	1
	10/23/2017 6:15	10/23/2017 6:15	-	0.49	2,637	0.23	0.26	6	Atlas	Retained by Sneads Branch	1,293	1
	10/27/2017 17:30	10/27/2017 17:30	-	0.80	571	0.71	0.37	12	Atlas	Retained by Sneads Branch	458	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.52	333,341	2.44	2.66	1	Atlas		506,680	1
	11/6/2017 1:45	11/6/2017 2:00	15	0.19	257,747	1.83	0.11	1	Atlas		48,973	1
	11/18/2017 17:15	11/18/2017 17:15	-	0.35	20,360	0.61	0.20	1	Atlas	Retained by Sneads Branch	7,127	1
	12/5/2017 3:45	12/5/2017 4:00	15	0.62	44,398	0.37	0.35	3	Atlas	Retained by Sneads Branch	27,528	1
	12/12/2017 7:45	12/12/2017 18:15	630	0.01	918,920,700	0.01	0.01	1	Atlas		9,189,208	1
	12/22/2017 23:45	12/23/2017 2:45	180	1.09	2,825	0.68	0.42	24	Atlas	Retained by Sneads Branch	3,080	1
	2/7/2018 3:00	2/7/2018 3:15	15	0.44	33,407	0.62	0.23	6	Atlas		14,700	1
	2/11/2018 4:00	2/11/2018 10:00	360	0.36	36,847	0.87	0.17	3	Atlas		13,266	1
	2/16/2018 2:30	2/16/2018 2:45	15	0.75	9,316	1.15	0.34	12	Atlas		6,988	1
	2/21/2018 7:00	2/21/2018 7:00	-	1.64	501	1.52	0.61	24	Atlas		922	1
	2/22/2018 3:15	2/22/2018 5:30	135	1.64	133,583	2.67	0.61	24	Atlas		219,077	1
	2/23/2018 3:00	2/23/2018 6:00	180	1.17	114,162	3.12	0.54	12	Atlas		133,571	1
	2/24/2018 18:30	2/25/2018 4:15	585	1.79	232,632	4.60	0.73	12	Atlas		416,412	1
	3/24/2018 12:00	3/24/2018 12:00	-	0.95	11,409	1.46	0.37	24	Atlas	Retained by Sneads Branch	10,840	1
	3/29/2018 18:45	3/29/2018 19:30	45	1.15	35,217	1.86	0.30	48	Atlas	Retained by Sneads Branch	40,501	1
	4/1/2018 20:00	4/1/2018 23:00	180	0.56	9,229	1.98	0.31	6	Atlas	Retained by Sneads Branch	5,169	1
	4/3/2018 16:15	4/3/2018 21:00	285	0.48	47,469	2.45	0.26	6	Atlas	Retained by Sneads Branch	22,786	1
	4/14/2018 9:30	4/14/2018 9:30	-	1.00	292	0.23	0.32	48	Atlas	Retained by Sneads Branch	293	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/15/2018 5:30	4/15/2018 5:30	-	1.00	14,051	0.74	0.32	48	Atlas	Retained by Sneads Branch	14,052	1
	5/5/2018 14:15	5/5/2018 18:15	240	1.31	111,850	1.16	0.50	12	Atlas	Retained by Sneads Branch	146,524	1
	5/17/2018 15:30	5/17/2018 15:45	15	0.37	75,341	0.37	0.30	1	Atlas	Retained by Sneads Branch	27,877	1
	5/27/2018 4:15	5/27/2018 4:15	-	0.26	54,962	0.24	0.19	1	Atlas	Retained by Sneads Branch	14,291	1
	6/1/2018 1:00	6/1/2018 2:00	60	1.57	38,220	1.81	0.84	1	Atlas	Retained by Sneads Branch	60,006	1
	6/10/2018 14:45	6/10/2018 15:00	15	0.47	38,315	0.21	0.22	12	Atlas	Retained by Sneads Branch	18,009	1
	6/11/2018 11:00	6/11/2018 13:15	135	0.41	93,390	0.80	0.24	3	Atlas	Retained by Sneads Branch	38,291	1
	6/22/2018 14:00	6/22/2018 14:00	-	0.28	40,125	0.49	0.17	1	Atlas	Retained by Sneads Branch	11,236	1
	6/25/2018 10:00	6/25/2018 10:00	-	0.91	45,545	1.14	0.38	12	Atlas		41,447	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.40	326,845	1.03	0.33	1	Atlas	Retained by Sneads Branch	130,739	1
	7/15/2018 18:15	7/15/2018 18:15	-	0.10	664,740	0.10	0.05	3	Atlas	Retained by Sneads Branch	66,475	1
	7/16/2018 9:15	7/16/2018 9:30	15	0.14	48,107	0.20	0.11	1	Atlas	Retained by Sneads Branch	6,736	1
	7/20/2018 13:45	7/20/2018 21:00	435	1.07	193,335	1.26	0.53	3	Atlas	Retained by Sneads Branch	206,869	1
	7/22/2018 17:30	7/22/2018 17:30	-	0.12	7,533	1.32	0.08	1	Atlas		905	1
	7/30/2018 23:45	7/31/2018 12:45	780	2.14	170,554	2.17	0.89	6	Atlas		364,987	1
	8/15/2018 20:00	8/16/2018 9:00	780	2.55	142,887	2.43	0.98	24	Atlas		364,364	1
	8/19/2018 20:30	8/19/2018 21:15	45	0.21	312,300	2.78	0.14	3	Atlas		65,584	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.50	117,402	3.23	0.38	1	Atlas		58,702	1
	9/6/2018 11:30	9/6/2018 11:45	15	0.19	162,395	0.38	0.12	3	Atlas	Retained by Sneads Branch	30,856	1
	9/8/2018 5:30	9/8/2018 5:30	-	2.36	5,283	0.56	0.97	6	Atlas		12,468	1
	9/8/2018 17:30	9/8/2018 22:15	285	2.36	458,608	2.54	0.97	6	Atlas		1,082,317	1
	9/21/2018 17:45	9/21/2018 17:45	-	0.18	31,533	0.26	0.12	1	Atlas	Retained by Sneads Branch	5,677	1
	9/22/2018 17:00	9/22/2018 17:00	-	1.28	5,089	0.60	0.48	24	Atlas	Retained by Sneads Branch	6,515	1
	9/23/2018 4:15	9/23/2018 7:00	165	1.28	125,616	1.50	0.48	24	Atlas	Retained by Sneads Branch	160,790	1
	9/24/2018 7:15	9/24/2018 13:45	390	1.29	169,237	2.74	0.60	6	Atlas	Retained by Sneads Branch	218,317	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.08	391,475	2.83	0.07	1	Atlas		31,319	1
	9/25/2018 17:00	9/25/2018 17:30	30	0.67	121,936	3.14	0.30	12	Atlas		81,698	1
	9/26/2018 1:45	9/26/2018 2:15	30	0.67	33,833	3.47	0.30	12	Atlas		22,669	1
	10/15/2018 9:00	10/15/2018 9:00	-	0.20	12,355	0.66	0.13	1	Atlas	Retained by Sneads Branch	2,472	1
	11/1/2018 0:30	11/1/2018 1:15	45	1.73	36,680	1.38	0.62	24	Atlas		63,458	1
	11/5/2018 21:45	11/5/2018 23:45	120	0.95	43,478	2.66	0.51	6	Atlas		41,305	1
	11/14/2018 23:45	11/15/2018 0:00	15	0.41	10,144	0.41	0.19	12	Atlas	Retained by Sneads Branch	4,160	1
	12/1/2018 3:00	12/1/2018 13:00	600	1.29	8,657	1.32	0.57	12	Atlas	Retained by Sneads Branch	11,168	1
	12/15/2018 3:00	12/15/2018 8:00	300	1.69	25,530	1.43	0.72	12	Atlas		43,147	1
	12/27/2018 17:45	12/27/2018 17:45	-	0.32	15,081	0.48	0.19	1	Atlas	Retained by Sneads Branch	4,827	1
	12/31/2018 12:00	12/31/2018 16:30	270	1.18	29,503	1.49	0.45	24	Atlas	Retained by Sneads Branch	34,815	1
	2/5/2019 23:00	2/6/2019 9:45	645	1.40	27,747	0.64	0.45	48	Atlas	Retained by Sneads Branch	38,847	1
	2/7/2019 9:00	2/7/2019 17:15	495	1.40	35,236	1.33	0.45	48	Atlas	Retained by Sneads Branch	49,332	1
	2/12/2019 4:00	2/12/2019 5:45	105	2.48	30,888	3.65	0.77	48	Atlas		76,603	1
	2/20/2019 3:30	2/20/2019 7:00	210	1.42	137,059	1.40	0.67	6	Atlas		194,625	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/23/2019 18:00	2/23/2019 19:00	60	0.80	19,150	2.06	0.44	6	Atlas		15,321	1
	3/9/2019 13:30	3/9/2019 16:45	195	0.82	75,782	0.81	0.38	6	Atlas	Retained by Sneads Branch	62,142	1
	3/14/2019 17:15	3/14/2019 18:45	90	0.21	107,567	1.47	0.14	3	Atlas	Retained by Sneads Branch	22,590	1
	3/30/2019 15:30	3/30/2019 19:45	255	0.77	79,600	1.09	0.37	6	Atlas	Retained by Sneads Branch	61,293	1
	4/7/2019 6:00	4/7/2019 13:30	450	0.58	69,738	0.75	0.30	3	Atlas	Retained by Sneads Branch	40,449	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.24	946	0.79	0.17	1	Atlas	Retained by Sneads Branch	228	1
	4/14/2019 2:00	4/14/2019 5:00	180	0.77	102,768	1.57	0.36	6	Atlas	Retained by Sneads Branch	79,132	1
	4/19/2019 18:30	4/19/2019 23:15	285	2.79	27,401	2.24	0.91	48	Atlas	Retained by Sneads Branch	76,450	1
	4/23/2019 17:45	4/23/2019 18:15	30	0.24	958,054	3.03	0.21	1	Atlas		229,934	1
	4/24/2019 20:30	4/24/2019 21:00	30	0.58	72,198	3.39	0.28	1	Atlas		41,876	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.33	34,061	3.75	0.15	12	Atlas		11,241	1
	4/26/2019 2:30	4/26/2019 2:45	15	0.33	66,579	3.44	0.15	12	Atlas	Retained by Sneads Branch	21,972	1
	5/3/2019 4:45	5/3/2019 7:45	180	0.85	62,629	1.03	0.46	6	Atlas	Retained by Sneads Branch	53,236	1
	5/19/2019 13:15	5/19/2019 13:15	-	0.30	15,150	0.13	0.13	1	Atlas	Retained by Sneads Branch	4,546	1
	5/19/2019 23:00	5/19/2019 23:15	15	0.30	89,457	0.30	0.13	1	Atlas	Retained by Sneads Branch	26,838	1
	5/23/2019 15:45	5/23/2019 15:45	-	0.05	587,700	0.35	0.03	1	Atlas	Retained by Sneads Branch	29,386	1
	5/26/2019 15:00	5/26/2019 15:00	-	0.57	204	0.64	0.34	3	Atlas	Retained by Sneads Branch	117	1
	5/29/2019 9:15	5/29/2019 9:15	-	0.64	18,164	0.83	0.35	6	Atlas	Retained by Sneads Branch	11,626	1
	6/5/2019 21:00	6/5/2019 21:15	15	0.80	99,936	0.91	0.58	1	Atlas	Retained by Sneads Branch	79,950	1
	6/7/2019 21:00	6/7/2019 22:15	75	0.88	6,611	1.19	0.29	48	Atlas	Retained by Sneads Branch	5,819	1
	6/9/2019 0:15	6/9/2019 0:45	30	0.88	11,058	1.73	0.29	48	Atlas		9,732	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.59	144,471	2.16	0.31	3	Atlas		85,239	1
	6/16/2019 6:00	6/16/2019 6:00	-	0.12	22,833	0.81	0.08	3	Atlas		2,741	1
	6/16/2019 19:45	6/16/2019 21:45	120	1.40	122,844	1.39	0.63	6	Atlas		171,983	1
	6/18/2019 4:45	6/18/2019 4:45	-	0.24	1,242	1.78	0.09	24	Atlas	Retained by Sneads Branch	299	1
	6/21/2019 19:30	6/21/2019 19:30	-	0.50	7,552	2.18	0.33	3	Atlas	Retained by Sneads Branch	3,777	1
	6/22/2019 7:00	6/22/2019 7:00	-	0.50	178	2.62	0.33	3	Atlas	Retained by Sneads Branch	90	1
	6/23/2019 16:00	6/23/2019 16:30	30	0.41	244,610	3.09	0.32	1	Atlas		100,291	1
	6/24/2019 13:30	6/24/2019 14:00	30	0.42	313,286	2.15	0.26	3	Atlas		131,581	1
	7/3/2019 12:30	7/3/2019 12:45	15	0.45	18,840	0.62	0.37	1	Atlas	Retained by Sneads Branch	8,479	1
	7/18/2019 0:45	7/18/2019 1:15	30	0.44	264,343	0.53	0.30	1	Atlas		116,312	1
	7/21/2019 22:00	7/21/2019 22:00	-	0.18	9,939	0.56	0.12	3	Atlas	Retained by Sneads Branch	1,790	1
	7/29/2019 23:45	7/30/2019 0:00	15	0.51	137,720	0.51	0.33	3	Atlas	Retained by Sneads Branch	70,238	1
	8/7/2019 4:30	8/7/2019 4:45	15	0.20	261,215	0.21	0.17	1	Atlas	Retained by Sneads Branch	52,244	1
	8/26/2019 11:15	8/26/2019 12:45	90	0.34	133,362	0.72	0.16	6	Atlas	Retained by Sneads Branch	45,344	1
	10/6/2019 14:45	10/6/2019 14:45	-	1.02	5,459	0.19	0.39	6	Atlas	Retained by Sneads Branch	5,569	1
	10/15/2019 22:45	10/15/2019 22:45	-	0.57	6,439	0.80	0.44	1	Atlas	Retained by Sneads Branch	3,671	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/26/2019 5:30	10/26/2019 8:45	195	1.21	27,736	0.99	0.47	24	Atlas	Retained by Sneads Branch	33,562	1
	10/30/2019 14:00	10/30/2019 14:45	45	0.84	62,392	1.95	0.43	3	Atlas	Retained by Sneads Branch	52,410	1
	10/31/2019 6:30	10/31/2019 6:45	15	0.67	15,112	2.51	0.36	6	Atlas	Retained by Sneads Branch	10,126	1
	11/27/2019 0:15	11/27/2019 0:30	15	0.63	6,830	1.03	0.28	6	Atlas	Retained by Sneads Branch	4,304	1
	11/30/2019 4:30	11/30/2019 12:00	450	2.05	16,220	2.48	0.82	12	Atlas	Retained by Sneads Branch	33,253	1
	12/16/2019 17:15	12/16/2019 18:00	45	0.67	7,846	1.17	0.31	6	Atlas	Retained by Sneads Branch	5,258	1
	12/29/2019 10:15	12/29/2019 10:15	-	1.07	264	0.21	0.39	12	Atlas	Retained by Sneads Branch	284	1
	12/29/2019 20:15	12/29/2019 20:45	30	1.07	5,607	0.96	0.39	12	Atlas	Retained by Sneads Branch	6,001	1
	1/11/2020 11:00	1/11/2020 11:15	15	0.72	32,342	0.59	0.35	6	Atlas	Retained by Sneads Branch	23,287	1
	2/12/2020 17:15	2/12/2020 18:30	75	0.77	64,226	1.17	0.37	3	Atlas	Retained by Sneads Branch	49,455	1
	3/10/2020 8:00	3/10/2020 8:15	15	0.33	57,467	0.34	0.15	12	Atlas	Retained by Sneads Branch	18,965	1
	3/12/2020 15:45	3/12/2020 22:45	420	0.49	70,010	0.82	0.22	12	Atlas	Retained by Sneads Branch	34,306	1
	3/14/2020 12:45	3/14/2020 12:45	-	0.45	1,742	1.08	0.21	12	Atlas	Retained by Sneads Branch	785	1
	3/18/2020 16:00	3/18/2020 16:00	-	0.42	919	1.31	0.20	6	Atlas	Retained by Sneads Branch	387	1
	3/19/2020 12:00	3/19/2020 12:30	30	0.30	153,537	1.62	0.15	3	Atlas	Retained by Sneads Branch	46,062	1
	3/24/2020 18:30	3/24/2020 18:30	-	0.16	12,519	0.93	0.08	6	Atlas	Retained by Sneads Branch	2,004	1
	3/28/2020 22:30	3/28/2020 22:45	15	0.27	374,848	0.45	0.23	1	Atlas		101,210	1
	5/8/2020 10:30	5/8/2020 10:30	-	0.59	1,158	0.57	0.27	12	Atlas	Retained by Sneads Branch	684	1
	5/16/2020 0:00	5/16/2020 7:30	450	1.37	76,416	1.51	0.51	24	Atlas	Retained by Sneads Branch	104,691	1
	5/25/2020 16:30	5/25/2020 16:30	-	0.26	22,742	0.30	0.19	1	Atlas	Retained by Sneads Branch	5,914	1
	6/4/2020 18:15	6/4/2020 18:15	-	0.46	243	0.35	0.23	6	Atlas	Retained by Sneads Branch	113	1
	6/21/2020 11:30	6/21/2020 11:45	15	0.47	49,260	0.33	0.26	1	Atlas		23,153	1
	6/22/2020 22:30	6/23/2020 0:00	90	0.79	166,271	1.17	0.35	3	Atlas	Retained by Sneads Branch	131,355	1
CSO180 Total											**30,990,786**	**268**
CSO181	6/10/2013 0:00	6/10/2013 0:00	-	0.33	5,018	0.24	0.14	6	Atlas		1,656	1
	6/26/2013 3:30	6/26/2013 4:45	75	0.75	19,861	1.39	0.50	1	Atlas		14,896	1
	6/26/2013 16:15	6/26/2013 21:00	285	2.42	630,014	3.53	2.63	6	Cloudburst		1,524,635	1
	6/29/2013 20:00	6/29/2013 20:00	-	0.40	12,553	3.69	0.21	6	Atlas		5,021	1
	7/2/2013 13:15	7/2/2013 13:30	15	0.14	1,213,543	4.01	0.12	1	Atlas		169,896	1
	7/4/2013 6:45	7/4/2013 11:45	300	0.52	3,406	1.17	0.22	12	Atlas		1,771	1
	7/4/2013 22:15	7/5/2013 8:30	615	0.52	19,971	1.42	0.22	12	Atlas		10,385	1
	7/6/2013 1:00	7/6/2013 11:45	645	0.58	20,888	1.99	0.25	12	Atlas		12,115	1
	7/10/2013 14:15	7/10/2013 14:30	15	0.64	444,270	1.80	0.44	1	Atlas		284,333	1
	7/14/2013 20:00	7/15/2013 11:15	915	0.11	598,673	0.80	0.10	1	Atlas		65,854	1
	7/18/2013 16:15	7/19/2013 1:15	540	0.29	80,207	0.45	0.22	1	Atlas		23,260	1
	7/22/2013 7:00	7/22/2013 14:00	420	2.03	224,738	2.32	0.78	24	Atlas		456,219	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.78	350,814	0.75	0.33	1	Atlas		273,635	1
	8/31/2013 20:15	8/31/2013 20:15	-	1.34	1,796	0.62	0.62	6	Atlas		2,406	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.51	304,084	1.85	0.44	1	Atlas		155,083	1
	9/20/2013 16:30	9/20/2013 22:45	375	1.22	1,221	0.84	0.51	12	Atlas		1,490	1
	10/5/2013 13:00	10/6/2013 6:30	1,050	4.10	299,347	3.67	6.53	24	Cloudburst		1,227,323	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/19/2013 9:45	10/19/2013 19:30	585	0.20	17,345	0.24	0.10	6	Atlas		3,469	1
	10/30/2013 3:30	10/30/2013 7:15	225	1.51	151,552	1.51	0.74	6	Atlas		228,844	1
	11/7/2013 5:30	11/7/2013 12:45	435	0.19	137,447	0.97	0.08	12	Atlas		26,115	1
	11/17/2013 6:30	11/17/2013 8:15	105	2.16	7,075	1.67	0.93	6	Atlas		15,281	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.16	11,289	2.28	0.93	6	Atlas		24,385	1
	12/5/2013 9:15	12/14/2013 11:00	13,065	0.84	7,420,437	2.10	0.27	48	Atlas		6,233,167	1
	12/21/2013 22:00	12/21/2013 23:00	60	2.56	86,764	2.15	0.96	24	Atlas		222,115	1
	12/23/2013 6:15	12/28/2013 12:15	7,560	0.02	80,905,750	2.70	0.02	1	Atlas		1,618,115	1
	2/4/2014 18:45	2/4/2014 23:45	300	0.50	113,698	1.00	0.25	6	Atlas		56,849	1
	2/17/2014 16:15	2/17/2014 16:30	15	0.63	26,352	1.11	0.37	3	Atlas		16,602	1
	2/21/2014 0:30	2/21/2014 2:15	105	0.18	25,272	1.38	0.10	6	Atlas		4,549	1
	3/2/2014 9:45	3/2/2014 10:45	60	0.59	3,373	0.26	0.22	24	Atlas		1,990	1
	3/29/2014 6:45	3/29/2014 6:45	-	0.86	1,435	0.64	0.40	6	Atlas		1,234	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.80	23,178	3.33	1.00	24	Cloudburst		64,899	1
	4/28/2014 4:30	4/28/2014 6:45	135	1.62	163,373	1.14	0.63	3	Atlas		264,664	1
	4/2/2015 10:45	4/2/2015 15:30	285	5.34	67,584	0.99	15.08	6	Cloudburst		360,901	1
	4/3/2015 0:30	4/3/2015 11:30	660	5.34	230,027	4.91	15.08	6	Cloudburst		1,228,345	1
	4/7/2015 9:30	4/7/2015 17:15	465	0.97	313,957	6.30	0.43	1	Atlas		304,538	1
	5/17/2015 14:30	5/17/2015 14:30	-	0.05	120,380	0.56	0.02	12	Atlas		6,019	1
	5/26/2015 14:15	5/26/2015 14:15	-	0.28	1,789	0.53	0.21	1	Atlas		501	1
	6/18/2015 17:45	6/18/2015 17:45	-	1.42	32,859	1.10	0.46	48	Atlas		46,660	1
	6/26/2015 0:15	6/26/2015 0:15	-	0.43	3,177	1.34	0.23	6	Atlas		1,366	1
	6/26/2015 17:15	6/26/2015 17:45	30	0.90	353,460	2.06	0.49	1	Atlas		318,114	1
	7/2/2015 20:30	7/2/2015 21:00	30	1.19	129,525	2.76	0.46	24	Atlas		154,135	1
	7/12/2015 6:15	7/12/2015 19:30	795	1.16	594,502	2.92	0.79	1	Atlas		689,622	1
	7/13/2015 14:30	7/14/2015 5:00	870	0.33	2,495,052	3.94	0.29	1	Atlas		823,367	1
	7/14/2015 19:00	7/15/2015 4:00	540	0.02	1,764,550	3.30	0.02	1	Atlas		35,291	1
	7/17/2015 22:45	7/18/2015 1:15	150	1.13	243,533	3.36	0.75	3	Atlas		275,192	1
	8/6/2015 2:30	8/6/2015 2:30	-	0.49	18,973	0.46	0.20	1	Atlas		9,297	1
	8/15/2015 16:45	8/15/2015 17:00	15	0.17	145,518	0.30	0.15	1	Atlas		24,738	1
	9/9/2015 11:30	9/9/2015 11:45	15	0.21	164,967	0.28	0.16	1	Atlas		34,643	1
	11/6/2015 4:15	11/6/2015 4:30	15	0.76	132,895	0.83	0.46	3	Atlas		101,000	1
	11/18/2015 11:15	11/18/2015 11:30	15	1.31	125,450	1.18	0.66	6	Atlas		164,340	1
	12/23/2015 19:30	12/23/2015 20:15	45	0.96	105,674	1.58	0.77	1	Atlas		101,447	1
	12/27/2015 11:00	12/27/2015 12:15	75	1.90	104,611	2.84	0.65	3	Atlas		198,761	1
	2/3/2016 0:15	2/3/2016 0:30	15	1.21	86,619	1.21	0.58	6	Atlas		104,809	1
	3/12/2016 23:15	3/12/2016 23:15	-	0.77	8,731	1.68	0.30	24	Atlas		6,723	1
	3/27/2016 21:45	3/27/2016 22:00	15	0.72	84,906	1.17	0.49	1	Atlas		61,132	1
	4/26/2016 16:15	4/26/2016 16:15	-	0.33	3,897	0.43	0.16	6	Atlas		1,286	1
	5/10/2016 18:45	5/10/2016 22:00	195	0.94	31,211	1.85	0.36	12	Atlas		29,338	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.34	95,665	0.43	0.27	1	Atlas		32,526	1
	6/4/2016 16:45	6/4/2016 17:00	15	0.23	619,170	0.63	0.12	1	Atlas		142,409	1
	6/14/2016 17:00	6/14/2016 17:00	-	0.84	45,215	0.64	0.54	3	Atlas		37,981	1
	6/23/2016 16:15	6/23/2016 21:00	285	1.88	247,754	2.05	1.17	6	Cloudburst		465,778	1
	7/27/2016 23:45	7/28/2016 3:45	240	0.67	200,660	0.71	0.31	12	Atlas		134,442	1
	7/30/2016 14:15	7/30/2016 14:30	15	0.45	118,362	1.38	0.39	1	Atlas		53,263	1
	8/15/2016 3:15	8/15/2016 3:15	-	0.92	8,683	0.80	0.45	6	Atlas		7,988	1
	8/17/2016 7:00	8/17/2016 7:15	15	0.83	129,634	1.89	0.36	12	Atlas		107,596	1
	8/20/2016 14:30	8/20/2016 20:15	345	1.10	372,644	2.83	0.45	12	Atlas		409,908	1
	10/20/2016 9:30	10/20/2016 9:30	-	0.60	282	0.16	0.23	24	Atlas		169	1
	12/17/2016 18:45	12/17/2016 21:15	150	2.78	48,701	1.95	2.39	12	Cloudburst		135,388	1
	2/24/2017 19:15	2/24/2017 19:15	-	0.50	1,042	0.55	0.43	1	Atlas		521	1
	3/1/2017 3:30	3/1/2017 3:30	-	1.01	134,711	1.05	0.54	6	Atlas		136,058	1
	4/29/2017 2:00	4/29/2017 3:00	60	0.90	272,641	1.17	0.46	6	Atlas		245,377	1
	5/21/2017 3:15	5/21/2017 3:45	30	0.98	194,839	0.85	0.44	12	Atlas		190,942	1
	5/27/2017 14:30	5/27/2017 14:30	-	0.12	112,542	1.58	0.09	1	Atlas		13,505	1
	6/5/2017 9:00	6/5/2017 9:15	15	0.06	862,150	0.07	0.03	12	Atlas		51,729	1
	6/5/2017 18:30	6/5/2017 18:45	15	0.27	193,433	0.34	0.23	1	Atlas		52,227	1
	6/15/2017 3:15	6/15/2017 3:30	15	0.56	314,688	0.37	0.35	3	Atlas		176,225	1
	6/30/2017 21:15	6/30/2017 21:30	15	0.65	229,477	0.78	0.54	1	Atlas		149,160	1
	7/23/2017 3:00	7/23/2017 3:00	-	1.18	85,300	0.26	0.54	12	Atlas		100,654	1
	7/28/2017 9:45	7/28/2017 9:45	-	0.31	6,190	1.49	0.23	1	Atlas		1,919	1
	8/1/2017 21:45	8/1/2017 21:45	-	0.22	100,250	0.53	0.18	1	Atlas		22,055	1
	8/17/2017 15:15	8/17/2017 15:15	-	0.66	38,245	0.37	0.36	6	Atlas		25,242	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/22/2017 16:15	8/22/2017 16:15	-	0.62	210,906	1.30	0.37	1	Atlas		130,762	1
	9/19/2017 8:15	9/19/2017 8:15	-	0.39	21,590	0.59	0.25	3	Atlas		8,420	1
	10/7/2017 22:00	10/7/2017 22:30	30	1.64	76,288	0.55	0.62	24	Atlas		125,113	1
	11/3/2017 5:00	11/3/2017 5:30	30	0.89	638,215	1.76	0.69	1	Atlas		568,011	1
	11/6/2017 2:15	11/6/2017 2:15	-	0.28	218,054	1.30	0.17	1	Atlas		61,055	1
	12/5/2017 4:15	12/5/2017 4:15	-	0.67	3,794	0.42	0.36	3	Atlas		2,542	1
	2/22/2018 5:00	2/22/2018 5:30	30	1.69	53,555	2.68	0.63	24	Atlas		90,508	1
	4/3/2018 16:30	4/3/2018 16:30	-	0.40	1,688	2.16	0.22	6	Atlas		675	1
	5/5/2018 14:45	5/5/2018 15:00	15	1.51	8,840	1.00	0.58	12	Atlas		13,349	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.34	90,465	0.40	0.27	1	Atlas		30,758	1
	6/1/2018 1:15	6/1/2018 1:30	15	1.37	65,424	1.61	0.69	3	Atlas		89,631	1
	6/25/2018 10:45	6/25/2018 10:45	-	0.87	166,184	1.33	0.35	12	Atlas		144,580	1
	6/26/2018 13:00	6/26/2018 13:00	-	0.59	118,573	1.73	0.24	12	Atlas		69,958	1
	7/2/2018 18:00	7/2/2018 18:15	15	0.27	276,926	0.86	0.22	1	Atlas		74,770	1
	7/3/2018 16:00	7/3/2018 16:00	-	0.36	27,964	0.91	0.27	1	Atlas		10,067	1
	7/20/2018 5:15	7/20/2018 5:15	-	0.94	445	0.41	0.44	3	Atlas		418	1
	7/20/2018 19:45	7/20/2018 21:15	90	0.94	224,269	1.17	0.44	3	Atlas		210,813	1
	7/31/2018 2:00	7/31/2018 7:15	315	1.92	497,910	1.91	0.84	6	Atlas		955,987	1
	8/15/2018 20:00	8/16/2018 9:00	780	2.70	82,445	2.55	1.24	24	Cloudburst		222,602	1
	8/20/2018 11:30	8/20/2018 11:45	15	0.59	175,163	3.34	0.46	1	Atlas		103,346	1
	9/8/2018 17:45	9/8/2018 21:30	225	2.32	395,916	2.31	0.95	6	Atlas		918,526	1
	9/24/2018 7:45	9/24/2018 11:00	195	1.35	8,606	2.68	0.64	6	Atlas		11,618	1
	2/6/2019 7:15	2/6/2019 7:15	-	1.48	143	0.58	0.48	48	Atlas		212	1
	3/9/2019 13:45	3/9/2019 17:15	210	0.99	555,545	0.94	0.45	12	Atlas		549,990	1
	3/14/2019 17:45	3/14/2019 17:45	-	0.43	5,098	1.76	0.30	1	Atlas		2,192	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.59	512,980	2.22	0.32	3	Atlas		302,658	1
	6/18/2019 16:15	6/18/2019 16:15	-	0.21	1,261,733	2.36	0.08	24	Atlas		264,964	1
CSO181 Total											25,750,408	108
CSO182	10/4/2013 19:15	10/4/2013 19:30	15	0.21	27,986	0.28	0.18	1	Atlas	Retained by Sneads Branch	5,877	1
	10/6/2013 15:00	10/6/2013 18:30	1,650	4.49	192,575	4.77	9.84	24	Cloudburst		864,663	1
	10/19/2013 10:00	10/19/2013 11:15	75	0.20	465,750	0.24	0.11	6	Atlas	Retained by Sneads Branch	93,150	1
	10/30/2013 1:30	10/30/2013 7:45	375	2.05	151,095	2.06	1.78	1	Atlas	Retained by Sneads Branch	309,744	1
	10/31/2013 20:15	10/31/2013 22:45	150	0.59	176,612	2.64	0.23	24	Atlas		104,201	1
	11/15/2013 18:45	11/16/2013 5:15	630	0.11	691,191	0.14	0.09	1	Atlas	Retained by Sneads Branch	76,031	1
	11/17/2013 5:15	11/17/2013 22:00	1,005	2.70	35,461	2.84	2.00	6	Cloudburst		95,745	1
	12/5/2013 5:45	12/5/2013 11:30	345	0.72	29,947	0.23	0.23	48	Atlas	Retained by Sneads Branch	21,562	1
	12/6/2013 4:00	12/6/2013 12:00	480	0.72	26,974	0.41	0.23	48	Atlas	Retained by Sneads Branch	19,421	1
	12/14/2013 4:30	12/14/2013 12:00	450	0.93	75,994	1.35	0.36	12	Atlas	Retained by Sneads Branch	70,674	1
	12/21/2013 5:15	12/21/2013 13:15	480	0.85	84,892	1.44	0.39	12	Atlas	Retained by Sneads Branch	72,158	1
	12/22/2013 1:15	12/22/2013 8:15	420	1.69	90,046	2.64	0.94	3	Atlas		152,177	1
	12/29/2013 2:30	12/29/2013 7:15	285	0.51	110,288	0.54	0.22	12	Atlas	Retained by Sneads Branch	56,247	1
	1/5/2014 15:15	1/5/2014 20:15	300	0.50	147,080	0.73	0.25	3	Atlas	Retained by Sneads Branch	73,540	1
	1/11/2014 0:30	1/11/2014 5:45	315	1.04	37,893	1.55	0.56	6	Atlas	Retained by Sneads Branch	39,409	1
	1/13/2014 14:30	1/13/2014 15:45	75	0.18	156,700	1.18	0.09	6	Atlas	Retained by Sneads Branch	28,206	1
	2/2/2014 4:00	2/2/2014 7:45	225	0.20	272,805	0.20	0.10	6	Atlas	Retained by Sneads Branch	54,561	1
	2/4/2014 18:45	2/5/2014 4:00	555	0.51	153,133	0.96	0.25	6	Atlas	Retained by Sneads Branch	78,098	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/14/2014 16:30	2/14/2014 18:45	135	0.54	126.761	0.56	0.29	6	Atlas	Retained by Sneads Branch	68,451	1
	2/17/2014 15:00	2/17/2014 18:45	225	0.40	231.815	1.01	0.25	3	Atlas	Retained by Sneads Branch	92,726	1
	2/20/2014 20:30	2/20/2014 23:45	195	0.23	74.396	1.24	0.13	6	Atlas	Retained by Sneads Branch	17,111	1
	3/2/2014 9:45	3/2/2014 11:45	120	0.65	127.818	0.33	0.25	24	Atlas	Retained by Sneads Branch	83,082	1
	3/12/2014 7:30	3/12/2014 7:30	-	0.11	5.955	0.09	0.05	1	Atlas	Retained by Sneads Branch	655	1
	3/28/2014 4:15	3/28/2014 5:00	45	0.26	81.273	0.31	0.12	1	Atlas	Retained by Sneads Branch	21,131	1
	3/29/2014 5:15	3/29/2014 13:15	480	0.88	86.785	1.17	0.42	6	Atlas	Retained by Sneads Branch	76,371	1
	4/1/2014 20:30	4/1/2014 20:30	-	0.10	11.260	1.27	0.07	1	Atlas	Retained by Sneads Branch	1,126	1
	4/3/2014 7:45	4/4/2014 14:15	1,830	2.65	247.702	3.92	0.92	24	Atlas	Retained by Sneads Branch	656,411	1
	4/7/2014 7:45	4/7/2014 16:00	495	0.80	448.986	3.57	0.49	1	Atlas		359,189	1
	4/14/2014 3:45	4/14/2014 10:30	405	0.39	48.692	1.23	0.19	6	Atlas	Retained by Sneads Branch	18,990	1
	4/14/2014 19:30	4/15/2014 3:00	450	0.63	492.562	1.06	0.30	6	Atlas	Retained by Sneads Branch	310,314	1
	4/27/2014 20:30	4/28/2014 8:15	705	1.70	40.328	1.40	0.68	3	Atlas	Retained by Sneads Branch	68,557	1
	4/28/2014 16:45	4/28/2014 20:15	210	1.70	19.885	1.79	0.68	3	Atlas	Retained by Sneads Branch	33,804	1
	4/29/2014 19:00	4/29/2014 19:00	-	0.18	17.139	1.85	0.08	12	Atlas	Retained by Sneads Branch	3,085	1
	5/9/2014 19:00	5/10/2014 16:30	1,290	1.80	43.350	1.89	0.69	24	Atlas	Retained by Sneads Branch	78,030	1
	5/14/2014 7:15	5/15/2014 1:00	1,065	1.12	107.362	3.06	0.43	24	Atlas		120,245	1
	5/16/2014 3:45	5/16/2014 3:45	-	0.07	1.100	3.12	0.05	3	Atlas	Retained by Sneads Branch	77	1
	5/22/2014 2:45	5/22/2014 4:00	75	0.43	105.298	0.49	0.22	1	Atlas	Retained by Sneads Branch	45,278	1
	5/29/2014 20:45	5/29/2014 23:00	135	1.13	1,246.588	1.34	0.90	1	Atlas	Retained by Sneads Branch	1,408,645	1
	5/30/2014 14:00	5/30/2014 14:45	45	0.33	282.300	1.66	0.24	1	Atlas	Retained by Sneads Branch	93,159	1
	6/10/2014 16:00	6/10/2014 16:00	-	0.13	2.977	0.16	0.09	3	Atlas	Retained by Sneads Branch	387	1
	6/11/2014 14:15	6/11/2014 14:45	30	0.09	39.867	0.30	0.05	1	Atlas	Retained by Sneads Branch	3,588	1
	6/20/2014 16:30	6/20/2014 18:00	90	0.23	43.304	0.23	0.15	3	Atlas	Retained by Sneads Branch	9,960	1
	6/24/2014 14:00	6/24/2014 14:00	-	0.16	20.538	0.42	0.10	1	Atlas	Retained by Sneads Branch	3,286	1
	7/1/2014 22:30	7/1/2014 22:30	-	0.18	644	0.21	0.11	3	Atlas	Retained by Sneads Branch	116	1
	7/2/2014 16:30	7/2/2014 17:00	30	0.11	143.127	0.32	0.09	1	Atlas	Retained by Sneads Branch	15,744	1
	7/13/2014 22:00	7/13/2014 23:45	105	0.64	264.269	1.59	0.33	3	Atlas		169,132	1
	7/26/2014 22:00	7/27/2014 9:45	705	1.32	90.537	1.34	0.60	12	Atlas		119,509	1
	8/8/2014 5:30	8/8/2014 8:15	165	1.00	20.335	0.80	0.45	6	Atlas	Retained by Sneads Branch	20,335	1
	8/9/2014 3:45	8/9/2014 4:15	30	0.07	89.871	1.02	0.04	6	Atlas	Retained by Sneads Branch	6,291	1
	8/10/2014 4:15	8/10/2014 4:15	-	0.44	20.318	1.51	0.37	1	Atlas		8,940	1
	8/11/2014 15:15	8/11/2014 16:00	45	0.42	63.112	1.85	0.30	1	Atlas	Retained by Sneads Branch	26,507	1
	8/17/2014 0:30	8/17/2014 0:45	15	0.71	15.715	1.16	0.27	24	Atlas		11,158	1
	8/17/2014 9:30	8/17/2014 10:45	75	0.71	26.938	1.03	0.27	24	Atlas		19,126	1
	8/17/2014 20:45	8/17/2014 23:15	150	0.71	22.870	1.14	0.27	24	Atlas		16,238	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/22/2014 19:15	8/22/2014 19:45	30	0.24	42,079	0.90	0.16	1	Atlas	Retained by Sneads Branch	10,099	1
	8/23/2014 16:15	8/23/2014 22:15	360	0.72	249,736	1.64	0.34	3	Atlas	Retained by Sneads Branch	179,810	1
	8/27/2014 15:30	8/27/2014 18:00	150	0.30	245,720	1.29	0.19	3	Atlas		73,716	1
	8/30/2014 15:45	8/30/2014 16:15	30	0.58	66,472	1.39	0.37	1	Atlas	Retained by Sneads Branch	38,554	1
	9/2/2014 7:15	9/3/2014 0:00	1,005	0.36	170,889	1.26	0.22	3	Atlas	Retained by Sneads Branch	61,520	1
	9/11/2014 0:30	9/11/2014 6:45	375	1.99	532,942	1.94	1.60	3	Atlas		1,060,555	1
	10/6/2014 8:00	10/6/2014 8:15	15	0.13	165,569	0.30	0.05	3	Atlas	Retained by Sneads Branch	21,524	1
	10/7/2014 12:15	10/7/2014 12:15	-	0.17	74,841	0.51	0.14	1	Atlas	Retained by Sneads Branch	12,723	1
	10/10/2014 2:30	10/10/2014 3:15	45	1.06	10,856	1.24	0.50	1	Atlas	Retained by Sneads Branch	11,507	1
	10/10/2014 17:30	10/10/2014 17:45	15	1.06	12,980	1.37	0.50	1	Atlas	Retained by Sneads Branch	13,759	1
	10/13/2014 4:45	10/13/2014 6:45	120	0.40	102,323	1.75	0.26	3	Atlas	Retained by Sneads Branch	40,929	1
	10/14/2014 0:15	10/14/2014 10:30	615	1.12	75,285	2.77	0.50	12	Atlas	Retained by Sneads Branch	84,319	1
	10/31/2014 7:00	11/1/2014 7:15	1,455	0.14	3,887,743	0.28	0.05	24	Atlas	Retained by Sneads Branch	544,284	1
	11/23/2014 14:45	11/23/2014 20:15	330	0.79	122,684	1.15	0.36	6	Atlas	Retained by Sneads Branch	96,920	1
	12/1/2014 3:15	12/1/2014 5:30	135	0.85	25,494	0.43	0.32	24	Atlas	Retained by Sneads Branch	21,670	1
	12/1/2014 14:45	12/1/2014 15:45	60	0.85	47,516	0.78	0.32	24	Atlas	Retained by Sneads Branch	40,389	1
	12/5/2014 4:45	12/5/2014 7:00	135	1.86	31,521	1.29	0.60	48	Atlas	Retained by Sneads Branch	58,629	1
	12/6/2014 20:30	12/6/2014 7:45	675	1.86	127,758	2.70	0.60	48	Atlas	Retained by Sneads Branch	237,629	1
	12/16/2014 5:30	12/16/2014 5:30	-	0.08	83,288	0.08	0.05	3	Atlas	Retained by Sneads Branch	6,663	1
	12/22/2014 22:45	12/23/2014 0:15	90	0.23	65,078	0.30	0.15	3	Atlas	Retained by Sneads Branch	14,968	1
	12/23/2014 20:15	12/23/2014 20:15	-	0.04	97,150	0.28	0.03	3	Atlas	Retained by Sneads Branch	3,886	1
	12/24/2014 13:30	12/24/2014 13:45	15	0.13	46,692	0.39	0.08	3	Atlas	Retained by Sneads Branch	6,070	1
	12/28/2014 1:00	12/28/2014 1:45	45	0.28	48,864	0.69	0.12	1	Atlas	Retained by Sneads Branch	13,682	1
	1/3/2015 10:45	1/4/2015 11:00	1,455	0.30	2,082,523	0.55	0.11	24	Atlas	Retained by Sneads Branch	624,757	1
	1/12/2015 2:15	1/12/2015 3:30	75	0.17	134,841	0.14	0.07	24	Atlas	Retained by Sneads Branch	22,923	1
	2/1/2015 13:00	2/1/2015 18:00	300	0.37	62,405	0.50	0.17	12	Atlas	Retained by Sneads Branch	23,090	1
	2/21/2015 13:30	2/21/2015 17:45	255	1.29	48,232	1.50	0.50	24	Atlas	Retained by Sneads Branch	62,219	1
	3/3/2015 19:15	3/4/2015 18:45	1,410	1.62	150,341	1.33	0.53	48	Atlas	Retained by Sneads Branch	243,552	1
	3/10/2015 7:00	3/10/2015 21:30	870	1.37	158,172	2.99	0.62	12	Atlas	Retained by Sneads Branch	216,696	1
	3/13/2015 10:15	3/14/2015 15:30	1,755	1.76	178,619	3.13	0.66	24	Atlas	Retained by Sneads Branch	314,369	1
	3/19/2015 19:45	3/19/2015 20:15	30	0.19	3,358	1.94	0.07	24	Atlas	Retained by Sneads Branch	638	1
	3/24/2015 20:30	3/24/2015 20:30	-	0.09	1,389	0.26	0.04	1	Atlas	Retained by Sneads Branch	125	1
	3/26/2015 5:15	3/26/2015 6:45	90	0.43	63,412	0.56	0.18	12	Atlas	Retained by Sneads Branch	27,267	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/26/2015 15:45	3/26/2015 16:00	15	0.43	4,507	0.64	0.18	12	Atlas	Retained by Sneads Branch	1,938	1
	4/2/2015 10:15	4/3/2015 0:15	840	5.66	6,719	1.66	27.08	6	Cloudburst	Retained by Sneads Branch	38,032	1
	7/27/2015 10:00	7/27/2015 10:00	-	0.10	58,690	0.17	0.09	1	Atlas	Retained by Sneads Branch	5,869	1
	7/29/2015 17:45	7/29/2015 18:00	15	0.08	1,202,475	0.21	0.07	1	Atlas	Retained by Sneads Branch	96,198	1
	8/4/2015 19:15	8/4/2015 20:00	45	0.14	54,643	0.22	0.11	1	Atlas	Retained by Sneads Branch	7,650	1
	8/6/2015 2:45	8/6/2015 15:45	780	0.92	21,295	1.05	0.35	24	Atlas	Retained by Sneads Branch	19,591	1
	8/10/2015 20:45	8/10/2015 21:15	30	0.10	173,500	1.21	0.09	1	Atlas	Retained by Sneads Branch	17,350	1
	8/15/2015 17:15	8/15/2015 17:15	-	0.07	34,100	0.21	0.06	1	Atlas	Retained by Sneads Branch	2,387	1
	8/19/2015 7:45	8/19/2015 17:30	585	0.75	52,751	0.79	0.37	1	Atlas	Retained by Sneads Branch	39,563	1
	9/29/2015 12:15	9/29/2015 19:45	450	0.88	36,334	0.87	0.29	48	Atlas	Retained by Sneads Branch	31,974	1
	10/2/2015 17:30	10/2/2015 19:45	135	0.63	77,233	1.56	0.30	6	Atlas	Retained by Sneads Branch	48,657	1
	10/9/2015 11:45	10/9/2015 11:45	-	0.13	5,546	0.76	0.07	3	Atlas	Retained by Sneads Branch	721	1
	10/12/2015 18:15	10/12/2015 19:45	90	0.28	80,746	0.40	0.19	3	Atlas	Retained by Sneads Branch	22,609	1
	10/24/2015 20:00	10/24/2015 20:15	15	0.39	10,487	0.39	0.19	3	Atlas	Retained by Sneads Branch	4,090	1
	10/27/2015 11:30	10/28/2015 8:15	1,245	2.42	76,473	2.82	0.79	24	Atlas	Retained by Sneads Branch	185,065	1
	10/28/2015 22:30	10/28/2015 23:00	30	0.17	54,912	2.97	0.09	6	Atlas	Retained by Sneads Branch	9,335	1
	10/31/2015 23:30	11/1/2015 0:45	75	0.21	22,657	2.80	0.14	3	Atlas	Retained by Sneads Branch	4,758	1
	11/6/2015 4:45	11/6/2015 5:30	45	0.71	16,890	0.87	0.43	3	Atlas	Retained by Sneads Branch	11,992	1
	11/9/2015 16:30	11/9/2015 22:15	345	0.53	104,191	1.24	0.23	12	Atlas	Retained by Sneads Branch	55,221	1
	11/12/2015 0:00	11/12/2015 1:45	105	0.29	31,510	1.53	0.19	3	Atlas	Retained by Sneads Branch	9,138	1
	11/18/2015 8:45	11/18/2015 18:30	585	1.48	54,405	1.90	0.77	6	Atlas	Retained by Sneads Branch	80,519	1
	11/21/2015 15:15	11/21/2015 15:30	15	0.11	14,336	1.72	0.09	1	Atlas	Retained by Sneads Branch	1,577	1
	11/28/2015 13:15	11/28/2015 21:00	465	0.71	60,968	0.93	0.29	12	Atlas	Retained by Sneads Branch	43,287	1
	11/30/2015 0:30	11/30/2015 2:30	120	0.05	854,120	0.94	0.02	12	Atlas	Retained by Sneads Branch	42,706	1
	11/30/2015 22:15	12/1/2015 5:30	435	0.71	75,456	1.65	0.32	12	Atlas	Retained by Sneads Branch	53,574	1
	12/14/2015 5:15	12/14/2015 7:15	120	0.24	165,296	0.19	0.13	6	Atlas	Retained by Sneads Branch	39,671	1
	12/21/2015 11:15	12/21/2015 11:45	30	0.20	31,000	0.22	0.10	6	Atlas	Retained by Sneads Branch	6,200	1
	12/21/2015 23:15	12/22/2015 5:00	345	0.56	23,289	0.78	0.30	6	Atlas	Retained by Sneads Branch	13,042	1
	12/23/2015 19:30	12/23/2015 22:15	165	0.84	129,671	1.63	0.64	1	Atlas	Retained by Sneads Branch	108,924	1
	12/25/2015 9:15	12/25/2015 9:45	30	0.12	72,333	1.72	0.07	3	Atlas	Retained by Sneads Branch	8,680	1
	12/26/2015 11:15	12/26/2015 18:00	405	0.33	129,218	2.06	0.15	12	Atlas	Retained by Sneads Branch	42,642	1
	12/27/2015 10:15	12/28/2015 20:15	2,040	1.89	127,320	3.95	0.65	3	Atlas	Retained by Sneads Branch	240,635	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/9/2016 18:30	1/9/2016 22:30	240	0.20	36.165	0.28	0.09	12	Atlas	Retained by Sneads Branch	7,233	1
	2/1/2016 5:30	2/1/2016 5:45	15	0.10	23,350	0.13	0.05	3	Atlas	Retained by Sneads Branch	2,335	1
	2/2/2016 15:00	2/3/2016 3:30	750	1.18	52,298	1.28	0.57	6	Atlas	Retained by Sneads Branch	61,712	1
	2/21/2016 4:15	2/21/2016 11:15	420	0.95	57,437	1.13	0.44	12	Atlas	Retained by Sneads Branch	54,565	1
	2/23/2016 22:30	2/24/2016 15:00	990	2.11	59,611	2.90	0.83	12	Atlas	Retained by Sneads Branch	125,780	1
	2/29/2016 1:45	2/29/2016 2:00	15	0.02	431,700	2.13	0.01	3	Atlas	Retained by Sneads Branch	8,634	1
	3/1/2016 12:00	3/1/2016 14:30	150	0.26	138,285	2.38	0.14	3	Atlas	Retained by Sneads Branch	35,954	1
	3/9/2016 15:45	3/9/2016 17:00	75	1.11	20,750	0.28	0.36	48	Atlas	Retained by Sneads Branch	23,033	1
	3/10/2016 13:30	3/10/2016 21:00	450	1.11	101,280	1.16	0.36	48	Atlas	Retained by Sneads Branch	112,421	1
	3/12/2016 20:15	3/13/2016 0:45	270	0.86	45,512	1.72	0.33	24	Atlas	Retained by Sneads Branch	39,140	1
	3/13/2016 9:00	3/13/2016 12:45	225	0.86	24,872	2.02	0.33	24	Atlas	Retained by Sneads Branch	21,390	1
	3/19/2016 9:15	3/19/2016 10:00	45	0.18	95,311	1.18	0.13	1	Atlas	Retained by Sneads Branch	17,156	1
	3/24/2016 17:30	3/24/2016 18:30	60	0.53	16,164	0.71	0.41	1	Atlas	Retained by Sneads Branch	8,567	1
	3/27/2016 21:00	3/27/2016 23:00	120	0.83	65,054	1.36	0.58	1	Atlas	Retained by Sneads Branch	53,995	1
	3/31/2016 1:45	4/1/2016 1:00	1,395	1.17	70,534	2.53	0.45	24	Atlas	Retained by Sneads Branch	82,525	1
	4/11/2016 14:00	4/11/2016 21:15	435	1.03	55,116	1.14	0.46	12	Atlas	Retained by Sneads Branch	56,769	1
	4/21/2016 14:45	4/21/2016 16:15	90	0.31	38,819	0.21	0.11	3	Atlas	Retained by Sneads Branch	12,034	1
	4/22/2016 1:15	4/22/2016 1:30	15	0.31	15,245	0.25	0.11	3	Atlas	Retained by Sneads Branch	4,726	1
	4/26/2016 15:30	4/26/2016 22:15	405	0.31	87,442	0.63	0.15	6	Atlas	Retained by Sneads Branch	27,107	1
	4/27/2016 13:00	4/27/2016 22:45	585	0.60	24,092	1.21	0.29	3	Atlas	Retained by Sneads Branch	14,455	1
	4/30/2016 9:00	4/30/2016 13:45	285	0.50	51,266	1.27	0.18	24	Atlas	Retained by Sneads Branch	25,633	1
	5/1/2016 15:30	5/1/2016 17:00	90	0.43	36,870	1.83	0.29	1	Atlas	Retained by Sneads Branch	15,854	1
	5/4/2016 11:15	5/4/2016 12:00	45	0.19	83,389	1.70	0.12	1	Atlas	Retained by Sneads Branch	15,844	1
	5/7/2016 16:30	5/7/2016 22:45	375	0.65	42,374	1.41	0.34	6	Atlas	Retained by Sneads Branch	27,543	1
	5/10/2016 8:30	5/10/2016 22:45	855	0.91	56,036	1.75	0.33	24	Atlas	Retained by Sneads Branch	50,993	1
	5/11/2016 19:15	5/11/2016 22:45	210	0.32	85,444	1.86	0.17	3	Atlas	Retained by Sneads Branch	27,342	1
	5/12/2016 18:00	5/12/2016 18:00	-	0.08	5,988	1.97	0.06	1	Atlas	Retained by Sneads Branch	479	1
	5/17/2016 6:15	5/17/2016 7:30	75	0.37	118,605	1.62	0.15	12	Atlas	Retained by Sneads Branch	43,884	1
	5/17/2016 20:15	5/17/2016 21:15	60	0.27	106,896	1.33	0.14	3	Atlas	Retained by Sneads Branch	28,862	1
	5/20/2016 13:15	5/20/2016 16:45	210	0.62	76,523	1.28	0.35	3	Atlas	Retained by Sneads Branch	47,444	1
	5/26/2016 14:00	5/26/2016 16:00	120	0.26	56,554	0.96	0.17	3	Atlas	Retained by Sneads Branch	14,704	1
	6/2/2016 15:15	6/2/2016 16:15	60	0.51	14,159	0.63	0.42	1	Atlas	Retained by Sneads Branch	7,221	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/4/2016 18:15	6/4/2016 18:45	30	0.15	38,093	0.69	0.08	1	Atlas	Retained by Sneads Branch	5,714	1
	6/7/2016 1:00	6/7/2016 1:00	-	0.06	9,100	0.76	0.05	1	Atlas	Retained by Sneads Branch	546	1
	6/12/2016 18:00	6/12/2016 19:30	90	0.29	61,972	0.35	0.24	1	Atlas	Retained by Sneads Branch	17,972	1
	6/14/2016 16:45	6/14/2016 19:00	135	0.64	20,394	0.92	0.41	3	Atlas	Retained by Sneads Branch	13,052	1
	6/15/2016 14:00	6/15/2016 14:00	-	0.22	11,900	1.15	0.19	1	Atlas	Retained by Sneads Branch	2,618	1
	6/23/2016 17:00	6/23/2016 23:15	375	1.58	10,704	1.67	0.83	6	Atlas	Retained by Sneads Branch	16,913	1
	11/8/2016 20:00	11/8/2016 20:30	30	0.19	68,426	0.22	0.09	12	Atlas	Retained by Sneads Branch	13,001	1
	11/19/2016 2:45	11/19/2016 3:15	30	0.16	95,769	0.16	0.11	3	Atlas	Retained by Sneads Branch	15,323	1
	11/23/2016 20:15	11/23/2016 21:30	75	0.28	68,236	0.44	0.11	6	Atlas	Retained by Sneads Branch	19,106	1
	11/28/2016 14:15	11/28/2016 22:15	480	0.72	125,733	1.00	0.32	12	Atlas	Retained by Sneads Branch	90,528	1
	12/6/2016 4:30	12/6/2016 13:00	510	0.90	239,156	0.94	0.41	12	Atlas	Retained by Sneads Branch	215,240	1
	12/11/2016 21:30	12/11/2016 22:30	60	0.31	53,397	1.17	0.14	12	Atlas	Retained by Sneads Branch	16,553	1
	12/17/2016 16:45	12/18/2016 3:30	645	2.56	12,370	2.87	1.70	12	Cloudburst	Retained by Sneads Branch	31,668	1
	12/23/2016 22:45	12/24/2016 1:45	180	0.16	218,813	2.72	0.07	12	Atlas	Retained by Sneads Branch	35,010	1
	12/26/2016 20:15	12/26/2016 23:00	165	0.26	62,431	0.42	0.13	6	Atlas	Retained by Sneads Branch	16,232	1
	1/3/2017 2:00	1/3/2017 5:15	195	0.15	121,840	0.23	0.08	6	Atlas	Retained by Sneads Branch	18,276	1
	1/10/2017 20:00	1/10/2017 20:30	30	0.15	57,240	0.39	0.11	1	Atlas	Retained by Sneads Branch	8,586	1
	1/11/2017 12:30	1/11/2017 14:15	105	0.22	101,532	0.61	0.15	3	Atlas	Retained by Sneads Branch	22,337	1
	1/12/2017 16:00	1/12/2017 22:00	360	0.44	104,386	0.83	0.21	6	Atlas	Retained by Sneads Branch	45,930	1
	1/13/2017 15:00	1/13/2017 16:15	75	0.26	33,819	1.06	0.16	3	Atlas	Retained by Sneads Branch	8,793	1
	1/14/2017 11:15	1/14/2017 14:30	195	0.18	113,472	1.26	0.08	12	Atlas	Retained by Sneads Branch	20,425	1
	1/15/2017 17:00	1/15/2017 17:15	15	0.12	3,308	1.34	0.06	12	Atlas	Retained by Sneads Branch	397	1
	1/16/2017 19:00	1/17/2017 4:30	570	0.62	110,523	1.99	0.28	12	Atlas	Retained by Sneads Branch	68,524	1
	1/19/2017 18:45	1/20/2017 5:00	615	1.17	134,050	2.54	0.54	12	Atlas	Retained by Sneads Branch	156,839	1
	2/7/2017 9:45	2/7/2017 13:15	210	0.43	80,153	0.41	0.17	6	Atlas	Retained by Sneads Branch	34,466	1
	2/8/2017 17:00	2/8/2017 17:15	15	0.08	36,825	0.45	0.05	1	Atlas	Retained by Sneads Branch	2,946	1
	2/24/2017 19:30	2/24/2017 19:45	15	0.57	8,404	0.64	0.49	1	Atlas	Retained by Sneads Branch	4,790	1
	2/28/2017 5:45	2/28/2017 11:15	330	0.23	87,635	0.85	0.11	6	Atlas	Retained by Sneads Branch	20,156	1
	3/1/2017 3:15	3/1/2017 10:15	420	0.95	255,855	1.80	0.50	6	Atlas	Retained by Sneads Branch	243,062	1
	3/7/2017 7:45	3/7/2017 15:15	450	0.50	170,136	1.59	0.16	48	Atlas	Retained by Sneads Branch	85,068	1
	3/26/2017 1:15	3/26/2017 3:00	105	0.40	168,413	0.29	0.19	6	Atlas	Retained by Sneads Branch	67,365	1
	3/27/2017 17:30	3/27/2017 19:30	120	0.29	287,314	0.69	0.16	3	Atlas	Retained by Sneads Branch	83,321	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/30/2017 20:45	3/31/2017 1:15	270	0.45	140,618	1.21	0.22	6	Atlas	Retained by Sneads Branch	63,278	1
	4/3/2017 19:30	4/3/2017 19:45	15	0.12	105,867	0.66	0.07	1	Atlas	Retained by Sneads Branch	12,704	1
	4/11/2017 9:00	4/11/2017 14:45	345	0.35	96,943	0.41	0.16	12	Atlas	Retained by Sneads Branch	33,930	1
	4/16/2017 5:45	4/16/2017 6:00	15	1.18	15,705	0.44	0.56	6	Atlas	Retained by Sneads Branch	18,532	1
	4/16/2017 17:45	4/16/2017 21:15	210	1.18	49,207	1.50	0.56	6	Atlas	Retained by Sneads Branch	58,064	1
	4/21/2017 22:00	4/22/2017 0:45	165	0.59	110,656	1.65	0.21	24	Atlas	Retained by Sneads Branch	65,287	1
	4/22/2017 13:00	4/22/2017 13:00	-	0.59	780	1.82	0.21	24	Atlas	Retained by Sneads Branch	460	1
	4/27/2017 7:15	4/27/2017 7:30	15	0.15	33,200	0.76	0.09	1	Atlas	Retained by Sneads Branch	4,980	1
	4/29/2017 0:30	4/29/2017 4:30	240	0.89	35,425	1.18	0.49	3	Atlas	Retained by Sneads Branch	31,528	1
	5/1/2017 2:30	5/1/2017 4:15	105	0.21	133,486	1.24	0.11	3	Atlas	Retained by Sneads Branch	28,032	1
	5/4/2017 19:45	5/5/2017 18:30	1,365	1.81	113,176	2.91	0.61	24	Atlas	Retained by Sneads Branch	204,848	1
	5/6/2017 9:00	5/6/2017 9:15	15	0.10	39,910	2.11	0.05	3	Atlas	Retained by Sneads Branch	3,991	1
	5/11/2017 4:00	5/11/2017 6:00	120	0.19	43,879	2.06	0.11	3	Atlas	Retained by Sneads Branch	8,337	1
	5/20/2017 19:00	5/21/2017 7:30	750	1.03	61,601	1.04	0.45	12	Atlas	Retained by Sneads Branch	63,449	1
	5/24/2017 18:00	5/25/2017 3:00	540	0.62	39,537	1.63	0.22	24	Atlas	Retained by Sneads Branch	24,513	1
	6/5/2017 8:45	6/5/2017 9:30	45	0.06	321,433	0.07	0.03	12	Atlas	Retained by Sneads Branch	19,286	1
	6/5/2017 19:00	6/5/2017 19:00	-	0.18	14,911	0.25	0.16	1	Atlas	Retained by Sneads Branch	2,684	1
	6/12/2017 12:15	6/12/2017 12:30	15	0.11	138,064	0.29	0.10	1	Atlas	Retained by Sneads Branch	15,187	1
	6/15/2017 3:00	6/15/2017 5:00	120	0.69	25,749	0.78	0.43	3	Atlas	Retained by Sneads Branch	17,767	1
	6/18/2017 21:45	6/18/2017 22:15	30	0.16	33,394	1.00	0.10	3	Atlas	Retained by Sneads Branch	5,343	1
	6/22/2017 16:00	6/22/2017 19:30	210	0.32	24,978	0.48	0.17	6	Atlas	Retained by Sneads Branch	7,993	1
	6/23/2017 14:45	6/23/2017 18:45	240	0.80	65,586	1.28	0.42	6	Atlas	Retained by Sneads Branch	52,469	1
	6/30/2017 21:30	6/30/2017 21:45	15	0.95	12,506	1.00	0.82	1	Atlas	Retained by Sneads Branch	11,881	1
	7/6/2017 4:30	7/6/2017 13:45	555	0.54	50,437	1.53	0.25	3	Atlas	Retained by Sneads Branch	27,236	1
	7/7/2017 20:45	7/7/2017 21:45	60	0.49	28,678	1.47	0.37	1	Atlas	Retained by Sneads Branch	14,052	1
	7/23/2017 2:30	7/23/2017 10:15	465	1.04	31,749	1.04	0.48	12	Atlas	Retained by Sneads Branch	33,019	1
	7/28/2017 9:45	7/28/2017 10:45	60	0.20	35,275	1.22	0.13	1	Atlas	Retained by Sneads Branch	7,055	1
	8/2/2017 13:00	8/2/2017 13:30	30	0.09	36,044	0.35	0.08	1	Atlas	Retained by Sneads Branch	3,244	1
	8/6/2017 14:45	8/7/2017 0:30	585	0.56	25,923	0.71	0.25	12	Atlas	Retained by Sneads Branch	14,517	1
	8/17/2017 15:30	8/17/2017 18:45	195	0.72	8,671	0.75	0.39	6	Atlas	Retained by Sneads Branch	6,243	1
	8/22/2017 13:00	8/22/2017 17:00	240	0.59	5,971	1.32	0.44	1	Atlas	Retained by Sneads Branch	3,523	1
	8/29/2017 19:45	8/29/2017 20:00	15	0.12	44,925	0.15	0.08	1	Atlas	Retained by Sneads Branch	5,391	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/1/2017 5:45	9/2/2017 6:30	1,485	3.40	57,134	3.54	2.20	24	Cloudburst		194,257	1
	9/12/2017 7:30	9/12/2017 8:00	30	0.68	15,953	0.43	0.22	48	Atlas	Retained by Sneads Branch	10,848	1
	9/12/2017 20:30	9/12/2017 20:45	15	0.68	8,571	0.38	0.22	48	Atlas	Retained by Sneads Branch	5,828	1
	9/13/2017 12:30	9/13/2017 12:30	-	0.68	5,335	0.56	0.22	48	Atlas	Retained by Sneads Branch	3,628	1
	9/19/2017 8:15	9/19/2017 10:30	135	0.50	38,260	0.90	0.33	3	Atlas	Retained by Sneads Branch	19,130	1
	10/7/2017 22:30	10/8/2017 19:45	1,275	1.77	37,914	1.77	0.67	24	Atlas	Retained by Sneads Branch	67,108	1
	10/10/2017 14:00	10/10/2017 21:15	435	0.67	74,076	2.45	0.34	3	Atlas		49,631	1
	10/23/2017 7:15	10/23/2017 8:15	60	0.55	48,155	0.50	0.29	6	Atlas	Retained by Sneads Branch	26,485	1
	10/27/2017 17:30	10/28/2017 1:15	465	0.77	179,187	1.38	0.35	12	Atlas	Retained by Sneads Branch	137,974	1
	11/3/2017 4:30	11/3/2017 4:30	-	1.50	6,954	1.55	2.66	1	Atlas		10,431	1
	12/22/2017 18:30	12/23/2017 12:30	1,080	1.03	243,009	1.03	0.41	12	Atlas	Retained by Sneads Branch	250,299	1
	1/11/2018 9:00	1/11/2018 17:00	480	0.07	245,857	0.19	0.04	3	Atlas	Retained by Sneads Branch	17,210	1
	1/12/2018 3:45	1/12/2018 12:45	540	0.39	210,054	0.43	0.15	24	Atlas	Retained by Sneads Branch	81,921	1
	1/27/2018 14:00	1/27/2018 17:30	210	0.32	210,647	0.46	0.17	6	Atlas	Retained by Sneads Branch	67,407	1
	2/7/2018 1:00	2/7/2018 4:45	225	0.44	223,957	0.66	0.24	6	Atlas	Retained by Sneads Branch	98,541	1
	2/11/2018 4:15	2/11/2018 11:30	435	0.36	157,592	0.91	0.17	12	Atlas	Retained by Sneads Branch	56,733	1
	2/14/2018 7:15	2/14/2018 15:45	510	0.40	163,383	0.87	0.18	12	Atlas	Retained by Sneads Branch	65,353	1
	2/16/2018 3:15	2/16/2018 12:00	525	0.71	343,545	1.65	0.33	12	Atlas	Retained by Sneads Branch	243,917	1
	2/17/2018 13:00	2/17/2018 15:45	165	0.20	399,805	1.80	0.13	3	Atlas	Retained by Sneads Branch	79,961	1
	2/21/2018 5:15	2/22/2018 13:30	1,935	1.63	1,264,920	3.01	0.61	24	Atlas	Retained by Sneads Branch	2,061,819	1
	2/23/2018 1:30	2/26/2018 0:00	4,230	1.22	4,211,380	5.52	0.56	12	Atlas	Retained by Sneads Branch	5,137,883	1
	2/28/2018 14:15	2/28/2018 14:15	-	0.10	12,110	4.39	0.05	6	Atlas	Retained by Sneads Branch	1,211	1
	3/1/2018 14:00	3/1/2018 14:00	-	0.02	33,650	3.10	0.01	12	Atlas	Retained by Sneads Branch	673	1
	3/10/2018 0:30	3/10/2018 3:45	195	0.62	106,695	0.64	0.39	3	Atlas	Retained by Sneads Branch	66,151	1
	3/19/2018 17:30	3/19/2018 20:15	165	0.26	98,231	0.29	0.15	3	Atlas	Retained by Sneads Branch	25,540	1
	3/24/2018 4:00	3/24/2018 20:30	990	0.94	167,029	1.70	0.38	12	Atlas	Retained by Sneads Branch	157,007	1
	3/28/2018 5:30	3/28/2018 11:30	360	0.44	56,755	1.51	0.18	12	Atlas	Retained by Sneads Branch	24,972	1
	3/29/2018 13:45	3/30/2018 8:15	1,110	0.62	87,537	2.06	0.21	24	Atlas	Retained by Sneads Branch	54,273	1
	3/31/2018 22:00	4/1/2018 4:00	360	0.22	96,786	1.34	0.11	3	Atlas	Retained by Sneads Branch	21,293	1
	4/1/2018 19:45	4/2/2018 1:00	315	0.54	95,580	1.88	0.30	6	Atlas	Retained by Sneads Branch	51,613	1
	4/3/2018 16:15	4/3/2018 22:30	375	0.54	42,544	2.40	0.30	6	Atlas	Retained by Sneads Branch	22,974	1
	4/14/2018 9:00	4/14/2018 10:15	75	1.12	18,343	0.27	0.37	24	Atlas	Retained by Sneads Branch	20,544	1
	4/14/2018 22:30	4/15/2018 10:30	720	1.12	85,222	1.14	0.37	24	Atlas	Retained by Sneads Branch	95,449	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/23/2018 5:00	4/23/2018 11:45	405	0.63	64,416	0.76	0.29	12	Atlas	Retained by Sneads Branch	40,582	1
	5/5/2018 12:15	5/5/2018 20:00	465	1.31	129,931	1.17	0.49	12	Atlas		170,210	1
	5/17/2018 15:30	5/17/2018 16:15	45	0.46	434,339	0.48	0.37	1	Atlas	Retained by Sneads Branch	199,796	1
	5/27/2018 4:30	5/27/2018 5:00	30	0.43	265,177	0.43	0.33	1	Atlas	Retained by Sneads Branch	114,026	1
	5/28/2018 21:15	5/28/2018 21:15	-	0.12	5,008	0.57	0.07	6	Atlas	Retained by Sneads Branch	601	1
	5/30/2018 13:00	5/30/2018 13:00	-	0.09	28,478	0.74	0.05	1	Atlas	Retained by Sneads Branch	2,563	1
	5/31/2018 14:00	5/31/2018 15:15	75	1.62	69,115	0.92	0.87	3	Atlas	Retained by Sneads Branch	111,967	1
	6/1/2018 0:30	6/1/2018 4:00	210	1.62	262,196	2.35	0.87	3	Atlas		424,757	1
	6/10/2018 15:00	6/10/2018 21:45	405	0.50	163,074	0.49	0.23	12	Atlas	Retained by Sneads Branch	81,537	1
	6/11/2018 11:15	6/11/2018 14:15	180	0.83	171,919	0.96	0.29	3	Atlas	Retained by Sneads Branch	142,693	1
	6/11/2018 23:45	6/12/2018 0:00	15	0.83	9,949	1.02	0.29	3	Atlas	Retained by Sneads Branch	8,258	1
	6/12/2018 10:45	6/12/2018 11:30	45	0.83	26,848	1.06	0.29	3	Atlas	Retained by Sneads Branch	22,284	1
	6/21/2018 15:15	6/21/2018 15:30	15	0.12	118,500	0.23	0.06	12	Atlas	Retained by Sneads Branch	14,220	1
	6/22/2018 11:15	6/22/2018 13:45	150	0.37	25,241	0.48	0.20	6	Atlas	Retained by Sneads Branch	9,339	1
	6/25/2018 0:00	6/25/2018 11:15	675	0.92	165,558	1.42	0.37	12	Atlas	Retained by Sneads Branch	152,313	1
	6/26/2018 12:15	6/26/2018 21:30	555	0.77	44,839	2.10	0.33	12	Atlas	Retained by Sneads Branch	34,526	1
	7/2/2018 17:30	7/2/2018 17:30	-	0.52	3,231	0.99	0.43	1	Atlas	Retained by Sneads Branch	1,680	1
	7/3/2018 14:30	7/3/2018 15:15	45	0.44	23,116	1.06	0.30	1	Atlas		10,171	1
	7/15/2018 17:30	7/15/2018 17:30	-	0.12	70,608	0.08	0.06	12	Atlas	Retained by Sneads Branch	8,473	1
	7/16/2018 8:15	7/16/2018 8:45	30	0.14	55,193	0.14	0.09	1	Atlas	Retained by Sneads Branch	7,727	1
	7/20/2018 13:15	7/20/2018 20:30	435	0.86	20,929	1.00	0.37	1	Atlas		17,999	1
	7/22/2018 16:30	7/22/2018 17:00	30	0.10	78,840	1.11	0.07	1	Atlas	Retained by Sneads Branch	7,884	1
	7/30/2018 22:00	7/31/2018 5:00	420	1.86	13,515	1.34	0.74	6	Atlas	Retained by Sneads Branch	25,138	1
	12/1/2018 8:00	12/2/2018 1:15	1,035	1.31	1,497,230	1.44	0.58	12	Atlas	Retained by Sneads Branch	1,961,371	1
	12/14/2018 14:30	12/14/2018 15:00	30	1.61	5,860	0.12	0.66	12	Atlas	Retained by Sneads Branch	9,435	1
	12/15/2018 1:15	12/15/2018 13:30	735	1.61	369,677	1.61	0.66	12	Atlas		595,180	1
	12/20/2018 15:00	12/20/2018 22:45	465	0.52	263,940	2.07	0.21	12	Atlas	Retained by Sneads Branch	137,249	1
	12/27/2018 19:00	12/27/2018 19:15	15	0.42	28,824	0.66	0.27	1	Atlas	Retained by Sneads Branch	12,106	1
	12/31/2018 4:45	12/31/2018 19:00	855	1.16	127,141	1.59	0.45	24	Atlas	Retained by Sneads Branch	147,483	1
	1/4/2019 13:45	1/4/2019 20:45	420	0.65	45,151	1.80	0.30	12	Atlas	Retained by Sneads Branch	29,348	1
	1/13/2019 0:30	1/13/2019 8:30	480	0.18	47,061	0.34	0.08	12	Atlas	Retained by Sneads Branch	8,471	1
	1/19/2019 6:15	1/19/2019 21:00	885	0.72	77,025	0.85	0.28	24	Atlas	Retained by Sneads Branch	55,458	1
	1/23/2019 7:45	1/23/2019 22:30	885	0.77	84,981	1.59	0.31	12	Atlas	Retained by Sneads Branch	65,435	1
	2/4/2019 14:30	2/4/2019 14:30	-	0.12	4,417	0.14	0.06	3	Atlas	Retained by Sneads Branch	530	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/6/2019 7:15	2/6/2019 11:45	270	1.36	138.139	0.63	0.44	48	Atlas	Retained by Sneads Branch	187,869	1
	2/7/2019 5:00	2/7/2019 23:00	1,080	1.36	366.251	1.50	0.44	48	Atlas	Retained by Sneads Branch	498,101	1
	2/10/2019 17:15	2/13/2019 3:30	3,495	2.38	664.454	3.86	0.75	48	Atlas		1,581,400	1
	2/20/2019 1:30	2/20/2019 20:15	1,125	1.41	248.779	1.47	0.64	6	Atlas	Retained by Sneads Branch	350,779	1
	2/23/2019 8:00	2/23/2019 8:00	-	0.02	50.850	1.46	0.01	3	Atlas		1,017	1
	2/23/2019 17:30	2/24/2019 2:15	525	0.73	126.247	2.19	0.40	6	Atlas		92,160	1
	2/28/2019 17:30	2/28/2019 17:30	-	0.08	38.125	0.84	0.04	6	Atlas	Retained by Sneads Branch	3,050	1
	3/3/2019 15:15	3/3/2019 15:15	-	0.03	8,100	0.11	0.02	1	Atlas	Retained by Sneads Branch	243	1
	3/9/2019 13:30	3/9/2019 20:15	405	0.80	138.971	0.96	0.38	6	Atlas	Retained by Sneads Branch	111,177	1
	3/14/2019 4:45	3/14/2019 8:30	225	0.34	279.332	1.28	0.19	6	Atlas	Retained by Sneads Branch	94,973	1
	3/14/2019 17:15	3/14/2019 20:00	165	0.14	501.929	1.40	0.09	3	Atlas	Retained by Sneads Branch	70,270	1
	3/25/2019 1:00	3/25/2019 5:30	270	0.26	151.554	0.32	0.14	6	Atlas	Retained by Sneads Branch	39,404	1
	3/30/2019 15:45	3/30/2019 20:45	300	0.63	90.517	1.03	0.33	6	Atlas	Retained by Sneads Branch	57,026	1
	4/7/2019 6:15	4/7/2019 14:30	495	0.85	50.193	1.03	0.47	3	Atlas	Retained by Sneads Branch	42,664	1
	4/12/2019 6:30	4/12/2019 6:30	-	0.38	224	1.20	0.30	1	Atlas	Retained by Sneads Branch	85	1
	4/14/2019 1:15	4/14/2019 6:15	300	0.86	84.660	2.10	0.40	6	Atlas	Retained by Sneads Branch	72,808	1
	4/18/2019 23:00	4/19/2019 5:00	360	3.10	2.267	2.04	1.02	48	Cloudburst	Retained by Sneads Branch	7,028	1
	4/19/2019 18:30	4/20/2019 19:45	1,515	3.10	56.680	4.04	1.02	48	Cloudburst		175,707	1
	4/23/2019 18:00	4/23/2019 19:00	60	0.24	105.042	3.34	0.21	1	Atlas	Retained by Sneads Branch	25,210	1
	4/24/2019 21:15	4/25/2019 2:15	300	0.91	10.886	3.79	0.30	48	Atlas	Retained by Sneads Branch	9,906	1
	4/26/2019 2:30	4/26/2019 4:00	90	0.91	642	3.63	0.30	48	Atlas	Retained by Sneads Branch	584	1
	5/2/2019 12:00	5/2/2019 12:00	-	0.29	8,393	0.74	0.25	1	Atlas	Retained by Sneads Branch	2,434	1
	5/3/2019 4:45	5/3/2019 9:30	285	0.90	136.114	1.24	0.49	6	Atlas	Retained by Sneads Branch	122,503	1
	5/4/2019 17:15	5/4/2019 18:15	60	0.22	23.823	1.43	0.13	3	Atlas	Retained by Sneads Branch	5,241	1
	5/11/2019 20:45	5/11/2019 21:30	45	0.22	31.155	0.23	0.12	6	Atlas	Retained by Sneads Branch	6,854	1
	5/19/2019 23:30	5/19/2019 23:30	-	0.31	33.500	0.32	0.14	1	Atlas	Retained by Sneads Branch	10,385	1
	5/23/2019 16:00	5/23/2019 16:00	-	0.09	16.500	0.41	0.05	1	Atlas	Retained by Sneads Branch	1,485	1
	5/26/2019 14:15	5/26/2019 17:30	195	0.54	20.646	0.83	0.32	3	Atlas	Retained by Sneads Branch	11,149	1
	5/29/2019 9:45	5/29/2019 14:15	270	0.59	44.186	1.22	0.32	6	Atlas	Retained by Sneads Branch	26,070	1
	5/30/2019 11:45	5/30/2019 11:45	-	0.19	12.037	1.37	0.09	1	Atlas	Retained by Sneads Branch	2,287	1
	6/5/2019 21:00	6/5/2019 21:45	45	1.02	4.911	1.16	0.79	1	Atlas	Retained by Sneads Branch	5,009	1
	6/7/2019 21:30	6/8/2019 3:00	330	0.88	24.200	1.57	0.29	48	Atlas	Retained by Sneads Branch	21,296	1
	6/8/2019 19:45	6/9/2019 1:15	330	0.88	4.716	1.95	0.29	48	Atlas	Retained by Sneads Branch	4,150	1
	6/9/2019 18:30	6/9/2019 21:30	180	0.61	22.126	2.58	0.31	6	Atlas		13,497	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/16/2019 6:15	6/16/2019 6:45	30	0.16	61,000	0.90	0.11	1	Atlas		9,760	1
	6/16/2019 17:45	6/17/2019 1:30	465	1.27	34,722	1.69	0.60	6	Atlas		44,097	1
	6/17/2019 21:15	6/17/2019 21:30	15	0.33	3,873	1.62	0.13	24	Atlas	Retained by Sneads Branch	1,278	1
	6/18/2019 9:00	6/18/2019 9:30	30	0.33	10,918	1.83	0.13	24	Atlas	Retained by Sneads Branch	3,603	1
	6/18/2019 17:45	6/18/2019 17:45	-	0.33	11,618	1.89	0.13	24	Atlas	Retained by Sneads Branch	3,834	1
	6/19/2019 21:00	6/19/2019 21:30	30	0.08	105,438	1.97	0.05	1	Atlas	Retained by Sneads Branch	8,435	1
	6/21/2019 19:30	6/21/2019 21:45	135	0.87	21,587	2.40	0.33	24	Atlas		18,781	1
	6/22/2019 6:45	6/22/2019 10:00	195	0.87	19,879	2.72	0.33	24	Atlas		17,295	1
	6/23/2019 16:00	6/23/2019 16:00	-	0.42	6,952	2.90	0.32	1	Atlas		2,920	1
	CSO182 Total										**32,652,866**	**325**
CSO183	7/19/2012 18:15	7/19/2012 18:30	15	0.98	53,521	1.57	0.80	1	Atlas		52,452	1
	8/13/2012 13:00	8/13/2012 13:00	-	0.13	90,608	0.13	0.09	3	Atlas	Retained by Sneads Branch	11,780	1
	9/1/2012 15:00	9/1/2012 15:00	-	0.64	2,847	0.40	0.40	3	Atlas		1,823	1
	9/28/2012 8:45	9/28/2012 8:45	-	0.14	74,514	1.76	0.06	1	Atlas	Retained by Sneads Branch	10,433	1
	12/6/2012 16:45	12/6/2012 16:45	-	1.23	11,191	0.69	0.57	6	Atlas		13,766	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.90	3,252	0.66	0.45	6	Atlas	Retained by Sneads Branch	2,928	1
	3/17/2013 0:00	3/17/2013 0:00	-	1.85	335	1.13	0.60	48	Atlas	Retained by Sneads Branch	621	1
	3/17/2013 13:45	3/17/2013 14:30	45	1.85	977	1.72	0.60	48	Atlas	Retained by Sneads Branch	1,808	1
	3/18/2013 4:00	3/18/2013 4:00	-	1.85	299	1.58	0.60	48	Atlas	Retained by Sneads Branch	554	1
	4/16/2013 21:30	4/17/2013 16:45	1,155	0.42	823,812	1.52	0.30	1	Atlas	Retained by Sneads Branch	346,002	1
	4/19/2013 2:30	4/19/2013 13:45	675	0.89	921,756	1.32	0.49	3	Atlas		820,364	1
	4/24/2013 6:45	4/24/2013 22:00	915	0.76	989,143	1.69	0.43	3	Atlas	Retained by Sneads Branch	751,760	1
	5/10/2013 14:15	5/10/2013 15:00	45	1.05	475	2.61	0.47	6	Atlas	Retained by Sneads Branch	500	1
	5/10/2013 23:45	5/11/2013 11:00	675	1.05	27,657	2.70	0.47	6	Atlas	Retained by Sneads Branch	29,041	1
	6/17/2013 23:00	6/18/2013 2:30	210	0.66	11,488	0.86	0.33	6	Atlas	Retained by Sneads Branch	7,583	1
	6/26/2013 16:15	6/26/2013 16:45	30	2.31	1,997	2.78	2.29	6	Cloudburst		4,615	1
	7/10/2013 14:00	7/10/2013 14:00	-	0.54	641	1.83	0.35	3	Atlas	Retained by Sneads Branch	347	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.13	946	0.73	0.11	1	Atlas	Retained by Sneads Branch	124	1
	7/22/2013 13:45	7/22/2013 13:45	-	3.35	614	3.43	7.22	3	Atlas		2,058	1
	8/13/2013 3:30	8/13/2013 3:30	-	0.75	17,000	1.31	0.32	1	Atlas		12,751	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.43	32,556	1.26	0.37	1	Atlas	Retained by Sneads Branch	14,000	1
	10/5/2013 20:45	10/5/2013 21:15	30	4.72	104	2.35	12.64	24	Atlas		490	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.85	394	2.92	3.10	6	Cloudburst		1,125	1
	12/21/2013 22:45	12/21/2013 22:45	-	1.67	187	2.04	0.93	3	Atlas		314	1
	3/29/2014 10:00	3/29/2014 20:30	630	1.09	9,239	1.42	0.50	6	Atlas	Retained by Sneads Branch	10,072	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.63	491	3.40	0.91	24	Atlas		1,293	1
	5/29/2014 20:30	5/29/2014 20:45	15	1.38	22,404	1.45	1.48	1	Atlas	Retained by Sneads Branch	30,918	1
	8/27/2014 16:45	8/27/2014 16:45	-	0.38	11,426	1.37	0.27	1	Atlas		4,343	1
	9/11/2014 0:30	9/11/2014 0:30	-	2.01	103	0.47	1.63	3	Atlas		208	1
	4/2/2015 15:00	4/2/2015 15:00	-	5.98	409	0.75	45.83	6	Cloudburst	Retained by Sneads Branch	2,445	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/3/2015 0:15	4/3/2015 2:30	135	5.98	3.981	3.76	45.83	6	Cloudburst	Retained by Sneads Branch	23,810	1
	7/12/2015 6:00	7/12/2015 6:00	-	0.95	351	2.49	0.63	3	Atlas	Retained by Sneads Branch	334	1
	7/14/2015 4:15	7/14/2015 4:15	-	0.39	649	3.43	0.29	1	Atlas	Retained by Sneads Branch	254	1
	10/2/2015 14:30	10/2/2015 21:30	420	0.60	247,830	1.64	0.28	6	Atlas	Retained by Sneads Branch	148,699	1
	10/12/2015 19:45	10/13/2015 6:45	660	0.38	179,350	0.50	0.25	3	Atlas	Retained by Sneads Branch	68,154	1
	11/6/2015 4:00	11/6/2015 4:00	-	0.73	207	0.74	0.45	3	Atlas	Retained by Sneads Branch	152	1
	12/23/2015 19:30	12/23/2015 19:30	-	0.95	1,245	1.38	0.75	1	Atlas	Retained by Sneads Branch	1,184	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.23	551	1.20	0.60	6	Atlas	Retained by Sneads Branch	679	1
	3/27/2016 21:15	3/27/2016 21:15	-	0.84	942	1.18	0.56	1	Atlas	Retained by Sneads Branch	792	1
	6/23/2016 16:15	6/23/2016 22:15	360	1.57	4,176	1.65	0.72	6	Atlas	Retained by Sneads Branch	6,558	1
	12/17/2016 19:15	12/17/2016 19:15	-	2.36	3,478	1.07	1.16	12	Cloudburst	Retained by Sneads Branch	8,210	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.77	7,740	0.85	0.66	1	Atlas	Retained by Sneads Branch	5,961	1
	2/25/2017 6:00	2/26/2017 7:30	1,530	0.77	130,562	0.86	0.66	1	Atlas	Retained by Sneads Branch	100,534	1
	4/29/2017 2:00	4/29/2017 3:00	60	0.85	8,047	1.16	0.49	3	Atlas	Retained by Sneads Branch	6,841	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.20	820	0.24	0.17	1	Atlas	Retained by Sneads Branch	165	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.78	2,273	0.47	0.52	1	Atlas	Retained by Sneads Branch	1,774	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.64	34,569	0.70	0.56	1	Atlas	Retained by Sneads Branch	22,125	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.79	5,368	0.27	0.43	6	Atlas	Retained by Sneads Branch	4,242	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.56	2,729	1.28	0.34	1	Atlas	Retained by Sneads Branch	1,529	1
	10/7/2017 22:00	10/7/2017 22:00	-	1.91	594	0.52	0.71	24	Atlas		1,135	1
	10/8/2017 13:45	10/8/2017 13:45	-	1.91	223	1.65	0.71	24	Atlas		426	1
	11/3/2017 4:45	11/3/2017 12:15	450	1.43	8,470	2.37	2.00	1	Atlas		12,113	1
	11/8/2017 10:30	11/8/2017 10:30	-	0.05	23,200	1.85	0.03	1	Atlas	Retained by Sneads Branch	1,161	1
	11/18/2017 21:45	11/23/2017 14:30	6,765	0.27	5,191,852	0.56	0.15	1	Atlas	Retained by Sneads Branch	1,401,801	1
	1/13/2018 10:45	1/13/2018 10:45	-	0.01	6,700	0.67	0.01	1	Atlas	Retained by Sneads Branch	68	1
	2/22/2018 4:45	2/22/2018 5:15	30	1.65	801	2.58	0.58	24	Atlas	Retained by Sneads Branch	1,322	1
	2/24/2018 19:00	2/24/2018 23:30	270	1.77	54,243	4.47	0.73	12	Atlas	Retained by Sneads Branch	96,011	1
	5/5/2018 14:45	5/5/2018 15:15	30	1.38	833	0.86	0.52	24	Atlas		1,150	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.48	3,000	0.47	0.38	1	Atlas	Retained by Sneads Branch	1,441	1
	6/1/2018 0:30	6/1/2018 1:15	45	1.31	892	1.63	0.65	3	Atlas	Retained by Sneads Branch	1,169	1
	9/8/2018 17:30	9/8/2018 21:15	225	2.25	100,615	2.47	0.92	6	Atlas		226,385	1
	9/23/2018 6:15	9/23/2018 6:15	-	1.38	88	1.75	0.53	3	Atlas	Retained by Sneads Branch	123	1
	9/25/2018 17:00	9/25/2018 17:00	-	0.66	908	3.66	0.29	12	Atlas		600	1
	11/5/2018 22:00	11/5/2018 22:00	-	1.10	81	2.53	0.60	6	Atlas		90	1
	3/9/2019 13:30	3/9/2019 13:30	-	0.82	451	0.45	0.39	6	Atlas	Retained by Sneads Branch	371	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.65	2,022	2.08	0.33	6	Atlas		1,315	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/16/2019 20:45	6/16/2019 20:45	-	1.16	5,814	0.99	0.56	6	Atlas		6,745	1
	6/24/2019 13:45	6/24/2019 13:45	-	0.45	1,820	2.43	0.28	3	Atlas		820	1
	7/18/2019 0:45	7/18/2019 0:45	-	0.36	278	0.35	0.27	1	Atlas		101	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.38	547	0.38	0.25	3	Atlas	Retained by Sneads Branch	209	1
	12/16/2019 18:45	12/16/2019 18:45	-	0.78	101	1.26	0.34	12	Atlas	Retained by Sneads Branch	80	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.34	550	0.35	0.15	12	Atlas	Retained by Sneads Branch	188	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.36	57,158	0.50	0.30	1	Atlas		20,578	1
	5/18/2020 14:45	5/18/2020 14:45	-	0.41	461	1.88	0.19	1	Atlas	Retained by Sneads Branch	190	1
	6/22/2020 22:30	6/22/2020 22:30	-	1.34	5,600	1.32	0.67	3	Atlas		7,505	1
	6/27/2020 18:15	6/27/2020 18:15	-	0.42	1,267	2.12	0.28	1	Atlas	Retained by Sneads Branch	533	1
	6/29/2020 3:30	6/29/2020 3:30	-	0.41	5,666	1.96	0.26	3	Atlas	Retained by Sneads Branch	2,324	1
CSO183 Total											4,324,459	77
CSO184	7/1/2012 20:00	7/1/2012 20:00	-	0.41	85,002	0.32	0.29	1	Atlas	Retained by Sneads Branch	34,851	1
	7/14/2012 12:30	7/14/2012 14:30	120	0.60	229,535	0.82	0.39	3	Atlas	Retained by Sneads Branch	137,721	1
	7/19/2012 18:15	7/19/2012 18:45	30	0.98	926,292	1.57	0.80	1	Atlas		907,766	1
	7/24/2012 20:15	7/24/2012 20:15	-	0.35	158,766	1.44	0.29	1	Atlas	Retained by Sneads Branch	55,568	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.78	230,177	1.23	0.59	1	Atlas	Retained by Sneads Branch	179,538	1
	8/16/2012 20:30	8/16/2012 20:30	-	0.69	12,910	0.41	0.39	3	Atlas	Retained by Sneads Branch	8,908	1
	8/21/2012 14:00	8/21/2012 14:15	15	0.31	309,632	1.01	0.27	1	Atlas	Retained by Sneads Branch	95,986	1
	9/1/2012 15:00	9/1/2012 15:15	15	0.64	133,594	0.42	0.40	3	Atlas	Retained by Sneads Branch	85,500	1
	9/2/2012 12:00	9/2/2012 12:45	45	0.67	61,094	1.08	0.26	24	Atlas		40,933	1
	9/3/2012 14:15	9/3/2012 14:15	-	0.04	49,450	1.39	0.03	1	Atlas		1,978	1
	9/5/2012 15:30	9/5/2012 16:00	30	0.64	250,669	1.97	0.47	1	Atlas	Retained by Sneads Branch	160,428	1
	9/7/2012 23:45	9/8/2012 6:30	405	1.29	5,920	3.26	0.73	3	Atlas		7,637	1
	9/25/2012 8:45	9/25/2012 8:45	-	0.39	14,192	0.22	0.22	3	Atlas	Retained by Sneads Branch	5,535	1
	9/26/2012 21:15	9/26/2012 23:15	120	0.84	100,621	1.63	0.49	3	Atlas	Retained by Sneads Branch	84,522	1
	10/1/2012 18:30	10/1/2012 18:30	-	0.80	5,796	2.52	0.33	12	Atlas	Retained by Sneads Branch	4,637	1
	12/9/2012 22:15	12/9/2012 22:45	30	1.13	177,775	3.09	0.50	3	Atlas	Retained by Sneads Branch	200,886	1
	12/26/2012 5:45	12/26/2012 5:45	-	0.80	2,026	1.22	0.33	12	Atlas	Retained by Sneads Branch	1,621	1
	1/11/2013 6:00	1/11/2013 6:00	-	0.63	2,308	0.67	0.33	6	Atlas		1,454	1
	1/13/2013 3:30	1/13/2013 17:45	855	2.52	51,553	3.25	0.97	24	Atlas	Retained by Sneads Branch	129,914	1
	1/30/2013 4:45	1/30/2013 5:00	15	0.90	38,041	0.69	0.45	6	Atlas	Retained by Sneads Branch	34,237	1
	3/17/2013 10:30	3/17/2013 10:30	-	1.85	7,133	1.42	0.60	48	Atlas		13,196	1
	3/18/2013 4:30	3/18/2013 5:15	45	1.85	10,687	1.83	0.60	48	Atlas	Retained by Sneads Branch	19,771	1
	4/11/2013 6:30	4/11/2013 7:15	45	1.10	59,978	0.38	0.42	24	Atlas	Retained by Sneads Branch	65,976	1
	5/6/2013 19:00	5/6/2013 19:30	30	1.63	1,658	1.72	0.52	24	Atlas	Retained by Sneads Branch	2,702	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/22/2013 15:45	5/22/2013 16:00	15	0.29	73.262	0.67	0.19	3	Atlas	Retained by Sneads Branch	21,246	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.36	44.958	0.28	0.16	6	Atlas	Retained by Sneads Branch	16,185	1
	6/21/2013 19:00	6/21/2013 19:15	15	0.66	94.283	1.51	0.53	1	Atlas	Retained by Sneads Branch	62,227	1
	6/26/2013 4:45	6/26/2013 4:45	-	0.53	71.166	1.40	0.35	3	Atlas		37,718	1
	6/26/2013 16:15	6/26/2013 21:15	300	2.31	361.379	3.51	2.29	6	Cloudburst		834,785	1
	6/29/2013 19:45	6/29/2013 20:15	30	0.47	5.762	3.36	0.31	3	Atlas	Retained by Sneads Branch	2,708	1
	7/1/2013 8:45	7/1/2013 8:45	-	0.34	61.635	3.48	0.16	12	Atlas	Retained by Sneads Branch	20,956	1
	7/6/2013 1:45	7/6/2013 1:45	-	0.64	870	1.74	0.28	12	Atlas	Retained by Sneads Branch	557	1
	7/10/2013 14:15	7/10/2013 14:15	-	0.54	218.309	1.84	0.35	3	Atlas		117,887	1
	7/14/2013 19:45	7/14/2013 19:45	-	0.13	63.962	0.73	0.11	1	Atlas	Retained by Sneads Branch	8,315	1
	7/21/2013 19:15	7/21/2013 20:00	45	3.35	89.096	2.48	7.22	3	Atlas		298,473	1
	7/22/2013 8:00	7/22/2013 14:00	360	3.35	51.365	3.43	7.22	3	Atlas	Retained by Sneads Branch	172,074	1
	8/9/2013 15:15	8/9/2013 17:45	150	0.42	445.076	0.44	0.25	3	Atlas		186,932	1
	8/12/2013 15:00	8/12/2013 15:15	15	0.75	323.437	1.00	0.32	1	Atlas	Retained by Sneads Branch	242,578	1
	8/13/2013 2:30	8/13/2013 2:45	15	0.75	25.011	1.24	0.32	1	Atlas	Retained by Sneads Branch	18,758	1
	8/20/2013 18:15	8/20/2013 18:15	-	0.42	55.321	0.44	0.23	6	Atlas	Retained by Sneads Branch	23,235	1
	8/31/2013 20:00	8/31/2013 20:00	-	0.83	1.012	0.28	0.38	12	Atlas	Retained by Sneads Branch	840	1
	9/2/2013 14:00	9/2/2013 14:30	30	0.43	810.330	1.26	0.37	1	Atlas	Retained by Sneads Branch	348,442	1
	9/29/2013 14:30	9/29/2013 14:30	-	0.02	26.300	0.02	0.02	1	Atlas	Retained by Sneads Branch	526	1
	10/4/2013 19:00	10/4/2013 19:00	-	0.20	61.395	0.30	0.17	1	Atlas	Retained by Sneads Branch	12,279	1
	10/5/2013 12:45	10/6/2013 8:30	1,185	4.72	327.917	4.91	12.64	24	Atlas		1,547,766	1
	10/30/2013 5:00	10/30/2013 5:45	45	1.68	154.120	1.65	0.87	6	Atlas		258,921	1
	10/31/2013 23:00	11/1/2013 15:30	990	0.68	453.540	2.36	0.27	12	Atlas	Retained by Sneads Branch	308,407	1
	11/7/2013 0:15	11/8/2013 16:15	2,400	0.21	1,562.738	0.91	0.08	12	Atlas	Retained by Sneads Branch	328,175	1
	11/17/2013 6:15	11/17/2013 9:30	195	2.85	109.515	2.49	3.10	6	Cloudburst		312,118	1
	11/17/2013 18:15	11/17/2013 18:30	15	2.85	39.109	2.92	3.10	6	Cloudburst		111,460	1
	12/21/2013 22:00	12/21/2013 23:00	60	1.67	89.975	2.06	0.93	3	Atlas	Retained by Sneads Branch	150,258	1
	2/2/2014 6:30	2/2/2014 19:45	795	0.20	277.800	0.26	0.10	6	Atlas	Retained by Sneads Branch	55,560	1
	2/17/2014 16:30	2/17/2014 16:30	-	0.41	76.439	1.05	0.25	3	Atlas	Retained by Sneads Branch	31,340	1
	2/21/2014 5:30	2/22/2014 5:45	1,455	0.28	1,398.443	1.40	0.15	6	Atlas	Retained by Sneads Branch	391,564	1
	3/29/2014 7:00	3/29/2014 7:00	-	1.09	11.082	0.78	0.50	6	Atlas	Retained by Sneads Branch	12,079	1
	4/3/2014 12:15	4/4/2014 4:00	945	2.63	61.648	3.57	0.91	24	Atlas		162,133	1
	4/7/2014 11:00	4/7/2014 11:45	45	0.71	47.135	3.43	0.43	1	Atlas	Retained by Sneads Branch	33,466	1
	4/28/2014 4:15	4/28/2014 6:45	150	1.60	254.686	1.25	0.63	3	Atlas	Retained by Sneads Branch	407,497	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/9/2014 19:30	5/9/2014 19:30	-	1.94	41,544	0.41	0.75	24	Atlas	Retained by Sneads Branch	80,595	1
	5/10/2014 5:45	5/10/2014 14:45	540	1.94	69,256	1.95	0.75	24	Atlas	Retained by Sneads Branch	134,357	1
	5/14/2014 7:15	5/14/2014 7:15	-	1.17	3,962	2.30	0.45	24	Atlas		4,636	1
	5/22/2014 3:15	5/22/2014 3:45	30	0.38	11,350	0.44	0.20	3	Atlas	Retained by Sneads Branch	4,313	1
	5/29/2014 20:45	5/29/2014 21:15	30	1.38	602,751	1.57	1.48	1	Atlas	Retained by Sneads Branch	831,797	1
	6/11/2014 14:30	6/11/2014 14:30	-	0.08	360,213	0.31	0.04	12	Atlas	Retained by Sneads Branch	28,817	1
	6/24/2014 13:45	6/24/2014 13:45	-	0.21	38,790	0.37	0.12	1	Atlas	Retained by Sneads Branch	8,146	1
	7/2/2014 16:30	7/2/2014 16:30	-	0.11	5,318	0.34	0.10	1	Atlas	Retained by Sneads Branch	585	1
	7/13/2014 22:00	7/13/2014 23:30	90	0.62	472,198	1.80	0.33	3	Atlas	Retained by Sneads Branch	292,763	1
	7/26/2014 21:45	7/26/2014 22:00	15	1.34	84,264	0.50	0.61	12	Atlas	Retained by Sneads Branch	112,914	1
	7/27/2014 6:15	7/27/2014 9:15	180	1.34	34,190	1.36	0.61	12	Atlas	Retained by Sneads Branch	45,814	1
	8/8/2014 6:15	8/8/2014 7:45	90	1.09	154,810	0.94	0.55	3	Atlas		168,743	1
	8/10/2014 10:45	8/10/2014 12:30	105	0.25	9,200	1.51	0.21	1	Atlas	Retained by Sneads Branch	2,300	1
	8/11/2014 15:30	8/11/2014 16:15	45	0.38	777,482	1.74	0.21	6	Atlas	Retained by Sneads Branch	295,443	1
	8/22/2014 19:30	8/22/2014 19:30	-	0.21	42,295	0.90	0.14	3	Atlas	Retained by Sneads Branch	8,882	1
	8/23/2014 16:00	8/23/2014 20:15	255	0.80	120,005	1.53	0.39	6	Atlas	Retained by Sneads Branch	96,004	1
	8/27/2014 15:15	8/27/2014 18:15	180	0.38	1,000,074	1.45	0.27	1	Atlas		380,028	1
	8/30/2014 15:15	8/30/2014 15:30	15	0.44	329,336	1.46	0.22	3	Atlas	Retained by Sneads Branch	144,908	1
	9/2/2014 8:30	9/2/2014 8:30	-	0.35	59,469	1.11	0.22	3	Atlas	Retained by Sneads Branch	20,814	1
	9/11/2014 0:00	9/11/2014 21:00	1,260	2.01	715,060	2.01	1.63	3	Atlas		1,437,271	1
	10/10/2014 3:00	10/10/2014 3:00	-	1.02	20,447	1.21	0.47	3	Atlas	Retained by Sneads Branch	20,856	1
	10/13/2014 23:30	10/13/2014 23:45	15	1.33	18,249	2.07	0.60	12	Atlas	Retained by Sneads Branch	24,271	1
	10/14/2014 8:00	10/14/2014 8:15	15	1.33	8,123	2.89	0.60	12	Atlas	Retained by Sneads Branch	10,803	1
	12/6/2014 3:15	12/6/2014 3:15	-	1.89	4,352	2.50	0.61	48	Atlas	Retained by Sneads Branch	8,225	1
	12/27/2014 10:30	12/27/2014 16:30	360	0.27	141,385	0.47	0.13	1	Atlas	Retained by Sneads Branch	38,174	1
	1/3/2015 15:00	1/3/2015 22:30	450	0.34	38,856	0.52	0.12	24	Atlas	Retained by Sneads Branch	13,211	1
	3/10/2015 11:00	3/10/2015 13:30	150	1.27	45,890	2.86	0.58	12	Atlas	Retained by Sneads Branch	58,280	1
	3/14/2015 3:45	3/14/2015 4:45	60	1.70	2,848	2.91	0.64	24	Atlas	Retained by Sneads Branch	4,841	1
	3/19/2015 20:30	3/19/2015 20:30	-	0.19	2,521	1.88	0.07	12	Atlas	Retained by Sneads Branch	479	1
	3/20/2015 11:30	3/20/2015 11:30	-	Discharge	-	1.70				Retained by Sneads Branch	512	1
	3/26/2015 4:30	3/26/2015 4:30	-	0.43	25,230	0.47	0.18	3	Atlas	Retained by Sneads Branch	10,849	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/2/2015 10:45	4/2/2015 15:30	285	5.98	38.920	0.82	45.83	6	Cloudburst	Retained by Sneads Branch	232,742	1
	4/3/2015 0:30	4/3/2015 15:45	915	5.98	426.643	5.84	45.83	6	Cloudburst	Retained by Sneads Branch	2,551,324	1
	4/7/2015 9:30	4/7/2015 17:30	480	0.69	121.454	6.69	0.32	1	Atlas	Retained by Sneads Branch	83,803	1
	4/8/2015 18:15	4/8/2015 18:30	15	0.25	476.652	6.93	0.17	1	Atlas	Retained by Sneads Branch	119,163	1
	4/9/2015 11:45	4/9/2015 12:00	15	0.31	244.219	6.87	0.27	1	Atlas	Retained by Sneads Branch	75,708	1
	4/19/2015 14:15	4/19/2015 14:30	15	0.77	67.505	1.19	0.32	12	Atlas	Retained by Sneads Branch	51,979	1
	4/20/2015 3:30	4/20/2015 3:30	-	0.14	12.593	1.49	0.12	1	Atlas	Retained by Sneads Branch	1,763	1
	5/11/2015 17:45	5/11/2015 17:45	-	0.12	49.033	0.24	0.10	1	Atlas	Retained by Sneads Branch	5,884	1
	5/17/2015 14:30	5/17/2015 14:30	-	0.16	46.863	0.57	0.11	1	Atlas	Retained by Sneads Branch	7,498	1
	5/26/2015 14:00	5/26/2015 14:15	15	0.49	16.963	0.73	0.35	1	Atlas	Retained by Sneads Branch	8,312	1
	5/27/2015 13:45	5/27/2015 13:45	-	0.09	206.889	0.91	0.08	1	Atlas	Retained by Sneads Branch	18,620	1
	6/13/2015 14:30	6/13/2015 14:30	-	0.30	6.853	0.64	0.26	1	Atlas	Retained by Sneads Branch	2,056	1
	6/17/2015 5:00	6/17/2015 5:45	45	0.70	27.547	0.89	0.35	3	Atlas	Retained by Sneads Branch	19,283	1
	6/18/2015 16:15	6/18/2015 16:15	-	1.95	27.093	1.35	0.63	48	Atlas	Retained by Sneads Branch	52,831	1
	7/2/2015 9:45	7/2/2015 11:00	75	0.75	4.392	2.27	0.43	3	Atlas	Retained by Sneads Branch	3,294	1
	7/9/2015 8:30	7/9/2015 12:00	210	0.30	18.937	1.26	0.19	1	Atlas	Retained by Sneads Branch	5,681	1
	7/10/2015 10:15	7/10/2015 16:15	360	0.78	76.790	2.03	0.36	12	Atlas	Retained by Sneads Branch	59,896	1
	7/12/2015 6:00	7/12/2015 6:30	30	0.95	309.071	2.50	0.63	3	Atlas	Retained by Sneads Branch	293,617	1
	7/13/2015 15:15	7/13/2015 15:15	-	0.34	55.041	3.08	0.30	1	Atlas	Retained by Sneads Branch	18,714	1
	7/14/2015 3:30	7/14/2015 4:45	75	0.39	140.044	3.44	0.29	1	Atlas	Retained by Sneads Branch	54,617	1
	7/14/2015 19:00	7/14/2015 19:00	-	0.09	202.433	2.99	0.07	1	Atlas	Retained by Sneads Branch	18,219	1
	7/17/2015 23:15	7/18/2015 1:00	105	0.90	124.303	2.68	0.60	3	Atlas	Retained by Sneads Branch	111,873	1
	7/29/2015 18:00	7/29/2015 19:45	105	0.08	33.325	0.43	0.07	1	Atlas	Retained by Sneads Branch	2,666	1
	8/4/2015 19:30	8/4/2015 19:30	-	0.24	39.163	0.29	0.19	1	Atlas	Retained by Sneads Branch	9,399	1
	8/6/2015 14:30	8/6/2015 15:00	30	1.01	25.144	1.24	0.38	24	Atlas	Retained by Sneads Branch	25,395	1
	8/10/2015 21:00	8/10/2015 21:00	-	0.12	35.892	1.40	0.10	1	Atlas	Retained by Sneads Branch	4,307	1
	8/19/2015 8:30	8/19/2015 8:30	-	0.53	13.855	0.35	0.23	1	Atlas	Retained by Sneads Branch	7,343	1
	10/13/2015 1:00	10/13/2015 2:00	60	0.38	3.487	0.50	0.25	3	Atlas	Retained by Sneads Branch	1,325	1
	11/6/2015 3:15	11/6/2015 4:15	60	0.73	85.553	0.78	0.45	3	Atlas	Retained by Sneads Branch	62,454	1
	11/12/2015 0:15	11/12/2015 1:00	45	0.32	15.878	1.54	0.20	3	Atlas	Retained by Sneads Branch	5,081	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	11/18/2015 9:30	11/18/2015 14:00	270	1.54	95,882	1.93	0.80	6	Atlas	Retained by Sneads Branch	147,658	1
	11/30/2015 22:00	11/30/2015 22:00	-	0.69	952	1.11	0.32	12	Atlas	Retained by Sneads Branch	657	1
	12/22/2015 3:15	12/22/2015 4:00	45	0.56	107,757	0.75	0.29	6	Atlas	Retained by Sneads Branch	60,344	1
	12/23/2015 19:30	12/23/2015 20:15	45	0.95	407,499	1.68	0.75	1	Atlas	Retained by Sneads Branch	387,124	1
	12/27/2015 10:45	12/27/2015 13:30	165	2.00	120,027	3.23	0.67	3	Atlas	Retained by Sneads Branch	240,053	1
	2/2/2016 17:30	2/3/2016 0:15	405	1.23	36,863	1.22	0.60	6	Atlas	Retained by Sneads Branch	45,342	1
	2/21/2016 9:00	2/21/2016 9:00	-	0.77	6,071	0.72	0.35	12	Atlas	Retained by Sneads Branch	4,675	1
	2/24/2016 5:15	2/24/2016 7:15	120	2.13	17,135	2.55	0.82	12	Atlas	Retained by Sneads Branch	36,498	1
	3/12/2016 22:45	3/12/2016 22:45	-	0.93	16,420	1.71	0.37	6	Atlas	Retained by Sneads Branch	15,271	1
	3/13/2016 9:15	3/13/2016 10:00	45	0.93	2,515	2.04	0.37	6	Atlas	Retained by Sneads Branch	2,339	1
	3/24/2016 17:45	3/24/2016 17:45	-	0.48	84,904	0.65	0.37	1	Atlas	Retained by Sneads Branch	40,754	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.84	252,104	1.25	0.56	1	Atlas	Retained by Sneads Branch	211,767	1
	3/31/2016 22:15	3/31/2016 23:15	60	1.19	13,988	1.99	0.45	24	Atlas	Retained by Sneads Branch	16,646	1
	4/11/2016 17:45	4/11/2016 18:00	15	0.96	4,369	0.88	0.44	12	Atlas	Retained by Sneads Branch	4,194	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.54	65,680	1.01	0.25	3	Atlas	Retained by Sneads Branch	35,467	1
	5/1/2016 15:00	5/1/2016 16:15	75	0.39	611,067	1.80	0.26	3	Atlas	Retained by Sneads Branch	238,316	1
	5/7/2016 16:45	5/7/2016 16:45	-	0.48	1,123	0.95	0.25	6	Atlas	Retained by Sneads Branch	539	1
	5/10/2016 18:45	5/10/2016 21:45	180	0.66	84,836	1.36	0.24	24	Atlas	Retained by Sneads Branch	55,992	1
	7/27/2016 18:30	7/27/2016 18:45	15	0.67	336,855	0.49	0.26	24	Atlas	Retained by Sneads Branch	225,693	1
	8/1/2016 20:15	8/1/2016 21:15	60	0.38	293,803	1.82	0.17	12	Atlas	Retained by Sneads Branch	111,645	1
	8/15/2016 3:00	8/15/2016 3:15	15	1.24	18,379	1.15	0.57	6	Atlas	Retained by Sneads Branch	22,790	1
	12/17/2016 18:45	12/18/2016 8:30	825	2.36	143,547	2.68	1.16	12	Cloudburst	Retained by Sneads Branch	338,770	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.77	84,466	0.85	0.66	1	Atlas	Retained by Sneads Branch	65,039	1
	3/1/2017 3:15	3/1/2017 4:00	45	1.07	10,135	1.47	0.55	6	Atlas	Retained by Sneads Branch	10,844	1
	4/16/2017 17:30	4/16/2017 17:30	-	1.17	859	0.84	0.56	6	Atlas	Retained by Sneads Branch	1,005	1
	4/29/2017 2:00	4/29/2017 3:00	60	0.85	100,819	1.16	0.49	3	Atlas	Retained by Sneads Branch	85,696	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.20	40,495	0.24	0.17	1	Atlas	Retained by Sneads Branch	8,099	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.78	81,228	0.47	0.52	1	Atlas	Retained by Sneads Branch	63,358	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.64	104,975	0.70	0.56	1	Atlas	Retained by Sneads Branch	67,184	1
	7/23/2017 2:45	7/23/2017 2:45	-	0.96	941	0.36	0.44	12	Atlas	Retained by Sneads Branch	903	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/6/2017 16:45	8/6/2017 16:45	-	0.59	1,773	0.43	0.26	12	Atlas	Retained by Sneads Branch	1,046	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.79	21,985	0.27	0.43	6	Atlas	Retained by Sneads Branch	17,368	1
	8/29/2017 19:30	8/29/2017 19:30	-	0.20	38,045	0.23	0.11	1	Atlas	Retained by Sneads Branch	7,609	1
	10/7/2017 22:00	10/7/2017 22:00	-	1.91	33,731	0.52	0.71	24	Atlas	Retained by Sneads Branch	64,426	1
	11/3/2017 4:45	11/3/2017 5:15	30	1.43	58,283	2.35	2.00	1	Atlas		83,344	1
	2/22/2018 4:30	2/22/2018 4:45	15	1.65	9,668	2.50	0.58	24	Atlas		15,952	1
	2/23/2018 5:00	2/23/2018 5:00	-	1.28	705	2.85	0.59	12	Atlas		903	1
	2/24/2018 19:00	2/24/2018 23:30	270	1.77	208,186	4.47	0.73	12	Atlas		368,490	1
	5/5/2018 14:45	5/5/2018 15:15	30	1.38	56,901	0.86	0.52	24	Atlas		78,523	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.48	65,852	0.47	0.38	1	Atlas	Retained by Sneads Branch	31,609	1
	6/1/2018 0:30	6/1/2018 0:30	-	1.31	1,360	1.07	0.65	3	Atlas	Retained by Sneads Branch	1,781	1
	8/20/2018 11:30	8/20/2018 11:30	-	0.41	25,749	3.22	0.28	1	Atlas		10,557	1
	9/8/2018 17:30	9/8/2018 22:15	285	2.25	960,871	2.59	0.92	6	Atlas		2,161,960	1
	9/23/2018 6:15	9/23/2018 6:30	15	1.38	19,111	1.79	0.53	3	Atlas	Retained by Sneads Branch	26,373	1
	9/24/2018 13:30	9/24/2018 13:30	-	1.54	380	3.24	0.68	6	Atlas	Retained by Sneads Branch	585	1
	9/25/2018 17:00	9/25/2018 17:00	-	0.66	13,729	3.66	0.29	12	Atlas	Retained by Sneads Branch	9,061	1
	11/1/2018 0:45	11/1/2018 1:00	15	1.75	6,794	1.48	0.62	24	Atlas		11,889	1
	11/5/2018 22:00	11/5/2018 22:00	-	1.10	5,393	2.53	0.60	6	Atlas		5,932	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.38	681	0.97	0.44	48	Atlas	Retained by Sneads Branch	940	1
	2/12/2019 4:45	2/12/2019 4:45	-	2.40	94	3.44	0.75	48	Atlas		225	1
	3/9/2019 13:30	3/9/2019 13:30	-	0.82	3,209	0.45	0.39	6	Atlas	Retained by Sneads Branch	2,631	1
	3/14/2019 17:15	3/14/2019 18:45	90	0.17	27,541	1.50	0.11	3	Atlas	Retained by Sneads Branch	4,682	1
	4/7/2019 12:15	4/7/2019 12:15	-	0.61	959	0.74	0.34	1	Atlas	Retained by Sneads Branch	585	1
	4/14/2019 2:00	4/14/2019 2:00	-	1.02	111	1.63	0.48	6	Atlas	Retained by Sneads Branch	113	1
	4/23/2019 18:00	4/23/2019 18:00	-	0.06	101,350	3.39	0.05	1	Atlas	Retained by Sneads Branch	6,081	1
	4/24/2019 20:45	4/24/2019 20:45	-	0.46	5,596	3.62	0.21	6	Atlas		2,574	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.39	6,821	4.07	0.18	1	Atlas	Retained by Sneads Branch	2,660	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.65	53,388	2.10	0.33	6	Atlas		34,702	1
	6/16/2019 21:00	6/16/2019 21:00	-	1.16	1,162	0.99	0.56	6	Atlas		1,348	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.41	198,776	3.08	0.32	1	Atlas		81,498	1
	6/24/2019 13:45	6/24/2019 14:00	15	0.45	31,229	2.43	0.28	3	Atlas	Retained by Sneads Branch	14,053	1
	7/18/2019 1:15	7/18/2019 1:15	-	0.36	61,808	0.43	0.27	1	Atlas		22,251	1
	7/29/2019 23:45	7/30/2019 0:00	15	0.38	24,055	0.38	0.25	3	Atlas	Retained by Sneads Branch	9,141	1
	8/7/2019 4:30	8/7/2019 4:30	-	0.16	3,981	0.17	0.14	1	Atlas	Retained by Sneads Branch	637	1
	10/6/2019 14:45	10/6/2019 14:45	-	1.18	4,052	0.27	0.49	6	Atlas	Retained by Sneads Branch	4,781	1
	10/15/2019 22:45	10/15/2019 22:45	-	0.59	1,425	0.84	0.44	1	Atlas	Retained by Sneads Branch	841	1
	10/30/2019 14:15	10/30/2019 14:15	-	0.78	750	1.69	0.39	3	Atlas	Retained by Sneads Branch	585	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/10/2020 8:15	3/10/2020 8:15	-	0.34	10,744	0.35	0.15	12	Atlas	Retained by Sneads Branch	3,653	1
	3/19/2020 12:15	3/19/2020 12:30	15	0.48	60,823	1.70	0.21	3	Atlas	Retained by Sneads Branch	29,195	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.36	209,750	0.50	0.30	1	Atlas		75,510	1
	6/4/2020 15:30	6/4/2020 15:30	-	0.54	17,339	0.37	0.26	6	Atlas	Retained by Sneads Branch	9,363	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.51	2,643	0.33	0.26	1	Atlas	Retained by Sneads Branch	1,348	1
	6/22/2020 22:30	6/23/2020 0:00	90	1.34	18,551	1.76	0.67	3	Atlas		24,859	1
	6/27/2020 18:15	6/27/2020 18:15	-	0.42	17,052	2.12	0.28	1	Atlas	Retained by Sneads Branch	7,162	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.41	3,795	2.16	0.26	3	Atlas	Retained by Sneads Branch	1,556	1
	CSO184 Total										22,808,252	194
CSO185	4/27/2016 21:00	4/27/2016 21:00	-	0.54	31,841	1.01	0.25	3	Atlas	Retained by Sneads Branch	17,195	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.39	347,215	1.67	0.26	3	Atlas	Retained by Sneads Branch	135,415	1
	5/8/2016 9:00	5/8/2016 9:15	15	0.48	2,665	1.08	0.25	6	Atlas	Retained by Sneads Branch	1,280	1
	5/10/2016 18:45	5/10/2016 21:45	180	0.66	31,036	1.36	0.24	24	Atlas	Retained by Sneads Branch	20,485	1
	5/20/2016 14:45	5/20/2016 15:45	60	0.70	30,779	1.36	0.39	3	Atlas	Retained by Sneads Branch	21,546	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.49	41,541	0.60	0.40	1	Atlas	Retained by Sneads Branch	20,356	1
	6/4/2016 18:15	6/4/2016 18:15	-	0.09	6,822	0.62	0.05	1	Atlas	Retained by Sneads Branch	615	1
	6/14/2016 16:45	6/14/2016 17:00	15	0.62	61,608	0.68	0.39	3	Atlas	Retained by Sneads Branch	38,198	1
	6/15/2016 13:45	6/15/2016 13:45	-	0.32	2,550	1.23	0.28	1	Atlas	Retained by Sneads Branch	817	1
	6/23/2016 16:15	6/23/2016 22:30	375	1.57	29,046	1.65	0.72	6	Atlas	Retained by Sneads Branch	45,604	1
	10/20/2016 10:00	10/20/2016 16:45	405	0.54	8,552	0.40	0.21	6	Atlas	Retained by Sneads Branch	4,619	1
	12/17/2016 18:45	12/18/2016 1:15	390	2.36	37,950	2.68	1.16	12	Cloudburst	Retained by Sneads Branch	89,563	1
	1/10/2017 19:45	1/10/2017 19:45	-	0.18	25,839	0.44	0.14	1	Atlas	Retained by Sneads Branch	4,652	1
	1/12/2017 15:45	1/12/2017 15:45	-	0.45	7,951	0.56	0.22	6	Atlas	Retained by Sneads Branch	3,579	1
	1/17/2017 3:45	1/17/2017 3:45	-	0.64	5,514	2.06	0.29	12	Atlas	Retained by Sneads Branch	3,530	1
	4/16/2017 17:30	4/16/2017 19:30	120	1.17	14,013	1.16	0.56	6	Atlas	Retained by Sneads Branch	16,396	1
	4/27/2017 7:00	4/27/2017 7:00	-	0.17	15,965	0.74	0.10	1	Atlas	Retained by Sneads Branch	2,715	1
	4/29/2017 2:00	4/29/2017 3:15	75	0.85	110,981	1.16	0.49	3	Atlas	Retained by Sneads Branch	94,335	1
	5/1/2017 4:00	5/1/2017 4:00	-	0.22	12,482	1.24	0.11	6	Atlas	Retained by Sneads Branch	2,747	1
	5/4/2017 20:00	5/4/2017 20:00	-	1.82	702	1.68	0.60	24	Atlas	Retained by Sneads Branch	1,279	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.82	1,864	2.21	0.60	24	Atlas	Retained by Sneads Branch	3,393	1
	5/20/2017 18:45	5/20/2017 18:45	-	1.22	9,854	0.31	0.53	12	Atlas	Retained by Sneads Branch	12,023	1
	5/21/2017 3:30	5/21/2017 4:30	60	1.22	31,392	1.07	0.53	12	Atlas	Retained by Sneads Branch	38,299	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/5/2017 18:30	6/5/2017 18:30	-	0.20	169,290	0.24	0.17	1	Atlas	Retained by Sneads Branch	33,859	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.64	332,989	0.70	0.56	1	Atlas	Retained by Sneads Branch	213,114	1
	7/23/2017 2:45	7/23/2017 3:15	30	0.96	33,589	0.46	0.44	12	Atlas	Retained by Sneads Branch	32,246	1
	7/28/2017 10:00	7/28/2017 10:00	-	0.11	6,300	1.07	0.08	1	Atlas	Retained by Sneads Branch	694	1
	8/2/2017 13:15	8/2/2017 13:15	-	0.10	18,220	0.27	0.08	1	Atlas	Retained by Sneads Branch	1,823	1
	8/6/2017 16:45	8/6/2017 17:00	15	0.59	13,841	0.44	0.26	12	Atlas	Retained by Sneads Branch	8,167	1
	8/17/2017 15:00	8/17/2017 18:00	180	0.79	20,771	0.80	0.43	6	Atlas	Retained by Sneads Branch	16,410	1
	8/22/2017 16:15	8/22/2017 16:15	-	0.56	29,032	1.35	0.34	1	Atlas	Retained by Sneads Branch	16,259	1
	8/29/2017 19:30	8/29/2017 19:30	-	0.20	361,535	0.23	0.11	1	Atlas	Retained by Sneads Branch	72,308	1
	9/1/2017 15:00	9/1/2017 21:45	405	3.77	2,659	3.40	3.52	24	Cloudburst	Retained by Sneads Branch	10,027	1
	9/19/2017 9:00	9/19/2017 9:00	-	0.49	4,547	0.73	0.31	3	Atlas		2,229	1
	10/7/2017 22:00	10/7/2017 22:00	-	1.91	103,725	0.52	0.71	24	Atlas	Retained by Sneads Branch	198,115	1
	10/8/2017 14:00	10/8/2017 14:00	-	1.91	10,610	1.68	0.71	24	Atlas		20,266	1
	12/23/2017 0:00	12/23/2017 3:00	180	1.07	4,392	0.75	0.43	12	Atlas	Retained by Sneads Branch	4,700	1
	2/7/2018 3:30	2/7/2018 3:30	-	0.39	462	0.54	0.21	6	Atlas	Retained by Sneads Branch	181	1
	2/22/2018 3:45	2/22/2018 4:45	60	1.65	27,962	2.51	0.58	24	Atlas		46,138	1
	2/23/2018 4:45	2/23/2018 6:15	90	1.28	38,525	3.13	0.59	12	Atlas		49,313	1
	2/24/2018 10:30	2/24/2018 10:30	-	1.77	3,038	3.29	0.73	12	Atlas		5,379	1
	2/24/2018 18:45	2/25/2018 0:30	345	1.77	731,547	4.58	0.73	12	Atlas		1,294,839	1
	3/24/2018 14:30	3/24/2018 14:30	-	1.05	6,465	1.73	0.43	12	Atlas	Retained by Sneads Branch	6,789	1
	3/29/2018 19:15	3/29/2018 19:30	15	1.03	42,053	1.87	0.28	48	Atlas	Retained by Sneads Branch	43,316	1
	4/1/2018 23:15	4/1/2018 23:15	-	0.51	7,143	1.79	0.28	6	Atlas	Retained by Sneads Branch	3,644	1
	4/15/2018 5:45	4/15/2018 5:45	-	1.27	6,408	0.94	0.42	24	Atlas	Retained by Sneads Branch	8,139	1
	5/5/2018 14:45	5/5/2018 18:15	210	1.38	265,341	1.22	0.52	24	Atlas		366,171	1
	5/17/2018 15:45	5/17/2018 16:00	15	0.48	108,835	0.48	0.38	1	Atlas	Retained by Sneads Branch	52,242	1
	5/31/2018 14:15	5/31/2018 14:15	-	1.31	1,729	0.85	0.65	3	Atlas	Retained by Sneads Branch	2,266	1
	6/1/2018 0:45	6/1/2018 2:15	90	1.31	24,079	1.82	0.65	3	Atlas	Retained by Sneads Branch	31,545	1
	6/10/2018 15:00	6/10/2018 15:15	15	0.41	16,922	0.17	0.18	12	Atlas	Retained by Sneads Branch	6,939	1
	6/11/2018 11:30	6/11/2018 13:30	120	0.81	7,206	0.74	0.26	48	Atlas	Retained by Sneads Branch	5,838	1
	6/25/2018 10:30	6/25/2018 10:45	15	0.92	1,224	1.46	0.38	12	Atlas	Retained by Sneads Branch	1,127	1
	6/26/2018 12:30	6/26/2018 13:00	30	0.81	7,381	2.00	0.36	12	Atlas	Retained by Sneads Branch	5,980	1
	6/26/2018 21:15	6/26/2018 21:15	-	0.81	174	2.25	0.36	12	Atlas	Retained by Sneads Branch	142	1
	7/2/2018 17:30	7/2/2018 18:00	30	0.65	8,217	1.41	0.52	1	Atlas	Retained by Sneads Branch	5,342	1
	7/3/2018 16:00	7/3/2018 16:00	-	0.50	138	1.43	0.34	1	Atlas		70	1
	7/15/2018 18:15	7/15/2018 18:15	-	0.13	13,054	0.14	0.06	12	Atlas	Retained by Sneads Branch	1,698	1
	7/20/2018 13:45	7/20/2018 21:15	450	1.09	2,116	1.33	0.49	1	Atlas		2,307	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/30/2018 23:15	7/31/2018 13:00	825	1.58	4.861	1.72	0.59	12	Atlas	Retained by Sneads Branch	7,681	1
	8/15/2018 19:45	8/16/2018 9:00	795	2.64	169.491	2.50	1.12	24	Cloudburst		447,457	1
	8/19/2018 20:00	8/19/2018 20:45	45	0.15	291.453	2.88	0.10	3	Atlas	Retained by Sneads Branch	43,719	1
	8/20/2018 11:15	8/20/2018 11:15	-	0.41	119.751	3.22	0.28	1	Atlas		49,099	1
	8/31/2018 17:15	8/31/2018 17:15	-	0.27	12.915	0.16	0.16	3	Atlas	Retained by Sneads Branch	3,488	1
	9/8/2018 17:15	9/8/2018 22:15	300	2.25	944.210	2.59	0.92	6	Atlas	Retained by Sneads Branch	2,124,473	1
	10/15/2018 9:30	10/15/2018 9:30	-	0.19	626	0.72	0.13	1	Atlas	Retained by Sneads Branch	120	1
	11/1/2018 0:45	11/1/2018 1:15	30	1.75	56.855	1.48	0.62	24	Atlas		99,498	1
	11/5/2018 22:00	11/5/2018 23:45	105	1.10	28.413	2.86	0.60	6	Atlas		31,255	1
	12/1/2018 10:15	12/1/2018 10:15	-	1.38	2.819	1.28	0.61	12	Atlas	Retained by Sneads Branch	3,891	1
	12/15/2018 3:00	12/15/2018 7:30	270	1.70	5.415	1.34	0.70	12	Atlas		9,207	1
	12/27/2018 17:45	12/27/2018 17:45	-	0.36	30.958	0.57	0.19	1	Atlas	Retained by Sneads Branch	11,146	1
	12/31/2018 10:00	12/31/2018 12:00	120	1.26	1.506	1.31	0.49	12	Atlas	Retained by Sneads Branch	1,898	1
	2/6/2019 7:15	2/6/2019 10:00	165	1.38	32.395	0.57	0.44	48	Atlas	Retained by Sneads Branch	44,706	1
	2/7/2019 9:00	2/7/2019 17:15	495	1.38	33.851	1.33	0.44	48	Atlas	Retained by Sneads Branch	46,716	1
	2/12/2019 4:00	2/12/2019 6:00	120	2.40	31.441	3.57	0.75	48	Atlas		75,459	1
	2/20/2019 3:30	2/20/2019 7:00	210	1.43	108.780	1.38	0.64	6	Atlas	Retained by Sneads Branch	155,556	1
	2/23/2019 18:30	2/23/2019 19:15	45	0.72	9.749	2.07	0.39	6	Atlas		7,020	1
	3/9/2019 13:45	3/9/2019 16:45	180	0.82	29.685	0.87	0.39	6	Atlas	Retained by Sneads Branch	24,343	1
	3/14/2019 17:15	3/14/2019 19:00	105	0.17	429.812	1.50	0.11	3	Atlas	Retained by Sneads Branch	73,069	1
	3/30/2019 17:15	3/30/2019 19:45	150	0.70	30.981	1.02	0.33	6	Atlas	Retained by Sneads Branch	21,688	1
	4/7/2019 12:00	4/7/2019 13:30	90	0.61	60.341	0.82	0.34	1	Atlas	Retained by Sneads Branch	36,809	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.45	2.907	1.03	0.36	1	Atlas	Retained by Sneads Branch	1,309	1
	4/14/2019 2:00	4/14/2019 5:00	180	1.02	37.433	2.05	0.48	6	Atlas	Retained by Sneads Branch	38,183	1
	4/18/2019 21:30	4/18/2019 21:30	-	3.33	457	1.83	1.42	48	Cloudburst	Retained by Sneads Branch	1,524	1
	4/19/2019 19:15	4/19/2019 23:15	240	3.33	19.100	2.78	1.42	48	Cloudburst	Retained by Sneads Branch	63,605	1
	4/23/2019 18:00	4/23/2019 18:15	15	0.06	91.333	3.39	0.05	1	Atlas	Retained by Sneads Branch	5,481	1
	4/24/2019 20:45	4/24/2019 21:15	30	0.46	60.313	3.66	0.21	6	Atlas		27,745	1
	4/25/2019 18:15	4/25/2019 18:15	-	0.39	55.128	4.07	0.18	1	Atlas		21,501	1
	4/26/2019 2:45	4/26/2019 2:45	-	0.39	8.918	3.47	0.18	1	Atlas	Retained by Sneads Branch	3,479	1
	5/3/2019 5:00	5/3/2019 7:30	150	0.93	12.155	1.13	0.50	6	Atlas	Retained by Sneads Branch	11,305	1
	5/19/2019 23:15	5/19/2019 23:15	-	0.21	43.529	0.36	0.15	1	Atlas	Retained by Sneads Branch	9,142	1
	5/26/2019 14:00	5/26/2019 15:30	90	0.48	16.115	0.74	0.29	3	Atlas	Retained by Sneads Branch	7,736	1
	5/29/2019 9:15	5/29/2019 9:15	-	0.52	8.863	0.77	0.28	6	Atlas	Retained by Sneads Branch	4,610	1
	5/30/2019 11:15	5/30/2019 11:15	-	0.19	9.474	1.30	0.10	1	Atlas	Retained by Sneads Branch	1,801	1
	6/5/2019 21:15	6/5/2019 21:15	-	0.77	27.660	0.90	0.57	1	Atlas	Retained by Sneads Branch	21,299	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/7/2019 22:30	6/7/2019 22:30	-	0.54	291	1.11	0.21	6	Atlas	Retained by Sneads Branch	158	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.30	24,603	1.66	0.15	6	Atlas		7,382	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.65	116,031	2.10	0.33	6	Atlas		75,421	1
	6/16/2019 20:00	6/16/2019 21:45	105	1.16	68,909	1.23	0.56	6	Atlas	Retained by Sneads Branch	79,936	1
	6/18/2019 17:15	6/18/2019 17:15	-	0.65	34,242	2.10	0.25	24	Atlas		22,258	1
	6/21/2019 19:45	6/21/2019 19:45	-	0.82	4,304	2.42	0.32	24	Atlas	Retained by Sneads Branch	3,530	1
	6/22/2019 7:00	6/22/2019 7:00	-	0.82	6,246	2.68	0.32	24	Atlas	Retained by Sneads Branch	5,123	1
	6/23/2019 16:15	6/23/2019 16:30	15	0.41	632,749	3.09	0.32	1	Atlas		259,428	1
	6/24/2019 13:45	6/24/2019 14:15	30	0.45	198,589	2.43	0.28	3	Atlas		89,366	1
	7/18/2019 1:00	7/18/2019 1:15	15	0.36	447,769	0.43	0.27	1	Atlas		161,198	1
	7/30/2019 0:00	7/30/2019 0:00	-	0.38	208,926	0.38	0.25	3	Atlas	Retained by Sneads Branch	79,393	1
	8/7/2019 4:30	8/7/2019 4:45	15	0.16	74,306	0.17	0.14	1	Atlas	Retained by Sneads Branch	11,890	1
	8/13/2019 8:00	8/13/2019 8:00	-	0.33	3,436	0.41	0.17	3	Atlas	Retained by Sneads Branch	1,135	1
	8/22/2019 3:00	8/22/2019 3:00	-	0.22	6,050	0.17	0.15	3	Atlas	Retained by Sneads Branch	1,332	1
	8/26/2019 11:30	8/26/2019 13:30	120	0.38	46,463	0.72	0.16	6	Atlas	Retained by Sneads Branch	17,657	1
	10/6/2019 14:45	10/6/2019 15:00	15	1.18	43,018	0.27	0.49	6	Atlas	Retained by Sneads Branch	50,762	1
	10/15/2019 22:45	10/15/2019 23:00	15	0.59	44,453	0.91	0.44	1	Atlas	Retained by Sneads Branch	26,228	1
	10/26/2019 5:45	10/26/2019 9:00	195	1.15	4,187	0.96	0.44	24	Atlas	Retained by Sneads Branch	4,816	1
	10/30/2019 14:15	10/30/2019 14:45	30	0.78	42,758	1.82	0.39	3	Atlas	Retained by Sneads Branch	33,352	1
	10/31/2019 6:45	10/31/2019 6:45	-	0.67	5,228	2.39	0.36	6	Atlas	Retained by Sneads Branch	3,504	1
	11/27/2019 0:30	11/27/2019 0:45	15	0.69	1,539	1.11	0.31	12	Atlas	Retained by Sneads Branch	1,063	1
	11/30/2019 4:45	11/30/2019 14:00	555	2.15	4,705	2.80	0.84	12	Atlas		10,117	1
	12/16/2019 18:00	12/16/2019 18:00	-	0.78	649	1.23	0.34	12	Atlas	Retained by Sneads Branch	507	1
	12/29/2019 20:30	12/29/2019 20:45	15	1.33	1,505	1.23	0.50	24	Atlas	Retained by Sneads Branch	2,003	1
	1/10/2020 20:30	1/10/2020 20:30	-	1.08	1,974	0.32	0.40	24	Atlas	Retained by Sneads Branch	2,133	1
	1/11/2020 11:15	1/11/2020 11:30	15	1.08	17,202	0.61	0.40	24	Atlas	Retained by Sneads Branch	18,579	1
	2/12/2020 17:30	2/12/2020 18:45	75	0.84	44,199	1.23	0.39	12	Atlas	Retained by Sneads Branch	37,128	1
	3/10/2020 8:30	3/10/2020 8:30	-	0.34	8,971	0.35	0.15	12	Atlas	Retained by Sneads Branch	3,051	1
	3/12/2020 20:00	3/12/2020 20:00	-	0.44	36,682	0.75	0.22	6	Atlas	Retained by Sneads Branch	16,141	1
	3/18/2020 16:15	3/18/2020 16:15	-	0.45	1,122	1.31	0.22	6	Atlas	Retained by Sneads Branch	506	1
	3/19/2020 12:00	3/19/2020 12:45	45	0.48	127,352	1.70	0.21	3	Atlas	Retained by Sneads Branch	61,130	1
	3/20/2020 3:45	3/20/2020 3:45	-	0.48	3,854	1.43	0.21	3	Atlas	Retained by Sneads Branch	1,851	1
	3/28/2020 22:30	3/28/2020 22:45	15	0.36	674,503	0.50	0.30	1	Atlas		242,822	1
	4/12/2020 18:00	4/13/2020 1:15	435	0.92	927	1.25	0.36	12	Atlas	Retained by Sneads Branch	854	1
	5/8/2020 10:30	5/8/2020 10:30	-	0.65	2,085	0.60	0.31	6	Atlas	Retained by Sneads Branch	1,356	1
	5/16/2020 0:00	5/16/2020 2:45	165	1.23	5,617	1.04	0.45	24	Atlas	Retained by Sneads Branch	6,910	1

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	5/23/2020 17:45	5/23/2020 18:00	15	0.08	107,525	0.61	0.05	1	Atlas	Retained by Sneads Branch	8,603	1
	6/4/2020 15:30	6/4/2020 15:45	15	0.54	51,370	0.37	0.26	6	Atlas	Retained by Sneads Branch	27,741	1
CSO185 Total											8,061,645	133
CSO186	7/19/2012 18:00	7/19/2012 18:00	-	0.86	92,348	1.13	0.70	1	Atlas		79,419	1
	9/5/2012 15:15	9/5/2012 15:15	-	0.68	5,313	1.86	0.53	1	Atlas		3,613	1
	9/26/2012 22:45	9/26/2012 22:45	-	1.17	597	1.87	0.67	3	Atlas	Retained by Sneads Branch	699	1
	5/22/2013 15:30	5/22/2013 15:30	-	0.12	22,892	0.43	0.09	1	Atlas	Retained by Sneads Branch	2,747	1
	6/21/2013 18:45	6/21/2013 18:45	-	0.43	2,633	1.36	0.33	1	Atlas	Retained by Sneads Branch	1,132	1
	6/26/2013 16:00	6/26/2013 16:30	30	2.48	23,608	2.56	2.87	6	Cloudburst		58,548	1
	7/10/2013 13:45	7/10/2013 13:45	-	0.68	3,403	1.71	0.46	1	Atlas		2,314	1
	7/22/2013 13:15	7/22/2013 13:30	15	2.70	1,116	2.91	1.24	24	Cloudburst		3,013	1
	8/20/2013 18:00	8/20/2013 18:00	-	0.28	1,721	0.26	0.15	3	Atlas	Retained by Sneads Branch	482	1
	9/2/2013 13:45	9/2/2013 13:45	-	0.56	1,248	1.66	0.49	1	Atlas	Retained by Sneads Branch	699	1
	3/2/2014 10:00	3/2/2014 10:00	-	0.62	64,692	0.17	0.24	24	Atlas	Retained by Sneads Branch	40,109	1
	7/26/2014 21:30	7/26/2014 21:30	-	1.43	11,448	0.40	0.66	12	Atlas	Retained by Sneads Branch	16,370	1
	8/30/2014 15:00	8/30/2014 15:00	-	0.60	66,848	1.34	0.38	1	Atlas	Retained by Sneads Branch	40,109	1
	12/6/2014 5:45	12/6/2014 4:45	2,820	1.77	5,590,651	2.65	0.57	48	Atlas	Retained by Sneads Branch	9,895,453	1
	12/27/2015 9:45	12/27/2015 9:45	-	1.85	49,318	2.01	0.61	3	Atlas	Retained by Sneads Branch	91,239	1
	12/28/2015 16:45	12/28/2015 19:45	180	1.85	206,974	3.59	0.61	3	Atlas	Retained by Sneads Branch	382,901	1
	6/23/2016 16:15	6/23/2016 16:15	-	1.60	18,356	0.82	0.86	6	Atlas	Retained by Sneads Branch	29,370	1
	12/17/2016 19:15	12/17/2016 19:15	-	2.52	9,123	1.21	1.58	12	Cloudburst	Retained by Sneads Branch	22,989	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.64	121,277	0.71	0.53	1	Atlas	Retained by Sneads Branch	77,617	1
	11/3/2017 5:00	11/3/2017 5:00	-	1.52	2,422	2.38	2.66	1	Atlas		3,682	1
	9/8/2018 20:00	9/8/2018 20:00	-	2.36	22,875	2.08	0.97	6	Atlas	Retained by Sneads Branch	53,986	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.27	141,233	0.45	0.23	1	Atlas	Retained by Sneads Branch	38,133	1
CSO186 Total											10,844,624	22
CSO187	11/6/2015 4:00	11/6/2015 4:00	-	0.77	29,099	0.78	0.47	3	Atlas	Retained by Sneads Branch	22,407	1
	11/18/2015 11:00	11/18/2015 11:00	-	1.42	632	1.17	0.71	6	Atlas	Retained by Sneads Branch	898	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.76	71,214	1.36	0.58	1	Atlas	Retained by Sneads Branch	54,124	1
	12/27/2015 10:45	12/27/2015 10:45	-	1.85	236	2.30	0.61	3	Atlas	Retained by Sneads Branch	438	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.21	23,794	1.19	0.57	6	Atlas	Retained by Sneads Branch	28,792	1
	3/12/2016 22:45	3/12/2016 22:45	-	0.85	29,269	1.60	0.32	24	Atlas	Retained by Sneads Branch	24,880	1
	3/27/2016 21:15	3/27/2016 21:30	15	0.85	51,915	1.37	0.60	1	Atlas	Retained by Sneads Branch	44,129	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.12	29,350	0.62	0.06	1	Atlas	Retained by Sneads Branch	3,523	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/12/2016 18:00	6/12/2016 18:00	-	0.26	908	0.30	0.21	1	Atlas	Retained by Sneads Branch	237	1
	6/23/2016 20:00	6/23/2016 20:45	45	1.60	48.398	1.74	0.86	6	Atlas	Retained by Sneads Branch	77,437	1
	12/17/2016 18:15	12/17/2016 19:00	45	2.52	4.699	1.19	1.58	12	Cloudburst	Retained by Sneads Branch	11,843	1
	2/24/2017 18:45	2/24/2017 18:45	-	0.57	2.507	0.32	0.49	1	Atlas	Retained by Sneads Branch	1,430	1
	4/29/2017 1:30	4/29/2017 2:15	45	1.01	28.030	0.99	0.51	3	Atlas	Retained by Sneads Branch	28,311	1
	6/5/2017 8:30	6/5/2017 8:30	-	0.07	28.657	0.07	0.03	12	Atlas	Retained by Sneads Branch	2,007	1
	6/15/2017 2:45	6/15/2017 2:45	-	0.70	6.487	0.13	0.45	3	Atlas	Retained by Sneads Branch	4,542	1
	8/17/2017 14:45	8/17/2017 14:45	-	0.72	2.022	0.37	0.39	6	Atlas	Retained by Sneads Branch	1,457	1
	10/7/2017 21:30	10/7/2017 21:30	-	1.68	4.126	0.27	0.64	24	Atlas		6,933	1
	11/3/2017 4:15	11/3/2017 4:30	15	1.52	25.047	1.63	2.66	1	Atlas		38,072	1
	12/12/2017 7:45	12/12/2017 12:45	300	0.01	82,406.100	0.01	0.01	1	Atlas		824,062	1
	6/1/2018 1:00	6/1/2018 1:00	-	1.57	48	1.41	0.84	1	Atlas	Retained by Sneads Branch	76	1
	8/16/2018 4:30	8/16/2018 4:30	-	2.55	1.689	1.79	0.98	24	Atlas		4,309	1
	8/20/2018 11:00	8/20/2018 11:00	-	0.50	20.834	3.01	0.38	1	Atlas		10,418	1
	9/8/2018 20:00	9/8/2018 20:00	-	2.36	9.208	2.08	0.97	6	Atlas		21,731	1
	4/23/2019 17:30	4/23/2019 17:45	15	0.24	47.492	3.02	0.21	1	Atlas		11,399	1
	6/16/2019 20:30	6/16/2019 20:30	-	1.40	16.901	1.14	0.63	6	Atlas	Retained by Sneads Branch	23,663	1
	6/23/2019 15:45	6/23/2019 15:45	-	0.41	28.520	2.84	0.32	1	Atlas		11,694	1
	6/24/2019 13:30	6/24/2019 13:30	-	0.42	33.907	2.11	0.26	3	Atlas	Retained by Sneads Branch	14,242	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.44	141.136	0.53	0.30	1	Atlas	Retained by Sneads Branch	62,101	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.51	3.282	0.51	0.33	3	Atlas	Retained by Sneads Branch	1,675	1
	6/22/2020 22:15	6/22/2020 22:15	-	0.79	19.004	0.88	0.35	3	Atlas		15,014	1
	6/29/2020 3:15	6/29/2020 3:15	-	0.60	1.000	1.37	0.37	3	Atlas	Retained by Sneads Branch	601	1
CSO187 Total											**1,352,445**	**31**
CSO188	7/19/2012 18:15	7/19/2012 18:15	-	0.86	46.777	1.33	0.70	1	Atlas	Retained by Sneads Branch	40,229	1
	9/5/2012 15:30	9/5/2012 15:30	-	0.68	2.772	1.92	0.53	1	Atlas		1,886	1
	6/10/2013 7:15	6/10/2013 15:15	480	0.33	158.658	0.38	0.15	6	Atlas	Retained by Sneads Branch	52,358	1
	6/26/2013 16:45	6/26/2013 16:45	-	2.48	550	2.82	2.87	6	Cloudburst	Retained by Sneads Branch	1,365	1
	10/5/2013 23:00	10/5/2013 23:00	-	4.40	7.780	3.09	3.19	24	Cloudburst		34,232	1
	5/29/2014 20:45	5/29/2014 20:45	-	0.66	51.891	0.87	0.56	1	Atlas	Retained by Sneads Branch	34,249	1
	4/2/2015 15:00	4/2/2015 15:00	-	5.36	1.465	0.86	20.93	6	Cloudburst	Retained by Sneads Branch	7,856	1
	4/3/2015 2:30	4/3/2015 2:30	-	5.36	310	3.47	20.93	6	Cloudburst	Retained by Sneads Branch	1,664	1
	6/18/2015 17:00	6/18/2015 17:00	-	1.82	27.181	1.35	0.59	48	Atlas	Retained by Sneads Branch	49,470	1
	7/12/2015 6:00	7/12/2015 6:00	-	0.84	2.138	2.33	0.60	1	Atlas	Retained by Sneads Branch	1,797	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.64	18.914	0.71	0.53	1	Atlas	Retained by Sneads Branch	12,106	1
	11/3/2017 5:15	11/3/2017 5:15	-	1.52	7.324	2.41	2.66	1	Atlas		11,134	1
	12/12/2017 8:30	12/12/2017 15:30	420	0.01	142,850.700	0.01	0.01	1	Atlas	Retained by Sneads Branch	1,428,508	1
	2/24/2018 23:15	2/24/2018 23:15	-	1.79	11.779	4.37	0.73	12	Atlas		21,085	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/8/2018 20:00	9/8/2018 20:15	15	2.36	41,771	2.20	0.97	6	Atlas	Retained by Sneads Branch	98,581	1
	6/16/2019 20:45	6/16/2019 20:45	-	1.40	251	1.22	0.63	6	Atlas	Retained by Sneads Branch	352	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.27	2,885	0.45	0.23	1	Atlas		780	1
CSO188 Total											**1,797,652**	**17**
CSO189	9/12/2008 7:00	9/12/2008 7:00	-	0.16	581,838	0.48	0.10	1	Atlas		93,094	1
	9/30/2008 0:00	9/30/2008 0:00	-	0.29	56,538	0.25	0.19	3	Atlas		16,396	1
	10/7/2008 15:00	10/8/2008 4:15	795	1.32	702,628	1.28	0.51	24	Atlas		927,469	1
	10/24/2008 4:30	10/24/2008 13:30	540	1.31	758,818	1.32	0.60	12	Atlas		994,052	1
	11/13/2008 0:00	11/13/2008 1:00	60	0.45	333,589	0.57	0.20	6	Atlas		150,115	1
	12/9/2008 11:45	12/9/2008 17:15	330	1.14	1,539,136	1.30	0.54	6	Atlas		1,754,615	1
	12/19/2008 6:45	12/19/2008 8:45	120	0.48	1,013,085	0.82	0.29	1	Atlas		486,281	1
	12/24/2008 0:15	12/24/2008 15:45	930	1.98	2,778,588	2.63	0.67	24	Atlas		5,501,604	1
	12/28/2008 0:45	12/28/2008 3:15	150	0.66	1,977,873	2.67	0.43	3	Atlas		1,305,396	1
	1/10/2009 7:15	1/10/2009 9:00	105	0.44	1,606,298	1.06	0.27	3	Atlas		706,771	1
	1/28/2009 2:45	1/28/2009 9:00	375	1.25	1,400,800	1.29	0.41	24	Atlas		1,751,000	1
	2/10/2009 19:30	2/10/2009 20:30	60	1.08	59,327	0.71	0.35	48	Atlas		64,073	1
	2/11/2009 5:15	2/11/2009 15:30	615	1.08	870,940	1.07	0.35	48	Atlas		940,615	1
	4/2/2009 19:30	4/3/2009 4:30	540	1.08	2,597,183	1.78	0.50	6	Atlas		2,804,958	1
	4/5/2009 17:15	4/5/2009 19:45	150	0.39	3,454,595	1.53	0.25	3	Atlas		1,347,292	1
	4/10/2009 14:00	4/10/2009 14:45	45	0.65	281,218	0.73	0.26	12	Atlas		182,792	1
	4/13/2009 14:30	4/13/2009 23:45	555	0.58	9,824,928	1.29	0.26	12	Atlas		5,698,458	1
	4/19/2009 8:30	4/19/2009 17:00	510	1.52	2,268,476	1.96	0.59	12	Atlas		3,448,083	1
	6/10/2009 10:00	6/10/2009 13:30	210	0.89	1,954,073	1.31	0.53	3	Atlas		1,739,125	1
	6/11/2009 2:45	6/11/2009 5:15	150	1.22	651,315	1.95	0.47	24	Atlas		794,604	1
	6/11/2009 17:45	6/11/2009 21:45	240	1.22	1,877,186	2.19	0.47	24	Atlas		2,290,167	1
	6/15/2009 16:15	6/15/2009 17:30	75	0.20	8,447,100	2.57	0.17	1	Atlas		1,689,420	1
	6/16/2009 16:00	6/16/2009 18:15	135	0.85	10,125,386	3.42	0.54	1	Atlas		8,606,578	1
	6/18/2009 10:00	6/18/2009 13:30	210	0.68	15,725,226	2.53	0.43	1	Atlas		10,693,154	1
	6/22/2009 9:30	6/22/2009 12:15	165	0.47	17,305,536	2.47	0.32	1	Atlas		8,133,602	1
	6/26/2009 3:15	6/26/2009 8:15	300	1.42	14,642,173	2.16	0.86	3	Atlas		20,791,886	1
	7/15/2009 10:30	7/15/2009 12:30	120	0.58	4,816,205	0.63	0.37	3	Atlas		2,793,399	1
	7/17/2009 4:15	7/17/2009 5:15	60	0.39	933,374	1.02	0.26	3	Atlas		364,016	1
	7/22/2009 6:45	7/22/2009 18:15	690	1.71	3,625,887	2.68	0.75	12	Atlas		6,200,266	1
	7/25/2009 15:15	7/25/2009 22:45	450	0.98	1,602,789	2.69	0.38	12	Atlas		1,570,733	1
	7/29/2009 3:15	7/29/2009 8:15	300	1.02	3,857,026	3.45	0.44	12	Atlas		3,934,167	1
	7/30/2009 14:15	7/31/2009 6:30	975	1.16	11,009,222	3.16	0.49	12	Atlas		12,770,697	1
	8/4/2009 8:00	8/4/2009 23:15	915	5.71	15,392,806	7.90					87,892,924	1
	8/10/2009 19:00	8/11/2009 1:30	390	1.05	16,432,601	6.76	0.67	3	Atlas		17,254,231	1
	9/20/2009 6:30	9/21/2009 2:00	1,170	3.24	9,444,694	3.24	2.79	3	Atlas		30,600,809	1
	9/24/2009 7:15	9/24/2009 9:30	135	1.19	878,656	3.87	0.43	24	Atlas		1,045,601	1
	9/24/2009 21:45	9/24/2009 22:30	45	1.19	272,353	4.57	0.43	24	Atlas		324,100	1
	9/26/2009 20:00	9/26/2009 22:15	135	0.35	10,193,549	5.07	0.30	1	Atlas		3,567,742	1
	10/2/2009 4:00	10/2/2009 6:15	135	0.73	2,380,401	1.17	0.47	3	Atlas		1,737,693	1
	10/6/2009 11:15	10/6/2009 11:45	30	0.10	726,210	0.83	0.07	3	Atlas		72,621	1
	10/8/2009 14:30	10/9/2009 13:00	1,350	2.21	4,393,573	2.92	0.75	24	Atlas		9,709,796	1
	10/14/2009 6:00	10/14/2009 8:00	120	0.60	3,065,093	2.81	0.39	3	Atlas		1,839,056	1
	10/23/2009 3:45	10/23/2009 20:30	1,005	0.71	35,224	0.73	0.31	12	Atlas		25,009	1
	10/30/2009 21:15	10/31/2009 9:30	735	0.97	2,492,814	2.14	0.44	12	Atlas		2,418,030	1
	12/8/2009 18:00	12/9/2009 8:15	855	2.05	2,638,129	2.33	0.84	12	Atlas		5,408,164	1
	1/24/2010 4:15	1/24/2010 13:30	555	0.91	1,346,391	2.22	0.35	24	Atlas		1,225,216	1
	2/5/2010 12:30	2/6/2010 13:15	1,485	1.17	2,476,874	1.35	0.43	24	Atlas		2,897,942	1
	3/8/2010 4:00	3/8/2010 4:00	-	0.02	137,750	0.02	0.01	3	Atlas		2,755	1
	3/21/2010 23:45	3/22/2010 2:00	135	0.77	849,368	0.77	0.35	12	Atlas		654,013	1
	4/8/2010 1:30	4/8/2010 7:00	330	1.29	2,901,129	1.40	0.62	6	Atlas		3,742,456	1
	4/24/2010 14:30	4/24/2010 21:30	420	1.36	5,838,861	1.55	0.64	6	Atlas		7,940,851	1
	5/1/2010 4:45	5/1/2010 9:45	300	4.01	1,636,567	2.84	3.10	48	Atlas		6,562,635	1
	5/2/2010 1:15	5/2/2010 22:00	1,245	4.01	7,026,057	4.49	3.10	48	Atlas		28,174,489	1
	5/12/2010 9:45	5/12/2010 11:15	90	0.66	7,436,745	1.14	0.50	1	Atlas		4,908,252	1
	5/13/2010 12:45	5/13/2010 13:15	30	0.07	2,317,571	1.22	0.06	1	Atlas		162,230	1
	5/21/2010 19:45	5/21/2010 21:30	105	0.45	9,586,540	1.02	0.37	1	Atlas		4,313,943	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/9/2010 3:15	6/9/2010 13:15	600	1.17	7,597,327	1.32	0.56	3	Atlas		8,888,873	1
	6/13/2010 23:00	6/14/2010 7:15	495	0.67	5,815,621	1.99	0.45	1	Atlas		3,896,466	1
	6/19/2010 5:45	6/19/2010 8:45	180	0.49	6,647,941	1.40	0.28	3	Atlas		3,257,491	1
	6/28/2010 1:30	6/28/2010 3:00	90	0.42	2,850,343	0.39	0.30	1	Atlas		1,197,144	1
	7/13/2010 5:30	7/13/2010 10:45	315	1.00	4,896,044	1.25	0.54	3	Atlas		4,896,044	1
	7/20/2010 5:00	7/20/2010 7:00	120	0.56	6,531,498	1.16	0.35	1	Atlas		3,657,639	1
	7/21/2010 6:15	7/21/2010 7:00	45	0.38	1,418,755	1.20	0.29	1	Atlas		539,127	1
	7/31/2010 4:45	7/31/2010 7:00	135	0.47	4,368,457	0.67	0.27	3	Atlas		2,053,175	1
	8/5/2010 9:30	8/5/2010 9:45	15	0.17	304,524	0.64	0.12	1	Atlas		51,769	1
	8/14/2010 16:30	8/14/2010 17:45	75	0.27	5,015,696	0.45	0.21	1	Atlas		1,354,238	1
	8/21/2010 7:15	8/21/2010 9:30	135	0.55	809,515	0.85	0.35	3	Atlas		445,233	1
	10/13/2010 20:30	10/13/2010 21:00	30	0.47	601,585	0.48	0.31	3	Atlas		282,745	1
	10/26/2010 11:30	10/26/2010 12:00	30	0.48	538,969	0.29	0.26	6	Atlas		258,705	1
	11/16/2010 13:15	11/16/2010 18:00	285	0.82	2,050,361	0.80	0.37	12	Atlas		1,681,296	1
	11/24/2010 13:30	11/24/2010 16:15	165	0.60	2,760,188	0.94	0.29	3	Atlas		1,656,113	1
	11/25/2010 8:45	11/26/2010 0:15	930	2.52	5,659,514	3.36	0.96	24	Atlas		14,261,976	1
	11/29/2010 22:00	11/30/2010 5:30	450	1.54	7,309,193	4.55	0.59	24	Atlas		11,256,157	1
	1/1/2011 5:45	1/1/2011 8:00	135	0.58	1,270,338	1.02	0.26	12	Atlas		736,796	1
	2/1/2011 18:00	2/1/2011 21:15	195	0.84	3,810,686	0.74	0.31	6	Atlas		3,200,976	1
	2/20/2011 16:45	2/20/2011 22:45	360	0.04	217,550	0.04	0.03	3	Atlas		8,702	1
	2/21/2011 20:00	2/22/2011 2:45	405	0.15	43,107	0.19	0.09	1	Atlas		6,466	1
	2/24/2011 20:15	2/25/2011 6:00	585	2.57	8,241,613	2.76	1.00	12	Cloudburst		21,180,945	1
	2/28/2011 5:30	2/28/2011 12:30	420	1.01	1,978,834	4.04	0.48	6	Atlas		1,998,622	1
	3/5/2011 7:15	3/5/2011 9:15	120	0.84	1,573,198	2.09	0.28	24	Atlas		1,321,486	1
	3/5/2011 20:45	3/5/2011 23:45	180	0.84	182,161	2.17	0.28	24	Atlas		153,015	1
	3/8/2011 23:15	3/13/2011 19:15	6,960	2.87	28,367,319	3.73	1.63	12	Cloudburst		81,414,206	1
	3/18/2011 22:30	3/18/2011 22:30	-	0.13	686,515	0.80	0.07	1	Atlas		89,247	1
	3/26/2011 16:45	3/26/2011 22:45	360	0.13	3,292,115	0.16	0.06	1	Atlas		427,975	1
	4/4/2011 13:45	4/4/2011 17:00	195	0.63	5,035,427	0.77	0.32	6	Atlas		3,172,319	1
	4/9/2011 10:45	4/12/2011 12:30	105	0.43	4,064,233	1.08	0.30	1	Atlas		1,747,620	1
	4/11/2011 16:00	4/12/2011 11:15	1,155	2.96	9,237,521	3.43	1.75	24	Cloudburst		27,343,063	1
	4/27/2011 1:15	4/27/2011 18:15	1,020	1.93	12,844,980	7.14	0.72	24	Atlas		24,790,812	1
	4/28/2011 19:15	4/28/2011 19:30	15	0.17	331,565	6.76	0.11	3	Atlas		56,366	1
	5/1/2011 4:45	5/1/2011 10:00	315	0.69	7,127,970	4.00	0.35	3	Atlas		4,918,299	1
	5/1/2011 19:45	5/4/2011 0:15	3,150	2.42	14,773,596	5.74	0.79	48	Atlas		35,752,102	1
	5/8/2011 1:00	5/8/2011 3:00	120	0.40	9,751,885	3.45	0.29	1	Atlas		3,900,754	1
	5/14/2011 15:15	5/14/2011 16:15	60	0.18	2,809,106	0.61	0.11	3	Atlas		505,639	1
	5/21/2011 18:30	5/21/2011 20:00	90	0.57	1,967,647	0.95	0.40	1	Atlas		1,121,559	1
	5/23/2011 4:15	5/23/2011 5:30	75	0.38	2,586,129	1.11	0.23	3	Atlas		982,729	1
	5/23/2011 17:45	5/23/2011 22:15	270	0.98	5,077,545	2.09	0.61	3	Atlas		4,975,994	1
	5/25/2011 23:00	5/26/2011 3:30	270	1.18	4,500,708	3.00	0.59	3	Atlas		5,310,836	1
	6/15/2011 9:45	6/15/2011 12:00	135	0.89	4,736,810	1.07	0.56	3	Atlas		4,215,761	1
	6/18/2011 7:30	6/18/2011 9:15	105	0.83	1,511,659	1.77	0.50	3	Atlas		1,254,677	1
	6/19/2011 8:00	6/19/2011 10:00	120	0.70	2,708,610	2.44	0.44	3	Atlas		1,896,027	1
	6/20/2011 1:30	6/20/2011 3:15	105	0.51	5,369,157	2.95	0.43	1	Atlas		2,738,270	1
	6/22/2011 20:00	6/23/2011 8:45	765	3.17	8,392,962	5.48	8.33	3	Atlas		26,605,690	1
	7/19/2011 23:00	7/20/2011 1:45	165	1.36	8,328,395	1.37	1.83	1	Atlas		11,326,617	1
	8/7/2011 3:15	8/7/2011 7:30	255	1.20	6,221,137	1.22	0.69	3	Atlas		7,465,364	1
	8/8/2011 14:15	8/8/2011 15:45	90	0.36	164,728	1.58	0.24	3	Atlas		59,302	1
	8/13/2011 17:45	8/13/2011 18:15	30	0.49	38,776	2.17	0.35	1	Atlas		19,000	1
	9/19/2011 7:30	9/19/2011 8:45	75	0.66	1,005,703	0.60	0.25	24	Atlas		663,764	1
	9/23/2011 6:15	9/23/2011 8:30	135	0.64	765,109	1.43	0.29	12	Atlas		489,670	1
	9/25/2011 23:30	9/26/2011 11:00	690	3.08	12,590,939	4.61	4.37	12	Cloudburst		38,780,092	1
	10/27/2011 0:15	10/27/2011 2:30	135	0.92	3,075,061	1.10	0.38	12	Atlas		2,829,056	1
	11/14/2011 21:45	11/14/2011 23:45	120	1.74	755,757	0.42	0.56	48	Atlas		1,315,018	1
	11/15/2011 12:30	11/15/2011 14:00	90	1.74	46,218	1.34	0.56	48	Atlas		80,420	1
	11/16/2011 7:00	11/16/2011 8:45	105	1.74	235,580	1.65	0.56	48	Atlas		409,909	1
	11/21/2011 4:30	11/21/2011 5:00	30	1.50	134,969	2.35	0.47	48	Atlas		202,453	1
	11/22/2011 6:45	11/22/2011 11:30	285	1.50	2,413,669	2.64	0.47	48	Atlas		3,620,503	1
	11/27/2011 8:15	11/27/2011 9:30	75	3.02	99,884	2.10	0.93	48	Atlas		301,651	1
	11/27/2011 23:30	11/29/2011 10:45	2,115	3.02	2,890,982	4.12	0.93	48	Atlas		8,730,765	1
	12/4/2011 16:45	12/6/2011 4:00	2,115	3.50	7,355,186	5.81	1.70	48	Cloudburst		25,743,150	1
	12/22/2011 15:30	12/22/2011 18:15	165	0.48	1,224,540	1.15	0.22	12	Atlas		587,779	1
	12/27/2011 5:15	12/27/2011 11:00	345	0.63	25,449	1.73	0.24	24	Atlas		16,033	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/11/2012 5:30	1/11/2012 12:00	390	0.95	1,687,097	0.83	0.39	12	Atlas		1,602,742	1
	1/17/2012 12:00	1/17/2012 12:45	45	0.43	540,172	1.49	0.20	12	Atlas		232,274	1
	1/23/2012 3:00	1/23/2012 6:30	210	0.70	3,924,134	1.16	0.35	3	Atlas		2,746,894	1
	1/26/2012 5:45	1/27/2012 8:30	1,605	0.45	32,840,342	2.51	0.27	3	Atlas		14,778,154	1
	2/4/2012 10:30	2/4/2012 10:45	15	0.34	18,191	0.40	0.20	3	Atlas		6,185	1
	2/29/2012 8:45	2/29/2012 9:45	60	0.43	1,234,065	0.59	0.20	1	Atlas		530,648	1
	3/8/2012 12:30	3/8/2012 15:15	165	0.72	790,938	0.93	0.34	6	Atlas		569,475	1
	3/15/2012 18:45	3/16/2012 4:00	555	0.93	1,734,617	1.16	0.42	12	Atlas		1,613,194	1
	3/17/2012 18:30	3/18/2012 0:15	345	0.51	4,341,847	1.65	0.29	3	Atlas		2,214,342	1
	3/23/2012 10:45	3/24/2012 0:00	795	1.45	4,138,428	1.96	0.54	24	Atlas		6,000,721	1
	4/1/2012 8:45	4/1/2012 12:45	240	1.35	5,662,353	1.51	0.73	6	Atlas		7,644,177	1
	4/28/2012 19:15	4/29/2012 0:45	330	0.72	6,296,260	0.84	0.52	1	Atlas		4,533,307	1
	4/30/2012 18:00	4/30/2012 21:00	180	0.48	4,264,535	1.33	0.32	3	Atlas		2,046,977	1
	5/5/2012 0:00	5/5/2012 5:30	330	1.46	5,084,808	2.70	0.77	6	Atlas		7,423,819	1
	5/13/2012 2:30	5/13/2012 14:30	720	1.95	4,334,389	2.03	0.75	24	Atlas		8,452,058	1
	5/29/2012 6:30	5/29/2012 14:15	465	2.73	10,618,754	2.73	12.76	3	Atlas		28,989,198	1
	5/31/2012 18:30	6/1/2012 3:00	510	1.05	3,209,973	3.67	0.45	12	Atlas		3,370,472	1
	6/17/2012 11:45	6/17/2012 12:30	45	0.13	1,724,685	0.14	0.11	1	Atlas		224,209	1
	7/8/2012 13:15	7/8/2012 15:00	105	0.23	19,005,987	0.71	0.16	1	Atlas		4,371,377	1
	7/14/2012 12:00	7/14/2012 15:30	210	0.55	1,498,216	0.80	0.30	6	Atlas		824,019	1
	7/19/2012 18:00	7/19/2012 20:15	135	0.66	12,330,312	1.20	0.44	1	Atlas		8,138,006	1
	7/24/2012 20:15	7/24/2012 20:45	30	0.36	296,731	1.15	0.30	1	Atlas		106,823	1
	12/4/2012 15:15	12/4/2012 19:30	255	0.56	2,521,591	0.83	0.35	3	Atlas		1,412,091	1
	12/7/2012 6:30	12/7/2012 18:15	705	0.93	1,140,891	1.76	0.39	12	Atlas		1,061,029	1
	12/9/2012 22:00	12/10/2012 2:00	240	1.23	8,480,236	2.94	0.63	3	Atlas		10,430,690	1
	12/17/2012 17:15	12/17/2012 17:30	15	0.24	189,983	0.39	0.13	6	Atlas		45,596	1
	12/20/2012 8:30	12/20/2012 13:30	300	0.61	3,652,774	0.95	0.30	6	Atlas		2,228,192	1
	12/26/2012 5:30	12/26/2012 11:45	375	0.90	2,120,981	1.55	0.36	12	Atlas		1,908,883	1
	1/11/2013 6:00	1/11/2013 8:30	150	0.69	4,574,533	0.88	0.37	3	Atlas		3,156,428	1
	1/13/2013 3:30	1/13/2013 20:45	1,035	2.19	8,548,857	3.06	0.84	24	Atlas		18,721,996	1
	1/30/2013 4:30	1/30/2013 9:15	285	0.85	8,298,653	1.09	0.43	6	Atlas		7,053,855	1
	2/22/2013 1:15	2/22/2013 1:45	30	0.44	124,618	0.78	0.20	12	Atlas		54,832	1
	2/26/2013 14:00	2/26/2013 17:00	180	0.69	207,633	1.07	0.28	12	Atlas		143,267	1
	3/5/2013 17:15	3/5/2013 18:15	60	0.46	686,007	0.54	0.17	24	Atlas		315,563	1
	3/11/2013 4:15	3/11/2013 12:45	510	1.01	3,117,911	1.49	0.41	12	Atlas		3,149,090	1
	3/17/2013 14:00	3/17/2013 16:30	150	1.63	839,710	1.69	0.53	48	Atlas		1,368,728	1
	3/18/2013 4:15	3/18/2013 13:30	555	1.63	3,873,026	2.11	0.53	48	Atlas		6,313,032	1
	3/24/2013 8:15	3/24/2013 8:45	30	0.58	84,503	1.57	0.21	24	Atlas		49,012	1
	4/11/2013 6:15	4/11/2013 8:15	120	1.17	1,860,392	0.43	0.45	24	Atlas		2,176,659	1
	4/11/2013 18:15	4/11/2013 19:15	60	1.17	105,834	1.14	0.45	24	Atlas		123,826	1
	4/16/2013 20:00	4/16/2013 21:30	90	0.42	8,305,069	1.57	0.34	1	Atlas		3,488,129	1
	4/19/2013 2:00	4/19/2013 5:30	210	0.85	6,878,825	1.31	0.46	6	Atlas		5,847,001	1
	4/24/2013 7:45	4/24/2013 10:15	150	0.62	3,325,924	1.57	0.35	3	Atlas		2,062,073	1
	5/4/2013 14:00	5/4/2013 16:00	120	1.76	134,556	0.82	0.55	24	Atlas		236,818	1
	5/5/2013 5:30	5/5/2013 9:30	240	1.76	1,007,674	1.61	0.55	24	Atlas		1,773,506	1
	5/10/2013 10:00	5/10/2013 14:45	285	0.73	615,816	2.48	0.32	6	Atlas		449,546	1
	5/10/2013 23:45	5/11/2013 0:30	45	0.73	348,779	2.50	0.32	6	Atlas		254,609	1
	6/10/2013 0:30	6/10/2013 1:00	30	0.36	358,422	0.30	0.14	24	Atlas		129,032	1
	6/16/2013 16:45	6/16/2013 18:00	75	0.57	7,409,846	0.87	0.43	1	Atlas		4,223,612	1
	6/17/2013 19:30	6/17/2013 21:15	105	0.29	679,941	0.83	0.15	3	Atlas		197,183	1
	6/26/2013 3:15	6/26/2013 5:45	150	0.46	8,938,276	0.59	0.33	1	Atlas		4,111,607	1
	6/26/2013 16:15	6/26/2013 22:45	390	1.64	10,134,391	2.23	0.85	6	Atlas		16,620,402	1
	6/29/2013 20:00	6/29/2013 20:30	30	0.61	379,430	2.74	0.37	3	Atlas		231,452	1
	7/6/2013 4:45	7/6/2013 5:45	60	0.45	101,296	1.76	0.20	12	Atlas		45,583	1
	7/10/2013 14:00	7/10/2013 15:45	105	0.66	5,221,511	1.68	0.53	1	Atlas		3,446,197	1
	7/14/2013 20:00	7/14/2013 20:30	30	0.06	4,122,867	0.74	0.05	1	Atlas		247,372	1
	7/18/2013 16:30	7/18/2013 17:00	30	0.06	3,903,617	0.19	0.04	1	Atlas		234,217	1
	7/21/2013 20:30	7/21/2013 22:30	120	2.72	429,330	2.15	3.43	3	Atlas		1,167,778	1
	7/22/2013 7:30	7/22/2013 15:15	465	2.72	3,683,702	2.78	3.43	3	Atlas		10,019,669	1
	8/12/2013 14:30	8/12/2013 16:00	90	0.91	4,895,720	0.80	0.51	1	Atlas		4,455,105	1
	8/13/2013 3:00	8/13/2013 4:00	60	0.91	597,687	1.05	0.51	1	Atlas		543,895	1
	8/31/2013 20:00	9/1/2013 0:30	270	1.41	1,980,009	1.13	0.65	12	Atlas		2,791,812	1
	9/2/2013 13:30	9/2/2013 15:00	90	0.97	2,141,947	2.38	0.84	1	Atlas		2,077,689	1
	9/20/2013 17:00	9/21/2013 5:30	750	1.71	2,256,221	1.75	0.70	12	Atlas		3,858,138	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/5/2013 13:15	10/6/2013 10:15	1,260	4.19	10,226.924	4.44	7.10	24	Cloudburst		42,850,811	1
	10/30/2013 2:15	10/30/2013 7:15	300	1.70	4,852.538	1.70	0.84	6	Atlas		8,249,314	1
	10/31/2013 19:00	10/31/2013 21:30	150	1.10	5,622.218	2.73	0.50	1	Atlas		6,184,440	1
	11/17/2013 5:15	11/17/2013 20:30	915	2.72	9,687.993	2.87	2.87	6	Cloudburst		26,351,340	1
	12/5/2013 7:30	12/5/2013 8:45	75	0.72	886.001	0.16	0.23	48	Atlas		637,921	1
	12/14/2013 10:45	12/14/2013 12:00	75	0.72	442.711	1.07	0.29	12	Atlas		318,752	1
	12/21/2013 2:15	12/22/2013 8:00	1,785	3.31	8,407.775	4.02	2.24	24	Cloudburst		27,829,734	1
	1/5/2014 18:00	1/5/2014 18:15	15	0.47	20.357	0.58	0.22	6	Atlas		9,568	1
	1/11/2014 0:30	1/11/2014 5:45	315	0.91	3,273.244	1.40	0.48	6	Atlas		2,978,652	1
	2/2/2014 5:45	2/2/2014 5:45	-	0.58	43.831	0.21	0.22	24	Atlas		25,422	1
	2/4/2014 19:45	2/5/2014 2:15	390	0.67	8,981.754	1.25	0.33	6	Atlas		6,017,775	1
	2/17/2014 16:15	2/17/2014 21:30	315	0.56	4,598.395	0.82	0.32	3	Atlas		2,575,101	1
	3/2/2014 11:00	3/2/2014 12:00	60	0.47	226.270	0.28	0.18	24	Atlas		106,347	1
	3/28/2014 4:45	3/28/2014 5:30	45	0.26	786.981	0.35	0.14	6	Atlas		204,615	1
	3/29/2014 7:00	3/29/2014 9:45	165	0.84	1,601.469	0.96	0.39	12	Atlas		1,345,234	1
	4/3/2014 8:00	4/4/2014 10:30	1,590	2.93	9,036.807	4.11	1.14	24	Cloudburst		26,477,845	1
	4/7/2014 11:00	4/7/2014 14:15	195	1.06	9,456.854	4.05	0.64	1	Atlas		10,024,265	1
	4/14/2014 20:30	4/15/2014 1:15	285	0.55	1,259.073	0.98	0.25	12	Atlas		692,490	1
	4/28/2014 4:30	4/28/2014 9:00	270	1.80	7,087.599	1.59	0.73	3	Atlas		12,757,678	1
	5/9/2014 19:45	5/10/2014 17:00	1,275	1.44	5,940.235	1.51	0.63	1	Atlas		8,553,939	1
	5/14/2014 20:30	5/14/2014 21:30	60	1.17	376.999	2.67	0.45	24	Atlas		441,089	1
	5/22/2014 3:30	5/22/2014 5:00	90	0.53	2,613.919	0.66	0.31	1	Atlas		1,385,377	1
	5/28/2014 20:30	5/28/2014 22:00	90	0.04	98,143.625	0.57	0.03	3	Atlas		3,925,745	1
	6/11/2014 14:15	6/11/2014 15:15	60	0.09	9,454.844	0.28	0.06	1	Atlas		850,936	1
	6/20/2014 17:45	6/20/2014 18:30	45	0.30	3,263.510	0.31	0.20	3	Atlas		979,053	1
	7/1/2014 20:00	7/1/2014 21:00	60	0.60	995.348	0.45	0.39	3	Atlas		597,209	1
	7/2/2014 16:30	7/2/2014 17:00	30	0.10	1,426.700	0.73	0.09	1	Atlas		142,670	1
	7/13/2014 22:45	7/14/2014 0:30	105	0.69	3,586.135	0.48	0.32	12	Atlas		2,474,433	1
	7/14/2014 19:15	7/14/2014 21:15	120	0.42	1,741.707	1.18	0.30	1	Atlas		731,517	1
	7/26/2014 21:45	7/26/2014 23:15	90	1.04	1,687.997	0.69	0.48	12	Atlas		1,755,517	1
	7/27/2014 7:30	7/27/2014 8:00	30	1.04	7.234	1.05	0.48	12	Atlas		7,523	1
	8/8/2014 6:15	8/8/2014 8:00	105	0.62	1,706.398	0.48	0.31	6	Atlas		1,057,967	1
	8/10/2014 3:45	8/10/2014 5:45	120	1.14	1,827.041	1.92	0.98	1	Atlas		2,082,827	1
	8/11/2014 14:30	8/11/2014 16:15	105	0.15	8,565.787	2.04	0.10	1	Atlas		1,284,868	1
	8/17/2014 10:00	8/17/2014 10:45	45	0.83	242.388	0.86	0.32	24	Atlas		201,182	1
	8/22/2014 19:30	8/22/2014 20:00	30	0.13	775.746	0.91	0.07	6	Atlas		100,847	1
	8/23/2014 16:30	8/23/2014 22:45	375	0.96	5,555.666	1.91	0.46	6	Atlas		5,333,439	1
	8/30/2014 15:15	8/30/2014 17:15	120	1.27	3,789.806	2.35	0.80	1	Atlas		4,813,054	1
	9/2/2014 8:15	9/2/2014 9:45	90	0.53	1,493.428	1.95	0.30	3	Atlas		791,517	1
	9/11/2014 0:30	9/11/2014 6:30	360	2.30	7,232.992	2.24	3.14	3	Atlas		16,635,881	1
	10/6/2014 10:00	10/6/2014 10:30	30	0.56	312.729	0.51	0.18	48	Atlas		175,128	1
	10/10/2014 2:00	10/10/2014 4:15	135	1.02	3,270.170	1.51	0.46	3	Atlas		3,335,573	1
	10/13/2014 4:30	10/13/2014 7:00	150	0.45	4,091.540	2.07	0.29	3	Atlas		1,841,193	1
	10/13/2014 23:15	10/14/2014 11:00	705	1.56	3,875.428	3.28	0.70	12	Atlas		6,045,667	1
	11/23/2014 17:30	11/23/2014 20:30	180	0.86	2,462.888	1.19	0.39	6	Atlas		2,118,084	1
	12/6/2014 0:00	12/6/2014 7:45	465	1.75	5,070.697	2.65	0.56	48	Atlas		8,873,720	1
	3/3/2015 23:45	3/4/2015 18:00	1,095	1.65	5,891.036	1.40	0.54	48	Atlas		9,720,209	1
	3/10/2015 11:15	3/10/2015 18:00	405	0.95	8,204.818	2.60	0.42	12	Atlas		7,794,577	1
	3/13/2015 10:45	3/14/2015 8:45	1,320	1.91	5,451.622	2.81	0.72	24	Atlas		10,412,598	1
	3/26/2015 4:30	3/26/2015 6:45	135	0.51	1,725.825	0.74	0.25	3	Atlas		880,171	1
	4/2/2015 10:45	4/3/2015 17:30	1,845	4.80	15,519.021	4.93	10.76	6	Cloudburst		74,491,303	1
	4/7/2015 9:15	4/7/2015 18:45	570	1.03	11,643.343	5.83	0.45	1	Atlas		11,992,643	1
	4/9/2015 11:45	4/9/2015 12:45	60	0.25	3,213.020	5.91	0.21	1	Atlas		803,255	1
	4/10/2015 2:15	4/10/2015 4:15	120	0.28	10,091.529	3.61	0.19	1	Atlas		2,825,628	1
	4/13/2015 20:30	4/14/2015 7:15	645	0.87	1,100.766	2.19	0.33	24	Atlas		957,666	1
	4/19/2015 13:15	4/19/2015 19:15	360	0.83	340.440	1.76	0.34	12	Atlas		282,565	1
	5/16/2015 11:45	5/16/2015 14:30	165	0.94	4,291.891	1.01	0.50	3	Atlas		4,034,378	1
	6/17/2015 5:15	6/17/2015 7:15	120	0.66	2,288.815	0.67	0.37	3	Atlas		1,510,618	1
	6/18/2015 17:15	6/18/2015 18:45	90	0.83	4,734.583	1.38	0.54	1	Atlas		3,929,704	1
	6/20/2015 1:45	6/20/2015 9:15	450	1.14	2,952.405	2.72	0.46	12	Atlas		3,365,742	1
	6/26/2015 0:15	6/26/2015 1:30	75	0.85	287.106	2.17	0.46	6	Atlas		244,040	1
	6/26/2015 17:00	6/27/2015 0:45	465	0.89	10,513.203	3.13	0.50	1	Atlas		9,356,751	1
	6/29/2015 14:00	6/29/2015 14:30	30	0.29	945.466	2.03	0.14	1	Atlas		274,185	1
	7/2/2015 1:00	7/2/2015 3:00	120	0.99	797.042	2.91	0.50	3	Atlas		789,072	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/2/2015 15:00	7/2/2015 22:15	435	0.99	6,438.010	3.08	0.50	3	Atlas		6,373,630	1
	7/3/2015 14:45	7/3/2015 16:45	120	1.51	4,400.568	3.71	2.75	1	Atlas		6,644,858	1
	7/7/2015 11:45	7/7/2015 14:00	135	1.07	2,028.553	3.48	0.58	3	Atlas		2,170,552	1
	7/9/2015 13:30	7/9/2015 14:00	30	0.28	1,126.011	2.94	0.14	1	Atlas		315,283	1
	7/10/2015 16:00	7/10/2015 17:00	60	0.46	1,077.257	1.89	0.23	6	Atlas		495,538	1
	7/12/2015 5:45	7/12/2015 9:00	195	0.70	8,514.834	2.55	0.47	3	Atlas		5,960,384	1
	7/13/2015 14:45	7/13/2015 16:15	90	0.38	4,271.068	2.93	0.33	1	Atlas		1,623,006	1
	7/14/2015 4:30	7/14/2015 6:00	90	0.27	7,843.248	3.19	0.18	1	Atlas		2,117,677	1
	7/14/2015 18:45	7/14/2015 19:45	60	0.14	7,537.200	2.35	0.11	1	Atlas		1,055,208	1
	7/17/2015 22:45	7/18/2015 3:30	285	1.16	14,933.967	2.65	0.77	3	Atlas		17,323,402	1
	7/29/2015 17:15	7/29/2015 18:15	60	0.33	2,214.976	0.38	0.28	1	Atlas		730,942	1
	8/4/2015 19:00	8/4/2015 20:00	60	0.28	5,639.611	0.60	0.23	1	Atlas		1,579,091	1
	8/5/2015 15:00	8/5/2015 16:15	75	1.24	1,278.065	1.33	0.63	1	Atlas		1,584,801	1
	8/6/2015 8:30	8/6/2015 9:45	75	1.24	657.633	1.42	0.63	1	Atlas		815,465	1
	8/19/2015 16:15	8/19/2015 18:00	105	0.80	4,660.069	0.79	0.50	1	Atlas		3,728,055	1
	9/9/2015 11:15	9/9/2015 12:30	75	0.85	3,554.107	0.91	0.74	1	Atlas		3,020,991	1
	10/27/2015 17:15	10/28/2015 9:00	945	3.38	4,923.121	3.59	1.47	24	Cloudburst		16,640,148	1
	11/6/2015 3:15	11/6/2015 6:15	180	0.91	6,792.360	1.03	0.56	3	Atlas		6,181,048	1
	11/9/2015 21:00	11/9/2015 21:45	45	0.65	33.085	1.56	0.29	12	Atlas		21,505	1
	11/12/2015 1:00	11/12/2015 1:45	45	0.29	987.076	1.84	0.17	3	Atlas		286,252	1
	11/18/2015 9:15	11/18/2015 16:15	420	1.75	7,177.931	2.18	0.90	6	Atlas		12,561,380	1
	12/1/2015 0:15	12/1/2015 5:15	300	0.51	1,424.588	1.41	0.23	12	Atlas		726,540	1
	12/22/2015 0:15	12/22/2015 4:30	255	0.50	234.422	0.53	0.19	24	Atlas		117,211	1
	12/23/2015 19:00	12/24/2015 0:30	330	1.28	13,427.519	1.80	0.81	1	Atlas		17,187,224	1
	12/26/2015 13:45	12/26/2015 15:15	90	0.42	1,633.624	2.21	0.19	12	Atlas		686,122	1
	12/27/2015 10:15	12/27/2015 19:00	525	2.65	7,648.299	3.81	0.86	48	Atlas		20,267,993	1
	12/28/2015 6:15	12/28/2015 7:00	45	2.65	60.836	4.12	0.86	48	Atlas		161,216	1
	12/28/2015 16:15	12/28/2015 21:30	315	2.65	903.857	4.76	0.86	48	Atlas		2,395,222	1
	2/2/2016 19:30	2/3/2016 3:45	495	1.34	13,325.472	1.39	0.67	6	Atlas		17,856,132	1
	2/21/2016 6:00	2/21/2016 12:15	375	0.80	4,351.983	1.00	0.37	12	Atlas		3,481,586	1
	2/23/2016 23:30	2/24/2016 12:15	765	2.32	10,168.388	2.81	0.91	12	Atlas		23,590,661	1
	3/1/2016 12:30	3/1/2016 14:45	135	0.71	1,454.813	3.07	0.38	6	Atlas		1,032,917	1
	3/9/2016 17:00	3/9/2016 17:15	15	1.31	6.563	0.37	0.43	48	Atlas		8,597	1
	3/10/2016 14:45	3/10/2016 21:15	390	1.31	2,671.453	1.33	0.43	48	Atlas		3,499,604	1
	3/12/2016 20:45	3/13/2016 0:30	225	0.48	1,271.381	1.63	0.18	24	Atlas		610,263	1
	3/13/2016 10:00	3/13/2016 11:15	75	0.48	750.492	1.82	0.18	24	Atlas		360,236	1
	3/24/2016 17:15	3/24/2016 18:30	75	0.51	2,941.984	0.58	0.39	1	Atlas		1,500,412	1
	3/27/2016 21:15	3/27/2016 23:15	120	0.73	3,802.411	1.24	0.51	1	Atlas		2,775,760	1
	3/31/2016 5:00	3/31/2016 8:30	210	1.38	976.875	2.01	0.52	24	Atlas		1,348,088	1
	3/31/2016 22:15	4/1/2016 1:15	180	1.38	1,279.749	2.11	0.52	24	Atlas		1,766,053	1
	4/11/2016 16:30	4/11/2016 20:15	225	1.14	3,259.596	1.29	0.52	6	Atlas		3,715,940	1
	4/27/2016 21:00	4/27/2016 23:00	120	0.91	3,059.258	1.55	0.43	3	Atlas		2,783,925	1
	4/30/2016 11:30	4/30/2016 14:00	150	0.79	1,202.523	1.58	0.30	24	Atlas		949,993	1
	5/1/2016 16:45	5/1/2016 17:00	15	0.65	15.160	2.59	0.43	3	Atlas		9,854	1
	5/7/2016 20:15	5/7/2016 23:00	165	0.52	946.417	1.75	0.27	3	Atlas		492,137	1
	5/10/2016 14:30	5/10/2016 20:00	330	0.72	2,038.092	1.51	0.29	3	Atlas		1,467,426	1
	5/11/2016 22:45	5/11/2016 22:45	-	0.30	8.910	1.59	0.14	3	Atlas		2,673	1
	5/20/2016 14:15	5/20/2016 17:00	165	0.63	4,873.151	1.29	0.35	3	Atlas		3,070,085	1
	5/26/2016 14:00	5/26/2016 14:15	15	0.36	23.517	0.96	0.24	3	Atlas		8,466	1
	5/28/2016 15:00	5/28/2016 15:15	15	0.18	261.011	0.53	0.10	6	Atlas		46,982	1
	6/2/2016 15:15	6/2/2016 17:45	150	1.49	7,259.855	1.73	2.75	1	Atlas		10,817,184	1
	6/4/2016 17:00	6/4/2016 17:15	15	0.18	232.794	1.73	0.07	12	Atlas		41,903	1
	6/12/2016 18:15	6/12/2016 19:15	60	0.59	1,408.642	0.60	0.50	1	Atlas		831,099	1
	6/14/2016 16:15	6/14/2016 20:00	225	1.46	8,987.266	2.05	0.87	1	Atlas		13,121,409	1
	6/23/2016 16:00	6/23/2016 23:30	450	2.12	7,440.343	2.29	1.11	6	Cloudburst		15,773,528	1
	7/3/2016 12:15	7/3/2016 22:15	600	1.30	1,090.331	0.76	0.42	48	Atlas		1,417,430	1
	7/4/2016 10:00	7/4/2016 16:00	360	1.30	2,270.233	1.29	0.42	48	Atlas		2,951,303	1
	7/28/2016 3:45	7/28/2016 4:15	30	0.30	1,285.220	0.72	0.14	12	Atlas		385,566	1
	8/1/2016 11:15	8/1/2016 12:00	45	0.35	701.914	1.29	0.30	1	Atlas		245,670	1
	8/9/2016 15:45	8/9/2016 16:30	45	0.53	943.223	0.78	0.43	1	Atlas		499,908	1
	8/15/2016 2:30	8/15/2016 7:45	315	1.44	4,377.642	2.18	0.72	6	Atlas		6,303,804	1
	8/17/2016 6:15	8/17/2016 9:00	165	1.13	8,670.084	2.69	0.52	3	Atlas		9,797,195	1
	8/20/2016 10:15	8/20/2016 22:00	705	1.25	6,123.584	3.76	0.55	12	Atlas		7,654,480	1
	8/27/2016 13:00	8/27/2016 13:45	45	0.03	14,148.267	0.97	0.02	1	Atlas		424,448	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/28/2016 18:00	8/28/2016 18:30	30	0.13	845.015	0.15	0.10	1	Atlas		109,852	1
	9/28/2016 13:15	9/28/2016 14:45	90	0.50	46.542	0.84	0.27	6	Atlas		23,271	1
	9/30/2016 1:00	9/30/2016 3:45	165	0.64	2,494.909	1.61	0.34	3	Atlas		1,596,742	1
	10/20/2016 10:30	10/20/2016 12:15	105	0.67	2,068.364	0.53	0.33	3	Atlas		1,385,804	1
	11/28/2016 18:00	11/28/2016 22:30	270	0.79	1,254.122	1.19	0.35	12	Atlas		990,756	1
	12/6/2016 7:00	12/6/2016 15:30	510	0.87	2,214.440	0.93	0.40	12	Atlas		1,926,563	1
	12/17/2016 16:45	12/19/2016 12:15	2,610	3.53	8,205.149	3.90	6.35	12	Cloudburst		28,964,176	1
	12/24/2016 0:00	12/24/2016 2:15	135	0.24	1,364.146	3.71	0.11	12	Atlas		327,395	1
	1/11/2017 19:00	1/12/2017 7:30	750	0.19	57.574	0.75	0.13	1	Atlas		10,939	1
	1/14/2017 14:45	1/14/2017 15:00	15	0.21	261.695	1.50	0.10	12	Atlas		54,956	1
	1/17/2017 0:15	1/17/2017 5:15	300	0.83	3,454.901	2.54	0.38	12	Atlas		2,867,568	1
	1/19/2017 19:45	1/20/2017 5:15	570	1.36	5,167.895	3.11	0.62	12	Atlas		7,028,337	1
	2/24/2017 19:30	2/24/2017 20:00	30	0.50	425.176	0.59	0.42	1	Atlas		212,588	1
	2/28/2017 11:00	2/28/2017 11:00	-	0.27	305.604	0.83	0.12	12	Atlas		82,513	1
	3/1/2017 3:15	3/1/2017 10:45	450	1.37	5,678.542	2.20	0.73	6	Atlas		7,779,603	1
	3/7/2017 8:00	3/7/2017 9:00	60	0.88	781.224	2.26	0.31	1	Atlas		687,477	1
	3/27/2017 18:45	3/27/2017 20:00	75	0.26	1,682.585	0.68	0.14	1	Atlas		437,472	1
	4/16/2017 5:30	4/16/2017 6:30	60	0.95	737.082	0.40	0.37	24	Atlas		700,228	1
	4/16/2017 18:15	4/16/2017 22:15	240	0.95	1,852.241	1.19	0.37	24	Atlas		1,759,629	1
	4/21/2017 22:30	4/22/2017 1:15	165	0.74	1,737.091	1.58	0.27	6	Atlas		1,285,447	1
	4/28/2017 23:30	4/29/2017 6:00	390	1.64	10,074.778	1.94	0.80	6	Atlas		16,522,636	1
	5/4/2017 20:00	5/5/2017 14:45	1,125	2.15	6,551.117	3.96	0.72	24	Atlas		14,084,902	1
	5/20/2017 19:15	5/21/2017 8:15	780	1.09	10,109.317	1.23	0.48	12	Atlas		11,019,155	1
	5/24/2017 20:15	5/24/2017 20:45	30	0.65	32.755	1.72	0.24	24	Atlas		21,291	1
	5/27/2017 14:15	5/27/2017 15:15	60	0.12	3,116.033	1.84	0.08	1	Atlas		373,924	1
	6/5/2017 18:45	6/5/2017 19:45	60	0.42	1,722.421	0.50	0.37	1	Atlas		723,417	1
	6/15/2017 3:30	6/15/2017 5:45	135	0.50	1,732.010	0.55	0.33	3	Atlas		866,005	1
	6/22/2017 20:15	6/22/2017 21:00	45	1.15	34.622	0.61	0.37	48	Atlas		39,815	1
	6/23/2017 15:15	6/23/2017 19:15	240	1.15	2,247.006	1.35	0.37	48	Atlas		2,584,057	1
	6/30/2017 21:15	6/30/2017 22:30	75	0.65	1,728.317	0.81	0.57	1	Atlas		1,123,406	1
	7/7/2017 21:30	7/7/2017 22:30	60	0.31	621.013	0.74	0.23	1	Atlas		192,514	1
	7/23/2017 3:30	7/23/2017 11:00	450	1.12	2,897.937	1.33	0.51	12	Atlas		3,245,689	1
	7/28/2017 10:15	7/28/2017 10:15	-	0.10	80.290	1.21	0.04	1	Atlas		8,029	1
	8/1/2017 21:45	8/1/2017 23:15	90	0.21	8,812.962	0.31	0.14	3	Atlas		1,850,722	1
	8/17/2017 18:15	8/17/2017 19:00	45	0.33	414.142	0.37	0.18	1	Atlas		136,667	1
	8/22/2017 16:00	8/22/2017 17:15	75	0.42	3,005.564	0.79	0.30	1	Atlas		1,262,337	1
	9/1/2017 9:00	9/2/2017 7:15	1,335	3.66	4,371.392	3.90	2.32	24	Cloudburst		15,999,294	1
	9/19/2017 10:15	9/19/2017 10:45	30	0.17	236.968	0.60	0.10	1	Atlas		40,288	1
	10/7/2017 21:45	10/8/2017 0:15	150	2.35	2,294.892	1.07	0.88	24	Atlas		5,392,996	1
	10/8/2017 11:00	10/8/2017 17:00	360	2.35	3,133.220	2.29	0.88	24	Atlas		7,363,068	1
	10/10/2017 14:45	10/10/2017 19:15	270	0.51	2,721.520	2.85	0.29	3	Atlas		1,387,975	1
	10/23/2017 6:45	10/23/2017 9:00	135	0.53	2,309.147	0.51	0.28	6	Atlas		1,223,848	1
	10/27/2017 18:00	10/28/2017 1:45	465	1.08	3,306.772	1.77	0.49	12	Atlas		3,571,314	1
	11/3/2017 4:45	11/3/2017 7:45	180	0.78	12,673.112	2.02	0.55	1	Atlas		9,885,027	1
	11/6/2017 1:30	11/6/2017 4:00	150	0.77	8,728.845	1.71	0.60	1	Atlas		6,721,211	1
	11/15/2017 13:45	11/15/2017 14:45	60	0.34	632.915	0.39	0.22	1	Atlas		215,191	1
	11/18/2017 17:30	11/18/2017 19:00	90	0.27	4,762.911	0.66	0.14	6	Atlas		1,285,986	1
	12/5/2017 4:00	12/5/2017 7:15	195	0.76	3,289.871	0.78	0.41	3	Atlas		2,500,302	1
	12/22/2017 23:15	12/23/2017 13:15	840	1.49	5,531.048	1.49	0.57	12	Atlas		8,241,262	1
	2/7/2018 3:15	2/7/2018 5:45	150	0.55	3,430.193	0.83	0.28	6	Atlas		1,886,606	1
	2/11/2018 10:30	2/11/2018 12:00	90	0.27	2,547.307	0.92	0.13	3	Atlas		687,773	1
	2/14/2018 7:45	2/14/2018 10:30	165	0.60	1,069.973	0.93	0.29	3	Atlas		641,984	1
	2/16/2018 3:15	2/16/2018 4:00	45	0.74	873.719	1.22	0.34	12	Atlas		646,552	1
	2/21/2018 22:00	2/22/2018 9:45	705	2.10	10,036.794	3.02	0.78	24	Atlas		21,077,267	1
	2/23/2018 3:00	2/23/2018 15:45	765	1.92	16,120.770	4.79	0.88	12	Atlas		30,951,878	1
	2/24/2018 10:45	2/25/2018 9:15	1,350	2.65	13,288.568	6.80	1.74	12	Cloudburst		35,214,705	1
	3/10/2018 1:45	3/10/2018 4:30	165	0.64	3,047.569	0.67	0.41	3	Atlas		1,950,444	1
	3/19/2018 20:15	3/19/2018 21:15	60	0.38	1,978.253	0.39	0.19	6	Atlas		751,736	1
	3/24/2018 9:30	3/24/2018 21:30	720	1.07	7,846.008	2.18	0.41	24	Atlas		8,395,229	1
	3/28/2018 7:00	3/28/2018 7:00	-	1.30	87.288	1.57	0.33	48	Atlas		113,474	1
	3/29/2018 19:15	3/30/2018 0:15	300	1.30	1,163.711	2.26	0.33	48	Atlas		1,512,824	1
	4/1/2018 20:45	4/2/2018 1:00	255	0.80	5,359.054	2.48	0.44	6	Atlas		4,287,243	1
	4/3/2018 21:30	4/3/2018 22:45	75	0.35	1,670.846	2.70	0.19	6	Atlas		584,796	1
	4/14/2018 9:30	4/14/2018 10:30	60	1.23	199.423	0.47	0.42	24	Atlas		245,290	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/15/2018 5:45	4/15/2018 10:30	285	1.23	1,365,603	1.25	0.42	24	Atlas		1,679,692	1
	4/23/2018 6:15	4/23/2018 7:45	90	0.65	45,492	0.76	0.32	3	Atlas		29,570	1
	5/22/2018 8:00	5/22/2018 8:45	45	0.24	342,679	0.63	0.19	1	Atlas		82,243	1
	5/27/2018 3:45	5/27/2018 6:45	180	1.15	6,690,700	1.32	0.86	1	Atlas		7,694,305	1
	5/31/2018 14:15	5/31/2018 15:15	60	1.91	183,235	1.89	0.93	3	Atlas		349,979	1
	6/1/2018 0:00	6/1/2018 5:30	330	1.91	5,091,996	3.47	0.93	3	Atlas		9,725,713	1
	6/10/2018 15:00	6/10/2018 16:00	60	0.49	1,809,961	0.30	0.24	1	Atlas		886,881	1
	6/11/2018 13:30	6/11/2018 14:45	75	0.23	1,279,557	0.68	0.13	1	Atlas		294,298	1
	6/12/2018 12:45	6/12/2018 13:00	15	0.14	68,379	0.86	0.11	1	Atlas		9,573	1
	6/20/2018 12:15	6/20/2018 14:15	120	0.57	4,720,763	0.25	0.40	1	Atlas		2,690,835	1
	6/21/2018 7:15	6/21/2018 16:00	525	0.67	4,204,263	0.94	0.30	12	Atlas		2,816,856	1
	6/22/2018 11:15	6/22/2018 17:15	360	0.83	434,939	2.04	0.46	3	Atlas		360,999	1
	6/25/2018 8:30	6/25/2018 11:00	150	0.85	1,622,382	2.78	0.33	12	Atlas		1,379,025	1
	7/3/2018 14:00	7/3/2018 15:15	75	0.20	3,447,240	0.48	0.12	1	Atlas		689,448	1
	7/16/2018 7:30	7/16/2018 8:30	60	0.26	2,466,885	0.17	0.18	1	Atlas		641,390	1
	7/20/2018 17:15	7/20/2018 20:30	195	0.79	7,563,011	0.94	0.40	3	Atlas		5,974,779	1
	7/30/2018 23:30	7/31/2018 12:00	750	2.27	6,551,678	2.42	1.11	6	Cloudburst		14,872,309	1
	8/15/2018 20:00	8/16/2018 12:45	1,005	4.16	4,272,772	4.09	6.94	24	Cloudburst		17,774,732	1
	8/20/2018 11:30	8/20/2018 13:15	105	0.48	3,119,802	4.59	0.28	1	Atlas		1,497,505	1
	8/31/2018 16:45	8/31/2018 19:45	180	1.94	2,705,660	2.05	6.15	1	Atlas		5,248,980	1
	9/6/2018 12:15	9/6/2018 12:45	30	0.29	162,424	2.25	0.23	1	Atlas		47,103	1
	9/8/2018 16:15	9/9/2018 1:45	570	3.74	2,822,657	4.17	16.61	6	Cloudburst		10,556,737	1
	9/21/2018 14:45	9/21/2018 17:45	180	0.29	19,397	0.34	0.19	1	Atlas		5,625	1
	9/23/2018 5:30	9/23/2018 6:30	60	1.55	6,591	1.74	0.56	24	Atlas		10,216	1
	9/24/2018 7:45	9/24/2018 8:15	30	2.69	1,869	3.09	2.15	12	Cloudburst		5,028	1
	9/26/2018 3:00	9/26/2018 3:00	-	1.29	59,409	5.86	0.75	1	Atlas		76,638	1
	5/9/2019 10:30	5/10/2019 0:30	840	0.03	6,783,767	1.68	0.03	1	Atlas		203,513	1
	5/26/2019 14:15	5/26/2019 16:00	105	1.09	2,076,558	1.13	0.65	3	Atlas		2,263,448	1
	6/16/2019 19:45	6/17/2019 1:45	360	3.00	2,949,154	3.35	3.67	6	Cloudburst		8,847,462	1
	7/18/2019 1:15	7/18/2019 1:30	15	0.34	55,888	0.58	0.29	1	Atlas		19,002	1
	8/26/2019 13:15	8/26/2019 13:15	-	0.73	9,158	1.18	0.28	24	Atlas		6,685	1
	10/26/2019 5:45	10/26/2019 6:00	15	1.34	156,916	0.55	0.54	6	Atlas		210,267	1
	CSO189 Total										2,043,035,497	408
CSO190	10/7/2008 14:30	10/8/2008 3:45	795	1.20	488,967	1.16	0.46	24	Atlas		586,760	1
	10/24/2008 3:00	10/24/2008 18:30	930	1.27	416,010	1.28	0.58	12	Atlas		528,333	1
	11/12/2008 22:15	11/13/2008 5:30	435	0.47	556,428	0.60	0.20	6	Atlas		261,521	1
	11/14/2008 23:30	11/15/2008 10:00	630	1.60	21,022	1.78	0.64	3	Atlas		33,635	1
	11/24/2008 3:15	11/24/2008 7:15	240	0.61	70,457	0.58	0.29	6	Atlas		42,979	1
	12/4/2008 0:00	12/4/2008 0:15	15	0.28	35,232	0.43	0.14	6	Atlas		9,865	1
	12/9/2008 11:30	12/9/2008 16:30	300	1.19	428,370	1.36	0.57	6	Atlas		509,760	1
	12/19/2008 6:30	12/19/2008 8:00	90	0.51	496,712	0.85	0.31	3	Atlas		253,323	1
	12/23/2008 21:15	12/24/2008 14:00	1,005	2.08	591,767	2.70	0.68	48	Atlas		1,230,875	1
	12/28/2008 0:15	12/28/2008 2:15	120	0.64	751,595	2.72	0.42	3	Atlas		481,021	1
	1/3/2009 16:15	1/3/2009 16:30	15	0.19	76,647	0.75	0.10	1	Atlas		14,563	1
	1/10/2009 6:45	1/10/2009 8:15	90	0.43	926,186	0.98	0.27	3	Atlas		398,260	1
	1/28/2009 2:00	1/28/2009 7:45	345	1.74	109,926	1.76	0.57	24	Atlas		191,271	1
	2/10/2009 5:00	2/10/2009 5:30	30	0.94	9,253	0.28	0.31	48	Atlas		8,698	1
	2/10/2009 18:45	2/10/2009 19:15	30	0.94	37,455	0.72	0.31	48	Atlas		35,208	1
	2/11/2009 4:30	2/11/2009 5:00	30	0.94	113,664	0.94	0.31	48	Atlas		106,844	1
	2/11/2009 13:30	2/11/2009 14:15	45	0.19	2,730,647	1.11	0.14	1	Atlas		518,823	1
	3/25/2009 5:15	3/25/2009 7:45	150	0.38	19,874	0.69	0.17	12	Atlas		7,552	1
	3/28/2009 20:00	3/28/2009 21:00	60	0.72	832,075	1.27	0.43	1	Atlas		599,094	1
	4/2/2009 18:45	4/3/2009 2:30	465	1.03	995,954	1.79	0.49	6	Atlas		1,025,833	1
	4/5/2009 17:15	4/5/2009 19:00	105	0.33	629,452	1.41	0.20	3	Atlas		207,719	1
	4/10/2009 20:00	4/10/2009 20:45	45	0.40	88,855	0.77	0.17	12	Atlas		35,542	1
	4/13/2009 14:30	4/13/2009 22:00	450	0.85	2,070,955	1.27	0.35	12	Atlas		1,760,312	1
	4/19/2009 7:15	4/19/2009 15:15	480	1.39	894,019	2.09	0.56	12	Atlas		1,242,687	1
	4/19/2009 23:30	4/19/2009 23:45	15	1.39	17,378	2.19	0.56	12	Atlas		24,156	1
	4/28/2009 8:15	4/28/2009 9:15	60	0.33	212,058	0.32	0.20	3	Atlas		69,979	1
	4/30/2009 8:30	4/30/2009 8:45	15	0.11	127,936	0.43	0.07	3	Atlas		14,073	1
	5/1/2009 1:45	5/1/2009 1:45	-	0.04	173,450	0.49	0.02	6	Atlas		6,938	1
	6/26/2009 2:30	6/26/2009 5:30	180	2.13	1,465,449	3.63	2.29	3	Atlas		3,121,406	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/26/2009 15:15	6/26/2009 15:45	30	0.14	2,248.957	3.78	0.12	1	Atlas		314,854	1
	7/15/2009 10:15	7/15/2009 11:15	60	0.43	801.600	0.45	0.27	3	Atlas		344,688	1
	7/17/2009 3:45	7/17/2009 4:00	15	0.32	120.769	0.70	0.21	3	Atlas		38,646	1
	7/22/2009 6:15	7/22/2009 12:15	360	1.56	780.249	2.28	0.68	12	Atlas		1,217,188	1
	7/25/2009 14:45	7/25/2009 21:45	420	1.12	580.915	2.68	0.50	1	Atlas		650,625	1
	7/29/2009 3:00	7/29/2009 6:30	210	1.07	999.416	3.50	0.46	6	Atlas		1,069,375	1
	7/30/2009 14:15	7/30/2009 23:00	525	1.56	873.197	3.60	0.64	12	Atlas		1,362,187	1
	8/4/2009 7:30	8/4/2009 14:45	435	6.50	1,282.836	8.90					8,338,437	1
	8/10/2009 18:30	8/10/2009 20:45	135	1.07	1,642.621	7.53	0.69	3	Atlas		1,757,604	1
	8/20/2009 8:30	8/20/2009 8:30	-	0.19	6.032	0.15	0.13	3	Atlas		1,146	1
	9/6/2009 8:30	9/6/2009 8:30	-	0.13	2.569	0.17	0.07	3	Atlas		334	1
	9/8/2009 0:15	9/13/2009 10:00	7,785	0.33	27.136	0.51	0.13	24	Atlas		8,955	1
	9/20/2009 5:30	9/20/2009 22:00	990	4.38	1,659.140	4.18	9.35	24	Cloudburst		7,267,033	1
	9/22/2009 17:00	9/22/2009 23:00	360	0.34	32.021	4.67	0.17	6	Atlas		10,887	1
	1/20/2010 9:30	1/20/2010 12:15	165	1.22	19.879	0.67	0.40	48	Atlas		24,252	1
	1/20/2010 23:30	1/21/2010 0:00	30	1.22	51.772	0.78	0.40	48	Atlas		63,162	1
	1/21/2010 10:30	1/21/2010 18:45	495	1.22	314.234	1.41	0.40	48	Atlas		383,365	1
	1/24/2010 3:30	1/24/2010 5:00	90	0.97	494.074	1.82	0.37	24	Atlas		479,252	1
	1/24/2010 21:15	1/24/2010 21:45	30	0.97	22.969	2.17	0.37	24	Atlas		22,280	1
	2/5/2010 12:00	2/5/2010 17:00	300	1.19	59.439	0.75	0.44	12	Atlas		70,733	1
	3/12/2010 13:15	3/12/2010 14:15	60	0.25	69.220	0.24	0.15	3	Atlas		17,305	1
	3/21/2010 23:00	3/22/2010 1:15	135	0.62	115.871	0.62	0.28	12	Atlas		71,840	1
	3/25/2010 21:00	3/25/2010 21:15	15	0.27	22.970	0.88	0.10	24	Atlas		6,202	1
	4/7/2010 22:45	4/8/2010 5:45	420	1.42	457.604	1.48	0.65	12	Atlas		649,797	1
	4/24/2010 14:00	4/24/2010 20:00	360	1.60	1,073.099	1.81	0.75	6	Atlas		1,716,959	1
	5/1/2010 4:15	5/1/2010 8:30	255	4.05	397.320	3.05	3.24	48	Atlas		1,609,146	1
	5/2/2010 1:00	5/2/2010 15:45	885	4.05	783.309	4.49	3.24	48	Atlas		3,172,400	1
	5/7/2010 23:00	5/7/2010 23:15	15	0.24	187.288	4.32	0.20	1	Atlas		44,949	1
	5/12/2010 9:30	5/12/2010 10:15	45	0.59	1,145.920	0.91	0.43	1	Atlas		676,093	1
	5/13/2010 12:15	5/13/2010 12:30	15	0.23	238.100	1.15	0.20	1	Atlas		54,763	1
	5/17/2010 17:30	5/17/2010 19:45	135	0.38	740.937	1.79	0.26	1	Atlas		281,556	1
	5/21/2010 19:30	5/21/2010 20:15	45	1.25	451.842	2.14	1.04	1	Atlas		564,802	1
	5/30/2010 20:15	5/30/2010 20:30	15	0.43	139.247	0.47	0.23	6	Atlas		59,876	1
	6/12/2010 1:15	6/12/2010 1:45	30	0.18	1,636.700	2.20	0.10	6	Atlas		294,606	1
	6/13/2010 22:15	6/14/2010 6:15	480	0.59	1,458.363	2.78	0.37	1	Atlas		860,434	1
	6/19/2010 5:00	6/19/2010 8:00	180	0.96	988.443	2.22	0.57	3	Atlas		948,905	1
	6/28/2010 1:15	6/28/2010 2:30	75	0.32	1,240.697	0.30	0.22	1	Atlas		397,023	1
	7/8/2010 20:00	7/8/2010 23:00	180	0.34	1,532	0.12	0.13	24	Atlas		521	1
	7/9/2010 8:15	7/9/2010 8:45	30	0.34	227.312	0.28	0.13	24	Atlas		77,286	1
	7/9/2010 20:00	7/10/2010 7:00	660	0.34	1,382	0.34	0.13	24	Atlas		470	1
	7/16/2010 4:45	7/16/2010 7:00	135	0.01	8.200	1.69	0.01	1	Atlas		82	1
	7/17/2010 4:15	7/17/2010 7:00	165	0.05	4,800	1.61	0.03	3	Atlas		240	1
	7/19/2010 22:15	7/19/2010 6:15	480	0.02	14.700	1.72	0.01	3	Atlas		294	1
	7/19/2010 18:30	7/20/2010 5:45	675	0.13	9,586.569	2.38	0.11	1	Atlas		1,246,254	1
	7/21/2010 5:45	7/21/2010 6:15	30	0.53	494.509	1.47	0.43	1	Atlas		262,090	1
	7/27/2010 16:00	7/28/2010 7:00	900	0.49	184.194	1.16	0.32	1	Atlas		90,255	1
	7/28/2010 19:45	7/29/2010 7:00	675	0.12	6.267	0.74	0.07	6	Atlas		752	1
	7/31/2010 4:30	7/31/2010 6:15	105	0.43	709.623	1.04	0.23	3	Atlas		305,138	1
	8/10/2010 19:30	8/11/2010 7:00	690	0.01	225.600	0.28	0.01	1	Atlas		2,256	1
	8/11/2010 19:30	8/12/2010 7:00	690	0.14	16.529	0.42	0.11	1	Atlas		2,314	1
	8/12/2010 19:45	8/13/2010 7:00	675	0.03	71.733	0.18	0.03	1	Atlas		2,152	1
	8/14/2010 16:15	8/14/2010 16:45	30	0.71	1,147.949	0.95	0.58	1	Atlas		815,044	1
	9/7/2010 18:45	9/8/2010 7:00	735	0.01	86.600	0.05	0.01	1	Atlas		866	1
	9/11/2010 5:00	9/11/2010 7:15	135	0.07	19.114	0.15	0.05	3	Atlas		1,338	1
	9/24/2010 18:30	9/24/2010 19:45	75	0.04	6.325	0.04	0.03	1	Atlas		253	1
	10/13/2010 18:00	10/13/2010 22:45	285	0.58	398.236	0.58	0.37	3	Atlas		230,977	1
	10/26/2010 10:45	10/26/2010 14:30	225	0.60	516.683	0.54	0.33	6	Atlas		310,010	1
	11/16/2010 12:00	11/16/2010 17:45	345	0.86	434.877	0.82	0.39	12	Atlas		373,994	1
	11/23/2010 3:45	11/23/2010 4:15	30	0.37	469.462	1.26	0.22	3	Atlas		173,701	1
	11/24/2010 12:30	11/24/2010 21:00	510	0.79	388.628	1.23	0.38	3	Atlas		307,016	1
	11/25/2010 8:30	11/25/2010 23:00	870	2.45	909.146	3.47	0.93	24	Atlas		2,227,407	1
	11/29/2010 21:15	11/30/2010 4:00	405	1.96	775.266	5.09	0.75	24	Atlas		1,519,521	1
	12/12/2010 1:15	12/12/2010 5:00	225	0.36	3.075	0.40	0.12	12	Atlas		1,107	1
	12/30/2010 2:45	12/30/2010 7:45	300	0.54	42.678	0.60	0.24	12	Atlas		23,046	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/1/2011 0:45	1/1/2011 6:15	330	0.66	189.412	1.13	0.29	12	Atlas		125.012	1
	2/1/2011 16:15	2/1/2011 19:45	210	0.83	847.584	0.72	0.30	6	Atlas		703.495	1
	2/21/2011 18:15	2/21/2011 18:15	-	0.19	4.321	0.19	0.11	3	Atlas		821	1
	2/24/2011 16:30	2/25/2011 1:45	555	2.50	1.360.397	2.72	0.96	24	Atlas		3.400.992	1
	2/28/2011 5:00	2/28/2011 11:30	390	1.12	292.883	4.26	0.52	6	Atlas		328.029	1
	3/5/2011 4:30	3/5/2011 8:00	210	0.90	314.860	2.36	0.31	24	Atlas		283.374	1
	3/8/2011 20:15	3/9/2011 17:00	1.245	3.14	937.195	4.03	2.04	24	Cloudburst		2.942.792	1
	3/14/2011 4:15	3/14/2011 4:15	-	0.73	3.632	3.39	0.25	12	Atlas		2.651	1
	3/18/2011 21:15	3/18/2011 21:45	30	0.14	51.643	0.85	0.08	1	Atlas		7.230	1
	4/1/2011 20:45	4/1/2011 21:00	15	0.16	23.538	0.32	0.10	1	Atlas		3.766	1
	4/4/2011 13:30	4/4/2011 16:45	195	0.74	529.270	0.92	0.38	6	Atlas		391.660	1
	4/9/2011 10:30	4/9/2011 11:45	75	0.40	574.348	1.17	0.26	1	Atlas		229.739	1
	4/11/2011 12:00	4/12/2011 5:45	1.065	3.16	894.920	4.25	2.28	24	Cloudburst		2.827.948	1
	4/15/2011 13:00	4/15/2011 13:15	15	0.16	25.463	3.72	0.11	3	Atlas		4.074	1
	4/20/2011 0:15	4/20/2011 4:45	270	0.81	458.079	1.23	0.44	6	Atlas		371.044	1
	4/22/2011 16:30	4/23/2011 18:45	1.575	5.00	1.037.119	4.81	4.41	48	Atlas		5.185.595	1
	4/24/2011 8:00	4/24/2011 20:00	720	5.00	69.777	5.56	4.41	48	Atlas		348.886	1
	4/25/2011 5:15	4/26/2011 0:00	1.125	5.00	65.968	5.91	4.41	48	Atlas		329.840	1
	4/27/2011 1:00	4/27/2011 18:30	1.050	2.42	1.665.142	8.13	0.93	24	Atlas		4.029.644	1
	4/28/2011 18:45	4/28/2011 19:30	45	0.15	1.318.480	7.62	0.10	3	Atlas		197.772	1
	5/1/2011 4:15	5/1/2011 6:15	120	0.77	465.994	4.56	0.40	3	Atlas		358.815	1
	5/1/2011 22:30	5/2/2011 5:30	420	2.98	149.564	4.50	0.97	48	Atlas		445.700	1
	5/2/2011 16:45	5/3/2011 9:00	975	2.98	321.371	6.37	0.97	48	Atlas		957.685	1
	5/8/2011 0:45	5/8/2011 1:45	60	0.28	1.817.829	3.96	0.17	1	Atlas		508.992	1
	5/14/2011 14:45	5/14/2011 15:30	45	0.29	786.290	0.59	0.23	1	Atlas		228.024	1
	5/21/2011 18:15	5/21/2011 19:15	60	0.37	877.751	0.76	0.25	3	Atlas		324.768	1
	5/23/2011 4:00	5/23/2011 4:45	45	0.55	252.965	1.05	0.36	1	Atlas		139.131	1
	5/23/2011 17:45	5/23/2011 19:15	90	0.86	1.077.050	1.79	0.54	3	Atlas		926.263	1
	5/25/2011 22:45	5/26/2011 1:30	165	1.31	750.211	2.71	0.53	3	Atlas		982.777	1
	5/26/2011 11:15	5/26/2011 11:30	15	1.31	243.415	2.91	0.53	3	Atlas		318.874	1
	6/11/2011 4:30	6/11/2011 4:45	15	0.23	536.461	0.27	0.18	1	Atlas		123.386	1
	6/15/2011 9:30	6/15/2011 10:15	45	0.98	1.630.458	1.28	0.59	3	Atlas		1.597.849	1
	6/18/2011 7:15	6/18/2011 8:15	60	0.63	366.943	1.68	0.39	3	Atlas		231.174	1
	6/19/2011 7:45	6/19/2011 8:30	45	0.51	439.968	2.12	0.31	3	Atlas		224.394	1
	6/20/2011 1:30	6/20/2011 1:45	15	0.64	594.680	2.81	0.55	1	Atlas		380.595	1
	6/22/2011 19:45	6/23/2011 2:30	405	3.51	1.087.574	5.58	12.45	3	Atlas		3.817.384	1
	7/12/2011 17:00	7/12/2011 17:00	-	0.23	125.748	0.95	0.12	6	Atlas		28.922	1
	7/19/2011 22:45	7/19/2011 23:45	60	1.50	1.357.373	1.50	2.56	1	Atlas		2.036.060	1
	8/7/2011 3:00	8/7/2011 5:00	120	1.54	987.184	1.26	0.88	3	Atlas		1.520.263	1
	8/8/2011 13:45	8/8/2011 15:00	75	0.41	540.524	1.97	0.27	3	Atlas		221.615	1
	8/13/2011 17:15	8/13/2011 17:15	-	0.83	85.584	2.81	0.66	1	Atlas		71.035	1
	9/4/2011 20:30	9/4/2011 20:30	-	0.19	153.042	0.18	0.07	12	Atlas		29.078	1
	9/19/2011 7:00	9/19/2011 7:30	30	0.80	353.100	0.65	0.32	12	Atlas		282.480	1
	9/23/2011 1:00	9/23/2011 7:15	375	0.72	74.031	1.61	0.33	12	Atlas		53.302	1
	9/25/2011 23:30	9/26/2011 5:00	330	3.97	1.680.223	5.69	15.00	12	Atlas		6.670.484	1
	10/13/2011 7:15	10/13/2011 8:00	45	0.47	382.291	0.28	0.22	3	Atlas		179.677	1
	10/18/2011 20:15	10/18/2011 20:30	15	0.16	598.025	0.62	0.11	1	Atlas		95.684	1
	10/27/2011 0:00	10/27/2011 1:15	75	0.97	911.602	1.06	0.42	3	Atlas		884.254	1
	11/3/2011 9:30	11/3/2011 9:30	-	0.53	20.651	0.34	0.28	3	Atlas		10.945	1
	11/14/2011 21:30	11/14/2011 22:00	30	1.92	163.451	0.26	0.62	48	Atlas		313.826	1
	11/16/2011 6:30	11/16/2011 6:45	15	1.92	28.164	1.68	0.62	48	Atlas		54.075	1
	11/20/2011 17:15	11/20/2011 17:30	15	0.71	44.270	2.33	0.25	24	Atlas		31.432	1
	11/21/2011 4:00	11/21/2011 4:30	30	0.71	635.710	2.53	0.25	24	Atlas		451.354	1
	11/22/2011 6:00	11/22/2011 8:30	150	1.04	442.112	2.96	0.46	6	Atlas		459.796	1
	11/27/2011 8:00	11/27/2011 8:30	30	2.98	24.602	2.29	0.92	48	Atlas		73.314	1
	11/28/2011 0:30	11/28/2011 0:30	-	2.98	3.961	2.54	0.92	48	Atlas		11.803	1
	11/28/2011 11:30	11/28/2011 23:15	705	2.98	122.411	3.89	0.92	48	Atlas		364.786	1
	12/4/2011 16:30	12/4/2011 17:15	45	3.36	33.943	2.92	1.47	48	Cloudburst		114.050	1
	12/5/2011 3:15	12/5/2011 17:30	855	3.36	635.483	5.03	1.47	48	Cloudburst		2.135.224	1
	12/15/2011 3:45	12/15/2011 7:30	225	0.48	215.056	0.42	0.23	6	Atlas		103.227	1
	12/21/2011 5:00	12/21/2011 6:45	105	0.76	401.872	1.26	0.35	12	Atlas		305.423	1
	12/22/2011 15:30	12/22/2011 15:30	-	0.53	34.508	1.19	0.23	12	Atlas		18.289	1
	1/11/2012 4:30	1/11/2012 7:00	150	0.74	568.393	0.42	0.28	24	Atlas		420.611	1
	1/17/2012 11:30	1/17/2012 12:00	30	0.37	291.286	1.21	0.17	12	Atlas		107.776	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/23/2012 2:45	1/23/2012 4:30	105	0.57	1,478,209	0.97	0.31	3	Atlas		842,579	1
	1/26/2012 5:30	1/26/2012 6:30	60	1.72	489,569	1.31	0.56	48	Atlas		842,058	1
	1/26/2012 18:45	1/26/2012 22:00	195	1.72	689,302	2.18	0.56	48	Atlas		1,185,600	1
	2/4/2012 9:45	2/4/2012 9:45	-	0.35	45,371	0.31	0.21	3	Atlas		15,880	1
	2/22/2012 23:00	2/22/2012 23:00	-	0.20	102,005	0.54	0.15	1	Atlas		20,401	1
	2/29/2012 8:30	2/29/2012 9:00	30	0.65	425,926	0.82	0.34	1	Atlas		276,852	1
	3/8/2012 12:30	3/8/2012 13:30	60	0.75	216,501	1.06	0.36	6	Atlas		162,376	1
	3/15/2012 17:45	3/16/2012 3:00	555	0.91	569,875	1.14	0.40	12	Atlas		518,586	1
	3/17/2012 18:30	3/17/2012 21:00	150	0.54	837,970	1.54	0.28	3	Atlas		452,504	1
	3/23/2012 5:15	3/23/2012 22:45	1,050	1.68	1,042,182	2.23	0.60	24	Atlas		1,750,866	1
	3/31/2012 0:15	3/31/2012 0:15	-	0.18	372,050	0.19	0.11	3	Atlas		66,969	1
	4/1/2012 8:30	4/1/2012 11:00	150	1.41	1,412,905	1.60	0.77	6	Atlas		1,992,196	1
	4/28/2012 19:15	4/29/2012 0:15	300	0.71	1,789,231	0.82	0.52	1	Atlas		1,270,354	1
	4/30/2012 18:00	4/30/2012 20:15	135	0.41	1,350,737	1.24	0.27	3	Atlas		553,802	1
	5/4/2012 23:30	5/5/2012 4:30	300	1.38	1,355,064	2.51	0.74	3	Atlas		1,869,988	1
	5/13/2012 2:00	5/13/2012 8:45	405	2.15	912,913	1.89	0.83	24	Atlas		1,962,763	1
	5/16/2012 17:45	5/16/2012 18:15	30	0.22	1,400,905	2.37	0.19	1	Atlas		308,199	1
	5/29/2012 6:30	5/29/2012 9:30	180	2.74	1,644,496	2.69	11.84	3	Atlas		4,505,920	1
	5/31/2012 18:30	6/1/2012 1:45	435	1.17	976,542	3.74	0.51	12	Atlas		1,142,554	1
	6/17/2012 11:30	6/17/2012 12:00	30	0.20	1,788,140	0.22	0.16	1	Atlas		357,628	1
	7/1/2012 19:45	7/1/2012 20:15	30	0.32	557,231	0.25	0.21	1	Atlas		178,314	1
	7/8/2012 13:00	7/8/2012 13:45	45	0.25	3,461,468	0.67	0.18	1	Atlas		865,367	1
	7/14/2012 14:00	7/14/2012 14:30	30	0.61	804,407	0.86	0.38	3	Atlas		490,688	1
	7/19/2012 18:15	7/19/2012 19:00	45	0.97	1,540,297	1.57	0.77	1	Atlas		1,494,088	1
	7/24/2012 20:00	7/24/2012 20:15	15	0.46	1,287,185	1.50	0.38	1	Atlas		592,105	1
	7/27/2012 19:45	7/27/2012 21:00	75	0.72	1,768,574	1.26	0.49	1	Atlas		1,273,373	1
	8/16/2012 20:00	8/16/2012 22:15	135	0.63	359,557	0.63	0.37	3	Atlas		226,521	1
	8/21/2012 13:30	8/21/2012 14:00	30	0.16	3,753,575	0.81	0.14	1	Atlas		600,572	1
	9/1/2012 15:00	9/1/2012 17:30	150	0.37	958,786	0.40	0.24	1	Atlas		354,751	1
	9/2/2012 12:45	9/5/2012 16:15	450	0.61	279,839	0.97	0.24	12	Atlas		170,702	1
	9/7/2012 23:15	9/8/2012 6:30	435	0.80	1,691,001	1.86	0.60	1	Atlas		1,352,801	1
	9/25/2012 23:30	9/26/2012 5:30	360	1.44	1,084,326	3.25	0.81	3	Atlas		1,561,430	1
	9/26/2012 19:45	9/26/2012 23:45	240	0.45	1,759,824	0.76	0.21	12	Atlas		791,921	1
	10/1/2012 15:00	10/1/2012 18:45	225	1.61	2,175,597	2.40	0.86	6	Atlas		3,502,711	1
	10/6/2012 0:00	10/6/2012 0:00	-	0.61	167,692	3.00	0.25	12	Atlas		102,292	1
	10/14/2012 16:15	10/14/2012 16:15	-	0.16	78,150	0.73	0.08	6	Atlas		12,504	1
	12/2/2012 11:00	12/2/2012 11:15	15	0.10	162,190	0.08	0.06	1	Atlas		16,219	1
	12/4/2012 15:00	12/4/2012 18:15	195	0.27	271,652	0.30	0.16	3	Atlas		73,346	1
	12/7/2012 5:15	12/7/2012 17:15	720	0.72	611,317	0.99	0.47	3	Atlas		440,148	1
	12/8/2012 5:30	12/8/2012 6:00	30	1.08	152,641	2.07	0.43	12	Atlas		164,852	1
	12/9/2012 21:30	12/9/2012 23:15	105	0.33	171,961	2.33	0.19	3	Atlas		56,747	1
	12/20/2012 6:45	12/20/2012 12:00	315	1.08	1,968,632	3.00	0.52	3	Atlas		2,126,123	1
	12/26/2012 4:45	12/26/2012 6:00	75	0.70	623,660	1.24	0.37	6	Atlas		436,562	1
	1/11/2013 5:15	1/11/2013 6:45	90	0.72	425,147	1.26	0.28	12	Atlas		306,106	1
	1/13/2013 3:00	1/13/2013 18:45	945	0.67	1,004,576	0.81	0.37	3	Atlas		673,066	1
	1/30/2013 4:45	1/30/2013 6:15	90	2.22	1,249,153	3.04	0.85	24	Atlas		2,773,119	1
	2/22/2013 1:00	2/22/2013 1:00	-	0.86	1,433,571	0.87	0.43	6	Atlas		1,232,871	1
	2/26/2013 13:45	2/26/2013 14:00	15	0.43	97,209	0.73	0.20	12	Atlas		41,800	1
	3/5/2013 17:15	3/5/2013 17:15	-	0.57	71,656	0.78	0.22	24	Atlas		40,844	1
	3/11/2013 4:00	3/11/2013 11:00	420	0.45	33,813	0.49	0.17	24	Atlas		15,216	1
	3/17/2013 14:00	3/17/2013 15:00	60	1.05	453,633	1.51	0.42	12	Atlas		476,315	1
	3/18/2013 4:00	3/18/2013 6:00	120	1.80	161,572	1.71	0.58	48	Atlas		290,829	1
	3/24/2013 7:45	3/24/2013 7:45	-	1.80	458,718	2.06	0.58	48	Atlas		825,693	1
	3/24/2013 16:00	3/24/2013 16:15	15	0.54	73,394	1.73	0.20	24	Atlas		39,633	1
	4/11/2013 6:15	4/11/2013 7:15	60	0.54	70,913	1.56	0.20	24	Atlas		38,293	1
	4/11/2013 22:45	4/11/2013 22:45	-	1.27	510,902	0.53	0.49	24	Atlas		648,845	1
	4/16/2013 20:00	4/16/2013 20:30	30	1.27	11,417	1.26	0.49	24	Atlas		14,500	1
	4/19/2013 1:45	4/19/2013 4:15	150	0.57	1,985,875	1.80	0.45	1	Atlas		1,131,949	1
	4/24/2013 6:15	4/24/2013 9:15	180	0.92	1,490,526	1.51	0.50	6	Atlas		1,371,284	1
	5/5/2013 5:00	5/5/2013 8:00	180	0.66	797,232	1.60	0.39	3	Atlas		526,173	1
	5/10/2013 9:30	5/10/2013 12:30	180	1.54	61,320	1.33	0.47	24	Atlas		94,433	1
	5/10/2013 23:30	5/10/2013 23:30	-	0.90	398,497	2.17	0.40	6	Atlas		358,647	1
	5/16/2013 10:00	5/16/2013 10:15	15	0.90	51,407	2.44	0.40	6	Atlas		46,266	1
				0.18	1,482,778	1.10	0.15	1	Atlas		266,900	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/9/2013 23:30	6/10/2013 0:30	60	0.36	1,182,886	0.27	0.15	6	Atlas		425,839	1
	6/16/2013 16:30	6/16/2013 17:15	45	0.40	2,802,315	0.72	0.29	1	Atlas		1,120,926	1
	6/17/2013 19:00	6/17/2013 21:00	120	0.51	574,533	0.84	0.25	6	Atlas		293,012	1
	6/26/2013 3:15	6/26/2013 4:45	90	0.65	1,833,168	1.01	0.49	1	Atlas		1,191,559	1
	6/26/2013 16:00	6/26/2013 21:30	330	2.21	1,702,250	3.08	1.67	6	Cloudburst		3,761,973	1
	6/29/2013 20:00	6/29/2013 21:30	90	0.58	5,148	3.50	0.33	3	Atlas		2,986	1
	7/1/2013 18:30	7/1/2013 19:00	30	0.26	89,300	3.67	0.13	3	Atlas		23,218	1
	7/2/2013 13:00	7/2/2013 13:30	30	0.05	9,876,300	3.78	0.04	1	Atlas		493,815	1
	7/4/2013 6:45	7/4/2013 6:45	-	0.51	13,284	1.14	0.22	12	Atlas		6,775	1
	7/6/2013 1:15	7/6/2013 5:15	240	0.56	132,461	1.97	0.24	12	Atlas		74,178	1
	7/10/2013 13:45	7/10/2013 14:30	45	0.68	1,194,657	1.84	0.44	3	Atlas		812,367	1
	7/14/2013 19:30	7/14/2013 19:45	15	0.06	1,683,900	0.78	0.05	1	Atlas		101,034	1
	7/18/2013 15:30	7/18/2013 16:30	60	0.34	4,388,947	0.47	0.26	1	Atlas		1,492,242	1
	7/21/2013 20:30	7/21/2013 21:45	75	1.85	56,263	1.41	0.71	24	Atlas		104,086	1
	7/22/2013 7:00	7/22/2013 13:45	405	1.85	907,596	2.23	0.71	24	Atlas		1,679,052	1
	10/30/2013 1:15	10/30/2013 6:00	285	1.27	804,035	1.22	0.61	6	Atlas		1,021,125	1
	10/31/2013 19:00	10/31/2013 20:00	60	0.80	800,974	2.02	0.34	1	Atlas		640,779	1
	11/17/2013 4:30	11/17/2013 19:15	885	2.95	1,388,721	3.09	2.00	6	Cloudburst		4,096,727	1
	12/5/2013 5:30	12/5/2013 8:15	165	0.79	441,553	0.20	0.26	48	Atlas		348,827	1
	12/14/2013 9:00	12/14/2013 11:15	135	0.67	110,675	1.05	0.27	12	Atlas		74,152	1
	12/21/2013 2:00	12/21/2013 12:45	645	3.11	226,621	1.73	1.82	24	Cloudburst		704,791	1
	12/21/2013 21:15	12/22/2013 1:45	270	3.11	978,922	3.06	1.82	24	Cloudburst		3,044,447	1
	1/5/2014 15:15	1/5/2014 19:00	225	0.52	132,844	0.66	0.27	3	Atlas		69,079	1
	1/11/2014 0:15	1/11/2014 4:45	270	0.77	813,066	1.26	0.41	6	Atlas		626,061	1
	2/2/2014 5:00	2/2/2014 5:30	30	0.52	72,008	0.16	0.20	24	Atlas		37,444	1
	2/4/2014 19:45	2/5/2014 0:30	285	0.62	1,603,340	1.13	0.30	6	Atlas		994,071	1
	2/17/2014 16:15	2/17/2014 18:15	120	0.52	1,144,465	0.85	0.31	3	Atlas		595,122	1
	2/20/2014 23:00	2/20/2014 23:15	15	0.18	709,494	1.02	0.09	6	Atlas		127,709	1
	3/2/2014 10:30	3/2/2014 11:15	45	0.45	100,249	0.21	0.17	24	Atlas		45,112	1
	3/28/2014 4:15	3/28/2014 4:45	30	0.34	161,653	0.40	0.17	6	Atlas		54,962	1
	3/29/2014 6:15	3/29/2014 12:00	345	0.82	311,888	1.12	0.38	12	Atlas		255,748	1
	4/3/2014 7:45	4/4/2014 7:30	1,425	3.33	927,513	4.58	1.88	24	Cloudburst		3,088,619	1
	4/7/2014 10:30	4/7/2014 12:15	105	0.89	1,930,954	4.32	0.55	1	Atlas		1,718,549	1
	4/14/2014 20:30	4/14/2014 21:00	30	1.15	106,123	0.88	0.44	24	Atlas		122,042	1
	4/28/2014 4:00	4/28/2014 8:30	270	1.90	1,237,949	1.55	0.77	3	Atlas		2,352,103	1
	4/28/2014 16:45	4/28/2014 18:45	120	1.90	51,922	1.97	0.77	3	Atlas		98,651	1
	5/9/2014 19:15	5/10/2014 15:45	1,230	1.49	1,454,442	1.56	0.58	1	Atlas		2,167,118	1
	5/14/2014 9:00	5/14/2014 9:30	30	0.74	14,412	1.82	0.28	24	Atlas		10,665	1
	5/14/2014 18:00	5/14/2014 23:30	330	0.74	210,112	2.36	0.28	24	Atlas		155,483	1
	5/16/2014 4:00	5/16/2014 4:00	-	0.12	72,575	2.46	0.08	1	Atlas		8,709	1
	5/21/2014 21:00	5/22/2014 3:45	405	0.65	634,897	0.84	0.30	12	Atlas		412,683	1
	5/28/2014 20:15	5/28/2014 21:00	45	0.65	1,153,320	1.30	0.55	1	Atlas		749,658	1
	6/1/2014 16:00	6/1/2014 16:15	15	0.12	328,467	0.70	0.06	12	Atlas		39,416	1
	6/10/2014 16:15	6/10/2014 17:30	75	0.09	4,467	0.18	0.06	3	Atlas		402	1
	6/11/2014 14:00	6/11/2014 19:00	300	0.15	3,221,847	0.33	0.12	1	Atlas		483,277	1
	5/16/2015 11:30	5/16/2015 13:30	120	0.70	1,034,299	0.76	0.41	3	Atlas		724,009	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.09	32,122	0.91	0.04	12	Atlas		2,891	1
	5/25/2015 8:15	5/25/2015 8:30	15	0.30	47,863	0.27	0.14	12	Atlas		14,359	1
	5/26/2015 13:45	5/26/2015 14:15	30	0.17	926,024	0.43	0.10	1	Atlas		157,424	1
	6/17/2015 4:45	6/17/2015 6:15	90	0.67	757,625	0.66	0.37	3	Atlas		507,609	1
	6/18/2015 17:15	6/18/2015 18:00	45	0.76	799,499	1.27	0.43	1	Atlas		607,619	1
	6/20/2015 1:30	6/20/2015 8:15	405	1.04	842,759	2.53	0.41	12	Atlas		876,469	1
	6/22/2015 6:00	6/22/2015 6:15	15	0.23	1,204	2.72	0.11	3	Atlas		277	1
	6/25/2015 23:45	6/26/2015 1:15	90	0.61	138,685	1.78	0.33	6	Atlas		84,598	1
	6/27/2015 0:00	6/27/2015 0:15	15	1.04	130,992	2.73	0.55	1	Atlas		136,232	1
	6/29/2015 13:45	6/29/2015 14:00	15	0.22	480,305	1.87	0.12	1	Atlas		105,667	1
	7/2/2015 0:00	7/2/2015 21:15	1,275	2.42	1,084,755	4.38	0.94	1	Atlas		2,625,106	1
	7/3/2015 14:45	7/3/2015 18:30	225	0.57	515,370	4.33	0.47	1	Atlas		293,761	1
	7/7/2015 11:30	7/7/2015 13:00	90	1.07	447,897	3.85	0.51	3	Atlas		479,250	1
	7/8/2015 12:00	7/8/2015 12:30	30	1.07	15,167	4.13	0.51	3	Atlas		16,229	1
	7/9/2015 6:00	7/9/2015 13:30	450	0.34	546,700	3.49	0.16	12	Atlas		185,878	1
	7/10/2015 10:00	7/10/2015 16:15	375	0.50	157,792	2.50	0.26	6	Atlas		78,896	1
	7/12/2015 5:45	7/12/2015 7:30	105	1.07	1,341,979	3.00	0.82	1	Atlas		1,435,917	1
	7/13/2015 14:30	7/13/2015 15:15	45	0.46	725,033	3.47	0.40	1	Atlas		333,515	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/14/2015 3:45	7/14/2015 4:45	60	0.84	934.048	4.28	0.66	1	Atlas		784,600	1
	7/17/2015 22:00	7/18/2015 1:30	210	1.58	2,420.412	3.99	1.27	3	Atlas		3,824,251	1
	7/29/2015 17:15	7/29/2015 17:30	15	0.12	744.617	0.17	0.10	1	Atlas		89,354	1
	8/4/2015 18:45	8/4/2015 19:15	30	0.52	1,481.615	0.63	0.44	1	Atlas		770,440	1
	8/5/2015 14:45	8/5/2015 15:30	45	1.13	416.198	1.29	0.57	1	Atlas		470,304	1
	8/6/2015 2:15	8/6/2015 8:45	390	1.13	150.787	1.60	0.57	1	Atlas		170,389	1
	8/10/2015 20:30	8/10/2015 20:30	-	0.06	24.800	1.72	0.05	1	Atlas		1,488	1
	8/15/2015 16:30	8/15/2015 16:45	15	0.02	1,405.950	0.09	0.02	1	Atlas		28,119	1
	8/19/2015 7:15	8/19/2015 17:15	600	0.76	182.517	0.75	0.33	12	Atlas		138,713	1
	9/5/2015 17:30	9/5/2015 18:00	30	0.31	1,401.523	0.28	0.24	1	Atlas		434,472	1
	9/11/2015 18:00	9/11/2015 19:15	75	0.27	15.730	1.03	0.15	6	Atlas		4,247	1
	10/2/2015 17:30	10/2/2015 19:30	120	0.54	56.202	1.33	0.26	6	Atlas		30,349	1
	10/12/2015 17:45	10/12/2015 19:15	90	0.35	75.663	0.38	0.26	1	Atlas		26,482	1
	10/24/2015 16:45	10/24/2015 17:00	15	0.31	329	0.22	0.15	6	Atlas		102	1
	10/27/2015 14:15	10/28/2015 8:15	1,080	2.99	793.335	3.19	0.97	24	Atlas		2,372,072	1
	11/6/2015 3:00	11/6/2015 4:45	105	0.80	1,494.816	0.89	0.49	3	Atlas		1,195,853	1
	11/9/2015 19:00	11/9/2015 20:45	105	0.63	51.897	1.38	0.28	12	Atlas		32,695	1
	11/11/2015 23:45	11/12/2015 1:00	75	0.31	564.255	1.72	0.18	3	Atlas		174,919	1
	11/18/2015 8:30	11/18/2015 17:45	555	1.37	1,413.042	1.86	0.68	6	Atlas		1,935,867	1
	11/30/2015 23:15	12/1/2015 4:15	300	0.63	406.754	1.49	0.28	12	Atlas		256,255	1
	12/21/2015 10:45	12/21/2015 11:15	30	0.57	8.316	0.24	0.22	24	Atlas		4,740	1
	12/21/2015 23:45	12/22/2015 3:45	240	0.57	290.267	0.59	0.22	24	Atlas		165,452	1
	12/23/2015 19:15	12/23/2015 20:30	75	0.84	2,164.348	1.42	0.56	1	Atlas		1,818,052	1
	12/26/2015 12:00	12/26/2015 17:45	345	0.66	403.908	2.20	0.31	3	Atlas		266,579	1
	12/27/2015 9:45	12/27/2015 16:30	405	2.49	1,069.024	3.69	0.81	48	Atlas		2,661,869	1
	12/28/2015 5:45	12/28/2015 6:00	15	2.49	3.063	3.96	0.81	48	Atlas		7,628	1
	12/28/2015 16:00	12/28/2015 20:15	255	2.49	59.184	4.45	0.81	48	Atlas		147,368	1
	2/2/2016 14:45	2/3/2016 1:00	615	1.50	1,389.358	1.49	0.71	6	Atlas		2,084,037	1
	2/21/2016 4:00	2/21/2016 10:45	405	0.83	599.990	1.01	0.38	12	Atlas		497,992	1
	2/23/2016 22:30	2/24/2016 7:45	555	1.82	1,167.124	2.27	0.69	24	Atlas		2,124,166	1
	3/1/2016 8:45	3/1/2016 14:00	315	0.48	235.877	2.31	0.25	6	Atlas		113,221	1
	3/9/2016 15:45	3/9/2016 16:45	60	1.34	2.851	0.32	0.44	12	Atlas		3,821	1
	3/10/2016 13:30	3/10/2016 19:15	345	1.34	271.207	1.34	0.44	12	Atlas		363,418	1
	3/12/2016 20:15	3/12/2016 23:30	195	0.65	1,178.151	1.85	0.27	6	Atlas		765,798	1
	3/13/2016 9:00	3/13/2016 10:45	105	0.65	261.625	2.03	0.27	6	Atlas		170,056	1
	3/24/2016 17:00	3/24/2016 17:45	45	0.33	856.894	0.36	0.21	1	Atlas		282,775	1
	3/27/2016 21:00	3/27/2016 22:15	75	0.88	987.223	1.20	0.59	3	Atlas		868,756	1
	3/31/2016 4:00	4/1/2016 0:00	1,200	1.38	293.467	2.59	0.52	24	Atlas		404,985	1
	4/11/2016 13:15	4/11/2016 18:45	330	1.11	586.786	1.16	0.52	6	Atlas		651,333	1
	4/26/2016 21:00	4/26/2016 21:30	30	0.31	46.045	0.66	0.20	1	Atlas		14,274	1
	4/27/2016 13:30	4/27/2016 22:00	510	0.88	637.853	1.50	0.41	1	Atlas		561,311	1
	4/30/2016 10:45	4/30/2016 13:00	135	0.87	420.668	1.74	0.33	24	Atlas		365,981	1
	5/1/2016 14:30	5/1/2016 14:45	15	0.33	50.873	2.20	0.22	3	Atlas		16,788	1
	5/7/2016 16:15	5/7/2016 22:00	345	0.80	99.204	1.63	0.42	6	Atlas		79,363	1
	5/10/2016 14:00	5/10/2016 22:00	480	0.83	555.878	1.88	0.32	12	Atlas		461,379	1
	5/11/2016 21:30	5/11/2016 22:00	30	0.23	41.439	1.86	0.12	3	Atlas		9,531	1
	5/17/2016 20:00	5/17/2016 20:30	30	0.33	14.288	1.09	0.16	6	Atlas		4,715	1
	5/20/2016 13:30	5/20/2016 15:45	135	0.55	908.936	1.28	0.30	6	Atlas		499,915	1
	5/25/2016 17:45	5/25/2016 18:00	15	0.03	1,560.133	0.68	0.03	1	Atlas		46,804	1
	5/26/2016 14:45	5/26/2016 15:00	15	0.37	8.005	1.01	0.25	3	Atlas		2,962	1
	6/2/2016 15:15	6/2/2016 16:15	60	1.12	1,079.577	1.26	0.91	1	Atlas		1,209,126	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.33	189.676	1.48	0.16	3	Atlas		62,593	1
	6/14/2016 16:30	6/14/2016 18:30	120	1.14	1,643.520	1.13	0.72	3	Atlas		1,873,613	1
	6/22/2016 8:00	6/22/2016 8:15	15	0.34	359.768	0.17	0.21	3	Atlas		122,321	1
	6/23/2016 15:45	6/23/2016 21:15	330	2.12	1,221.105	2.46	1.81	6	Cloudburst		2,588,743	1
	7/3/2016 10:15	7/3/2016 21:00	645	1.30	287.548	0.71	0.42	48	Atlas		373,812	1
	7/4/2016 14:15	7/4/2016 14:45	30	1.30	12.274	1.27	0.42	48	Atlas		15,956	1
	7/12/2016 9:30	7/12/2016 10:00	30	0.16	67.281	0.56	0.10	1	Atlas		10,765	1
	7/20/2016 19:15	7/20/2016 19:45	30	0.10	4,270.600	0.24	0.08	1	Atlas		427,060	1
	7/25/2016 12:45	7/25/2016 12:45	-	0.30	77.920	0.20	0.16	6	Atlas		23,376	1
	7/28/2016 1:00	7/28/2016 7:30	390	0.69	1,107.436	1.02	0.35	1	Atlas		764,131	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.15	178.827	1.30	0.13	1	Atlas		26,824	1
	8/1/2016 11:00	8/1/2016 11:15	15	0.65	443.248	1.90	0.51	1	Atlas		288,111	1
	8/4/2016 12:00	8/4/2016 12:30	30	0.35	1,040.374	1.03	0.23	1	Atlas		364,131	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/12/2016 14:00	8/12/2016 14:00	-	0.23	129.548	0.41	0.19	1	Atlas		29,796	1
	8/15/2016 2:30	8/15/2016 5:45	195	0.74	893.216	1.06	0.38	6	Atlas		660,980	1
	8/17/2016 4:00	8/17/2016 7:30	210	1.32	765.181	2.18	0.63	3	Atlas		1,010,039	1
	8/19/2016 19:30	8/19/2016 19:30	-	0.19	264.695	2.29	0.17	1	Atlas		50,292	1
	8/20/2016 10:15	8/20/2016 20:30	615	1.40	1,210.215	3.63	0.61	12	Atlas		1,694,301	1
	8/27/2016 12:45	8/27/2016 12:45	-	0.08	2.775	1.21	0.07	1	Atlas		222	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.22	518	0.20	0.14	3	Atlas		114	1
	9/26/2016 10:45	9/26/2016 10:45	-	0.25	384	0.24	0.17	3	Atlas		96	1
	9/28/2016 12:15	9/28/2016 13:00	45	0.62	91.161	0.78	0.33	6	Atlas		56,520	1
	9/30/2016 0:15	9/30/2016 2:30	135	0.42	503.221	1.31	0.23	3	Atlas		211,353	1
	10/20/2016 9:15	10/20/2016 11:15	120	0.54	294.941	0.38	0.23	3	Atlas		159,268	1
	11/23/2016 20:45	11/23/2016 21:00	15	0.31	3.284	0.43	0.13	6	Atlas		1,018	1
	11/28/2016 16:30	11/28/2016 18:45	135	0.77	40.732	0.89	0.33	12	Atlas		31,364	1
	12/6/2016 5:15	12/6/2016 12:15	420	0.93	123.511	0.98	0.43	12	Atlas		114,865	1
	12/17/2016 15:45	12/18/2016 1:30	585	3.36	1,214.512	3.72	4.95	12	Cloudburst		4,080,760	1
	12/23/2016 22:45	12/24/2016 1:00	135	0.29	81.407	3.61	0.13	12	Atlas		23,608	1
	12/26/2016 20:15	12/26/2016 20:30	15	0.39	54.582	0.64	0.19	6	Atlas		21,287	1
	1/3/2017 3:15	1/3/2017 4:30	75	0.20	619.020	0.27	0.10	6	Atlas		123,804	1
	1/10/2017 19:15	1/10/2017 19:45	30	0.15	114.720	0.35	0.11	1	Atlas		17,208	1
	1/12/2017 15:15	1/12/2017 18:30	195	0.43	107.302	0.69	0.21	6	Atlas		46,140	1
	1/14/2017 11:30	1/14/2017 13:45	135	0.24	86.850	1.45	0.11	12	Atlas		20,844	1
	1/16/2017 23:30	1/17/2017 3:30	240	0.69	300.557	2.25	0.32	6	Atlas		207,384	1
	1/19/2017 18:45	1/20/2017 1:45	420	0.89	754.953	2.42	0.41	12	Atlas		671,908	1
	2/24/2017 18:45	2/24/2017 19:00	15	0.23	919.043	0.28	0.18	1	Atlas		211,380	1
	2/28/2017 10:00	2/28/2017 11:00	60	0.35	82.589	0.62	0.17	6	Atlas		28,906	1
	3/1/2017 3:00	3/1/2017 9:00	360	1.31	818.615	1.94	0.67	6	Atlas		1,072,386	1
	3/7/2017 7:30	3/7/2017 12:30	300	0.48	205.085	2.21	0.22	12	Atlas		98,441	1
	3/27/2017 18:00	3/27/2017 19:00	60	0.29	212.428	0.61	0.17	3	Atlas		61,604	1
	4/16/2017 5:15	4/16/2017 20:30	915	1.26	274.213	1.43	0.48	24	Atlas		345,509	1
	4/21/2017 22:00	4/21/2017 23:00	60	0.74	69.712	1.74	0.27	24	Atlas		51,587	1
	4/28/2017 23:15	4/29/2017 8:30	555	1.28	1,144.923	1.68	0.64	6	Atlas		1,465,501	1
	5/1/2017 3:45	5/1/2017 3:45	-	0.24	625	1.64	0.12	6	Atlas		150	1
	5/4/2017 19:30	5/5/2017 10:00	870	1.66	455.103	2.95	0.56	24	Atlas		755,471	1
	5/20/2017 18:30	5/21/2017 5:45	675	1.46	1,886.569	1.47	0.65	12	Atlas		2,754,391	1
	5/24/2017 18:45	5/24/2017 18:45	-	0.55	104	1.79	0.20	24	Atlas		57	1
	5/27/2017 14:00	5/27/2017 14:15	15	0.27	810.185	2.26	0.22	1	Atlas		218,750	1
	6/5/2017 18:15	6/5/2017 18:30	15	0.47	551.657	0.50	0.41	1	Atlas		259,279	1
	6/13/2017 17:00	6/13/2017 17:00	-	0.30	322.030	0.30	0.25	1	Atlas		96,609	1
	6/15/2017 3:15	6/15/2017 4:00	45	0.48	601.554	0.56	0.29	3	Atlas		288,746	1
	6/23/2017 15:00	6/23/2017 16:00	60	1.25	146.302	1.22	0.41	48	Atlas		182,878	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.70	511	0.76	0.60	1	Atlas		358	1
	7/6/2017 12:30	7/6/2017 12:45	15	0.46	3.033	1.27	0.23	3	Atlas		1,395	1
	7/7/2017 20:30	7/7/2017 20:45	15	0.22	89.168	1.49	0.17	1	Atlas		19,617	1
	7/23/2017 1:45	7/23/2017 7:00	315	1.33	191.824	1.00	0.61	12	Atlas		255,126	1
	7/28/2017 9:15	7/28/2017 10:00	45	0.34	701.853	1.68	0.27	1	Atlas		238,630	1
	8/1/2017 21:30	8/1/2017 22:00	30	0.87	1,595.383	1.21	0.72	1	Atlas		1,387,983	1
	8/17/2017 18:00	8/17/2017 18:00	-	0.42	338	0.44	0.23	6	Atlas		142	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.37	620.373	0.79	0.27	1	Atlas		229,538	1
	9/1/2017 8:15	9/2/2017 5:30	1,275	2.80	283.268	2.91	0.97	24	Atlas		793,151	1
	9/19/2017 8:00	9/19/2017 8:15	15	0.39	687.313	0.56	0.25	3	Atlas		268,052	1
	10/7/2017 21:30	10/7/2017 22:15	45	2.05	303.011	0.80	0.76	24	Atlas		621,172	1
	10/8/2017 10:15	10/8/2017 15:00	285	2.05	232.858	1.97	0.76	24	Atlas		477,359	1
	10/10/2017 14:00	10/10/2017 16:15	135	0.66	59.105	2.64	0.36	3	Atlas		39,009	1
	10/23/2017 6:15	10/23/2017 7:00	45	0.40	522.688	0.28	0.21	6	Atlas		209,075	1
	10/27/2017 17:15	10/28/2017 0:00	405	1.06	38.895	1.51	0.48	12	Atlas		41,229	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.02	341.707	2.24	0.78	1	Atlas		348,541	1
	11/6/2017 1:30	11/6/2017 2:15	45	0.82	466.123	2.00	0.63	1	Atlas		382,221	1
	11/15/2017 13:15	11/15/2017 13:30	15	0.36	3.200	0.39	0.25	1	Atlas		1,152	1
	11/18/2017 17:00	11/18/2017 17:30	30	0.46	79.513	0.83	0.26	3	Atlas		36,576	1
	12/5/2017 3:45	12/5/2017 5:00	75	0.65	188.040	0.55	0.35	3	Atlas		122,226	1
	12/22/2017 23:15	12/23/2017 4:00	285	1.59	135.425	1.18	0.61	24	Atlas		215,326	1
	1/22/2018 11:45	1/22/2018 19:45	480	0.29	645	0.43	0.13	12	Atlas		187	1
	2/7/2018 0:30	2/7/2018 4:15	225	0.70	9.831	1.03	0.38	6	Atlas		6,882	1
	2/11/2018 4:00	2/11/2018 10:15	375	0.42	13.740	1.27	0.23	3	Atlas		5,771	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/14/2018 7:15	2/14/2018 7:15	-	0.63	724	0.88	0.29	3	Atlas		456	1
	2/22/2018 3:30	2/22/2018 5:30	120	2.17	156.233	3.49	0.75	24	Atlas		339.026	1
	2/23/2018 3:00	2/23/2018 11:30	510	2.06	439.122	5.19	0.94	12	Atlas		904.592	1
	2/24/2018 10:15	2/25/2018 5:30	1,155	2.26	761.162	6.78	0.93	12	Atlas		1,720.227	1
	3/24/2018 12:00	3/24/2018 12:00	-	1.16	5.228	1.75	0.45	24	Atlas		6.064	1
	5/5/2018 14:30	5/5/2018 15:30	60	2.03	500.665	1.60	0.89	6	Atlas		1,016.349	1
	5/17/2018 15:30	5/17/2018 15:45	15	0.13	1.831	0.13	0.10	1	Atlas		238	1
	5/27/2018 3:45	5/27/2018 4:00	15	1.23	216.498	0.93	0.60	1	Atlas		266.293	1
	5/27/2018 13:00	5/27/2018 13:15	15	1.23	29.623	1.44	0.60	1	Atlas		36.436	1
	5/31/2018 23:45	6/1/2018 2:00	135	1.60	717.809	2.66	0.75	6	Atlas		1,148.494	1
	6/10/2018 14:45	6/10/2018 14:45	-	0.66	13.300	0.31	0.29	12	Atlas		8.778	1
	6/11/2018 13:00	6/11/2018 13:00	-	0.22	110.268	0.81	0.14	1	Atlas		24.269	1
	6/20/2018 12:30	6/20/2018 15:00	150	0.87	33.202	0.88	0.57	3	Atlas		28.886	1
	6/22/2018 18:45	6/22/2018 18:45	-	0.72	2.342	2.06	0.36	6	Atlas		1.686	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.84	97.656	2.71	0.33	12	Atlas		82.031	1
	6/26/2018 12:45	6/26/2018 13:00	15	0.75	568.023	3.24	0.30	12	Atlas		426.017	1
	7/16/2018 9:30	7/16/2018 9:30	-	0.32	1.353	0.33	0.26	1	Atlas		4.33	1
	7/20/2018 20:45	7/20/2018 20:45	-	1.73	56.157	2.13	1.30	3	Atlas		97.152	1
	7/31/2018 1:30	7/31/2018 12:45	675	2.08	208.788	2.12	0.86	6	Atlas		434.280	1
	8/15/2018 19:45	8/16/2018 9:30	825	3.00	310.978	2.89	1.78	24	Cloudburst		932.934	1
	8/20/2018 11:00	8/20/2018 11:30	30	0.61	1,470.734	3.47	0.37	1	Atlas		897.148	1
	8/31/2018 16:30	8/31/2018 17:00	30	0.47	95.451	0.39	0.31	3	Atlas		44.862	1
	9/8/2018 17:00	9/8/2018 22:30	330	3.55	731.480	3.95	12.29	6	Cloudburst		2,596.754	1
	9/21/2018 14:00	9/21/2018 14:00	-	0.46	54.330	0.22	0.26	1	Atlas		24.992	1
	9/23/2018 4:00	9/23/2018 6:45	165	1.59	66.256	2.01	0.60	24	Atlas		105.347	1
	9/24/2018 7:15	9/24/2018 13:45	390	1.99	393.502	3.87	0.85	6	Atlas		783.069	1
	9/25/2018 5:30	9/25/2018 5:30	-	1.99	1.032	3.99	0.85	6	Atlas		2.054	1
	9/25/2018 16:15	9/25/2018 17:15	60	1.02	98.498	4.64	0.45	12	Atlas		100.468	1
	9/26/2018 1:45	9/26/2018 1:45	-	1.02	1.500	4.96	0.45	12	Atlas		1.530	1
	10/10/2018 16:15	10/10/2018 16:30	15	0.34	309.568	0.30	0.27	1	Atlas		105.253	1
	11/1/2018 2:00	11/1/2018 2:15	15	2.27	10.783	1.89	0.80	24	Atlas		24.478	1
	11/5/2018 23:00	11/5/2018 23:30	30	0.99	4.342	3.22	0.54	6	Atlas		4.299	1
	12/1/2018 9:00	12/1/2018 10:00	60	1.45	1.608	1.26	0.60	12	Atlas		2.332	1
	12/15/2018 4:00	12/15/2018 8:00	240	1.55	5.697	1.28	0.64	12	Atlas		8.831	1
	12/31/2018 16:00	12/31/2018 16:30	30	1.59	25.729	1.94	0.62	12	Atlas		40.909	1
	2/6/2019 6:45	2/6/2019 6:45	-	1.61	3.394	0.53	0.52	48	Atlas		5.464	1
	2/12/2019 4:00	2/12/2019 6:00	120	3.03	49.319	4.34	0.95	48	Atlas		149.436	1
	2/20/2019 3:45	2/20/2019 6:45	180	1.60	245.629	1.50	0.71	6	Atlas		393.007	1
	2/23/2019 20:30	2/23/2019 20:45	15	0.89	44.994	2.50	0.49	6	Atlas		40.045	1
	3/9/2019 13:15	3/9/2019 18:30	315	1.14	55.575	1.24	0.55	6	Atlas		63.356	1
	3/14/2019 16:45	3/14/2019 17:30	45	0.48	516.004	1.94	0.32	3	Atlas		247.682	1
	3/30/2019 17:00	3/30/2019 17:15	15	1.07	79.736	1.13	0.48	6	Atlas		85.318	1
	4/7/2019 11:45	4/7/2019 12:00	15	0.62	89.768	0.72	0.28	12	Atlas		55.656	1
	4/14/2019 1:45	4/14/2019 1:45	-	0.86	523	1.18	0.40	6	Atlas		450	1
	4/19/2019 19:15	4/20/2019 0:15	300	2.59	78.302	2.24	0.84	48	Atlas		202.801	1
	4/24/2019 20:30	4/24/2019 20:45	15	1.16	24.609	2.98	0.38	24	Atlas		28.547	1
	4/25/2019 18:00	4/25/2019 18:00	-	1.16	99.509	3.56	0.38	24	Atlas		115.430	1
	5/2/2019 11:15	5/2/2019 11:15	-	0.22	8.323	0.80	0.19	1	Atlas		1.831	1
	5/3/2019 4:45	5/3/2019 7:30	165	1.14	72.382	1.33	0.62	6	Atlas		82.516	1
	5/26/2019 13:30	5/26/2019 15:00	90	0.87	98.121	0.95	0.53	3	Atlas		85.365	1
	5/29/2019 9:00	5/29/2019 9:00	-	0.90	699	1.20	0.49	6	Atlas		629	1
	6/5/2019 20:45	6/5/2019 21:00	15	0.95	135.826	1.08	0.70	1	Atlas		128.750	1
	6/9/2019 0:30	6/9/2019 0:30	-	0.66	8.900	1.61	0.21	48	Atlas		5.874	1
	6/16/2019 19:15	6/16/2019 21:45	150	2.61	307.757	2.94	2.00	12	Cloudburst		803.245	1
	6/18/2019 16:00	6/18/2019 16:45	45	0.65	1,254.558	3.98	0.37	1	Atlas		815.463	1
	6/21/2019 19:30	6/21/2019 19:30	-	0.41	92.054	4.28	0.27	3	Atlas		37.742	1
	6/22/2019 6:45	6/22/2019 6:45	-	0.50	45.734	4.50	0.33	3	Atlas		22.867	1
	6/23/2019 16:00	6/23/2019 16:15	15	0.31	298.274	4.42	0.23	1	Atlas		92.465	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.53	19.164	2.51	0.33	3	Atlas		10.157	1
	7/18/2019 0:30	7/18/2019 0:45	15	0.23	605.526	0.34	0.18	1	Atlas		139.271	1
	7/29/2019 23:15	7/29/2019 23:30	15	0.62	183.235	0.62	0.37	3	Atlas		113.606	1
	8/22/2019 2:45	8/22/2019 2:45	-	0.22	4.959	0.33	0.15	3	Atlas		1.091	1
	8/26/2019 10:45	8/26/2019 12:00	75	0.61	28.970	0.94	0.26	6	Atlas		17.672	1
	12/29/2019 20:30	12/29/2019 20:30	-	1.21	555	1.05	0.44	24	Atlas		671	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/11/2020 10:45	1/11/2020 11:00	15	0.89	42,599	0.75	0.41	6	Atlas		37,913	1
	2/12/2020 17:15	2/12/2020 18:30	75	0.89	22,097	1.37	0.40	3	Atlas		19,666	1
	3/10/2020 7:45	3/10/2020 8:00	15	0.45	152,344	0.46	0.20	12	Atlas		68,555	1
	3/12/2020 19:30	3/12/2020 19:45	15	0.62	85,921	1.01	0.31	6	Atlas		53,271	1
	3/19/2020 12:00	3/19/2020 12:30	30	0.59	234,461	2.18	0.25	3	Atlas		138,332	1
	3/28/2020 22:15	3/28/2020 22:30	15	0.24	182,725	0.49	0.19	1	Atlas		43,854	1
	4/12/2020 17:45	4/12/2020 17:45	-	1.12	1,201	1.19	0.46	12	Atlas		1,345	1
	4/13/2020 2:15	4/13/2020 2:30	15	1.12	309	1.62	0.46	12	Atlas		346	1
	6/4/2020 19:00	6/4/2020 19:15	15	0.96	125	0.81	0.57	3	Atlas		120	1
	6/21/2020 11:30	6/21/2020 17:15	345	0.39	60,954	0.40	0.20	6	Atlas		23,772	1
	6/22/2020 22:15	6/23/2020 8:45	630	1.10	122,599	1.51	0.44	6	Atlas		134,859	1
	6/29/2020 2:30	6/29/2020 4:30	120	0.72	32,199	1.92	0.47	3	Atlas		23,183	1
	6/29/2020 18:45	6/29/2020 19:15	30	0.56	44,020	2.49	0.48	1	Atlas		24,651	1
	CSO190 Total										**274,784,693**	**490**
CSO191	10/8/2008 4:15	10/8/2008 4:30	15	1.43	139,167	1.41	0.55	24	Atlas		199,009	1
	10/24/2008 5:15	10/24/2008 17:00	705	1.40	1,029,449	1.41	0.64	12	Atlas		1,441,228	1
	12/1/2008 7:45	12/1/2008 8:00	15	0.20	107,540	0.34	0.06	48	Atlas		21,508	1
	12/4/2008 6:30	12/4/2008 7:00	30	0.34	65,600	0.59	0.17	1	Atlas		22,304	1
	12/9/2008 14:15	12/9/2008 19:45	330	1.19	1,171,488	1.48	0.57	6	Atlas		1,394,071	1
	12/19/2008 10:00	12/19/2008 11:15	75	0.48	745,340	0.89	0.27	3	Atlas		357,763	1
	12/24/2008 3:30	12/25/2008 4:15	1,485	2.19	3,165,302	2.80	0.75	24	Atlas		6,932,011	1
	12/28/2008 2:15	12/28/2008 5:15	180	0.62	1,189,071	2.82	0.41	3	Atlas		737,224	1
	1/28/2009 3:15	1/28/2009 19:00	945	1.43	1,216,324	1.53	0.47	24	Atlas		1,739,343	1
	2/11/2009 5:30	2/11/2009 23:30	1,080	0.85	1,979,689	1.01	0.28	48	Atlas		1,682,736	1
	2/27/2009 4:00	2/27/2009 12:30	510	0.91	2,834,608	1.46	0.51	3	Atlas		2,579,493	1
	4/2/2009 21:15	4/3/2009 7:00	585	1.07	2,011,764	1.81	0.49	3	Atlas		2,152,588	1
	4/13/2009 21:30	4/14/2009 0:15	165	0.80	1,168,359	1.33	0.32	12	Atlas		934,687	1
	4/19/2009 12:45	4/20/2009 6:45	1,080	1.52	1,912,061	2.30	0.60	12	Atlas		2,906,332	1
	6/3/2009 4:30	6/3/2009 7:00	150	0.06	1,857,683	0.09	0.04	1	Atlas		111,461	1
	6/4/2009 7:00	6/4/2009 7:00	-	0.22	46,059	0.14	0.10	12	Atlas		10,133	1
	6/10/2009 12:15	6/10/2009 14:00	105	1.10	827,788	1.41	0.61	3	Atlas		910,567	1
	6/11/2009 3:15	6/11/2009 6:00	165	1.59	731,606	2.00	0.61	24	Atlas		1,163,254	1
	6/11/2009 17:30	6/12/2009 0:45	435	1.59	2,430,833	2.76	0.61	24	Atlas		3,865,024	1
	6/15/2009 16:45	6/15/2009 19:00	135	0.27	1,726,233	3.18	0.20	1	Atlas		466,083	1
	6/18/2009 10:15	6/19/2009 22:00	2,145	0.69	24,364,458	2.90	0.43	3	Atlas		16,811,476	1
	6/22/2009 10:15	6/22/2009 18:00	465	0.59	2,976,329	2.60	0.35	3	Atlas		1,756,034	1
	6/26/2009 3:15	6/26/2009 11:00	465	1.79	2,673,839	2.69	0.95	3	Atlas		4,786,172	1
	7/17/2009 5:15	7/17/2009 5:30	15	0.59	79,385	1.23	0.39	3	Atlas		46,837	1
	7/22/2009 9:45	7/22/2009 16:30	405	1.88	717,986	2.99	0.82	12	Atlas		1,349,814	1
	7/29/2009 4:45	7/29/2009 11:30	405	1.20	4,993,576	3.18	0.51	12	Atlas		5,992,291	1
	7/29/2009 19:45	7/29/2009 20:45	60	1.20	185,808	1.75	0.51	12	Atlas		222,969	1
	8/4/2009 8:15	8/5/2009 11:00	1,605	5.76	3,248,990	7.79					18,714,184	1
	8/10/2009 19:45	8/10/2009 20:30	45	0.83	787,125	6.54	0.52	3	Atlas		653,314	1
	9/20/2009 9:00	9/21/2009 14:45	1,785	2.82	3,962,491	2.83	1.47	24	Cloudburst		11,174,226	1
	9/24/2009 22:15	9/25/2009 1:30	195	0.92	464,102	3.93	0.31	24	Atlas		426,974	1
	9/26/2009 21:30	9/26/2009 22:15	45	0.36	843,642	4.43	0.30	1	Atlas		303,711	1
	10/2/2009 5:15	10/2/2009 7:45	150	0.86	881,163	1.34	0.55	3	Atlas		757,800	1
	10/8/2009 18:45	10/9/2009 13:45	1,140	2.00	2,399,831	2.82	0.66	24	Atlas		4,799,662	1
	10/9/2009 22:15	10/9/2009 23:30	75	2.00	78,885	2.10	0.66	24	Atlas		157,770	1
	10/14/2009 7:30	10/14/2009 8:00	30	0.61	354,533	2.61	0.40	3	Atlas		216,265	1
	10/27/2009 22:00	10/28/2009 2:30	270	1.14	1,597,589	1.81	0.51	12	Atlas		1,821,251	1
	10/30/2009 22:15	10/31/2009 9:45	690	1.03	2,048,368	2.19	0.46	12	Atlas		2,109,819	1
	12/8/2009 19:00	12/9/2009 1:15	375	2.11	1,118,671	2.24	0.85	12	Atlas		2,360,395	1
	1/20/2010 15:45	1/20/2010 15:45	-	0.39	23,933	0.62	0.20	6	Atlas		9,334	1
	1/21/2010 15:00	1/22/2010 3:45	765	1.02	2,216,105	1.64	0.39	24	Atlas		2,260,427	1
	1/24/2010 5:45	1/25/2010 2:45	1,260	0.87	2,181,448	2.47	0.33	24	Atlas		1,897,860	1
	2/5/2010 14:00	2/6/2010 2:45	765	1.18	1,698,127	1.33	0.43	24	Atlas		2,003,790	1
	4/8/2010 4:00	4/8/2010 7:15	195	1.26	782,854	1.39	0.61	6	Atlas		986,396	1
	4/24/2010 15:00	4/24/2010 22:30	450	1.54	2,385,472	1.76	0.73	6	Atlas		3,673,627	1
	5/1/2010 5:30	5/3/2010 10:45	3,195	4.43	7,439,685	6.42	4.55	48	Atlas		32,957,805	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/12/2010 9:45	5/12/2010 10:45	60	0.84	1,071,123	1.21	0.61	1	Atlas		899,743	1
	5/21/2010 20:15	5/22/2010 9:15	780	0.78	2,910,579	1.30	0.61	1	Atlas		2,270,252	1
	6/9/2010 5:15	6/9/2010 17:00	705	1.55	2,844,835	1.73	0.73	3	Atlas		4,409,495	1
	6/19/2010 6:30	6/19/2010 8:15	105	0.55	495,767	1.40	0.32	3	Atlas		272,672	1
	7/13/2010 6:15	7/13/2010 11:00	285	1.50	1,372,121	1.94	0.80	3	Atlas		2,058,181	1
	7/20/2010 5:15	7/20/2010 6:15	60	0.63	2,489,449	1.37	0.38	1	Atlas		1,568,353	1
	7/31/2010 5:00	7/31/2010 6:15	75	0.66	1,116,192	0.77	0.37	3	Atlas		736,687	1
	8/14/2010 17:15	8/14/2010 18:15	60	0.30	1,049,360	0.41	0.24	1	Atlas		314,808	1
	11/16/2010 16:15	11/16/2010 20:00	225	0.82	501,571	0.89	0.37	12	Atlas		411,288	1
	11/24/2010 14:30	11/24/2010 15:45	75	0.65	255,380	1.03	0.31	3	Atlas		165,997	1
	11/25/2010 11:15	11/26/2010 2:00	885	2.43	2,300,937	3.36	0.92	24	Atlas		5,591,277	1
	11/30/2010 2:00	11/30/2010 15:00	780	1.92	1,162,143	5.17	0.74	24	Atlas		2,231,314	1
	1/1/2011 9:30	1/1/2011 10:15	45	0.64	90,802	1.18	0.28	12	Atlas		58,113	1
	2/1/2011 19:30	2/1/2011 20:15	45	0.94	688,123	0.84	0.34	6	Atlas		646,836	1
	2/24/2011 21:00	2/25/2011 23:30	1,590	2.48	5,878,177	2.67	0.98	12	Atlas		14,577,880	1
	2/28/2011 5:45	3/1/2011 6:30	1,485	1.04	22,282,900	3.68	0.42	6	Atlas		23,174,216	1
	3/5/2011 12:15	3/6/2011 7:30	1,155	0.90	1,218,234	1.94	0.31	24	Atlas		1,096,411	1
	3/9/2011 0:30	3/11/2011 14:00	3,690	2.96	6,967,082	3.88	1.74	12	Cloudburst		20,622,563	1
	3/14/2011 14:45	3/15/2011 19:45	1,740	0.75	1,883,941	3.73	0.25	12	Atlas		1,412,956	1
	4/4/2011 16:15	4/4/2011 17:30	75	0.63	613,878	0.76	0.32	6	Atlas		386,743	1
	4/9/2011 11:30	4/9/2011 17:15	345	0.43	6,378,849	1.11	0.29	3	Atlas		2,742,905	1
	4/11/2011 16:45	4/13/2011 19:15	3,030	3.12	5,266,670	3.60	2.12	24	Cloudburst		16,432,009	1
	4/20/2011 3:45	4/20/2011 7:00	195	0.76	1,120,075	1.10	0.42	6	Atlas		851,257	1
	4/23/2011 1:00	4/28/2011 7:30	7,590	4.67	14,409,857	7.60	2.33	48	Cloudburst		67,294,030	1
	5/1/2011 6:00	5/6/2011 5:45	7,185	3.30	15,786,195	6.69	0.83	48	Atlas		52,094,445	1
	5/21/2011 19:00	5/21/2011 22:00	180	0.61	1,958,838	0.88	0.43	1	Atlas		1,194,891	1
	5/23/2011 18:00	5/24/2011 6:00	720	0.78	4,949,541	1.92	0.49	3	Atlas		3,860,642	1
	5/25/2011 23:30	5/27/2011 4:15	1,725	1.33	4,583,630	3.24	0.63	3	Atlas		6,096,228	1
	6/15/2011 9:45	6/15/2011 10:45	60	0.90	758,984	1.11	0.55	3	Atlas		683,086	1
	6/18/2011 6:30	6/18/2011 10:00	210	0.78	1,554,305	1.72	0.47	3	Atlas		1,212,358	1
	6/19/2011 8:30	6/19/2011 10:15	105	0.77	613,877	2.47	0.48	3	Atlas		472,685	1
	6/20/2011 2:15	6/20/2011 4:30	135	0.67	1,639,509	3.14	0.57	1	Atlas		1,098,471	1
	6/22/2011 21:00	6/23/2011 14:00	1,020	3.08	2,642,848	5.58	9.44	3	Atlas		8,139,973	1
	7/12/2011 17:45	7/12/2011 17:45	-	0.29	69,979	0.99	0.15	6	Atlas		20,294	1
	7/19/2011 23:15	7/20/2011 0:30	75	1.19	1,376,964	1.20	1.00	1	Atlas		1,638,587	1
	8/7/2011 3:30	8/7/2011 6:15	165	1.33	1,792,189	1.34	0.75	3	Atlas		2,383,611	1
	8/13/2011 17:15	8/13/2011 18:15	60	0.77	579,236	2.47	0.56	1	Atlas		446,012	1
	9/23/2011 8:30	9/23/2011 9:00	30	0.75	103,177	1.48	0.34	12	Atlas		77,383	1
	9/26/2011 0:00	9/26/2011 10:30	630	3.68	2,563,384	5.21	9.52	12	Cloudburst		9,433,253	1
	10/27/2011 0:30	10/27/2011 14:15	825	1.01	2,146,523	1.35	0.42	12	Atlas		2,167,988	1
	11/14/2011 23:15	11/14/2011 23:45	30	1.88	67,909	0.44	0.61	48	Atlas		127,669	1
	11/15/2011 9:45	11/15/2011 16:15	390	1.88	414,219	1.44	0.61	48	Atlas		778,731	1
	11/16/2011 6:15	11/16/2011 13:00	405	1.88	530,285	1.90	0.61	48	Atlas		996,935	1
	11/22/2011 6:45	11/22/2011 16:30	585	1.72	1,440,283	2.98	0.50	48	Atlas		2,477,287	1
	11/27/2011 22:00	11/30/2011 5:15	3,315	2.93	3,984,495	4.27	0.91	48	Atlas		11,674,570	1
	12/4/2011 19:15	12/7/2011 2:45	3,330	3.12	5,798,221	5.38	1.07	48	Cloudburst		18,090,451	1
	12/21/2011 7:30	12/21/2011 8:15	45	0.67	401,336	1.27	0.31	12	Atlas		268,895	1
	12/22/2011 16:45	12/22/2011 18:45	120	0.51	849,655	1.17	0.23	12	Atlas		433,324	1
	12/27/2011 10:15	12/27/2011 17:15	420	0.63	1,337,541	1.82	0.25	12	Atlas		842,651	1
	1/11/2012 7:15	1/11/2012 12:00	285	0.90	490,039	0.79	0.36	12	Atlas		441,035	1
	1/17/2012 12:45	1/17/2012 13:45	60	0.45	785,313	1.47	0.21	12	Atlas		353,391	1
	1/23/2012 4:30	1/23/2012 5:45	75	0.66	839,748	1.13	0.37	3	Atlas		554,234	1
	1/26/2012 6:45	1/27/2012 23:30	2,445	1.71	3,530,093	2.40	0.57	24	Atlas		6,036,459	1
	3/6/2012 14:00	3/6/2012 21:15	435	0.72	1,606,643	1.01	0.34	6	Atlas		1,156,783	1
	3/16/2012 0:15	3/16/2012 5:30	315	1.07	1,538,997	1.25	0.48	12	Atlas		1,646,727	1
	3/17/2012 21:15	3/18/2012 7:15	600	0.62	3,310,934	1.87	0.33	3	Atlas		2,052,779	1
	3/23/2012 12:00	3/24/2012 5:15	1,035	1.51	3,613,568	2.13	0.57	24	Atlas		5,456,487	1
	4/1/2012 10:00	4/1/2012 17:45	465	1.11	2,480,037	1.24	0.66	3	Atlas		2,752,841	1
	4/28/2012 19:30	4/28/2012 20:45	75	0.68	695,531	0.74	0.50	1	Atlas		472,961	1
	5/5/2012 1:30	5/5/2012 6:45	315	1.32	2,699,724	2.46	0.68	6	Atlas		3,563,636	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/13/2012 2:45	5/13/2012 18:30	945	2.01	2,725,291	2.06	0.81	3	Atlas		5,477,835	1
	5/29/2012 7:00	5/30/2012 0:30	1,050	3.38	1,714,578	3.38	38.46	3	Cloudburst		5,795,274	1
	5/31/2012 18:45	6/1/2012 7:00	735	1.20	1,856,996	4.58	0.52	12	Atlas		2,228,395	1
	7/14/2012 14:00	7/14/2012 16:30	150	0.80	2,500,258	1.02	0.47	3	Atlas		2,000,206	1
	7/19/2012 17:45	7/20/2012 2:15	510	1.02	2,979,477	1.94	0.77	1	Atlas		3,039,067	1
	7/20/2012 16:00	7/20/2012 16:15	15	0.13	1,872,462	2.07	0.11	1	Atlas		243,420	1
	7/27/2012 20:30	7/27/2012 21:45	75	0.54	657,785	0.78	0.43	1	Atlas		355,204	1
	8/16/2012 22:45	8/17/2012 0:30	105	0.63	546,506	0.76	0.35	3	Atlas		344,299	1
	9/1/2012 15:15	9/1/2012 18:15	180	0.32	1,822,750	0.38	0.17	6	Atlas		583,280	1
	9/2/2012 14:45	9/2/2012 15:30	45	0.51	308,194	0.87	0.24	1	Atlas		157,179	1
	9/5/2012 15:30	9/5/2012 18:45	195	0.75	2,618,583	1.65	0.57	1	Atlas		1,963,937	1
	9/8/2012 0:15	9/8/2012 7:30	435	1.92	764,845	3.54	1.67	3	Atlas		1,468,503	1
	9/26/2012 23:00	9/27/2012 1:30	150	1.12	1,638,996	1.98	0.61	3	Atlas		1,835,675	1
	10/1/2012 19:00	10/1/2012 19:45	45	0.64	461,188	2.60	0.25	6	Atlas		295,160	1
	12/7/2012 6:00	12/9/2012 9:30	3,090	0.92	4,477,566	2.10	0.44	6	Atlas		4,119,361	1
	12/9/2012 22:30	12/10/2012 8:30	600	1.28	2,992,002	3.06	0.63	3	Atlas		3,829,762	1
	12/20/2012 10:45	12/20/2012 13:15	150	0.68	1,012,454	0.90	0.33	6	Atlas		688,469	1
	12/26/2012 6:30	12/26/2012 15:45	555	0.88	1,528,777	1.61	0.34	24	Atlas		1,345,324	1
	1/11/2013 8:00	1/11/2013 11:00	180	0.58	221,595	0.80	0.31	3	Atlas		128,525	1
	1/13/2013 4:15	1/14/2013 15:15	2,100	2.24	5,191,130	3.03	0.86	24	Atlas		11,628,131	1
	1/28/2013 8:30	1/28/2013 8:30	-	0.22	46,059	0.24	0.10	6	Atlas		10,133	1
	1/30/2013 5:00	1/30/2013 14:00	540	0.90	1,138,772	1.16	0.45	6	Atlas		1,024,895	1
	3/11/2013 6:00	3/11/2013 14:15	495	1.03	2,392,965	1.55	0.41	12	Atlas		2,464,754	1
	3/17/2013 14:45	3/18/2013 18:00	1,635	1.78	3,655,502	2.82	0.58	48	Atlas		6,506,793	1
	4/11/2013 8:00	4/11/2013 8:30	30	1.17	155,736	0.43	0.45	24	Atlas		182,211	1
	4/11/2013 17:30	4/12/2013 2:45	555	1.17	595,235	1.17	0.45	24	Atlas		696,425	1
	4/16/2013 22:15	4/16/2013 22:45	30	0.45	167,604	1.58	0.35	1	Atlas		75,422	1
	4/19/2013 3:00	4/19/2013 6:00	180	0.87	2,715,585	1.33	0.48	6	Atlas		2,362,559	1
	4/24/2013 9:15	4/24/2013 11:00	105	0.70	1,156,504	1.66	0.39	3	Atlas		809,553	1
	5/4/2013 15:30	5/5/2013 10:00	1,110	1.66	1,280,003	1.66	0.53	24	Atlas		2,124,805	1
	5/10/2013 15:00	5/11/2013 1:45	645	1.02	1,435,551	2.83	0.45	6	Atlas		1,464,262	1
	6/17/2013 23:00	6/18/2013 0:45	105	0.34	284,091	0.66	0.18	3	Atlas		96,591	1
	6/26/2013 17:00	6/27/2013 1:00	480	1.60	5,179,077	2.19	0.84	1	Atlas		8,286,523	1
	6/29/2013 22:30	6/29/2013 22:45	15	0.59	168,231	2.77	0.33	3	Atlas		99,256	1
	7/1/2013 20:00	7/1/2013 20:15	15	0.27	263,748	2.90	0.11	12	Atlas		71,212	1
	7/6/2013 4:45	7/6/2013 9:45	300	0.46	1,243,730	1.94	0.20	12	Atlas		572,116	1
	7/10/2013 15:00	7/10/2013 16:00	60	0.46	149,324	1.54	0.36	1	Atlas		68,689	1
	7/21/2013 20:45	7/21/2013 22:00	75	2.65	97,231	1.90	1.93	3	Atlas		257,662	1
	7/22/2013 8:00	7/22/2013 16:15	495	2.65	1,600,593	2.80	1.93	3	Atlas		4,241,571	1
	8/9/2013 17:45	8/9/2013 18:45	60	0.11	4,415,664	0.15	0.06	1	Atlas		485,723	1
	8/12/2013 15:15	8/12/2013 16:15	60	1.12	650,053	1.15	0.63	1	Atlas		728,059	1
	8/13/2013 4:30	8/13/2013 5:00	30	1.12	135,352	1.36	0.63	1	Atlas		151,594	1
	8/31/2013 21:30	9/1/2013 4:30	420	1.14	193,529	1.13	0.52	12	Atlas		220,623	1
	9/2/2013 15:15	9/2/2013 16:00	45	0.68	296,690	1.82	0.59	1	Atlas		201,749	1
	9/20/2013 20:15	9/21/2013 6:15	600	2.06	1,073,722	2.07	0.86	12	Atlas		2,211,868	1
	10/4/2013 19:15	10/4/2013 20:15	60	0.20	492,005	0.26	0.17	1	Atlas		98,401	1
	10/5/2013 13:00	10/6/2013 19:30	1,830	4.54	7,409,273	4.80	10.13	24	Cloudburst		33,638,100	1
	10/30/2013 5:15	10/30/2013 10:15	300	1.32	1,995,824	1.33	0.67	6	Atlas		2,634,488	1
	10/31/2013 22:15	11/1/2013 0:00	105	0.88	252,208	2.20	0.36	12	Atlas		221,943	1
	11/17/2013 7:00	11/17/2013 20:15	795	2.65	5,270,387	2.87	2.12	6	Cloudburst		13,966,526	1
	11/26/2013 8:30	11/26/2013 12:30	240	0.05	3,225,000	0.17	0.02	12	Atlas		161,250	1
	12/14/2013 12:00	12/14/2013 14:15	135	0.78	328,417	1.27	0.32	6	Atlas		256,165	1
	12/21/2013 9:00	12/22/2013 16:15	1,875	1.37	9,312,149	3.27	0.63	12	Atlas		12,757,644	1
	1/5/2014 19:15	1/5/2014 21:00	105	0.48	1,024,900	0.75	0.24	3	Atlas		491,952	1
	1/11/2014 2:15	1/11/2014 7:00	285	0.85	2,113,531	1.35	0.45	6	Atlas		1,796,501	1
	2/4/2014 21:00	2/5/2014 9:30	750	0.67	6,033,451	1.29	0.33	6	Atlas		4,042,412	1
	2/17/2014 17:00	2/17/2014 22:15	315	0.62	2,009,069	0.89	0.39	3	Atlas		1,245,623	1
	3/2/2014 12:00	3/2/2014 12:30	30	0.51	325,435	0.28	0.19	24	Atlas		165,972	1
	3/29/2014 8:15	3/29/2014 14:00	345	0.89	1,027,708	1.22	0.41	12	Atlas		914,660	1
	4/3/2014 13:30	4/5/2014 3:00	2,250	2.77	5,984,665	3.99	0.95	24	Atlas		16,577,522	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/7/2014 11:45	4/7/2014 21:00	555	1.11	2,504,350	3.95	0.76	1	Atlas		2,779,829	1
	4/14/2014 22:30	4/15/2014 3:00	270	0.61	621,682	1.12	0.29	6	Atlas		379,226	1
	4/28/2014 5:15	4/28/2014 21:00	945	1.81	2,409,402	1.96	0.73	3	Atlas		4,361,018	1
	5/9/2014 20:00	5/10/2014 17:15	1,275	2.04	1,282,705	2.11	0.78	24	Atlas		2,616,718	1
	5/14/2014 19:30	5/15/2014 2:15	405	1.13	1,007,494	3.28	0.42	24	Atlas		1,138,468	1
	5/22/2014 4:00	5/22/2014 5:00	60	0.36	1,964,850	0.47	0.23	1	Atlas		707,346	1
	5/28/2014 20:00	5/28/2014 22:30	150	0.28	3,154,011	0.64	0.23	1	Atlas		883,123	1
	5/29/2014 21:30	5/29/2014 21:45	15	0.27	403,619	0.55	0.23	1	Atlas		156,381	1
	7/13/2014 23:15	7/14/2014 1:00	105	0.75	1,316,689	0.88	0.44	1	Atlas		987,517	1
	7/26/2014 22:00	7/27/2014 10:00	720	1.10	1,968,215	1.13	0.50	12	Atlas		2,165,037	1
	8/8/2014 6:00	8/8/2014 9:00	180	0.77	5,314,188	0.63	0.38	6	Atlas		4,091,925	1
	8/11/2014 19:15	8/11/2014 20:00	45	0.32	1,555,075	1.81	0.17	6	Atlas		497,624	1
	8/23/2014 20:15	8/23/2014 22:30	135	0.85	1,689,792	1.77	0.41	6	Atlas		1,436,323	1
	8/30/2014 15:15	8/30/2014 16:45	90	0.71	220,255	1.76	0.42	1	Atlas		156,381	1
	9/11/2014 1:30	9/11/2014 10:30	540	1.71	5,115,776	1.72	0.95	3	Atlas		8,747,977	1
	10/10/2014 3:30	10/10/2014 4:00	30	0.92	237,464	1.35	0.36	3	Atlas		218,467	1
	10/13/2014 7:30	10/13/2014 8:15	45	0.56	146,080	1.98	0.36	3	Atlas		81,805	1
	10/14/2014 0:30	10/14/2014 11:45	675	1.55	1,256,066	3.24	0.68	12	Atlas		1,946,903	1
	11/23/2014 19:00	11/23/2014 21:15	135	0.96	1,399,995	1.23	0.41	6	Atlas		1,343,995	1
	11/24/2014 6:00	11/24/2014 8:00	120	0.96	94,991	1.02	0.41	6	Atlas		91,191	1
	12/6/2014 0:45	12/6/2014 12:15	690	1.92	2,280,932	2.80	0.62	48	Atlas		4,379,389	1
	3/4/2015 0:30	3/6/2015 1:15	2,925	1.66	11,387,705	1.83	0.54	48	Atlas		18,903,591	1
	3/10/2015 9:45	3/11/2015 8:45	1,380	1.12	31,351,211	2.78	0.50	12	Atlas		35,113,356	1
	3/13/2015 15:00	3/15/2015 1:15	2,055	1.85	26,622,884	2.97	0.70	24	Atlas		49,252,335	1
	3/26/2015 6:45	3/26/2015 7:15	30	0.67	151,770	0.82	0.34	3	Atlas		101,686	1
	4/2/2015 12:30	4/4/2015 22:45	3,495	6.20	4,652,816	6.32	36.46	6	Cloudburst		28,847,460	1
	4/7/2015 12:30	4/8/2015 4:15	945	0.88	7,809,093	7.09	0.39	1	Atlas		6,872,002	1
	4/8/2015 19:00	4/10/2015 5:30	2,070	0.08	208,133,700	7.51	0.04	6	Atlas		16,650,696	1
	4/14/2015 12:15	4/14/2015 19:30	435	0.47	659,164	1.36	0.18	24	Atlas		309,807	1
	4/19/2015 14:45	4/20/2015 5:00	855	0.85	2,113,633	1.49	0.36	12	Atlas		1,796,588	1
	6/17/2015 5:15	6/17/2015 8:45	210	0.67	2,450,006	0.68	0.36	3	Atlas		1,641,504	1
	6/18/2015 17:00	6/18/2015 21:00	240	0.60	5,074,943	1.34	0.28	3	Atlas		3,044,966	1
	6/20/2015 4:45	6/20/2015 10:30	345	1.09	2,195,907	2.53	0.43	12	Atlas		2,393,539	1
	6/26/2015 0:15	6/26/2015 3:45	210	0.90	2,406,848	2.34	0.49	6	Atlas		2,166,163	1
	6/26/2015 17:15	6/27/2015 2:45	570	1.12	1,845,720	3.37	0.60	1	Atlas		2,067,206	1
	7/2/2015 2:30	7/2/2015 9:00	390	0.82	667,572	3.11	0.48	3	Atlas		547,409	1
	7/2/2015 22:00	7/2/2015 22:45	45	0.82	42,633	3.13	0.48	3	Atlas		34,959	1
	7/3/2015 15:30	7/3/2015 18:15	165	1.04	591,751	3.26	0.85	1	Atlas		615,421	1
	7/7/2015 13:00	7/7/2015 18:15	315	0.94	857,473	2.86	0.50	6	Atlas		806,025	1
	7/10/2015 11:15	7/10/2015 18:45	450	0.52	1,324,946	2.95	0.26	6	Atlas		688,972	1
	7/12/2015 6:45	7/12/2015 9:45	180	0.67	1,937,197	2.58	0.47	1	Atlas		1,297,922	1
	7/13/2015 15:15	7/15/2015 2:45	2,130	0.54	54,162,930	3.58	0.46	1	Atlas		29,247,982	1
	7/18/2015 0:15	7/18/2015 14:30	855	0.72	35,466,474	2.39	0.48	3	Atlas		25,535,861	1
	8/4/2015 20:15	8/5/2015 0:00	225	0.25	39,312,232	0.42	0.21	1	Atlas		9,828,058	1
	8/6/2015 15:00	8/6/2015 18:30	210	0.80	12,316,810	1.05	0.30	1	Atlas		9,853,448	1
	9/29/2015 16:30	9/30/2015 3:15	645	0.50	37,575,944	0.58	0.19	24	Atlas		18,787,972	1
	10/2/2015 17:00	10/5/2015 7:45	3,765	0.47	6,432,387	1.19	0.22	12	Atlas		3,023,222	1
	10/9/2015 18:30	10/9/2015 20:00	90	0.11	603,609	0.29	0.05	6	Atlas		66,397	1
	10/27/2015 18:00	10/28/2015 12:45	1,125	3.43	1,692,209	3.81	1.75	24	Cloudburst		5,804,276	1
	11/6/2015 4:00	11/6/2015 10:30	390	1.01	1,917,648	1.18	0.64	3	Atlas		1,936,824	1
	11/12/2015 1:30	11/12/2015 2:15	45	0.35	583,260	1.94	0.21	3	Atlas		204,141	1
	11/18/2015 10:00	11/19/2015 1:45	945	1.83	3,663,201	2.40	0.92	6	Atlas		6,703,658	1
	11/28/2015 18:15	11/28/2015 22:45	270	0.91	602,178	0.88	0.30	48	Atlas		547,982	1
	11/30/2015 23:00	12/1/2015 7:45	525	0.65	2,780,251	1.62	0.29	12	Atlas		1,807,163	1
	12/22/2015 2:00	12/22/2015 6:15	255	0.65	1,610,918	0.67	0.25	24	Atlas		1,047,097	1
	12/23/2015 19:30	12/24/2015 9:45	855	0.91	3,983,835	1.58	0.63	1	Atlas		3,625,290	1
	12/26/2015 14:15	12/26/2015 21:15	420	0.60	327,697	2.27	0.27	12	Atlas		196,618	1
	12/27/2015 10:45	12/27/2015 20:30	585	2.80	3,121,121	3.89	0.91	48	Atlas		8,739,139	1
	12/28/2015 17:15	12/29/2015 2:45	570	2.80	191,199	4.85	0.91	48	Atlas		535,358	1
	2/2/2016 21:15	2/3/2016 14:00	1,005	1.54	3,901,868	1.61	0.76	6	Atlas		6,008,876	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/21/2016 7:15	2/21/2016 16:45	570	0.73	2,396,079	0.91	0.33	12	Atlas		1,749,138	1
	2/24/2016 0:30	2/24/2016 23:00	1,350	2.14	11,133,221	2.85	0.81	24	Atlas		23,825,093	1
	3/1/2016 14:30	3/1/2016 20:45	375	0.61	679,692	2.80	0.32	6	Atlas		414,612	1
	3/10/2016 15:45	3/11/2016 6:45	900	1.33	2,031,566	1.39	0.45	12	Atlas		2,701,983	1
	3/12/2016 20:30	3/13/2016 15:30	1,140	0.47	7,621,651	1.86	0.18	24	Atlas		3,582,176	1
	3/24/2016 18:30	3/24/2016 20:15	105	0.24	3,249,467	0.37	0.16	1	Atlas		779,872	1
	3/27/2016 21:30	3/28/2016 2:15	285	0.75	3,342,771	0.99	0.50	3	Atlas		2,507,078	1
	3/31/2016 6:15	3/31/2016 10:00	225	1.33	952,318	1.81	0.51	24	Atlas		1,266,583	1
	4/1/2016 1:30	4/1/2016 2:00	30	1.33	387,650	2.08	0.51	24	Atlas		515,574	1
	4/11/2016 17:15	4/12/2016 0:30	435	0.96	2,221,649	1.18	0.43	12	Atlas		2,132,783	1
	4/26/2016 22:15	4/26/2016 22:45	30	0.25	423,368	0.68	0.15	1	Atlas		105,842	1
	4/27/2016 20:45	4/28/2016 0:00	195	1.18	6,627,308	1.84	0.54	3	Atlas		7,820,223	1
	4/30/2016 11:30	4/30/2016 13:00	90	0.83	230,287	1.99	0.31	24	Atlas		191,138	1
	5/1/2016 15:15	5/1/2016 17:45	150	0.36	3,921,642	2.62	0.24	1	Atlas		1,411,791	1
	5/7/2016 23:15	5/8/2016 0:00	45	0.30	116,113	1.03	0.16	3	Atlas		34,834	1
	5/10/2016 15:30	5/10/2016 23:15	465	0.86	949,239	1.49	0.32	24	Atlas		806,863	1
	5/11/2016 19:30	5/12/2016 0:00	270	0.38	4,618,124	1.63	0.17	6	Atlas		1,754,887	1
	5/17/2016 7:45	5/17/2016 8:30	45	0.72	120,751	1.77	0.25	24	Atlas		86,941	1
	5/20/2016 14:30	5/21/2016 4:45	855	0.79	2,991,423	1.54	0.45	3	Atlas		2,363,224	1
	5/26/2016 14:15	5/26/2016 16:30	135	0.54	779,143	1.46	0.36	3	Atlas		420,737	1
	6/2/2016 15:30	6/2/2016 16:45	75	0.87	1,470,548	1.14	0.69	1	Atlas		1,279,377	1
	6/4/2016 18:45	6/4/2016 19:30	45	0.41	502,768	1.32	0.19	3	Atlas		206,135	1
	6/12/2016 18:45	6/12/2016 20:15	90	0.74	751,677	0.87	0.63	1	Atlas		556,241	1
	6/14/2016 16:30	6/14/2016 22:45	375	1.08	2,977,424	1.82	0.59	6	Atlas		3,215,618	1
	6/15/2016 14:15	6/15/2016 15:15	60	0.05	3,470,540	1.86	0.03	1	Atlas		173,527	1
	6/23/2016 16:30	6/24/2016 2:30	600	2.15	4,637,053	2.19	0.99	12	Atlas		9,969,665	1
	7/3/2016 13:30	7/4/2016 1:30	720	1.20	825,582	0.72	0.39	48	Atlas		990,698	1
	7/4/2016 10:00	7/4/2016 22:45	765	1.20	995,592	1.20	0.39	48	Atlas		1,194,710	1
	7/6/2016 14:30	7/6/2016 16:30	120	0.33	1,401,294	1.53	0.23	1	Atlas		462,427	1
	7/12/2016 11:00	7/12/2016 13:45	165	0.21	4,330,395	0.86	0.16	1	Atlas		909,383	1
	7/25/2016 16:45	7/25/2016 17:00	15	0.61	130,687	0.61	0.44	1	Atlas		79,719	1
	7/28/2016 4:30	7/28/2016 6:45	135	0.68	937,844	1.20	0.31	12	Atlas		637,734	1
	7/30/2016 15:15	7/30/2016 17:30	135	0.56	2,017,955	1.95	0.49	1	Atlas		1,130,055	1
	7/31/2016 18:15	7/31/2016 20:30	135	0.46	3,397,622	2.41	0.39	1	Atlas		1,562,906	1
	8/1/2016 22:15	8/2/2016 0:15	120	0.35	2,200,234	2.15	0.28	1	Atlas		770,082	1
	8/4/2016 16:30	8/5/2016 0:15	465	0.13	2,431,977	1.57	0.10	1	Atlas		316,157	1
	8/5/2016 16:45	8/5/2016 19:45	180	0.21	790,995	1.77	0.14	3	Atlas		166,109	1
	8/14/2016 17:30	8/14/2016 19:15	105	1.25	163,425	0.28	0.63	3	Atlas		204,281	1
	8/15/2016 4:30	8/15/2016 21:15	1,005	1.25	6,536,418	1.46	0.63	3	Atlas		8,170,523	1
	8/17/2016 6:45	8/18/2016 0:15	1,050	0.81	2,698,514	2.06	0.34	12	Atlas		2,185,796	1
	8/20/2016 15:15	8/21/2016 12:30	1,275	1.63	3,251,992	3.69	0.69	12	Atlas		5,300,747	1
	9/10/2016 17:15	9/10/2016 17:30	15	0.32	116,488	0.33	0.20	3	Atlas		37,276	1
	9/16/2016 19:00	9/16/2016 20:30	90	Discharge	-	0.33					110,707	1
	9/26/2016 11:30	9/26/2016 13:15	105	0.27	770,248	0.27	0.18	3	Atlas		207,967	1
	9/28/2016 14:00	9/28/2016 19:00	300	0.36	1,824,725	0.63	0.21	3	Atlas		656,901	1
	9/30/2016 3:45	9/30/2016 6:15	150	0.65	1,028,086	1.26	0.30	3	Atlas		668,256	1
	9/30/2016 15:45	9/30/2016 19:00	195	0.65	162,648	1.37	0.30	3	Atlas		105,721	1
	10/20/2016 11:30	10/20/2016 18:15	405	0.70	781,624	0.52	0.27	24	Atlas		547,137	1
	11/23/2016 23:00	11/24/2016 0:00	60	0.37	143,630	0.49	0.15	6	Atlas		53,143	1
	11/28/2016 17:30	11/29/2016 1:30	480	0.90	1,862,842	1.27	0.39	12	Atlas		1,676,558	1
	12/6/2016 6:00	12/6/2016 18:30	750	0.95	2,558,689	1.00	0.44	12	Atlas		2,430,755	1
	12/11/2016 23:30	12/12/2016 0:00	30	0.40	81,468	1.38	0.18	12	Atlas		32,587	1
	12/17/2016 18:15	12/19/2016 2:45	1,950	3.71	10,765,758	4.12	8.46	12	Cloudburst		39,940,961	1
	12/23/2016 23:15	12/24/2016 8:00	525	0.17	9,911,547	3.84	0.08	12	Atlas		1,684,963	1
	12/26/2016 21:00	12/27/2016 6:15	555	0.37	2,934,916	0.54	0.19	6	Atlas		1,085,919	1
	1/3/2017 6:15	1/3/2017 6:15	-	0.19	53,353	0.29	0.09	6	Atlas		10,137	1
	1/10/2017 20:30	1/11/2017 2:30	360	0.40	2,314,215	0.61	0.30	1	Atlas		925,686	1
	1/11/2017 13:15	1/12/2017 3:00	825	0.24	2,361,092	0.85	0.16	3	Atlas		566,662	1
	1/12/2017 18:15	1/13/2017 2:30	495	0.42	3,056,631	1.09	0.21	6	Atlas		1,283,785	1
	1/13/2017 16:15	1/13/2017 21:30	315	0.34	439,618	1.41	0.21	3	Atlas		149,470	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/14/2017 11:15	1/15/2017 6:45	1,170	0.19	7,389,232	1.60	0.08	12	Atlas		1,403,954	1
	1/15/2017 17:15	1/15/2017 18:15	60	0.14	829,357	1.72	0.07	3	Atlas		116,110	1
	1/17/2017 0:15	1/18/2017 10:45	2,070	0.77	11,211,603	2.51	0.35	12	Atlas		8,632,934	1
	1/19/2017 20:00	1/21/2017 7:00	2,100	1.32	67,261,321	2.92	0.60	12	Atlas		88,784,944	1
	2/7/2017 11:15	2/7/2017 14:30	195	0.52	242,069	0.52	0.25	6	Atlas		125,876	1
	2/24/2017 19:15	2/25/2017 4:00	525	0.54	5,844,465	0.66	0.45	1	Atlas		3,156,011	1
	2/28/2017 10:45	2/28/2017 14:15	210	0.29	732,334	0.89	0.13	12	Atlas		212,377	1
	3/7/2017 8:30	3/7/2017 11:45	195	0.73	430,249	2.07	0.24	48	Atlas		314,082	1
	4/16/2017 18:45	4/16/2017 23:00	255	0.99	3,546,168	1.28	0.38	24	Atlas		3,510,706	1
	4/22/2017 1:30	4/22/2017 2:00	30	0.80	49,101	1.64	0.28	24	Atlas		39,281	1
	4/29/2017 3:15	5/2/2017 14:00	4,965	1.34	7,273,913	2.10	0.72	1	Atlas		9,747,044	1
	5/4/2017 21:30	5/5/2017 19:00	1,290	1.93	2,174,317	3.51	0.65	24	Atlas		4,196,431	1
	5/20/2017 20:00	5/21/2017 10:30	870	1.61	13,423,514	1.84	0.71	12	Atlas		21,611,858	1
	5/24/2017 20:15	5/24/2017 23:45	210	0.68	2,874,329	2.40	0.25	24	Atlas		1,954,544	1
	6/15/2017 5:45	6/15/2017 8:15	150	0.49	2,078,618	0.79	0.31	3	Atlas		1,018,523	1
	6/23/2017 15:15	6/23/2017 20:30	315	1.24	1,497,010	1.42	0.40	48	Atlas		1,856,292	1
	6/30/2017 21:15	7/1/2017 0:45	210	0.66	1,233,362	0.83	0.57	1	Atlas		814,019	1
	7/6/2017 13:45	7/6/2017 15:45	120	0.40	10,423	1.18	0.20	3	Atlas		4,169	1
	7/7/2017 22:15	7/8/2017 0:00	105	0.39	61,285	0.89	0.29	1	Atlas		23,901	1
	7/23/2017 2:45	7/23/2017 12:00	555	0.94	526,195	0.99	0.43	12	Atlas		494,623	1
	8/29/2017 16:15	8/29/2017 16:30	15	0.22	31,473	0.33	0.19	1	Atlas		6,924	1
	8/31/2017 19:00	8/31/2017 19:45	45	3.69	55,883	0.52	2.03	48	Cloudburst		206,207	1
	9/1/2017 9:15	9/2/2017 11:00	1,545	3.69	4,638,323	4.00	2.03	48	Cloudburst		17,115,412	1
	9/19/2017 8:45	9/19/2017 10:45	120	0.22	4,453,077	0.66	0.13	1	Atlas		979,677	1
	10/7/2017 21:45	10/8/2017 0:00	135	2.48	430,419	1.18	0.94	24	Atlas		1,067,438	1
	10/8/2017 11:00	10/8/2017 16:00	300	2.48	714,637	2.40	0.94	24	Atlas		1,772,299	1
	10/10/2017 15:15	10/10/2017 17:30	135	0.74	447,127	3.17	0.41	3	Atlas		330,874	1
	10/23/2017 6:30	10/23/2017 7:30	60	0.47	344,155	0.39	0.25	6	Atlas		161,753	1
	10/28/2017 8:45	10/28/2017 10:00	75	1.14	4,275	1.75	0.52	12	Atlas		4,873	1
	11/3/2017 4:30	11/3/2017 7:30	180	1.33	3,956,411	2.65	1.30	1	Atlas		5,262,027	1
	12/23/2017 1:15	12/23/2017 7:30	375	1.88	523,155	1.65	0.74	12	Atlas		983,531	1
	2/16/2018 9:15	2/18/2018 5:45	2,670	0.79	1,697,499	2.05	0.36	12	Atlas		1,341,024	1
	2/21/2018 23:00	2/26/2018 19:15	6,975	2.24	27,362,503	7.94	0.84	24	Atlas		61,292,006	1
	3/24/2018 12:00	3/25/2018 16:00	1,680	0.96	2,197,675	2.10	0.37	24	Atlas		2,109,768	1
	3/29/2018 20:15	3/29/2018 21:15	60	1.31	42,118	2.04	0.33	48	Atlas		55,174	1
	3/30/2018 8:30	3/30/2018 13:45	315	1.31	19,679	2.36	0.33	48	Atlas		25,779	1
	4/1/2018 23:00	4/2/2018 17:15	1,095	0.67	3,040,875	2.37	0.37	6	Atlas		2,037,386	1
	4/14/2018 10:00	4/14/2018 15:15	315	1.38	43	0.56	0.48	24	Atlas		59	1
	4/15/2018 1:45	4/15/2018 13:45	720	1.38	331,990	1.42	0.48	24	Atlas		458,146	1
	5/5/2018 15:00	5/6/2018 16:15	1,515	0.95	1,582,918	1.01	0.35	24	Atlas		1,503,772	1
	5/17/2018 23:00	5/19/2018 22:45	2,865	0.28	9,750	0.36	0.22	1	Atlas		2,730	1
	5/20/2018 23:00	6/7/2018 14:30	25,410	0.01	124,408,100	3.59	0.01	1	Atlas		1,244,081	1
	6/22/2018 5:30	6/22/2018 21:00	930	0.68	656	1.24	0.38	1	Atlas		446	1
	7/16/2018 7:45	8/22/2018 7:00	53,235	0.28	32,544,032	8.76	0.18	3	Atlas		9,112,329	1
	8/22/2018 17:15	8/23/2018 10:45	1,050	0.06	4,600	4.55	0.05	1	Atlas		276	1
	9/17/2018 9:15	9/19/2018 23:00	3,705	0.08	63,700	0.08	0.03	12	Atlas		5,096	1
	9/23/2018 4:45	9/26/2018 21:15	5,310	1.87	6,003,684	6.28	0.69	24	Atlas		11,226,889	1
	10/4/2018 16:15	10/5/2018 9:00	1,005	0.04	13,050	0.06	0.03	1	Atlas		522	1
	10/6/2018 20:45	10/9/2018 11:30	3,765	0.03	8,800	0.10	0.03	1	Atlas		264	1
	10/10/2018 18:45	10/10/2018 20:00	75	0.33	430	0.43	0.27	1	Atlas		142	1
	4/14/2019 2:30	4/14/2019 11:00	510	1.03	1,156,370	1.82	0.47	12	Atlas		1,191,061	1
	4/19/2019 20:00	4/22/2019 20:15	4,335	2.44	4,238,941	4.27	0.92	24	Atlas		10,343,015	1
	4/26/2019 2:45	4/26/2019 5:45	180	0.96	256,006	3.76	0.31	48	Atlas		245,766	1
	5/2/2019 11:45	5/2/2019 15:15	210	0.10	5,810	0.65	0.09	1	Atlas		581	1
	5/3/2019 5:15	5/3/2019 18:30	795	1.22	1,744,623	1.37	0.67	6	Atlas		2,128,440	1
	5/15/2019 13:15	5/15/2019 19:15	360	0.01	9,700	0.43	0.01	1	Atlas		97	1
	5/26/2019 18:00	5/26/2019 21:00	180	0.41	734	0.65	0.25	3	Atlas		301	1
	5/29/2019 15:00	5/29/2019 20:45	345	0.63	1,538	1.13	0.34	6	Atlas		969	1
	5/30/2019 15:30	5/30/2019 16:15	45	0.35	111	1.39	0.16	3	Atlas		39	1
	6/9/2019 10:45	6/9/2019 19:30	525	0.92	305	2.59	0.30	24	Atlas		281	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/16/2019 20:30	6/16/2019 21:30	60	1.95	201.871	1.75	0.91	6	Atlas		393,649	1
	6/17/2019 9:30	6/17/2019 20:30	660	1.95	1,005	2.28	0.91	6	Atlas		1,960	1
	6/22/2019 11:00	6/23/2019 0:00	780	0.96	984	3.55	0.37	24	Atlas		945	1
	6/23/2019 16:30	6/23/2019 20:15	225	0.58	68.760	3.84	0.45	1	Atlas		39,881	1
	6/24/2019 14:15	6/24/2019 22:00	465	0.66	54.965	2.67	0.39	3	Atlas		36,277	1
	7/29/2019 23:45	7/30/2019 0:45	60	0.83	285.841	0.83	0.51	3	Atlas		237,248	1
	8/13/2019 8:15	8/13/2019 9:00	45	0.47	297.717	0.53	0.25	3	Atlas		139,927	1
	8/26/2019 11:00	8/26/2019 16:00	300	0.56	2,106.255	1.12	0.23	6	Atlas		1,179,503	1
	10/6/2019 15:45	10/6/2019 18:45	180	0.99	99.575	0.61	0.38	24	Atlas		98,579	1
	10/15/2019 23:15	10/16/2019 2:15	180	0.28	853.325	0.62	0.17	3	Atlas		238,931	1
	10/26/2019 6:00	10/26/2019 6:30	30	1.38	95.678	0.70	0.58	6	Atlas		132,036	1
	10/30/2019 14:15	10/30/2019 14:30	15	0.62	49.624	1.90	0.31	3	Atlas		30,767	1
	11/27/2019 0:45	11/27/2019 2:15	90	1.06	236.433	1.63	0.48	6	Atlas		250,619	1
	11/30/2019 4:15	11/30/2019 6:00	105	2.40	535.663	1.99	0.94	12	Atlas		1,285,590	1
	2/12/2020 18:30	2/12/2020 23:00	270	1.11	1,802.486	1.81	0.51	3	Atlas		2,000,759	1
	2/25/2020 9:30	2/25/2020 10:15	45	0.96	45	1.07	0.36	24	Atlas		43	1
	3/10/2020 1:30	3/10/2020 17:45	975	0.44	1.543	0.60	0.20	12	Atlas		679	1
	3/18/2020 15:30	3/19/2020 0:30	540	0.63	1.351	1.97	0.30	6	Atlas		851	1
	3/19/2020 12:15	3/19/2020 21:15	540	0.71	408.185	2.60	0.32	3	Atlas		289,811	1
	3/28/2020 22:45	3/29/2020 1:00	135	0.33	903	0.56	0.27	1	Atlas		298	1
	4/12/2020 17:45	4/13/2020 8:00	855	1.39	345.463	1.96	0.60	12	Atlas		480,194	1
	4/23/2020 13:15	4/23/2020 16:15	180	0.95	67	1.57	0.41	12	Atlas		64	1
	4/25/2020 11:30	4/26/2020 1:15	825	0.98	86	1.58	0.35	24	Atlas		84	1
	5/8/2020 14:45	5/8/2020 18:15	210	0.63	303	0.99	0.30	6	Atlas		191	1
	5/13/2020 21:30	5/14/2020 21:00	1,410	0.01	412.700	0.96	0.01	1	Atlas		4,127	1
	5/15/2020 15:00	5/16/2020 19:15	1,695	2.02	89.784	2.35	0.77	24	Atlas		181,363	1
	5/18/2020 9:00	5/18/2020 12:00	180	0.85	7.822	3.33	0.42	6	Atlas		6,649	1
	5/25/2020 18:00	5/25/2020 19:30	90	0.72	726	0.83	0.59	1	Atlas		523	1
	6/9/2020 17:00	6/9/2020 17:00	-	0.21	519	1.01	0.17	1	Atlas		109	1
	6/14/2020 14:45	6/14/2020 18:15	210	0.07	1.743	0.28	0.05	3	Atlas		122	1
	6/22/2020 22:30	6/22/2020 23:15	45	1.66	71.133	1.88	0.64	24	Atlas		118,080	1
	6/23/2020 9:15	6/23/2020 15:15	360	1.66	6.515	2.46	0.64	24	Atlas		10,815	1
	6/28/2020 8:30	6/28/2020 14:30	360	0.77	4.027	3.23	0.54	1	Atlas		3,101	1
	6/29/2020 5:15	6/29/2020 20:30	915	0.25	40.264	2.68	0.16	3	Atlas		10,066	1
	CSO191 Total										**1,420,518,999**	**380**
CSO193	7/1/2012 20:00	7/1/2012 20:00	-	0.40	1.630	0.33	0.29	1	Atlas		652	1
	7/8/2012 13:00	7/9/2012 13:15	1,455	0.22	296.955	0.72	0.16	1	Atlas		65,330	1
	7/14/2012 13:45	7/14/2012 14:15	30	0.72	22.990	0.98	0.46	3	Atlas		16,553	1
	7/19/2012 18:15	7/20/2012 10:15	960	0.98	120.909	1.70	0.77	1	Atlas		118,491	1
	7/24/2012 20:00	7/24/2012 20:00	-	0.49	6.329	1.64	0.41	1	Atlas		3,101	1
	7/27/2012 20:00	7/27/2012 20:45	45	0.73	2.030	1.29	0.50	1	Atlas		1,482	1
	9/5/2012 15:30	9/5/2012 15:45	15	0.66	4.708	1.70	0.53	1	Atlas		3,107	1
	9/7/2012 23:30	9/7/2012 23:45	15	1.44	1.194	2.57	0.81	3	Atlas		1,719	1
	9/26/2012 21:00	9/26/2012 23:00	120	1.24	5.102	1.95	0.66	6	Atlas		6,326	1
	12/8/2012 5:45	12/8/2012 5:45	-	0.36	1.733	2.27	0.20	6	Atlas		624	1
	12/9/2012 22:00	12/9/2012 22:30	30	1.14	13.149	2.98	0.54	3	Atlas		14,990	1
	1/30/2013 4:45	1/30/2013 5:00	15	0.81	11.743	0.61	0.40	6	Atlas		9,512	1
	3/18/2013 4:15	3/18/2013 4:15	-	1.84	415	1.69	0.60	48	Atlas		763	1
	4/11/2013 7:00	4/11/2013 7:15	15	1.29	1.674	0.55	0.50	24	Atlas		2,159	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.58	58.414	1.84	0.48	1	Atlas		33,880	1
	4/19/2013 2:15	4/19/2013 3:15	60	0.95	2.154	1.40	0.52	3	Atlas		2,046	1
	4/24/2013 8:30	4/24/2013 8:45	15	0.69	1.957	1.59	0.39	3	Atlas		1,350	1
	5/10/2013 23:45	5/10/2013 23:45	-	0.95	521	2.52	0.43	6	Atlas		495	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.36	5.397	0.26	0.15	6	Atlas		1,943	1
	6/26/2013 3:30	6/26/2013 4:45	75	0.63	3.246	1.24	0.42	3	Atlas		2,045	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.32	40.272	3.25	2.17	6	Cloudburst		93,432	1
	6/29/2013 20:00	6/29/2013 20:00	-	0.47	10.826	3.45	0.25	3	Atlas		5,088	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.17	48.129	3.84	0.15	1	Atlas		8,182	1
	7/10/2013 14:00	7/10/2013 14:15	15	0.76	25.267	1.94	0.50	1	Atlas		19,203	1
	7/18/2013 16:15	7/18/2013 16:15	-	0.40	7.328	0.60	0.30	1	Atlas		2,931	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/22/2013 7:45	7/22/2013 13:30	345	2.15	25,611	2.55	0.83	24	Atlas		55,063	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.42	14,412	1.75	0.37	1	Atlas		6,053	1
	10/5/2013 14:00	10/6/2013 6:15	975	3.21	36,353	2.79	2.28	24	Cloudburst		116,692	1
	10/30/2013 4:45	10/30/2013 5:30	45	1.41	17,399	1.35	0.72	1	Atlas		24,532	1
	11/17/2013 5:45	11/17/2013 8:45	180	2.38	18,213	1.95	1.11	6	Cloudburst		43,346	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.38	2,657	2.52	1.11	6	Cloudburst		6,324	1
	12/21/2013 22:00	12/21/2013 22:45	45	1.77	38,340	2.46	0.97	3	Atlas		67,861	1
	2/4/2014 21:30	2/4/2014 21:30	-	0.47	1,060	0.83	0.23	6	Atlas		498	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.72	647	3.29	0.95	24	Atlas		1,761	1
	4/7/2014 10:45	4/7/2014 11:45	60	0.66	4,639	3.48	0.38	3	Atlas		3,062	1
	4/28/2014 4:15	4/28/2014 6:15	120	1.63	6,239	1.16	0.66	3	Atlas		10,170	1
	5/10/2014 5:45	5/10/2014 5:45	-	1.63	2,161	0.94	0.63	24	Atlas		3,523	1
	5/10/2014 14:15	5/10/2014 14:30	15	1.63	3,019	1.55	0.63	24	Atlas		4,921	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.43	14,058	1.01	0.37	1	Atlas		6,045	1
	5/29/2014 21:15	5/29/2014 21:15	-	0.18	49,328	0.62	0.15	1	Atlas		8,879	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.09	4,056	0.23	0.06	1	Atlas		365	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.47	3,800	0.77	0.41	1	Atlas		1,786	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.77	3,658	1.33	0.38	1	Atlas		2,817	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.06	21,454	0.41	0.48	12	Atlas		22,741	1
	8/8/2014 6:30	8/8/2014 6:45	15	0.85	4,969	0.62	0.40	6	Atlas		4,224	1
	8/10/2014 4:00	8/10/2014 4:30	30	0.52	13,942	1.50	0.41	1	Atlas		7,250	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.30	1,543	1.78	0.23	1	Atlas		463	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.47	3,247	1.18	0.37	1	Atlas		1,526	1
	8/23/2014 16:30	8/23/2014 20:15	225	0.65	9,908	1.65	0.37	3	Atlas		6,440	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.56	2,957	1.13	0.31	1	Atlas		1,656	1
	9/11/2014 0:45	9/11/2014 2:15	90	1.91	13,629	1.60	1.37	3	Atlas		26,031	1
	10/10/2014 2:15	10/10/2014 3:00	45	1.28	4,531	1.60	0.57	1	Atlas		5,800	1
	12/6/2014 23:15	12/5/2014 23:15	-	1.86	275	1.98	0.60	48	Atlas		511	1
	3/4/2015 2:15	3/4/2015 2:15	-	1.79	413	0.51	0.58	48	Atlas		739	1
	3/10/2015 12:15	3/10/2015 12:30	15	1.26	1,171	2.83	0.57	12	Atlas		1,475	1
	4/2/2015 10:30	4/2/2015 15:00	270	5.47	1,225	1.09	15.85	6	Cloudburst		6,700	1
	4/3/2015 0:15	4/3/2015 4:30	255	5.47	6,977	4.16	15.85	6	Cloudburst		38,166	1
	4/7/2015 9:15	4/7/2015 17:00	465	0.87	18,971	6.31	0.38	1	Atlas		16,505	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.10	1,060	6.06	0.09	1	Atlas		106	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.21	7,619	0.41	0.14	1	Atlas		1,600	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.70	2,454	0.52	0.39	3	Atlas		1,718	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.55	14,713	1.29	0.50	48	Atlas		22,805	1
	6/26/2015 17:00	6/26/2015 17:15	15	0.86	11,599	2.17	0.48	1	Atlas		9,975	1
	7/2/2015 20:30	7/2/2015 20:30	-	1.14	27,420	2.85	0.49	3	Atlas		31,259	1
	7/7/2015 11:45	7/7/2015 11:45	-	0.83	1,441	2.05	0.43	6	Atlas		1,196	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.28	10,000	0.38	0.22	1	Atlas		2,800	1
	11/6/2015 3:45	11/6/2015 3:45	-	0.94	3,619	0.89	0.59	3	Atlas		3,402	1
	11/18/2015 10:45	11/18/2015 10:45	-	1.22	3,769	0.96	0.61	6	Atlas		4,598	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.79	38,558	1.31	0.63	1	Atlas		30,461	1
	12/27/2015 10:45	12/27/2015 12:00	75	2.13	5,689	2.90	0.75	3	Atlas		12,117	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.29	2,560	1.25	0.63	6	Atlas		3,302	1
	2/21/2016 10:15	2/21/2016 10:15	-	1.12	2,439	1.26	0.51	12	Atlas		2,732	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.68	2,915	1.08	0.46	1	Atlas		1,982	1
	5/10/2016 21:45	5/10/2016 21:45	-	0.89	2,329	1.91	0.33	24	Atlas		2,073	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.26	21,012	0.35	0.21	1	Atlas		5,463	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.32	44,578	0.61	0.17	3	Atlas		14,265	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.88	11,140	0.67	0.56	3	Atlas		9,803	1
	6/23/2016 16:15	6/23/2016 20:45	270	2.02	50,760	2.26	1.56	6	Cloudburst		102,535	1
	7/27/2016 23:45	7/28/2016 3:30	225	0.70	26,123	0.85	0.32	12	Atlas		18,286	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.48	40,131	1.54	0.42	1	Atlas		19,263	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.27	2,715	0.38	0.22	1	Atlas		733	1
	8/15/2016 3:15	8/15/2016 3:15	-	0.87	1,371	0.77	0.43	6	Atlas		1,193	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.93	4,800	1.96	0.43	3	Atlas		4,464	1
	8/20/2016 14:30	8/20/2016 20:00	330	1.38	20,815	3.06	0.59	12	Atlas		28,725	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.14	86,143	0.14	0.12	1	Atlas		12,060	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.69	3,749	0.25	0.26	24	Atlas		2,587	1
	12/17/2016 19:15	12/17/2016 21:00	105	2.81	7,054	1.90	2.53	12	Cloudburst		19,821	1
	1/17/2017 0:15	1/17/2017 0:15	-	0.60	627	1.71	0.28	12	Atlas		376	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.45	5,778	0.49	0.37	1	Atlas		2,600	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/1/2017 3:15	3/1/2017 7:15	240	1.15	8,660	1.42	0.61	6	Atlas		9,959	1
	3/7/2017 7:45	3/7/2017 7:45	-	0.39	1,697	1.75	0.18	12	Atlas		662	1
	4/16/2017 17:45	4/16/2017 17:45	-	1.23	1,375	0.85	0.49	6	Atlas		1,691	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.10	27,788	1.35	0.56	3	Atlas		30,567	1
	5/20/2017 18:45	5/20/2017 18:45	-	1.09	706	0.23	0.49	12	Atlas		769	1
	5/21/2017 3:00	5/21/2017 3:45	45	1.09	16,365	0.92	0.49	12	Atlas		17,838	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.28	6,836	0.34	0.23	1	Atlas		1,914	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.59	40,734	0.71	0.50	1	Atlas		24,033	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.14	2,696	0.22	0.52	12	Atlas		3,073	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.49	17,827	0.22	0.27	6	Atlas		8,735	1
	8/22/2017 16:00	8/22/2017 16:00	-	0.61	11,428	1.01	0.38	1	Atlas		6,971	1
	8/29/2017 19:15	8/29/2017 19:15	-	0.08	3,788	0.14	0.04	6	Atlas		303	1
	9/19/2017 8:00	9/19/2017 8:45	45	0.38	14,532	0.61	0.25	3	Atlas		5,522	1
	10/7/2017 21:45	10/7/2017 22:00	15	1.65	4,033	0.53	0.62	24	Atlas		6,654	1
	10/8/2017 14:00	10/8/2017 14:00	-	1.65	464	1.50	0.62	24	Atlas		766	1
	11/3/2017 4:45	11/3/2017 5:15	30	0.99	53,686	1.94	0.77	1	Atlas		53,149	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.32	17,731	1.45	0.22	1	Atlas		5,674	1
	12/5/2017 3:45	12/5/2017 4:30	45	0.65	1,972	0.46	0.33	3	Atlas		1,282	1
	12/23/2017 0:00	12/23/2017 3:15	195	1.26	94	0.86	0.48	24	Atlas		119	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.40	1,008	1.02	0.21	3	Atlas		403	1
	2/23/2018 4:15	2/23/2018 5:00	45	1.44	2,715	3.13	0.66	12	Atlas		3,909	1
	2/24/2018 23:15	2/24/2018 23:15	-	2.10	32,610	4.97	0.86	12	Atlas		68,480	1
	3/24/2018 12:00	3/24/2018 12:00	-	1.12	35	1.61	0.43	24	Atlas		39	1
	5/5/2018 14:45	5/5/2018 15:15	30	1.69	3,543	1.22	0.67	12	Atlas		5,988	1
	5/27/2018 4:15	5/27/2018 4:15	-	0.46	1,087	0.51	0.37	1	Atlas		500	1
	6/11/2018 11:15	6/11/2018 13:30	135	0.28	211	0.85	0.16	3	Atlas		59	1
	7/20/2018 19:30	7/20/2018 21:00	90	0.94	2,368	1.22	0.42	3	Atlas		2,226	1
	10/31/2018 17:15	11/1/2018 2:30	555	1.93	66	1.74	0.69	24	Atlas		128	1
	12/20/2018 12:45	12/24/2018 16:30	5,985	0.43	160	2.09	0.17	12	Atlas		69	1
	12/31/2018 12:15	12/31/2018 16:15	240	1.30	1,326	1.69	0.50	24	Atlas		1,724	1
	2/6/2019 7:00	2/6/2019 7:00	-	1.64	1,720	0.64	0.53	48	Atlas		2,820	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.64	1,202	1.29	0.53	48	Atlas		1,971	1
	2/12/2019 4:30	2/12/2019 4:45	15	2.67	871	3.94	0.83	48	Atlas		2,326	1
	2/20/2019 3:30	2/20/2019 6:00	150	1.40	5,043	1.20	0.63	6	Atlas		7,060	1
	3/9/2019 13:30	3/9/2019 15:00	90	1.05	1,352	0.73	0.48	12	Atlas		1,420	1
	3/14/2019 17:30	3/14/2019 18:30	60	0.51	3,459	2.00	0.34	3	Atlas		1,764	1
	3/30/2019 17:15	3/30/2019 19:45	150	0.95	6,054	1.26	0.43	6	Atlas		5,751	1
	4/7/2019 12:00	4/7/2019 12:00	-	0.57	709	0.59	0.30	3	Atlas		404	1
	4/14/2019 2:00	4/14/2019 2:00	-	0.71	2,577	1.15	0.34	6	Atlas		1,830	1
	4/19/2019 18:30	4/19/2019 22:30	240	2.33	926	1.72	0.75	48	Atlas		2,157	1
	4/23/2019 18:00	4/23/2019 18:00	-	0.14	4,107	2.47	0.12	1	Atlas		575	1
	4/24/2019 20:45	4/24/2019 20:45	-	1.09	905	2.88	0.35	48	Atlas		986	1
	5/3/2019 4:45	5/3/2019 7:30	165	0.84	2,092	1.04	0.45	6	Atlas		1,757	1
	5/23/2019 15:45	5/23/2019 15:45	-	0.03	80,033	0.27	0.02	1	Atlas		2,401	1
	5/26/2019 13:45	5/26/2019 13:45	-	0.89	1,299	0.65	0.49	3	Atlas		1,156	1
	6/9/2019 16:45	6/9/2019 16:45	-	0.53	22,506	2.05	0.27	3	Atlas		11,928	1
	6/16/2019 19:45	6/17/2019 1:00	315	2.14	7,482	2.49	0.97	3	Atlas		16,011	1
	6/21/2019 19:15	6/21/2019 19:30	15	0.80	1,721	3.27	0.53	3	Atlas		1,377	1
	6/23/2019 16:00	6/23/2019 16:15	15	0.36	12,194	4.05	0.28	1	Atlas		4,390	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.40	7,105	2.38	0.25	3	Atlas		2,842	1
	6/30/2019 17:30	6/30/2019 17:30	-	0.20	675	0.60	0.12	1	Atlas		135	1
	7/3/2019 12:30	7/3/2019 12:30	-	0.08	13,213	0.33	0.05	1	Atlas		1,057	1
	7/18/2019 0:45	7/18/2019 1:00	15	0.44	14,077	0.60	0.32	1	Atlas		6,194	1
	7/29/2019 23:30	7/29/2019 23:45	15	0.52	637	0.52	0.33	3	Atlas		331	1
	8/7/2019 4:30	8/7/2019 4:30	-	0.16	1,750	0.13	0.14	1	Atlas		280	1
	10/30/2019 14:15	10/30/2019 14:15	-	0.73	319	1.79	0.37	3	Atlas		233	1
	3/10/2020 8:00	3/10/2020 8:00	-	0.48	2,790	0.50	0.22	12	Atlas		1,339	1
	3/12/2020 19:45	3/12/2020 19:45	-	0.63	100	0.96	0.29	12	Atlas		63	1
	3/19/2020 12:15	3/19/2020 12:15	-	0.43	537	2.01	0.20	1	Atlas		231	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.19	2,389	0.40	0.15	1	Atlas		454	1
	6/29/2020 4:15	6/29/2020 4:15	-	0.40	518	1.59	0.25	3	Atlas		207	1
CSO193 Total											1,638,285	150

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
CSO195	11/6/2015 3:00	11/6/2015 4:00	60	0.75	38.023	0.74	0.47	3	Atlas		28,517	1
	11/18/2015 10:45	11/18/2015 11:00	15	1.22	23,126	1.06	0.62	6	Atlas		28,214	1
	12/23/2015 19:30	12/23/2015 20:00	30	0.77	1,696	1.43	0.55	1	Atlas		1,306	1
	12/27/2015 10:45	12/27/2015 13:15	150	1.91	3,175	3.08	0.65	3	Atlas		6,065	1
	2/2/2016 23:45	2/3/2016 0:00	15	1.26	30,626	1.25	0.61	6	Atlas		38,589	1
	2/21/2016 10:15	2/21/2016 10:15	-	1.04	301	1.17	0.48	12	Atlas		313	1
	2/24/2016 5:15	2/24/2016 5:45	30	2.14	110	2.57	0.83	12	Atlas		235	1
	3/12/2016 22:30	3/12/2016 22:45	15	0.77	117	1.70	0.31	6	Atlas		90	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.94	717	1.36	0.67	1	Atlas		674	1
	3/31/2016 22:00	3/31/2016 22:00	-	1.22	89	1.97	0.47	24	Atlas		108	1
	4/11/2016 17:15	4/11/2016 17:45	30	0.93	388	0.83	0.44	6	Atlas		361	1
	5/7/2016 20:15	5/7/2016 20:15	-	0.75	72	1.19	0.39	6	Atlas		54	1
	5/10/2016 21:45	5/10/2016 21:45	-	0.85	454	1.85	0.32	24	Atlas		386	1
	5/20/2016 15:15	5/20/2016 15:30	15	0.53	1,340	1.29	0.29	3	Atlas		710	1
	6/2/2016 15:30	6/2/2016 15:30	-	0.31	36,961	0.38	0.25	1	Atlas		11,458	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.81	1,189	0.77	0.51	3	Atlas		963	1
	6/23/2016 16:00	6/23/2016 22:15	375	1.86	39,729	2.02	1.03	6	Cloudburst		73,896	1
	1/20/2017 0:30	1/20/2017 0:30	-	0.99	91	2.09	0.45	12	Atlas		90	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.41	3,444	0.47	0.35	1	Atlas		1,412	1
	3/1/2017 3:15	3/1/2017 8:45	330	1.15	690	1.88	0.58	6	Atlas		794	1
	3/7/2017 7:45	3/7/2017 8:00	15	0.59	746	1.79	0.19	48	Atlas		440	1
	4/3/2017 19:30	4/3/2017 19:30	-	0.16	1,244	0.52	0.10	1	Atlas		199	1
	4/16/2017 5:30	4/16/2017 5:30	-	1.16	172	0.54	0.49	6	Atlas		199	1
	4/16/2017 17:30	4/16/2017 20:45	195	1.16	26,915	1.43	0.49	6	Atlas		31,221	1
	4/27/2017 7:00	4/27/2017 7:00	-	0.15	2,087	0.85	0.10	1	Atlas		313	1
	4/29/2017 1:45	4/29/2017 3:15	90	1.02	43,242	1.28	0.52	6	Atlas		44,107	1
	5/4/2017 20:00	5/4/2017 20:30	30	1.58	778	1.78	0.53	24	Atlas		1,229	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.58	114	2.21	0.53	24	Atlas		180	1
	5/20/2017 18:45	5/21/2017 5:45	660	1.01	71,157	1.04	0.45	12	Atlas		71,869	1
	5/27/2017 14:15	5/27/2017 14:15	-	0.15	3,533	1.65	0.10	1	Atlas		530	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.17	3,965	0.22	0.14	1	Atlas		674	1
	6/15/2017 3:15	6/15/2017 4:15	60	0.40	5,843	0.40	0.25	3	Atlas		2,337	1
	6/23/2017 15:30	6/23/2017 16:15	45	0.78	6,577	1.10	0.36	12	Atlas		5,130	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.69	4,433	0.79	0.59	1	Atlas		3,059	1
	7/7/2017 20:45	7/7/2017 21:00	15	0.35	16,046	1.26	0.25	1	Atlas		5,616	1
	7/23/2017 2:45	7/23/2017 6:45	240	1.01	3,461	0.69	0.46	12	Atlas		3,496	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.71	20,259	0.36	0.39	6	Atlas		14,384	1
	9/19/2017 8:00	9/19/2017 8:45	45	0.37	4,181	0.61	0.23	3	Atlas		1,547	1
	10/7/2017 22:00	10/7/2017 22:00	-	1.80	6,481	0.61	0.68	24	Atlas		11,665	1
	11/3/2017 4:45	11/3/2017 5:30	45	1.34	173,349	2.27	1.57	1	Atlas		232,287	1
	11/6/2017 2:00	11/6/2017 2:15	15	0.22	245	1.68	0.13	1	Atlas		54	1
	12/6/2017 3:45	12/6/2017 4:15	30	0.64	658	0.40	0.35	3	Atlas		421	1
	2/22/2018 4:45	2/22/2018 5:15	30	1.71	3,004	2.80	0.64	24	Atlas		5,137	1
	2/23/2018 5:00	2/23/2018 5:00	-	1.36	67	3.07	0.62	12	Atlas		91	1
	2/24/2018 19:00	2/24/2018 23:15	255	2.04	94,919	4.85	0.85	12	Atlas		193,635	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.45	71,061	1.66	0.72	3	Atlas		103,038	1
	6/25/2018 10:30	6/25/2018 10:30	-	0.88	1,568	1.41	0.35	12	Atlas		1,380	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.78	354	1.80	0.33	12	Atlas		276	1
	7/20/2018 14:00	7/20/2018 20:45	405	1.00	291	1.13	0.44	3	Atlas		291	1
	7/31/2018 1:30	7/31/2018 1:45	15	2.16	4,256	0.96	0.90	6	Atlas		9,192	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.27	4,444	1.55	0.20	1	Atlas		1,200	1
	6/16/2019 20:45	6/16/2019 20:45	-	1.62	487	1.44	0.75	6	Atlas		789	1
	7/18/2019 0:45	7/18/2019 0:45	-	0.55	1,675	0.68	0.41	1	Atlas		921	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.47	2,096	0.47	0.29	3	Atlas		985	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.24	5,088	0.42	0.19	1	Atlas		1,221	1
	6/22/2020 22:30	6/22/2020 22:30	-	0.87	2,310	1.10	0.43	3	Atlas		2,010	1
	CSO195 Total										945,358	56
CSO196	10/5/2013 13:15	10/6/2013 8:45	1,170	4.20	87,241	4.29	7.26	24	Cloudburst		366,414	1
	10/30/2013 4:45	10/30/2013 5:45	60	1.96	54,157	1.94	1.30	1	Atlas		106,148	1
	10/31/2013 19:30	10/31/2013 21:00	90	0.71	5,045	2.56	0.27	24	Atlas		3,582	1
	11/17/2013 7:45	11/17/2013 8:15	30	2.32	2,768	1.77	1.06	6	Cloudburst		6,422	1
	12/21/2013 22:15	12/22/2013 0:15	120	1.37	34,960	2.18	0.74	3	Atlas		47,895	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/11/2014 0:15	1/11/2014 2:30	135	0.95	3.692	1.14	0.51	6	Atlas		3.507	1
	2/17/2014 16:15	2/17/2014 16:45	30	0.40	90.218	0.95	0.24	3	Atlas		36.087	1
	3/2/2014 10:45	3/2/2014 10:45	-	0.62	997	0.29	0.23	24	Atlas		618	1
	3/29/2014 6:30	3/29/2014 7:00	30	1.01	15.576	0.82	0.49	6	Atlas		15.732	1
	4/3/2014 12:15	4/4/2014 3:30	915	2.36	12.520	3.24	0.82	24	Atlas		29.547	1
	4/28/2014 4:15	4/28/2014 7:00	165	1.68	41.837	1.31	0.71	3	Atlas		70.286	1
	4/28/2014 17:45	4/28/2014 17:45	-	1.68	274	1.65	0.71	3	Atlas		460	1
	5/9/2014 19:30	5/9/2014 19:30	-	1.67	3.389	0.32	0.64	24	Atlas		5.659	1
	5/10/2014 5:45	5/10/2014 15:15	570	1.67	36.796	1.73	0.64	24	Atlas		61.450	1
	5/14/2014 7:15	5/14/2014 7:15	-	0.91	2.686	1.94	0.35	24	Atlas		2.444	1
	5/22/2014 2:45	5/22/2014 3:30	45	0.47	19.285	0.50	0.22	12	Atlas		9.064	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.32	133.481	0.80	0.27	1	Atlas		42.714	1
	5/29/2014 21:00	5/29/2014 21:30	30	0.44	153.386	0.76	0.35	1	Atlas		67.490	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.12	235.058	0.28	0.09	1	Atlas		28.207	1
	6/24/2014 13:45	6/24/2014 14:15	30	0.13	57.300	0.44	0.08	1	Atlas		7.449	1
	7/7/2014 19:30	7/7/2014 19:45	15	0.56	86.309	0.85	0.49	1	Atlas		48.333	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.78	20.619	1.43	0.39	3	Atlas		16.083	1
	7/14/2014 20:15	7/14/2014 20:15	-	0.18	12.044	1.26	0.14	1	Atlas		2.168	1
	9/11/2014 0:45	9/11/2014 2:30	105	1.83	74.443	1.53	1.07	3	Atlas		136.231	1
	10/3/2014 3:30	10/3/2014 3:30	-	0.25	1.948	0.11	0.10	24	Atlas		487	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.20	38.375	0.40	0.08	6	Atlas		7.675	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.26	14.860	1.52	0.57	3	Atlas		18.723	1
	10/13/2014 5:15	10/13/2014 5:15	-	0.51	555	2.03	0.33	3	Atlas		283	1
	10/13/2014 23:30	10/13/2014 23:45	15	1.03	5.500	2.32	0.45	12	Atlas		5.665	1
	10/14/2014 8:15	10/14/2014 8:15	-	1.03	846	2.92	0.45	12	Atlas		871	1
	11/23/2014 17:30	11/23/2014 17:30	-	0.63	2.935	0.75	0.28	12	Atlas		1.849	1
	12/6/2014 2:45	12/6/2014 3:30	45	1.76	6.086	2.53	0.57	48	Atlas		10.712	1
	3/10/2015 11:00	3/10/2015 12:45	105	1.30	13.986	2.86	0.58	12	Atlas		18.182	1
	3/14/2015 1:15	3/14/2015 3:45	150	1.96	1.258	3.20	0.74	24	Atlas		2.465	1
	3/26/2015 4:30	3/26/2015 4:30	-	0.49	1.445	0.50	0.19	12	Atlas		708	1
	4/2/2015 10:45	4/2/2015 15:15	270	5.52	8.065	1.02	20.17	6	Cloudburst		44.519	1
	4/3/2015 0:15	4/3/2015 17:00	1,005	5.52	70.363	5.52	20.17	6	Cloudburst		388.405	1
	4/7/2015 9:30	4/7/2015 17:15	465	0.83	22.775	6.34	0.37	1	Atlas		18.903	1
	4/8/2015 18:15	4/8/2015 18:30	15	0.10	58.740	6.45	0.05	6	Atlas		5.874	1
	4/9/2015 11:30	4/9/2015 12:00	30	0.33	23.470	6.09	0.13	24	Atlas		7.745	1
	4/10/2015 2:30	4/10/2015 2:30	-	0.33	11.939	3.44	0.13	24	Atlas		3.940	1
	4/19/2015 14:30	4/19/2015 14:30	-	0.60	1.237	1.00	0.25	12	Atlas		742	1
	5/16/2015 11:45	5/16/2015 11:45	-	0.50	8.838	0.38	0.24	3	Atlas		4.419	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	261.325	0.63	0.04	1	Atlas		20.906	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.28	12.104	0.51	0.20	1	Atlas		3.389	1
	6/17/2015 4:45	6/17/2015 5:00	15	0.63	6.648	0.48	0.34	3	Atlas		4.188	1
	6/18/2015 17:15	6/18/2015 17:45	30	1.75	11.502	1.68	0.57	48	Atlas		20.129	1
	6/20/2015 1:30	6/20/2015 8:00	390	1.75	6.366	2.65	0.57	48	Atlas		11.141	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.53	13.209	1.40	0.29	6	Atlas		7.001	1
	6/26/2015 17:15	6/26/2015 17:30	15	0.93	36.766	2.19	0.52	1	Atlas		34.192	1
	6/29/2015 13:30	6/29/2015 13:30	-	0.28	1.936	1.73	0.21	1	Atlas		542	1
	7/2/2015 20:45	7/2/2015 21:00	15	0.99	6.348	2.73	0.52	3	Atlas		6.285	1
	7/3/2015 14:45	7/3/2015 15:00	15	0.35	17.369	2.53	0.27	1	Atlas		6.079	1
	7/7/2015 11:30	7/7/2015 12:00	30	0.85	21.386	1.85	0.44	6	Atlas		18.178	1
	7/12/2015 6:00	7/12/2015 6:30	30	0.90	45.266	2.74	0.62	1	Atlas		40.739	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.23	44.165	3.17	0.19	1	Atlas		10.158	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.38	59.813	3.52	0.28	1	Atlas		22.729	1
	7/17/2015 23:00	7/18/2015 0:45	105	0.98	41.271	2.53	0.65	3	Atlas		40.446	1
	8/6/2015 2:15	8/6/2015 15:00	765	0.66	13.353	0.82	0.25	24	Atlas		8.813	1
	8/19/2015 8:15	8/19/2015 8:30	15	0.37	3.495	0.23	0.14	24	Atlas		1.293	1
	8/19/2015 17:00	8/19/2015 17:00	-	0.37	17.038	0.40	0.14	24	Atlas		6.304	1
	9/9/2015 11:30	9/9/2015 11:30	-	0.33	16.527	0.38	0.17	1	Atlas		5.454	1
	10/12/2015 19:15	10/12/2015 19:15	-	0.26	2.546	0.28	0.17	3	Atlas		662	1
	10/27/2015 18:00	10/27/2015 20:15	135	2.27	1.225	1.73	0.75	24	Atlas		2.781	1
	11/6/2015 3:00	11/6/2015 4:15	75	0.75	50.283	0.77	0.47	3	Atlas		37.712	1
	11/12/2015 0:45	11/12/2015 0:45	-	0.29	5.472	1.52	0.18	3	Atlas		1.587	1
	11/18/2015 9:30	11/18/2015 13:45	255	1.22	30.830	1.56	0.62	6	Atlas		37.613	1
	11/30/2015 23:30	12/1/2015 3:45	255	0.77	4.901	1.61	0.35	12	Atlas		3.774	1
	12/22/2015 3:15	12/22/2015 3:15	-	0.50	4.852	0.68	0.28	1	Atlas		2.426	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/23/2015 19:30	12/23/2015 20:15	45	0.77	75.977	1.50	0.55	1	Atlas		58.502	1
	12/26/2015 17:45	12/26/2015 17:45	-	0.37	2.654	1.96	0.17	12	Atlas		982	1
	12/27/2015 10:45	12/27/2015 13:30	165	1.91	41.190	3.10	0.65	3	Atlas		78.673	1
	2/2/2016 19:45	2/3/2016 0:15	270	1.26	30.003	1.25	0.61	6	Atlas		37.804	1
	3/24/2016 17:30	3/24/2016 17:30	-	0.50	23.182	0.63	0.36	1	Atlas		11.591	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.94	39.756	1.40	0.67	1	Atlas		37.371	1
	3/31/2016 22:00	3/31/2016 22:00	-	1.22	4.048	1.97	0.47	24	Atlas		4.939	1
	4/11/2016 17:30	4/11/2016 17:45	15	0.93	3.400	0.83	0.44	6	Atlas		3.162	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.33	6.585	0.10	0.14	3	Atlas		2.173	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.71	5.328	1.12	0.33	3	Atlas		3.783	1
	4/30/2016 11:15	4/30/2016 11:15	-	0.55	3.638	1.27	0.20	24	Atlas		2.001	1
	5/1/2016 15:00	5/1/2016 15:00	-	0.25	13.248	1.70	0.17	3	Atlas		3.312	1
	5/7/2016 16:30	5/7/2016 16:30	-	0.75	1.899	0.81	0.39	6	Atlas		1.424	1
	5/10/2016 18:45	5/10/2016 22:00	195	0.86	23.092	1.85	0.32	24	Atlas		19.628	1
	5/12/2016 16:15	5/12/2016 16:15	-	0.15	4.227	1.99	0.10	3	Atlas		634	1
	5/20/2016 15:15	5/20/2016 15:30	15	0.53	15.783	1.29	0.29	3	Atlas		8.365	1
	6/2/2016 15:30	6/2/2016 15:45	15	0.31	41.445	0.41	0.25	1	Atlas		12.848	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.18	78.722	0.49	0.10	3	Atlas		14.170	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.81	6.937	0.77	0.51	3	Atlas		5.619	1
	6/23/2016 16:15	6/23/2016 22:15	360	1.86	26.502	2.02	1.03	6	Cloudburst		49.293	1
	8/15/2016 3:15	8/15/2016 3:15	-	0.91	4.107	0.81	0.44	6	Atlas		3.737	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.67	8.103	1.69	0.28	12	Atlas		5.429	1
	8/20/2016 20:00	8/20/2016 20:00	-	0.89	4.081	2.31	0.38	12	Atlas		3.632	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.23	47.691	0.23	0.19	1	Atlas		10.969	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.55	20.087	0.11	0.21	24	Atlas		11.048	1
	12/17/2016 18:30	12/18/2016 0:30	360	2.61	22.601	2.77	1.81	12	Cloudburst		58.988	1
	1/12/2017 18:30	1/12/2017 18:30	-	0.44	2.827	0.58	0.22	6	Atlas		1.244	1
	5/4/2017 20:00	5/4/2017 20:00	-	1.58	704	1.74	0.53	24	Atlas		1.113	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.58	605	2.21	0.53	24	Atlas		956	1
	5/20/2017 18:45	5/21/2017 5:45	660	1.01	46.120	1.04	0.45	12	Atlas		46.581	1
	10/7/2017 22:00	10/7/2017 22:15	15	1.80	4.617	0.62	0.68	24	Atlas		8.311	1
	10/8/2017 10:15	10/8/2017 14:30	255	1.80	3.021	1.70	0.68	24	Atlas		5.438	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.34	71.648	2.27	1.57	1	Atlas		96.008	1
	11/6/2017 2:00	11/6/2017 2:15	15	0.22	30.523	1.68	0.13	1	Atlas		6.715	1
	12/5/2017 3:45	12/5/2017 4:15	30	0.64	6.000	0.40	0.35	3	Atlas		3.840	1
	12/22/2017 23:45	12/23/2017 3:00	195	1.22	889	0.81	0.47	24	Atlas		1.085	1
	1/22/2018 19:45	1/22/2018 19:45	-	0.21	5.300	0.28	0.10	12	Atlas		1.113	1
	2/7/2018 3:15	2/7/2018 3:30	15	0.48	6.338	0.68	0.26	6	Atlas		3.042	1
	2/11/2018 4:15	2/11/2018 10:15	360	0.38	8.600	0.98	0.18	3	Atlas		3.268	1
	2/16/2018 2:45	2/16/2018 3:00	15	0.86	644	1.27	0.39	12	Atlas		554	1
	2/22/2018 3:15	2/22/2018 5:30	135	1.71	13.210	2.83	0.64	24	Atlas		22.589	1
	2/23/2018 3:00	2/23/2018 9:15	375	1.36	9.888	3.66	0.62	12	Atlas		13.447	1
	2/24/2018 10:30	2/24/2018 10:30	-	2.04	28	3.41	0.85	12	Atlas		58	1
	2/24/2018 18:45	2/25/2018 0:15	330	2.04	32.522	4.96	0.85	12	Atlas		66.344	1
	3/24/2018 12:00	3/24/2018 12:15	15	0.98	172	1.50	0.38	24	Atlas		169	1
	3/29/2018 19:00	3/29/2018 19:30	30	1.16	2.534	1.89	0.30	48	Atlas		2.939	1
	4/1/2018 20:15	4/1/2018 23:15	180	0.63	1.256	2.06	0.34	6	Atlas		791	1
	4/3/2018 16:30	4/3/2018 21:15	285	0.62	4.673	2.66	0.34	6	Atlas		2.897	1
	5/5/2018 12:15	5/5/2018 18:30	375	1.44	9.868	1.38	0.56	12	Atlas		14.210	1
	5/17/2018 15:30	5/17/2018 16:00	30	0.48	6.408	0.48	0.39	1	Atlas		3.076	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.28	17.525	0.28	0.21	1	Atlas		4.907	1
	5/31/2018 14:00	5/31/2018 14:00	-	1.45	464	0.63	0.72	3	Atlas		673	1
	6/1/2018 1:15	6/1/2018 2:15	60	1.45	37.572	1.76	0.72	3	Atlas		54.479	1
	6/10/2018 15:00	6/10/2018 15:15	15	0.92	5.922	0.24	0.34	24	Atlas		5.448	1
	6/11/2018 11:00	6/11/2018 13:30	150	0.92	23.960	0.87	0.34	24	Atlas		22.043	1
	6/25/2018 10:15	6/25/2018 10:15	-	0.88	224	1.35	0.35	12	Atlas		197	1
	6/26/2018 12:45	6/26/2018 12:45	-	0.78	100	1.80	0.33	12	Atlas		78	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.30	363	0.95	0.24	1	Atlas		109	1
	7/16/2018 9:15	7/16/2018 9:30	15	0.14	364	0.16	0.10	1	Atlas		51	1
	7/20/2018 13:45	7/20/2018 21:00	435	1.00	3.161	1.18	0.44	3	Atlas		3.161	1
	7/31/2018 1:15	7/31/2018 12:45	690	2.16	5.804	2.21	0.90	6	Atlas		12.536	1
	8/15/2018 20:00	8/16/2018 8:45	765	2.68	13.421	2.52	1.18	24	Cloudburst		35.968	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.51	17.278	3.26	0.40	1	Atlas		8.812	1
	9/8/2018 5:30	9/8/2018 5:30	-	2.47	665	0.48	1.22	6	Cloudburst		1.642	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/8/2018 17:30	9/8/2018 22:00	270	2.47	121.576	2.60	1.22	6	Cloudburst		300,293	1
	9/21/2018 17:30	9/21/2018 17:45	15	0.25	8.296	0.32	0.17	1	Atlas		2,074	1
	9/22/2018 16:45	9/22/2018 17:00	15	1.34	60	0.70	0.50	24	Atlas		81	1
	9/23/2018 4:15	9/23/2018 7:00	165	1.34	14.328	1.62	0.50	24	Atlas		19,199	1
	9/24/2018 7:15	9/24/2018 13:45	390	1.30	18.103	2.88	0.61	6	Atlas		23,534	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.08	29.188	2.97	0.07	1	Atlas		2,335	1
	9/25/2018 16:30	9/25/2018 17:30	60	0.76	11.322	3.30	0.33	12	Atlas		8,605	1
	10/15/2018 9:00	10/15/2018 9:00	-	0.20	2.730	0.70	0.13	1	Atlas		546	1
	11/5/2018 22:00	11/5/2018 22:00	-	0.88	3.030	2.42	0.48	6	Atlas		2,666	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.47	2.386	1.07	0.47	48	Atlas		3,508	1
	2/20/2019 5:30	2/20/2019 6:15	45	1.30	5.928	1.17	0.58	6	Atlas		7,707	1
	3/30/2019 17:15	3/30/2019 17:15	-	0.88	1.973	0.89	0.42	6	Atlas		1,736	1
	4/23/2019 18:00	4/23/2019 18:00	-	0.38	22.637	2.92	0.33	1	Atlas		8,602	1
	4/24/2019 20:45	4/24/2019 20:45	-	1.03	7.217	3.29	0.33	48	Atlas		7,433	1
	5/3/2019 4:45	5/3/2019 5:15	30	0.79	86.620	0.63	0.43	6	Atlas		68,430	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.40	7.490	0.41	0.18	12	Atlas		2,996	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.24	259.021	0.42	0.19	1	Atlas		62,165	1
	5/16/2020 2:15	5/16/2020 2:15	-	1.46	5.226	1.07	0.56	24	Atlas		7,630	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.46	1.878	0.33	0.26	1	Atlas		864	1
	6/22/2020 22:30	6/23/2020 0:00	90	0.87	22.062	1.25	0.43	3	Atlas		19,194	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.56	100.657	1.69	0.35	3	Atlas		56,368	1
	CSO196 Total										**3,522,613**	**154**
CSO197	10/12/2015 19:00	10/12/2015 19:00	-	0.26	11.950	0.28	0.17	3	Atlas		3,107	1
	10/27/2015 18:00	10/28/2015 6:00	720	2.27	7.651	2.36	0.75	24	Atlas		17,367	1
	11/6/2015 3:00	11/6/2015 4:30	90	0.75	82.584	0.81	0.47	3	Atlas		61,938	1
	11/12/2015 0:00	11/12/2015 0:45	45	0.29	15.510	1.52	0.18	3	Atlas		4,498	1
	11/18/2015 9:00	11/18/2015 14:15	315	1.22	82.444	1.60	0.62	6	Atlas		100,582	1
	11/30/2015 21:45	12/1/2015 4:15	390	0.77	5.434	1.69	0.35	12	Atlas		4,184	1
	12/22/2015 3:00	12/22/2015 4:00	60	0.50	98.826	0.75	0.28	1	Atlas		49,413	1
	12/23/2015 19:15	12/23/2015 21:30	135	0.77	366.891	1.52	0.55	1	Atlas		282,506	1
	12/25/2015 9:00	12/25/2015 9:30	30	0.11	123.691	1.58	0.06	3	Atlas		13,606	1
	12/26/2015 11:45	12/26/2015 18:00	375	0.37	267.330	1.96	0.17	12	Atlas		98,912	1
	12/27/2015 10:00	12/28/2015 17:00	1,860	1.91	381.792	3.85	0.65	3	Atlas		729,222	1
	1/8/2016 5:30	1/8/2016 6:00	30	0.10	13.990	0.10	0.05	12	Atlas		1,399	1
	1/9/2016 18:45	1/9/2016 22:45	240	0.18	53.178	0.22	0.08	12	Atlas		9,572	1
	1/15/2016 15:15	1/15/2016 15:30	15	0.06	15.550	0.31	0.03	3	Atlas		933	1
	2/2/2016 14:30	2/3/2016 2:15	705	1.26	215.807	1.35	0.61	6	Atlas		271,917	1
	2/8/2016 9:15	2/8/2016 11:30	135	0.14	63.079	1.37	0.06	12	Atlas		8,831	1
	2/21/2016 3:45	2/21/2016 11:15	450	1.04	157.952	1.20	0.48	12	Atlas		164,270	1
	2/23/2016 22:00	2/24/2016 14:15	975	2.14	95.079	3.01	0.83	12	Atlas		203,470	1
	2/29/2016 1:15	2/29/2016 2:00	45	0.02	175.350	2.16	0.01	3	Atlas		3,507	1
	3/1/2016 11:30	3/1/2016 14:15	165	0.30	140.350	2.44	0.15	6	Atlas		42,105	1
	3/9/2016 15:00	3/9/2016 17:00	120	1.20	13.517	0.30	0.39	12	Atlas		16,220	1
	3/10/2016 13:15	3/10/2016 20:30	435	1.20	97.807	1.25	0.39	12	Atlas		117,368	1
	3/12/2016 20:00	3/13/2016 0:15	255	0.77	97.369	1.78	0.31	6	Atlas		74,974	1
	3/13/2016 8:45	3/13/2016 11:15	150	0.77	70.673	2.00	0.31	6	Atlas		54,418	1
	3/19/2016 9:15	3/19/2016 9:30	15	0.17	6.971	1.09	0.11	1	Atlas		1,185	1
	3/24/2016 17:15	3/24/2016 18:45	90	0.50	66.138	0.67	0.36	1	Atlas		33,069	1
	3/27/2016 20:30	3/27/2016 23:00	150	0.94	172.853	1.44	0.67	1	Atlas		162,482	1
	3/31/2016 1:15	3/31/2016 7:30	375	1.22	24.888	2.11	0.47	24	Atlas		30,363	1
	3/31/2016 15:45	3/31/2016 22:45	420	1.22	10.834	2.48	0.47	24	Atlas		13,217	1
	4/11/2016 13:30	4/11/2016 20:45	435	0.93	68.425	1.05	0.44	6	Atlas		63,635	1
	4/21/2016 14:15	4/21/2016 16:15	120	0.33	105.509	0.24	0.14	3	Atlas		34,818	1
	4/22/2016 1:00	4/22/2016 1:00	-	0.33	2.942	0.29	0.14	3	Atlas		971	1
	4/26/2016 16:00	4/26/2016 21:45	345	0.30	52.157	0.67	0.15	3	Atlas		15,647	1
	4/27/2016 12:45	4/27/2016 22:30	585	0.71	101.180	1.35	0.33	3	Atlas		71,838	1
	4/30/2016 8:30	4/30/2016 13:30	300	0.55	67.025	1.39	0.20	24	Atlas		36,864	1
	5/1/2016 14:30	5/1/2016 16:15	105	0.25	122.388	1.80	0.17	3	Atlas		30,597	1
	5/4/2016 11:00	5/4/2016 11:45	45	0.22	27.727	1.70	0.13	1	Atlas		6,100	1
	5/7/2016 16:15	5/7/2016 22:15	360	0.75	61.669	1.38	0.39	6	Atlas		46,252	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/10/2016 8:15	5/10/2016 22:00	825	0.85	97,544	1.85	0.32	24	Atlas		82,912	1
	5/11/2016 20:45	5/11/2016 22:30	105	0.30	61,923	1.91	0.16	3	Atlas		18,577	1
	5/12/2016 16:00	5/12/2016 17:45	105	0.15	150,040	2.09	0.10	3	Atlas		22,506	1
	5/17/2016 5:45	5/17/2016 7:00	75	0.73	11,447	1.69	0.25	24	Atlas		8,356	1
	5/17/2016 20:00	5/17/2016 21:00	60	0.73	11,545	1.35	0.25	24	Atlas		8,428	1
	5/20/2016 12:45	5/20/2016 15:45	180	0.53	199,855	1.29	0.29	3	Atlas		105,923	1
	5/26/2016 13:45	5/26/2016 15:00	75	0.31	6,135	0.89	0.21	3	Atlas		1,902	1
	6/2/2016 15:15	6/2/2016 16:00	45	0.31	72,068	0.44	0.25	1	Atlas		22,341	1
	6/4/2016 16:30	6/4/2016 18:15	105	0.18	217,700	0.60	0.10	3	Atlas		39,186	1
	6/14/2016 16:15	6/14/2016 18:15	120	0.81	49,033	1.01	0.51	3	Atlas		39,717	1
	6/22/2016 8:15	6/22/2016 8:30	15	0.16	46,625	0.23	0.10	3	Atlas		7,460	1
	6/23/2016 16:00	6/23/2016 22:45	405	1.86	115,622	2.02	1.03	6	Cloudburst		215,056	1
	7/3/2016 7:30	7/3/2016 23:00	930	1.19	28,192	0.69	0.39	48	Atlas		33,548	1
	7/4/2016 8:15	7/4/2016 16:15	480	1.19	13,294	1.19	0.39	48	Atlas		15,820	1
	7/6/2016 13:00	7/6/2016 13:15	15	0.19	38,774	1.34	0.13	1	Atlas		7,367	1
	7/12/2016 9:30	7/12/2016 10:00	30	0.18	29,078	0.47	0.12	1	Atlas		5,234	1
	7/20/2016 19:30	7/20/2016 19:45	15	0.15	19,207	0.45	0.13	1	Atlas		2,881	1
	7/27/2016 23:30	7/28/2016 3:15	225	0.53	14,940	0.53	0.24	12	Atlas		7,918	1
	7/30/2016 14:00	7/30/2016 14:15	15	0.48	74,498	1.22	0.42	1	Atlas		35,759	1
	7/31/2016 17:00	7/31/2016 17:00	-	0.11	4,236	1.33	0.09	1	Atlas		466	1
	8/1/2016 11:00	8/1/2016 11:15	15	0.40	20,153	1.69	0.31	1	Atlas		8,061	1
	8/5/2016 13:45	8/5/2016 13:45	-	0.31	3,132	1.48	0.21	1	Atlas		971	1
	8/15/2016 2:30	8/15/2016 7:15	285	0.91	17,942	1.21	0.44	6	Atlas		16,327	1
	8/17/2016 6:00	8/17/2016 7:00	60	0.67	14,261	1.69	0.28	12	Atlas		9,555	1
	8/20/2016 14:15	8/20/2016 20:15	360	0.89	30,247	2.43	0.38	12	Atlas		26,920	1
	8/28/2016 17:15	8/28/2016 17:30	15	0.23	88,874	0.23	0.19	1	Atlas		20,441	1
	12/6/2016 9:00	12/6/2016 9:00	-	0.93	501	0.60	0.43	12	Atlas		466	1
	12/17/2016 18:30	12/18/2016 1:15	405	2.61	98,639	2.93	1.81	12	Cloudburst		257,448	1
	1/10/2017 19:30	1/10/2017 19:30	-	0.12	5,983	0.30	0.09	1	Atlas		718	1
	1/12/2017 15:30	1/12/2017 15:30	-	0.44	1,632	0.44	0.22	6	Atlas		718	1
	1/17/2017 1:00	1/17/2017 1:00	-	0.61	764	1.87	0.28	12	Atlas		466	1
	2/18/2017 20:00	2/18/2017 20:15	15	0.07	22,329	0.08	0.03	6	Atlas		1,563	1
	2/27/2017 11:00	2/27/2017 11:00	-	0.05	39,060	0.46	0.02	12	Atlas		1,953	1
	2/28/2017 4:45	2/28/2017 11:30	405	0.27	1,210,093	0.73	0.13	6	Atlas		326,725	1
	3/1/2017 3:00	3/1/2017 10:45	465	1.15	1,865,809	1.88	0.58	6	Atlas		2,145,680	1
	3/6/2017 7:15	3/6/2017 19:45	750	0.59	41,102	1.65	0.19	48	Atlas		24,250	1
	3/7/2017 5:00	3/7/2017 15:15	615	0.59	784,393	1.96	0.19	48	Atlas		462,792	1
	3/17/2017 6:30	3/17/2017 12:00	330	0.04	12,746,850	0.10	0.02	3	Atlas		509,874	1
	5/12/2017 10:00	5/12/2017 10:00	-	0.04	11,650	0.47	0.02	6	Atlas		466	1
	5/19/2017 17:45	5/19/2017 17:45	-	0.03	19,733	0.04	0.03	1	Atlas		592	1
	5/20/2017 18:30	5/21/2017 7:30	780	1.01	273,908	1.06	0.45	12	Atlas		276,647	1
	5/24/2017 9:00	5/25/2017 9:45	1,485	0.52	123,310	1.58	0.18	24	Atlas		64,121	1
	5/27/2017 14:00	5/27/2017 14:30	30	0.15	109,560	1.65	0.10	1	Atlas		16,434	1
	6/2/2017 8:00	6/2/2017 9:45	105	Discharge	-	0.15					5,747	1
	6/5/2017 7:30	6/5/2017 19:45	735	0.06	349,783	0.23	0.03	12	Atlas		20,987	1
	6/9/2017 7:30	6/9/2017 12:00	270	Discharge	-	0.23					3,513	1
	6/12/2017 12:30	6/12/2017 12:30	-	0.04	11,650	0.21	0.03	1	Atlas		466	1
	6/13/2017 17:00	6/13/2017 17:00	-	0.09	5,178	0.13	0.08	1	Atlas		466	1
	6/15/2017 3:00	6/15/2017 6:15	195	0.40	161,505	0.53	0.25	3	Atlas		64,602	1
	6/18/2017 11:00	6/18/2017 11:00	-	0.01	46,600	0.54	0.01	1	Atlas		466	1
	6/18/2017 21:15	6/18/2017 23:30	135	0.15	71,080	0.69	0.09	3	Atlas		10,662	1
	6/22/2017 15:15	6/22/2017 20:00	285	0.36	106,567	0.52	0.19	6	Atlas		38,364	1
	6/23/2017 7:45	6/23/2017 19:00	675	0.78	84,409	1.30	0.36	12	Atlas		65,839	1
	6/27/2017 1:45	6/27/2017 2:15	30	0.10	34,940	1.24	0.09	1	Atlas		3,494	1
	6/30/2017 20:45	6/30/2017 22:15	90	0.69	193,758	0.79	0.59	1	Atlas		133,693	1
	7/4/2017 9:45	7/4/2017 14:00	255	0.14	34,450	0.84	0.07	3	Atlas		4,823	1
	7/5/2017 9:15	7/5/2017 14:45	330	Discharge	-	0.84					11,932	1
	7/6/2017 4:00	7/6/2017 13:45	585	0.49	37,649	1.24	0.23	6	Atlas		18,448	1
	7/7/2017 20:30	7/7/2017 22:00	90	0.35	62,731	1.67	0.25	1	Atlas		21,956	1
	7/23/2017 2:30	7/23/2017 9:45	435	1.01	28,149	1.01	0.46	12	Atlas		28,430	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/28/2017 9:30	7/28/2017 10:00	30	0.27	19,989	1.27	0.19	1	Atlas		5,397	1
	8/6/2017 14:30	8/7/2017 0:00	570	0.56	13,355	0.71	0.25	12	Atlas		7,479	1
	8/17/2017 14:45	8/17/2017 18:30	225	0.71	66,841	0.75	0.39	6	Atlas		47,457	1
	9/1/2017 8:00	9/2/2017 5:00	1,260	2.76	93,349	2.96	0.97	24	Atlas		257,643	1
	9/13/2017 14:30	9/13/2017 14:30	-	0.65	1,105	0.56	0.21	48	Atlas		718	1
	9/19/2017 7:45	9/19/2017 10:00	135	0.37	142,992	0.74	0.23	3	Atlas		52,907	1
	10/7/2017 21:30	10/7/2017 23:00	90	1.80	17,963	0.70	0.68	24	Atlas		32,333	1
	10/8/2017 10:00	10/8/2017 19:15	555	1.80	43,387	1.79	0.68	24	Atlas		78,097	1
	10/10/2017 14:00	10/10/2017 21:00	420	0.62	99,644	2.43	0.33	3	Atlas		61,779	1
	10/23/2017 6:15	10/23/2017 7:45	90	0.45	80,773	0.38	0.23	6	Atlas		36,348	1
	11/12/2017 20:45	11/13/2017 7:30	645	0.05	139,789,280	0.55	0.03	3	Atlas		6,989,464	1
	11/15/2017 13:00	11/15/2017 13:45	45	0.28	36,536	0.32	0.18	3	Atlas		10,230	1
	11/18/2017 16:45	11/18/2017 17:30	45	0.35	31,383	0.65	0.21	1	Atlas		10,984	1
	12/5/2017 3:15	12/5/2017 5:45	150	0.64	81,727	0.63	0.35	3	Atlas		52,305	1
	12/22/2017 23:15	12/23/2017 5:15	360	1.22	37,245	1.01	0.47	24	Atlas		45,439	1
	1/22/2018 19:30	1/22/2018 19:45	15	0.21	66,876	0.28	0.10	12	Atlas		14,044	1
	2/7/2018 3:00	2/7/2018 3:45	45	0.48	36,342	0.70	0.26	6	Atlas		17,444	1
	2/11/2018 4:00	2/11/2018 10:45	405	0.38	37,613	1.00	0.18	3	Atlas		14,293	1
	2/14/2018 7:15	2/14/2018 15:15	480	0.44	9,927	0.94	0.21	3	Atlas		4,368	1
	2/16/2018 2:30	2/16/2018 10:45	495	0.86	33,349	1.85	0.39	12	Atlas		28,680	1
	2/21/2018 5:15	2/21/2018 10:00	285	1.71	2,405	1.83	0.64	24	Atlas		4,112	1
	2/21/2018 18:45	2/22/2018 6:45	720	1.71	74,846	2.87	0.64	24	Atlas		127,987	1
	2/23/2018 1:30	2/23/2018 12:15	645	1.36	104,623	4.14	0.62	12	Atlas		142,287	1
	2/24/2018 10:15	2/25/2018 2:15	960	2.04	236,696	5.33	0.85	12	Atlas		482,860	1
	3/10/2018 0:15	3/10/2018 2:45	150	0.67	38,128	0.69	0.43	3	Atlas		25,546	1
	3/19/2018 17:15	3/19/2018 20:00	165	0.29	44,507	0.30	0.16	3	Atlas		12,907	1
	3/24/2018 8:45	3/24/2018 16:00	435	0.98	46,691	1.62	0.38	24	Atlas		45,757	1
	3/28/2018 5:15	3/28/2018 10:30	315	1.16	13,638	1.60	0.30	48	Atlas		15,820	1
	3/29/2018 18:45	3/29/2018 22:30	225	1.16	37,845	2.00	0.30	48	Atlas		43,900	1
	3/31/2018 21:45	3/31/2018 22:30	45	0.21	31,071	1.39	0.12	1	Atlas		6,525	1
	4/1/2018 19:45	4/1/2018 23:15	210	0.63	91,483	2.06	0.34	6	Atlas		57,634	1
	4/3/2018 16:15	4/3/2018 21:30	315	0.62	82,997	2.66	0.34	6	Atlas		51,458	1
	4/14/2018 9:00	4/14/2018 10:00	60	0.91	23,788	0.19	0.30	24	Atlas		21,647	1
	4/14/2018 22:30	4/15/2018 9:30	660	0.91	48,204	0.93	0.30	24	Atlas		43,866	1
	4/23/2018 4:45	4/23/2018 11:15	390	0.59	36,554	0.70	0.27	12	Atlas		21,567	1
	5/5/2018 12:00	5/5/2018 18:45	405	1.44	99,667	1.39	0.56	12	Atlas		143,520	1
	5/17/2018 15:15	5/17/2018 16:15	60	0.48	70,346	0.48	0.39	1	Atlas		33,766	1
	5/27/2018 4:00	5/27/2018 4:45	45	0.28	66,157	0.29	0.21	1	Atlas		18,524	1
	5/31/2018 14:00	5/31/2018 15:00	60	1.45	6,159	0.71	0.72	3	Atlas		8,930	1
	6/1/2018 0:00	6/1/2018 3:30	210	1.45	46,028	1.97	0.72	3	Atlas		66,741	1
	6/10/2018 14:45	6/10/2018 21:30	405	0.92	21,310	0.50	0.34	24	Atlas		19,605	1
	6/11/2018 11:00	6/11/2018 14:00	180	0.92	53,637	0.89	0.34	24	Atlas		49,346	1
	6/11/2018 23:45	6/11/2018 23:45	-	0.35	2,774	0.95	0.17	1	Atlas		971	1
	6/12/2018 11:45	6/12/2018 12:30	45	0.35	29,749	1.16	0.17	1	Atlas		10,412	1
	8/15/2018 12:15	8/16/2018 11:00	1,365	2.68	79,432	2.68	1.18	24	Cloudburst		212,879	1
	8/20/2018 11:00	8/20/2018 19:45	525	0.51	93,143	3.30	0.40	1	Atlas		47,503	1
	8/21/2018 19:45	8/21/2018 19:45	-	0.05	9,320	3.36	0.02	12	Atlas		466	1
	8/31/2018 17:15	8/31/2018 17:30	15	0.14	12,064	0.08	0.09	3	Atlas		1,689	1
	9/4/2018 6:45	9/5/2018 10:30	1,665	Discharge	-	0.16					23,620	1
	9/6/2018 11:15	9/6/2018 11:45	30	0.15	41,940	0.25	0.09	3	Atlas		6,291	1
	9/7/2018 18:45	9/10/2018 1:30	3,285	2.47	879,394	2.66	1.22	6	Cloudburst		2,172,104	1
	9/19/2018 7:15	9/19/2018 12:15	300	Discharge	-	0.07					226,613	1
	9/21/2018 17:45	9/21/2018 18:30	45	0.25	151,004	0.32	0.17	1	Atlas		37,751	1
	9/22/2018 14:45	9/22/2018 18:15	210	1.34	48,440	0.74	0.50	24	Atlas		64,910	1
	9/23/2018 4:00	9/27/2018 12:30	6,270	1.34	874,537	3.82	0.50	24	Atlas		1,171,880	1
	10/3/2018 7:45	10/3/2018 9:45	120	Discharge	-	0.07					182	1
	10/10/2018 17:15	10/10/2018 17:30	15	0.13	5,323	0.14	0.09	1	Atlas		692	1
	10/12/2018 21:45	10/12/2018 22:30	45	0.13	8,762	0.27	0.08	1	Atlas		1,139	1
	10/14/2018 4:30	10/14/2018 5:00	30	0.24	9,308	0.49	0.13	3	Atlas		2,234	1
	10/15/2018 9:00	10/15/2018 9:30	30	0.20	36,115	0.70	0.13	1	Atlas		7,223	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/19/2018 21:00	10/19/2018 21:15	15	0.12	10.825	0.66	0.07	6	Atlas		1,299	1
	4/23/2019 17:45	4/23/2019 17:45	-	0.38	1,611	2.92	0.33	1	Atlas		612	1
	4/24/2019 20:30	4/24/2019 20:30	-	1.03	332	3.23	0.33	48	Atlas		342	1
	5/3/2019 4:30	5/3/2019 4:45	15	0.79	4,434	0.52	0.43	6	Atlas		3,503	1
	6/5/2019 20:45	6/5/2019 20:45	-	0.89	640	0.90	0.66	1	Atlas		570	1
	6/23/2019 15:45	6/23/2019 15:45	-	0.38	2,584	3.03	0.30	1	Atlas		982	1
	6/24/2019 13:30	6/24/2019 13:30	-	0.44	2,291	2.04	0.27	3	Atlas		1,008	1
	7/3/2019 12:15	7/3/2019 12:15	-	0.25	3,324	0.46	0.20	1	Atlas		831	1
	7/18/2019 0:15	7/18/2019 0:45	30	0.55	5,511	0.68	0.41	1	Atlas		3,031	1
	8/7/2019 4:15	8/7/2019 4:15	-	0.22	2,245	0.15	0.19	1	Atlas		434	1
	10/30/2019 14:00	10/30/2019 14:00	-	0.74	542	1.70	0.38	3	Atlas		401	1
	5/16/2020 7:00	5/16/2020 7:00	-	1.46	183	1.59	0.56	24	Atlas		267	1
	6/22/2020 22:15	6/22/2020 22:15	-	0.87	2,482	0.96	0.43	3	Atlas		2,159	1
	6/29/2020 4:00	6/29/2020 4:00	-	0.56	1,063	1.59	0.35	3	Atlas		595	1
	CSO197 Total										**21,386,157**	**172**
CSO198	7/8/2012 12:30	7/8/2012 13:15	45	0.19	69,816	0.66	0.13	1	Atlas		13,265	1
	7/14/2012 12:15	7/14/2012 14:15	120	0.56	31,498	0.81	0.36	3	Atlas		17,639	1
	7/19/2012 18:00	7/19/2012 18:45	45	0.91	89,168	1.45	0.69	1	Atlas		81,143	1
	7/24/2012 19:45	7/24/2012 20:15	30	0.48	21,842	1.60	0.41	1	Atlas		10,484	1
	7/27/2012 3:15	7/27/2012 3:15	-	0.08	10,763	0.78	0.04	12	Atlas		861	1
	7/27/2012 19:45	7/27/2012 20:45	60	0.66	19,724	1.22	0.48	1	Atlas		13,018	1
	8/16/2012 20:00	8/16/2012 22:00	120	0.60	15,465	0.58	0.34	3	Atlas		9,279	1
	8/21/2012 13:45	8/21/2012 14:00	15	0.20	24,145	0.80	0.17	1	Atlas		4,829	1
	9/1/2012 14:45	9/1/2012 17:30	165	0.48	48,108	0.52	0.29	3	Atlas		23,092	1
	9/2/2012 11:45	9/2/2012 20:30	525	0.55	21,733	1.03	0.21	24	Atlas		11,953	1
	9/5/2012 15:15	9/5/2012 16:15	60	0.71	118,504	1.81	0.55	1	Atlas		84,138	1
	9/7/2012 23:15	9/8/2012 6:15	420	1.42	12,508	3.18	0.79	3	Atlas		17,761	1
	9/26/2012 1:30	9/26/2012 1:45	15	0.43	8,295	0.64	0.20	6	Atlas		3,567	1
	9/26/2012 20:45	9/26/2012 23:30	165	1.14	20,758	1.88	0.60	6	Atlas		23,664	1
	10/1/2012 14:45	10/1/2012 18:30	225	0.74	7,005	2.65	0.29	12	Atlas		5,184	1
	12/4/2012 15:15	12/4/2012 18:15	180	0.59	3,317	0.77	0.38	3	Atlas		1,957	1
	12/7/2012 5:15	12/7/2012 8:30	195	1.32	1,106	1.84	0.57	12	Atlas		1,460	1
	12/8/2012 5:30	12/8/2012 6:00	30	0.56	2,809	2.49	0.30	6	Atlas		1,573	1
	12/9/2012 21:45	12/9/2012 23:15	90	1.18	21,022	3.39	0.55	3	Atlas		24,806	1
	12/20/2012 6:45	12/20/2012 11:45	300	0.68	5,341	1.03	0.37	6	Atlas		3,632	1
	12/26/2012 5:15	12/26/2012 6:00	45	0.69	6,025	1.23	0.27	12	Atlas		4,157	1
	1/11/2013 5:30	1/11/2013 7:00	90	0.64	16,436	0.81	0.34	6	Atlas		10,519	1
	1/13/2013 3:00	1/13/2013 18:45	945	2.23	26,732	3.04	0.86	24	Atlas		59,613	1
	1/30/2013 4:30	1/30/2013 8:00	210	0.78	31,428	0.98	0.39	6	Atlas		24,514	1
	2/22/2013 0:45	2/22/2013 0:45	-	0.46	852	0.80	0.21	12	Atlas		392	1
	3/11/2013 3:45	3/11/2013 6:45	180	0.99	5,429	1.35	0.39	12	Atlas		5,375	1
	3/17/2013 13:45	3/17/2013 14:45	60	1.88	2,166	1.68	0.61	48	Atlas		4,073	1
	3/18/2013 4:00	3/18/2013 6:15	135	1.88	9,215	2.14	0.61	48	Atlas		17,324	1
	3/24/2013 7:45	3/24/2013 7:45	-	0.52	529	1.82	0.20	24	Atlas		275	1
	3/24/2013 16:00	3/24/2013 16:00	-	0.52	529	1.59	0.20	24	Atlas		275	1
	4/11/2013 6:15	4/11/2013 7:15	60	1.29	6,037	0.54	0.50	24	Atlas		7,788	1
	4/12/2013 2:30	4/18/2013 11:30	9,180	1.29	3,081,205	1.90	0.50	24	Atlas		3,974,755	1
	4/19/2013 8:15	4/23/2013 18:00	6,345	0.88	5,910,589	1.52	0.49	3	Atlas		5,201,318	1
	4/24/2013 6:45	4/28/2013 8:45	5,880	0.73	6,379,170	1.74	0.41	3	Atlas		4,656,794	1
	5/4/2013 13:15	5/5/2013 8:15	1,140	1.61	5,439	1.52	0.52	24	Atlas		8,757	1
	8/12/2013 14:30	8/12/2013 15:00	30	0.73	73,897	0.79	0.31	1	Atlas		53,945	1
	8/13/2013 3:00	8/13/2013 3:15	15	0.73	3,725	1.12	0.31	1	Atlas		2,719	1
	8/20/2013 18:00	8/20/2013 18:15	15	0.24	26,738	0.26	0.13	6	Atlas		6,417	1
	8/31/2013 19:30	8/31/2013 23:00	210	1.07	12,221	0.73	0.49	12	Atlas		13,077	1
	9/2/2013 13:30	9/2/2013 14:00	30	0.31	29,458	1.38	0.27	1	Atlas		9,132	1
	9/20/2013 16:00	9/21/2013 1:00	540	1.06	24,112	0.76	0.44	12	Atlas		25,559	1
	10/6/2013 12:30	10/6/2013 8:45	1,215	4.20	64,779	4.29	7.26	24	Cloudburst		272,071	1
	10/30/2013 1:15	10/30/2013 6:00	285	1.96	20,827	1.95	1.30	1	Atlas		40,820	1
	10/31/2013 20:45	10/31/2013 21:00	15	0.71	1,497	2.56	0.27	24	Atlas		1,063	1
	11/17/2013 5:15	11/17/2013 19:15	840	2.32	40,527	2.46	1.06	6	Cloudburst		94,023	1
	12/5/2013 5:15	12/5/2013 7:45	150	0.75	7,460	0.18	0.24	48	Atlas		5,595	1
	12/14/2013 10:15	12/14/2013 10:45	30	0.69	1,494	1.05	0.27	12	Atlas		1,031	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2013 5:30	12/21/2013 12:00	390	0.92	9,375	1.32	0.42	12	Atlas		8,625	1
	12/21/2013 21:15	12/22/2013 0:45	210	1.37	67,102	2.24	0.74	3	Atlas		91,930	1
	1/11/2014 0:00	1/11/2014 3:45	225	0.95	11,914	1.38	0.51	6	Atlas		11,318	1
	2/2/2014 4:45	2/2/2014 5:15	30	0.56	873	0.19	0.21	24	Atlas		489	1
	2/4/2014 19:15	2/4/2014 23:45	270	0.51	39,053	1.05	0.25	6	Atlas		19,917	1
	2/17/2014 16:00	2/17/2014 18:00	120	0.40	50,885	1.00	0.24	3	Atlas		20,354	1
	3/2/2014 10:30	3/2/2014 10:45	15	0.62	98	0.29	0.23	24	Atlas		61	1
	3/28/2014 4:30	3/28/2014 4:30	-	0.31	887	0.35	0.14	12	Atlas		275	1
	3/29/2014 6:15	3/29/2014 8:30	135	1.01	7,845	1.11	0.49	6	Atlas		7,923	1
	4/3/2014 12:00	4/4/2014 6:15	1,095	2.36	14,610	3.49	0.82	24	Atlas		34,479	1
	4/7/2014 10:30	4/7/2014 12:00	90	0.73	32,138	3.16	0.41	1	Atlas		23,461	1
	4/14/2014 20:00	4/14/2014 21:00	60	0.99	1,834	0.71	0.37	24	Atlas		1,816	1
	4/28/2014 4:00	4/28/2014 7:00	180	1.68	19,536	1.31	0.71	3	Atlas		32,821	1
	4/28/2014 17:30	4/28/2014 17:30	-	1.68	563	1.64	0.71	3	Atlas		979	1
	5/9/2014 19:00	5/10/2014 15:15	1,215	1.67	21,374	1.73	0.64	24	Atlas		35,695	1
	5/14/2014 7:00	5/14/2014 7:15	15	0.91	1,797	1.94	0.35	24	Atlas		1,635	1
	5/14/2014 18:00	5/14/2014 20:15	135	0.91	1,600	2.62	0.35	24	Atlas		1,456	1
	5/22/2014 2:30	5/22/2014 3:30	60	0.47	15,687	0.50	0.22	12	Atlas		7,373	1
	5/28/2014 20:00	5/28/2014 20:30	30	0.32	27,434	0.80	0.27	1	Atlas		8,779	1
	5/29/2014 20:45	5/29/2014 21:30	45	0.44	66,002	0.76	0.35	1	Atlas		29,041	1
	6/11/2014 14:00	6/11/2014 14:15	15	0.12	43,175	0.28	0.09	1	Atlas		5,181	1
	6/20/2014 16:00	6/20/2014 16:00	-	0.28	982	0.16	0.19	3	Atlas		275	1
	6/24/2014 13:30	6/24/2014 14:00	30	0.13	32,185	0.44	0.08	1	Atlas		4,184	1
	7/2/2014 16:15	7/2/2014 16:15	-	0.10	5,100	0.30	0.09	1	Atlas		510	1
	7/7/2014 19:15	7/7/2014 19:45	30	0.56	18,082	0.85	0.49	1	Atlas		10,126	1
	7/13/2014 22:45	7/13/2014 23:00	15	0.78	8,805	1.43	0.39	3	Atlas		6,868	1
	7/14/2014 20:00	7/14/2014 20:00	-	0.18	5,439	1.26	0.14	1	Atlas		979	1
	7/26/2014 21:30	7/27/2014 9:15	705	1.16	57,419	1.19	0.53	12	Atlas		66,606	1
	8/8/2014 5:30	8/8/2014 7:30	120	0.86	25,090	0.69	0.41	6	Atlas		21,577	1
	8/10/2014 3:45	8/10/2014 4:15	30	0.61	7,334	1.61	0.50	1	Atlas		4,474	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.34	32,294	1.91	0.26	1	Atlas		10,980	1
	8/17/2014 9:15	8/17/2014 10:00	45	0.73	6,110	0.94	0.27	24	Atlas		4,460	1
	8/17/2014 22:45	8/17/2014 23:00	15	0.73	9,042	1.07	0.27	24	Atlas		6,601	1
	8/22/2014 19:00	8/22/2014 19:15	15	0.33	16,300	1.04	0.25	1	Atlas		5,379	1
	8/23/2014 16:15	8/23/2014 20:30	255	0.71	165,404	1.59	0.37	3	Atlas		117,437	1
	6/18/2015 17:00	6/18/2015 17:00	-	1.75	559	1.38	0.57	48	Atlas		979	1
	1/9/2016 19:15	1/9/2016 22:30	195	0.18	12,439	0.21	0.08	12	Atlas		2,239	1
	1/17/2016 18:45	1/17/2016 22:15	210	0.01	630,700	0.13	0.01	1	Atlas		6,307	1
	2/1/2016 5:30	2/1/2016 5:30	-	0.09	1,756	0.11	0.05	3	Atlas		158	1
	2/2/2016 19:45	2/3/2016 0:00	255	1.26	8,201	1.25	0.61	6	Atlas		10,333	1
	2/8/2016 10:45	2/8/2016 10:45	-	0.14	1,129	1.37	0.06	12	Atlas		158	1
	2/21/2016 4:00	2/21/2016 11:00	420	1.04	49,104	1.20	0.48	12	Atlas		51,068	1
	2/23/2016 22:15	2/24/2016 7:30	555	2.14	34,829	2.85	0.83	12	Atlas		74,535	1
	2/24/2016 21:45	2/25/2016 5:15	450	2.14	1,947	3.17	0.83	12	Atlas		4,167	1
	2/29/2016 1:45	2/29/2016 1:45	-	0.02	25,500	2.16	0.01	3	Atlas		510	1
	3/1/2016 11:45	3/1/2016 14:00	135	0.30	61,993	2.43	0.15	6	Atlas		18,598	1
	3/9/2016 15:30	3/9/2016 17:00	90	1.20	4,440	0.30	0.39	12	Atlas		5,328	1
	3/10/2016 13:15	3/10/2016 20:15	420	1.20	35,668	1.25	0.39	12	Atlas		42,801	1
	3/12/2016 20:15	3/13/2016 0:00	225	0.77	21,192	1.78	0.31	6	Atlas		16,318	1
	3/13/2016 9:00	3/13/2016 10:45	105	0.77	15,482	2.00	0.31	6	Atlas		11,921	1
	3/24/2016 17:15	3/24/2016 18:30	75	0.50	38,748	0.66	0.36	1	Atlas		19,374	1
	3/27/2016 21:00	3/27/2016 23:00	120	0.94	51,563	1.44	0.67	1	Atlas		48,469	1
	3/31/2016 1:30	4/1/2016 0:15	1,365	1.22	61,340	2.66	0.47	24	Atlas		74,835	1
	4/11/2016 13:30	4/11/2016 20:45	435	0.93	44,026	1.05	0.44	6	Atlas		40,944	1
	4/21/2016 14:15	4/21/2016 16:15	120	0.33	73,003	0.24	0.14	3	Atlas		24,091	1
	4/22/2016 1:00	4/22/2016 1:15	15	0.33	2,024	0.29	0.14	3	Atlas		668	1
	4/26/2016 16:00	4/26/2016 22:00	360	0.30	59,547	0.67	0.15	3	Atlas		17,864	1
	4/27/2016 12:45	4/27/2016 22:30	585	0.71	56,169	1.35	0.33	3	Atlas		39,880	1
	4/30/2016 8:30	4/30/2016 13:45	315	0.55	63,693	1.39	0.20	24	Atlas		35,031	1
	5/1/2016 14:30	5/1/2016 16:15	105	0.25	75,008	1.80	0.17	3	Atlas		18,752	1
	5/4/2016 11:00	5/4/2016 12:00	60	0.22	29,786	1.70	0.13	1	Atlas		6,553	1
	5/7/2016 16:15	5/7/2016 22:30	375	0.75	51,956	1.38	0.39	6	Atlas		38,967	1
	5/10/2016 8:30	5/10/2016 22:30	840	0.85	50,167	1.85	0.32	24	Atlas		42,642	1
	5/11/2016 20:45	5/11/2016 22:30	105	0.30	37,630	1.91	0.16	3	Atlas		11,289	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/12/2016 16:00	5/12/2016 17:15	75	0.15	67.407	2.08	0.10	3	Atlas		10,111	1
	5/17/2016 6:00	5/17/2016 7:15	75	0.73	9.175	1.69	0.25	24	Atlas		6,698	1
	5/17/2016 20:00	5/17/2016 21:00	60	0.73	7.600	1.35	0.25	24	Atlas		5,548	1
	5/20/2016 13:00	5/20/2016 16:15	195	0.53	91.528	1.29	0.29	3	Atlas		48,510	1
	5/26/2016 13:45	5/26/2016 15:30	105	0.31	17.813	0.92	0.21	3	Atlas		5,522	1
	6/2/2016 15:00	6/2/2016 16:30	90	0.31	66.274	0.46	0.25	1	Atlas		20,545	1
	6/4/2016 16:30	6/4/2016 18:30	120	0.18	148.850	0.60	0.10	3	Atlas		26,793	1
	6/14/2016 16:15	6/14/2016 18:45	150	0.81	39.269	1.03	0.51	3	Atlas		31,808	1
	6/22/2016 8:15	6/22/2016 8:45	30	0.16	26.556	0.23	0.10	3	Atlas		4,249	1
	6/23/2016 15:45	6/23/2016 23:15	450	1.86	76.099	2.02	1.03	6	Cloudburst		141,545	1
	7/3/2016 7:30	7/3/2016 23:30	960	1.19	36.342	0.70	0.39	48	Atlas		43,247	1
	7/4/2016 8:00	7/4/2016 16:45	525	1.19	18.910	1.19	0.39	48	Atlas		22,503	1
	7/6/2016 13:00	7/6/2016 13:45	45	0.19	33.516	1.35	0.13	1	Atlas		6,368	1
	7/12/2016 9:30	7/12/2016 10:15	45	0.18	45.528	0.47	0.12	1	Atlas		8,195	1
	7/20/2016 19:30	7/20/2016 20:00	30	0.15	34.667	0.45	0.13	1	Atlas		5,200	1
	7/25/2016 15:00	7/25/2016 15:00	-	0.13	3.923	0.25	0.07	6	Atlas		510	1
	7/27/2016 23:30	7/28/2016 5:15	345	0.53	26.757	0.61	0.24	12	Atlas		14,181	1
	7/30/2016 14:00	7/30/2016 15:00	60	0.48	54.954	1.22	0.42	1	Atlas		26,378	1
	7/31/2016 17:00	7/31/2016 17:45	45	0.11	72.645	1.33	0.09	1	Atlas		7,991	1
	8/1/2016 11:00	8/1/2016 11:45	45	0.40	30.225	1.69	0.31	1	Atlas		12,090	1
	8/1/2016 21:00	8/1/2016 21:30	30	0.40	8.660	1.60	0.31	1	Atlas		3,464	1
	8/4/2016 13:30	8/4/2016 13:45	15	0.24	8.158	1.23	0.16	3	Atlas		1,958	1
	8/5/2016 13:45	8/5/2016 15:15	90	0.31	28.126	1.60	0.21	1	Atlas		8,719	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.18	2.833	0.28	0.12	3	Atlas		510	1
	8/15/2016 2:30	8/15/2016 8:00	330	0.91	61.497	1.21	0.44	6	Atlas		55,962	1
	8/17/2016 4:15	8/17/2016 7:30	195	0.67	55.713	1.69	0.28	12	Atlas		37,328	1
	8/20/2016 10:15	8/20/2016 21:15	660	0.89	46.874	2.48	0.38	12	Atlas		41,718	1
	8/28/2016 17:15	8/28/2016 18:15	60	0.23	93.952	0.23	0.19	1	Atlas		21,609	1
	9/10/2016 15:00	9/10/2016 15:45	45	0.19	47.347	0.15	0.11	3	Atlas		8,996	1
	9/17/2016 9:45	9/17/2016 9:45	-	0.15	1.053	0.35	0.12	1	Atlas		158	1
	9/26/2016 9:15	9/26/2016 11:15	120	0.28	33.561	0.28	0.19	3	Atlas		9,397	1
	9/28/2016 12:15	9/28/2016 14:15	120	0.39	47.677	0.67	0.21	3	Atlas		18,594	1
	9/29/2016 9:30	9/29/2016 9:45	15	0.07	27.971	0.74	0.06	1	Atlas		1,958	1
	9/30/2016 0:00	9/30/2016 3:00	180	0.70	42.171	1.30	0.35	3	Atlas		29,520	1
	10/20/2016 9:00	10/20/2016 16:30	450	0.55	49.782	0.42	0.21	24	Atlas		27,380	1
	11/8/2016 19:45	11/8/2016 20:15	30	0.19	28.889	0.22	0.09	12	Atlas		5,489	1
	11/23/2016 20:00	11/23/2016 21:15	75	0.34	16.585	0.52	0.14	6	Atlas		5,639	1
	11/28/2016 13:45	11/28/2016 22:15	510	0.66	53.577	1.00	0.29	12	Atlas		35,361	1
	12/6/2016 4:15	12/6/2016 12:45	510	0.93	66.803	0.97	0.43	12	Atlas		62,127	1
	12/11/2016 21:30	12/11/2016 22:30	60	0.32	13.097	1.17	0.14	12	Atlas		4,191	1
	12/17/2016 16:15	12/18/2016 2:00	585	2.61	76.092	2.93	1.81	12	Cloudburst		198,599	1
	12/23/2016 22:15	12/24/2016 1:45	210	0.19	108.458	2.78	0.09	6	Atlas		20,607	1
	12/26/2016 20:15	12/26/2016 22:15	120	0.30	21.587	0.48	0.15	6	Atlas		6,476	1
	1/3/2017 1:45	1/3/2017 5:15	210	0.15	86.947	0.25	0.08	6	Atlas		13,042	1
	1/10/2017 19:30	1/10/2017 20:15	45	0.12	84.442	0.32	0.09	1	Atlas		10,133	1
	1/11/2017 12:15	1/11/2017 14:15	120	0.21	55.238	0.52	0.13	3	Atlas		11,600	1
	1/12/2017 15:30	1/12/2017 21:45	375	0.44	47.461	0.81	0.22	6	Atlas		20,883	1
	1/13/2017 14:45	1/13/2017 16:00	75	0.32	14.691	1.08	0.19	3	Atlas		4,701	1
	1/14/2017 11:00	1/14/2017 14:30	210	0.22	60.932	1.32	0.11	3	Atlas		13,405	1
	1/16/2017 23:30	1/17/2017 4:00	270	0.61	52.592	2.04	0.28	12	Atlas		32,081	1
	1/19/2017 18:30	1/20/2017 4:00	570	0.99	82.868	2.47	0.45	12	Atlas		82,039	1
	2/7/2017 9:15	2/7/2017 13:15	240	0.39	37.969	0.39	0.20	6	Atlas		14,808	1
	2/8/2017 17:00	2/8/2017 17:15	15	0.08	3.950	0.42	0.04	6	Atlas		316	1
	2/24/2017 18:45	2/24/2017 19:45	60	0.41	58.217	0.47	0.35	1	Atlas		23,869	1
	2/28/2017 5:30	2/28/2017 11:00	330	0.27	43.967	0.73	0.13	6	Atlas		11,871	1
	3/1/2017 3:00	3/1/2017 9:30	390	1.15	67.448	1.88	0.58	6	Atlas		77,565	1
	3/7/2017 7:30	3/7/2017 14:45	435	0.59	36.217	1.92	0.19	48	Atlas		21,368	1
	3/26/2017 1:00	3/26/2017 3:15	135	0.38	34.347	0.31	0.19	6	Atlas		13,052	1
	3/27/2017 16:45	3/27/2017 19:15	150	0.27	60.204	0.65	0.15	3	Atlas		16,255	1
	3/30/2017 20:30	3/31/2017 1:15	285	0.31	36.681	1.01	0.15	6	Atlas		11,371	1
	4/3/2017 19:15	4/3/2017 19:45	30	0.16	30.188	0.52	0.10	1	Atlas		4,830	1
	4/11/2017 4:30	4/11/2017 12:15	465	0.36	27.103	0.40	0.17	12	Atlas		9,757	1
	4/16/2017 5:15	4/16/2017 21:15	960	1.16	55.968	1.48	0.49	6	Atlas		64,946	1
	4/21/2017 20:45	4/22/2017 0:45	240	0.68	29.171	1.72	0.24	24	Atlas		19,836	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/27/2017 6:30	4/27/2017 7:30	60	0.15	62,807	0.85	0.10	1	Atlas		9,421	1
	4/29/2017 0:00	4/29/2017 3:45	225	1.02	63,544	1.31	0.52	6	Atlas		64,815	1
	5/1/2017 3:45	5/1/2017 4:15	30	0.25	14,612	1.40	0.13	3	Atlas		3,653	1
	5/4/2017 19:30	5/5/2017 10:15	885	1.58	59,799	2.69	0.53	24	Atlas		94,483	1
	5/11/2017 3:45	5/11/2017 4:15	30	0.18	20,294	1.77	0.10	6	Atlas		3,653	1
	5/20/2017 18:30	5/21/2017 7:00	750	1.01	99,332	1.06	0.45	12	Atlas		100,325	1
	5/24/2017 17:45	5/25/2017 3:00	555	0.52	39,344	1.54	0.18	24	Atlas		20,459	1
	5/27/2017 14:00	5/27/2017 14:15	15	0.15	23,360	1.65	0.10	1	Atlas		3,504	1
	6/5/2017 8:30	6/5/2017 9:15	45	0.06	128,850	0.06	0.03	12	Atlas		7,731	1
	6/5/2017 18:15	6/5/2017 19:00	45	0.17	86,524	0.23	0.14	1	Atlas		14,709	1
	6/15/2017 3:00	6/15/2017 6:00	180	0.40	89,903	0.52	0.25	3	Atlas		35,961	1
	6/18/2017 21:30	6/18/2017 22:15	45	0.15	25,327	0.67	0.09	3	Atlas		3,799	1
	6/22/2017 15:30	6/22/2017 19:45	255	0.36	39,589	0.52	0.19	6	Atlas		14,252	1
	6/23/2017 7:45	6/23/2017 18:45	660	0.78	58,733	1.30	0.36	12	Atlas		45,812	1
	6/27/2017 1:45	6/27/2017 2:15	30	0.10	29,370	1.24	0.09	1	Atlas		2,937	1
	6/30/2017 20:45	6/30/2017 22:00	75	0.69	111,412	0.79	0.59	1	Atlas		76,874	1
	7/6/2017 4:15	7/6/2017 13:45	570	0.49	42,871	1.24	0.23	6	Atlas		21,007	1
	7/7/2017 20:30	7/7/2017 21:45	75	0.35	54,797	1.66	0.25	1	Atlas		19,179	1
	7/28/2017 9:30	7/28/2017 10:15	45	0.27	8,485	1.27	0.19	1	Atlas		2,291	1
	8/6/2017 16:45	8/7/2017 0:00	435	0.56	15,446	0.71	0.25	12	Atlas		8,650	1
	8/17/2017 14:45	8/17/2017 18:15	210	0.71	45,061	0.75	0.39	6	Atlas		31,993	1
	8/22/2017 15:45	8/22/2017 16:45	60	0.65	34,555	1.39	0.43	1	Atlas		22,461	1
	8/29/2017 19:00	8/29/2017 19:30	30	0.19	87,311	0.24	0.15	1	Atlas		16,589	1
	9/1/2017 8:00	9/2/2017 0:45	1,005	2.76	27,394	2.74	0.97	24	Atlas		75,607	1
	9/19/2017 7:45	9/19/2017 9:30	105	0.37	53,605	0.68	0.23	3	Atlas		19,834	1
	10/7/2017 21:30	10/7/2017 22:15	45	1.80	14,050	0.62	0.68	24	Atlas		25,290	1
	10/8/2017 10:00	10/8/2017 14:45	285	1.80	13,314	1.71	0.68	24	Atlas		23,965	1
	10/10/2017 14:45	10/10/2017 20:45	360	0.62	21,381	2.43	0.33	3	Atlas		13,256	1
	10/23/2017 6:15	10/23/2017 7:00	45	0.45	21,856	0.32	0.23	6	Atlas		9,835	1
	10/27/2017 17:30	10/28/2017 0:00	390	0.81	4,544	1.25	0.37	12	Atlas		3,681	1
	11/3/2017 4:15	11/3/2017 6:00	105	1.34	84,387	2.27	1.57	1	Atlas		113,079	1
	11/6/2017 1:45	11/6/2017 2:15	30	0.22	55,995	1.68	0.13	1	Atlas		12,319	1
	11/15/2017 13:15	11/15/2017 13:45	30	0.28	7,975	0.32	0.18	3	Atlas		2,233	1
	11/18/2017 17:00	11/18/2017 17:30	30	0.35	7,731	0.65	0.21	1	Atlas		2,706	1
	12/5/2017 3:30	12/5/2017 5:00	90	0.64	35,873	0.55	0.35	3	Atlas		22,959	1
	12/22/2017 23:00	12/23/2017 5:15	375	1.22	19,327	1.01	0.47	24	Atlas		23,579	1
	1/11/2018 10:15	1/11/2018 10:15	-	0.06	16,317	0.20	0.04	3	Atlas		979	1
	1/12/2018 8:30	1/12/2018 9:15	45	0.32	2,088	0.34	0.12	24	Atlas		668	1
	1/22/2018 19:30	1/22/2018 19:45	15	0.21	16,171	0.28	0.10	12	Atlas		3,396	1
	2/7/2018 3:00	2/7/2018 3:30	30	0.48	13,935	0.68	0.26	6	Atlas		6,689	1
	2/11/2018 4:00	2/11/2018 10:15	375	0.38	21,408	0.99	0.18	3	Atlas		8,135	1
	2/14/2018 7:15	2/14/2018 7:15	-	0.44	1,425	0.65	0.21	3	Atlas		627	1
	2/16/2018 2:30	2/16/2018 6:45	255	0.86	9,864	1.51	0.39	12	Atlas		8,483	1
	2/22/2018 1:45	2/22/2018 6:15	270	1.71	29,558	2.87	0.64	24	Atlas		50,545	1
	2/23/2018 2:45	2/23/2018 10:30	465	1.36	35,634	3.83	0.62	12	Atlas		48,462	1
	2/24/2018 10:15	2/25/2018 0:30	855	2.04	65,965	5.21	0.85	12	Atlas		134,569	1
	3/10/2018 1:00	3/10/2018 1:45	45	0.67	2,343	0.49	0.43	3	Atlas		1,570	1
	3/24/2018 12:00	3/24/2018 12:15	15	0.98	2,609	1.50	0.38	24	Atlas		2,557	1
	3/29/2018 18:45	3/29/2018 19:45	60	1.16	9,978	1.91	0.30	48	Atlas		11,574	1
	4/1/2018 20:00	4/1/2018 23:00	180	0.63	11,186	2.06	0.34	6	Atlas		7,047	1
	4/3/2018 16:15	4/3/2018 21:15	300	0.62	17,808	2.66	0.34	6	Atlas		11,041	1
	4/14/2018 9:00	4/14/2018 9:45	45	0.91	3,360	0.19	0.30	24	Atlas		3,058	1
	4/15/2018 5:30	4/15/2018 8:45	195	0.91	2,612	0.88	0.30	24	Atlas		2,377	1
	5/5/2018 12:00	5/5/2018 18:30	390	1.44	22,028	1.38	0.56	12	Atlas		31,721	1
	5/17/2018 15:15	5/17/2018 16:00	45	0.48	29,473	0.48	0.39	1	Atlas		14,147	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.28	25,368	0.28	0.21	1	Atlas		7,103	1
	5/31/2018 14:00	5/31/2018 14:00	-	1.45	675	0.63	0.72	3	Atlas		979	1
	6/1/2018 1:00	6/1/2018 2:30	90	1.45	41,646	1.79	0.72	3	Atlas		60,386	1
	6/10/2018 14:45	6/10/2018 15:00	15	0.92	4,320	0.24	0.34	24	Atlas		3,974	1
	6/11/2018 11:00	6/11/2018 13:30	150	0.92	11,313	0.87	0.34	24	Atlas		10,408	1
	9/8/2018 5:00	9/8/2018 5:15	15	2.47	663	0.48	1.22	6	Cloudburst		1,637	1
	9/8/2018 17:00	9/8/2018 20:00	180	2.47	96,680	2.16	1.22	6	Cloudburst		238,800	1
	9/21/2018 17:15	9/21/2018 17:30	15	0.25	34,820	0.32	0.17	1	Atlas		8,705	1
	9/22/2018 16:30	9/22/2018 16:45	15	1.34	837	0.69	0.50	24	Atlas		1,121	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/23/2018 4:00	9/23/2018 6:45	165	1.34	20,596	1.61	0.50	24	Atlas		27,599	1
	9/24/2018 6:45	9/24/2018 13:30	405	1.30	29,241	2.88	0.61	6	Atlas		38,013	1
	9/25/2018 5:30	9/25/2018 5:30	-	0.08	27,963	2.97	0.07	1	Atlas		2,237	1
	9/25/2018 16:15	9/26/2018 2:00	585	0.76	21,541	3.67	0.33	12	Atlas		16,371	1
	11/5/2018 21:45	11/5/2018 21:45	-	0.88	276	2.39	0.48	6	Atlas		243	1
	4/23/2019 17:45	4/23/2019 17:45	-	0.38	1,811	2.92	0.33	1	Atlas		688	1
	5/3/2019 4:30	5/3/2019 4:45	15	0.79	2,149	0.52	0.43	6	Atlas		1,698	1
	6/5/2019 20:45	6/5/2019 20:45	-	0.89	787	0.90	0.66	1	Atlas		700	1
	6/9/2019 16:30	6/9/2019 16:30	-	0.52	17,179	1.97	0.27	3	Atlas		8,933	1
	6/16/2019 19:30	6/16/2019 20:45	75	1.62	12,170	1.47	0.75	6	Atlas		19,716	1
	6/23/2019 15:45	6/23/2019 15:45	-	0.38	10,355	3.03	0.30	1	Atlas		3,935	1
	6/24/2019 13:30	6/24/2019 13:30	-	0.44	10,075	2.04	0.27	3	Atlas		4,433	1
	7/3/2019 12:15	7/3/2019 12:15	-	0.25	30,244	0.46	0.20	1	Atlas		7,561	1
	7/18/2019 0:15	7/18/2019 0:45	30	0.55	40,171	0.68	0.41	1	Atlas		22,094	1
	7/29/2019 23:30	7/29/2019 23:30	-	0.47	696	0.47	0.29	3	Atlas		327	1
	8/7/2019 4:15	8/7/2019 4:15	-	0.22	15,182	0.15	0.19	1	Atlas		3,340	1
	10/30/2019 14:00	10/30/2019 14:15	15	0.74	2,064	1.81	0.38	3	Atlas		1,527	1
	11/30/2019 4:30	11/30/2019 11:45	435	2.15	15,800	2.55	0.86	12	Atlas		33,969	1
	5/16/2020 2:00	5/16/2020 7:00	300	1.46	3,982	1.59	0.56	24	Atlas		5,814	1
	6/22/2020 22:15	6/22/2020 22:15	-	0.87	10,533	0.96	0.43	3	Atlas		9,164	1
	CSO198 Total										**19,517,030**	**259**
CSO199	1/11/2014 0:15	1/11/2014 0:30	15	0.95	1,304	0.79	0.51	6	Atlas		1,239	1
	2/17/2014 16:15	2/17/2014 16:30	15	0.40	11,043	0.94	0.24	3	Atlas		4,417	1
	3/3/2014 9:00	3/3/2014 20:15	675	0.62	6,976	0.63	0.23	24	Atlas		4,325	1
	3/29/2014 6:45	3/29/2014 6:45	-	1.01	1,056	0.76	0.49	6	Atlas		1,067	1
	4/3/2014 12:00	4/3/2014 12:15	15	2.36	1,093	2.06	0.82	24	Atlas		2,579	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.36	911	3.07	0.82	24	Atlas		2,150	1
	4/7/2014 10:45	4/7/2014 11:45	60	0.73	5,495	3.16	0.41	1	Atlas		4,011	1
	4/28/2014 4:00	4/28/2014 6:15	135	1.68	16,175	1.24	0.71	3	Atlas		27,174	1
	5/9/2014 19:30	5/9/2014 19:30	-	1.67	302	0.32	0.64	24	Atlas		504	1
	5/10/2014 5:45	5/10/2014 14:15	510	1.67	4,288	1.61	0.64	24	Atlas		7,161	1
	5/22/2014 3:00	5/22/2014 3:00	-	0.47	934	0.39	0.22	12	Atlas		439	1
	5/28/2014 20:30	5/28/2014 20:30	-	0.32	6,591	0.80	0.27	1	Atlas		2,109	1
	5/29/2014 21:00	5/29/2014 21:15	15	0.44	63,927	0.76	0.35	1	Atlas		28,128	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.56	2,746	0.83	0.49	1	Atlas		1,538	1
	7/13/2014 23:00	7/13/2014 23:00	-	0.78	2,540	1.43	0.39	3	Atlas		1,981	1
	7/26/2014 21:45	7/26/2014 22:00	15	1.16	13,972	0.46	0.53	12	Atlas		16,207	1
	8/8/2014 5:45	8/8/2014 6:45	60	0.86	15,966	0.63	0.41	6	Atlas		13,731	1
	8/10/2014 4:00	8/10/2014 4:00	-	0.61	1,305	1.50	0.50	1	Atlas		796	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.34	20,835	1.91	0.26	1	Atlas		7,084	1
	8/17/2014 9:30	8/17/2014 9:45	15	0.73	4,845	0.90	0.27	24	Atlas		3,537	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.73	7,736	1.07	0.27	24	Atlas		5,647	1
	8/23/2014 16:30	8/23/2014 20:15	225	0.71	60,341	1.58	0.37	3	Atlas		42,842	1
	8/27/2014 17:00	8/27/2014 17:00	-	0.20	4,080	1.24	0.16	1	Atlas		816	1
	8/30/2014 14:45	8/30/2014 15:15	30	0.56	62,957	1.25	0.33	1	Atlas		35,256	1
	9/11/2014 0:45	9/11/2014 2:30	105	1.83	22,327	1.53	1.07	3	Atlas		40,858	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.20	5,595	0.40	0.08	6	Atlas		1,119	1
	10/10/2014 1:45	10/10/2014 2:15	30	1.26	4,072	1.15	0.57	3	Atlas		5,131	1
	10/13/2014 23:30	10/13/2014 23:45	15	1.03	2,201	2.32	0.45	12	Atlas		2,267	1
	10/14/2014 8:15	10/14/2014 8:15	-	1.03	511	2.92	0.45	12	Atlas		526	1
	12/6/2014 3:00	12/6/2014 3:15	15	1.76	1,228	2.52	0.57	48	Atlas		2,162	1
	3/10/2015 11:00	3/10/2015 12:45	105	1.30	4,497	2.86	0.58	12	Atlas		5,846	1
	3/14/2015 1:15	3/14/2015 4:00	165	1.96	836	3.20	0.74	24	Atlas		1,638	1
	3/26/2015 4:30	3/26/2015 4:30	-	0.49	1,014	0.50	0.19	12	Atlas		497	1
	4/2/2015 10:45	4/3/2015 15:45	1,740	5.52	27,325	5.51	20.17	6	Cloudburst		150,833	1
	4/7/2015 9:30	4/7/2015 17:15	465	0.83	9,939	6.34	0.37	1	Atlas		8,249	1
	4/8/2015 18:15	4/8/2015 18:15	-	0.10	36,330	6.45	0.05	6	Atlas		3,633	1
	4/10/2015 2:30	4/10/2015 2:30	-	0.33	2,639	3.44	0.13	24	Atlas		871	1
	4/19/2015 14:30	4/19/2015 14:30	-	0.60	2,927	1.00	0.25	12	Atlas		1,756	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	99,038	0.63	0.04	1	Atlas		7,923	1
	5/26/2015 14:00	5/26/2015 14:15	15	0.28	11,968	0.51	0.20	1	Atlas		3,351	1
	6/17/2015 4:45	6/17/2015 5:45	60	0.63	10,470	0.60	0.34	3	Atlas		6,596	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/18/2015 17:15	6/19/2015 16:45	1,410	1.75	1,053.599	1.86	0.57	48	Atlas		1,843.798	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.53	4.308	1.40	0.29	6	Atlas		2.283	1
	6/26/2015 17:15	6/26/2015 17:15	-	0.93	2.359	2.16	0.52	1	Atlas		2.194	1
	6/29/2015 13:30	6/29/2015 13:30	-	0.28	2.021	1.73	0.21	1	Atlas		566	1
	7/3/2015 14:45	7/3/2015 14:45	-	0.35	794	2.50	0.27	1	Atlas		278	1
	7/7/2015 11:30	7/7/2015 11:45	15	0.85	3.253	1.82	0.44	6	Atlas		2.765	1
	7/10/2015 16:00	7/11/2015 17:15	1,515	0.57	257.574	2.05	0.28	6	Atlas		146.817	1
	8/6/2015 2:15	8/6/2015 2:15	-	0.66	3.000	0.40	0.25	24	Atlas		1.980	1
	8/6/2015 15:00	8/6/2015 15:00	-	0.66	732	0.82	0.25	24	Atlas		483	1
	10/27/2015 15:45	10/27/2015 15:45	-	2.27	2.661	1.07	0.75	24	Atlas		6.040	1
	11/6/2015 3:00	11/6/2015 4:15	75	0.75	15.087	0.77	0.47	3	Atlas		11.315	1
	11/18/2015 10:45	11/18/2015 13:45	180	1.22	7.016	1.56	0.62	6	Atlas		8.560	1
	12/22/2015 3:15	12/22/2015 3:15	-	0.50	1.578	0.68	0.28	1	Atlas		789	1
	12/23/2015 19:30	12/23/2015 20:15	45	0.77	30.226	1.50	0.55	1	Atlas		23.274	1
	12/25/2015 9:45	12/25/2015 9:45	-	0.11	66.418	1.59	0.06	3	Atlas		7.306	1
	12/27/2015 10:45	12/27/2015 13:45	180	1.91	12.696	3.10	0.65	3	Atlas		24.250	1
	2/2/2016 19:45	2/3/2016 0:15	270	1.26	13.737	1.25	0.61	6	Atlas		17.309	1
	2/21/2016 4:15	2/21/2016 10:30	375	1.04	4.012	1.20	0.48	12	Atlas		4.172	1
	2/24/2016 5:15	2/24/2016 7:15	120	2.14	3.157	2.85	0.83	12	Atlas		6.756	1
	3/10/2016 15:45	3/10/2016 15:45	-	1.20	329	0.80	0.39	12	Atlas		395	1
	3/12/2016 20:15	3/12/2016 23:15	180	0.77	7.421	1.76	0.31	6	Atlas		5.714	1
	3/13/2016 9:45	3/13/2016 9:45	-	0.77	1.640	1.99	0.31	6	Atlas		1.263	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.50	19.218	0.64	0.36	1	Atlas		9.609	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.94	19.798	1.40	0.67	1	Atlas		18.610	1
	3/31/2016 22:00	3/31/2016 23:00	60	1.22	3.996	2.09	0.47	24	Atlas		4.875	1
	4/11/2016 17:30	4/11/2016 17:45	15	0.93	1.188	0.83	0.44	6	Atlas		1.105	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.33	2.158	0.10	0.14	3	Atlas		712	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.71	841	1.12	0.33	3	Atlas		597	1
	5/1/2016 14:45	5/1/2016 14:45	-	0.25	16.460	1.70	0.17	3	Atlas		4.115	1
	5/7/2016 20:00	5/7/2016 20:00	-	0.75	3.872	1.10	0.39	6	Atlas		2.904	1
	5/10/2016 18:30	5/10/2016 21:45	195	0.85	17.732	1.85	0.32	24	Atlas		15.072	1
	5/20/2016 15:00	5/20/2016 15:30	30	0.53	12.774	1.29	0.29	3	Atlas		6.770	1
	5/26/2016 13:15	5/26/2016 13:45	30	0.31	5.958	0.77	0.21	3	Atlas		1.847	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.31	5.719	0.40	0.25	1	Atlas		1,773	1
	6/4/2016 16:30	6/4/2016 16:30	-	0.18	811	0.50	0.10	3	Atlas		146	1
	6/14/2016 16:30	6/14/2016 17:00	30	0.81	19.432	0.80	0.51	3	Atlas		15.740	1
	6/23/2016 16:15	6/23/2016 23:00	405	1.86	81.630	2.02	1.03	6	Cloudburst		151.832	1
	7/3/2016 11:30	7/3/2016 20:00	510	1.19	5.618	0.55	0.39	48	Atlas		6.686	1
	7/20/2016 19:30	7/20/2016 19:30	-	0.15	4.640	0.45	0.13	1	Atlas		696	1
	7/30/2016 14:00	7/30/2016 14:00	-	0.48	1.669	1.21	0.42	1	Atlas		801	1
	8/5/2016 13:45	8/5/2016 13:45	-	0.31	4.410	1.48	0.21	1	Atlas		1.367	1
	8/15/2016 3:00	8/15/2016 7:15	255	0.91	6.464	1.21	0.44	6	Atlas		5.882	1
	8/17/2016 6:45	8/17/2016 7:00	15	0.67	11.243	1.69	0.28	12	Atlas		7.533	1
	8/20/2016 14:15	8/20/2016 20:00	345	0.89	9.655	2.36	0.38	12	Atlas		8.593	1
	8/28/2016 17:15	8/28/2016 17:15	-	0.23	10.883	0.19	0.19	1	Atlas		2.503	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.19	2.526	0.15	0.11	3	Atlas		480	1
	9/11/2016 1:15	9/11/2016 1:15	-	0.19	20.600	0.19	0.11	3	Atlas		3.914	1
	1/19/2017 23:15	1/19/2017 23:15	-	0.99	151	1.91	0.45	12	Atlas		149	1
	2/24/2017 19:00	2/24/2017 19:15	15	0.41	9.437	0.47	0.35	1	Atlas		3.869	1
	2/28/2017 8:00	2/28/2017 8:00	-	0.27	43.407	0.55	0.13	6	Atlas		11.720	1
	3/7/2017 7:45	3/7/2017 8:15	30	0.59	10.690	1.79	0.19	48	Atlas		6.307	1
	4/4/2017 6:45	4/4/2017 6:45	-	0.16	68.656	0.56	0.10	1	Atlas		10.985	1
	4/16/2017 5:30	4/16/2017 5:45	15	1.16	1.886	0.54	0.49	6	Atlas		2.188	1
	4/16/2017 17:30	4/16/2017 19:30	120	1.16	15.000	1.09	0.49	6	Atlas		17.400	1
	4/29/2017 1:45	4/29/2017 3:15	90	1.02	19.052	1.28	0.52	6	Atlas		19.433	1
	5/4/2017 20:00	5/4/2017 20:30	30	1.58	1.600	1.78	0.53	24	Atlas		2.528	1
	5/5/2017 4:45	5/5/2017 4:45	-	1.58	499	2.21	0.53	24	Atlas		789	1
	5/5/2017 18:15	5/5/2017 18:15	-	1.58	6.485	2.83	0.53	24	Atlas		10.246	1
	5/20/2017 18:45	5/21/2017 5:45	660	1.01	38.266	1.04	0.45	12	Atlas		38.649	1
	6/5/2017 18:30	6/5/2017 18:45	15	0.17	44.976	0.22	0.14	1	Atlas		7.646	1
	6/15/2017 3:15	6/15/2017 4:15	60	0.40	19.618	0.40	0.25	3	Atlas		7.847	1
	6/15/2017 13:30	6/15/2017 16:00	150	0.40	20.870	0.53	0.25	3	Atlas		8.348	1
	6/23/2017 15:30	6/24/2017 13:00	1,290	0.78	342.082	1.30	0.36	12	Atlas		266.824	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.69	64.177	0.79	0.59	1	Atlas		44.282	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/7/2017 20:45	7/7/2017 21:15	30	0.35	1,303	1.28	0.25	1	Atlas		456	1
	7/23/2017 3:00	7/23/2017 7:00	240	1.01	597	0.69	0.46	12	Atlas		603	1
	7/28/2017 9:45	7/28/2017 9:45	-	0.27	1,022	1.27	0.19	1	Atlas		276	1
	8/6/2017 17:00	8/6/2017 23:45	405	0.56	884	0.70	0.25	12	Atlas		495	1
	8/17/2017 15:15	8/17/2017 15:15	-	0.71	228	0.36	0.39	6	Atlas		162	1
	8/22/2017 16:00	8/22/2017 16:45	45	0.65	9,905	1.39	0.43	1	Atlas		6,438	1
	8/29/2017 19:30	8/29/2017 19:30	-	0.19	2,263	0.24	0.15	1	Atlas		430	1
	9/1/2017 13:30	9/1/2017 22:00	510	2.76	881	2.55	0.97	24	Atlas		2,432	1
	9/19/2017 8:00	9/19/2017 9:00	60	0.37	3,219	0.61	0.23	3	Atlas		1,191	1
	10/7/2017 21:45	10/7/2017 22:30	45	1.80	2,034	0.63	0.68	24	Atlas		3,662	1
	10/8/2017 14:00	10/8/2017 14:00	-	1.80	42	1.64	0.68	24	Atlas		76	1
	10/23/2017 6:30	10/23/2017 6:30	-	0.45	153	0.24	0.23	6	Atlas		69	1
	11/3/2017 4:30	11/3/2017 6:00	90	1.34	19,398	2.27	1.57	1	Atlas		25,993	1
	12/5/2017 3:30	12/5/2017 4:30	60	0.64	4,273	0.47	0.35	3	Atlas		2,735	1
	12/22/2017 23:15	12/23/2017 3:00	225	1.22	79	0.81	0.47	24	Atlas		96	1
	2/11/2018 4:15	2/11/2018 10:15	360	0.38	558	0.98	0.18	3	Atlas		212	1
	2/22/2018 3:45	2/22/2018 6:00	135	1.71	4,633	2.86	0.64	24	Atlas		7,922	1
	2/23/2018 3:00	2/23/2018 6:15	195	1.36	5,230	3.41	0.62	12	Atlas		7,113	1
	2/24/2018 18:45	2/25/2018 0:30	345	2.04	19,383	4.99	0.85	12	Atlas		39,542	1
	3/24/2018 12:15	3/24/2018 12:15	-	0.98	268	1.50	0.38	24	Atlas		263	1
	3/29/2018 19:00	3/29/2018 19:45	45	1.16	1,563	1.91	0.30	48	Atlas		1,813	1
	4/1/2018 20:15	4/1/2018 23:15	180	0.63	1,152	2.06	0.34	6	Atlas		726	1
	4/3/2018 16:30	4/3/2018 19:15	165	0.62	1,153	2.50	0.34	6	Atlas		715	1
	4/14/2018 9:45	4/14/2018 9:45	-	0.91	67	0.19	0.30	24	Atlas		61	1
	4/15/2018 5:45	4/15/2018 5:45	-	0.91	57	0.67	0.30	24	Atlas		52	1
	5/5/2018 14:45	5/5/2018 18:30	225	1.44	4,298	1.38	0.56	12	Atlas		6,189	1
	5/17/2018 15:30	5/17/2018 16:00	30	0.48	5,008	0.48	0.39	1	Atlas		2,404	1
	5/27/2018 4:15	5/27/2018 5:00	45	0.28	1,239	0.29	0.21	1	Atlas		347	1
	5/31/2018 14:00	5/31/2018 14:15	15	1.45	723	0.63	0.72	3	Atlas		1,048	1
	6/1/2018 1:15	6/1/2018 2:45	90	1.45	5,654	1.85	0.72	3	Atlas		8,198	1
	6/10/2018 15:00	6/10/2018 15:45	45	0.92	2,182	0.26	0.34	24	Atlas		2,007	1
	6/11/2018 11:00	6/11/2018 14:00	180	0.92	7,997	0.89	0.34	24	Atlas		7,357	1
	6/12/2018 12:15	6/12/2018 12:45	30	0.35	569	1.16	0.17	1	Atlas		199	1
	6/25/2018 10:15	6/25/2018 11:15	60	0.88	252	1.49	0.35	12	Atlas		222	1
	7/2/2018 17:30	7/2/2018 19:00	90	0.30	1,813	1.06	0.24	1	Atlas		544	1
	7/20/2018 19:15	7/20/2018 21:00	105	1.00	486	1.18	0.44	3	Atlas		486	1
	7/31/2018 1:30	7/31/2018 12:45	675	2.16	2,897	2.21	0.90	6	Atlas		6,257	1
	8/15/2018 12:45	8/16/2018 14:15	1,530	2.68	12,220	2.68	1.18	24	Cloudburst		32,749	1
	8/20/2018 11:15	8/20/2018 11:45	30	0.51	21,402	3.26	0.40	1	Atlas		10,915	1
	9/7/2018 19:15	9/8/2018 5:30	615	2.47	33	0.48	1.22	6	Cloudburst		82	1
	9/8/2018 17:30	9/8/2018 22:00	270	2.47	33,996	2.60	1.22	6	Cloudburst		83,971	1
	9/21/2018 17:30	9/21/2018 17:45	15	0.25	9,612	0.32	0.17	1	Atlas		2,403	1
	9/23/2018 5:15	9/23/2018 7:00	105	1.34	859	1.62	0.50	24	Atlas		1,151	1
	9/24/2018 7:15	9/24/2018 13:45	390	1.30	4,409	2.88	0.61	6	Atlas		5,732	1
	9/25/2018 17:15	9/26/2018 2:15	540	0.76	166	3.70	0.33	12	Atlas		126	1
	11/1/2018 0:45	11/1/2018 0:45	-	1.85	359	1.41	0.67	24	Atlas		665	1
	11/5/2018 22:00	11/5/2018 22:00	-	0.88	1,776	2.42	0.48	6	Atlas		1,563	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.47	993	1.07	0.47	48	Atlas		1,460	1
	2/20/2019 5:15	2/20/2019 6:15	60	1.30	2,891	1.17	0.58	6	Atlas		3,758	1
	3/14/2019 17:15	3/14/2019 17:15	-	0.27	1,281	1.55	0.20	1	Atlas		346	1
	3/30/2019 17:15	3/30/2019 17:15	-	0.88	310	0.89	0.42	6	Atlas		273	1
	4/7/2019 11:45	4/7/2019 11:45	-	0.59	2,417	0.59	0.29	3	Atlas		1,426	1
	4/23/2019 17:45	4/23/2019 18:00	15	0.38	7,861	2.92	0.33	1	Atlas		2,987	1
	4/24/2019 20:30	4/24/2019 20:45	15	1.03	1,252	3.29	0.33	48	Atlas		1,290	1
	5/3/2019 4:45	5/3/2019 5:00	15	0.79	6,639	0.58	0.43	6	Atlas		5,245	1
	6/9/2019 15:15	6/9/2019 17:00	105	0.52	72,638	2.10	0.27	3	Atlas		37,772	1
	6/16/2019 20:45	6/16/2019 21:30	45	1.62	19,087	1.58	0.75	6	Atlas		30,921	1
	6/23/2019 16:00	6/23/2019 16:15	15	0.38	77,408	3.22	0.30	1	Atlas		29,415	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.44	3,477	2.07	0.27	3	Atlas		1,530	1
	7/3/2019 12:15	7/3/2019 12:30	15	0.25	186,160	0.48	0.20	1	Atlas		46,540	1
	7/18/2019 0:30	7/18/2019 1:00	30	0.55	118,907	0.68	0.41	1	Atlas		65,399	1
	7/29/2019 23:30	7/29/2019 23:45	15	0.47	9,857	0.47	0.29	3	Atlas		4,633	1
	8/7/2019 4:30	8/7/2019 4:30	-	0.22	12,155	0.21	0.19	1	Atlas		2,674	1
	10/15/2019 22:30	10/15/2019 22:30	-	0.67	1,601	0.92	0.52	1	Atlas		1,073	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/30/2019 14:15	10/30/2019 14:30	15	0.74	2,441	1.87	0.38	3	Atlas		1,806	1
	3/10/2020 8:00	3/10/2020 8:00	-	0.40	4,985	0.41	0.18	12	Atlas		1,994	1
	3/13/2020 1:30	3/13/2020 2:30	60	0.49	155	0.89	0.24	6	Atlas		76	1
	3/19/2020 12:15	3/19/2020 12:15	-	0.39	4,800	1.80	0.18	3	Atlas		1,872	1
	3/28/2020 22:15	3/28/2020 22:30	15	0.24	151,375	0.42	0.19	1	Atlas		36,330	1
	5/16/2020 2:00	5/16/2020 7:15	315	1.46	4,899	1.63	0.56	24	Atlas		7,152	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.46	1,746	0.33	0.26	1	Atlas		803	1
	6/22/2020 22:30	6/23/2020 0:00	90	0.87	2,199	1.25	0.43	3	Atlas		1,913	1
	6/29/2020 3:30	6/29/2020 4:30	60	0.56	24,746	1.69	0.35	3	Atlas		13,858	1
	CSO199 Total										3,890,367	178
CSO200	4/1/2012 8:30	4/1/2012 10:15	105	1.61	5,560	1.73	0.89	3	Atlas		8,951	1
	4/28/2012 19:15	4/28/2012 19:30	15	0.81	89,901	0.85	0.62	1	Atlas		72,820	1
	4/30/2012 18:00	4/30/2012 18:15	15	0.46	32,046	1.17	0.31	3	Atlas		14,741	1
	5/5/2012 1:15	5/5/2012 1:30	15	1.62	17,307	2.59	0.85	6	Atlas		28,038	1
	5/13/2012 2:15	5/13/2012 7:30	315	1.95	853	1.80	0.77	12	Atlas		1,663	1
	5/29/2012 6:30	5/29/2012 9:30	180	3.23	91,069	3.17	26.28	3	Cloudburst		294,153	1
	5/31/2012 18:30	6/1/2012 1:15	405	1.25	6,317	4.28	0.54	12	Atlas		7,896	1
	7/1/2012 19:45	7/1/2012 19:45	-	0.38	41,508	0.31	0.27	1	Atlas		15,773	1
	7/5/2012 8:45	7/5/2012 8:45	-	0.12	8,983	0.51	0.10	1	Atlas		1,078	1
	7/8/2012 12:45	7/8/2012 13:00	15	0.19	14,916	0.66	0.13	1	Atlas		2,834	1
	7/14/2012 14:00	7/14/2012 14:00	-	0.56	4,302	0.79	0.36	3	Atlas		2,409	1
	7/19/2012 18:00	7/19/2012 18:45	45	0.91	121,216	1.45	0.69	1	Atlas		110,307	1
	7/24/2012 20:00	7/24/2012 20:00	-	0.48	38,310	1.60	0.41	1	Atlas		18,389	1
	7/27/2012 19:45	7/27/2012 20:45	60	0.66	6,608	1.22	0.48	1	Atlas		4,361	1
	8/16/2012 20:15	8/16/2012 20:15	-	0.60	212	0.34	0.34	3	Atlas		127	1
	8/21/2012 13:45	8/21/2012 13:45	-	0.20	1,520	0.80	0.17	1	Atlas		304	1
	9/1/2012 15:00	9/1/2012 15:00	-	0.48	50,985	0.32	0.29	3	Atlas		24,473	1
	9/2/2012 20:00	9/2/2012 20:15	15	0.55	1,438	1.00	0.21	24	Atlas		791	1
	9/5/2012 15:15	9/5/2012 17:00	105	0.71	96,958	1.82	0.55	1	Atlas		68,840	1
	9/7/2012 23:30	9/7/2012 23:30	-	1.42	1,802	2.48	0.79	3	Atlas		2,559	1
	9/26/2012 1:30	9/26/2012 1:45	15	0.43	38,765	0.64	0.20	6	Atlas		16,669	1
	9/26/2012 21:00	9/26/2012 23:15	135	1.14	87,049	1.85	0.60	6	Atlas		99,236	1
	12/9/2012 22:00	12/9/2012 22:30	30	1.18	19,885	3.26	0.55	3	Atlas		23,464	1
	1/11/2013 5:45	1/11/2013 6:00	15	0.64	872	0.74	0.34	6	Atlas		558	1
	1/13/2013 3:15	1/13/2013 5:15	120	2.23	583	1.46	0.86	24	Atlas		1,301	1
	1/13/2013 14:00	1/13/2013 17:30	210	2.23	98	2.98	0.86	24	Atlas		218	1
	1/30/2013 4:45	1/30/2013 4:45	-	0.78	5,524	0.62	0.39	6	Atlas		4,309	1
	3/11/2013 5:45	3/11/2013 5:45	-	0.99	411	1.22	0.39	12	Atlas		407	1
	3/18/2013 4:15	3/18/2013 4:45	30	1.88	490	1.81	0.61	48	Atlas		922	1
	4/11/2013 7:00	4/11/2013 7:15	15	1.29	14,187	0.54	0.50	24	Atlas		18,301	1
	4/16/2013 20:00	4/16/2013 20:15	15	0.61	20,405	1.85	0.49	1	Atlas		12,447	1
	4/19/2013 2:15	4/19/2013 2:45	30	0.88	4,226	1.27	0.49	3	Atlas		3,719	1
	4/24/2013 8:30	4/24/2013 8:45	15	0.73	532	1.53	0.41	3	Atlas		388	1
	5/10/2013 23:30	5/10/2013 23:30	-	1.00	1,986	2.61	0.43	6	Atlas		1,986	1
	6/9/2013 23:45	6/10/2013 0:00	15	0.37	9,000	0.28	0.16	6	Atlas		3,330	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.53	315	1.10	0.35	3	Atlas		167	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.29	97,053	3.08	2.28	1	Atlas		222,251	1
	6/29/2013 19:15	6/29/2013 19:45	30	0.41	8,678	3.25	0.22	6	Atlas		3,558	1
	7/2/2013 13:00	7/2/2013 13:15	15	0.11	205,291	3.61	0.10	1	Atlas		22,582	1
	7/10/2013 14:00	7/10/2013 14:15	15	0.71	61,738	1.86	0.46	3	Atlas		43,834	1
	7/14/2013 19:30	7/14/2013 19:30	-	0.09	7,289	0.84	0.08	1	Atlas		656	1
	7/21/2013 19:15	7/21/2013 20:00	45	2.41	4,725	1.61	0.93	24	Atlas		11,388	1
	7/22/2013 7:30	7/22/2013 13:45	375	2.41	33,418	2.74	0.93	24	Atlas		80,538	1
	8/12/2013 14:30	8/12/2013 14:45	15	0.73	20,949	0.79	0.31	1	Atlas		15,293	1
	8/20/2013 18:00	8/20/2013 18:00	-	0.24	54,121	0.23	0.13	6	Atlas		12,989	1
	8/31/2013 20:00	8/31/2013 20:00	-	1.07	461	0.43	0.49	12	Atlas		493	1
	9/2/2013 13:45	9/2/2013 14:00	15	0.31	64,506	1.38	0.27	1	Atlas		19,997	1
	9/20/2013 16:15	9/20/2013 19:30	195	1.06	997	0.37	0.44	12	Atlas		1,057	1
	10/5/2013 13:00	10/6/2013 6:15	1,035	4.20	37,954	3.64	7.26	24	Cloudburst		159,405	1
	11/17/2013 5:45	11/17/2013 9:30	225	2.32	18,066	2.01	1.06	6	Cloudburst		41,914	1
	11/17/2013 17:45	11/17/2013 18:00	15	2.32	3,503	2.45	1.06	6	Cloudburst		8,127	1
	12/21/2013 8:00	12/21/2013 8:00	-	0.92	255	0.77	0.42	12	Atlas		235	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/21/2013 21:15	12/22/2013 0:00	165	1.37	79,919	2.15	0.74	3	Atlas		109,489	1
	1/11/2014 0:00	1/11/2014 3:00	180	0.95	1,807	1.27	0.51	6	Atlas		1,717	1
	2/4/2014 19:45	2/4/2014 23:15	210	0.51	26,545	1.04	0.25	6	Atlas		13,538	1
	2/17/2014 16:00	2/17/2014 16:30	30	0.40	13,560	0.94	0.24	3	Atlas		5,424	1
	3/29/2014 6:30	3/29/2014 6:45	15	1.01	1,262	0.76	0.49	6	Atlas		1,275	1
	4/3/2014 12:00	4/3/2014 12:00	-	2.36	1,092	2.01	0.82	24	Atlas		2,576	1
	4/4/2014 3:00	4/4/2014 4:15	75	2.36	14,125	3.18	0.82	24	Atlas		33,334	1
	4/7/2014 10:30	4/7/2014 11:30	60	0.73	7,581	3.14	0.41	1	Atlas		5,534	1
	4/28/2014 3:45	4/28/2014 6:15	150	1.68	12,873	1.24	0.71	3	Atlas		21,627	1
	5/9/2014 19:00	5/9/2014 19:15	15	1.67	1,915	0.32	0.64	24	Atlas		3,198	1
	5/10/2014 5:30	5/10/2014 14:15	525	1.67	6,230	1.61	0.64	24	Atlas		10,404	1
	5/22/2014 2:30	5/22/2014 3:15	45	0.47	1,379	0.47	0.22	12	Atlas		648	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.32	30,566	0.80	0.27	1	Atlas		9,781	1
	5/29/2014 21:00	5/29/2014 21:15	15	0.44	54,116	0.76	0.35	1	Atlas		23,811	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.12	2,542	0.28	0.09	1	Atlas		305	1
	6/24/2014 13:30	6/24/2014 13:30	-	0.13	2,215	0.43	0.08	1	Atlas		288	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.56	2,141	0.83	0.49	1	Atlas		1,199	1
	7/13/2014 22:45	7/13/2014 23:00	15	0.78	2,544	1.43	0.39	3	Atlas		1,984	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.16	10,935	0.42	0.53	12	Atlas		12,685	1
	8/8/2014 6:00	8/8/2014 7:15	75	0.86	6,450	0.68	0.41	6	Atlas		5,547	1
	8/10/2014 4:15	8/10/2014 4:15	-	0.61	218	1.61	0.50	1	Atlas		133	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.34	66,888	1.91	0.26	1	Atlas		22,742	1
	8/17/2014 9:30	8/17/2014 9:30	-	0.73	530	0.84	0.27	24	Atlas		387	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.73	1,821	1.07	0.27	24	Atlas		1,329	1
	8/23/2014 16:30	8/23/2014 20:15	225	0.71	82,206	1.58	0.37	3	Atlas		58,366	1
	8/30/2014 15:15	8/30/2014 16:00	45	0.56	30,625	1.32	0.33	1	Atlas		17,150	1
	9/11/2014 0:30	9/11/2014 2:30	120	1.83	28,562	1.53	1.07	3	Atlas		52,269	1
	10/6/2014 9:45	10/6/2014 9:45	-	0.20	735	0.40	0.08	6	Atlas		147	1
	10/10/2014 1:45	10/10/2014 3:00	75	1.26	3,461	1.52	0.57	3	Atlas		4,361	1
	10/13/2014 23:30	10/13/2014 23:30	-	1.03	249	2.28	0.45	12	Atlas		256	1
	11/23/2014 17:30	11/23/2014 18:00	30	0.63	224	0.82	0.28	12	Atlas		141	1
	12/6/2014 2:30	12/6/2014 12:00	570	1.76	4,379	2.71	0.57	48	Atlas		7,707	1
	3/10/2015 10:45	3/10/2015 12:30	105	1.30	4,262	2.80	0.58	12	Atlas		5,541	1
	3/14/2015 1:00	3/14/2015 1:00	-	1.96	51	2.77	0.74	24	Atlas		99	1
	3/26/2015 4:15	3/26/2015 4:30	15	0.49	641	0.50	0.19	12	Atlas		314	1
	4/2/2015 10:30	4/2/2015 15:15	285	5.52	14,576	1.03	20.17	6	Cloudburst		80,459	1
	4/3/2015 0:15	4/3/2015 5:45	330	5.52	94,692	4.60	20.17	6	Cloudburst		522,702	1
	4/7/2015 9:15	4/7/2015 17:00	465	0.83	33,429	6.31	0.37	1	Atlas		27,746	1
	4/8/2015 18:00	4/8/2015 18:15	15	0.10	38,680	6.45	0.05	6	Atlas		3,868	1
	4/9/2015 11:30	4/9/2015 11:45	15	0.33	579	6.09	0.13	24	Atlas		191	1
	4/10/2015 2:15	4/10/2015 2:15	-	0.33	1,082	3.58	0.13	24	Atlas		357	1
	4/10/2015 10:45	4/10/2015 10:45	-	0.33	1,309	1.78	0.13	24	Atlas		432	1
	4/19/2015 14:15	4/19/2015 14:30	15	0.60	598	1.00	0.25	12	Atlas		359	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	4,125	0.63	0.04	1	Atlas		330	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.28	2,289	0.51	0.20	1	Atlas		641	1
	6/8/2015 8:15	6/8/2015 8:15	-	0.22	795	0.24	0.13	3	Atlas		175	1
	6/17/2015 4:45	6/17/2015 5:00	15	0.63	4,279	0.48	0.34	3	Atlas		2,696	1
	6/18/2015 17:00	6/18/2015 18:00	60	1.75	74,326	1.69	0.57	48	Atlas		130,070	1
	6/20/2015 3:15	6/20/2015 7:45	270	1.75	128	2.63	0.57	48	Atlas		224	1
	6/25/2015 23:45	6/26/2015 0:00	15	0.53	41,955	1.40	0.29	6	Atlas		22,236	1
	6/26/2015 17:00	6/26/2015 17:30	30	0.93	29,699	2.19	0.52	1	Atlas		27,620	1
	6/29/2015 13:15	6/29/2015 13:15	-	0.28	4,061	1.65	0.21	1	Atlas		1,137	1
	7/1/2015 14:00	7/1/2015 14:00	-	0.99	253	1.76	0.52	3	Atlas		250	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.35	1,243	2.54	0.27	1	Atlas		435	1
	7/7/2015 11:30	7/7/2015 11:45	15	0.85	2,302	1.82	0.44	6	Atlas		1,957	1
	7/10/2015 16:00	7/10/2015 16:00	-	0.57	218	2.05	0.28	6	Atlas		124	1
	7/12/2015 5:45	7/12/2015 6:15	30	0.90	43,014	2.74	0.62	1	Atlas		38,713	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.23	857	3.17	0.19	1	Atlas		197	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.38	4,595	3.52	0.28	1	Atlas		1,746	1
	7/17/2015 23:00	7/18/2015 0:45	105	0.98	12,346	2.53	0.65	3	Atlas		12,099	1
	8/6/2015 2:00	8/6/2015 2:00	-	0.66	1,500	0.39	0.25	24	Atlas		990	1
	8/6/2015 14:45	8/6/2015 14:45	-	0.66	1,770	0.82	0.25	24	Atlas		1,168	1
	8/19/2015 8:15	8/19/2015 8:15	-	0.37	2,100	0.23	0.14	24	Atlas		777	1
	8/19/2015 16:45	8/19/2015 16:45	-	0.37	789	0.39	0.14	24	Atlas		292	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	9/9/2015 11:15	9/9/2015 11:15	-	0.33	5,061	0.38	0.17	1	Atlas		1,670	1
	10/27/2015 19:45	10/27/2015 19:45	-	2.27	80	1.69	0.75	24	Atlas		181	1
	11/6/2015 3:00	11/6/2015 4:00	60	0.75	14,057	0.74	0.47	3	Atlas		10,543	1
	11/18/2015 9:15	11/18/2015 13:30	255	1.22	12,970	1.51	0.62	6	Atlas		15,823	1
	12/22/2015 3:00	12/22/2015 3:45	45	0.50	1,718	0.75	0.28	1	Atlas		859	1
	12/23/2015 19:15	12/23/2015 20:00	45	0.77	106,201	1.43	0.55	1	Atlas		81,775	1
	12/27/2015 10:30	12/27/2015 13:30	180	1.91	17,884	3.10	0.65	3	Atlas		34,159	1
	2/2/2016 19:15	2/3/2016 0:15	300	1.26	28,933	1.25	0.61	6	Atlas		36,456	1
	2/21/2016 4:15	2/21/2016 10:30	375	1.04	1,024	1.20	0.48	12	Atlas		1,065	1
	2/24/2016 5:15	2/24/2016 7:15	120	2.14	1,157	2.85	0.83	12	Atlas		2,475	1
	3/12/2016 22:30	3/12/2016 23:15	45	0.77	2,286	1.76	0.31	6	Atlas		1,760	1
	3/24/2016 17:30	3/24/2016 17:45	15	0.50	14,248	0.64	0.36	1	Atlas		7,124	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.94	28,166	1.40	0.67	1	Atlas		26,476	1
	4/11/2016 17:00	4/11/2016 18:00	60	0.93	2,799	0.86	0.44	6	Atlas		2,603	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.33	2,094	0.10	0.14	3	Atlas		691	1
	4/27/2016 21:00	4/27/2016 23:15	135	0.71	454	1.36	0.33	3	Atlas		322	1
	5/7/2016 16:30	5/7/2016 16:30	-	0.75	423	0.81	0.39	6	Atlas		317	1
	5/10/2016 18:30	5/10/2016 21:45	195	0.85	7,286	1.85	0.32	24	Atlas		6,193	1
	5/20/2016 15:00	5/20/2016 15:30	30	0.53	1,034	1.29	0.29	3	Atlas		548	1
	6/2/2016 15:15	6/2/2016 15:45	30	0.31	2,577	0.43	0.25	1	Atlas		799	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.18	6,456	0.49	0.10	3	Atlas		1,162	1
	6/14/2016 16:30	6/14/2016 16:45	15	0.81	4,677	0.77	0.51	3	Atlas		3,788	1
	6/23/2016 16:15	6/23/2016 22:15	360	1.86	49,881	2.02	1.03	6	Cloudburst		92,778	1
	7/3/2016 12:00	7/3/2016 19:45	465	1.19	1,520	0.50	0.39	48	Atlas		1,809	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.48	50,152	1.22	0.42	1	Atlas		24,073	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.40	363	1.69	0.31	1	Atlas		145	1
	8/15/2016 2:45	8/15/2016 7:15	270	0.91	6,113	1.21	0.44	6	Atlas		5,563	1
	8/17/2016 6:45	8/17/2016 7:00	15	0.67	1,116	1.69	0.28	12	Atlas		748	1
	8/20/2016 20:00	8/20/2016 20:00	-	0.89	211	2.31	0.38	12	Atlas		188	1
	8/28/2016 17:15	8/28/2016 17:30	15	0.23	20,848	0.23	0.19	1	Atlas		4,795	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.19	442	0.15	0.11	3	Atlas		84	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.55	764	0.11	0.21	24	Atlas		420	1
	1/12/2017 15:30	1/13/2017 0:00	510	0.44	8,348	0.82	0.22	6	Atlas		3,673	1
	2/8/2017 21:00	2/9/2017 14:00	1,020	0.08	750,963	0.48	0.04	6	Atlas		60,077	1
	4/16/2017 17:15	4/16/2017 17:45	30	1.16	14,997	0.82	0.49	6	Atlas		17,397	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.02	38,834	1.28	0.52	6	Atlas		39,611	1
	5/4/2017 19:45	5/4/2017 19:45	-	1.58	109	1.70	0.53	24	Atlas		173	1
	5/20/2017 18:30	5/20/2017 18:30	-	1.01	530	0.28	0.45	12	Atlas		535	1
	5/21/2017 2:45	5/21/2017 5:30	165	1.01	21,225	1.04	0.45	12	Atlas		21,437	1
	6/5/2017 18:15	6/5/2017 18:15	-	0.17	99,000	0.21	0.14	1	Atlas		16,830	1
	6/15/2017 3:00	6/15/2017 4:00	60	0.40	13,278	0.37	0.25	3	Atlas		5,311	1
	6/23/2017 15:30	6/23/2017 16:00	30	0.78	2,782	1.07	0.36	12	Atlas		2,170	1
	6/30/2017 21:00	6/30/2017 21:15	15	0.69	96,662	0.79	0.59	1	Atlas		66,697	1
	7/7/2017 21:00	7/7/2017 21:00	-	0.35	5,460	0.93	0.25	1	Atlas		1,911	1
	7/23/2017 2:45	7/23/2017 3:15	30	1.01	3,428	0.40	0.46	12	Atlas		3,462	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.71	33,639	0.36	0.39	6	Atlas		23,884	1
	8/29/2017 19:15	8/29/2017 19:30	15	0.19	149,042	0.24	0.15	1	Atlas		28,318	1
	9/1/2017 14:45	9/1/2017 14:45	-	2.76	202	1.60	0.97	24	Atlas		558	1
	9/19/2017 8:00	9/19/2017 8:45	45	0.37	978	0.61	0.23	3	Atlas		362	1
	10/7/2017 21:45	10/7/2017 22:15	30	1.80	6,333	0.62	0.68	24	Atlas		11,400	1
	10/8/2017 14:00	10/8/2017 14:00	-	1.80	788	1.64	0.68	24	Atlas		1,419	1
	10/23/2017 6:15	10/23/2017 6:30	15	0.45	876	0.24	0.23	6	Atlas		394	1
	11/3/2017 4:30	11/3/2017 5:45	75	1.34	74,566	2.27	1.57	1	Atlas		99,918	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.22	1,132	1.67	0.13	1	Atlas		249	1
	12/5/2017 3:45	12/5/2017 4:00	15	0.64	3,809	0.36	0.35	3	Atlas		2,438	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.38	463	0.93	0.18	3	Atlas		176	1
	2/22/2018 3:45	2/22/2018 5:45	120	1.71	10,148	2.85	0.64	24	Atlas		17,353	1
	2/23/2018 3:00	2/23/2018 5:00	120	1.36	4,318	3.16	0.62	12	Atlas		5,873	1
	2/24/2018 18:45	2/24/2018 23:45	300	2.04	46,469	4.89	0.85	12	Atlas		94,796	1
	5/5/2018 14:45	5/5/2018 15:15	30	1.44	4,817	1.06	0.56	12	Atlas		6,936	1
	5/17/2018 15:45	5/17/2018 15:45	-	0.48	3,865	0.47	0.39	1	Atlas		1,855	1
	5/27/2018 4:15	5/27/2018 4:15	-	0.28	1,161	0.26	0.21	1	Atlas		325	1
	6/1/2018 1:00	6/1/2018 1:45	45	1.45	9,455	1.69	0.72	3	Atlas		13,710	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.92	349	0.24	0.34	24	Atlas		321	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/11/2018 11:00	6/11/2018 13:15	135	0.92	1.404	0.85	0.34	24	Atlas		1,292	1
	6/25/2018 7:15	6/25/2018 7:30	15	0.88	13.694	1.23	0.35	12	Atlas		12,051	1
	7/20/2018 17:30	7/20/2018 17:45	15	1.00	42.153	0.56	0.44	3	Atlas		42,153	1
	7/30/2018 22:15	7/31/2018 9:30	675	2.16	66.826	2.02	0.90	6	Atlas		144,344	1
	8/15/2018 16:30	8/16/2018 5:45	795	2.68	14.181	1.84	1.18	24	Cloudburst		38,005	1
	9/8/2018 5:15	9/8/2018 5:15	-	2.47	1.261	0.48	1.22	6	Cloudburst		3,114	1
	9/8/2018 17:15	9/8/2018 22:00	285	2.47	92.158	2.60	1.22	6	Cloudburst		227,631	1
	9/21/2018 17:30	9/21/2018 17:30	-	0.25	2.752	0.32	0.17	1	Atlas		688	1
	9/23/2018 5:15	9/23/2018 6:30	75	1.34	1.069	1.59	0.50	24	Atlas		1,432	1
	9/24/2018 7:15	9/24/2018 11:00	225	1.30	5.403	2.70	0.61	6	Atlas		7,024	1
	11/1/2018 0:45	11/1/2018 0:45	-	1.85	350	1.41	0.67	24	Atlas		647	1
	11/5/2018 21:45	11/5/2018 22:00	15	0.88	1.798	2.42	0.48	6	Atlas		1,582	1
	3/28/2020 22:15	3/28/2020 22:15	-	0.24	13.183	0.40	0.19	1	Atlas		3,164	1
	CSO200 Total										**4,227,631**	**193**
CSO201	12/23/2015 19:45	12/23/2015 19:45	-	0.79	12.133	1.31	0.63	1	Atlas		9,585	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.29	17.028	1.25	0.63	6	Atlas		21,966	1
	3/27/2016 21:30	3/27/2016 21:30	-	0.68	24.081	1.08	0.46	1	Atlas		16,375	1
	6/23/2016 20:30	6/23/2016 20:45	15	2.02	18.783	2.26	1.56	6	Cloudburst		37,942	1
	7/28/2016 3:30	7/28/2016 3:30	-	0.70	27.957	0.85	0.32	12	Atlas		19,570	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.48	25.794	1.54	0.42	1	Atlas		12,381	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.27	33.281	0.38	0.22	1	Atlas		8,986	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.93	36.074	1.96	0.43	3	Atlas		33,549	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.14	136.936	0.14	0.12	1	Atlas		19,171	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.45	30.620	0.49	0.37	1	Atlas		13,779	1
	4/29/2017 1:45	4/29/2017 2:45	60	1.10	31.225	1.34	0.56	3	Atlas		34,348	1
	5/21/2017 3:00	5/21/2017 3:15	15	1.09	62.290	0.79	0.49	12	Atlas		67,896	1
	10/7/2017 22:00	10/7/2017 22:00	-	1.65	39.092	0.53	0.62	24	Atlas		64,502	1
	11/3/2017 5:15	11/3/2017 5:15	-	0.99	28.239	1.94	0.77	1	Atlas		27,957	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.40	47.825	1.02	0.21	3	Atlas		19,130	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.80	178	0.91	0.58	1	Atlas		142	1
	6/8/2019 19:15	6/8/2019 19:15	-	0.28	117.268	1.47	0.14	6	Atlas		32,835	1
	6/9/2019 17:00	6/9/2019 17:00	-	0.53	23.223	2.07	0.27	3	Atlas		12,308	1
	6/16/2019 19:45	6/16/2019 20:45	60	2.14	15.971	1.96	0.97	3	Atlas		34,178	1
	6/21/2019 19:30	6/21/2019 19:30	-	0.80	1.489	3.27	0.53	3	Atlas		1,191	1
	6/23/2019 16:15	6/23/2019 16:15	-	0.36	12.181	3.82	0.28	1	Atlas		4,385	1
	6/24/2019 13:45	6/24/2019 13:45	-	0.40	2.930	2.38	0.25	3	Atlas		1,172	1
	7/3/2019 14:00	7/3/2019 14:00	-	0.08	407.075	0.34	0.05	1	Atlas		32,566	1
	7/18/2019 0:45	7/18/2019 1:00	15	0.44	43.002	0.60	0.32	1	Atlas		18,921	1
	10/30/2019 14:30	10/30/2019 14:30	-	0.73	321	1.86	0.37	3	Atlas		234	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.48	1.454	0.50	0.22	12	Atlas		698	1
	3/19/2020 12:30	3/19/2020 12:30	-	0.43	2.647	2.01	0.20	3	Atlas		1,138	1
	3/28/2020 22:30	3/28/2020 22:30	-	0.19	144.747	0.40	0.15	1	Atlas		27,502	1
	5/16/2020 7:30	5/16/2020 7:30	-	1.35	745	1.54	0.52	24	Atlas		1,006	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.44	2.041	0.30	0.24	1	Atlas		898	1
	6/22/2020 22:30	6/23/2020 0:00	90	1.00	13.244	1.35	0.49	3	Atlas		13,244	1
	6/29/2020 3:30	6/29/2020 3:30	-	0.40	28.258	1.44	0.25	3	Atlas		11,303	1
	CSO201 Total										**600,858**	**32**
CSO202	7/1/2012 19:45	7/1/2012 20:00	15	0.38	46.674	0.32	0.27	1	Atlas		17,736	1
	7/8/2012 12:45	7/8/2012 13:15	30	0.19	65.584	0.66	0.13	1	Atlas		12,461	1
	7/14/2012 13:45	7/14/2012 14:15	30	0.56	20.284	0.81	0.36	3	Atlas		11,359	1
	7/19/2012 18:15	7/19/2012 18:30	15	0.91	49.787	1.45	0.69	1	Atlas		45,306	1
	7/24/2012 20:00	7/24/2012 20:00	-	0.48	30.490	1.60	0.41	1	Atlas		14,635	1
	8/16/2012 20:15	8/16/2012 20:15	-	0.60	5.037	0.34	0.34	3	Atlas		3,022	1
	9/1/2012 15:00	9/1/2012 17:30	150	0.48	57.754	0.52	0.29	3	Atlas		27,722	1
	9/2/2012 20:15	9/2/2012 20:15	-	0.55	2.167	1.00	0.21	24	Atlas		1,192	1
	9/5/2012 15:30	9/5/2012 15:45	15	0.71	15.623	1.73	0.55	1	Atlas		11,092	1
	9/7/2012 23:30	9/7/2012 23:30	-	1.42	2.062	2.48	0.79	3	Atlas		2,928	1
	9/26/2012 21:00	9/26/2012 23:00	120	1.14	10.283	1.80	0.60	6	Atlas		11,723	1
	12/9/2012 22:15	12/9/2012 22:30	15	1.18	10.386	3.26	0.55	3	Atlas		12,256	1
	1/11/2013 6:00	1/11/2013 6:00	-	0.64	4.170	0.74	0.34	6	Atlas		2,669	1
	1/13/2013 3:15	1/13/2013 5:15	120	2.23	3.433	1.46	0.86	24	Atlas		7,656	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/30/2013 4:45	1/30/2013 4:45	-	0.78	24,891	0.62	0.39	6	Atlas		19,415	1
	3/18/2013 4:45	3/18/2013 4:45	-	1.88	199	1.76	0.61	48	Atlas		375	1
	4/11/2013 6:15	4/11/2013 6:15	-	1.29	581	0.29	0.50	24	Atlas		749	1
	4/16/2013 20:00	4/16/2013 20:00	-	0.61	30,920	1.84	0.49	1	Atlas		18,861	1
	4/19/2013 2:15	4/19/2013 2:15	-	0.88	1,865	1.05	0.49	3	Atlas		1,641	1
	5/22/2013 15:45	5/22/2013 15:45	-	0.09	60,867	0.34	0.06	1	Atlas		5,478	1
	6/10/2013 0:00	6/10/2013 0:00	-	0.37	5,424	0.28	0.16	6	Atlas		2,007	1
	6/17/2013 19:00	6/17/2013 19:00	-	0.50	4,186	0.55	0.25	6	Atlas		2,093	1
	6/26/2013 4:30	6/26/2013 4:30	-	0.53	11,600	1.10	0.35	3	Atlas		6,148	1
	6/26/2013 16:15	6/26/2013 20:45	270	2.29	39,178	3.08	2.28	1	Atlas		89,718	1
	6/29/2013 19:30	6/29/2013 20:00	30	0.41	28,824	3.25	0.22	6	Atlas		11,818	1
	7/2/2013 13:15	7/2/2013 13:15	-	0.11	101,500	3.61	0.10	1	Atlas		11,165	1
	7/10/2013 14:00	7/10/2013 14:15	15	0.71	48,328	1.86	0.46	3	Atlas		34,313	1
	7/21/2013 19:45	7/21/2013 20:00	15	2.41	2,679	1.55	0.93	24	Atlas		6,457	1
	7/22/2013 7:45	7/22/2013 13:45	360	2.41	19,793	2.74	0.93	24	Atlas		47,701	1
	8/12/2013 14:45	8/12/2013 15:00	15	0.73	44,704	0.79	0.31	1	Atlas		32,634	1
	8/20/2013 18:15	8/20/2013 18:15	-	0.24	43,388	0.26	0.13	6	Atlas		10,413	1
	8/31/2013 19:45	8/31/2013 22:45	180	1.07	7,256	0.65	0.49	12	Atlas		7,764	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.31	25,452	1.38	0.27	1	Atlas		7,890	1
	9/29/2013 17:45	9/30/2013 0:30	405	0.02	246,300	0.02	0.02	1	Atlas		4,926	1
	10/5/2013 13:15	10/6/2013 6:15	1,020	4.20	21,068	3.64	7.26	24	Cloudburst		88,487	1
	10/30/2013 4:45	10/30/2013 5:30	45	1.96	11,533	1.92	1.30	1	Atlas		22,605	1
	11/17/2013 6:00	11/17/2013 8:15	135	2.32	6,595	1.77	1.06	6	Cloudburst		15,300	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.32	2,366	2.45	1.06	6	Cloudburst		5,488	1
	12/21/2013 21:30	12/21/2013 22:45	75	1.37	37,544	1.98	0.74	3	Atlas		51,435	1
	2/17/2014 16:15	2/17/2014 16:15	-	0.40	9,475	0.91	0.24	3	Atlas		3,790	1
	3/29/2014 6:45	3/29/2014 6:45	-	1.01	3,655	0.76	0.49	6	Atlas		3,692	1
	4/3/2014 12:00	4/3/2014 12:15	15	2.36	1,897	2.06	0.82	24	Atlas		4,476	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.36	3,937	3.07	0.82	24	Atlas		9,292	1
	4/7/2014 10:45	4/7/2014 11:30	45	0.73	9,956	3.14	0.41	1	Atlas		7,268	1
	4/28/2014 4:15	4/28/2014 6:15	120	1.68	14,913	1.24	0.71	3	Atlas		25,053	1
	5/9/2014 19:15	5/9/2014 19:15	-	1.67	9,501	0.32	0.64	24	Atlas		15,867	1
	5/10/2014 5:45	5/10/2014 14:30	525	1.67	7,563	1.63	0.64	24	Atlas		12,630	1
	5/22/2014 2:45	5/22/2014 3:30	45	0.47	28,721	0.50	0.22	12	Atlas		13,499	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.32	53,997	0.80	0.27	1	Atlas		17,279	1
	5/29/2014 21:00	5/29/2014 21:15	15	0.44	65,611	0.76	0.35	1	Atlas		28,869	1
	6/11/2014 14:15	6/11/2014 14:15	-	0.12	54,225	0.28	0.09	1	Atlas		6,507	1
	6/20/2014 16:00	6/20/2014 16:00	-	0.28	21,511	0.16	0.19	3	Atlas		6,023	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.56	34,843	0.83	0.49	1	Atlas		19,512	1
	7/26/2014 21:45	7/26/2014 21:45	-	1.16	11,939	0.42	0.53	12	Atlas		13,849	1
	8/8/2014 5:45	8/8/2014 7:15	90	0.86	10,305	0.68	0.41	6	Atlas		8,862	1
	8/11/2014 15:30	8/11/2014 15:30	-	0.34	12,747	1.91	0.26	1	Atlas		4,334	1
	8/17/2014 9:30	8/17/2014 9:30	-	0.73	2,693	0.84	0.27	24	Atlas		1,893	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.73	5,193	1.07	0.27	24	Atlas		3,791	1
	8/22/2014 19:15	8/22/2014 19:15	-	0.33	9,133	1.04	0.25	1	Atlas		3,014	1
	8/23/2014 16:30	8/23/2014 20:15	225	0.71	38,528	1.58	0.37	3	Atlas		27,355	1
	8/30/2014 15:15	8/30/2014 15:15	-	0.56	10,745	1.25	0.33	1	Atlas		6,017	1
	9/11/2014 0:30	9/11/2014 2:15	105	1.83	9,955	1.52	1.07	3	Atlas		18,217	1
	10/10/2014 1:45	10/10/2014 1:45	-	1.26	775	0.93	0.57	3	Atlas		977	1
	3/10/2015 12:15	3/10/2015 12:15	-	1.30	1,381	2.76	0.58	12	Atlas		1,795	1
	3/26/2015 4:15	3/26/2015 4:15	-	0.49	1,345	0.45	0.19	12	Atlas		659	1
	4/2/2015 10:30	4/2/2015 15:15	285	5.52	5,828	1.03	20.17	6	Cloudburst		32,173	1
	4/3/2015 0:15	4/3/2015 4:30	255	5.52	14,028	4.14	20.17	6	Cloudburst		77,437	1
	4/3/2015 15:30	4/3/2015 15:30	-	5.52	249	5.39	20.17	6	Cloudburst		1,376	1
	4/7/2015 9:15	4/7/2015 17:00	465	0.83	20,957	6.31	0.37	1	Atlas		17,394	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.33	1,591	6.06	0.13	24	Atlas		525	1
	5/16/2015 11:30	5/16/2015 11:30	-	0.50	3,022	0.35	0.24	3	Atlas		1,511	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	24,363	0.63	0.04	1	Atlas		1,949	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.28	13,989	0.51	0.20	1	Atlas		3,917	1
	6/8/2015 8:15	6/8/2015 8:15	-	0.22	3,059	0.24	0.13	3	Atlas		673	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.63	4,148	0.43	0.34	3	Atlas		2,613	1
	6/18/2015 16:00	6/18/2015 17:15	75	1.75	22,246	1.50	0.57	48	Atlas		38,930	1
	6/25/2015 23:45	6/25/2015 23:45	-	0.53	15,823	1.39	0.29	6	Atlas		8,386	1
	6/26/2015 17:00	6/26/2015 17:00	-	0.93	29,052	2.08	0.52	1	Atlas		27,018	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/29/2015 13:15	6/29/2015 13:15	-	0.28	5.843	1.65	0.21	1	Atlas		1,636	1
	7/3/2015 14:45	7/3/2015 18:45	240	0.35	16.526	2.54	0.27	1	Atlas		5,784	1
	7/7/2015 11:30	7/7/2015 11:45	15	0.85	1.811	1.82	0.44	6	Atlas		1,539	1
	7/10/2015 16:00	7/10/2015 16:00	-	0.57	7.991	2.05	0.28	6	Atlas		4,555	1
	7/12/2015 5:45	7/12/2015 6:00	15	0.90	24.273	2.74	0.62	1	Atlas		21,846	1
	7/13/2015 15:00	7/13/2015 15:00	-	0.23	13.191	3.17	0.19	1	Atlas		3,034	1
	7/14/2015 4:15	7/14/2015 4:30	15	0.38	8.205	3.52	0.28	1	Atlas		3,118	1
	7/17/2015 23:15	7/18/2015 0:30	75	0.98	11.668	2.52	0.65	3	Atlas		11,435	1
	8/6/2015 14:45	8/6/2015 14:45	-	0.66	1.764	0.82	0.25	24	Atlas		1,164	1
	8/19/2015 8:15	8/19/2015 8:15	-	0.37	9.141	0.23	0.14	24	Atlas		3,382	1
	9/9/2015 11:15	9/9/2015 11:15	-	0.33	11.952	0.38	0.17	1	Atlas		3,944	1
	11/6/2015 8:30	11/6/2015 11:30	180	0.75	6.441	0.90	0.47	3	Atlas		4,831	1
	11/18/2015 10:45	11/18/2015 13:30	165	1.22	4.376	1.51	0.62	6	Atlas		5,339	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.77	13.731	1.37	0.55	1	Atlas		10,573	1
	12/27/2015 10:45	12/27/2015 13:15	150	1.91	1.076	3.08	0.65	3	Atlas		2,056	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.26	4.544	1.25	0.61	6	Atlas		5,726	1
	2/21/2016 4:15	2/21/2016 10:15	360	1.04	1.252	1.19	0.48	12	Atlas		1,302	1
	3/12/2016 22:30	3/12/2016 23:15	45	0.77	4.213	1.76	0.31	6	Atlas		3,244	1
	3/24/2016 17:30	3/24/2016 17:30	-	0.50	10.442	0.63	0.36	1	Atlas		5,221	1
	3/27/2016 21:15	3/27/2016 21:45	30	0.94	13.561	1.40	0.67	1	Atlas		12,747	1
	3/31/2016 22:00	3/31/2016 22:00	-	1.22	1.207	1.97	0.47	24	Atlas		1,472	1
	4/11/2016 16:00	4/11/2016 17:45	105	0.93	5.148	0.83	0.44	6	Atlas		4,788	1
	4/21/2016 14:30	4/21/2016 14:30	-	0.33	6.055	0.10	0.14	3	Atlas		1,998	1
	4/27/2016 21:00	4/27/2016 21:00	-	0.71	2.703	1.12	0.33	3	Atlas		1,919	1
	5/10/2016 21:45	5/10/2016 21:45	-	0.85	2.854	1.85	0.32	24	Atlas		2,426	1
	6/2/2016 15:15	6/2/2016 15:45	30	0.31	23.355	0.43	0.25	1	Atlas		7,240	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.18	38.789	0.49	0.10	3	Atlas		6,982	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.81	5.746	0.77	0.51	3	Atlas		4,654	1
	6/23/2016 16:00	6/23/2016 22:45	405	1.86	55.469	2.02	1.03	6	Cloudburst		103,173	1
	7/3/2016 12:00	7/3/2016 12:00	-	1.19	1.425	0.34	0.39	48	Atlas		1,696	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.48	20.144	1.22	0.42	1	Atlas		9,669	1
	8/1/2016 11:15	8/1/2016 11:15	-	0.40	2.480	1.69	0.31	1	Atlas		992	1
	8/15/2016 3:00	8/15/2016 7:15	255	0.91	6.974	1.21	0.44	6	Atlas		6,346	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.67	5.418	1.69	0.28	12	Atlas		3,630	1
	8/20/2016 20:00	8/20/2016 20:00	-	0.89	2.462	2.31	0.38	12	Atlas		2,191	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.23	7.243	0.23	0.19	1	Atlas		1,666	1
	9/10/2016 15:15	9/10/2016 15:15	-	0.19	15.116	0.15	0.11	3	Atlas		2,872	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.55	7.585	0.11	0.21	24	Atlas		4,172	1
	12/17/2016 18:30	12/19/2016 2:15	1,905	2.61	47.795	2.93	1.81	12	Cloudburst		124,746	1
	1/12/2017 19:45	1/13/2017 20:15	1,470	0.44	633.111	1.11	0.22	6	Atlas		278,569	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.41	8.805	0.47	0.35	1	Atlas		3,610	1
	3/1/2017 3:15	3/1/2017 3:45	30	1.15	6.702	1.07	0.58	6	Atlas		7,707	1
	3/7/2017 7:45	3/7/2017 7:45	-	0.59	6.093	1.77	0.19	48	Atlas		3,595	1
	4/16/2017 5:30	4/16/2017 5:30	-	1.16	3.774	0.54	0.49	6	Atlas		4,378	1
	4/16/2017 17:30	4/16/2017 17:45	15	1.16	9.206	0.82	0.49	6	Atlas		10,679	1
	4/27/2017 6:45	4/27/2017 6:45	-	0.15	8.973	0.85	0.10	1	Atlas		1,346	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.02	26.675	1.28	0.52	6	Atlas		27,209	1
	5/20/2017 18:45	5/20/2017 18:45	-	1.01	2.089	0.29	0.45	12	Atlas		2,110	1
	5/21/2017 3:00	5/21/2017 4:15	75	1.01	25.132	0.94	0.45	12	Atlas		25,383	1
	6/5/2017 18:30	6/5/2017 18:30	-	0.17	29.000	0.22	0.14	1	Atlas		4,930	1
	6/15/2017 3:15	6/15/2017 4:00	45	0.40	20.220	0.37	0.25	3	Atlas		8,088	1
	6/23/2017 15:30	6/23/2017 16:00	30	0.78	10.663	1.07	0.36	12	Atlas		8,317	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.69	8.039	0.79	0.59	1	Atlas		5,547	1
	7/7/2017 21:00	7/7/2017 21:00	-	0.35	4.323	0.93	0.25	1	Atlas		1,513	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.01	3.242	0.32	0.46	12	Atlas		3,274	1
	8/6/2017 16:45	8/6/2017 23:45	420	0.56	1.491	0.70	0.25	12	Atlas		835	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.71	12.930	0.36	0.39	6	Atlas		9,180	1
	8/22/2017 16:00	8/22/2017 16:30	30	0.65	11.791	1.39	0.43	1	Atlas		7,664	1
	8/29/2017 19:15	8/29/2017 19:30	15	0.19	48.758	0.24	0.15	1	Atlas		9,264	1
	9/1/2017 13:30	9/1/2017 22:00	510	2.76	607	2.55	0.97	24	Atlas		1,676	1
	9/19/2017 8:00	9/19/2017 8:45	45	0.37	3.932	0.61	0.23	3	Atlas		1,455	1
	10/7/2017 21:45	10/7/2017 22:15	30	1.80	3.041	0.62	0.68	24	Atlas		5,473	1
	10/8/2017 13:45	10/8/2017 14:30	45	1.80	272	1.70	0.68	24	Atlas		489	1
	10/10/2017 20:45	10/10/2017 20:45	-	0.62	1.032	2.43	0.33	3	Atlas		640	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/23/2017 6:15	10/23/2017 6:30	15	0.45	1,591	0.24	0.23	6	Atlas		716	1
	10/27/2017 17:45	10/27/2017 17:45	-	0.81	359	0.69	0.37	12	Atlas		291	1
	11/3/2017 4:30	11/3/2017 5:30	60	1.34	32,399	2.27	1.57	1	Atlas		43,414	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.22	6,986	1.67	0.13	1	Atlas		1,537	1
	12/5/2017 3:30	12/5/2017 4:00	30	0.64	3,302	0.36	0.35	3	Atlas		2,113	1
	12/22/2017 23:15	12/22/2017 23:45	30	1.22	184	0.36	0.47	24	Atlas		225	1
	2/7/2018 3:00	2/7/2018 3:15	15	0.48	1,871	0.67	0.26	6	Atlas		898	1
	2/11/2018 10:15	2/11/2018 10:15	-	0.38	1,921	0.93	0.18	3	Atlas		730	1
	2/16/2018 2:45	2/16/2018 3:00	15	0.86	341	1.27	0.39	12	Atlas		293	1
	2/22/2018 3:15	2/22/2018 5:30	135	1.71	6,097	2.83	0.64	24	Atlas		10,426	1
	2/23/2018 3:00	2/23/2018 5:00	120	1.36	4,484	3.16	0.62	12	Atlas		6,098	1
	2/24/2018 18:45	2/24/2018 23:30	285	2.04	18,751	4.87	0.85	12	Atlas		38,252	1
	3/24/2018 12:00	3/24/2018 12:15	15	0.98	502	1.50	0.38	24	Atlas		492	1
	3/29/2018 19:00	3/29/2018 19:30	30	1.16	1,059	1.89	0.30	48	Atlas		1,228	1
	4/1/2018 23:00	4/1/2018 23:00	-	0.63	79	2.06	0.34	6	Atlas		50	1
	4/3/2018 16:30	4/3/2018 19:15	165	0.62	229	2.50	0.34	6	Atlas		142	1
	5/5/2018 14:45	5/5/2018 18:30	225	1.44	4,919	1.38	0.56	12	Atlas		7,083	1
	5/17/2018 15:30	5/17/2018 16:00	30	0.48	1,340	0.48	0.39	1	Atlas		643	1
	5/27/2018 4:15	5/27/2018 4:30	15	0.28	2,536	0.28	0.21	1	Atlas		710	1
	5/31/2018 14:00	5/31/2018 14:00	-	1.45	741	0.63	0.72	3	Atlas		1,075	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.45	3,654	1.66	0.72	3	Atlas		5,299	1
	6/10/2018 15:00	6/10/2018 15:00	-	0.92	783	0.24	0.34	24	Atlas		720	1
	6/11/2018 11:00	6/11/2018 13:15	135	0.92	7,740	0.85	0.34	24	Atlas		7,121	1
	6/25/2018 6:45	6/25/2018 10:30	225	0.88	120	1.41	0.35	12	Atlas		106	1
	7/2/2018 17:30	7/2/2018 17:45	15	0.30	533	0.95	0.24	1	Atlas		160	1
	7/20/2018 4:45	7/20/2018 4:45	-	1.00	54	0.34	0.44	3	Atlas		54	1
	7/20/2018 13:45	7/20/2018 20:45	420	1.00	631	1.13	0.44	3	Atlas		631	1
	7/31/2018 1:30	7/31/2018 12:45	675	2.16	1,715	2.21	0.90	6	Atlas		3,705	1
	8/15/2018 19:45	8/16/2018 8:45	780	2.68	9,470	2.52	1.18	24	Cloudburst		25,380	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.51	32,737	3.26	0.40	1	Atlas		16,696	1
	9/8/2018 5:30	9/8/2018 5:30	-	2.47	38	0.48	1.22	6	Cloudburst		94	1
	9/8/2018 17:30	9/8/2018 22:00	270	2.47	36,487	2.60	1.22	6	Cloudburst		90,124	1
	9/21/2018 17:30	9/21/2018 17:30	-	0.25	22,204	0.32	0.17	1	Atlas		5,551	1
	9/23/2018 4:15	9/23/2018 6:45	150	1.34	1,019	1.61	0.50	24	Atlas		1,366	1
	9/24/2018 0:30	9/24/2018 13:45	795	1.30	5,622	2.91	0.61	6	Atlas		7,308	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.08	9,200	2.97	0.07	1	Atlas		736	1
	9/25/2018 16:30	9/25/2018 17:30	60	0.76	2,667	3.30	0.33	12	Atlas		2,027	1
	11/1/2018 0:30	11/1/2018 0:45	15	1.85	505	1.41	0.67	24	Atlas		934	1
	11/5/2018 21:45	11/5/2018 22:00	15	0.88	2,526	2.42	0.48	6	Atlas		2,223	1
	12/27/2018 17:30	12/27/2018 17:30	-	0.39	3,200	0.50	0.25	1	Atlas		1,248	1
	12/31/2018 16:15	12/31/2018 16:15	-	1.24	1,021	1.59	0.48	24	Atlas		1,266	1
	2/5/2019 23:00	2/6/2019 9:45	645	1.47	1,090	0.68	0.47	48	Atlas		1,602	1
	2/7/2019 9:00	2/7/2019 9:00	-	1.47	2,861	1.07	0.47	48	Atlas		4,205	1
	2/12/2019 4:30	2/12/2019 4:30	-	2.58	496	3.61	0.81	48	Atlas		1,279	1
	2/20/2019 3:30	2/20/2019 6:15	165	1.30	2,765	1.17	0.58	6	Atlas		3,594	1
	3/9/2019 13:30	3/9/2019 15:00	90	0.86	1,213	0.60	0.39	12	Atlas		1,043	1
	3/14/2019 17:30	3/14/2019 18:30	60	0.27	681	1.59	0.20	1	Atlas		184	1
	3/30/2019 17:00	3/30/2019 18:45	105	0.88	2,761	1.01	0.42	6	Atlas		2,430	1
	4/7/2019 11:45	4/7/2019 11:45	-	0.59	2,300	0.59	0.29	3	Atlas		1,357	1
	4/14/2019 2:00	4/14/2019 3:00	60	0.72	1,074	1.40	0.33	6	Atlas		773	1
	4/19/2019 21:30	4/19/2019 22:30	60	2.54	197	1.83	0.82	48	Atlas		501	1
	4/23/2019 17:45	4/23/2019 18:00	15	0.38	16,226	2.92	0.33	1	Atlas		6,166	1
	4/24/2019 20:30	4/24/2019 20:45	15	1.03	4,242	3.29	0.33	48	Atlas		4,369	1
	4/26/2019 2:30	4/26/2019 2:30	-	1.03	1,031	3.47	0.33	48	Atlas		1,062	1
	5/3/2019 4:45	5/3/2019 5:00	15	0.79	9,633	0.58	0.43	6	Atlas		7,610	1
	5/26/2019 13:45	5/26/2019 14:45	60	0.64	4,317	0.59	0.37	3	Atlas		2,763	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.89	5,178	0.98	0.66	1	Atlas		4,608	1
	6/7/2019 21:00	6/7/2019 21:00	-	0.53	211	1.12	0.22	6	Atlas		112	1
	6/9/2019 15:15	6/9/2019 17:00	105	0.52	74,042	2.10	0.27	3	Atlas		38,502	1
	6/16/2019 19:45	6/16/2019 21:00	75	1.62	11,009	1.52	0.75	6	Atlas		17,834	1
	6/21/2019 19:15	6/21/2019 19:15	-	0.52	2,462	2.50	0.35	3	Atlas		1,280	1
	6/22/2019 6:45	6/22/2019 6:45	-	0.43	3,453	2.86	0.28	3	Atlas		1,485	1
	6/23/2019 16:00	6/23/2019 16:15	15	0.38	47,345	3.22	0.30	1	Atlas		17,991	1
	6/24/2019 13:30	6/24/2019 13:45	15	0.44	5,720	2.07	0.27	3	Atlas		2,517	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/30/2019 17:30	6/30/2019 17:30	-	0.15	3,453	0.57	0.09	1	Atlas		518	1
	7/3/2019 12:15	7/3/2019 12:30	15	0.25	23,108	0.48	0.20	1	Atlas		5,777	1
	7/16/2019 14:15	7/16/2019 14:15	-	0.13	2,608	0.09	0.06	12	Atlas		339	1
	7/18/2019 0:30	7/18/2019 1:00	30	0.55	79,393	0.68	0.41	1	Atlas		43,666	1
	7/29/2019 23:30	7/29/2019 23:45	15	0.47	7,657	0.47	0.29	3	Atlas		3,599	1
	8/7/2019 4:15	8/7/2019 4:30	15	0.22	17,200	0.21	0.19	1	Atlas		3,784	1
	8/26/2019 11:15	8/26/2019 12:00	45	0.33	1,948	0.64	0.15	6	Atlas		643	1
	8/27/2019 16:45	8/27/2019 16:45	-	0.43	505	1.14	0.35	1	Atlas		217	1
	10/15/2019 22:30	10/15/2019 22:30	-	0.67	2,096	0.92	0.52	1	Atlas		1,404	1
	10/30/2019 14:00	10/30/2019 14:30	30	0.74	4,286	1.87	0.38	3	Atlas		3,172	1
	1/11/2020 11:00	1/11/2020 11:00	-	0.67	322	0.57	0.32	6	Atlas		216	1
	2/12/2020 18:00	2/12/2020 18:15	15	0.68	684	1.08	0.32	3	Atlas		465	1
	3/10/2020 8:15	3/10/2020 8:15	-	0.40	4,870	0.41	0.18	12	Atlas		1,948	1
	3/12/2020 19:45	3/12/2020 22:45	180	0.49	8,259	0.89	0.24	6	Atlas		4,047	1
	3/19/2020 12:15	3/19/2020 12:30	15	0.39	4,700	1.80	0.18	3	Atlas		1,833	1
	4/8/2020 22:15	4/8/2020 22:15	-	0.50	1,948	0.26	0.33	3	Atlas		974	1
	4/12/2020 17:45	4/13/2020 1:15	450	0.87	1,780	1.19	0.36	12	Atlas		1,549	1
	5/8/2020 10:30	5/8/2020 10:30	-	0.64	172	0.61	0.29	12	Atlas		110	1
	5/15/2020 16:30	5/16/2020 7:30	900	1.46	7,105	1.63	0.56	24	Atlas		10,374	1
	5/25/2020 16:30	5/25/2020 16:30	-	0.42	9,455	0.43	0.33	1	Atlas		3,971	1
	5/28/2020 17:15	5/29/2020 0:30	435	0.17	335	0.97	0.10	1	Atlas		57	1
	6/4/2020 18:15	6/4/2020 18:15	-	0.51	1,065	0.37	0.26	6	Atlas		543	1
	6/9/2020 11:45	6/9/2020 11:45	-	0.10	9,600	0.60	0.08	1	Atlas		960	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.46	4,504	0.33	0.26	1	Atlas		2,072	1
	6/22/2020 22:30	6/23/2020 0:00	90	0.87	19,757	1.25	0.43	3	Atlas		17,189	1
	6/29/2020 3:15	6/29/2020 4:30	75	0.56	21,577	1.69	0.35	3	Atlas		12,083	1
	CSO202 Total										**2,537,041**	**232**
CSO203	10/5/2013 14:15	10/6/2013 6:30	975	4.20	43,628	3.68	7.26	24	Cloudburst		183,238	1
	10/30/2013 4:45	10/30/2013 8:00	195	1.96	53,506	1.96	1.30	1	Atlas		104,872	1
	11/17/2013 18:00	11/17/2013 18:00	-	2.32	3,876	2.45	1.06	6	Cloudburst		8,993	1
	12/21/2013 22:00	12/21/2013 22:45	45	1.37	40,348	1.98	0.74	3	Atlas		55,277	1
	2/2/2014 5:30	2/2/2014 8:00	150	0.56	1,002	0.26	0.21	24	Atlas		561	1
	2/3/2014 8:30	2/4/2014 9:00	1,470	0.56	102,307	0.56	0.21	24	Atlas		57,292	1
	2/4/2014 23:15	2/4/2014 23:15	-	0.51	1,749	1.04	0.25	6	Atlas		892	1
	2/17/2014 16:15	2/17/2014 16:15	-	0.40	6,658	0.91	0.24	3	Atlas		2,663	1
	4/4/2014 3:15	4/4/2014 3:15	-	2.36	7,513	3.07	0.82	24	Atlas		17,731	1
	4/14/2014 10:45	4/17/2014 4:00	3,915	0.99	1,270,056	1.30	0.37	24	Atlas		1,257,355	1
	4/28/2014 4:15	4/28/2014 6:15	120	1.68	6,818	1.24	0.71	3	Atlas		11,455	1
	5/9/2014 19:15	5/10/2014 11:15	960	1.67	16,182	0.99	0.64	24	Atlas		27,024	1
	5/14/2014 7:15	5/14/2014 12:15	300	0.91	6,707	2.17	0.35	24	Atlas		6,103	1
	5/15/2014 2:15	5/15/2014 7:30	315	0.91	15,496	2.71	0.35	24	Atlas		14,101	1
	5/28/2014 20:15	5/28/2014 20:15	-	0.32	1,741	0.80	0.27	1	Atlas		557	1
	5/29/2014 21:00	5/30/2014 9:45	765	0.44	52,207	0.77	0.35	1	Atlas		22,971	1
	6/20/2014 17:45	6/20/2014 23:45	360	0.28	74,632	0.28	0.19	3	Atlas		20,897	1
	6/24/2014 18:00	6/25/2014 3:00	540	0.13	80,923	0.48	0.08	1	Atlas		10,520	1
	7/2/2014 17:00	7/3/2014 2:30	570	0.10	179,120	0.32	0.09	1	Atlas		17,912	1
	7/7/2014 19:30	7/7/2014 21:30	120	0.56	33,968	0.85	0.49	1	Atlas		19,022	1
	7/8/2014 8:30	7/8/2014 11:00	150	0.30	12,093	1.15	0.26	1	Atlas		3,628	1
	7/13/2014 22:30	7/15/2014 2:15	1,665	0.78	61,453	1.82	0.39	3	Atlas		47,933	1
	7/26/2014 21:45	7/27/2014 11:30	825	1.16	95,391	1.19	0.53	12	Atlas		110,654	1
	8/8/2014 5:45	8/8/2014 16:00	615	0.86	95,367	0.93	0.41	6	Atlas		82,016	1
	8/10/2014 4:15	8/10/2014 4:30	15	0.61	5,061	1.61	0.50	1	Atlas		3,087	1
	8/11/2014 15:15	8/11/2014 15:30	15	0.34	13,153	1.91	0.26	1	Atlas		4,472	1
	8/23/2014 16:30	8/24/2014 11:00	1,110	0.71	150,351	1.79	0.37	3	Atlas		106,749	1
	8/27/2014 17:15	8/28/2014 9:15	960	0.20	143,195	1.27	0.16	1	Atlas		28,639	1
	8/30/2014 15:15	8/31/2014 10:45	1,170	0.56	166,979	1.50	0.33	1	Atlas		93,508	1
	9/11/2014 0:45	9/12/2014 3:15	1,590	1.83	99,984	1.83	1.07	3	Atlas		182,971	1
	10/6/2014 7:45	10/7/2014 2:30	1,125	0.20	315,620	0.45	0.08	6	Atlas		63,124	1
	10/7/2014 11:45	10/7/2014 12:30	45	0.20	12,475	0.64	0.16	1	Atlas		2,495	1
	10/10/2014 1:45	10/10/2014 7:30	345	1.26	27,073	1.56	0.57	3	Atlas		34,112	1
	10/10/2014 21:00	10/11/2014 8:15	675	1.26	4,971	1.66	0.57	3	Atlas		6,264	1
	10/13/2014 4:15	10/13/2014 10:15	360	0.51	29,716	2.18	0.33	3	Atlas		15,155	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	3/10/2015 12:30	3/10/2015 12:30	-	1.30	2,512	2.80	0.58	12	Atlas		3,265	1
	4/2/2015 15:00	4/2/2015 15:15	15	5.52	11,709	0.94	20.17	6	Cloudburst		64,635	1
	4/3/2015 0:15	4/3/2015 3:15	180	5.52	35,321	3.79	20.17	6	Cloudburst		194,971	1
	4/7/2015 9:30	4/7/2015 9:30	-	0.83	6,092	6.08	0.37	1	Atlas		5,056	1
	4/8/2015 18:15	4/8/2015 18:15	-	0.10	16,090	6.45	0.05	6	Atlas		1,609	1
	4/9/2015 11:30	4/9/2015 11:30	-	0.33	7,136	6.06	0.13	24	Atlas		2,355	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.08	234,275	0.63	0.04	1	Atlas		18,742	1
	5/26/2015 14:00	5/26/2015 14:00	-	0.28	7,121	0.51	0.20	1	Atlas		1,994	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.63	998	0.43	0.34	3	Atlas		629	1
	6/18/2015 17:15	6/18/2015 17:45	30	1.75	11,121	1.68	0.57	48	Atlas		19,461	1
	6/20/2015 11:15	6/20/2015 19:30	495	1.75	5,352	2.68	0.57	48	Atlas		9,366	1
	6/26/2015 0:00	6/26/2015 0:00	-	0.53	6,285	1.40	0.29	6	Atlas		3,331	1
	6/26/2015 17:15	6/27/2015 16:45	1,410	0.93	322,731	2.53	0.52	1	Atlas		300,140	1
	6/29/2015 15:15	6/30/2015 2:45	690	0.28	43,454	1.74	0.21	1	Atlas		12,167	1
	7/1/2015 15:15	7/1/2015 15:15	-	0.99	204	1.77	0.52	3	Atlas		202	1
	7/2/2015 20:45	7/2/2015 20:45	-	0.99	391	2.73	0.52	3	Atlas		387	1
	7/7/2015 11:30	7/7/2015 15:00	210	0.85	4,994	2.08	0.44	6	Atlas		4,245	1
	7/8/2015 12:15	7/8/2015 12:45	30	0.10	13,560	2.29	0.08	1	Atlas		1,356	1
	7/9/2015 7:30	7/9/2015 7:30	60	0.49	1,845	1.86	0.30	3	Atlas		904	1
	7/12/2015 6:00	7/12/2015 8:45	165	0.90	64,368	2.93	0.62	1	Atlas		57,931	1
	7/14/2015 4:15	7/14/2015 4:15	-	0.38	15,997	3.50	0.28	1	Atlas		6,079	1
	7/18/2015 0:30	7/18/2015 1:00	30	0.98	27,856	2.55	0.65	3	Atlas		27,299	1
	7/29/2015 17:45	7/29/2015 18:00	15	0.05	31,180	0.18	0.04	1	Atlas		1,559	1
	8/6/2015 2:15	8/6/2015 8:45	390	0.66	3,467	0.67	0.25	24	Atlas		2,288	1
	8/19/2015 8:15	8/19/2015 8:30	15	0.37	6,062	0.23	0.14	24	Atlas		2,243	1
	9/9/2015 6:30	9/9/2015 11:45	315	0.33	8,209	0.38	0.17	1	Atlas		2,709	1
	10/2/2015 19:45	10/2/2015 23:15	210	0.64	5,569	1.52	0.30	6	Atlas		3,564	1
	10/27/2015 20:00	10/27/2015 20:15	15	2.27	346	1.73	0.75	24	Atlas		786	1
	11/6/2015 4:00	11/6/2015 4:00	-	0.75	9,907	0.74	0.47	3	Atlas		7,430	1
	11/18/2015 11:00	11/18/2015 11:00	-	1.22	1,552	1.06	0.62	6	Atlas		1,894	1
	11/28/2015 16:45	11/29/2015 11:45	1,140	0.71	45,882	0.90	0.29	12	Atlas		32,576	1
	12/23/2015 19:30	12/23/2015 19:45	15	0.77	60,277	1.37	0.55	1	Atlas		46,413	1
	12/27/2015 10:45	12/27/2015 13:15	150	1.91	2,914	3.08	0.65	3	Atlas		5,565	1
	2/3/2016 0:00	2/3/2016 0:00	-	1.26	21,314	1.25	0.61	6	Atlas		26,856	1
	3/27/2016 21:15	3/27/2016 21:30	15	0.94	14,509	1.36	0.67	1	Atlas		13,638	1
	6/2/2016 15:45	6/2/2016 15:45	-	0.31	11,019	0.40	0.25	1	Atlas		3,416	1
	6/4/2016 16:45	6/4/2016 16:45	-	0.18	87,233	0.49	0.10	3	Atlas		15,702	1
	6/14/2016 16:45	6/14/2016 16:45	-	0.81	3,596	0.77	0.51	3	Atlas		2,913	1
	6/23/2016 16:15	6/23/2016 22:30	375	1.86	46,410	2.02	1.03	6	Cloudburst		86,322	1
	7/3/2016 20:00	7/4/2016 0:15	255	1.19	4,961	0.70	0.39	48	Atlas		5,904	1
	7/4/2016 11:00	7/4/2016 11:00	-	1.19	203	0.94	0.39	48	Atlas		241	1
	7/6/2016 13:30	7/6/2016 14:30	60	0.19	2,816	1.35	0.13	1	Atlas		535	1
	7/30/2016 14:15	7/30/2016 14:15	-	0.48	31,323	1.22	0.42	1	Atlas		15,035	1
	8/17/2016 7:00	8/17/2016 7:00	-	0.67	8,922	1.69	0.28	12	Atlas		5,978	1
	8/20/2016 20:00	8/20/2016 20:00	-	0.89	6,365	2.31	0.38	12	Atlas		5,665	1
	8/28/2016 17:30	8/28/2016 17:30	-	0.23	10,613	0.23	0.19	1	Atlas		2,441	1
	10/20/2016 9:15	10/20/2016 9:15	-	0.55	1,755	0.11	0.21	24	Atlas		965	1
	12/17/2016 18:30	12/18/2016 12:15	1,065	2.61	35,322	2.93	1.81	12	Cloudburst		92,191	1
	1/6/2017 9:30	1/6/2017 11:45	135	0.19	7,474	0.45	0.08	12	Atlas		1,420	1
	1/10/2017 19:45	1/10/2017 19:45	-	0.12	10,175	0.32	0.09	1	Atlas		1,221	1
	1/12/2017 17:15	1/13/2017 23:45	1,830	0.44	295,505	1.13	0.22	6	Atlas		130,022	1
	2/9/2017 2:15	2/10/2017 10:15	1,920	0.08	3,466,625	0.48	0.04	6	Atlas		277,330	1
	2/24/2017 19:00	2/24/2017 19:00	-	0.41	11,941	0.47	0.35	1	Atlas		4,896	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.15	21,408	1.04	0.58	6	Atlas		24,619	1
	4/16/2017 17:45	4/16/2017 17:45	-	1.16	3,538	0.82	0.49	6	Atlas		4,104	1
	4/29/2017 1:45	4/29/2017 3:00	75	1.02	5,212	1.28	0.52	6	Atlas		5,316	1
	5/21/2017 3:00	5/21/2017 3:45	45	1.01	39,069	0.84	0.45	12	Atlas		39,460	1
	6/5/2017 18:30	6/6/2017 2:00	450	0.17	236,694	0.23	0.14	1	Atlas		40,238	1
	6/15/2017 3:15	6/15/2017 3:15	-	0.40	3,013	0.26	0.25	3	Atlas		1,205	1
	6/23/2017 15:30	6/23/2017 23:30	480	0.78	16,641	1.30	0.36	12	Atlas		12,980	1
	6/30/2017 21:00	7/1/2017 11:15	855	0.69	201,813	0.79	0.59	1	Atlas		139,251	1
	7/7/2017 20:45	7/8/2017 6:45	600	0.35	111,651	1.32	0.25	1	Atlas		39,078	1
	7/23/2017 2:45	7/23/2017 2:45	-	1.01	2,441	0.32	0.46	12	Atlas		2,465	1
	8/17/2017 15:00	8/17/2017 15:00	-	0.71	14,806	0.36	0.39	6	Atlas		10,512	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	8/29/2017 19:15	8/29/2017 19:15	-	0.19	81,242	0.24	0.15	1	Atlas		15,436	1
	9/19/2017 8:00	9/19/2017 8:00	-	0.37	751	0.49	0.23	3	Atlas		278	1
	10/7/2017 21:45	10/7/2017 21:45	-	1.80	195	0.52	0.68	24	Atlas		351	1
	11/3/2017 4:30	11/3/2017 5:15	45	1.34	14,467	2.25	1.57	1	Atlas		19,386	1
	11/6/2017 2:00	11/6/2017 2:00	-	0.22	2,364	1.67	0.13	1	Atlas		520	1
	2/22/2018 5:00	2/22/2018 5:00	-	1.71	58	2.77	0.64	24	Atlas		100	1
	2/24/2018 18:45	2/24/2018 23:15	270	2.04	15,595	4.85	0.85	12	Atlas		31,814	1
	5/5/2018 15:15	5/5/2018 15:15	-	1.44	2,083	1.06	0.56	12	Atlas		3,000	1
	6/1/2018 1:15	6/1/2018 1:15	-	1.45	8,215	1.66	0.72	3	Atlas		11,912	1
	7/20/2018 19:30	7/20/2018 20:45	75	1.00	27,667	1.13	0.44	3	Atlas		27,667	1
	7/31/2018 1:45	7/31/2018 2:30	45	2.16	15,168	1.44	0.90	6	Atlas		32,763	1
	8/15/2018 20:00	8/16/2018 8:45	765	2.68	595	2.52	1.18	24	Cloudburst		1,594	1
	8/20/2018 11:15	8/20/2018 11:30	15	0.51	24,114	3.26	0.40	1	Atlas		12,298	1
	9/8/2018 19:30	9/8/2018 20:00	30	2.47	19,452	2.16	1.22	6	Cloudburst		48,046	1
	9/21/2018 17:30	9/21/2018 17:30	-	0.25	1,384	0.32	0.17	1	Atlas		346	1
	9/24/2018 0:30	9/24/2018 13:30	780	1.30	74	2.91	0.61	6	Atlas		96	1
	9/25/2018 5:45	9/25/2018 5:45	-	0.08	1,875	2.97	0.07	1	Atlas		150	1
	9/25/2018 17:00	9/25/2018 17:30	30	0.76	1,120	3.30	0.33	12	Atlas		851	1
	11/5/2018 23:00	11/5/2018 23:00	-	0.88	131	2.58	0.48	6	Atlas		115	1
	3/14/2019 17:30	3/14/2019 17:30	-	0.27	200	1.55	0.20	1	Atlas		54	1
	4/14/2019 2:00	4/14/2019 2:00	-	0.72	518	1.26	0.33	6	Atlas		373	1
	4/23/2019 18:00	4/23/2019 18:00	-	0.38	442	2.92	0.33	1	Atlas		168	1
	4/24/2019 20:45	4/24/2019 20:45	-	1.03	302	3.29	0.33	48	Atlas		311	1
	5/3/2019 5:00	5/3/2019 5:00	-	0.79	24,277	0.58	0.43	6	Atlas		19,179	1
	6/5/2019 21:00	6/5/2019 21:00	-	0.89	6,780	0.98	0.66	1	Atlas		6,034	1
	6/9/2019 16:45	6/9/2019 17:00	15	0.52	9,444	2.10	0.27	3	Atlas		4,911	1
	6/16/2019 19:30	6/16/2019 20:45	75	1.62	45,438	1.47	0.75	6	Atlas		73,610	1
	6/23/2019 16:00	6/23/2019 16:15	15	0.38	1,218	3.22	0.30	1	Atlas		463	1
	6/24/2019 13:45	6/24/2019 13:45	-	0.44	2,166	2.07	0.27	3	Atlas		953	1
	8/7/2019 4:30	8/7/2019 4:30	-	0.22	3,568	0.21	0.19	1	Atlas		785	1
	10/30/2019 14:15	10/30/2019 14:30	15	0.74	78	1.87	0.38	3	Atlas		58	1
	5/16/2020 2:15	5/16/2020 2:15	-	1.46	55	1.07	0.56	24	Atlas		81	1
	6/21/2020 11:45	6/21/2020 11:45	-	0.46	554	0.33	0.26	1	Atlas		255	1
	6/22/2020 22:30	6/22/2020 22:30	-	0.87	13,301	1.10	0.43	3	Atlas		11,572	1
	6/29/2020 3:30	6/29/2020 3:30	-	0.56	6,702	1.42	0.35	3	Atlas		3,753	1
CSO203 Total											**4,808,596**	**134**
CSO205	7/21/2013 19:30	7/21/2013 20:00	30	3.26	402	2.42	5.56	3	Atlas	Retained by Sneads Branch	1,313	1
	7/22/2013 7:45	7/22/2013 13:45	360	3.26	156	3.47	5.56	3	Atlas		508	1
	8/9/2013 17:15	8/9/2013 17:30	15	0.27	1,596	0.31	0.15	3	Atlas	Retained by Sneads Branch	432	1
	8/12/2013 15:00	8/12/2013 15:00	-	0.84	305	0.87	0.36	1	Atlas		257	1
	9/2/2013 14:00	9/2/2013 14:00	-	0.55	522	1.45	0.48	1	Atlas	Retained by Sneads Branch	288	1
	10/5/2013 20:45	10/5/2013 23:45	180	4.49	612	3.49	9.84	24	Cloudburst		2,748	1
	10/30/2013 5:15	10/30/2013 5:15	-	2.05	66	1.98	1.78	1	Atlas		137	1
	11/17/2013 7:45	11/17/2013 18:00	615	2.70	970	2.82	2.00	6	Cloudburst	Retained by Sneads Branch	2,620	1
	2/4/2014 23:00	2/4/2014 23:00	-	0.51	388	0.91	0.25	6	Atlas	Retained by Sneads Branch	199	1
	2/17/2014 16:15	2/17/2014 16:15	-	0.40	513	0.92	0.25	3	Atlas	Retained by Sneads Branch	206	1
	3/29/2014 8:30	3/29/2014 8:30	-	0.88	926	0.87	0.42	6	Atlas	Retained by Sneads Branch	816	1
	4/3/2014 12:00	4/3/2014 18:30	390	2.65	424	2.49	0.92	24	Atlas	Retained by Sneads Branch	1,125	1
	4/4/2014 12:45	4/5/2014 18:00	1,755	2.65	42,845	3.65	0.92	24	Atlas		113,541	1
	4/7/2014 10:45	4/7/2014 12:00	75	0.80	3,945	3.53	0.49	1	Atlas		3,157	1
	4/28/2014 4:00	4/28/2014 4:00	-	1.70	78	0.60	0.68	3	Atlas	Retained by Sneads Branch	133	1
	5/22/2014 3:00	5/22/2014 3:15	15	0.43	7,498	0.45	0.22	1	Atlas	Retained by Sneads Branch	3,225	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/29/2014 20:30	5/29/2014 20:30	-	1.13	334	0.80	0.90	1	Atlas	Retained by Sneads Branch	378	1
	5/30/2014 14:00	5/30/2014 14:15	15	0.33	3,391	1.66	0.24	1	Atlas	Retained by Sneads Branch	1,120	1
	8/11/2014 15:15	8/11/2014 15:15	-	0.42	3,907	1.84	0.30	1	Atlas	Retained by Sneads Branch	1,642	1
	8/23/2014 16:30	8/23/2014 20:00	210	0.72	2,372	1.46	0.34	3	Atlas	Retained by Sneads Branch	1,709	1
	8/27/2014 15:00	8/27/2014 16:45	105	0.30	7,153	1.22	0.19	3	Atlas		2,147	1
	8/30/2014 15:00	8/30/2014 15:00	-	0.58	2,871	1.41	0.37	1	Atlas	Retained by Sneads Branch	1,666	1
	9/2/2014 8:15	9/2/2014 8:15	-	0.36	1,511	1.11	0.22	3	Atlas	Retained by Sneads Branch	545	1
	9/11/2014 0:30	9/11/2014 2:15	105	1.99	2,419	1.68	1.60	3	Atlas	Retained by Sneads Branch	4,814	1
	10/10/2014 1:45	10/10/2014 1:45	-	1.06	192	0.78	0.50	1	Atlas	Retained by Sneads Branch	204	1
	10/13/2014 23:30	10/13/2014 23:30	-	1.12	190	1.93	0.50	12	Atlas	Retained by Sneads Branch	214	1
	12/6/2014 3:00	12/6/2014 3:00	-	1.86	106	2.49	0.60	48	Atlas	Retained by Sneads Branch	199	1
	3/10/2015 12:30	3/10/2015 12:30	-	1.37	115	2.78	0.62	12	Atlas	Retained by Sneads Branch	159	1
	4/2/2015 15:15	4/2/2015 15:15	-	5.66	32	0.90	27.08	6	Cloudburst	Retained by Sneads Branch	180	1
	4/3/2015 0:15	4/3/2015 15:30	915	5.66	2,488	5.56	27.08	6	Cloudburst	Retained by Sneads Branch	14,084	1
	5/17/2015 14:15	5/17/2015 14:15	-	0.15	3,160	0.60	0.10	1	Atlas	Retained by Sneads Branch	475	1
	5/26/2015 13:45	5/26/2015 14:00	15	0.46	1,600	0.67	0.35	1	Atlas	Retained by Sneads Branch	737	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.74	386	0.70	0.39	3	Atlas	Retained by Sneads Branch	287	1
	6/18/2015 17:00	6/18/2015 17:15	15	1.97	4,464	1.78	0.64	48	Atlas	Retained by Sneads Branch	8,796	1
	6/20/2015 4:45	6/20/2015 8:00	195	1.97	381	3.16	0.64	48	Atlas	Retained by Sneads Branch	752	1
	6/26/2015 17:15	6/26/2015 17:15	-	0.78	264	2.25	0.41	1	Atlas	Retained by Sneads Branch	207	1
	7/12/2015 6:00	7/12/2015 6:15	15	0.77	499	2.01	0.51	3	Atlas	Retained by Sneads Branch	385	1
	11/6/2015 3:45	11/6/2015 3:45	-	0.71	204	0.73	0.43	3	Atlas	Retained by Sneads Branch	146	1
	11/18/2015 9:15	11/18/2015 13:45	270	1.48	2,259	1.81	0.77	6	Atlas	Retained by Sneads Branch	3,345	1
	12/1/2015 3:30	12/1/2015 3:30	-	0.71	307	1.50	0.32	12	Atlas	Retained by Sneads Branch	219	1
	2/21/2016 10:15	2/21/2016 10:15	-	0.95	654	1.10	0.44	12	Atlas	Retained by Sneads Branch	622	1
	2/24/2016 16:15	2/25/2016 7:00	885	2.11	44,085	3.06	0.83	12	Atlas	Retained by Sneads Branch	93,021	1
	3/1/2016 12:15	3/1/2016 20:45	510	0.26	21,212	2.39	0.14	3	Atlas	Retained by Sneads Branch	5,516	1
	4/29/2017 2:30	4/29/2017 2:30	-	0.89	237	1.00	0.49	3	Atlas	Retained by Sneads Branch	212	1
	2/22/2018 3:15	2/22/2018 7:15	240	1.63	206	2.61	0.61	24	Atlas		336	1
	2/23/2018 3:45	2/23/2018 11:45	480	1.22	66	3.50	0.56	12	Atlas		81	1
	2/24/2018 19:00	2/25/2018 5:45	645	1.76	5,326	4.61	0.73	12	Atlas		9,375	1
	3/29/2018 19:30	3/29/2018 22:45	195	0.62	174	1.88	0.21	24	Atlas	Retained by Sneads Branch	109	1
	4/1/2018 20:15	4/1/2018 23:30	195	0.54	1,019	1.88	0.30	6	Atlas	Retained by Sneads Branch	551	1
	4/3/2018 16:30	4/3/2018 21:45	315	0.54	8,013	2.40	0.30	6	Atlas	Retained by Sneads Branch	4,328	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/17/2018 15:45	5/17/2018 15:45	-	0.46	178	0.46	0.37	1	Atlas	Retained by Sneads Branch	83	1
	7/30/2018 23:15	7/31/2018 13:00	825	1.86	27	1.94	0.74	6	Atlas		51	1
	8/16/2018 3:15	8/16/2018 11:00	465	2.69	673	2.69	1.22	24	Cloudburst	Retained by Sneads Branch	1,811	1
	8/19/2018 20:00	8/19/2018 20:45	45	0.27	3,170	3.01	0.18	3	Atlas		857	1
	8/31/2018 17:30	8/31/2018 17:45	15	0.26	300	0.17	0.15	3	Atlas	Retained by Sneads Branch	79	1
	9/6/2018 11:30	9/6/2018 11:45	15	0.28	571	0.51	0.18	3	Atlas	Retained by Sneads Branch	161	1
	9/8/2018 15:45	9/9/2018 2:00	615	2.32	5,627	2.61	0.97	6	Atlas	Retained by Sneads Branch	13,056	1
	9/22/2018 15:45	9/22/2018 17:15	90	1.28	412	0.64	0.48	24	Atlas	Retained by Sneads Branch	528	1
	9/23/2018 4:15	9/23/2018 8:30	255	1.28	5,031	1.57	0.48	24	Atlas	Retained by Sneads Branch	6,441	1
	9/24/2018 0:45	9/24/2018 17:30	1,005	1.38	5,304	2.94	0.62	6	Atlas		7,321	1
	9/25/2018 5:45	9/25/2018 6:00	15	0.07	4,814	2.94	0.06	1	Atlas		338	1
	9/25/2018 16:45	9/26/2018 4:30	705	0.69	6,414	3.61	0.31	12	Atlas		4,427	1
	10/15/2018 9:15	10/15/2018 9:45	30	0.19	2,937	0.66	0.11	1	Atlas	Retained by Sneads Branch	559	1
	10/31/2018 15:00	11/1/2018 18:30	1,650	1.65	5,205	2.00	0.59	24	Atlas	Retained by Sneads Branch	8,590	1
	11/5/2018 20:15	11/6/2018 1:15	300	1.04	5,244	2.75	0.56	6	Atlas	Retained by Sneads Branch	5,455	1
	11/14/2018 22:15	11/15/2018 4:15	360	0.41	10,154	0.57	0.19	12	Atlas	Retained by Sneads Branch	4,164	1
	11/26/2018 0:15	11/26/2018 0:15	-	0.08	1,700	0.35	0.05	1	Atlas	Retained by Sneads Branch	137	1
	12/1/2018 3:00	12/1/2018 15:30	750	1.31	3,672	1.40	0.58	12	Atlas	Retained by Sneads Branch	4,811	1
	12/14/2018 14:15	12/15/2018 11:15	1,260	1.61	6,496	1.60	0.66	12	Atlas	Retained by Sneads Branch	10,460	1
	12/27/2018 13:45	12/28/2018 10:45	1,260	0.42	2,600	0.88	0.27	1	Atlas	Retained by Sneads Branch	1,093	1
	12/31/2018 8:00	12/31/2018 17:30	570	1.16	4,203	1.59	0.45	24	Atlas	Retained by Sneads Branch	4,876	1
	1/4/2019 14:00	1/4/2019 16:45	165	0.65	5,451	1.67	0.30	12	Atlas	Retained by Sneads Branch	3,544	1
	1/18/2019 3:30	1/19/2019 20:15	2,445	0.11	21,655	1.00	0.05	6	Atlas	Retained by Sneads Branch	2,383	1
	1/23/2019 9:45	1/23/2019 17:30	465	0.77	2,782	1.57	0.31	12	Atlas	Retained by Sneads Branch	2,143	1
	2/4/2019 14:15	2/4/2019 14:45	30	0.12	467	0.14	0.06	3	Atlas	Retained by Sneads Branch	57	1
	2/5/2019 23:30	2/6/2019 10:00	630	1.36	1,369	0.58	0.44	48	Atlas	Retained by Sneads Branch	1,863	1
	2/7/2019 5:15	2/7/2019 19:45	870	1.36	695	1.49	0.44	48	Atlas	Retained by Sneads Branch	946	1
	2/11/2019 1:30	2/12/2019 14:00	2,190	2.38	7,032	3.86	0.75	48	Atlas		16,737	1
	2/20/2019 2:45	2/20/2019 17:45	900	1.41	12,652	1.47	0.64	6	Atlas		17,841	1
	2/23/2019 17:00	2/23/2019 23:30	390	0.73	8,189	2.19	0.40	6	Atlas	Retained by Sneads Branch	5,979	1
	3/9/2019 13:30	3/9/2019 19:30	360	0.80	6,830	0.96	0.38	6	Atlas	Retained by Sneads Branch	5,465	1
	3/14/2019 5:45	3/14/2019 8:00	135	0.34	526	1.28	0.19	6	Atlas	Retained by Sneads Branch	180	1
	3/14/2019 17:15	3/14/2019 19:00	105	0.14	2,871	1.40	0.09	3	Atlas	Retained by Sneads Branch	403	1
	3/25/2019 0:30	3/25/2019 5:15	285	0.26	612	0.32	0.14	6	Atlas	Retained by Sneads Branch	160	1
	3/30/2019 15:30	3/30/2019 20:00	270	0.63	5,284	1.02	0.33	6	Atlas	Retained by Sneads Branch	3,330	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/7/2019 6:00	4/7/2019 13:30	450	0.85	2.525	1.02	0.47	3	Atlas	Retained by Sneads Branch	2,147	1
	4/12/2019 6:00	4/12/2019 6:00	-	0.38	811	1.19	0.30	1	Atlas	Retained by Sneads Branch	309	1
	4/14/2019 1:00	4/14/2019 5:30	270	0.86	7.849	2.09	0.40	6	Atlas	Retained by Sneads Branch	6,751	1
	4/23/2019 17:45	4/23/2019 18:30	45	0.24	8.042	3.34	0.21	1	Atlas	Retained by Sneads Branch	1,931	1
	4/24/2019 20:30	4/25/2019 2:00	330	0.91	4.584	3.78	0.30	48	Atlas		4,172	1
	4/25/2019 18:00	4/26/2019 3:30	570	0.91	1.507	4.24	0.30	48	Atlas		1,372	1
	5/3/2019 4:45	5/3/2019 8:30	225	0.90	3.268	1.24	0.49	6	Atlas	Retained by Sneads Branch	2,942	1
	5/4/2019 17:15	5/4/2019 17:30	15	0.22	1,045	1.43	0.13	3	Atlas	Retained by Sneads Branch	231	1
	5/11/2019 20:15	5/11/2019 22:30	135	0.22	700	0.26	0.12	6	Atlas	Retained by Sneads Branch	155	1
	5/19/2019 13:15	5/19/2019 13:30	15	0.31	787	0.14	0.14	1	Atlas	Retained by Sneads Branch	245	1
	5/19/2019 23:00	5/19/2019 23:30	30	0.31	984	0.32	0.14	1	Atlas	Retained by Sneads Branch	306	1
	5/26/2019 14:00	5/26/2019 15:30	90	0.54	920	0.73	0.32	3	Atlas	Retained by Sneads Branch	498	1
	5/29/2019 9:15	5/29/2019 13:45	270	0.59	2,325	1.22	0.32	6	Atlas	Retained by Sneads Branch	1,373	1
	5/30/2019 11:00	5/30/2019 11:30	30	0.19	2,274	1.37	0.09	1	Atlas	Retained by Sneads Branch	433	1
	6/5/2019 21:00	6/5/2019 21:15	15	1.02	2,673	1.14	0.79	1	Atlas	Retained by Sneads Branch	2,727	1
	6/7/2019 21:00	6/8/2019 2:15	315	0.88	607	1.53	0.29	48	Atlas	Retained by Sneads Branch	535	1
	6/9/2019 0:15	6/9/2019 0:45	30	0.88	318	1.94	0.29	48	Atlas		281	1
	6/9/2019 16:45	6/9/2019 18:30	105	0.61	5,948	2.49	0.31	6	Atlas		3,629	1
	6/16/2019 6:00	6/16/2019 6:45	45	0.16	6,569	0.90	0.11	1	Atlas	Retained by Sneads Branch	1,052	1
	6/16/2019 17:45	6/17/2019 1:15	450	1.27	4,143	1.68	0.60	6	Atlas	Retained by Sneads Branch	5,263	1
	6/18/2019 4:45	6/18/2019 4:45	-	0.33	1,297	1.76	0.13	24	Atlas		429	1
	6/18/2019 17:15	6/18/2019 17:15	-	0.33	1,479	1.89	0.13	24	Atlas		489	1
	6/19/2019 21:00	6/19/2019 21:00	-	0.08	975	1.97	0.05	1	Atlas	Retained by Sneads Branch	79	1
	6/21/2019 19:30	6/21/2019 21:15	105	0.87	2,007	2.40	0.33	24	Atlas	Retained by Sneads Branch	1,747	1
	6/22/2019 6:45	6/22/2019 9:30	165	0.87	3,786	2.72	0.33	24	Atlas	Retained by Sneads Branch	3,295	1
	6/23/2019 16:00	6/23/2019 16:30	30	0.42	1,614	2.91	0.32	1	Atlas		679	1
	6/24/2019 13:00	6/24/2019 15:30	150	0.44	13,875	2.14	0.28	3	Atlas		6,106	1
	6/30/2019 17:45	6/30/2019 17:45	-	0.11	1,827	0.55	0.06	6	Atlas	Retained by Sneads Branch	202	1
	7/18/2019 0:45	7/18/2019 1:15	30	0.51	9,739	0.59	0.37	1	Atlas		4,968	1
	7/29/2019 23:45	7/29/2019 23:45	-	0.40	7,635	0.40	0.26	3	Atlas	Retained by Sneads Branch	3,055	1
	8/7/2019 4:30	8/7/2019 4:30	-	0.25	1,640	0.25	0.22	1	Atlas	Retained by Sneads Branch	411	1
	8/13/2019 8:00	8/13/2019 8:00	-	0.31	977	0.47	0.18	3	Atlas	Retained by Sneads Branch	304	1
	8/22/2019 3:00	8/22/2019 3:00	-	0.26	3,673	0.20	0.17	3	Atlas	Retained by Sneads Branch	956	1
	8/26/2019 10:00	8/26/2019 14:30	270	0.33	26,321	0.75	0.16	6	Atlas	Retained by Sneads Branch	8,687	1
	8/27/2019 17:00	8/27/2019 17:00	-	0.59	1,249	1.32	0.50	1	Atlas	Retained by Sneads Branch	738	1
	10/6/2019 14:45	10/6/2019 23:00	495	1.13	3,598	1.01	0.45	6	Atlas	Retained by Sneads Branch	4,067	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/11/2019 10:45	10/11/2019 11:30	45	0.37	1.270	1.49	0.17	1	Atlas	Retained by Sneads Branch	471	1
	10/15/2019 22:45	10/16/2019 0:30	105	0.54	7.215	0.86	0.41	1	Atlas	Retained by Sneads Branch	3,897	1
	10/26/2019 5:15	10/26/2019 19:45	870	1.25	3.699	1.35	0.48	24	Atlas	Retained by Sneads Branch	4,625	1
	10/30/2019 14:00	10/30/2019 15:15	75	0.74	3.859	1.92	0.37	3	Atlas	Retained by Sneads Branch	2,857	1
	10/31/2019 6:00	10/31/2019 8:00	120	0.64	3.234	2.57	0.34	6	Atlas	Retained by Sneads Branch	2,071	1
	12/16/2019 17:30	12/16/2019 18:30	60	0.83	688	1.25	0.33	6	Atlas	Retained by Sneads Branch	572	1
	1/10/2020 19:30	1/10/2020 20:30	60	1.08	251	0.33	0.41	24	Atlas	Retained by Sneads Branch	272	1
	1/11/2020 11:00	1/11/2020 16:30	330	1.08	1,455	1.09	0.41	24	Atlas	Retained by Sneads Branch	1,572	1
	2/12/2020 17:00	2/12/2020 19:00	120	0.81	1,338	1.25	0.36	3	Atlas	Retained by Sneads Branch	1,085	1
	3/10/2020 8:15	3/10/2020 8:30	15	0.32	756	0.33	0.14	12	Atlas	Retained by Sneads Branch	243	1
	3/12/2020 15:45	3/12/2020 22:45	420	0.49	1,149	0.81	0.22	12	Atlas	Retained by Sneads Branch	564	1
	3/14/2020 12:45	3/14/2020 13:00	15	0.47	223	1.07	0.22	12	Atlas	Retained by Sneads Branch	106	1
	3/28/2020 22:45	3/28/2020 22:45	-	0.28	1,621	0.44	0.23	1	Atlas		455	1
	4/8/2020 22:15	4/8/2020 22:15	-	0.57	1,037	0.31	0.38	3	Atlas	Retained by Sneads Branch	592	1
	4/12/2020 16:30	4/13/2020 5:15	765	0.87	6,667	1.54	0.35	12	Atlas	Retained by Sneads Branch	5,801	1
	4/23/2020 7:30	4/23/2020 13:00	330	0.54	959	0.83	0.22	12	Atlas	Retained by Sneads Branch	519	1
	5/8/2020 9:45	5/8/2020 12:45	180	0.59	5,590	0.82	0.27	12	Atlas	Retained by Sneads Branch	3,299	1
	5/15/2020 19:15	5/16/2020 7:30	735	1.22	2,859	1.32	0.45	24	Atlas	Retained by Sneads Branch	3,489	1
	5/18/2020 7:30	5/18/2020 13:00	330	0.41	646	1.87	0.17	1	Atlas	Retained by Sneads Branch	266	1
	5/29/2020 0:30	5/29/2020 0:30	-	0.23	1,496	0.80	0.11	12	Atlas	Retained by Sneads Branch	345	1
	6/27/2020 18:15	6/27/2020 18:30	15	0.32	2,769	1.67	0.19	1	Atlas	Retained by Sneads Branch	887	1
	6/29/2020 3:30	6/29/2020 4:45	75	0.54	7,720	1.81	0.35	3	Atlas	Retained by Sneads Branch	4,170	1
CSO205 Total											536,317	143
CSO207	9/17/2012 12:45	9/18/2012 22:30	2,025	0.08	983.900	0.08	0.04	6	Atlas		78,712	1
	9/25/2012 8:15	9/27/2012 11:00	3,045	0.41	259.422	2.55	0.22	6	Atlas		106,363	1
	9/28/2012 5:00	9/28/2012 11:45	405	0.03	221.267	2.58	0.02	6	Atlas		6,638	1
	10/1/2012 9:00	10/2/2012 8:30	1,410	0.59	106.447	3.15	0.23	24	Atlas		62,804	1
	10/5/2012 21:45	10/6/2012 12:15	870	0.14	115.457	0.73	0.07	3	Atlas		16,164	1
	10/14/2012 16:15	10/15/2012 0:00	465	0.14	37.643	0.14	0.10	1	Atlas		5,270	1
	10/18/2012 0:30	10/18/2012 8:30	480	0.26	49.788	0.41	0.17	3	Atlas		12,945	1
	12/9/2012 22:15	12/10/2012 17:30	1,155	1.09	29.478	3.31	0.51	3	Atlas		32,131	1
	12/15/2012 10:30	12/16/2012 10:00	1,410	0.16	78.969	1.25	0.09	3	Atlas		12,635	1
	12/17/2012 14:30	12/18/2012 2:15	705	0.26	36.804	0.44	0.14	6	Atlas		9,569	1
	12/20/2012 6:30	12/21/2012 4:00	1,290	0.67	93.455	1.13	0.36	6	Atlas		62,615	1
	12/21/2012 12:30	12/21/2012 19:45	435	0.04	73.150	1.14	0.02	6	Atlas		2,926	1
	12/26/2012 0:15	12/27/2012 6:15	1,800	0.65	117.942	1.43	0.26	12	Atlas		76,662	1
	12/28/2012 20:45	12/30/2012 0:30	1,665	0.05	411.240	0.77	0.02	12	Atlas		20,562	1
	12/31/2012 11:30	1/1/2013 18:15	1,845	0.12	227.400	0.84	0.05	24	Atlas		27,288	1
	1/10/2013 11:00	1/12/2013 11:30	2,910	0.82	70.484	0.83	0.34	6	Atlas		57,797	1
	1/12/2013 20:45	1/14/2013 4:00	1,875	2.38	62.161	3.20	0.91	24	Atlas		147,944	1
	1/15/2013 19:30	1/17/2013 21:00	2,970	0.25	100.420	3.50	0.09	24	Atlas		25,105	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/25/2013 13:45	1/25/2013 14:30	45	0.03	2,000	0.03	0.02	6	Atlas		60	1
	1/27/2013 19:00	1/29/2013 4:30	2,010	0.26	136,935	0.29	0.10	24	Atlas		35,603	1
	1/30/2013 4:30	1/31/2013 2:00	1,290	0.89	56,021	1.18	0.45	6	Atlas		49,859	1
	1/31/2013 11:45	1/31/2013 21:30	585	0.06	6,750	1.24	0.03	12	Atlas		405	1
	2/2/2013 5:45	2/2/2013 23:00	1,035	0.02	711,350	1.24	0.01	3	Atlas		14,227	1
	2/4/2013 11:45	2/5/2013 13:30	1,545	0.10	189,300	1.09	0.06	3	Atlas		18,930	1
	2/8/2013 1:45	2/8/2013 10:15	510	0.08	151,863	0.22	0.04	6	Atlas		12,149	1
	2/10/2013 7:15	2/11/2013 7:15	1,440	0.16	115,863	0.35	0.08	3	Atlas		18,538	1
	2/13/2013 11:30	2/13/2013 23:45	735	0.07	83,000	0.32	0.03	12	Atlas		5,810	1
	2/18/2013 20:00	2/19/2013 18:45	1,365	0.35	130,680	0.42	0.16	12	Atlas		45,738	1
	2/21/2013 18:15	2/22/2013 19:30	1,515	0.41	99,007	0.76	0.19	12	Atlas		40,593	1
	2/26/2013 5:15	2/28/2013 12:45	3,330	0.53	114,287	0.96	0.20	24	Atlas		60,572	1
	3/1/2013 8:15	3/2/2013 18:15	2,040	0.07	284,471	0.62	0.03	24	Atlas		19,913	1
	3/4/2013 14:45	3/4/2013 14:45	-	0.01	80,200	0.63	0.01	1	Atlas		802	1
	3/5/2013 5:15	3/7/2013 13:30	3,375	0.46	106,098	1.00	0.17	24	Atlas		48,805	1
	3/10/2013 23:00	3/12/2013 2:30	1,650	1.04	70,709	1.52	0.41	12	Atlas		73,537	1
	3/16/2013 22:30	3/19/2013 1:45	3,075	1.75	86,962	2.81	0.57	48	Atlas		152,183	1
	3/24/2013 4:00	3/26/2013 12:30	3,390	0.53	108,062	2.12	0.20	24	Atlas		57,273	1
	3/31/2013 0:45	3/31/2013 10:15	570	0.07	137,886	0.62	0.03	6	Atlas		9,652	1
	4/11/2013 5:00	4/12/2013 19:15	2,295	1.32	56,914	1.32	0.51	24	Atlas		75,126	1
	5/3/2013 18:45	5/7/2013 13:00	5,415	0.08	2,388,250	1.70	0.05	1	Atlas		191,060	1
	5/16/2013 10:15	5/17/2013 0:30	855	0.27	109,752	1.28	0.23	1	Atlas		29,633	1
	5/22/2013 17:30	5/22/2013 20:45	195	0.14	25,814	0.42	0.10	1	Atlas		3,614	1
	5/25/2013 23:45	5/26/2013 7:00	435	0.04	377,575	0.19	0.02	12	Atlas		15,103	1
	5/31/2013 11:00	5/31/2013 19:45	525	0.26	31,300	0.37	0.12	12	Atlas		8,138	1
	6/1/2013 5:30	6/2/2013 2:45	1,275	0.13	264,346	0.50	0.06	12	Atlas		34,365	1
	6/6/2013 4:15	6/6/2013 12:45	510	0.02	464,350	0.48	0.01	3	Atlas		9,287	1
	6/9/2013 14:30	6/10/2013 14:30	1,440	0.30	75,400	0.33	0.12	6	Atlas		22,620	1
	6/16/2013 8:45	6/18/2013 10:45	3,000	0.38	270,863	1.57	0.24	1	Atlas		102,928	1
	6/23/2013 13:00	6/23/2013 15:00	120	0.17	9,171	1.70	0.12	1	Atlas		1,559	1
	6/24/2013 9:00	6/24/2013 12:15	195	0.07	88,400	1.46	0.04	3	Atlas		6,188	1
	6/26/2013 3:00	6/27/2013 11:45	1,965	0.68	120,474	3.52	0.45	3	Atlas		81,922	1
	6/29/2013 19:30	6/30/2013 10:00	870	0.42	56,833	3.63	0.21	3	Atlas		23,870	1
	7/1/2013 8:45	7/5/2013 12:15	5,970	0.26	353,312	4.40	0.13	3	Atlas		91,861	1
	7/5/2013 22:15	7/7/2013 7:45	2,010	0.61	92,025	2.02	0.27	12	Atlas		56,135	1
	7/10/2013 14:00	7/11/2013 8:30	1,110	0.62	22,656	1.83	0.45	1	Atlas		14,047	1
	7/14/2013 19:30	7/15/2013 9:00	810	0.10	51,610	0.78	0.09	1	Atlas		5,161	1
	7/18/2013 15:30	7/19/2013 5:00	810	0.26	64,485	0.39	0.19	1	Atlas		16,766	1
	7/21/2013 19:45	7/23/2013 3:30	1,905	1.89	43,028	2.17	0.73	24	Atlas		81,323	1
	7/27/2013 4:15	7/27/2013 13:15	540	0.04	236,600	1.95	0.02	12	Atlas		9,464	1
	7/30/2013 17:00	7/31/2013 6:30	810	0.12	127,783	0.17	0.07	6	Atlas		15,334	1
	8/8/2013 23:45	8/9/2013 9:45	600	0.05	174,780	0.09	0.04	1	Atlas		8,739	1
	8/10/2013 8:45	8/10/2013 12:45	240	0.07	37,286	0.25	0.05	1	Atlas		2,610	1
	8/12/2013 11:45	8/13/2013 15:00	1,635	0.82	49,030	1.07	0.37	1	Atlas		40,205	1
	8/20/2013 18:15	8/21/2013 9:00	885	0.17	97,553	0.19	0.09	3	Atlas		16,584	1
	8/31/2013 19:45	9/1/2013 13:00	1,035	1.38	39,190	1.38	0.71	1	Atlas		54,082	1
	9/2/2013 13:30	9/3/2013 4:15	885	0.56	23,739	1.94	0.49	1	Atlas		13,294	1
	9/8/2013 2:30	9/8/2013 8:30	360	0.01	199,100	0.68	0.01	1	Atlas		1,991	1
	9/11/2013 10:15	9/11/2013 11:30	75	0.01	41,600	0.02	0.01	1	Atlas		416	1
	9/12/2013 13:00	9/12/2013 16:00	180	0.04	64,325	0.06	0.03	3	Atlas		2,573	1
	9/19/2013 11:00	9/19/2013 12:45	105	0.05	79,340	0.12	0.04	1	Atlas		3,967	1
	9/20/2013 16:00	9/21/2013 15:15	1,395	1.14	80,563	1.22	0.46	12	Atlas		91,842	1
	9/29/2013 12:15	9/29/2013 22:00	585	0.04	211,350	0.04	0.03	1	Atlas		8,454	1
	10/4/2013 18:45	10/7/2013 3:45	3,420	0.05	3,630,040	4.13	0.04	1	Atlas		181,502	1
	10/15/2013 17:15	10/15/2013 19:45	150	0.02	138,700	0.02	0.01	3	Atlas		2,774	1
	10/19/2013 4:45	10/19/2013 14:45	600	0.20	77,380	0.24	0.10	6	Atlas		15,476	1
	10/22/2013 1:00	10/22/2013 4:00	180	0.02	143,550	0.26	0.01	3	Atlas		2,871	1
	10/29/2013 20:30	10/30/2013 13:15	1,005	1.42	43,443	1.42	0.69	6	Atlas		61,689	1
	10/31/2013 6:00	11/1/2013 14:30	1,950	0.65	81,523	2.07	0.25	12	Atlas		52,990	1
	11/2/2013 14:30	11/2/2013 15:15	45	0.04	70,475	2.11	0.03	1	Atlas		2,819	1
	11/6/2013 13:30	11/8/2013 6:30	2,460	0.23	179,452	0.92	0.10	12	Atlas		41,274	1
	11/15/2013 18:00	11/18/2013 15:15	4,155	0.08	1,550,038	2.45	0.07	1	Atlas		124,003	1
	11/21/2013 18:45	11/22/2013 15:30	1,245	0.11	134,727	2.54	0.08	1	Atlas		14,820	1
	11/26/2013 3:15	11/26/2013 22:30	1,155	0.06	165,533	0.17	0.03	1	Atlas		9,932	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/5/2013 5:00	12/7/2013 11:15	3,255	0.81	125.165	0.81	0.26	48	Atlas		101,384	1
	12/8/2013 15:15	12/10/2013 5:45	2,310	0.45	67.709	1.27	0.30	1	Atlas		30,469	1
	12/13/2013 20:00	12/15/2013 18:15	2,775	0.82	160.859	1.33	0.33	12	Atlas		131,904	1
	12/28/2013 23:15	12/30/2013 4:30	1,755	0.51	160.608	1.02	0.22	12	Atlas		81,910	1
	4/14/2014 3:00	4/15/2014 9:30	1,830	0.96	19.414	1.63	0.36	24	Atlas		18,637	1
	4/25/2014 0:45	4/25/2014 11:30	645	0.09	84.478	0.10	0.04	12	Atlas		7,603	1
	4/27/2014 19:30	4/30/2014 12:30	3,900	1.37	26.696	1.62	0.49	24	Atlas		36,573	1
	5/9/2014 10:30	5/11/2014 16:00	3,210	0.09	329.778	1.77	0.07	1	Atlas		29,680	1
	5/14/2014 8:45	5/15/2014 15:15	1,830	0.79	21.710	2.58	0.30	24	Atlas		17,151	1
	5/16/2014 3:45	5/16/2014 15:45	720	0.07	67.014	2.65	0.04	1	Atlas		4,691	1
	5/21/2014 20:45	5/23/2014 0:15	1,650	0.58	26.538	0.72	0.27	12	Atlas		15,392	1
	5/28/2014 20:15	5/29/2014 13:00	1,005	0.20	56.925	0.79	0.17	1	Atlas		11,385	1
	5/29/2014 21:45	5/29/2014 23:15	90	0.21	9.814	0.42	0.17	1	Atlas		2,061	1
	6/1/2014 14:00	6/2/2014 8:00	1,080	0.09	68.611	0.52	0.04	12	Atlas		6,175	1
	6/2/2014 22:30	6/3/2014 0:15	105	0.02	73.900	0.54	0.01	3	Atlas		1,478	1
	6/10/2014 4:00	6/12/2014 10:15	3,255	0.04	500.325	0.28	0.02	6	Atlas		20,013	1
	6/13/2014 8:00	6/13/2014 9:15	75	0.05	16.980	0.29	0.03	3	Atlas		849	1
	6/20/2014 17:00	6/21/2014 8:15	915	0.27	14.978	0.27	0.18	3	Atlas		4,044	1
	6/23/2014 16:00	6/24/2014 0:45	525	0.08	25.413	0.35	0.04	6	Atlas		2,033	1
	6/24/2014 15:00	6/25/2014 7:45	1,005	0.10	48.760	0.45	0.05	6	Atlas		4,876	1
	6/27/2014 21:15	6/28/2014 1:00	225	0.01	205.500	0.19	0.01	1	Atlas		2,055	1
	8/8/2014 5:30	8/8/2014 10:00	270	0.80	8.203	0.67	0.35	6	Atlas		6,562	1
	8/10/2014 3:30	8/10/2014 4:15	45	0.91	12.113	1.74	0.75	1	Atlas		11,023	1
	8/17/2014 9:15	8/17/2014 10:30	75	0.72	7.026	1.04	0.27	24	Atlas		5,059	1
	10/31/2014 22:00	11/1/2014 13:30	930	0.17	56.765	0.32	0.06	24	Atlas		9,650	1
	11/5/2014 5:45	11/5/2014 8:30	165	0.12	31.033	0.29	0.06	12	Atlas		3,724	1
	11/11/2014 21:30	11/12/2014 3:00	330	0.07	80.300	0.16	0.03	12	Atlas		5,621	1
	6/17/2015 4:45	6/17/2015 4:45	-	0.67	17.903	0.38	0.39	3	Atlas		11,995	1
	6/18/2015 17:15	6/18/2015 17:15	-	1.53	7.411	1.05	0.50	48	Atlas		11,339	1
	6/26/2015 17:15	6/26/2015 17:15	-	0.89	5.446	2.12	0.46	1	Atlas		4,847	1
	7/2/2015 20:15	7/2/2016 20:15	-	2.02	112	3.61	0.78	24	Atlas		227	1
	7/7/2015 11:45	7/7/2015 11:45	-	1.04	734	2.97	0.45	6	Atlas		763	1
	7/12/2015 6:15	7/12/2015 6:15	-	1.27	5.946	2.56	0.85	3	Atlas		7,552	1
	7/14/2015 4:15	7/14/2015 4:15	-	0.62	4.739	4.25	0.49	1	Atlas		2,938	1
	7/18/2015 0:15	7/18/2015 0:30	15	1.31	11.205	3.73	0.87	3	Atlas		14,678	1
	8/15/2015 16:30	8/15/2015 16:30	-	0.04	215.325	0.17	0.03	1	Atlas		8,613	1
	12/23/2015 19:15	12/23/2015 19:30	15	0.72	22.146	1.10	0.51	1	Atlas		15,945	1
	12/27/2015 10:30	12/27/2015 11:45	75	2.10	3.172	2.85	0.72	6	Atlas		6,661	1
	5/10/2016 21:45	5/10/2016 21:45	-	1.02	11.638	1.93	0.39	12	Atlas		11,871	1
	6/22/2016 8:15	6/22/2016 8:15	-	0.26	12.773	0.18	0.16	3	Atlas		3,321	1
	6/23/2016 16:15	6/23/2016 20:30	255	2.48	9.272	2.74	3.67	6	Cloudburst		22,994	1
	7/28/2016 3:15	7/28/2016 3:15	-	0.75	15.715	0.95	0.34	12	Atlas		11,786	1
	8/12/2016 14:00	8/12/2016 14:00	-	0.22	39.650	0.35	0.18	1	Atlas		8,723	1
	8/20/2016 14:30	8/20/2016 14:30	-	1.48	1.073	2.57	0.68	1	Atlas		1,588	1
	12/17/2016 18:30	12/17/2016 19:15	45	2.75	4.713	1.35	2.00	12	Cloudburst		12,962	1
	3/1/2017 3:15	3/1/2017 3:15	-	1.11	624	1.04	0.59	6	Atlas		693	1
	4/16/2017 13:15	4/16/2017 13:15	-	1.04	2.193	0.60	0.40	6	Atlas		2,281	1
	4/29/2017 1:45	4/29/2017 1:45	-	1.16	11.007	0.88	0.60	6	Atlas		12,768	1
	6/30/2017 21:00	6/30/2017 21:00	-	0.61	17.844	0.70	0.52	1	Atlas		10,885	1
	8/1/2017 21:30	8/1/2017 21:30	-	0.46	7.485	0.75	0.38	1	Atlas		3,443	1
	1/15/2018 19:15	1/15/2018 19:30	15	0.12	102.642	0.41	0.05	12	Atlas		12,317	1
	2/24/2018 23:00	2/24/2018 23:00	-	2.04	4,752	5.04	0.84	12	Atlas		9,695	1
	CSO207 Total										3,862,077	134
CSO208	9/25/2012 8:45	9/25/2012 10:15	90	0.38	19.450	0.34	0.21	6	Atlas		7,391	1
	9/25/2012 23:45	9/26/2012 5:30	345	0.47	12.989	0.78	0.22	12	Atlas		6,105	1
	9/26/2012 19:45	9/27/2012 1:15	330	1.57	58.150	2.41	0.84	6	Atlas		91,296	1
	10/1/2012 13:30	10/1/2012 20:30	420	0.58	22.216	2.96	0.22	12	Atlas		12,885	1
	10/5/2012 23:30	10/6/2012 1:00	90	0.14	28.779	0.72	0.08	3	Atlas		4,029	1
	10/14/2012 16:15	10/14/2012 16:15	-	0.15	9.847	0.14	0.11	1	Atlas		1,477	1
	10/18/2012 0:45	10/18/2012 2:30	105	0.27	27.744	0.44	0.18	3	Atlas		7,491	1
	10/26/2012 10:45	10/26/2012 23:15	750	0.74	28.043	0.77	0.35	6	Atlas		20,752	1
	11/3/2012 9:30	11/3/2012 16:15	405	0.12	5,292	0.13	0.06	12	Atlas		635	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	12/2/2012 11:30	12/2/2012 13:00	90	0.21	33.410	0.29	0.11	6	Atlas		7,016	1
	12/4/2012 15:00	12/4/2012 18:45	225	0.59	26.380	0.80	0.39	3	Atlas		15,564	1
	12/8/2012 4:45	12/8/2012 10:15	330	0.37	24.778	2.45	0.21	1	Atlas		9,168	1
	12/9/2012 8:30	12/9/2012 9:15	45	1.15	1.636	2.53	0.57	3	Atlas		1,881	1
	12/9/2012 19:30	12/10/2012 3:30	480	1.15	72.823	3.34	0.57	3	Atlas		83,746	1
	12/15/2012 11:15	12/15/2012 12:00	45	0.18	12.572	1.34	0.11	3	Atlas		2,263	1
	12/17/2012 16:45	12/17/2012 17:00	15	0.37	1.362	0.55	0.19	6	Atlas		504	1
	12/20/2012 6:45	12/20/2012 12:15	330	0.60	24.828	1.14	0.32	6	Atlas		14,897	1
	12/26/2012 1:00	12/26/2012 13:45	765	0.72	21.050	1.40	0.28	12	Atlas		15,156	1
	12/28/2012 22:00	12/29/2012 7:15	555	0.07	7.229	0.85	0.03	12	Atlas		506	1
	12/31/2012 23:00	1/1/2013 0:15	75	0.49	867	1.27	0.33	1	Atlas		425	1
	1/10/2013 11:30	1/11/2013 7:15	1,185	0.18	348.028	0.84	0.09	6	Atlas		62,645	1
	1/13/2013 3:15	1/13/2013 18:45	930	2.25	33.975	3.06	0.86	24	Atlas		76,444	1
	1/15/2013 19:45	1/15/2013 20:00	15	0.24	400	3.21	0.09	6	Atlas		96	1
	1/27/2013 19:45	1/27/2013 20:30	45	0.20	1.015	0.10	0.09	6	Atlas		203	1
	1/28/2013 10:45	1/28/2013 10:45	-	0.07	14.471	0.28	0.05	1	Atlas		1,013	1
	1/30/2013 4:30	1/30/2013 9:00	270	0.82	115.033	1.03	0.40	6	Atlas		94,327	1
	1/30/2013 17:30	1/30/2013 17:30	-	0.82	234	1.10	0.40	6	Atlas		192	1
	2/2/2013 12:00	2/2/2013 12:15	15	0.02	4.000	1.18	0.01	3	Atlas		80	1
	2/4/2013 17:15	2/4/2013 18:15	60	0.12	1.492	1.04	0.07	3	Atlas		179	1
	2/10/2013 15:15	2/10/2013 16:30	75	0.16	2.338	0.37	0.08	3	Atlas		374	1
	2/18/2013 21:45	2/19/2013 5:00	435	0.35	15.409	0.42	0.16	12	Atlas		5,393	1
	2/21/2013 20:30	2/22/2013 3:45	435	0.44	19.034	0.79	0.20	12	Atlas		8,375	1
	2/26/2013 5:15	2/26/2013 19:30	855	0.60	12.160	1.01	0.23	24	Atlas		7,296	1
	3/5/2013 14:15	3/5/2013 18:45	270	0.46	22.313	0.72	0.17	24	Atlas		10,264	1
	3/11/2013 3:00	3/11/2013 12:15	555	1.06	40.458	1.53	0.42	12	Atlas		42,886	1
	3/17/2013 4:00	3/18/2013 7:30	1,650	1.79	30.881	2.77	0.58	48	Atlas		55,277	1
	3/24/2013 5:45	3/24/2013 17:15	690	0.54	14.883	2.04	0.20	24	Atlas		8,037	1
	4/11/2013 5:15	4/11/2013 23:30	1,095	1.22	9.748	1.21	0.47	24	Atlas		11,893	1
	4/16/2013 20:00	4/16/2013 20:30	30	0.59	147.890	1.79	0.49	1	Atlas		87,255	1
	4/19/2013 0:45	4/19/2013 4:30	225	0.93	79.382	1.55	0.51	3	Atlas		73,825	1
	4/24/2013 6:00	4/24/2013 10:00	240	0.71	44.456	1.71	0.39	3	Atlas		31,564	1
	5/4/2013 11:45	5/5/2013 8:30	1,245	1.56	19.192	1.42	0.48	24	Atlas		29,939	1
	5/6/2013 17:30	5/6/2013 17:45	15	1.56	5.248	1.61	0.48	24	Atlas		8,187	1
	5/10/2013 9:45	5/11/2013 0:00	855	0.99	24.562	2.65	0.45	6	Atlas		24,316	1
	5/16/2013 10:15	5/16/2013 10:30	15	0.29	45.900	1.31	0.23	1	Atlas		13,311	1
	6/6/2013 5:00	6/6/2013 5:00	-	0.04	6.000	0.51	0.03	3	Atlas		240	1
	6/9/2013 14:30	6/9/2013 14:30	-	0.39	656	0.10	0.16	6	Atlas		256	1
	6/9/2013 23:45	6/10/2013 1:15	90	0.39	10.813	0.32	0.16	6	Atlas		4,217	1
	6/16/2013 16:45	6/16/2013 16:45	-	0.40	62.830	0.70	0.29	1	Atlas		25,132	1
	6/17/2013 19:15	6/17/2013 21:00	105	0.45	6.364	0.80	0.22	6	Atlas		2,864	1
	6/26/2013 3:15	6/26/2013 4:30	75	0.53	55.142	1.11	0.37	1	Atlas		29,225	1
	6/26/2013 15:45	6/26/2013 21:45	360	2.00	141.722	3.03	1.19	6	Cloudburst		283,443	1
	6/29/2013 19:45	6/29/2013 21:30	105	0.53	2.042	3.14	0.30	3	Atlas		1,082	1
	7/1/2013 18:15	7/1/2013 19:45	90	0.25	5.504	3.32	0.11	3	Atlas		1,376	1
	7/3/2013 16:45	7/3/2013 17:00	15	0.12	4.725	1.91	0.10	1	Atlas		567	1
	7/4/2013 6:00	7/4/2013 17:45	705	0.51	23.249	1.49	0.22	12	Atlas		11,857	1
	7/6/2013 0:15	7/6/2013 7:00	405	0.59	13.031	2.04	0.26	12	Atlas		7,688	1
	7/10/2013 13:45	7/10/2013 14:15	30	0.69	64.186	1.92	0.53	1	Atlas		44,288	1
	7/14/2013 19:15	7/14/2013 19:30	15	0.07	8.229	0.81	0.06	1	Atlas		576	1
	7/18/2013 15:30	7/18/2013 16:15	45	0.41	191.415	0.55	0.30	1	Atlas		78,480	1
	7/21/2013 19:45	7/21/2013 20:30	45	2.34	2.912	1.71	0.93	3	Atlas		6,814	1
	7/22/2013 6:00	7/22/2013 13:45	465	2.34	31.308	2.77	0.93	3	Atlas		73,261	1
	8/12/2013 14:15	8/12/2013 14:45	30	0.81	15.684	0.71	0.31	24	Atlas		12,704	1
	8/13/2013 2:00	8/13/2013 3:15	75	0.81	3.806	1.09	0.31	24	Atlas		3,083	1
	8/20/2013 18:00	8/20/2013 18:00	-	0.20	34.195	0.15	0.11	3	Atlas		6,839	1
	8/31/2013 19:30	9/1/2013 3:30	480	1.53	44.306	1.47	0.72	1	Atlas		67,788	1
	9/2/2013 13:15	9/2/2013 14:30	75	0.39	202.449	1.92	0.34	1	Atlas		78,955	1
	9/19/2013 10:45	9/19/2013 11:00	15	0.05	9.840	0.10	0.04	1	Atlas		492	1
	9/20/2013 16:00	9/21/2013 4:15	735	1.38	15.828	1.32	0.58	12	Atlas		21,843	1
	10/5/2013 12:00	10/6/2013 15:15	1,635	3.72	71.348	3.86	4.40	24	Cloudburst		265,415	1
	10/17/2013 15:45	10/17/2013 15:45	-	0.03	27.867	0.06	0.03	1	Atlas		836	1
	10/19/2013 7:00	10/19/2013 9:30	150	0.20	1.575	0.21	0.10	6	Atlas		315	1
	10/29/2013 21:00	10/30/2013 5:45	525	1.41	34.208	1.39	0.69	6	Atlas		48,233	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/31/2013 11:30	10/31/2013 20:30	540	0.65	60,626	2.01	0.26	12	Atlas		39,407	1
	11/6/2013 18:45	11/7/2013 0:45	360	0.25	13,136	0.92	0.11	12	Atlas		3,284	1
	11/17/2013 4:00	11/17/2013 17:45	825	2.67	34,400	2.58	1.61	6	Cloudburst		91,849	1
	11/21/2013 19:00	11/21/2013 19:00	-	0.12	1,075	2.87	0.09	1	Atlas		129	1
	12/5/2013 5:00	12/6/2013 4:45	1,425	0.82	7,940	0.39	0.27	48	Atlas		6,511	1
	12/14/2013 3:45	12/14/2013 11:30	465	0.66	20,514	1.04	0.26	12	Atlas		13,539	1
	12/20/2013 7:15	12/20/2013 11:00	225	0.11	2,300	0.77	0.06	1	Atlas		253	1
	12/21/2013 1:45	12/21/2013 12:15	630	3.22	3,171	1.84	2.16	24	Cloudburst		10,211	1
	12/21/2013 21:00	12/22/2013 3:00	360	3.22	31,930	3.31	2.16	24	Cloudburst		102,815	1
	12/29/2013 1:45	12/29/2013 9:45	480	0.51	4,927	0.60	0.22	12	Atlas		2,513	1
	1/2/2014 3:45	1/2/2014 6:00	135	0.20	5,090	0.66	0.09	6	Atlas		1,018	1
	1/5/2014 14:30	1/5/2014 18:45	255	0.47	12,411	0.61	0.24	3	Atlas		5,833	1
	1/10/2014 23:45	1/11/2014 5:00	315	0.84	9,907	1.30	0.45	6	Atlas		8,322	1
	1/13/2014 14:00	1/13/2014 17:15	195	0.20	6,760	1.05	0.09	3	Atlas		1,352	1
	2/2/2014 2:30	2/2/2014 7:15	285	0.25	20,592	0.24	0.13	6	Atlas		5,148	1
	2/4/2014 18:15	2/5/2014 1:00	405	0.58	25,284	1.13	0.28	6	Atlas		14,665	1
	2/14/2014 15:30	2/14/2014 17:30	120	0.28	38,600	0.26	0.15	6	Atlas		10,808	1
	2/17/2014 14:15	2/17/2014 17:45	210	0.61	18,810	0.93	0.37	3	Atlas		11,474	1
	2/20/2014 20:15	2/20/2014 23:00	165	0.19	6,289	1.11	0.10	6	Atlas		1,195	1
	3/2/2014 9:15	3/2/2014 11:15	120	0.52	6,529	0.26	0.20	24	Atlas		3,395	1
	3/12/2014 7:00	3/12/2014 7:15	15	0.08	21,825	0.07	0.04	1	Atlas		1,746	1
	3/19/2014 8:30	3/19/2014 8:45	15	0.08	12,175	0.13	0.05	1	Atlas		974	1
	3/27/2014 23:45	3/28/2014 5:00	315	0.31	8,771	0.36	0.16	6	Atlas		2,719	1
	3/29/2014 5:00	3/29/2014 12:30	450	0.75	10,447	1.05	0.34	12	Atlas		7,835	1
	4/3/2014 5:00	4/4/2014 7:45	1,605	2.77	16,008	3.96	0.96	24	Atlas		44,341	1
	4/7/2014 8:00	4/7/2014 15:15	435	0.64	55,764	3.53	0.36	3	Atlas		35,689	1
	4/14/2014 3:15	4/14/2014 10:30	435	1.10	766	1.09	0.41	24	Atlas		843	1
	4/14/2014 19:30	4/15/2014 2:30	420	1.10	3,155	1.13	0.41	24	Atlas		3,470	1
	4/28/2014 3:45	4/28/2014 7:45	240	1.78	68,212	1.42	0.73	3	Atlas		121,417	1
	4/28/2014 16:45	4/28/2014 20:00	195	1.78	520	1.86	0.73	3	Atlas		926	1
	4/29/2014 19:00	4/29/2014 19:00	-	0.20	345	1.96	0.09	12	Atlas		69	1
	5/9/2014 19:15	5/10/2014 15:15	1,200	1.51	55,481	1.58	0.58	24	Atlas		83,777	1
	5/14/2014 7:15	5/14/2014 23:15	960	0.73	3,882	2.35	0.27	24	Atlas		2,834	1
	5/16/2014 3:30	5/16/2014 4:00	30	0.09	6,067	2.44	0.07	1	Atlas		546	1
	5/21/2014 20:45	5/22/2014 3:30	405	0.66	3,377	0.82	0.30	12	Atlas		2,229	1
	5/28/2014 20:15	5/28/2014 20:30	15	0.44	66,736	1.11	0.37	1	Atlas		29,364	1
	6/11/2014 14:00	6/11/2014 14:00	-	0.10	93,340	0.27	0.08	1	Atlas		9,334	1
	6/20/2014 15:45	6/20/2014 17:30	105	0.26	27,808	0.26	0.17	3	Atlas		7,230	1
	6/24/2014 14:15	6/24/2014 14:15	-	0.10	1,890	0.39	0.05	1	Atlas		189	1
	7/1/2014 21:45	7/1/2014 22:15	30	0.22	2,118	0.26	0.14	3	Atlas		466	1
	7/2/2014 16:00	7/2/2014 16:15	15	0.10	10,650	0.36	0.09	1	Atlas		1,065	1
	7/7/2014 19:30	7/7/2014 19:30	-	0.40	25,673	0.71	0.35	1	Atlas		10,269	1
	7/13/2014 22:30	7/14/2014 4:00	330	0.74	44,878	1.36	0.38	1	Atlas		33,210	1
	7/14/2014 19:00	7/14/2014 20:15	75	0.26	5,019	1.73	0.18	1	Atlas		1,305	1
	7/26/2014 21:30	7/26/2014 22:15	45	0.81	41,920	0.44	0.37	12	Atlas		33,955	1
	7/27/2014 6:45	7/27/2014 7:45	60	0.81	599	0.82	0.37	12	Atlas		485	1
	8/8/2014 5:15	8/8/2014 7:30	135	0.82	49,860	0.63	0.39	6	Atlas		40,885	1
	8/10/2014 3:45	8/10/2014 4:45	60	0.48	131,494	1.40	0.35	1	Atlas		63,117	1
	8/11/2014 15:00	8/11/2014 15:15	15	0.33	5,330	1.72	0.27	1	Atlas		1,759	1
	8/17/2014 9:30	8/17/2014 10:15	45	0.69	1,201	0.91	0.27	24	Atlas		829	1
	8/17/2014 23:00	8/17/2014 23:00	-	0.69	570	1.02	0.27	24	Atlas		393	1
	8/22/2014 19:00	8/22/2014 19:00	-	0.48	67,725	1.12	0.37	1	Atlas		32,508	1
	8/23/2014 15:30	8/23/2014 21:30	360	0.94	54,939	2.03	0.51	3	Atlas		51,643	1
	8/26/2014 19:45	8/26/2014 20:00	15	0.07	4,443	1.51	0.06	1	Atlas		311	1
	8/27/2014 17:00	8/27/2014 17:15	15	0.18	3,017	1.67	0.15	1	Atlas		543	1
	8/30/2014 15:00	8/30/2014 16:00	60	0.76	38,968	1.72	0.44	1	Atlas		29,616	1
	9/2/2014 8:15	9/2/2014 15:30	435	0.48	3,235	1.49	0.28	3	Atlas		1,553	1
	9/11/2014 0:00	9/11/2014 5:45	345	1.92	50,093	1.83	1.13	3	Atlas		96,178	1
	9/15/2014 22:30	9/15/2014 22:30	-	0.08	15,663	2.00	0.07	1	Atlas		1,253	1
	9/21/2014 6:15	9/21/2014 6:15	-	0.04	17,425	0.12	0.03	1	Atlas		697	1
	10/3/2014 3:15	10/3/2014 4:00	45	0.27	796	0.07	0.10	24	Atlas		215	1
	10/3/2014 12:45	10/3/2014 19:00	375	0.27	1,474	0.21	0.10	24	Atlas		398	1
	10/6/2014 6:30	10/6/2014 9:30	180	0.40	39,388	0.61	0.20	3	Atlas		15,755	1
	10/7/2014 11:15	10/7/2014 11:45	30	0.16	3,431	0.83	0.12	1	Atlas		549	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/10/2014 1:45	10/10/2014 3:15	90	0.67	61,430	1.46	0.40	3	Atlas		41,158	1
	10/10/2014 17:00	10/10/2014 21:15	255	0.31	1,839	1.62	0.14	12	Atlas		570	1
	10/13/2014 4:15	10/13/2014 6:30	135	0.42	14,812	1.95	0.27	3	Atlas		6,221	1
	10/13/2014 23:15	10/14/2014 10:00	645	1.11	17,735	2.69	0.50	12	Atlas		19,686	1
	11/16/2014 21:45	11/17/2014 0:45	180	0.35	23,269	0.19	0.14	12	Atlas		8,144	1
	11/23/2014 13:45	11/24/2014 2:45	780	0.54	54,607	0.89	0.23	12	Atlas		29,488	1
	12/1/2014 0:45	12/1/2014 16:15	930	0.94	18,400	0.88	0.36	24	Atlas		17,296	1
	12/4/2014 9:15	12/4/2014 21:00	705	1.96	5,367	1.23	0.63	48	Atlas		10,519	1
	12/5/2014 5:30	12/6/2014 6:45	1,515	1.96	25,721	2.89	0.63	48	Atlas		50,413	1
	12/16/2014 5:00	12/16/2014 5:15	15	0.09	1,433	0.09	0.05	3	Atlas		129	1
	12/22/2014 22:15	12/22/2014 23:45	90	0.19	11,963	0.26	0.11	3	Atlas		2,273	1
	12/23/2014 19:30	12/23/2014 20:30	60	0.04	15,800	0.23	0.03	3	Atlas		632	1
	12/24/2014 12:00	12/24/2014 14:30	150	0.21	11,962	0.36	0.09	12	Atlas		2,512	1
	12/27/2014 16:45	12/28/2014 1:45	540	0.35	5,477	0.79	0.13	24	Atlas		1,917	1
	1/3/2015 5:45	1/3/2015 15:00	555	0.40	968	0.60	0.15	24	Atlas		387	1
	1/4/2015 0:45	1/4/2015 3:45	180	0.40	2,900	0.47	0.15	24	Atlas		1,160	1
	1/18/2015 3:00	1/18/2015 3:15	15	0.07	5,914	0.24	0.05	1	Atlas		414	1
	2/1/2015 11:00	2/1/2015 19:15	495	0.41	41,010	0.61	0.19	12	Atlas		16,814	1
	2/21/2015 3:15	2/21/2015 19:15	960	1.26	22,666	1.56	0.48	24	Atlas		28,559	1
	3/3/2015 18:15	3/4/2015 17:45	1,410	1.88	30,172	1.54	0.61	48	Atlas		56,724	1
	3/10/2015 4:45	3/10/2015 15:15	630	1.16	23,579	3.03	0.52	12	Atlas		27,352	1
	3/13/2015 9:45	3/14/2015 4:00	1,095	1.98	12,846	3.07	0.75	24	Atlas		25,435	1
	3/24/2015 19:45	3/24/2015 20:15	30	0.15	14,073	0.31	0.09	1	Atlas		2,111	1
	3/26/2015 3:00	3/26/2015 6:00	180	0.67	8,606	0.83	0.32	3	Atlas		5,766	1
	4/2/2015 9:30	4/3/2015 16:45	1,875	5.04	50,196	5.20	10.00	24	Cloudburst		252,987	1
	4/7/2015 9:00	4/7/2015 17:15	495	0.86	58,309	5.89	0.36	12	Atlas		50,146	1
	4/9/2015 11:15	4/9/2015 11:30	15	0.12	3,467	5.69	0.10	1	Atlas		416	1
	4/10/2015 2:00	4/10/2015 2:45	45	0.23	133,057	3.66	0.15	3	Atlas		30,603	1
	4/13/2015 19:45	4/13/2015 21:00	75	0.58	2,160	1.49	0.22	24	Atlas		1,253	1
	4/14/2015 6:45	4/14/2015 11:30	285	0.58	1,864	1.81	0.22	24	Atlas		1,081	1
	4/19/2015 6:30	4/19/2015 18:15	705	0.57	3,586	1.22	0.24	12	Atlas		2,044	1
	4/20/2015 3:15	4/20/2015 3:30	15	0.08	5,450	1.29	0.06	1	Atlas		436	1
	4/25/2015 8:45	4/25/2015 9:15	30	0.14	2,843	0.82	0.07	6	Atlas		398	1
	5/9/2015 3:15	5/9/2015 3:15	-	0.08	788	0.06	0.04	1	Atlas		63	1
	5/16/2015 11:30	5/16/2015 14:00	150	0.79	35,562	0.78	0.41	3	Atlas		28,094	1
	5/17/2015 14:00	5/17/2015 14:15	15	0.12	4,492	0.89	0.06	12	Atlas		539	1
	5/25/2015 6:15	5/25/2015 8:15	120	0.32	1,500	0.25	0.15	12	Atlas		480	1
	5/26/2015 13:30	5/26/2015 13:30	-	0.23	548	0.39	0.16	1	Atlas		126	1
	5/31/2015 6:30	6/1/2015 8:00	-	0.13	477	0.79	0.06	3	Atlas		62	1
	6/1/2015 8:00	6/1/2015 8:00	-	0.12	908	0.68	0.07	3	Atlas		109	1
	6/8/2015 6:45	6/8/2015 8:15	90	0.22	5,050	0.29	0.13	3	Atlas		1,111	1
	6/17/2015 4:30	6/17/2015 6:30	120	0.63	11,102	0.63	0.34	3	Atlas		6,994	1
	6/17/2015 17:00	6/17/2015 17:00	-	0.07	11,400	0.71	0.06	1	Atlas		798	1
	6/18/2015 17:00	6/18/2015 17:45	45	0.56	19,873	1.07	0.29	3	Atlas		11,129	1
	6/20/2015 1:15	6/20/2015 8:00	405	0.83	27,035	2.07	0.37	12	Atlas		22,439	1
	6/22/2015 5:45	6/22/2015 5:45	-	0.24	2,550	2.23	0.11	12	Atlas		612	1
	6/25/2015 23:30	6/26/2015 0:45	75	0.64	2,688	1.56	0.33	6	Atlas		1,720	1
	6/26/2015 17:00	6/27/2015 0:00	420	1.09	46,765	2.77	0.57	1	Atlas		50,974	1
	6/29/2015 13:15	6/29/2015 13:30	15	0.26	5,792	1.98	0.17	1	Atlas		1,506	1
	7/2/2015 0:00	7/2/2015 20:45	1,245	2.05	37,152	4.11	0.79	24	Atlas		76,162	1
	7/3/2015 14:45	7/3/2015 18:30	225	0.55	23,600	4.02	0.46	1	Atlas		12,980	1
	7/7/2015 11:15	7/7/2015 12:30	75	1.08	7,406	3.41	0.51	3	Atlas		7,999	1
	7/8/2015 12:00	7/8/2015 12:30	30	1.08	492	3.74	0.51	3	Atlas		531	1
	7/9/2015 6:00	7/9/2015 13:15	435	0.27	6,474	3.06	0.13	3	Atlas		1,748	1
	7/10/2015 10:00	7/10/2015 16:00	360	0.54	1,917	2.47	0.28	6	Atlas		1,035	1
	7/12/2015 5:45	7/12/2015 7:00	75	0.90	82,919	2.73	0.63	1	Atlas		74,627	1
	7/13/2015 14:15	7/13/2015 14:45	30	0.36	42,864	3.18	0.30	1	Atlas		15,431	1
	7/14/2015 4:00	7/14/2015 4:30	30	0.62	69,058	3.76	0.46	1	Atlas		42,816	1
	7/14/2015 18:30	7/14/2015 18:30	-	0.02	7,750	2.89	0.02	1	Atlas		155	1
	7/17/2015 22:15	7/18/2015 1:00	165	1.37	119,507	3.27	0.91	3	Atlas		163,724	1
	7/28/2015 17:30	7/28/2015 17:30	-	0.01	26,700	0.10	0.01	1	Atlas		267	1
	7/29/2015 17:15	7/29/2015 17:15	-	0.08	4,413	0.16	0.07	1	Atlas		353	1
	11/18/2015 11:00	11/18/2015 11:00	-	1.42	248	1.12	0.69	6	Atlas		352	1
	4/16/2017 5:30	4/16/2017 5:30	-	1.19	320	0.63	0.46	24	Atlas		381	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/21/2017 2:45	5/21/2017 2:45	-	1.36	90	0.89	0.62	12	Atlas		122	1
	6/13/2017 17:00	6/13/2017 17:00	-	0.33	488	0.37	0.28	1	Atlas		161	1
	2/22/2018 5:15	2/22/2018 5:15	-	2.04	121	3.32	0.73	24	Atlas		247	1
	2/23/2018 4:15	2/23/2018 4:15	-	1.77	145	3.74	0.81	12	Atlas		256	1
	2/24/2018 19:15	2/24/2018 19:15	-	2.26	41	4.88	0.93	12	Atlas		93	1
	6/5/2019 20:45	6/5/2019 20:45	-	0.78	3,359	0.89	0.57	1	Atlas		2,620	1
	6/16/2019 19:30	6/16/2019 20:30	60	2.14	13,566	1.99	0.98	12	Atlas		29,031	1
	7/18/2019 0:15	7/18/2019 0:30	15	0.44	28,786	0.50	0.31	1	Atlas		12,666	1
	7/29/2019 23:15	7/29/2019 23:15	-	0.52	5,156	0.51	0.31	3	Atlas		2,681	1
CSO208 Total											**4,410,875**	**210**
CSO210	3/26/2009 8:30	3/26/2009 16:00	450	0.16	3,594,563	0.59	0.09	6	Atlas		575,130	1
	3/28/2009 20:00	3/29/2009 1:30	330	0.63	765,898	1.18	0.32	1	Atlas		482,516	1
	4/2/2009 18:45	4/3/2009 8:15	810	1.04	1,622,705	1.78	0.48	12	Atlas		1,687,613	1
	4/5/2009 17:15	4/5/2009 23:00	345	0.37	1,267,857	1.49	0.23	3	Atlas		469,107	1
	4/10/2009 13:45	4/11/2009 0:30	645	0.59	925,112	0.99	0.24	12	Atlas		545,816	1
	4/13/2009 14:15	4/14/2009 3:00	765	0.78	1,502,732	1.37	0.31	12	Atlas		1,172,131	1
	4/19/2009 7:30	4/19/2009 20:45	795	1.60	1,054,224	2.20	0.64	12	Atlas		1,686,759	1
	4/28/2009 8:15	4/28/2009 16:15	480	0.32	780,303	0.37	0.20	3	Atlas		249,697	1
	5/1/2009 2:45	5/1/2009 4:15	90	0.05	647,280	0.53	0.03	6	Atlas		32,364	1
	6/10/2009 9:30	6/10/2009 17:00	450	1.01	565,062	1.39	0.52	3	Atlas		570,713	1
	6/11/2009 2:30	6/12/2009 4:15	1,545	1.35	1,205,395	2.72	0.52	24	Atlas		1,627,283	1
	6/15/2009 15:30	6/15/2009 18:30	180	0.37	707,557	3.02	0.30	1	Atlas		261,796	1
	6/16/2009 8:45	6/16/2009 19:45	660	0.77	953,116	3.78	0.47	1	Atlas		733,899	1
	6/18/2009 9:30	6/20/2009 4:15	2,565	0.80	22,801,511	2.97	0.49	3	Atlas		18,241,209	1
	6/21/2009 10:45	6/21/2009 11:30	45	0.19	217,232	2.28	0.12	3	Atlas		41,274	1
	6/22/2009 8:45	6/22/2009 16:00	435	0.52	1,708,610	2.71	0.31	3	Atlas		888,477	1
	6/26/2009 2:30	6/26/2009 17:30	900	1.54	3,142,406	2.39	0.87	3	Atlas		4,839,306	1
	7/8/2009 5:45	7/8/2009 6:30	45	0.21	264,281	0.58	0.18	1	Atlas		55,499	1
	7/15/2009 10:00	7/15/2009 15:30	330	0.61	872,974	0.64	0.39	3	Atlas		532,514	1
	7/17/2009 2:15	7/17/2009 7:45	330	0.58	866,014	1.21	0.39	3	Atlas		502,288	1
	7/22/2009 2:15	7/22/2009 22:15	1,200	1.82	1,059,349	3.01	0.80	12	Atlas		1,928,016	1
	7/25/2009 14:15	7/25/2009 23:15	540	0.71	210,637	2.53	0.27	24	Atlas		149,552	1
	7/29/2009 2:15	7/29/2009 11:30	555	1.08	1,178,697	3.42	0.46	12	Atlas		1,272,993	1
	7/30/2009 17:45	7/31/2009 4:15	630	0.83	1,224,400	2.62	0.35	12	Atlas		1,016,252	1
	8/4/2009 7:30	8/5/2009 0:30	1,020	5.45	4,560,008	7.37					24,852,044	1
	8/10/2009 18:30	8/11/2009 1:30	420	0.88	1,029,583	6.33	0.55	3	Atlas		906,033	1
	8/28/2009 23:45	8/29/2009 0:15	30	0.11	244,236	0.15	0.08	1	Atlas		26,866	1
	9/6/2009 19:00	9/6/2009 20:00	60	0.47	119,196	0.41	0.18	24	Atlas		56,022	1
	9/7/2009 17:30	9/7/2009 18:15	45	0.47	61,934	0.67	0.18	24	Atlas		29,109	1
	9/20/2009 5:00	9/21/2009 2:15	1,275	2.89	2,123,003	2.90	1.61	24	Cloudburst		6,135,479	1
	9/22/2009 18:00	9/23/2009 1:15	435	0.31	1,060,555	3.21	0.14	12	Atlas		328,772	1
	9/24/2009 6:30	9/25/2009 3:00	1,230	1.00	863,841	4.14	0.35	24	Atlas		863,841	1
	9/26/2009 19:45	9/27/2009 3:00	435	0.38	1,685,647	4.63	0.31	1	Atlas		640,546	1
	10/2/2009 3:00	10/2/2009 12:30	570	0.74	1,105,500	1.25	0.47	3	Atlas		818,070	1
	10/6/2009 10:00	10/6/2009 14:15	255	0.09	2,477,922	0.83	0.06	1	Atlas		223,013	1
	10/8/2009 13:30	10/10/2009 1:30	2,160	2.17	1,122,246	3.00	0.72	24	Atlas		2,435,274	1
	10/14/2009 5:00	10/14/2009 12:45	465	0.62	1,294,776	2.79	0.41	3	Atlas		802,761	1
	10/15/2009 3:45	10/15/2009 8:30	285	0.14	1,994,493	2.86	0.09	1	Atlas		279,229	1
	10/23/2009 1:45	10/23/2009 14:00	735	0.68	1,107,028	0.70	0.29	12	Atlas		752,779	1
	10/27/2009 16:30	10/28/2009 5:15	765	1.14	1,035,382	1.82	0.51	12	Atlas		1,180,336	1
	10/30/2009 18:45	10/31/2009 9:45	900	1.00	1,747,960	2.15	0.45	12	Atlas		1,747,960	1
	11/11/2009 10:30	11/12/2009 1:15	885	Discharge	-	-					1,150,891	1
	11/12/2009 10:30	11/12/2009 11:00	30	Discharge	-	-					18,545	1
	11/17/2009 8:00	11/18/2009 2:45	1,125	0.61	1,687,533	0.61	0.23	24	Atlas		1,029,395	1
	12/2/2009 16:00	12/2/2009 19:00	180	0.30	255,307	0.48	0.14	12	Atlas		76,592	1
	12/8/2009 15:15	12/9/2009 5:45	870	2.21	907,664	2.51	0.89	12	Atlas		2,005,938	1
	12/13/2009 6:15	12/13/2009 11:30	315	0.27	1,522,770	2.56	0.17	3	Atlas		411,148	1
	12/31/2009 0:30	12/31/2009 0:45	15	0.10	89,990	0.54	0.06	3	Atlas		8,999	1
	1/20/2010 9:00	1/22/2010 0:15	2,355	1.50	1,669,620	1.73	0.49	48	Atlas		2,504,430	1
	1/24/2010 3:30	1/25/2010 12:15	1,965	0.88	2,731,431	2.69	0.34	24	Atlas		2,403,659	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/5/2010 6:30	2/6/2010 10:30	1,680	1.20	2,563,535	1.40	0.44	24	Atlas		3,076,242	1
	3/12/2010 13:00	3/12/2010 17:00	240	0.28	976,171	0.30	0.17	3	Atlas		273,328	1
	3/21/2010 19:15	3/22/2010 4:45	570	0.76	888,130	0.76	0.34	12	Atlas		674,979	1
	3/25/2010 20:45	3/25/2010 23:15	150	0.31	271,987	1.04	0.12	24	Atlas		84,316	1
	4/7/2010 23:00	4/8/2010 9:45	645	1.24	1,121,941	1.36	0.58	6	Atlas		1,391,207	1
	4/16/2010 18:00	4/16/2010 18:15	15	0.16	62,444	0.07	0.10	3	Atlas		9,991	1
	4/24/2010 13:45	4/24/2010 23:30	585	1.37	703,200	1.58	0.64	6	Atlas		963,384	1
	4/27/2010 7:45	4/27/2010 12:30	285	0.37	754,159	2.13	0.19	6	Atlas		279,039	1
	5/1/2010 4:15	5/1/2010 13:00	525	4.12	289,973	2.95	3.48	48	Atlas		1,194,689	1
	5/2/2010 0:45	5/2/2010 23:45	1,380	4.12	1,441,072	4.67	3.48	48	Atlas		5,937,218	1
	5/7/2010 23:00	5/7/2010 23:15	15	0.13	194,762	4.29	0.11	1	Atlas		25,319	1
	5/12/2010 9:30	5/12/2010 14:45	315	0.72	680,963	0.91	0.54	1	Atlas		490,293	1
	5/13/2010 12:30	5/13/2010 14:00	90	0.21	490,857	1.12	0.18	1	Atlas		103,080	1
	5/16/2010 9:30	5/16/2010 12:00	150	0.34	116,059	1.21	0.16	12	Atlas		39,460	1
	5/17/2010 17:15	5/17/2010 22:15	300	0.27	1,440,756	1.60	0.18	3	Atlas		389,004	1
	5/21/2010 19:30	5/22/2010 0:30	300	0.74	871,368	1.36	0.60	1	Atlas		644,812	1
	5/30/2010 22:15	5/30/2010 23:15	60	0.04	1,819,150	0.17	0.03	1	Atlas		72,766	1
	6/9/2010 3:00	6/9/2010 17:00	840	1.69	1,997,925	1.86	0.80	3	Atlas		3,376,493	1
	6/14/2010 1:15	6/14/2010 1:15	-	0.46	11,715	2.07	0.25	1	Atlas		5,389	1
	6/19/2010 6:00	6/19/2010 10:15	255	0.64	201,742	1.47	0.38	3	Atlas		129,115	1
	6/28/2010 5:30	6/28/2010 5:30	-	0.38	26,034	0.38	0.25	1	Atlas		9,893	1
	7/13/2010 6:00	7/13/2010 6:45	45	1.40	61,468	1.58	0.75	3	Atlas		86,055	1
	7/20/2010 5:15	7/20/2010 8:45	210	0.55	423,115	1.34	0.32	1	Atlas		232,713	1
	7/21/2010 8:30	7/21/2010 8:30	-	0.37	26,419	1.19	0.29	1	Atlas		9,775	1
	7/31/2010 4:45	7/31/2010 7:15	150	0.61	173,820	0.74	0.35	3	Atlas		106,030	1
	8/21/2010 8:45	8/21/2010 13:15	270	0.45	250,533	0.81	0.28	3	Atlas		112,740	1
	10/26/2010 13:45	10/26/2010 15:45	120	0.54	87,511	0.58	0.30	6	Atlas		47,256	1
	11/16/2010 13:15	11/16/2010 21:15	480	0.81	239,931	0.90	0.36	12	Atlas		194,344	1
	11/24/2010 14:00	11/24/2010 16:15	135	0.64	94,364	0.99	0.31	3	Atlas		60,393	1
	11/25/2010 10:15	11/26/2010 2:15	960	2.42	318,455	3.35	0.92	24	Atlas		770,661	1
	11/30/2010 0:00	11/30/2010 13:30	810	1.76	296,687	5.07	0.68	24	Atlas		522,169	1
	1/1/2011 5:45	1/1/2011 10:15	270	0.64	312,461	1.19	0.29	12	Atlas		199,975	1
	2/1/2011 19:15	2/1/2011 23:15	240	0.93	181,896	0.83	0.34	6	Atlas		169,163	1
	2/24/2011 20:00	2/25/2011 6:00	600	2.60	723,739	2.78	1.14	12	Cloudburst		1,881,722	1
	2/28/2011 6:15	2/28/2011 14:00	465	0.84	793,120	3.80	0.39	6	Atlas		666,221	1
	3/5/2011 7:30	3/5/2011 10:45	195	0.87	203,457	1.85	0.30	24	Atlas		177,008	1
	3/8/2011 23:15	3/9/2011 20:30	1,275	3.01	1,254,581	3.91	1.86	12	Cloudburst		3,776,288	1
	4/4/2011 14:30	4/4/2011 20:45	375	0.65	287,842	0.78	0.33	6	Atlas		187,097	1
	4/9/2011 11:30	4/9/2011 13:15	105	0.46	161,287	1.15	0.30	3	Atlas		74,192	1
	4/11/2011 16:45	4/12/2011 7:15	870	2.99	564,764	3.49	1.80	24	Cloudburst		1,688,644	1
	4/20/2011 2:15	4/20/2011 7:15	300	0.77	386,594	1.14	0.42	6	Atlas		297,677	1
	4/23/2011 0:15	4/23/2011 22:00	1,305	4.74	502,953	4.35	2.83	48	Atlas		2,383,998	1
	4/24/2011 8:15	4/24/2011 22:30	855	4.74	85,921	5.11	2.83	48	Atlas		407,266	1
	4/27/2011 1:00	4/27/2011 10:15	555	2.10	1,764,561	6.89	0.78	24	Atlas		3,705,579	1
	5/1/2011 5:45	5/1/2011 7:30	105	0.70	156,476	4.24	0.36	3	Atlas		109,533	1
	5/2/2011 5:15	5/2/2011 7:15	120	2.60	68,540	4.17	0.84	48	Atlas		178,203	1
	5/2/2011 23:30	5/3/2011 8:45	555	2.60	276,801	5.55	0.84	48	Atlas		719,683	1
	5/8/2011 1:30	5/8/2011 3:45	135	0.28	698,343	3.51	0.18	1	Atlas		195,536	1
	5/14/2011 15:30	5/14/2011 17:00	90	0.29	187,241	0.60	0.18	1	Atlas		54,300	1
	5/21/2011 18:30	5/21/2011 22:15	225	0.62	147,837	0.95	0.43	1	Atlas		91,659	1
	5/23/2011 5:00	5/23/2011 7:15	135	0.43	114,351	1.20	0.27	3	Atlas		49,171	1
	5/23/2011 17:45	5/24/2011 0:00	375	0.92	313,508	2.11	0.58	3	Atlas		288,427	1
	5/25/2011 22:30	5/26/2011 14:00	930	1.43	402,767	3.32	0.66	3	Atlas		575,957	1
	6/11/2011 15:30	6/11/2011 17:15	105	0.20	11,140	0.27	0.15	1	Atlas		2,228	1
	6/15/2011 9:15	6/15/2011 11:45	150	1.03	819,235	1.29	0.63	3	Atlas		843,812	1
	6/18/2011 7:15	6/18/2011 11:00	225	0.74	129,877	1.82	0.45	3	Atlas		96,109	1
	6/19/2011 7:45	6/19/2011 12:30	285	0.80	200,311	2.60	0.51	3	Atlas		160,249	1
	6/20/2011 1:45	6/20/2011 5:15	210	0.67	189,769	3.27	0.57	1	Atlas		127,145	1
	6/21/2011 17:45	6/21/2011 19:00	75	0.26	56,296	3.51	0.15	3	Atlas		14,637	1
	6/22/2011 20:15	6/23/2011 13:15	1,020	3.18	889,225	5.66	10.00	3	Atlas		2,827,735	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	7/4/2011 15:00	7/4/2011 17:30	150	0.04	63.650	0.04	0.02	1	Atlas		2,546	1
	8/3/2011 13:30	8/3/2011 16:15	165	0.02	191.100	0.03	0.02	1	Atlas		3,822	1
	8/5/2011 13:45	8/5/2011 14:15	30	0.01	63.400	0.03	0.01	1	Atlas		634	1
	8/7/2011 2:45	8/7/2011 18:00	915	1.42	687.427	1.45	0.82	3	Atlas		976,147	1
	8/10/2011 12:00	8/10/2011 18:30	390	0.22	52.114	1.92	0.15	3	Atlas		11,465	1
	8/18/2011 12:15	8/18/2011 17:30	315	0.15	62.593	0.83	0.13	1	Atlas		9,389	1
	8/21/2011 12:00	8/21/2011 18:30	390	0.01	1,066.200	0.17	0.01	1	Atlas		10,662	1
	9/19/2011 8:15	9/19/2011 16:45	510	0.71	85.406	0.93	0.27	24	Atlas		60,638	1
	9/23/2011 3:15	9/23/2011 10:00	405	0.73	333.592	1.48	0.33	12	Atlas		243,522	1
	9/25/2011 23:45	9/26/2011 11:30	705	3.61	1,573.067	5.16	8.75	12	Cloudburst		5,678,771	1
	10/13/2011 9:45	10/13/2011 10:15	30	0.47	15.898	0.33	0.21	12	Atlas		7,472	1
	10/27/2011 0:00	10/27/2011 3:30	210	0.99	148.879	1.22	0.41	3	Atlas		147,390	1
	11/14/2011 21:30	11/15/2011 18:00	1,230	1.88	249.974	1.47	0.61	48	Atlas		469,961	1
	11/16/2011 6:45	11/16/2011 13:15	390	1.88	107.250	1.90	0.61	48	Atlas		201,630	1
	11/20/2011 18:15	11/20/2011 22:30	255	1.63	61.434	2.35	0.51	48	Atlas		100,138	1
	11/22/2011 11:30	11/22/2011 15:00	810	1.63	412.554	3.10	0.51	48	Atlas		672,463	1
	11/27/2011 7:30	11/27/2011 12:00	270	2.98	65.464	2.27	0.92	48	Atlas		195,082	1
	11/27/2011 23:15	11/29/2011 6:15	1,860	2.98	961.218	4.21	0.92	48	Atlas		2,864,430	1
	12/4/2011 16:45	12/6/2011 1:15	1,950	3.26	839.448	5.61	1.30	48	Cloudburst		2,736,599	1
	12/15/2011 7:15	12/15/2011 11:15	240	0.51	234.310	0.52	0.23	6	Atlas		119,498	1
	12/21/2011 6:30	12/21/2011 10:30	240	0.71	206.561	1.25	0.33	12	Atlas		146,658	1
	12/22/2011 15:00	12/22/2011 22:00	420	0.49	555.078	1.23	0.22	12	Atlas		271,988	1
	12/27/2011 4:15	12/27/2011 17:00	765	0.64	636.214	1.84	0.25	12	Atlas		407,177	1
	1/11/2012 5:45	1/11/2012 14:30	525	0.91	338.976	0.80	0.36	12	Atlas		308,468	1
	1/17/2012 12:45	1/17/2012 14:15	90	0.34	111.391	1.38	0.16	12	Atlas		37,873	1
	1/23/2012 3:45	1/23/2012 7:15	210	0.60	340.852	0.96	0.31	3	Atlas		204,511	1
	1/26/2012 5:45	1/27/2012 2:45	1,260	1.74	644.986	2.35	0.58	24	Atlas		1,122,276	1
	2/4/2012 10:45	2/4/2012 12:15	90	0.34	118.424	0.38	0.20	3	Atlas		40,264	1
	2/29/2012 8:30	2/29/2012 10:45	135	0.55	55.569	0.68	0.28	1	Atlas		30,563	1
	3/8/2012 12:30	3/8/2012 17:15	285	0.71	312.939	0.88	0.33	6	Atlas		222,187	1
	3/16/2012 1:45	3/16/2012 5:15	210	1.00	266.008	1.19	0.45	12	Atlas		266,008	1
	3/17/2012 20:30	3/17/2012 23:45	195	0.54	282.319	1.71	0.29	3	Atlas		152,452	1
	3/23/2012 13:45	3/24/2012 7:30	1,065	1.56	523.721	2.10	0.59	24	Atlas		817,004	1
	4/1/2012 9:30	4/1/2012 14:00	270	1.30	320.700	1.46	0.73	3	Atlas		416,910	1
	4/28/2012 19:00	4/28/2012 22:45	225	0.74	206.915	0.80	0.54	1	Atlas		153,117	1
	4/30/2012 20:15	4/30/2012 21:15	60	0.39	79.618	1.28	0.26	3	Atlas		31,051	1
	5/4/2012 23:45	5/5/2012 6:30	405	1.48	568.929	2.64	0.77	6	Atlas		842,015	1
	5/13/2012 2:45	5/13/2012 18:30	945	2.08	388.800	2.15	0.80	12	Atlas		808,704	1
	5/29/2012 6:15	5/29/2012 15:15	540	3.17	1,522.539	3.17	25.64	3	Cloudburst		4,826,450	1
	5/31/2012 19:15	6/1/2012 5:15	600	1.24	235.008	4.34	0.54	12	Atlas		291,410	1
	7/14/2012 14:15	7/14/2012 15:45	90	0.70	214.914	0.90	0.39	3	Atlas		150,440	1
	7/19/2012 17:45	7/19/2012 22:30	285	1.19	1,518.356	1.78	0.77	1	Atlas		1,806,844	1
	7/27/2012 20:45	7/28/2012 0:00	195	0.56	121.632	0.87	0.44	1	Atlas		68,114	1
	8/16/2012 20:00	8/17/2012 2:00	360	0.59	286.664	0.72	0.33	3	Atlas		169,132	1
	8/21/2012 13:45	8/21/2012 14:45	60	0.14	76.571	0.74	0.12	1	Atlas		10,720	1
	9/2/2012 13:45	9/2/2012 17:30	225	0.53	95.523	0.86	0.27	1	Atlas		50,627	1
	9/5/2012 15:15	9/5/2012 20:15	300	0.72	963.531	1.63	0.56	1	Atlas		693,742	1
	9/7/2012 23:15	9/8/2012 8:45	570	1.53	201.801	3.14	0.88	3	Atlas		308,755	1
	9/26/2012 1:15	9/26/2012 9:15	480	0.54	318.594	0.84	0.27	6	Atlas		172,041	1
	9/26/2012 20:30	9/27/2012 3:30	420	1.33	814.316	2.17	0.71	6	Atlas		1,083,040	1
	10/1/2012 18:00	10/1/2012 22:00	240	0.66	113.968	2.87	0.27	12	Atlas		75,219	1
	10/26/2012 15:15	10/26/2012 20:15	300	0.63	200.579	0.60	0.31	6	Atlas		126,365	1
	12/4/2012 16:45	12/4/2012 21:15	270	0.57	176.188	0.81	0.35	3	Atlas		100,427	1
	12/7/2012 5:45	12/8/2012 13:30	1,905	0.94	663.406	2.06	0.42	6	Atlas		623,602	1
	12/9/2012 22:15	12/10/2012 8:00	585	1.19	736.516	2.97	0.58	3	Atlas		876,454	1
	12/20/2012 8:00	12/20/2012 17:15	555	0.66	514.608	0.95	0.32	6	Atlas		339,641	1
	12/26/2012 5:30	12/26/2012 19:30	840	0.94	564.497	1.66	0.36	12	Atlas		530,627	1
	1/11/2013 6:00	1/11/2013 11:00	300	0.62	349.555	0.83	0.33	6	Atlas		216,724	1
	1/13/2013 3:15	1/13/2013 22:45	1,170	2.25	790.907	3.07	0.86	24	Atlas		1,779,540	1
	1/30/2013 5:15	1/30/2013 10:45	330	0.89	416.664	1.15	0.44	6	Atlas		370,831	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	2/22/2013 2:00	2/22/2013 2:15	15	0.42	9,474	0.76	0.19	12	Atlas		3,979	1
	2/26/2013 14:45	2/26/2013 18:30	225	0.68	196,596	1.04	0.26	24	Atlas		133,685	1
	3/5/2013 18:00	3/5/2013 18:45	45	0.48	29,825	0.58	0.18	24	Atlas		14,316	1
	3/11/2013 4:45	3/11/2013 14:00	555	1.03	484,126	1.52	0.41	12	Atlas		498,650	1
	3/17/2013 13:30	3/18/2013 13:00	1,410	1.82	391,069	2.84	0.59	48	Atlas		711,745	1
	3/24/2013 9:15	3/24/2013 9:45	30	0.59	7,814	1.80	0.22	24	Atlas		4,610	1
	4/11/2013 7:30	4/11/2013 9:45	135	1.23	43,988	0.51	0.47	24	Atlas		54,105	1
	4/11/2013 18:00	4/11/2013 20:30	150	1.23	74,832	1.21	0.47	24	Atlas		92,043	1
	4/16/2013 20:30	4/16/2013 23:15	165	0.49	124,896	1.72	0.41	1	Atlas		61,199	1
	4/19/2013 2:45	4/19/2013 7:15	270	0.89	289,231	1.41	0.49	6	Atlas		257,416	1
	4/24/2013 8:15	4/24/2013 12:15	240	0.67	193,352	1.64	0.39	3	Atlas		129,546	1
	5/4/2013 14:00	5/4/2013 17:45	225	1.68	32,436	0.84	0.53	24	Atlas		54,492	1
	5/5/2013 5:30	5/5/2013 11:30	360	1.68	234,936	1.62	0.53	24	Atlas		394,693	1
	5/10/2013 9:45	5/11/2013 2:15	990	0.90	258,444	2.74	0.39	6	Atlas		232,600	1
	6/10/2013 2:15	6/10/2013 2:15	-	0.39	11,841	0.35	0.15	24	Atlas		4,618	1
	6/17/2013 21:15	6/17/2013 22:15	60	0.36	61,008	0.67	0.19	3	Atlas		21,963	1
	6/26/2013 3:30	6/26/2013 6:45	195	0.50	123,420	0.60	0.36	1	Atlas		61,710	1
	6/26/2013 16:15	6/27/2013 0:15	480	1.79	823,939	2.39	0.99	1	Atlas		1,474,851	1
	6/29/2013 21:15	6/29/2013 22:45	90	0.65	38,686	3.02	0.37	3	Atlas		25,146	1
	7/6/2013 4:15	7/6/2013 7:30	195	0.48	235,748	1.99	0.21	12	Atlas		113,159	1
	7/10/2013 14:15	7/10/2013 16:45	150	0.63	237,524	1.73	0.50	1	Atlas		149,640	1
	7/17/2013 18:30	7/17/2013 18:30	-	0.08	37,175	0.16	0.07	1	Atlas		2,974	1
	7/21/2013 20:30	7/21/2013 23:45	195	2.85	54,930	2.27	3.14	3	Atlas		156,550	1
	7/22/2013 8:00	7/22/2013 17:00	540	2.85	204,251	3.00	3.14	3	Atlas		582,116	1
	8/12/2013 15:00	8/12/2013 17:15	135	1.33	51,458	1.38	0.82	1	Atlas		68,439	1
	8/13/2013 4:00	8/13/2013 5:15	75	1.33	15,082	1.56	0.82	1	Atlas		20,059	1
	8/31/2013 20:00	9/1/2013 4:45	525	1.49	130,101	1.49	0.68	12	Atlas		193,851	1
	9/2/2013 13:45	9/2/2013 16:45	180	0.56	99,471	2.05	0.49	1	Atlas		55,704	1
	9/20/2013 18:45	9/21/2013 7:30	765	1.82	260,329	1.84	0.76	12	Atlas		473,798	1
	10/5/2013 13:45	10/6/2013 12:15	1,350	4.50	635,935	4.73	9.84	24	Cloudburst		2,861,708	1
	10/30/2013 2:45	10/30/2013 9:00	375	1.47	748,854	1.47	0.74	6	Atlas		1,100,816	1
	10/31/2013 19:00	10/31/2013 23:15	255	0.95	157,862	2.42	0.38	12	Atlas		149,969	1
	11/17/2013 6:30	11/17/2013 22:15	945	2.84	810,484	3.01	2.12	6	Cloudburst		2,301,774	1
	12/5/2013 7:30	12/5/2013 10:15	165	0.81	85,852	0.25	0.26	48	Atlas		69,540	1
	12/14/2013 10:15	12/14/2013 13:30	195	0.74	173,780	1.19	0.31	12	Atlas		128,597	1
	12/21/2013 7:00	12/22/2013 6:30	1,410	3.19	567,739	3.55	1.90	24	Cloudburst		1,811,087	1
	1/5/2014 17:30	1/5/2014 19:15	105	0.46	46,346	0.62	0.23	3	Atlas		21,319	1
	1/11/2014 1:00	1/11/2014 6:30	330	0.97	497,653	1.44	0.51	6	Atlas		482,723	1
	2/2/2014 5:45	2/2/2014 7:15	90	0.62	44,410	0.25	0.23	24	Atlas		27,534	1
	2/4/2014 20:00	2/4/2014 20:45	45	0.62	90,615	1.00	0.30	6	Atlas		56,181	1
	2/17/2014 16:15	2/17/2014 20:45	270	0.57	480,704	0.84	0.35	3	Atlas		274,001	1
	3/2/2014 11:15	3/2/2014 13:15	120	0.49	60,414	0.28	0.18	24	Atlas		29,603	1
	3/29/2014 7:15	3/29/2014 14:45	450	0.96	275,536	1.30	0.45	6	Atlas		264,515	1
	4/3/2014 12:00	4/4/2014 11:30	1,410	2.56	570,408	3.86	0.87	24	Atlas		1,460,244	1
	4/7/2014 10:30	4/7/2014 16:00	330	1.09	488,983	3.72	0.69	1	Atlas		532,992	1
	4/28/2014 4:45	4/28/2014 21:15	990	1.80	728,868	1.97	0.73	3	Atlas		1,311,962	1
	5/9/2014 19:15	5/9/2014 21:30	135	1.64	3,494	0.35	0.63	24	Atlas		5,730	1
	5/10/2014 6:00	5/10/2014 18:00	720	1.64	204,223	1.71	0.63	24	Atlas		334,925	1
	5/14/2014 9:15	5/15/2014 1:30	975	1.07	185,333	2.84	0.41	24	Atlas		198,306	1
	7/7/2014 19:15	7/7/2014 19:30	15	0.24	271,571	0.89	0.21	1	Atlas		65,177	1
	7/23/2014 15:00	7/23/2014 16:30	90	0.05	9,540	0.05	0.03	3	Atlas		477	1
	7/27/2014 9:15	7/27/2014 9:15	-	1.02	10,923	1.07	0.47	12	Atlas		11,141	1
	8/2/2014 14:45	8/2/2014 15:45	60	0.01	47,700	1.20	0.01	1	Atlas		477	1
	8/8/2014 6:45	8/8/2014 10:15	210	0.75	109,499	0.78	0.36	6	Atlas		82,124	1
	8/10/2014 3:15	8/10/2014 16:30	795	0.72	27,663	1.64	0.63	1	Atlas		19,917	1
	8/11/2014 16:15	8/11/2014 18:00	105	0.20	162,340	1.77	0.11	6	Atlas		32,468	1
	8/17/2014 10:45	8/17/2014 12:00	75	0.50	37,560	1.00	0.26	3	Atlas		18,780	1
	8/30/2014 15:15	8/30/2014 19:00	225	0.96	135,022	2.26	0.57	3	Atlas		129,621	1
	9/2/2014 9:30	9/2/2014 10:45	75	0.34	52,918	1.66	0.21	3	Atlas		17,992	1
	9/11/2014 1:15	9/11/2014 8:45	450	2.11	391,061	2.11	2.29	3	Atlas		825,138	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	10/13/2014 4:30	10/13/2014 9:15	285	0.49	248.473	2.00	0.32	3	Atlas		121,752	1
	10/13/2014 23:30	10/14/2014 12:45	795	1.44	403.632	2.99	0.64	12	Atlas		581,230	1
	11/23/2014 18:30	11/23/2014 21:45	195	0.92	122.465	1.24	0.42	6	Atlas		112,668	1
	12/6/2014 0:00	12/6/2014 10:00	600	1.91	287.939	2.77	0.62	48	Atlas		549,964	1
	2/21/2015 15:45	2/21/2015 18:00	135	1.34	32.184	1.61	0.52	12	Atlas		43,126	1
	3/4/2015 0:00	3/4/2015 18:15	1,095	1.71	834.119	1.46	0.55	48	Atlas		1,426,343	1
	3/10/2015 9:30	3/10/2015 17:45	495	1.09	914.617	2.80	0.49	12	Atlas		996,932	1
	3/13/2015 11:30	3/14/2015 7:00	1,170	1.84	603.199	2.90	0.70	24	Atlas		1,109,887	1
	3/26/2015 5:30	3/26/2015 8:00	150	0.52	164.052	0.66	0.23	3	Atlas		85,307	1
	4/2/2015 11:15	4/3/2015 19:45	1,950	5.44	1,829.301	5.57	18.39	6	Cloudburst		9,951,397	1
	4/7/2015 9:00	4/7/2015 20:00	660	0.89	490.240	6.34	0.37	12	Atlas		436,314	1
	4/13/2015 20:45	4/14/2015 0:15	210	0.55	112.407	1.62	0.21	24	Atlas		61,824	1
	4/14/2015 8:45	4/14/2015 16:15	450	0.55	264.487	1.78	0.21	24	Atlas		145,468	1
	4/19/2015 8:45	4/19/2015 23:30	885	0.81	278.747	1.43	0.33	12	Atlas		225,785	1
	5/16/2015 12:15	5/16/2015 16:15	240	0.95	88.716	1.08	0.58	3	Atlas		84,280	1
	6/17/2015 6:15	6/17/2015 15:30	555	0.63	100.230	0.65	0.34	3	Atlas		63,145	1
	6/20/2015 3:15	6/20/2015 11:15	480	1.19	271.931	2.59	0.49	12	Atlas		323,598	1
	6/26/2015 0:45	6/26/2015 3:30	165	0.77	388.309	2.33	0.42	6	Atlas		298,998	1
	6/29/2015 13:30	6/29/2015 15:45	135	0.35	54.614	2.11	0.26	1	Atlas		19,115	1
	7/2/2015 1:15	7/2/2015 5:15	240	0.84	646.117	2.98	0.47	3	Atlas		542,738	1
	7/3/2015 15:30	7/3/2015 18:00	150	1.48	67.852	3.71	2.47	1	Atlas		100,421	1
	7/7/2015 11:45	7/7/2015 17:30	345	0.91	1,264.543	3.30	0.48	6	Atlas		1,150,734	1
	7/9/2015 8:30	7/9/2015 9:15	45	0.28	35.621	2.77	0.17	1	Atlas		9,974	1
	7/10/2015 15:00	7/10/2015 18:45	225	0.46	721.017	1.80	0.24	6	Atlas		331,668	1
	7/12/2015 5:45	7/13/2015 18:15	2,190	0.73	4,511.938	3.01	0.50	1	Atlas		3,293,715	1
	7/14/2015 4:30	7/14/2015 21:00	990	0.30	830.983	3.47	0.23	1	Atlas		249,295	1
	7/27/2015 14:00	7/27/2015 17:45	225	0.12	19.917	0.19	0.10	1	Atlas		2,390	1
	7/28/2015 11:45	7/28/2015 17:15	330	0.02	214.600	0.16	0.02	1	Atlas		4,292	1
	8/6/2015 8:45	8/6/2015 11:15	150	0.78	202.872	0.86	0.30	1	Atlas		158,240	1
	8/19/2015 16:00	8/19/2015 17:00	60	0.61	46.093	0.81	0.35	1	Atlas		28,117	1
	8/23/2015 12:45	8/23/2015 17:30	285	0.03	93.033	0.65	0.01	12	Atlas		2,791	1
	9/9/2015 11:15	9/9/2015 13:15	120	0.50	37.910	0.55	0.41	1	Atlas		18,955	1
	9/10/2015 12:00	9/10/2015 17:30	330	0.19	29.679	0.74	0.09	12	Atlas		5,639	1
	10/2/2015 19:15	10/2/2015 21:30	135	0.46	78.539	1.16	0.21	12	Atlas		36,128	1
	10/27/2015 16:30	10/28/2015 11:15	1,185	3.44	261.756	3.82	1.84	24	Cloudburst		900,441	1
	11/6/2015 3:15	11/6/2015 9:15	360	1.05	395.052	1.22	0.65	3	Atlas		414,805	1
	11/9/2015 20:15	11/10/2015 1:00	285	0.60	176.348	1.65	0.28	12	Atlas		105,809	1
	11/12/2015 1:15	11/12/2015 3:45	150	0.30	112.630	1.95	0.17	3	Atlas		33,789	1
	11/18/2015 10:00	11/18/2015 21:15	675	1.76	640.712	2.27	0.89	6	Atlas		1,127,653	1
	11/28/2015 15:15	11/28/2015 22:45	450	0.87	143.697	0.83	0.28	48	Atlas		125,016	1
	11/30/2015 22:00	12/1/2015 7:15	555	0.56	424.182	1.49	0.25	12	Atlas		237,542	1
	12/14/2015 8:15	12/14/2015 9:15	60	0.28	69.914	0.27	0.15	6	Atlas		19,576	1
	12/22/2015 1:00	12/22/2015 6:15	315	0.70	112.181	0.73	0.27	24	Atlas		78,527	1
	12/23/2015 19:15	12/24/2015 1:00	345	1.01	1,782.468	1.73	0.67	1	Atlas		1,800,293	1
	12/26/2015 14:15	12/26/2015 20:00	345	0.58	197.772	2.40	0.26	12	Atlas		114,708	1
	12/27/2015 10:45	12/29/2015 0:15	2,250	2.53	1,203.267	4.93	0.82	48	Atlas		3,044,266	1
	2/2/2016 19:45	2/3/2016 13:45	1,080	1.51	959.356	1.58	0.75	6	Atlas		1,448,627	1
	2/21/2016 6:30	2/21/2016 14:15	465	1.07	42.339	1.26	0.49	12	Atlas		45,303	1
	2/24/2016 0:30	2/24/2016 17:00	990	2.24	624.727	3.16	0.86	12	Atlas		1,399,388	1
	3/1/2016 13:00	3/1/2016 18:00	300	0.65	85.743	2.93	0.34	6	Atlas		55,733	1
	3/10/2016 14:30	3/11/2016 1:45	675	1.31	27.693	1.36	0.43	48	Atlas		36,278	1
	3/12/2016 23:15	3/13/2016 12:00	765	0.50	111.696	1.85	0.19	24	Atlas		55,848	1
	3/24/2016 17:30	3/24/2016 19:30	120	0.31	35.365	0.39	0.21	1	Atlas		10,963	1
	3/27/2016 22:00	3/28/2016 1:00	180	0.77	91.769	1.08	0.53	1	Atlas		70,662	1
	3/31/2016 5:30	3/31/2016 10:00	270	1.34	32.149	1.90	0.51	24	Atlas		43,080	1
	3/31/2016 22:45	4/1/2016 2:45	240	1.34	31.584	2.11	0.51	24	Atlas		42,322	1
	4/11/2016 18:00	4/12/2016 2:15	495	0.97	53.795	1.12	0.44	6	Atlas		52,181	1
	4/27/2016 0:00	4/27/2016 1:15	75	0.24	17.904	0.70	0.14	3	Atlas		4,297	1
	4/27/2016 17:15	4/28/2016 2:30	555	1.03	46.383	1.72	0.49	3	Atlas		47,775	1
	4/30/2016 11:45	4/30/2016 16:45	300	0.79	29.323	1.80	0.30	24	Atlas		23,165	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	5/1/2016 17:00	5/1/2016 19:15	135	0.32	55,066	2.37	0.21	3	Atlas		17,621	1
	5/7/2016 22:30	5/8/2016 1:15	165	0.37	57,251	1.14	0.19	3	Atlas		21,183	1
	5/10/2016 15:15	5/11/2016 3:45	750	0.85	112,872	1.52	0.32	24	Atlas		95,941	1
	5/12/2016 23:00	5/13/2016 0:00	60	0.16	21,238	1.83	0.10	3	Atlas		3,398	1
	5/17/2016 23:15	5/18/2016 0:30	75	0.67	11,303	1.28	0.22	24	Atlas		7,573	1
	5/20/2016 15:30	5/20/2016 21:45	375	0.73	101,614	1.42	0.43	3	Atlas		74,178	1
	5/26/2016 14:45	5/26/2016 17:30	165	0.42	46,002	1.26	0.28	3	Atlas		19,321	1
	6/2/2016 15:45	6/2/2016 22:30	405	0.90	136,509	1.24	0.73	1	Atlas		122,858	1
	6/4/2016 19:15	6/4/2016 22:30	195	0.30	33,427	1.23	0.13	12	Atlas		10,028	1
	6/23/2016 16:45	6/24/2016 2:15	570	2.03	261,822	2.08	0.93	12	Atlas		531,499	1
	6/27/2016 16:15	6/27/2016 17:00	45	0.01	31,800	2.14	0.01	1	Atlas		318	1
	12/23/2016 23:45	12/24/2016 12:00	735	0.20	59,587,710	3.72	0.09	12	Atlas		11,917,542	1
	12/26/2016 22:00	12/27/2016 4:30	390	0.33	16,892,906	0.53	0.16	6	Atlas		5,574,659	1
	1/3/2017 4:45	1/3/2017 8:00	195	0.22	14,766,318	0.31	0.10	6	Atlas		3,248,590	1
	1/10/2017 21:30	1/10/2017 22:30	60	0.34	3,232,474	0.54	0.24	1	Atlas		1,099,041	1
	1/11/2017 14:00	1/11/2017 16:00	120	0.23	8,904,217	0.77	0.15	3	Atlas		2,047,970	1
	1/12/2017 19:30	1/13/2017 0:30	300	0.37	13,554,381	0.96	0.18	6	Atlas		5,015,121	1
	1/13/2017 18:45	1/13/2017 22:00	195	0.36	8,301,394	1.31	0.23	3	Atlas		2,988,502	1
	1/14/2017 12:30	1/14/2017 18:15	345	0.21	28,391,790	1.52	0.10	12	Atlas		5,962,276	1
	1/17/2017 0:30	1/17/2017 8:45	495	0.85	12,482,201	2.52	0.39	6	Atlas		10,609,871	1
	1/19/2017 20:00	1/22/2017 12:45	3,885	1.36	33,513,307	3.06	0.62	12	Atlas		45,578,098	1
	7/23/2017 3:00	7/23/2017 20:15	1,035	0.93	3,452,901	1.01	0.43	12	Atlas		3,211,198	1
	8/1/2017 23:45	8/2/2017 4:45	300	0.13	3,600,162	0.20	0.09	1	Atlas		468,021	1
	10/24/2017 9:00	10/24/2017 9:00	-	0.14	387,800	0.61	0.07	3	Atlas		54,292	1
	10/27/2017 18:15	10/28/2017 7:00	765	1.10	18,741,945	1.74	0.50	12	Atlas		20,616,139	1
	11/3/2017 4:30	11/3/2017 11:00	390	0.89	8,376,709	2.16	0.68	1	Atlas		7,455,271	1
	11/6/2017 1:30	11/6/2017 5:45	255	0.35	18,712,797	1.41	0.21	1	Atlas		6,549,479	1
	11/7/2017 6:45	11/7/2017 9:30	165	0.24	15,001,329	1.65	0.11	6	Atlas		3,600,319	1
	11/15/2017 14:00	11/15/2017 17:15	195	0.33	11,938,448	0.37	0.21	1	Atlas		3,939,688	1
	11/18/2017 17:30	11/18/2017 22:00	270	0.31	18,899,484	0.69	0.17	1	Atlas		5,858,840	1
	12/5/2017 4:00	12/5/2017 10:45	405	0.80	10,137,474	0.81	0.43	3	Atlas		8,109,979	1
	12/22/2017 22:00	12/24/2017 4:00	1,800	1.80	22,297,342	1.81	0.71	12	Atlas		40,135,215	1
	1/11/2018 11:45	1/11/2018 15:15	210	0.53	6,493,530	0.23	0.17	48	Atlas		3,441,571	1
	1/12/2018 6:30	1/12/2018 14:30	480	0.53	21,721,340	0.49	0.17	48	Atlas		11,512,310	1
	1/27/2018 15:45	1/27/2018 18:15	150	0.43	9,135,386	0.60	0.26	3	Atlas		3,928,216	1
	2/7/2018 2:45	2/7/2018 7:30	285	0.55	17,705,804	0.89	0.29	6	Atlas		9,738,192	1
	2/11/2018 10:15	2/11/2018 13:45	210	0.29	19,188,703	0.93	0.15	3	Atlas		5,564,724	1
	2/14/2018 8:00	2/14/2018 12:00	240	0.48	15,091,096	0.84	0.23	3	Atlas		7,243,726	1
	2/16/2018 3:15	2/16/2018 14:00	645	0.78	27,432,645	1.76	0.36	12	Atlas		21,397,463	1
	2/21/2018 20:30	2/22/2018 12:00	930	2.16	11,091,200	3.17	0.82	24	Atlas		23,956,992	1
	2/23/2018 2:15	2/23/2018 17:15	900	2.00	13,218,967	5.05	0.92	12	Atlas		26,437,933	1
	2/24/2018 11:00	2/26/2018 10:45	2,865	2.58	22,339,019	6.91	1.60	12	Cloudburst		57,634,670	1
	3/10/2018 1:30	3/10/2018 6:00	270	0.60	13,305,148	0.63	0.40	3	Atlas		7,983,089	1
	3/19/2018 19:15	3/19/2018 22:45	210	0.43	13,665,900	0.46	0.24	3	Atlas		5,876,337	1
	3/24/2018 9:00	3/25/2018 0:00	900	1.02	31,886,340	2.21	0.39	24	Atlas		32,524,067	1
	3/28/2018 7:15	3/28/2018 8:15	60	0.51	3,290,247	1.53	0.21	6	Atlas		1,678,026	1
	3/29/2018 19:15	3/29/2018 22:45	210	0.78	8,623,590	2.17	0.25	24	Atlas		6,726,400	1
	4/1/2018 20:30	4/2/2018 3:15	405	0.66	20,501,920	2.34	0.36	6	Atlas		13,531,267	1
	4/3/2018 20:00	4/4/2018 0:00	240	0.29	22,528,972	2.53	0.16	6	Atlas		6,533,402	1
	4/14/2018 10:30	4/14/2018 12:00	90	1.19	1,542,522	0.43	0.40	24	Atlas		1,835,601	1
	4/15/2018 1:30	4/15/2018 12:15	645	1.19	12,752,692	1.24	0.40	24	Atlas		15,175,704	1
	4/23/2018 5:45	4/23/2018 9:30	225	0.53	11,498,609	0.59	0.27	3	Atlas		6,094,263	1
	5/5/2018 12:00	5/5/2018 22:15	615	1.18	16,371,063	1.18	0.45	12	Atlas		19,317,854	1
	5/27/2018 3:15	5/27/2018 8:00	285	1.30	7,610,533	1.39	1.13	1	Atlas		9,893,693	1
	5/31/2018 13:45	6/1/2018 7:30	1,065	1.70	10,084,338	3.44	0.90	3	Atlas		17,143,375	1
	6/10/2018 14:45	6/10/2018 17:15	150	1.01	1,371,336	0.35	0.38	24	Atlas		1,385,049	1
	6/11/2018 13:00	6/11/2018 16:45	225	1.01	5,111,262	1.02	0.38	24	Atlas		5,162,375	1
	6/21/2018 9:00	6/21/2018 9:30	30	0.80	1,804,118	0.75	0.36	12	Atlas		1,443,294	1
	6/22/2018 15:30	6/22/2018 16:15	45	0.32	2,608,419	1.39	0.15	3	Atlas		834,694	1
	6/25/2018 10:15	6/25/2018 15:15	300	0.81	8,903,635	2.24	0.33	12	Atlas		7,211,944	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/26/2018 12:30	6/27/2018 2:15	825	0.77	16,706.088	2.96	0.33	12	Atlas		12,863,688	1
	7/3/2018 15:45	7/3/2018 19:15	210	0.11	20,676.182	0.58	0.06	6	Atlas		2,274,380	1
	7/16/2018 10:45	7/16/2018 12:15	90	0.36	3,816.183	0.46	0.24	1	Atlas		1,373,826	1
	7/20/2018 19:15	7/21/2018 1:30	375	0.71	8,279.586	1.18	0.27	24	Atlas		5,878,506	1
	7/31/2018 1:15	7/31/2018 17:15	960	2.18	10,734.217	2.43	1.28	6	Cloudburst		23,400,592	1
	8/8/2018 0:30	8/8/2018 0:45	15	0.30	565.217	0.21	0.17	1	Atlas		169,565	1
	8/15/2018 19:30	8/16/2018 14:45	1,155	3.98	7,288.727	3.98	6.05	24	Cloudburst		29,009,134	1
	8/20/2018 11:00	8/20/2018 14:00	180	0.69	5,291.958	4.47	0.34	1	Atlas		3,651,451	1
	8/31/2018 17:00	9/1/2018 16:45	1,425	1.18	296,143.281	1.25	0.88	1	Atlas		349,449,072	1
	9/8/2018 16:45	9/9/2018 2:00	555	3.53	5,955.226	3.86	10.51	6	Cloudburst		21,021,947	1
	9/22/2018 16:45	9/22/2018 19:15	150	1.85	1,896.978	0.85	0.68	24	Atlas		3,509,410	1
	9/23/2018 5:00	9/23/2018 9:15	255	1.85	3,293.998	2.05	0.68	24	Atlas		6,093,896	1
	9/24/2018 7:00	9/24/2018 17:15	615	2.72	8,992.598	4.77	2.69	6	Cloudburst		24,459,867	1
	9/25/2018 16:15	9/26/2018 5:00	765	1.08	14,361.259	5.87	0.50	1	Atlas		15,510,160	1
	10/10/2018 16:00	10/10/2018 18:45	165	0.45	8,514.122	0.58	0.38	1	Atlas		3,831,355	1
	10/31/2018 17:00	11/1/2018 4:30	690	2.58	6,525.955	2.37	0.90	24	Atlas		16,836,964	1
	11/1/2018 16:00	11/1/2018 18:45	165	2.58	1,363.801	3.08	0.90	24	Atlas		3,518,607	1
	11/5/2018 21:00	11/6/2018 3:00	360	1.44	8,346.234	4.11	0.78	6	Atlas		12,018,577	1
	1/19/2019 7:15	1/19/2019 22:30	915	1.06	244.919	1.31	0.41	24	Atlas		259,614	1
	1/23/2019 9:30	1/23/2019 20:15	645	1.07	375.854	2.25	0.44	12	Atlas		402,164	1
	2/6/2019 6:30	2/6/2019 12:30	360	1.82	75.443	0.94	0.58	48	Atlas		137,307	1
	2/7/2019 9:45	2/8/2019 1:15	930	1.82	142.820	1.98	0.58	48	Atlas		259,933	1
	2/11/2019 2:15	2/12/2019 18:15	2,400	3.15	549.230	5.09	0.99	48	Atlas		1,730,076	1
	2/20/2019 3:00	2/20/2019 20:15	1,035	2.26	537.581	2.32	1.08	6	Cloudburst		1,214,933	1
	2/23/2019 17:30	2/24/2019 4:15	645	1.24	528.879	3.56	0.67	6	Atlas		655,810	1
	3/3/2019 16:00	3/3/2019 16:15	15	0.03	6.433	0.11	0.02	1	Atlas		193	1
	3/9/2019 13:15	3/9/2019 23:45	630	1.29	293.543	1.47	0.59	12	Atlas		378,670	1
	3/14/2019 7:15	3/14/2019 21:45	870	0.38	609.850	2.37	0.21	6	Atlas		231,743	1
	3/30/2019 15:45	3/31/2019 0:00	495	1.07	272.500	1.44	0.49	6	Atlas		291,575	1
	4/7/2019 11:30	4/7/2019 17:00	330	0.75	229.869	0.96	0.35	1	Atlas		172,402	1
	4/14/2019 1:30	4/14/2019 8:30	420	1.10	222.978	2.02	0.51	6	Atlas		245,276	1
	4/18/2019 21:30	4/19/2019 6:00	510	0.68	348.616	2.17	0.31	12	Atlas		237,059	1
	4/19/2019 18:45	4/20/2019 19:15	1,470	2.53	421.581	4.54	0.96	24	Atlas		1,066,601	1
	4/24/2019 20:15	4/25/2019 1:15	300	1.05	94.306	3.87	0.34	48	Atlas		99,021	1
	4/25/2019 17:45	4/26/2019 4:45	660	1.05	147.008	4.43	0.34	48	Atlas		154,358	1
	5/3/2019 5:15	5/3/2019 12:15	420	1.19	146.178	1.41	0.64	6	Atlas		173,952	1
	5/26/2019 13:30	5/26/2019 21:00	450	0.45	449.227	0.77	0.27	3	Atlas		202,152	1
	5/29/2019 8:45	5/29/2019 17:30	525	0.72	338.221	1.23	0.39	6	Atlas		243,519	1
	6/5/2019 20:30	6/6/2019 1:15	285	0.99	1,274.298	1.30	0.70	1	Atlas		1,261,565	1
	6/7/2019 22:15	6/8/2019 5:15	420	0.52	3,114.548	1.55	0.22	6	Atlas		1,619,565	1
	6/9/2019 1:00	6/9/2019 4:15	195	0.77	1,078.457	1.91	0.25	48	Atlas		830,412	1
	6/9/2019 15:15	6/9/2019 23:45	510	0.77	6,769.082	2.35	0.25	48	Atlas		5,212,193	1
	8/7/2019 7:15	8/7/2019 7:45	30	0.04	33.250	0.05	0.03	1	Atlas		1,330	1
	3/13/2020 0:15	3/13/2020 4:15	240	0.77	151.101	1.27	0.35	12	Atlas		116,348	1
	3/14/2020 13:45	3/14/2020 21:45	480	0.66	273.211	1.92	0.31	6	Atlas		180,319	1
	3/18/2020 17:00	3/18/2020 22:45	345	0.69	239.419	2.18	0.33	6	Atlas		165,199	1
	3/19/2020 12:45	3/19/2020 20:00	435	0.71	316.056	2.74	0.27	3	Atlas		224,400	1
	3/28/2020 23:15	3/29/2020 4:30	315	0.31	79.761	0.55	0.25	1	Atlas		24,726	1
	4/12/2020 18:00	4/13/2020 9:00	900	1.41	259.263	2.06	0.61	12	Atlas		365,561	1
CSO210 Total											**1,303,737,517**	**399**
CSO211	1/11/2012 6:15	1/11/2012 12:15	360	0.91	6,795.482	0.79	0.36	12	Atlas		6,183,889	1
	1/17/2012 12:45	1/17/2012 13:30	45	0.34	1,774.338	1.38	0.16	12	Atlas		603,275	1
	1/23/2012 3:45	1/23/2012 6:00	135	0.60	5,981.735	0.96	0.31	3	Atlas		3,589,041	1
	1/26/2012 6:00	1/26/2012 7:45	105	1.74	2,694.316	1.27	0.58	24	Atlas		4,688,110	1
	1/26/2012 19:30	1/27/2012 0:45	315	1.74	9,892.864	2.34	0.58	24	Atlas		17,213,583	1
	2/29/2012 9:45	2/29/2012 10:00	15	0.55	225.169	0.65	0.28	1	Atlas		123,843	1
	3/8/2012 13:30	3/8/2012 16:00	150	0.71	3,364.673	0.85	0.33	6	Atlas		2,388,918	1
	3/16/2012 2:15	3/16/2012 4:15	120	1.00	1,591.569	1.19	0.45	12	Atlas		1,591,569	1
	3/17/2012 22:15	3/17/2012 23:00	45	0.54	1,036.261	1.71	0.29	3	Atlas		559,581	1
	3/23/2012 13:30	3/24/2012 0:15	645	1.56	17,934.851	2.10	0.59	24	Atlas		27,978,367	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/1/2012 9:15	4/1/2012 12:30	195	1.30	18,569,863	1.46	0.73	3	Atlas		24,140,822	1
	4/28/2012 19:30	4/28/2012 21:30	120	0.74	29,491,078	0.78	0.54	1	Atlas		21,823,398	1
	5/5/2012 0:30	5/5/2012 5:45	315	1.48	5,311,459	2.64	0.77	6	Atlas		7,860,960	1
	5/13/2012 2:30	5/13/2012 12:15	585	2.08	16,833,948	2.03	0.80	12	Atlas		35,014,612	1
	5/29/2012 6:45	5/29/2012 13:00	375	3.17	10,563,683	3.17	25.64	3	Cloudburst		33,486,874	1
	5/31/2012 19:30	6/1/2012 2:30	420	1.24	5,930,890	4.27	0.54	12	Atlas		7,354,304	1
	7/1/2012 21:00	7/1/2012 21:00	-	0.19	231,437	0.15	0.12	1	Atlas		43,973	1
	7/8/2012 13:15	7/8/2012 14:30	75	0.15	20,162,000	0.53	0.08	1	Atlas		3,024,300	1
	7/14/2012 14:00	7/14/2012 16:00	120	0.70	17,911,160	0.90	0.39	3	Atlas		12,537,812	1
	7/19/2012 18:00	7/19/2012 21:15	195	1.19	29,939,437	1.78	0.77	1	Atlas		35,627,930	1
	7/27/2012 20:30	7/27/2012 22:45	135	0.56	23,395,841	0.87	0.44	1	Atlas		13,101,671	1
	8/16/2012 21:45	8/17/2012 0:15	150	0.59	5,726,453	0.72	0.33	3	Atlas		3,378,607	1
	8/21/2012 14:30	8/21/2012 18:00	210	0.14	51,673,564	0.74	0.12	1	Atlas		7,234,299	1
	9/1/2012 15:45	9/1/2012 18:45	180	0.32	16,297,347	0.36	0.17	6	Atlas		5,215,151	1
	9/2/2012 14:15	9/2/2012 15:45	90	0.53	799,621	0.86	0.27	1	Atlas		423,799	1
	9/5/2012 15:15	9/5/2012 18:00	165	0.72	43,092,358	1.63	0.56	1	Atlas		31,026,498	1
	9/7/2012 23:15	9/8/2012 3:15	240	1.53	13,480,164	3.06	0.88	3	Atlas		20,624,651	1
	9/26/2012 2:30	9/26/2012 3:30	60	0.54	1,363,896	0.69	0.27	6	Atlas		736,504	1
	9/26/2012 21:00	9/27/2012 1:30	270	1.33	7,804,229	2.15	0.71	6	Atlas		10,379,624	1
	10/1/2012 18:15	10/1/2012 20:00	105	0.66	5,646,952	2.81	0.27	12	Atlas		3,726,988	1
	12/4/2012 17:30	12/4/2012 19:15	105	0.57	3,683,363	0.81	0.35	3	Atlas		2,099,517	1
	12/7/2012 5:45	12/7/2012 19:30	825	0.94	13,979,907	1.75	0.42	6	Atlas		13,141,113	1
	12/8/2012 9:15	12/8/2012 11:00	105	0.31	1,564,152	2.06	0.17	3	Atlas		484,887	1
	12/9/2012 22:00	12/10/2012 2:15	255	1.19	19,024,560	2.94	0.58	3	Atlas		22,639,226	1
	12/20/2012 8:45	12/20/2012 13:15	270	0.66	22,274,727	0.93	0.32	6	Atlas		14,701,320	1
	12/26/2012 5:45	12/26/2012 13:15	450	0.94	13,166,411	1.63	0.36	12	Atlas		12,376,426	1
	1/11/2013 6:15	1/11/2013 9:00	165	0.62	11,106,923	0.83	0.33	6	Atlas		6,886,292	1
	1/13/2013 3:30	1/13/2013 20:00	990	2.25	12,803,165	3.07	0.86	24	Atlas		28,807,122	1
	1/30/2013 5:00	1/30/2013 10:30	330	0.89	24,780,101	1.14	0.44	6	Atlas		22,054,290	1
	3/11/2013 5:15	3/11/2013 12:30	435	1.03	10,665,942	1.52	0.41	12	Atlas		10,985,920	1
	3/17/2013 14:15	3/17/2013 16:00	105	1.82	3,060,265	1.76	0.59	48	Atlas		5,569,682	1
	3/18/2013 4:45	3/18/2013 8:45	240	1.82	8,444,459	2.19	0.59	48	Atlas		15,368,915	1
	4/11/2013 7:00	4/11/2013 8:45	105	1.23	4,885,154	0.49	0.47	24	Atlas		6,008,740	1
	4/16/2013 20:15	4/16/2013 21:30	75	0.49	8,551,512	1.72	0.41	1	Atlas		4,190,241	1
	4/19/2013 2:30	4/19/2013 5:15	165	0.89	11,030,437	1.41	0.49	6	Atlas		9,817,089	1
	4/24/2013 8:45	4/24/2013 10:30	105	0.67	10,954,554	1.64	0.39	3	Atlas		7,339,551	1
	5/4/2013 16:00	5/4/2013 16:15	75	1.68	409,905	0.84	0.53	24	Atlas		688,640	1
	5/5/2013 6:00	5/5/2013 9:15	195	1.68	4,609,682	1.55	0.53	24	Atlas		7,744,265	1
	5/10/2013 14:15	5/10/2013 16:15	120	0.90	1,241,634	2.58	0.39	6	Atlas		1,117,471	1
	6/10/2013 0:45	6/10/2013 1:30	45	0.39	2,396,005	0.34	0.15	24	Atlas		934,442	1
	6/26/2013 4:30	6/26/2013 5:45	75	0.50	9,142,290	0.60	0.36	1	Atlas		4,571,145	1
	6/26/2013 16:30	6/26/2013 20:30	240	1.79	14,557,287	2.21	0.99	1	Atlas		26,057,544	1
	6/29/2013 21:00	6/29/2013 21:15	15	0.65	210,569	3.01	0.37	3	Atlas		136,870	1
	7/2/2013 14:00	7/2/2013 14:15	15	0.02	17,011,550	3.23	0.02	1	Atlas		340,231	1
	7/6/2013 6:00	7/6/2013 6:00	-	0.48	61,108	1.92	0.21	12	Atlas		29,332	1
	7/10/2013 14:15	7/10/2013 16:00	105	0.63	27,603,276	1.73	0.50	1	Atlas		17,390,064	1
	7/21/2013 20:30	7/21/2013 22:00	90	2.85	2,526,175	2.11	3.14	3	Atlas		7,199,599	1
	7/22/2013 7:45	7/22/2013 15:30	465	2.85	13,135,281	2.99	3.14	3	Atlas		37,435,551	1
	8/12/2013 14:45	8/12/2013 16:30	105	1.33	7,567,424	1.35	0.82	1	Atlas		10,064,674	1
	8/13/2013 4:00	8/13/2013 4:30	30	1.33	459,698	1.56	0.82	1	Atlas		611,399	1
	8/31/2013 21:00	9/1/2013 0:00	180	1.49	555,392	1.15	0.68	12	Atlas		827,534	1
	10/5/2013 13:15	10/6/2013 11:30	1,335	4.50	13,289,022	4.73	9.84	24	Cloudburst		59,800,600	1
	10/30/2013 4:00	10/30/2013 7:45	225	1.47	26,641,867	1.47	0.74	6	Atlas		39,163,544	1
	10/31/2013 19:30	10/31/2013 21:45	135	0.95	2,393,978	2.38	0.38	12	Atlas		2,274,279	1
	11/17/2013 6:00	11/17/2013 20:30	870	2.84	17,785,942	3.01	2.12	6	Cloudburst		50,512,074	1
	12/5/2013 8:15	12/5/2013 8:45	30	0.81	583,795	0.20	0.26	48	Atlas		472,874	1
	12/14/2013 10:00	12/14/2013 11:15	75	0.74	5,979,545	1.19	0.31	12	Atlas		4,424,863	1
	12/21/2013 8:15	12/21/2013 13:15	300	3.19	3,563,096	1.50	1.90	24	Cloudburst		11,366,277	1
	12/21/2013 21:45	12/22/2013 4:00	375	3.19	8,289,609	3.30	1.90	24	Cloudburst		26,443,852	1
	2/4/2014 20:00	2/4/2014 20:45	45	0.62	2,674	1.00	0.30	6	Atlas		1,658	1
	2/17/2014 17:00	2/17/2014 19:00	120	0.57	40,281	0.84	0.35	3	Atlas		22,960	1
	3/2/2014 11:45	3/2/2014 12:15	30	0.49	3,302	0.28	0.18	24	Atlas		1,618	1
	4/3/2014 13:00	4/4/2014 8:45	1,185	2.56	8,553,392	3.86	0.87	24	Atlas		21,896,684	1
	4/7/2014 11:00	4/7/2014 12:15	75	1.09	8,293,892	3.72	0.69	1	Atlas		9,040,342	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	4/28/2014 4:45	4/28/2014 8:45	240	1.80	4,426.689	1.54	0.73	3	Atlas		7,968.040	1
	5/9/2014 20:15	5/9/2014 20:30	15	1.64	115.617	0.31	0.63	24	Atlas		189.612	1
	5/10/2014 6:15	5/10/2014 16:30	615	1.64	5,803.274	1.71	0.63	24	Atlas		9,517.370	1
	5/14/2014 20:30	5/14/2014 21:30	60	1.07	190.490	2.78	0.41	24	Atlas		203.824	1
	5/22/2014 3:45	5/22/2014 5:00	75	0.41	1,862.359	0.54	0.27	1	Atlas		763.567	1
	5/28/2014 20:15	5/28/2014 21:30	75	0.39	7,280.246	0.80	0.32	1	Atlas		2,839.296	1
	5/29/2014 21:30	5/29/2014 23:30	120	0.11	101,346.982	0.51	0.09	1	Atlas		11,148.168	1
	7/13/2014 23:00	7/14/2014 0:30	90	0.69	9,674.167	0.79	0.35	1	Atlas		6,675.175	1
	7/26/2014 22:00	7/26/2014 23:45	105	1.02	9,602.646	0.54	0.47	12	Atlas		9,794.699	1
	7/27/2014 8:00	7/27/2014 10:15	135	1.02	707.010	1.07	0.47	12	Atlas		721.150	1
	8/8/2014 6:30	8/8/2014 9:15	165	0.75	31,629.487	0.62	0.36	6	Atlas		23,722.115	1
	8/10/2014 4:30	8/10/2014 6:00	90	0.72	10,056.600	1.64	0.63	1	Atlas		7,240.752	1
	8/11/2014 15:45	8/11/2014 17:00	75	0.20	25,110.395	1.75	0.11	6	Atlas		5,022.079	1
	8/23/2014 17:00	8/24/2014 0:00	420	1.01	9,883.743	2.04	0.49	6	Atlas		9,982.580	1
	8/27/2014 18:15	8/27/2014 18:30	15	0.23	365.422	1.52	0.19	1	Atlas		84.047	1
	8/30/2014 15:15	8/30/2014 18:00	165	0.96	13,600.372	2.24	0.57	3	Atlas		13,056.357	1
	9/2/2014 10:15	9/2/2014 10:15	-	0.34	1.279	1.66	0.21	3	Atlas		435	1
	9/11/2014 0:45	9/11/2014 7:30	405	2.11	18,847.745	2.09	2.29	3	Atlas		39,768.743	1
	10/10/2014 2:30	10/10/2014 4:45	135	0.86	15,445.803	1.43	0.37	3	Atlas		13,283.391	1
	10/13/2014 5:30	10/13/2014 7:45	135	0.49	1,690.108	2.00	0.32	3	Atlas		828.153	1
	10/14/2014 0:00	10/14/2014 11:15	675	1.44	6,416.128	2.99	0.64	12	Atlas		9,239.225	1
	11/23/2014 17:45	11/23/2014 22:15	270	0.92	1,002.243	1.26	0.42	6	Atlas		922.064	1
	12/6/2014 0:00	12/6/2014 8:15	495	1.91	2,461.834	2.77	0.62	48	Atlas		4,702.103	1
	3/4/2015 0:00	3/4/2015 16:00	960	1.71	2,155.287	1.37	0.55	48	Atlas		3,685.541	1
	3/10/2015 10:45	3/10/2015 16:30	345	1.09	7,522.628	2.79	0.49	12	Atlas		8,199.664	1
	3/13/2015 13:15	3/14/2015 6:30	1,035	1.84	3,512.902	2.90	0.70	24	Atlas		6,463.739	1
	3/26/2015 6:00	3/26/2015 6:30	30	0.52	43.894	0.64	0.23	3	Atlas		22.825	1
	4/2/2015 11:15	4/3/2015 14:00	1,605	5.44	15,431.516	5.20	18.39	6	Cloudburst		83,947.448	1
	4/7/2015 9:30	4/7/2015 11:30	120	0.89	5,824.231	6.02	0.37	12	Atlas		5,183.566	1
	4/8/2015 19:15	4/8/2015 19:45	30	0.12	719.942	6.46	0.09	1	Atlas		86.393	1
	4/9/2015 11:00	4/10/2015 12:45	1,545	0.08	236,591.538	6.49	0.06	1	Atlas		18,927.323	1
	4/19/2015 17:00	4/19/2015 20:45	225	0.81	36.942	1.43	0.33	12	Atlas		29.923	1
	5/16/2015 12:00	5/16/2015 14:45	165	0.95	37.071	1.07	0.58	3	Atlas		35.217	1
	6/17/2015 8:00	6/17/2015 8:00	-	0.63	21.492	0.65	0.34	3	Atlas		13.540	1
	6/18/2015 17:45	6/18/2015 19:00	75	0.62	21,115.518	1.26	0.36	1	Atlas		13,091.621	1
	6/20/2015 5:30	6/20/2015 8:45	195	1.19	4,354.779	2.58	0.49	12	Atlas		5,182.187	1
	6/26/2015 17:45	6/27/2015 2:15	510	0.99	4,482.301	3.17	0.55	1	Atlas		4,437.478	1
	7/2/2015 1:30	7/2/2015 1:30	-	0.84	1.708	2.84	0.47	3	Atlas		1.435	1
	7/3/2015 16:45	7/3/2015 16:45	-	1.48	10.664	3.62	2.47	1	Atlas		15.783	1
	7/7/2015 14:45	7/7/2015 15:00	15	0.91	13.658	3.23	0.48	6	Atlas		12.429	1
	7/9/2015 7:30	7/9/2015 9:45	135	0.28	16.900	2.77	0.17	1	Atlas		4.732	1
	7/10/2015 15:00	7/10/2015 18:00	180	0.46	61.326	1.80	0.24	6	Atlas		28.210	1
	7/12/2015 6:30	7/12/2015 14:00	450	0.73	1,357.542	2.50	0.50	1	Atlas		991.006	1
	7/13/2015 15:15	7/13/2015 17:45	150	0.51	5,465.731	3.01	0.44	1	Atlas		2,787.523	1
	7/14/2015 5:00	7/14/2015 5:15	15	0.30	15,695.497	3.31	0.23	1	Atlas		4,708.649	1
	7/14/2015 20:00	7/14/2015 20:15	15	0.16	128.819	2.56	0.14	1	Atlas		20.611	1
	7/18/2015 0:00	7/18/2015 1:45	105	0.83	35,672.493	2.53	0.55	3	Atlas		29,608.169	1
	10/27/2015 16:00	10/27/2015 20:45	285	3.44	751.994	2.61	1.84	24	Cloudburst		2,586.860	1
	10/28/2015 6:00	10/28/2015 12:15	375	3.44	643.558	3.82	1.84	24	Cloudburst		2,213.841	1
	11/6/2015 4:15	11/6/2015 4:15	-	1.05	517.644	1.10	0.65	3	Atlas		543.526	1
	11/18/2015 10:45	11/18/2015 14:45	240	1.76	15,906.457	2.19	0.89	6	Atlas		27,995.365	1
	12/23/2015 19:45	12/23/2015 20:45	60	1.01	3,750.414	1.73	0.67	1	Atlas		3,787.918	1
	12/27/2015 11:00	12/27/2015 23:30	750	2.53	8,309.287	3.85	0.82	48	Atlas		21,022.497	1
	12/28/2015 19:45	12/28/2015 19:45	-	2.53	3.047	4.68	0.82	48	Atlas		7.710	1
	2/2/2016 20:00	2/3/2016 2:00	360	1.51	13,110.493	1.58	0.75	6	Atlas		19,796.844	1
	2/21/2016 11:00	2/21/2016 11:00	-	1.07	275.053	1.23	0.49	12	Atlas		294.307	1
	2/24/2016 1:15	2/24/2016 6:00	285	2.24	6,874.009	2.65	0.86	12	Atlas		15,397.781	1
	3/10/2016 16:45	3/10/2016 16:45	-	1.31	202.508	1.12	0.43	48	Atlas		265.286	1
	3/27/2016 22:00	3/27/2016 22:00	-	0.77	676.600	1.07	0.53	1	Atlas		520.982	1
	4/27/2016 22:45	4/27/2016 22:45	-	1.03	265.645	1.67	0.49	3	Atlas		273.614	1
	4/30/2016 14:30	4/30/2016 15:45	75	0.79	207.030	1.80	0.30	24	Atlas		163.554	1
	5/10/2016 18:45	5/10/2016 18:45	-	0.85	376.500	1.43	0.32	24	Atlas		320.025	1
	5/20/2016 16:30	5/20/2016 16:30	-	0.73	492.940	1.42	0.43	3	Atlas		359.846	1
	6/14/2016 17:00	6/14/2016 17:45	45	1.41	15,832.729	2.21	0.77	6	Atlas		22,324.148	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	6/23/2016 16:45	6/23/2016 23:00	375	2.03	11,796,085	2.08	0.93	12	Atlas		23,946,052	1
	7/4/2016 16:00	7/4/2016 22:00	360	1.27	1,373,353	1.27	0.41	48	Atlas		1,744,158	1
	7/28/2016 5:00	7/28/2016 5:00	-	0.51	4,112,018	0.73	0.23	12	Atlas		2,097,129	1
	7/30/2016 16:00	7/30/2016 16:00	-	0.23	8,075,713	1.12	0.20	1	Atlas		1,857,414	1
	8/15/2016 5:30	8/15/2016 6:15	45	1.16	5,184,836	1.46	0.57	6	Atlas		6,014,410	1
	8/17/2016 7:45	8/17/2016 8:45	60	0.98	6,934,922	2.07	0.47	3	Atlas		6,796,224	1
	8/20/2016 15:30	8/20/2016 16:45	75	1.89	9,345,690	3.39	0.82	12	Atlas		17,663,355	1
	11/28/2016 18:15	11/29/2016 2:00	465	0.86	14,252,821	1.22	0.38	12	Atlas		12,257,426	1
	12/6/2016 6:30	12/6/2016 15:00	510	0.94	32,426,332	1.00	0.43	12	Atlas		30,480,752	1
	12/17/2016 18:15	12/18/2016 13:00	1,125	3.56	32,844,632	3.96	7.12	12	Cloudburst		116,926,890	1
	12/24/2016 0:00	12/24/2016 6:00	360	0.20	41,112,840	3.72	0.09	12	Atlas		8,222,568	1
	12/26/2016 23:00	12/27/2016 1:15	135	0.33	1,180,215	0.53	0.16	6	Atlas		389,471	1
	1/3/2017 8:15	1/3/2017 8:15	-	0.22	3,259	0.31	0.10	6	Atlas		717	1
	2/24/2017 19:45	2/24/2017 21:15	90	0.29	4,627,348	0.39	0.23	1	Atlas		1,341,931	1
	3/1/2017 3:45	3/1/2017 12:15	510	1.26	12,713,781	1.88	0.63	6	Atlas		16,019,364	1
	3/7/2017 8:45	3/7/2017 18:15	570	0.87	5,244,239	2.29	0.31	1	Atlas		4,562,488	1
	4/22/2017 1:00	4/22/2017 3:30	150	0.75	1,155,803	1.54	0.27	24	Atlas		866,852	1
	4/29/2017 3:00	4/29/2017 12:00	540	1.60	36,774,644	2.03	0.82	1	Atlas		58,839,430	1
	5/4/2017 21:30	5/6/2017 3:30	1,800	2.02	52,785,449	3.84	0.68	24	Atlas		106,626,606	1
	5/20/2017 21:00	5/21/2017 10:00	780	1.44	37,490,198	1.69	0.65	12	Atlas		53,985,885	1
	5/24/2017 20:45	5/24/2017 23:45	180	0.68	1,568,401	2.24	0.25	24	Atlas		1,066,513	1
	7/23/2017 13:00	7/23/2017 15:30	150	0.93	18,175	1.01	0.43	12	Atlas		16,903	1
	10/23/2017 6:45	10/23/2017 10:30	225	0.47	20,521,953	0.47	0.25	6	Atlas		9,645,318	1
	10/27/2017 19:00	10/28/2017 3:30	510	1.10	16,945,590	1.72	0.50	12	Atlas		18,640,149	1
	11/3/2017 4:45	11/3/2017 8:45	240	0.89	9,645,924	2.16	0.68	1	Atlas		8,584,872	1
	11/6/2017 2:30	11/6/2017 4:15	105	0.35	1,917,714	1.41	0.21	1	Atlas		671,200	1
	11/18/2017 18:00	11/18/2017 18:15	15	0.31	1,000,006	0.64	0.17	1	Atlas		310,002	1
	2/14/2018 9:15	2/14/2018 9:30	15	0.48	227,556	0.83	0.23	3	Atlas		109,227	1
	2/16/2018 4:15	2/16/2018 12:15	480	0.78	3,408,437	1.76	0.36	12	Atlas		2,658,581	1
	2/21/2018 22:15	2/22/2018 9:15	660	2.16	23,439,632	3.17	0.82	24	Atlas		50,629,605	1
	2/23/2018 3:00	2/23/2018 14:15	675	2.00	29,237,042	4.98	0.92	12	Atlas		58,474,083	1
	2/24/2018 18:15	2/25/2018 11:15	1,020	2.58	37,477,088	6.75	1.60	12	Cloudburst		96,690,887	1
	3/10/2018 2:15	3/10/2018 4:15	120	0.60	2,359,892	0.63	0.40	3	Atlas		1,415,935	1
	3/24/2018 10:15	3/24/2018 20:45	630	1.02	8,026,314	2.21	0.39	24	Atlas		8,186,840	1
	3/29/2018 19:45	3/30/2018 0:30	285	0.78	7,721,081	2.21	0.25	24	Atlas		6,022,443	1
	4/1/2018 21:00	4/2/2018 0:45	225	0.66	3,641,400	2.34	0.36	6	Atlas		2,403,324	1
	4/3/2018 21:15	4/4/2018 0:30	195	0.29	3,172,152	2.53	0.16	6	Atlas		919,924	1
	4/15/2018 7:15	4/15/2018 10:45	210	1.19	1,717,058	1.24	0.40	24	Atlas		2,043,299	1
	4/23/2018 6:30	4/23/2018 7:00	30	0.53	1,712,179	0.58	0.27	3	Atlas		907,455	1
	5/5/2018 14:45	5/5/2018 20:45	360	1.18	13,629,131	1.14	0.45	12	Atlas		16,082,374	1
	5/27/2018 4:00	5/27/2018 6:45	165	1.30	10,567,825	1.39	1.13	1	Atlas		13,738,172	1
	6/1/2018 0:45	6/1/2018 6:00	315	1.70	14,108,901	3.44	0.90	3	Atlas		23,985,132	1
	6/11/2018 13:45	6/11/2018 15:15	90	1.01	1,122,187	1.02	0.38	24	Atlas		1,133,409	1
	6/25/2018 11:00	6/25/2018 13:45	165	0.81	9,195,841	2.23	0.33	12	Atlas		7,448,631	1
	6/26/2018 23:00	6/27/2018 2:45	225	0.77	12,605	2.96	0.33	12	Atlas		9,706	1
	7/2/2018 18:30	7/2/2018 20:00	90	0.10	23,141,280	0.88	0.09	1	Atlas		2,314,128	1
	7/3/2018 17:00	7/3/2018 17:45	45	0.11	1,263,891	0.58	0.06	6	Atlas		139,028	1
	7/20/2018 20:30	7/20/2018 23:30	180	0.71	17,264,525	1.18	0.27	24	Atlas		12,257,813	1
	7/31/2018 1:30	7/31/2018 9:45	495	2.18	30,557,505	2.39	1.28	6	Cloudburst		66,615,361	1
	8/15/2018 20:30	8/16/2018 12:45	975	3.98	19,333,503	3.98	6.05	24	Cloudburst		76,947,341	1
	8/20/2018 11:15	8/20/2018 13:15	120	0.69	18,997,959	4.47	0.34	1	Atlas		13,108,592	1
	9/8/2018 17:15	9/9/2018 1:00	465	3.53	14,089,991	3.86	10.51	6	Cloudburst		49,737,667	1
	9/22/2018 17:00	9/22/2018 18:15	75	1.85	404,038	0.83	0.68	24	Atlas		747,470	1
	9/23/2018 5:00	9/23/2018 9:15	255	1.85	9,495,957	2.05	0.68	24	Atlas		17,567,521	1
	9/24/2018 7:15	9/24/2018 16:00	525	2.72	23,103,802	4.76	2.69	6	Cloudburst		62,842,341	1
	9/25/2018 17:00	9/26/2018 5:30	750	1.08	10,250,676	5.87	0.50	1	Atlas		11,070,730	1
	10/31/2018 17:45	11/1/2018 4:00	615	2.58	4,803,458	2.34	0.90	24	Atlas		12,392,922	1
	11/5/2018 21:45	11/6/2018 2:15	270	1.44	18,389,374	4.11	0.78	6	Atlas		26,480,699	1
	11/14/2018 23:30	11/15/2018 3:45	255	0.46	14,448,452	0.65	0.21	12	Atlas		6,646,268	1
	12/1/2018 5:45	12/1/2018 16:45	660	1.69	16,679,850	1.89	0.75	12	Atlas		28,188,946	1
	12/15/2018 3:15	12/15/2018 11:45	510	1.61	9,698,121	1.61	0.64	12	Atlas		15,613,975	1
	12/27/2018 18:45	12/27/2018 18:45	-	0.40	5,145	0.71	0.23	1	Atlas		2,058	1
	12/31/2018 7:45	12/31/2018 21:30	825	1.58	10,040,180	2.00	0.61	24	Atlas		15,863,485	1
	1/4/2019 15:30	1/4/2019 17:45	135	0.59	2,339,622	2.07	0.28	3	Atlas		1,380,377	1

CSO	Start Date	End Date	Duration (min)	Rain Total (in)	Discharge per Rain	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	Comment	Discharge Volume (gal)	Count
	1/23/2019 10:30	1/23/2019 16:15	345	1.07	2,236.009	2.21	0.44	12	Atlas		2,392,530	1
	2/7/2019 17:30	2/7/2019 21:45	255	1.82	569.810	1.98	0.58	48	Atlas		1,037,054	1
	2/11/2019 13:00	2/12/2019 14:30	1,530	3.15	10,725.972	5.05	0.99	48	Atlas		33,786,811	1
	2/20/2019 3:30	2/20/2019 9:45	375	2.26	31,644.955	2.10	1.08	6	Cloudburst		71,517,598	1
	2/23/2019 17:45	2/24/2019 0:45	420	1.24	9,310.023	3.56	0.67	6	Atlas		11,544,429	1
	3/9/2019 14:15	3/9/2019 22:45	510	1.29	18,545.696	1.47	0.59	12	Atlas		23,923,948	1
	3/14/2019 7:45	3/14/2019 7:45	-	0.38	629	1.82	0.21	6	Atlas		239	1
	3/14/2019 17:00	3/14/2019 20:00	180	0.54	22,628.578	2.35	0.46	1	Atlas		12,219,432	1
	3/30/2019 16:45	3/30/2019 21:30	285	1.07	18,513.207	1.44	0.49	6	Atlas		19,809,131	1
	4/7/2019 12:15	4/7/2019 15:00	165	0.75	6,066.219	0.96	0.35	1	Atlas		4,549,664	1
	4/14/2019 2:00	4/14/2019 6:30	270	1.10	19,677.917	2.02	0.51	6	Atlas		21,645,709	1
	4/19/2019 19:15	4/20/2019 10:00	885	2.53	16,802.314	4.34	0.96	24	Atlas		42,509,854	1
	4/23/2019 18:30	4/23/2019 19:15	45	0.17	703.741	3.39	0.15	1	Atlas		119,636	1
	4/24/2019 20:45	4/24/2019 23:00	135	1.05	648.547	3.82	0.34	48	Atlas		680,974	1
	5/3/2019 5:30	5/3/2019 9:30	240	1.19	20,479.465	1.41	0.64	6	Atlas		24,370,563	1
	5/29/2019 14:15	5/29/2019 15:15	60	0.72	440.263	1.23	0.39	6	Atlas		316,989	1
	6/5/2019 21:45	6/5/2019 23:00	75	0.99	1,281.938	1.26	0.70	1	Atlas		1,269,119	1
	6/8/2019 0:45	6/8/2019 1:00	15	0.52	219.212	1.36	0.22	6	Atlas		113,990	1
	6/9/2019 17:00	6/9/2019 19:00	120	0.77	17,907.799	2.22	0.25	48	Atlas		13,789,005	1
	6/16/2019 19:30	6/17/2019 3:45	495	2.09	22,785.615	2.53	0.96	6	Atlas		47,621,936	1
	6/23/2019 16:30	6/23/2019 18:15	105	0.61	12,996.036	3.96	0.48	1	Atlas		7,927,582	1
	6/24/2019 14:00	6/24/2019 16:00	120	0.65	11,873.074	2.67	0.38	3	Atlas		7,717,498	1
	7/18/2019 1:30	7/18/2019 6:45	315	0.34	23,680.335	0.47	0.28	1	Atlas		8,051,314	1
	7/30/2019 0:15	7/30/2019 1:45	90	0.92	4,496.843	0.92	0.57	1	Atlas		4,137,096	1
	8/7/2019 6:15	8/7/2019 7:00	45	0.04	10,687.200	0.05	0.03	1	Atlas		427,488	1
	2/12/2020 17:30	2/12/2020 22:00	270	1.14	11,870.051	1.85	0.53	3	Atlas		13,531,858	1
	3/10/2020 8:45	3/10/2020 10:00	75	0.49	877.320	0.50	0.22	12	Atlas		429,887	1
	3/12/2020 17:45	3/13/2020 0:30	405	0.77	11,662.212	1.27	0.35	12	Atlas		8,979,903	1
	3/18/2020 16:45	3/18/2020 19:00	135	0.69	217.400	2.18	0.33	6	Atlas		150,006	1
	3/19/2020 12:15	3/19/2020 15:15	180	0.71	12,569.362	2.64	0.27	3	Atlas		8,924,247	1
	3/28/2020 22:45	3/29/2020 1:30	165	0.31	38,408.739	0.55	0.25	1	Atlas		11,906,709	1
	4/12/2020 17:45	4/13/2020 6:00	735	1.41	16,240.408	2.06	0.61	12	Atlas		22,898,975	1
	5/8/2020 12:00	5/8/2020 14:00	120	0.58	4,794.284	0.91	0.27	12	Atlas		2,780,685	1
	5/16/2020 3:45	5/16/2020 12:15	510	1.47	11,321.035	1.78	0.56	24	Atlas		16,641,921	1
	5/18/2020 9:15	5/18/2020 10:15	60	0.92	298.785	2.75	0.45	1	Atlas		274,882	1
	6/4/2020 19:45	6/4/2020 21:45	120	0.89	1,689.048	1.09	0.52	3	Atlas		1,503,253	1
	6/21/2020 13:30	6/21/2020 14:00	30	0.78	252.124	0.68	0.52	1	Atlas		196,657	1
	6/22/2020 23:45	6/23/2020 2:45	180	1.26	22,442.020	1.84	0.57	6	Atlas		28,276,945	1
	6/29/2020 5:15	6/29/2020 6:45	90	0.16	28,254.019	2.01	0.10	1	Atlas		4,520,643	1
CSO211 Total											3,052,601,739	241
Total											60,795,277,851	25689

Appendix D Annual Average Overflow Volume

		MODELED TYPICAL YEAR ACTIVATIONS FOR POST-IOAP CONDITIONS[1]				MODELED TYPICAL YEAR ACTIVATIONS FOR CURRENT CONDITIONS[2]				MODELED TYPICAL YEAR ACTIVATIONS FOR PRE-IOAP CONDITIONS[3]			
CSO	IOAP APPROVED LEVEL OF CONTROL	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED
015 & 191	8	124.6	8	1095	18.25	480.9	14	8670	144.5	2784.2	76	77235	1287.25
016	8	0.4	6	285	4.75	4.4	9	1605	26.75	39.0	32	5625	93.75
018	0	0.0	0	0	0	15.0	3	1425	23.75	158.1	28	30045	500.75
019	8	13.6	8	435	7.25	13.6	8	435	7.25	192.7	67	15990	266.5
020	8	1.0	5	435	7.25	110.7	52	14535	242.25	355.3	74	26115	435.25
022	8	1.8	5	315	5.25	1.7	7	435	7.25	4.5	16	945	15.75
023	8	0.0	0	0	0	0.4	4	225	3.75	1.8	8	525	8.75
027	N/A[5]	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
028	8	0.0	0	0	0	0.0	0	0	0	1.1	20	2520	42
029	8	0.0	3	105	1.75	0.1	4	270	4.5	4.6	40	6315	105.25
031	N/A[5]	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
034	8	0.1	3	180	3	0.1	3	195	3.25	3.0	39	7680	128
035	N/A[5]	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
036	8	0.1	3	165	2.75	0.1	4	270	4.5	0.2	7	480	8
038	N/A[5]	0.1	3	195	3.25	0.1	4	405	6.75	0.1	5	390	6.5
050	8	0.0	0	0	0	35.1	55	12555	209.25	19.6	55	7230	120.5
051	N/A - CSO to be eliminated[4]	N/A - CSO to be eliminated[4]				3.4	12	4095	68.25	0.3	8	1020	17
052	8	0.0	0	0	0	7.1	28	7590	126.5	2.5	21	2700	45
053	8	0.0	0	0	0	8.4	50	11205	186.75	7.7	50	11100	185
054	8	0.2	5	465	7.75	4.1	18	5850	97.5	1.8	35	8865	147.75
055	8	1.3	7	510	8.5	20.9	30	9630	160.5	4.9	17	2535	42.25
056	8	0.0	0	0	0	11.2	30	5550	92.5	4.3	24	2550	42.5
057	N/A[5]	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
058	8	0.0	0	0	0	8.1	8	855	14.25	51.4	68	21510	358.5
062	N/A[5]	0.8	4	255	4.25	136.0	52	14820	247	100.4	69	18525	308.75
082	0	0.0	0	0	0	36.1	49	12690	211.5	19.2	50	11925	198.75
083	N/A - CSO to be eliminated[4]	N/A - CSO to be eliminated[4]				0.4	7	360	6	0.5	7	345	5.75
084	0	0.0	0	0	0	19.1	46	5205	86.75	19.2	46	5205	86.75
086	N/A5	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
088	4	0.0	1	45	0.75	0.0	0	0	0	10.7	45	8685	144.75
091	8	0.0	0	0	0	0.0	0	0	0	2.7	44	9675	161.25
092	N/A[5]	0.0	0	0	0	0.0	0	0	0	1.3	33	30	0.5

CSO	IOAP APPROVED LEVEL OF CONTROL	MODELED TYPICAL YEAR ACTIVATIONS FOR POST-IOAP CONDITIONS[1]				MODELED TYPICAL YEAR ACTIVATIONS FOR CURRENT CONDITIONS[2]				MODELED TYPICAL YEAR ACTIVATIONS FOR PRE-IOAP CONDITIONS[3]			
		VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED
093	0	0.0	0	0	0	0.0	0	0	0	0.0	1	60	1
097	8	0.3	7	285	4.75	0.4	8	330	5.5	17.7	50	12390	206.5
104	8	29.0	6	585	9.75	56.6	7	2445.0	40.75	9.5	20	2955	49.25
105										260.1	46	9450	157.5
106	N/A - CSO to be eliminated[4]	N/A - CSO to be eliminated4				CSO Eliminated				0.3	10	2040	34.0
108	8	1.6	6	210	3.5	2.2	5	270	4.5	51.9	41	7410	123.5
109	N/A[5]	2.3	8	705	11.75	2.4	12	1605	26.75	1.2	11	1695	28.25
110	8	0.3	4	240	4	0.3	4	255	4.25	20.0	47	9735	162.25
111	8	0.7	4	315	5.25	0.7	4	300	5	5.0	35	3675	61.25
113	8	0.0	0	0	0	0.0	0	0	0	6.2	28	2475	41.25
117	8	35.4	8	2415	40.25	35.4	8	2415	40.25	86.4	60	13320	222
118	0	0.0	0	0	0	124.8	60	10395	173.25	117.5	60	10350	172.5
119	0	0.9	8	1185	19.75	11.3	51	7830	130.5	10.3	53	7830	130.5
120	0	0.0	0	0	0	8.1	53	6885	114.75	7.5	52	6825	113.75
121	0	0.0	0	0	0	6.8	23	1950	32.5	5.5	23	1890	31.5
125	4	0.0	0	0	0	25.0	43	5415	90.25	24.4	43	5295	88.25
126	4	0.0	0	0	0	6.2	26	4395	73.25	3.4	20	3225	53.75
127	N/A - CSO to be eliminated[4]	N/A - CSO to be eliminated4				12.4	40	4380	73	12.0	39	4170	69.5
130	8	0.0	0	0	0	0.0	0	0	0	2.2	26	0	0
131	4	0.1	2	75	1.25	0.1	4	165	2.75	1.7	16	135	2.25
132	4	0.0	0	0	0	0.0	0	0	0	83.3	61	0	0
137	N/A - CSO to be eliminated[4]	N/A - CSO to be eliminated4				CSO Eliminated				9.5	54	7950	132.5
140	0	0.0	0	0	0	0.0	0	0	0	2.6	29	3030	50.5
141	0	0.0	0	0	0	0.0	0	0	0	0.7	20	10215	170.25
144	N/A[5]	0.6	5	345	5.75	0.6	5	345	5.75	0.8	11	225	3.75
146	8	0.7	4	315	5.25	0.9	4	345	5.75	37.6	40	5910	98.5
148	8	0.0	0	0	0	0.0	0	0	0	0.7	17	1650	27.5
149	8	22.4	8	1920	32	23.5	7	2055	34.25	138.5	47	7590	126.5
150	8	0.0	0	0	0	3.8	20	7020	117	0.8	10	1575	26.25
151	8	0.0	2	90	1.5	0.1	2	180	3	97.7	72	35145	585.75
152	8	6.0	7	720	12	6.1	7	780	13	58.9	62	11715	195.25
153	0	0.0	0	0	0	19.4	71	15615	260.25	18.7	71	15345	255.75

		MODELED TYPICAL YEAR ACTIVATIONS FOR POST-IOAP CONDITIONS[1]				MODELED TYPICAL YEAR ACTIVATIONS FOR CURRENT CONDITIONS[2]				MODELED TYPICAL YEAR ACTIVATIONS FOR PRE-IOAP CONDITIONS[3]			
CSO	IOAP APPROVED LEVEL OF CONTROL	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED
154	4	0.0	0	0	0	0.0	0	0	0	23.0	56	15480	258
155	8	0.0	0	0	0	0.6	18	2130	35.5	0.6	18	2130	35.5
160	0	0.0	0	0	0	0.0	0	0	0	0.0	1	465	7.75
161	N/A[5]	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
166	4	0.0	0	0	0	54.6	46	5820	97	52.5	46	5595	93.25
167	4	0.0	0	0	0	0.0	0	0	0	0.5	11	1890	31.5
172	N/A - CSO eliminated[4]	N/A - CSO eliminated4				N/A - CSO eliminated4				0.8	18	2265	37.75
178	8	0.1	3	75	1.25	0.4	7	240	4	20.0	58	11250	187.5
179	N/A[5]	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
181	8	0.0	0	0	0	0.0	0	0	0	3.8	42	8835	147.25
189	8	24.5	6	555	9.25	48.6	7	2055	34.25	240.0	52	11505	191.75
190	8	1.0	5	210	3.5	0.0	1	120	2	29.9	56	7380	123
193	8	0.1	3	180	3	0.1	3	240	4	0.1	4	315	5.25
195	8	0.0	0	0	0	0.0	0	0	0	2.8	44	10545	175.75
196	8	0.0	0	0	0	0.0	0	0	0	0.0	1	495	8.25
197	8	0.0	3	165	2.75	0.1	4	270	4.5	2.8	43	8385	139.75
198	N/A[5]	0.0	2	150	2.5	0.1	2	255	4.25	0.1	4	510	8.5
199	8	0.0	1	150	2.5	0.1	1	315	5.25	0.7	24	7605	126.75
200	8	0.0	0	0	0	0.0	0	0	0	2.2	45	12120	202
201	N/A[5]	0.4	5	240	4	0.4	7	510	8.5	0.7	11	1245	20.75
202	8	0.0	1	150	2.5	0.0	1	330	5.5	0.1	6	1695	28.25
203	N/A5	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
206	N/A - CSO eliminated[4]	N/A - CSO eliminated4				N/A - CSO eliminated4				29.0	70	14805	246.75
207	N/A5	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0
208	N/A[5]	0.2	4	375	6.25	0.2	6	375	6.25	0.7	21	4890	81.5
210	8	1.7	7	375	6.25	3.6	9	1470	24.5	19.4	31	5835	97.25
211	8	34.4	8	690	11.5	131.0	9	1905	31.75	1090.4	62	18585	309.75
SBR	N/A[5]	5.3	5	645	10.75	7.7	9	765	12.75	46.1	38	27015	450.25

[1]Post-IOAP Condition results are based on model simulations of the 2001 Typical Year with the "baseline" projects implemented (Sanitary Sewer Discharge Plan and other existing Combined Sewer System facility improvements) and the most recently compiled Long Term Control Plan project model. This model reflects the most recently approved minor modifications to projects. Modeling results assume MFWQTC operating at full capacity. The data reflects the construction of the current approved suite of IOAP projects, with some minor modifications to the results based on projected optimization and projected revision of the RTC. Addtional revisions to RTC and programming is anticipated as projects are completed and RTC is optimized. Modeling results demonstrate that the system, as currently designed, will perform slighlty better than the approved plan. However, this data is provided for information only. The modeling results do not reflect a specific committment to a set number of activations, cumulative volume or total minutes of overflow at each CSO, nor do they represent a cumulative committment to residual AAOV. Target committments for each CSO are based on the approved Level of Control for activiations. Target committment residual AAOV for the system remains 340 MG (98% capture) for the system.

CSO	IOAP APPROVED LEVEL OF CONTROL	MODELED TYPICAL YEAR ACTIVATIONS FOR POST-IOAP CONDITIONS[1]				MODELED TYPICAL YEAR ACTIVATIONS FOR CURRENT CONDITIONS[2]				MODELED TYPICAL YEAR ACTIVATIONS FOR PRE-IOAP CONDITIONS[3]			
		VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED	VOLUME (MG)	TYPICAL YEAR MODELED ACTIVATIONS	TYPICAL YEAR MODELED TOTAL MINUTES ACTIVATED	TYPICAL YEAR MODELED TOTAL HOURS ACTIVATED

[2]Current Condition results are based on model simulations of the 2001 Typical Year with current upstream SSDP conditions and the current average available treatment plant capacity. The model reflects projects certified through June 30, 2019. Partial construction of projects was not included.

[3]Pre-IOAP results are based on model simulations of the 2001 Typical Year with no baseline projects or IOAP projects constructed. Model results reflect calibration modifications to the model that occurred after the onset of the IOAP.

[4]These CSOs have been or will be eliminated (i.e., closed & removed from permit) by 2020 via implementation of Long Term Control Plan projects

[5]These CSOs were originally modeled or had baseline modeling conditions causing them to activate less than or equal to 8 times per Typical Year and thus do not have an associated project in the approved IOAP. Some were revised later with updated model geomtery and were corrected with CMOM activities.

Appendix E Public Notification

A Community Like Ours Is Worth Celebrating
Louisville MSD is proud to serve the Louisville area. We are dedicated to keeping our community safe and healthy by providing quality wastewater, stormwater and flood protection services.
It's all part of our vision to become the innovative regional utility for safe, clean waterways.
msd
Safe, clean waterways
Our Vision: The innovative, regional utility for safe, clean waterways
Learn more at LouisvilleMSD.org
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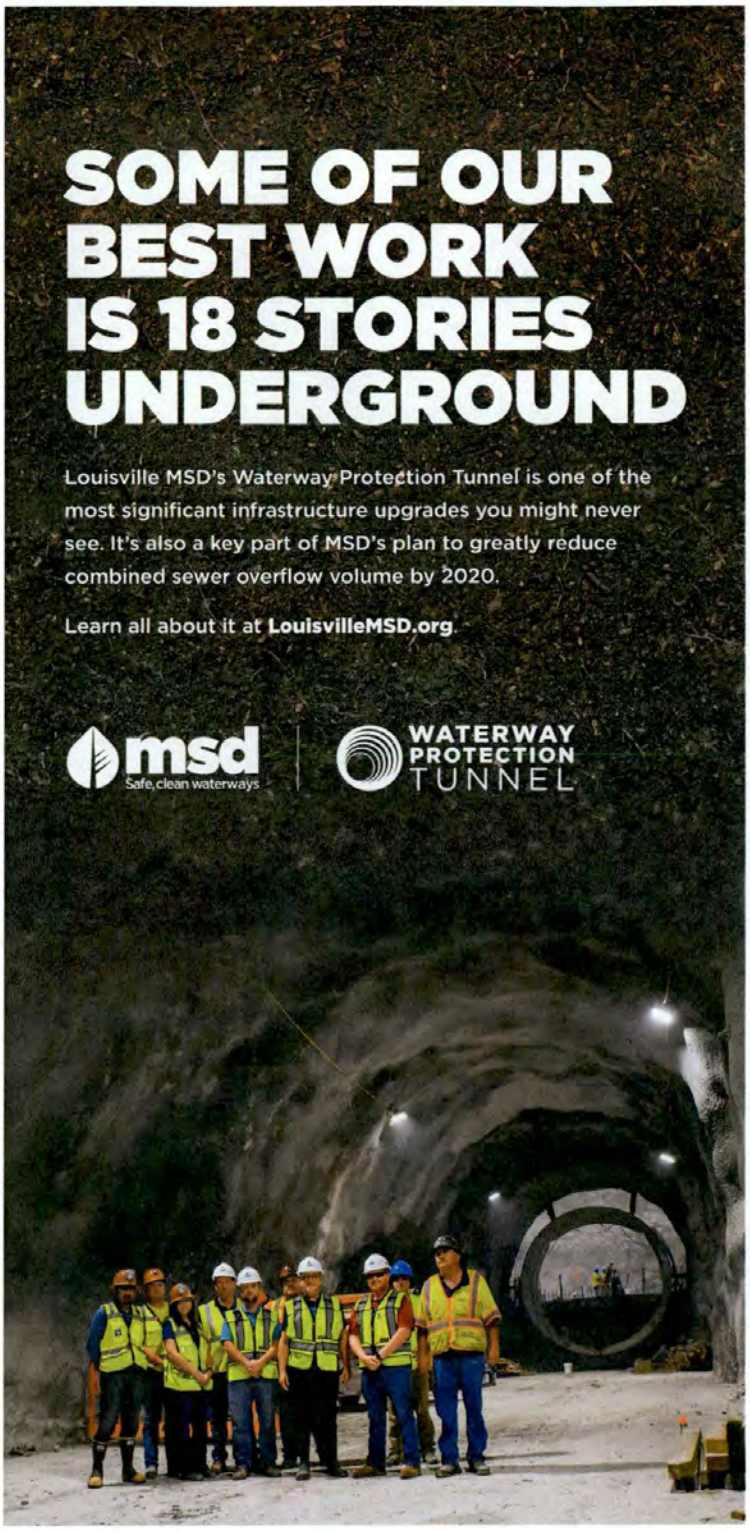
SOME OF OUR BEST WORK IS 18 STORIES UNDERGROUND
Louisville MSD's Waterway Protection Tunnel is one of the most significant infrastructure upgrades you might never see. It's also a key part of MSD's plan to greatly reduce combined sewer overflow volume by 2020.
Learn all about it at LouisvilleMSD.org.
msd
Safe, clean waterways
WATERWAY PROTECTION TUNNEL

MAKING A DIFFERENCE IN OUR WATERWAYS

Did you know that dogs in Jefferson County produce four dump-truck loads of waste EVERY day?

Pet waste that is left behind on sidewalks, in parks and yards finds its way to local waterways when it rains. This waste increases bacteria and nitrogen levels in the water, depleting oxygen for fish and aquatic life. You can help by scooping the poo and properly disposing of it in the trash.

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Safe, clean waterways

Working together, we can achieve safe, clean waterways.

Customer Relations · 502.540.6000
CustomerRelations@LouisvilleMSD.org

LouisvilleMSD

69,777 catch basins

...billions of leaves!

When it rains, all that stormwater has to go somewhere.

Help prevent surface flooding in your neighborhood by **raking leaves and debris away from catch basins** — or storm drains — and properly disposing of the debris.

If a basin or drain is clogged or damaged, please do not attempt to fix it yourself, and do not stand on or put your hand into the grate.

Contact **MSD Customer Relations at 502.540.6000.** We will send someone to help.

msd
Safe, clean waterways

We're MSD. And we're doing more for you than you ever imagined. Learn more at **LouisvilleMSD.org.**

502.540.6000
CustomerRelations@LouisvilleMSD.org
LouisvilleMSD

Honoring our veterans
Today we pause to honor the brave men and women who have made a great sacrifice to protect our families, our country and our freedom.
MSD is proud of its 71 employees who have served, or are currently serving, our country.
All are true American heroes.
msd
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24/7/365 | Customer Relations | 502.540.6000
CustomerRelations@LouisvilleMSD.org
LouisvilleMSD

Protecting the environment through...

leadership and stewardship

Safe, clean waterways are vital for economic development, recreation and the overall health of our community.

We at Louisville MSD are a proud to serve our community 24/7/365 — managing wastewater, stormwater and flood protection services.

Our role of protecting Louisville's waterways is one of leadership, partnership and advocacy. If you want to join us and serve our community, apply for a position with MSD.

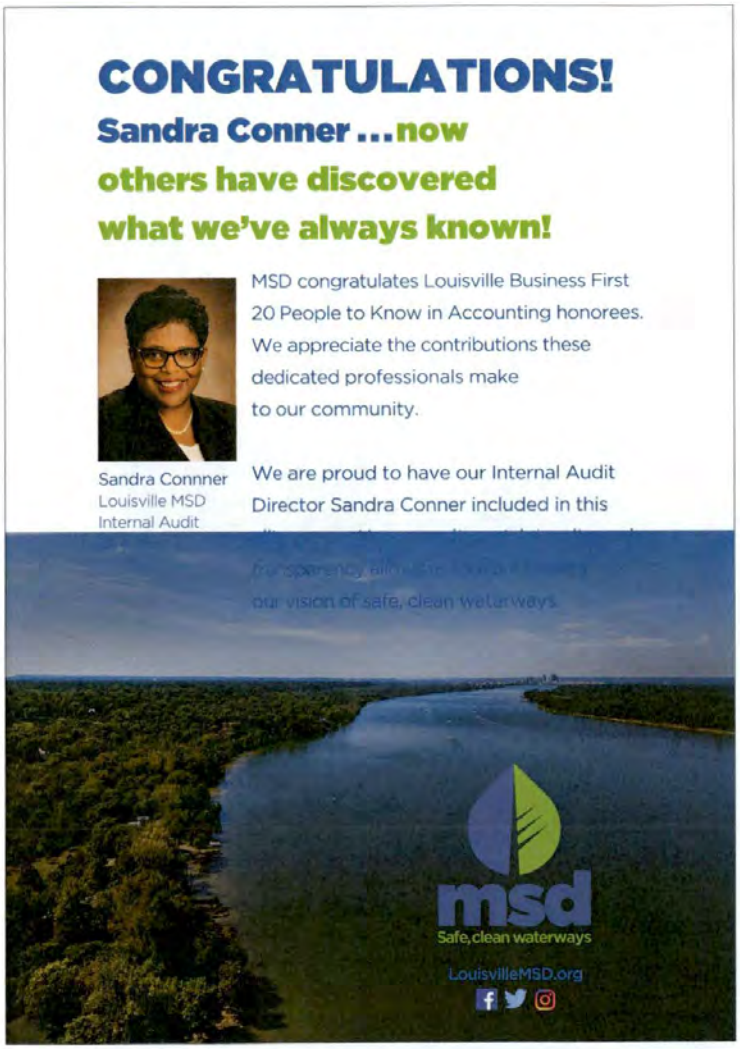
LouisvilleMSD.org/Careers

msd
Safe, clean waterways

OUR VISION
The innovative, regional utility for safe, clean waterways

502.540.6000
CustomerRelations@LouisvilleMSD.org

LouisvilleMSD


CONGRATULATIONS!
Sandra Conner ...now
others have discovered
what we've always known!
MSD congratulates Louisville Business First
20 People to Know in Accounting honorees.
We appreciate the contributions these
dedicated professionals make
to our community.
Sandra Connner
Louisville MSD
Internal Audit
We are proud to have our Internal Audit
Director Sandra Conner included in this
our vision of safe, clean waterways
msd
Safe,clean waterways
LouisvilleMSD.org

Message to the community

MSD employees continue providing vital services

Will Phelps, MSD Utility III

Tony Parrott
MSD
Executive Director

As Louisville navigates the COVID-19 pandemic, MSD continues to operate 24 hours a day, seven days a week. Our duties of wastewater treatment, stormwater drainage and flood protection are essential services that are vital to the well-being of the community.

We are all in this fight together against the coronavirus and each of us must do what we can to slow its spread and, when possible, reduce the negative economic effects of the pandemic.

MSD has taken steps to ease the burden for those facing financial hardship. We have temporarily waived new late fees for residential customers. That is in addition to our regular programs of billing discounts for qualifying senior citizens and bill payment assistance for other qualifying customers facing hardships.

We are asking customers to help us keep operating smoothly by making sure that they put nothing other than toilet paper in the commode. Anything else, such as "flushable" wipes, facial tissues and paper towels must be put in the regular trash in the same manner as disposable diapers.

Those items break down much slower than toilet paper, and as a result, can clog sewer lines, cause sewage to back up into homes and businesses, and damage sewage treatment facilities. No one wants that on top of the problems each of us already face in this difficult time. So please, flush toilet paper only.

I wish you good health and happiness as you and your family manage through this challenging time. Working together, we can flatten the curve and emerge soon as a stronger community.

Sincerely,

James A. Parrott
Executive Director

Customer Relations
502.540.6000
CustomerRelations@Louisv
Learn more at LouisvilleMS
LouisvilleMSD

Message to the community

MSD employees continue providing vital services

Bud Chesser, MSD Utility II

Tony Parrott
MSD
Executive Director

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Sincerely,

James A. Parrott
Executive Director

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502.540.6000
CustomerRelations@Louisv
Learn more at LouisvilleMS
LouisvilleMSD

Volunteer and make a difference!

Ohio River Sweep

Saturday, June 20 · 9 AM to Noon

MSD proudly sponsors Ohio River Sweep, which is one of the nation's largest and longest-running environmental cleanup events. Picking up trash along the shoreline is a little thing that makes a big difference as we all work together.

Ohio River Sweep

Saturday, June 20 · 9 AM to Noon

MSD employees will equip volunteers with gloves and bags. For location information visit:
LouisvilleMSD.org/OhioRiverSweep

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CustomerRelations@LouisvilleMSD.org

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You can volunteer and make a difference!

Ohio River Sweep · Saturday, June 20 · 9 AM to Noon

MSD employees will equip volunteers with gloves and bags. For location information visit:

LouisvilleMSD.org/OhioRiverSweep

Together, we can achieve safe, clean waterways for our community.

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OPPORTUNITY FLOWS

Nearly $25 million in contracts were awarded to minority- and woman-owned firms in the past year

That is $25 million that helps create jobs, grow businesses and enhance community development...and it represents 14 percent of MSD's total capital expenditures in the past fiscal year.

MSD is proud to connect minority-owned and woman-owned businesses with opportunities that help grow their companies as we work together, building sustainable relationships and an exceptional supply base that benefits our customers and communities where we live and work.

Learn how helping create safe, clean waterways for Louisville can help foster a vibrant, thriving business for you.

SupplierDiversity@LouisvilleMSD.org

502.540.6503

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24/7/365
Customer Relations
502.540.6000

CustomerRelations@LouisvilleMSD.org

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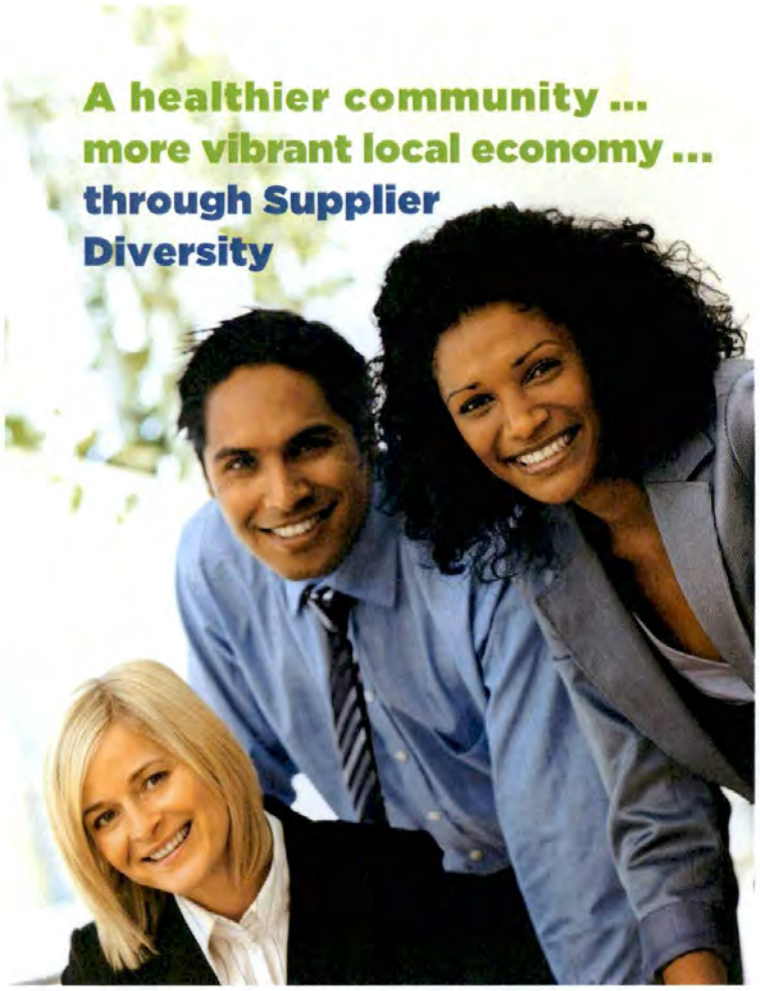

Nearly $26 million in contracts were awarded by MSD to minority- and woman-owned businesses in the past year

For more than 30 years, our minority- and woman-owned businesses have helped MSD protect local waterways. We're committed to continuously building strategic partnerships with certified MBEs and WBEs sharing our passion for:

- Economic equity
- Environmental sustainability
- Innovative thinking
- Quality service

msd
Safe, clean waterways

Register online at **MSDbids.com** to obtain the most recent bid notifications.

SupplierDiversity@LouisvilleMSD.org

LouisvilleMSD

OPPORTUNITY FLOWS

Nearly $25 million in contracts were awarded to minority- and woman-owned firms in the past year

That is $25 million that helps create jobs, grow businesses and enhance community development...and it represents 15 percent of MSD's total capital expenditures in the past fiscal year.

MSD is proud to connect minority-owned and woman-owned businesses with opportunities that help grow their companies as we work together, building sustainable relationships and an exceptional supply base that benefits our customers and communities where we live and work.

Learn how helping create safe, clean waterways for Louisville can help foster a vibrant, thriving business for you.

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msd
Safe, clean waterways
What you don't see could harm you!
Sewers can overflow into waterways during rainstorms.
WARNING
ADVERTENCIA
Those waters could contain harmful bacteria, which can make you sick.
Rainwater can overwhelm the sanitary sewer system and cause overflows into local waterways. You should minimize contact with waterways to be safe during storms and even for 48 hours after the rain has ended. During these times, avoid swimming, fishing, wading and splashing in the water.
Wash with warm, soapy water if you come into contact with water that may have been contaminated by a sewage overflow.
PROJECT WIN
MSDProjectWIN.org
24/7/365 | 502.540.6000
CustomerRelations@LouisvilleMSD.org
LouisvilleMSD

700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

MEDIA RELEASE

August 21, 2019

CONTACT:
Sheryl Lauder
Sheryl.Lauder@LouisvilleMSD.org
502.540.6552
502.919.0325

Intersection of 15th Street and Wilson Avenue closes
due to cave-in of 108-year-old sewer line

LOUISVILLE, KY – Earlier today, MSD crews determined that a dip in the roadway on 15th Street at Wilson Avenue was caused by the collapse of a sewer pipe under the intersection. Work is still underway to complete the damage assessment.

After 108 years of service, the bricks that form the bottom of this 45-inch pipe unraveled at a point where it meets one of the largest pipes in MSD's sewer system—the 162-inch Southern Outfall. Bricks were pushed away by the force of the water flowing through the system, causing the dirt surrounding the pipe to wash away.

Customers will see no interruption of service. Crews are installing a temporary "pump-around," which allows MSD to pump wastewater through a pipe along the surface of the roadway, then put the flow back into the sewer system at another manhole.

Traffic detours are in place. There is no estimate of a completion date at this time.

Background

MSD maintains more than 3,300 miles of sewer lines – enough to stretch from California to Maine, and many dating back 75 years or more.

LouisvilleMSD

About MSD

The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. The organization's more than 630 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro. In addition to operating and maintaining Louisville Metro's sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff, and provides numerous outreach programs to inform and educate the community about protecting our waterways.

700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

MEDIA RELEASE

August 29 2019

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MSD Flood Protection Team to practice installation of floodwall closure

The U.S. Army Corps of Engineers require that MSD practice floodwall closures on a three-year rotating basis. Crews will practice installing the roadway closure at Eighth Street tomorrow, August 30. The practice helps ensure that all needed parts are in working order, and allows new staff to learn to install a closure without the pressure of an actual flood.

Media Opportunity

What: MSD Crews to practice installing Eighth Street floodwall closure

When: Friday, August 30—10:30 AM interview opportunity

Who: MSD Flood Protection Manager Dane Anderson

Where: Eighth Street at West Washington Street

Background

MSD maintains Louisville Metro's Ohio River Flood Protection System—keeping the river at bay and out of the city. The system protects more than 200,000 people, 87,000 homes and $24 billion in property throughout 110 square miles of Louisville Metro. It includes 29 miles of floodwall and earthen levee, 16 flood-pumping stations, nearly 150 floodgates and 80 floodwall closures.

Where creeks and storm drains pass through the floodwall, gates can be closed to keep the river from flowing up the streams, and large pumps at the flood pumping stations are used to lift the water from the creeks into the river. Additional gates and pumping stations keep the river from backing up through storm drains, and pump the stormwater into the river.

The U.S. Army Corps of Engineers built the system after the city's two highest floods of record in 1937 and1945. MSD has been responsible for the Flood Protection System since 1987.

About MSD
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DEPARTMENT OF PUBLIC WORKS

MEDIA RELEASE

November 21, 2019

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How to recycle used cooking oil or properly dispose of it

Two environmentally safe ways to dispose of fats, oils and grease

LOUISVILLE, KY – Whether you're panfrying the morning bacon or deep frying the holiday bird, you always have leftover fat, oil or grease. Louisville MSD and Metro Public Works advise to not pour the slippery mess into a sink, toilet or storm drain where it can lead to plumbing or sewer problems and foul local waterways.

Louisville MSD and Metro Public Works—the agencies responsible for handling the city's liquid and solid waste—have joined to promote a cooking oil recycling program along with an environmentally safe way to dispose of fats leftover in routine panfrying.

If you fry it up in a fryer
Louisville's full-service recycling centers accept household cooking oil leftover from deep frying. It's free and easy for residents of Louisville and Jefferson County. Residents should first let the oil cool, strain out food particles, and pour the oil into a container that has a lid. Then take it to the nearest full-service recycling center and hand it to a staff member. The city has partnered with the private firm Oil Tech to collect the oil. The company recycles the used cooking oil for use in biodiesel fuel.

If you fry it up in a pan
Fat and grease leftover from routine pan-frying can be disposed of with other residential garbage if appropriately handled. Just pour the grease into a container that has a lid, let it cool, and place it in the trash. That helps keep your pipes and our sewers clog free, and helps keep our local waterways safe and clean.

Using your sink's garbage disposal or a grease-cutting detergent does not keep the gunk out of the plumbing and sewer system. Both merely break the solid material into smaller pieces that still flow down the drain and then build up inside of pipes. That eventually leads to troublesome backups and costly repairs.

To find a full-service recycling center near you, go to www.Louisvilleky.gov/recycling.
For more information about disposing of fats, oil, and grease go to www.LouisvilleMSD.org/athome.

For b-roll go to https://www.webcargo.net/l/1pAz4kqLkC/

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MEDIA RELEASE

December 3, 2019

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MSD closes section of Frankfort Ave for overnight sewer line repair

LOUISVILLE, KY – Beginning Wednesday night at 11, MSD crews will close a section of Frankfort Avenue at Vernon Avenue to repair a sewer line. A detour will direct eastbound traffic to Brownsboro Road, and westbound traffic to Payne Street. Area residents will have local access to their homes.

Crews will reopen the roadway by 7:30 AM on Thursday. If repairs to the sewer line, which is 10-feet deep—cannot be completed in one night, work will resume Thursday night with the roadway closing at 11 PM and reopening by 7:30 AM on Friday.

Customers will see no interruption of service.

Background

MSD maintains more than 3,300 miles of sewer lines – enough to stretch from California to Maine, and many dating back 75 years or more.

LouisvilleMSD

About MSD

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MEDIA RELEASE

August 26 2019

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Contractor causes break to main sewer line
Repair underway, environmental cleanup to follow

LOUISVILLE, KY – Earlier today, a contractor working on new construction in the area of U.S. Highway 42 and Seminary Drive hit and broke an MSD underground 18-inch wastewater force main. Approximately 50,000 gallons of wastewater discharged to the construction site. The break impacted two MSD wastewater pump stations that discharged an additional 60,000 gallons to Goose Creek.

Currently, wastewater hauling trucks are taking the flow to MSD Water Quality Treatment Centers for proper treatment. The contractor has begun repairs to the pipe. When repairs are complete, MSD will assess the situation and perform appropriate cleanup and the disinfection.

MSD is required to report all sewer discharges to the Kentucky Division of Water and the U.S. Environmental Protection Agency.

About MSD
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MEDIA RELEASE

September 6, 2019

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MSD working multiple cave-ins in downtown Louisville

LOUISVILLE, KY – MSD crews are working three cave-in sites in downtown Louisville.

- **South Hancock Street at East Madison Street**

Contractors who were installing fiber lines in the area reported a void under the pavement. The cave-in was caused by a break in a 27-inch, brick sewer line that runs under South Hancock Street. This pipe was installed in 1900. MSD crews will begin work at this site at 11 PM tonight and work throughout the weekend.

- **Fourth Street between Main and Market streets**

Contractors working on underground electrical lines reported a void under the pavement on Fourth Street. MSD has inspected a 90-inch sewer line dating to 1928 that runs under Fourth Street and found no breakage. There is also an abandoned 36-inch brick sewer line, which was installed in 1900, in the area. There is no manhole access to this abandoned line. The cause of the void under the pavement is still under investigation by both MSD and Louisville Metro. The site is plated for traffic and safety through the weekend.

- **Seventh Street at Main Street**

Electrical contractors working on Seventh Street reported a void under the pavement on Friday, August 30. Work continues on repairs to catch basin pipes that connect to the 18-inch clay sewer pipe, which was installed in 1903. This repair should be completed early next week.

Customers will see no interruption of service at any site. When necessary, crews install a temporary "pump-around," which allows MSD to pump wastewater through a pipe along the surface of the roadway, then put the flow back into the sewer system at another manhole.

Traffic detours are in place as needed.

Background
MSD maintains more than 3,300 miles of sewer lines – enough to stretch from California to Maine, and many dating back 75 years or more. All sewer lines are on a 10-year inspection cycle.

About MSD
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MEDIA RELEASE

November 26 2019

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Sewer line break repair underway at Harrod's Creek in Prospect

Public asked to avoid creek and downstream areas

LOUISVILLE, KY – MSD contractors are working to repair a break in a 30-inch force main in the 5500 block of Timber Creek Court in Prospect that is discharging sewage into Harrod's Creek. MSD has significantly reduced the flow from the break, confirmed at 9:50 a.m. Monday, November 25, from a peak of approximately 1,800 gallons per hour.

Repairs are expected to be complete in approximately one week. Crews will also clean and sanitize the impacted area. The public should avoid the area of the spill and any downstream portions of Harrod's Creek until repairs are completed. Updates will be provided as more information becomes available.

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MEDIA RELEASE

November 5, 2019

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Oldham County officials approve purchase of its wastewater system by Louisville MSD

Regionalization enhances wastewater treatment and creates operational efficiencies

LOUISVILLE, KY — Louisville MSD and Oldham County have taken another step to regionalize wastewater treatment. Today, Oldham County Fiscal Court approved an interlocal agreement that allows Louisville MSD to enter into a purchase agreement for the Oldham County Environmental Authority (OCEA) wastewater system. The Authority's Board of Directors has also approved the purchase. The agreement still needs approvals from the office of the Kentucky Attorney General and the Kentucky Department of Local Government.

For OCEA customers, the purchase means lower wastewater rates in the future. MSD would manage system improvements while creating greater operational efficiencies that benefit all of its customers.

"A watershed crosses over political boundaries, so protecting and managing that watershed is best with a regional approach," said Tony Parrott, MSD executive director. "When we look holistically across the watershed, we can bring economies of scale and make investments and improvements that benefit the entire region."

Under the agreement, MSD would assume OCEA's duties and responsibilities for approximately 6,000 residential customers. MSD would honor contracts already in place with Veolia Water to operate and maintain the sewer system and wastewater treatment plants until the contract expires in 2022.

MSD will freeze OCEA customer rates at the current monthly average of $86.93 per month for the three years remaining on the Veolia contract. Then, after the Veolia contract expires, MSD will adjust the average monthly rate down to $76.93 per month.

One of MSD's first projects for OCEA's system is the decommissioning of the Ash Avenue Wastewater Treatment Plant. This more than 30-year-old plant was designed to operate for 20 years is currently outdated. "We replace this outdated plant with a more cost-effective gravity solution, improving the sewer service reliability in the area and improving the health of local waterways," Parrott said. "This is just one example of the types of efficiencies and economies of scale we can bring when we take a regional approach to watershed management."

About MSD
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MEDIA RELEASE

August 22, 2019

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Louisville MSD submits preliminary proposal to Oldham County

Regionalization would enhance wastewater treatment and create operational efficiencies

LOUISVILLE, KY — On Tuesday, Louisville MSD took another step toward a more regional approach for watershed protection.

Under a preliminary proposal to acquire the Oldham County Environmental Authority (OCEA) wastewater system, MSD would reduce OCEA customers' wastewater rates in the future and manage system improvements there, while creating greater operational efficiencies that benefit all of its customers.

"A watershed crosses over cities and counties, so protecting and managing that watershed is best done with a regional approach," said Tony Parrott, MSD executive director. "When you remove the arbitrary jurisdictional or political boundaries, we can have the opportunity to look holistically across the watershed, bring economies of scale and make investments and improvements that benefit the entire region, not just one county or the other."

Under the preliminary proposal MSD would assume OCEA's duties and responsibilities on November 1, 2019. OCEA currently has about 6,000 residential customers and contracts with Veolia Water to operate and maintain the sewer system and 12 wastewater treatment plants. Under the preliminary proposal, Veolia's contract would remain in effect until it expires in 2022.

MSD will freeze OCEA customer rates at the current monthly average of $86.93 per month for the three years remaining on the Veolia contract. Then, after the Veolia contract expires, MSD will adjust the average monthly rate down to $76.93 per month. Future rate increases, if required, would occur until OCEA customer rates equalize with MSD rates, which currently average about $50 per month for wastewater service.

One of MSD's first projects for OCEA's system would be the decommissioning of the Ash Avenue Wastewater Treatment Plant. This more than 30-year-old plant was designed to operate for 20 years is currently outdated.

"We will be able to replace this outdated plant with a more cost-effective gravity solution, improving the sewer service reliability in the area and improving the health of local waterways," Parrott said. "This is just one example of the types of efficiencies and economies of scale we can bring when we take a regional approach to watershed management."

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MEDIA RELEASE

August 29, 2019

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Louisville MSD submits preliminary proposal to Oldham County

Regionalization would enhance wastewater treatment and create operational efficiencies

LOUISVILLE, KY — On August 26, Louisville MSD Board authorized MSD to take another step toward a more regional approach for watershed protection.

Under a preliminary proposal to acquire the Oldham County Environmental Authority (OCEA) wastewater system, MSD would reduce OCEA customers' wastewater rates in the future and manage system improvements there, while creating greater operational efficiencies that benefit all of its customers.

"A watershed crosses over cities and counties, so protecting and managing that watershed is best done with a regional approach," said Tony Parrott, MSD executive director. "When you remove the arbitrary jurisdictional or political boundaries, we can have the opportunity to look holistically across the watershed, bring economies of scale and make investments and improvements that benefit the entire region, not just one county or the other."

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MEDIA RELEASE

September 13, 2019

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Safe Swimming Pool Draining Tips Offered as Summer Closes

MSD encourages residents to drain pools in a safe, environmentally friendly way

DO NOT DRAIN YOUR POOL DURING OR UP TO 48 HOURS AFTER A RAIN EVENT

Despite our current heatwave, homeowners will soon begin to drain their pools as summer days come to a close. Proper draining of swimming pools is essential to the health of our local waterways and good relations with your neighbor.

"Water containing chlorine can kill fish and other aquatic life in creeks and streams," states MSD Development and Stormwater Services Director David Johnson. The average pool has a chlorine concentration that is 10 times higher than some aquatic life can withstand. MSD **recommends that a pool sit for at least 10 days after chemical treatment before draining** any water.

Improper draining can also become a nuisance for residents and their neighbors by causing basement flooding, a backup, or flooding of yards. Homeowners may ***slowly*** drain chlorine-free water to a grassy area in their yard if it is large enough to absorb the water. Or, they can drain into a sanitary sewer cleanout, if one is available on their property.

Please follow these guidelines when draining a swimming pool:

- Do not drain your pool during or up to 48 hours after a rain event.
- Dechlorinate your swimming pool water before draining it. The pool should sit at least 10 days after chemical treatment before draining any water.
- Test the pool water to ensure that it is essentially chlorine-free before draining (about 0.1 parts per million total chlorine). Bubbling, cascading, or other forms of aeration will help to remove chlorine from water.
- The pool's pH should be in a normal range of 6 to 8 before draining.

- Drain to a grassy area of the yard if it is large enough to absorb the water, or into a sanitary sewer cleanout, if one is available on the property.
- Discharge water slowly, at no more than 30 gallons per minute, to prevent soil erosion, flooding, or damage to adjacent properties, including backups into homes and businesses.

For more information, call MSD Customer Relations at 502.540.6000 with your pool draining questions.

LouisvilleMSD

About MSD

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MEDIA ADVISORY

September 10, 2019

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Last one of MSD's 10 sewer overflow basins now in service

Officials cut the ribbon on environmental project with benefits to Lannan Memorial Park

MSD will hold a ribbon-cutting ceremony for its Portland Combined Sewer Overflow (CSO) Basin on Wednesday, September 11 at 11 AM at the basin site.

The Portland CSO Basin will store up to 6.7 million gallons of combined wastewater and rainwater during periods of heavy rain until capacity is available in the MSD sewer system. This underground-covered basin offers the public and the Ohio River protection from combined sewer overflows during periods of wet weather, and is the last of 10 basins listed in MSD's Consent Decree.

What: Ribbon cutting and view basin site

When: Wednesday, September 11, 11 AM

Where: MSD Portland CSO Basin, located in Lannan Memorial Park, 2375 Lannan Park Road, 40212

Who: MSD Executive Director Tony Parrott
Louisville Metro Mayor Greg Fischer
Louisville Metro Councilwoman, District 4, Barbara Sexton Smith
Louisville Metro Parks (not confirmed)

More: Media access to the control structure, look down hatches to see inside the basin
Interviews with MSD Executive Director Tony Parrott and
Basin Project Manager Jacob Mathis

About MSD
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MEDIA RELEASE

September 11, 2019

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MSD Portland CSO Basin now in service

The last of 10 basin projects that keep wastewater out of our waterways

LOUISVILLE, KY – Underground storage is part of MSD's endeavor to prevent wastewater from overflowing into Louisville's waterways. The Portland Combined Sewer Overflow (CSO) Basin is the last of 10 basins contained in MSD's Consent Decree. The 10 basins provide a total storage capacity of nearly 195 million gallons, protecting our local waterways and public health and safety. MSD's Waterway Protection Tunnel, which is under construction, will add another 55 million gallons of storage capacity.

The MSD Portland CSO Basin sits under a restored grassy lawn in Lannan Memorial Park. When it rains, the basin is hard at work protecting the Ohio River and the neighborhood from combined sewer overflows.

Rainwater enters the combined sewer system through stormwater pipes and catch basins. This added water can overwhelm the sewer system sending a combination of wastewater and rainwater into the Ohio River. The Portland CSO Basin will capture and store 6.7 million gallons of wastewater and stormwater during rain events. The contents will gradually release back into the sewer system when treatment capacity is available. The mixture of rainwater and wastewater then flows through the sewer system to MSD's Morris Forman Water Quality Treatment Center for proper treatment and release into the Ohio River. When the basin is empty, water is flushed through the structure to clean any remaining debris.

The basin, which is now complete, has a unique shape, as it is our only circular basin. It is also underground and invisible to the public. Above ground are a control building and parking area for MSD vehicles. The project replaced a gravel lot used by Louisville Metro Parks for storage. Surrounding and over the basin site, the gravel lot has been replaced by a grassy lawn and rain garden, which contains native plant species providing pollinator habitat. Other amenities in the park as a result of the basin project are a newly paved roadway, which has curves added to slow traffic. And a sidewalk connecting Northwestern Parkway with the park.

For photos of the basin during construction, visit:
https://www.webcargo.net/l/pzquAnnVTo/

About MSD
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MEDIA RELEASE

December 11, 2019

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Portion of large sewer pipe fails under Harrod's Creek in Prospect

Public asked to avoid creek and downstream areas

LOUISVILLE, KY – Residents of Prospect are asked to conserve water usage and avoid Harrods Creek while MSD contractors work to repair a break in a sewer line in the area. It is a challenging situation. The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

Since the break in the pipe has caused sewage to spill into Harrods Creek, the public should avoid contact with the creek from the Harrods Run Road area to the Ohio River. MSD customers will not see any problems with their sewer service.

Drivers should use caution in the area of U.S. 42 and Ken Carla Drive due to traffic from tanker trucks hauling sewage from the pump station in this area for treatment at an MSD water quality treatment center.

MSD Operations is investigating all options to limit or prevent sewage spilling into Harrods Creek and make the repair safely and efficiently. Due to the complexity of the situation, specialized equipment is needed. A crane is in use at the site to install extra-long sheeting—40-feet long—to protect workers as they work 35-feet below the surface. Work will continue 24/7 until the repair is complete.

Background
This break was initially confirmed on Monday, November 25. Contractors have been working to unearth and inspect sections of the pipe that are 10-feet below the surface. It has been confirmed that the break is significantly deeper and likely approximately 35 feet deep.

Force mains are pipelines that move wastewater under pressure from the discharge side of a pump or pneumatic ejector to a water quality treatment center.

Media Opportunity
Who: **MSD Chief of Operations Brian Bingham**
When: **3:30 today**
Where: **Harrods Run road, park at the end, walk to the site**

About MSD
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700 West Liberty Street | Louisville, KY 40203-1911
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MEDIA RELEASE

December 12, 2019

CONTACT:
Sheryl Lauder
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502.540.6552
502.919.0325

Work continues on large sewer pipe under Harrods Creek in Prospect

Overflow at the construction site is now contained

LOUISVILLE, KY – MSD has stopped the sewage overflow at the construction site on Harrods Creek in Prospect, allowing work for the sewer line repair to proceed. Installation of sheet piling—which forms a protective box for the workers—has begun and will continue through early next week. This process is noisy. We apologize to the neighbors and appreciate their patience. Once the protective box is constructed, workers can remove the soil inside the box and repair the break.

MSD is dewatering the construction site by using tanker trucks and a temporary treatment containment unit at an MSD pumping station located in the Ken Carla Subdivision. This is essential to reduce flow from the pipe, allowing the repair to go forward. Drivers should use caution in the area of U.S. 42 and Ken Carla Drive due to the traffic from these tanker trucks.

Due to the gravity of the situation, we are working 24/7 to complete this repair as soon as possible.

Background
A break in a 30-inch force main in the Prospect area was initially confirmed on Monday, November 25. Contractors unearthed sections of the pipe that are 10-feet below the surface and determined the break was in a significantly deeper part of the pipe.

It is a challenging situation. The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

Since the break in the pipe has caused sewage to spill into Harrods Creek, the public should avoid contact with the creek from the Harrods Run Road area to the Ohio River. MSD customers will not see any problems with their sewer service.

Force mains are pipelines that move wastewater under pressure from the discharge side of a pump or pneumatic ejector to a water quality treatment center.

About MSD
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MEDIA RELEASE
PROJECT UPDATE

December 13, 2019

CONTACT:
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Work continues on large sewer pipe under Harrods Creek in Prospect

LOUISVILLE, KY – Work is progressing at the construction site along Harrods Creek in Prospect, KY, to repair a break in a sewer line. Crews have installed about 50 percent of the sheet piling necessary to build a protective box that allows workers to descend 35-feet into the ground to make the repair. The construction of the box should be completed by early Monday. The soil will be removed from inside the box, allowing workers to safely enter the area, inspect the damage, and begin repairs to the pipe.

MSD has stopped the overflow of sewage into Harrods Creek, but not before 1,050,000 gallons of sewer water entered the stream. All regulatory agencies have been notified.

We are working 24/7 to complete this repair as soon as possible. Construction will continue at least throughout next week.

Background
A break in a 30-inch force main in the Prospect area was initially confirmed on Monday, November 25. Contractors unearthed sections of the pipe that are 10-feet below the surface and determined the break was in a significantly deeper part of the pipe.

It is a challenging situation. The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

It is essential to reduce flow from the pipe, for the repair to go forward. MSD is dewatering the pipe at the construction site by using tanker trucks and a temporary treatment containment unit at an MSD pumping station located in the Ken Carla Subdivision. Drivers should use caution in the area of U.S. 42 and Ken Carla Drive due to the traffic from these tanker trucks.

Since the break in the pipe has caused sewage to spill into Harrods Creek, the public should avoid contact with the creek from the Harrods Run Road area to the Ohio River. MSD customers will not see any problems with their sewer service.

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MEDIA RELEASE
PROJECT UPDATE

December 16, 2019

CONTACT:
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Excavation of work area allows inspection and repairs of broken sewer line under Harrods Creek

LOUISVILLE, KY – Contractors continue excavating a 35-foot deep work area inside of a protective metal box—which will allow workers to safely descend 35-feet to inspect and repair the broken sewer pipe that runs under Harrods Creek in Prospect. Rainfall is compounding this challenging situation.

Installation of the metal sheeting more than 35-feet down was completed on Sunday afternoon, allowing excavation of soil inside the box to begin. A ring of bracing was installed around the upper rim of the box, and another ring was installed 10-feet down. This process of excavating and bracing with every 10-feet of depth will likely continue into Wednesday, December 18. Upon completion of the protective structure, workers will descend 35-feet into the ground to inspect the break and make the repair.

Due to the proximity of Harrods Creek and the Ohio River, a temporary containment tank is onsite to capture and disinfect groundwater before it reaches Harrods Creek.

We are working 24/7 to complete this repair as soon as possible. Construction may continue into the week of December 22. We will know more once the excavation reaches 35-feet of depth.

Background
A break in a 30-inch force main in the Prospect area was initially confirmed on Monday, November 25. Contractors unearthed sections of the pipe that are 10-feet below the surface and determined the break was in a significantly deeper part of the pipe.

The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

It is essential to reduce flow from the pipe for the repair to go forward. MSD is dewatering the pipe at the construction site by using tanker trucks and a temporary treatment containment unit at an MSD pumping station located in the Ken Carla Subdivision. Drivers should use caution in the area of U.S. 42 and Ken Carla Drive due to the traffic from these tanker trucks.

MSD stopped the overflow of sewage into Harrods Creek, but not before 1,050,000 gallons of sewer water entered the stream. All regulatory agencies have been notified. The public should continue to avoid contact with the creek from the Harrods Run Road area to the Ohio River.

MSD customers will not see any problems with their sewer service.

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About MSD
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MEDIA RELEASE
PROJECT UPDATE

December 17, 2019

CONTACT:
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Projected Ohio River flooding delays repairs of broken sewer line under Harrods Creek

LOUISVILLE, KY – MSD's sewer line repair site in Prospect is projected to be underwater in the next 24 hours due to the rising Ohio River. This flooding will delay the repair of the damaged sewer pipe, which runs under Harrods Creek. Currently, the creek is rising at the rate of 2-inches per hour.

Crews will continue throughout the day to brace the workspace inside of the protective metal box—which will allow workers to safely make the repair 35-feet below ground level once the floodwaters subside.

The National Weather Service significantly changed river level projections since Friday when they projected the river to rise 1-foot above normal by 5 PM today. Recent rains altered those projections. At Noon today, the upper pool of the Ohio River reached 14.72-feet—2.72-feet above normal. At this rate, the construction site will be underwater by tomorrow afternoon, with a projected crest of 21-feet. The normal upper pool is 12-feet.

Crews will secure the site, and move equipment to higher ground this evening.

"Keeping workers safe is our priority," states MSD Executive Director Tony Parrott. "We will resume 24/7 work to make the repair as soon as conditions are safe."

A temporary pump will be installed uphill from the construction site to keep the wastewater flowing inside the sewer system. This pump will be noisy. We apologize in advance to our Prospect neighbors. This temporary pump will also allow a temporary reduction in the number of trucks that MSD is using to haul wastewater to water quality treatment centers.

Background
A break in a 30-inch force main in the Prospect area was initially confirmed on Monday, November 25. Contractors unearthed sections of the pipe that are 10-feet below the surface and determined the break was in a significantly deeper part of the pipe.

The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

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MEDIA OPPORTUNITY

August 20, 2019

CONTACT:
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Furniture dumped into waterway along Westport Road

MSD crews mobilize for stream cleanup

LOUISVILLE, KY – MSD received a report of furniture dumped in Goose Creek at Westport Road from Louisville Metro Public Works. MSD crews will remove a three-piece sectional, mattress and box spring today beginning at 2:30 PM. It is a difficult site due to two elevated roadways over the creek at this point. The furniture will be removed by a "clam shell" truck that is normally utilized in cleaning stormwater basins on the side of roadways.

The agency's tagline is "Safe, Clean Waterways." All MSD services from wastewater collection and treatment, to stormwater drainage and flood protection involve a commitment to improving water quality in our local waterways.

What:	**Removal of illegally dumped furniture**
Where:	**Goose Creek at 7713 Westport Road**
When:	**Today at 2:30 PM**
Who:	**MSD Drainage and Communication staff**

About MSD
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MEDIA ADVISORY

December 3, 2019

CONTACT:
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502.919.0325

MSD Tunnel Boring Machine continues carving through bedrock

Eighteen stories underground, Louisville's largest infrastructure project is moving along unnoticed by those above ground. MSD's massive tunnel boring machine is continuing to carve through bedrock to build MSD's Waterway Protection Tunnel.

Nicknamed "Bumblebee" in honor of Muhammad Ali, the 412-foot long boring machine will ultimately carve a four-mile-long tunnel to temporarily store combined stormwater and wastewater to prevent it from overflowing sewers and polluting our river and streams. Bumblebee is currently under "Spaghetti Junction" near the Ohio River.

WHO: **Media visit is restricted to two representatives per organization**
PLEASE RSVP: Sheryl.Lauder@LouisvilleMSD.org (we do not want to leave you behind)

WHAT: **Travel 18 stories underground to see the work Bumblebee has performed**
Interview MSD Project Manager Jacob Mathis, PE

WHEN: **Thursday, December 5**
10 AM to 12:30 PM

WHERE: **11th and Rowan streets—MSD Waterway Protection Tunnel site "Visitor's Gate"**

Visitors must arrive by 10 AM to receive safety training for admittance into the tunnel.
10:30 AM escort participants to the Working Shaft
10:45 AM lower participants down the shaft into the tunnel
11 AM tour the tunnel
11:45 AM raise participants out of the tunnel shaft
12 PM media interviews and tour of the above ground site

Attendees must wear Personal Protective Equipment: hard hat, safety vest, safety glasses, long pants and steel-toe shoes (sturdy closed-toe shoes are okay).
MSD provides hard hats, vests and safety glasses. Participants must bring their own footwear. STEEL TOE RUBBER BOOTS ARE BEST AS THE TUNNEL FLOOR CAN BE SLOPPY WITH WATER AND MUCK.

About MSD
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MEDIA RELEASE

December 5, 2019

CONTACT:
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502.919.0325

MSD Tunnel Boring Machine 'Bumblebee' buzzing along

Tunnel provides innovative solution to environmental problem

LOUISVILLE, KY – Eighteen stories underground, Louisville's largest infrastructure project is buzzing along unnoticed. MSD's massive tunnel boring machine is continuing to carve through bedrock to build MSD's Waterway Protection Tunnel. Nicknamed "Bumblebee" in honor of Louisville boxing legend Muhammad Ali, the 412-foot long boring machine will ultimately carve the 22-feet wide, four-mile-long tunnel. Bumblebee began its journey at 13th and Rowan streets and is now under "Spaghetti Junction" as it cuts its way to Lexington Road and Grinstead Drive.

An innovative solution to an environmental problem

Once complete, MSD's Waterway Protection Tunnel will help prevent wastewater and stormwater from overflowing during periods of heavy rain – ultimately reducing pollution in the Ohio River and Beargrass Creek. The tunnel will have the capacity to store 55 million gallons of combined wastewater and stormwater until capacity is available in the MSD sewer system. The contents are then pumped back into the system, conveyed to MSD's Morris Forman Water Quality Treatment Center for proper treatment and release to the Ohio River.

"Tunnel boring projects are wonders of engineering and technology, and we are excited to bring this innovative solution to Louisville to help create safe and clean waterways," said MSD Executive Director Tony Parrott.

Safety first

Like the Champ, Bumblebee has a stinging knockout punch—moving forward with 3.5 million pounds of thrust and applying nearly 1.5 million pounds per foot of torque. The boring machine has another feature in common with its namesake insect—antennae (small drills) that probe in front of its body to make sure it's safe to move ahead. Two steel pipes, 3 ½ inches in diameter, threaded in 6-foot sections, extend at least 200 feet ahead of the machine to check for water and gases.

Though the finished tunnel is being built to store up to 55 million gallons of water, Black & Veatch Construction Manager Alston Noronha said, "you don't want water coming into the tunnel" during construction. "It just slows down everything that we do." So, water detection is a primary function of the probes. "And if they find that there's

something that they don't like…they inflate a packer and they pump cement grout in there to seal everything off," Noronha said.

He said Bumblebee has several sensors that sniff out any gases, and that automatically shuts off the machine should any of the gases be detected in levels over what is deemed safe.

The probes are similar to the left jabs Ali used to measure and time his boxing ring opponents before drilling them with a heavy right hand to deliver a knockout.

Want to learn more?

Keep track of Bumblebee and get more information at
https://louisvillemsd.org/tunnel

For an animation of the tunnel, click here
https://youtu.be/u9CHHpB5xek

LouisvilleMSD

About MSD

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MEDIA RELEASE

August 15, 2019

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U.S. Army Corps of Engineers and MSD partner for Beargrass Creek Ecosystem Study

LOUISVILLE, KY – Louisville MSD and the U.S. Army Corps of Engineers are taking a big step in improving the Beargrass Creek watershed. Today, the two entities announced they are working together on the Three Forks Beargrass Creek Ecosystem Restoration Feasibility Study, which is one of only six new General Investigation Feasibility Study projects to be selected by the U.S. Army Corps of Engineers nationwide in a competitive pool of applicants for funding. The local project is the only ecosystem restoration and the sole inland project chosen nationwide.

This study will produce a plan that will outline what is necessary to restore the ecological form and function of the Beargrass Creek Watershed, which contains the South, Middle, and Muddy forks. The project will investigate options to restore ecosystem structure, function and processes that have been lost over time in the watershed. The current lack of riparian buffers and wetlands adjacent to Beargrass Creek have resulted in higher water temperatures, which lower dissolved oxygen levels and stress aquatic ecosystems. Portions of the creek— which are confined in concrete channels—are especially vulnerable habitats, becoming too warm for most aquatic life in the summer.

About one-third of all water that falls in the Beargrass Creek watershed lands on impervious surfaces, such as roofs and pavement—collecting toxins, pollutants, and sediments as it makes its way to the creek. Reconnecting the watershed with urban forests, wetlands, stream buffers and recreational trails will improve habitat and ecological function, as well as elevate the creek as a community amenity and resilient water resource for generations to come.

MSD and the Corps will investigate innovative restoration techniques and engineering solutions that will be compatible with local floodplain management and drainage improvements.

The maximum commitment from both organizations is $1.5 million each for a total value of $3 million. MSD's portion will be a mix of actual dollars and in-kind services.

"This agreement is a model example of how the environment, our economy, and the public can benefit when agencies come together with a common goal of health, safety and quality of life for our community. We are proud to partner with the U.S. Army Corps of Engineers for safe, clean waterways."
— MSD Executive Director Tony Parrott.

"We are proud to partner with Louisville MSD to create a comprehensive plan, which will identify methods for improving this beautiful natural resource of the Three Forks of Beargrass Creek for generations to come. This study has been the result of years of coordination and one we are fortunate to have been selected for as it is one of only six new start projects across the Corps of Engineers and the only ecosystem restoration project selected nationwide."
— Col. Antoinette Gant, U.S. Army Corps of Engineers, Louisville District

"We are fortunate to have this influx of federal funding to our community. Not only will this Three Forks Feasibility Study improve stream health, but it also has the potential to fundamentally improve land trail connections and amenities along the creek corridor. I am pleased that this investment will improve interactions with the creek and natural areas in District 8."
— Louisville Metro Councilman Brandon Coan, District 8

"It is exciting to see federal, state and local agencies working together for the comprehensive ecological restoration of Beargrass Creek. Restoration of the ecological corridor will complement MSD's ongoing work to enhance water quality. As emphasized in Morgan Atkinson's Documentary Beargrass: The Creek in Our Backyard, the challenges to the creek have been in the making for centuries, but with such collaboration restoration is possible and attainable. Just imagine, a healthy creek with a wide ribbon of trees through our community accessible by vibrant adjacent neighborhoods.
— David Wicks, Chairman River City Paddle Sports Board of Directors

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MEDIA RELEASE

November 15, 2019

CONTACT:
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USACE releases study of Louisville Ohio River Flood Protection System

Louisville, KY— Today, the U.S. Army Corps of Engineers (USACE) released the draft study, which looks at the Louisville's flood protection system to identify potential failures in the system; the impact failure would have on homes and businesses; and, options for repair to the system. In July 2018, U.S. Senate Majority Leader Mitch McConnell (R-KY) announced funding for the study as part of the Bipartisan Budget Act of 2018.

"We are grateful for Leader McConnell's support to secure funding for this important study," said MSD Executive Director Tony Parrott. "We're ready to get started to work with the USACE and develop a plan to protect Louisville for future generations."

One of Lousiville MSD's core functions is to maintain the aging Ohio River Flood Protection System that protects $24 billion in property throughout 110 square miles of Louisville Metro. The system includes 29 miles of the flood wall and earthen levee, 16 flood pumping stations, nearly 150 floodgates and 80 floodwall closures.

The 1937 Ohio River Flood led to the construction of the system MSD operates today. The oldest floodwalls constructed in the 1940s, are still in service. The pumping stations that redirect floodwaters away from homes and businesses are more than 60 years old and operate with parts that are no longer available for replacement. MSD had already started to identify improvements as part of its Critical Repair & Reinvestment Plan, a 20-year outline of projects for flood protection, wastewater and drainage. However, up to this point, funding the projects has been a challenge.

You can view the draft Feasibility Study with EA and FONSI online at the following link:
https://go.usa.gov/xpBFc
To request a paper copy of the Study, or to submit comments, contact: USACE, Louisville District, Project Management by mail at: CELRL-PMC-PPM, P.O. Box 59, Rm 708, ATTN: Will Ailstock, Louisville, KY 40201 or by email to: will.ailstock@usace.army.mil. Comments regarding the EA received by December 15, 2019 will assist in the agency's evaluation of the project changes and will be reflected in the project record.

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MEDIA RELEASE

November 7, 2019

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Christy Ray
Louisville Water
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MSD and Louisville Water host Annual Veterans Day Recognition

Who: MSD and Louisville Water Company

Speakers: Mayor Greg Fischer
MSD Executive Director Tony Parrott
Louisville Water Company President Spencer Bruce
Representatives of the United States Air Force, Army, Coast Guard, Navy and Marines

What: Veterans Day Recognition

When: Friday, November 8—8 AM to 9:30 AM

Where: MSD Central Maintenance Facility
3050 Commerce Center Place, Louisville, KY 40211

Louisville MSD and Louisville Water will honor their combined 92 employees who have or are still serving our country in the United States Armed Forces at a ceremony at MSD's Central Maintenance Facility on Friday, November 8 at 8 AM.

- The Louisville Metro Police Color Guard will provide the presentation of colors.
- Seneca High School Marine Corps Drill Team will perform.

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ABOUT LOUISVILLE WATER COMPANY
Louisville Water began operations in October 1860 as Kentucky's first public water utility and today provides an abundant, safe supply of drinking water to nearly one million people in Louisville Metro and surrounding counties. On average, the company produces 117 million gallons of Louisville pure tap® each day. Louisville Water is recognized for its quality and innovation; both treatment plants are ranked as two of the top 16 in North America for outstanding water quality. Learn more at LouisvilleWater.com or follow on social @LouisvilleWater.

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MEDIA RELEASE

August 9, 2019

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Exceptional wastewater treatment allows local brewers to utilize MSD recycled water in a special craft brew

Water reuse project features local brews at
Water for Life on the Big Four Lawn
Sunday August 18, 1 to 4 PM

What's the most significant ingredient in beer? Water. Four local brewers have experimented with a new water source for a unique craft brew: recycled water from Louisville MSD.

The Next Round Brewing project will debut its products at the Water for Life event in Louisville on Sunday, August 18, a water festival on the Big Four Lawn between 1 and 4 PM. The four participating brewers will provide tasting samples of their brew. Local water professionals will explain how recycled water works and the high-tech treatment process that made the Next Round Brewing project possible.

What is recycled water and how does Next Round Brewing Work?

Recycled water (treated wastewater) is the end-product for Louisville MSD. Every day, the utility collects the community's used water and treats it at one of its five Water Quality Treatment Centers before releasing it into local waterways. The treated wastewater or effluent that MSD discharges into our waterways is cleaner than the water already in the receiving water body, meeting strict regulatory guidelines. For the Next Round project, the MSD recycled water was put through additional treatment—with a system built locally for the project by Isopure—to bring it up to drinking water standards, with independent third-party laboratories verifying the quality. Four local brewers: Akasha Brewing Company, Apocalypse Brew, Gordon Biersch and Holsopple used the recycled water as their source for a craft brew.

Beer's connection to water

Kentucky's craft brew business is rapidly growing. According to the Kentucky Guild of Brewers, there are 68 active licenses in the state, up from only five 10 years ago. Because most of the beer is water, the quality is

critical. For brewers in Louisville area, that water usually comes from Louisville Water Company and goes directly into the recipe.

No new water

So why experiment with recycled water? MSD and water professionals from Kentucky and Tennessee want to demonstrate the quality that goes into not only producing drinking water but treating all the water we use. Remember the water cycle? There is no "new water." Utilities like MSD and Louisville Water must focus on science to provide exceptional wastewater treatment and high-quality drinking water.

Additionally, Next Round Brewing is an opportunity to talk about the future of water. Our city is fortunate. The Ohio River provides us with an abundant source of water. But across the United States, water-stressed communities are investigating using recycled water as a source for drinking water.

Ultimately, the Next Round Brewing project will spark a conversation about water and create a new appreciation for something most of us take for granted.

Media opportunity to interview brewers:

Monday, August 12, 1 to 2:30 PM at Gordon Biersch, 400 S Fourth Street

Representatives from: Akasha Brewing Company, Apocalypse Brew, Gordon Biersch and Holsopple

Access b-roll with this link:

https://drive.google.com/open?id=1zQcaWR4au4so46Fhf1xDi4ORr9Ib-Q_w

About MSD

The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. The organization's more than 670 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro. In addition to operating and maintaining Louisville Metro's sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff, and provides numerous outreach programs to inform and educate the community about protecting our waterways.

700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

MEDIA ADVISORY

June 26, 2019

CONTACT:
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MSD and Community Partners Complete a Study on Workforce Opportunities in the Utility Sector

Review is part of a national effort with the US Water Alliance

For the past year, Louisville MSD has lead a review of utilities procurement practices and contracting in the infrastructure sector. The review highlights water equity workforce opportunities and identified unique challenges faced by vulnerable populations. *An Equitable Water Future: Louisville* was collaboratively developed by leaders from the Louisville Urban League, MSD, Louisville Water Company, Transit Authority of River City, Louisville Metro Government, formerly Where Opportunity Knox, and Jacobs Engineering, with support from the US Water Alliance.

What: Release of *An Equitable Water Future: Louisville*

When: Thursday, June 27, 9:15 AM

Where: The Brown Hotel, 335 W Broadway, 16th Floor

Who: **Tony Parrott,** Executive Director, Louisville MSD
Ellen Hesen, Deputy Mayor/Chief of Staff, Louisville Metro
Radhika Fox, Chief Executive Officer, U.S. Water Alliance
Ferdinand Risco, Executive Director, Transit Authority of River City
Sadiqa Reynolds, President/CEO, Louisville Urban League

More: This report is part of the **Water Equity Taskforce**, a network of cities convened by the US Water Alliance that work together to develop more equitable water policies and practices. The Taskforce comprises cross-sector teams in the cities of Atlanta, Buffalo, Camden, Cleveland, Louisville, Milwaukee and Pittsburgh.

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MEDIA RELEASE

June 27, 2019

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Louisville Leaders Release First Ever Water Equity Roadmap

Report Describes Strategies for Expanding Opportunity in Louisville's Infrastructure Workforce

LOUISVILLE, KY — Today, Louisville Metro Mayor Greg Fischer and leaders from Louisville MSD, Louisville Water Company, Transit Authority of River City (TARC) and the Louisville Urban League, in partnership with the US Water Alliance, released *An Equitable Water Future: Louisville.* The report is a roadmap for building equity in Louisville's infrastructure workforce and contracting practices, so that all residents have an opportunity to enjoy the economic and social benefits resulting from investments in the city's infrastructure. The report is available online here.

An Equitable Water Future: Louisville was collaboratively developed by leaders from the MSD, Louisville Water, TARC, Louisville Urban League, Louisville Metro Government, Where Opportunity Knox, and Jacobs Engineering, with support from the US Water Alliance. This work builds on Louisville's participation in the 2018 Brookings Institution study, Renewing the Water Workforce, which outlined infrastructure workforce challenges and general recommendations for addressing them.

"As we continue investing in our infrastructure, it's important to make sure all citizens have opportunities to benefit from those investments. That's what the recommendations in this report are intended to do. I'm proud of how our local agencies have collaborated to seize the workforce opportunity tied to investing in our infrastructure, and I appreciate their continued efforts toward implementing these recommendations," said Louisville Mayor Greg Fischer.

Louisville's vulnerable communities face a range of challenges related to water, from aging infrastructure and affordability. Low-income people and communities of color in Louisville have historically been affected by a legacy of redlining, and today are disproportionately impacted by water affordability, aging infrastructure, and flooding issues, as well as barriers to participating in the local infrastructure workforce and contracting opportunities. Among the report's recommended actions are changes to procurement and hiring policies, as well as more intensive cross-agency collaboration on workforce and skills training and mentoring potential employees from the city's vulnerable communities.

According to MSD Executive Director Tony Parrott, "Water has the power to put people to work. At MSD, we've been making good progress toward understanding and tackling the barriers to workforce participation and contracting that confront minorities and low-income residents. This roadmap lays out specific steps we can take, at MSD and beyond, to deepen our impact. We'll keep driving to make sure

all Louisville's residents have access to the economic benefits resulting from our community's investments in infrastructure."

"We're proud of Louisville Water and MSD for leading the way on workforce equity, taking an honest look at existing inequities and working to include our most vulnerable," added Sadiqa Reynolds, CEO of Louisville Urban League. "The policy change and inter-agency collaboration recommended in this roadmap will translate into better workforce access for the people who stand to benefit the most."

An Equitable Water Future: Louisville discusses local factors that influence water equity. While the primary focus is on the infrastructure workforce, the report also explores local issues around water affordability, aging infrastructure, flooding and climate impacts, and funding constraints. For each of these areas, the report outlines recommendations that agencies and organizations in Louisville can take to advance equitable water management.

"The challenges facing Louisville's vulnerable communities are significant, but we can help people thrive by expanding access to water workforce and contracting opportunities. I applaud Louisville's leaders for recognizing the benefits of working toward greater social equity, and I'm proud of the Louisville Water Equity Taskforce for setting a course to grow opportunities for all," said Radhika Fox, CEO of the US Water Alliance.

This report is part of the Water Equity Taskforce, a network of cities convened by the US Water Alliance that work together to develop more equitable water policies and practices. The Taskforce comprises cross-sector teams in the cities of Atlanta, Buffalo, Camden, Cleveland, Louisville, Milwaukee, and Pittsburgh.

For more information on the Water Equity Taskforce project, visit http://uswateralliance.org/initiatives/water-equity/taskforce.

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MEDIA RELEASE

November 1, 2019

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U.S. Senate approves $1 million in funding for water workforce development

Louisville MSD helped champion this effort in Congress

LOUISVILLE, KY – Yesterday, the U.S. Senate approved a new federal grant program—supported by Louisville MSD—allowing $1 million in funding to benefit a national workforce development program for jobs in wastewater, stormwater and drinking water industries. The funding is an important part of a national effort to replace up to 19 percent of employees in the water industry who will retire in the next 10 years.

Included in last year's America's Water Infrastructure Act, the competitive grant program is championed by Louisville MSD and its partner utilities in the Water Agency Leader's Alliance (WALA), the National League of Cities and the National Association of Clean Water Agencies. Utility agencies from both rural and urban communities will be eligible to apply for the grant funding, which can be used for a variety of job training and workforce development programs.

The original legislation was sponsored by U.S. Senators Cory Booker (D-NJ) and Shelley Moore Capito (R-WV). As a result of the U.S. Senate action yesterday and the U.S. House action in June, $1 million is now appropriated in both chambers for Fiscal Year 2020 Interior, Environment, and Related Agencies Appropriations bills for the competitive grant program to help train workers to build and repair important water systems throughout the country, while providing pathways to careers with competitive wages and benefits.

"At MSD, we need a qualified and skilled workforce to meet our infrastructure challenges. We have $4.3 billion in infrastructure needs outlined in our Critical Repair & Reinvestment Plan alone," states Louisville MSD Executive Director Tony Parrott. "This funding will help MSD collaborate with workforce development agencies, technical schools, and others to build the workforce we need."

Eligible grant recipients include nonprofits, labor unions, community colleges, and other training and educational institutions. Grants could be utilized for a variety of training programs that support mission critical skilled trades and regional collaborations to support water workforce development.

Over the next decade, the country's 30 largest water utilities are estimated to spend $23 billion on water infrastructure projects, according to the Water Environment Research Foundation. This influx of infrastructure work is projected to generate $524 billion in economic activity and create nearly 300,000 job opportunities across the country.

The workforce development programs will connect local youth and adults with learning, apprenticeship, job training, employment, and business opportunities. "MSD is committed to fostering a skilled and diverse local workforce that looks like the community we serve. Programs such as this provide us with the tools needed to develop the next generation of workers as we seek to provide safe, clean waterways for our community," states Parrott.

MSD's recently launched Community Benefits Program leverages economic, environmental, and social impacts of large-scale construction projects, construction-related professional services, and engineering projects by ensuring ratepayers benefit from MSD's capital investments. The Program invites firms bidding on MSD's large-scale projects to give back to nonprofits and schools in Jefferson County through volunteer hours, in-kind services, or financial contributions that are focused on workforce development, education (STEM) and economic development.

LouisvilleMSD

About MSD

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MEDIA RELEASE

January 29, 2020

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"Can You Dig It?" session to outline opportunities for MSD contractors in 2020

MSD Procurement and Supplier Diversity will host session for contractors, engineers, goods and services providers

LOUISVILLE, KY — Can You Dig It? That is the question for area contractors interested in working with Louisville MSD in 2020. They can find the answer as MSD hosts its fifth annual "Can You Dig It?" outreach session to educate potential contractors, engineers, as well as goods and services providers, on $25 million worth of capital construction projects and other contract opportunities planned for 2020 and beyond.

WHEN:
Thursday, January 30, 10 AM to Noon

WHO:
Tony Parrott, Executive Director, MSD
Rene´ Lindsay, One Water Chief Procurement Officer
John Loechle, Engineering Director, MSD
Jeremy Raney, Infrastructure Planning Manager, Louisville Water Company

WHERE:
Kentucky Center for African American Heritage, 1701 W Muhammad Ali Boulevard, Louisville, KY 40203

OPPORTUNITIES:
Photos/video and interviews with speakers

Making a positive impact in the communities we serve through our large-scale projects
MSD is committed to leaving a positive impact in the communities where we spend our dollars through our supplier diversity, local labor and community benefits programs.

"MSD actively seeks to partner with minority- and women-owned businesses through our Supplier Diversity Program, for construction, and goods and services contracts. MSDJobLink.org helps our contractors find local residents for our local labor requirements," states One Water Chief Procurement Officer Rene´ Lindsay.

"Through our Community Benefits Program MSD is ensuring that ratepayers benefit in more ways than one from our large-scale capital projects," says MSD Executive Director Tony Parrott. "MSD vendors (contractor/firm) are encouraged to donate either financially or through their time to local non-profits and schools for workforce development, skilled-trade training, small business outreach and mentorship, or introducing youth to careers in the water sector."

MSD defines "Local labor" as individuals who have a primary legal residence within Bullitt, Henry, Jefferson, Meade, Nelson, Oldham, Shelby, Spencer and Trimble counties in Kentucky; and, Clark, Floyd, Harrison and Washington counties in Indiana.

MSDJobLink.org is an online portal that helps contractors fulfill the MSD's Local Labor Preference by connecting local workers with contract holders.

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MEDIA UPDATE

February 14, 2020

CONTACT:
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MSD flood protection crews working to protect the city from the rising Ohio River

LOUISVILLE, KY – As Ohio River waters rise, MSD takes steps to protect Louisville Metro from flooding. Currently, the Upper Pool gauge is at 22.79-feet with a projected crest of 26.5-feet on Sunday. The Upper Pool section is upriver from the locks and dam and includes downtown Louisville.

The Lower Pool is downstream of the locks and dam. Currently, the Lower Pool guage is at 53.56-feet, with a projected crest of 57.5-feet on Sunday.

At this time, MSD **does not** anticipate the need to install any floodwall roadway closures. We do have seven of our 16 Flood Pumping Station in service, with one more that could go into service over the weekend. Throughout the past 10 days, MSD Flood Protection Department staff readied the system for this event.

Background

MSD maintains Louisville Metro's Ohio River Flood Protection System—keeping the river at bay and out of the city.

The system protects more than 200,000 people, 87,000 homes and $24 billion in property throughout 110 square miles of Louisville Metro. It includes 29 miles of floodwall and earthen levee, 16 flood pumping stations, nearly 150 floodgates and 80 floodwall closures.

Where creeks and storm drains pass through the floodwall, gates can be closed to keep the river from flowing up the streams, and large pumps at the flood pumping stations are used to lift the water from the creeks into the river. Additional gates and pumping stations keep the river from backing up through storm drains and pipes, pumping the stormwater into the river.

The U.S. Army Corps of Engineers built the system after the city's two highest floods of record in 1937 and 1945. MSD has been responsible for the Flood Protection System since 1987.

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MEDIA RELEASE

March 11, 2020

CONTACT:
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World Plumbing Day and why you need to treat your plumbing right

Every day, Louisville MSD receives more than 150 million gallons of water and waste that are flushed down drains and toilets across the city. Our job is to treat that wastewater and return it to local waterways and the Ohio River – protecting our environment and the health and safety of all Louisville-area residents.

Unfortunately, when people flush inappropriate items, it causes big problems for our sewer system and wastewater treatment process – and it affects plumbing in homes and businesses, too. Some of the biggest problems are caused by so-called "flushable" wipes, but we also run into challenges from dental floss, hair, diapers, feminine products, and any number of other items that find their way down your pipes and ours.

MSD maintains more than 3,300 miles of sewer lines. There are pumps used to push the wastewater along its route to one of our five water quality treatment centers. Wipes and other items such as dental floss and hair can clog pumps in the collection system pipes and at the treatment centers. These clogs can cause backups into homes and businesses and are time consuming and costly to repair.

Marc Thomas, MSD Collections System Director, says, "Wipes do not break down, even if their labels read 'flushable.' They twist becoming stronger in a mass—blocking sewer lines and damaging pumps." Wipes cause about 60 percent of the clogs that MSD employees must repair on a daily basis.

We urge residents to celebrate World Plumbing Day by avoiding a sewage backup. Toss your wipes, dental floss, hair, grease, and anything that is not one of the "three Ps—pee, poo and toilet paper—into the trash, not the toilet. If you do experience a sewer backup, make MSD your first call at 502.540.6000. If the problem is in our system, we will fix it at no charge to you.

LouisvilleMSD

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MEDIA RELEASE

June 12, 2020

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Louisville MSD reaffirms its commitment to Supplier Diversity and Community Benefits programs

Louisville MSD relaunches its Supplier Diversity Program with higher goals of inclusiveness for minority- and women-owned businesses based on results of a disparity study, which will improve the diversity of firms that receive MSD contracts and create community benefits in neighborhoods where MSD is working.

It has been stated that from moments of great challenge, come opportunities for great actions. We as a community and an agency now find ourselves in one of these moments of challenge. That is why MSD is renewing our collective commitment to equity, justice and transparency—in how we serve our customers.

"MSD is the only public agency in Kentucky with supplier diversity and community benefits required of its construction contractors," said MSD Executive Director Tony Parrott. "With these programs we renew our commitment to equity, justice and transparency in how we serve our customers. This effort is an important investment in the health, safety and quality of life for our ratepayers in Louisville now and for years to come."

"Creating a culture of diversity is a core element of our city's strategic plan, and MSD has been a great partner in our efforts to build that culture," said Mayor Fischer. "I applaud MSD for taking these additional efforts to ensure more minority- and women-owned businesses are hired for construction projects in our city."

On June 1, the agency's new Supplier Diversity Program took effect. This program with new goals is the result of a Disparity Study completed in July 2018 by Mason Tillman Associates, Ltd. MSD commissioned the study to analyze its contracting practices over five years to determine if a statistically significant disparity existed in the district's award of contracts to ready, willing and qualified Minority- and Women-Business Enterprises (M/WBE). The study looked at MSD's procurement policies and evaluated contract data for construction, construction-related services, engineering, and professional services and materials and commodities. Additionally, vendors were interviewed as part of the assessment process.

The study found statistically significant evidence of disparity in the award of MSD prime and subcontracts among African-American, Asian-Indian and Caucasian Females. Based on these findings, MSD has adopted new supplier diversity goals for construction and construction-related services. Beginning June 1, 2020, construction and construction-related services valued at or above $150,000 must include goals for the following qualified vendors who can perform a commercially useful scope of work on the project:

- African-Americans – 18 percent
- Asian-Indian Americans – 2 percent

- Caucasian Females – 15 percent

MSD's Supplier Diversity Program also includes a 10 percent bid discount applied to bids up to $500,000, with a maximum discount not to exceed $50,000 on bids submitted by M/WBE vendors. The bid discount is an incentive to help M/WBEs compete for prime contracts as an evaluation tool with the goal of correcting the disparity finding. Other new additions include incentive credits, which are outlined in MSD's Disparity Study Fact sheet, available at http://louisvillemsd.org/sites/default/files/inline-files/MSD%20Disparity%20Study%20FAQs%202-20-19.pdf.

"The new Supplier Diversity program is MSD's commitment to addressing the disparities identified in the study by increasing access and opportunities to underserved groups in Louisville," says MSD Chief Procurement Officer Rene' Lindsay. "MSD believes in being intentional about ensuring everyone in the community, including underserved groups, can work with MSD."

Additionally, as part of the 2018 study recommendations, the agency formalized a Community Benefits Program in July 2019. The goal of this program is to leverage the economic and social impact MSD has in the community with its large-scale professional engineering, construction, and construction-related projects by ensuring ratepayers benefit from MSD's capital investment. The Community Benefits program provides opportunities in workforce development, skills-trade training, small business outreach and mentorship, and exposes youth to careers in the water sector. The vendor (contractor/firm) provides a financial contribution, volunteer hours or in-kind services to local non-profits and schools in Jefferson County. No dollars for this effort come from MSD.

"MSD's goal is to leverage our ongoing work in the community to build a workforce pipeline to support our core services and ensure all local communities within MSD's service area benefit from our investments in a variety of ways," says MSD Community Benefits Director Sharise Horne.

For more information about our new programs and to view the Disparity Study, please visit http://www.louisvillemsd.org/doing-business-us.

MEDIA OPPORTUNITY
MSD Executive Director Tony Parrott is available for remote interviews.
Please contact Sheryl Lauder at 502.919.0325 for arrangements.

LouisvilleMSD

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MEDIA RELEASE
PROJECT UPDATE

January 6, 2020

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Condition of broken sewer line under Harrods Creek significantly worse than expected

LOUISVILLE, KY – MSD contractors have finally been able to reach the bottom of the 35-feet deep repair shaft next to Harrods Creek in Prospect. Mobile cameras inserted into the pipe revealed the damage is significantly worse than expected. Both pipes under the creek have significant breaks.

The repair project is more comprehensive than initially thought, involving discussions with state and other regulatory agencies, and other utilities. Repair plans are contingent on dialogue with these agencies. MSD customers will continue to have no interruption of their sewer service.

"This is a complicated and long repair, and right now, we are focused on maintaining a safe site, and identifying the best way to repair these two pipes. In the meantime, we will thoroughly investigate all aspects of the planning, design, and construction of the original project—installed in 2013—to determine what caused the failure of the two pipes," states MSD Executive Director Tony Parrott.

There have been many challenges with this repair—the depth of the pipe at 35-feet, the proximity of Harrods Creek, flooding of the Ohio River, and saturated soils. Despite these conditions, MSD stopped the overflow of sewage into Harrods Creek, except for the first days with 1,050,000 gallons of sewer water entering the stream.

We have open and transparent communication with all regulatory agencies. We will update the neighbors and the public as soon as the plans are finalized.

Background
A break in a 30-inch force main in the Prospect area was initially confirmed on Monday, November 25. Contractors unearthed sections of the pipe that are 10-feet below the surface and determined the break was in a significantly deeper part of the pipe.

The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

MSD stopped the overflow of sewage into Harrods Creek, but not before 1,050,000 gallons of sewer water entered the stream. All regulatory agencies were notified. The public should continue to avoid contact with the creek from the Harrods Run Road area to the Ohio River.

About MSD
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MEDIA RELEASE

PROJECT UPDATE **draft**

February 14, 2020

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Harrods Creek sewer line repair ongoing

LOUISVILLE, KY – The rising Ohio River and Harrods Creek have once again flooded the The repair of two sewer lines that run under Harrods Creek in Prospect (Jefferson County) has been challenging. The depth of the pipe at 35-feet, the proximity of Harrods Creek, flooding of the Ohio River, and saturated soils have presented significant hurdles.

Crews inserted cameras into the pipe from the Woodlands side—where the sewage discharge first appeared—and discovered that the break was actually 750 feet west of this location inside of a "casing" or holding pipe. MSD expanded the repair area to both sides of Harrods Creek and U.S. 42, giving crews access to the break points from both ends of the casing pipe. The breaks are in a 42-inch diameter gravity pipe and a 30-inch diameter force main. A force main is a sewer line that requires the force of pumps to flow instead of being able to rely on gravity.

Currently, crews are excavating the additional repair site near the Ken Carla subdivision. A 35-foot deep protective metal box is nearing completion.

To make the repairs possible, MSD installed a new pipe to transport the wastewater. A tunnel was drilled horizontally next to the large pipe and a new flexible pipe was pulled through the "tunnel." This new force main will transport sewage and allow for repairs to the 42-inch gravity line and the original force main. No one will lose sewer service during the repair.

Discharge on the Woodlands side of the creek was reported to MSD in late November. Work on that side of the creek revealed that the break is more than 750-feet west of the reported discharge site. The discharge stayed inside the larger "holding" pipe and flowed to the Woodlands area, making its way up to the surface.

There have been no additional discharges to the creek since the originally reported 1,050,000 gallons. And MSD continues discussions with the state and all regulatory agencies concerning the situation.

This will give workers safe access to make the repair. However, the river is rising and is flooding both repair sites.

The repair project has involved discussions with state and other regulatory agencies, and other utilities. There have been many challenges with this repair—the depth of the pipe at 35-feet, the proximity of Harrods Creek, flooding of the Ohio River, and saturated soils. Despite these conditions, MSD stopped the overflow of sewage into Harrods Creek, except for the first days with 1,050,000 gallons of sewer water entering the stream.

We have open and transparent communication with all regulatory agencies. We will update the neighbors and the public as soon as the plans are finalized.

Background
A break in a 30-inch force main in the Prospect area was initially confirmed on Monday, November 25. Contractors unearthed sections of the pipe that are 10-feet below the surface and determined the break was in a significantly deeper part of the pipe.

The break is in a section of the 30-inch force main that runs near and 35-feet under Harrods Creek behind Harrods Run Road and Timber Creek Court.

MSD stopped the overflow of sewage into Harrods Creek, but not before 1,050,000 gallons of sewer water entered the stream. All regulatory agencies were notified. The public should continue to avoid contact with the creek from the Harrods Run Road area to the Ohio River.

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MEDIA RELEASE

March 23, 2020

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MSD board supports increasing customer assistance with water and wastewater bills during pandemic

Louisville, KY — Louisville MSD and Louisville Water Company realize that many customers are facing stressful and challenging times right now. The utilities are working together to help customers manage their water and wastewater bills. Today the Louisville MSD board approved an additional $100,000 donation to the Louisville Water Foundation for customer assistance. The Board of Water Works, the governing body for Louisville Water, will consider a similar donation request at its April meeting.

"As our community and the World faces the growing COVID-19 pandemic, it is more important than ever to help those who are struggling through no fault of their own. We fully support increasing MSD's support of our customers through Drops of Kindness," states MSD Board Chair Marita Willis.

The Louisville Water Foundation funds a customer assistance program, Drops of Kindness that helps the utilities retail customers in Jefferson, Oldham and Bullitt counties pay their water and wastewater bills. The Foundation works with a charitable organization in each county to administer the funds. In Jefferson County, Community Ministries operates the program helping nearly 1,000 families annually with their water and wastewater charges through an existing grant from the Foundation. Previously, MSD provided $150,000 for its yearly support of the program. The new additional funding will allow the Ministries to extend its reach over the coming months.

Senior Citizen Discount

Additionally, MSD offers Senior citizens who are age 65 or older and have a gross annual household income of $35,000 or less a 30 percent discount on wastewater charges and the EPA surcharge. To apply, please fill out and submit the Senior Citizen Discount application. Call MSD Customer Relations at 502.540.6000 for assistance with the form.

LouisvilleMSD

About MSD
The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. The organization's more than 650 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro. In addition to operating and maintaining Louisville Metro's sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff, and provides numerous outreach programs to inform and educate the community about protecting our waterways.

700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

MEDIA RELEASE

January 30, 2020

CONTACT:
Sheryl Lauder
Sheryl.Lauder@LouisvilleMSD.org
502.540.6552
502.919.0325

Bumblebee is halfway home

MSD's tunnel boring continues to move 200-feet below Louisville

LOUISVILLE, KY - Bumblebee—MSD's Waterway Protection Tunnel boring machine—has reached the halfway mark in her quest to carve a 4-mile waterway protection tunnel through bedrock eighteen stories under Louisville. Nicknamed "Bumblebee" in honor of Muhammad Ali, the 412-foot long machine is currently under the area of North Wenzel and Geiger streets. Soon, she will turn southeast and head toward Lexington Road and Grinstead Drive, which is her final destination point.

How does Bumblebee work?
As the boring machine excavates the tunnel route, crews install locomotive tracks behind the machine to transport workers and supplies. A conveyor system transports the excavated rock through the tunnel to the working shaft. There it rides a vertical conveyor to the surface. The rock is then loaded into dump trucks and transported to a local quarry.

After the excavation is complete, the entire length of the tunnel is lined in concrete, making it watertight. The Waterway Protection Tunnel will store up to 55 million gallons of combined wastewater and stormwater during periods of heavy rain until capacity is available in the MSD sewer system. The contents are then pumped back into the system, conveyed to MSD's Morris Forman Water Quality Treatment Center for proper treatment, and later released into the Ohio River.

"Tunnel boring projects are wonders of engineering and technology, and we are excited to bring this innovative solution to Louisville to help create safe and clean waterways," said MSD Executive Director Tony Parrott.

REMINDER: Your organization may have b-roll from the December 5, 2019 media visit inside MSD's Waterway Protection Tunnel

Want to learn more?
Keep track of Bumblebee and get more information at
https://louisvillemsd.org/tunnel

For an animation of the tunnel, click here
https://youtu.be/u9CHHpB5xek

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MEDIA RELEASE

May 4, 2020

CONTACT:
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502.919.0325

New MSD pump station building designed to fit in with future expansion of Waterfront Park

Building illuminated in green in remembrance of COVID-19 victims

LOUISVILLE, KY – MSD's new Rowan Street Pump Station serves a practical purpose on the inside, but the exterior doubles as an architectural feature and a colorful light show to fit in the planned expansion of Louisville's acclaimed Waterfront Park. The pump station is the first completed piece of the ongoing Waterway Protection Tunnel, which will begin operation in 2021.

MSD recently installed an enhanced exterior on the pump station, located on the west side of its Waterway Protection Tunnel construction site near 12th and Rowan streets. When the multi-year construction project is complete, the Waterfront Development Corporation will use the site for the park's Phase IV expansion.

"Eventually, our job site will be a play site for the community," said MSD Executive Director Tony Parrott. "We wanted our structure there to be functional on the inside to take care of our wastewater pumping needs, but also attractive on the outside to be worthy of being part of a world-class public park like we have in Waterfront Park."

The building—which typically would be a concrete block structure clad with a brick façade—was designed to fit into the park aesthetic. The bottom portion features weathered steel panels that will take on a brownish-orange rust color. In contrast, the top part features perforated, corrugated aluminum panels that can backlight with multi-colored illumination in the evening.

To mark the completion of the pump station exterior, MSD is lighting the building in green in support of Gov. Andy Beshear's Team Kentucky efforts to address COVID-19 and remember those who have died of the virus.

"Heartfelt congratulations to MSD on completion of the exterior of the Rowan Street Pump Station, and many thanks for their commitment to ensuring this project was designed to accommodate the continued expansion of our award-winning Waterfront Park," said Waterfront Development Corporation President Deborah Bilitski. "Their thoughtful planning ensures that we can continue to expand Louisville's most visited urban park."

The Rowan Pump Station will be the only visible portion of the massive Waterway Protection Tunnel project when it is complete. The 4-mile underground tunnel will ultimately prevent 439-million gallons of rainwater and wastewater from overflowing and polluting the river and area streams in a typical rainfall year. The tunnel stores the mixture of sewage and rainwater until capacity is available in the sewer system.

Inside the pump station building is a 220-foot deep shaft that connects to the underground storage tunnel and houses 10 large pumps. Each pump can move five million gallons per day, providing a total pumping capacity of 50 million gallons – enough to empty the entire storage tunnel in just over a day. The mixture of sewage and rainwater then flows through the sewer system to MSD's Morris Forman Water Quality Treatment Center for treatment and release into the Ohio River.

Coverage note:

- Interviews available by calling Sheryl Lauder at 502.919.0325.
- B-roll of the building exterior installation is provided https://www.webcargo.net/l/p17RNsvHxk/

Want to learn more?

For more information on the tunnel, including how it is built and the current location of the tunnel boring machine nicknamed "Bumblebee", visit louisvillemsd.org/tunnel.

For an animation of the tunnel, click here
https://youtu.be/u9CHHpB5xek

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MEDIA RELEASE

April 3, 2020

CONTACT:
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502.919.0325

Treat your plumbing right and avoid a sewer backup

Louisville, KY — The COVID-19 pandemic has triggered a shortage of toilet paper as folks buy more than they need. Unfortunately, when people flush inappropriate items, it causes big problems for MSD's sewer system and wastewater treatment process – and it affects plumbing in homes and businesses, too. So-called "flushable" wipes are a problem for MSD every day, but the recent toilet paper shortage seems to be causing a jump in those backups. On a typical day, MSD would see about 8-9 backups. Now, we are seeing 14-15 residential sewer backups a day.

Marc Thomas, MSD Collections System Director, says, "Wipes do not break down, even if their labels read 'flushable.' They twist becoming stronger in a mass—blocking sewer lines and damaging pumps." Wipes cause about 60 percent of the clogs that MSD employees must repair daily.

Ways to avoid a sewer backup

MSD urges residents only to flush the "three Ps—pee, poo and toilet paper. You can help prevent a sewer backup into your home by tossing your wipes, dental floss, hair, paper towels, tissues, and anything that is not one of the "three Ps—pee, poo and toilet paper—into the trash, not the toilet. If you do experience a sewer backup, make MSD your first call at 502.540.6000. If the problem is in our system, we will fix it at no charge to you.

Background

Every day, Louisville MSD receives more than 150 million gallons of water and waste that are flushed down drains and toilets across the city. Our job is to treat that wastewater and return it to local waterways and the Ohio River – protecting our environment and the health and safety of all Louisville-area residents.

MSD maintains more than 3,300 miles of sewer lines. There are pumps used to push the wastewater along its route to one of our five water quality treatment centers. Wipes and other items such as dental floss and hair can clog pumps in the collection system pipes and at the treatment centers. These clogs can cause backups into homes and businesses and are time-consuming and costly to repair.

LouisvilleMSD

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The control building for the Shawnee Park CSO Basin is built into the hillside. There is a new pavilion and restrooms built on top.

An engineering success with a community benefit...

MSD Shawnee Park Basin is now in service, preventing up to 20 million gallons of wastewater pollution in the Ohio River with each rainfall

Under the Great Lawn in Shawnee Park, sits the MSD Shawnee Park Combined Sewer Overflow (CSO) Basin. The top of the basin is approximately 12 feet below grade, with three-foot-thick reinforced concrete walls. When it rains, the basin is hard at work protecting the Ohio River, the Park and the neighborhood from combined sewer overflows.

How it works

Rainwater enters the combined sewer system through stormwater pipes and catch basins. This added water can overwhelm the sewer system sending a combination of wastewater and rainwater into the Ohio River. The Shawnee Park CSO Basin is a watertight concrete structure that captures and stores 20 million gallons of wastewater and stormwater during rain events and gradually releases it back into the sewer system when treatment capacity is available. The mixture of rainwater and wastewater then flows to MSD's Morris Forman Water Quality Treatment Center for proper treatment and release into the Ohio River. When the basin is empty, water is flushed across the structure floor to clean any remaining debris.

In June 2017, excavation of the basin was underway.

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News and Events at Louisville MSD — July 2019

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Project amenities

The project was a collective effort between MSD, Louisville Metro Parks, the Olmsted Parks Conservancy, community leaders, and local residents to also feature new park amenities including an open-air pavilion, restrooms, restoration of Paul Hornung Field, refurbished basketball courts, a new paved parking area for the spray ground and a resurfaced Loop Road. Funds were provided to Louisville Metro Parks for additional renovations in the park.

"This project is a great leap forward in restoring Shawnee Park, while at the same time addressing the health and safety of our entire community by capturing combined sewer overflows. My thanks to Tony Parrott and his team at MSD for their work," says Louisville Metro Mayor Greg Fischer.

— Continued on page 2

In June 2018, the top of the basin was under construction.

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— Continued from page 1

Shawnee Park Basin

Job opportunities

The Shawnee Park CSO Basin project also included a pledge from the Design-Build contractor Ulliman Schutte to utilize local labor. The project had 225 Jefferson County residents working in positions such as carpenters, ironworkers, electricians, masons, pipefitters, heavy equipment operators, and more. Ulliman Schutte reported an 83 percent local labor usage, with 21 percent Minority Business Enterprise (MBE) and 14 percent Women Business Enterprise (WBE) participation.

"This project is an example of how our processes and policies came together for a win for MSD and the community. By hiring local labor on our construction projects, we invest in the health, safety, and quality of life for our contracting community and ratepayers."

— MSD Executive Director Tony Parrott

"I appreciate all MSD does to ensure that contractors utilize local labor whenever possible. These efforts do not go unnoticed by the community, states Joseph Scott, owner of Joash Construction. Scott is not only a neighbor of the project but was also the sub-contractor for the basketball courts and concrete work associated with the courtyard, pavilion and restrooms.

MSD Executive Director Tony Parrott addresses the crowd at the Shawnee Park Basin ribbon cutting.

The big picture

The $78 million Shawnee Park CSO Basin is part of a $1.15 billion mandate from the U.S. Environmental Protection Agency to clean up local waterways. The Shawnee Park Basin is the largest of 10 underground CSO basins. The basins and the 4-mile long Waterway Protection Tunnel will work together to greatly reduce combined sewer overflows by the end of 2020.

June 2019, the 20-million gallon Shawnee Park CSO Basin is in service below the Great Lawn.

Ohio River Sweep draws 325 volunteers "sweep" the river

Volunteers gathered on the banks of the Ohio River and Beargrass Creek on June 15 to "sweep" the shorelines. Local organizers of the 30th annual Ohio River Sweep—MSD, Louisville Water, and LG&E and KU—provided support to 325 folks who combed the banks for trash.

Ohio River Sweep is a volunteer, shoreline cleanup of the Ohio River, which is sponsored regionally by the Ohio River Valley Water Sanitation Commission (ORSANCO). The annual six-state initiative stretches the entire length of the Ohio River from Pittsburgh, Pennsylvania to Cairo, Illinois. In Jefferson County, the event is held annually on the Saturday before Father's Day. See you June 13, 2020!

Volunteers collect trash along a trail in Eva Bandman Park.

Louisville leaders convene to release first ever Water Equity Roadmap

By Sharise Horne

MSD hosted its Second Annual Workforce Convening on June 26 and 27 at the Brown Hotel. The meeting was co-sponsored by Louisville Water Company and Transit Authority of River City (TARC). The first day of the convening consisted of tours of Louisville Water's WaterWorks Museum, MSD's Waterway Protection Tunnel interactive display at Kentucky Science Center, and the community benefit "leave-behinds" in Shawnee Park with the newly constructed Shawnee Park Combined Sewer Overflow Basin. The tours provided an opportunity for our national and local partners to see Community Benefits at work!

On the 27th, MSD had a full day of rich conversation with national organizations, local utility partners, and community organizations on the way utilities can increase workforce opportunities and exposure for youth and vulnerable communities in the water sector, economic inclusion and community benefits from a national perspective, and industry best trends.

> **"Water has the power to put people to work."**
> — MSD Executive Director Tony Parrott

As part of the convening, MSD released its first ever Water Equity Roadmap. "An Equitable Water Future: Louisville" was collaboratively developed by leaders from MSD, Louisville Water, TARC, Louisville Urban League, Louisville Metro Government, Where Opportunity Knox, and Jacobs Engineering, with support from the US Water Alliance.

Louisville's vulnerable communities face a range of challenges related to water, from aging infrastructure, affordability, barriers to participating in the local infrastructure workforce, and contracting opportunities. Among the report's recommended actions are changes to procurement and hiring policies, as well as more intensive cross-agency collaboration on workforce and skills training and mentoring potential employees from the city's vulnerable communities.

According to MSD Executive Director Tony Parrott, "Water has the power to put people to work. At MSD, we've been making good progress toward understanding and tackling the barriers to workforce participation and contracting that confront minorities and low-income residents. This roadmap lays out specific steps we can take, at MSD and beyond, to deepen our impact. We'll keep driving to make sure all Louisville's residents have access to the economic benefits resulting from our community's investments in infrastructure."

Community Benefits Director Sharise Horne said, "I am proud of the great work our team put in to deep dive into the water equity barriers and come up with real recommendations that will not only provide a positive impact for the community, but for the workforce pipeline for years to come."

This report is part of the Water Equity Taskforce, a network of cities convened by the US Water Alliance that work together to develop more equitable water policies and practices. The Taskforce comprises cross-sector teams in the cities of Atlanta, Buffalo, Camden, Cleveland, Louisville, Milwaukee and Pittsburgh.

For more information visit:
http://uswateralliance.org/initiatives/water-equity/taskforce.

Customer **Compliments**

Your customer service was outstanding when I called on Saturday! I called and made a report as a community member. **Charlotte Whitfield-Baker** took me seriously, didn't laugh when I had difficulty describing what I was looking at, and someone responded within 20 minutes. **Trevor Williams,** who was the responding technician, was very professional and took time to explain the next steps for the sewer leak.

— Thank you!
Nicole A. George

I had a blocked roadway drain and called MSD for help. A very nice young man named **Brandon McKenna** arrived at the site. He assessed the situation and called for a vacuum truck to clear the drain. On behalf of the Owners, Residents and staff of 1400 Willow, please accept our sincere gratitude for all that MSD does for our community.

Jay Helms, GM
1400 Willow Inc.

700 West Liberty Street
Louisville, KY 40203-1911

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Chad Williamson
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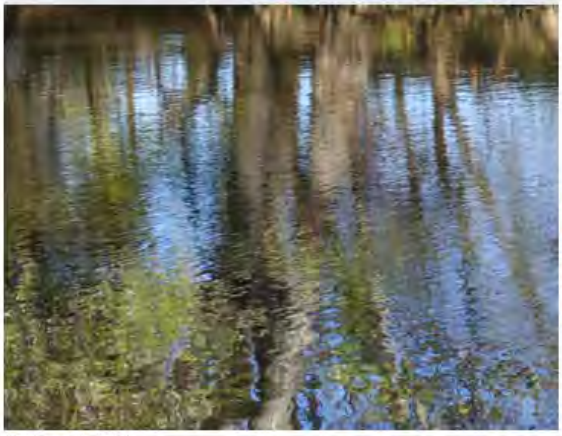
Upcoming **Events**

JULY 9
MSD Audit Committee Meeting
4 PM, Open Session, 700 West Liberty Street

JULY 29
MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

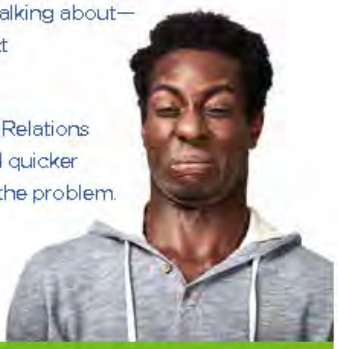


Reflections on Floyds Fork

You smell that, dontcha?

When there's a suspicious odor outside—you know what we're talking about—that's when to contact Louisville MSD!

A call to our Customer Relations means we can respond quicker and find the source of the problem.



Smell something?
Say something!

502.540.6000
CustomerRelations@LouisvilleMSD.org

Community to benefit from MSD infrastructure projects planned for the next 12 months

MSD's Morris Forman Water Quality Treatment Center is Kentucky's oldest and largest—by volume—wastewater treatment center in Kentucky. It went into service in 1958 and some of those 60 year old parts are in still in service. The facility is slated to recieve $5.7 million in improvements in the next 12 months.

MSD will make important safety upgrades to two vital water quality treatment centers and continue our progress in reducing pollution from sewer overflows with proceeds from a recent rate increase, which began on August 1. MSD's board outlined a preliminary rate proposal in May and voted to approve the increase at their meeting on July 29. With the increase, the average wastewater bill will rise by $3.47 per month and the average stormwater bill by $0.68 per month.

"This decision has been carefully considered and will help MSD continue to protect the environmental health and safety of our community," said MSD Board Chair Marita Willis. "MSD's engineers have extensively assessed the needs of the stormwater, wastewater and flood protection systems, and this increase will help us stay on schedule with the Consent Decree projects and move some other high-priority projects forward."

STREAMLINE

News and Events at Louisville MSD · August 2019

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MSD's Hite Creek Water Quality Treatment Center will expand to accomodate growth in northeastern Jefferson County. MSD will spend $8 million on this effort in the next 12 months.

Projects slated to move forward in the next 12 months

- **Water Quality Treatment**

  MSD will invest almost $14 million to upgrade key water quality treatment facilities. This amount includes an $8 million FY20 expenditure, with a total spend of nearly $24 million during the next three years to expand and improve MSD's Hite Creek Water Quality Treatment Center. The expansion project will ensure proper wastewater treatment capabilities are in place for Louisville's continued development in the northeastern corridor.

— Continued on page 2

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Infrastructure improvements

In addition, MSD will commit $5.7 million toward new equipment at the Morris Forman Water Quality Treatment Center, MSD's highest volume facility, treating up to 325 million gallons per day and providing more than 62 percent of the community's wastewater treatment.

- **Floodplain Management**
  MSD will invest $10 million in drainage improvements and flood mitigation projects across the community, as well as leverage funds for home buyouts in flood-prone areas.

Two Pumps at the Pond Creek Flood Pumping Station that were damaged during the February/March 2018 flood are to receive repairs in the next 12 months.

- **Ohio River Flood Protection**
  MSD will invest more than $6.8 million to shore up the system of pumping stations, floodwalls and levees that protect the community when the Ohio River exceeds its banks. Included in this is a nearly $2.2 million project to rebuild critical pumps and other equipment at the Pond Creek Flood Pumping Station that were damaged during the record rainfall of February 2018.

- **Reducing Sewer Overflows**
  More than one half of MSD's $205 million capital plan for FY2020 will make significant progress toward meeting the federal Consent Decree objective of reducing the vast majority of combined sewer overflows and sanitary sewer overflows that pollute area waterways by 2024.

"This budget will allow us to keep making progress to meet our decades-long commitment with the Consent Decree to reduce pollution in the Ohio River, our creeks and streams, and meet the federal government's environmental requirements."

— MSD Executive Director Tony Parrott

This work will total $115 million and include completion of storage basin projects in the Portland neighborhood and in Shawnee Park. Work also will continue on the Waterway Protection Tunnel, a 4-mile underground combined sewer overflow storage tunnel running from downtown to Lexington Road and Grinstead Drive.

MSD rate adjustment

On July 29, the MSD Board approved a rate increase of 6.9 percent for MSD customers for wastewater, drainage and Environmental Protection Agency (EPA) surcharge fees on all bills to take effect **August 1, 2019.** The **average monthly** residential wastewater bill (based on 5,000 gallons per month) issued on or after August 1, 2019, will reflect an **increase of $3.47 — from $50.12 to $53.59.**

Monthly stormwater drainage fees will **increase by 68 cents—from $9.90 to $10.58.**

For an explanation of the charges on your bill, visit: LouisvilleMSD.org/customer-relations/pay-my-bill

Wastewater—based on 5,000 gallons of monthly usage

Wastewater rate is $4.60 per 1,000 gallons times average monthly usage of 5,000 gallons	=	$ 23.00
Monthly service charge	=	$ 16.83
Monthly EPA Consent Decree Surcharge	=	$ 13.76
Total Wastewater as of August 1, 2019		**$53.59**
Stormwater Drainage		
Stormwater monthly service charge		$ 10.58
Total Wastewater and Stormwater Drainage as of August 1, 2019		**$64.17**

MSD offers rate assistance programs

Senior Citizen Discount

Senior citizens who are age 65 or older, have a gross annual household income of $35,000 or less and are both Louisville Water Company and MSD customers may request an application for a 30 percent discount on wastewater charges and the EPA surcharge through MSD's website, **LouisvilleMSD.org,** or by calling Customer Relations at **502.540.6000.**

Customer Assistance Program

MSD and Louisville Water's Customer Assistance Program works with community agencies to help customers who have trouble paying their water and sewer bill. The Assistance Program is funded by generous donations from Louisville Water Foundation, Louisville Water Company, MSD and Home Serve USA.

Two organizations administer the program in Jefferson and Oldham counties. Customers must pay off their full balance and can generally receive up to $100 in voucher credit toward their bill. The organizations who administer the program often find matching funds from other sources when delinquent balances are over the $100 threshold.

If you need assistance, please contact one of the following organizations based on where you live:

- **Association of Community Ministries—Jefferson County**

  Central Louisville Community Ministries
  809 S 4th St, Louisville, KY 40203
  502.587.1999

  Fairdale Area Community Ministry
  10616 W Manslick Rd, Fairdale, KY 40118
  502.367.9519

  Highlands Community Ministries
  1228 E Breckinridge St, Louisville, KY 40204
  502.451.3695

  South Louisville Community Ministries
  415 1/2 W Ashland Ave, Louisville, KY 40214
  502.367.6445

  Southwest Community Ministries
  8504 Terry Rd, Louisville, KY 40258
  502.935.0310

  West Louisville Community Ministries
  3146 W Broadway, Louisville, KY 40211
  502.409.7371

- **American Red Cross—Oldham County**
  1215 KY-393, La Grange, KY 40031
  502.222.0308

MSD Board elects new chair

MSD's board voted to appoint community advocate Marita Willis to serve as board chair. Willis joined the board in 2017 and succeeds Cynthia Caudill, who chaired the board for nearly five of her seven years of board service and will remain as a board member.

"MSD's work is vital to Louisville's environmental health and safety and has an impact on every resident of this community," Willis said. "I look forward to serving this board and the community in helping MSD achieve its goal of safe and clean waterways that help Louisville thrive."

The MSD board also re-appointed Daniel Arbough as vice-chair and named a new board member, Ricky Mason. Arbough provides extensive financial expertise, having served as treasurer of LG&E/KU Energy for more than 25 years. He joined the MSD board in 2012 and has served as board vice-chair since 2015. Mason is an engineer and entrepreneur who founded Kentucky AgriTECH, which develops apps and other technology to improve agriculture and horticulture. He also established BrainSTEM University, which offers professional development courses in engineering, robotics and computer programming.

Customer **Compliments**

I want to thank **Connie Rhodes** for the service she provided when I called MSD. I also want to thank the crew of **Phillip Bradley, Nate Capps** and **Teron Mayers** for the terrific job they did at my property. Phillip is a born leader. If I have any need for a crew again, I would request these three!

— Retha Pirtle

Val Winburn's crew of **William Baskette, Garland Lindsay, Dylan Mcwilliams** and **Pierre Woodard** did a fantastic job cleaning the ditch near my home. I am so appreciative of the work they performed.

— Carol Moore

Thank you to **Kenneth Hudgins** and **Robert Morris** who took quick action when there was a power failure at a pump station near my home. They made sure the pump kept running throughout the night.

— Ms. Karem

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Upcoming **Events**

AUGUST 12
MSD Finance Committee Meeting
3 PM, Open Session, 700 West Liberty Street

AUGUST 26
MSD Floodplain Board Meeting
10 AM, Floodplain Board Meeting

MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

Fishing on Floyds Fork

U.S. Army Corps of Engineers and MSD partner for Beargrass Creek Ecosystem Study

Louisville MSD and the U.S. Army Corps of Engineers are taking a big step in improving the Beargrass Creek watershed. On August 15, we joined together to announce the Three Forks Beargrass Creek Ecosystem Restoration Feasibility Study. It is one of only six new General Investigation Feasibility Study projects selected by the U.S. Army Corps of Engineers for funding. The local project is the only ecosystem restoration and the sole inland project chosen nationwide.

> "This agreement is a model of how the environment, our economy, and the public can benefit when agencies come together with a common goal of health, safety and quality of life for our community."
>
> — MSD Executive Director Tony Parrott

This study will produce a plan that will outline what is necessary to restore the ecological form and function of the Beargrass Creek Watershed, which includes the South, Middle, and Muddy forks. The project will investigate options to restore ecosystem structure, function and processes that have been lost over time in the watershed. The current lack of riparian buffers and wetlands adjacent to Beargrass Creek have resulted in higher water temperatures, which lower dissolved oxygen levels and stress aquatic ecosystems. Portions of the creek—which are confined in concrete channels—are especially vulnerable habitats, becoming too warm for most aquatic life in the summer.

Beargrass Creek — Photo courtesy of Jake Hotes

STREAMLINE

News and Events at Louisville MSD · September 2019

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U.S. Army Corps of Engineers Col. Antoinette Gant looks on as MSD Executive Director Tony Parrott addresses the crowd gather in front of MSD's Beargrass Creek Flood Pumping Station for the Beargrass Creek Ecosystem Study announcement.

About one-third of all water that falls in the Beargrass Creek watershed lands on impervious surfaces, such as roofs and pavement—collecting toxins, pollutants, and sediments as it makes its way to the creek. Reconnecting the watershed with urban forests, wetlands, stream buffers and recreational trails will improve habitat and ecological function, as well as elevate the creek as a community amenity and resilient water resource for generations to come.

The maximum commitment from both organizations is $1.5 million each for a total value of $3 million. MSD's portion will be a mix of actual dollars and in-kind services.

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WATERWAY PROTECTION TUNNEL

Eighteen stories underground, Louisville's largest infrastructure project is buzzing along

MSD's massive tunnel boring machine is carving through rock to build the Waterway Protection Tunnel. Nicknamed "Bumblebee"— in honor of Muhammad Ali—the 412-foot long machine will bore a four-mile-long tunnel to store combined stormwater and wastewater to prevent it from overflowing sewers and polluting our river and streams.

Bumblebee is currently under the Ohio River near Fifth Street. The machine will continue east under the river to the east of the Clark Memorial (Second Street) Bridge, and then turn southeast under downtown Louisville to Butchertown, eventually ending near Lexington Road and Grinstead Drive.

Rock flows from the conveyor system from deep underground at the tunnel site. The rock is used as fill in other sections of the tunnel project, with the remainder delivered as fill to a rock quarry.

How does Bumblebee work?

As the boring machine excavates the tunnel route, a conveyor system takes the rock to the shaft near 12th and Rowan streets and lifts the rock 18 stories to the surface. The excavated rock is loaded into dump trucks and transported to a local quarry.

After the excavation is complete, the entire length of the tunnel is lined in concrete, making it watertight. The Waterway Protection Tunnel will store up to 55 million gallons of combined wastewater and stormwater during periods of heavy rain until

The tunnel's working shaft allows access and ventilation for workers 18 stories underground.

capacity is available in the MSD sewer system. The contents will then be pumped back into the system, conveyed to MSD's Morris Forman Water Quality Treatment Center for proper treatment and later released into the Ohio River.

To track the tunnel, visit LouisvilleMSD.org/Tunnel

Below: The path for the tunnel is shown in red. The boring machine—nicknamed Bumble Bee—is moving from west to east.

Exceptional wastewater treatment allows local brewers to utilize MSD recycled water in a special craft brew

Four local brewers experimented with a new water source for a unique craft brew: recycled water from Louisville MSD's Floyds Fork Water Quality Treatment Center.

The Next Round Brewing project debuted its products at Water for Life—a water festival on the Big Four Lawn—on August 18, and at the 2019 Kentucky/Tennessee Water Professionals Conference held in Louisville. The participating brewers brought tasting samples of their brews to both events. MSD and other water professionals explained how recycled water works and the high-tech treatment process that made the Next Round Brewing project possible.

What is recycled water?

Recycled water is the end-product for MSD. Every day, we collect the community's used water and treat it at one of our five Water Quality Treatment Centers before releasing it into local waterways. The recycled water that we discharge into our waterways is cleaner than the water already in the receiving water body, meeting regulatory guidelines. For the Next Round project, MSD's recycled water received additional treatment—with a system designed and built for the project by Isopure with participation from University of Louisville J. B. Speed School of Engineering students. The extra filtration brings it up to drinking water standards, with independent third-party laboratories verifying the quality. Four local brewers: Akasha Brewing Company, Apocalypse Brew, Gordon Biersch and Holsopple used the recycled water as their source for their Next Round craft brew.

No new water

So why experiment with recycled water? MSD and other water professionals from Kentucky and Tennessee want to demonstrate the quality that goes into treating all the water we use. Why? There is no "new water." We at MSD must focus on science to provide exceptional wastewater treatment so that our local waterways are safe and clean. Ultimately, the Next Round Brewing project sparks a conversation about water and creates a new appreciation for something most of us take for granted.

MSD's Floyds Fork Water Quality Treatment Center provided the recycled water for the Next Round Brewing project. The treatment center is located in The Parklands of Floyds Fork.

Customer **Compliments**

Thank you to the MSD crew who removed the furniture from Goose Creek at Old Westport Road. I appreciate your prompt response. It is hard to believe that people would do such a thing, but I guess MSD sees it all the time. I appreciate the work of **Jimmy Krebs, Tony Linton, Miko Santana, Rick Tobin** and **Morris Tolbert.**

—Brainard Palmer-Ball, Jr.

Kudos to MSD staff! **Shawn Abma, Eric McKinney** who responded within 30 minutes to a call to **MSD Customer Relations.** We had a clean-up event in Cliff Park and uncovered a catch basin and several sink holes. MSD staff took our concerns seriously and the customer relations agent thanked us for calling.

—Nicole George
Louisville Metro Councilwoman, District 21

I called MSD to report a complete blockage in a drainage ditch caused by someone dumping large branches. The next day your crews were out here working in the rain to clean it up. They did a great job. My thanks to Supervisor **Rickie Bledsoe,** Inspector **Chris Huelsman** and the crew of **Nathan Capps, Phillip Bradley** and **Teron Mayers.**

—Linda Clements

700 West Liberty Street
Louisville, KY 40203-1911

LouisvilleMSD

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Chad Williamson
Communications Specialist

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Upcoming **Events**

SEPTEMBER 17
MSD Infrastructure Committee Meeting
3:30 PM, Open Session, 700 West Liberty Street

SEPTEMBER 30 – NEW DATE
MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

MSD crews work to remove illegally dumped furniture from Goose Creek.

MSD removes furniture from Goose Creek

There are plenty of legal ways to dispose of furniture. Dumping it into a stream isn't one of them. But that was what MSD crews faced on August 20, after a report from Louisville Metro Public Works of furniture found in Goose Creek at Westport Road. The site was challenging to reach. MSD crews used a "clamshell" truck—commonly utilized in cleaning stormwater basins on the side of roadways—to remove the three-piece sectional, mattress and box spring. Public Works has a Waste Reduction Center at 636 Meriwether Avenue where up to three large household items can be dropped off for free.

MSD crews lift a sofa from Goose Creek for proper disposal.

STREAMLINE

News and Events at Louisville MSD · October 2019

OUR VISION

Achieving Safe, Clean Waterways
for a Healthy and Vibrant Community

MSD's Portland CSO Basin—situated underground in Lannan Memorial Park—is at work protecting the area and the Ohio River from sewer overflows. *Photo provided by LTM Drone*

Construction was well underway in October 2018 on MSD's Portland CSO Basin. The basin is located between Interstate 64 and the Ohio River. *Photo provided by LTM Drone*

MSD Portland CSO Basin is now in service

Underground storage is part of MSD's endeavor to prevent wastewater from overflowing into Louisville's waterways. The Portland Combined Sewer Overflow (CSO) Basin is the last basin contained in MSD's Consent Decree. Fourteen sewer overflow reduction facilities are now in service, providing a total storage capacity of 266 million gallons. These facilities protect our local waterways and public health and safety. MSD's Waterway Protection Tunnel, which is under construction, will add another 55 million gallons of storage capacity.

The MSD Portland CSO Basin sits under a restored grassy lawn in Lannan Memorial Park. When it rains, the basin is hard at work protecting the Ohio River and the neighborhood from combined sewer overflows.

Rainwater enters the combined sewer system through stormwater pipes and catch basins. This added water can overwhelm the sewer system, sending a combination of wastewater and rainwater into the Ohio River.

The Portland CSO Basin will capture and store 6.7 million gallons of wastewater and stormwater during rain events. The contents will gradually release back into the sewer system when treatment capacity is available. The mixture of rainwater and wastewater then flows through the sewer system to MSD's Morris Forman Water Quality Treatment Center for proper treatment and release into the Ohio River. When the basin is empty, water is flushed through the structure to clean any remaining debris.

—Continued on page 2

OUR MISSION

Provide quality wastewater, stormwater and flood protection services to protect public health and safety through sustainable solutions, fiscal stewardship and strategic partnerships

CUSTOMER RELATIONS

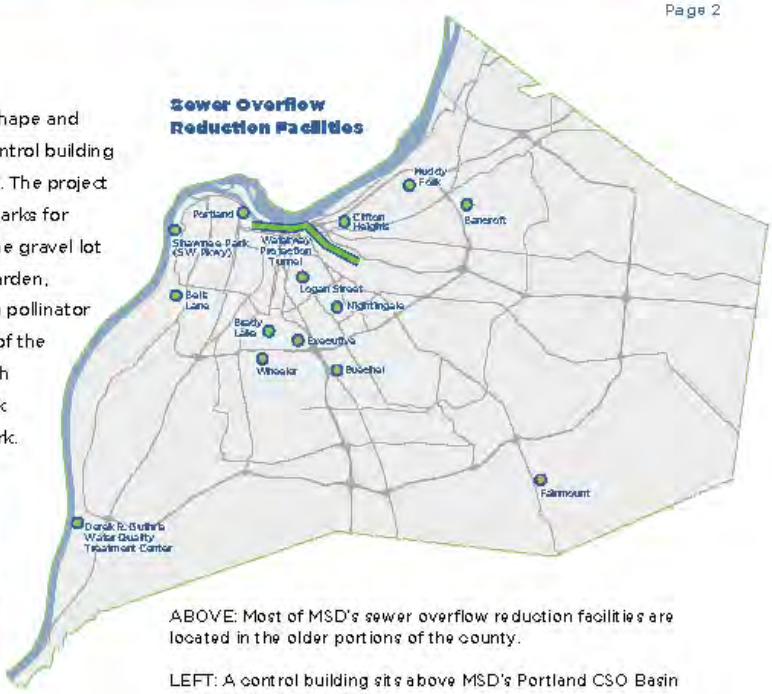
502.540.6000 · CustomerRelations@LouisvilleMSD.org

LouisvilleMSD

—Continued from page 1

Portland Basin

The Portland CSO Basin has a unique circular shape and is underground and invisible to the public. A control building and parking for MSD vehicles sit above the basin. The project replaced a gravel lot used by Louisville Metro Parks for storage. Surrounding and over the basin site, the gravel lot has been replaced by a grassy lawn and rain garden, which contains native plant species providing a pollinator habitat. Other amenities in the park as a result of the basin project are a newly paved roadway, which has curves added to slow traffic, and a sidewalk connecting Northwestern Parkway with the park.



ABOVE: Most of MSD's sewer overflow reduction facilities are located in the older portions of the county.

LEFT: A control building sits above MSD's Portland CSO Basin in Lannan Memorial Park.

Keep track of Louisville's largest infrastructure project

MSD's massive tunnel boring machine is carving through rock to build the Waterway Protection Tunnel. Nicknamed "Bumblebee"— in honor of Muhammad Ali—the 412-foot-long machine will bore a four-mile tunnel to store combined stormwater and wastewater to prevent it from overflowing sewers and polluting our river and streams.

To track the tunnel, visit LouisvilleMSD.org/Tunnel

Bumblebee is currently 18 stories under the area of North Brook and Witherspoon streets. The machine will continue east to Butchertown, eventually ending near Lexington Road and Grinstead Drive.

A control building rises above MSD's Waterway Protection Tunnel entrance just west of downtown Louisville. The area surrounding the control building will become part of Waterfront Park Phase IV when the project is complete. *Photo provided by LTM Drone*

Building future water professionals

MSD represents at KY Construction Career Day

Pulaski County Area Technology Center student Andrew Stringer was content with his time during the MSD pipe-cutting contest. During the 15th annual Kentucky Construction Career Day at the Shelby County Fairgrounds, Stringer had sawed through the piece of pipe in about 10 seconds. The worst time among the group? That was Trey Hall. "It was about 25 seconds," Hall said, more than a little sheepish-sounding. His friends disagreed. "Nah, it was way longer than that," someone said, stirring everyone to laughter. After Hall's less-than-successful attempt at sawing, everyone gathered around to discuss the proper method to cut through the pipe before moving on to the next exhibit.

Career Day was sponsored by the Kentucky Construction Career Choice Council on Sept. 24-25. The event brought 2,700 vocational and technical students from across the commonwealth to the Shelby County Fairgrounds to learn more about making construction a career choice.

In addition to testing their efficiency in cutting pipe, students could also be lowered through a confined space entry display—replicating what MSD employees experience entering manholes. They could see how MSD monitors rainfall. And find out more about job opportunities with the agency.

Operations Efficiency and Capital Program Administrator **Troy Smith** organized MSD's participation in the event. He said he was encouraged by what he saw from students. "All I heard from the students were positive comments," Smith said. "There were two students who directly said to our employees, 'We want to come work for you.' That's the kind of thing we need to hear for building future water professionals."

Utility Leader **Tony Linton** was one of the MSD employees assisting students through the confined space unit. He said it was an effective way to show students a little of what workers do. "It's something that makes it fun," he said. "They're curious about exactly what we do as a utility, and they want to know more."

MSD employees who participated were: **Thomas Armistead, Rick Bledsoe, Glenn Busby, Glenn Eilers, Miriam Fisher, William Ford, Keith Gallai, Saundra Gibson, Leslie Graham, Zach Kilgore, Jimmy Krebs, Tony Linton, Nelson Little, Larry Marsh, Brandon McKenna, Tim Payton, Josh Pearson, Steve Robbins, Troy Smith, Kevin Snodgrass, John Stratman, Eric Toller, Christina Tomasulo, James Vaughan, Jakoby Warner** and **Keith Washington.**

Students attended from throughout the state, including Bullitt, Jefferson, Meade and Shelby counties.

MSD's confined space entry mobile unit provides students with experience in a pipe.

A student competes to cut through a pipe in a timed contest at Kentucky Construction Career Days.

Customer **Compliments**

I want to thank **Marya Summers** for taking my call concerning an odor issue. Ms. Summers is very personable and her customer service skills are awesome.

— Mary Gilbert

Sherry Peters provided great customer service when anything that could go wrong...did with the repair at my home. She was willing to work hard to solve the issues.

— Christi Johns

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Upcoming **Events**

OCTOBER 15
MSD Audit Committee Meeting
4 PM, 700 West Liberty Street

OCTOBER 28
MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

Floyds Fork

MSD wins NACWA Peak Performance Awards

Peak Performance Awards recognize the NACWA (National Association of Clean Water Agency) facilities for excellence in permit compliance.

Platinum Award

MSD's Cedar Creek Water Quality Treatment Center was recognized with a Platinum Award for 11 consecutive years with no regulatory violations. Platinum Awards go to facilities with a consistent record of full compliance for at least five straight years.

Gold Award

MSD's Hite Creek Water Quality Treatment Center staff brought home a Gold Award for no violations in the last 12 months.

Silver Award

MSD's Derek R. Guthrie and Floyds Fork Water Quality Treatment Centers took home silver awards—recognizing no more than five violations in the past 12 months.

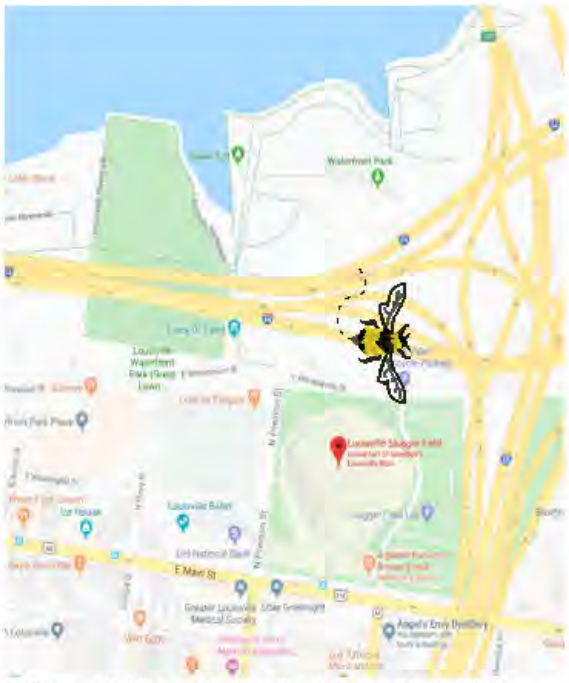
Congratulations to MSD Water Quality Treatment staff!

STREAMLINE

News and Events at Louisville MSD · November 2019

OUR VISION

Achieving Safe, Clean Waterways
for a Healthy and Vibrant Community



MSD's tunnel boring machine is carving through rock to build the Waterway Protection Tunnel. Nicknamed "Bumblebee"— in honor of Muhammad Ali—the 412-foot-long machine is currently 200 feet under East Witherspoon Street next to Louisville Slugger Field.

Bumblebee takes a turn at bat

In baseball, the player second in line waiting for a turn at bat is said to be "in the hole" sitting in the dugout with the team while one teammate is at bat and the player first in line is on deck outside the dugout.

This week Bumblebee, the machine drilling our waterway protection tunnel, is near Louisville Slugger Field in the hole being dug out 200 feet below Witherspoon Street behind the baseball stadium. But Bumblebee won't surface at home plate.

The drill is about 37 percent through its 4-mile journey from the Portland neighborhood to its destination at Lexington Road and Grinstead Drive. In baseball terms, Bumblebee has rounded first base and is on its way to second.
The path that started at Twelfth and Rowan streets has so far seen the drill make its way eastward more than a mile, including a significant stretch below the Ohio River. The rest of the journey will go through the Butchertown and the Irish Hill areas before completion near Cherokee Park.

Rock travels through the tunnel and up the working shaft on a conveyor system as the tunnel boring machine cuts through solid rock 200 feet below the surface.

Interested in learning more? Visit our exhibit at the Kentucky Science Center ...or visit LouisvilleMSD.org/Tunnel

Safe, clean waterways

OUR VISION

The innovative regional utility for safe, clean waterways

CUSTOMER RELATIONS

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LouisvilleMSD

Honoring our veterans

We honor the brave men and women who have made a great sacrifice to protect our families, our country and our freedom.
MSD is proud of its 93 employees—14 percent of our workforce—who have served, or are currently serving, our country.
All are true American heroes.

MSD Community Benefits Program promotes strategic partnerships for positive social impacts

MSD strives to be a good neighbor and we invite the companies that we contract with to use their resources to provide a positive impact to the communities we serve.

> **"When our partners come together with local non-profits and schools, the program will not only be a success, but it will truly make a difference in our community."**
>
> — MSD Executive Director Tony Parrott

Our Community Benefits Program leverages economic, environmental and social impacts through our large-scale construction, professional services, and engineering projects by ensuring ratepayers benefit from MSD's capital investment. The program encourages firms to invest in the community through a variety of ways, including workforce development, education and economic development.

These programs support job and contracting opportunities for local residents, as well as our firms; expand pre-apprentice and apprenticeship programs; support eco-literacy programs for youth; provide small business development growth, and so much more.

We invite our contractors to accomplish this goal by providing a Community Benefits Commitment of a financial contribution, volunteer hours, or in-kind services to local non-profits and schools in Jefferson County.

RA Consultants are leading the way with this new initiative, as they give to sponsor YouthBuild Louisville's Building Lives Breakfast.

This Thanksgiving and everyday... avoid a clogged pipe

Whether you are panfrying the morning bacon or deep frying the holiday bird, you always have leftover fat, oil or grease. The slippery mess should never be poured into a sink, toilet or storm drain where it can lead to plumbing or sewer problems and foul local waterways.

If you fry it up in a fryer

Louisville Metro's full-service recycling centers accept household cooking oil left over from deep frying. It's free and easy for residents of Jefferson County. You should first let the oil cool, strain out food particles and pour the oil into a container that has a lid. Then take it to the nearest full-service recycling center and hand it to a staff member. Louisville Metro has partnered with a private firm to collect the oil, which they recycle into biodiesel fuel.

If you fry it up in a pan

Fat and grease left over from routine pan frying can be disposed of with other residential garbage if handled properly. Just pour the grease into a container that has a lid, let it cool, and place it in the trash. That keeps it out of local waterways and sewers.

Using your sink's garbage disposal or a grease-cutting detergent does not keep the gunk out of the plumbing and sewer system. Both merely break the solid material into smaller pieces that still flow down the drain and then build up on pipes. That eventually leads to troublesome backups and costly repairs.

To find a full-service recycling center near you, go to:
Louisvilleky.gov/recycling

For more information about disposing of fats, oil, and grease, go to:
LouisvilleMSD.org/HowYouCanHelp

Customer **Compliments**

Patrick Beasley and **Darius Calloway** did a heck of a good job restoring my yard after their work was complete. I appreciate their work and professionalism.

— Tony Garcia

I would like to thank **Chris Huelsman** for cutting and cleaning the drainage ditch near my home. I also appreciate **Helen Givens** who took my call.

— Praful Shestheth

Glen Cooper and his crew of **Kaleb Green, James Rutledge** and **William Sanders** did an excellent job removing the blockage from the drainage pipe near my home. They worked very hard and I appreciate their work.

— Ms. Veatch

MSD is available 24/7 at 502.540.6000

Report a sanitary sewer backup **before** contacting a plumber. It may save you some money.

Interested in working for one of our construction contractors?
Visit MSDJobLink.org.

msd Safe, clean waterways | JobLink Linking contractors and the community

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Louisville, KY 40203-1911

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Upcoming **Events**

NOVEMBER 18
MSD Special Personnel Committee Meeting
10:30 PM, 700 West Liberty Street

NOVEMBER 18
MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

DECEMBER 16
MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

Leaves get lost in the shallow areas of Floyds Fork.

69,777 catch basins...

...billions of leaves!

Help prevent surface flooding in your neighborhood by **raking leaves and debris away from catch basins — or storm drains —** and properly dispose of the debris.

If a catch basin or storm drain is clogged or damaged, please do not attempt to fix it yourself.
Do not stand on or put your hand into the grate.
Contact **MSD Customer Relations at 502.540.6000** or **CustomerRelations@LouisvilleMSD.org.**
— we will send someone to help.

STREAMLINE

News and Events at Louisville MSD · First Quarter 2020

Local waterways such as Floyds Fork and their tributaries meander through several counties as they make their way to the Ohio River.

Regionalization enhances wastewater treatment and benefits our communities

The Kentucky State Legislature passed a bill allowing utilities to own assets outside of their originally chartered borders in April 2018. The law enables MSD to take a holistic approach for wastewater treatment and watershed management, benefiting public health and safety across political boundaries.

Our regional waterways meander over county lines as they make their way to the Ohio River. "Opportunities open up to look holistically across entire watersheds to bring economies of scale and make improvements that benefit the entire region when you remove arbitrary boundaries," states MSD Executive Director Tony Parrott.

City of Crestwood

In May 2019, the City of Crestwood leadership and MSD negotiated the purchase agreement for MSD to own the sewer treatment system in that city—resulting in a $10 reduction in rates for Crestwood customers. MSD has operated and maintained the Crestwood sewer system for more than 20 years. The agreement simply moved ownership of the system to MSD.

"Selling the wastewater system to MSD allows Crestwood to remove liability, lower the costs to ratepayers, and provide enhanced environmental benefits to the region—resulting in safe, clean waterways for the future," said Crestwood Mayor Jim Kramer.

Oldham County

Louisville MSD will welcome Oldham County Environmental Authority (OCEA) ratepayers to our customer family in Summer 2020. For OCEA customers, the purchase means lower wastewater rates in the future. MSD will manage system improvements while creating greater operational efficiencies that benefit all of its customers.

Louisville MSD and Oldham County Fiscal Court approved an interlocal agreement allowing MSD to enter into a purchase agreement for the Oldham County Environmental Authority (OCEA) wastewater system in November 2019. The Authority's Board of Directors, the office of the Kentucky Attorney General, and the Kentucky Department of Local Government also approved the purchase.

Under the agreement, MSD will assume OCEA's duties and responsibilities for approximately 6,000 residential customers. MSD will honor the contract already in place with Veolia Water to operate and maintain the sewer system and wastewater treatment plants until the contract concludes.

Because of efficiencies and watershed-based approaches, OCEA customer rates will freeze at the current monthly average of $86.93 per month for the remainder of the operations contract. In 2022, MSD will adjust the average monthly rate down to $76.93 per month.

These acquisitions do not impact existing services or rates for Jefferson County MSD customers.

These acquisitions do not impact existing services or rates for Jefferson County MSD customers.

msd
Safe, clean waterways

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LouisvilleMSD

Bumblebee is more than halfway home

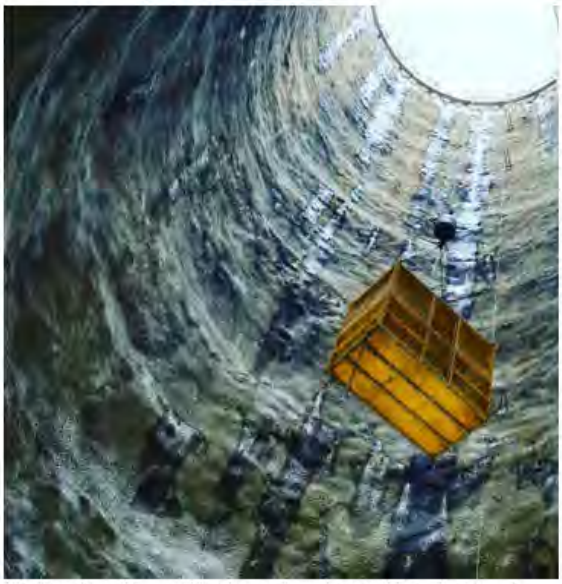
MSD's tunnel boring continues to move 200-feet below Louisville

Bumblebee—MSD's Waterway Protection Tunnel boring machine—has passed the halfway mark in carving the 4-mile tunnel through bedrock eighteen stories under Louisville. Nicknamed "Bumblebee" in honor of Muhammad Ali, the 412-foot long machine is currently under the area of East Washington and Buchanan streets heading southeast to Lexington Road and Grinstead Drive.

How does Bumblebee work?

As the boring machine excavates the tunnel route, crews install locomotive tracks behind the machine to transport workers and supplies. A conveyor system transports the excavated rock through the tunnel to the working shaft. There it rides a vertical conveyor to the surface. The rock is then loaded into dump trucks and transported to a local quarry.

After the excavation is complete, the entire length of the tunnel is lined in concrete, making it watertight. The Waterway Protection Tunnel will store up to 55 million gallons of combined wastewater and stormwater during periods of heavy rain until capacity is available in the MSD sewer system. The contents are then pumped back into the system, conveyed to MSD's Morris Forman Water Quality Treatment Center for proper treatment, and later released into the Ohio River.



Workers board a metal basket and are lowered into the tunnel by a crane operator.

The path for the tunnel is shown in red. The boring machine—nicknamed Bumblebee—is moving from west to east.

A small train inside the tunnel delivers crews to their worksite.

Interested in learning more? Visit our exhibit at the Kentucky Science Center ...or visit LouisvilleMSD.org/Tunnel

Providing Strategic Partnerships for Positive Social Impacts

Employees of MSD contractor Stantec give their time planting trees in the Schnitzelburg and Meriwether neighborhoods in February.

MSD Community Benefits Program encourages firms working for MSD to invest in the community through a variety of ways, including workforce development, education and economic development. These programs can support job and contracting opportunities for residents, as well as our firms; expand pre-apprentice and apprenticeship programs; support eco-literacy programs for youth; provide small business development growth, and so much more. Community Benefits Commitments may be a financial contribution, volunteer hours, or in-kind services to local non-profits and schools.

> "MSD's goal is to leverage our ongoing work in the community, ensuring that communities within our service area benefit from our investments in a variety of ways."
>
> — MSD Community Benefits Director Sharise Horne

Make plans now!

Ohio River Sweep

Saturday, June 20 · 9 AM to Noon

Ohio River Sweep is one of the nation's largest and longest-running environmental cleanup events. MSD employees will equip volunteers with gloves and bags.

LouisvilleMSD.org/OhioRiverSweep

Customer **Compliments**

Please pass along my appreciation to **Johnny Caudill** and **Ricky Tobin** for their timeliness and work ethic as they responded to my service request for cleaning a catch basin near my home.

—Raymond Hall

Thank you to MSD for supporting our February 14 clean-up of tree debris in Shawnee Park. The crews willingness to help and positive attitudes had a huge impact on the event and made it a success.

Thanks again to MSD Business and Community Partnership Administrator **Saundra Gibson** who coordinated the effort with Supervisor **Val Winburn** and his crew of **William Baskette** and **Keith Brooks.**

—Sincerely, Councilwoman Purvis

Daniel Ashley, Patrick Beasley and **Roderick Harris** were very professional as they repaired the service connection near my property. I appreciate how they kept me informed with the entire process. I thank you for a job well done.

—Michael Reilly

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Upcoming **Events**

MARCH 19
17th Annual Joint Utility Conference
1-3 PM, The Olmsted, 3701 Frankfort Avenue

MARCH 23
MSD Board Personnel Committee Meeting
10 AM, 700 West Liberty Street

MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

APRIL 20
MSD Board Audit Committee Meeting
4 PM, 700 West Liberty Street

APRIL 22
MSD Board Joint Infrastructure and Finance Committees Meeting
3 PM, 700 West Liberty Street

APRIL 27
MSD Board Meeting
1 PM, Open Session, 700 West Liberty Street

Beargrass Creek — Photo courtesy of John Nolan

Plan your rain garden now

Rain gardens help infiltrate rainwater before it reaches the drainage system, and reduce the amount of stormwater and pollutants running into storm drains, combined sewers or streams.

For your **FREE Rain Garden Guide,** look online at **LouisvilleMSD.org/Green** or contact MSD Customer Relations at **502.540.6000** or **CustomerRelations@LouisvilleMSD.org.**

MSD uses several of the platforms below to educate the public on key water quality topics on an around the clock basis.

Marked catch basin hardware:

Green infrastructure education signs:

Parklands at Floyds Fork Display:

Louisville Nature Center Display:

Brochures at Main Office:

Louisville Science Center Display:

Park Duvalle Living Green Wall Event (7/27/2010)

Water 4 Life (8/18/2019):

Booth Number	Organization/Company	Booth Number	Organization/Company
1	Kentucky American Water	18	Strand Associates, Inc.
2	KY/TN AWWA Section Diversity and Inclusion Committee	19	University of Connecticut Research
3	KY/TN WEA	20	University of Connecticut Research
4	AWWA	21	University of Connecticut Research
5	KWWOA	22	University of Connecticut Research
6	Jacobs	23	Barge Design Solutions
7	Next Round Brewing (Hoisopple Brewing)	24	LDA Engineering
8	Next Round Brewing (Apocalypse Brew Works)	25	Water Professionals Student Chapter (University of Kentucky)
9	Next Round Brewing (Akasha Brewing)	26	People's Choice Water Tasting Competition
10	Next Round Brewing (Gordon Biersch)	27	CDM Smith
11	Tennessee Tech Water Professionals	28	KY EXCEL
12	Kentucky science Center	29	Black and Veatch
13	Water Professionals / Engineers Without Borders - University	30	(Vacant)
14	WKU Water Professionals	31	Louisville MSD
15	WaterStep	32	Louisville Water
16	GRW Engineers, Inc.	33	Louisville Water
17	Water For People KY/TN Committee		

Belleload of Knowledge (9/22/2019):

Welcome Aboard!

A Belleload of Knowledge

Inspired by the beauty and intensity of vision Harlan Hubbard captured in his watercolors, as well as his wholistic approach to life and his fascination with the Ohio River, we excitedly talked with others, first around the museum and arts community, and later our conversations expanded to many other individuals interested and concerned about the Ohio River.

From the enthusiastic response to these conversations **AFLOAT** sprang. Inspired by Harlan Hubbard it became a platform to explore the beauty of the river, an opportunity to discuss its issues and a forum to perhaps expand its potential to inform and influence our daily lives.

This cruise is to celebrate the activities, exhibitions, lectures presented by many varied organizations and individuals this past year under the AFLOAT banner. Our intent is to encourage conversations that will hopefully become a form of community brainstorming coming from the mix of people from Cincinnati to West Point and beyond that have joined us on this cruise. The list of the knowledge workers participating is extensive, and represents our current River culture, from artists to scientists, educators to activists, humanists, enthusiasts, organizers and doers.

In 1824 a keelboat, the shanty boat of its day, drifted down the Ohio carrying a similar mix of Knowledge workers to New Harmony to begin a utopian experiment. This formal project only lasted a short while, but it's legacy continues till today. Our hope is this boatload of Knowledge will begin conversations across disciplines and between individuals that will expand community and lead to change, while celebrating the beauty of our river.

Peter Morin and John Begley, *AFLOATEERS*

FORMAT FOR THE CRUISE

We will cruise upriver to near Twelve Mile Island and return. The many points of interest on both sides of the river will be pointed out, providing a perspective of these sites not encountered daily by most of us.

The Belle's canteen and bar, located on Ballroom Deck along with the restrooms, on the are open for food and beverage.

A number of musicians will provide entertainment involving traditional Ohio River songs. And representatives of arts, environmental, advocacy, and recreational organizations will have tables to talk about how to become involved in their activities and issues. Individuals, identified by name tags and an Ohio River Fan! with expertise and experience in a variety of riverine areas will also be roaming on all three decks eager to talk to you about their particular interests as well as learn from you your connections, history and knowledge of the river.

OUR COURSE - *from the downtown wharf to near Twelve Mile Island*

Don't be shy! Take advantage of this assembly to both learn and share, and above all, enjoy the magic of a slow ride on the beautiful Ohio.

River to River Classroom (9/23/2019):

River to River Field Day (10/7/2019):

Can You Dig It Event (1/30/2020):

Can You Dig It

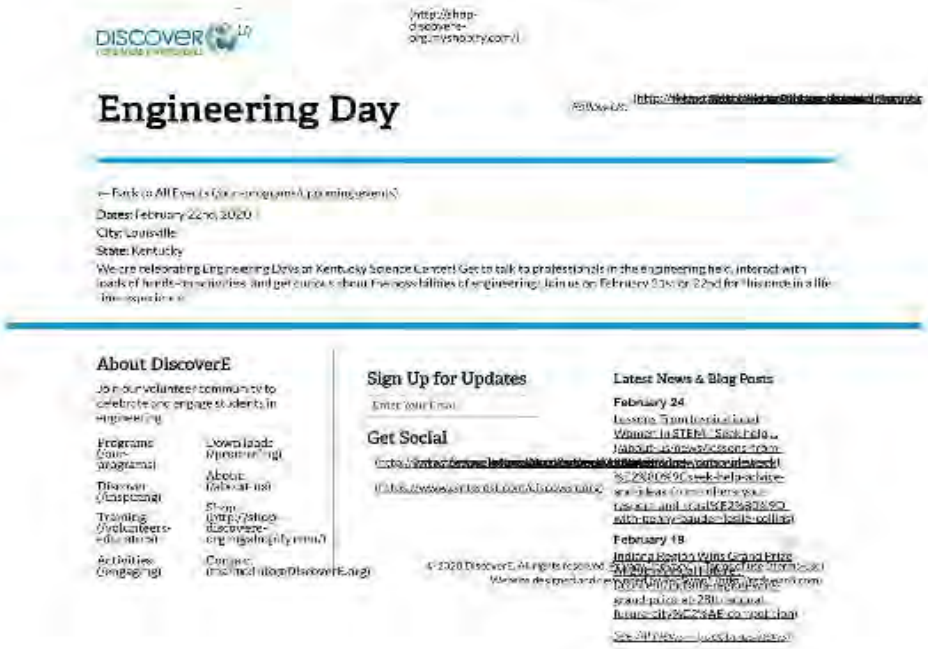
December 31, 2019

Can you dig it?

You can find out on January 30, 2020. MSD will outline upcoming opportunities for doing business with us at our annual "Can You Dig It?" event. Join us Thursday, January 30, 2020, from 10 AM to Noon at the Kentucky Center for African American Heritage, 1701 W Muhammad Ali Boulevard. Learn about our 2020 construction projects, how to register for bid notifications, about our Community Benefits and Supplier Diversity programs.

RSVP at msd-can-you-dig-it-2020.eventbrite.com.

Engineering Day (2/21/2020):



DISCOVER

Engineering Day

Dates: February 22nd, 2020
City: Louisville
State: Kentucky

We are celebrating Engineering Days at Kentucky Science Center! Get to talk to professionals in the engineering field, interact with loads of hands-on activities, and get curious about the possibilities of engineering! Join us on February 21st or 22nd for this once in a life

About DiscoverE

Join our volunteer community to celebrate and engage students in engineering.

Programs
Download Materials
Discover
About
Training
Shop
Activities
Connect

Sign Up for Updates

Enter your Email

Get Social

Latest News & Blog Posts

February 24

February 19

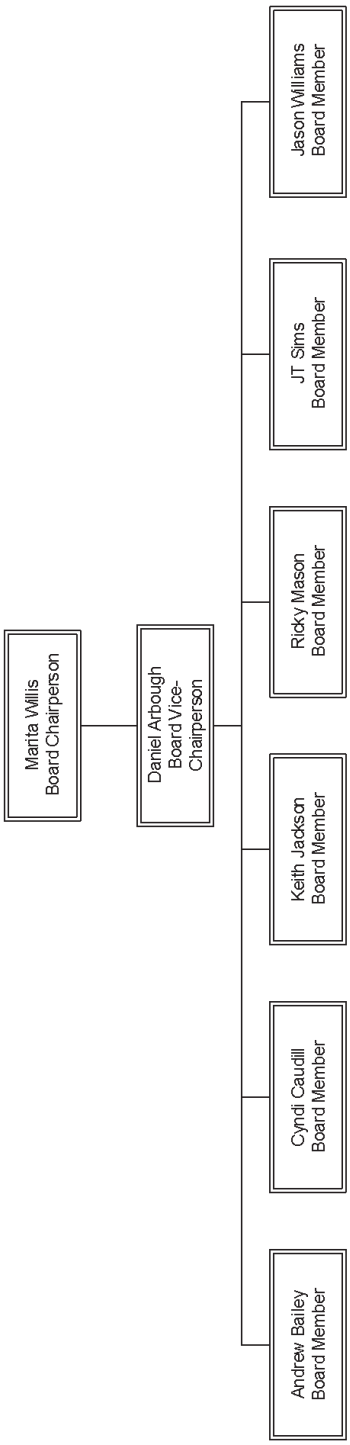
Appendix F Organizational Chart

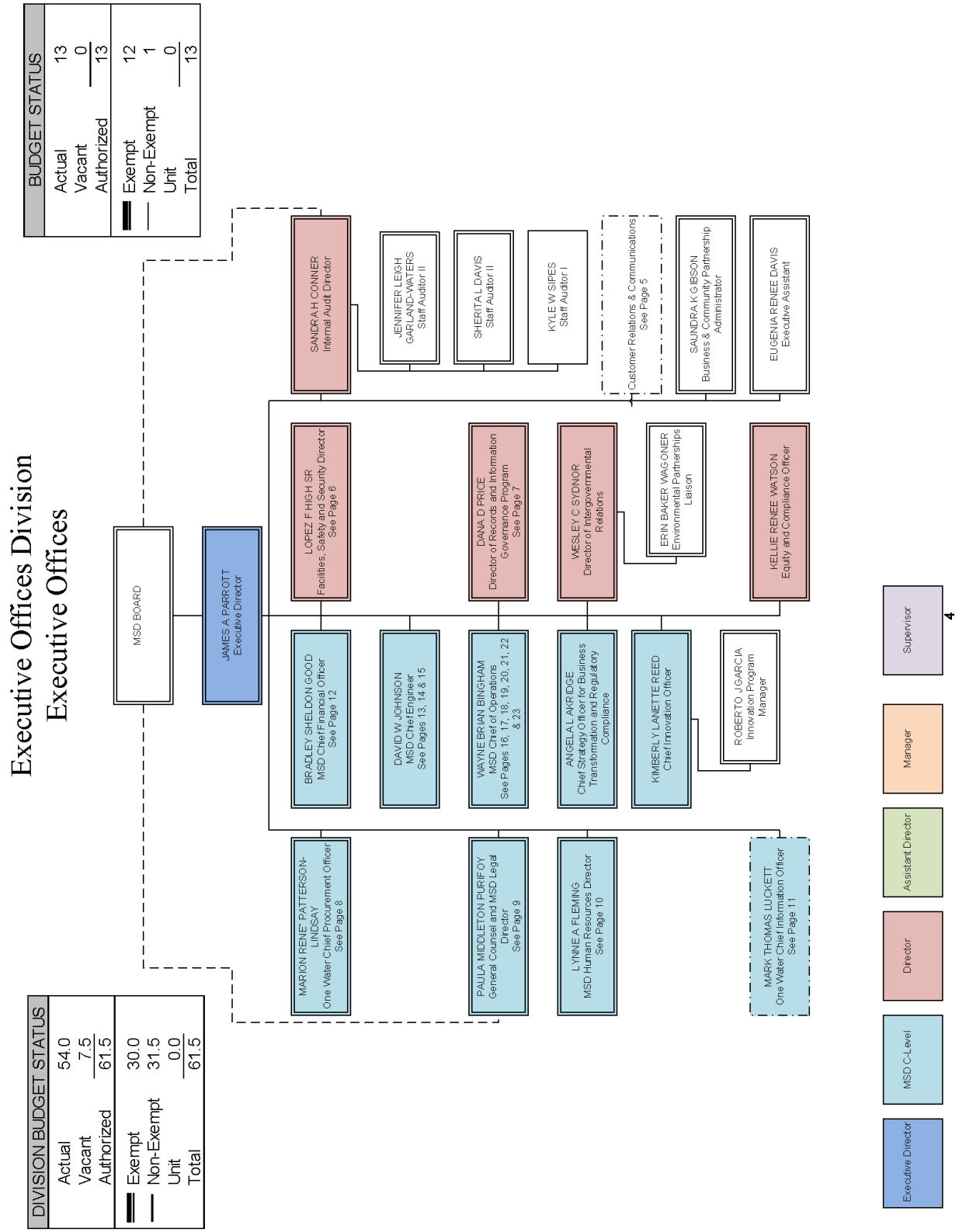
msd
Safe, clean waterways
Louisville and Jefferson County
Metropolitan Sewer District
Organizational Chart
Effective 07/06/2020
1

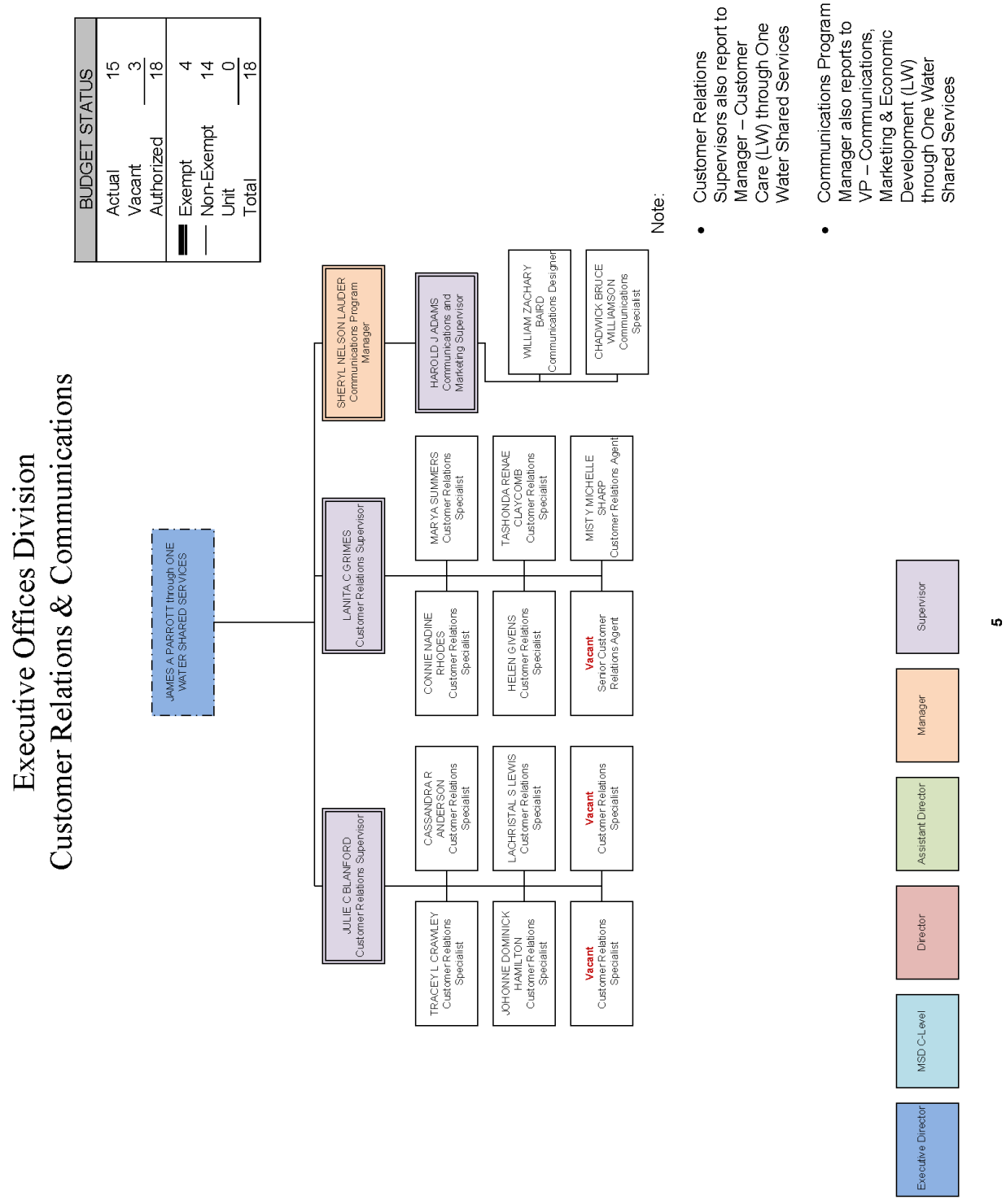
Organizational Summary

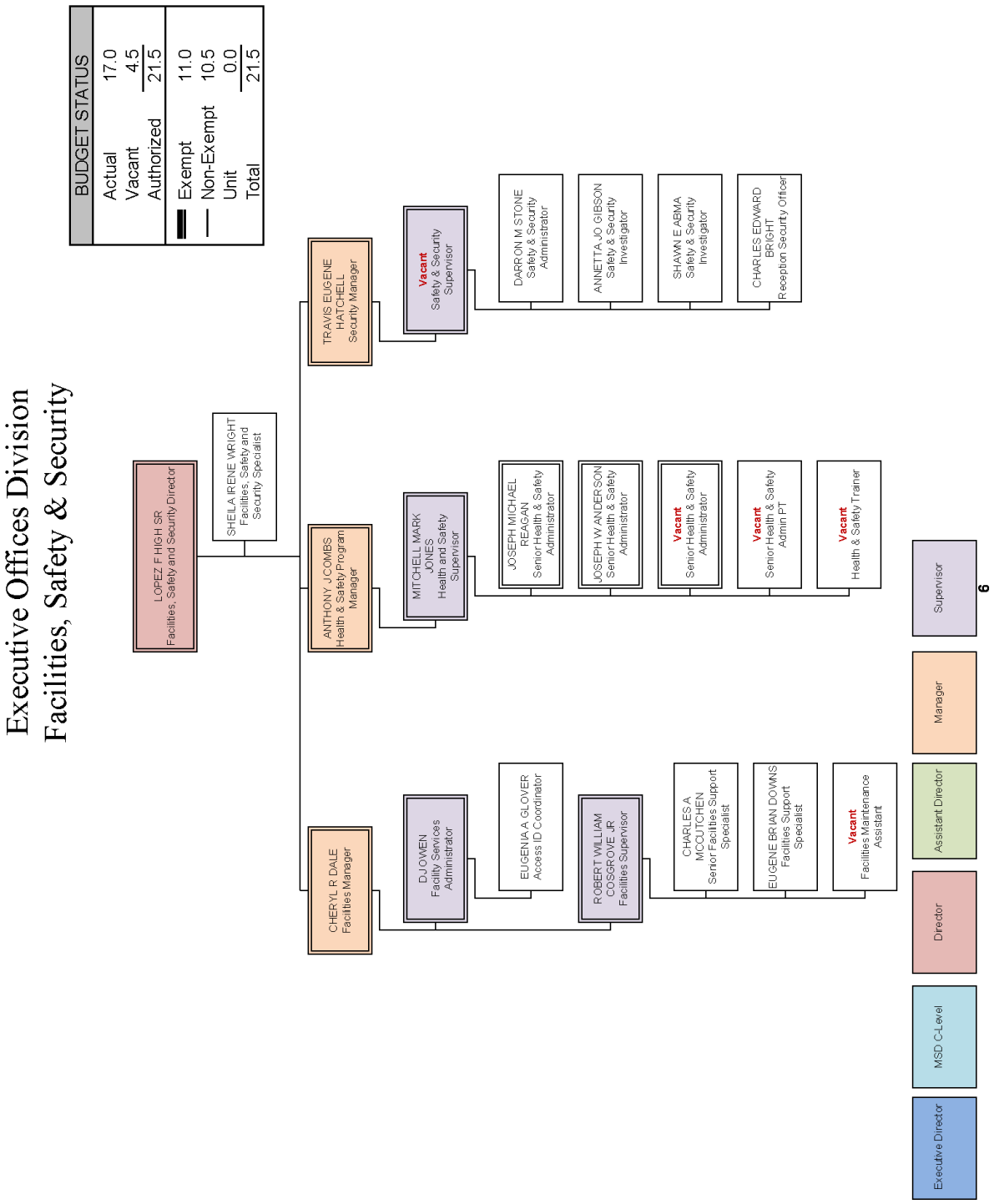
	Total Positions	Current Actual	Vacant (Budgeted)	New/ Unbudgeted (Vacant)	Exempt	Non-Exempt	Unit	Net Overbudget
Executive Offices Division								
Executive Offices	13	13	0	0	12	1	0	0
Customer Relations & Communications	18	15	3	0	4	14	0	0
Facilities, Safety & Security	21.5	17	4.5	0	11	10.5	0	0
Records and Information Governance	9	9	0	0	3	6	0	0
Supply Chain and Economic Inclusion Division	23	21	2	0	10	13	0	0
Legal Division	10	8	2	0	7	3	0	0
Human Resources Division	18	16	2	0	12	6	0	0
Information Technology Division	32	28	4	0	27	5	0	0
Finance Division	20	17	3	0	6	14	0	0
Engineering Division								
Eng Admin, Reg Compliance, Records & GIS	14.5	14	0.5	0	10	4.5	0	0
Engineering Technical Services	35.5	28.5	7	0	26	9.5	0	0
Development & Stormwater Services	44	44	0	0	20	24	0	0
Operations Division								
Administration	3	2	1	0	2	1	0	0
Treatment Facilities	92	82	10	0	20	18	54	0
Treatment Facilities (Maintenance)	38	38	0	0	5	0	33	0
Collections System and Flood Protection	77	69	8	0	15	22	40	0
Wastewater and Drainage	118	113	5	0	10	11	97	0
Wastewater and Drainage (Sanitary)	76	75	1	0	8	2	66	0
Support Services	36	27	9	0	11	25	0	0
Fleet Services	19	18	1	0	4	1	14	0
DISTRICT TOTAL	**717.5**	**654.5**	**63**	**0**	**223**	**190.5**	**304**	**0**

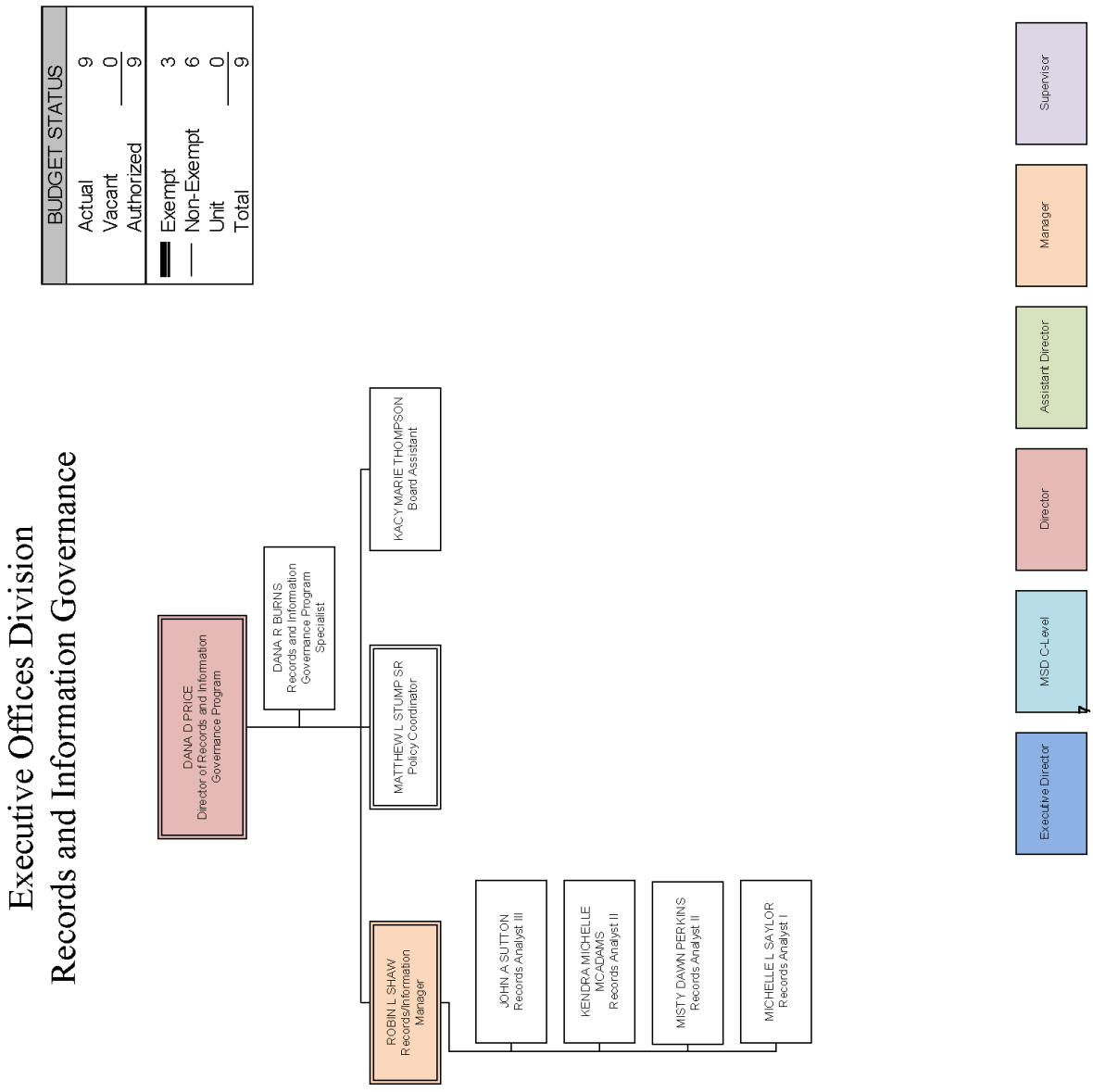
Board Members

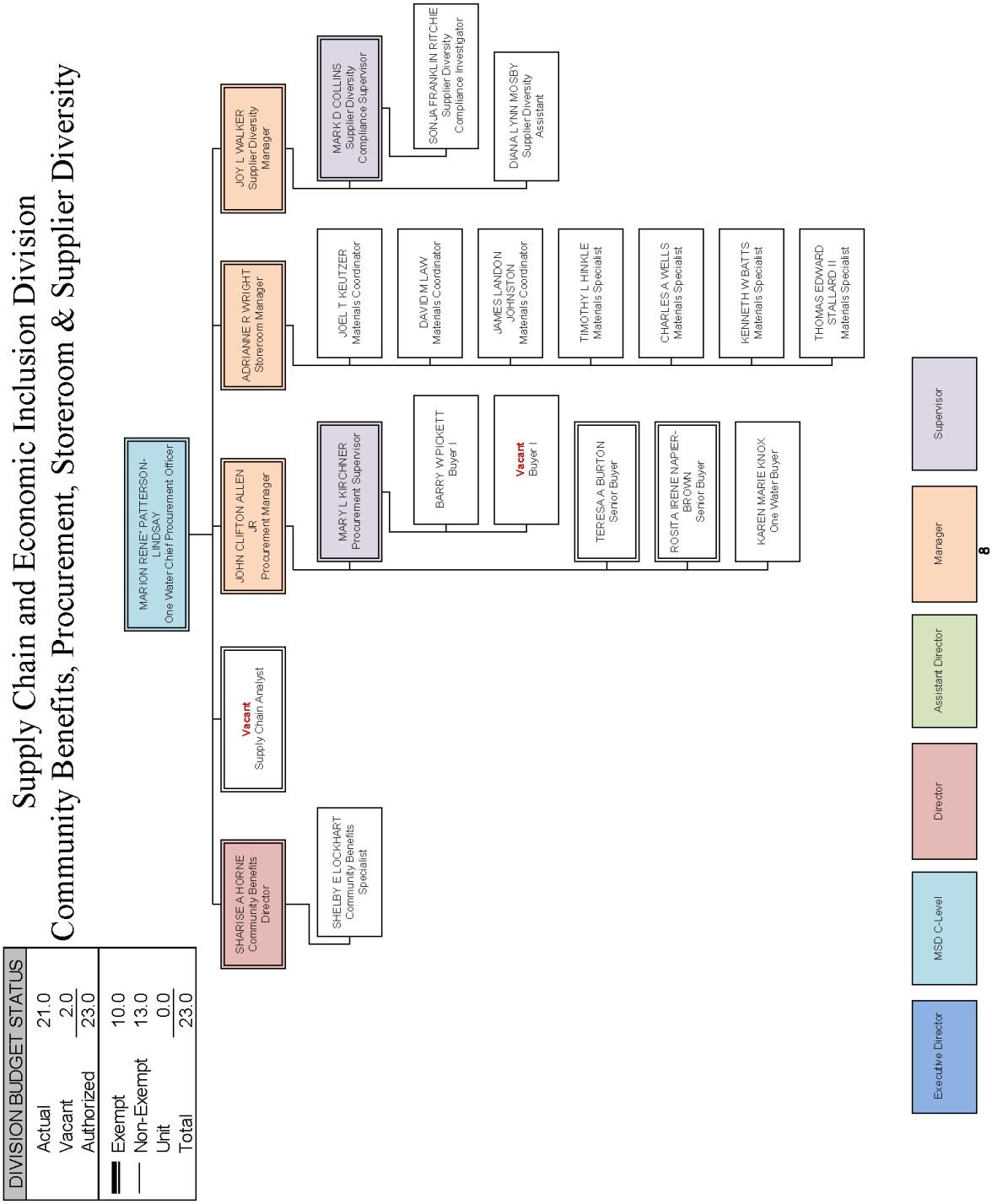


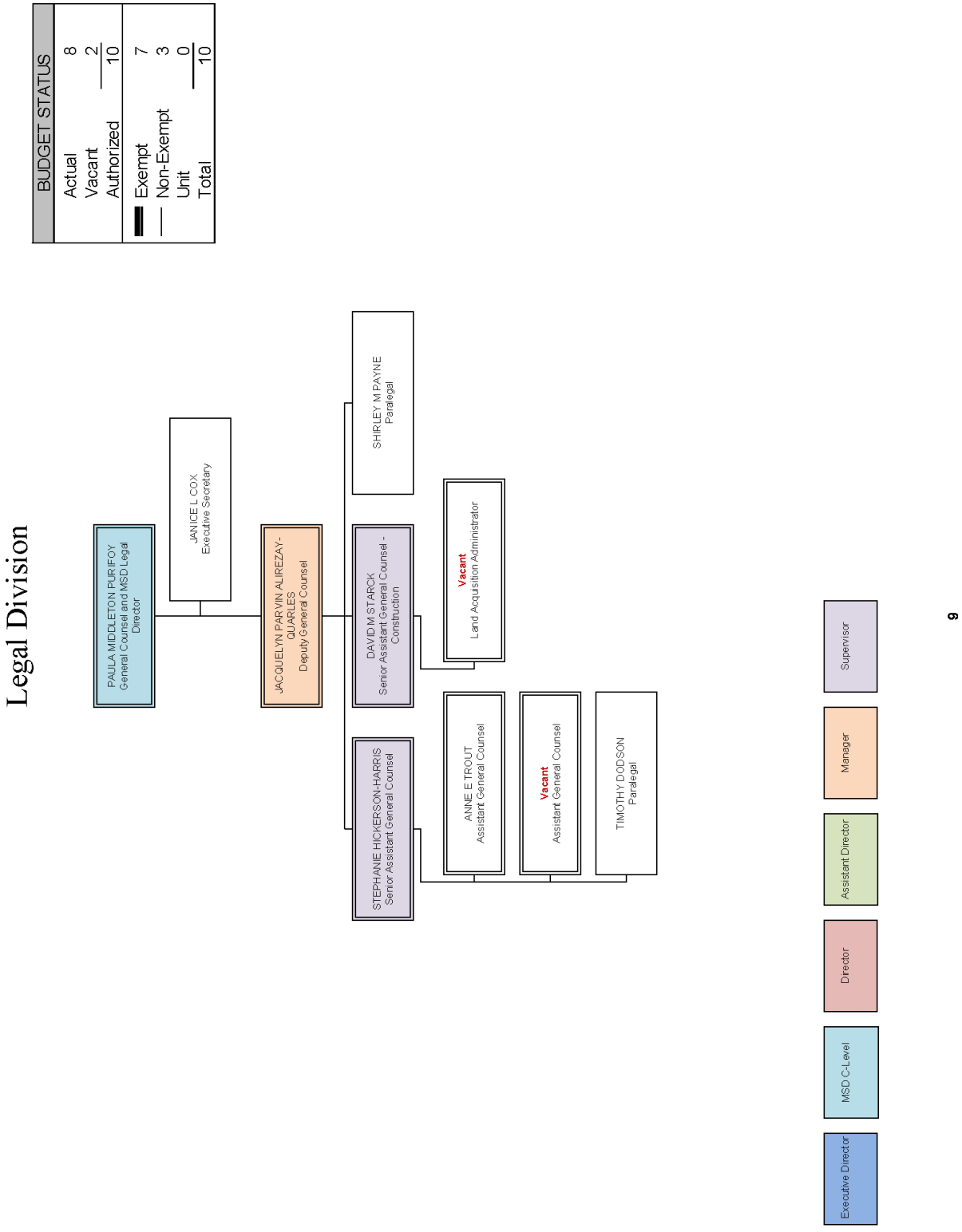

Executive Offices Division
Executive Offices
BUDGET STATUS
Actual 13
Vacant 0
Authorized 13
Exempt 12
Non-Exempt 1
Unit 0
Total 13
DIVISION BUDGET STATUS
Actual 54.0
Vacant 7.5
Authorized 61.5
Exempt 30.0
Non-Exempt 31.5
Unit 0.0
Total 61.5
MSD BOARD
JAMES A PARROTT
Executive Director
SANDRA H CONNER
Internal Audit Director
JENNIFER LEIGH GARLAND-WATERS
Staff Auditor II
SHERITA L DAVIS
Staff Auditor II
KYLE W SIPES
Staff Auditor I
Customer Relations & Communications
See Page 5
SAUNDRA K GIBSON
Business & Community Partnership Administrator
EUGENIA RENEE DAVIS
Executive Assistant
LOPEZ F HIGH SR
Facilities, Safety and Security Director
See Page 6
DANA D PRICE
Director of Records and Information Governance Program
See Page 7
WESLEY C SYDNOR
Director of Intergovernmental Relations
ERIN BAKER WAGONER
Environmental Partnerships Liaison
KELLIE RENEE WATSON
Equity and Compliance Officer
BRADLEY SHELDON GOOD
MSD Chief Financial Officer
See Page 12
DAVID W JOHNSON
MSD Chief Engineer
See Pages 13, 14 & 15
WAYNE BRIAN BINGHAM
MSD Chief of Operations
See Pages 16, 17, 18, 19, 20, 21, 22 & 23
ANGELA L AKRIDGE
Chief Strategy Officer for Business Transformation and Regulatory Compliance
KIMBERLY LANETTE REED
Chief Innovation Officer
ROBERTO J GARCIA
Innovation Program Manager
MARION RENE' PATTERSON-LINDSAY
One Water Chief Procurement Officer
See Page 8
PAULA MIDDLETON PURIFOY
General Counsel and MSD Legal Director
See Page 9
LYNNE A FLEMING
MSD Human Resources Director
See Page 10
MARK THOMAS LUCKETT
One Water Chief Information Officer
See Page 11
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
4


Executive Offices Division
Customer Relations & Communications
BUDGET STATUS
Actual 15
Vacant 3
Authorized 18
Exempt 4
Non-Exempt 14
Unit 0
Total 18
JAMES A PARROTT through ONE WATER SHARED SERVICES
LANITA C GRIMES Customer Relations Supervisor
JULIE C BLANFORD Customer Relations Supervisor
SHERYL NELSON LAUDER Communications Program Manager
HAROLD J ADAMS Communications and Marketing Supervisor
WILLIAM ZACHARY BAIRD Communications Designer
CHADWICK BRUCE WILLIAMSON Communications Specialist
MARYA SUMMERS Customer Relations Specialist
TASHONDA RENAE CLAYCOMB Customer Relations Specialist
MISTY MICHELLE SHARP Customer Relations Agent
CONNIE NADINE RHODES Customer Relations Specialist
HELEN GIVENS Customer Relations Specialist
Vacant Senior Customer Relations Agent
CASSANDRA R ANDERSON Customer Relations Specialist
LACHRISTAL S LEWIS Customer Relations Specialist
Vacant Customer Relations Specialist
TRACEY L CRAWLEY Customer Relations Specialist
JOHONNE DOMINICK HAMILTON Customer Relations Specialist
Vacant Customer Relations Specialist
Note:
Customer Relations Supervisors also report to Manager – Customer Care (LW) through One Water Shared Services
Communications Program Manager also reports to VP – Communications, Marketing & Economic Development (LW) through One Water Shared Services
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
5

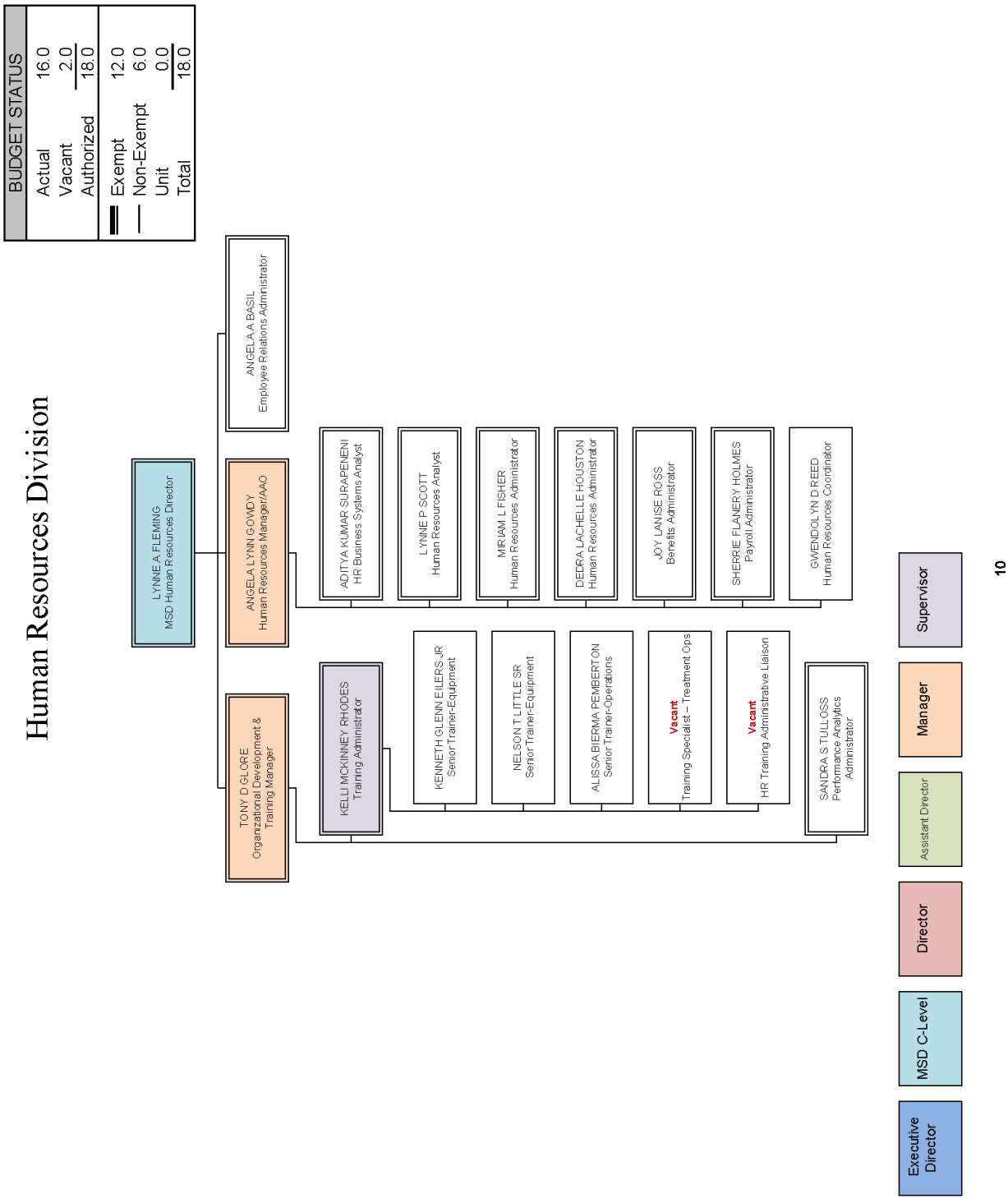

Executive Offices Division
Facilities, Safety & Security
BUDGET STATUS
Actual 17.0
Vacant 4.5
Authorized 21.5
Exempt 11.0
Non-Exempt 10.5
Unit 0.0
Total 21.5
LOPEZ F HIGH SR
Facilities, Safety and Security Director
SHEILA IRENE WRIGHT
Facilities, Safety and Security Specialist
TRAVIS EUGENE HATCHELL
Security Manager
Vacant
Safety & Security Supervisor
DARRON M STONE
Safety & Security Administrator
ANNETTA JO GIBSON
Safety & Security Investigator
SHAWN E ABMA
Safety & Security Investigator
CHARLES EDWARD BRIGHT
Reception Security Officer
ANTHONY J COMBS
Health & Safety Program Manager
MITCHELL MARK JONES
Health and Safety Supervisor
JOSEPH MICHAEL REAGAN
Senior Health & Safety Administrator
JOSEPH W ANDERSON
Senior Health & Safety Administrator
Vacant
Senior Health & Safety Administrator
Vacant
Senior Health & Safety Admin PT
Vacant
Health & Safety Trainer
CHERYL R DALE
Facilities Manager
DJ OWEN
Facility Services Administrator
EUGENIA A GLOVER
Access ID Coordinator
ROBERT WILLIAM COSGROVE JR
Facilities Supervisor
CHARLES A MCCUTCHEN
Senior Facilities Support Specialist
EUGENE BRIAN DOWNS
Facilities Support Specialist
Vacant
Facilities Maintenance Assistant
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
6

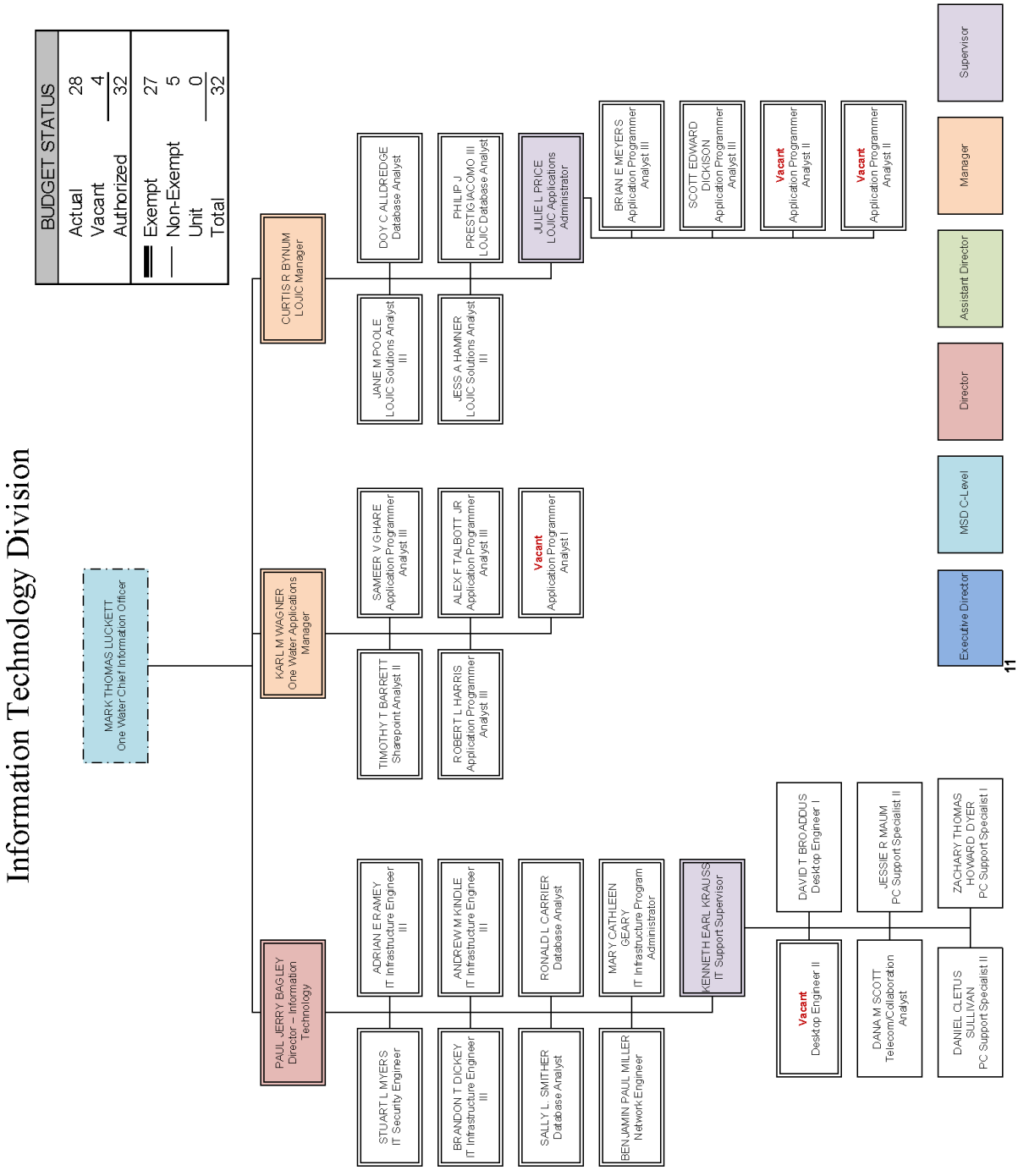

Executive Offices Division
Records and Information Governance
BUDGET STATUS
Actual 9
Vacant 0
Authorized 9
Exempt 3
Non-Exempt 6
Unit 0
Total 9
DANA D PRICE
Director of Records and Information Governance Program
DANA R BURNS
Records and Information Governance Program Specialist
KACY MARIE THOMPSON
Board Assistant
MATTHEW L STUMP SR
Policy Coordinator
ROBIN L SHAW
Records/Information Manager
JOHN A SUTTON
Records Analyst III
KENDRA MICHELLE MCADAMS
Records Analyst II
MISTY DAWN PERKINS
Records Analyst II
MICHELLE L SAYLOR
Records Analyst I
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor

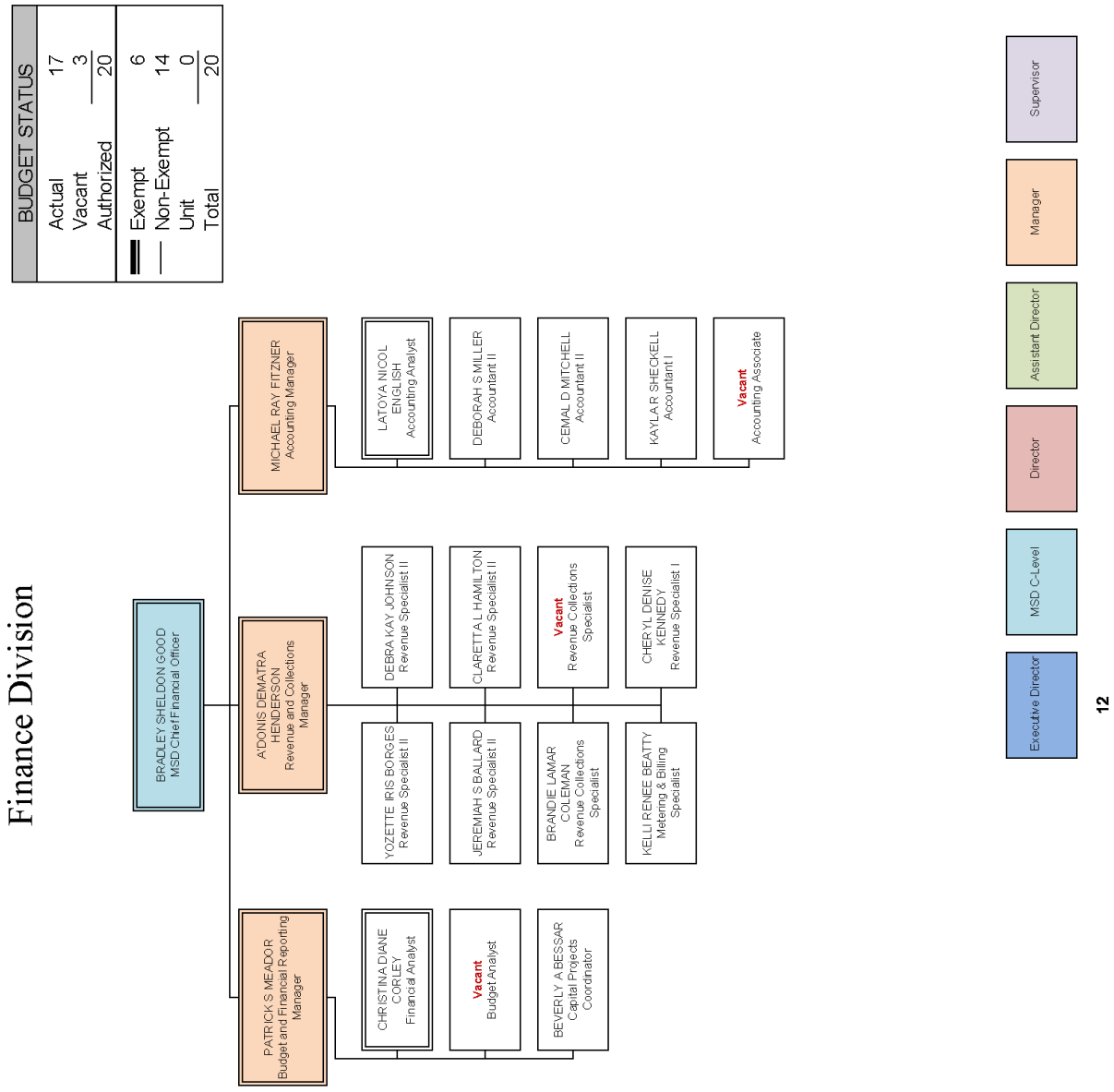

Supply Chain and Economic Inclusion Division
Community Benefits, Procurement, Storeroom & Supplier Diversity
DIVISION BUDGET STATUS
Actual 21.0
Vacant 2.0
Authorized 23.0
Exempt 10.0
Non-Exempt 13.0
Unit 0.0
Total 23.0
MARION RENE' PATTERSON-LINDSAY
One Water Chief Procurement Officer
SHARISE A HORNE
Community Benefits Director
SHELBY E LOCKHART
Community Benefits Specialist
Vacant
Supply Chain Analyst
JOHN CLIFTON ALLEN JR
Procurement Manager
MARY L KIRCHNER
Procurement Supervisor
BARRY W PICKETT
Buyer I
Vacant
Buyer I
TERESA A BURTON
Senior Buyer
ROSITA IRENE NAPIER-BROWN
Senior Buyer
KAREN MARIE KNOX
One Water Buyer
ADRIANNE R WRIGHT
Storeroom Manager
JOEL T KEUTZER
Materials Coordinator
DAVID M LAW
Materials Coordinator
JAMES LANDON JOHNSTON
Materials Coordinator
TIMOTHY L HINKLE
Materials Specialist
CHARLES A WELLS
Materials Specialist
KENNETH W BATTS
Materials Specialist
THOMAS EDWARD STALLARD II
Materials Specialist
JOY L WALKER
Supplier Diversity Manager
MARK D COLLINS
Supplier Diversity Compliance Supervisor
SONJA FRANKLIN RITCHIE
Supplier Diversity Compliance Investigator
DIANA LYNN MOSBY
Supplier Diversity Assistant
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor

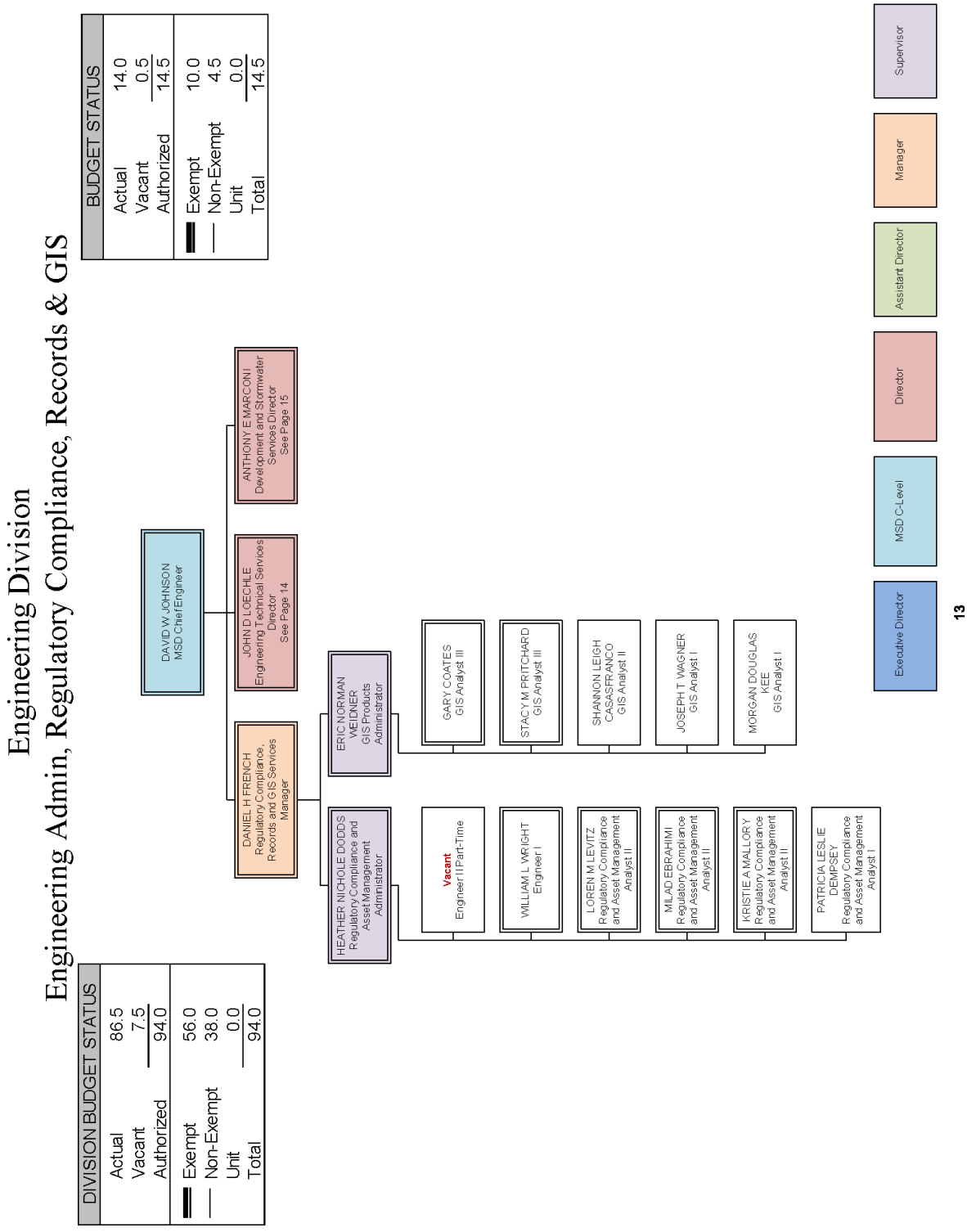

Legal Division
BUDGET STATUS
Actual 8
Vacant 2
Authorized 10
Exempt 7
Non-Exempt 3
Unit 0
Total 10
PAULA MIDDLETON PURIFOY
General Counsel and MSD Legal Director
JANICE L COX
Executive Secretary
JACQUELYN PARVIN ALIREZAY-QUARLES
Deputy General Counsel
SHIRLEY M PAYNE
Paralegal
DAVID M STARCK
Senior Assistant General Counsel - Construction
Vacant
Land Acquisition Administrator
STEPHANIE HICKERSON-HARRIS
Senior Assistant General Counsel
ANNE E TROUT
Assistant General Counsel
Vacant
Assistant General Counsel
TIMOTHY DODSON
Paralegal
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
9

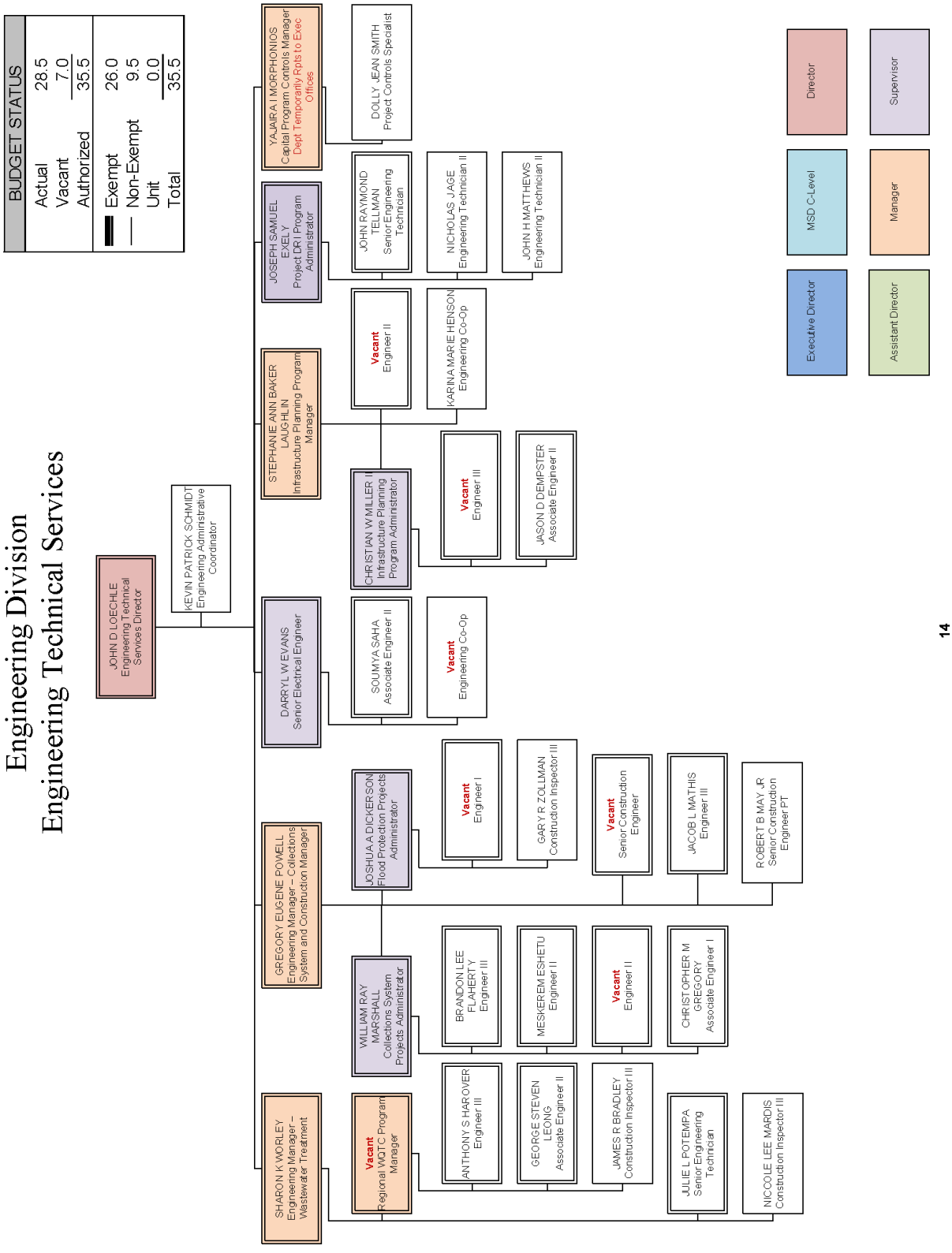
Human Resources Division

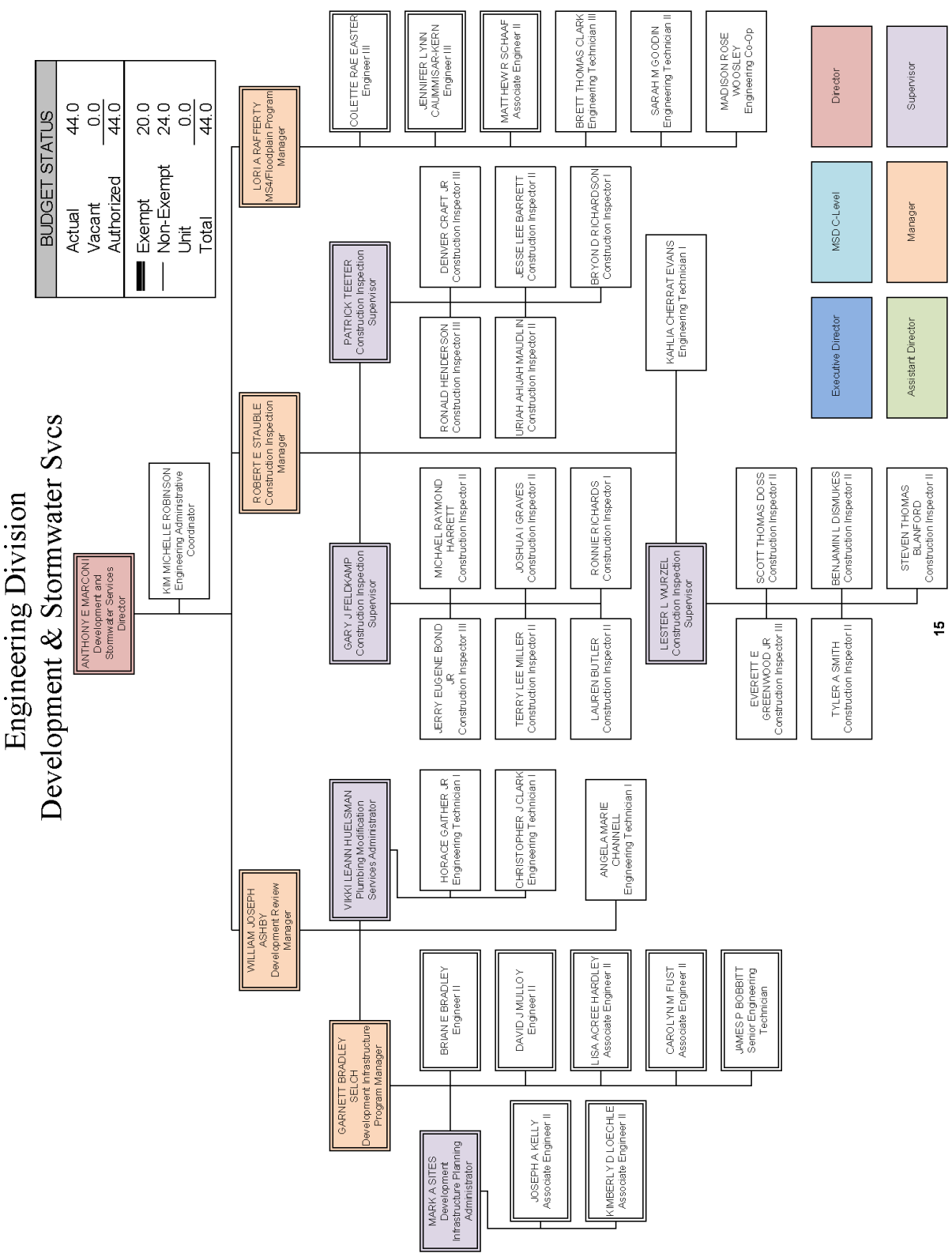



Information Technology Division
BUDGET STATUS
Actual 28
Vacant 4
Authorized 32
Exempt 27
Non-Exempt 5
Unit 0
Total 32
MARK THOMAS LUCKETT
One Water Chief Information Officer
KARL M WAGNER
One Water Applications Manager
CURTIS R BYNUM
LOJIC Manager
PAUL JERRY BAGLEY
Director – Information Technology
DOY C ALLDREDGE
Database Analyst
PHILIP J PRESTIGIACOMO III
LOJIC Database Analyst
JULIE L PRICE
LOJIC Applications Administrator
JANE M POOLE
LOJIC Solutions Analyst III
JESS A HAMNER
LOJIC Solutions Analyst III
BRIAN E MEYERS
Application Programmer Analyst III
SCOTT EDWARD DICKISON
Application Programmer Analyst III
Vacant
Application Programmer Analyst II
Vacant
Application Programmer Analyst II
SAMEER V GHARE
Application Programmer Analyst III
ALEX F TALBOTT JR
Application Programmer Analyst III
Vacant
Application Programmer Analyst I
TIMOTHY T BARRETT
Sharepoint Analyst II
ROBERT L HARRIS
Application Programmer Analyst III
ADRIAN E RAMEY
IT Infrastructure Engineer III
ANDREW M KINDLE
IT Infrastructure Engineer III
RONALD L CARRIER
Database Analyst
MARY CATHLEEN GEARY
IT Infrastructure Program Administrator
KENNETH EARL KRAUSS
IT Support Supervisor
DAVID T BROADDUS
Desktop Engineer I
JESSIE R MAUM
PC Support Specialist II
ZACHARY THOMAS HOWARD DYER
PC Support Specialist I
STUART L MYERS
IT Security Engineer
BRANDON T DICKEY
IT Infrastructure Engineer III
SALLY L SMITHER
Database Analyst
BENJAMIN PAUL MILLER
Network Engineer
Vacant
Desktop Engineer II
DANA M SCOTT
Telecom/Collaboration Analyst
DANIEL CLETUS SULLIVAN
PC Support Specialist II
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
11


Finance Division
BUDGET STATUS
Actual 17
Vacant 3
Authorized 20
Exempt 6
Non-Exempt 14
Unit 0
Total 20
BRADLEY SHELDON GOOD
MSD Chief Financial Officer
MICHAEL RAY FITZNER
Accounting Manager
LATOYA NICOL ENGLISH
Accounting Analyst
DEBORAH S MILLER
Accountant II
CEMAL D MITCHELL
Accountant II
KAYLA R SHECKELL
Accountant I
Vacant
Accounting Associate
ADONIS DEMATRA HENDERSON
Revenue and Collections Manager
DEBRA KAY JOHNSON
Revenue Specialist II
CLARETTA L HAMILTON
Revenue Specialist II
Vacant
Revenue Collections Specialist
CHERYL DENISE KENNEDY
Revenue Specialist I
YOZETTE IRIS BORGES
Revenue Specialist II
JEREMIAH S BALLARD
Revenue Specialist II
BRANDIE LAMAR COLEMAN
Revenue Collections Specialist
KELLI RENEE BEATTY
Metering & Billing Specialist
PATRICK S MEADOR
Budget and Financial Reporting Manager
CHRISTINA DIANE CORLEY
Financial Analyst
Vacant
Budget Analyst
BEVERLY A BESSAR
Capital Projects Coordinator
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
12


Engineering Division
Engineering Admin, Regulatory Compliance, Records & GIS
BUDGET STATUS
Actual 14.0
Vacant 0.5
Authorized 14.5
Exempt 10.0
Non-Exempt 4.5
Unit 0.0
Total 14.5
DIVISION BUDGET STATUS
Actual 86.5
Vacant 7.5
Authorized 94.0
Exempt 56.0
Non-Exempt 38.0
Unit 0.0
Total 94.0
DAVID W JOHNSON
MSD Chief Engineer
ANTHONY E MARCONI
Development and Stormwater Services Director
See Page 15
JOHN D LOECHLE
Engineering Technical Services Director
See Page 14
DANIEL H FRENCH
Regulatory Compliance, Records and GIS Services Manager
ERIC NORMAN WEIDNER
GIS Products Administrator
HEATHER NICHOLE DODDS
Regulatory Compliance and Asset Management Administrator
GARY COATES
GIS Analyst III
STACY M PRITCHARD
GIS Analyst III
SHANNON LEIGH CASASFRANCO
GIS Analyst II
JOSEPH T WAGNER
GIS Analyst I
MORGAN DOUGLAS KEE
GIS Analyst I
Vacant
Engineer I I Part-Time
WILLIAM L WRIGHT
Engineer I
LOREN M LEVITZ
Regulatory Compliance and Asset Management Analyst II
MILAD EBRAHIMI
Regulatory Compliance and Asset Management Analyst II
KRISTIE A MALLORY
Regulatory Compliance and Asset Management Analyst II
PATRICIA LESLIE DEMPSEY
Regulatory Compliance and Asset Management Analyst I
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
13

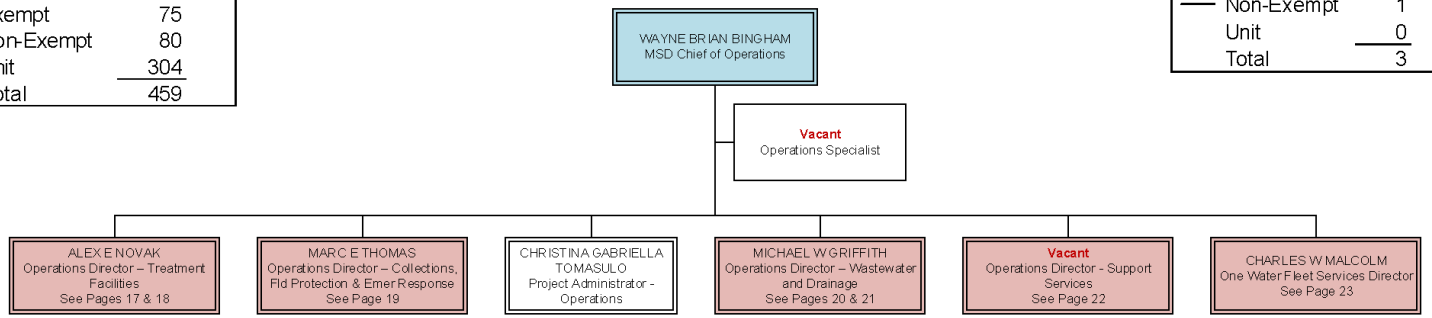

Engineering Division
Engineering Technical Services
BUDGET STATUS
Actual 28.5
Vacant 7.0
Authorized 35.5
Exempt 26.0
Non-Exempt 9.5
Unit 0.0
Total 35.5
JOHN D LOECHLE
Engineering Technical Services Director
KEVIN PATRICK SCHMIDT
Engineering Administrative Coordinator
STEPHANIE ANN BAKER LAUGHLIN
Infrastructure Planning Program Manager
YAJAIRA I MORPHONIOS
Capital Program Controls Manager
Dept Temporarily Rpts to Exec Offices
DOLLY JEAN SMITH
Project Controls Specialist
JOSEPH SAMUEL EXELY
Project DRI Program Administrator
JOHN RAYMOND TELLMAN
Senior Engineering Technician
NICHOLAS JAGE
Engineering Technician II
JOHN H MATTHEWS
Engineering Technician II
Vacant
Engineer II
KARINA MARIE HENSON
Engineering Co-Op
CHRISTIAN W MILLER II
Infrastructure Planning Program Administrator
Vacant
Engineer III
JASON D DEMPSTER
Associate Engineer II
DARRYL W EVANS
Senior Electrical Engineer
SOUMYA SAHA
Associate Engineer II
Vacant
Engineering Co-Op
GREGORY EUGENE POWELL
Engineering Manager – Collections System and Construction Manager
JOSHUA A DICKERSON
Flood Protection Projects Administrator
Vacant
Engineer I
GARY R ZOLLMAN
Construction Inspector III
Vacant
Senior Construction Engineer
JACOB L MATHIS
Engineer III
ROBERT B MAY JR
Senior Construction Engineer PT
WILLIAM RAY MARSHALL
Collections System Projects Administrator
BRANDON LEE FLAHERTY
Engineer III
MESKEREM ESHETU
Engineer II
Vacant
Engineer II
CHRISTOPHER M GREGORY
Associate Engineer I
SHARON K WORLEY
Engineering Manager – Wastewater Treatment
Vacant
Regional WQTC Program Manager
ANTHONY S HAROVER
Engineer III
GEORGE STEVEN LEONG
Associate Engineer II
JAMES R BRADLEY
Construction Inspector III
JULIE L POTEMPA
Senior Engineering Technician
NICCOLE LEE MARDIS
Construction Inspector III
Director
MSD C-Level
Supervisor
Executive Director
Assistant Director
Manager
14


Engineering Division
Development & Stormwater Svcs
BUDGET STATUS
Actual 44.0
Vacant 0.0
Authorized 44.0
Exempt 20.0
Non-Exempt 24.0
Unit 0.0
Total 44.0
ANTHONY E MARCONI Development and Stormwater Services Director
KIM MICHELLE ROBINSON Engineering Administrative Coordinator
LORI A RAFFERTY MS4/Floodplain Program Manager
COLETTE RAE EASTER Engineer III
JENNIFER LYNN CAUMMISAR-KERN Engineer III
MATTHEW R SCHAAF Associate Engineer II
BRETT THOMAS CLARK Engineering Technician III
SARAH M GOODIN Engineering Technician II
MADISON ROSE WOOSLEY Engineering Co-Op
ROBERT E STAUBLE Construction Inspection Manager
PATRICK TEETER Construction Inspection Supervisor
DENVER CRAFT JR Construction Inspector III
JESSE LEE BARRETT Construction Inspector II
BRYON D RICHARDSON Construction Inspector I
RONALD HENDERSON Construction Inspector III
URIAH AHIJAH MAUDLIN Construction Inspector II
KAHLIA CHERRAT EVANS Engineering Technician I
GARY J FELDKAMP Construction Inspection Supervisor
MICHAEL RAYMOND HARRETT Construction Inspector II
JOSHUA I GRAVES Construction Inspector II
RONNIE RICHARDS Construction Inspector I
JERRY EUGENE BOND JR Construction Inspector III
TERRY LEE MILLER Construction Inspector II
LAUREN BUTLER Construction Inspector II
LESTER L WURZEL Construction Inspection Supervisor
SCOTT THOMAS DOSS Construction Inspector II
BENJAMIN L DISMUKES Construction Inspector II
STEVEN THOMAS BLANFORD Construction Inspector II
EVERETT E GREENWOOD JR Construction Inspector III
TYLER A SMITH Construction Inspector II
WILLIAM JOSEPH ASHBY Development Review Manager
VIKKI LEANN HUELSMAN Plumbing Modification Services Administrator
HORACE GAITHER JR Engineering Technician I
CHRISTOPHER J CLARK Engineering Technician I
ANGELA MARIE CHANNELL Engineering Technician I
GARNETT BRADLEY SELCH Development Infrastructure Program Manager
BRIAN E BRADLEY Engineer II
DAVID J MULLOY Engineer II
LISA ACREE HARDLEY Associate Engineer II
CAROLYN M FUST Associate Engineer II
JAMES P BOBBITT Senior Engineering Technician
MARK A SITES Development Infrastructure Planning Administrator
JOSEPH A KELLY Associate Engineer II
KIMBERLY D LOECHLE Associate Engineer II
Director
Supervisor
MSD C-Level
Manager
Executive Director
Assistant Director
15

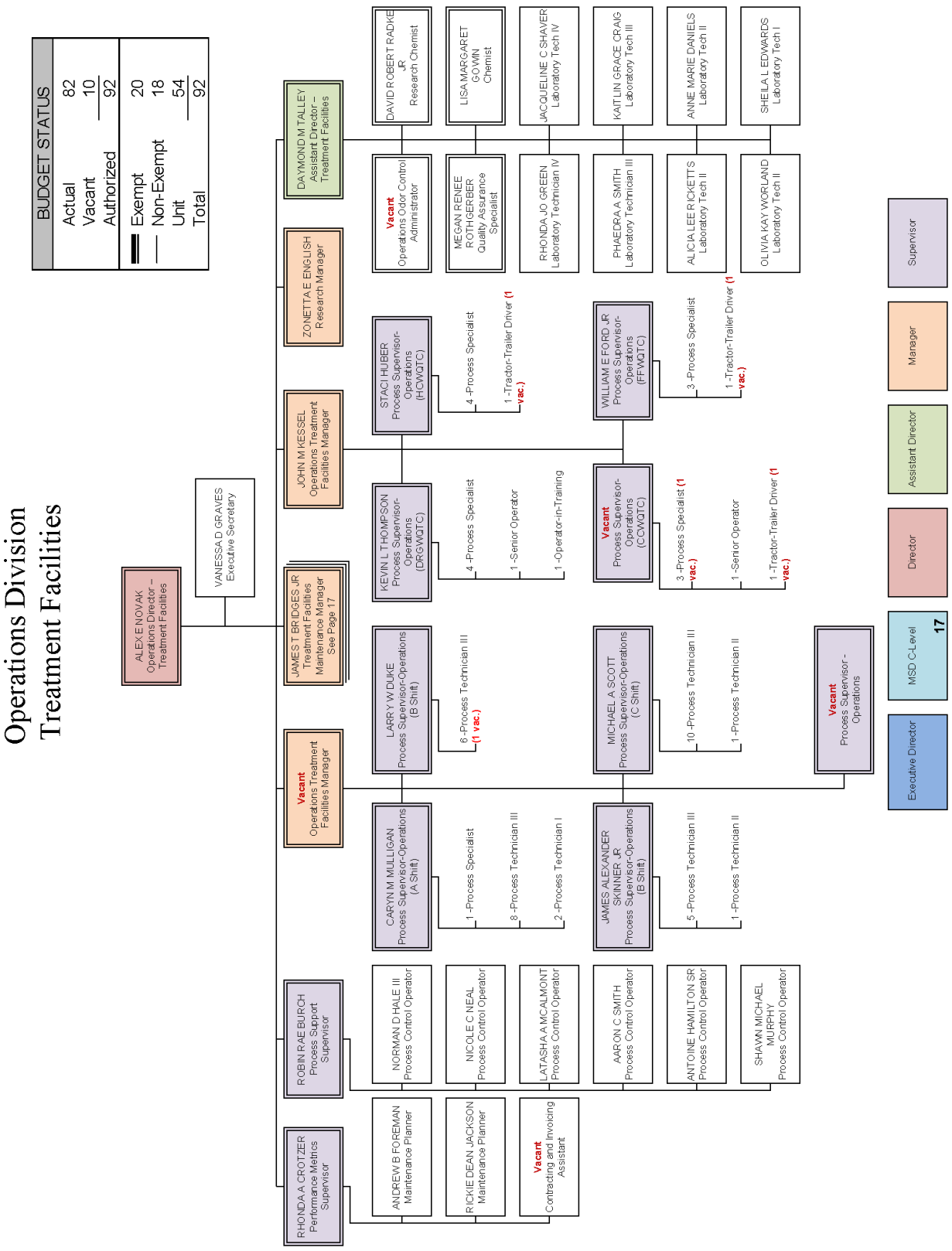
Operations Division Administration

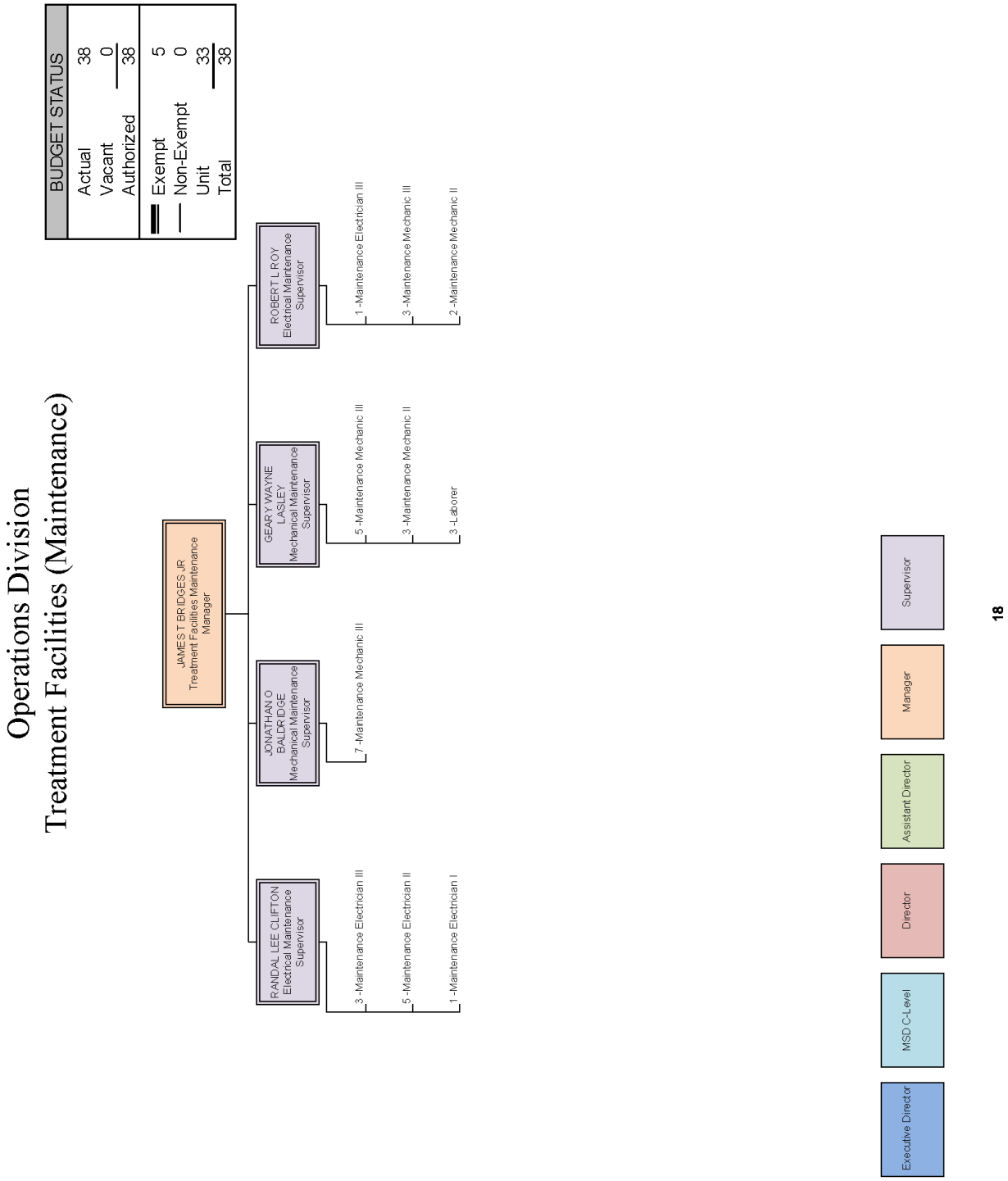
DIVISION BUDGET STATUS	
Actual	424
Vacant	35
Authorized	459
Exempt	75
Non-Exempt	80
Unit	304
Total	459

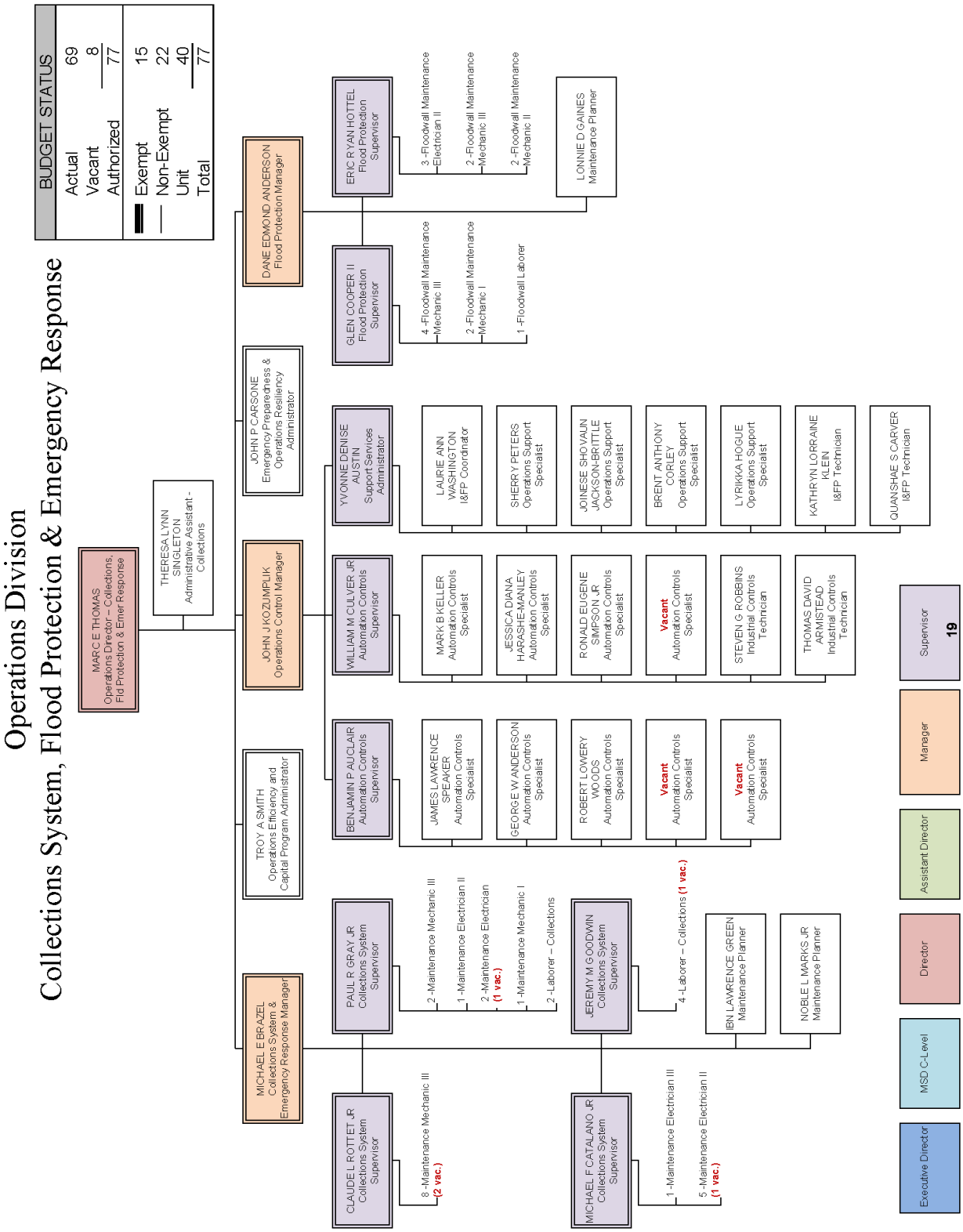
BUDGET STATUS	
Actual	2
Vacant	1
Authorized	3
Exempt	2
Non-Exempt	1
Unit	0
Total	3

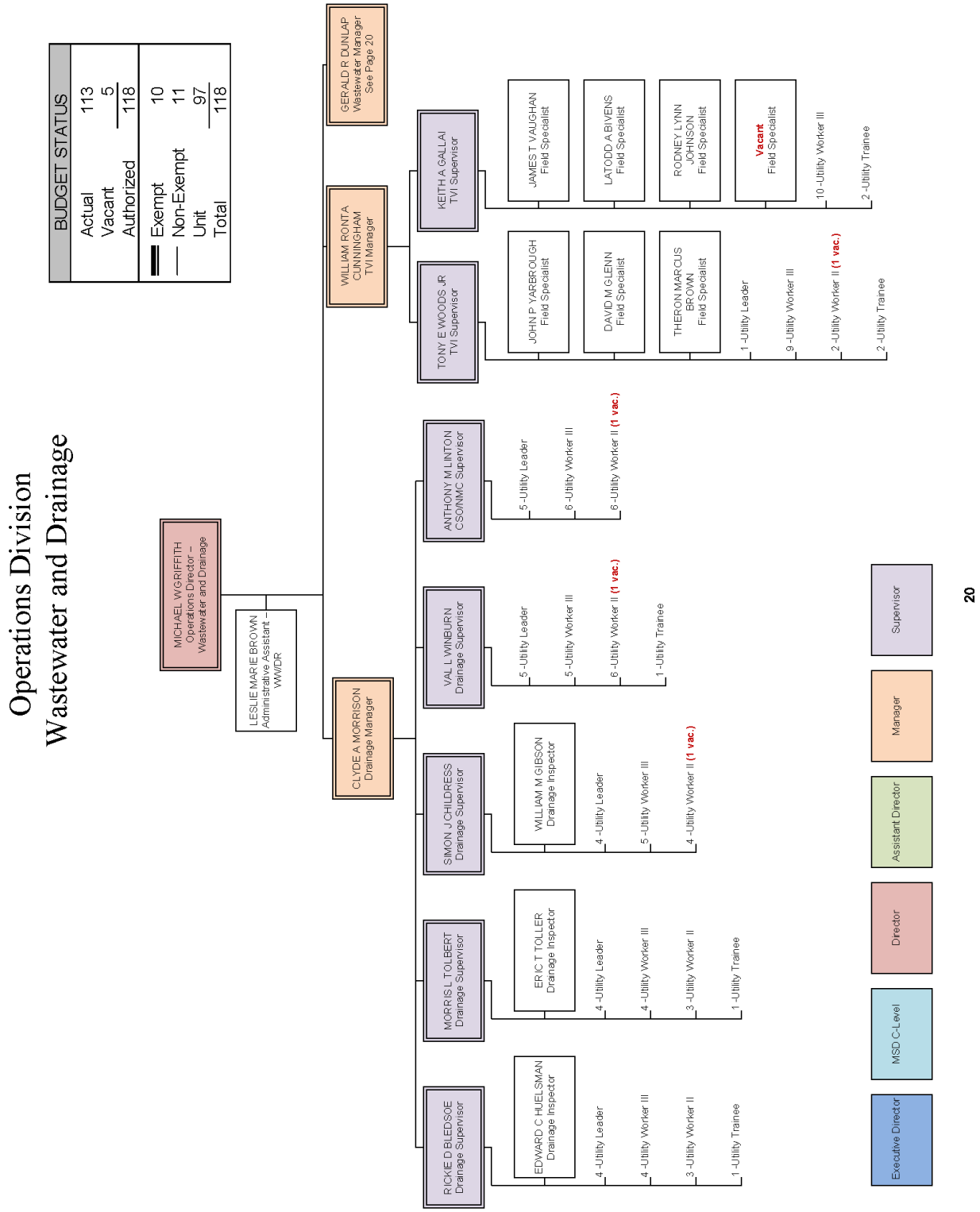


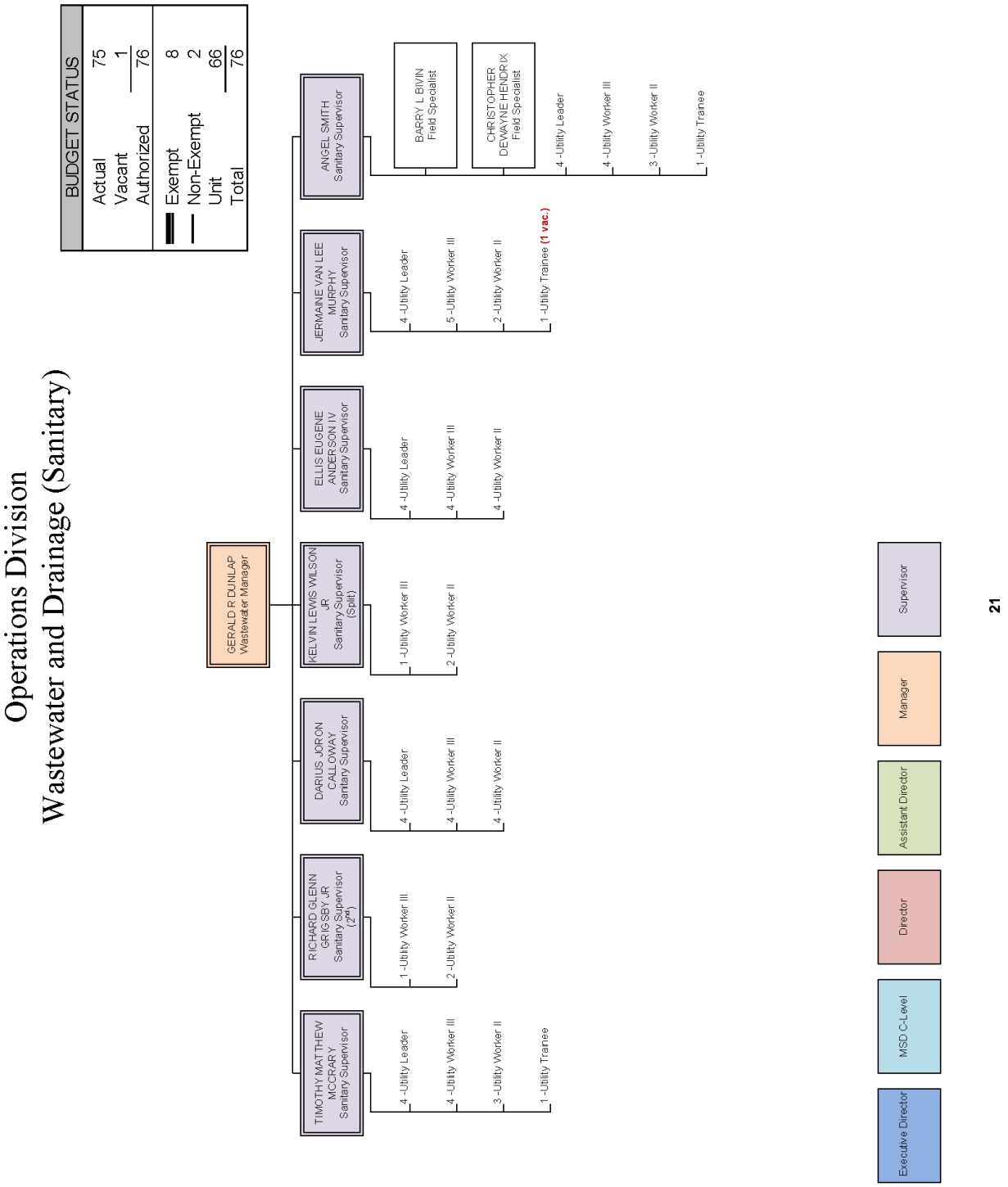
Executive Director | MSD C-Level | Director | Assistant Director | Manager | Supervisor

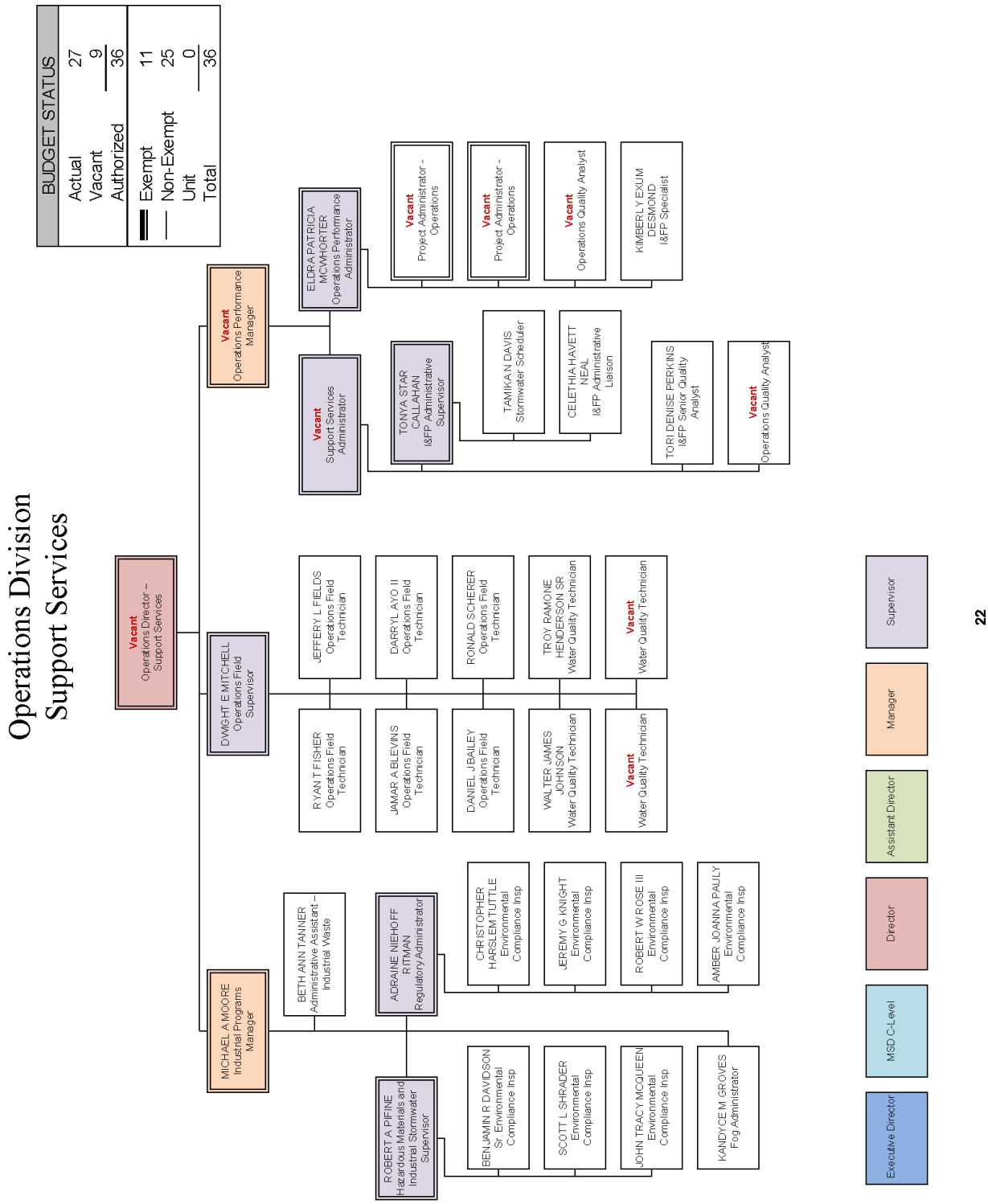

Operations Division
Treatment Facilities
BUDGET STATUS
Actual 82
Vacant 10
Authorized 92
Exempt 20
Non-Exempt 18
Unit 54
Total 92
ALEX E NOVAK
Operations Director – Treatment Facilities
VANESSA D GRAVES
Executive Secretary
JAMES T BRIDGES JR
Treatment Facilities Maintenance Manager
See Page 17
DAYMOND M TALLEY
Assistant Director – Treatment Facilities
JOHN M KESSEL
Operations Treatment Facilities Manager
ZONETTA E ENGLISH
Research Manager
Vacant
Operations Treatment Facilities Manager
ROBIN RAE BURCH
Process Support Supervisor
RHONDA A CROTZER
Performance Metrics Supervisor
DAVID ROBERT RADKE JR
Research Chemist
LISA MARGARET GOWIN
Chemist
JACQUELINE C SHAVER
Laboratory Tech IV
KAITLIN GRACE CRAIG
Laboratory Tech III
ANNE MARIE DANIELS
Laboratory Tech II
SHEILA L EDWARDS
Laboratory Tech I
Vacant
Operations Odor Control Administrator
MEGAN RENEE ROTHGERBER
Quality Assurance Specialist
RHONDA JO GREEN
Laboratory Technician IV
PHAEDRA A SMITH
Laboratory Technician III
ALICIA LEE RICKETTS
Laboratory Tech II
OLIVIA KAY WORLAND
Laboratory Tech II
STACI HUBER
Process Supervisor-Operations (HCWQTC)
4 -Process Specialist
1 -Tractor-Trailer Driver (1 vac.)
KEVIN L THOMPSON
Process Supervisor-Operations (DRGWQTC)
4 -Process Specialist
1 -Senior Operator
1 -Operator-in-Training
LARRY W DUKE
Process Supervisor-Operations (B Shift)
6 -Process Technician III (1 vac.)
CARYN M MULLIGAN
Process Supervisor-Operations (A Shift)
1 -Process Specialist
8 -Process Technician III
2 -Process Technician I
WILLIAM E FORD JR
Process Supervisor-Operations (FFWQTC)
3 -Process Specialist
1 -Tractor-Trailer Driver (1 vac.)
Vacant
Process Supervisor-Operations (CCWQTC)
3 -Process Specialist (1 vac.)
1 -Senior Operator
1 -Tractor-Trailer Driver (1 vac.)
MICHAEL A SCOTT
Process Supervisor-Operations (C Shift)
10 -Process Technician III
1 -Process Technician II
JAMES ALEXANDER SKINNER JR
Process Supervisor-Operations (B Shift)
5 -Process Technician III
1 -Process Technician II
Vacant
Process Supervisor - Operations
NORMAN D HALE III
Process Control Operator
NICOLE C NEAL
Process Control Operator
LATASHA A MCALMONT
Process Control Operator
AARON C SMITH
Process Control Operator
ANTOINE HAMILTON SR
Process Control Operator
SHAWN MICHAEL MURPHY
Process Control Operator
ANDREW B FOREMAN
Maintenance Planner
RICKIE DEAN JACKSON
Maintenance Planner
Vacant
Contracting and Invoicing Assistant
Supervisor
Manager
Assistant Director
Director
MSD C-Level 17
Executive Director

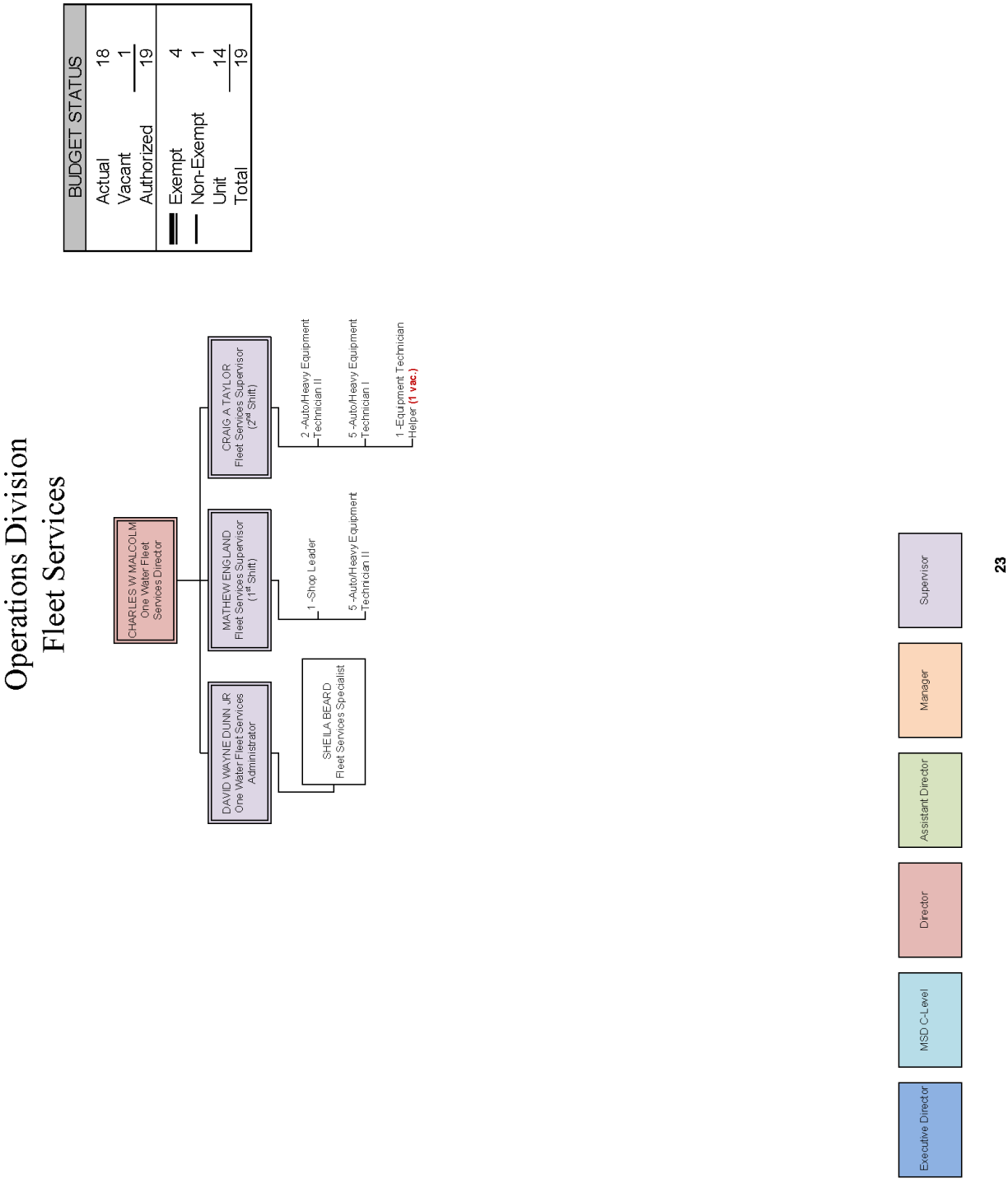

Operations Division
Treatment Facilities (Maintenance)
BUDGET STATUS
Actual 38
Vacant 0
Authorized 38
Exempt 5
Non-Exempt 0
Unit 33
Total 38
JAMES T BRIDGES JR
Treatment Facilities Maintenance Manager
RANDAL LEE CLIFTON
Electrical Maintenance Supervisor
3 -Maintenance Electrician III
5 -Maintenance Electrician II
1 -Maintenance Electrician I
JONATHAN O BALDRIDGE
Mechanical Maintenance Supervisor
7 -Maintenance Mechanic III
GEARY WAYNE LASLEY
Mechanical Maintenance Supervisor
5 -Maintenance Mechanic III
3 -Maintenance Mechanic II
3 -Laborer
ROBERT L ROY
Electrical Maintenance Supervisor
1 -Maintenance Electrician III
3 -Maintenance Mechanic III
2 -Maintenance Mechanic II
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
18


Operations Division
Collections System, Flood Protection & Emergency Response
BUDGET STATUS
Actual 69
Vacant 8
Authorized 77
Exempt 15
Non-Exempt 22
Unit 40
Total 77
MARCE THOMAS
Operations Director – Collections, Fld Protection & Emer Response
THERESA LYNN SINGLETON
Administrative Assistant - Collections
JOHN J KOZUMPLIK
Operations Control Manager
JOHN P CARSONE
Emergency Preparedness & Operations Resiliency Administrator
DANE EDMOND ANDERSON
Flood Protection Manager
MICHAEL E BRAZEL
Collections System & Emergency Response Manager
TROY A SMITH
Operations Efficiency and Capital Program Administrator
YVONNE DENISE AUSTIN
Support Services Administrator
LAURIE ANN WASHINGTON
I&FP Coordinator
SHERRY PETERS
Operations Support Specialist
JOINESE SHOVAUN JACKSON-BRITTLE
Operations Support Specialist
BRENT ANTHONY CORLEY
Operations Support Specialist
LYRIKKA HOGUE
Operations Support Specialist
KATHRYN LORRAINE KLEIN
I&FP Technician
QUANSHAE S CARVER
I&FP Technician
WILLIAM M CULVER JR
Automation Controls Supervisor
MARK B KELLER
Automation Controls Specialist
JESSICA DIANA HARASHE-MANLEY
Automation Controls Specialist
RONALD EUGENE SIMPSON JR
Automation Controls Specialist
Vacant
Automation Controls Specialist
STEVEN G ROBBINS
Industrial Controls Technician
THOMAS DAVID ARMISTEAD
Industrial Controls Technician
BENJAMIN P AUCLAIR
Automation Controls Supervisor
JAMES LAWRENCE SPEAKER
Automation Controls Specialist
GEORGE W ANDERSON
Automation Controls Specialist
ROBERT LOWERY WOODS
Automation Controls Specialist
Vacant
Automation Controls Specialist
Vacant
Automation Controls Specialist
ERIC RYAN HOTTEL
Flood Protection Supervisor
3 -Floodwall Maintenance Electrician II
2 -Floodwall Maintenance Mechanic III
2 -Floodwall Maintenance Mechanic II
GLEN COOPER II
Flood Protection Supervisor
4 -Floodwall Maintenance Mechanic III
2 -Floodwall Maintenance Mechanic I
1 -Floodwall Laborer
LONNIE D GAINES
Maintenance Planner
PAUL R GRAY JR
Collections System Supervisor
2 -Maintenance Mechanic III
1 -Maintenance Electrician II
2 -Maintenance Electrician (1 vac.)
1 -Maintenance Mechanic I
2 -Laborer – Collections
JEREMY M GOODWIN
Collections System Supervisor
4 -Laborer – Collections (1 vac.)
BEN LAWRENCE GREEN
Maintenance Planner
NOBLE L MARKS JR
Maintenance Planner
CLAUDEL ROTTET JR
Collections System Supervisor
8 -Maintenance Mechanic III (2 vac.)
MICHAEL F CATALANO JR
Collections System Supervisor
1 -Maintenance Electrician III
5 -Maintenance Electrician II (1 vac.)
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor 19


Operations Division
Wastewater and Drainage
BUDGET STATUS
Actual 113
Vacant 5
Authorized 118
Exempt 10
Non-Exempt 11
Unit 97
Total 118
MICHAEL W GRIFFITH
Operations Director – Wastewater and Drainage
LESLIE MARIE BROWN
Administrative Assistant – WWDR
GERALD R DUNLAP
Wastewater Manager
See Page 20
WILLIAM RONTA CUNNINGHAM
TVI Manager
CLYDE A MORRISON
Drainage Manager
KEITH A GALLAI
TVI Supervisor
TONY E WOODS JR
TVI Supervisor
JAMES T VAUGHAN
Field Specialist
LATODD A BIVENS
Field Specialist
RODNEY LYNN JOHNSON
Field Specialist
Vacant
Field Specialist
JOHN P YARBROUGH
Field Specialist
DAVID M GLENN
Field Specialist
THERON MARCUS BROWN
Field Specialist
1 -Utility Leader
9 -Utility Worker III
2 -Utility Worker II (1 vac.)
2 -Utility Trainee
10 -Utility Worker III
2 -Utility Trainee
ANTHONY M LINTON
CSO/NMC Supervisor
5 -Utility Leader
6 -Utility Worker III
6 -Utility Worker II (1 vac.)
VAL L WINBURN
Drainage Supervisor
5 -Utility Leader
5 -Utility Worker III
6 -Utility Worker II (1 vac.)
1 -Utility Trainee
SIMON J CHILDRESS
Drainage Supervisor
WILLIAM M GIBSON
Drainage Inspector
4 -Utility Leader
5 -Utility Worker III
4 -Utility Worker II (1 vac.)
MORRIS L TOLBERT
Drainage Supervisor
ERIC T TOLLER
Drainage Inspector
4 -Utility Leader
4 -Utility Worker III
3 -Utility Worker II
1 -Utility Trainee
RICKIE D BLEDSOE
Drainage Supervisor
EDWARD C HUELSMAN
Drainage Inspector
4 -Utility Leader
4 -Utility Worker III
3 -Utility Worker II
1 -Utility Trainee
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
20


Operations Division
Wastewater and Drainage (Sanitary)
BUDGET STATUS
Actual 75
Vacant 1
Authorized 76
Exempt 8
Non-Exempt 2
Unit 66
Total 76
GERALD R DUNLAP
Wastewater Manager
TIMOTHY MATTHEW MCCRARY
Sanitary Supervisor
4 -Utility Leader
4 -Utility Worker III
3 -Utility Worker II
1 -Utility Trainee
RICHARD GLENN GRIGSBY JR
Sanitary Supervisor (2nd)
1 -Utility Worker III
2 -Utility Worker II
DARIUS JORON CALLOWAY
Sanitary Supervisor
4 -Utility Leader
4 -Utility Worker III
4 -Utility Worker II
KELVIN LEWIS WILSON JR
Sanitary Supervisor (Split)
1 -Utility Worker III
2 -Utility Worker II
ELLIS EUGENE ANDERSON IV
Sanitary Supervisor
4 -Utility Leader
4 -Utility Worker III
4 -Utility Worker II
JERMAINE VAN LEE MURPHY
Sanitary Supervisor
4 -Utility Leader
5 -Utility Worker III
2 -Utility Worker II
1 -Utility Trainee (1 vac.)
ANGEL SMITH
Sanitary Supervisor
BARRY L BIVIN
Field Specialist
CHRISTOPHER DEWAYNE HENDRIX
Field Specialist
4 -Utility Leader
4 -Utility Worker III
3 -Utility Worker II
1 -Utility Trainee
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
21


Operations Division
Support Services
BUDGET STATUS
Actual 27
Vacant 9
Authorized 36
Exempt 11
Non-Exempt 25
Unit 0
Total 36
Vacant
Operations Director – Support Services
Vacant
Operations Performance Manager
ELDRA PATRICIA MCWHORTER
Operations Performance Administrator
Vacant
Project Administrator - Operations
Vacant
Project Administrator - Operations
Vacant
Operations Quality Analyst
KIMBERLY EXUM DESMOND
I&FP Specialist
Vacant
Support Services Administrator
TONYA STAR CALLAHAN
I&FP Administrative Supervisor
TAMIKA N DAVIS
Stormwater Scheduler
CELETHIA HAVETT NEAL
I&FP Administrative Liaison
TORI DENISE PERKINS
I&FP Senior Quality Analyst
Vacant
Operations Quality Analyst
DWIGHT E MITCHELL
Operations Field Supervisor
JEFFERY L FIELDS
Operations Field Technician
DARRYL AYO II
Operations Field Technician
RONALD SCHERER
Operations Field Technician
TROY RAMONE HENDERSON SR
Water Quality Technician
Vacant
Water Quality Technician
RYAN T FISHER
Operations Field Technician
JAMAR A BLEVINS
Operations Field Technician
DANIEL J BAILEY
Operations Field Technician
WALTER JAMES JOHNSON
Water Quality Technician
Vacant
Water Quality Technician
MICHAEL A MOORE
Industrial Programs Manager
BETH ANN TANNER
Administrative Assistant – Industrial Waste
ADRAINE NIEHOFF RITMAN
Regulatory Administrator
CHRISTOPHER HARSLEM TUTTLE
Environmental Compliance Insp
JEREMY G KNIGHT
Environmental Compliance Insp
ROBERT W ROSE III
Environmental Compliance Insp
AMBER JOANNA PAULY
Environmental Compliance Insp
ROBERT A PIFINE
Hazardous Materials and Industrial Stormwater Supervisor
BENJAMIN R DAVIDSON
Sr. Environmental Compliance Insp
SCOTT L SHRADER
Environmental Compliance Insp
JOHN TRACY MCQUEEN
Environmental Compliance Insp
KANDYCE M GROVES
Fog Administrator
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
22


Operations Division
Fleet Services
BUDGET STATUS
Actual 18
Vacant 1
Authorized 19
Exempt 4
Non-Exempt 1
Unit 14
Total 19
CHARLES W MALCOLM
One Water Fleet Services Director
DAVID WAYNE DUNN JR
One Water Fleet Services Administrator
SHEILA BEARD
Fleet Services Specialist
MATHEW ENGLAND
Fleet Services Supervisor (1st Shift)
1 -Shop Leader
5 -Auto/Heavy Equipment Technician II
CRAIG A TAYLOR
Fleet Services Supervisor (2nd Shift)
2 -Auto/Heavy Equipment Technician III
5 -Auto/Heavy Equipment Technician I
1 -Equipment Technician Helper (1 vac.)
Executive Director
MSD C-Level
Director
Assistant Director
Manager
Supervisor
23

Appendix G Continuing Sewer System Assessment Protocol

CONTINUING SEWER SYSTEM ASSESSMENT PROTOCOL

November 20, 2020

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Section 1 Continuous Sewer System Assessment Overview

1.1 Purpose

The Louisville and Jefferson County Metropolitan Sewer District (MSD) conducts a wide-ranging sewer condition evaluation to comply with its federal Amended Consent Decree (ACD) as well as the Capacity, Management, Operations and Maintenance (CMOM) and Nine Minimum Control (NMC) programs. The Continuous Sewer System Assessment (CSSA) program, Emergency Evaluation and Escalation Program (EEEP), Infrastructure Rehabilitation Program (IRP), and Gravity Line Preventive Maintenance (GLPM) program address certain aspects of Paragraph 24c., "CMOM (Capacity, Management, Operations and Maintenance) Programs Self-Assessment" and Paragraph 24a. "Nine Minimum Controls (NMC)" from the ACD.

The primary objective of the CSSA is to develop and implement maintenance and rehabilitation recommendations that reduce sewer overflows and improve the capacity, structural integrity and functionality of existing assets.

1.2 Goals

The goal of the CSSA is to address sanitary sewer overflows (SSOs) and maintain or increase the functionality of existing assets.

1.3 Acronyms

CCTV ..... Closed Circuit Television

CIPP ..... Cured-In-Place Pipe

CMOM ..... Capacity Management, Operations and Maintenance

CSO ..... Combined Sewer Overflow

CSS ..... Combined Sewer System

CSSA ..... Continuous Sewer System Assessment

GIS ..... Geographic Information Systems

I/I ..... Infiltration and Inflow

ICA ..... Interceptor Condition and Assessment

IPS	Infor Public Sector
IRP	Infrastructure Rehabilitation Program
LOJIC	Louisville and Jefferson County Information Consortium
MACP	Manhole Assessment Certification and Program
MSD	Louisville and Jefferson County Metropolitan Sewer District
NASSCO	National Association of Sewer Service Companies
NMC	Nine Minimum Controls
PACP	Pipeline Assessment and Certification Program
POTW	Publicly Owned Treatment Works
PSC	Property Service Connection
SCAP	System Capacity Assurance Plan
SL-RAT	Sewer Line Rapid Assessment Tool
SSES	Sanitary Sewer Evaluation Study
SSO	Sanitary Sewer Overflow
SSS	Separate Sanitary System
TISCIT	Total Integrated Sonar & CCTV Inspection Technique
WUS	Waters of the US

Section 2 System and Organizational Framework

2.1 MSD Wastewater Collection, Transmission and Treatment System

MSD is responsible for the operation and maintenance of the sewer system within the public right-of-way and dedicated easements in Jefferson County, Kentucky, in addition to small areas in several of the surrounding counties. The sanitary sewer collection system includes over 3,300 miles of sewers ranging from 6 inches to 27.5 feet in diameter, built between the mid-1800's and present day. The construction materials consist of brick, iron, polyvinyl chloride, clay, vitrified clay, and reinforced concrete. There are over 75,000 combined and separate sanitary manholes in the system constructed of reinforced concrete and brick materials. MSD also operates and maintains over 68,000 catch basins and yard drains, 250 sanitary pump stations, 16 flood pump stations, and 5 regional water quality treatment centers (WQTCs).

The system is divided into 10 basins, based on receiving WQTC and major infrastructure sewersheds, as shown in Figure 2-1. These basins are used to track capacity credits, as documented in MSD System Capacity Assurance Plan (SCAP).

Figure 2-1 MSD Collection System and SCAP Basins

2.1.1 Collection System

MSD owns and operates a system that transports wastewater by both gravity and force main systems. The gravity system collects wastewater at the property service connection (PSC) from the point of discharge from homes and businesses, and conveys it through a series of manholes, collector sewers, and interceptors to a permitted Publicly Owned Treatment Works (POTW) before being discharged to the Waters of the United States (WUS).

2.1.2 Transmission and Treatment System

Wastewater is conveyed to MSD's network of treatment facilities, which are permitted by the Kentucky Department of Environmental Protection under the Kentucky Pollutant Discharge Elimination System. The treatment process provides the means to achieve beneficial reuse of wastewater biosolids, while treating the wastewater to a level that allows for sustained recreational and commercial uses, as well as natural habitats for aquatic wildlife. The MSD network includes both combined sewer system (CSS) and sanitary sewer system (SSS) treatment, employing a variety of activated sludge treatment processes that have received national awards for operational excellence.

2.2 Program Framework

The CSSA, EEEP, IRP and GLPM programs require a defined approach to prioritize, perform, and track the inspection, cleaning, rehabilitation, replacement, and maintenance of sewer assets on a scheduled cycle. While the programs are prescribed under CMOM, they are also intended to improve compliance with NMC 1 and 2, which require the proper operation, regular maintenance, and maximum use of MSD's CSS to prevent dry weather combined sewer overflows (CSOs) and reduce wet weather CSOs to the extent possible.

Assets are put into groups based on location and diameter. Once the inspection of an asset group is complete, the data is evaluated through a pipe condition assessment process and appropriate maintenance and rehabilitation actions are taken. The inspection activities are carried out under MSD's CSSA program, while immediate repairs are addressed by the EEEP, rehabilitation activities are addressed by the IRP, and recurring maintenance activities are addressed by the GLPM. The process workflow for the programs is outlined in Figure 2-2. Progress is updated annually in the ACD annual report.

The IRP, a subsidiary program of the CSSA, pertains to sewer lines identified through inspections and data analysis as having structural or significant maintenance issues. This program recommends a rehabilitation method to restore asset integrity, assigns work to available resources, tracks progress, and documents the work performed on designated segments.

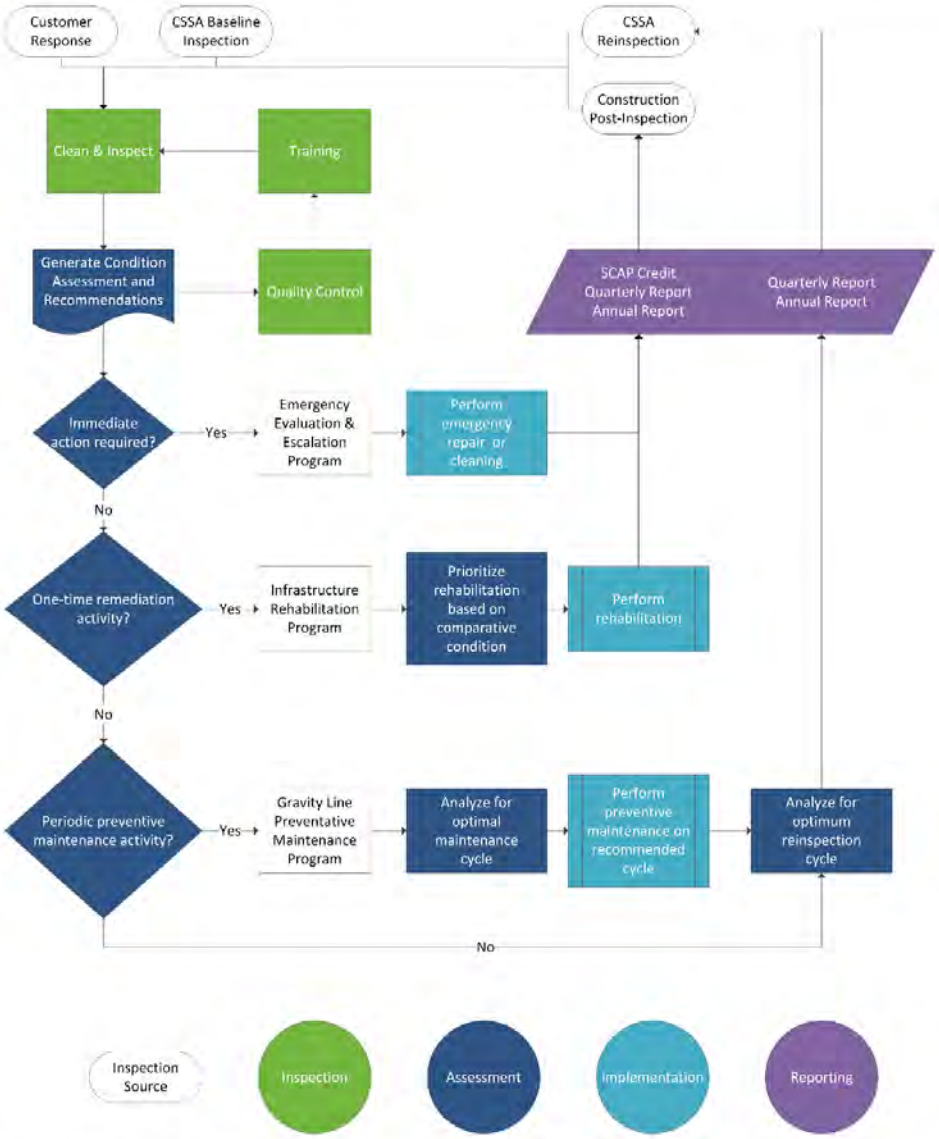

Figure 2-2 CSSA Protocol Workflow

The GLPM, formerly the Blockage Abatement Program, is another subsidiary program of the CSSA. This program encompasses sewer lines identified through inspections and data analysis as having recurring maintenance needs due to root blockages, sedimentation, or oil and grease deposits. Additionally, this program tracks the segments with operational defects, sets up recurring work orders, assigns work to available resources, tracks progress, and documents the work performed.

To proactively address current and upcoming infrastructure issues, a detailed decision framework has been developed including inspecting, assessing, implementing, and reporting in a continuous cycle, as illustrated in Figure 2-2.

- ***Inspecting*** includes mainline and manhole inspections, including gravity lines and force mains, as well as flow monitoring in mains and at pump stations.
- ***Assessing*** includes evaluation of inspection data for major defects or issues, recommending remediation activities as needed, and prioritizing activities based on likelihood and consequence of failure.
- ***Implementing*** includes infrastructure rehabilitation and replacement as well as proactive maintenance activities like periodic cleaning.
- ***Reporting*** includes post-construction inspection and monitoring as well as calculation of credits in accordance with the approved SCAP procedure.

The team that works to execute the protocol consists of MSD staff from a variety of departments, including Regulatory Compliance, Records & GIS in Engineering, and Wastewater and Drainage in Operations.

2.3 Information Management

Infor Public System (IPS) asset management system, formerly known as Hansen, houses the entire master asset inventory of MSD's sewer and drainage infrastructure. All work performed on pipes, manholes, and other infrastructure, including detailed inspections and preventive maintenance activities, are managed in this system.

The data gathered from inspections, or from documenting work performed under the program, is imported into IPS using various import tools or manually entered into the system by staff or consultants.

Mainline inspections are performed using coding defined in the Pipeline Assessment and Certification Program (PACP) defect coding standards, developed by the National Association of Sewer Service Companies (NASSCO). Info regarding this standard may be found in Appendix A.

Mainline inspections are recorded using NASSCO-certified PACP software. MSD currently uses GraniteNet to perform and manage inspections. Contractors may use any NASSCO-certified

PACP software. Information regarding the certification requirements and a list of certified software vendors may be found in Appendix B.

Deliverables for inspections conducted prior to implementing GraniteNet, including reports, videos and photos, are archived on the network at X:\Neztek Data Exchange. Inspections conduction since the implementation can be accessed in GraniteNet.

Section 3 Inspection

Areas may be selected for an in-depth Interceptor Condition Assessment (ICA) or Sanitary Sewer Evaluation Study (SSES).These studies can include CCTV, sonar, laser profiling, manhole, and wet weather inspections. Other areas may include only CCTV, acoustic, and manhole inspections.

3.1 Mainline Inspections

Sewer conditions are assessed by performing CCTV and Lidar/SONAR inspections and by coding defects using PACP defect codes. Defects are assigned a severity rating ranging from 1 to 5, with 5 being the most severe and 1 being the least severe. Defect reports are available in IPS and PACP defect codes can be found in Appendix A. Common defects, along with their associated severity rating, are given in Table **3-1**.

For segments that are 6 to 12 inches in diameter and have a severity rating of 2 or less according to the most recent PACP data, acoustic inspections are used to asses defects in segments and prescreen for additional CCTV. Sewer Line Rapid Assessment Tools (SL-RAT) emit an acoustic signal through a sewer segment from the transmitting device to the receiving device that are both inserted into the manholes on either end of the segment. A score is obtained ranging from 0 to 10, with 0 being a complete blockage and 10 being no blockage within the segment. If a score of 6 or less is received, the segment is flushed and retested. If the segment continues to score less than 6 after cleaning, it is referred for CCTV.

Table 3-1 PACP Defect Severity

Group	Descriptor	Criteria	Severity
Crack	Circumferential		1
	Longitudinal		2
	Multiple		3
Fracture	Circumferential		2
	Longitudinal		3
	Multiple		4
Pipe Failures	Broken	Soil Visible	5
	Hole	Soil Visible	5
Collapse	Pipe		5
Deformed	Pipe	<=10%	4
		> 10%	5
Joint	Offset	Med	1
		Large	2
	Separated	Med	1
		Large	2
Surface Damage Chemical	Roughness Increased	C	1
	Surface Spelling	C	2
	Aggregate Visible	C	3
	Aggregate Missing	C	4
	Reinforcement Visible	C	5
Deposits Attached	Encrustation, Grease, or Ragging	<=10%	2

Table 3-1 PACP Defect Severity			
Group	Descriptor	Criteria	Severity
		<=20%	3
		<=30%	4
		> 30%	5
Infiltration	Weeper		2
	Dripper		3
	Runner		4
	Gusher		5

3.1.1 Routine Mainline Inspection

From FY08 through FY18, MSD committed to performing a baseline inspection of its gravity mainlines through SSES and ICA projects, as well as by SCAP sub-basin. Based on a risk register developed from the initial inspections, MSD has developed the inspection schedule shown in **Table 3-2**. The most critical and vulnerable infrastructure is on an annual inspection schedule and less critical infrastructure is on a schedule ranging from 5 to 20 years. Development of the risk register is discussed further in Section 4. Interceptors are assigned for inspection as a single project per interceptor, and the inspection schedule is based on the interceptor segment with the highest risk rating. SCAP sub-basins are similarly assigned for inspection as a single project with schedule based on the segment within the sub-basin with the highest risk.

Table 3-2 Target Frequency – Inspection						
Schedule Period (Years)		Consequence of Failure (COF)				
		1	2	3	4	5
Likelihood of Failure (LOF)	1	20	20	20	20	10
	2	20	20	10	10	10
	3	20	10	10	10	5
	4	20	10	10	5	1
	5	10	10	5	1	0.5

3.1.2 Post-Construction Inspection

Rehabilitation construction contracts require post-construction CCTV and coding to confirm defects have been addressed, to identify any rehabilitation construction issues, and to reset defect scores used in the recommendation development.

3.1.3 New Asset Inspection

MSD requires inspections of newly constructed mainlines as they are brought into the system, as well as inspections of any newly-acquired gravity infrastructure.

3.1.4 Quality Control / Quality Assurance

Mainline inspection data captured via CCTV is strictly QA/QC'ed following NASSCO recommended standards, available in Appendix C. Videos and detailed observations for CCTV inspection may require additional work following QA/QC review until passing final acceptance criteria.

3.2 Manhole Inspections

Manhole conditions are assessed using a manhole inspection form and defect codes generated by MSD, available in Appendix D. Manhole asset information is field verified, including measurements and materials, and corrected in IPS as required. Structural condition is evaluated for each manhole component, including the cover, frame, rings, cone, wall, bench, channel and steps, as well as for each pipe connection. Characteristics and condition assessments are described in the inspection information. Infiltration and inflow (I/I) are rated for each component. Additional information regarding structural defects or I/I presence may be included in the comments. Photos are taken of the inspection to document conditions. MSD manhole inspection codes are identified with associated severity ratings in Table **3-3**.

Table 3-3 MSD Manhole Inspection Defect Severity

Group		Descriptor Criteria	Severity
Structural Condition Codes	Minor	Misaligned	1
		Slight Separation	
	Moderate	Light Deterioration	2
		Severe Separation	
	Heavy	Leaking	3
		Medium Deterioration	
		Poor Fitting	
		Roots	
	Severe	Broken	4
		Cracks	
		Heavy Deterioration	
		Material Missing	
		Multiple	
I/I Quantity Codes	Minor	Evidence I/I	1
	Moderate	Light I/I Seen Occurring	2
	Heavy	Medium I/I Seen Occurring	3
	Severe	Heavy I/I Seen Occurring	4

3.2.1 Routine Manhole Inspection

From FY08 through FY18, MSD committed to performing a baseline inspection of its gravity mainlines. Manholes were inspected as a part of ICA and SSES projects and where projects were planned under the IRP to address known problems in the system. MSD is currently building its

baseline for gravity manholes by inspecting areas planned under the IRP to address known problems in the system.

3.2.2 New Asset Inspection

MSD requires inspections of newly constructed manholes as they are brought into the system, as well as inspections of any newly-acquired gravity infrastructure.

3.3 Service Line Inspections

MSD currently inspects service lines proactively only when a main has been identified for rehabilitation under the IRP. The public portion of the lateral is inspected for defects that may interfere with cured-in-place lining and repairs are made as needed prior to rehabilitation. MSD also inspects service lines when an issue has been identified (e.g., backup), and, when appropriate, assigns the lateral for rehabilitation.

3.4 Strengths and Limitations

Asset inspections inherently have strengths and limitations. A brief discussion of the strengths and limitations are included below.

3.4.1 Strengths

- Visual assessment of field conditions
- Ability to see underground assets
- Ability to assess severity with quantifiable severity codes
- Establishing a system-wide condition of assets
- Awareness of asset conditions
- Verifying asset locations
- Ability to map defects
- Standardized data
- Allows regulatory compliance
- Proactive use of resources, facilitates remediation prior to failure

3.4.2 Limitations

- Inspection machinery has certain limitations due to the information collection device
    - Length of the cable
    - Speed of video collection
    - Camera angles, pipe deviation angles or changes in pipe slope inhibiting collection of asset condition
- Abandoned or Incomplete surveys
    - Omitted or erroneous defects
    - Full assessment can only be conducted with complete surveys
    - Flow conditions greater than 50% of pipe limits visual inspection
    - Limited pipe visibility due to extensive amounts of roots or obstructions
    - Consistency and quality of defect coding
    - Variance in defect coding due to human interpretation
- Access to assets or difficulty locating assets, i.e. buried manholes or limited road access
- Weather conditions
- Agency-specific manhole inspection structure

Section 4 Assessment

4.1 Data Gathering and Evaluation

Once an inspection has been performed, asset evaluation can begin. The evaluation process includes gathering asset inspection data, evaluation of asset condition, quantifying asset defects, generating initial recommendations for rehabilitation, maintenance and reinspection, and review of initial recommendations for final recommendation.

Data is gathered and prepared to quantify defects and make initial determination of rehabilitation and maintenance projects. A Microsoft Access database joins sewer infrastructure defects, asset information and work order history stored in IPS with geographic details stored in LOJIC. The data is then processed through a series of queries. The queries calculate ratings and indexes for each asset which are used to make recommendations. Recommended activities can vary from scheduled reinspection at a later date to complete replacement.

4.2 Recommendation Development

4.2.1 Pipe Evaluation and Initial Recommendations

Pipe ratings and indexes are calculated using the NASSCO PACP Condition Grading System, available in Appendix E. Ratings are the sum of the defect severity scores assigned to each pipe segment, and indexes are the average of the defect severity scores assigned to each pipe segment. Ratings and indexes are calculated for overall defects, structural defects including corrosion, and O&M defects per the NASSCO guidance. MSD has also developed additional ratings and indexes to identify specific defects, such as infiltration and FOG, or to prescribe specific maintenance activities, such as root cutting or point repair.

Initial pipe recommendations are based on indexes and ratings. Recommended activities are described in Table 4-1. To aid in the evaluation process, a pipe decision matrix is described in Figure 4-1.

Table 4-1 Mainline Maintenance and Rehabilitation Activities

Method	Description	Benefits	Drawbacks
Replace Pipe	Full pipe replacement is recommended on review when there is a high frequency of defects with high severity codes and when rehabilitation is not applicable.	Reduction of I/I New materials New expected life of sewer infrastructure Functional pipe	Potential high construction and restoration costs Maintaining existing sewer flows Construction access Disturb neighborhood/ businesses
Cured-In - Place Pipe	CIPP is to pull a liner through a pipe and then add heat to cure and adhere the liner to the existing pipe thus creating a new pipe inside of the existing pipe.	Reduction of I/I New life expectancy of pipe Minimal surface restoration costs Minimal disturbance of surrounding areas Lateral line connections and joints sealed Provides structural support	Access point to pipe could cause installation issues Results are temperature dependent Slightly reduces the diameter of the pipe Cost increases as size of liner increases

Table 4-1 Mainline Maintenance and Rehabilitation Activities

Method	Description	Benefits	Drawbacks
Pipe Point Repair	A point repair includes rehabilitation to a single location to address concerns such as holes, infiltration, and joint concerns. For pipe point repairs, a single point repair is usually less than 8 linear feet of a pipe. Work could include multiple point repairs along one pipe segment and or manhole.	Reduction of I/I Repaired point of defect	Potential difficulty in reaching defect Potential difficulty in making repair Potential high construction and restoration costs Maintaining existing sewer flows Construction access Disturb neighborhood/ businesses
PM Cleaning	Cleaning sewer entails flushing out the line to remove sediment, rocks and other obstructions of flow. Removal of heavy materials such as rocks or debris.	Restores hydraulic capacity to pipe	Inadvertently damage pipe Access Maintaining existing flows Removal and disposal of material
Heavy Cleaning (includes root cutting)	Heavy cleaning includes large obstacles. Removal of heavy materials such as rocks, roots or debris.	Restores hydraulic capacity to pipe Typically needed for further assessment	Inadvertently damage pipe Potential damage structure Access Maintaining existing flows Removal and disposal of material

Table 4-1 Mainline Maintenance and Rehabilitation Activities			
Method	**Description**	**Benefits**	**Drawbacks**
Chemical Root Treatment (CHEMR)	Can enter through cracks, joints or other openings. Root obstructions can decrease the hydraulic capacity of the pipe and limits the ability to complete a full inspection. It may also have adverse impacts on structural integrity.	Restores hydraulic capacity to pipe Typically needed for further assessment	Roots grow back Removal and disposal of material
Chemical Grease Treatment (CHEMG)	Used when fats, oils and grease have deposited in a pipe to restore hydraulic capacity.	Restores hydraulic capacity to pipe Typically needed for further assessment	Source not addressed

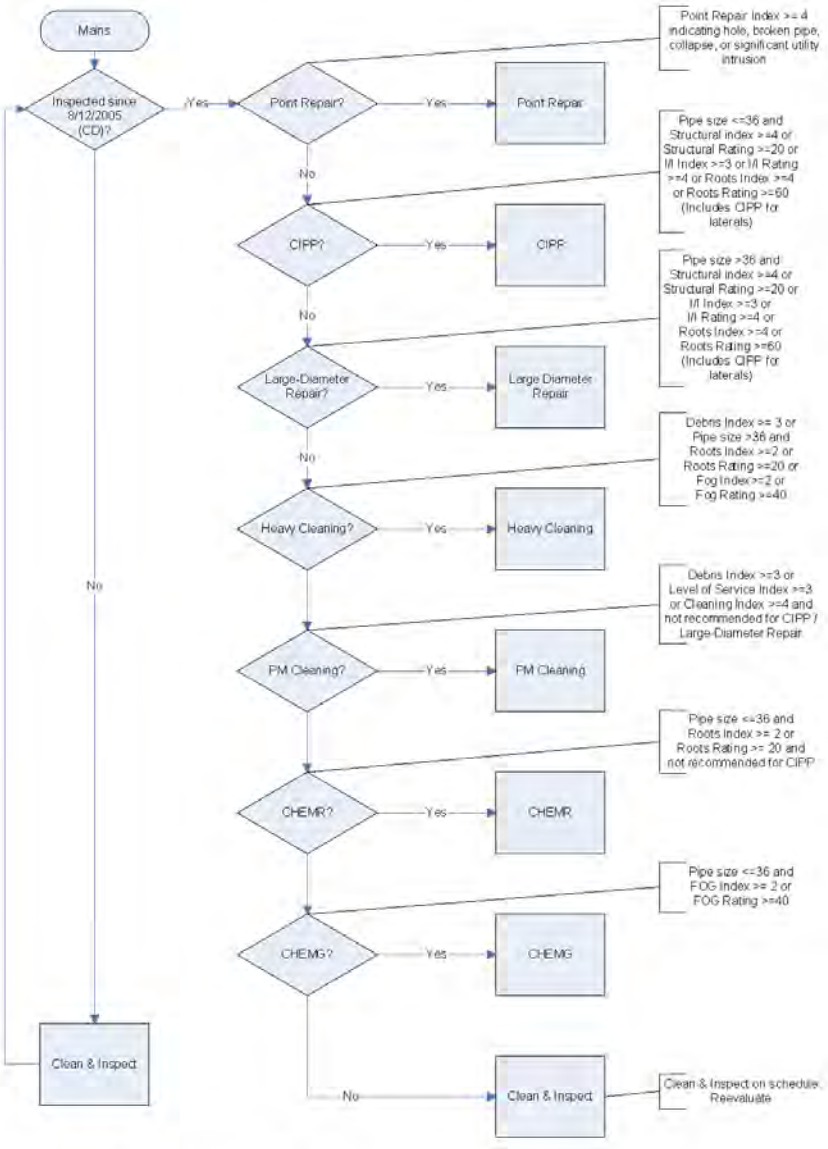

Figure 4-1 Pipe Assessment Flow Chart

4.2.2 Manhole Evaluation and Initial Recommendations

Manhole ratings and indexes are calculated based on MSD's internal grading system. Ratings are the sum of the defect severity scores assigned to each component of the manhole and are calculated for each component. Indexes are the sum of the structural or infiltration codes for all components of the manhole, and are calculated for the entire manhole structure.

Initial manhole recommendations are based on indexes, ratings, and proximity to the 100-year floodplain. Recommended activities are described in Table 4-2. To aid in the evaluation process, a manhole assessment flow chart is described in Figure 4-2.

Table 4-2 Manhole Rehabilitation Activities

Method	Description	Benefits	Drawbacks
Realign Manhole Frame	After time, the soils around a manhole or outside forces can cause the manhole frame to become misaligned. When the frame is out of alignment it can be difficult to gain manhole access or determine structural condition of the manhole. Also, I/I can enter through the misaligned frame. The rehabilitation may include a chimney seal.	Structural condition is improved Reduction of I/I Improved access	Access could be a challenge Potential high restoration costs
Install Manhole Chimney Seal	The chimney is the top portion of the manhole. A chimney seal is either a mechanical or chemical seal of all the upper components of the manhole (frame, rings, cone). Chimney seal extensions may also be required.	Reduction of I/I Flexibility restores integrity Simple construction	Access could cause installation issues Maintenance issues
Replace Manhole Frame and Cover	The manhole frame and cover replacement includes new installation and is recommended when there is damage to the existing frame and cover.	Reduction of I/I Restores access to manhole Provides structural support to manhole	Access could be a challenge Potential high restoration costs
Install Manhole Watertight Cover	Water tight covers are recommended for manhole locations which may be inundated, such as floodplains, drainage channels, etc.	Reduction of I/I	Access could cause installation issues Maintenance issues Potential high restoration costs
Line Manhole	Lining a manhole includes applying a coating. Lining a manhole is recommended when there is a presence of I/I.	Reduction of I/I Life expectancy of manhole extended Provides structural support to manhole	Access to manhole Temperature dependent

Table 4-2 Manhole Rehabilitation Activities			
Method	**Description**	**Benefits**	**Drawbacks**
Replace Manhole	Structural conditions beyond rehabilitation or point repair	Reduction of I/I Life of manhole extended	Costly alternative Potential high construction and restoration costs Maintaining existing sewer flows Construction access Disturb neighborhood/ businesses

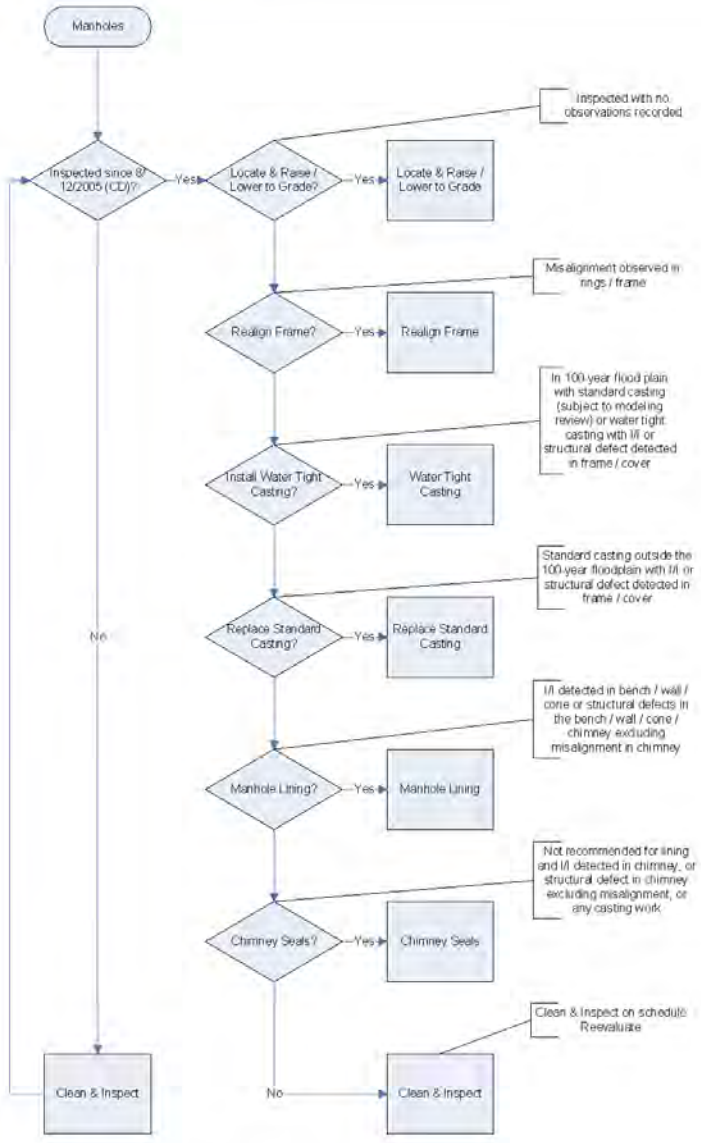

Figure 4-2 Manhole Assessment Flow Chart

4.2.3 Final Recommendations

After the initial recommendations are generated, the assets that have work order history subsequent to the most recent inspection are reviewed to determine if any of the following work orders addressed the initial problem identified in the inspection. An additional review is conducted of pipes recommended for point repairs to determine if it is feasible and more economical to repair the pipe with CIPP alone. In those cases, the pipe is recommended for CIPP and all lateral connections are added to the recommendation for rehabilitation. Site specific information and sewer knowledge can redirect remediation recommendations. Financial and spatial factors are considered in selecting rehabilitation alternatives.

4.3 Cost Estimate

Cost estimates are calculated based on final recommendations using average costs when available from previous bid data. This data is maintained within the workbook template used to process recommendations and updated as necessary.

4.4 System Capacity Assurance Plan Credits

The estimated System Capacity Assurance Plan (SCAP) credits for a repair are calculated with the recommendation tool using the same logic as documented in the SCAP manual. As the work is not yet completed, the credits are calculated based on asset dimensions, location and the recommended activity.

4.5 Prioritization and Risk Management

MSD has developed a risk register for gravity sewer mains based on the likelihood of failure (LOF) and the consequence of failure (COF) at the segment level, similar to the process described in NASSCO's PACP-Based Risk Management, available in Appendix F. NASSCO describes risk as the product of likelihood and consequence of failure, as quantified in the following equation:

$$Risk = Likelihood\ of\ Failure\ (LOF) \times Consequence\ of\ Failure\ (COF)$$

In FY19, MSD implemented a similar process for sewer manholes. Sewer laterals inherit the risk associated with the sewer main to which they discharge.

MSD recognizes the need for flexibility to react to multiple regulatory demands and the latest information, and the risk register is not the only priority considered in implementation schedules, as discussed in Section 5.

4.5.1 Likelihood of Failure

LOF is the first half of the risk equation. NASSCO recommends the use of the PACP Quick Rating to develop a calculated LOF for sewer mains; however, MSD recognizes that failure may be caused by structural or maintenance defects in an asset, that failure due to a structural issue may be on a different timeline than failure due to a maintenance issue, and that the solutions for each type of issue may be unique. As such, MSD has elected to evaluate LOF separately for structural and O&M issues based on solution – infrastructure rehabilitation, hydraulic cleaning, and root control.

For sewer mains, MSD utilizes the sewer main indexes, calculated as previously described in Section 4, to determine the current likelihood of failure for sewer mains. For structural failure, MSD uses the structural index. MSD also uses the O&M index to determine the current likelihood of maintenance failure for sewer mains.

Similarly for sewer manholes, MSD uses the sewer manhole indexes, calculated as previously described in Section 4, to determine the current likelihood of failure for sewer manholes.

MSD previously presented a methodology in the technical memo, provided in Appendix G, to predict likelihood of failure based on current knowledge of the system. Based on this approach, MSD additionally utilizes matrices developed by the National Research Council (NRC) of Canada of markovian transition probabilities by pipe type and age to interpolate the predicted likelihood of failure (PLOF) ten years after the current inspection for each pipe segment. This analysis assists MSD in identifying prioritizing pipe segments for infrastructure rehabilitation that are not yet in failure mode.

LOF and structural PLOF are measured on a scale of 1 to 5.

4.5.2 Consequence of Failure

COF is the second half of the risk equation. COF may be developed in a number of ways, utilizing a number of variables that are important to a specific agency. MSD has developed a COF index that is based on the work of the Wet Weather Team, available in Appendix H.

The team's stakeholder consensus values were initially scaled and weighted against a series of qualitative and quantitative descriptors that describe the severity of the impact of an event on the value in question. For instance, one of the Public Health Enhancement descriptors indicated that the Wet Weather Team found minimal potential for surface cave-in due to failure was described as a negligible COF, while a surface cave-in in the right of way was described as a severe COF.

MSD reviewed the quantitative and qualitative descriptors, compared with potential sources of quantitative data, and developed a quantitative COF model based on depth, diameter, condition knowledge, potential for cave-ins, land use, and wastewater characteristics based on upstream

pretreatment requirements as COF indicators. The score for each indicator is weighted and the COF is measured on a scale of one through five.

4.5.3 Risk Register

As previously stated, MSD calculates the risk of failure as

$$Risk = Likelihood\ of\ Failure\ (LOF) \times Consequence\ of\ Failure\ (COF)$$

The product of the five-point scales can range from one through 25, and the resulting risk score for each pipe segment can be plotted as shown in Table 4-3.

Table 4-3 Risk Matrix

Schedule Period (Years)		Consequence of Failure (COF)				
		1	2	3	4	5
Likelihood of Failure (LOF)	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

MSD has utilized this matrix to schedule the target inspection frequency as discussed in Section 3 and to develop a target schedule for structural rehabilitation under the IRP and target routine inspection, hydraulic cleaning, and mechanical cleaning frequency under the GLPM, as discussed in detail in Section 5.

4.6 Strengths and Limitations

Performing asset evaluations inherently has strengths and limitations. A brief discussion of the strengths and limitations are included below.

4.6.1 Strengths

- Identifies asset rehabilitation needs in a consistent manner
- Holistic approach to evaluation of assets
- Defines remediation priorities
- Recommends activities according to guidelines
- Spatial understanding of infrastructure rehabilitation priorities
- Multi-faceted evaluation of available LOJIC data, video, condition assessments and maintenance records

4.6.2 Limitations

- Incomplete data (for example assets not located, surveys abandoned, etc.)
- Evaluate only available data
- Lateral lines are not included
- Cannot quantify all risk factors (site accessibility, other field/construction constraints, private sewer customer impacts, etc.)
- Utility locations unknown for construction/contracting

Section 5 Implementation

After the evaluation phase, the recommended rehabilitation and maintenance activities are implemented.

5.1 Emergency Evaluation and Escalation Program

The purpose of the Emergency Evaluation and Escalation Program (EEEP) is to prevent major structural failures and maintain public safety by repairing gravity sanitary collections system assets that are near failure mode.

Evaluation for emergency action is required in the event that an inspection indicates that an asset is in imminent danger of structural failure as reported by a trained inspector performing an inspection, and represents an immediate threat to public health and safety. In the event that a failing asset is identified, MSD Operations inspection staff are required to notify their supervisor and inspection contractors are required to notify MSD Engineering staff. Operations Management and Engineering staff evaluate the situation to determine the appropriate course of action and timeframe to address the problem identified.

Depending on the scope and timeframe of the necessary solution, the project is escalated to an emergency repair project completed by Operations staff, escalated to an emergency project managed by Engineering staff and completed by a contractor, prioritized as a near-term planned project through the Capital Improvement Program (CIP), or referred to the IRP as a project of the highest priority.

5.2 Infrastructure Rehabilitation Program

The purpose of the IRP is to mitigate overflows and other public safety concerns by rehabilitating gravity sanitary collections system assets to support consent decree projects, right-size proposed new infrastructure and reduce risk.

The IRP includes rehabilitation of sewer mains and laterals through lining, generally using cured-in-place pipe for laterals and sewer mains under 36 inches, and other lining methods for larger pipe. Point repairs are performed when they are more economical than non-intrusive methods or when lining is not possible or secondary to the repair.

The IRP also includes epoxy lining for manhole rehabilitation, and casting adjustments and replacements as needed to ensure safe and reliable access to the system.

The IRP includes pipe and manhole replacement as a last resort when other low-impact repair methods are not possible.

5.2.1 Priority

MSD responds to immediate needs identified through the EEEP and referred to the IRP as the highest priority.

MSD is currently under consent decree to abate combined and sanitary sewer overflows, and utilizes IRP projects as a supplement to projects mandated by the ACD to reduce infiltration and achieve post-construction compliance with ACD requirements. Projects to support ACD objectives are given the next highest priority.

MSD also utilizes the IRP to address structural and infiltration issues to right-size capacity additions and upgrades when flow monitoring and modeling indicates rehabilitation may positively impact the project. Projects that support hydraulic capacity of new and existing infrastructure are given the next highest priority.

MSD Engineering and Operations staff and contractors refer assets to Engineering for inclusion in the IRP program when a planned or reactive inspection indicates an issue exists in the asset that could be addressed by rehabilitation. Additionally, when an inspection is attempted on a sewer main that cannot be completed because the manhole is buried or unlocatable, it is referred to the IRP to provide access. Referred projects are given the next highest priority.

Finally, MSD schedules assets for the IRP based on the risk register developed from ongoing inspections, as shown in Table 5-1, with the most vulnerable infrastructure targeted for rehabilitation as soon as possible, and a longer rehabilitation schedule for less vulnerable susceptible assets. Development of the risk register was addressed in Section 4. The schedule is updated at least annually as new inspections are performed.

Table 5-1 Target Schedule – Infrastructure Rehabilitation

Schedule Period (Years)		Consequence of Failure (COF)				
		1	2	3	4	5
Likelihood of Failure (LOF)	1	100	80	60	40	20
	2	80	60	40	20	10
	3	60	40	20	10	5
	4	40	20	10	5	1
	5	20	10	5	1	0.5

Laterals are scheduled into the IRP when the main is scheduled into the IRP. Additionally, MSD Operations schedules sanitary laterals for rehabilitation by Operations staff when an issue has been reported in the lateral, the inspection indicates that lining the lateral may resolve the issue or prevent a new issue from occurring, and a cleanout is available for installation. Lateral rehabilitation through Operations is scheduled to be completed by crews dedicated to lateral lining as dictated by workload.

5.3 Gravity Line Preventive Maintenance Program

The purpose of the Gravity Line Preventive Maintenance Program (GLPM) is to mitigate overflows and other public safety concerns by performing preventive maintenance activities related to gravity sanitary collections system assets.

MSD utilizes routine hydraulic cleaning (flushing), routine mechanical cleaning (primarily root cutting), chemical root treatment, and chemical grease treatment to reduce the probability of overflows occurring due to maintenance issues in the gravity collection system and manages these activities through GLPM.

5.3.1 Routine Hydraulic Cleaning

Routine hydraulic cleaning, or sewer flushing, is utilized to prevent overflows due to debris accumulation in the sewer main. MSD initially included assets in the routine hydraulic cleaning program based on institutional knowledge and referral from inspectors and other Operations staff for problems like sewers with flat slopes.

PACP guidelines include cleaning sewer mains prior to inspection where practical, therefore, most sewer mains will be cleaned on inspection per the target frequency as discussed in Section 3. Other mains require more frequent cleaning to maintain level of service. After the baseline condition data were collected through FY18, the system was assessed and sewers that had not been targeted for the IRP, but had observations of significant debris, history of repeated discharges on associated manholes or laterals, or history of repeated cleaning requests, were added to the program in FY19. The target cleaning schedule is included in Table 5-2, developed through the risk register as discussed in Section 4. The schedule is updated at least annually as new inspections are performed, and staff may refer sewer mains to the program as needed based on observation.

Table 5-2 Target Frequency – Routine Hydraulic Cleaning

Schedule Period (Years)		Consequence of Failure (COF)				
		1	2	3	4	5
Likelihood of Failure (LOF)	1	10	5	2	1	0.5
	2	5	2	1	0.5	0.5
	3	2	1	0.5	0.5	0.25
	4	1	0.5	0.5	0.25	0.16
	5	0.5	0.5	0.25	0.16	0.08

5.3.2 Chemical Root Control

MSD initially included assets in the chemical root control (CHEMR) program based on institutional knowledge and referral from inspectors and other Operations staff. Assets are now included based on recommendations derived from inspection data. CHEMR is most effective on sewers less than 36" in diameter with observations of fine roots.

The target treatment schedule is on a three-year cycle to coincide with the warranty period for chemical root control products. The schedule is updated at least annually as new inspections are performed, and staff may refer sewer mains to the program as needed based on observation.

5.3.3 Chemical Grease Control

MSD included assets in areas with recurring grease-related issues in a FOG quality control inspection activity called PMTV. These assets were jointly inspected on a routine basis by TVI staff, tasked with physically performing the CCTV inspection, and Industrial Waste staff, tasked with identifying point sources of FOG in the system to address through Industrial Waste processes. The PMTV program has been discontinued; however, TVI staff continue to refer grease issues to Industrial Waste for further investigation to identify sources.

MSD concurrently investigated and piloted the use of chemical grease control (CHEMG) treatment applied through hydraulic cleaning to dissolve FOG in the main and prevent buildup which could lead to a discharge. Initially CHEMG was applied in pilot areas to test efficacy; it was subsequently included in areas where Operations was assigned a second-attempt inspection area to capture baseline condition.

After the baseline condition data were collected through FY18, the system was assessed and sewers under 36" in diameter with observations of significant grease were added to the program in FY19. The target cleaning schedule is included in Table 5-3, developed through the risk register as discussed in Section 4. The schedule is updated at least annually as new inspections are performed, and staff may refer sewer mains to the program as needed based on observation.

Table 5-3 Target Frequency – Chemical Grease Control

Schedule Period (Years)		Consequence of Failure (COF)				
		1	2	3	4	5
Likelihood of Failure (LOF)	1	40	20	20	20	10
	2	20	20	10	10	10
	3	20	10	10	10	5
	4	20	10	10	5	1
	5	10	10	5	1	0.5

5.3.4 Routine Mechanical Cleaning

Routine mechanical cleaning may consist of root cutting or debris removal by a mechanized means, and can be utilized to prevent overflows due to roots and heavy debris accumulation in the sewer main. MSD initially included assets in a routine mechanical cleaning program for root cutting based on institutional knowledge and referral from inspectors and other Operations staff for problems like repeated discharges due to roots in the main. This activity was discontinued in 2009 due to the concern that repeated mechanical cleaning may cause more structural damage to a sewer main than other procedures. The activity was replaced by chemical root control to control fine roots, infrastructure rehabilitation to address more serious issues caused by roots, and routine hydraulic cleaning to address debris accumulation.

5.4 Implementation Capabilities and Responsibilities

MSD staff has the capability of performing some maintenance and rehabilitation projects to maintain operations of sewer infrastructure. The scope and limitations of the Operations Division are linked to the scale of the rehabilitation project and deadline for construction completion. Guidelines to Operations work capabilities are outlined below. All other repairs are bid and managed by the Engineering Department.

Operations Division Rehabilitation & Maintenance Capabilities

- Install pipe up to 13 feet in depth
- Replace pipe or point repair up to 20 LF
- Install CIPP with diameters up to 6 inches (public laterals)
- Install CIPP point repair up to 15 inches in diameter, up to 6 LF
- Make repairs in areas having relatively easy access to rehabilitation site, within right of way or in close proximity to roadway access
- Repair manholes, chimney rings and repairs above the cone of manhole
- Install watertight lids
- Perform medium cleaning activities (Grease Removal, Flush/Vactor Lines, Root Cutting)
- Perform CCTV inspections of gravity mains accessible by crawler

Maintenance work orders are produced per the recommendations of the evaluation. Ongoing sewer cleaning and maintenance activities are assigned to Operations and contracted as

workloads require. If maintenance, rehabilitation or repair activities are outside of the capabilities of Operations, they are packaged for bid. If a rehabilitation project is planned for bid, maintenance activities are included in the bid package for the study area.

Project work is tracked by work orders in the asset management system reflecting maintenance and rehabilitation work completed.

Section 6 Reporting

6.1 Regulatory Reporting

Each quarter, activities performed under the GLPM are reported in the appropriate section of MSD's ACD Quarterly Report. Quarterly reports are due by the 30th of the month following the end of the quarter (January-March, April-June, July-September, October-December). Annual Reports are due by December 30 following the end of the fiscal year.

Both the Quarterly and Annual Reports are sent to the following recipients:

One copy to:

Chief, NPDES Permitting & Enforcement Branch
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

One copy to:

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
U.S. Department of Justice
Post Office Box 7611
Washington, DC 20044-7611

Two copies to:

Jeffrey A. Cummins, Director
Division of Enforcement
Department of Environmental Protection
300 Sower Boulevard
Frankfort, KY 40601

6.2 System Capacity Assurance Plan Credit Calculation and Reporting

MSD's SCAP provides direction for calculating and reporting SCAP credits for activities performed under the IRP.

6.3 Asset Updates

At least annually, a report is generated to identify assets that have been renewed through the IRP and update the appropriate fields in Hansen and GIS to reflect the update. A workflow has been established for resolving sanitary errata to have related assets and inspections updated.

6.4 Data Retention and Trending

MSD tracks the information related to maintenance and rehabilitation of assets in Hansen in the form of work orders. Information is tracked on individual assets such as manholes, sewer mains, and sewer service lines. The type of information tracked includes but is not limited to the maintenance activity performed, and the quantity of the asset maintained or renewed, if applicable. MSD utilizes this information to conduct a periodic review of system-wide maintenance activities compared with overflows to document trends in overflow reduction as part of the CMOM program. The information from the discharges program is used to update the protocol on an as-needed basis.

Updates, Availability and Training

6.5 Review and Updates to the Protocol

The protocol will be reviewed periodically, not less than every three (3) years. When changes are made, MSD will update the procedures, work instructions and training as necessary.

6.5.1 Responsibility

The Regulatory Compliance and Asset Management (RCAM) Administrator in the Engineering division is responsible for leading and scheduling a periodic review of the protocol with applicable personnel. The review team should include but is not limited the following staff:

Division	Department	Title
Engineering	Regulatory Compliance, GIS & Records	RCAM Administrator
Engineering	Regulatory Compliance, GIS & Records	RCAM Engineer
Engineering	Regulatory Compliance, GIS & Records	RCAM Analyst
Engineering	Regulatory Compliance, GIS & Records	GIS Analyst
Operations	Wastewater & Drainage	TVI Manager
Operations	Wastewater & Drainage	TVI Supervisor
Operations	Performance Metrics	I&FP Analyst

6.5.2 Scope

Proposed modifications to the SORP and associated procedures are coordinated, reviewed, approved and distributed by the Regulatory Compliance and Asset Management Administrator or designated staff. This review is inclusive of the required personnel necessary for a full evaluation of the documents regarding changes in procedure, efficiency, technology improvements and regulatory changes.

6.6 Distribution and Availability of Protocol

The original document is stored on the network at X:\Data\CSSA_Analysis\CSSA Assessment Guide\2016 CSSA Assessment Guide DRAFT\CSSA Protocol 2018-11-02.docx.

When changes are made to the protocol, a new master copy of the document is scanned into MSD's eB system and made available to MSD personnel. Historical documents are archived and only the most current version will remain available to MSD personnel.

6.7 Training

6.7.1 NASSCO PACP, MACP and LACP Training

MSD requires staff performing inspections, performing assessments, performing construction inspections under the IRP, or documenting or reporting work performed to be trained and certified in PACP, and recommends them to be certified in MACP and LACP. NASSCO provides certified trainers for initial certification. NASSCO requires recertification every 3 years, which may be completed in person or online. NASSCO maintains an online database of certified individuals, available at https://www.nassco.org/certified-individuals.

6.7.2 NASSCO Inspector Training Certification Program

MSD encourages staff performing assessments or performing construction inspections under the IRP to be trained and certified through NASSCO's Inspector Training Certification Program (ITCP). NASSCO provides certified trainers for certification. NASSCO requires recertification every 10 years. NASSCO maintains an online database of certified individuals, available at https://www.nassco.org/certified-individuals.

6.7.3 Asset Management Training

MSD encourages staff performing assessments to be trained and certified in asset management. The Trenchless Technology Center at Louisiana Tech hosts the Certification of Training in Asset Management, and certifies graduates as Associate in Water Asset Management or Professional in Water Asset Management depending on their years of experience with asset management. Both certifications require continuing education to be documented annually. More information about the program may be found at https://waterfm.com/ctam.

6.7.4 Procedure Training

Staff executing the procedures to implement the protocol receive on-the-job training. When the protocol or the associated procedures or work instructions are updated, staff receive updated training.

6.7.5 Equipment Training

All staff involved in performing field work under the protocol receive training in accordance with their job classification and job function along with equipment manufacturer and MSD operational and safety requirements.

Section 7 Appendices

Appendix A – NASSCO PACP Standard

Appendix B – NASSCO Certified Software

Appendix C – PACP Condition Grading System

Appendix D – PACP Based Risk Management

Appendix E – NASSCO PACP Condition Grading System

Appendix F – NASSCO's PACP-Based Risk Management

Appendix G – Technical Memo

Appendix H – Consequence of Failure Index

Continuous Sewer System Assessment Protocol
November 20, 2020

Appendix A NASSCO PACP Standard

November 2020

Appendix B - Color Coded Chart

NASSCO'S PIPELINE ASSESSMENT CERTIFICATION PROGRAM® (PACP®)

Section 4 — Structural Defect Coding

C	CRACK	4-3
CL	Longitudinal	
CC	Circumferential	
CM	Multiple	
CS	Spiral	
CR	Radial	

F	FRACTURE	4-5
FL	Longitudinal	
FC	Circumferential	
FM	Multiple	
FS	Spiral	
FR	Radial	

D	DEFORMED (Rigid)	4-26
DR	Deformed Rigid	
	No deformation in rigid pipe	

D	DEFORMED (Flexible)	4-45
DFBR	Bulging Round	
DFBA	Bulging Arch	
DFC	Cracked	
DFE	Elliptical	

D	DEFORMED (Brick)	4-26
DFBR	Bulging Round	
DFBA	Bulging Arch	

X	COLLAPSE	4-37
X	Collapse	
	No deformation in or missing pipe	

J	JOINT	4-45
JOS	Offset Small	
JOM	Offset Medium	
JOL	Offset Large	

B	BROKEN	4-17
BSV	Softly Visible	
BVV	Very Visible	

J	JOINT	4-45
JOSN	Offset Small Defect	
JOMN	Offset Medium Defect	
JOLD	Offset Large Defect	

H	HOLE	4-27
HSV	Softly Visible	
HVV	Very Visible	

J	JOINT	4-45
JS	Separation Small	
JM	Separation Medium	
JL	Separation Large	

J	JOINT	4-45
JAS	Angular Small	
JAM	Angular Medium	
JAL	Angular Large	

S	SURFACE DAMAGE	4-52
SSV	Soft Visible Surface Damage	
SSA	Soft Surface Aggregate Showing	
SSAV	Soft Surface Aggregate Showing Very	

LF	LINING FEATURES	4-57
LFD	Deposit	
LFU	Undercut	
LFL	Lining Separation	
LFT	Torn Liner	
LFZ	Other	

LF	LINING FEATURES	4-57
LFD	Deposit	
LFU	Undercut	
LFL	Lining Separation	
LFT	Torn Liner	
LFZ	Other	

WF	WELD FAILURE	4-55
WFC	Circumferential	
WFL	Longitudinal	
WFM	Multiple	
WFS	Spiral	
WFZ	Other	

RP	POINT REPAIR	4-59
RPF	Failed	
RPSF	Failed Previous	
RPSS	Satisfactory	

RP	POINT REPAIR	4-59
RPF	Failed	
RPSF	Failed Previous	
RPSS	Satisfactory	

BRICKWORK	4-57
BK	Cracked
BM	Missing
BD	Displaced Brick

Pipeline Assessment Certification Program
Version 7.0.0 May 2015

8-1

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Appendix B - Color Coded Chart

NASSCO'S PIPELINE ASSESSMENT CERTIFICATION PROGRAM® (PACP)®

Section 5 — Operation and Maintenance

D DEPOSITS 5-3 (Attached) DAE Encrustation DAG Grease DAR Ragging DAZ Other	D DEPOSITS 5-4 (Settled) DSF Fine DSGV Gravel DSC Hard/Compact DSZ Other	D DEPOSITS 5-4 (Ingress) DNF Fine (Silt/Sand) DNGV Grave DNZ Other	R ROOT 5-11 (Root) RFB Barrel RFL Lateral RFC Connection RFJ Joint	R ROOTS 5-12 (Medium) RMB Barrel RML Lateral RMC Connection RMJ Joint	R ROOTS 5-12 (Both) RBB Barrel RBL Lateral RBC Connection RBJ Joint	R ROOTS 5-12 (Tap) RTB Barrel RTL Lateral RTC Connection RTJ Joint
I INFILTRATION 5-20 S Seam SR Radial SC Connection SJ Joint SL Lateral	I INFILTRATION 5-20 IW Weeper IWB Barrel IWC Connection IWJ Joint IWL Lateral	I INFILTRATION 5-20 ID Dripper IDB Barrel IDC Connection IDJ Joint IDL Lateral	I INFILTRATION 5-21 IR Runner IRB Barrel IRC Connection IRJ Joint IRL Lateral	I INFILTRATION 5-21 IG Gusher IGB Barrel IGC Connection IGJ Joint IGL Lateral	OB OBSTACLES 5-31 OBSTRUCTIONS OBM Mass of Masonry OBO Object Through Connection OB Object Intruding Through Wall	OB OBSTACLES 5-31 OBSTRUCTIONS OBJ Object in Joint OBP Pipe Material Intruding OBX Construction Debris OBZ Foreign Pipe Rights
OB OBSTACLES 5-32 OBSTRUCTIONS OBR Rocks OBS Built-in Structure OBZ Other	V VERMIN 5-45 VR Rat VC Cockroach VZ Other	G GROUT TEST & SEAL 5-50 GTP Grout Test Passed GTPJ Joint GTPL Lateral GTF Grout Test Failed GTFJ Joint GTFL Lateral	G GROUT TEST & SEAL 5-50 GTJ Grout Test Unsure GTJJ Joint GTJL Lateral GRT Grout Test Location			

Section 6 — Construction Features

T TAP 6-3 TB Break-In Jammer TR Intruding TBD Defective TBC Capped TBA Activity TBZ Abandoned	T TAP 6-3 TF Factory Made TFI Intruding TFD Defective TFC Capped TFA Activity TFZ Abandoned	T TAP 6-4 TR Rehabilitated TRI Intruding TRD Defective TRC Capped TRA Activity TRZ Abandoned	T TAP 6-4 TS Saddle TSI Intruding TSD Defective TSC Capped TSA Activity TSZ Abandoned	IS INTRUDING SEALING MATERIAL 6-15 ISFR Sealing Ring ISGTB Grout ISGTH Hanging ISFRI Loose ISGTI Grout ISZ Other	M 7-1 MISCELLANEOUS FEATURES MC Camera Underwater MOB Debris Observation MOP Survey Equipment MZ Any Other	
L LINE 6-21 (or sewer) LD Down LL Left LLD Left Down LLU Left Up	L LINE 6-21 (or sewer) LR Right LRD Right Down LRU Right Up LU Up	A ACCESS POINT 6-25 ACD Catch Basin ACG Ground ACOM Manhole ACOP Property ACOH Hatch	A ACCESS POINT 6-26 ACDP Discharge Point ACE End of Pipe ACJB Junction Box ACM Meter ACMH Manhole	A ACCESS POINT 6-26 ACOS Other Structure ATC Tee Connection AWA Wastewater Access AWW Wetwell AZ Other	M 7-2 MISCELLANEOUS FEATURES MCC Cleaning Structure MOC Weir or Orifice MOG Sample/Gas Change MOS Survey Abandoned MWL Water Level	M 7-3 MISCELLANEOUS FEATURES MDAM Water Main MH Dye Test MWV Dye Water MWN Not Visible

Section 7 — Miscellaneous Features

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Appendix B - Color Coded Chart

NASSCO'S PIPELINE ASSESSMENT CERTIFICATION PROGRAM® (PACP)®

Section 2 — Header Form Fields

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Appendix B - Color Coded Chart

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Appendix B NASSCO Certified Software

November 2020

What to Look for in a Data Collection Software | NASSCO

Unified Commitment | Higher Standards | Better Communities

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NASSCO

ABOUT TRAINING AND EDUCATION RESOURCES GET INVOLVED CONTACT US JOIN

What To Look For In A Data Collection Software

STANDARDS

Certified by NASSCO for PACP, LACP, or MACP. The software does not need to be certified for all of the collection formats, but it does need to be certified for the collection format you want to use. Check the NASSCO.org website to find out what the latest certification standard is and what software products meet the requirement.

CCTV VENDOR

Make sure that the product you want to use has a built-in interface for the inspection system you intend to use. With an interface it is possible to caption text onto the video and to have counter information automatically enter the correct fields in the software program. If there is no interface you will be manually entering more information and it will take longer to complete a survey.

COLLECT DATA

NASSCO makes sure that all of the correct codes are available, all of the fields are there, and the software validates the information entered for correctness. Make a list of other features you may want like: create multiple surveys on a pipe, maintain asset and survey information in the database, make fields mandatory so the user cannot leave them blank, simplify repetitive functions like entering the user name and certificate number, what video formats are available, does it interface with your Asset Management or Work Order Management programs, does it import asset information into the database from GIS or other sources.

REPORTING

Find out what kinds of reports are standard or built into the software product.

SHARE DATA

The NASSCO certification insures that you will be able to share PACP data between software products by testing the required import/export function to the PACP-LACP or MACP transfer file. (If you cannot import and export from the software product it is not NASSCO certified). How easy is it to move data from your truck to your office network. Does the software have backup functions to move or copy the database files or will you be required to manually move folders

https://www.nassco.org/what-look-data-collection-software[11/5/2018 5:21:08 PM]

in Windows Explorer. Are there methods to share digital information with someone who does not have the same software product.

CONSOLIDATE DATA

Will you be able to merge or consolidate information from multiple sources into one database? What if you need to move just one survey to another database or project, can you?

MANAGE DATA

How are movies stored and named. Can you create your own naming convention for the movies or pictures. Is there a built-in process to move movies to a network location?

SUPPORT

What are the support hours for the software product? Do they offer training classes on site or via the web? Do they offer a support program to keep you updated with the latest software version and capabilities?

REFERENCES

Ask for references and call them. Learn how responsive the software provider is when there is a problem. Find out if you get to talk to a person quickly to resolve your problem. How long does it take to get an answer or returned phone call? All software programs will occasionally have problems but you want to make sure that the provider cares about the customer and tries to help them as quickly as possible.

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NASSCO
NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES

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Find A Certified Individual
Find A Class
Find A Trainer
Inspector Training
Pipeline Assessment

RESOURCES
Publications
Manufacturer's Specifications
Certified Software And Validations
Job Board
Industry Links
Presentations

GET INVOLVED
Join NASSCO
Join A Committee
Scholarships
Events

ABOUT
Staff
Board Of Directors
Return And Refund Policy
Privacy Policy

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Appendix C NASSCO PACP QAQC

November 2020

NASSCO PACP Quality Control

Sewer defect coding has become of paramount importance for the worldwide sewer rehabilitation industry to ascertain critical information regarding the underground infrastructure. NASSCO PACP has enabled the wastewater industry to provide standardization and consistency in the way we evaluate sewer pipe condition and how we manage TV inspection results. The decisions made by engineers are based on the data collected and the accuracy and quality of this data is essential in making rehabilitation decisions for wastewater collection systems. The need for Quality Control of PACP data is essential and the procedure should be easy to apply and even easier to audit.

CCTV contracting companies should have a Random Number Quality Control procedure in place that is then audited by the client. A random number is one of a series of numbers that have no detectable pattern, so that each and every item in a known population has an equal chance of being selected based upon the random number. The client can carry out their own QC but it must be based upon the Random Sampling system, so that discrepancies about the method of choice of the inspections to be Quality Controlled disappear. The intent is for the client to actually audit the CCTV contractors QC procedure rather than performing their own QC. If there is doubt about the results then the Client can ask for another differing set of Random Numbers to be created and be applied to the CCTV operator in question, thereby generating another different set of inspections to be checked. A QC history must be created for each CCTV operator and not created for each contract.

General Method
Unbiased selection of inspections that require checking is the backbone of any QC procedure. First it has to be decided the percentage of the inspections that need to be checked. I am proposing that NASSCO require a minimum of 5% of a CCTV operator's data be checked.

Population
A population is needed to account for the number of inspections for each CCTV operator from which the 5% is derived. The method would be based on the approximate number of inspections performed each year by a CCTV operator, calculated as follow:

1400' per day at 200' per inspection = 7 inspections per day
240 active work days per year = 240 days
Population = 1680 inspections per year, per CCTV operator

5% to be checked = 84 inspections

It does not matter whether the population is actually higher or lower than this as once the Random Numbers have run out then a new set is generated or the population equates to 1.5 years as opposed to 1 year. The result is still 5% being checked.

Generating the Random Numbers
A Random Number list, based upon the population and the selection percentage, is available from many web sites. The site we will use for this paper is: www.randomizer.org/form.htm. This site generates a list of random numbers that can be sorted in numerical order and printed. Each CCTV operator must have a different set of Random Numbers.

Selection of inspections to be checked
In the field the CCTV operator inspects each sewer segment and either types the PACP information into a computer database or manually writes the information on PACP forms for each sewer segment in the order the sewer segments are inspected. In the office, the QC employee / operator counts through the inspections, for each separate CCTV operator, in the order in which they were inspected. When an inspection coincides with a Random Number a copy of the inspection is made from the video tape/CD/DVD onto the CCTV operators master QC video tape/CD/DVD. A copy of the corresponding CCTV report is also printed from the computer. These are then kept in the CCTV operators QC folder until the QC is carried out by a qualified QC employee / operator. By using the Random Number sampling system a CCTV operator will not be able to "abuse" the system. The client can ask for the set of Random Numbers for each CCTV operator at the start of a project, or the client can provide a set of Random Numbers to be used for each operator associated with the project.

Quality Control of an Inspection
It is expected that the accuracy of the Header record exceed 90% as most of the field contents are based upon facts. The simplest method for QC of the Header record is as follows:
Each field completed, and those that are not but should have been, is counted, producing a "number of fields checked", say 32 (ignoring such fields as Cover and Invert levels and other unused fields)
Then the fields with mistakes are counted, irrelevant of the level of the mistake, creating an "error count" say for this example, 2.
Therefore the calculation is:

(error count / number of fields checked) * 100 = percentage error
100 – error percentage = accuracy percentage

(2 / 32) * 100 = 6.25%
100 – 6.25 = 93.75% accuracy level

This percentage accuracy level is then entered onto a graph so that ongoing accuracy can easily be seen, again, for each CCTV operator.

Detail Information
As with the Header records, each field that has been completed in the Detail records is added up, irrelevant of whether it is a Clock At/To, the Continuous Defect field or Distance/Video digits. Each entry is treated as equally important. From this number of

entries made in the Detail section a figure is arrived. A qualified QC employee/operator then looks through the same inspection and checks the accuracy of each field and reaches two values, the number of entries that should have been made and an error count. No attempt should be made to create a new inspection from scratch, just check what has already been reported on. If a defect is not recorded then the number of fields that support the missed defect is added to the Error Count, for instance, if the CCTV operator misses an EMJ then the error count increases by at least 5 errors:

The Video Digit, Distance, Code, Clock At and To and the %

The 5 errors must also be added to the number of entries that should have been made as well as any other errors to reach a total number of entries. Therefore at the end each inspection there are two values, the number of entries that should have been made and the error count. The calculation for the Quality Control of each inspection is as follows:

(Error Count / Number of entries that should have been made) * 100 = Percentage Error
100 – Percentage Error = Accuracy Level

Assume that the number of entries made should have been 122
Assume that the Error Count is 8

(8 / 122) * 100 = 6.5%
100% - 6.5 = 93.5% Accuracy Level

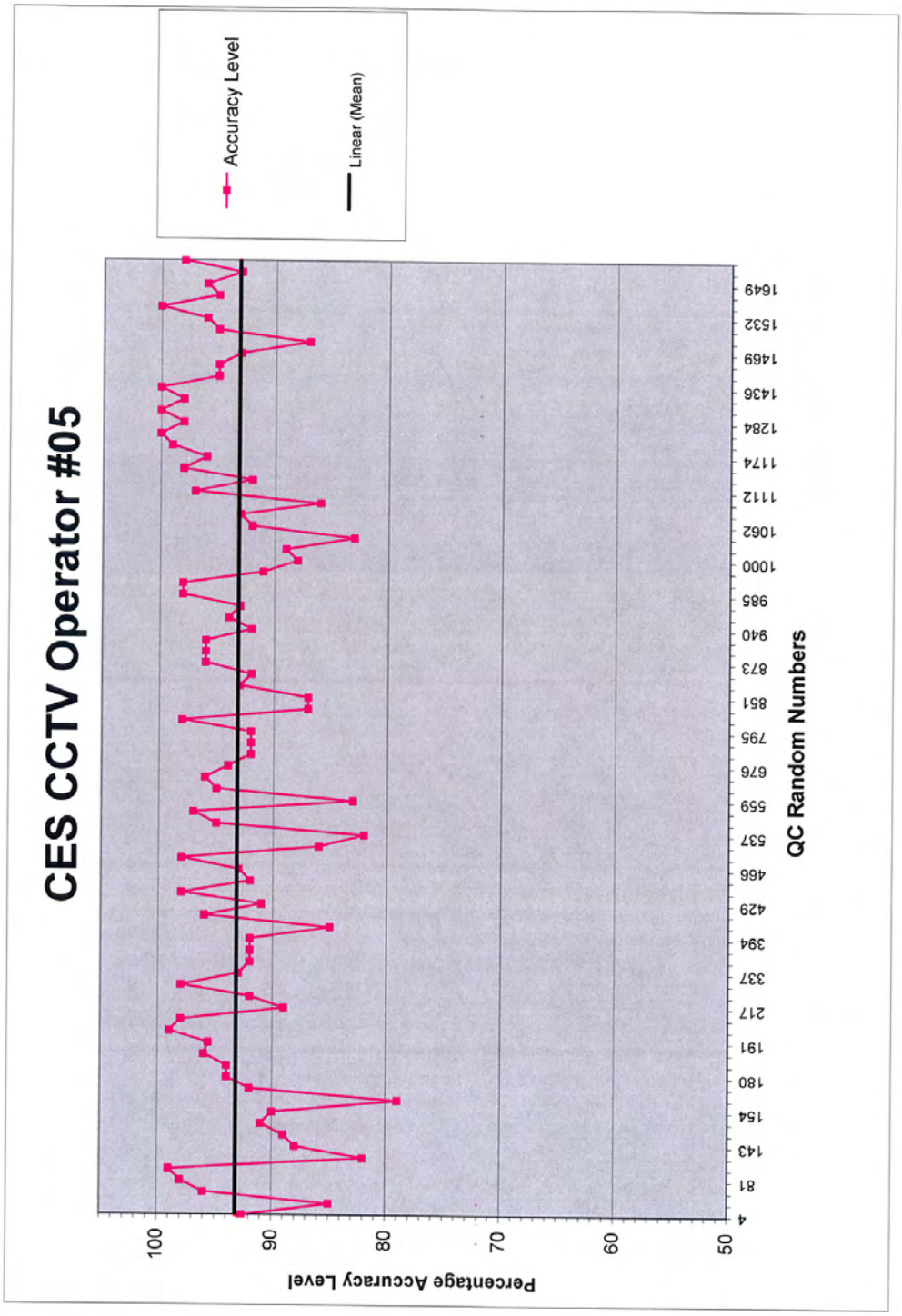
This percentage Accuracy Level is then entered onto a graph so that ongoing level can be easily seen for each CCTV Operator.

Summary
All QC inspection information for each sewer segment checked is entered into QC forms so that an Audit trail can be established. There must be hard copies of each inspection checked with the Errors and Omissions clearly marked. The Accuracy Level calculations must also be entered into the QC logs. The Random Number must be entered against each aspect of the QC procedure. A continuing Accuracy Level Graph must be kept up to date for each CCTV Operator; it is acknowledged that the results could be as much as one month behind the time of the inspection.

Research Randomizer Results:
1 Set of 84 Unique Numbers Per Set
Range: From 1 to 1680 -- Sorted
Set 1

	Random Numbers	Accuracy Level
1	4	92.6
2	34	85
3	73	96
4	81	98
5	105	99
6	108	82
7	143	88
8	146	89
9	147	91
10	154	90
11	162	79
12	163	92
13	180	94
14	181	94
15	187	96
16	191	95.6
17	209	99
18	214	98
19	217	89
20	223	92
21	321	98
22	337	93
23	345	92
24	369	92
25	394	92
26	396	85
27	422	96
28	429	91
29	433	98
30	439	92
31	466	93
32	498	98
33	511	86
34	537	82
35	545	95
36	550	97
37	559	83
38	617	95
39	664	96
40	676	94
41	679	92
42	710	92
43	795	92
44	816	98
45	838	87
46	851	87

47	869	93
48	872	92
49	873	96
50	883	96
51	908	96
52	940	92
53	954	94
54	963	93
55	985	98
56	987	98
57	988	91
58	1000	88
59	1001	89
60	1003	83
61	1062	92
62	1074	93
63	1102	86
64	1112	97
65	1131	92
66	1168	98
67	1174	96
68	1177	99
69	1261	100
70	1284	98
71	1414	100
72	1422	98
73	1436	100
74	1441	95
75	1446	95
76	1469	93
77	1472	87
78	1519	95
79	1532	96
80	1571	100
81	1619	95
82	1649	96
83	1666	93
84	1672	98


CES CCTV Operator #05
Accuracy Level
Linear (Mean)
Percentage Accuracy Level
100
90
80
70
60
50
QC Random Numbers
4
81
143
154
180
191
217
337
394
429
466
537
559
676
795
851
873
940
985
1000
1062
1112
1174
1284
1436
1469
1532
1649

RR Home Page
Tutorial
Contact Us
About Research Randomizer
Social Psychology Network

To generate a set of random numbers, simply enter your selections (integer values only):

How many sets of numbers do you want to generate? 1 Help

How many numbers per set? 84 Help

Number range (e.g., 1-50): From: 1 To: 1680 Help

Do you wish each number in a set to remain unique? Yes Help

Do you wish to sort your outputted numbers? Yes: Least to Greatest Help

How do you wish to view your outputted numbers? Place Markers Off Help

Randomize Now!

Note: Research Randomizer may not work with AOL browsers or Netscape 6.x. Also, you may need to disable any pop-up ad blockers you are running because your random numbers will be displayed in a pop-up window (just configure your pop-up blocker to exclude this site.)

Instructions

To generate a set of random numbers, simply fill out the form, indicating:

- ✔ How many sets of random numbers you would like
- ✔ How many numbers you want in each set
- ✔ The range within which you want your numbers to fall
- ✔ Whether or not you want each number in a set to be unique
- ✔ Whether you would like the numbers in each set sorted, either from Least to Greatest or from Greatest to Least
- ✔ How you wish to view your outputted numbers

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Results - Research Randomizer

Page 1 of 1

Close
For best results, close this window after each use.

Print

Download in Excel

Research Randomizer Results

1 Set of 84 Unique Numbers Per Set
Range: From 1 to 1680 -- Sorted from Least to Greatest

Job Status: **Finished**

Set #1:

58, 88, 98, 149, 161, 223, 235, 282, 339, 361, 368, 399, 410, 411, 436, 442, 487, 495, 498, 508, 590, 591, 618, 627, 645, 648, 681, 685, 698, 707, 728, 753, 772, 779, 839, 852, 878, 883, 897, 909, 929, 933, 950, 987, 991, 1006, 1012, 1040, 1058, 1067, 1098, 1102, 1114, 1143, 1151, 1203, 1219, 1225, 1240, 1243, 1256, 1269, 1323, 1342, 1362, 1395, 1398, 1431, 1484, 1486, 1498, 1507, 1524, 1529, 1555, 1556, 1577, 1579, 1609, 1622, 1627, 1628, 1656, 1661

http://www.randomizer.org/form.htm

10/20/2006

Continuous Sewer System Assessment Protocol
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Appendix D MSD Manhole Inspection Form and Codes

November 2020

MSD
Metropolitan Sewer District

Manhole Inspection Form

Manhole ID: Location:

Installed: Record #:

Map #: Coordinates: X: Y:

Asset Information	*Please Field Verify*				
Manhole Type					
Surface Cover					
Depth of Manhole					
Cover Diameter					
Barrel Diameter					
Metered?					
Drop Manhole?					

Manhole Inspection Data

			Condition	Test	Size	I&I Quantity
Started Date		Cover				
Completed Date		Frame				
Completed By		Rings				
Project ID		Cone				
Crew Leader		Wall				
Weather	Wet Dry	Bench				
Flow Depth		Channel				
Ability to Quantify		Base				
Ponding? Y / N	Problem? Y / N	Steps				
Surcharge Evidence?	Y / N Depth:					
Debris/Silt Buildup?	Y / N Depth:					

In/Out Mains

Pipe	From ID	To ID	In/Out	Length	Diameter	Pipe Type	Condition
1)							
2)							
3)							
4)							
5)							

Comments

Page 1 of 1

Asset Codes

Manhole Type

CODE	DESCRIPT
B	BURIED MANHOLE
BD	BRICK DAM
CB	CATCH BASIN
CDS	CDS UNIT
COP	CLEANOUT PIT
CSO	COMBINED SEWER OVERFLOW
DG	DIVERSION GATE
DMH	DROP MANHOLE
FLM	FLOW MONITOR
HT	HOLDING TANK
JB	JUNCTION BOX
OUT	OSO OUTFALL
POM	POINT OF INTERSECTION MANHOLE
R	REGULATOR
SI	SIPHON INLET
SIB	SIPHON BREAKER
SRG	SURGE TANK
VV	VALVE VAULT
WER	WEIR MANHOLE
WW	WET WELL

Surface Cover

CODE	DESCRIPT
A	ASPHALT
AB	ASPHALT & CONCRETE STREET
AG	ASPHALT STREET & GRASS SURFACE
B	BRICK
C	CONCRETE
CR	SHELL STREET & GRAVEL SURFACE
D	SIDEWALK
E	TREES/SHRUBS
F	CLOSE TO FENCE
G	GRASS
H	SHELL
I	UNMOVABLE BUILDING
J	OVERHEAD UTILITIES
K	RAILROAD
L	HIGHWAY
M	PIPE ABOVE GROUND
O	OTHER -- SEE COMMENT
P	GROWN UP AREA
R	GRAVEL
T	LANDSCAPED AREA
U	UNDER PHYSICAL OBJECT
X	PAVED STREET WITH CRACKS

Cover Type

CODE	DESCRIPT
1	LOCKDOWN W/ HEX KEY
2	TWO HOLE
4	FOUR HOLE
A	MULTI-HOLE
B	BOLTED
C	CONCRETE
D	SIDE SLOTS-SOLID
E	CONCEALED PICKHOLES
F	OTHER
I	SURFACE DRAINAGE
J	PLATEN
K	OVERSIZED PICK HOLES
N	WATER TIGHT SEAL
O	OTHER -- SEE COMMENTS
P	PLASTIC W/ CONCRETE FILL
S	SOLID
V	VENTED

Frame Type

CODE	DESCRIPT
1	CAST IRON
2	CAST IRON W/ INTERNAL SEAL
3	CONCRETE
4	CONCRETE W/ INTERNAL SEAL
5	OTHER -- SEE COMMENTS
6	CONCRETE W/ EXTERNAL SEAL
7	PLASTIC

Material

CODE	DESCRIPT
B	BURIED MANHOLE
BD	BRICK DAM
CB	CATCH BASIN
CDS	CDS UNIT
COP	CLEANOUT PIT
CSO	COMBINED SEWER OVERFLOW
DG	DIVERSION GATE
DMH	DROP MANHOLE
FLM	FLOW MONITOR
HT	HOLDING TANK
JB	JUNCTION BOX
OUT	OSO OUTFALL
POM	POINT OF INTERSECTION MANHOLE
R	REGULATOR
SI	SIPHON INLET
SIB	SIPHON BREAKER
SRG	SURGE TANK
VV	VALVE VAULT
WER	WEIR MANHOLE
WW	WET WELL

Condition

CODE	DESCRIPTION
A	SATISFACTORY*
C	CRACKS
E	MEDIUM DETERIORATION
G	SEVERE SEPARATION
H	BROKEN
I	MISALIGNED
J	LIGHT DETERIORATION
K	HEAVY DETERIORATION
L	LEAKING
M	MATERIAL MISSING
N	NO PROBLEM
Q	POOR FITTING
R	ROOTS
S	SLIGHT SEPARATION
Z	MULTIPLE DEFECTS - SEE COMMENTS

I&I Quantity

CODE	DESCRIPTION
A	LIGHT W/ SEEN OCCURRING
B	MEDIUM W/ SEEN OCCURRING
C	HEAVY W/ SEEN OCCURRING
D	EVIDENCE I/I
N	NONE OBSERVED

Inspection Test Method

CODE	DESCRIPTION
CODES NOT USED	CONDITION EVALUATION
	EXFILTRATION
	GROUNDWATER INFILTRATION
	SMOKE TEST
	STORM FLOOD DYE TEST
	SURFACE FLOOD DYE TEST
	VACUUM
	VISUAL - ABOVE
	VISUAL - ENTRY

Inspection Data Codes

Ability to Quantify

CODE	DESCRIPTION
A	VERY DIFFICULT
B	POOR
C	GOOD
D	EXCELLENT

Continuous Sewer System Assessment Protocol
November 20, 2020

Appendix E NASSCO PACP Grading System

November 2020

PACP® Condition Grading System

Using the PACP Code Matrix, each PACP code is assigned a condition grade ranging from 1 to 5. Grades are assigned based on the significance of the defect, extent of damage, percentage of restriction to flow capacity or the amount of wall loss due to deterioration.

Note

The PACP Condition Grading System alone is inadequate for determining if a pipe segment should be rehabilitated or replaced. Many other factors in addition to the internal condition of the segment should be considered. The fact that a segment has significant grade 4 or grade 5 defects does not necessarily mean the pipe segment should be immediately rehabilitated thus ***PACP does not replace the judgment of professional engineers.*** *Recent experience by PACP users has shown that pipe segments with serious defects such as hinge failures, may remain largely unchanged for many decades if no deterioration factors such as surcharging, roots or groundwater are present.*

Condition Grades

Condition Grades are assigned for two defect categories, structural and operation and maintenance (O&M). Grades and definitions are listed below:

5 – Most significant defect grade

4 – Significant defect grade

3 – Moderate defect grade

2 – Minor to moderate defect grade

1 – Minor defect grade

The PACP Condition Grading System results are entirely dependent on the quality of the PACP defect coding. Errors in the coding will directly result in errors in the grading. Coding should be accomplished based on proper PACP guidelines and not based on condition grades. All utilities, engineers and contractors should make sure the data they are using was coded by experienced technicians, who have successfully demonstrated their competence using PACP through a formal or informal apprenticeship program. PACP data from inexperienced technicians should be checked and corrected as needed. Errors found in coding should be corrected and brought to the attention of the technician.

Pipe Rating System

The PACP Condition Grading System provides a framework within which to calculate several pipe rating numbers which is useful for ranking line segments based on severity.

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of observed defects and conditions. The pipe ratings are based upon the number of occurrences for each condition grade within individual line segments and are separately calculated for structural defects and Operation and Maintenance (O&M) defects. PACP's Pipe Grading System provides three ways to express pipe segment conditions – Quick Rating, Overall Pipe Rating and Pipe Rating Index.

Grading Continuous Pipe Defects

The PACP Continuous Defect feature enables special coding when long or repeated portions of a pipe are affected by the same defect. Since a long or "repeated" defect is obviously more severe than a "point" defect, a mechanism is provided to translate these continuous defects into an equivalent number of point defects.

The equivalent number of point defects contained in a continuous defect is calculated by dividing the length of the continuous defect by 5 for the Imperial System and by 1.5 for the International Metric System of units (SI). The quotient is then rounded to the nearest whole number. For example, a 19.7 foot (6 m) continuous defect, grade 3, should be equivalent to four Grade 3 defects. See proper calculations for both systems below:

$$Equivalent\ Point\ Defects = \frac{Length\ (ft)}{5} = \frac{Length\ (m)}{1.5}$$

Examples:

$$\frac{19.7\ ft}{5\ ^{ft}/_{Defect}} = 3.94 \approx 4\ Defects$$

$$\frac{6\ m}{1.5\ ^{m}/_{Defect}} = 4\ Defects$$

Note

Fractions of the quotient are rounded to the nearest whole number (i.e. ≤0.49 is rounded down, and ≥ 0.5 is rounded up).

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Appendix C - PACP Condition Grading System

PACP Quick Rating

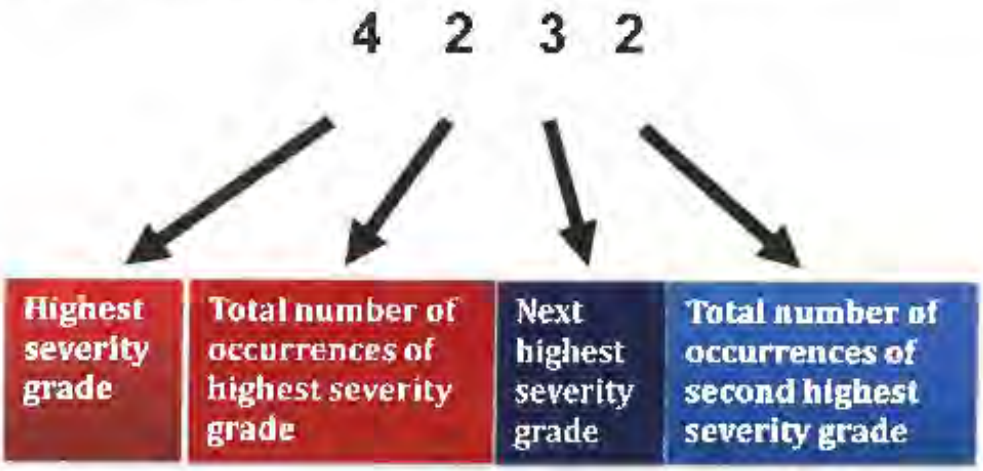
The PACP Quick Rating is a shorthand way of expressing the number of occurrences for the two highest severity grades. The quick rating is a four character score compiled as follows:

First Character: Highest severity grade occurring along the pipe length.

Second Character: Total number of occurrences of that highest severity grade. If the total number exceeds 9, then alphabetic characters are used as follows:
10 to 14 = A, 15 to 19 = B and 20 to 24 = C, etc.

Third Character: Second highest severity grade occurring along the pipe length.

Fourth Character: Total number of the second highest severity grade occurrences. If the total number exceeds 9, then alphabetic characters are used as follows.
10 to 14 = A, 15 to 19 = B and 20 to 24 = C, etc.



For example: 4B27

This immediately shows no grade 5 defects or grade 3 defects were observed. However, fifteen to nineteen grade 4 defects and seven grade 2 defects were found.

Another example: 3224

Two grade 3 defects and four grade 2 defects were observed in the pipe, however, no grade 5 or grade 4 defects were found.

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Appendix C - PACP Condition Grading System

If a pipe segment only has defects of one grade, the first two characters are the grade and the quantity of defects, and the last two characters are 00 (denoting no other defect grades). For example, a segment with two grade 4 defects and no other defects would have a rating of 4200. A pipe segment with no defects would have a rating of 0000 (all zeros). This does not imply that grade 0 exists.

The PACP Quick Rating provides a means to summarize the number and severity of the most significant defects found within a pipe segment. As with the other pipe ratings, the quick rating is separately calculated for Structural (QSR) and O&M (QMR) coded defects, and may be combined into an Overall Quick Rating (QOR).

Segment Grade Scores (SG):

Each pipe segment will have a separate Segment Grade Score for each of the five condition grades. These scores are calculated by multiplying each condition grade number by its number of occurrences in the individual pipe segment.

$$SG_N = number\ of\ grade\ N\ defects \times condition\ grade\ N$$

For example, a pipe has the following defects and condition grades:

Structural	O&M
6 defects, grade 5	2 defects, grade 3
2 defects, grade 3	4 defects, grade 2
4 defects, grade2	

The segment grade scores for the structural and O&M ratings are:

Cond.	Defects		Segment Grade	
Grade	Structural	O&M	Structural	O&M
5	6	0	$SG_5 = (6 \times 5) = 30$	$SG_5 = (0 \times 5) = 0$
4	0	0	$SG_4 = 0$	$SG_4 = 0$
3	2	2	$SG_3 = 6$	$SG_3 = 6$
2	4	4	$SG_2 = 8$	$SG_2 = 8$
1	0	0	$SG_1 = 0$	$SG_1 = 0$

Note

If a pipe segment had no defects of a particular grade, then the Segment Grade Score for that grade would be zero (0).

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Appendix C - PACP Condition Grading System

Overall Pipe Rating (OR):

The five individual Segment Grade Scores are be added together to calculate the Overall Pipe Rating. Structural pipe ratings are calculated using only structural defect grades, while O&M pipe ratings are calculated using only O&M defect grades. This total score should be viewed with caution, since a high Overall Pipe Rating score may indicate a high number of low severity defects, a low number of high severity defects or a balance of high and low defect grades.

$$OR = SG_1 + SG_2 + SG_3 + SG_4 + SG_5$$

For example, from the previous example the following ratings are calculated:

Condition Grade	Defects		Segment Grade	
	Structural	O&M	Structural	O&M
5	6	0	30	0
4	0	0	0	0
3	2	2	6	6
2	4	4	8	8
1	0	0	0	0
Total Defects =	**12**	**6**		
		Overall Rating =	**44**	**14**

Pipe Rating Index (RI)

The Pipe Rating Index is an indicator of overall defect severity within the line segment. This index is calculated by dividing the overall pipe rating by the total number of defects. Pipe Rating Indexes are separately calculated for Structural and O&M. Note: since this calculated index score simply represents an average of the segment grade scores, it does not indicate whether there are many or few defects with high or low condition grade numbers. A pipe segment with zero condition grade defects would have a Pipe Rating Index of zero (0).

$$RI = \left(\frac{Overall\ Rating}{Total\ number\ of\ defects}\right)$$

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Appendix C - PACP Condition Grading System

For example, from the previous example the following ratings are calculated:

$$RI_{Structural} = \frac{44}{12} = 3.7 \text{ ; and, } RI_{O\&M} = \frac{14}{6} = 2.3$$

Condition Grade	Defects		Segment Grade	
	Structural	O&M	Structural	O&M
5	6	0	30	0
4	0	0	0	0
3	2	2	6	6
2	4	4	8	8
1	0	0	0	0
Total Defects =	**12**	**6**		
	Overall Rating =		**44**	**14**
	Rating Index =		**3.7**	**2.3**

While all of these rating methods have benefits and each could be adapted, the Overall Quick Rating (QOR) provides the highest condition grade within the ratings. The highest condition grade is not always apparent in the RI or OR. Therefore, the Overal Quick Rating (QOR) is used in determining the likelihood of failure component of risk discussed in subsequent sections of this Appendix.

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Appendix C - PACP Condition Grading System

Following is a sample sheet with pipe rating examples, calculations and explanations.

	A	B	C	D	E	F	G
1			Condition	Number of Defects		Segment Grade	
2			Grades	Structural	O&M	Structural	O&M
						(C)x(D)	(C)x(E)
3			5	3	5	15	25
4			4	5	0	20	0
5	Point Defects		3	2	4	6	12
6			2	3	5	6	10
7			1	1	3	1	3
8	Continuous Defects	Length (ft)					
				(D)/5	(E)/5	(C)x(D)	(C)x(E)
9	S01-F01 *(Struc.)*	29	3	6	-	18	-
10	S02-F02 *(Struc.)*	21	2	4	-	8	-
11	S03-F03 *(Struc.)*	16	5	3	-	15	-
12	S04-F04 *(O&M)*	15	3	-	3	-	9
13	S05-F05 *(O&M)*	16	1	-	3	-	3
				Σ(D)	Σ(E)		
14			Total Defects =	27	23		
						Σ(F)	Σ(G)
15					Overall Rating =	89	62
						(F15)/(D14)	(G15)/(E14)
16					Rating Index =	3.3	2.7
			Quick Rating =	5645	5537		
			Overall Quick Rating =	5445			

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Manhole Rating System:

The MACP Condition Grading System provides a framework within which to calculate several manhole rating numbers which is useful for ranking manholes based on severity of observed defects and conditions. The manhole ratings are based upon the number of occurrences for each condition grade within components of individual manholes and are separately calculated for structural defects and O&M defects. The MACP Manhole Rating System provides three ways to express manhole conditions – Quick Rating, Overall Pipe Rating and Pipe Rating Index.

Grading Continuous Manhole Defects

The MACP "Continuous Defect" feature enables special coding when long or repeated portions of a pipe are affected by the same defect. Since a long or "repeated" defect is obviously more severe than a "point" defect, a mechanism is provided to translate these continuous defects into an equivalent number of point defects.

The equivalent number of point defects contained in a continuous defect, is calculated by dividing the length of the continuous defect by 1 for the Imperial system and 0.3 for the International (Metric) System of units (SI). The quotient is then rounded to the nearest whole number. As an example, a 2.7 foot (0.82 m) continuous defect, grade 3, should be equivalent to three Grade 3 defects. See proper calculations for both systems below:

$$Equivalent\ Point\ Defects = \frac{Length\ (ft)}{1} = \frac{Lenth\ (m)}{0.3}$$

Examples:

$$\frac{2.7\ ft}{1\ ^{ft}/_{Defect}} = 2.7 \approx 3\ Defects$$

$$\frac{0.82\ m}{0.3\ ^{m}/_{Defect}} = 2.7 \approx 3\ Defects$$

Note

The Equivalent Point Defects number that is calculated is rounded to the nearest whole number (i.e. ≤0.49 is rounded down, and ≥ 0.5 is rounded up).

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Appendix C - PACP Condition Grading System

MACP Quick Rating

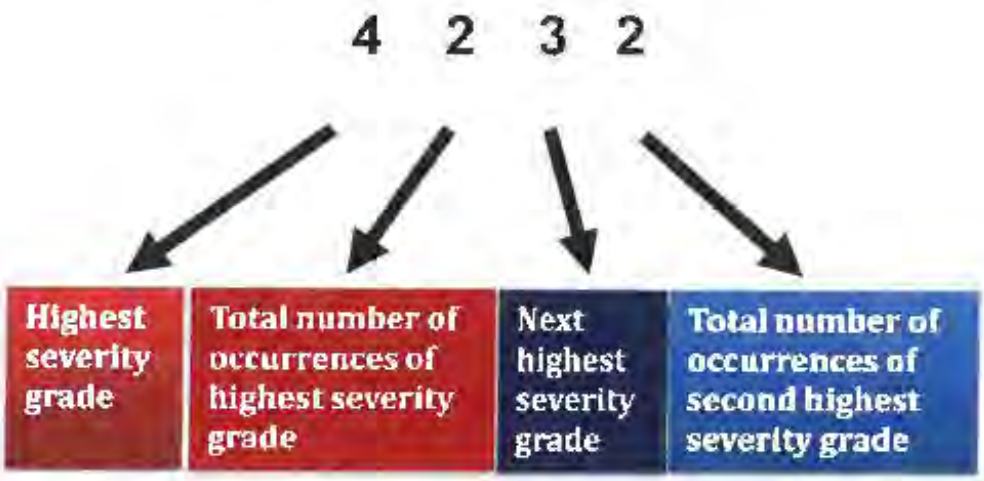
The MACP Quick Rating is a shorthand way of expressing the number of occurrences for the two highest severity grades within a manhole. The Quick Rating is a four character score compiled as follows:

First Character: Highest severity grade occurring in the manhole.

Second Character: Total number of occurrences of that highest severity grade. If the total number exceeds 9, then alphabetic characters are used as follows: 10 to 14 = A; 15 to 19 = B; 20 to 24 = C; etc

Third Character: Second highest severity grade occurring in the manhole.

Fourth Character: Total number of the second highest severity grade occurrences. If the total number exceeds 9, then alphabetic characters are used as follows: 10 to 14 = A; 15 to 19 = B; 20 to 24 = C, etc.



For example: 4A24
This immediately shows that no grade 5 defects or grade 3 defects were found in this manhole. However, 10 to 14 grade 4 defects and four grade 2 defects were found

Another example: 3224

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Two grade 3 defects and four grade 2 defects were observed in this manhole. However, no grade 5 or grade 4 defects were found.

If a manhole only has defects of one grade, the first two characters are the grade and the quantity of defects, and the last two characters are 00 (denoting no other defect grades). For example, a manhole with two grade 4 defects and no other defects would have a rating of 4200. A manhole with no defects would have a rating of 0000 (all zeros); this does not imply that grade 0 exists.

The MACP Quick Rating provides a means to summarize the number and severity of the most significant defects found within a manhole. As with the other manhole ratings, the Quick Rating is separately calculated for Structural (QSR) and O&M (QMR) coded defects, and may be combined into an Overall Quick Rating (QOR).

Manhole Grade Scores (MG):

Each manhole will have a separate Manhole Grade Score for each of the five Condition Grades. These scores are calculated by multiplying each Condition Grade number by its number of occurrences in the individual manhole.

$$MG_N = number\ of\ grade\ N\ defects \times condition\ grade\ N$$

For example, a manhole has the following defects and condition grades:

Structural	O&M
6 defects, grade 5	2 defects, grade 3
2 defects, grade 3	4 defects, grade 2
4 defects, grade 2	

The manhole grade scores for the structural and O&M ratings are:

Cond. Grade	Defects		Segment Grade	
	Structural	O&M	Structural	O&M
5	6	0	$MG_5 = (6 \times 5) = 30$	$MG_5 = (0 \times 5) = 0$
4	0	0	$MG_4 = 0$	$MG_4 = 0$
3	2	2	$MG_3 = 6$	$MG_3 = 6$
2	4	4	$MG_2 = 8$	$MG_2 = 8$
1	0	0	$MG_1 = 0$	$MG_1 = 0$

Note

If a manhole had no defects of a particular grade, then the Manhole Grade Score for that grade would be zero (0).

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Overall Manhole Rating (OMR)

The five individual Manhole Grade Scores are added together to calculate the Overall Manhole Rating. Structural Manhole Ratings are calculated using only Structural Defect grades, while O&M Manhole Ratings are calculated using only O&M Defect grades. This total score should be viewed with caution since a high Overall Manhole Rating score may indicate a high number of low severity defects, a low number of high severity defects, or a balance of high and low defect grades.

$$OMR = MG_1 + MG_2 + MG_3 + MG_4 + MG_5$$

For example, from the previous example the following ratings are calculated:

Condition Grade	Defects		Manhole Grade	
	Structural	O&M	Structural	O&M
5	6	0	30	0
4	0	0	0	0
3	2	2	6	6
2	4	4	8	8
1	0	0	0	0
Total Defects =	12	6		
Overall Manhole Rating =			44	14

Manhole Rating Index (MRI)

The Manhole Rating Index in an indicator of overall defect severity within the manhole. This Index is calculated by dividing the Overall Manhole Rating by the total number of defects. Manhole Rating Indices are separately calculated for Structural and O&M. Since this calculated Index score simply represents an average of the Manhole Grade Scores, it **DOES NOT** indicate whether there are many or few defects with high or low Condition Grade numbers. A manhole with zero condition grade defects would have a Manhole Rating Index of zero (0).

$$MRI = \left(\frac{Overall\ Rating}{Total\ Number\ of\ Defects}\right)$$

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Appendix C - PACP Condition Grading System

Using the defect information from the previous example, the following ratings are calculated:

$$MRI_{structural} = \frac{44}{12} = 3.7 \text{ , and, } MRI_{O\&M} = \frac{14}{6} = 2.3$$

Condition Grade	Defects		Segment Grade	
	Structural	O&M	Structural	O&M
5	6	0	30	0
4	0	0	0	0
3	2	2	6	6
2	4	4	8	8
1	0	0	0	0
Total Defects =	12	6		
		Overall Rating =	**44**	**14**
		Rating Index =	**3.7**	**2.3**

While all of these rating methods have benefit and each could be adapted, the Overall Quick Rating (QOR) provides the highest condition grade within the ratings. The highest condition grade is not always apparent in the MRI or OMR. Therefore, the Overall Quick Rating is used to determine the Likelihood of Failure component of risk discussed in the following Appendix.

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Appendix C - PACP Condition Grading System

A sample sheet with Manhole Rating examples, calculations, and explanations is presented here:

	A	B	C	D	E	F	G
1			Condition	Number of Defects		Manhole Grade	
2			Grades	Structural	O&M	Structural	O&M
						(C)x(D)	(C)x(E)
3			5	3	5	15	25
4			4	5	0	20	0
5	Point Defects		3	2	4	6	12
6			2	3	5	6	10
7			1	1	3	1	3
8	Continuous Defects	Length (ft)					
				(B)/1	(B)/1	(C)x(D)	(C)x(E)
9	S01-F01 *(Struc.)*	6	3	6	-	18	-
10	S02-F02 *(Struc.)*	5	2	5	-	10	-
11	S03-F03 *(Struc.)*	6	5	6	-	30	-
12	S04-F04 *(O&M)*	5	3	-	5	-	15
13	S05-F05 *(O&M)*	4	1	-	4	-	4
				Σ(D)	Σ(E)		
14		Total Defects =		17	9		
						Σ(F)	Σ(G)
15				Overall Rating =		58	19
						(F15)/(D14)	(G15)/(E14)
16				Rating Index =		3.4	2.1
		Quick Rating =		5345	5534		
		Overall Quick Rating =		5845			

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Appendix C - PACP Condition Grading System

Condition Code Matrix

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Pipeline Assessment Certification Program
Version 7.0.0 May 2015

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Appendix C - PACP Condition Grading System

Categories of Pipe Types

In PACP Version 7.0.0, new columns were added in the Condition Grade Table for three different categories of pipe types: sewer, stormwater and levee. This was done to allow users to quickly and accurately identify which grades applied most appropriately to the system, that they are coding. The following explains what is included under each of the three new headings.

Sewer: This category is intended to apply to any pipe that carries sanitary waste ultimately to the local treatment facility. This includes residential sewer pipes (both laterals and mainlines), industrial sewer pipes, as well as combined systems that carry a combination of both sanitary and stormwater waste streams.

Stormwater: This category is intended to apply to any pipe that carries drainage flow that comes from precipitation, or flow that results from elevated water tables. These piping networks often carry flows to detention ponds or holding structures or to direct discharge points at a local waterway. They do not typically carry flow to a treatment facility, and they do not carry comingled wastewater and stormwater flows.

Levee: This category is intended to apply to any pipe that carries water to or from a dam, levee or floodwall impoundment. This includes toe drains that typically run parallel levees and floodwalls and dump into gravity sewers that penetrate through or run under the levees. These toe drains are also referred to as laterals. For dams, there are often seepage collector drains that empty into the outlet (often open channel) from the dam's conduit. These seepage collector drains are also referred to as laterals.

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Appendix C - PACP Condition Grading System

PACP/LACP Condition Grades

Structural Defect Codes

Description	Code	Structural Grade		O&M Grade
		Sewer/Combined/ Stormwater	Levee/Dam	
CRACK				
Crack Longitudina	CL	2	3	
Crack Circumferential	CC	1	1	
Crack Multiple	CM	3	3	
Crack Spiral	CS	2	3	
Crack Hinge 2	CH2	2	5	
Crack Hinge 3	CH3	3	5	
Crack Hinge 4	CH4	4	5	
FRACTURE				
Fracture Longitudinal	FL	3	4	
Fracture Circumferential	FC	2	4	
Fracture Multiple	FM	4	4	
Fracture Spiral	FS	3	4	
Fracture Hinge 2	FH2	3	5	
Fracture Hinge 3	FH3	4	5	
Fracture Hinge 4	FH4	4	5	
BROKEN				
Broken	B	4	5	
Broken Soil Visible	BSV	5	5	
Broken Void Visible	BVV	5	5	
HOLE				
Hole	H	< 2 clock pos = 4 ≥ 2 clock pos = 5	5	

Pipeline Assessment Certification Program
Version 7.0.0 May 2015

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade		O&M Grade
		Sewer/Combined/ Stormwater	Levee/Dam	
Hole Soil Visible	HSV	5	5	
Hole Void Visible	HVV	5	5	
DEFORMED				
Deformed Rigid	DR	≤ 5% → 4 > 5% → 5	≤ 5% → 4 > 5% → 5	
Deformed Flexible Bulging Round	DFBR	≤ 10% → 4 > 10% → 5	≤ 5% → 2 >5% to < 10% → 3 ≥ 10% to ≤ 20% → 4 >20% to ≤ 40% → 5	
Deformed Flexible Bulging Inverse Curvature	DFBI	5	≤ 10% → 4 > 10% → 5	
Deformed Flexible Cracking	DFC	5	4	
Deformed Flexible Elliptical	DFE	5	≤ 5% → 2 >5% to ≤ 10% → 3 ≥10% to < 20% → 4 >20% to ≤ 40% → 5	
Deformed Brick Bulging Round	DFBR	≤ 5% → 4 > 5% → 5	≤ 10% → 4 > 10% → 5	
Deformed Brick Bulging Inverse Curvature	DFBI	5	≤ 10% → 4 > 10% → 5	
COLLAPSE				
Collapse	X	5	5	
JOINT				
Joint Offset Small (Unpacked)	JOS	NA	4	
Joint Offset Medium	JOM	3	5	
Joint Offset Medium Defective	JOMD	3	5	4
Joint Offset Large	JOL	4	5	
Joint Offset Large Defective	JOLD	4	5	5
Joint Separated Small (Open)	JSS	-	5	
Joint Separated Medium	JSM	3	5	

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade		O&M Grade
		Sewer/Combined/ Stormwater	Levee/Dam	
Joint Separated Large	JSL	2	5	
Joint Angular Small	JAS	1	4	
Joint Angular Medium	JAM	3	5	
Joint Angular Large	JAL	4	5	
SURFACE DAMAGE				
Surface Damage Roughness Increased	SRI	1	1	
Surface Damage Aggregate Visible	SAV	2	3	
Surface Damage Aggregate Projecting	SAP	3	3	
Surface Damage Aggregate Missing	SAM	4	3	
Surface Damage Reinforcement Visible	SRV	4	1	
Surface Damage Reinforcement Projecting	SRP	5	4	
Surface Damage Reinforcement Corroded	SRC	5	5	
Surface Damage Missing Wal	SMW	5	5	
Surface Damage Surface Spalling	SSS	2	3	
Surface Damage Spalling of Coating	SSC	1	1	
Surface Damage Corrosion	SCP	3	4	
Surface Damage Other	SZ	-	-	
LINING FEATURE				
Lining Feature Abandoned Connection	LFAC	-	-	
Lining Feature Annular Space	LFAS	3	3	
Lining Feature Blistered	LFB	3	3	
Lining Feature Service Cut Shifted	LFCS	3	3	
Lining Feature Detached	LFD	3	3	
Lining Feature Discoloration	LFDC	3	1	
Lining Feature Defective End	LFDF	3	3	
Lining Feature Delamination	LFDI	3	3	
Lining Feature Overcut Service	LFOC	3	3	
Lining Feature Resin Slug	LFRS	3	3	
Lining Feature Undercut Service	LFUC	3	3	

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade Sewer/Combined/ Stormwater	Structural Grade Lateral/Dam	O&M Grade
Lining Feature Wrinkles	LFW	3	3	
Lining Feature Other	LFZ	-	-	
WELD FAILURE				
Weld Failure Circumferential	WFC	3	4	
Weld Failure Longitudinal	WFL	2	4	
Weld Failure Multiple	WFM	3	5	
Weld Failure Spiral	WFS	2	4	
Weld Failure Other	WFZ	-	-	
POINT REPAIR				
Point Repair Liner	RPI	-	-	
Point Repair Liner Defective	RPID	4	4	
Point Repair Patch	RPP	-	3	
Point Repair Patch Defective	RPPD	4	4	
Point Repair Replacement	RPR	-	3	
Point Repair Replacement Defective	RPRD	4	4	
Point Repair Other	RPZ	-	3	
Point Repair Other Defective	RPZD	4*	4	
BRICKWORK				
Displaced Brick	DB	3	3	
Missing Brick	MB	4	4	
Dropped Invert	DI	5	5	
Missing Mortar Small	MMS	2	3	
Missing Mortar Medium	MMM	3	4	
Missing Mortar Large	MML	3	5	

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Appendix C - PACP Condition Grading System

Operation and Maintenance Codes

Description	Code	Structural Grade	O&M Grade — Sewer/Combined/Stormwater	Levels
Deposits Attached Encrustation	DAL		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Attached Grease	DAGS		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Attached Ragging	DAR		≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Attached Other	DAZ		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Settled Hard/Compacted	DSC		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Settled Fine	DSF		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to < 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to < 30% → 4 >30% → 5
Deposits Settled Gravel	DSGV		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/ Stormwater	Levee
Deposits Settled Other	DSZ		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Ingress Fine	DNF		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Ingress Gravel	DNGV		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Deposits Ingress Other	DNZ		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Roots Fine Barrel	RFB	2	2	2
Roots Fine Lateral	RFL	1	1	1
Roots Fine Connection	RFC	1	1	2
Roots Fine Joint	RFJ	1	1	2
Roots Tap Barrel	RTB	3	3	3
Roots Tap Lateral	RTL	2	2	3
Roots Tap Connection	RTC	2	2	3
Roots Tap Joint	RTJ	2	2	3
Roots Medium Barrel	RMB	4	4	4
Roots Medium Lateral	RML	3	3	4
Roots Medium Connection	RMC	3	3	4
Roots Medium Joint	RMJ	3	3	4
Roots Bal Barrel	RBB	5	5	4

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/ Stormwater	Lateral
Roots Ball Lateral	RBL		4	4
Roots Ball Connection	RBC		4	4
Roots Ball Joint	RBJ		4	4
Infiltration Weeper	IW		2	2
Infiltration Weeper Barrel	IWB		2	2
Infiltration Weeper Lateral	IWL		2	2
Infiltration Weeper Connection	IWC		2	2
Infiltration Weeper Joint	IWJ		2	2
Infiltration Dripper	ID		3	3
Infiltration Dripper Barrel	IDB		3	3
Infiltration Dripper Lateral	IDL		3	3
Infiltration Dripper Connection	IDC		3	3
Infiltration Dripper Joint	IDJ		3	3
Infiltration Runner	IR		4	4
Infiltration Runner Barrel	IRB		4	4
Infiltration Runner Lateral	IRI		4	4
Infiltration Runner Connection	IRC		4	4
Infiltration Runner Joint	IRJ		4	4
Infiltration Gusher	IG		5	5
Infiltration Gusher Barrel	IGB		5	5
Infiltration Gusher Lateral	IGL		5	5
Infiltration Gusher Connection	IGC		5	5
Infiltration Gusher Joint	IGJ		5	5
Infiltration Stain	IS		1	1
Infiltration Stain Barrel	ISB		1	1
Infiltration Stain Lateral	ISL		1	1
Infiltration Stain Connection	ISC		1	1
Infiltration Stain Joint	ISJ		1	1

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/ Stormwater	Levee
Obstruction Brick or Masonry	OBB		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Obstruction Pipe Material in Invert	OBM		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Obstruction Including Through Wall	OBI		5	5
Obstruction Wedged in Joint	OBJ		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Obstruction Through Connection	OBC		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Obstruction External Pipe or Cable	OEP		≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 25% → 3 >20% to < 30% → 4 >30% → 5
Obstruction Built into Structure	OBS		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	< 10% → 2 >10% to < 25% → 3 >20% to ≤ 30% → 4 >30% → 5
Obstruction Construction Debris	OBN		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to < 20% → 3 >20% to < 30% → 4 >30% → 5

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/ Stormwater	Levee
Obstacle/Obstruction Rocks	OBR		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	< 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Obstacle/Obstruction Other Objects	OBZ		≤ 10% → 2 >10% to < 20% → 3 >20% to < 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Vermin Rat	VR		2	2
Vermin Cockroach	VC		1	1
Vermin Other	VZ		1	1
Grout Test Pass Joint	GTPJ		-	-
Grout Test Pass Lateral	GTPL		-	-
Grout Test Fail Joint	GTFJ		-	-
Grout Test Fail Lateral	GTFI		-	-
Grout Test Unable to Test Joint	GTUJ		-	-
Grout Test Unable to Test Lateral	GTUL		-	-
Grout at a Location (Not a Joint)	GRT		-	-

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Appendix C - PACP Condition Grading System

Construction Features Codes

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/Stormwater	Levee
Tap Factory Defective	TFD	3	4	
Tap Factory Intruding*	TFI		< 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	3
Tap Factory Capped	TFC			
Tap Factory Activity	TFA			
Tap Factory Abandoned	TFR			
Tap Break-In/Hammer	TB			
Tap Break-In/Hammer Defective	TBD	3	4	
Tap Break-In/Hammer Intruding*	TBI		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	3
Tap Break-In/Hammer Capped	TBC			
Tap Break-In/Hammer Activity	TBA			
Tap Break-In/Hammer Abandoned	TBB			
Tap Saddle	TS			
Tap Saddle Defective	TSD	3	4	
Tap Saddle Intruding*	TSI		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	3
Tap Saddle Capped	TSC			
Tap Saddle Activity	TSA			
Tap Saddle Abandoned	TSR			

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/Stormwater	Levee
Tap Rehabilitated Defective	TRD		3	4
Tap Rehabilitated Intruding*	TRI		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	3
Tap Rehabilitated Capped	TRC			
Tap Rehabilitated Active	TRA			
Tap Rehabilitated Abandoned	TRB			
Intruding Sealing Material Sealing Ring	ISSR		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Intruding Seal Material Sealing Ring Hanging	ISSRH		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Intruding Seal Material Sealing Ring Broken	ISSRB		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Intruding Seal Material Sealing Loose, Poorly Fitting	ISSRL		≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to < 20% → 3 >20% to < 30% → 4 >30% → 5
Intruding Sealing Material Grout	ISGT		≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to < 20% → 3 >20% to < 30% → 4 >30% → 5

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/Stormwater	Levee
Intruding Sealing Material Other	ISZ		≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
Line Left**	L	1	≤ 10% → 1 >10% to ≤ 20% → 2 >20% → 4	1
Line Left/Up**	LLU		≤ 10% → 1 >10% to ≤ 20% → 2 >20% → 4	
Line Left/Down**	LLD		≤ 10% → 1 >10% to ≤ 20% → 2 >20% → 4	
Line Right**	LR		≤ 10% → 1 >10% to ≤ 20% → 2 >20% → 4	
Line Right/Up**	LRU		≤ 10% → 1 >10% to < 20% → 2 >20% → 4	
Line Right/Down**	LRD		≤ 10% → 1 >10% to ≤ 20% → 2 >20% → 4	1
Line Up**	LU		≤ 10% → 1 >10% to < 20% → 2 >20% → 4	1
Line Down**	LD		≤ 10% → 1 >10% to ≤ 20% → 2 >20% → 4	1
Access Point Cleanout Mainline	ACOM			
Access Point Cleanout Property	ACOP			

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Appendix C - PACP Condition Grading System

Description	Code	Structural Grade	O&M Grade	
			Sewer/Combined/Stormwater	Levee
Access Point Cleanout House	ACOH			
Access Point Discharge Point	ADP			
Access Point Junction Box	AJB			
Access Point Meter	AM			
Access Point Manhole	AMH			
Access Point Other Special Structure	AOC			
Access Point Service Connection	ATC			
Access Point Wastewater Access	AWA			
Access Point Catch Basin	ACB			
Access Point End of Pipe	AEP			

Hidden Formulas in Software :

*Percent = (Length of intrusion/Pipe Height) x 100

**Degrees = (Percent/100) x 80

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Appendix C - PACP Condition Grading System

Miscellaneous Features Codes

Description	Code	Structural Grade		O&M Grade	
		Sewer/Combined/ Stormwater	Levee	Sewer/Combined/ Stormwater	Levee
Miscellaneous Camera Underwater	MCU			4	4
Miscellaneous Shape/Size Change	MSC				
Miscellaneous General Observation	MGO				
Miscellaneous General Photograph	MGP				
Miscellaneous Water Change	MWC				
Miscellaneous Lining Change	MLC				
Miscellaneous Joint Length Change	MJL				
Miscellaneous Survey Abandoned	MSA				4
Miscellaneous Water Level	MWL				
Miscellaneous Water Level Sag	MWLS	< 10% → 2 >10% to ≤ 50% → 3 >50% to ≤ 75% → 4 >75% → 5			
Miscellaneous Water Mark	MWM				
Miscellaneous Dye Test Visible	MYV				
Miscellaneous Dye Test Not Visible	MYN				

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Appendix C - PACP Condition Grading System

MACP Condition Grades Instructions

When more than one code/text-code is allowed, select the highest grade possible from the matrix below.

Grades for manholes without vehicular traffic have the acronym NT (No-Traffic) after the grade number.

Field 25 codes: E, F, I, J, K, L, Y, Z

Grades for manholes with vehicular traffic have the acronym T (Traffic) after the grade number.

Field 25 codes: A, B, C, D, G, H, M

Field 27 is Inflow Potential from Runoff; S = Sheeting, P = Ponding, I = Inundated

Field	Description	Structural Grade	O&M Grade
			COVER
52	Hole Number	-	If # of holes > 0, then check Field 27: If S - 3, P - 4, I - 5
55	Cover/Frame Fit	R - 4NT, 5- U - 4NT, 5- O - 5	G - 1 U - 4NT, 5- R - 4NT, 5- O - 5
56	Cover Condition	Sound - 1 Restraint Defective - 2 Cracked - 3NT, 4T Corroded – 4 Broken - 5 Missing - 5	Bolts Missing - 2 Restraint Defective – 2 Restraint Missing - 3

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Appendix C - PACP Condition Grading System
58 Cover Insert Condition
Corroded - 3
Sound - 1
Poor Fitting - 3
Cracked - 3
Insert Fall 5
Leaking - 5
61 Adjustment Ring Condition
Sound - 1
Corroded – 3
Cracked - 3
Poor Installation – 3
Broken - 5
Leaking - 5
FRAME
68 Frame Condition
Sound - 1
Cracked - 4M, 5T
Broken - 5
Missing - 5
Corroded - 1
69 Seal Condition
Sound - 1
Offset - 3
Missing – 3
Cracked 3M,T,4T
Loose - 3M, 4-
Sound - 1
Cracked - 3
Loose - 3
Offset - 3
Missing - 3
70 Frame Offset Distance
d<1 in. – 1;d<25 mm - 1
1 in.>d≥4 in. – 3
25 mm>d≥102 mm - 3
d>4 in. – 5;d>102 mm - 5
71 Frame Seal Inflow
None - 1
IS - 2
IW - 3
ID - 4
IR - 5
IG - 5
CHIMNEY
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Chimney I/I
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Pipe Condition
PIPE CONNECTIONS
None - 1
IS - 2
IW - 3
ID - 4
IR - 5
IG - 5
Sound - 1
Defective - 3
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Appendix C - PACP Condition Grading System
NASSCO MACP Condition Grading System
Code Matrix for the Component Defect Section

Group	Code	Structural Grade				O&M Grade		
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
		Structural Family							
Crack (C)	CC	2	2	2	2				
	CL	2	2	2	2				
	CM	3	3	3	3				
	CS	2	2	2	2				
	FC	3	3	3	3				
Fracture (F)	FL	3	3	3	3				
	FM	4	4	4	4				
	FS	3	3	3	3				
	B	5	5	5	5				
Broken (B)	BSV	5	5	5	5				
	BVV	5	5	5	5				
Hole (H)	H	2	2	2	1 clock pos → 4; ≥ 2 clock pos → 5				
	HSV	5	5	5	5				
	HVV	5	5	5	5				
Collapse (X)	X	5	5	5	5				

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Appendix G - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade			
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
Joint (J)	JOM	5	5	5	5				
	JOI	5	5	5	5				
	JSM	5	5	5	5				
	JSL	5	5	5	5				
	JAM	5	5	5	5				
	JAL	5	5	5	5				
Surface Damage	SRI	1	1	1	1				
	SSS	2	2	2	2				
	SSC	2	2	2	2				
	SAV	2	2	2	2				
	SAP	3	3	3	3				
Surface Damage (Silent)	SAM	4	4	4	4				
	SRV	5	5	5	5				
	SRP	5	5	5	5				
	SRC	5	5	5	5				
	SMW	5	5	5	5				
	SZ	-	-	-	-				
Surface Damage (Metal)	SCP	3	3	3	3				

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Appendix C - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade			
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
Lining Features (LF)	LFD	4	4	3	3				
	LHDE	3	3	2	3				
	LFB	3	3	3	3				
	LFCS	3	3	3	3				
	LFAC	-	-	-	-				
	LHOC	2	2	2	2				
	LFUC	2	2	2	2				
	LFBK	3	3	3	3				
	LFAS	3	3	3	2				
	LFBU	3	3	3	3				
	LHDC	3	2	3	3				
	LFDL	4	4	4	4				
	LFPH	4	4	4	4				
	LFRS	3	3	3	3				
	LFW	2	2	2	2				
	LFZ	-	-	-	-				
Weld Failure (WF)	WFC	2	2	2	2				
	WFL	2	2	2	2				

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Appendix C - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade			
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
	WFM	3	3	3	3				
	WFS	2	2	2	2				
Point Repair (RP)	RPLD	4	4	4	4				
	RPPD	4	4	4	4				
Point Repair (RP)	RPRD	4	4	-	-				
	RPZD	-	-	-	-				
Brickwork (Silent)	DB	3	3	3	3				
	MB	4	4	4	4				
	MMS	2	2	2	2				
	MMM	3	3	3	3				
	MML	4	4	4	4				
Deposits (D)	DAE	O&M Family				1 < 30% 2≥30%	1 < 30% 2≥30%	1 <30% 2 ≥30%	< 10% → 1 ≥ 10% to < 20% → 2 ≥ 20% to ≤ 30% → 3 > 30% → 4
	DAGS					1	1	<30% ≥30%	< 10% → 1 ≥ 10% to ≤ 20% → 2 ≥ 20% to ≤ 30% → 3 > 30% → 4

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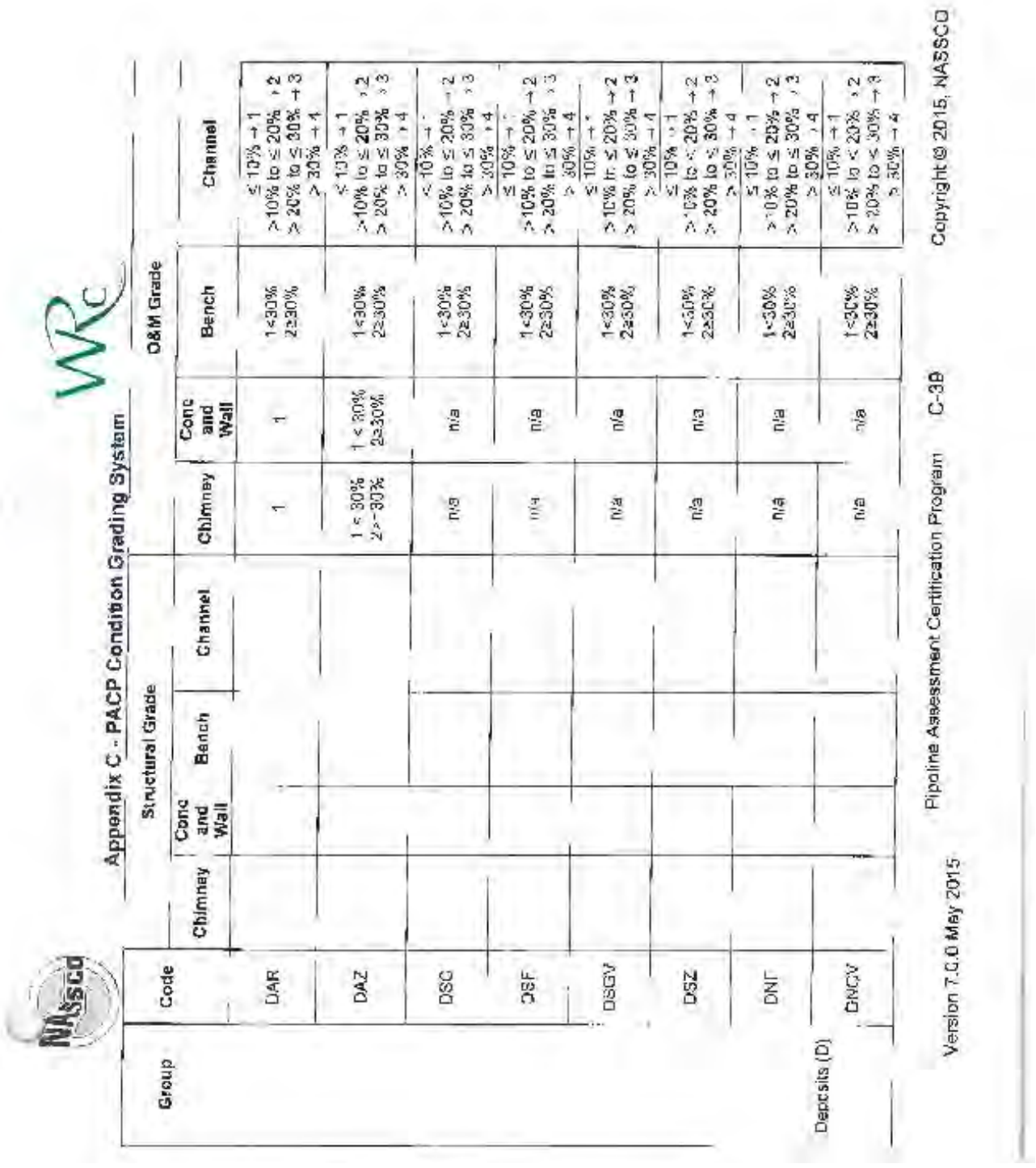

Appendix C - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade		
		Chimney	Conc and Wall	Bench	Channel	Chimney	Conc and Wall	Bench	Channel
Deposits (D)	DAR					1	1	1<30% ≥30%	≤ 10% → 1 > 10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DAZ					1 < 30% 2> 30%	1 < 30% ≥30%	1<30% ≥30%	< 10% → 1 >10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DSC					n/a	n/a	1<30% ≥30%	< 10% → 1 >10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DSF					n/a	n/a	1<30% ≥30%	≤ 10% → 1 >10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DSGV					n/a	n/a	1<30% ≥30%	≤ 10% → 1 > 10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DSZ					n/a	n/a	1<30% ≥30%	≤ 10% → 1 > 10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DNT					n/a	n/a	1<30% ≥30%	≤ 10% → 1 > 10% to ≤ 20% → 2 > 20% to ≤ 30% → 3 > 30% → 4
	DNCV					n/a	n/a	1<30% ≥30%	≤ 10% → 1 >10% to < 20% → 2 ≥ 20% to ≤ 30% → 3 > 30% → 4

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Appendix C - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade			
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
	DNZ					n/a	n/a	1<30% 2≥30%	≤ 10% → 1 > 10% to ≤ 20% → 2 > 20% to < 30% → 3 ≥ 30% → 4
Roofs (R)	RFB					1	1	1	2
	RFL					1	1	1	1
	RFC					1	1	1	1
	RFJ					1	1	1	1
	RTB					1	1	1	3
	RTL					1	1	1	2
	RTC					1	1	1	2
	RTJ					1	1	1	2
	RMB					1	1	1	4
	RML					1	1	1	3
	RMC					1	1	1	3
	RMJ					1	1	1	3
	RBB					2	2	2	5
	RBL					2	2	2	4
	RBC					2	2	2	4
	RBJ					2	2	2	4

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Appendix C - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade			
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
Infiltration (I)	IS					1	1	1	1
	IW					2	2	2	2
	ID					3	3	3	3
	IR					4	4	4	4
Infiltration (I)	IG					5	5	5	5
Obstacles/ Obstructions (OB)	OBB					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	< 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
	OBM					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	≤ 10% → 2 >10% to < 20% → 3 >20% to ≤ 30% → 4 >30% → 5
	OBI					5	5	5	5
	OBJ					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
	OBC					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	≤ 10% → 2 >10% to ≤ 20% → 3 >20% to ≤ 30% → 4 >30% → 5
	OBP					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	< 10% → 2 >10% to ≤ 20% → 3 >20% to < 30% → 4 >30% → 5
	OBS					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	≤ 10% → 2 >10% to ≤ 20% → 3

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Appendix C - PACP Condition Grading System

Group	Code	Structural Grade				O&M Grade		
		Chimney	Cone and Wall	Bench	Channel	Chimney	Cone and Wall	Bench	Channel
Vermin (V)	OBN					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	≥20% to ≤ 30% → 4 >30% → 5 < 10% → 2 ≥10% to < 20% → 3 ≥20% to ≤ 30% → 4 >30% → 5
	OBH					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	< 10% → 2 ≥10% to < 20% → 3 ≥20% to ≤ 30% → 4 >30% → 5
	OBZ					1<30% 2≥30	1<30% 2≥30	1<30% 2≥30	≤ 10% → 2 ≥10% to ≤ 20% → 3 ≥20% to ≤ 30% → 4 >30% → 5
	VR					2	2	2	2
	VC					1	1	1	1
	VZ					1	1	1	1
Intruding Sealing Material (IS)	ISSR					1	1	1	1
	ISSRH					1	1	1	1
	ISSRB					1	1	1	1
Intruding Sealing Material (IS)	ISSRL					1	1	1	1
	ISGT					1	1	1	1
	ISZ					1	1	1	1

Construction Features Family

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Appendix C - PACP Condition Grading System

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Continuous Sewer System Assessment Protocol
November 20, 2020

Appendix F NASSCO PACP Based Risk Management

November 2020

Appendix D – PACP Based Risk Management

Risk Management in Piping Systems

The purpose of asset management is to maintain the intended function or level of service of a system as cost effectively as possible. This is achieved by maintaining the individual components of the system, known as assets, at the lowest life cycle cost possible without negatively impacting the performance of the overall system. Managing assets in a risk based and fact-based manner is a contemporary strategy developed as organizations began to recognize a need to affordably maintain aging infrastructure despite decreased funding, while at the same time meeting stakeholder expectations, agreeing to levels of service and complying with Federal mandates. This Appendix explains suggested procedures that can become an integral part in developing an asset management plan for utilities.

Organizations need baseline asset condition information and operations data upon which to base management decisions. An effective asset management program requires a utility to answer some basic asset questions such as the following.

- What pipes, structures and laterals do we own?
- Where are these assets located?
- What are their materials, dimensions, depth and ground cover?
- What is the condition of each asset?
- What is the remaining estimated useful life of each asset?
- What is the value of these assets?
- What customers do they serve?
- What other community assets would be affected by failure of a particular asset?
- What should be done to better maintain or rehabilitate each asset?
- What will be the repair, replacement and rehabilitation cost?
- When should it be done?
- What effect will this have upon the utility budget?
- How should all of this be communicated to stake holders?

Federal and state regulations such as CMOM and GASB34 have increased the need for utilities to competently and expediently answer these questions. To accomplish this, utilities need facts (data) regarding their pipeline assets. This data is included in maps, databases and reports, which must relate to each other and form a foundation for projects. As a standard tool in this process, the PACP survey data and condition ratings enable utilities to more efficiently prioritize, budget and schedule various operation, maintenance and rehabilitation tasks.

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Appendix D – PACP Based Risk Management

This appendix introduces a risk based methodology that is compatible with the size and resources of individual utilities. It demonstrates how PACP data, along with general knowledge of the utility, can be used to develop considerable portions of an asset management plan.

Risk relates to the probability of something bad happening, or the likelihood of a negative impact occurring, and how this can be avoided. Sometimes risk is used to describe the severity of consequence(s) related to a potential failure. Asset management relates the combination of both **Likelihood of Failure** and **Consequence of Failure** to risk. Risk takes into account the asset's physical condition, as well as the impact that its failure would have on system performance and stakeholders. Mathematically, the risk from an occurrence may be expressed as the product of likelihood and consequence of failure as quantified in the following equation:

$$Risk = Likelihood\ of\ Failure\ (LoF) \times Consequence\ of\ Failure\ (CoF)$$

Likelihood of Failure

Likelihood of Failure (LoF) refers to a calculated numerical representation that denotes the probability of failure based upon an asset's physical condition, typically determined by reviewing PACP survey reports.

The process requires the selection of a rating system that relates directly to the known pipe condition. The PACP Quick Rating can be used to establish a value for Likelihood of Failure for pipelines based on condition assessment data provided by PACP. This rating is preferred, among the other PACP pipe rating systems (See Appendix C), since its derivation is based upon the highest rating scores and is not adversely skewed by the presence of multiple low condition grade scores. The PACP Quick Rating also protects against generating low scores, since its calculation is not affected by line segment length. This rating is determined by recognizing that it is a factor of the highest grade defect observed within a particular pipe segment. It is also recognized that a pipe segment with more of these grade defects may be more likely to fail than those with only a few.

An asset's Likelihood of Failure is determined by dividing the first two numbers of the PACP Quick Rating by 10 and using the following guidelines.

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If no condition assessment data is available, the LoF is 0 (zero).

If condition assessment data is available and there are no defects, 1.0 is added to the result of the division and the LoF is 1.0.

If there are no more than 9 occurrences of the highest condition grade, divide the first two numbers of the PACP Quick Rating by 10.

If the second character is a letter (indicating more than 9 occurrences), that letter is replaced by the number zero, and 1.0 is added to the result of the division.

Note

This method results in a maximum 6.0 rating provided that there exists more than 9 Grade 5 defects.

Example 1:
The asset has no condition assessment data available, therefore:

$$\text{LoF} = \frac{0}{10} = 0$$

Note

A LoF of zero DOES NOT indicate that there is no likelihood of failure of this asset. Instead, any rating of zero is meant to be a flag that indicates that data is missing, and should be promptly collected in order for this asset to be properly managed.

Example 2:
The asset has an O&M Quick Rating of 0000 (no defects found), therefore: $\text{LoF} = \frac{0}{10} + 1.0 - 1.0$

Example 3:
The asset has an Overall Quick Rating of 3248, therefore:

$$\text{LoF} = \frac{32}{10} - 3.2$$

Example 4:
The asset has an O&M Quick Rating of 5B21, therefore:

$$\text{LoF} = \frac{50}{10} - 1.0 = 6.0$$

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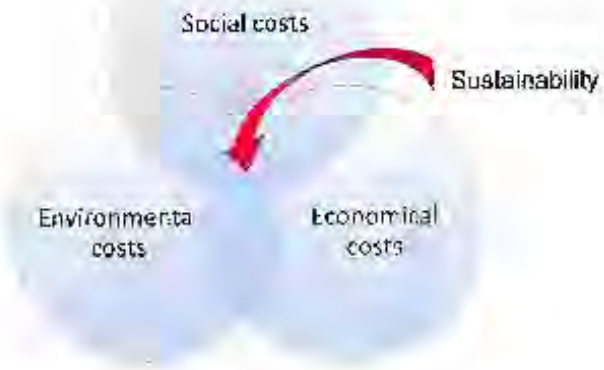
Consequence of Failure

Pipe failure may be defined in a multitude of ways that can vary from one agency to the next. For the purposes of this Appendix, pipe failure is defined as the inability to convey flow. Consequence of Failure (CoF) is the combination of direct and indirect impact on the vicinity and community due to a potential asset failure.

In recent decades this type of impact has typically been expressed in "Triple Bottom Line "(TBL) terms – also known as People, Planet and Profit. This concept emerged in the early 1980's as a criterion for measuring economic, ecologic and societal success. The TBL expands the traditional organization's financial bottom line to view other non-traditional social and environmental factors. Consideration of these factors encourages an organization to also focus on social and environmental aspects, rather than solely upon the (more visible) economic aspects of management. This also helps an organization to consider its stakeholders.

TBL concept focuses not only upon direct Economical costs, but also on Social costs and Environmental costs. The goal is sustainability of all the assets in a balanced manner.



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Economical Costs

The economical consequence of failure encompasses the impacts of direct and indirect economic losses to the affected organization and third parties due to asset failure.

Economic factors are typically expressed in dollars and include property damage, repair cost and production loss, among others. Regarding utilities, economical cost considerations may include those related to pipe material, diameter, depth and length of the pipe segments; direct or indirect interaction with other infrastructure elements, such as roads and bridges in the repair vicinity; effects of local topography on required access, and possible access restriction created by such barriers as walls and fences.

Direct consequences of failures include such costs as those for asset repairs, legal fees and fines. Indirect consequences include environmental cleanup costs and loss of business revenue to the community. In addition, consideration must be given to other external costs that are not directly measureable but result from the failure - such as loss in property value, utility credibility and increased insurance rates.

Both direct and indirect costs are considered when measuring the Economical Consequence of Failure.

Social Costs

The social consequences of failure represent the impact on society due to asset failure. These considerations may include the number of affected properties; the type of affected properties such as: hospitals, schools, parks, businesses or critical services as defined by the owner; the duration of the failure, and public image. In addition, there must be consideration for health and safety issues that may directly or indirectly create the possibility for public exposure to health-threatening problems, injuries or even fatalities.

Finally, public image and utility's credibility is extremely important due to the magnitude of its effect on the negative public exposure, criticism and legal actions the organization may face due to the failure.

Environmental Costs

The environmental consequence of failure considers the impact to ecological conditions occurring as a result of asset failure. Examples are contamination of soil, groundwater and surface water. Environmental cost considerations may include proximity to wetlands and waterways, proximity to Federal Emergency Management Agency (FEMA) flood zones, possible contamination of potable water sources and the sensitivity of nearby soils. The main consequence is the Sanitary Sewer Overflow (SSO) resulting from a failure. Also fines from consent decrees and from federal and state agencies may also result in Economic and Social costs.

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Rating Methodology

Consequence of Failure is determined by considering the location and demographics of an asset. For example, a 56 inch combined trunk sewer, 100 feet downstream of a Combined Sewer Overflow (CSO) that crosses a body of water, has a higher consequence of failure, than an 8 inch sanitary sewer at the upstream end of the system that only serves one resident. Likewise, a different 56 inch sewer would have a lower consequence of failure, than another 56 inch combined trunk sewer that is installed deeper, has a higher dry weather flow and crosses under a high traffic roadway.

In order to present this concept in a useful format, these considerations should be broken into separate scoring parameters using a similar (maximum of 8) scoring system as Likelihood of Failure, so that the two components equally contribute to risk. This can be done by several methods; however, the method selected must be a result of sufficient consultation with the utility. This should include a consideration of how each of the three cost structures should be weighted, and to what extend the various components of these costs are present and important to the community.

When assigning weighting factors, one should consider how much the parameter contributes to the economic, social and environmental impacts in the event of a failure. Some parameters may impact just one of the three TBL categories, while some may have varying degrees of impacts. An example of this would be a sewer line that crosses a waterway. This clearly can impact the environmental aspect of the TBL, considering the likelihood for contamination of the stream. There may also be some social impacts with respect to an interruption in recreational use of the waterway, and economic impacts that result from penalties and fines. All of this must be thoroughly discussed with the system owner.

The following procedures should be considered as a guide regarding discussions with a utility and as a possible and reasonable scenario of a Consequence of Failure rating procedure. The utility may desire additional considerations or may not consider some of these issues pertinent.

Relative Network Position of Pipe

Some utilities are storing their data in advanced enterprise GIS databases. Typically a database will carry pipe attributes like material, diameter, upstream and downstream inverts, upstream structure, downstream structure, length along with other attributes. Others have more limited capabilities. Most utilities have some level of system mapping.

Calculation of Consequence of Failure for a pipe, due to its relative network position, could be a simple function based on just the diameter of a pipe, or the complex upstream trace function based on a number of pipes connected (discharging) to the pipe.

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Appendix D – PACP Based Risk Management

In general large diameter pipes are located at the downstream portion of the system, while small diameter pipes are located at the upstream portion. Consequence of Failure will be higher when a blockage or failure occurs on a large diameter pipe compared to a small diameter pipe.

Consequence of Failure may be assigned to a scale from 1 to 6 with 6 being the highest consequence and 1 being the least. We can establish six groups based on the diameter of pipes within the system. As an example, the following table may be a reasonable distribution.

Diameter	CoF Factor
Less than 8"	1
≥ 8" - < 10"	2
≥ 10" - < 15"	3
≥ 15" - < 21"	4
≥ 21" - <30"	5
≥30"	6

This consideration should affect both Economic and Social costs. Larger diameter pipe generally costs more to repair, replace or rehabilitate, serves more customers and can have increased environmental impact to sensitive geographical areas.

The depth of pipe will also impact the Economic cost since deeper pipe is generally more expensive to repair, resulting in a distribution such as:

Depth	CoF Factor
Less than 6'	1
≥ 6' - < 10'	2
≥ 10' - < 14'	3
≥ 14' - < 18'	4
≥ 18' - <24'	5
≥ 24'	6

Instead of diameter, relative network position of a pipe can also be used to assign a Consequence of Failure factor. This approach generally requires more sophisticated/complex maps of the system. Relative network position can be calculated as sum of relative position of all pipes discharging to an upstream structure.

This is a Social cost consideration, since the larger number of segments should relate to more customers upstream.

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Appendix D – PACP Based Risk Management

The six groups based on relative network position may be rated as follows:

Relative network position of pipe	CoF Factor
10 or less	1
11 -30	2
31-70	3
71-120	4
121-150	5
>150	6

A similar approach can also be used to define the Consequence of Failure factor based on the number of customers serviced by the pipe. Cumulative sum of services (lateral) connected to a pipe can be calculated by adding cumulative sum of services connected to all pipes discharging at upstream structure of a pipe, plus number of services directly connected to the pipe.

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Location of Pipe

Failure of a pipe, regardless of relative network position, may have a higher consequence in terms of disruption to the community and the cost of managing emergency repairs of a pipe. Failure of a pipe on a major road causes more disruption to traffic compared to failure of a pipe on a local road. Challenging accessibility can also have a significant impact on the cost of emergency repairs.

GIS based maps with layers including street network, buildings, waterways and other datasets can be performed to assign Consequence of Failure based on, for example, the class of road the pipe is located. This is both an economic cost consideration in that pipe under more major roads generally costs more to repair, and a Social consideration due to the increased disruption of traffic. See below for a reasonable consideration.

Location of pipe (class of road)	CoF Factor
Unpaved	1
Minor Local	2
Major Local	3
Collector	4
Arterial/Building/Pool	5
Highway/Waterway	6

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Appendix D – PACP Based Risk Management

Proximity to Environmentally Sensitive Features

Pipes are not always installed within road right-of-way. There are various reasons to install a pipe at a close distance to environmentally sensitive features like rivers, creeks, drinking water source areas and lakes. This is, of course, is an Environmental cost consideration.

At times, these pipes are hard to access for regular maintenance and may cause significant environmental damage, when they fail. A higher Consequence of Failure factor is set, based on the distance between a pipe and an environmentally sensitive feature. This will, of course, be affected by the nature of the sensitive environment.

Distance between pipe and waterway	CoF Factor
150 LF or more	1
100 - 150 LF	2
75 - 100 LF	3
50 - 75 LF	4
25- 50 LF	5
Less than 25 LF	6

GIS algorithms/models can be set-up to assign Consequence of Failure based on calculated distance of a pipe from predefined set of environmentally sensitive features.

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Appendix D – PACP Based Risk Management

Service to Customer of Significant Importance

Every utility will have a set of customers who are very significant for the well-being of the community. These customers may include hospitals, schools, manufacturing facilities, and emergency services, etc., as determined by the utility. Providing uninterrupted service to these facilities may be a priority for the utility.

GIS based downstream trace from a service lateral of a customer can be performed to find downstream pipes servicing this customer. Based on pipe's proximity to these customers, a higher Social Consequence of Failure can be assigned.

Distance between downstream pipe to a service lateral for customer with high importance (in m)	CoF Factor
20,000 LF or more	1
15,000 - 20,000 LF	2
10,000 -15,000 LF	3
5,000 - 10,000 LF	4
1,000 - 5,000 LF	5
Less than 1,000 LF	6

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Appendix D – PACP Based Risk Management

Accessibility for Maintenance and Inspection

Access to manholes and pipes are very important for inspection and repairs. Large construction equipment is sometimes required to repair the failure of a pipe. Response time for a service crew may be significantly higher, if access to the pipe is difficult. The failure of such a pipe may cause significant damage to the environment, as well as private properties, due to delays in response created by difficulties in accessing the failure point. A higher Consequence of Failure should be assigned to these pipes. This will affect the economic costs, due directly to the difficulty and perhaps social costs, if the property needs to be disrupted to gain access.

Spatial pipe and utility corridor layers can be used to assign Consequence of Failure for accessibility of pipe.

Accessibility of Pipe	CoF Factor
On Right-of-Way - no traffic control	1
On Right-of-Way - with traffic control	2
On public lands with vehicle access	3
On public lands without vehicle access	4
On private lands without vehicle access	5
Behind built structures and no vehicle access	6

These suggestions should not be considered either complete or absolute. These types of factors can only be determined with considerable input from utilities and their consultants. However, these can serve as guidelines for various types of considerations.

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Appendix D – PACP Based Risk Management

Calculation of Overall Consequence of Failure

Each of the above factors may have a different weighting depending on the goals and priorities of a utility. An overall Consequence of Failure score is calculated as a weighted average of all individual Consequence of Failure.

For example, let's consider a hypothetical 12 inch pipe, 9 feet deep, located on a collector road, 2 miles downstream of a hospital, 40 feet from a creek with no access. In this case the utility considers environmental concerns to be more significant than economic or social, and this is reflected in the weighting factor.

The following is the type of computation that may be used. Since all systems have different characteristics and various utilities have different goals and priorities, it is not possible or practical to attempt a "one size fits all" approach.

Consequence of Failure Computation

	Economic	Social	Environmental
Weighting Factor	**1/4**	**1/4**	**1/2**
Network Position			
Diameter (12")	3	3	
Depth (9')	2		
Location of Pipe			
Collector road	4	4	
Proximity to Sensitive Environment			
40' from creek			5
Serves Important Customer			
2 miles downstream of hospital		3	
Accessibility			
Needs traffic control	2		
TOTAL	**11**	**10**	**5**
TOTAL / POSSIBLE (G*#)	11/24 = 0.458	10/18 = 0.555	5/6 = 0.833
WEIGHTED (TOTAL * Weighting Factor)	0.458 * 1/4 = 0.115	0.555 * 1/4 = 0.139	0.833 * 1/2 = 0.417
COF = SUM(of WEIGHTED)*6		4.03	

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In this example, each of the various factors were equally weighted when considering the individual Economic, Social and Environmental rates. However, these could be weighted individually (i.e. diameter considered more important than depth). Or, a utility could decide to rate each based upon the single highest rated factor in each column, or by what the utility considers the most crucial component of each. A table such as this, along with its computation and weighting methods, must be developed based upon sufficient consultation with the owner.

The Consequence of Failure value should be recorded in PACP Header Field 22, MACP Header Field 20 and LACP Header Field 21.

Managing Asset Risk

The overall risk associated with a failure event is a function of the likelihood of a failure event and its consequence. Not all highly probable events need the same attention, since they may not have equally high consequence (impact) to the community. Any mitigation and/or response plan shall be designed based on overall risk due to a failure event.

Upon establishing standardized definitions and a scoring system for Likelihood of Failure and Consequence of Failure, a risk matrix can be developed and plotted for review and analysis. The following figure is a schematic of a risk matrix and suggested Likelihood of Failure and Consequence of Failure categories, which is consistent with our prior discussions.

Increased Likelihood of Failure should result in more aggressive maintenance and repair. Increased Consequence of Failure should result in increased assessment. The resulting matrix can provide the basis for an economically efficient, balanced and proactive assessment, maintenance and rehabilitation program.

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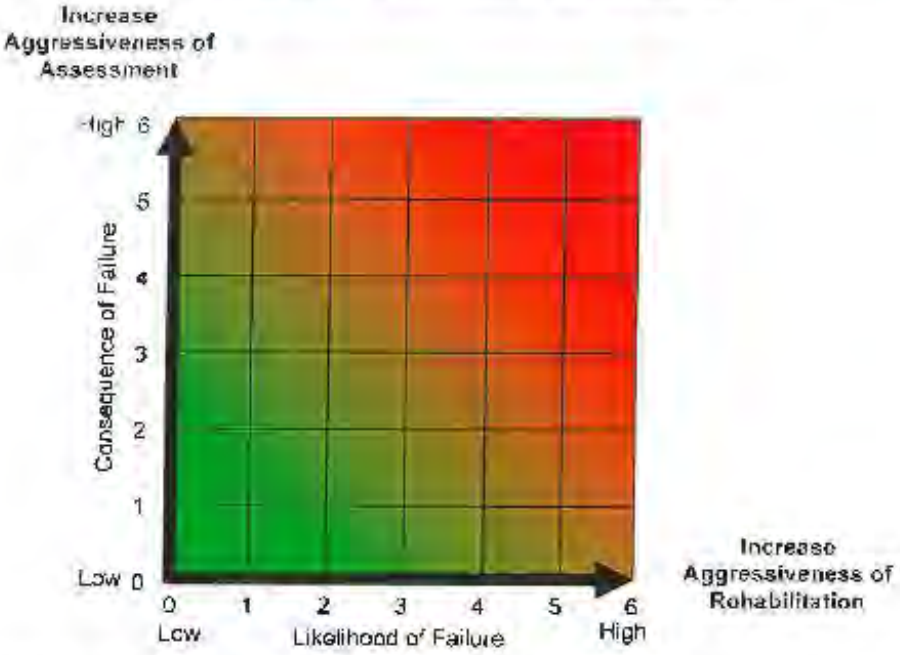
Appendix D – PACP Based Risk Management



This figure illustrates risk management strategy for a pipe asset based on Likelihood of Failure and its Consequence of Failure - each with a range of 0 to 6. As with most of these concepts, this should be considered a guide for a reasonable approach. There are many variations that can be made to address unique needs of an individual utility. The specific approach used for a utility must be developed with sufficient input from utility staff and must be implemented consistently throughout the utility's asset management system.

Since asset failure can result in more expensive, socially difficult and environmentally destructive consequences, increased Consequence of Failure (CoF) should lead to more aggressive assessment. Within the graph, those segments with a CoF in the darker green range may need to be cleaned and inspected less frequently. Those in the lighter green/red range should be inspected more frequently.

Pipe rehabilitation priority and methodology is directly related to the condition of the pipe which is the determining Likelihood of Failure (LoF) factor. If a pipe exhibits more severe defects, then it generally should be rehabilitated more aggressively.

However, this rehabilitation must be based upon the overall strategy and goals of the utility and in concert with CoF principals. For example, those pipes with a low CoF (say in a residential cul-de-sac) may only be scheduled for rehabilitation as total failure occurs.

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In contrast, more crucial pipe (large diameter in a protected wet lands) may, for example, be scheduled for rehab, when the LoF exceeds 3.

The Asset Management Plan should clearly explain the details of the processes associated with this.

Ultimately, all of the data collected through PACP inspections and from other inventories and assessments, along with prior maintenance and rehabilitation data, will be combined to either upgrade or create a GIS data base. This database will include or provide information that answers the basic asset management questions. Perhaps the most critical portion of such a data base is that which informs a utility as to what the next action is regarding each asset. This may be an assessment such as CCTV, a maintenance activity such as cleaning a line or a rehabilitation activity such as lining with CIPP. Each of those should also have an estimated cost and projected date (typically year).

All of this must be accomplished based upon the stated goals and priorities of the utilities and according to the generally agreed objectives of an asset management program.

The following table illustrates a typical manner such data can be used.

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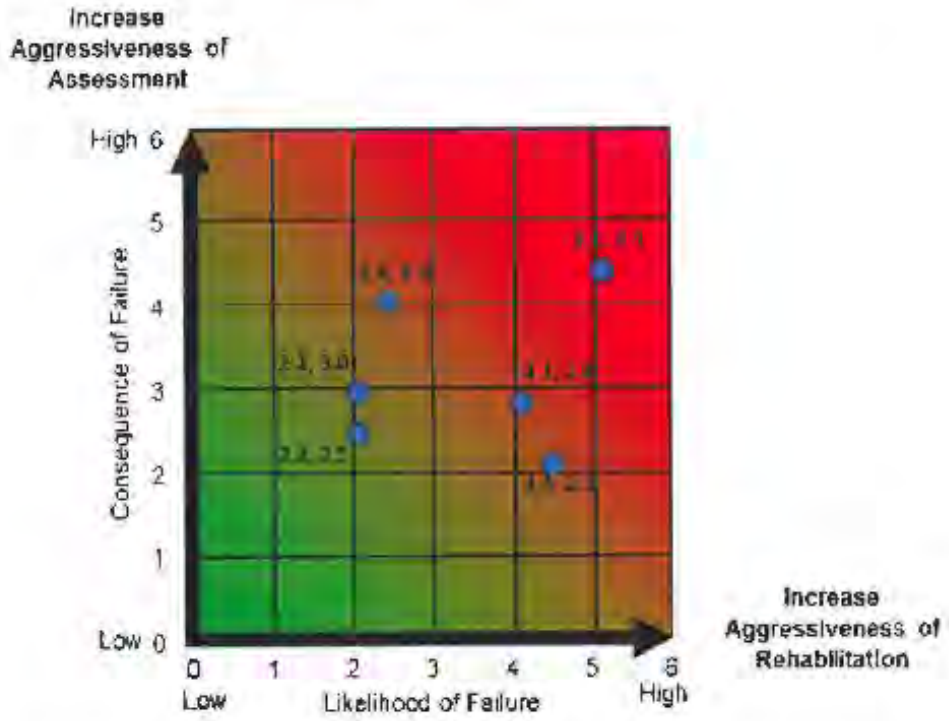
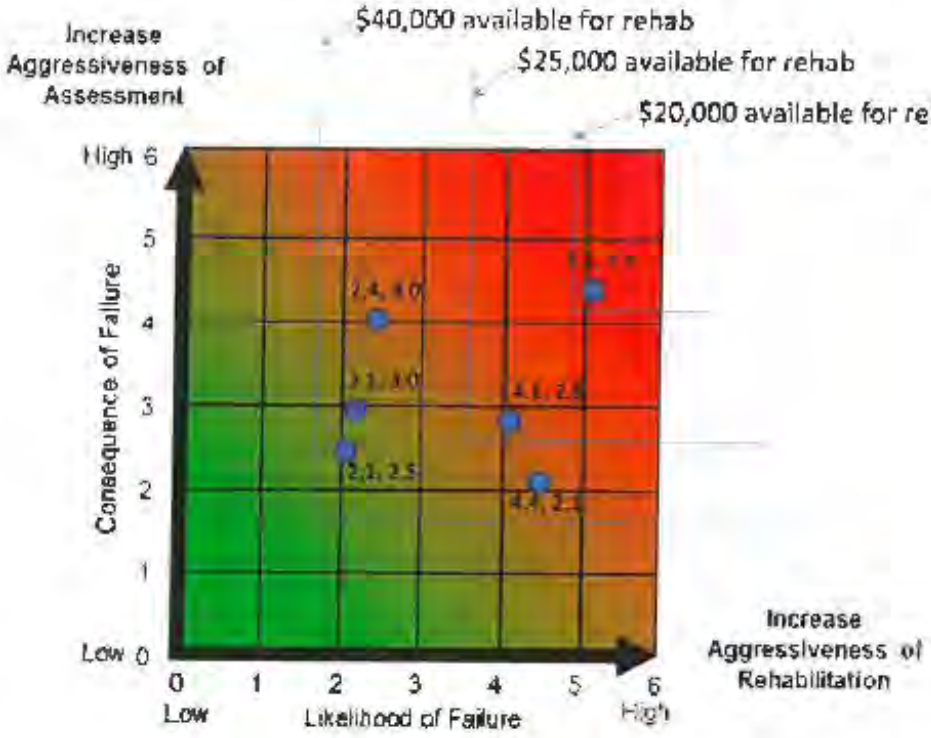
Appendix D – PACP Based Risk Management

To create a visual representation of how the risk scores compare to one another, a graph of the CoF versus the LoF can be created. Using the numbers in the previous example, a graph of the scores would be as follows:



Using the rehabilitation costs estimated in the example table and starting in the upper right-hand corner (starting with the highest risk assets), the table can help to prioritize which projects should be undertaken, depending upon the budget that is available for rehabilitation projects. The lines are drawn and labeled with the amount of rehabilitation budget that would be necessary to complete all of the projects to the right and above the lines. This method of prioritizing the projects will help ensure that the utility gets the largest risk reduction for each dollar spent on rehabilitation.

Appendix D – PACP Based Risk Management



This approach can be used to systematically invest O&M dollars into assessing and rehabilitating the assets that expose the utility to the largest amount of risk. Over time and with sufficient investment, consistently applying this approach will allow utilities to reduce the amount of resources dedicated to emergency response and shift over to more strategic risk-based management of the system assets. The number of asset failures experienced each year should trend downward. When failures do occur, there should be less of a negative impact on the overall system performance. Operation and maintenance budgets should be more predictable and easier to manage (i.e. more planned activities and less emergency expenditures).

Continuous Sewer System Assessment Protocol
November 20, 2020

Appendix G Basis for Development of Probability of Failure Curves and Tables for MSD's Application with Hansen's Advanced Asset Management Module

November 2020

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TECHNICAL MEMORANDUM CH2MHILL

Basis for Development of Probability of Failure Curves and Tables for MSD's Application with Hansen's Advanced Asset Management Module

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DATE: November 27, 2007

1 Technical Memorandum Purpose and Project Background

1.1. Purpose

The purpose of this technical memorandum (TM) is to document the development of Probability of Failure (POF) curves and tables for Metropolitan Sewer District's (MSD) gravity sewers. POF includes other supporting curves and tables such as:

- Service Life (SL) based POF curves and tables
- Remaining Service Life (RSL) based POF curves and tables
- Condition Decay (CD) based POF curves and tables.

Each of the above POF relationships are developed for the common sewer pipe materials found in MSD's gravity conveyance system: concrete, vitrified clay, asbestos cement, PVC and then a generic curve representation for the collective remainder of pipe materials. The POF data will be used in MSD's Hansen Advanced Asset Module (AAM) to calculate risk scores to help MSD decide on their priority asset management needs and response scheduling.

The TM describes that POF will be developed using three data integrity levels. POF will start with Level 1 which is the application of the AAM to an initial service area to meet the regulatory Consent Decree December 31, 2007 milestone. Levels 2 and 3 are POF developed over longer-terms and applied by AAM to the whole MSD conveyance system. For instance, in Level 1 the POF for the initial application service area will be determined based on readily available pipe material types and pipe age data stored in MSD's Hansen database. As more definitive data about the sewer pipes are gathered in Level 2 or Level 3, such as from institutional knowledge about the system or from closed-circuit television (CCTV) inspections, the POF calculated scores will be updated and new risk scores calculated using the Hansen AAM.

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1.2. Project Background

CH2M HILL's activities associated with this TM are authorized by MSD as Task 2 within the ***M-E-3 Continuing Sewer System Assessment (CSSA)*** listing of MSD projects linked to MSD's Consent Order (CO) compliance requirements. Task 2 establishes the protocol steps that are needed to render a risk prioritization approach for the gravity sewer assets by December 31, 2007. The CO requires MSD to acquire and have functional an asset management software program by December 31, 2007. Therefore, MSD procured Hansen Advanced Asset Management (AAM) software to implement the CO requirement.

The AAM provides real-time infrastructure decision support, predictive modeling, and renewal analysis for long-range capital planning of assets. The AAM module software uses the POF tables, RSL tables, and CD tables developed by MSD to calculate POF. The software also uses the sewer Consequence of Failure (COF) information developed by MSD to calculate the asset's COF score. When combined in the AAM, the POF and COF produce the risk score for the sewer asset.

One of CH2M HILL's tasks as part of the Hansen AAM software application to the conveyance system is to produce POF tables and curves, RSL tables and curves, CD tables and curves to input into the Hansen AAM. Hansen's AAM provides default tables and curves for POF, RSL and CD but they recommend MSD develop their own to better reflect local conditions.

Since POF assignment to pipe materials is very dependent on local conditions and installation practices the ideal situation would be to develop POF from MSD's own database of information. However, MSD does not have readily available and consistent information for all its sewer pipes other than basic pipe data such as pipe material, diameter, and installation date. Therefore, CH2M HILL reviewed trade publications, industry references, and discussed local pipe performance experiences with the local staff to develop initial pipe material and POF relationships. Hansen's AAM anticipates this approach as a common approach and provides the corresponding basic pipe data input templates to calculate a POF score.

CH2M HILL reviewed the AAM module version 5.5 user instruction manual provided by Hansen to understand their steps to develop POF based on SL, POF, RSL and CD curves and tables. In the AAM module the POF template usually represents age as the time period the asset has been installed or it can represent the RSL of the asset. The choice depends on the data source and data integrity the user is providing. Therefore, it is up to MSD to properly apply age. The TM, therefore, defines how age is applied to the various POF table and CD relationships and whether it represents the asset's SL or RSL.

Hansen's AAM module adopted the risk concepts from the 2006 International Infrastructure Management Manual (IIMM). The IIMM was developed by the Institute of Public Works Engineering Australia (IPWEA) and the association of local government engineering New Zealand (INGENIUM). In the United States asset management has been similarly produced by the National Association of Clean Water Agencies (NACWA) in a series of publications titled, Managing Public Infrastructure Assets, 2002, and Implementing Asset Management,

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2007. The IIMM and NACWA asset management approaches to asset management are very similar except for differences in nomenclature and in the way risk is scored. IIMM suggests two options for scoring risk; by numerical scores and by cost. NACWA does not promote expressing risk in costs because of the indistinct process and negative perception of associating costs to public health and environmental values. Therefore, the TM will only address the risk components of POF and COF in the numerical form.

1.3. Outline of the TM

Section 2 of this memo provides definitions for the primary terms used in this TM plus a summary of MSD's approach to develop POF involving three levels of data and information integrity. Section 3 provides detail information on the development of the POF tables and curves used in the Level 1 approach. The Level 1 approach will be used to meet the EPA Consent Order December 31, 2007 deadline. Section 4 describes how the POF tables and curves are developed in the Level 2 approach. Section 5 describes how the POF tables and curves will be developed in the Level 3 approach. Section 6 provides the references used through out the TM.

2 Terminology and approaches to develop POF, RSL and CD curves and tables for different pipe materials for application in the Hansen AAM

2.1. Terminology

It is important to understand how terms are defined in the various resource manuals that have been referenced. Here are five terms defined as used in this TM.

2.1.1 POF; refers to the likelihood the pipe (asset) will fail at any age up to its SL age (defined below).

The determination of POF requires the knowledge of failure rate influences or stresses on sewer pipe materials and the pipe deterioration process. POF will usually vary for different pipe materials. POF in some risk analysis could include consideration of a failed performance because of capacity limitations but that is not a consideration for this TM. For this TM POF is only focused on the pipe material's integrity. POF is used in the AAM module the same as in this TM.

2.1.2 SL Age; is commonly defined as the life until the sewer pipe ceases to provide the required level of service because of physical deterioration or performance limitation of the pipe. It this TM, limitations, such as capacity, is not considered.

The determination of SL age of a sewer pipe requires any combination of engineering judgment, review of technical analysis results, or an understanding of the general failure history of the pipe material in the particular system.

SL age will vary for the same pipe material depending on multiple factors influencing the pipe, for instance, pipe bedding material, pipe bedding compaction techniques, pipe depth,

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temperature of the wastewater, character of the wastewater, and ground water fluctuations. However, since this information is not readily available these influences are generalized into one POF curve for each pipe material as further discussed herein.

The term "service life age" corresponds to the term "age" in Hansen AAM and corresponds to the term "useful life" in the IIM manual (IIM 2006). All resources represent the term in years.

2.1.3 Effective SL Age; refers to the estimated SL age based on the assignment of a condition grade to the pipe. A new Effective SL is calculated from the CD curves and tables. The Effective SL age supersedes the initial SL age.

2.1.4 RSL Age; refers to the number of years which the sewer is expected to remain in service and subsequently fail. It is calculated by subtracting the current age of the pipe from its SL age. RSL age can similarly be estimated from the Effective SL age when used with CD curves. RSL age based on the condition should supersede RSL based on the inventory or installed age in POF calculations.

2.1.5 CD Curve; is the graphical representation of the deterioration of a sewer pipe material over time. A CD curve matrices typically is divided into five equal parts on one axis which represents the five condition grades used to measure the pipe deterioration severity with time which is represented on the other axis. For a given condition grade the CD curve is used to project a corresponding SL age or RSL age. Empirical or field data can used to develop the CD curve.

2.2. Hansen's AAM Module presentation of POF

In the AAM module, the POF curve for each pipe material is created by entering age and POF values in tabular form. Table 1 provides an example of the AAM module's default POF table and values for all pipes with an age of 100 years, regardless of the pipe material. In Table 1, at age 10, the probability of failure is 0.1% and at age 100 it is 99%. Similar default POF values are developed in AAM module for pipe ages: 100, 80, 75 and 50 years.

Table 1: Probability of failure table showing default values for a pipe age of 100 years in Hansen AAM module

Age	Probability of Failure
10	0.0010
20	0.0020
30	0.0040

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40	0.0080
50	0.0200
60	0.0320
70	0.0540
80	0.1000
90	0.3000
100	0.9900

POF curve is developed based on the default values entered in the POF Table 1 and is shown graphically in the Figure 1. The Hansen AAM guidance documents states this graph was developed to illustrate an anticipated distribution of failure with age and not on specific documented research.

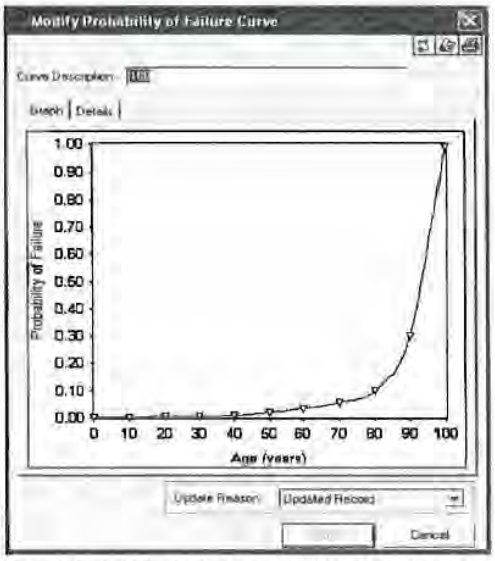

Figure 1: Probability of failure curve developed based on the values entered in the above POF table in Hansen AAM module

2.3. MSD POF approach

MSD is faced with a Consent Decree deadline of December 31, 2007 to have the Hansen AAM functioning. Therefore, time will significantly affect the approach selected to develop the pipe material POF tables and curves. There is a choice of three general approaches to

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employ for calculating POF and the choice depends on the knowledge integrity level available to establish the sewer pipe's condition. The approaches are sequenced and listed below according to a progressive knowledge level of the pipe's condition:

- **Level 1:** POF curves and tables are developed based simply on pipe material and SL age. It is assumed the pipe material and installation date are readily available or gathered and the POF quickly computed from MSD's existing Hansen database information.
- **Level 2:** POF curves and tables are developed based on the condition assigned to the pipe from the staff's institutional knowledge of the pipe condition. This works well when maintenance and engineering staff collectively discuss their knowledge and experiences with the sewers and assign condition grades using criteria and examples as guidance.
- **Level 3:** POF curves and tables are developed based on the aggregate of available information gathered from the multiple activities associated with the sewers. Information will include the pipe's attribute information and investigation data such as; external factors and stresses acting on the pipe, and internal pipe condition obtained based on the closed circuit television (CCTV) data. This level is usually developed over the long term after data management systems and training are in place and can be automated using more robust features of the Hansen and AAM module software.

Given MSD's limited time to comply with the CO MSD will pursue the Level 1 approach to meet the December 31, 2007 deadline but will progress to Level 2 and 3 starting in 2008. MSD's workplan for progressing with Level 2 and 3 will be developed and submitted in December as part of the CO requirements.

3 Level 1: Development of POF curves and tables based on pipe material and its estimated SL or RSL age

POF is calculated in Level 1 by developing a SL or RSL and POF relationship tables. Table 1 shows a POF table based on SL as taken from the Hansen AAM materials. These relationship tables will be developed for the following pipe materials; concrete, clay, asbestos cement, and PVC. A generic relationship table will be developed for the remaining pipe materials. Other specific pipe material POF curves and tables will be developed in the future as needed.

3.1 Estimated SL age for various pipe materials

Since MSD is at a Level 1 approach and has not previously analyzed or developed a POF and SL age relationship it will be necessary to benchmark and extrapolate from other utilities that have. Service life data was collected from national and international industry reports and CH2M HILL's project experience at other utilities. Our literature and experience review considered the source and general location of the data since an areas hydrology and average wastewater temperate can significantly influence a specific pipe material's SL age. Therefore, the literature and experience findings were categorized into three weather related installation scenarios:

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- Scenario 1: This is a generic scenario where the utility location's in the literature is widely distributed or the information is not clear on the origin of the POF and SL age relationship. Average wastewater temperature could be low, medium or high. The SL estimate for this condition is assumed to be the equivalent to the pipe material's design life estimate published in industry reports like NASSCO, Wrc and IIM. It is acceptable industry practice to assume the design life as the default SL age for pipes when historic performance data or other information about the pipe's installation scenario is not available.
- Scenario 2: This is for scenarios in the literature where average wastewater temperatures are relatively low as would be the situation for the northern states of the United States (U.S.) and in Canada. For instance, the SL estimates for this scenario are assumed to be equivalent to the estimated service lives published by the National Research Institute of Canada (NRC-Canada) for 11 municipalities in Canada. The results of this work are published in the report MIIP (2006).
- Scenario 3: This scenario represents POF and SL age relationships that are from areas with relatively moderate to high average wastewater temperatures. This would include central and southern states in the U.S. and include MSD.

Table 2 summaries the estimated SL age for different pipe materials obtained from the listed information sources. The information sources typically provided a range of estimated SL age values. A single SL age value was selected from the range based on discussions with local staff. Service life is categorized by scenario.

Table 2: Estimated SL age for Scenario 1, 2, and 3.

Pipe material	Service Life Age		
	Scenario 1 (Generic: low, medium or high temperature regions)	Scenario 2 (Low temperature regions)	Scenario 3 (Moderate to high temperature regions)
Concrete	100	125	80
Vitrified clay	120	140	100
Asbestos cement	100	130	80
PVC	75	75	75
Generic pipe material	100	120	80

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Primary Source of Information	*IIM 2000 & 2006, NASSCO, WRC, Trenchless Technology Magazine (TTM, 2004)*	*Municipal Infrastructure Investment Planning (MIIP) report and this project was done by National Research Council, Canada (NRC-CNRC)*	*CH2M HILL, IIM 2006*

Consideration of different scenarios resulted in a range of expected SL age levels for each pipe material. Figure 2 indicates the range of estimated sewer service lives for sewer pipe materials: concrete, vitrified clay, asbestos cement, PVC, and generic pipe material. PVC has the shortest SL in all three scenarios. Vitrified clay pipe has longest SL in all three scenarios. The SL of pipe material in low temperature regions is longer than the medium to high temperature and generic regions.

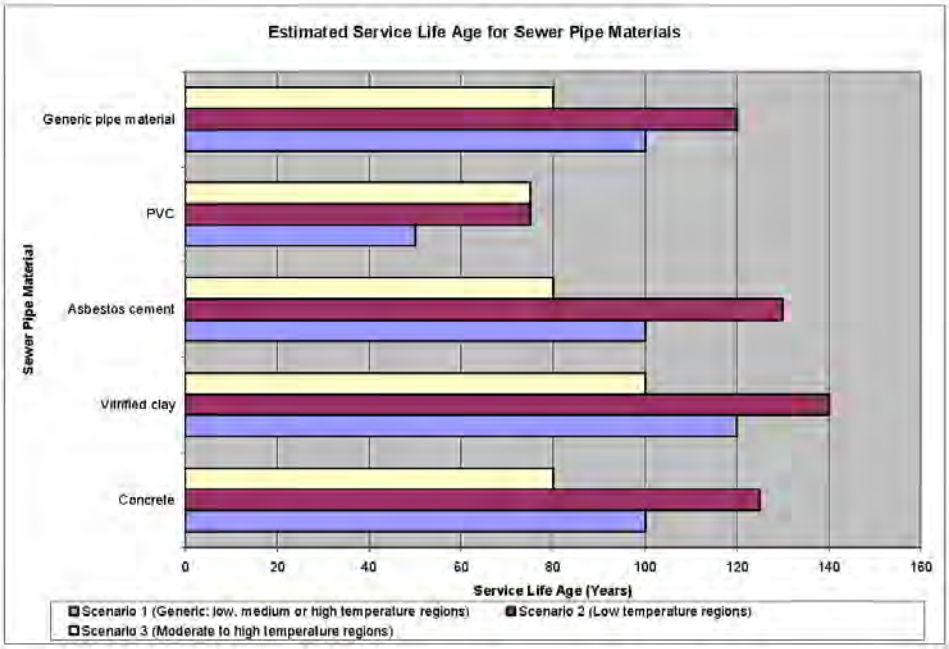

Figure 2: Estimated sewer SL age for Scenario 1, 2 and 3

Based on the geographic location of MSD, the temperatures in the region will vary from moderate to high in the scenario categories. So, SL age data under Scenario 3; with SL age of concrete as 80 years, vitrified clay as 100 years, asbestos cement as 80 years, PVC as 75 years and any generic material as 80 years were considered to develop POF, RSL and CD curves and tables.

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3.2 Scenario 3 POF values extrapolated from literature's detailed documentation of Scenario 2

The National Research Council (NRC) of Canada did a comprehensive evaluation of sewer pipes in 11 Canadian municipalities and developed POF curves and tables. NRC also developed predictive modeling data for the pipe materials. Therefore, due to the thoroughness and availability of SL data, predictive modeling data and pipe deterioration data from their study MSD's Scenario 3 data was extrapolated from the Canadian Scenario 2 data. MDS's POF curves and tables were also adjusted based on the experiences and Scenario 3 studies performed by CH2M HILL, in particular the concrete pipe corrosion studies performed for Montgomery, AL from about 1996 to 2005.

The development of POF over its SL age for each sewer pipe material as presented in the Canadian research involved the following five steps:

Step 1: Assign a SL age – Service life age values shown in Table 2 for Scenario 2 were used for the analysis.

Step 2: Use probability matrices to develop Probability of Failure Transition (POFT) tables which provide the probability of a pipe moving from various condition grades to a failed condition during the pipe's SL. The POFT tables are developed for each pipe material.

Step 3: Predict the Probability of Deterioration (POD) for each pipe material. POD is the probability of the pipe being in any given condition grade at a given SL age.

Step 4: Calculate the POF by multiplying the transition probabilities in Step 2 with the probability of pipe deterioration calculated in Step 3 over the pipe's SL

Step 5: Plot the POF curve over its SL based on Step 4 values. Prepare POF tables.

Each of these steps is discussed in detail in the following section.

3.2.1. Step 1: Assign SL age for each pipe material (Scenario 2)

Table 3 presents the estimated SL considered for the development of POF curves and tables as taken from Table 2 for Scenario 2.

Table 3: SL age data considered for POF analysis for Scenario 2

Pipe material	Service Life Age (Years)
Concrete	125
Vitrified clay	140
Asbestos cement	130
PVC	75
Generic pipe material	120

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3.2.2. Step 2: Develop Probability of Failure Transition (POFT) tables which provide the probability of a pipe moving from various condition grades to a failed condition during the pipe's SL (Scenario 2).

Transition probability matrices for different pipe materials were developed by NRC Canada based on the collected CCTV condition assessment data from 11 different municipalities in Canada. These matrices are extracted from the MIIP 2006 report. Markovian chain modeling was used to develop a probabilistic model and the transition probability matrix. The mathematical theory behind Markov modeling is explained more in detail in Appendix A.

The transition probability matrix provided information on the probability of a pipe moving between its various conditions over a period of time. The time to move from one state to another is known as the transition time. The probabilities of moving between different Grades or states form the transition matrix. An example of transition probability matrix is shown in the Table 4. In Table 4, the Water Research center's (WRc, 2001) condition grading criteria and rating scale of 1 to 5 were adopted by NRC Canada to define the overall condition of the pipe. A pipe in Grade 1 represented a pipe in excellent condition, a Grade 2 represented a pipe in good condition, a Grade 3 represented a pipe in fair condition, a Grade 4 represented a pipe in poor condition, and Grade 5 represented a pipe at or imminently close to a failed condition. Therefore, a 1 to 5 scale was used to represent the various pipe conditions in the transition probability matrix.

In Table 4, it can be seen a pipe in Condition Grade 1 has a probability of 0.91 (or 91% probability) of remaining in that state and a probability of 0.09 of moving to the next state (Condition Grade 2) during one transition period (10 years). Such transition matrices were developed up to 100 years for each pipe material by NRC Canada.

Table 4: Example of transition probability matrix for a generic sewer pipe material

Generic Pipe Material	Pipe Age - 0 to 10 Years	Final Condition	Condition Grades				
			Excellent	Good	Fair	Poor	Immediate Attention
Condition Grades			1	2	3	4	5
Excellent	1	Initial Condition	0.91	0.09	0.00	0.00	0.00
Good	2		0.00	0.76	0.24	0.00	0.00
Fair	3		0.00	0.00	0.69	0.31	0.00
Poor	4		0.00	0.00	0.00	0.64	0.36
Immediate Attention	5		0.00	0.00	0.00	0.00	1.00

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The transition matrices developed for transition time periods of 10 years, 20 years, 30 years, 40 years, 50 years, 60 years, 70 years, 80 years, 90 years and 100 years for concrete, VC, AC and generic pipe material are presented in Table 5, 6, 7 and 8, respectively, as documented in the NRC study. These transition probabilities can be used by an asset manager to estimate the probability a typical sanitary sewer will remain in its current condition or deteriorate to a worse condition at various stages of its SL age. "SPG" in the tables stands for "Structural Pipe Grade".

In Table 5, for example, a pipe between zero and 10 years of age has a 90% probability of remaining at Grade 1 and a 10% probability that it will deteriorate to Grade 2 within this 10-year period. If, for whatever reason (construction defects, etc.), the pipe (<10 years old) is already at Grade 2 it will have a 42% probability of deteriorating to Grade 3, and so on. Likewise, at pipe between 41 and 50 years of age at Grade 1 only have a 58% probability of remaining at Grade 1 and a 17% probability that it will deteriorate to Grade 2, while 12% of pipes already at Grade 2 will deteriorate to Grade 3 during the transition period.

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Table 5: Concrete sewer markovian transition probability matrices for 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100 years

Pipe age 0-10 years	(a) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.90	0.10	0.00	0.00	0.00
2	0.00	0.58	0.42	0.00	0.00
3	0.00	0.00	0.37	0.63	0.00
4	0.00	0.00	0.00	0.92	0.08
5	0.00	0.00	0.00	0.00	1.00

Pipe age 11-20 years	(b) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.81	0.15	0.04	0.00	0.00
2	0.00	0.33	0.40	0.27	0.00
3	0.00	0.00	0.14	0.81	0.05
4	0.00	0.00	0.00	0.84	0.16
5	0.00	0.00	0.00	0.00	1.00

Pipe age 21-30 years	(c) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.72	0.17	0.08	0.03	0.00
2	0.00	0.19	0.29	0.50	0.02
3	0.00	0.00	0.05	0.83	0.12
4	0.00	0.00	0.00	0.77	0.23
5	0.00	0.00	0.00	0.00	1.00

Pipe age 31-40 years	(d) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.65	0.17	0.10	0.08	0.00
2	0.00	0.11	0.19	0.64	0.06
3	0.00	0.00	0.02	0.79	0.19
4	0.00	0.00	0.00	0.70	0.30
5	0.00	0.00	0.00	0.00	1.00

Pipe age 41-50 years	(e) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.58	0.17	0.11	0.13	0.01
2	0.00	0.07	0.12	0.70	0.12
3	0.00	0.00	0.01	0.73	0.26
4	0.00	0.00	0.00	0.64	0.36
5	0.00	0.00	0.00	0.00	1.00

Pipe age 51-60 years	(f) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.52	0.16	0.11	0.19	0.02
2	0.00	0.04	0.07	0.71	0.18
3	0.00	0.00	0.00	0.68	0.32
4	0.00	0.00	0.00	0.59	0.41
5	0.00	0.00	0.00	0.00	1.00

Pipe age 61-70 years	(g) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.47	0.14	0.11	0.24	0.04
2	0.00	0.02	0.04	0.70	0.24
3	0.00	0.00	0.00	0.62	0.38
4	0.00	0.00	0.00	0.54	0.46
5	0.00	0.00	0.00	0.00	1.00

Pipe age 71-80 years	(h) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.42	0.13	0.10	0.29	0.06
2	0.00	0.01	0.02	0.67	0.30
3	0.00	0.00	0.00	0.57	0.43
4	0.00	0.00	0.00	0.49	0.51
5	0.00	0.00	0.00	0.00	1.00

Pipe age 81-90 years	(i) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.38	0.12	0.09	0.33	0.08
2	0.00	0.01	0.01	0.63	0.35
3	0.00	0.00	0.00	0.52	0.48
4	0.00	0.00	0.00	0.45	0.55
5	0.00	0.00	0.00	0.00	1.00

Pipe age 91-100 years	(j) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.34	0.11	0.08	0.36	0.11
2	0.00	0.00	0.01	0.58	0.41
3	0.00	0.00	0.00	0.48	0.52
4	0.00	0.00	0.00	0.41	0.59
5	0.00	0.00	0.00	0.00	1.00

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Table 6: Vitrified clay sewer markovian transition probability matrices for 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100 years

Pipe age 0-10 years	(a) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.90	0.10	0.00	0.00	0.00
2	0.00	0.77	0.23	0.00	0.00
3	0.00	0.00	0.82	0.18	0.00
4	0.00	0.00	0.00	0.01	0.99
5	0.00	0.00	0.00	0.00	1.00

Pipe age 11-20 years	(b) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.80	0.18	0.02	0.00	0.00
2	0.00	0.60	0.36	0.04	0.00
3	0.00	0.00	0.68	0.14	0.18
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 21-30 years	(c) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.72	0.22	0.06	0.00	0.00
2	0.00	0.47	0.43	0.06	0.04
3	0.00	0.00	0.56	0.12	0.32
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 31-40 years	(d) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.64	0.25	0.10	0.01	0.00
2	0.00	0.36	0.46	0.08	0.10
3	0.00	0.00	0.46	0.10	0.44
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 41-50 years	(e) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.58	0.26	0.13	0.02	0.01
2	0.00	0.28	0.46	0.08	0.18
3	0.00	0.00	0.38	0.08	0.54
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 51-60 years	(f) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.52	0.26	0.17	0.02	0.03
2	0.00	0.22	0.44	0.08	0.26
3	0.00	0.00	0.31	0.07	0.62
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 61-70 years	(g) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.46	0.25	0.20	0.03	0.06
2	0.00	0.17	0.41	0.08	0.34
3	0.00	0.00	0.26	0.05	0.69
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 71-80 years	(h) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.41	0.24	0.22	0.03	0.09
2	0.00	0.13	0.38	0.07	0.42
3	0.00	0.00	0.21	0.05	0.74
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 81-90 years	(i) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.37	0.23	0.24	0.04	0.12
2	0.00	0.10	0.34	0.06	0.49
3	0.00	0.00	0.17	0.04	0.79
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 91-100 years	(j) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.33	0.22	0.25	0.04	0.16
2	0.00	0.08	0.30	0.06	0.56
3	0.00	0.00	0.14	0.03	0.83
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

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Table 7: Asbestos cement sewer markovian transition probability matrices for 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100 years

Pipe age 0-10 years	(a) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.98	0.02	0.00	0.00	0.00
2	0.00	0.59	0.41	0.00	0.00
3	0.00	0.00	0.79	0.21	0.00
4	0.00	0.00	0.00	0.01	0.99
5	0.00	0.00	0.00	0.00	1.00

Pipe age 11-20 years	(b) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.96	0.03	0.01	0.00	0.00
2	0.00	0.35	0.56	0.09	0.00
3	0.00	0.00	0.62	0.17	0.21
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 21-30 years	(c) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.94	0.04	0.02	0.00	0.00
2	0.00	0.20	0.59	0.12	0.09
3	0.00	0.00	0.49	0.13	0.38
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 31-40 years	(d) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.92	0.04	0.03	0.01	0.00
2	0.00	0.12	0.55	0.12	0.21
3	0.00	0.00	0.39	0.10	0.51
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 41-50 years	(e) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.90	0.04	0.04	0.01	0.01
2	0.00	0.07	0.48	0.12	0.33
3	0.00	0.00	0.30	0.08	0.62
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 51-60 years	(f) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.88	0.05	0.05	0.01	0.01
2	0.00	0.04	0.41	0.10	0.45
3	0.00	0.00	0.24	0.06	0.70
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 61-70 years	(g) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.87	0.04	0.06	0.01	0.02
2	0.00	0.02	0.34	0.09	0.55
3	0.00	0.00	0.19	0.05	0.76
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 71-80 years	(h) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.85	0.04	0.07	0.01	0.03
2	0.00	0.01	0.28	0.07	0.64
3	0.00	0.00	0.15	0.04	0.81
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 81-90 years	(i) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.83	0.04	0.07	0.01	0.05
2	0.00	0.01	0.22	0.06	0.71
3	0.00	0.00	0.12	0.03	0.85
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

Pipe age 91-100 years	(j) Probability of transition from one SPG to the next 1	2	3	4	5
1	0.81	0.04	0.07	0.02	0.06
2	0.00	0.01	0.18	0.04	0.77
3	0.00	0.00	0.09	0.03	0.88
4	0.00	0.00	0.00	0.00	1.00
5	0.00	0.00	0.00	0.00	1.00

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Table 8: Generic pipe material sewer markovian transition probability matrices for 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100 years

Pipe age 0-10 years	(a) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.91	0.09	0.00	0.00	0.00
2	0.00	0.76	0.24	0.00	0.00
3	0.00	0.00	0.69	0.31	0.00
4	0.00	0.00	0.00	0.64	0.36
5	0.00	0.00	0.00	0.00	1.00

Pipe age 11-20 years	(b) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.83	0.15	0.02	0.00	0.00
2	0.00	0.58	0.35	0.08	0.00
3	0.00	0.00	0.47	0.42	0.11
4	0.00	0.00	0.00	0.41	0.59
5	0.00	0.00	0.00	0.00	1.00

Pipe age 21-30 years	(c) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.75	0.19	0.05	0.01	0.00
2	0.00	0.44	0.38	0.16	0.03
3	0.00	0.00	0.32	0.41	0.26
4	0.00	0.00	0.00	0.26	0.74
5	0.00	0.00	0.00	0.00	1.00

Pipe age 31-40 years	(d) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.68	0.21	0.08	0.02	0.00
2	0.00	0.33	0.36	0.22	0.08
3	0.00	0.00	0.22	0.37	0.41
4	0.00	0.00	0.00	0.17	0.83
5	0.00	0.00	0.00	0.00	1.00

Pipe age 41-50 years	(e) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.62	0.22	0.11	0.04	0.01
2	0.00	0.25	0.33	0.25	0.16
3	0.00	0.00	0.15	0.30	0.54
4	0.00	0.00	0.00	0.11	0.89
5	0.00	0.00	0.00	0.00	1.00

Pipe age 51-60 years	(f) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.57	0.23	0.13	0.06	0.02
2	0.00	0.19	0.29	0.27	0.25
3	0.00	0.00	0.10	0.24	0.65
4	0.00	0.00	0.00	0.07	0.93
5	0.00	0.00	0.00	0.00	1.00

Pipe age 61-70 years	(g) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.51	0.22	0.14	0.08	0.04
2	0.00	0.15	0.24	0.26	0.35
3	0.00	0.00	0.07	0.19	0.74
4	0.00	0.00	0.00	0.04	0.96
5	0.00	0.00	0.00	0.00	1.00

Pipe age 71-80 years	(h) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.47	0.22	0.15	0.09	0.07
2	0.00	0.11	0.20	0.24	0.44
3	0.00	0.00	0.05	0.14	0.81
4	0.00	0.00	0.00	0.03	0.97
5	0.00	0.00	0.00	0.00	1.00

Pipe age 81-90 years	(i) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.42	0.21	0.15	0.11	0.11
2	0.00	0.09	0.17	0.22	0.53
3	0.00	0.00	0.03	0.11	0.86
4	0.00	0.00	0.00	0.02	0.98
5	0.00	0.00	0.00	0.00	1.00

Pipe age 91-100 years	(j) Probability of transition from one SPG to the next				
	1	2	3	4	5
1	0.39	0.20	0.16	0.12	0.14
2	0.00	0.06	0.13	0.19	0.61
3	0.00	0.00	0.02	0.08	0.90
4	0.00	0.00	0.00	0.01	0.99
5	0.00	0.00	0.00	0.00	1.00

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The next part of Step 2 is to develop Probability of Failure Transition (POFT) tables which provide the probability of pipe moving from any of the various condition grades to a failed condition (Grade 5) during the pipe's SL. The POFT tables shown in Tables 9 through 13 were developed for concrete, vitrified, asbestos cement, generic and PVC pipe material, respectively, from the previous transition matrices (Table 5 through Table 8). The transition matrices were developed for 100 year of pipe age only. The POFT tables include ages 110, 120 and 125 years and were extrapolated based on the pipe material's estimated SL.

As an example, in Table 9, when the pipe is between 21 and 30 years of pipe age, Grade 1 has 0% probability of progressing into Grade 5 and it increases to 11% when the pipe is between 91 and 100 years of age. Similarly, when pipe between 11 and 20 years of age at Grade 3 has 5% probability of progressing into Grade 5 and between 91 and 100 years, it has 52% probability of progressing into Grade 5. It is evident from the Table 5 that as the time progresses, the probability of a pipe being at Grade 1 will continue to decrease and the probability of a pipe progressing into Grade 5 will continue to increase.

Table 9: POFT table to reach Grade 5 from Grade 1, 2, 3, 4 and 5 for concrete sewer pipe

Concrete Pipe					
	Probability of moving from any given grade to Grade 5				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.000	0.000	0.000	0.080	1.000
20	0.000	0.000	0.050	0.160	1.000
30	0.000	0.020	0.120	0.230	1.000
40	0.000	0.060	0.190	0.300	1.000
50	0.010	0.120	0.260	0.360	1.000
60	0.020	0.180	0.320	0.410	1.000
70	0.040	0.240	0.380	0.460	1.000
80	0.060	0.300	0.430	0.510	1.000
90	0.080	0.350	0.480	0.550	1.000
100	0.110	0.410	0.520	0.590	1.000
110	0.130	0.450	0.540	0.610	1.000
120	0.160	0.480	0.560	0.630	1.000
125	0.200	0.500	0.600	0.640	1.000

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Table 10: POFT table to reach Grade 5 from Grade 1, 2, 3, 4 and 5 for vitrified clay sewer pipe

Vitrified Clay Pipe					
	Probability of moving from any given grade to Grade 5				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.000	0.000	0.000	0.990	1.000
20	0.000	0.000	0.210	1.000	1.000
30	0.000	0.090	0.380	1.000	1.000
40	0.000	0.210	0.510	1.000	1.000
50	0.010	0.330	0.620	1.000	1.000
60	0.010	0.450	0.700	1.000	1.000
70	0.020	0.550	0.760	1.000	1.000
80	0.030	0.640	0.810	1.000	1.000
90	0.050	0.710	0.850	1.000	1.000
100	0.060	0.770	0.880	1.000	1.000
110	0.070	0.810	0.910	1.000	1.000
120	0.080	0.860	0.940	1.000	1.000
130	0.090	0.900	0.960	1.000	1.000
140	0.100	0.910	0.990	1.000	1.000

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Table 11: POFT table to reach Grade 5 from Grade 1, 2, 3, 4 and 5 for asbestos cement sewer pipe

Asbestos Cement Pipe					
	Probability of moving from any given grade to Grade 5				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.000	0.000	0.000	0.990	1.000
20	0.000	0.000	0.180	1.000	1.000
30	0.000	0.040	0.320	1.000	1.000
40	0.000	0.100	0.440	1.000	1.000
50	0.010	0.180	0.540	1.000	1.000
60	0.030	0.260	0.620	1.000	1.000
70	0.060	0.340	0.690	1.000	1.000
80	0.090	0.420	0.740	1.000	1.000
90	0.120	0.490	0.790	1.000	1.000
100	0.160	0.560	0.830	1.000	1.000
110	0.190	0.620	0.870	1.000	1.000
120	0.220	0.690	0.910	1.000	1.000
130	0.250	0.760	0.950	1.000	1.000

Table 12: POFT table to reach Grade 5 from Grade 1, 2, 3, 4 and 5 for generic sewer pipe material

Generic Pipe					
	Probability of moving from any given grade to Grade 5				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.000	0.000	0.000	0.360	1.000
20	0.000	0.000	0.110	0.590	1.000
30	0.000	0.030	0.260	0.740	1.000
40	0.000	0.080	0.410	0.830	1.000
50	0.010	0.160	0.540	0.890	1.000
60	0.020	0.250	0.650	0.930	1.000
70	0.040	0.350	0.740	0.960	1.000
80	0.070	0.440	0.810	0.970	1.000
90	0.110	0.530	0.860	0.980	1.000
100	0.140	0.610	0.900	0.990	1.000
110	0.170	0.620	0.940	1.000	1.000
120	0.210	0.690	0.980	1.000	1.000

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Table 13: POFT table to reach Grade 5 from Grade 1, 2, 3, 4 and 5 for PVC pipe material

PVC Pipe

	Probability of moving from any given grade to Grade 5				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.010	0.180	0.260	0.410	1.000
20	0.030	0.260	0.410	0.560	1.000
30	0.060	0.340	0.540	0.610	1.000
40	0.090	0.420	0.650	0.670	1.000
50	0.120	0.490	0.740	0.770	1.000
60	0.160	0.560	0.810	0.820	1.000
70	0.190	0.620	0.860	0.870	1.000

3.2.3 Step 3: Predict the Probability of Deterioration (POD) for each pipe material (Scenario 2).

The POD is the probability of a pipe being in any given Grade 1, 2, 3, 4 or 5 condition at a specific time during its SL is based on the hypothetical deterioration curve published in the IIM manual (IIM 2006) and shown in the Figure 3. It can been seen from the hypothetical deterioration curve that a pipe has a probability of 0.4 of being a Grade 2 at time t_2 or, a pipe has a probability of 0.90 of being a Grade 5 at time t_n.

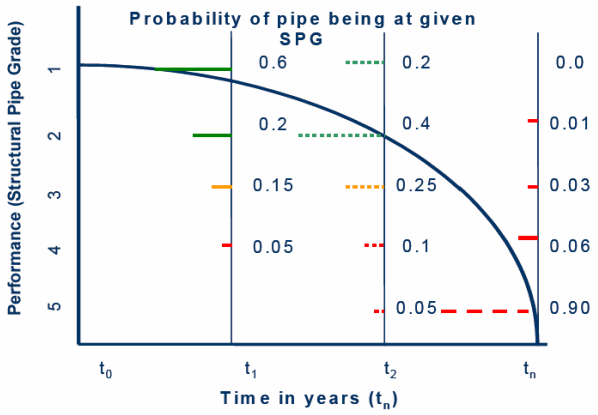

Figure 3: Hypothetical curve for pipe deterioration prediction

3.2.3.1 Hansen AAM CD Curve

The curve shown in Figure 3 is similar to Hansen's AAM condition based decay curve shown in the Figure 4. Table 14 provides the default values used to develop decay curve in

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Hansen AAM module. These values are arbitrary numbers assigned to achieve a desired failure shape. According to table 14, pipe will be in complete failure at an age of 100 years.

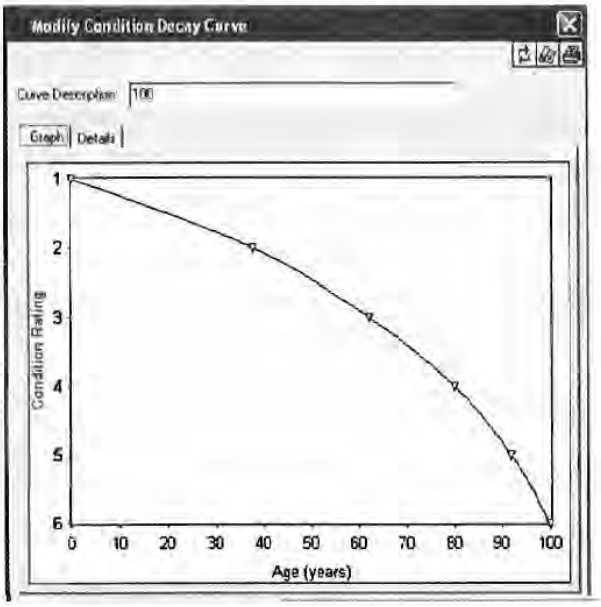

Figure 4. Condition based decay curve in Hansen AAM module

Table 14: Default values used in Hansen AAM module to develop condition based curve

Condition Rating	Age
2	38
3	62
4	80
5	92
6	100

Using the pipe deterioration grade and time shown in the Figure 3, an estimate is made of the probability of a pipe being in any grade during its SL for each pipe material. The probabilities were adjusted based on the CH2M HILL experience and predictive model developed by Dr. Kathula of CH2M HILL (Kathula, 2001). Tables 15, 16, 17, 18 and 19 present the POD for concrete, vitrified clay, asbestos cement, generic and PVC pipe material, respectively. For example in Table 15, a pipe at age 10 has a POD of 0.75 to be in Grade 1 and 0.25 to be in Grade 2 and zero for the rest of the Grades. This means at age ten, 75% of pipe may be in Grade 1 and 25% of pipe may be in Grade 2 and zero in other grades. As the

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age of the pipe increases, the probability of Grade 1 decrease and finally become zero as it reaches its SL. The percentage of pipe in Grade 4 and 5 increases as the pipe ages.

Table 15: The POD for concrete pipe.

Concrete Pipe					
	Probability of a pipe being at any given grade				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.750	0.250	0.000	0.000	0.000
20	0.600	0.300	0.100	0.000	0.000
30	0.500	0.250	0.200	0.050	0.000
40	0.350	0.350	0.150	0.140	0.010
50	0.300	0.250	0.200	0.200	0.050
60	0.150	0.300	0.300	0.150	0.100
70	0.100	0.250	0.300	0.200	0.150
80	0.000	0.250	0.300	0.250	0.200
90	0.000	0.150	0.250	0.350	0.250
100	0.000	0.100	0.200	0.300	0.400
110	0.000	0.000	0.150	0.300	0.550
120	0.000	0.000	0.100	0.150	0.750
125	0.000	0.000	0.000	0.010	0.990

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Table 16: POD for vitrified clay pipe

VCP					
	Probability of a pipe being at any given grade				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.800	0.200	0.000	0.000	0.000
20	0.750	0.250	0.000	0.000	0.000
30	0.600	0.300	0.100	0.000	0.000
40	0.500	0.250	0.200	0.050	0.000
50	0.350	0.350	0.150	0.140	0.010
60	0.300	0.250	0.200	0.200	0.050
70	0.150	0.300	0.300	0.150	0.100
80	0.100	0.250	0.300	0.200	0.150
90	0.000	0.250	0.300	0.250	0.200
100	0.000	0.150	0.250	0.350	0.250
110	0.000	0.100	0.200	0.300	0.400
120	0.000	0.000	0.150	0.300	0.550
130	0.000	0.000	0.100	0.150	0.750
140	0.000	0.000	0.100	0.100	0.800

Table 17: POD for asbestos cement pipe

Asbestos Cement					
	Probability of pipe a being at any given grade				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.750	0.250	0.000	0.000	0.000
20	0.600	0.300	0.100	0.000	0.000
30	0.500	0.250	0.200	0.050	0.000
40	0.350	0.350	0.150	0.140	0.010
50	0.300	0.250	0.200	0.200	0.050
60	0.150	0.300	0.300	0.150	0.100
70	0.100	0.250	0.300	0.200	0.150
80	0.000	0.250	0.300	0.250	0.200
90	0.000	0.150	0.250	0.350	0.250
100	0.000	0.100	0.200	0.300	0.400
110	0.000	0.000	0.150	0.300	0.550
120	0.000	0.000	0.100	0.150	0.750
130	0.000	0.000	0.000	0.010	0.990

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Table 18: POD for a generic pipe material

Generic Pipe					
	Probability of a pipe being at any given grade				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.750	0.250	0.000	0.000	0.000
20	0.650	0.250	0.100	0.000	0.000
30	0.550	0.300	0.150	0.000	0.000
40	0.450	0.300	0.200	0.050	0.000
50	0.300	0.250	0.200	0.200	0.050
60	0.150	0.300	0.300	0.150	0.100
70	0.100	0.250	0.300	0.200	0.150
80	0.000	0.250	0.300	0.250	0.200
90	0.000	0.150	0.250	0.350	0.250
100	0.000	0.100	0.200	0.300	0.400
110	0.000	0.000	0.150	0.300	0.550
120	0.000	0.000	0.100	0.150	0.750

Table 19: POD for PVC pipe

PVC					
	Probability of a pipe being at any given grade				
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
10	0.600	0.300	0.100	0.000	0.000
20	0.300	0.250	0.200	0.200	0.050
30	0.150	0.300	0.300	0.150	0.100
40	0.050	0.250	0.300	0.200	0.200
50	0.000	0.100	0.200	0.300	0.400
60	0.000	0.000	0.150	0.300	0.550
70	0.000	0.000	0.100	0.150	0.750
75	0.000	0.000	0.000	0.150	0.850

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3.2.4 Step 4: Calculate the POF by multiplying the POFT from Step 2 with the POD calculated in Step 3 (Scenario 2).

The estimated POF for each pipe grade is calculated by multiplying the POFT from Step 2 with their respective estimated POD from Step 3 over its SL for each grade (1 through 5). The summation of the multiplication products from each grade provides the POF for each pipe material. For example, in Table 20, at age 50, for Grade 1, the POF value 0.003 is obtained by multiplying POF value 0.010 (from Table 9) with the POD value 0.300 (from Table 15). For each age, the POF value is calculated by aggregating the POF value calculated for each grade.

Tables 20, 21, 22, 23 and 24 provide the POF values for each grade and the summation of all grades over its SL for concrete, vitrified clay, asbestos cement, generic pipe material, and for PVC respectively. For example, in Table 20, for concrete pipe, at age 20, the POF is 0.005 and at age 80, the POF is 0.532.

Table 20: POF for Grades 1, 2, 3, 4 and 5 over the pipe's SL for concrete pipe

Concrete Pipe						
	Probability of Failure					
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Summation of All Grades
10	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.005	0.000	0.000	0.005
30	0.000	0.005	0.024	0.012	0.000	0.041
40	0.000	0.021	0.029	0.042	0.010	0.102
50	0.003	0.030	0.052	0.072	0.050	0.207
60	0.003	0.054	0.096	0.062	0.100	0.315
70	0.004	0.060	0.114	0.092	0.150	0.420
80	0.000	0.075	0.129	0.128	0.200	0.532
90	0.000	0.053	0.120	0.193	0.250	0.615
100	0.000	0.041	0.104	0.177	0.400	0.722
110	0.000	0.000	0.081	0.183	0.550	0.814
120	0.000	0.000	0.056	0.095	0.750	0.901
125	0.000	0.000	0.000	0.006	0.990	0.996

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Table 21: POF for Grades 1, 2, 3, 4 and 5 over the pipe's SL for vitrified clay pipe

	Clay Pipe					
	Probability of Failure					
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Summation of All Grades
10	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.027	0.038	0.000	0.000	0.065
40	0.000	0.053	0.102	0.050	0.000	0.205
50	0.004	0.116	0.093	0.140	0.010	0.362
60	0.003	0.113	0.140	0.200	0.050	0.506
70	0.003	0.165	0.228	0.150	0.100	0.646
80	0.003	0.160	0.243	0.200	0.150	0.756
90	0.000	0.178	0.255	0.250	0.200	0.883
100	0.000	0.116	0.220	0.350	0.250	0.936
110	0.000	0.081	0.182	0.300	0.400	0.963
120	0.000	0.000	0.141	0.300	0.550	0.991
130	0.000	0.000	0.096	0.150	0.750	0.996
140	0.000	0.000	0.099	0.100	0.800	0.999

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Table 22: POF for Grades 1, 2, 3, 4 and 5 over the pipe's SL for asbestos cement pipe

Asbestos Cement Pipe						
	Probability of Failure					
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Summation of All Grades
10	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.018	0.000	0.000	0.018
30	0.000	0.010	0.064	0.050	0.000	0.124
40	0.000	0.035	0.066	0.140	0.010	0.251
50	0.003	0.045	0.108	0.200	0.050	0.406
60	0.005	0.078	0.186	0.150	0.100	0.519
70	0.006	0.085	0.207	0.200	0.150	0.648
80	0.000	0.105	0.222	0.250	0.200	0.777
90	0.000	0.074	0.198	0.350	0.250	0.871
100	0.000	0.056	0.166	0.300	0.400	0.922
110	0.000	0.000	0.131	0.300	0.550	0.981
120	0.000	0.000	0.091	0.150	0.750	0.991
125	0.000	0.000	0.000	0.010	0.990	1.000

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Table 23: POF for Grades 1, 2, 3, 4 and 5 over the pipe's SL for generic pipe material

Generic Pipe						
	Probability of Failure					
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Summation of All Grades
10	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.011	0.000	0.000	0.011
30	0.000	0.009	0.039	0.000	0.000	0.048
40	0.000	0.024	0.082	0.042	0.000	0.148
50	0.003	0.040	0.108	0.178	0.050	0.379
60	0.003	0.075	0.195	0.140	0.100	0.513
70	0.004	0.088	0.222	0.192	0.150	0.656
80	0.000	0.110	0.243	0.243	0.200	0.796
90	0.000	0.080	0.215	0.343	0.250	0.888
100	0.000	0.061	0.180	0.297	0.400	0.938
110	0.000	0.000	0.141	0.300	0.550	0.991
120	0.000	0.000	0.098	0.150	0.750	0.998

Table 24: POF for Grades 1, 2, 3, 4 and 5 over the pipe's SL for PVC pipe

PVC Pipe						
	Probability of Failure					
Service Life Age	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Summation of All Grades
10	0.007	0.054	0.000	0.000	0.000	0.061
20	0.018	0.065	0.062	0.000	0.000	0.145
30	0.030	0.102	0.054	0.061	0.000	0.247
40	0.032	0.105	0.098	0.101	0.100	0.435
50	0.030	0.049	0.148	0.077	0.350	0.654
60	0.000	0.056	0.122	0.164	0.550	0.892
70	0.000	0.043	0.086	0.131	0.680	0.940
75	0.000	0.000	0.000	0.140	0.850	0.990

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3.2.5 Step 5: Plot the POF curve and prepare the POF tables over its SL

The POF values calculated in Step 4 are used to develop POF curves and tables. The graphical representation of POF data is shown in the form of POF curves. Figures 5, 6, 7, 8 and 9 show the POF curves for concrete, vitrified clay, asbestos, generic pipe, and PVC pipe material, respectively, over their SL for Scenario 2. For example, in Figure 5, the POF at age 100 is about 72% and POF at the end of its SL (at age 125) is 0.99%.

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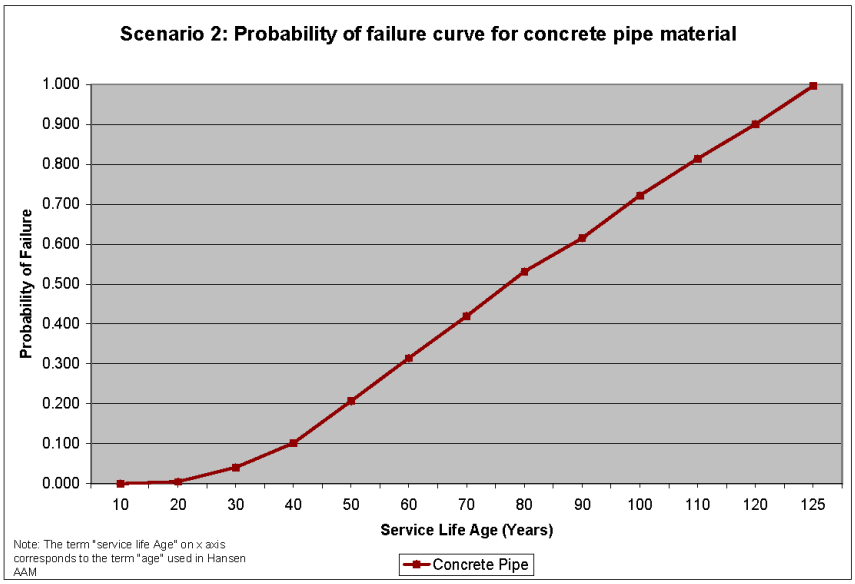

Figure 5: Probability of failure curve for concrete pipe over its SL for Scenario 2

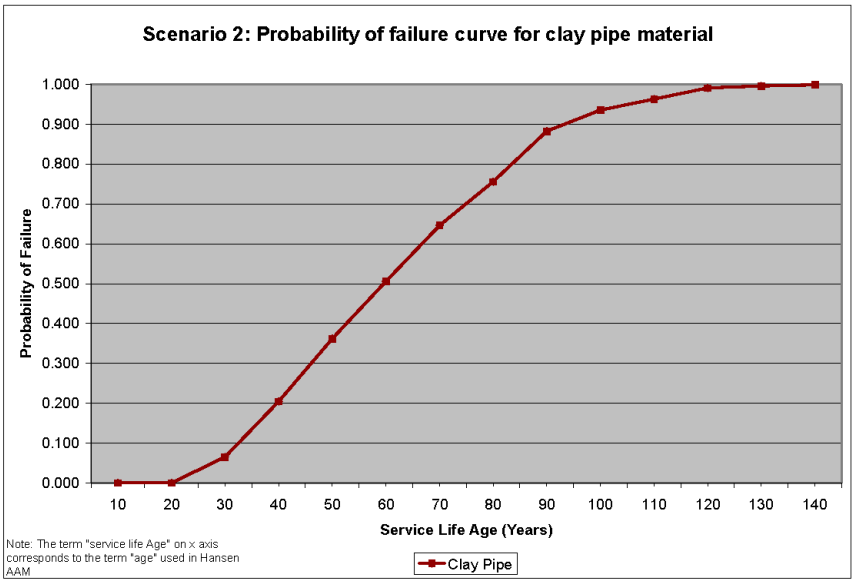

Figure 6: Probability of failure curve for vitrified clay pipe over its SL for Scenario 2

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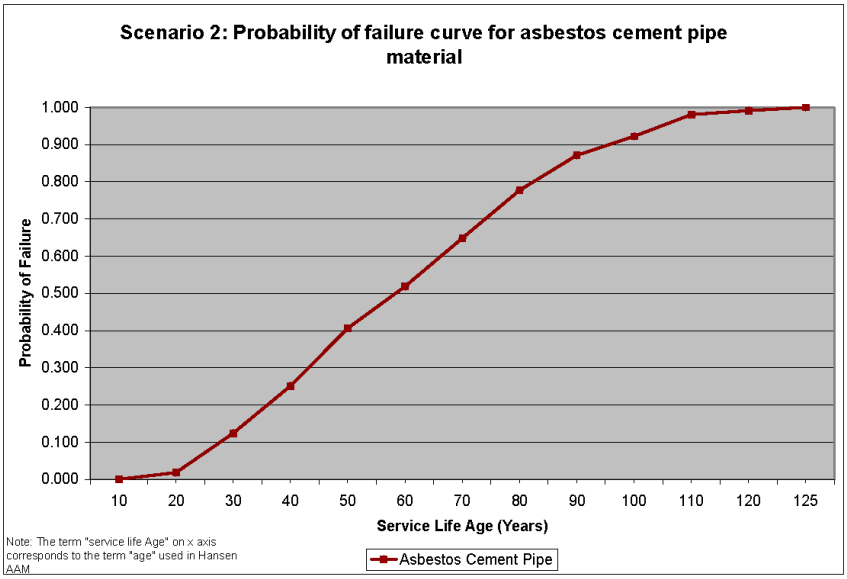

Figure 7: Probability of failure curve for asbestos cement pipe over its SL for Scenario 2

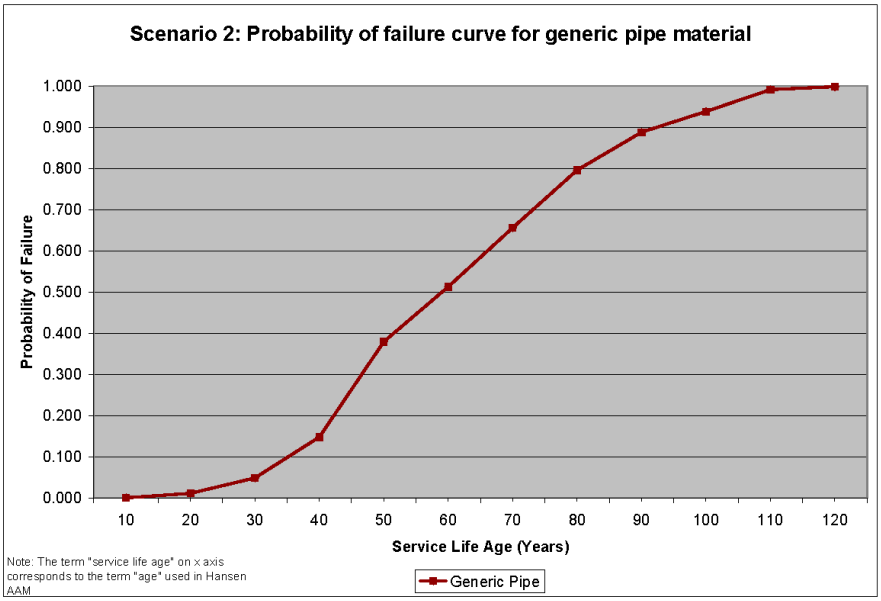

Figure 8: Probability of failure curve for any generic pipe material over its SL for Scenario 2

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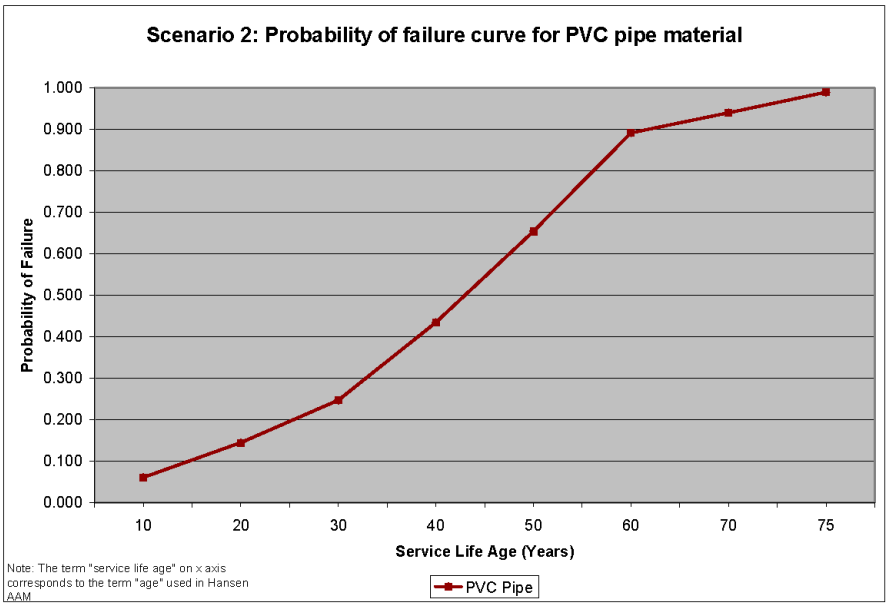

Figure 9: Probability of failure curve for PVC pipe over its SL for Scenario 2

The POF tables represent the same information as the POF curves. Tables 25, 26, 27, 28 and 29 present the POF and SL age relationships for concrete, vitrified clay, asbestos, generic pipe, and PVC pipe material, respectively, for Scenario 2.

The POF data in these tables can be imported into Hansen AAM. These tables are used to develop POF curves and to estimate the RSL of each pipe material. The term "service life age" in these POF tables corresponds to the term "age" used in the Hansen AAM.

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Table 25: POF tables for concrete pipe material for Scenario 2

Service Life Age	Probability of Failure
10	0.0000
20	0.0050
30	0.0405
40	0.1015
50	0.2070
60	0.3145
70	0.4200
80	0.5315
90	0.6150
100	0.7220
110	0.8140
120	0.9005
125	0.9964

Table 26: POF table for clay pipe material for Scenario 2

Service Life Age	Probability of Failure
10	0.0000
20	0.0000
30	0.0650
40	0.2045
50	0.3620
60	0.5055
70	0.6460
80	0.7560
90	0.8825
100	0.9355
110	0.9630
120	0.9910
130	0.9960
140	0.9990

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Table 27: POF table for asbestos cement pipe for Scenario 2

Service Life Age	Probability of Failure
10	0.0000
20	0.0180
30	0.1240
40	0.2510
50	0.4060
60	0.5185
70	0.6480
80	0.7770
90	0.8710
100	0.9220
110	0.9805
120	0.9910
125	1.0000

Table 28: POF table for generic pipe material for Scenario 2

Service Life Age	Probability of Failure
10	0.0000
20	0.0110
30	0.0480
40	0.1475
50	0.3790
60	0.5125
70	0.6555
80	0.7955
90	0.8875
100	0.9380
110	0.9910
120	0.9980

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Table 29: POF table for PVC pipe segment for Scenario 2

Service Life Age	Probability of Failure
10	0.0860
20	0.3180
30	0.4645
40	0.6385
50	0.8280
60	0.9175
70	0.9665
75	0.9895

3.3 POF curves and tables developed for Scenario 3 are applicable for MSD

The POF curves and tables presented for Scenario 3 were developed based on the POF data obtained under Scenario 2. Similar methodology as discussed in Sections 3.2 were applied to the Scenario 3 estimated SL age and pipe materials shown in Table 30. POF tables and curves in Section 3.3 will be used in the risk module of Hansen AAM software.

Table 30 presents the estimated SL considered for the development of POF curves and tables for scenario 3.

Table 30: Estimated SL for pipe materials for Scenario 3

Pipe material	Service Life Age (Years)
Concrete	80
Vitrified clay	100
Asbestos cement	80
PVC	75
Generic pipe material	80

Figures 10, 11, 12, 13 and 14 show the POF curves for concrete, vitrified clay, asbestos, PVC, and generic pipe material, respectively.

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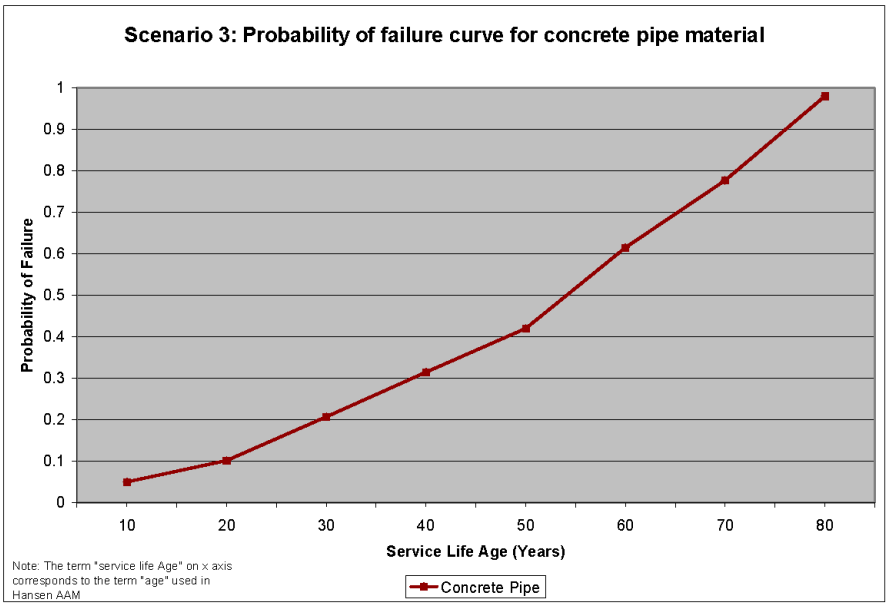

Figure 10: POF curve for concrete pipe material for Scenario 3.

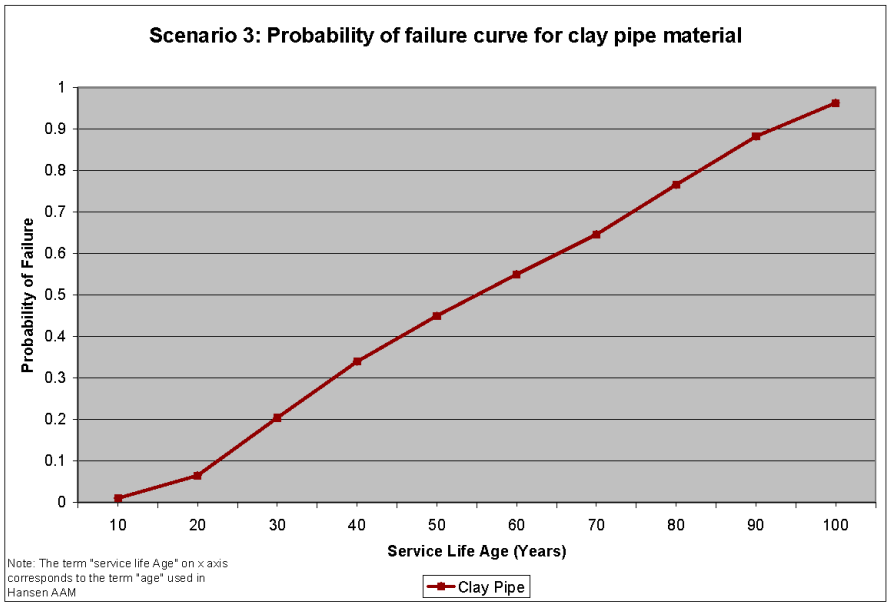

Figure 11: POF curve for vitrified clay pipe material for Scenario 3.

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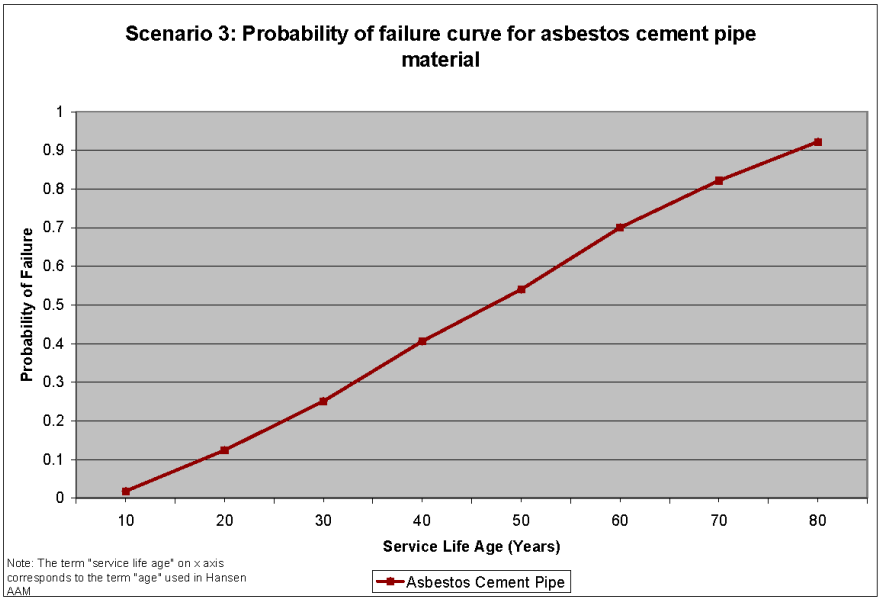

Figure 12: POF curve for asbestos cement pipe material for Scenario 3.

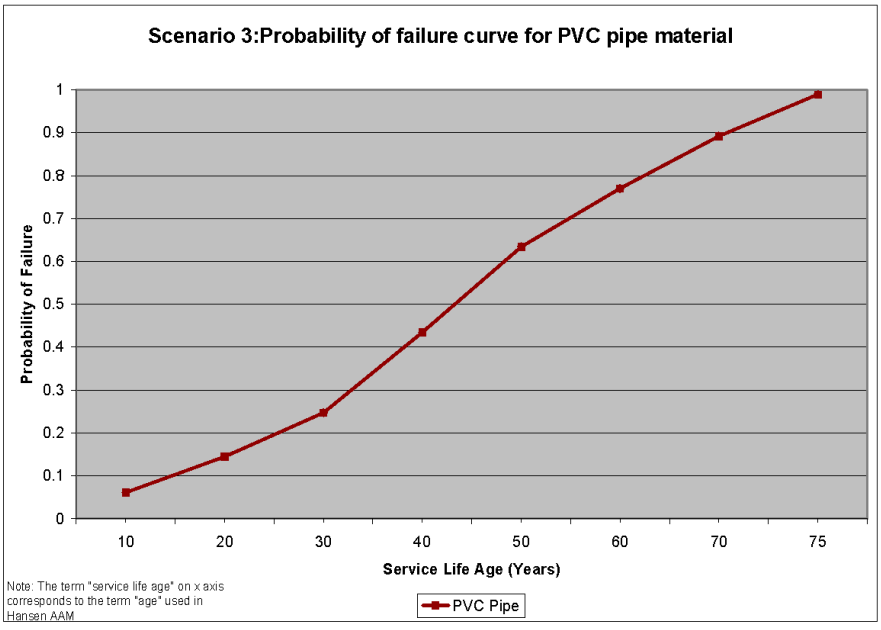

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Figure 13: POF curve for PVC pipe material for Scenario 3

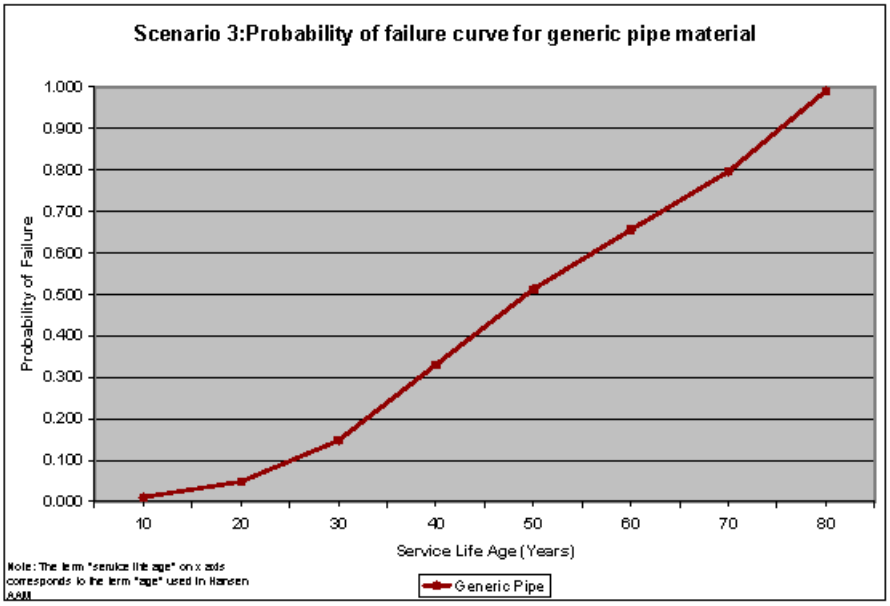

Figure 14: POF curve for generic pipe material for Scenario 3.

Tables 31, 32, 33, 34 and 35 present the POF tables for concrete, vitrified clay, asbestos, PVC, and generic pipe material, respectively, for Scenario 3. The POF data in these tables can be imported to the risk module of Hansen AAM.

Table 31: POF tables for concrete pipe material for Scenario 3

Service Life Age	Probability of Failure
10	0.0500
20	0.1015
30	0.2070
40	0.3145
50	0.4200
60	0.6150
70	0.7770
80	0.9800

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Table 32: POF table for clay pipe for Scenario 3

Service Life Age	Probability of Failure
10	0.0100
20	0.0650
30	0.2045
40	0.3400
50	0.4500
60	0.5500
70	0.6460
80	0.7660
90	0.8825
100	0.9630

Table 33: POF table for asbestos cement pipe for Scenario 3

Service Life Age	Probability of Failure
10	0.0180
20	0.1240
30	0.2510
40	0.4060
50	0.5400
60	0.7000
70	0.8220
80	0.9220

Table 34: POF table for PVC pipe for Scenario 3

Service Life Age	Probability of Failure
10	0.0610
20	0.1445
30	0.2470
40	0.4345
50	0.6340
60	0.7700
70	0.8920
75	0.9895

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Table 35: POF table for generic pipe for Scenario 3

Service Life Age	Probability of Failure
10	0.0110
20	0.0480
30	0.1475
40	0.3300
50	0.5125
60	0.6555
70	0.7955
80	0.9910

3.4 Development of RSL POF tables and curves applicable to MSD

RSL is the number of years from the current time until the pipe fails to perform or provide its expected level of service. The RSL for a pipe can be assed by assessing the expected useful SL and deducting the current age (IIM 2006).

3.4.1 RSL table in Hansen AAM

In Hansen AAM module, POF is assigned as the reciprocal of the RSL. For example in Table 36, for the RSL of 2 years, probability of failure is reciprocal of 2 and which is equivalent to 0.5. Similarly, POF values are calculated for any assigned remaining life. Since this approach does not rely on scientific or statistical basis, it is recommended to develop POF based on the data developed in the previous sections for Scenario 3.

Table 36: Remaining life and POF table taken from Hansen AAM Manual

Remaining Life (Years)	Probability of Failure
1	0.999
2	0.500
3	0.333
5	0.200
10	0.100
20	0.050
40	0.025
60	0.017
80	0.013
100	0.010

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3.4.2 RSL table for MSD based on POF tables in Scenario 3

The POF and RSL relationships provided in this section are derived from the POF tables developed for Scenario 3. RSL and POF curves are developed from the RSL tables.

Tables 37, 38, 39, 40 and 41 present the RSL and POF tables for concrete, clay, asbestos, PVC, and generic pipe material, respectively. For example, in Table 37, the POF for concrete pipe with RSL of 10 years is 0.777. Figures 15, 16, 17, 18 and 19 show the RSL POF curves for concrete, clay, asbestos, PVC, and generic pipe material respectively. The RSL and POF from these tables and curves are imported into Hansen AAM module and can be used when pipe condition grades are not available.

Table 37: RSL and POF table for concrete pipe material

Remaining Service Life Age	Probability of Failure
0	1.000
1	0.980
10	0.777
20	0.615
30	0.420
40	0.315
50	0.207
60	0.102
70	0.050
80	0.000

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Table 38: RSL and POF table for clay pipe material

Remaining Service Life Age	Probability of Failure
0	1
1	0.963
10	0.883
20	0.766
30	0.646
40	0.550
50	0.450
60	0.340
70	0.205
80	0.065
90	0.010
100	0.000

Table 39: RSL and POF table for asbestos cement pipe material

Remaining Service Life Age	Probability of Failure
0	1.000
1	0.922
10	0.822
20	0.700
30	0.540
40	0.406
50	0.251
60	0.124
70	0.018
80	0.000

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Table 40: RSL and POF table for PVC pipe material

Remaining Service Life Age	Probability of Failure
0	1.000
1	0.99
5	0.892
15	0.770
25	0.634
35	0.435
45	0.247
55	0.145
65	0.061
75	0.000

Table 41: RSL and POF table for generic pipe material

Remaining Service Life Age	Probability of Failure
0	1.000
0	0.991
10	0.796
20	0.656
30	0.513
40	0.330
50	0.148
60	0.048
70	0.011
80	0.000

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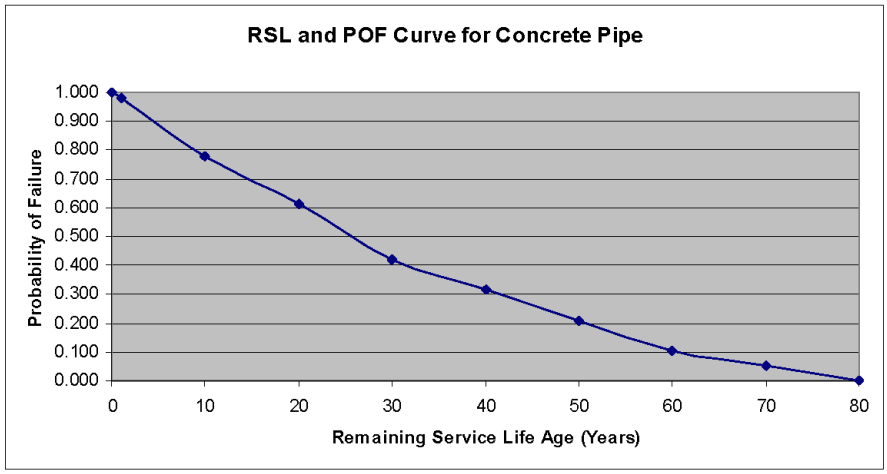

Figure 15: RSL and POF curve for concrete pipe material

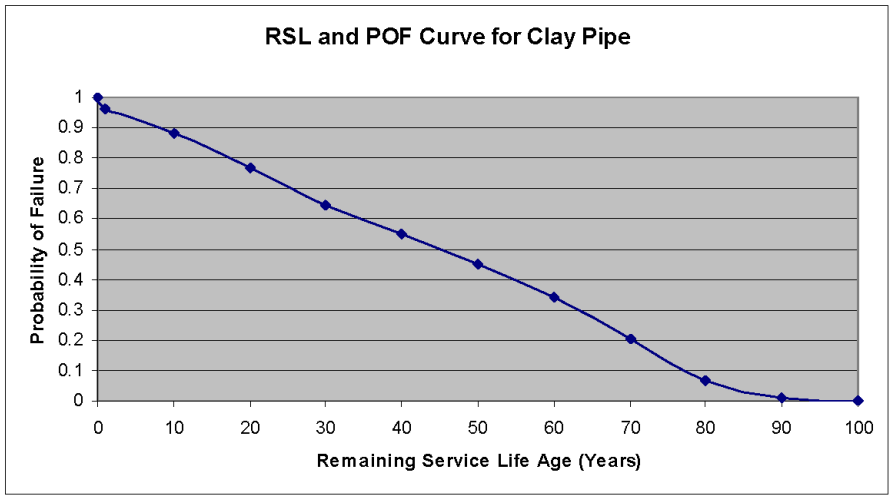

Figure 16: RSL and POF curve for clay pipe material

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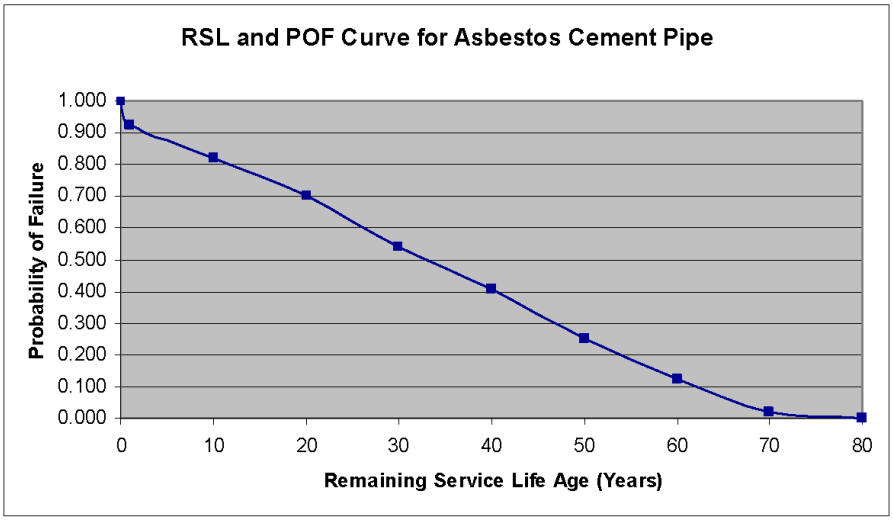

Figure 17: RSL and POF curve for asbestos cement pipe material

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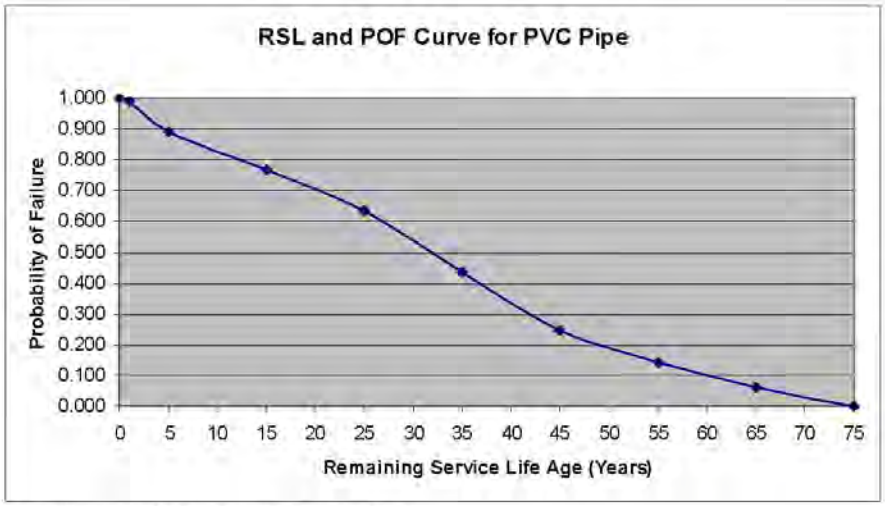

Figure 18: RSL and POF curve for PVC pipe material

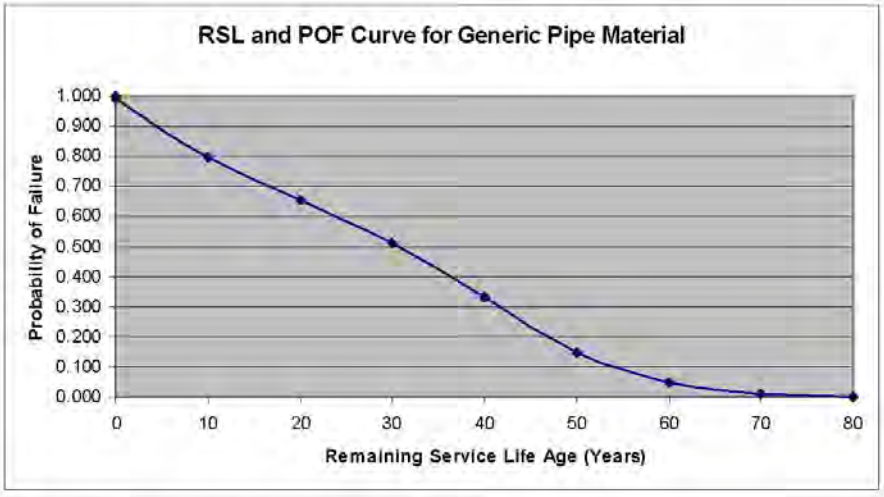

Figure 19: RSL and POF curve for generic pipe material

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4 Level 2: Develop POF curves and tables based on MSD staff's institutional knowledge of the pipe's condition

In Level 2 as discussed in Section 2.4, POF curves and tables are developed based MSD staff's institutional knowledge of the pipe's condition. This works well when maintenance and engineering staff collectively discuss their knowledge and experiences with the sewers and assign condition ratings using criteria and examples as guidance. For each assumed condition grade, respective SL age is derived from the CD curves. CD curves are typically divided equally into five parts representing the five condition grades which represent the pipe's deterioration over time. With the CD and the pipe's condition grade and Effective SL age or RSL age is determined. Then with the selected SL the corresponding POF values are derived from the POF curves and tables developed in Section 3.3 or Section 4.2.

4.1 Development of CD curve for each pipe material

Condition is an indicator of the extent of pipe deterioration. When historical maintenance and rehabilitation data or detailed inspection data is not available, a CD curve can be developed using the opinion of asset managers and operators with experience in managing the sewer systems.

Deterioration modeling data developed by Canadian Research Center (MIIP 2006) was used as basis to develop the CD curves. A random sample of 500 to 1000 pipes was used by NRC Canada to develop the deterioration model and regression analysis was used to predict the deterioration process of the pipe over time. A 10 year interval was used to predict the sewer pipe deterioration over its SL. Exponential regression model results from MIIP 2006 were used to develop the curve for each of the pipe material. A detailed discussion of these regression models are discussed in the MIIP report.

The resulting curves are based on pipe data where the temperatures were low (Scenario 2). Therefore, deterioration modeling data was modified by CH2M HILL to represent the field conditions at MSD. Exponential regression equations were used to develop the condition grades (called condition rating in MIIP 2006) for each pipe material based on their SL age.

Figures 20, 21, 22, 23 and 24 represent the CD curve for concrete, clay, asbestos cement, PVC, and generic pipe materials, respectively, developed for MSD. In these figures, condition grades is shown on the y axis and the SL is shown on the x axis. By considering the assumed condition point on the CD curve, the profile can predict the effective SL or RSL.

Tables 42, 43, 44, 45 and 46 provide the condition grade tables for concrete, clay, asbestos cement, PVC, and generic pipe materials, respectively.

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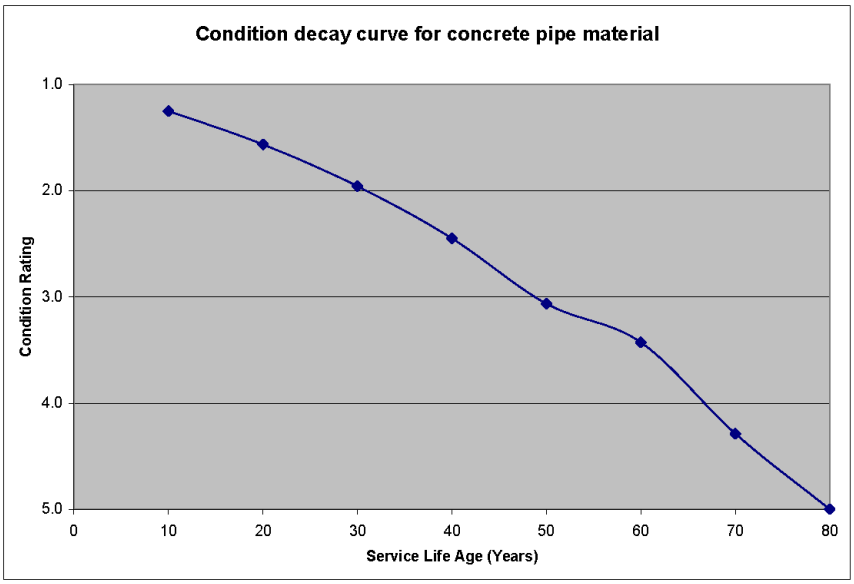

Figure 20: CD curve for concrete pipe material

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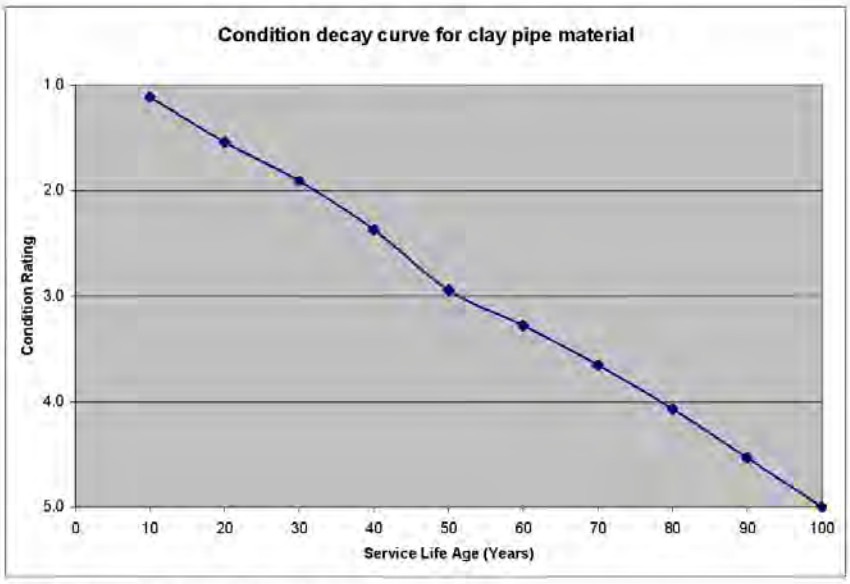

Figure 21: CD curve for clay pipe material

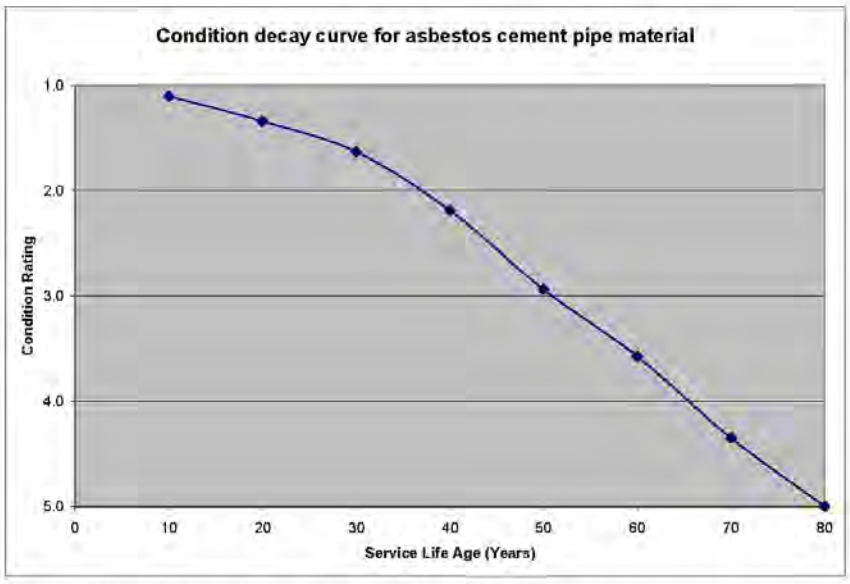

Figure 22: CD curve for asbestos cement pipe material

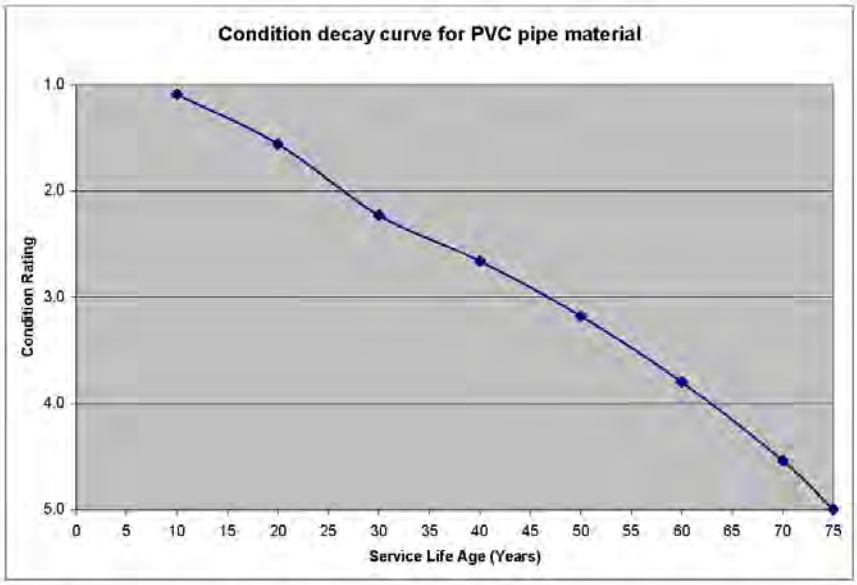

Figure 23: CD curve for PVC pipe material

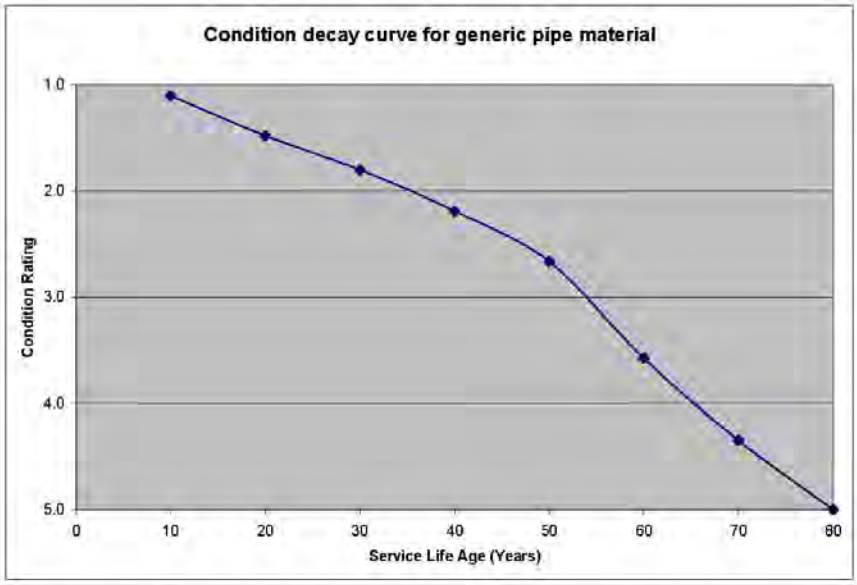

Figure 24: CD curve for generic pipe material

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Table 42: CD table for concrete pipe material

Condition Grade	Service Life Age
1.3	10
1.6	20
2.0	30
2.4	40
3.1	50
3.4	60
4.3	70
5.0	80

Table 43: CD table for clay pipe material

Condition Grade	Service Life Age
1.1	10
1.5	20
1.9	30
2.4	40
2.9	50
3.3	60
3.7	70
4.1	80
4.5	90
5.0	100

Table 44: CD table for asbestos cement pipe material

Condition Grade	Service Life Age
1.1	10
1.3	20
1.6	30
2.2	40
2.9	50
3.6	60
4.3	70
5.0	80

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Table 45: CD table for PVC pipe material

Condition Grade	Service Life Age
1.1	10
1.6	20
2.2	30
2.7	40
3.2	50
3.8	60
4.5	70
5.0	75

Table 46: CD table for generic pipe material

Condition Grade	Service Life Age
1.1	10
1.5	20
1.8	30
2.2	40
2.7	50
3.6	60
4.3	70
5.0	80

4.2 POF values based on the condition grade data

A POF value based on the condition grade is a three step process:

Step 1: Condition grades are assigned by the staff based on institutional knowledge of the pipe.

Step 2: Determine the effective SL age or RSL of the pipe based on the projected condition grade in Step 1. This step requires use of the CD curves developed in Section 5.1, where the condition rating is shown on the y axis and the SL is shown on the x axis. By considering the staff assigned condition grade and projecting onto the CD curve the Effective SL is determined. After the Effective SL is determined the RSL can also be calculated if needed.

Step 3: POF data is developed based on the determined effective SL age or the RSL in step 2. POF tables developed in Section 3.3 can be used to predict the POF based on Step 2's Effective SL and POF tables developed in Section 4.2 can be used to predict the POF based on Step 2's RSL.

4.2.1 Step 1: Assign condition grades

Condition reflects the physical state of the sewer and it is critical that maintenance and engineering staff have a clear knowledge of their sewers and how they are performing in

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order to make management decisions regarding maintenance, rehabilitation and renewal of these assets.

Since MSD currently does not have readily available and consistent information for all its sewer pipes maintenance and engineering staff will collectively discuss their knowledge and experiences about the sewer system and assign condition grades to pipes or groups of pipes using criteria such as age, location, soil conditions. Condition grades will be on a 1 to 5 scale. A pipe in Grade 1 represents a pipe in excellent condition, a Grade 2 represents a pipe in good condition, a Grade 3 represents a pipe in fair condition, a Grade 4 represents a pipe in poor condition, and Grade 5 represents a pipe at or imminently close to a failed condition. An example of the descriptions for each of the grades as prepared by CH2M HILL is provided in Table 47. Owing to the subjectivity of the evaluation process, these descriptions need to be agreed by the MSD staff.

Table 47: Description to condition grade scale (Grade 1 to Grade 5).

Condition Grade	Description
1	No defects or pipe with very few minor defects. Inspection frequency would be at the end of the planned system inspection cycle period.
2	Pipe in good structural and maintenance condition but there are several minor defects or one or two more moderately sever defects. Inspection frequency could be 60 to 80% of the planned system inspection cycle period. For instance, if the planned system inspection cycle was 10 years, then inspection would be in 6 to 8 years.
3	Defects have degraded to a moderate level and are affecting the performance of the pipe. Could be a combination of a number of minor and moderate defects. Point repairs or maintenance should be scheduled. Inspection frequency would be 40 to 50% of the planned system inspection cycle period.
4	Several moderate defects and at least one or more major defects. Point repairs or maintenance may correct deficiency or may need more comprehensive repair or replacement such as lining. May need frequent maintenance. Inspection frequency would be at 10 to 30% of the planned system inspection cycle period.
5	Existing or imminent structural failure or performance failure from maintenance issues such as root or debris obstructing significant portion of flow or from a system design flaw. Immediate or urgent attention is needed to correct deficiencies. Replacement, comprehensive rehab or maintenance should be scheduled. May be an emergency repair. Frequency maintenance required until corrections are made. Inspection frequency could be from monthly to yearly.

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4.2.2 Step 2: Determine RSL or Effective SL age from CD curve

By considering the staff assigned condition grade and its projection on the CD curves developed in Section 4.1, the Effective SL age or the RSL can be determined. For example, in Figure 20, a condition grade of 2 on y axis produces an Effective SL age of approximately 30 years. The RSL would be 50 years.

4.2.3 Step 3: Determine POF based on Effective SL or RSL developed Step 2.

The effective SL age can be used to calculate the POF from the POF tables provided in Section 3.3. The RSL data can be used to predict the POF from the remaining service POF tables developed in Section 3.4.2. For example, for the effective SL of 30 years, the POF is 0.207 and for the RSL of 50 years, the POF is 0.207. So, by considering either of the service lives, the same POF value will result.

5 Level 3: Develop POF curves and tables based on more definitive condition information

In Level 3 POF is calculated by considering more definitive information about the pipe; for instance, the age, pipe material, pipe depth, maintenance history, hydraulic profile, design standards, inspection frequency, CCTV inspections, infiltration/inflow studies, material testing, etc.

An overall pipe grade and POF values are calculated by considering all or combinations of types of factors mentioned above. Level 3 will take longer to develop and will require the appropriate MSD staff to decide on what data will be collected and what data management systems need to be in place to effectively utilize the AAM software module.

6 References

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3. Kathula, V. S. (2001). Structural Distress Condition Modeling For Sanitary Sewers, Doctor of Philosophy Dissertation, Louisiana Tech University, May 2001.
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DRAFT

Appendix A: Markov Modeling (MIIP, 2006)

Markov chains can be employed to model stochastic processes and have a distinct property that probabilities involving how the process changes in the future is dependent only on the present state of the process and so is independent of the past (Hillier and Lieberman, 1995). The Markov process models deterioration situations that have (1) a finite number of states and (2) stationary probabilities (i.e.; the transition probability distribution does not change with time) (Abraham, *et al.*, 1998).

A sanitary sewer system begins its life in nearly perfect condition and is then subjected to a sequence of duty cycles that cause the sewer pipe to deteriorate. In this study the state of a sewer is defined in terms of structural defects. If the structural defects are not repaired, the sewer pipe will develop more severe defects over time. It is obvious that the sewer pipe is more likely to have severe defects in the next time period if the defects in the previous time period are not repaired.

The transition matrix is an m x m square matrix where m is the number of possible condition states that the system can assume and where the system degradation can only occur entropically; that is, it can either stay in the same state or move to a state of greater degradation. The m-1 state transitions are possible from the initial condition, m-2 state transitions possible from the second state of degradation, m-3 transitions from the third state of transition, and so on. The first row of the transition matrix pertains to a initial condition of "intact" position (1,1) describes the probability that a pipe initially at "intact" will remain intact. Positions (1,2) through (1, m-1) give the probability of the pipe deteriorating from "intact" through intermediate states and finally to state m-1 (collapse). The second row describes the degradation probability distribution of the system from the initial condition of "tight crack" through all intermediate states to the final state of collapse. The remaining rows of the transition matrix contain all the possible states of degradation of the system starting at any other initial condition over the period of service.

For example, if a sewer is currently in state i, at time t, the probability that it will transfer to state j at time t+1 can be denoted as

$$\Pr\{X(t+1)=j \mid X(t)=i\}=p_{ij},\quad i,j=1,2,\mathrm{K},m$$

The transition probabilities p_{ij} can be arranged in the form of a matrix.

$$P=\begin{bmatrix} p_{11} & p_{12} & \Lambda & p_{1m} \\ 0 & p_{22} & \Lambda & p_{2m} \\ \mathrm{M} & \mathrm{M} & \mathrm{O} & \mathrm{M} \\ 0 & 0 & \Lambda & 1 \end{bmatrix}$$

In the matrix P, an element p_{ij}, where $i,j=1,2,\ldots,m$, is the probability that a sewer in state i will deteriorate into state j during the next time period (in this project t = 5 years). Since individual transition phenomena are mutually exclusive and collectively exhaustive, each

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element of P is equal to or greater than zero and equal to or less than one and the sum of elements of individual rows equals 1. The entry of 1 in the last row and last column of the transition matrix, corresponding to state of collapse, indicates a holding or trapping state. Once a pipe reaches this severe condition, it remains in the severe condition unless a repair action is performed which restores it to a better condition.

The Chapman-Kolmogorov equation provides a method of computing n^{th}-step transition probabilities. It can be obtained by computing the n^{th} power of the one-step transition matrix. (Hiller and Lieberman, 1995)(Abraham *et al.*, 1998). With this procedure the one-step transition matrix P corresponds to a 5-year time; the two-step (10-year time period) transition matrix P^2 is represented by

$$P^n = P^2 = P \leftrightarrow P$$

Thus, with this methodology, if the transition matrix probabilities can be estimated, the future state of the sewer pipe at any time period can be predicted. Therefore, the next condition rating values $P^1, P^2, \ldots, P^{10}$ are calculated to predict of the distress condition in the pipe system during each of the succeeding 5-year periods for 10 periods, or 50 years. Therefore, when the transition matrix is multiplied by itself 10 times, as allowed by the Chapman-Kolmogorov equation, to obtain the prediction model for 50 years.

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Continuous Sewer System Assessment Protocol
November 20, 2020

Appendix H Consequence of Failure Index

November 2020

Consequence of Failure Index

		Consequence of Failure					
Measurement	Data Source	Negligible	Low	Moderate	High	Severe	Null Handling	Weight
Score		1	2	3	4	5		
Cave-In - Potential	SEWER[TYPE]_DET.ROADCLASS	Sewer not under road (NONE)	Sewer under low volume roads (LOCAL)	Sewer under moderate volume roads (SECCOL)	Sewer under high volume roads (PRICOL, MINART)	Sewer under high volume roads (MAJART, XWAY)	Exclude null values as 0	10
Depth	COMPSMH.DEPTH	0-<8 VF	8-<12 VF	12-<16VF	16-<20VF	>=20 VF	Exclude null values as 0	3
Diameter - Gravity	COMPSMN.PIPEDIAM, COMPSMN.UNITTYPE in (C, CI, S, T,O,E)	6-<12" diameter	12-<24" diameter	24-<36" diameter	36-<60" diameter	>=60" diameter	Exclude null values as 0	10
Diameter - Force Main	COMPSMN.PIPEDIAM, COMPSMN.UNITTYPE in (F,RI)	0-<2" diameter	2<3" diameter	3-<4" diameter	4-<6" diameter	>=6" diameter	Exclude null values as 0	10
Land Use	PRCLZON.ZONIN	Undeveloped land use	Low density land use	Moderate density land use	Heavy density land use	Urban / Central Business District land use	Exclude null values as 0	10
Condition - Knowledge	NOW()-ACTCODE = SMITVI/MHI COMPDTTM	Condition assessment within past 3 years	Condition assessment within past 4-5 years	Condition assessment within past 6-7 years	Condition assessment within past 8-9 years	Condition assessment >=10 years ago or no assessment	Include null values as 5	1
Wastewater Characteristics	Upstream pretreatment permittees	No upstream permittees	GDP upstream	Multiple GDPs upstream, but no SIUs	SIU upstream	Multiple SIUs upstream	Include null values as 1	6

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JULY 1, 2019 - JUNE 30, 2020

DECEMBER 30, 2020