



700 West Liberty Street | Louisville, KY 40203-1911  
Phone: 502.587.0603 | Fax: 502.540.6106 | louisvillemsd.org

July 29, 2016

Jeffrey A. Cummins, Director  
Division of Enforcement  
Department for Environmental Protection  
300 Fair Oaks Lane  
Frankfort, KY 40601

Chief, NPDES Permitting & Enforcement Branch  
Municipal & Industrial Enforcement Section  
U.S. EPA Region 4  
Atlanta Federal Center  
61 Forsyth Street SW  
Atlanta, GA 30303

Chief, Environmental Enforcement Section  
Environmental and Natural Resources Division  
U.S. Department of Justice  
Post Office Box 7611  
Washington, DC 20044-7611

Subject: Quarterly Report 43  
Civil Action No. 3:08-cv-00608-CRS

Attention Director and Chiefs:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 29 of our Amended Consent Decree. This report is for the period April 1, 2016 – June 30, 2016, pertaining to Consent Decree compliance activities. Included are sections on Project WIN activities related to: NMC, SORP, Discharge Abatement Plans, Public Outreach, Education, Notification and Participation, CMOM and Performance Overview.

I certify under penalty of law that this document and all attachments were prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have questions or need additional information, please contact me at (502) 540-6136.

Sincerely,

Angela Akridge, PE  
MSD Chief Engineer

cc: James A. Parrott  
Paula Purifoy  
File



# Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #43



**Reporting Period:**

April 1, 2016, through June 30, 2016

**Submitted To:**

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

**Submitted By:**

Louisville and Jefferson County Metropolitan Sewer District

700 W. Liberty Street

Louisville, Kentucky 40203-1911

**Submittal Date:**

July 29, 2016





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## INTRODUCTION

The Louisville and Jefferson County Metropolitan Sewer District (MSD) is currently under an Amended Consent Decree with the Kentucky Department of Environmental Protection (KDEP), the United States Environmental Protection Agency (EPA), and the United States Department of Justice. 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.

### Quarterly Reporting Period

This is the forty-third Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from April 1, 2016, through June 30, 2016. **The structure for this report is outlined as follows:**

**Section 1: Program Activities for Nine Minimum Controls (NMC)** - This section describes the data collected for NMC 2 – Maximization of Storage in the Collection System, and NMC 4 – Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC) that were active during the reporting period.

**Section 2: Program Activities for Sewer Overflow Response Protocol (SORP)** - This section describes the training attendance records, overflow data, and overflow reconnaissance inspection routes related to SORP that were active during the reporting period.

**Section 3: Program Activities for Discharge Abatement Plans (DAP)** - This section describes the schedule and status for projects related to the DAP by means of an updated Gantt chart for active DAP projects during the reporting period, and the anticipated projects and activities that are scheduled for continued compliance with the Amended Consent Decree.

**Section 4: Program Activities for Public Outreach, Education, Notification and Participation** - This section describes the activities related to public outreach that were active during the reporting period.

**Section 5: Capacity Management, Operations and Maintenance Report** - The CMOM program activities and programmatic activities for WQTCs generating capital projects are reported in a Gantt chart for the reporting period, and the schedule for activities planned for the next reporting period are included in this section for continued compliance with the Amended Consent Decree.

**Section 6: Performance Overview** - This section provides an accounting of unauthorized discharges from the separate sanitary and combined sewer systems, and the estimated volumes along with performance information on bypasses at WQTCs. A discussion of the probable reductions in both unauthorized discharge points and the discharges from MSD's Combined Sewer Overflow (CSO) locations, identified in the Morris Forman Water Quality Treatment Center (WQTC) Kentucky Pollutant Discharge Elimination System (KPDES) permit, that are expected to result from MSD's projects and activities during the reporting period are also contained in this section.

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## **SECTION 1: Program Activities for Nine Minimum Controls**

### **1.1 Nine Minimum Controls Program Background**

Per Paragraph 24.a. of the Amended Consent Decree, the Nine Minimum Controls (NMC) Compliance Report was initially submitted to EPA and KDEP on February 10, 2006. MSD received approval of the report on February 22, 2007. The approved NMC compliance document can be viewed on the MSD Project WIN (Waterways Improve Now) website <http://www.msdprowin.org>. Highlights of the NMC program implementation over this reporting period are outlined below.

### **1.2 NMC 2: Maximization of Storage in the Collection System**

MSD has continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 428.89 MG were stored in the system during rain events and routed to the Morris Forman Water Quality Treatment Center (WQTC) once the system was able to handle the flow. See the table at the end of this section for a detailed report.

### **1.3 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)**

#### Plant Outages

The Morris Forman Headworks Replacement Project continues. West Headworks Channels #1 and #2 were placed out of service as part of the project. This brought the capacity to 235 MGD for the entire quarter. Flows at Morris Forman were sustained at or above 235 MGD before causing overflows at CSO015, CSO016 and CSO191 due to rain events in April. On April 28, 2016, Sedimentation Tank #2 was placed out of service for maintenance. The West Headworks status governed the plant capacity at this time, however higher blanket depths in the remaining sedimentation tanks cause the plant capacity to drop as low as 210 MGD at times. MSD anticipates that the West Headworks will be placed back in service during the next reporting period.

A series of rain events starting May 10, 2016, and ending on May 12, 2016 caused surges of influent flows into Morris Forman WQTC causing overflows at CSO015, CSO016, CSO210 and CSO191. Due to rain intensity and antecedent conditions, a rain event occurring on May 11, 2016, brought a surge of flow into Morris Forman WQTC causing an overflow at CSO015 prior to reaching plant capacity of 235 MGD.

Sedimentation Basin #3 was placed out of service on June 6, 2016, for maintenance to the support structure. Additionally, the Morris Forman Headworks Replacement Project required the West Headworks Channel #3 to be placed out of service on June 9, 2016, along with Channels #1 and #2, bringing the plant capacity down to a range of 140 MGD to 160 MGD. Plant operators were able to sustain 140 MGD to 160 MGD of plant capacity during rain events in June. Influent flows were sustained before causing overflows at CSO015, CSO016, CSO191 and CSO210.

There were also outages in secondary treatment for this reporting period. Three clarifiers remained out of service through the end of June due to maintenance. During rain events in this quarter, Morris Forman WQTC was able to maintain wet weather flows of 120 MGD to 140 MGD through the secondary treatment process.

#### Morris Forman Projects

For the Morris Forman Headworks Replacement Project West Headworks channels #1 and #2 are expected to return to service within the next reporting period. Screens #1 and #2 have completed preliminary testing.

The Final Effluent Pump Station generator has been delivered and is having the necessary electrical connections made.

The progress of the High Yard Electric Project consists of the completion the site work. The retaining wall is scheduled for installation in the next quarter. Equipment is scheduled for delivery in 3rd quarter 2016.

Construction is complete on the Dewatering Cake Pump Project at Morris Forman and is currently in the testing phase.

The Centrifuge Backdrive Controls Project is in the early stages of construction.

The Oxygen Generation Project continues with site preparation between the Oxygen Batteries A and B. Much of the materials for this project have been received and ancillary work on this project has been completed.

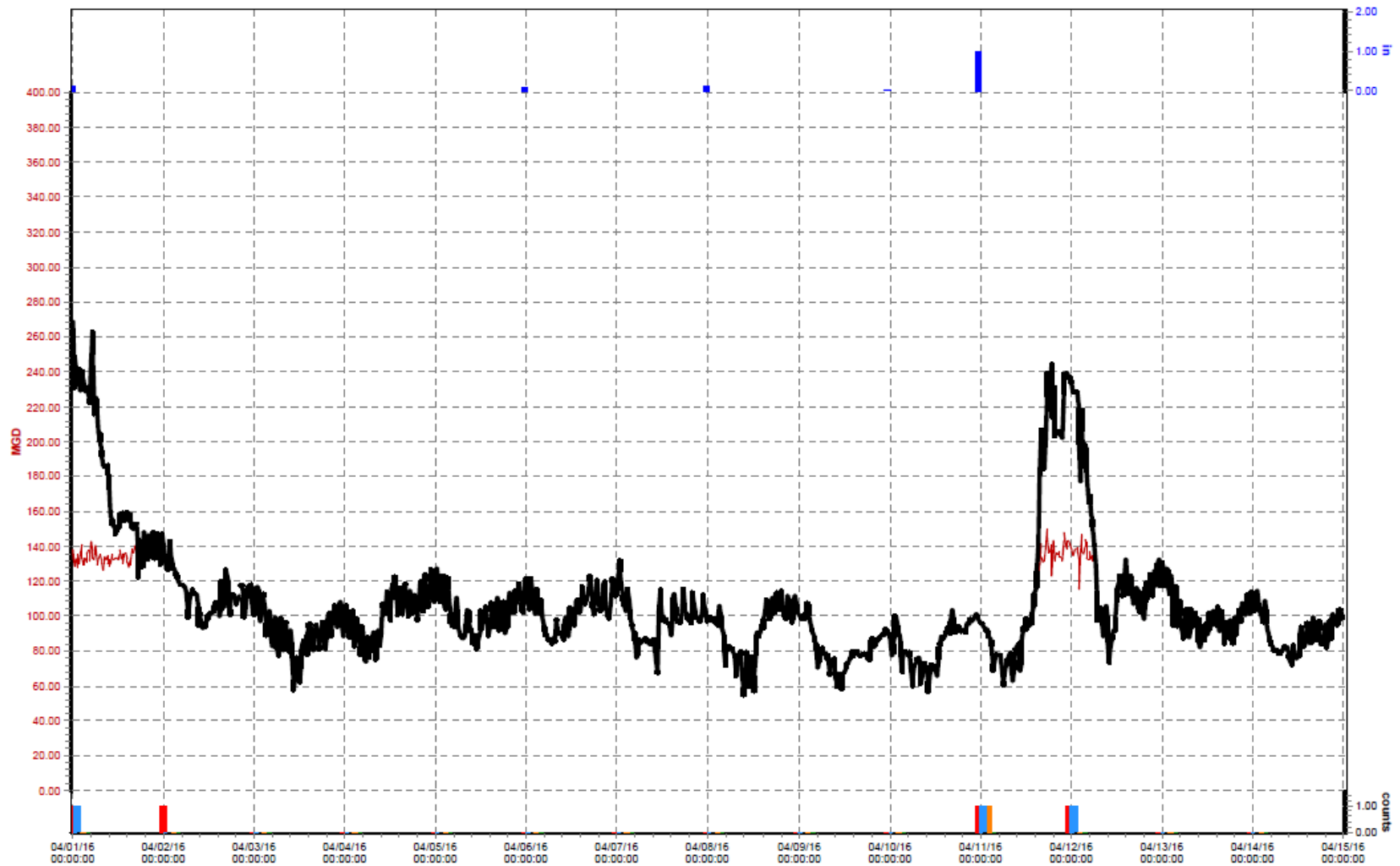
#### Morris Forman Performance

The following charts illustrate performance in maximizing flow to the Morris Forman WQTC. The top of the chart shows rainfall inches per day. The middle part of the chart shows Morris Forman WQTC effluent flow and secondary treatment flow. The difference between these is the secondary bypass flow. The bottom of the chart shows days with a CSO activation at the five CSOs in the vicinity of the Morris Forman WQTC (CSOs 015, 016, 191, 210, and 211). Note that the flow meter downstream from CSO211 is known to be affected by backwater effects of the Ohio River and the ultrasonic signal is sometimes blocked by mist and condensation when air and sewage temperatures are significantly different, so CSO activations at CSO211 are keyed to water levels upstream and downstream of the inflatable dam in the Main Diversion Structure. The other CSO activations are tied to flow measurement downstream of the respective CSO. At times, “blips” representing very small volumes of overflow are indicated by flow meters even though an overflow cannot be verified by level measurements or other indicators. These blips are not reported as overflows, but are noted in the CSO monitoring data reported in **Appendix B**. There are occasions in which a communications failure with telemetry has led to short-term gaps in the data. In addition, indications of rainfall and CSO activations are shown on the day they happened, but are not aligned with the exact time, so the effluent flow graph (which is tied to actual time) may show peaks that are offset from the indicated rain or CSO events by as much as 24 hours.

Morris Forman WQTC - Bypass vs. Large CSOs

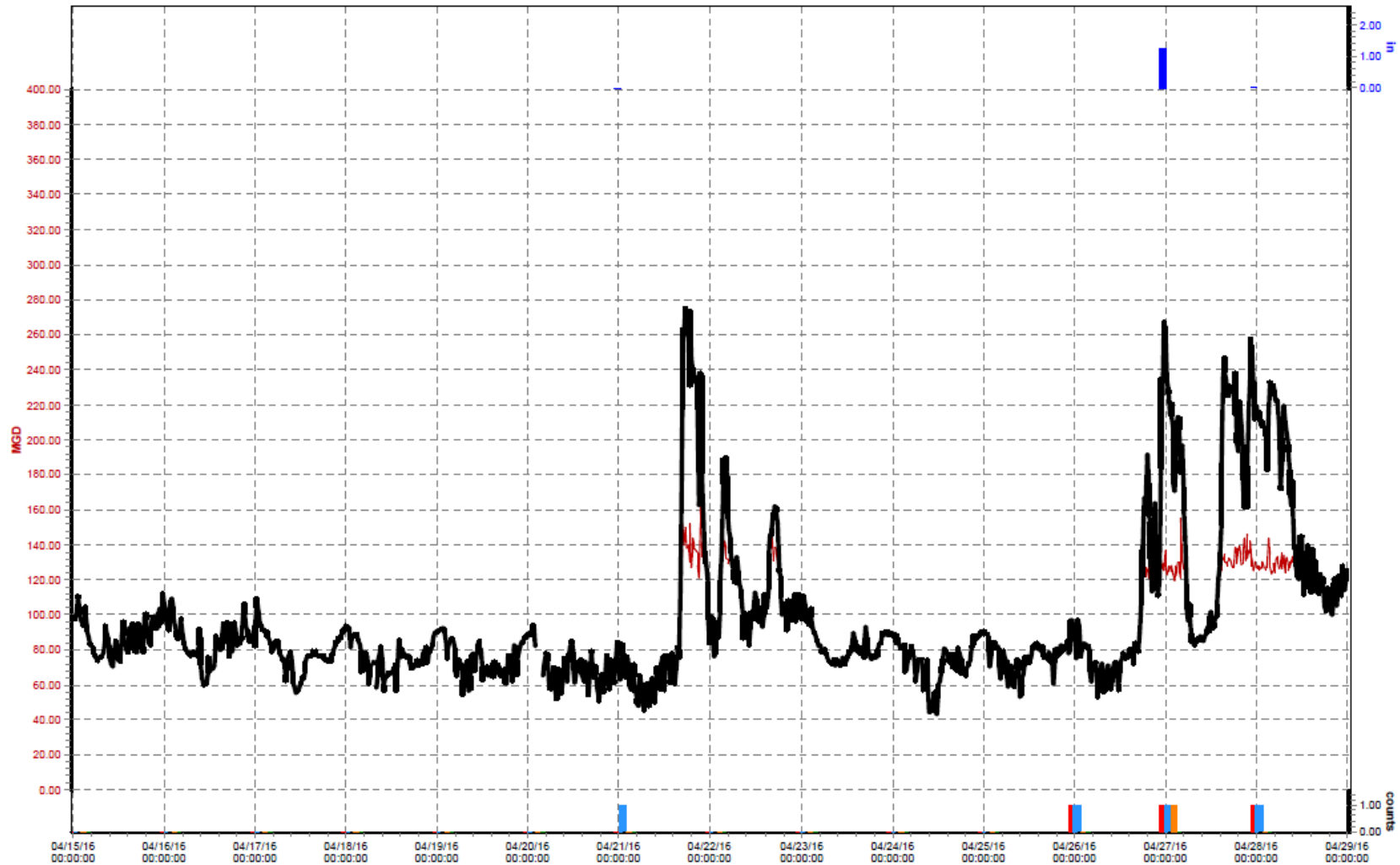
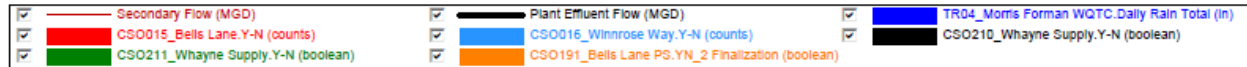
(04/01/16 to 04/15/16)

|                                                                        |                                                                                      |                                                                                   |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Secondary Flow (MGD)               | <input checked="" type="checkbox"/> Plant Effluent Flow (MGD)                        | <input checked="" type="checkbox"/> TR04_Morris Forman WQTC Daily Rain Total (in) |
| <input checked="" type="checkbox"/> CSO015_Bells Lane.Y-N (counts)     | <input checked="" type="checkbox"/> CSO016_Winnrose Way.Y-N (counts)                 | <input checked="" type="checkbox"/> CSO210_Whayne Supply.Y-N (boolean)            |
| <input checked="" type="checkbox"/> CSO211_Whayne Supply.Y-N (boolean) | <input checked="" type="checkbox"/> CSO191_Bells Lane PS.YN_2 Finalization (boolean) |                                                                                   |



Morris Forman WQTC - Bypass vs. Large CSOs

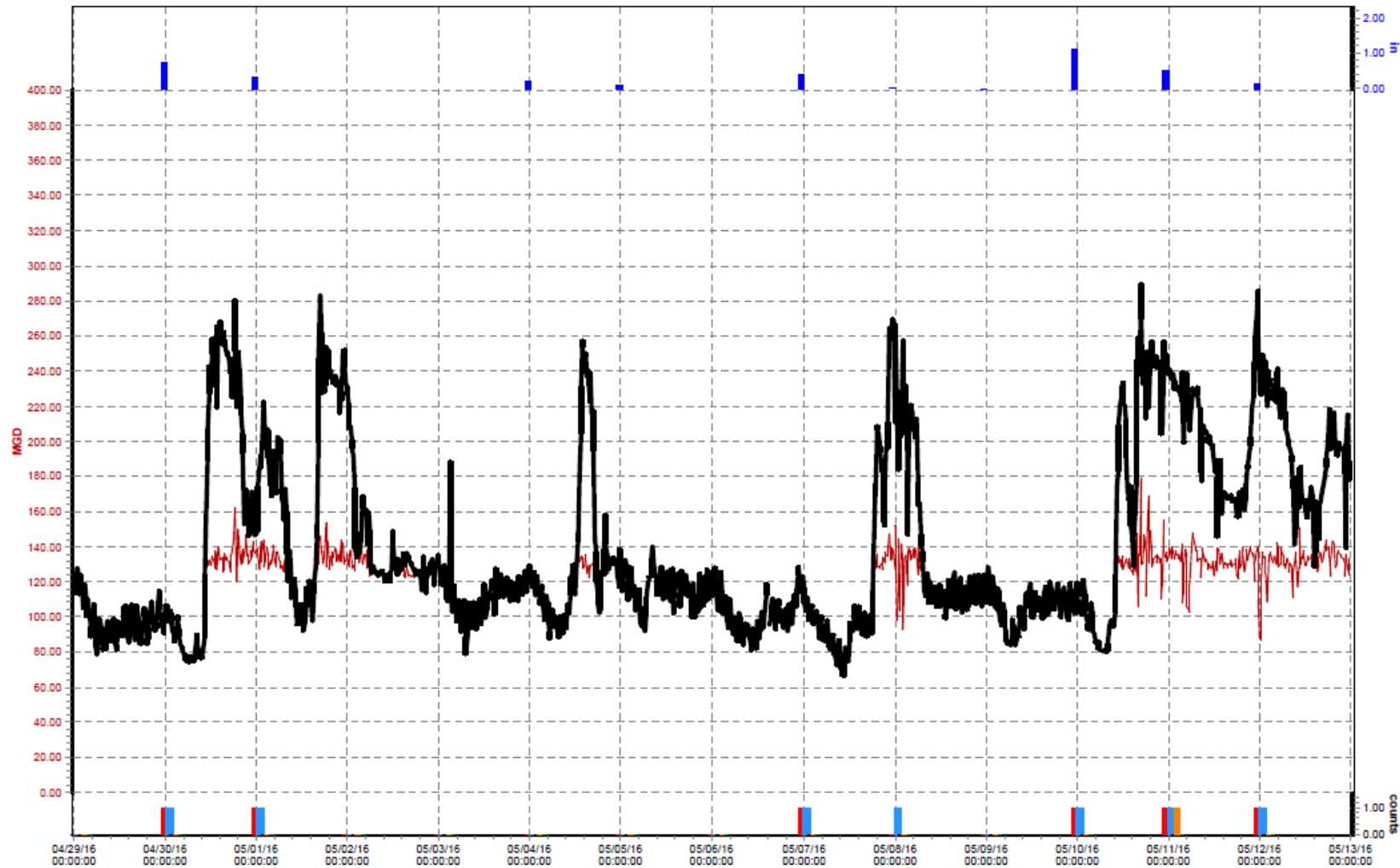
(04/15/16 to 04/29/16)





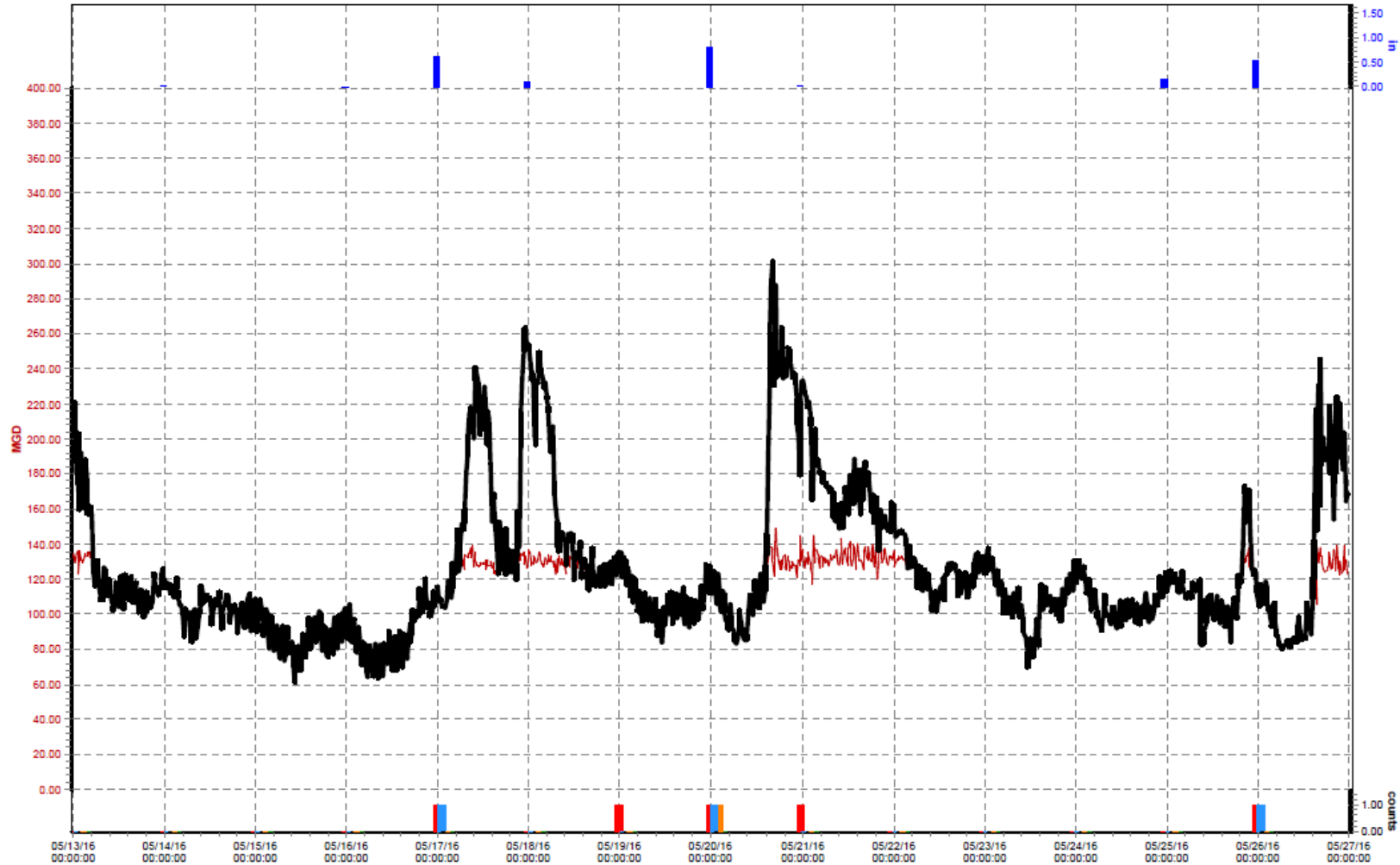
Morris Forman WQTC - Bypass vs. Large CSOs

(04/29/16 to 05/13/16)

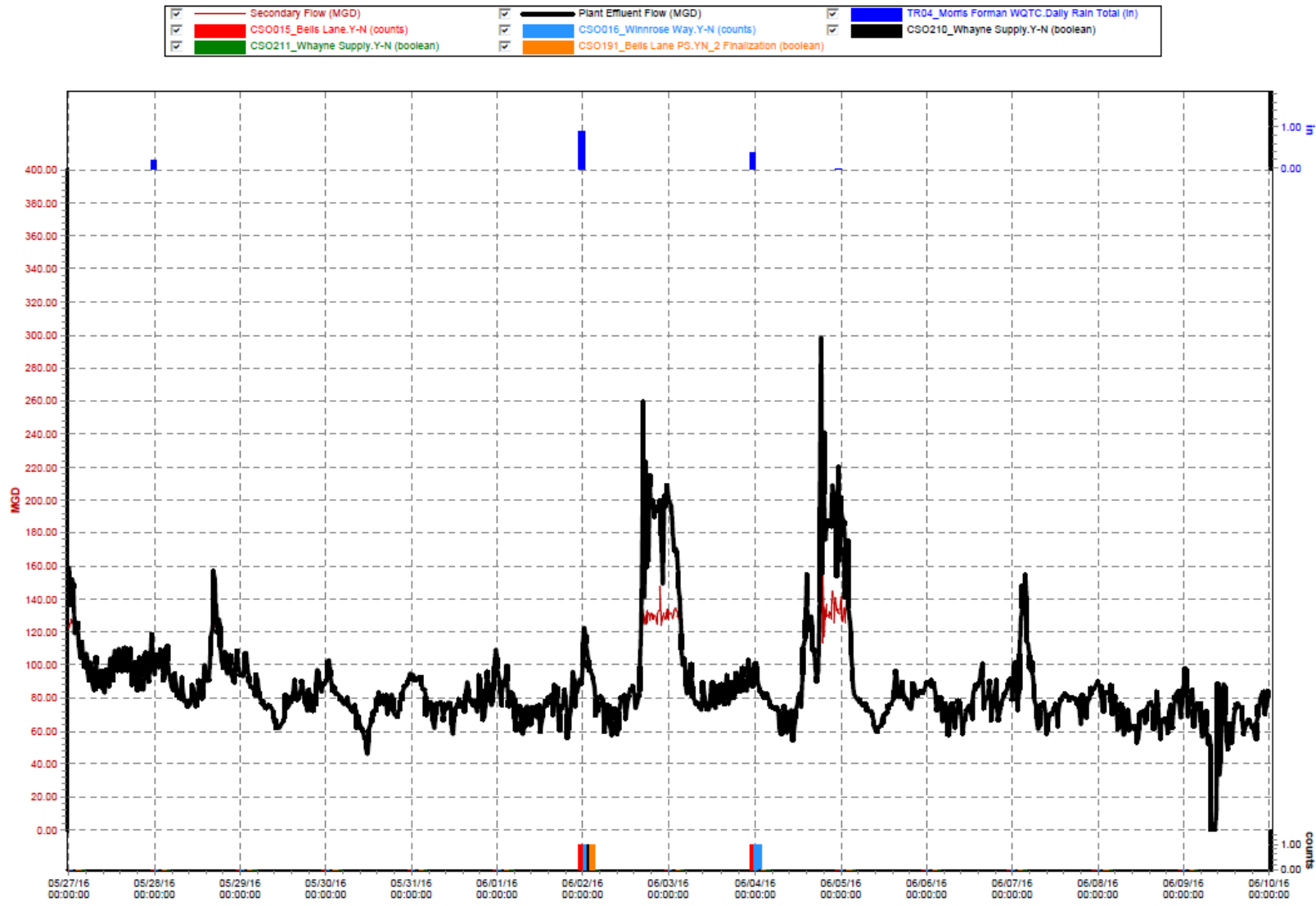


Morris Forman WQTC - Bypass vs. Large CSOs

(05/13/16 to 05/27/16)

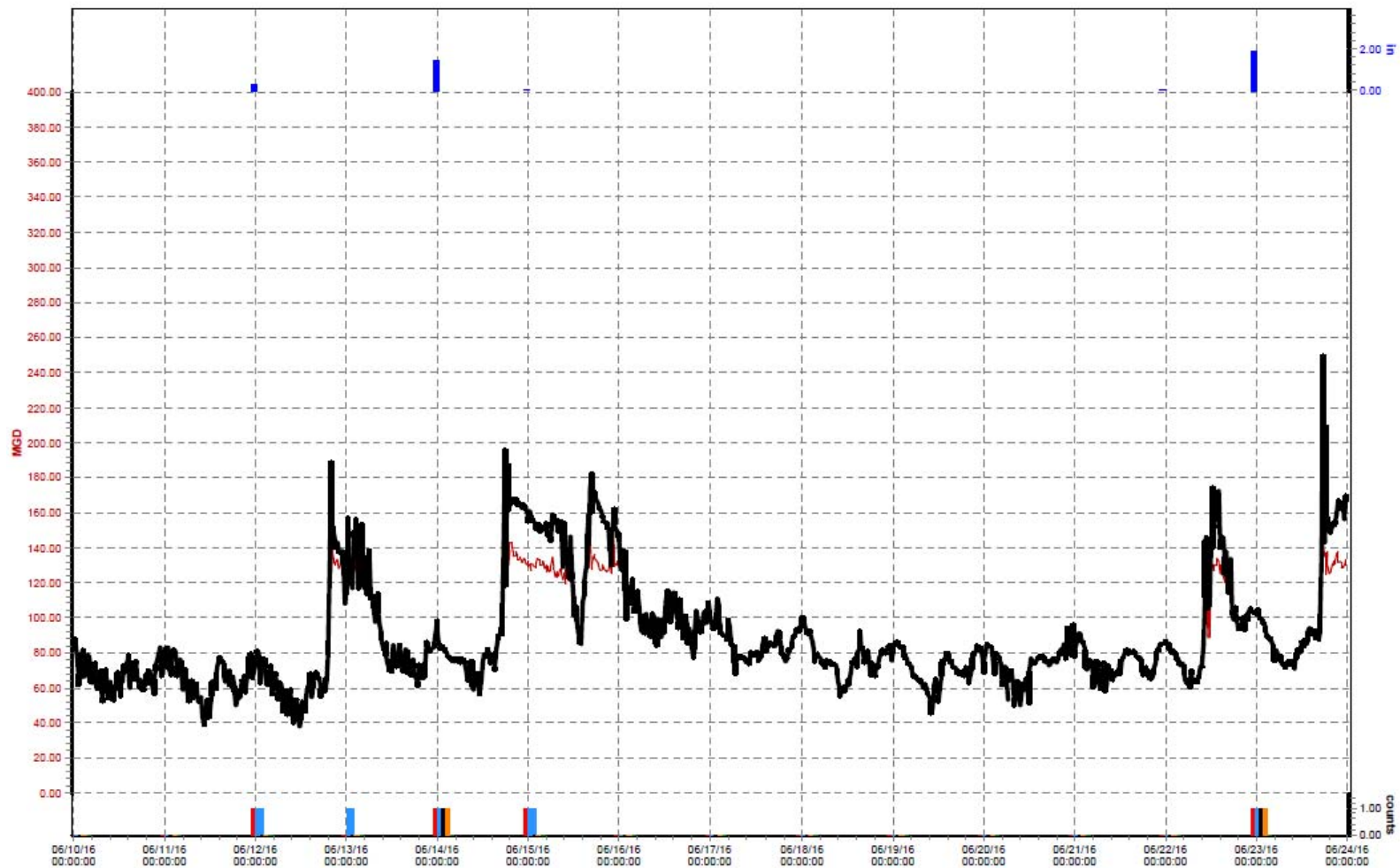


Morris Forman WQTC - Bypass vs. Large CSOs  
(05/27/16 to 06/10/16)

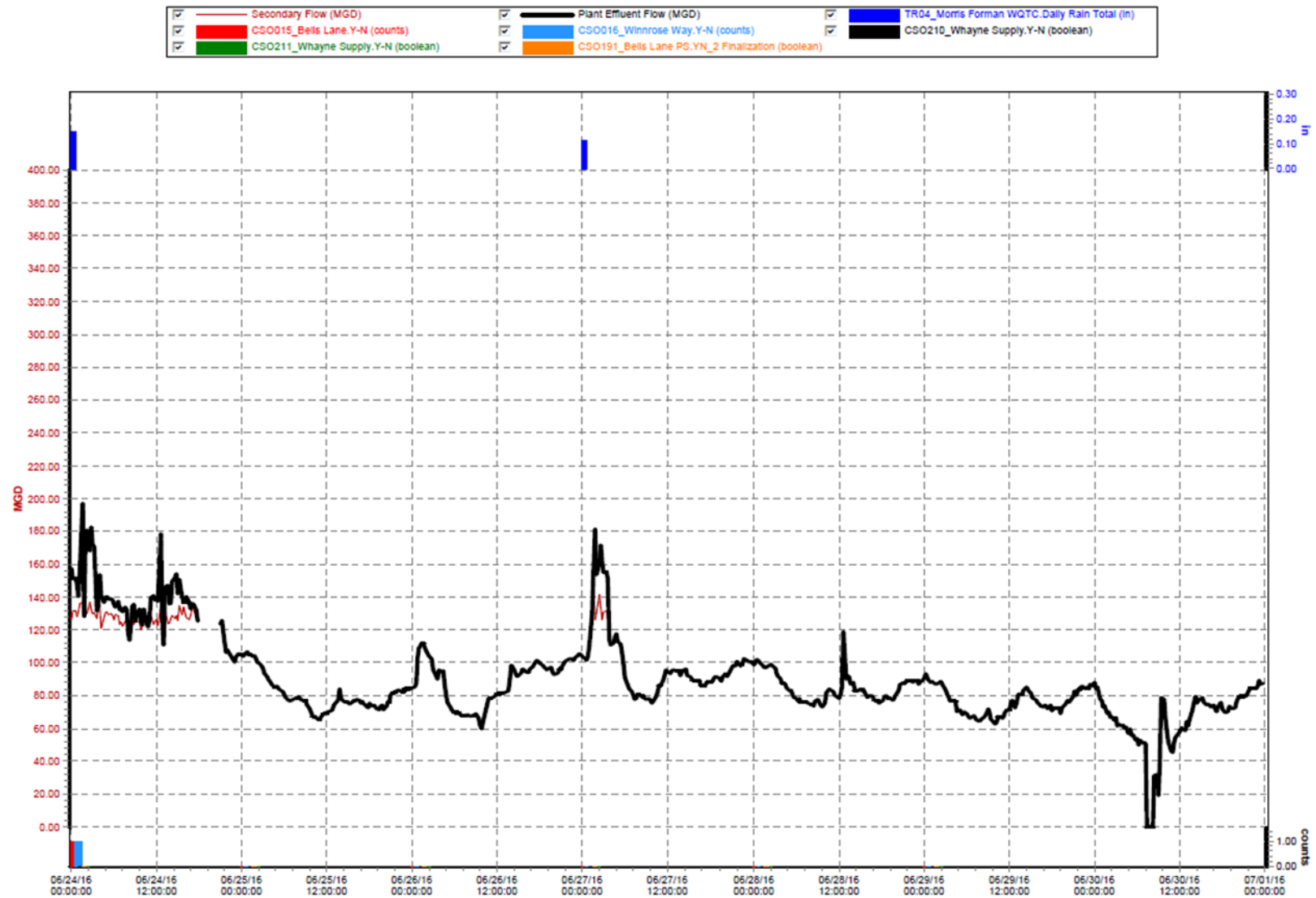


Morris Forman WQTC - Bypass vs. Large CSOs

(06/10/16 to 06/24/16)



Morris Forman WQTC - Bypass vs. Large CSOs  
(06/24/16 to 07/01/16)



For the months of April and June 2016, Morris Forman WQTC did not meet the Seven and 30 Day Secondary Effluent Total Suspended Solids (TSS) Limits. Morris Forman WQTC continues to employ additional solids removal strategies to meet solids removal demands. There were no violations at the Morris Forman WQTC for the month of May 2016.

During this reporting period, the following activities were continued and/or completed:

- RTC Integration – Staff are working with the RTC consultant to review, revise and begin implementing the draft wet weather SOPs for the system that also includes the Southeast Diversion Structure, Buechel Basin, Northern Ditch Diversion, and the Derek R. Guthrie WQTC Wet Weather Treatment Facility. Full integration in an automated mode will not be achieved until the RTC software (Csoft) is upgraded to the most current version and the hydraulic engine is converted to use MSD's InfoWorks ICM hydraulic model. While this work is being done, the SOP is being implemented incrementally, starting with a period of manual operation 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. During this reporting period, MSD continued troubleshooting and revising the ICM model to achieve suitable run times and stability. Staff continued to review and revise SOPs for the Southeast Diversion Structure, Buechel Basin, Northern Ditch Diversion, and the Derek R. Guthrie WQTC Wet Weather Treatment Facilities. Staff continued to develop the RTC process layer controls and SOPs for the Bells Lane campus, Logan and Breckinridge storage basin and CSO Interceptor, and upgraded Nightingale PS facilities. During the next reporting period, MSD anticipates completing ICM model revisions to the InfoWorks ICM hydraulic model. It is anticipated that the SOPs for the Southeast Diversion Structure, Buechel Basin, Northern Ditch Diversion, and the Derek R. Guthrie WQTC Wet Weather Treatment Facility will be finalized. Full implementation of the revised SOPs will be completed after the Csoft and InfoWorks ICM hydraulic model integration is complete and as new or upgraded facilities are brought into service. The anticipated completion date for full deployment of the latest version of Csoft utilizing the integrated ICM model is Spring 2017.
- RTC Performance Assessment and Improvements – The main objective of the RTC Performance Assessment is to determine whether the available flow and storage capacities within the system are being utilized to their full potential. MSD staff continued to review and prioritize for implementation strategies for performance improvement. During the next reporting period, MSD staff and the RTC consultant will continue to work to implement the hardware, software and set-point changes as applicable on a site-by-site basis. Work on implementing these improvements will continue through the next reporting period. A mode validation module has been developed for deployment with the latest version of Csoft to improve system reliability. A revised approach to writing data utilizing an OPC Server to improve stability of the system and reduce HMI programming complexity is under evaluation. Adjustments to the SWOR2 actuators have been made and the site is fully functional. A simplified HMI program and adjustment to position and flow deadband parameters aimed at reducing the number of gate movements and improving site performance are under

evaluation. MSD initiated studies to evaluate potential equipment upgrades and site improvements at the Sneads Branch and Ashland facilities, once these studies are completed, designs for improvements will be initiated. The studies are anticipated to be completed during the Fall 2016 Period.

- Southwest Sluice Gate (SWSG/SWOR1) – A gate failure at the SWSG facility on April 1, 2016, has impacted the ability of the RTC system to fully utilize storage. The center gate broke loose and is inoperable in the closed position. A hydraulic analysis indicates the two remaining gates are capable of handling most events, however, it was necessary to limit the maximum storage level to 10 feet to ensure safe operations. Consequently, the available storage has been reduced from 14.5 MG to 2.2 MG. In addition, the change has impacted the ability to effectively dewater upstream sites SWOR2, Brady Lake, Executive Inn, and Ashland. MSD continues to implement improvements to the Southwestern Outfall dewatering strategy in Csoft and temporary revisions to local PLC coding to improve management during this period. Repairs and upgrades to the SWSG are anticipated to be complete in the Fall 2016 period.



## WET WEATHER STORAGE IN THE MORRIS FORMAN SEWER SYSTEM VIA THE RTC SYSTEM

| Period |            |
|--------|------------|
| From : | 04/01/2016 |
| To :   | 06/30/2016 |

| Event Number | Wet Weather Event |               |          | Rainfall  |           |            | CSO Saved Volume (MG)   |             |                                             |                        |               |                              |                     |              |    | High River Levels                                                                                                                                                                                                                                                                                   | Comments |
|--------------|-------------------|---------------|----------|-----------|-----------|------------|-------------------------|-------------|---------------------------------------------|------------------------|---------------|------------------------------|---------------------|--------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|              | Start Date        | End Date      | Duration | Average*  | Max**     |            | SWPS SG Chamber (14.5)* | SWOR2 (7.5) | Brady Lake and Executive Inn Storage (13.4) | Southern Outfall (3.5) | Ashland (1.0) | Ohio River Interceptor (4.1) | Sneads Branch (2.5) | Total (46.5) |    |                                                                                                                                                                                                                                                                                                     |          |
|              |                   |               |          | TRFD (in) | TRFD (in) | Rain Gauge |                         |             |                                             |                        |               |                              |                     |              |    |                                                                                                                                                                                                                                                                                                     |          |
| 2016-026     | 3/31/16 1:10      | 4/1/16 10:45  | 33:35:00 | 1.07      | 1.53      | TR04       | 20.70                   | 3.20        | 3.70                                        | 6.00                   | 0.90          | 7.90                         | 1.20                | 43.60        | No | Back to back storm cells homogeneously distributed over the service area with dewatering of storage sites between cells. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1). The SWSG Gate 2 experienced damage on April 1st.                 |          |
| 2016-029     | 4/11/16 12:00     | 4/12/16 5:45  | 17:45:00 | 0.73      | 0.98      | TR04       | 2.60                    | 2.30        | 1.40                                        | 3.50                   | 0.95          | 4.70                         | 0.70                | 16.15        | No | Moderate storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1). The SWSG has a restricted storage capacity due to the damage on Gate 2.                                             |          |
| 2016-030     | 4/21/16 14:55     | 4/22/16 23:20 | 32:25:00 | 0.37      | 0.72      | TR11       | 3.10                    | 3.84        | 0.55                                        | 4.20                   | 0.20          | 4.35                         | 0.15                | 16.39        | No | Back to back storm cells heterogeneously distributed over the service area with dewatering of storage sites between cells. SWSG was manually operated. The SWSG has a restricted storage capacity due to the damage on Gate 2.                                                                      |          |
| 2016-031     | 4/26/16 16:00     | 4/28/16 8:45  | 40:45:00 | 1.05      | 1.44      | TR05       | 5.40                    | 4.40        | 2.30                                        | 8.50                   | 1.00          | 6.90                         | 1.50                | 30.00        | No | Large and back to back storm cells homogeneously distributed over the service area. SWSG were manually operated and it has a restricted storage capacity due to the damage on Gate 2. SWOR2 operating mode change from normal to manual during this event.                                          |          |
| 2016-032     | 4/30/16 8:55      | 5/2/16 17:00  | 56:05:00 | 0.81      | 1.42      | TR12       | 5.05                    | 5.15        | 3.80                                        | 7.00                   | 1.10          | 9.60                         | 2.45                | 34.15        | No | Back to back storm cells heterogeneously distributed over the service area. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2.         |          |
| 2016-033     | 5/4/16 11:25      | 5/5/16 14:05  | 26:40:00 | 0.21      | 0.31      | TR11       | 1.80                    | 0.65        | 0.30                                        | 1.70                   | 0.10          | 2.80                         | 0.20                | 7.55         | No | Moderate storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2.               |          |
| 2016-034     | 5/7/16 17:05      | 5/8/16 16:55  | 23:50:00 | 0.46      | 0.81      | TR13       | 5.70                    | 0.75        | 0.45                                        | 3.75                   | 0.15          | 5.45                         | 0.65                | 16.90        | No | Back to back storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2.           |          |
| 2016-035-036 | 5/10/16 8:40      | 5/13/16 4:05  | 67:25:00 | 1.49^     | 1.78^     | TR04^      | 10.40                   | 5.55        | 6.00                                        | 9.75                   | 1.25          | 13.75                        | 1.70                | 48.40        | No | Large and back to back storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2. |          |
| 2016-038     | 5/17/16 0:55      | 5/18/16 9:45  | 32:50:00 | 0.71^     | 1^        | TR14^      | 4.30                    | 1.60        | 1.05                                        | 4.85                   | 0.75          | 7.70                         | 0.20                | 20.45        | No | Back to back storm cells. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2.                                                           |          |
| 2016-039     | 5/20/16 13:00     | 5/21/16 21:35 | 32:35:00 | 0.95^     | 1.33^     | TR14^      | 5.80                    | 8.20        | 3.20                                        | 3.50                   | 0.60          | 4.95                         | 1.90                | 28.15        | No | Large storm cells. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2.                                                                  |          |
| 2016-041     | 5/26/16 14:05     | 5/27/16 0:25  | 10:20:00 | 0.34^     | 0.49^     | TR04^      | 4.05                    | 2.65        | 1.50                                        | 3.50                   | 1.15          | 4.80                         | 0.20                | 17.85        | No | Moderate storm cells. SWOR2 and SWSG were manually operated. Storage occurred at SWOR2 due to backflow from SWOR1 and the SWOR2 inflatable dam was activated. The SWSG has a restricted storage capacity due to the damage on Gate 2.                                                               |          |
| 2016-044     | 6/2/16 2:25       | 6/3/16 13:05  | 34:40:00 | 0.41      | 0.94      | TR14       | 6.30                    | 4.80        | 2.40                                        | 3.50                   | 0.45          | 6.00                         | 1.00                | 24.45        | No | Moderate storm cells heterogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1). The SWSG has a restricted storage capacity due to the damage on Gate 2.                                           |          |
| 2016-045     | 6/4/16 11:50      | 6/5/16 3:00   | 15:10:00 | 0.21      | 0.46      | TR05       | 3.15                    | 1.40        | 0.65                                        | 3.45                   | 0.25          | 4.75                         | 0.30                | 13.95        | No | Moderate storm cells heterogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1). The SWSG has a restricted storage capacity due to the damage on Gate 2.                                           |          |
| 2016-046     | 6/12/16 18:30     | 6/13/16 7:50  | 13:20:00 | 0.45      | 0.75      | TR14       | 3.30                    | 1.90        | 0.95                                        | 3.70                   | 0.35          | 4.80                         | 0.25                | 15.25        | No | Moderate storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1). The SWSG has a restricted storage capacity due to the damage on Gate 2.                                             |          |
| 2016-047-048 | 6/14/16 15:05     | 6/16/16 9:15  | 42:10:00 | 1.37      | 2.83      | TR13       | 11.90                   | 9.15        | 3.90                                        | 5.05                   | 0.35          | 5.90                         | 1.30                | 37.55        | No | Large and back to back storm cells homogeneously distributed over the service area. SWSG was manually operated. The SWSG has a restricted storage capacity due to the damage on Gate 2.                                                                                                             |          |
| 2016-049     | 6/22/16 8:55      | 6/22/16 19:35 | 10:40:00 | 0.21      | 0.76      | TR13       | 0.60                    | 2.20        | 0.15                                        | 1.65                   | 0.10          | 3.45                         | 0.15                | 8.30         | No | Small storm cells heterogeneously distributed over the service area. SWSG was manually operated. The SWSG has a restricted storage capacity due to the damage on Gate 2.                                                                                                                            |          |
| 2016-050     | 6/23/16 16:30     | 6/27/16 0:40  | 80:10:00 | 1.65      | 2.22      | TR11       | 16.20                   | 14.00       | 6.95                                        | 3.90                   | 0.95          | 4.75                         | 3.05                | 49.80        | No | Large storm cells homogeneously distributed over the service area. SWSG was manually operated. The SWSG has a restricted storage capacity due to the damage on Gate 2. SWOR2 site was partially manually operated. SWOR2 inflatable dam was partially activated.                                    |          |
| TOTAL        |                   |               |          |           |           |            | 110.35                  | 71.74       | 39.25                                       | 77.50                  | 10.60         | 102.55                       | 16.90               | 428.89       |    |                                                                                                                                                                                                                                                                                                     |          |

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

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

\*\*\* MDS is always manually controlled by operator

+ Restricted capacity since April 1 due to damage on Gate 2 at SWSG (7.7 MG total = 5.5 MG (storage volume before RTC) + 2.2 MG (Storage volume for RTC))

^ Data unavailable in Csof due corrupted data - data source: <http://msdlouky.org/aboutmsd/rainfall.cfm>



## SECTION 2: Program Activities for Sewer Overflow Response Protocol

### 2.1 SORP Program Background

Per Paragraph 24.d. of the Amended Consent Decree, MSD initially submitted the Sewer Overflow Response Protocol (SORP) to EPA and KDEP on February 10, 2006, and received comments on March 13, 2006.

MSD completely revised the SORP documentation in 2011. The draft of this revised document was submitted for comment on August 22, 2011. Comments from EPA and KDEP were received and addressed, and the document was resubmitted October 28, 2011. Final approval of the updated SORP document was received February 21, 2012. A hard copy of the approved document has been distributed to each division throughout MSD and a viewable, downloadable electronic version has been posted to the MSD Project WIN website [www.msdprojectwin.org](http://www.msdprojectwin.org). The following activities were performed during this reporting period.

### 2.2 Overflow Management and Field Documentation

Monitored approximately 149 sanitary sewer overflow (SSO) sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO. These routes are monitored during rain events depending on the magnitude and location of the storm. If an overflow is observed, a Discharge Work Order is created to document the event. During this quarter, Engineering staff documented 2 unauthorized discharges through route reconnaissance. Inspection routes were run during rain events as described in the following table:

| ROUTE DESCRIPTION                                                                             | 27-Apr-16 | 02-May-16 | 12-May-16 | 20-May-16 | 14-Jun-16 | 23-Jun-16 |
|-----------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| ENGINEERING RAIN EVENT SSO INSPECTION ROUTE                                                   | X         |           |           | X         | X         |           |
| RS JEFFERSONTOWN RAIN EVENT SSO INSPECTION ROUTE (JTOWN MANHOLES WITHIN 2000 LF OF HEADWORKS) | X         | X         | X         | X         | X         | X         |
| RS JEFFERSONTOWN/FERN CREEK RAIN EVENT SSO INSPECTION ROUTE                                   | X         | X         | X         | X         | X         | X         |
| RS MIDDLE/MUDDY FORK RAIN EVENT SSO INSPECTION ROUTE                                          | X         | X         | X         |           | X         | X         |
| RS HIKES POINT RAIN EVENT SSO INSPECTION ROUTE                                                |           | X         | X         | X         | X         | X         |

MSD Operations staff did not haul due to capacity related issues during this reporting period. Hauling was initiated due to other issues as indicated in the following table:

| MSD Hauled Volumes In Gallons (April 1, 2016 - June 30, 2016) |              |          |          |              |
|---------------------------------------------------------------|--------------|----------|----------|--------------|
| Problem                                                       | April        | May      | June     | Total        |
| STRUCTURAL FAILURE                                            | 2,000        | 0        | 0        | 2,000        |
| <b>Grand Total</b>                                            | <b>2,000</b> | <b>0</b> | <b>0</b> | <b>2,000</b> |

## 2.3 Staff Training and Communication

Reviewed and updated the training documentation for the 2016 second quarter SORP training that included Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. Conducted the following SORP Quarterly training sessions which were attended by 227 employees.

| Staff Training Participation January 1, 2016, through March 31, 2016. |                     |           |                                                                                |            |
|-----------------------------------------------------------------------|---------------------|-----------|--------------------------------------------------------------------------------|------------|
| Date                                                                  | Intended Audience   | Location  | Module                                                                         | Attendees  |
| 6/7/2016                                                              | Morris Forman Staff | MFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 11         |
| 6/8/2016                                                              | Morris Forman Staff | MFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 21         |
| 6/8/2016                                                              | Morris Forman Staff | MFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 8          |
| 6/10/2016                                                             | Operations Staff    | CMF B     | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 10         |
| 6/14/2016                                                             | Morris Forman Staff | MFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 3          |
| 6/15/2016                                                             | Morris Forman Staff | MFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 16         |
| 6/15/2016                                                             | Morris Forman Staff | MFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 13         |
| 6/17/2016                                                             | Operations Staff    | CMF B     | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 12         |
| 6/22/2016                                                             | Operations Staff    | CCWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 22         |
| 6/22/2016                                                             | Operations Staff    | FFWQTC    | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 12         |
| 6/23/2016                                                             | Engineering Staff   | CMF A & B | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 37         |
| 6/29/2016                                                             | Operations Staff    | DRGWQTC   | Overflow Assessment, Establishing Control Zones, Mitigation and Documentation. | 21         |
| 6/30/2016                                                             | Engineering Staff   | CMF A & B | Preparing Overflows: Monitoring, Staging & Mobilization                        | 41         |
| <b>Total</b>                                                          |                     |           |                                                                                | <b>227</b> |

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## **SECTION 3: Program Activities for Discharge Abatement Plans**

### **3.1 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 for the elimination of unauthorized discharges from the separate sanitary and the combined sewer systems, the reduction and control of discharges from the CSO locations identified in the Morris Forman WQTC KPDES permit, and the improvement of water quality in the receiving waters.

The Final Sanitary Sewer Discharge Plan and the Final CSO Long Term Control Plan 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, and was entered into public record on February 15, 2010.

MSD submitted an IOAP modification request to EPA/KDEP on September 20, 2012, with partial approval granted via certified letter on October 25, 2012. The modified project package, including program descriptions, progress, and updated supporting text, was submitted to EPA/KDEP for approval on June 14, 2013. On June 19, 2014, MSD received approval of the 2012 IOAP Modification from EPA/KDEP. The project and program modifications proposed within this submittal resulted from additional information gathered from ongoing system monitoring, hydraulic modeling, and best professional judgment. MSD's adaptive management approach to overflow abatement has justified modifications which will result in a higher level of overflow control to be completed faster than originally proposed for approximately the same overall budget.

### **3.2 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.

#### **3.2.1 Updated Sanitary Sewer Overflow Plan 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.

#### **3.2.2 Interim Sanitary Sewer Discharge Plan**

MSD submitted an Interim Sanitary Sewer Discharge Plan (ISSDP) for approval 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 ([www.msdpwin.org](http://www.msdpwin.org)).

All projects required by the ISSDP have been completed and certified. The Derek R. Guthrie WQTC Project's completion was delayed in accordance with the construction contract documents due to existing litigation and performance by the general contractor. However, the full functionality and capacity of the plant upgrades under this project met the demands of the service area. With this understanding, a revised certification letter dated October 19, 2015, was submitted certifying that the Derek R. Guthrie WQTC Project is performing in accordance with its stated intent and purpose, and is in compliance with the Consent Decree requirements.

### **3.2.3 Final Sanitary Sewer Discharge Plan**

MSD submitted for approval a Final Sanitary Sewer Discharge Plan (SSDP) on December 19, 2008, as Volume 3 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, and was entered into public record on February 15, 2010. A revised SSDP was included in the IOAP revision, submitted on June 14, 2013. On June 19, 2014, MSD received approval of the 2012 IOAP Modification from EPA/KDEP.

The following is a summary of activities that support elimination of the Prospect WQTCs.

- The Prospect #1 – WQTC Eliminations Project A certification letter dated December 15, 2015, was submitted finalizing the completion of the Prospect Area WQTC Elimination Projects.
- The Prospect #2 – Harrods Creek PS and FM Project A certification letter dated November 13, 2015, was submitted certifying the completion of the project.
- The Prospect #3: - ORFM System Improvements includes the construction of the 2 MG Muddy Fork Basin and upsizing of the Muddy Fork PS Force Main to 24 inches along with pump upgrades at Muddy Fork PS, Winding Falls/Phoenix Hill PS and New Market PS. The upsizing of the Muddy Fork PS Force Main was bid on May 10, 2016. All projects are anticipated to be completed by the December 31, 2016 IOAP date.

### **3.3 CSO Long Term Control Plan**

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

#### **3.3.1 Interim CSO Long Term Control Plan**

The Interim CSO LTCP was initially submitted to EPA and KDEP on February 10, 2006 and MSD received an approval letter dated February 22, 2007. The approved Interim LTCP can be viewed on the MSD Project WIN website ([www.msdpjectwin.org](http://www.msdpjectwin.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.

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### **3.3.2 Final CSO Long Term Control Plan**

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, and was entered into public record on February 15, 2010. A revised LTCP was included in the 2012 IOAP modification, submitted June 14, 2013. On June 19, 2014, MSD received approval of the 2012 IOAP Modification from EPA/KDEP.

### **3.3.3 Green Program Update**

MSD continued program activities to provide incentives to private property owners to reduce the amount of impervious surface that drains to the combined sewer system. The continued coordination with the Green and MS4 programs is on-going to optimize resources and regulations to improve water quality.

The Green Program incentives are being applied to reflect the values of green projects in CSO areas or regions based on the latest modeling results. This application ties incentives directly to overflow reductions in various CSO regions to promote green projects in the areas that provide the most value. Project opportunities are optimized to best use available funding and provide additional overflow volume reduction benefits to complement LTCP projects.

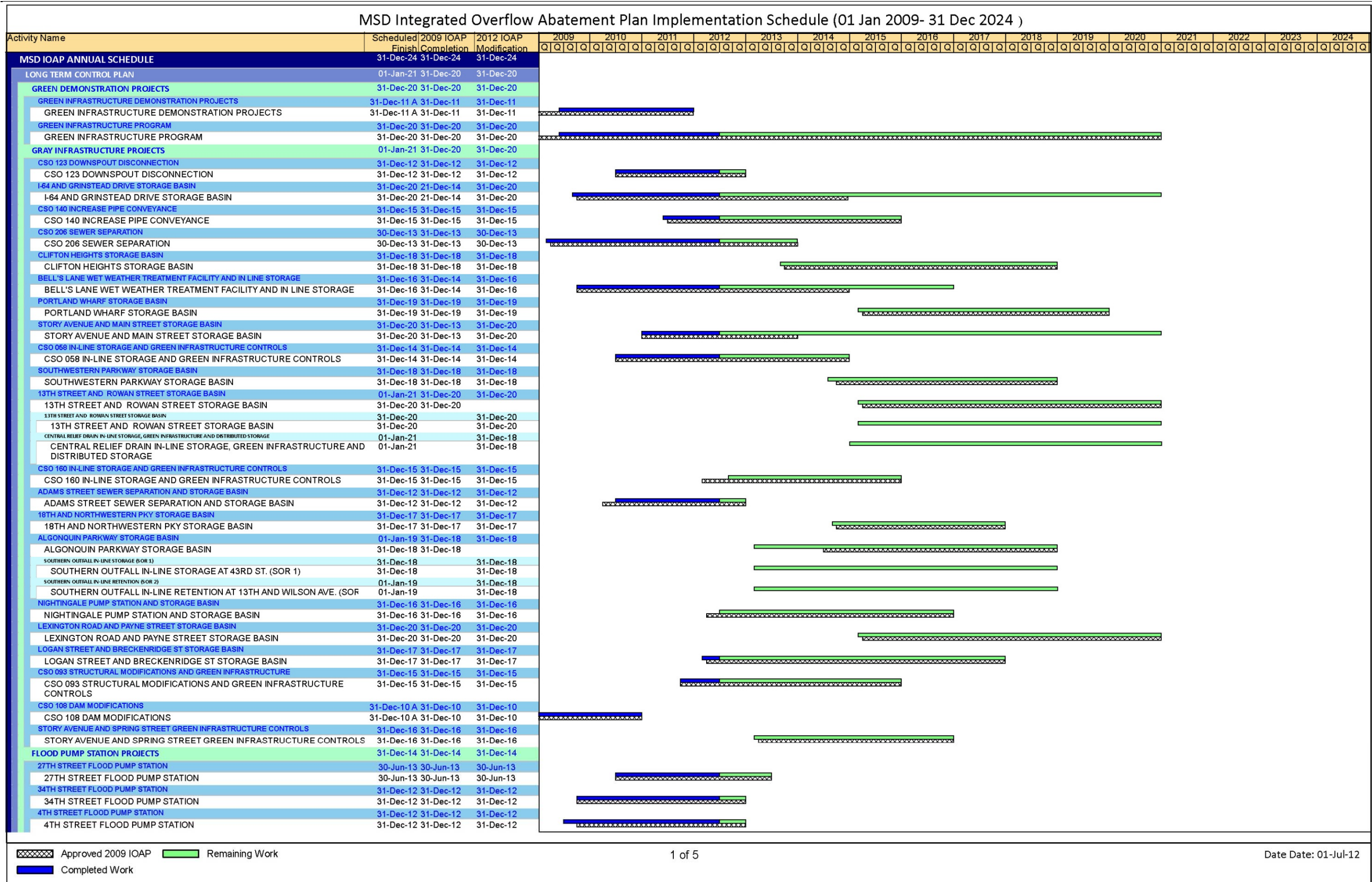
MSD continues to administer an urban reforestation program to intercept rainwater and reduce stormwater entering the sewer system. Urban reforestation proposals require a Memorandum of Understanding for reporting tree location, condition, and maintenance plan. Partners participating in the program are responsible for ongoing maintenance of the trees.

Updates to the Green Infrastructure Design Manual are underway. During the reporting period, MSD reviewed comments from stakeholders, and published a draft for public comment. Public comments were received June 20, 2016, and are under review. MSD is also working with other communities in the region to develop design standards for water quality and green Best Management Practices (BMPs). The next meeting on this effort is scheduled for the next review period.

### **3.4 Activity Progress Chart**

A Gantt chart showing the previous and Proposed IOAP Modification schedules (Refer to IOAP, Volume 1 – Figure 6.3.1 for the previous chart) for the entire program is provided below.







| MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024 )          |                  |                      |                        |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
|-----------------------------------------------------------------------------------------------------|------------------|----------------------|------------------------|------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|---|
| Activity Name                                                                                       | Scheduled Finish | 2009 IOAP Completion | 2012 IOAP Modification | 2009 |   | 2010 |   | 2011 |   | 2012 |   | 2013 |   | 2014 |   | 2015 |   | 2016 |   |
|                                                                                                     |                  |                      |                        | Q    | Q | Q    | Q | Q    | Q | Q    | Q | Q    | Q | Q    | Q | Q    | Q | Q    | Q |
| SHAWNEE FLOOD PUMP STATION                                                                          | 30-Jun-13        | 30-Jun-13            | 30-Jun-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| SHAWNEE FLOOD PUMP STATION                                                                          | 30-Jun-13        | 30-Jun-13            | 30-Jun-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| 17TH STREET FLOOD PUMP STATION                                                                      | 31-Dec-14        | 31-Dec-14            | 31-Dec-14              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| 17TH STREET FLOOD PUMP STATION                                                                      | 31-Dec-14        | 31-Dec-14            | 31-Dec-14              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| SANITARY SEWER DISCHARGE PLAN                                                                       | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| BEARGRASS CREEK MIDDLE FORK AREA                                                                    | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| GOOSE CREEK PUMP STATION                                                                            | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| GOOSE CREEK PUMP STATION                                                                            | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| GOOSE CREEK PS PH1 - DEVONDALE PS WW STORAGE                                                        | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| GOOSE CREEK PS PH1 - DEVONDALE PS WW STORAGE                                                        | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| GOOSE CRK PS PH2 - PS & WET WEATHER STORAGE                                                         | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| GOOSE CRK PS PH2 - PS & WET WEATHER STORAGE                                                         | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| ANCHOR ESTATES- ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS                                                | 31-Dec-16        | 31-Dec-16            | 31-Dec-16              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| ANCHOR ESTATES- ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS                                                | 31-Dec-16        | 31-Dec-16            | 31-Dec-16              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| ANCHOR ESTATES- VANNAH PS ELIMINATION                                                               | 15-Oct-11 A      | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| ANCHOR ESTATES- VANNAH PS ELIMINATION                                                               | 15-Oct-11 A      | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| HURSTBOURNE I&I INVESTIGATION & REHABILITATION                                                      | 27-Dec-11 A      | 31-Dec-11            | 31-Dec-11              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| HURSTBOURNE I&I INVESTIGATION & REHABILITATION                                                      | 27-Dec-11 A      | 31-Dec-11            | 31-Dec-11              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 1 -                        | 31-Dec-13        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 1 - BUECHEL BASIN          | 31-Dec-13        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 2 I                        | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 2 PS & WET WEATHER STORAGE | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CEDAR CREEK AREA                                                                                    | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| LITTLE CEDAR CREEK INTRECEPTOR IMPROVEMENTS                                                         | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| LITTLE CEDAR CREEK INTRECEPTOR IMPROVEMENTS                                                         | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| IDLEWOOD INLINE STORAGE                                                                             | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| IDLEWOOD INLINE STORAGE                                                                             | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| BARDSTOWN RD PS IMPROVEMENTS                                                                        | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| BARDSTOWN RD PS IMPROVEMENTS                                                                        | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| RUNNING FOX PS ELIMINATION                                                                          | 05-Apr-10 A      | 31-Dec-10            | 31-Dec-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| RUNNING FOX PS ELIMINATION                                                                          | 05-Apr-10 A      | 31-Dec-10            | 31-Dec-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FAIRMOUNT RD PS IMPROVMENTS                                                                         | 01-Jan-15        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FAIRMOUNT RD PS IMPROVMENTS                                                                         | 31-Dec-14        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FAIRMOUNT RD PS IMPROVEMENTS                                                                        | 24-Apr-12 A      |                      | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FAIRMOUNT RD PS IMPROVEMENTS                                                                        | 24-Apr-12 A      |                      | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FAIRMOUNT RD PS IMPROVEMENT PH 2                                                                    | 01-Jan-15        |                      | 31-Dec-15              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FAIRMOUNT STORAGE BASIN                                                                             | 01-Jan-15        |                      | 31-Dec-15              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| COMBINED SEWER SYSTEM AREA                                                                          | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| HAZELWOOD PS I&I INVESTIGATION & REHABILITATION                                                     | 30-Jun-11 A      | 30-Jun-11            | 30-Jun-11              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| HAZELWOOD PS I&I INVESTIGATION & REHABILITATION                                                     | 30-Jun-11 A      | 30-Jun-11            | 30-Jun-11              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| SONNE PUMP STATION I&I INVESTIGATION & REHABILITATION                                               | 30-Jun-11 A      | 30-Jun-11            | 30-Jun-11              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| SONNE PUMP STATION I&I INVESTIGATION & REHABILITATION                                               | 30-Jun-11 A      | 30-Jun-11            | 30-Jun-11              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SSES                                                                                    | 08-Jul-11 A      | 31-Dec-11            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SSES                                                                                    | 08-Jul-11 A      | 31-Dec-11            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SANITARY SEWER #1A                                                                      | 31-Dec-12        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SANITARY SEWER #1A                                                                      | 31-Dec-12        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SANITARY SEWER #1B                                                                      | 31-Dec-13        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SANITARY SEWER #1B                                                                      | 31-Dec-13        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SANITARY SEWER #2                                                                       | 31-Dec-13        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR SANITARY SEWER #2                                                                       | 31-Dec-13        | 31-Dec-13            | 31-Dec-13              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR #3- SEWER REHABILITATION                                                                | 31-Dec-17        | 31-Dec-17            | 31-Dec-17              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR #3- SEWER REHABILITATION                                                                | 31-Dec-17        | 31-Dec-17            | 31-Dec-17              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR #4-SEWER REHABILITATION & REPLACEMENT                                                   | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| CAMP TAYLOR #4-SEWER REHABILITATION & REPLACEMENT                                                   | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| FLOYDS FORK AREA                                                                                    | 01-Apr-10 A      | 31-Dec-21            | 01-Apr-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| WOODLAND HILL PS DIVERSION                                                                          | 01-Apr-10 A      | 30-Jun-11            | 01-Apr-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| WOODLAND HILL PS DIVERSION                                                                          | 01-Apr-10 A      | 30-Jun-11            | 01-Apr-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| ASHBURTON PS IMPROVEMENTS AND DIVERSION                                                             | 22-Jan-10 A      | 31-Dec-21            | 22-Jan-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| ASHBURTON PS IMPROVEMENTS AND DIVERSION                                                             | 22-Jan-10 A      | 31-Dec-21            | 22-Jan-10              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| HITE CREEK AREA                                                                                     | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| MEADOW STREAM PS AND FORCE MAIN                                                                     | 31-Dec-12        | 31-Dec-16            | 31-Dec-16              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| MEADOW STREAM PS AND FORCE MAIN                                                                     | 31-Dec-12        | 31-Dec-16            | 31-Dec-16              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |
| KAVANAUGH RD PS IMPROVEMENTS                                                                        | 31-Dec-24        | 31-Dec-24            | 31-Dec-24              |      |   |      |   |      |   |      |   |      |   |      |   |      |   |      |   |

Approved 2009 IOAP

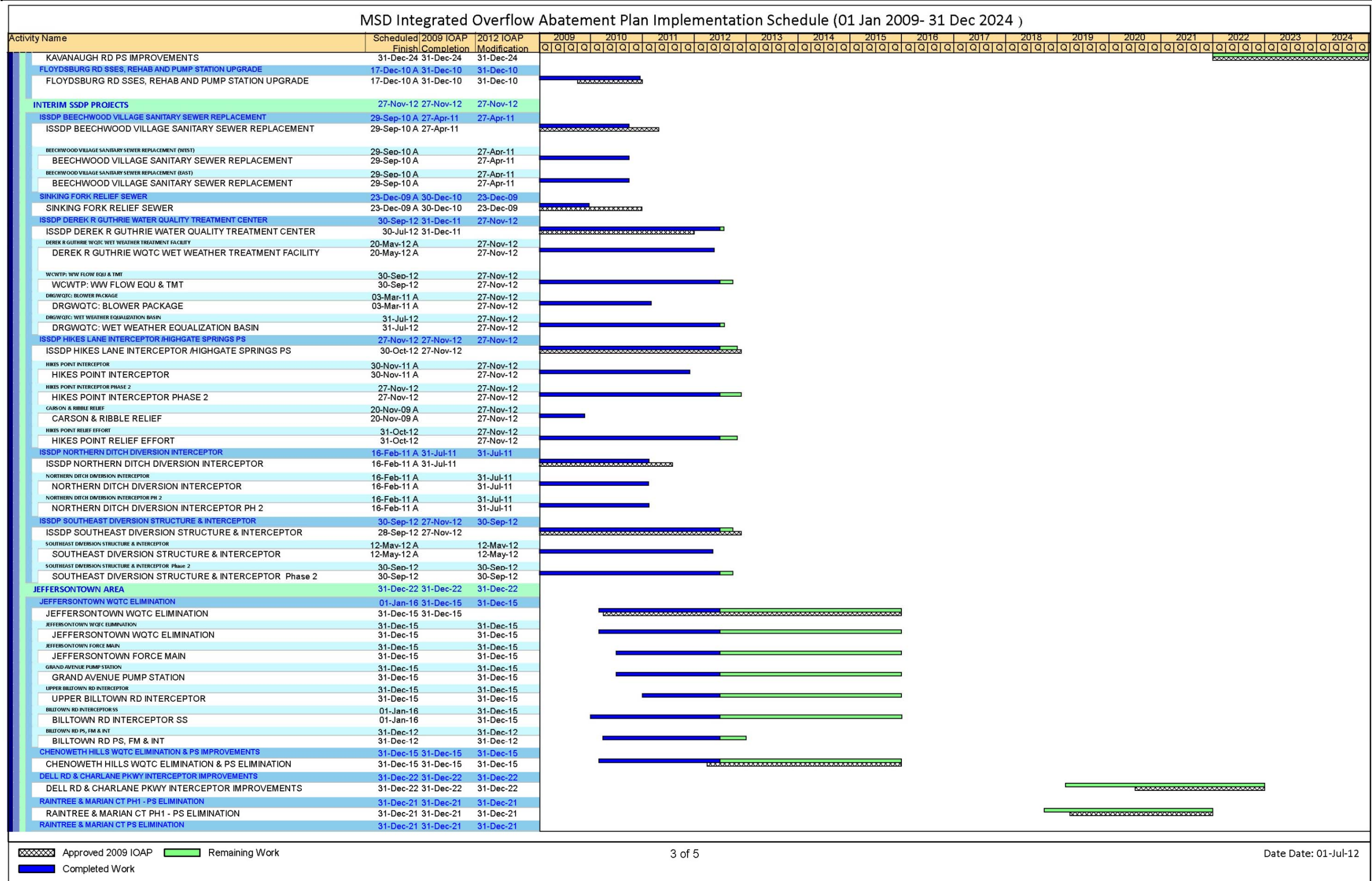
Remaining Work

Completed Work

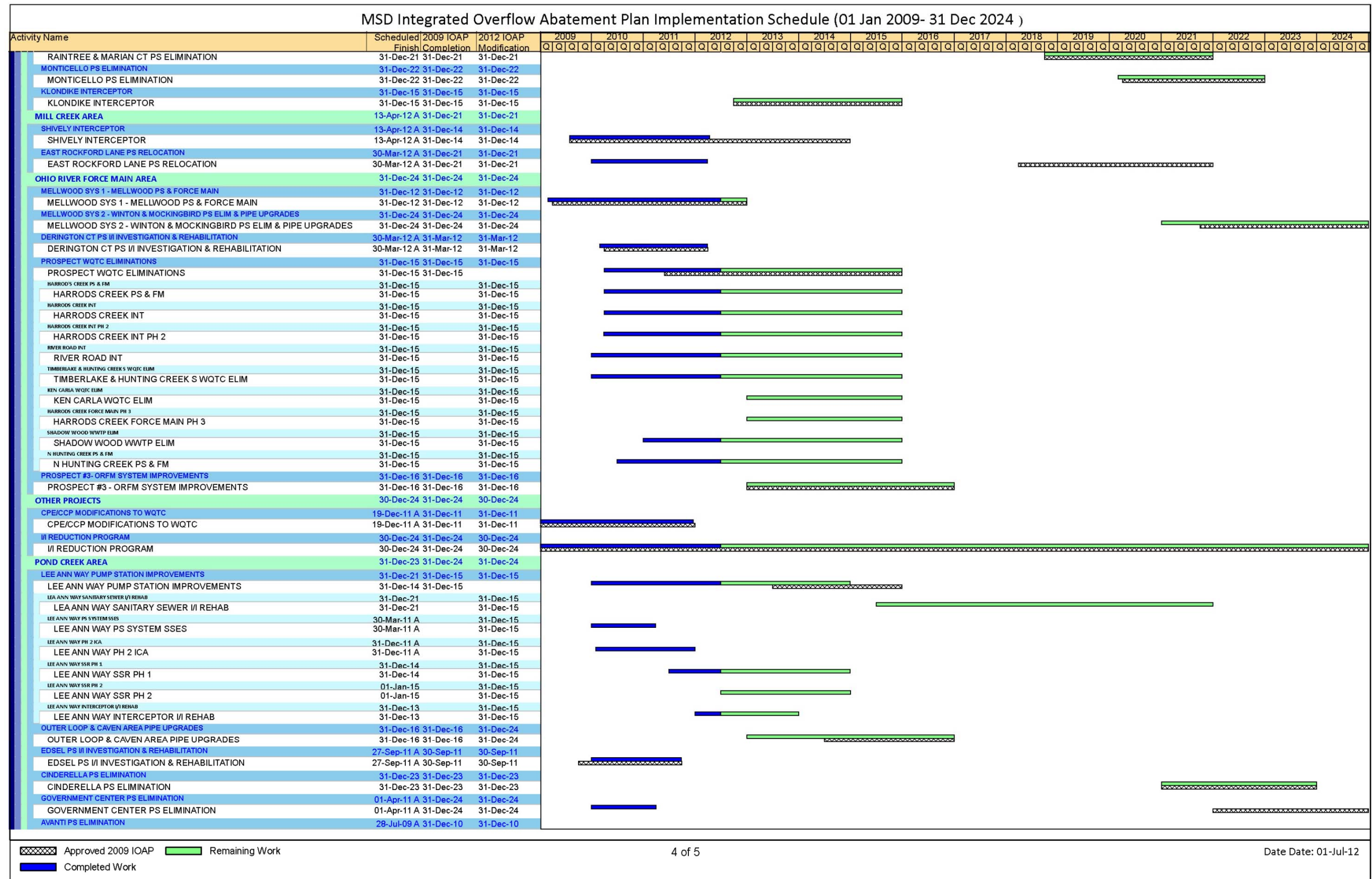
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Date Date: 01-Jul-12









| MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024 ) |                  |                      |                        |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
|--------------------------------------------------------------------------------------------|------------------|----------------------|------------------------|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|
| Activity Name                                                                              | Scheduled Finish | 2009 IOAP Completion | 2012 IOAP Modification | 2009 |   |   |   | 2010 |   |   |   | 2011 |   |   |   | 2012 |   |   |   |
|                                                                                            |                  |                      |                        | Q    | Q | Q | Q | Q    | Q | Q | Q | Q    | Q | Q | Q | Q    | Q | Q | Q |
| AVANTI PS ELIMINATION                                                                      | 28-Jul-09 A      | 31-Dec-10            | 31-Dec-10              | Q    | Q | Q | Q | Q    | Q | Q | Q | Q    | Q | Q | Q | Q    | Q | Q | Q |
| CHARLESWOOD INTERCEPTOR EXTENSION                                                          | 31-Dec-22        | 31-Dec-22            | 31-Dec-22              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| CHARLESWOOD INTERCEPTOR EXTENSION                                                          | 31-Dec-22        | 31-Dec-22            | 31-Dec-22              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LANTANA PS II INVESTIGATION & REHABILITATION                                               | 29-Dec-11 A      | 31-Dec-11            | 29-Dec-11              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LANTANA PS I/ INVESTIGATION & REHABILITATION                                               | 29-Dec-11 A      | 31-Dec-11            | 29-Dec-11              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LEVEN PS ELIMINATION                                                                       | 31-Dec-22        | 31-Dec-22            | 31-Dec-22              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LEVEN PS ELIMINATION                                                                       | 31-Dec-22        | 31-Dec-22            | 31-Dec-22              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| CAVEN AVENUE WW STORAGE                                                                    | 31-Dec-16        | 31-Dec-24            | 31-Dec-16              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| CAVEN AVENUE PS ELIMINATION                                                                | 31-Dec-16        | 31-Dec-24            | 31-Dec-16              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| SMALL WWTP AREA                                                                            | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| RIDING RIDGE PS IMPROVEMENTS                                                               | 31-Dec-14        | 31-Dec-14            | 31-Dec-14              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| RIDING RIDGE PS IMPROVEMENTS                                                               | 31-Dec-14        | 31-Dec-14            | 31-Dec-14              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LUCAS LN PS INLINE STORAGE                                                                 | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LUCAS LN PS INLINE STORAGE                                                                 | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| ST. RENE RD PS INLINE STORAGE                                                              | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| ST. RENE RD PS INLINE STORAGE                                                              | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LAKE FOREST PS IMPROVEMENTS                                                                | 31-Dec-12        | 31-Dec-12            | 31-Dec-12              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| LAKE FOREST PS IMPROVEMENTS                                                                | 31-Dec-12        | 31-Dec-12            | 31-Dec-12              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| GUNPOWDER PS INLINE STORAGE                                                                | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| GUNPOWDER PS INLINE STORAGE                                                                | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| FOX HARBOR INLINE STORAGE                                                                  | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| FOX HARBOR INLINE STORAGE                                                                  | 31-Dec-21        | 31-Dec-21            | 31-Dec-21              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| FAIRWAY VIEW PS IMPROVEMENTS                                                               | 31-Dec-14        | 31-Dec-14            | 31-Dec-14              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| FAIRWAY VIEW PS IMPROVEMENTS                                                               | 31-Dec-14        | 31-Dec-14            | 31-Dec-14              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| SOUTHEASTERN DIVERSION AREA                                                                | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| PARKVIEW ESTATES II INVESTIGATION & REHABILITATION                                         | 28-Jun-11 A      | 30-Jun-11            | 30-Jun-11              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| PARKVIEW ESTATES I/ INVESTIGATION & REHABILITATION                                         | 28-Jun-11 A      | 30-Jun-11            | 30-Jun-11              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| SUTHERLAND INTERCEPTOR                                                                     | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| SUTHERLAND INTERCEPTOR                                                                     | 31-Dec-23        | 31-Dec-23            | 31-Dec-23              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| BEARGRASS INTERCEPTOR REHABILITATION PH 2                                                  | 14-Dec-10 A      | 31-Dec-10            | 31-Dec-10              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| BEARGRASS INTERCEPTOR REHABILITATION PH 2                                                  | 14-Dec-10 A      | 31-Dec-10            | 31-Dec-10              |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |

Approved 2009 IOAP

Remaining Work

Completed Work

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Date Date: 01-Jul-12

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## **SECTION 4: Program Activities for Public Outreach, Education, Notification and Participation**

### **4.1 Public Notification Program**

MSD has developed a program aimed at notifying the community of the objectives of Project WIN and how to lessen the risks associated with coming into contact with sewage overflows.

### **4.2 Public Education Programs**

MSD has developed a public education program aimed at disseminating information to the public on MSD's primary business functions with emphasis on wastewater, stormwater and flood protection. Efforts continued to utilize various media outlets, including television, radio, magazines, and newspapers to serve as a conduit for circulating information to the public.

Additionally, MSD is in the process of creating water quality sampling videos and partnering with educational organizations to assist with watershed videos. These efforts will be finalized by March 31, 2017 and ultimately be made available to the public. During the reporting period, MetroTV filmed programs detailing the IOAP Public Input Meetings. During the reporting period MetroTV aired the following programs for each individual IOAP Project:

#### April

- MetroTV aired two programs of the Orientation Meeting for the Lexington & Payne CSO Basin Project;
- MetroTV aired 13 programs of the Conceptual Design Meeting for the I-64 & Grinstead CSO Basin Project; and
- MetroTV aired five programs of the Conceptual Design Meeting for the Story & Main CSO Basin Project.

#### May

- MetroTV aired two programs of the Orientation Meeting followed by 8 programs of the Conceptual Design Meeting for the Lexington & Payne CSO Basin Project;
- MetroTV aired nine programs of the Conceptual Design Meeting for the I-64 & Grinstead CSO Basin Project; and
- MetroTV aired one program of the Conceptual Design Meeting for the Story & Main CSO Basin Project.

#### June

- MetroTV aired two programs of the Advanced Design Meeting for the Clifton Heights Storage Basin Project;
- MetroTV aired five programs of the Conceptual Design Meeting for the I-64 & Grinstead CSO Basin Project;
- MetroTV aired seven programs of the Conceptual Design Meeting for the Lexington & Payne CSO Basin Project; and



- MetroTV aired 13 programs of the Conceptual Design Meeting for the Portland Basin CSO Project.

#### **4.3 Public Outreach 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.

##### **4.3.1 IOAP Project and Program Meetings**

MSD facilitates meetings for the Wet Weather Team (WWT) and the public to review regulatory commitments, update progress on projects and initiatives, and to gather public input on efforts.

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. The current IOAP outreach activities and public meetings are using this process to elicit qualitative and quantitative information and enhance 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 customer-specific basis. The plan for Structured Public Involvement includes implementing a four-meeting process that leads stakeholders through the project Design Stages: Orientation, Concept Design, Advanced Design, and then a Pardon Our Dust meeting upon construction. Presentations at neighborhood meetings additionally supplement the four meeting process. Online surveys are also made available to allow individuals not in attendance 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 Public Input Website (<http://www.msdprojectwin.org/Public-Input.aspx>).

During the reporting period, MSD facilitated and planned for the following meetings:

- Lexington & Payne Combined Sewer Overflow (CSO) Basin Project - A Conceptual Design Meeting was held at the Girl Scouts of Kentuckiana Headquarters on April 26, 2016;
- Camp Taylor SSR Area 2A Project - A Pardon Our Dust Meeting was held at the Louisville Nature Center on June 2, 2016;
- Clifton Heights CSO Storage Basin Project - A Pardon Our Dust Meeting was held at the American Printing House for the Blind on June 7, 2016;
- Camp Taylor SSR Areas 2B & 4 Project - A Pardon Our Dust Meeting was held at the Louisville Nature Center on June 9, 2016;
- Portland CSO Basin Project - An Advanced Design Meeting was held at the Portland Neighborhood House on June 14, 2016; and

- A Wet Weather Team Stakeholder Meeting was held on May 25, 2016, to provide updates on MSD's IOAP progress and activities to date, planned activities for 2016, and an update of activities for MSD's 20-year Comprehensive Facility Plan.

During the next reporting period, the following meetings are planned.

- Wet Weather Team Stakeholder Meeting – Is planned for August 25, 2016;
- Portland CSO Storage Basin Project - A Pardon Our Dust meeting is planned for the interceptor portion of the project during September 2016;
- Logan Street CSO Storage Basin Project - A Public Meeting is planned for September/October 2016;
- Southwestern CSO Storage Basin Project - A public meeting is planned for September 2016 to introduce the design-build team, discuss design status, and relay construction expectations; and
- 13th and Rowan CSO Storage Basin Project - An Orientation Public meeting is planned during the next reporting period.



## SECTION 5: Capacity Management Operations and Maintenance Report

Per Paragraph 24.c. of the Amended Consent Decree, the Capacity Management Operations and Maintenance (CMOM) Self Assessment Report was submitted to EPA and KDEP on February 10, 2006. MSD received a letter of approval on August 22, 2006. The approved CMOM document can be viewed on the MSD Project WIN website ([www.msdprowin.org](http://www.msdprowin.org)).

The primary objectives of CMOM are as follows:

**Capacity** – Ensuring that adequate wet and dry weather capacity is maintained in existing and new infrastructure.

**Management** – Implementing programs in support of operations and maintenance activities required to ensure KPDES permit compliance and promote public health by remedying design, construction and operational deficiencies; training staff; and performing activities in a safe manner.

**Operations** – Implementing written standard operating procedures to operate system components as designed to meet permit requirements.

**Maintenance** – Implementing systematic, comprehensive asset maintenance and rehabilitation programs to prevent overflows, maximize system reliability, and ensure system sustainability.

Although the program implementation deadlines from the CMOM Self Assessment Report were previously met, MSD continued to enhance the activities. Highlights of the CMOM program implementation over this reporting period are outlined below.

### 5.1 Management Programs

#### M-E-9 Infrastructure Rehabilitation

Activity details are provided in the CMOM schedule provided as **Section 5.4 – CMOM Activity Schedule**.

#### M-E-10 System Capacity Assurance Program

Included in the goals of the CMOM Self-Assessment Report, The System Capacity Assurance Plan (SCAP) is the basis for applying capacity decision criteria to support watershed community values. It provides a programmatic approach for confirming available capacity within MSD's sanitary sewer system, creating capacity credits through system improvement and rehabilitation, identifying hydraulic constrictions, and proposing capacity improvements that support interim and long-term performance objectives. SCAP revisions, including credit and balance projections and discussion of approach for multi-family residential unit populations, were discussed with EPA and KDEP and submitted electronically for review on July 21, 2014. The final SCAP revision was submitted for approval on December 9, 2014 and approval was received February 5, 2015. A copy of the approved SCAP can be found on the Project WIN website ([www.msdprowin.org](http://www.msdprowin.org)).

A current copy of the SCAP Credit Balance is included as **Appendix D**.

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## **5.2 Operations Programs**

### **O-A-1 Pump Station Operations Programs (Routine Operating Programs)**

Activity details are provided in the CMOM schedule provided as **Section 5.4 – CMOM Activity Schedule**.

### **O-A-2 Pump Station Operations Programs (Emergency Operating Programs)**

Activity details are provided in the CMOM schedule provided as **Section 5.4 – CMOM Activity Schedule**.

## **5.3 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 the District's Water Quality Treatment Centers (WQTCs). Although the IOAP CPE assessments defined specific WQTC improvements was completed by December 31, 2011, MSD will continue to implement CPE/CCP activities as part of the District's CMOM Program. This section will list such activities per WQTC as they occur each reporting period and will be outlined below.

### **5.3.1 Hite Creek Water Quality Treatment Center**

The capacity expansion of Hite Creek WQTC is underway. The construction of Interim Hydraulic Improvements Project continues, as well as, the design of the Hite Creek WQTC Expansion Project. As a part of the Hite Creek WQTC Expansion Project, a Request for Proposal (RFP) was issued to solicit Statements of Qualification from vendors to participate in a pilot test of their dewatering equipment. Six vendors were selected.

During the next reporting period, the equipment testing for the Hite Creek WQTC Expansion Project will be conducted. Additionally, the construction of Interim Hydraulic Improvement Project is expected to be completed.

Schedules for CPE/CCP related capital projects are provided in **Section 5.4 – CMOM Activity Schedule**.

### **5.3.2 Floyds Fork Water Quality Treatment Center**

During this reporting period, construction for the Floyds Fork Slope Repair Project began and was completed.

Schedules for CPE/CCP related capital projects are provided in **Section 5.4 – CMOM Activity Schedule**.

### **5.3.3 Derek R. Guthrie Water Quality Treatment Center**

During this reporting period, construction continued for the Secondary Clarifiers 1, 2 and 3 collection mechanisms replacement projects. The mechanisms were ordered and grout removal continued. Construction was put on-hold for the removal and upgrade of Return Activated Sludge (RAS) Pumps 1 and 4, including the replacement of pumps 1 through 4

variable frequency drives in anticipation of a revision to the DRG Facility Plan. RAS pumps will be bid out as a separate project once the Facilities Plan has been completed.

During the next reporting period, the draft DRG Facility Plan document will be reviewed by MSD staff and draft KDOW submittal will occur. Repairs to the power system of the wet weather pump station are also planned so that the wet weather pumps can be tested for compliance with specifications. Construction will also continue on the replacement of the secondary clarifiers 1, 2, and 3 mechanisms. Upon the reception KDOW's review of the facility plan it is anticipated construction will begin for the removal and upgrade of Return Activated Sludge (RAS) Pumps 1 and 4, including replacement of pumps 1 through 4 variable frequency drives.

Schedules for CPE/CCP related capital projects are provided in **Section 5.4 – CMOM Activity Schedule**.

#### **5.3.4 Cedar Creek Water Quality Treatment Center**

During this reporting period, MSD continues contract administration for the Cedar Creek WQTC Influent Pump Station Gate Repair and UV Gate Replacement Project. MSD continues the design of the Cedar Creek WQTC Influent Pump Station Variable Frequency Drive Project. The project has reached the 90% design mark and is awaiting final comments

During the next reporting period, construction of the Cedar Creek WQTC Influent Pump Station Gate Repair and UV Gate Replacement Project will continue, as will the design of Cedar Creek WQTC Influent Pump Station Variable Frequency Drive (VFD) Project.

Schedules for CPE/CCP related capital projects are provided in **Section 5.4 – CMOM Activity Schedule**.

#### **5.3.5 Prospect Area Water Quality Treatment Center Updates**

An elimination plan for the five WQTCs serving Prospect (Timberlake, Hunting Creek North, Hunting Creek South, Ken Carla, and Shadow Wood) was submitted to EPA and KDEP on March 31, 2009. Approval of this plan was received on September 24, 2009, and work is now complete. See **Section 3 – Program Activities for Discharge Abatement Plans** for an update on the design and construction of the projects that make up the elimination plan for the Prospect Area WQTCs. A certification letter dated December 15, 2015, was submitted finalizing the completion of the project.

#### **5.3.6 Jeffersontown Water Quality Treatment Center**

During this reporting period, demolition of the plant site and siphon structures continues. During the next reporting period, plant site demolition will be completed.

Schedules for CPE/CCP related capital projects are provided in **Section 5.4 – CMOM Activity Schedule**.

Schedules for CPE/CCP related capital projects are provided in **Section 5.4 – CMOM Activity Schedule**.

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### 5.3.9 Other Water Quality Treatment Centers

CMOM related capital projects will be provided in the schedule provided as **Section 5.4 – CMOM Activity Schedule**.

- McNeely Lake - The McNeely Lake Sanitary Sewer and Force Main Project is complete. The gravity portion is approximately 75% of the total length of gravity line required to eliminate the McNeely Lake WQTC. A private developer extended the remaining gravity sewer through a future residential development to within 600 feet of the McNeely Lake WQTC. The design and construction of the interceptor to eliminate the McNeely Lake WQTC and the Brookbend Way PS is complete. On May 27, 2016, influent flow to McNeely Lake WQTC was successfully diverted. Demolition was completed at the Brookbend Way PS, meanwhile, the demolition of McNeely Lake WQTC is substantially complete. During the next reporting period, MSD expects the final completion of the decommissioning of McNeely Lake WQTC.
- Bancroft WQTC – The scope of this project was modified from storage at Devondale PS to eliminating the Devondale PS as part of the IOAP and conveying flow to a 0.33 MGD Pump Station and a 0.25 MG Storage Basin at the Bancroft site. Construction of the basin has been completed. The Bancroft WQTC was taken offline, and the new basin and pump station were put into service. During this reporting period, the Devondale Pump Station was eliminated with the site work nearing completion. Final Completion of the elimination project is expected during the next reporting period.
- Middletown Industrial Park WQTC – Middletown Industrial Park WQTC was taken off-line on December 30, 2015, and flows were diverted to the Floyds Fork WQTC. Demolition of the plant site and structures is complete.

### 5.4 CMOM Activity Schedule

CMOM capital project milestones for the period of April 1, 2016, through June 30, 2016, as well as a look-ahead for the period of July 1, 2016, through September 30, 2016, are provided in the schedule below.

MSD CMOM FY16 Annual Commitments Schedule (01 April 2016 - 31 June 2016)

Date: 28-Jul-16

| Activity ID                                                                                | Activity Name | Physical % Complete | Start       | Finish      | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------------------------------------------------------------------------------------|---------------|---------------------|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|
| CMOM FY ANNUAL REPORT COMMITMENTS FINAL                                                    |               |                     |             |             |     |     |     |     |     |     |     |
| M-E-9 Infrastructure Rehabilitation                                                        |               |                     | 19-Nov-15 A | 30-Nov-16   |     |     |     |     |     |     |     |
| Melco Basin Tree Removal (F14171)                                                          |               |                     | 19-Nov-15 A | 19-Nov-16   |     |     |     |     |     |     |     |
| A8880                                                                                      | Warranty      | 64%                 | 19-Nov-15 A | 19-Nov-16   |     |     |     |     |     |     |     |
| SWOR2 Generator (H16357)                                                                   |               |                     | 21-Apr-16 A | 30-Nov-16   |     |     |     |     |     |     |     |
| A8930                                                                                      | Design        | 25%                 | 21-Apr-16 A | 30-Nov-16   |     |     |     |     |     |     |     |
| Pump Station Operations Programs                                                           |               |                     | 04-Jan-13 A | 17-Jun-17   |     |     |     |     |     |     |     |
| Lea Ann Way West Quads 1 & 2 (H15125)                                                      |               |                     | 31-Dec-15 A | 31-Dec-16   |     |     |     |     |     |     |     |
| A8830                                                                                      | Warranty      | 50%                 | 31-Dec-15 A | 31-Dec-16   |     |     |     |     |     |     |     |
| 34th Street Flood Pump Station Gate 71 Replacement (F15008)                                |               |                     | 15-Dec-15 A | 15-Dec-16   |     |     |     |     |     |     |     |
| A8840                                                                                      | Warranty      | 55%                 | 15-Dec-15 A | 15-Dec-16   |     |     |     |     |     |     |     |
| Sneads Branch Pump Replacement (H16076)                                                    |               |                     | 21-Apr-16 A | 21-Apr-17   |     |     |     |     |     |     |     |
| A8820                                                                                      | Design        | 0%                  | 21-Apr-16 A | 21-Apr-17   |     |     |     |     |     |     |     |
| O-A-2 Emergency Operation Programs                                                         |               |                     | 04-Jan-13 A | 17-Jun-17   |     |     |     |     |     |     |     |
| 4th Street FPS Gate and Switch Gear Replacement Project (F12095)                           |               |                     | 04-Jan-13 A | 17-Jun-17   |     |     |     |     |     |     |     |
| A5150                                                                                      | Design        | 100%                | 04-Jan-13 A | 31-Dec-15 A |     |     |     |     |     |     |     |
| A5160                                                                                      | Ad            | 100%                | 04-Feb-16 A |             |     |     |     |     |     |     |     |
| A5170                                                                                      | Bid Open      | 100%                | 10-Mar-16 A |             |     |     |     |     |     |     |     |
| A5180                                                                                      | Award         | 100%                | 23-May-16 A |             |     |     |     |     |     |     |     |
| A5190                                                                                      | Construction  | 5%                  | 06-Jun-16 A | 31-Dec-16   |     |     |     |     |     |     |     |
| A5300                                                                                      | Warranty      | 5%                  | 17-Jun-16 A | 17-Jun-17   |     |     |     |     |     |     |     |
| Melco Basin Crane (F14170)                                                                 |               |                     | 17-Aug-15 A | 17-Jun-17   |     |     |     |     |     |     |     |
| A8240                                                                                      | Construction  | 100%                | 17-Aug-15 A | 17-Jun-16 A |     |     |     |     |     |     |     |
| A8390                                                                                      | Warranty      | 5%                  | 17-Jun-16 A | 17-Jun-17   |     |     |     |     |     |     |     |
| Bridgepointe Pump Station Access Road                                                      |               |                     | 02-Jun-15 A | 01-Jun-16 A |     |     |     |     |     |     |     |
| A8570                                                                                      | Warranty      | 100%                | 02-Jun-15 A | 01-Jun-16 A |     |     |     |     |     |     |     |
| Fairway View Pump Station Upgrade (H09177)                                                 |               |                     | 06-May-15 A | 06-May-16 A |     |     |     |     |     |     |     |
| A8350                                                                                      | Warranty      | 100%                | 06-May-15 A | 06-May-16 A |     |     |     |     |     |     |     |
| Rosa Terrace Pump Station Improvement                                                      |               |                     | 10-Jul-15 A | 10-Jul-16 A |     |     |     |     |     |     |     |
| A8480                                                                                      | Warranty      | 100%                | 10-Jul-15 A | 10-Jul-16 A |     |     |     |     |     |     |     |
| CMF Generator (H16376)                                                                     |               |                     | 24-Feb-16 A | 26-Sep-16   |     |     |     |     |     |     |     |
| A8870                                                                                      | Design        | 100%                | 24-Feb-16 A | 30-Jun-16 A |     |     |     |     |     |     |     |
| A8880                                                                                      | Ad            | 0%                  | 22-Jul-16*  |             |     |     |     |     |     |     |     |
| A8890                                                                                      | Bid Open      | 0%                  | 12-Aug-16*  |             |     |     |     |     |     |     |     |
| A8900                                                                                      | Award         | 0%                  | 26-Sep-16*  |             |     |     |     |     |     |     |     |
| Ashland Ave Gate Structure (F16003)                                                        |               |                     | 21-Apr-16 A | 30-Nov-16   |     |     |     |     |     |     |     |
| A8910                                                                                      | Design        | 25%                 | 21-Apr-16 A | 30-Nov-16   |     |     |     |     |     |     |     |
| CPE/CPE Treatment Plant Activities                                                         |               |                     | 20-Jul-15 A | 31-Mar-17   |     |     |     |     |     |     |     |
| West County Water Quality Treatment Center Gate 145 Electrical Service & Actuator (F14164) |               |                     | 12-Aug-16   | 18-Jan-17   |     |     |     |     |     |     |     |
| A8580                                                                                      | Ad            | 0%                  | 12-Aug-16*  |             |     |     |     |     |     |     |     |
| A8590                                                                                      | Bid Open      | 0%                  | 12-Sep-16*  |             |     |     |     |     |     |     |     |
| A8600                                                                                      | Award         | 0%                  | 28-Sep-16*  |             |     |     |     |     |     |     |     |
| A8610                                                                                      | Construction  | 0%                  | 11-Jan-17*  | 18-Jan-17   |     |     |     |     |     |     |     |
| SWOR 2 Improvements                                                                        |               |                     | 20-Jul-15 A | 20-Jul-16   |     |     |     |     |     |     |     |
| A8850                                                                                      | Warranty      | 95%                 | 20-Jul-15 A | 20-Jul-16   |     |     |     |     |     |     |     |
| MFWQTC Rubbertown FM Manhole Sampling (H14108)                                             |               |                     | 21-Dec-15 A | 05-May-16 A |     |     |     |     |     |     |     |
| A8630                                                                                      | AD            | 100%                | 21-Dec-15 A |             |     |     |     |     |     |     |     |



| MSD CMOM FY16 Annual Commitments Schedule (01 April 2016 - 31 June 2016)                                                                        |                                |                     |       |             | Date: 28-Jul-16 |     |     |     |     |     |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|-------|-------------|-----------------|-----|-----|-----|-----|-----|-----|
| Activity ID                                                                                                                                     | Activity Name                  | Physical % Complete | Start | Finish      | 2016            |     |     |     |     |     |     |
|                                                                                                                                                 |                                |                     |       |             | Mar             | Apr | May | Jun | Jul | Aug | Sep |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> | A6640                          | Bid Open            | 100%  | 22-Feb-16 A |                 |     |     |     |     |     |     |
|                                                                                                                                                 | A6650                          | Award               | 100%  | 22-Feb-16 A |                 |     |     |     |     |     |     |
|                                                                                                                                                 | A6660                          | Construction        | 100%  | 04-May-16 A | 05-May-16 A     |     |     |     |     |     |     |
|                                                                                                                                                 | Bogges Property Rehab (H12159) |                     |       | 13-Aug-15 A | 15-Oct-16       |     |     |     |     |     |     |
|                                                                                                                                                 | A6700                          | Construction        | 100%  | 13-Aug-15 A | 07-Oct-15 A     |     |     |     |     |     |     |
|                                                                                                                                                 | A6710                          | Warranty            | 70%   | 15-Oct-15 A | 15-Oct-16       |     |     |     |     |     |     |
|                                                                                                                                                 | South Pope Lick PS             |                     |       | 01-Aug-15 A | 31-Mar-17       |     |     |     |     |     |     |
|                                                                                                                                                 | A6740                          | Design              | 100%  | 01-Aug-15 A | 07-Jun-16 A     |     |     |     |     |     |     |
|                                                                                                                                                 | A6750                          | Ad                  | 0%    | 07-Jul-16*  |                 |     |     |     |     |     |     |
|                                                                                                                                                 | A6760                          | Bid Open            | 0%    | 27-Jul-16*  |                 |     |     |     |     |     |     |
|                                                                                                                                                 | A6770                          | Award               | 0%    | 22-Aug-16*  |                 |     |     |     |     |     |     |
|                                                                                                                                                 | A6780                          | Construction        | 0%    | 09-Sep-16*  | 31-Mar-17       |     |     |     |     |     |     |

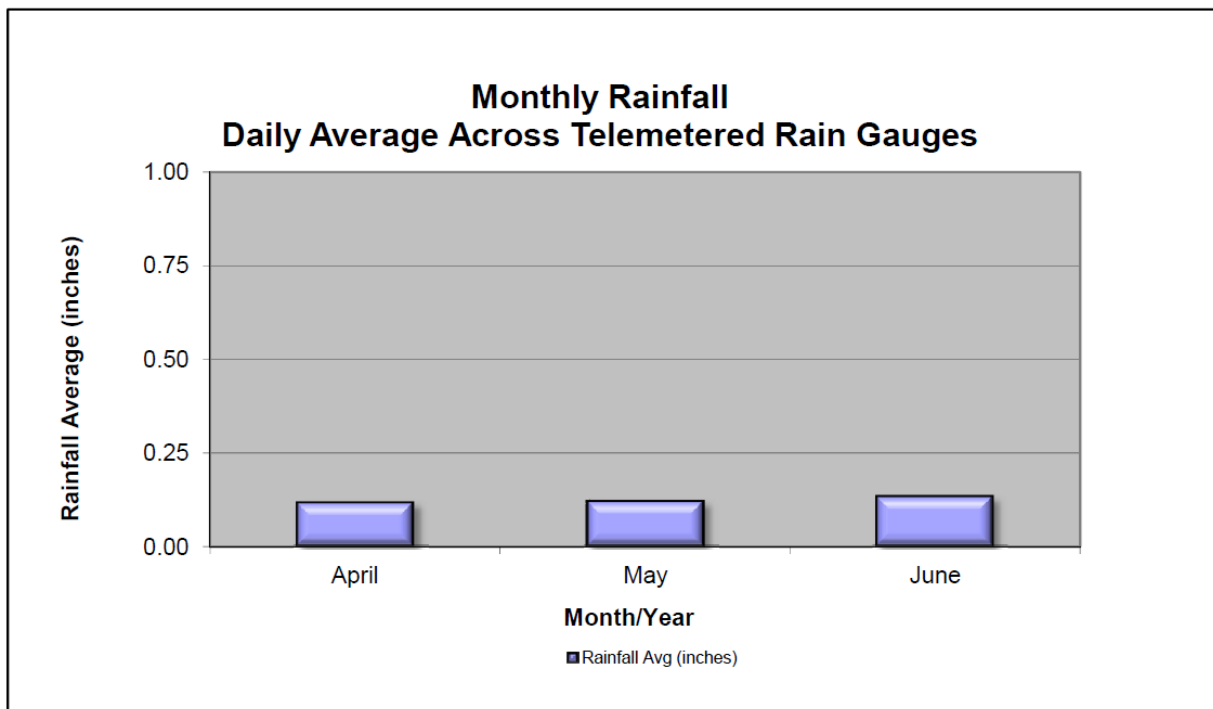
2 of 2

Date Date: 01-Jul-16

## **SECTION 6: Project WIN Performance Overview**

### **6.1 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. The following graph shows the Jefferson County average rainfall amounts for the last quarter. Data was pulled from MSD's Rain Gauge Network.



A storm frequency analysis for CSOs is included as **Appendix B**.

### **April, May and June Weather Event Summary**

According to the National Weather Service, April was a slow month for severe weather. Severe storms in Kentucky were only recorded on three days during the month (two occurring back to back at the end of the month). The first part of the month was cold, temperatures gradually warmed into the 80's by the end of the month. Louisville tied a record high of 86 degrees on April 19, 2016. May was a much more active month for storms. These storms brought precipitation, high winds, hail and tornados to the region. Overall, 4.56 inches of rainfall was measured at Standiford Field in May according the National Weather Service data. During June, severe storms were reported on several occasions. Gusty winds, lightning and precipitation were the predominant elements related to these storms. The National Weather Service recorded 4.25 inches of rain at Standiford Field in June.

## 6.2 Collection System Unauthorized Discharges

### 6.2.1 Collection System Overflows to Waters of the United States (WUS)

MSD recorded information related to overflows reaching Waters of the United States (WUS) for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. Details of these overflows will be included in the Annual Report for the period of July 1, 2015, through June 30, 2016, and will be posted on the Project WIN website. During this quarter, 16 unauthorized discharges to the Waters of the United States (WUS) have been reported.

| Unauthorized Discharges (Waters of the United States) - April 1, 2016 - June 30, 2016 |             |             |           |
|---------------------------------------------------------------------------------------|-------------|-------------|-----------|
| Problem                                                                               | Dry Weather | Wet Weather | Total     |
| Lack of System Capacity                                                               | 0           | 5           | 5         |
| Structural Failure                                                                    | 4           | 4           | 8         |
| Mechanical Failure                                                                    | 2           | 0           | 2         |
| Electrical Problems at MSD                                                            | 1           | 0           | 1         |
| <b>Total</b>                                                                          | <b>7</b>    | <b>9</b>    | <b>16</b> |

### 6.2.2 Overflows to Ground (EXT)

MSD recorded information related to overflows to the ground that did not reach Waters of the United States for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows will be included in the Annual Report for the period of July 1, 2015, through June 30, 2016.

### 6.2.3 Overflows to Interior (INT)

MSD recorded information related to overflows to building interiors for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows, that are the result of an issue in the main line, will be included in the Annual Report for the period of July 1, 2015, through June 30, 2016.

### 6.2.4 Dry Weather CSOs

MSD recorded information related to dry weather overflows from permitted combined sewer overflow outfalls. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. A detailed report of these overflows will be included in the Annual Report for the period of July 1, 2015, through June 30, 2016. The table below summarizes dry weather CSOs that occurred during the quarter. **Appendix A-1** includes details on the dry weather overflows that occurred in the quarter.

There were no dry weather overflows reported at a CSO during the reporting period.

| Dry Weather CSO - January 1, 2016 - March 31, 2016                                                                        |                   |           |         |       |              |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|---------|-------|--------------|
| CSO                                                                                                                       | Type of Discharge | Date/Time | Problem | Cause | Volume (GAL) |
| <p style="text-align: center;"><b>THERE WERE NO DRY WEATHER CSOS FOR THE PERIOD<br/>APRIL 1, 2016 - JUNE 30, 2016</b></p> |                   |           |         |       |              |
|                                                                                                                           |                   |           |         |       |              |

### 6.3 CSO Reductions

Included in **Appendix B** is the CSO data for this reporting period. A summary of any data anomalies and the CSO data for each monitored overflow has been graphed along with rainfall information from the nearest rain gauge to facilitate review of the overflows that occurred. There were no CSO reduction projects that were completed during this reporting period.

### 6.4 SSO Reductions

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 visual observations or from flow monitoring information. The following lists the SSO reduction projects that were completed during this reporting period.

- Fairmount Road Pump Station Off-Line Storage was completed March 30, 2016. This project eliminated the following SSOs: 116106, 97363, 97365.
- Goose Creek PS Improvements & Wet Weather Storage Phase 1 – Devondale Wet Weather Storage Project was Completed on April 15, 2016 and eliminated the following SSOs: MSD0040-PS, 117721, 21628-W.

### 6.5 Gravity Line Preventive Maintenance

Each quarter, data and statistics relating to the cleaning, inspection, and maintenance of sewer assets performed under the Gravity Line Preventive Maintenance (GLPM) are reported. The following data was compiled for the period of April 1, 2016, to June 30, 2016. The first table includes data and targets. The second table includes unplanned maintenance and other maintenance activities that are performed in response to inspection.

| Rolling Quarterly GLPM Performance With Targets |                |                |                |                |                |                |                    |
|-------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|
|                                                 | Jul-Sep        | Oct-Dec        | Jan-Mar        | Apr-Jun        | Total          | Target/qtr     | % of Annual Target |
| <b>COMBINED SEWER AREA</b>                      |                |                |                |                |                |                |                    |
| Catch Basins Cleaned CSO Area - PM              | 5,175          | 6,087          | 7,176          | <b>3,358</b>   | 21,796         | 4,460          | 19%                |
| CSO Inspections                                 | 1,235          | 1,364          | 1,273          | <b>1,267</b>   | 5,139          | 1,272          | 25%                |
| <b>SANITARY SEWER AREA</b>                      |                |                |                |                |                |                |                    |
| Catch Basins Cleaned SSO Area - PM              | 2,659          | 1,444          | 402            | <b>1,524</b>   | 6,029          | 1,144          | 33%                |
| <b>COUNTY WIDE</b>                              |                |                |                |                |                |                |                    |
| Sewer Main Inspections MSD Crews (LF)           | 13,523         | 0              | 82,451         | <b>63,267</b>  | 159,241        | 198,000        | 8%                 |
| Sewer Main Inspections Contractor (LF)          | 129,759        | 217,581        | 195,010        | <b>131,248</b> | 673,598        | 198,000        | 17%                |
| <b>Total Inspections (LF)</b>                   | <b>143,282</b> | <b>217,581</b> | <b>277,461</b> | <b>194,515</b> | <b>832,838</b> | <b>396,000</b> | <b>12%</b>         |

Rolling quarterly GLPM performance is related to unplanned maintenance; therefore no targets have been developed.

| Rolling Quarterly GLPM Performance                 |         |         |         |               |         |
|----------------------------------------------------|---------|---------|---------|---------------|---------|
|                                                    | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun       | Total   |
| <b>COMBINED SEWER AREA</b>                         |         |         |         |               |         |
| Catch Basins Cleaned CSO Area - UM                 | 363     | 226     | 165     | <b>234</b>    | 988     |
| CSO Debris Removal WO                              | 146     | 169     | 126     | <b>178</b>    | 619     |
| Chemical Root Treatment CSO Area (LF)              | 0       | 11,980  | 22,377  | <b>22,393</b> | 56,750  |
| Root Cutting CSO Area (LF)                         | 1,855   | 0       | 1,541   | <b>0</b>      | 3,396   |
| Flushing and Cleaning of Sewer Mains CSO Area (LF) | 4,837   | 27,496  | 4,127   | <b>295</b>    | 36,755  |
| <b>SANITARY SEWER AREA</b>                         |         |         |         |               |         |
| Catch Basins Cleaned SSO Area - UM                 | 95      | 85      | 80      | <b>90</b>     | 350     |
| Chemical Root Treatment SSO Area (LF)              | 0       | 85,820  | 144,079 | <b>79,071</b> | 308,970 |
| Root Cutting SSO Area (LF)                         | 7,892   | 15,303  | 21,345  | <b>7,808</b>  | 52,348  |
| Flushing and Cleaning of Sewer Mains SSO Area (LF) | 39,361  | 41,861  | 32,663  | <b>95,459</b> | 209,343 |



## 6.6 Water Quality Treatment Center Bypasses

### 6.6.1 Bypass Events

The table below summarizes the bypass events that occurred during this reporting period.

| Bypass Events - April 1, 2016 to June 30, 2016                                                            |      |    |               |
|-----------------------------------------------------------------------------------------------------------|------|----|---------------|
| Type of Bypass                                                                                            | Date | ID | Facility Name |
| <p><b>THERE WERE NO WQTC BYPASS EVENTS FOR THE PERIOD</b></p> <p><b>APRIL 1, 2016 - JUNE 30, 2016</b></p> |      |    |               |

### 6.6.2 Bypass Corrective Actions

Each quarter, an assessment of bypasses is conducted to determine the root cause of the bypass, the failure category, corrective actions to be taken, possible programmatic solutions, and corrective action completion date. Refer to the table below for causes of bypasses and respective corrective actions that occurred April 1, 2016, through June 30, 2016.

| BYPASS SUMMARY - APRIL 1, 2016, TO JUNE 30, 2016                         |      |            |                                                                                  |                    |                    |
|--------------------------------------------------------------------------|------|------------|----------------------------------------------------------------------------------|--------------------|--------------------|
| DATE                                                                     | WQTC | WORK ORDER | FAILURE CODE                                                                     | BYPASS DESCRIPTION | FAILURE RESOLUTION |
| Capacity (CAP)                                                           |      |            |                                                                                  |                    |                    |
| N/A                                                                      | N/A  | N/A        | N/A                                                                              | N/A                | N/A                |
| Human Error (OPN)                                                        |      |            |                                                                                  |                    |                    |
| N/A                                                                      | N/A  | N/A        | N/A                                                                              | N/A                | N/A                |
| Facility Failure ( Mechanical - MCH, Electrical - ELE, Structural - STR) |      |            |                                                                                  |                    |                    |
| N/A                                                                      | N/A  | N/A        | THERE WERE NO WQTC BYPASS EVENTS FOR THE PERIOD<br>APRIL 1, 2016 - JUNE 30, 2016 |                    |                    |
| External Power failures (LGE Related-PWR)                                |      |            |                                                                                  |                    |                    |
| N/A                                                                      | N/A  | N/A        | N/A                                                                              | N/A                | N/A                |
| Utility Damage                                                           |      |            |                                                                                  |                    |                    |
| N/A                                                                      | N/A  | N/A        | N/A                                                                              | N/A                | N/A                |

### **6.6.3 Jeffersontown Water Quality Treatment Center**

A letter dated December 23, 2015, certified the elimination of the Jeffersontown WQTC. Inspections were conducted upstream of what was previously the Jeffersontown WQTC Headworks six times during the reporting period. Refer to Section 2 for SSO Route information. No overflows were reported as a result of these inspections.

### **6.7 Phosphorus Monitoring at the Prospect WQTCs**

All Prospect Treatment Plants have been eliminated per the Amended Consent Decree. All plants were offline as of September 2015.



Appendix A-1 - Discharge Work Orders – Dry Weather CSOs





APPENDIX A-1  
UNAUTHORIZED DISCHARGES  
TO WATERS OF UNITED STATES  
APRIL 1, 2016 THROUGH JUNE 30, 2016

| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type                                        | Source Asset ID | Facility Discharges To | Receiving Stream | Cause of Overflow | Due To | WO # | Cleanup Efforts by MSD | Repair Efforts by MSD |
|--------------------------------------------|------------------------------------|-------------------|----------------------------|---------------------------|--------------------|----------------------------------------------------------|-----------------|------------------------|------------------|-------------------|--------|------|------------------------|-----------------------|
|                                            |                                    |                   |                            |                           |                    |                                                          |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                          |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    | No Dry Weather CSOs Occurred During the Reporting Period |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                          |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                          |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                          |                 |                        |                  |                   |        |      |                        |                       |

Appendix A-2 - Discharge Work Orders – Bypass



APPENDIX A-2

UNAUTHORIZED DISCHARGES

TO WATERS OF UNITED STATES

APRIL 1, 2016 THROUGH JUNE 30, 2016

| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type                                   | Source Asset ID | Facility Discharges To | Receiving Stream | Cause of Overflow | Due To | WO # | Cleanup Efforts by MSD | Repair Efforts by MSD |
|--------------------------------------------|------------------------------------|-------------------|----------------------------|---------------------------|--------------------|-----------------------------------------------------|-----------------|------------------------|------------------|-------------------|--------|------|------------------------|-----------------------|
|                                            |                                    |                   |                            |                           |                    |                                                     |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                     |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    | No WQTC Bypass Occurred During the Reporting Period |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                     |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                     |                 |                        |                  |                   |        |      |                        |                       |
|                                            |                                    |                   |                            |                           |                    |                                                     |                 |                        |                  |                   |        |      |                        |                       |

Appendix A-3 - Discharge Work Orders – Waters of the United States





APPENDIX A-3  
UNAUTHORIZED DISCHARGES  
TO WATERS OF UNITED STATES  
APRIL 1, 2016 THROUGH JUNE 30, 2016

| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location     | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type  | Source Asset ID | Facility Discharges To | Receiving Stream            | Cause of Overflow                                                                                                                                | Due To                     | WO #    | Cleanup Efforts by MSD                                       | Repair Efforts by MSD                                                                                 |
|--------------------------------------------|------------------------------------|-----------------------|----------------------------|---------------------------|--------------------|--------------------|-----------------|------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| HITE CREEK                                 | KY0022420                          | 6802 FAIRWAY VIEW CT  | 05/19/16 10:47 AM          | 05/19/16 11:29 AM         | 30                 | SEWER MAIN         | 68048B-AG       | DITCH                  | HUNTING CREEK               | FURTHER INVESTIGATION REQUIRED                                                                                                                   | MECHANICAL FAILURE         | 2560429 | MSD WILL CLEAN AREA                                          | REFERRED TO OPERATIONS                                                                                |
| HITE CREEK                                 | KY0022420                          | 8619 WESTOVER DR      | 04/02/16 7:05 PM           | 04/02/16 07:20 PM         | 100                | SEWER LIFT STATION | MSD1064-PS      | DITCH                  | HARRODS CREEK               | ELECTRICAL PROBLEM WITH MSD EQUIPMENT / PUMP PROTECTIVE CIRCUIT ENGAGED AFTER UTILITY POWER FAIL.                                                | ELECTRICAL PROBLEMS AT MSD | 2535332 | MSD CLEANED AND SANITIZED THE AREA                           | RESET PUMP PROTECTIVE CIRCUIT                                                                         |
| DEREK R. GUTHRIE                           | KY0078956                          | 423 ECHAPPE LN        | 06/24/16 2:49: AM          | 06/24/16 03:00 AM         | 55                 | SEWER MANHOLE      | 81440           | GROUND                 | BEE LICK CREEK              | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT                                                                                                        | LACK OF SYSTEM CAPACITY    | 2575247 | NO DEBRIS                                                    | A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP                                                  |
| DEREK R. GUTHRIE                           | KY0078956                          | 10517 SUNLIGHT LN     | 04/20/16 2:47: PM          | 04/21/16 03:21 PM         | 450                | SEWER LIFT STATION | MSD0120-PS      | STREAM                 | POND CREEK                  | PIPE SEPARATION DUE TO EROSION                                                                                                                   | STRUCTURAL FAILURE         | 2547242 | MSD CLEANED & SANITIZED THE AREA                             | CONTRACTOR REPAIRED                                                                                   |
| MORRIS FORMAN                              | KY0022411                          | 806 PINE WAY          | 04/01/16 1:15: AM          | 04/01/16 07:16 AM         | 9,025              | SEWER MANHOLE      | 0057-W          | GROUND                 | MIDDLE FORK BEARGRASS CREEK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT                                                                                                        | LACK OF SYSTEM CAPACITY    | 2534582 | NO DEBRIS                                                    | A SOLUTION FOR THIS LOCATION CAN BE LOCATED IN THE IOAP                                               |
| MORRIS FORMAN                              | KY0022411                          | 806 PINE WAY          | 05/10/16 8:30: PM          | 05/11/16 10:40 AM         | 4,250              | SEWER MANHOLE      | 0057-W          | GROUND                 | MIDDLE FORK BEARGRASS CREEK | LACK OF CAPACITY DUE TO RAIN EVENT                                                                                                               | LACK OF SYSTEM CAPACITY    | 2557439 | NO DEBRIS                                                    | A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP                                                 |
| MORRIS FORMAN                              | KY0022411                          | 2408 GRAY FOX RD      | 04/09/16 9:30: AM          | 04/09/16 12:15 PM         | 800                | SEWER MAIN         | 27012-LH        | STREAM                 | MIDDLE FORK BEARGRASS CREEK | CONTRACTOR CLEANING LINE TO REMOVE OBSTRUCTION, STOPPED CLEANING WHEN DISCHARGE STARTED.                                                         | STRUCTURAL FAILURE         | 2542383 | NO CLEAN UP                                                  | CONTRACTOR STOPPED CLEANING WHEN DISCHARGING OCCURRED. CONTRACTOR REPAIRED PIPE ON 4/9/16 AT 4:00 PM. |
| MORRIS FORMAN                              | KY0022411                          | 2408 GRAY FOX RD      | 05/09/16 3:35: PM          | 05/09/16 07:15 PM         | 8,000              | SEWER MAIN         | 27012-LH        | STREAM                 | MIDDLE FORK BEARGRASS CREEK | STRUCTURAL FAILURE OF SANITARY MAIN. CONTRACTOR FOUND DISCHARGE WHILE CLEANING PIPE UPSTREAM AND STOPPED CLEANING IMMEDIATELY.                   | STRUCTURAL FAILURE         | 2556974 | NO CLEANUP - DISCHARGE DIRECTLY TO STREAM                    | CONTRACTOR REPAIRED SANITARY MAIN.                                                                    |
| MORRIS FORMAN                              | KY0022411                          | 1011 ALTA CIR         | 05/20/16 6:40: PM          | 05/21/16 05:40 AM         | 16,500             | SEWER MANHOLE      | 45796           | DITCH                  | MIDDLE FORK BEARGRASS CREEK | LACK OF SYSTEM CAPACITY-HEAVY RAIN.                                                                                                              | LACK OF SYSTEM CAPACITY    | 2561323 | WO# 2561355                                                  | LOCATION INCLUDED IN IOAP                                                                             |
| MORRIS FORMAN                              | KY0022411                          | 2413 SPRING VALLEY LN | 05/03/16 11:35: AM         | 05/03/16 02:40 PM         | 9,250              | SEWER MAIN         | 45800           | STREAM                 | MIDDLE FORK BEARGRASS CREEK | STRUCTURAL FAILURE OF SANITARY MAIN. CONTRACTOR FOUND DISCHARGE WHILE CLEANING PIPE UPSTREAM AND STOPPED CLEANING IMMEDIATELY.                   | STRUCTURAL FAILURE         | 2555132 | NO CLEANUP - DISCHARGE DIRECTLY TO STREAM                    | CONTRACTOR REPAIRED SANITARY MAIN.                                                                    |
| MORRIS FORMAN                              | KY0022411                          | 2413 SPRING VALLEY LN | 05/05/16 11:00: AM         | 05/05/16 05:05 PM         | 31,500             | SEWER MAIN         | 45800           | STREAM                 | MIDDLE FORK BEARGRASS CREEK | CONTRACTOR WAS MAKING REPAIRS TO MAIN WRAPPED IN ROOTS OF A LARGE TREE. WHEN A ROOT WAS CUT, THE TREE FELL AND PULLED OUT A SECTION OF MAIN.     | STRUCTURAL FAILURE         | 2556061 | NO CLEANUP PERFORMED, PIPE DISCHARGING DIRECTLY INTO STREAM. | CONTRACTOR REPAIRED THE MAIN SEWER.                                                                   |
| MORRIS FORMAN                              | KY0022411                          | 2413 SPRING VALLEY LN | 06/01/16 2:35: PM          | 06/01/16 07:40 PM         | 3,000              | SEWER MAIN         | 45800           | STREAM                 | MIDDLE FORK BEARGRASS CREEK | STRUCTURAL FAILURE OF MAIN SEWER. CONTRACTOR CLEANING MAIN IN PREPARATION FOR LINING, OBSERVED SEWAGE IN CREEK AND STOPPED CLEANING IMMEDIATELY. | STRUCTURAL FAILURE         | 2568161 | NO CLEANUP PERFORMED, PIPE DISCHARGING DIRECTLY TO STREAM.   | MAIN PLUGGED AND FLOW PUMPED TO NEXT MANHOLE. LINING SCHEDULED TO OCCUR WITHIN 48 HOURS.              |
| MORRIS FORMAN                              | KY0022411                          | 2413 SPRING VALLEY LN | 06/02/16 4:30: PM          | 06/02/16 06:00 PM         | 1,800              | SEWER MAIN         | 45800           | STREAM                 | MIDDLE FORK BEARGRASS CREEK | FLOW DIVERSION SET UP FOR LINING REMOVED TO PREVENT OVERFLOW AT MANHOLE.                                                                         | STRUCTURAL FAILURE         | 2568618 | NO CLEANUP PERFORMED, PIPE DISCHARGING DIRECTLY TO STREAM.   | LINING SCHEDULED TO OCCUR WITHIN 24 HOURS.                                                            |
| MORRIS FORMAN                              | KY0022411                          | 2002 MILLVALE RD      | 05/20/16 6:35: PM          | 05/21/16 06:15 AM         | 54,000             | SEWER MANHOLE      | 45829           | GROUND                 | MIDDLE FORK BEARGRASS CREEK | LACK OF SYSTEM CAPACITY-HEAVY RAIN.                                                                                                              | LACK OF SYSTEM CAPACITY    | 2561322 | WO# 2561354                                                  | LOCATION INCLUDED IN IOAP                                                                             |
| MORRIS FORMAN                              | KY0022411                          | 4101 CAMP GROUND RD   | 04/05/16 10:00: AM         | 04/05/16 03:45 PM         | 14,700             | SEWER MAIN         | 84101-V         | STREAM                 | PADDY RUN                   | MECHANICAL FAILURE OF SEWER VALVE WHERE PRIVATE SEWER LINE CONNECTS TO MSD SEWER LINE                                                            | MECHANICAL FAILURE         | 2540336 | NO CLEAN UP PERFORMED - DISCHARGING DIRECTLY INTO STREAM     | PRIVATE SEWER LINE OWNER HAS BEEN NOTIFIED. MSD CONTRACTOR COMPLETED THE REPAIR.                      |
| FLOYDS FORK                                | KY0102784                          | 611 WOODLAKE DR       | 06/30/16 7:29: PM          | 06/30/16 08:29 PM         | 480                | SEWER MAIN         | 80581B-AG       | STREAM                 | FLOYDS FORK                 | STRUCTURAL FAILURE OF FORCE MAIN                                                                                                                 | STRUCTURAL FAILURE         | 2580166 | MSD PERSONNEL WILL CLEAN AND SANITIZE THE IMPACTED AREA      | MSD CONTRACTOR MADE REPAIRS TO THE FORCE MAIN                                                         |

Appendix B – CSO Flow Monitoring Data



| CSO       | Status | Volume (gals)  | Events | Project                                                                                      | Project Date                      |
|-----------|--------|----------------|--------|----------------------------------------------------------------------------------------------|-----------------------------------|
| CSO015    | I      | 874,189,750.99 | 19.00  | Bells Lane Wet Weather Treatment Facility                                                    | 12/31/2016                        |
| CSO016    | I      | 145,386,762.31 | 20.00  | Southern Outfall In-line Storage at 43rd St (SOR1)                                           | 12/31/2018                        |
| CSO018    | I      | 165,267.18     | 4.00   | Nightingale Pump Station Replacement & Storage                                               | 12/31/2015                        |
| CSO019    | I      | 17,552,152.04  | 25.00  | 34th Street Flood Pump Station, Portland Wharf Storage Basin, 27th Street Flood Pump Station | 12/31/2012, 12/31/2019, 6/30/2013 |
| CSO020    | I      | 35,278,428.78  | 14.00  | Story Avenue and Main Street Storage Basin                                                   | 12/31/2020                        |
| CSO022    | I      | 1,121,943.68   | 8.00   | 4th Street Flood Pump Station, 13th Street and Rowan Street Storage Basin                    | 12/31/2012, 12/31/2020            |
| CSO023    | I      | 4,374.01       | 1.00   | 4th Street Flood Pump Station, 13th Street and Rowan Street Storage Basin                    | 12/31/2012, 12/31/2020            |
| CSO026    | O      |                |        |                                                                                              |                                   |
| CSO027    | I      | 224,628.70     | 1.00   |                                                                                              |                                   |
| CSO028    | I      | 215,479.69     | 11.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage         | 12/31/2018                        |
| CSO029    | I      | 443,428.51     | 14.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage         | 12/31/2018                        |
| CSO030    | O      |                |        |                                                                                              |                                   |
| CSO031    | I      | 380,082.63     | 5.00   |                                                                                              |                                   |
| CSO032    | O      |                |        |                                                                                              |                                   |
| CSO033    | O      |                |        |                                                                                              |                                   |
| CSO034    | I      | 303,860.74     | 6.00   | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage         | 12/31/2018                        |
| CSO035    | I      | 3,394,771.47   | 12.00  |                                                                                              |                                   |
| CSO036    | I      | 1,700,367.00   | 11.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage         | 12/31/2018                        |
| CSO038    | I      | 39,011.59      | 3.00   |                                                                                              |                                   |
| CSO049-SM | O      |                |        |                                                                                              |                                   |
| CSO050    | I      | 533,181.20     | 1.00   | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO051    | I      | 188,145.95     | 15.00  | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO052    | I      | 1,005,442.88   | 11.00  | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO053    | I      | 1,610,823.43   | 21.00  | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO054    | I      | 343,091.91     | 8.00   | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO055    | I      | 619,182.03     | 18.00  | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO056    | I      | NA             |        | 13th Street and Rowan Street Storage Basin                                                   | 12/31/2020                        |
| CSO057    | I      | 10,329.33      | 9.00   |                                                                                              |                                   |
| CSO058    | I      | 147,596.03     | 15.00  | 13th Street and Rowan Street Storage Basin, CSO058 In-Line Storage & Green Infrastructure    | 12/31/2020, 12/31/2014            |
| CSO062    | I      | NA             |        |                                                                                              |                                   |
| CSO065    | O      |                |        |                                                                                              |                                   |
| CSO080    | O      |                |        |                                                                                              |                                   |
| CSO081    | O      |                |        |                                                                                              |                                   |
| CSO082    | I      | 390,995.69     | 5.00   | Lexington Road and Payne Street Storage Basin                                                | 12/31/2020                        |
| CSO083    | I      | 139,456.08     | 3.00   | Lexington Road and Payne Street Storage Basin                                                | 12/31/2020                        |
| CSO084    | I      | 39,273.64      | 18.00  | Lexington Road and Payne Street Storage Basin                                                | 12/31/2020                        |
| CSO086    | O      |                |        |                                                                                              |                                   |
| CSO087    | O      |                |        |                                                                                              |                                   |
| CSO088    | I      | 25,737.36      | 3.00   | Clifton Heights Storage Basin                                                                | 12/31/2018                        |

| CSO    | Status | Volume (gals)          | Events | Project                                                        | Project Date          |
|--------|--------|------------------------|--------|----------------------------------------------------------------|-----------------------|
| CSO091 | I      | Sensor Removed         |        | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO092 | I      | 49,838.97              | 12.00  |                                                                |                       |
| CSO093 | I      | 4,890.98               | 2.00   | CSO093 Structural Modifications & Green Infrastructure         | 12/31/2015            |
| CSO097 | I      | 6,721,713.98           | 19.00  | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO104 | I      | 1,373,160.10           | 8.00   | Southwestern Parkway Storage Basin, Shawnee Flood Pump Station | 12/31/2018, 6/30/2013 |
| CSO105 | I      | 75,458,933.53          | 19.00  | Southwestern Parkway Storage Basin, Shawnee Flood Pump Station | 12/31/2018, 6/30/2013 |
| CSO106 | I      | No Overflow            | -      | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO108 | I      | 607,429.53             | 5.00   | CSO108 Dam Modification                                        | 12/31/2010            |
| CSO109 | I      | 3,203,168.94           | 9.00   |                                                                |                       |
| CSO110 | I      | 981,945.51             | 20.00  | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO111 | I      | 15,011.47              | 3.00   | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO113 | I      | Sensor Removed         |        | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO117 | I      | Sensor Removed         |        | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO118 | I      | 26,235,335.52          | 25.00  | Lexington Road and Payne Street Storage Basin                  | 12/31/2020            |
| CSO119 | I      | 1,785,465.24           | 19.00  | Lexington Road and Payne Street Storage Basin                  | 12/31/2020            |
| CSO120 | I      | 1,767,045.71           | 19.00  | Lexington Road and Payne Street Storage Basin                  | 12/31/2020            |
| CSO121 | I      | 758,169.65             | 20.00  | Lexington Road and Payne Street Storage Basin                  | 12/31/2020            |
| CSO123 | O      |                        |        | CSO123 Downspout Disconnection                                 | 12/31/2012            |
| CSO125 | I      | 3,353,327.76           | 14.00  | I-64 and Grinstead Drive Storage Basin                         | 12/31/2020            |
| CSO126 | I      | 15,561.31              | 1.00   | I-64 and Grinstead Drive Storage Basin                         | 12/31/2020            |
| CSO127 | I      | 6,177,138.71           | 22.00  | I-64 and Grinstead Drive Storage Basin                         | 12/31/2020            |
| CSO130 | I      | 79,236.92              | 4.00   | Story Avenue and Spring Street Storage Basin                   | 12/31/2016            |
| CSO131 | I      | 368,881.72             | 8.00   | Clifton Heights Storage Basin                                  | 12/31/2018            |
| CSO132 | I      | 10,321,035.24          | 24.00  | Clifton Heights Storage Basin                                  | 12/31/2018            |
| CSO137 | O      | No Overflow            | -      | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO140 | I      | 1,865,708.18           | 16.00  | CSO140 In-Line Storage & Green Infrastructure Controls         | 12/31/2015            |
| CSO141 | I      | Sensor Removed         |        | Lexington Road and Payne Street Storage Basin                  | 12/31/2020            |
| CSO142 | I      | All Overflows Retained |        |                                                                |                       |
| CSO143 | O      |                        |        |                                                                |                       |
| CSO144 | I      | 6,243.77               | 3.00   |                                                                |                       |
| CSO145 | O      |                        |        |                                                                |                       |
| CSO146 | I      | Sensor Removed         |        | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO147 | O      |                        |        |                                                                |                       |
| CSO148 | I      | 413,293.67             | 14.00  | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO149 | I      | 7,691.30               | 1.00   | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO150 | I      | 935,118.48             | 13.00  | 13th Street and Rowan Street Storage Basin                     | 12/31/2020            |
| CSO151 | I      | 4,509,042.30           | 21.00  | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO152 | I      | 2,904,965,978.82       | 24.00  | Logan and Breckinridge Street Storage Basin                    | 12/31/2017            |
| CSO153 | I      | 2,744,738.84           | 22.00  | Lexington Road and Payne Street Storage Basin                  | 12/31/2020            |
| CSO154 | I      | 1,858,668.91           | 6.00   | Clifton Heights Storage Basin                                  | 12/31/2018            |
| CSO155 | I      | 203,245.83             | 11.00  | 13th Street and Rowan Street Storage Basin                     | 12/31/2020            |
| CSO156 | O      |                        |        |                                                                |                       |
| CSO160 | I      | No Overflows           |        | CSO160 In-Line Storage & Green Infrastructure Controls         | 12/31/2015            |

| CSO    | Status | Volume (gals)          | Events | Project                                                                              | Project Date           |
|--------|--------|------------------------|--------|--------------------------------------------------------------------------------------|------------------------|
| CSO161 | I      | 63,666.07              | 6.00   |                                                                                      |                        |
| CSO162 | O      |                        |        |                                                                                      |                        |
| CSO166 | I      | 12,888,265.97          | 15.00  | I-64 and Grinstead Drive Storage Basin                                               | 12/31/2020             |
| CSO167 | I      | 3,335,754.92           | 21.00  | Clifton Heights Storage Basin                                                        | 12/31/2018             |
| CSO172 | O      |                        |        | Adams Street Sewer Separation                                                        | 12/31/2012             |
| CSO174 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO178 | I      | NA                     | 12.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO179 | I      | 107,600.78             | 2.00   |                                                                                      |                        |
| CSO180 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO181 | I      | 443,221,465.41         | 6.00   | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO182 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO183 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO184 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO185 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO186 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO187 | I      | All Overflows Retained |        |                                                                                      |                        |
| CSO188 | I      | No Overflows           |        |                                                                                      |                        |
| CSO189 | I      | 61,258,167.28          | 17.00  | Southwestern Parkway Storage Basin, Shawnee Flood Pump Station                       | 12/31/2018, 6/30/2013  |
| CSO190 | I      | 8,371,903.41           | 22.00  | CSO190 Green Infrastructure Solution, 17th Street Flood Pump Station                 | 12/31/2017, 12/31/2014 |
| CSO191 | I      | 3,442,854.99           | 7.00   | Bells Lane Wet Weather Treatment Facility                                            | 12/31/2016             |
| CSO192 | O      |                        |        |                                                                                      |                        |
| CSO193 | I      | 96,206.38              | 5.00   | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO194 | O      |                        |        |                                                                                      |                        |
| CSO195 | I      | NA                     | 14.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO196 | I      | 131,328.67             | 14.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO197 | I      | 703,000.50             | 23.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO198 | I      | 1,418,938.34           | 22.00  |                                                                                      |                        |
| CSO199 | I      | 207,487.05             | 13.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO200 | I      | 106,746.01             | 11.00  | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO201 | I      | NA                     | 3.00   |                                                                                      |                        |
| CSO202 | I      | 124,831.89             | 9.00   | Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage | 12/31/2018             |
| CSO203 | I      | 79,797.14              | 4.00   |                                                                                      |                        |
| CSO204 | O      |                        |        |                                                                                      |                        |
| CSO205 | I      | No Overflows           |        |                                                                                      |                        |
| CSO206 | I      | 153,448.29             | 1.00   | CSO206 Sewer Separation                                                              | 12/30/2013             |
| CSO207 | I      | 48,265.53              | 1.00   |                                                                                      |                        |
| CSO208 | I      | No Overflows           | -      |                                                                                      |                        |
| CSO209 | O      |                        |        |                                                                                      |                        |
| CSO210 | I      | 1,432,729.36           | 19.00  | Southern Outfall In-line Storage at 43rd St (SOR1)                                   | 12/31/2018             |
| CSO211 | I      | No Overflows           |        |                                                                                      | 12/31/2018             |

NA Not Available

NA\* CSO201 sensor malfunction. Repair activity has been planned



| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|----------|--------|-------|
| CSO015              | 3/31/2016 6:15  | 3/31/2016 10:00 | 29,455,410.50      | 0.16            | 1.33              | 22,146,925.19   | 1.81            | 0.51            | 24          | Atlas    |        |       |
| CSO015              | 4/1/2016 1:30   | 4/2/2016 17:30  | 88,227,040.96      | 1.67            | 1.33              | 66,336,121.02   | 2.08            | 0.51            | 24          | Atlas    |        |       |
| CSO015              | 4/11/2016 17:15 | 4/12/2016 0:30  | 49,599,609.36      | 0.30            | 0.96              | 51,666,259.75   | 1.18            | 0.43            | 12          | Atlas    |        |       |
| CSO015              | 4/26/2016 22:15 | 4/26/2016 22:45 | 2,461,436.34       | 0.02            | 0.25              | 9,845,745.35    | 0.68            | 0.15            | 1           | Atlas    |        |       |
| CSO015              | 4/27/2016 20:45 | 4/28/2016 0:00  | 181,865,642.75     | 0.14            | 1.18              | 154,123,426.06  | 1.84            | 0.54            | 3           | Atlas    |        |       |
| CSO015              | 4/30/2016 11:30 | 4/30/2016 13:00 | 4,445,059.73       | 0.06            | 0.83              | 5,355,493.64    | 1.99            | 0.31            | 24          | Atlas    |        |       |
| CSO015              | 5/1/2016 15:15  | 5/1/2016 17:45  | 32,832,342.55      | 0.10            | 0.36              | 91,200,951.53   | 2.62            | 0.24            | 1           | Atlas    |        |       |
| CSO015              | 5/7/2016 23:15  | 5/8/2016 0:00   | 810,083.48         | 0.03            | 0.3               | 2,700,278.26    | 1.03            | 0.16            | 3           | Atlas    |        |       |
| CSO015              | 5/10/2016 15:30 | 5/10/2016 23:15 | 18,764,020.31      | 0.32            | 0.85              | 22,075,318.01   | 1.49            | 0.32            | 24          | Atlas    |        |       |
| CSO015              | 5/11/2016 19:30 | 5/12/2016 0:00  | 40,811,325.73      | 0.19            | 0.38              | 107,398,225.59  | 1.63            | 0.17            | 6           | Atlas    |        |       |
| CSO015              | 5/17/2016 7:45  | 5/17/2016 8:30  | 2,021,880.56       | 0.03            | 0.72              | 2,808,167.45    | 1.77            | 0.25            | 24          | Atlas    |        |       |
| CSO015              | 5/20/2016 14:30 | 5/21/2016 4:45  | 54,958,697.88      | 0.59            | 0.79              | 69,567,971.99   | 1.54            | 0.45            | 3           | Atlas    |        |       |
| CSO015              | 5/26/2016 14:15 | 5/26/2016 16:30 | 9,784,578.50       | 0.09            | 0.54              | 18,119,589.81   | 1.46            | 0.36            | 3           | Atlas    |        |       |
| CSO015              | 6/2/2016 15:30  | 6/2/2016 16:45  | 29,752,956.55      | 0.05            | 0.87              | 34,198,800.63   | 1.14            | 0.69            | 1           | Atlas    |        |       |
| CSO015              | 6/4/2016 18:45  | 6/4/2016 19:30  | 4,793,826.73       | 0.03            | 0.41              | 11,692,260.30   | 1.32            | 0.19            | 3           | Atlas    |        |       |
| CSO015              | 6/12/2016 18:45 | 6/12/2016 20:15 | 12,935,836.15      | 0.06            | 0.74              | 17,480,859.66   | 0.87            | 0.63            | 1           | Atlas    |        |       |
| CSO015              | 6/14/2016 16:30 | 6/14/2016 22:45 | 74,781,822.63      | 0.26            | 1.08              | 69,242,428.36   | 1.82            | 0.59            | 6           | Atlas    |        |       |
| CSO015              | 6/15/2016 14:15 | 6/15/2016 15:15 | 4,035,504.90       | 0.04            | 0.05              | 80,710,098.00   | 1.86            | 0.03            | 1           | Atlas    |        |       |
| CSO015              | 6/23/2016 16:30 | 6/24/2016 2:30  | 231,852,675.40     | 0.42            | 2.15              | 107,838,453.67  | 2.19            | 0.99            | 12          | Atlas    |        |       |
| <b>CSO015 Count</b> |                 |                 | 19                 |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO015 Total</b> |                 |                 | 874,189,750.99     |                 |                   |                 |                 |                 |             |          |        |       |
| CSO016              | 3/31/2016 5:30  | 3/31/2016 9:45  | 3,635,130.56       | 0.18            | 1.34              | 2,712,784.00    | 1.86            | 0.51            | 24          | Atlas    |        |       |
| CSO016              | 3/31/2016 23:00 | 4/1/2016 2:30   | 3,765,421.65       | 0.15            | 1.34              | 2,810,016.16    | 2.11            | 0.51            | 24          | Atlas    |        |       |
| CSO016              | 4/11/2016 17:00 | 4/12/2016 1:45  | 10,648,437.81      | 0.36            | 0.97              | 10,977,770.94   | 1.12            | 0.44            | 6           | Atlas    |        |       |
| CSO016              | 4/21/2016 16:30 | 4/21/2016 19:15 | 1,419,686.60       | 0.11            | 0.29              | 4,895,471.02    | 0.17            | 0.11            | 24          | Atlas    |        |       |
| CSO016              | 4/26/2016 22:30 | 4/27/2016 1:15  | 1,739,821.51       | 0.11            | 0.24              | 7,249,256.29    | 0.7             | 0.14            | 3           | Atlas    |        |       |
| CSO016              | 4/27/2016 14:45 | 4/28/2016 4:15  | 8,917,740.65       | 0.56            | 1.03              | 8,658,000.63    | 1.73            | 0.49            | 3           | Atlas    |        |       |
| CSO016              | 4/30/2016 11:30 | 4/30/2016 16:30 | 6,482,562.61       | 0.21            | 0.79              | 8,205,775.46    | 1.8             | 0.30            | 24          | Atlas    |        |       |
| CSO016              | 5/1/2016 15:45  | 5/1/2016 20:30  | 4,418,439.83       | 0.20            | 0.32              | 13,807,624.47   | 2.38            | 0.21            | 3           | Atlas    |        |       |
| CSO016              | 5/7/2016 21:45  | 5/8/2016 2:15   | 4,643,259.71       | 0.19            | 0.37              | 12,549,350.56   | 1.17            | 0.19            | 3           | Atlas    |        |       |
| CSO016              | 5/10/2016 15:15 | 5/11/2016 3:30  | 14,779,634.41      | 0.51            | 0.85              | 17,387,805.18   | 1.52            | 0.32            | 24          | Atlas    |        |       |
| CSO016              | 5/11/2016 22:15 | 5/12/2016 3:15  | 4,363,129.22       | 0.21            | 0.36              | 12,119,803.40   | 1.71            | 0.17            | 12          | Atlas    |        |       |
| CSO016              | 5/12/2016 18:30 | 5/13/2016 0:00  | 3,246,517.12       | 0.23            | 0.16              | 20,290,732.03   | 1.83            | 0.10            | 3           | Atlas    |        |       |
| CSO016              | 5/17/2016 7:30  | 5/17/2016 10:15 | 2,259,680.39       | 0.11            | 0.67              | 3,372,657.30    | 1.73            | 0.22            | 24          | Atlas    |        |       |
| CSO016              | 5/20/2016 14:45 | 5/20/2016 21:45 | 7,019,928.08       | 0.29            | 0.73              | 9,616,339.83    | 1.42            | 0.43            | 3           | Atlas    |        |       |
| CSO016              | 5/26/2016 15:00 | 5/26/2016 20:00 | 5,271,999.38       | 0.21            | 0.42              | 12,552,379.49   | 1.26            | 0.28            | 3           | Atlas    |        |       |
| CSO016              | 6/2/2016 15:30  | 6/2/2016 22:00  | 7,253,546.23       | 0.27            | 0.9               | 8,059,495.81    | 1.25            | 0.73            | 1           | Atlas    |        |       |
| CSO016              | 6/4/2016 17:30  | 6/4/2016 22:30  | 5,882,887.32       | 0.21            | 0.3               | 19,609,624.41   | 1.26            | 0.13            | 12          | Atlas    |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO016              | 6/12/2016 18:45 | 6/13/2016 3:00  | 7,930,777.03       | 0.34            | 0.9               | 8,811,974.47    | 0.96            | 0.77            | 1           | Atlas      |        |       |
| CSO016              | 6/14/2016 16:30 | 6/15/2016 6:30  | 15,514,368.83      | 0.58            | 1.41              | 11,003,098.46   | 2.31            | 0.77            | 6           | Atlas      |        |       |
| CSO016              | 6/23/2016 16:30 | 6/24/2016 13:15 | 26,193,793.38      | 0.86            | 2.03              | 12,903,346.49   | 2.08            | 0.93            | 12          | Atlas      |        |       |
| <b>CSO016 Count</b> |                 |                 | 20                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO016 Total</b> |                 |                 | 145,386,762.31     |                 |                   |                 |                 |                 |             |            |        |       |
| CSO018              | 3/31/2016 23:30 | 3/31/2016 23:30 | 1,716.52           | 0.00            | 1.4               | 1,226.09        | 2.37            | 0.53            | 24          | Atlas      |        |       |
| CSO018              | 5/10/2016 22:00 | 5/10/2016 22:00 | 16,498.78          | 0.00            | 0.78              | 21,152.28       | 1.65            | 0.28            | 24          | Atlas      |        |       |
| CSO018              | 5/20/2016 15:00 | 5/20/2016 16:00 | 51,949.97          | 0.04            | 0.84              | 61,845.20       | 1.47            | 0.49            | 3           | Atlas      |        |       |
| CSO018              | 6/23/2016 20:30 | 6/24/2016 0:45  | 95,101.91          | 0.18            | 1.38              | 68,914.43       | 1.5             | 0.70            | 6           | Atlas      |        |       |
| <b>CSO018 Count</b> |                 |                 | 4                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO018 Total</b> |                 |                 | 165,267.18         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO019              | 4/1/2016 0:00   | 4/1/2016 2:00   | 123,165.55         | 0.08            | 1.55              | 79,461.65       | 2.09            | 0.57            | 24          | Atlas      |        |       |
| CSO019              | 4/11/2016 13:15 | 4/11/2016 20:15 | 1,211,013.87       | 0.29            | 1.01              | 1,199,023.63    | 1.16            | 0.44            | 6           | Atlas      |        |       |
| CSO019              | 4/21/2016 15:15 | 4/21/2016 17:00 | 36,485.03          | 0.07            | 0.13              | 280,654.06      | 0.15            | 0.07            | 3           | Atlas      |        |       |
| CSO019              | 4/22/2016 12:45 | 4/22/2016 13:45 | 23,676.14          | 0.04            | 0.13              | 182,124.13      | 0.28            | 0.05            | 6           | Atlas      |        |       |
| CSO019              | 4/26/2016 21:15 | 4/26/2016 23:15 | 74,575.79          | 0.08            | 0.29              | 257,157.88      | 0.57            | 0.19            | 3           | Atlas      |        |       |
| CSO019              | 4/27/2016 12:15 | 4/28/2016 1:30  | 662,239.89         | 0.55            | 1                 | 662,239.89      | 1.57            | 0.45            | 12          | Atlas      |        |       |
| CSO019              | 4/30/2016 10:45 | 4/30/2016 16:30 | 279,893.67         | 0.24            | 0.78              | 358,838.04      | 1.78            | 0.30            | 24          | Atlas      |        |       |
| CSO019              | 5/1/2016 3:15   | 5/1/2016 6:15   | 64,668.16          | 0.13            | 0.78              | 82,907.90       | 2.07            | 0.30            | 24          | Atlas      |        |       |
| CSO019              | 5/1/2016 15:30  | 5/1/2016 17:30  | 13,425.90          | 0.08            | 0.15              | 89,505.98       | 2.22            | 0.10            | 3           | Atlas      |        |       |
| CSO019              | 5/4/2016 11:15  | 5/4/2016 12:30  | 8,470.97           | 0.05            | 0.17              | 49,829.23       | 2.07            | 0.09            | 3           | Atlas      |        |       |
| CSO019              | 5/7/2016 16:15  | 5/7/2016 23:15  | 253,326.16         | 0.29            | 0.53              | 477,973.89      | 1.15            | 0.27            | 6           | Atlas      |        |       |
| CSO019              | 5/10/2016 14:00 | 5/11/2016 1:30  | 659,232.85         | 0.48            | 1.06              | 621,917.78      | 1.8             | 0.43            | 6           | Atlas      |        |       |
| CSO019              | 5/11/2016 21:15 | 5/11/2016 23:45 | 76,319.43          | 0.10            | 0.2               | 381,597.16      | 1.79            | 0.09            | 3           | Atlas      |        |       |
| CSO019              | 5/17/2016 7:15  | 5/17/2016 8:30  | 20,480.84          | 0.05            | 0.28              | 73,145.87       | 1.64            | 0.11            | 12          | Atlas      |        |       |
| CSO019              | 5/17/2016 20:00 | 5/17/2016 22:15 | 66,847.28          | 0.09            | 0.26              | 257,104.93      | 0.96            | 0.13            | 6           | Atlas      |        |       |
| CSO019              | 5/20/2016 13:30 | 5/20/2016 17:45 | 866,104.30         | 0.18            | 0.61              | 1,419,843.12    | 1.2             | 0.35            | 3           | Atlas      |        |       |
| CSO019              | 5/25/2016 19:00 | 5/25/2016 19:15 | 7,958.11           | 0.01            | 0.01              | 795,811.50      | 0.72            | 0.01            | 1           | Atlas      |        |       |
| CSO019              | 5/26/2016 13:30 | 5/26/2016 16:30 | 82,088.62          | 0.13            | 0.41              | 200,216.14      | 1.13            | 0.27            | 3           | Atlas      |        |       |
| CSO019              | 5/28/2016 14:30 | 5/28/2016 16:00 | 40,394.27          | 0.06            | 0.25              | 161,577.08      | 0.57            | 0.14            | 6           | Atlas      |        |       |
| CSO019              | 6/2/2016 15:15  | 6/2/2016 18:15  | 2,709,269.36       | 0.13            | 1.07              | 2,532,027.44    | 1.39            | 0.90            | 1           | Atlas      |        |       |
| CSO019              | 6/4/2016 16:15  | 6/4/2016 23:15  | 76,115.52          | 0.29            | 0.28              | 271,841.16      | 1.5             | 0.13            | 1           | Atlas      |        |       |
| CSO019              | 6/12/2016 17:45 | 6/12/2016 20:30 | 94,000.07          | 0.11            | 0.39              | 241,025.81      | 0.41            | 0.34            | 1           | Atlas      |        |       |
| CSO019              | 6/14/2016 16:15 | 6/15/2016 2:00  | 4,433,744.66       | 0.41            | 1.41              | 3,144,499.76    | 1.8             | 0.81            | 3           | Atlas      |        |       |
| CSO019              | 6/22/2016 8:00  | 6/22/2016 15:30 | 236,879.43         | 0.31            | 0.61              | 388,326.93      | 0.77            | 0.36            | 3           | Atlas      |        |       |
| CSO019              | 6/23/2016 16:15 | 6/23/2016 23:00 | 5,431,776.18       | 0.28            | 1.9               | 2,858,829.57    | 2.51            | 1.17            | 6           | Cloudburst |        |       |
| <b>CSO019 Count</b> |                 |                 | 25                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO019 Total</b> |                 |                 | 17,552,152.04      |                 |                   |                 |                 |                 |             |            |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO020              | 3/31/2016 5:15  | 3/31/2016 8:45  | 1,084,733.52       | 0.15            | 1.11              | 977,237.41      | 1.73            | 0.42            | 24          | Atlas      |        |       |
| CSO020              | 3/31/2016 22:30 | 4/1/2016 1:45   | 2,167,153.88       | 0.14            | 1.11              | 1,952,390.88    | 1.92            | 0.42            | 24          | Atlas      |        |       |
| CSO020              | 4/11/2016 17:15 | 4/11/2016 21:45 | 4,126,167.97       | 0.19            | 1.02              | 4,045,262.72    | 1.16            | 0.46            | 6           | Atlas      |        |       |
| CSO020              | 4/26/2016 21:45 | 4/26/2016 22:30 | 130,014.88         | 0.03            | 0.27              | 481,536.58      | 0.61            | 0.15            | 3           | Atlas      |        |       |
| CSO020              | 4/27/2016 21:30 | 4/27/2016 23:15 | 1,173,604.83       | 0.07            | 0.7               | 1,676,578.33    | 1.28            | 0.31            | 12          | Atlas      |        |       |
| CSO020              | 5/10/2016 18:45 | 5/11/2016 0:00  | 2,948,431.45       | 0.22            | 0.69              | 4,273,089.06    | 1.42            | 0.26            | 24          | Atlas      |        |       |
| CSO020              | 5/11/2016 22:15 | 5/11/2016 23:30 | 692,053.24         | 0.05            | 0.2               | 3,460,266.22    | 1.41            | 0.11            | 3           | Atlas      |        |       |
| CSO020              | 5/17/2016 21:30 | 5/17/2016 21:30 | 37.59              | 0.00            | 0.31              | 121.27          | 1.03            | 0.15            | 6           | Atlas      |        |       |
| CSO020              | 5/20/2016 14:15 | 5/20/2016 18:00 | 4,513,349.76       | 0.16            | 0.54              | 8,358,055.11    | 1.2             | 0.29            | 3           | Atlas      |        |       |
| CSO020              | 6/2/2016 15:45  | 6/2/2016 17:00  | 524,666.31         | 0.05            | 0.3               | 1,748,887.72    | 0.43            | 0.23            | 1           | Atlas      |        |       |
| CSO020              | 6/4/2016 16:30  | 6/4/2016 16:30  | 202,328.28         | 0.00            | 0.28              | 722,601.00      | 0.67            | 0.17            | 1           | Atlas      |        |       |
| CSO020              | 6/12/2016 17:45 | 6/12/2016 19:15 | 123,185.99         | 0.06            | 0.18              | 684,366.61      | 0.21            | 0.15            | 1           | Atlas      |        |       |
| CSO020              | 6/14/2016 16:30 | 6/14/2016 20:00 | 4,032,895.93       | 0.15            | 0.8               | 5,041,119.92    | 0.98            | 0.53            | 3           | Atlas      |        |       |
| CSO020              | 6/23/2016 16:15 | 6/24/2016 0:30  | 13,559,805.14      | 0.34            | 2.25              | 6,026,580.06    | 2.61            | 2.12            | 6           | Cloudburst |        |       |
| <b>CSO020 Count</b> |                 |                 | 14                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO020 Total</b> |                 |                 | 35,278,428.78      |                 |                   |                 |                 |                 |             |            |        |       |
| CSO022              | 4/11/2016 17:30 | 4/11/2016 18:00 | 38,798.93          | 0.02            | 1                 | 38,798.93       | 0.92            | 0.43            | 6           | Atlas      |        |       |
| CSO022              | 4/26/2016 16:00 | 4/26/2016 16:15 | 92,701.59          | 0.01            | 0.29              | 319,660.65      | 0.37            | 0.17            | 3           | Atlas      |        |       |
| CSO022              | 4/27/2016 20:45 | 4/27/2016 21:45 | 35,942.19          | 0.04            | 0.83              | 43,303.84       | 1.39            | 0.36            | 12          | Atlas      |        |       |
| CSO022              | 4/30/2016 11:15 | 4/30/2016 11:15 | 34,895.32          | 0.00            | 0.71              | 49,148.34       | 1.49            | 0.27            | 24          | Atlas      |        |       |
| CSO022              | 5/10/2016 18:30 | 5/10/2016 21:45 | 294,980.98         | 0.14            | 0.95              | 310,506.29      | 1.87            | 0.39            | 6           | Atlas      |        |       |
| CSO022              | 5/20/2016 15:15 | 5/20/2016 15:30 | 70,471.09          | 0.01            | 0.47              | 149,938.49      | 1.21            | 0.26            | 6           | Atlas      |        |       |
| CSO022              | 6/2/2016 15:30  | 6/2/2016 15:45  | 287,546.59         | 0.01            | 0.59              | 487,367.10      | 0.66            | 0.46            | 1           | Atlas      |        |       |
| CSO022              | 6/4/2016 16:30  | 6/4/2016 16:45  | 266,607.00         | 0.01            | 0.29              | 919,334.47      | 0.92            | 0.14            | 1           | Atlas      |        |       |
| <b>CSO022 Count</b> |                 |                 | 8                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO022 Total</b> |                 |                 | 1,121,943.68       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO023              | 6/23/2016 20:30 | 6/23/2016 20:30 | 4,374.01           | 0.00            | 2.64              | 1,656.82        | 3.25            | 4.31            | 6           | Cloudburst |        |       |
| <b>CSO023 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO023 Total</b> |                 |                 | 4,374.01           |                 |                   |                 |                 |                 |             |            |        |       |
| CSO027              | 6/14/2016 16:45 | 6/14/2016 18:45 | 224,628.70         | 0.08            | 0.88              | 2,695,544.40    | 0.95            | 0.56            | 3           | Atlas      |        |       |
| <b>CSO027 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO027 Total</b> |                 |                 | 224,628.70         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO028              | 4/27/2016 14:00 | 4/27/2016 22:45 | 15,604.74          | 0.36            | 0.99              | 15,762.36       | 1.63            | 0.53            | 1           | Atlas      |        |       |
| CSO028              | 4/30/2016 11:15 | 4/30/2016 13:15 | 3,838.74           | 0.08            | 0.65              | 5,905.75        | 1.81            | 0.25            | 6           | Atlas      |        |       |
| CSO028              | 5/10/2016 14:15 | 5/10/2016 22:15 | 12,043.00          | 0.33            | 0.89              | 13,531.46       | 1.91            | 0.33            | 24          | Atlas      |        |       |
| CSO028              | 5/17/2016 7:00  | 5/17/2016 7:45  | 2,290.45           | 0.03            | 0.69              | 3,319.49        | 1.72            | 0.23            | 24          | Atlas      |        |       |
| CSO028              | 5/20/2016 14:00 | 5/20/2016 16:30 | 11,007.18          | 0.10            | 0.52              | 21,167.65       | 1.24            | 0.29            | 3           | Atlas      |        |       |
| CSO028              | 5/26/2016 15:00 | 5/26/2016 15:30 | 2,580.25           | 0.02            | 0.3               | 8,600.83        | 0.9             | 0.19            | 3           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO028              | 6/2/2016 15:45  | 6/2/2016 16:15  | 7,029.46           | 0.02            | 0.26              | 27,036.38       | 0.36            | 0.21            | 1           | Atlas      |        |       |
| CSO028              | 6/4/2016 16:45  | 6/4/2016 16:45  | 202.39             | 0.00            | 0.32              | 632.45          | 0.61            | 0.17            | 3           | Atlas      |        |       |
| CSO028              | 6/14/2016 16:45 | 6/14/2016 18:30 | 8,157.94           | 0.07            | 0.88              | 9,270.38        | 0.94            | 0.56            | 3           | Atlas      |        |       |
| CSO028              | 6/22/2016 8:30  | 6/22/2016 11:45 | 21,703.45          | 0.14            | 0.24              | 90,431.04       | 0.31            | 0.15            | 3           | Atlas      |        |       |
| CSO028              | 6/23/2016 16:15 | 6/23/2016 22:45 | 131,022.10         | 0.27            | 2.02              | 64,862.43       | 2.26            | 1.56            | 6           | Cloudburst |        |       |
| <b>CSO028 Count</b> |                 |                 | 11                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO028 Total</b> |                 |                 | 215,479.69         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO029              | 3/31/2016 22:00 | 3/31/2016 22:00 | 1,786.69           | 0.00            | 1.18              | 1,514.14        | 1.67            | 0.45            | 24          | Atlas      |        |       |
| CSO029              | 4/11/2016 17:15 | 4/11/2016 17:45 | 18,206.32          | 0.02            | 0.98              | 18,577.88       | 0.86            | 0.46            | 6           | Atlas      |        |       |
| CSO029              | 4/26/2016 16:00 | 4/26/2016 16:00 | 3,310.30           | 0.00            | 0.35              | 9,458.01        | 0.42            | 0.18            | 6           | Atlas      |        |       |
| CSO029              | 4/27/2016 20:45 | 4/27/2016 21:00 | 8,730.65           | 0.01            | 0.99              | 8,818.83        | 1.39            | 0.53            | 1           | Atlas      |        |       |
| CSO029              | 4/30/2016 11:15 | 4/30/2016 11:15 | 1,923.01           | 0.00            | 0.65              | 2,958.48        | 1.69            | 0.25            | 6           | Atlas      |        |       |
| CSO029              | 5/1/2016 14:45  | 5/1/2016 14:45  | 1,765.98           | 0.00            | 0.22              | 8,027.18        | 2.07            | 0.14            | 3           | Atlas      |        |       |
| CSO029              | 5/7/2016 20:00  | 5/7/2016 20:00  | 4,457.59           | 0.00            | 0.76              | 5,865.25        | 0.97            | 0.41            | 1           | Atlas      |        |       |
| CSO029              | 5/10/2016 14:15 | 5/10/2016 14:15 | 4,094.28           | 0.00            | 0.89              | 4,600.32        | 1.38            | 0.33            | 24          | Atlas      |        |       |
| CSO029              | 5/20/2016 15:30 | 5/20/2016 15:30 | 170.84             | 0.00            | 0.52              | 328.55          | 1.24            | 0.29            | 3           | Atlas      |        |       |
| CSO029              | 5/25/2016 17:45 | 5/25/2016 17:45 | 1,372.89           | 0.00            | 0.03              | 45,762.85       | 0.61            | 0.03            | 1           | Atlas      |        |       |
| CSO029              | 6/2/2016 15:45  | 6/2/2016 15:45  | 8,718.31           | 0.00            | 0.26              | 33,531.97       | 0.35            | 0.21            | 1           | Atlas      |        |       |
| CSO029              | 6/4/2016 16:30  | 6/4/2016 16:45  | 34,357.65          | 0.01            | 0.32              | 107,367.67      | 0.61            | 0.17            | 3           | Atlas      |        |       |
| CSO029              | 6/14/2016 16:30 | 6/14/2016 16:45 | 96,286.93          | 0.01            | 0.88              | 109,416.97      | 0.67            | 0.56            | 3           | Atlas      |        |       |
| CSO029              | 6/23/2016 20:00 | 6/23/2016 20:45 | 258,247.06         | 0.03            | 2.02              | 127,845.08      | 2.26            | 1.56            | 6           | Cloudburst |        |       |
| <b>CSO029 Count</b> |                 |                 | 14                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO029 Total</b> |                 |                 | 443,428.51         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO031              | 4/21/2016 15:45 | 4/21/2016 17:30 | 49,854.00          | 0.07            | 0.29              | 171,910.33      | 0.21            | 0.12            | 3           | Atlas      |        |       |
| CSO031              | 4/26/2016 16:45 | 4/27/2016 0:30  | 170,150.16         | 0.32            | 0.35              | 486,143.30      | 0.69            | 0.18            | 6           | Atlas      |        |       |
| CSO031              | 4/27/2016 14:00 | 4/27/2016 23:30 | 125,532.96         | 0.40            | 0.99              | 126,800.97      | 1.64            | 0.53            | 1           | Atlas      |        |       |
| CSO031              | 5/4/2016 11:30  | 5/4/2016 12:00  | 10,150.46          | 0.02            | 0.22              | 46,138.45       | 2.06            | 0.14            | 3           | Atlas      |        |       |
| CSO031              | 6/4/2016 16:45  | 6/4/2016 17:00  | 24,395.05          | 0.01            | 0.32              | 76,234.53       | 0.61            | 0.17            | 3           | Atlas      |        |       |
| <b>CSO031 Count</b> |                 |                 | 5                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO031 Total</b> |                 |                 | 380,082.63         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO034              | 5/10/2016 16:45 | 5/11/2016 10:30 | 11,928.89          | 0.74            | 0.89              | 13,403.24       | 1.95            | 0.33            | 24          | Atlas      |        |       |
| CSO034              | 5/11/2016 21:15 | 5/11/2016 21:45 | 1,451.93           | 0.02            | 0.27              | 5,377.51        | 1.92            | 0.15            | 3           | Atlas      |        |       |
| CSO034              | 6/2/2016 15:45  | 6/2/2016 15:45  | 2,778.71           | 0.00            | 0.26              | 10,687.34       | 0.35            | 0.21            | 1           | Atlas      |        |       |
| CSO034              | 6/4/2016 16:45  | 6/4/2016 16:45  | 25,423.30          | 0.00            | 0.32              | 79,447.82       | 0.61            | 0.17            | 3           | Atlas      |        |       |
| CSO034              | 6/14/2016 16:45 | 6/14/2016 16:45 | 23,380.01          | 0.00            | 0.88              | 26,568.20       | 0.67            | 0.56            | 3           | Atlas      |        |       |
| CSO034              | 6/23/2016 16:15 | 6/23/2016 20:45 | 238,897.90         | 0.19            | 2.02              | 118,266.29      | 2.26            | 1.56            | 6           | Cloudburst |        |       |
| <b>CSO034 Count</b> |                 |                 | 6                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO034 Total</b> |                 |                 | 303,860.74         |                 |                   |                 |                 |                 |             |            |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO035              | 4/11/2016 17:30 | 4/11/2016 17:30 | 4,242.15           | 0.00            | 0.92              | 4,611.03        | 0.72            | 0.44            | 6           | Atlas      |        |       |
| CSO035              | 4/21/2016 14:30 | 4/21/2016 14:30 | 17,468.49          | 0.00            | 0.33              | 52,934.82       | 0.14            | 0.13            | 3           | Atlas      |        |       |
| CSO035              | 4/26/2016 16:15 | 4/26/2016 16:15 | 165,205.59         | 0.00            | 0.33              | 500,623.01      | 0.43            | 0.16            | 6           | Atlas      |        |       |
| CSO035              | 4/27/2016 21:00 | 4/27/2016 21:00 | 184,389.67         | 0.00            | 0.7               | 263,413.82      | 1.15            | 0.37            | 1           | Atlas      |        |       |
| CSO035              | 4/30/2016 11:15 | 4/30/2016 11:15 | 115,250.64         | 0.00            | 0.6               | 192,084.40      | 1.36            | 0.23            | 6           | Atlas      |        |       |
| CSO035              | 5/10/2016 18:45 | 5/10/2016 22:00 | 215,268.00         | 0.14            | 0.94              | 229,008.51      | 1.85            | 0.36            | 12          | Atlas      |        |       |
| CSO035              | 5/20/2016 15:15 | 5/20/2016 15:30 | 143,546.77         | 0.01            | 0.51              | 281,464.26      | 1.2             | 0.28            | 3           | Atlas      |        |       |
| CSO035              | 6/2/2016 15:45  | 6/2/2016 15:45  | 213,531.20         | 0.00            | 0.34              | 628,032.95      | 0.43            | 0.27            | 1           | Atlas      |        |       |
| CSO035              | 6/4/2016 16:45  | 6/4/2016 17:00  | 276,256.83         | 0.01            | 0.23              | 1,201,116.67    | 0.63            | 0.12            | 1           | Atlas      |        |       |
| CSO035              | 6/14/2016 16:45 | 6/14/2016 17:00 | 441,995.29         | 0.01            | 0.84              | 526,184.87      | 0.64            | 0.54            | 3           | Atlas      |        |       |
| CSO035              | 6/22/2016 8:30  | 6/22/2016 8:30  | 81,058.54          | 0.00            | 0.17              | 476,814.94      | 0.13            | 0.10            | 3           | Atlas      |        |       |
| CSO035              | 6/23/2016 16:15 | 6/23/2016 21:00 | 1,536,558.29       | 0.20            | 1.88              | 817,318.24      | 2.05            | 1.17            | 6           | Cloudburst |        |       |
| <b>CSO035 Count</b> |                 |                 | 12                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO035 Total</b> |                 |                 | 3,394,771.47       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO036              | 4/11/2016 17:30 | 4/11/2016 18:15 | 13,221.83          | 0.03            | 0.92              | 14,371.56       | 0.86            | 0.44            | 6           | Atlas      |        |       |
| CSO036              | 4/26/2016 16:15 | 4/26/2016 16:15 | 2,623.82           | 0.00            | 0.33              | 7,950.98        | 0.43            | 0.16            | 6           | Atlas      |        |       |
| CSO036              | 4/27/2016 21:00 | 4/27/2016 22:00 | 2,212.39           | 0.04            | 0.7               | 3,160.55        | 1.34            | 0.37            | 1           | Atlas      |        |       |
| CSO036              | 4/30/2016 11:15 | 4/30/2016 11:15 | 5,409.97           | 0.00            | 0.6               | 9,016.62        | 1.36            | 0.23            | 6           | Atlas      |        |       |
| CSO036              | 5/1/2016 15:00  | 5/1/2016 15:00  | 279.50             | 0.00            | 0.2               | 1,397.50        | 1.72            | 0.13            | 3           | Atlas      |        |       |
| CSO036              | 5/10/2016 18:45 | 5/10/2016 21:45 | 4,402.68           | 0.13            | 0.94              | 4,683.70        | 1.85            | 0.36            | 12          | Atlas      |        |       |
| CSO036              | 5/12/2016 16:15 | 5/12/2016 16:15 | 1,153.65           | 0.00            | 0.15              | 7,690.97        | 1.94            | 0.10            | 3           | Atlas      |        |       |
| CSO036              | 5/20/2016 14:00 | 5/20/2016 15:30 | 12,939.44          | 0.06            | 0.51              | 25,371.45       | 1.2             | 0.28            | 3           | Atlas      |        |       |
| CSO036              | 6/2/2016 15:45  | 6/2/2016 15:45  | 5,463.64           | 0.00            | 0.34              | 16,069.52       | 0.43            | 0.27            | 1           | Atlas      |        |       |
| CSO036              | 6/14/2016 16:45 | 6/14/2016 17:00 | 15,899.71          | 0.01            | 0.84              | 18,928.22       | 0.64            | 0.54            | 3           | Atlas      |        |       |
| CSO036              | 6/23/2016 16:15 | 6/23/2016 20:45 | 1,636,760.38       | 0.19            | 1.88              | 870,617.22      | 2.05            | 1.17            | 6           | Cloudburst |        |       |
| <b>CSO036 Count</b> |                 |                 | 11                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO036 Total</b> |                 |                 | 1,700,367.00       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO038              | 5/10/2016 21:45 | 5/10/2016 21:45 | 3,179.35           | 0.00            | 0.89              | 3,572.31        | 1.91            | 0.33            | 24          | Atlas      |        |       |
| CSO038              | 6/2/2016 15:45  | 6/2/2016 17:30  | 31,712.45          | 0.07            | 0.26              | 121,970.95      | 0.36            | 0.21            | 1           | Atlas      |        |       |
| CSO038              | 6/4/2016 16:45  | 6/4/2016 16:45  | 4,119.79           | 0.00            | 0.32              | 12,874.35       | 0.61            | 0.17            | 3           | Atlas      |        |       |
| <b>CSO038 Count</b> |                 |                 | 3                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO038 Total</b> |                 |                 | 39,011.59          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO050              | 3/31/2016 1:30  | 3/31/2016 23:45 | 533,181.20         | 0.93            | 1.38              | 386,363.19      | 2.59            | 0.52            | 24          | Atlas      |        |       |
| <b>CSO050 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO050 Total</b> |                 |                 | 533,181.20         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO051              | 3/31/2016 22:00 | 3/31/2016 22:00 | 1,055.64           | 0.00            | 1.38              | 764.95          | 2.08            | 0.52            | 24          | Atlas      |        |       |
| CSO051              | 4/11/2016 17:45 | 4/11/2016 18:00 | 828.18             | 0.01            | 1.11              | 746.11          | 1.1             | 0.52            | 6           | Atlas      |        |       |
| CSO051              | 4/21/2016 14:30 | 4/21/2016 14:30 | 223.69             | 0.00            | 0.35              | 639.11          | 0.1             | 0.13            | 24          | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO051              | 4/27/2016 21:00 | 4/27/2016 21:00 | 61.21              | 0.00            | 0.88              | 69.55           | 1.27            | 0.41            | 1           | Atlas      |        |       |
| CSO051              | 4/30/2016 11:00 | 4/30/2016 11:15 | 7,123.41           | 0.01            | 0.87              | 8,187.82        | 1.61            | 0.33            | 24          | Atlas      |        |       |
| CSO051              | 5/1/2016 2:00   | 5/1/2016 2:00   | 984.11             | 0.00            | 0.87              | 1,131.17        | 1.97            | 0.33            | 24          | Atlas      |        |       |
| CSO051              | 5/1/2016 14:45  | 5/1/2016 14:45  | 589.99             | 0.00            | 0.33              | 1,787.85        | 2.2             | 0.22            | 3           | Atlas      |        |       |
| CSO051              | 5/7/2016 16:15  | 5/7/2016 16:15  | 1,061.42           | 0.00            | 0.8               | 1,326.77        | 1.09            | 0.42            | 6           | Atlas      |        |       |
| CSO051              | 5/10/2016 14:15 | 5/10/2016 21:45 | 11,867.47          | 0.31            | 0.83              | 14,298.15       | 1.88            | 0.32            | 12          | Atlas      |        |       |
| CSO051              | 5/20/2016 15:00 | 5/20/2016 15:30 | 4,103.07           | 0.02            | 0.55              | 7,460.13        | 1.28            | 0.30            | 6           | Atlas      |        |       |
| CSO051              | 6/2/2016 15:15  | 6/2/2016 15:30  | 32,872.98          | 0.01            | 1.12              | 29,350.87       | 1.22            | 0.91            | 1           | Atlas      |        |       |
| CSO051              | 6/4/2016 16:45  | 6/4/2016 16:45  | 580.95             | 0.00            | 0.33              | 1,760.45        | 1.48            | 0.16            | 3           | Atlas      |        |       |
| CSO051              | 6/14/2016 16:30 | 6/14/2016 16:45 | 79,625.49          | 0.01            | 1.14              | 69,846.92       | 0.78            | 0.72            | 3           | Atlas      |        |       |
| CSO051              | 6/22/2016 8:15  | 6/22/2016 8:15  | 4,567.91           | 0.00            | 0.34              | 13,435.02       | 0.17            | 0.21            | 3           | Atlas      |        |       |
| CSO051              | 6/23/2016 16:00 | 6/23/2016 21:00 | 42,600.45          | 0.21            | 2.12              | 20,094.55       | 2.46            | 1.81            | 6           | Cloudburst |        |       |
| <b>CSO051 Count</b> |                 |                 | 15                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO051 Total</b> |                 |                 | 188,145.95         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO052              | 3/31/2016 6:15  | 3/31/2016 8:00  | 69,079.03          | 0.07            | 1.33              | 51,939.12       | 1.83            | 0.50            | 24          | Atlas      |        |       |
| CSO052              | 3/31/2016 21:45 | 4/1/2016 0:15   | 49,214.95          | 0.10            | 1.33              | 37,003.72       | 2.06            | 0.50            | 24          | Atlas      |        |       |
| CSO052              | 4/11/2016 17:00 | 4/11/2016 20:15 | 130,923.15         | 0.14            | 1.03              | 127,109.85      | 1.14            | 0.47            | 6           | Atlas      |        |       |
| CSO052              | 4/21/2016 14:00 | 4/21/2016 14:15 | 1,089.32           | 0.01            | 0.42              | 2,593.63        | 0.07            | 0.15            | 24          | Atlas      |        |       |
| CSO052              | 4/26/2016 15:45 | 4/26/2016 15:45 | 614.32             | 0.00            | 0.31              | 1,981.69        | 0.43            | 0.20            | 1           | Atlas      |        |       |
| CSO052              | 4/27/2016 20:30 | 4/27/2016 23:45 | 74,490.73          | 0.14            | 0.82              | 90,842.35       | 1.52            | 0.36            | 12          | Atlas      |        |       |
| CSO052              | 4/30/2016 10:45 | 4/30/2016 16:00 | 75,230.32          | 0.22            | 0.83              | 90,638.94       | 1.7             | 0.32            | 24          | Atlas      |        |       |
| CSO052              | 5/10/2016 13:45 | 5/10/2016 22:45 | 188,880.29         | 0.38            | 0.9               | 209,866.99      | 1.83            | 0.34            | 24          | Atlas      |        |       |
| CSO052              | 5/20/2016 14:45 | 5/20/2016 16:00 | 71,824.46          | 0.05            | 0.53              | 135,517.85      | 1.21            | 0.29            | 3           | Atlas      |        |       |
| CSO052              | 6/2/2016 15:00  | 6/2/2016 15:30  | 83,626.82          | 0.02            | 0.68              | 122,980.61      | 0.76            | 0.51            | 1           | Atlas      |        |       |
| CSO052              | 6/23/2016 19:30 | 6/23/2016 22:30 | 260,469.49         | 0.13            | 2.37              | 109,902.74      | 2.92            | 2.92            | 6           | Cloudburst |        |       |
| <b>CSO052 Count</b> |                 |                 | 11                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO052 Total</b> |                 |                 | 1,005,442.88       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO053              | 3/31/2016 4:15  | 4/1/2016 0:00   | 80,670.40          | 0.82            | 1.33              | 60,654.43       | 2.35            | 0.50            | 24          | Atlas      |        |       |
| CSO053              | 4/11/2016 13:30 | 4/11/2016 18:45 | 136,135.68         | 0.22            | 1.03              | 132,170.56      | 1.04            | 0.47            | 6           | Atlas      |        |       |
| CSO053              | 4/21/2016 14:15 | 4/21/2016 15:45 | 21,686.20          | 0.06            | 0.42              | 51,633.81       | 0.21            | 0.15            | 24          | Atlas      |        |       |
| CSO053              | 4/26/2016 16:00 | 4/26/2016 21:30 | 108,096.60         | 0.23            | 0.31              | 348,698.71      | 0.7             | 0.20            | 1           | Atlas      |        |       |
| CSO053              | 4/27/2016 12:45 | 4/27/2016 22:00 | 253,114.05         | 0.39            | 0.82              | 308,675.67      | 1.47            | 0.36            | 12          | Atlas      |        |       |
| CSO053              | 4/30/2016 8:45  | 4/30/2016 13:00 | 120,570.48         | 0.18            | 0.83              | 145,265.63      | 1.68            | 0.32            | 24          | Atlas      |        |       |
| CSO053              | 4/30/2016 23:15 | 5/1/2016 2:00   | 11,032.20          | 0.11            | 0.83              | 13,291.81       | 1.9             | 0.32            | 24          | Atlas      |        |       |
| CSO053              | 5/1/2016 14:45  | 5/1/2016 14:45  | 6,371.99           | 0.00            | 0.28              | 22,757.11       | 2.11            | 0.19            | 3           | Atlas      |        |       |
| CSO053              | 5/4/2016 11:15  | 5/4/2016 11:30  | 6,116.49           | 0.01            | 0.2               | 30,582.45       | 2.09            | 0.11            | 3           | Atlas      |        |       |
| CSO053              | 5/7/2016 16:15  | 5/7/2016 21:45  | 57,925.90          | 0.23            | 0.69              | 83,950.58       | 1.41            | 0.36            | 6           | Atlas      |        |       |
| CSO053              | 5/10/2016 14:00 | 5/10/2016 21:45 | 208,452.49         | 0.32            | 0.9               | 231,613.88      | 1.83            | 0.34            | 24          | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO053              | 5/11/2016 21:30 | 5/11/2016 22:00 | 10,435.84          | 0.02            | 0.22              | 47,435.66       | 1.82            | 0.11            | 3           | Atlas      |        |       |
| CSO053              | 5/17/2016 6:45  | 5/17/2016 6:45  | 639.84             | 0.00            | 0.64              | 999.76          | 1.61            | 0.22            | 24          | Atlas      |        |       |
| CSO053              | 5/17/2016 20:00 | 5/17/2016 20:15 | 1,047.96           | 0.01            | 0.64              | 1,637.43        | 1.07            | 0.22            | 24          | Atlas      |        |       |
| CSO053              | 5/20/2016 13:30 | 5/20/2016 15:30 | 103,536.38         | 0.08            | 0.53              | 195,351.67      | 1.2             | 0.29            | 3           | Atlas      |        |       |
| CSO053              | 5/25/2016 17:45 | 5/25/2016 18:00 | 19,708.84          | 0.01            | 0.04              | 492,721.11      | 0.65            | 0.03            | 1           | Atlas      |        |       |
| CSO053              | 5/26/2016 13:30 | 5/26/2016 15:00 | 2,474.62           | 0.06            | 0.3               | 8,248.72        | 0.91            | 0.20            | 3           | Atlas      |        |       |
| CSO053              | 6/1/2016 22:15  | 6/1/2016 22:15  | 162.80             | 0.00            | 0.68              | 239.41          | 0.39            | 0.51            | 1           | Atlas      |        |       |
| CSO053              | 6/2/2016 15:15  | 6/2/2016 15:45  | 208,267.50         | 0.02            | 0.68              | 306,275.74      | 0.76            | 0.51            | 1           | Atlas      |        |       |
| CSO053              | 6/4/2016 11:30  | 6/4/2016 16:45  | 179,637.12         | 0.22            | 0.53              | 338,937.96      | 1.2             | 0.27            | 1           | Atlas      |        |       |
| CSO053              | 6/23/2016 16:00 | 6/23/2016 20:30 | 74,740.06          | 0.19            | 2.37              | 31,535.89       | 2.92            | 2.92            | 6           | Cloudburst |        |       |
| <b>CSO053 Count</b> |                 |                 | 21                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO053 Total</b> |                 |                 | 1,610,823.43       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO054              | 4/11/2016 13:15 | 4/11/2016 20:15 | 11,558.90          | 0.29            | 1.03              | 11,222.23       | 1.14            | 0.47            | 6           | Atlas      |        |       |
| CSO054              | 4/27/2016 19:15 | 4/27/2016 22:30 | 18,252.35          | 0.14            | 0.82              | 22,258.97       | 1.48            | 0.36            | 12          | Atlas      |        |       |
| CSO054              | 5/10/2016 13:15 | 5/10/2016 22:30 | 31,331.78          | 0.39            | 0.9               | 34,813.08       | 1.83            | 0.34            | 24          | Atlas      |        |       |
| CSO054              | 5/20/2016 12:45 | 5/20/2016 16:15 | 12,449.92          | 0.15            | 0.53              | 23,490.41       | 1.21            | 0.29            | 3           | Atlas      |        |       |
| CSO054              | 6/4/2016 16:30  | 6/4/2016 18:15  | 5,603.46           | 0.07            | 0.53              | 10,572.56       | 1.27            | 0.27            | 1           | Atlas      |        |       |
| CSO054              | 6/14/2016 16:30 | 6/14/2016 19:30 | 112,827.14         | 0.13            | 1.07              | 105,445.92      | 1.09            | 0.69            | 3           | Atlas      |        |       |
| CSO054              | 6/22/2016 8:15  | 6/22/2016 10:45 | 3,047.40           | 0.10            | 0.55              | 5,540.72        | 0.58            | 0.35            | 3           | Atlas      |        |       |
| CSO054              | 6/23/2016 15:45 | 6/23/2016 21:30 | 148,020.98         | 0.24            | 2.37              | 62,456.11       | 2.92            | 2.92            | 6           | Cloudburst |        |       |
| <b>CSO054 Count</b> |                 |                 | 8                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO054 Total</b> |                 |                 | 343,091.91         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO055              | 3/31/2016 6:45  | 3/31/2016 8:30  | 14,128.90          | 0.07            | 1.33              | 10,623.23       | 1.83            | 0.50            | 24          | Atlas      |        |       |
| CSO055              | 3/31/2016 23:45 | 4/1/2016 1:00   | 5,080.84           | 0.05            | 1.33              | 3,820.18        | 2.06            | 0.50            | 24          | Atlas      |        |       |
| CSO055              | 4/11/2016 17:00 | 4/11/2016 19:15 | 33,790.66          | 0.09            | 1.03              | 32,806.47       | 1.08            | 0.47            | 6           | Atlas      |        |       |
| CSO055              | 4/21/2016 14:30 | 4/21/2016 14:30 | 8,734.74           | 0.00            | 0.42              | 20,797.00       | 0.11            | 0.15            | 24          | Atlas      |        |       |
| CSO055              | 4/26/2016 16:15 | 4/26/2016 16:15 | 9,409.54           | 0.00            | 0.31              | 30,353.36       | 0.43            | 0.20            | 1           | Atlas      |        |       |
| CSO055              | 4/27/2016 21:00 | 4/28/2016 0:00  | 15,974.01          | 0.13            | 0.82              | 19,480.50       | 1.52            | 0.36            | 12          | Atlas      |        |       |
| CSO055              | 4/30/2016 11:00 | 4/30/2016 13:30 | 5,520.77           | 0.10            | 0.83              | 6,651.53        | 1.7             | 0.32            | 24          | Atlas      |        |       |
| CSO055              | 5/1/2016 2:00   | 5/1/2016 2:00   | 614.79             | 0.00            | 0.83              | 740.71          | 1.9             | 0.32            | 24          | Atlas      |        |       |
| CSO055              | 5/7/2016 16:30  | 5/7/2016 23:30  | 3,679.60           | 0.29            | 0.69              | 5,332.76        | 1.43            | 0.36            | 6           | Atlas      |        |       |
| CSO055              | 5/10/2016 14:15 | 5/10/2016 23:30 | 53,537.80          | 0.39            | 0.9               | 59,486.45       | 1.83            | 0.34            | 24          | Atlas      |        |       |
| CSO055              | 5/20/2016 15:15 | 5/20/2016 16:30 | 45,524.16          | 0.05            | 0.53              | 85,894.65       | 1.21            | 0.29            | 3           | Atlas      |        |       |
| CSO055              | 5/25/2016 18:00 | 5/25/2016 18:00 | 4,063.90           | 0.00            | 0.04              | 101,597.40      | 0.65            | 0.03            | 1           | Atlas      |        |       |
| CSO055              | 5/26/2016 13:30 | 5/26/2016 13:30 | 1,630.78           | 0.00            | 0.3               | 5,435.94        | 0.75            | 0.20            | 3           | Atlas      |        |       |
| CSO055              | 6/2/2016 15:30  | 6/2/2016 15:45  | 28,702.78          | 0.01            | 0.68              | 42,209.97       | 0.74            | 0.51            | 1           | Atlas      |        |       |
| CSO055              | 6/4/2016 16:45  | 6/4/2016 16:45  | 26,449.05          | 0.00            | 0.53              | 49,903.87       | 1.19            | 0.27            | 1           | Atlas      |        |       |
| CSO055              | 6/14/2016 16:30 | 6/14/2016 20:30 | 80,454.35          | 0.17            | 1.07              | 75,190.98       | 1.1             | 0.69            | 3           | Atlas      |        |       |



| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO055              | 6/22/2016 8:15  | 6/22/2016 8:15  | 15,223.96          | 0.00            | 0.55              | 27,679.93       | 0.22            | 0.35            | 3           | Atlas      |        |       |
| CSO055              | 6/23/2016 16:00 | 6/23/2016 22:45 | 266,661.38         | 0.28            | 2.37              | 112,515.35      | 2.92            | 2.92            | 6           | Cloudburst |        |       |
| <b>CSO055 Count</b> |                 |                 | 18                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO055 Total</b> |                 |                 | 619,182.03         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO057              | 4/26/2016 16:00 | 4/26/2016 16:00 | 3,730.97           | 0.00            | 0.31              | 12,035.38       | 0.37            | 0.17            | 1           | Atlas      |        |       |
| CSO057              | 4/27/2016 20:45 | 4/27/2016 20:45 | 7.51               | 0.00            | 0.73              | 10.29           | 1.05            | 0.34            | 3           | Atlas      |        |       |
| CSO057              | 5/10/2016 21:15 | 5/10/2016 21:15 | 3.02               | 0.00            | 1.02              | 2.96            | 1.79            | 0.39            | 12          | Atlas      |        |       |
| CSO057              | 5/17/2016 0:15  | 5/17/2016 5:45  | 8.36               | 0.23            | 0.37              | 22.61           | 1.76            | 0.16            | 12          | Atlas      |        |       |
| CSO057              | 5/25/2016 17:45 | 5/25/2016 17:45 | 18.05              | 0.00            | 0.04              | 451.30          | 0.6             | 0.03            | 1           | Atlas      |        |       |
| CSO057              | 6/2/2016 15:15  | 6/2/2016 15:30  | 125.65             | 0.01            | 0.34              | 369.55          | 0.45            | 0.27            | 1           | Atlas      |        |       |
| CSO057              | 6/4/2016 16:30  | 6/4/2016 16:30  | 1,291.59           | 0.00            | 0.3               | 4,305.31        | 0.72            | 0.17            | 1           | Atlas      |        |       |
| CSO057              | 6/14/2016 16:30 | 6/14/2016 16:30 | 4,068.52           | 0.00            | 0.95              | 4,282.65        | 0.63            | 0.61            | 3           | Atlas      |        |       |
| CSO057              | 6/23/2016 16:00 | 6/23/2016 20:30 | 1,075.66           | 0.19            | 2.48              | 433.73          | 2.74            | 3.67            | 6           | Cloudburst |        |       |
| <b>CSO057 Count</b> |                 |                 | 9                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO057 Total</b> |                 |                 | 10,329.33          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO058              | 3/31/2016 22:00 | 3/31/2016 22:00 | 56.71              | 0.00            | 1.13              | 50.18           | 1.71            | 0.43            | 24          | Atlas      |        |       |
| CSO058              | 4/11/2016 17:15 | 4/11/2016 17:30 | 102.28             | 0.01            | 0.99              | 103.31          | 0.81            | 0.46            | 6           | Atlas      |        |       |
| CSO058              | 4/26/2016 16:00 | 4/26/2016 16:00 | 2,128.38           | 0.00            | 0.34              | 6,259.93        | 0.38            | 0.17            | 1           | Atlas      |        |       |
| CSO058              | 4/27/2016 20:45 | 4/27/2016 20:45 | 1,060.05           | 0.00            | 0.67              | 1,582.17        | 1.04            | 0.31            | 3           | Atlas      |        |       |
| CSO058              | 4/30/2016 11:00 | 4/30/2016 11:00 | 210.79             | 0.00            | 0.63              | 334.59          | 1.35            | 0.25            | 6           | Atlas      |        |       |
| CSO058              | 5/7/2016 16:15  | 5/7/2016 22:00  | 5,391.52           | 0.24            | 0.61              | 8,838.56        | 1.21            | 0.32            | 6           | Atlas      |        |       |
| CSO058              | 5/10/2016 18:30 | 5/10/2016 21:45 | 2,241.77           | 0.14            | 0.94              | 2,384.86        | 1.77            | 0.35            | 12          | Atlas      |        |       |
| CSO058              | 5/25/2016 17:45 | 5/25/2016 17:45 | 1,050.50           | 0.00            | 0.03              | 35,016.67       | 0.61            | 0.03            | 1           | Atlas      |        |       |
| CSO058              | 5/26/2016 13:30 | 5/26/2016 13:30 | 117.25             | 0.00            | 0.27              | 434.26          | 0.7             | 0.18            | 3           | Atlas      |        |       |
| CSO058              | 6/2/2016 15:15  | 6/2/2016 15:45  | 1,216.94           | 0.02            | 0.34              | 3,579.23        | 0.46            | 0.26            | 1           | Atlas      |        |       |
| CSO058              | 6/4/2016 16:30  | 6/4/2016 16:45  | 3,193.51           | 0.01            | 0.28              | 11,405.40       | 0.7             | 0.17            | 1           | Atlas      |        |       |
| CSO058              | 6/12/2016 17:45 | 6/12/2016 18:00 | 856.11             | 0.01            | 0.07              | 12,230.21       | 0.1             | 0.06            | 1           | Atlas      |        |       |
| CSO058              | 6/14/2016 16:30 | 6/14/2016 17:00 | 5,363.99           | 0.02            | 0.94              | 5,706.37        | 0.76            | 0.61            | 3           | Atlas      |        |       |
| CSO058              | 6/22/2016 8:00  | 6/22/2016 8:15  | 897.34             | 0.01            | 0.26              | 3,451.32        | 0.17            | 0.17            | 3           | Atlas      |        |       |
| CSO058              | 6/23/2016 15:45 | 6/23/2016 21:00 | 123,708.89         | 0.22            | 2.46              | 50,288.17       | 2.71            | 3.50            | 6           | Cloudburst |        |       |
| <b>CSO058 Count</b> |                 |                 | 15                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO058 Total</b> |                 |                 | 147,596.03         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO082              | 4/11/2016 17:30 | 4/11/2016 18:15 | 13,118.22          | 0.03            | 1.04              | 12,613.67       | 1               | 0.46            | 6           | Atlas      |        |       |
| CSO082              | 5/10/2016 21:45 | 5/10/2016 22:00 | 11,491.58          | 0.01            | 0.7               | 16,416.55       | 1.44            | 0.26            | 24          | Atlas      |        |       |
| CSO082              | 5/20/2016 14:30 | 5/20/2016 16:00 | 53,420.36          | 0.06            | 0.53              | 100,793.14      | 1.22            | 0.29            | 3           | Atlas      |        |       |
| CSO082              | 6/14/2016 16:30 | 6/14/2016 18:00 | 22,696.12          | 0.06            | 0.82              | 27,678.19       | 0.85            | 0.53            | 3           | Atlas      |        |       |
| CSO082              | 6/23/2016 16:15 | 6/23/2016 22:00 | 290,269.41         | 0.24            | 2.15              | 135,009.03      | 2.41            | 1.92            | 6           | Cloudburst |        |       |
| <b>CSO082 Count</b> |                 |                 | 5                  |                 |                   |                 |                 |                 |             |            |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| <b>CSO082 Total</b> |                 |                 | 390,995.69         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO083              | 5/10/2016 21:45 | 5/10/2016 21:45 | 55,080.81          | 0.00            | 0.79              | 69,722.55       | 1.62            | 0.29            | 24          | Atlas      |        |       |
| CSO083              | 6/14/2016 16:30 | 6/14/2016 16:45 | 61,581.21          | 0.01            | 0.68              | 90,560.60       | 0.59            | 0.43            | 3           | Atlas      |        |       |
| CSO083              | 6/23/2016 20:00 | 6/23/2016 20:45 | 22,794.06          | 0.03            | 1.87              | 12,189.34       | 2.04            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO083 Count</b> |                 |                 | 3                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO083 Total</b> |                 |                 | 139,456.08         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO084              | 3/31/2016 4:45  | 3/31/2016 4:45  | 1,918.49           | 0.00            | 0.99              | 1,937.87        | 1.76            | 0.37            | 24          | Atlas      |        |       |
| CSO084              | 3/31/2016 22:30 | 3/31/2016 23:30 | 1,736.78           | 0.04            | 0.99              | 1,754.32        | 1.77            | 0.37            | 24          | Atlas      |        |       |
| CSO084              | 4/11/2016 17:15 | 4/11/2016 18:15 | 4,386.59           | 0.04            | 0.89              | 4,928.76        | 0.86            | 0.42            | 6           | Atlas      |        |       |
| CSO084              | 4/21/2016 14:45 | 4/21/2016 14:45 | 173.50             | 0.00            | 0.29              | 598.28          | 0.14            | 0.13            | 3           | Atlas      |        |       |
| CSO084              | 4/26/2016 16:15 | 4/26/2016 21:45 | 1,242.36           | 0.23            | 0.39              | 3,185.55        | 0.71            | 0.20            | 6           | Atlas      |        |       |
| CSO084              | 4/27/2016 21:15 | 4/27/2016 22:15 | 6,903.51           | 0.04            | 0.51              | 13,536.30       | 1.19            | 0.23            | 3           | Atlas      |        |       |
| CSO084              | 4/30/2016 11:15 | 4/30/2016 11:30 | 1,674.68           | 0.01            | 0.48              | 3,488.91        | 1.16            | 0.19            | 6           | Atlas      |        |       |
| CSO084              | 5/1/2016 15:00  | 5/1/2016 15:00  | 969.26             | 0.00            | 0.23              | 4,214.18        | 1.52            | 0.15            | 3           | Atlas      |        |       |
| CSO084              | 5/7/2016 16:30  | 5/7/2016 16:30  | 608.86             | 0.00            | 0.61              | 998.14          | 0.78            | 0.32            | 6           | Atlas      |        |       |
| CSO084              | 5/10/2016 14:30 | 5/10/2016 19:00 | 2,088.06           | 0.19            | 0.79              | 2,643.12        | 1.41            | 0.29            | 24          | Atlas      |        |       |
| CSO084              | 5/20/2016 14:00 | 5/20/2016 16:00 | 6,428.22           | 0.08            | 0.57              | 11,277.58       | 1.24            | 0.32            | 3           | Atlas      |        |       |
| CSO084              | 5/26/2016 13:45 | 5/26/2016 13:45 | 281.58             | 0.00            | 0.23              | 1,224.28        | 0.75            | 0.15            | 3           | Atlas      |        |       |
| CSO084              | 6/2/2016 16:00  | 6/2/2016 16:00  | 2,162.26           | 0.00            | 0.34              | 6,359.59        | 0.46            | 0.26            | 1           | Atlas      |        |       |
| CSO084              | 6/4/2016 17:00  | 6/4/2016 17:00  | 1,532.78           | 0.00            | 0.13              | 11,790.63       | 0.57            | 0.06            | 12          | Atlas      |        |       |
| CSO084              | 6/12/2016 18:15 | 6/12/2016 18:15 | 1,718.03           | 0.00            | 0.17              | 10,106.07       | 0.19            | 0.14            | 1           | Atlas      |        |       |
| CSO084              | 6/14/2016 17:15 | 6/14/2016 17:30 | 1,619.42           | 0.01            | 0.68              | 2,381.50        | 0.7             | 0.43            | 3           | Atlas      |        |       |
| CSO084              | 6/22/2016 8:30  | 6/22/2016 8:30  | 828.73             | 0.00            | 0.18              | 4,604.05        | 0.11            | 0.11            | 3           | Atlas      |        |       |
| CSO084              | 6/23/2016 16:00 | 6/23/2016 20:15 | 3,000.51           | 0.18            | 1.87              | 1,604.55        | 1.86            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO084 Count</b> |                 |                 | 18                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO084 Total</b> |                 |                 | 39,273.64          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO088              | 4/11/2016 17:30 | 4/11/2016 18:15 | 17,302.67          | 0.03            | 0.99              | 17,477.44       | 0.96            | 0.44            | 6           | Atlas      |        |       |
| CSO088              | 4/26/2016 16:30 | 4/26/2016 16:30 | 3,655.25           | 0.00            | 0.26              | 14,058.65       | 0.36            | 0.15            | 3           | Atlas      |        |       |
| CSO088              | 4/27/2016 21:15 | 4/27/2016 21:15 | 4,779.45           | 0.00            | 0.66              | 7,241.59        | 1.03            | 0.28            | 12          | Atlas      |        |       |
| <b>CSO088 Count</b> |                 |                 | 3                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO088 Total</b> |                 |                 | 25,737.36          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO092              | 3/31/2016 2:30  | 4/1/2016 11:15  | 30,546.52          | 1.36            | 1.07              | 28,548.15       | 2.49            | 0.41            | 24          | Atlas      |        |       |
| CSO092              | 4/11/2016 16:45 | 4/11/2016 17:45 | 1,068.28           | 0.04            | 0.85              | 1,256.80        | 0.76            | 0.41            | 6           | Atlas      |        |       |
| CSO092              | 4/21/2016 14:15 | 4/21/2016 14:15 | 1,338.07           | 0.00            | 0.3               | 4,460.24        | 0.12            | 0.11            | 3           | Atlas      |        |       |
| CSO092              | 4/27/2016 21:00 | 4/27/2016 22:30 | 2,150.47           | 0.06            | 0.55              | 3,909.94        | 1.16            | 0.26            | 1           | Atlas      |        |       |
| CSO092              | 4/30/2016 8:45  | 4/30/2016 13:15 | 1,103.93           | 0.19            | 0.47              | 2,348.78        | 1.22            | 0.17            | 6           | Atlas      |        |       |
| CSO092              | 4/30/2016 23:00 | 5/1/2016 16:00  | 2,578.57           | 0.71            | 0.47              | 5,486.33        | 1.66            | 0.17            | 6           | Atlas      |        |       |
| CSO092              | 5/4/2016 11:15  | 5/4/2016 13:15  | 487.41             | 0.08            | 0.2               | 2,437.03        | 1.52            | 0.12            | 1           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO092              | 5/7/2016 16:15  | 5/7/2016 21:45  | 743.67             | 0.23            | 0.63              | 1,180.42        | 1.25            | 0.33            | 6           | Atlas      |        |       |
| CSO092              | 5/10/2016 8:30  | 5/10/2016 21:45 | 779.41             | 0.55            | 0.85              | 916.95          | 1.72            | 0.32            | 24          | Atlas      |        |       |
| CSO092              | 5/20/2016 14:30 | 5/20/2016 15:30 | 581.06             | 0.04            | 0.63              | 922.32          | 1.27            | 0.35            | 3           | Atlas      |        |       |
| CSO092              | 6/2/2016 15:15  | 6/2/2016 15:15  | 525.66             | 0.00            | 0.47              | 1,118.42        | 0.46            | 0.39            | 1           | Atlas      |        |       |
| CSO092              | 6/23/2016 15:45 | 6/24/2016 1:45  | 7,935.93           | 0.42            | 1.62              | 4,898.72        | 1.76            | 0.87            | 6           | Atlas      |        |       |
| <b>CSO092 Count</b> |                 |                 | 12                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO092 Total</b> |                 |                 | 49,838.97          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO093              | 6/4/2016 16:45  | 6/4/2016 16:45  | 84.39              | 0.00            | 0.19              | 444.13          | 0.61            | 0.10            | 3           | Atlas      |        |       |
| CSO093              | 6/23/2016 16:15 | 6/23/2016 16:15 | 4,806.59           | 0.00            | 1.94              | 2,477.63        | 1.13            | 1.31            | 6           | Cloudburst |        |       |
| <b>CSO093 Count</b> |                 |                 | 2                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO093 Total</b> |                 |                 | 4,890.98           |                 |                   |                 |                 |                 |             |            |        |       |
| CSO097              | 3/31/2016 3:30  | 4/4/2016 22:15  | 4,048,571.78       | 4.78            | 1.15              | 3,520,497.20    | 2.45            | 0.44            | 24          | Atlas      |        |       |
| CSO097              | 4/11/2016 16:30 | 4/11/2016 23:00 | 201,959.01         | 0.27            | 0.81              | 249,332.11      | 0.93            | 0.39            | 6           | Atlas      |        |       |
| CSO097              | 4/21/2016 15:45 | 4/21/2016 17:30 | 34,995.21          | 0.07            | 0.35              | 99,986.31       | 0.29            | 0.16            | 3           | Atlas      |        |       |
| CSO097              | 4/26/2016 21:15 | 4/26/2016 23:15 | 40,197.55          | 0.08            | 0.33              | 121,810.77      | 0.72            | 0.15            | 3           | Atlas      |        |       |
| CSO097              | 4/27/2016 14:00 | 4/28/2016 0:30  | 142,170.06         | 0.44            | 0.6               | 236,950.11      | 1.32            | 0.28            | 3           | Atlas      |        |       |
| CSO097              | 4/30/2016 11:00 | 4/30/2016 15:15 | 92,113.17          | 0.18            | 0.5               | 184,226.34      | 1.29            | 0.19            | 24          | Atlas      |        |       |
| CSO097              | 4/30/2016 23:30 | 5/1/2016 0:15   | 2,211.37           | 0.03            | 0.5               | 4,422.73        | 1.39            | 0.19            | 24          | Atlas      |        |       |
| CSO097              | 5/1/2016 14:45  | 5/2/2016 21:45  | 131,208.65         | 1.29            | 0.48              | 273,351.34      | 1.91            | 0.34            | 1           | Atlas      |        |       |
| CSO097              | 5/4/2016 11:15  | 5/4/2016 14:30  | 57,944.38          | 0.14            | 0.18              | 321,913.24      | 1.74            | 0.12            | 1           | Atlas      |        |       |
| CSO097              | 5/7/2016 20:15  | 5/8/2016 0:00   | 98,661.39          | 0.16            | 0.59              | 167,222.69      | 1.37            | 0.31            | 6           | Atlas      |        |       |
| CSO097              | 5/10/2016 9:15  | 5/14/2016 19:45 | 775,490.92         | 4.44            | 0.68              | 1,140,427.82    | 1.89            | 0.25            | 24          | Atlas      |        |       |
| CSO097              | 5/17/2016 6:15  | 5/17/2016 9:45  | 75,762.04          | 0.15            | 0.31              | 244,393.68      | 1.32            | 0.13            | 12          | Atlas      |        |       |
| CSO097              | 5/17/2016 20:15 | 5/18/2016 2:00  | 87,354.17          | 0.24            | 0.24              | 363,975.71      | 1.08            | 0.12            | 6           | Atlas      |        |       |
| CSO097              | 5/20/2016 13:30 | 5/22/2016 22:30 | 373,525.84         | 2.38            | 0.79              | 472,817.51      | 1.43            | 0.45            | 3           | Atlas      |        |       |
| CSO097              | 5/26/2016 14:45 | 5/26/2016 17:30 | 65,217.48          | 0.11            | 0.23              | 283,554.28      | 1.09            | 0.15            | 3           | Atlas      |        |       |
| CSO097              | 6/2/2016 15:30  | 6/2/2016 17:30  | 53,752.81          | 0.08            | 0.52              | 103,370.80      | 0.65            | 0.42            | 1           | Atlas      |        |       |
| CSO097              | 6/12/2016 18:00 | 6/12/2016 20:15 | 61,883.28          | 0.09            | 0.48              | 128,923.51      | 0.5             | 0.41            | 1           | Atlas      |        |       |
| CSO097              | 6/14/2016 16:45 | 6/14/2016 20:00 | 77,553.72          | 0.14            | 0.63              | 123,101.14      | 1.11            | 0.40            | 3           | Atlas      |        |       |
| CSO097              | 6/23/2016 16:15 | 6/24/2016 5:15  | 301,141.14         | 0.54            | 1.71              | 176,105.93      | 1.86            | 0.90            | 6           | Atlas      |        |       |
| <b>CSO097 Count</b> |                 |                 | 19                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO097 Total</b> |                 |                 | 6,721,713.98       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO104              | 4/11/2016 18:00 | 4/11/2016 18:00 | 1,670.31           | 0.00            | 1.14              | 1,465.19        | 1.16            | 0.52            | 6           | Atlas      |        |       |
| CSO104              | 4/27/2016 20:15 | 4/28/2016 12:00 | 76,626.32          | 0.66            | 0.91              | 84,204.74       | 1.59            | 0.43            | 3           | Atlas      |        |       |
| CSO104              | 5/11/2016 22:00 | 5/11/2016 22:00 | 811.64             | 0.00            | 0.3               | 2,705.45        | 1.58            | 0.14            | 3           | Atlas      |        |       |
| CSO104              | 6/2/2016 15:30  | 6/2/2016 17:15  | 369,209.44         | 0.07            | 1.49              | 247,791.57      | 1.72            | 2.75            | 1           | Atlas      |        |       |
| CSO104              | 6/12/2016 17:45 | 6/12/2016 20:00 | 12,643.45          | 0.09            | 0.59              | 21,429.57       | 0.6             | 0.50            | 1           | Atlas      |        |       |
| CSO104              | 6/14/2016 16:15 | 6/14/2016 21:00 | 518,758.17         | 0.20            | 1.46              | 355,313.82      | 2.05            | 0.87            | 1           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO104              | 6/22/2016 9:00  | 6/22/2016 9:30  | 2,932.23           | 0.02            | 0.17              | 17,248.41       | 0.16            | 0.09            | 6           | Atlas      |        |       |
| CSO104              | 6/23/2016 16:00 | 6/24/2016 0:45  | 390,508.55         | 0.36            | 2.12              | 184,202.14      | 2.29            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO104 Count</b> |                 |                 | 8                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO104 Total</b> |                 |                 | 1,373,160.10       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO105              | 3/31/2016 1:00  | 3/31/2016 11:15 | 2,836,438.08       | 0.43            | 1.38              | 2,055,389.91    | 2.1             | 0.52            | 24          | Atlas      |        |       |
| CSO105              | 3/31/2016 21:45 | 4/1/2016 2:00   | 2,900,932.48       | 0.18            | 1.38              | 2,102,124.98    | 2.11            | 0.52            | 24          | Atlas      |        |       |
| CSO105              | 4/11/2016 13:15 | 4/11/2016 21:00 | 5,748,681.06       | 0.32            | 1.14              | 5,042,702.69    | 1.3             | 0.52            | 6           | Atlas      |        |       |
| CSO105              | 4/21/2016 15:30 | 4/21/2016 17:15 | 100,394.74         | 0.07            | 0.41              | 244,865.22      | 0.16            | 0.15            | 24          | Atlas      |        |       |
| CSO105              | 4/22/2016 14:15 | 4/22/2016 14:45 | 239,508.91         | 0.02            | 0.41              | 584,168.08      | 0.44            | 0.15            | 24          | Atlas      |        |       |
| CSO105              | 4/26/2016 20:45 | 4/26/2016 23:15 | 140,885.51         | 0.10            | 0.24              | 587,022.97      | 0.67            | 0.15            | 1           | Atlas      |        |       |
| CSO105              | 4/27/2016 12:30 | 4/28/2016 0:15  | 4,386,702.00       | 0.49            | 0.91              | 4,820,551.64    | 1.58            | 0.43            | 3           | Atlas      |        |       |
| CSO105              | 4/30/2016 8:15  | 4/30/2016 14:45 | 2,253,264.16       | 0.27            | 0.79              | 2,852,233.11    | 1.58            | 0.30            | 24          | Atlas      |        |       |
| CSO105              | 5/1/2016 14:30  | 5/1/2016 17:30  | 463,720.08         | 0.13            | 0.65              | 713,415.51      | 2.59            | 0.43            | 3           | Atlas      |        |       |
| CSO105              | 5/7/2016 20:00  | 5/7/2016 23:45  | 1,848,057.91       | 0.16            | 0.52              | 3,553,957.51    | 1.76            | 0.27            | 3           | Atlas      |        |       |
| CSO105              | 5/10/2016 13:30 | 5/11/2016 0:15  | 4,383,466.33       | 0.45            | 0.72              | 6,088,147.68    | 1.53            | 0.29            | 3           | Atlas      |        |       |
| CSO105              | 5/11/2016 20:15 | 5/11/2016 23:45 | 401,254.98         | 0.15            | 0.3               | 1,337,516.60    | 1.6             | 0.14            | 3           | Atlas      |        |       |
| CSO105              | 5/20/2016 12:45 | 5/20/2016 18:00 | 5,367,136.68       | 0.22            | 0.63              | 8,519,264.57    | 1.29            | 0.35            | 3           | Atlas      |        |       |
| CSO105              | 5/26/2016 13:30 | 5/26/2016 16:15 | 67,649.50          | 0.11            | 0.36              | 187,915.28      | 1.09            | 0.24            | 3           | Atlas      |        |       |
| CSO105              | 6/2/2016 15:15  | 6/2/2016 18:45  | 11,373,830.58      | 0.15            | 1.49              | 7,633,443.34    | 1.73            | 2.75            | 1           | Atlas      |        |       |
| CSO105              | 6/4/2016 16:30  | 6/4/2016 19:00  | 914,826.43         | 0.10            | 0.18              | 5,082,369.06    | 1.77            | 0.07            | 12          | Atlas      |        |       |
| CSO105              | 6/12/2016 18:00 | 6/12/2016 21:15 | 1,188,282.48       | 0.14            | 0.59              | 2,014,038.11    | 0.61            | 0.50            | 1           | Atlas      |        |       |
| CSO105              | 6/14/2016 16:15 | 6/14/2016 20:45 | 13,485,056.08      | 0.19            | 1.46              | 9,236,339.78    | 2.05            | 0.87            | 1           | Atlas      |        |       |
| CSO105              | 6/23/2016 15:45 | 6/24/2016 0:45  | 17,358,845.54      | 0.38            | 2.12              | 8,188,134.69    | 2.29            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO105 Count</b> |                 |                 | 19                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO105 Total</b> |                 |                 | 75,458,933.53      |                 |                   |                 |                 |                 |             |            |        |       |
| CSO108              | 3/31/2016 22:30 | 3/31/2016 22:30 | 14,250.77          | 0.00            | 1.42              | 10,035.75       | 2.25            | 0.54            | 24          | Atlas      |        |       |
| CSO108              | 5/1/2016 15:00  | 5/1/2016 15:30  | 251,788.47         | 0.02            | 0.38              | 662,601.24      | 2.14            | 0.25            | 3           | Atlas      |        |       |
| CSO108              | 5/10/2016 19:00 | 5/10/2016 22:00 | 45,553.11          | 0.13            | 0.89              | 51,183.27       | 1.65            | 0.33            | 24          | Atlas      |        |       |
| CSO108              | 5/20/2016 15:00 | 5/20/2016 16:00 | 65,848.43          | 0.04            | 0.81              | 81,294.36       | 1.45            | 0.47            | 3           | Atlas      |        |       |
| CSO108              | 6/23/2016 16:30 | 6/24/2016 0:00  | 229,988.74         | 0.31            | 1.38              | 166,658.51      | 1.52            | 0.73            | 6           | Atlas      |        |       |
| <b>CSO108 Count</b> |                 |                 | 5                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO108 Total</b> |                 |                 | 607,429.53         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO109              | 3/31/2016 22:15 | 3/31/2016 22:15 | 107,711.77         | 0.00            | 1.4               | 76,936.98       | 2.24            | 0.53            | 24          | Atlas      |        |       |
| CSO109              | 4/11/2016 18:00 | 4/11/2016 18:00 | 17,881.25          | 0.00            | 0.8               | 22,351.56       | 0.74            | 0.38            | 6           | Atlas      |        |       |
| CSO109              | 4/27/2016 21:00 | 4/27/2016 21:00 | 73,427.61          | 0.00            | 0.7               | 104,896.58      | 1.34            | 0.32            | 3           | Atlas      |        |       |
| CSO109              | 5/1/2016 15:00  | 5/1/2016 15:15  | 1,031,588.34       | 0.01            | 0.36              | 2,865,523.17    | 1.97            | 0.24            | 3           | Atlas      |        |       |
| CSO109              | 5/10/2016 18:45 | 5/10/2016 22:00 | 692,935.60         | 0.14            | 0.78              | 888,378.98      | 1.65            | 0.28            | 24          | Atlas      |        |       |
| CSO109              | 5/20/2016 14:45 | 5/20/2016 15:15 | 216,278.94         | 0.02            | 0.84              | 257,474.92      | 1.43            | 0.49            | 3           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|----------|--------|-------|
| CSO109              | 6/2/2016 15:45  | 6/2/2016 15:45  | 83,325.15          | 0.00            | 0.55              | 151,500.27      | 0.66            | 0.46            | 1           | Atlas    |        |       |
| CSO109              | 6/12/2016 18:00 | 6/12/2016 18:00 | 191,277.53         | 0.00            | 0.64              | 298,871.14      | 0.61            | 0.54            | 1           | Atlas    |        |       |
| CSO109              | 6/23/2016 16:30 | 6/23/2016 21:00 | 788,742.75         | 0.19            | 1.38              | 571,552.72      | 1.41            | 0.70            | 6           | Atlas    |        |       |
| <b>CSO109 Count</b> |                 |                 | 9                  |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO109 Total</b> |                 |                 | 3,203,168.94       |                 |                   |                 |                 |                 |             |          |        |       |
| CSO110              | 3/31/2016 4:00  | 4/1/2016 1:45   | 974,184.00         | 0.91            | 1.15              | 847,116.52      | 2.55            | 0.44            | 24          | Atlas    |        |       |
| CSO110              | 4/11/2016 17:00 | 4/11/2016 21:45 | 669.79             | 0.20            | 0.91              | 736.04          | 1.02            | 0.42            | 6           | Atlas    |        |       |
| CSO110              | 4/21/2016 16:15 | 4/21/2016 17:00 | 96.68              | 0.03            | 0.3               | 322.26          | 0.22            | 0.11            | 3           | Atlas    |        |       |
| CSO110              | 4/26/2016 21:30 | 4/26/2016 23:00 | 148.09             | 0.06            | 0.32              | 462.79          | 0.63            | 0.16            | 6           | Atlas    |        |       |
| CSO110              | 4/27/2016 14:15 | 4/27/2016 23:30 | 622.33             | 0.39            | 0.6               | 1,037.21        | 1.23            | 0.29            | 1           | Atlas    |        |       |
| CSO110              | 4/30/2016 11:30 | 4/30/2016 14:15 | 141.76             | 0.11            | 0.48              | 295.33          | 1.28            | 0.18            | 24          | Atlas    |        |       |
| CSO110              | 5/1/2016 15:15  | 5/1/2016 17:15  | 414.66             | 0.08            | 0.53              | 782.37          | 1.93            | 0.37            | 1           | Atlas    |        |       |
| CSO110              | 5/4/2016 11:45  | 5/4/2016 12:45  | 88.61              | 0.04            | 0.19              | 466.34          | 1.77            | 0.11            | 3           | Atlas    |        |       |
| CSO110              | 5/7/2016 17:00  | 5/7/2016 23:15  | 470.03             | 0.26            | 0.82              | 573.21          | 1.65            | 0.43            | 6           | Atlas    |        |       |
| CSO110              | 5/10/2016 14:45 | 5/10/2016 23:30 | 862.90             | 0.36            | 0.76              | 1,135.40        | 1.8             | 0.28            | 24          | Atlas    |        |       |
| CSO110              | 5/11/2016 19:30 | 5/11/2016 23:30 | 159.58             | 0.17            | 0.27              | 591.05          | 1.87            | 0.14            | 3           | Atlas    |        |       |
| CSO110              | 5/12/2016 17:30 | 5/12/2016 18:30 | 30.13              | 0.04            | 0.1               | 301.31          | 1.99            | 0.08            | 1           | Atlas    |        |       |
| CSO110              | 5/17/2016 6:45  | 5/17/2016 8:15  | 129.16             | 0.06            | 0.35              | 369.02          | 1.48            | 0.15            | 12          | Atlas    |        |       |
| CSO110              | 5/17/2016 20:45 | 5/17/2016 22:15 | 130.33             | 0.06            | 0.26              | 501.28          | 1.22            | 0.13            | 6           | Atlas    |        |       |
| CSO110              | 5/20/2016 14:00 | 5/20/2016 17:30 | 1,122.61           | 0.15            | 0.69              | 1,626.97        | 1.33            | 0.39            | 3           | Atlas    |        |       |
| CSO110              | 5/26/2016 15:15 | 5/26/2016 16:30 | 111.46             | 0.05            | 0.26              | 428.70          | 1.02            | 0.17            | 3           | Atlas    |        |       |
| CSO110              | 6/2/2016 15:45  | 6/2/2016 17:00  | 249.37             | 0.05            | 0.51              | 488.96          | 0.62            | 0.43            | 1           | Atlas    |        |       |
| CSO110              | 6/12/2016 18:15 | 6/12/2016 19:30 | 226.32             | 0.05            | 0.39              | 580.30          | 0.43            | 0.33            | 1           | Atlas    |        |       |
| CSO110              | 6/14/2016 17:00 | 6/14/2016 19:15 | 537.33             | 0.09            | 0.66              | 814.13          | 1.05            | 0.43            | 3           | Atlas    |        |       |
| CSO110              | 6/23/2016 16:15 | 6/23/2016 23:45 | 1,550.37           | 0.31            | 1.68              | 922.84          | 1.79            | 0.89            | 6           | Atlas    |        |       |
| <b>CSO110 Count</b> |                 |                 | 20                 |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO110 Total</b> |                 |                 | 981,945.51         |                 |                   |                 |                 |                 |             |          |        |       |
| CSO111              | 5/1/2016 15:00  | 5/1/2016 15:00  | 12,066.01          | 0.00            | 0.53              | 22,766.06       | 1.82            | 0.37            | 1           | Atlas    |        |       |
| CSO111              | 6/14/2016 17:00 | 6/14/2016 17:15 | 2,029.76           | 0.01            | 0.66              | 3,075.39        | 0.83            | 0.43            | 3           | Atlas    |        |       |
| CSO111              | 6/23/2016 20:45 | 6/23/2016 20:45 | 915.70             | 0.00            | 1.68              | 545.06          | 1.73            | 0.89            | 6           | Atlas    |        |       |
| <b>CSO111 Count</b> |                 |                 | 3                  |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO111 Total</b> |                 |                 | 15,011.47          |                 |                   |                 |                 |                 |             |          |        |       |
| CSO118              | 3/31/2016 1:30  | 4/1/2016 0:30   | 1,817,187.04       | 0.96            | 0.99              | 1,835,542.46    | 2.38            | 0.37            | 24          | Atlas    |        |       |
| CSO118              | 4/11/2016 11:15 | 4/11/2016 19:45 | 1,880,589.83       | 0.35            | 0.89              | 2,113,022.28    | 0.95            | 0.42            | 6           | Atlas    |        |       |
| CSO118              | 4/21/2016 14:15 | 4/21/2016 16:15 | 420,508.90         | 0.08            | 0.29              | 1,450,030.68    | 0.22            | 0.13            | 3           | Atlas    |        |       |
| CSO118              | 4/22/2016 0:45  | 4/22/2016 1:00  | 174.56             | 0.01            | 0.29              | 601.94          | 0.27            | 0.13            | 3           | Atlas    |        |       |
| CSO118              | 4/26/2016 16:00 | 4/26/2016 22:30 | 712,070.22         | 0.27            | 0.39              | 1,825,821.07    | 0.72            | 0.20            | 6           | Atlas    |        |       |
| CSO118              | 4/27/2016 12:45 | 4/27/2016 22:45 | 1,533,236.09       | 0.42            | 0.51              | 3,006,345.27    | 1.2             | 0.23            | 3           | Atlas    |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO118              | 4/30/2016 8:30  | 4/30/2016 13:30 | 687,991.55         | 0.21            | 0.48              | 1,433,315.74    | 1.26            | 0.19            | 6           | Atlas      |        |       |
| CSO118              | 4/30/2016 23:15 | 4/30/2016 23:15 | 78.40              | 0.00            | 0.48              | 163.32          | 1.35            | 0.19            | 6           | Atlas      |        |       |
| CSO118              | 5/1/2016 14:45  | 5/1/2016 16:15  | 180,876.01         | 0.06            | 0.23              | 786,417.45      | 1.6             | 0.15            | 3           | Atlas      |        |       |
| CSO118              | 5/4/2016 10:45  | 5/4/2016 12:15  | 61,889.01          | 0.06            | 0.2               | 309,445.03      | 1.39            | 0.12            | 1           | Atlas      |        |       |
| CSO118              | 5/7/2016 16:15  | 5/7/2016 22:30  | 257,121.55         | 0.26            | 0.61              | 421,510.74      | 1.16            | 0.32            | 6           | Atlas      |        |       |
| CSO118              | 5/10/2016 8:00  | 5/10/2016 22:30 | 2,659,341.12       | 0.60            | 0.79              | 3,366,254.58    | 1.63            | 0.29            | 24          | Atlas      |        |       |
| CSO118              | 5/11/2016 21:15 | 5/11/2016 22:45 | 294,782.98         | 0.06            | 0.21              | 1,403,728.46    | 1.63            | 0.12            | 3           | Atlas      |        |       |
| CSO118              | 5/12/2016 16:00 | 5/12/2016 18:00 | 82,875.90          | 0.08            | 0.12              | 690,632.47      | 1.76            | 0.08            | 3           | Atlas      |        |       |
| CSO118              | 5/17/2016 1:15  | 5/17/2016 7:15  | 38,535.73          | 0.25            | 0.63              | 61,167.82       | 1.45            | 0.21            | 24          | Atlas      |        |       |
| CSO118              | 5/17/2016 19:30 | 5/17/2016 23:30 | 50,505.84          | 0.17            | 0.63              | 80,168.00       | 1.22            | 0.21            | 24          | Atlas      |        |       |
| CSO118              | 5/20/2016 12:45 | 5/20/2016 16:30 | 2,418,362.79       | 0.16            | 0.57              | 4,242,741.73    | 1.24            | 0.32            | 3           | Atlas      |        |       |
| CSO118              | 5/25/2016 18:00 | 5/25/2016 18:00 | 250.59             | 0.00            | 0.04              | 6,264.84        | 0.66            | 0.03            | 1           | Atlas      |        |       |
| CSO118              | 5/26/2016 13:30 | 5/26/2016 15:45 | 169,270.59         | 0.09            | 0.23              | 735,959.10      | 0.89            | 0.15            | 3           | Atlas      |        |       |
| CSO118              | 6/2/2016 15:00  | 6/2/2016 16:30  | 1,127,743.31       | 0.06            | 0.34              | 3,316,892.10    | 0.52            | 0.26            | 1           | Atlas      |        |       |
| CSO118              | 6/4/2016 11:30  | 6/4/2016 18:15  | 952,503.64         | 0.28            | 0.13              | 7,326,951.06    | 0.6             | 0.06            | 12          | Atlas      |        |       |
| CSO118              | 6/12/2016 17:45 | 6/12/2016 18:45 | 175,793.35         | 0.04            | 0.17              | 1,034,078.51    | 0.2             | 0.14            | 1           | Atlas      |        |       |
| CSO118              | 6/14/2016 16:30 | 6/14/2016 19:00 | 3,429,201.04       | 0.10            | 0.68              | 5,042,942.71    | 0.84            | 0.43            | 3           | Atlas      |        |       |
| CSO118              | 6/22/2016 8:15  | 6/22/2016 8:45  | 532,161.62         | 0.02            | 0.18              | 2,956,453.42    | 0.11            | 0.11            | 3           | Atlas      |        |       |
| CSO118              | 6/23/2016 15:45 | 6/23/2016 23:30 | 6,752,283.88       | 0.32            | 1.87              | 3,610,846.99    | 2.05            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO118 Count</b> |                 |                 | 25                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO118 Total</b> |                 |                 | 26,235,335.52      |                 |                   |                 |                 |                 |             |            |        |       |
| CSO119              | 3/31/2016 4:15  | 3/31/2016 7:15  | 38,611.07          | 0.13            | 0.99              | 39,001.08       | 1.98            | 0.37            | 24          | Atlas      |        |       |
| CSO119              | 3/31/2016 22:00 | 3/31/2016 23:45 | 113,313.65         | 0.07            | 0.99              | 114,458.24      | 1.79            | 0.37            | 24          | Atlas      |        |       |
| CSO119              | 4/11/2016 16:15 | 4/11/2016 18:15 | 164,451.26         | 0.08            | 0.89              | 184,776.70      | 0.86            | 0.42            | 6           | Atlas      |        |       |
| CSO119              | 4/21/2016 14:15 | 4/21/2016 14:30 | 3,042.99           | 0.01            | 0.29              | 10,493.07       | 0.14            | 0.13            | 3           | Atlas      |        |       |
| CSO119              | 4/26/2016 16:00 | 4/26/2016 21:30 | 49,956.58          | 0.23            | 0.39              | 128,093.80      | 0.7             | 0.20            | 6           | Atlas      |        |       |
| CSO119              | 4/27/2016 13:45 | 4/27/2016 22:00 | 152,068.89         | 0.34            | 0.51              | 298,174.30      | 1.19            | 0.23            | 3           | Atlas      |        |       |
| CSO119              | 4/30/2016 11:00 | 4/30/2016 11:15 | 42,855.77          | 0.01            | 0.48              | 89,282.85       | 1.16            | 0.19            | 6           | Atlas      |        |       |
| CSO119              | 5/1/2016 14:45  | 5/1/2016 15:00  | 28,490.27          | 0.01            | 0.23              | 123,870.76      | 1.52            | 0.15            | 3           | Atlas      |        |       |
| CSO119              | 5/7/2016 16:15  | 5/7/2016 16:15  | 1,072.19           | 0.00            | 0.61              | 1,757.68        | 0.78            | 0.32            | 6           | Atlas      |        |       |
| CSO119              | 5/10/2016 14:15 | 5/10/2016 22:00 | 183,695.61         | 0.32            | 0.79              | 232,526.08      | 1.62            | 0.29            | 24          | Atlas      |        |       |
| CSO119              | 5/11/2016 21:30 | 5/11/2016 22:00 | 33,782.69          | 0.02            | 0.21              | 160,869.96      | 1.61            | 0.12            | 3           | Atlas      |        |       |
| CSO119              | 5/20/2016 13:30 | 5/20/2016 15:45 | 234,335.49         | 0.09            | 0.57              | 411,114.90      | 1.24            | 0.32            | 3           | Atlas      |        |       |
| CSO119              | 5/26/2016 13:30 | 5/26/2016 13:45 | 4,732.99           | 0.01            | 0.23              | 20,578.22       | 0.75            | 0.15            | 3           | Atlas      |        |       |
| CSO119              | 6/2/2016 15:15  | 6/2/2016 15:45  | 92,401.20          | 0.02            | 0.34              | 271,768.24      | 0.48            | 0.26            | 1           | Atlas      |        |       |
| CSO119              | 6/4/2016 16:30  | 6/4/2016 16:45  | 56,384.38          | 0.01            | 0.13              | 433,726.00      | 0.58            | 0.06            | 12          | Atlas      |        |       |
| CSO119              | 6/12/2016 17:45 | 6/12/2016 18:00 | 44,973.30          | 0.01            | 0.17              | 264,548.83      | 0.19            | 0.14            | 1           | Atlas      |        |       |
| CSO119              | 6/14/2016 16:15 | 6/14/2016 18:00 | 165,300.66         | 0.07            | 0.68              | 243,089.20      | 0.78            | 0.43            | 3           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO119              | 6/22/2016 8:00  | 6/22/2016 8:15  | 25,054.73          | 0.01            | 0.18              | 139,192.95      | 0.11            | 0.11            | 3           | Atlas      |        |       |
| CSO119              | 6/23/2016 15:45 | 6/23/2016 21:00 | 350,941.52         | 0.22            | 1.87              | 187,669.26      | 2.04            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO119 Count</b> |                 |                 | 19                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO119 Total</b> |                 |                 | 1,785,465.24       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO120              | 3/31/2016 4:45  | 3/31/2016 4:45  | 1,561.82           | 0.00            | 1.04              | 1,501.75        | 1.65            | 0.40            | 24          | Atlas      |        |       |
| CSO120              | 3/31/2016 22:00 | 3/31/2016 23:15 | 65,560.90          | 0.05            | 1.04              | 63,039.32       | 1.74            | 0.40            | 24          | Atlas      |        |       |
| CSO120              | 4/11/2016 17:00 | 4/11/2016 18:15 | 123,572.73         | 0.05            | 1.04              | 118,819.93      | 1               | 0.46            | 6           | Atlas      |        |       |
| CSO120              | 4/21/2016 14:30 | 4/21/2016 14:30 | 42,407.98          | 0.00            | 0.31              | 136,799.94      | 0.13            | 0.13            | 3           | Atlas      |        |       |
| CSO120              | 4/26/2016 16:15 | 4/26/2016 21:30 | 57,441.76          | 0.22            | 0.43              | 133,585.49      | 0.74            | 0.22            | 6           | Atlas      |        |       |
| CSO120              | 4/27/2016 14:00 | 4/27/2016 22:00 | 156,709.34         | 0.33            | 0.58              | 270,188.51      | 1.29            | 0.25            | 12          | Atlas      |        |       |
| CSO120              | 4/30/2016 11:15 | 4/30/2016 11:15 | 32,919.25          | 0.00            | 0.53              | 62,111.79       | 1.3             | 0.20            | 6           | Atlas      |        |       |
| CSO120              | 5/1/2016 15:00  | 5/1/2016 15:00  | 24,268.97          | 0.00            | 0.26              | 93,342.20       | 1.69            | 0.17            | 3           | Atlas      |        |       |
| CSO120              | 5/7/2016 16:30  | 5/7/2016 21:45  | 32,441.70          | 0.22            | 0.5               | 64,883.39       | 1.09            | 0.26            | 6           | Atlas      |        |       |
| CSO120              | 5/10/2016 18:45 | 5/10/2016 22:00 | 115,517.85         | 0.14            | 0.7               | 165,025.49      | 1.44            | 0.26            | 24          | Atlas      |        |       |
| CSO120              | 5/12/2016 16:15 | 5/12/2016 16:15 | 27,919.47          | 0.00            | 0.21              | 132,949.85      | 1.56            | 0.14            | 3           | Atlas      |        |       |
| CSO120              | 5/20/2016 14:00 | 5/20/2016 15:45 | 173,833.54         | 0.07            | 0.53              | 327,987.82      | 1.22            | 0.29            | 3           | Atlas      |        |       |
| CSO120              | 5/26/2016 13:45 | 5/26/2016 14:00 | 4,916.68           | 0.01            | 0.23              | 21,376.86       | 0.75            | 0.15            | 3           | Atlas      |        |       |
| CSO120              | 6/2/2016 15:30  | 6/2/2016 15:45  | 199,778.58         | 0.01            | 0.34              | 587,584.04      | 0.47            | 0.26            | 1           | Atlas      |        |       |
| CSO120              | 6/4/2016 16:45  | 6/4/2016 16:45  | 102,792.76         | 0.00            | 0.22              | 467,239.81      | 0.66            | 0.13            | 1           | Atlas      |        |       |
| CSO120              | 6/12/2016 18:00 | 6/12/2016 18:00 | 97,674.27          | 0.00            | 0.09              | 1,085,269.70    | 0.13            | 0.08            | 1           | Atlas      |        |       |
| CSO120              | 6/14/2016 16:45 | 6/14/2016 17:15 | 154,505.08         | 0.02            | 0.82              | 188,420.83      | 0.73            | 0.53            | 3           | Atlas      |        |       |
| CSO120              | 6/22/2016 8:15  | 6/22/2016 8:30  | 36,622.92          | 0.01            | 0.26              | 140,857.38      | 0.13            | 0.16            | 3           | Atlas      |        |       |
| CSO120              | 6/23/2016 16:00 | 6/23/2016 21:00 | 316,600.14         | 0.21            | 2.15              | 147,255.88      | 2.41            | 1.92            | 6           | Cloudburst |        |       |
| <b>CSO120 Count</b> |                 |                 | 19                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO120 Total</b> |                 |                 | 1,767,045.71       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO121              | 3/31/2016 4:30  | 3/31/2016 4:30  | 252.46             | 0.00            | 1.04              | 242.75          | 1.63            | 0.40            | 24          | Atlas      |        |       |
| CSO121              | 3/31/2016 22:00 | 3/31/2016 23:15 | 62,001.38          | 0.05            | 1.04              | 59,616.71       | 1.74            | 0.40            | 24          | Atlas      |        |       |
| CSO121              | 4/11/2016 16:15 | 4/11/2016 18:15 | 143,228.97         | 0.08            | 1.04              | 137,720.16      | 1               | 0.46            | 6           | Atlas      |        |       |
| CSO121              | 4/21/2016 14:30 | 4/21/2016 14:30 | 2,685.20           | 0.00            | 0.31              | 8,661.93        | 0.13            | 0.13            | 3           | Atlas      |        |       |
| CSO121              | 4/26/2016 16:00 | 4/26/2016 21:30 | 1,668.86           | 0.23            | 0.43              | 3,881.08        | 0.74            | 0.22            | 6           | Atlas      |        |       |
| CSO121              | 4/27/2016 13:45 | 4/27/2016 22:00 | 151,454.92         | 0.34            | 0.58              | 261,129.17      | 1.29            | 0.25            | 12          | Atlas      |        |       |
| CSO121              | 4/30/2016 11:00 | 4/30/2016 11:15 | 74,929.02          | 0.01            | 0.53              | 141,375.51      | 1.3             | 0.20            | 6           | Atlas      |        |       |
| CSO121              | 5/1/2016 15:00  | 5/1/2016 15:00  | 16.20              | 0.00            | 0.26              | 62.30           | 1.69            | 0.17            | 3           | Atlas      |        |       |
| CSO121              | 5/7/2016 16:30  | 5/7/2016 16:30  | 1,885.39           | 0.00            | 0.5               | 3,770.77        | 0.81            | 0.26            | 6           | Atlas      |        |       |
| CSO121              | 5/10/2016 14:15 | 5/10/2016 22:00 | 17,744.18          | 0.32            | 0.7               | 25,348.83       | 1.44            | 0.26            | 24          | Atlas      |        |       |
| CSO121              | 5/11/2016 21:45 | 5/11/2016 22:00 | 589.30             | 0.01            | 0.21              | 2,806.20        | 1.43            | 0.12            | 3           | Atlas      |        |       |
| CSO121              | 5/12/2016 16:15 | 5/12/2016 16:15 | 2,511.73           | 0.00            | 0.21              | 11,960.62       | 1.56            | 0.14            | 3           | Atlas      |        |       |
| CSO121              | 5/20/2016 13:45 | 5/20/2016 15:00 | 75,548.77          | 0.05            | 0.53              | 142,544.84      | 1.14            | 0.29            | 3           | Atlas      |        |       |



| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO121              | 5/25/2016 18:00 | 5/25/2016 18:00 | 3,099.99           | 0.00            | 0.03              | 103,332.98      | 0.64            | 0.03            | 1           | Atlas      |        |       |
| CSO121              | 5/26/2016 13:30 | 5/26/2016 13:30 | 14,994.57          | 0.00            | 0.23              | 65,193.80       | 0.73            | 0.15            | 3           | Atlas      |        |       |
| CSO121              | 6/2/2016 15:15  | 6/2/2016 15:45  | 10,550.24          | 0.02            | 0.34              | 31,030.13       | 0.49            | 0.26            | 1           | Atlas      |        |       |
| CSO121              | 6/4/2016 16:45  | 6/4/2016 16:45  | 63,290.78          | 0.00            | 0.22              | 287,685.37      | 0.66            | 0.13            | 1           | Atlas      |        |       |
| CSO121              | 6/14/2016 16:30 | 6/14/2016 16:45 | 129,221.72         | 0.01            | 0.82              | 157,587.46      | 0.68            | 0.53            | 3           | Atlas      |        |       |
| CSO121              | 6/22/2016 8:30  | 6/22/2016 8:30  | 1,025.50           | 0.00            | 0.26              | 3,944.23        | 0.13            | 0.16            | 3           | Atlas      |        |       |
| CSO121              | 6/23/2016 20:30 | 6/23/2016 20:30 | 1,470.47           | 0.00            | 2.15              | 683.94          | 2.41            | 1.92            | 6           | Cloudburst |        |       |
| <b>CSO121 Count</b> |                 |                 | 20                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO121 Total</b> |                 |                 | 758,169.65         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO125              | 3/31/2016 4:45  | 3/31/2016 7:30  | 54,544.09          | 0.11            | 1.1               | 49,585.53       | 2               | 0.42            | 24          | Atlas      |        |       |
| CSO125              | 3/31/2016 22:15 | 4/1/2016 0:00   | 99,760.75          | 0.07            | 1.1               | 90,691.59       | 1.96            | 0.42            | 24          | Atlas      |        |       |
| CSO125              | 4/11/2016 17:15 | 4/11/2016 18:30 | 132,446.08         | 0.05            | 0.85              | 155,818.91      | 0.84            | 0.38            | 12          | Atlas      |        |       |
| CSO125              | 4/26/2016 21:30 | 4/26/2016 22:00 | 20,272.28          | 0.02            | 0.38              | 53,348.11       | 0.7             | 0.20            | 6           | Atlas      |        |       |
| CSO125              | 4/27/2016 21:15 | 4/27/2016 22:15 | 20,204.73          | 0.04            | 0.62              | 32,588.27       | 1.28            | 0.28            | 3           | Atlas      |        |       |
| CSO125              | 5/1/2016 15:15  | 5/1/2016 15:15  | 18,389.06          | 0.00            | 0.16              | 114,931.64      | 1.59            | 0.11            | 3           | Atlas      |        |       |
| CSO125              | 5/7/2016 21:00  | 5/7/2016 21:00  | 7,074.93           | 0.00            | 0.49              | 14,438.63       | 0.85            | 0.25            | 6           | Atlas      |        |       |
| CSO125              | 5/10/2016 18:45 | 5/10/2016 22:30 | 513,015.19         | 0.16            | 1.02              | 502,956.07      | 1.73            | 0.38            | 24          | Atlas      |        |       |
| CSO125              | 5/11/2016 22:15 | 5/11/2016 22:15 | 5,051.57           | 0.00            | 0.22              | 22,961.69       | 1.75            | 0.12            | 3           | Atlas      |        |       |
| CSO125              | 5/20/2016 14:15 | 5/20/2016 16:00 | 132,468.38         | 0.07            | 0.85              | 155,845.16      | 1.4             | 0.50            | 3           | Atlas      |        |       |
| CSO125              | 6/12/2016 18:00 | 6/12/2016 18:15 | 83,429.97          | 0.01            | 0.27              | 308,999.88      | 0.3             | 0.23            | 1           | Atlas      |        |       |
| CSO125              | 6/14/2016 17:00 | 6/14/2016 17:30 | 113,408.51         | 0.02            | 0.85              | 133,421.77      | 0.94            | 0.55            | 3           | Atlas      |        |       |
| CSO125              | 6/22/2016 8:30  | 6/22/2016 8:45  | 259,380.41         | 0.01            | 0.29              | 894,415.21      | 0.22            | 0.18            | 3           | Atlas      |        |       |
| CSO125              | 6/23/2016 16:15 | 6/23/2016 23:00 | 1,893,881.81       | 0.28            | 1.88              | 1,007,383.94    | 2.17            | 1.00            | 6           | Cloudburst |        |       |
| <b>CSO125 Count</b> |                 |                 | 14                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO125 Total</b> |                 |                 | 3,353,327.76       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO126              | 3/31/2016 23:15 | 3/31/2016 23:30 | 15,561.31          | 0.01            | 1.1               | 14,146.65       | 1.94            | 0.42            | 24          | Atlas      |        |       |
| <b>CSO126 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO126 Total</b> |                 |                 | 15,561.31          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO127              | 3/31/2016 2:00  | 4/1/2016 0:45   | 502,132.95         | 0.95            | 1.15              | 436,637.35      | 2.46            | 0.44            | 24          | Atlas      |        |       |
| CSO127              | 4/11/2016 16:30 | 4/11/2016 19:45 | 180,032.64         | 0.14            | 0.84              | 214,324.57      | 0.91            | 0.40            | 6           | Atlas      |        |       |
| CSO127              | 4/21/2016 14:45 | 4/21/2016 16:30 | 65,576.05          | 0.07            | 0.32              | 204,925.16      | 0.23            | 0.12            | 3           | Atlas      |        |       |
| CSO127              | 4/26/2016 21:15 | 4/26/2016 22:00 | 49,821.51          | 0.03            | 0.34              | 146,533.85      | 0.68            | 0.17            | 6           | Atlas      |        |       |
| CSO127              | 4/27/2016 13:15 | 4/27/2016 22:30 | 265,199.41         | 0.39            | 0.66              | 401,817.28      | 1.31            | 0.29            | 3           | Atlas      |        |       |
| CSO127              | 4/30/2016 9:00  | 4/30/2016 13:45 | 63,767.75          | 0.20            | 0.54              | 118,088.43      | 1.38            | 0.20            | 24          | Atlas      |        |       |
| CSO127              | 4/30/2016 23:30 | 4/30/2016 23:45 | 3,210.71           | 0.01            | 0.54              | 5,945.76        | 1.51            | 0.20            | 24          | Atlas      |        |       |
| CSO127              | 5/1/2016 15:00  | 5/1/2016 16:45  | 411,559.81         | 0.07            | 0.33              | 1,247,150.93    | 1.87            | 0.23            | 1           | Atlas      |        |       |
| CSO127              | 5/4/2016 11:30  | 5/4/2016 12:15  | 34,552.75          | 0.03            | 0.19              | 181,856.58      | 1.7             | 0.12            | 1           | Atlas      |        |       |
| CSO127              | 5/7/2016 16:45  | 5/7/2016 22:30  | 42,921.18          | 0.24            | 0.58              | 74,002.04       | 1.27            | 0.30            | 6           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO127              | 5/10/2016 8:45  | 5/10/2016 22:45 | 509,106.29         | 0.58            | 1.04              | 489,525.28      | 1.85            | 0.38            | 24          | Atlas      |        |       |
| CSO127              | 5/11/2016 21:45 | 5/11/2016 22:45 | 109,509.44         | 0.04            | 0.21              | 521,473.50      | 1.84            | 0.11            | 3           | Atlas      |        |       |
| CSO127              | 5/17/2016 6:30  | 5/17/2016 7:30  | 35,034.82          | 0.04            | 0.55              | 63,699.68       | 1.61            | 0.18            | 24          | Atlas      |        |       |
| CSO127              | 5/17/2016 20:30 | 5/17/2016 21:00 | 34,858.05          | 0.02            | 0.55              | 63,378.28       | 1.15            | 0.18            | 24          | Atlas      |        |       |
| CSO127              | 5/20/2016 13:30 | 5/20/2016 16:30 | 526,187.99         | 0.13            | 0.94              | 559,774.46      | 1.51            | 0.56            | 3           | Atlas      |        |       |
| CSO127              | 5/26/2016 13:45 | 5/26/2016 15:45 | 75,003.17          | 0.08            | 0.21              | 357,157.97      | 1.25            | 0.14            | 3           | Atlas      |        |       |
| CSO127              | 6/2/2016 15:30  | 6/2/2016 16:15  | 77,047.10          | 0.03            | 0.51              | 151,072.74      | 0.64            | 0.42            | 1           | Atlas      |        |       |
| CSO127              | 6/4/2016 17:00  | 6/4/2016 18:45  | 35,335.76          | 0.07            | 0.15              | 235,571.73      | 0.76            | 0.07            | 1           | Atlas      |        |       |
| CSO127              | 6/12/2016 18:00 | 6/12/2016 18:45 | 851,783.78         | 0.03            | 0.6               | 1,419,639.63    | 0.63            | 0.51            | 1           | Atlas      |        |       |
| CSO127              | 6/14/2016 17:00 | 6/14/2016 19:00 | 121,277.81         | 0.08            | 0.68              | 178,349.72      | 1.27            | 0.44            | 3           | Atlas      |        |       |
| CSO127              | 6/22/2016 8:30  | 6/22/2016 8:45  | 127,668.10         | 0.01            | 0.3               | 425,560.35      | 0.21            | 0.19            | 3           | Atlas      |        |       |
| CSO127              | 6/23/2016 16:15 | 6/23/2016 22:15 | 2,055,551.64       | 0.25            | 1.69              | 1,216,302.75    | 1.99            | 0.91            | 6           | Atlas      |        |       |
| <b>CSO127 Count</b> |                 |                 | 22                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO127 Total</b> |                 |                 | 6,177,138.71       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO130              | 4/26/2016 16:15 | 4/26/2016 16:15 | 957.77             | 0.00            | 0.26              | 3,683.73        | 0.36            | 0.15            | 3           | Atlas      |        |       |
| CSO130              | 6/4/2016 16:45  | 6/4/2016 16:45  | 544.47             | 0.00            | 0.31              | 1,756.35        | 0.6             | 0.17            | 1           | Atlas      |        |       |
| CSO130              | 6/14/2016 16:45 | 6/14/2016 16:45 | 34,791.38          | 0.00            | 0.81              | 42,952.31       | 0.74            | 0.53            | 3           | Atlas      |        |       |
| CSO130              | 6/23/2016 16:15 | 6/23/2016 20:30 | 42,943.30          | 0.18            | 2.04              | 21,050.64       | 2.44            | 1.56            | 6           | Cloudburst |        |       |
| <b>CSO130 Count</b> |                 |                 | 4                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO130 Total</b> |                 |                 | 79,236.92          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO131              | 4/27/2016 20:45 | 4/27/2016 20:45 | 8,228.88           | 0.00            | 0.66              | 12,467.99       | 0.98            | 0.28            | 12          | Atlas      |        |       |
| CSO131              | 5/10/2016 18:15 | 5/10/2016 21:30 | 40,871.70          | 0.14            | 0.65              | 62,879.54       | 1.4             | 0.24            | 24          | Atlas      |        |       |
| CSO131              | 6/2/2016 15:15  | 6/2/2016 15:30  | 15,002.24          | 0.01            | 0.25              | 60,008.94       | 0.35            | 0.18            | 1           | Atlas      |        |       |
| CSO131              | 6/4/2016 16:30  | 6/4/2016 16:30  | 12,094.46          | 0.00            | 0.31              | 39,014.38       | 0.6             | 0.17            | 1           | Atlas      |        |       |
| CSO131              | 6/12/2016 17:30 | 6/12/2016 17:45 | 37,648.50          | 0.01            | 0.17              | 221,461.76      | 0.2             | 0.15            | 1           | Atlas      |        |       |
| CSO131              | 6/14/2016 16:15 | 6/14/2016 16:30 | 71,250.00          | 0.01            | 0.81              | 87,962.96       | 0.64            | 0.53            | 3           | Atlas      |        |       |
| CSO131              | 6/22/2016 8:00  | 6/22/2016 8:00  | 16,260.84          | 0.00            | 0.41              | 39,660.59       | 0.22            | 0.25            | 3           | Atlas      |        |       |
| CSO131              | 6/23/2016 16:00 | 6/23/2016 20:30 | 167,525.11         | 0.19            | 2.04              | 82,120.15       | 2.44            | 1.56            | 6           | Cloudburst |        |       |
| <b>CSO131 Count</b> |                 |                 | 8                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO131 Total</b> |                 |                 | 368,881.72         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO132              | 3/31/2016 2:00  | 4/1/2016 1:00   | 699,508.81         | 0.96            | 0.99              | 706,574.55      | 2.01            | 0.38            | 24          | Atlas      |        |       |
| CSO132              | 4/11/2016 16:15 | 4/11/2016 21:00 | 735,048.25         | 0.20            | 0.86              | 854,707.27      | 0.98            | 0.38            | 6           | Atlas      |        |       |
| CSO132              | 4/21/2016 14:45 | 4/21/2016 16:15 | 104,038.22         | 0.06            | 0.3               | 346,794.05      | 0.2             | 0.11            | 3           | Atlas      |        |       |
| CSO132              | 4/22/2016 1:15  | 4/22/2016 1:15  | 7,441.33           | 0.00            | 0.3               | 24,804.44       | 0.26            | 0.11            | 3           | Atlas      |        |       |
| CSO132              | 4/26/2016 16:00 | 4/26/2016 22:15 | 48,497.46          | 0.26            | 0.34              | 142,639.60      | 0.66            | 0.17            | 6           | Atlas      |        |       |
| CSO132              | 4/27/2016 14:15 | 4/27/2016 22:45 | 159,969.14         | 0.35            | 0.63              | 253,919.27      | 1.25            | 0.29            | 3           | Atlas      |        |       |
| CSO132              | 4/30/2016 9:15  | 4/30/2016 13:30 | 119,774.87         | 0.18            | 0.5               | 239,549.75      | 1.33            | 0.19            | 6           | Atlas      |        |       |
| CSO132              | 4/30/2016 23:30 | 4/30/2016 23:30 | 22,976.05          | 0.00            | 0.5               | 45,952.11       | 1.44            | 0.19            | 6           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO132              | 5/1/2016 15:15  | 5/1/2016 15:15  | 17,672.54          | 0.00            | 0.2               | 88,362.71       | 1.6             | 0.13            | 3           | Atlas      |        |       |
| CSO132              | 5/4/2016 11:30  | 5/4/2016 12:00  | 41,872.67          | 0.02            | 0.17              | 246,309.82      | 1.48            | 0.11            | 3           | Atlas      |        |       |
| CSO132              | 5/7/2016 16:30  | 5/7/2016 22:30  | 161,666.34         | 0.25            | 0.51              | 316,992.82      | 1.03            | 0.26            | 6           | Atlas      |        |       |
| CSO132              | 5/10/2016 8:45  | 5/10/2016 23:00 | 572,468.26         | 0.59            | 0.75              | 763,291.01      | 1.47            | 0.28            | 24          | Atlas      |        |       |
| CSO132              | 5/11/2016 21:45 | 5/11/2016 22:45 | 89,389.91          | 0.04            | 0.19              | 470,473.22      | 1.47            | 0.11            | 3           | Atlas      |        |       |
| CSO132              | 5/17/2016 7:00  | 5/17/2016 7:15  | 32,943.88          | 0.01            | 0.61              | 54,006.36       | 1.36            | 0.20            | 24          | Atlas      |        |       |
| CSO132              | 5/17/2016 20:30 | 5/17/2016 21:00 | 53,227.98          | 0.02            | 0.61              | 87,258.98       | 1.05            | 0.20            | 24          | Atlas      |        |       |
| CSO132              | 5/20/2016 13:30 | 5/20/2016 16:30 | 661,661.24         | 0.13            | 0.66              | 1,002,517.02    | 1.27            | 0.37            | 3           | Atlas      |        |       |
| CSO132              | 5/26/2016 13:45 | 5/26/2016 15:30 | 188,243.73         | 0.07            | 0.22              | 855,653.30      | 1.01            | 0.15            | 3           | Atlas      |        |       |
| CSO132              | 6/2/2016 15:30  | 6/2/2016 16:15  | 84,158.08          | 0.03            | 0.28              | 300,564.57      | 0.43            | 0.22            | 1           | Atlas      |        |       |
| CSO132              | 6/4/2016 16:30  | 6/4/2016 17:15  | 214,031.97         | 0.03            | 0.27              | 792,711.01      | 0.6             | 0.14            | 3           | Atlas      |        |       |
| CSO132              | 6/12/2016 17:45 | 6/12/2016 18:30 | 1,429,314.27       | 0.03            | 0.18              | 7,940,634.81    | 0.21            | 0.16            | 1           | Atlas      |        |       |
| CSO132              | 6/14/2016 16:30 | 6/14/2016 19:00 | 1,087,832.09       | 0.10            | 0.9               | 1,208,702.32    | 1.07            | 0.58            | 3           | Atlas      |        |       |
| CSO132              | 6/15/2016 13:30 | 6/15/2016 13:45 | 31,972.61          | 0.01            | 0.13              | 245,943.13      | 1.21            | 0.10            | 1           | Atlas      |        |       |
| CSO132              | 6/22/2016 8:45  | 6/22/2016 11:00 | 34,983.23          | 0.09            | 0.39              | 89,700.59       | 0.51            | 0.24            | 3           | Atlas      |        |       |
| CSO132              | 6/23/2016 16:00 | 6/23/2016 23:45 | 3,722,342.32       | 0.32            | 1.87              | 1,990,557.39    | 2.26            | 1.00            | 6           | Cloudburst |        |       |
| <b>CSO132 Count</b> |                 |                 | 24                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO132 Total</b> |                 |                 | 10,321,035.24      |                 |                   |                 |                 |                 |             |            |        |       |
| CSO140              | 3/31/2016 4:30  | 3/31/2016 4:30  | 5,130.60           | 0.00            | 1.01              | 5,079.81        | 1.66            | 0.38            | 24          | Atlas      |        |       |
| CSO140              | 3/31/2016 22:00 | 3/31/2016 23:15 | 26,102.98          | 0.05            | 1.01              | 25,844.54       | 1.79            | 0.38            | 24          | Atlas      |        |       |
| CSO140              | 4/11/2016 16:45 | 4/11/2016 18:00 | 65,893.91          | 0.05            | 0.96              | 68,639.49       | 0.9             | 0.42            | 12          | Atlas      |        |       |
| CSO140              | 4/26/2016 16:00 | 4/26/2016 21:00 | 26,768.45          | 0.21            | 0.47              | 56,954.15       | 0.67            | 0.24            | 6           | Atlas      |        |       |
| CSO140              | 4/27/2016 20:45 | 4/27/2016 22:00 | 115,326.67         | 0.05            | 0.57              | 202,327.49      | 1.29            | 0.25            | 12          | Atlas      |        |       |
| CSO140              | 4/30/2016 11:15 | 4/30/2016 11:15 | 6,348.04           | 0.00            | 0.5               | 12,696.08       | 1.31            | 0.19            | 6           | Atlas      |        |       |
| CSO140              | 5/1/2016 14:45  | 5/1/2016 14:45  | 1,268.96           | 0.00            | 0.24              | 5,287.33        | 1.69            | 0.16            | 3           | Atlas      |        |       |
| CSO140              | 5/10/2016 18:30 | 5/10/2016 22:00 | 154,791.19         | 0.15            | 0.64              | 241,861.23      | 1.51            | 0.24            | 24          | Atlas      |        |       |
| CSO140              | 5/20/2016 14:00 | 5/20/2016 15:30 | 55,818.57          | 0.06            | 0.58              | 96,238.92       | 1.21            | 0.32            | 3           | Atlas      |        |       |
| CSO140              | 5/26/2016 13:30 | 5/26/2016 13:30 | 6,143.09           | 0.00            | 0.2               | 30,715.47       | 0.76            | 0.13            | 3           | Atlas      |        |       |
| CSO140              | 6/2/2016 15:15  | 6/2/2016 15:45  | 38,744.52          | 0.02            | 0.36              | 107,623.67      | 0.5             | 0.28            | 1           | Atlas      |        |       |
| CSO140              | 6/4/2016 16:30  | 6/4/2016 16:45  | 133,628.70         | 0.01            | 0.19              | 703,308.95      | 0.61            | 0.10            | 3           | Atlas      |        |       |
| CSO140              | 6/12/2016 17:45 | 6/12/2016 18:00 | 202,234.51         | 0.01            | 0.15              | 1,348,230.04    | 0.19            | 0.13            | 1           | Atlas      |        |       |
| CSO140              | 6/14/2016 16:30 | 6/14/2016 17:15 | 147,737.98         | 0.03            | 0.74              | 199,645.92      | 0.69            | 0.48            | 3           | Atlas      |        |       |
| CSO140              | 6/22/2016 8:15  | 6/22/2016 8:15  | 16,196.51          | 0.00            | 0.26              | 62,294.27       | 0.13            | 0.17            | 3           | Atlas      |        |       |
| CSO140              | 6/23/2016 16:00 | 6/23/2016 21:00 | 863,573.49         | 0.21            | 1.94              | 445,140.97      | 2.19            | 1.31            | 6           | Cloudburst |        |       |
| <b>CSO140 Count</b> |                 |                 | 16                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO140 Total</b> |                 |                 | 1,865,708.18       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO142              | 4/11/2016 17:45 | 4/11/2016 17:45 | 1,567.47           | 0.00            | 0.91              | 1,722.49        | 0.79            | 0.44            | 6           | Atlas      | *      | R     |
| CSO142              | 4/21/2016 14:30 | 4/21/2016 14:30 | 2,384.23           | 0.00            | 0.29              | 8,221.48        | 0.11            | 0.12            | 3           | Atlas      | *      | R     |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO142              | 4/27/2016 21:00 | 4/27/2016 21:00 | 9,402.21           | 0.00            | 0.64              | 14,690.95       | 1.04            | 0.32            | 1           | Atlas      | *      | R     |
| CSO142              | 5/1/2016 15:00  | 5/1/2016 15:00  | 2,684.51           | 0.00            | 0.28              | 9,587.54        | 1.62            | 0.19            | 3           | Atlas      | *      | R     |
| CSO142              | 5/7/2016 16:30  | 5/7/2016 16:30  | 1,309.23           | 0.00            | 0.84              | 1,558.61        | 0.95            | 0.44            | 6           | Atlas      | *      | R     |
| CSO142              | 5/20/2016 15:15 | 5/20/2016 15:30 | 1,038.97           | 0.01            | 0.57              | 1,822.75        | 1.25            | 0.32            | 3           | Atlas      | *      | R     |
| CSO142              | 6/2/2016 15:30  | 6/2/2016 15:45  | 20,024.20          | 0.01            | 0.46              | 43,530.87       | 0.57            | 0.37            | 1           | Atlas      | *      | R     |
| CSO142              | 6/4/2016 16:45  | 6/4/2016 16:45  | 15,286.53          | 0.00            | 0.12              | 127,387.76      | 0.62            | 0.06            | 1           | Atlas      | *      | R     |
| CSO142              | 6/12/2016 18:00 | 6/12/2016 18:00 | 16,944.59          | 0.00            | 0.26              | 65,171.51       | 0.3             | 0.21            | 1           | Atlas      | *      | R     |
| CSO142              | 6/14/2016 16:45 | 6/14/2016 16:45 | 11,630.51          | 0.00            | 0.64              | 18,172.67       | 0.61            | 0.41            | 3           | Atlas      | *      | R     |
| CSO142              | 6/23/2016 16:15 | 6/23/2016 20:45 | 117,577.61         | 0.19            | 1.6               | 73,486.01       | 1.74            | 0.86            | 6           | Atlas      | *      | R     |
| <b>CSO142 Count</b> |                 |                 | 11                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO142 Total</b> |                 |                 | 199,850.06         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO144              | 5/10/2016 21:45 | 5/10/2016 21:45 | 40.89              | 0.00            | 0.71              | 57.59           | 1.53            | 0.27            | 24          | Atlas      |        |       |
| CSO144              | 6/12/2016 17:45 | 6/12/2016 17:45 | 2,028.94           | 0.00            | 0.19              | 10,678.62       | 0.21            | 0.17            | 1           | Atlas      |        |       |
| CSO144              | 6/23/2016 20:15 | 6/23/2016 20:30 | 4,173.95           | 0.01            | 1.97              | 2,118.76        | 2.26            | 1.33            | 6           | Cloudburst |        |       |
| <b>CSO144 Count</b> |                 |                 | 3                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO144 Total</b> |                 |                 | 6,243.77           |                 |                   |                 |                 |                 |             |            |        |       |
| CSO148              | 3/31/2016 4:30  | 3/31/2016 4:30  | 2,107.58           | 0.00            | 1.15              | 1,832.68        | 1.69            | 0.44            | 24          | Atlas      |        |       |
| CSO148              | 3/31/2016 22:00 | 3/31/2016 23:15 | 17,699.45          | 0.05            | 1.15              | 15,390.82       | 1.96            | 0.44            | 24          | Atlas      |        |       |
| CSO148              | 4/11/2016 17:00 | 4/11/2016 18:00 | 12,837.56          | 0.04            | 0.81              | 15,848.84       | 0.75            | 0.39            | 6           | Atlas      |        |       |
| CSO148              | 4/21/2016 14:30 | 4/21/2016 14:30 | 76.28              | 0.00            | 0.35              | 217.95          | 0.16            | 0.16            | 3           | Atlas      |        |       |
| CSO148              | 4/27/2016 14:00 | 4/27/2016 22:00 | 8,624.05           | 0.33            | 0.6               | 14,373.42       | 1.29            | 0.28            | 3           | Atlas      |        |       |
| CSO148              | 4/30/2016 11:15 | 4/30/2016 11:15 | 44.14              | 0.00            | 0.5               | 88.27           | 1.17            | 0.19            | 24          | Atlas      |        |       |
| CSO148              | 5/1/2016 14:45  | 5/1/2016 15:00  | 20,362.30          | 0.01            | 0.48              | 42,421.45       | 1.8             | 0.34            | 1           | Atlas      |        |       |
| CSO148              | 5/7/2016 16:30  | 5/7/2016 16:30  | 487.06             | 0.00            | 0.59              | 825.53          | 1.03            | 0.31            | 6           | Atlas      |        |       |
| CSO148              | 5/10/2016 14:15 | 5/10/2016 21:45 | 53,736.50          | 0.31            | 0.68              | 79,024.26       | 1.47            | 0.25            | 24          | Atlas      |        |       |
| CSO148              | 5/20/2016 14:00 | 5/20/2016 15:45 | 22,442.22          | 0.07            | 0.79              | 28,407.87       | 1.37            | 0.45            | 3           | Atlas      |        |       |
| CSO148              | 6/2/2016 15:30  | 6/2/2016 15:30  | 12,990.96          | 0.00            | 0.52              | 24,982.61       | 0.6             | 0.42            | 1           | Atlas      |        |       |
| CSO148              | 6/12/2016 18:00 | 6/12/2016 18:00 | 9,307.97           | 0.00            | 0.48              | 19,391.60       | 0.48            | 0.41            | 1           | Atlas      |        |       |
| CSO148              | 6/14/2016 16:45 | 6/14/2016 17:00 | 9,669.09           | 0.01            | 0.63              | 15,347.77       | 0.84            | 0.40            | 3           | Atlas      |        |       |
| CSO148              | 6/23/2016 16:00 | 6/23/2016 22:15 | 242,908.51         | 0.26            | 1.71              | 142,051.76      | 1.86            | 0.90            | 6           | Atlas      |        |       |
| <b>CSO148 Count</b> |                 |                 | 14                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO148 Total</b> |                 |                 | 413,293.67         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO149              | 3/31/2016 22:15 | 3/31/2016 23:15 | 7,691.30           | 0.04            | 1.18              | 6,518.05        | 1.97            | 0.45            | 24          | Atlas      |        |       |
| <b>CSO149 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO149 Total</b> |                 |                 | 7,691.30           |                 |                   |                 |                 |                 |             |            |        |       |
| CSO150              | 3/31/2016 6:30  | 3/31/2016 8:15  | 60,209.80          | 0.07            | 1.33              | 45,270.53       | 1.83            | 0.50            | 24          | Atlas      |        |       |
| CSO150              | 3/31/2016 23:45 | 4/1/2016 0:45   | 43,790.28          | 0.04            | 1.33              | 32,925.02       | 2.06            | 0.50            | 24          | Atlas      |        |       |
| CSO150              | 4/11/2016 17:45 | 4/11/2016 20:30 | 117,127.70         | 0.11            | 1.03              | 113,716.21      | 1.15            | 0.47            | 6           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO150              | 4/26/2016 16:00 | 4/26/2016 16:00 | 2,518.96           | 0.00            | 0.31              | 8,125.67        | 0.43            | 0.20            | 1           | Atlas      |        |       |
| CSO150              | 4/27/2016 20:45 | 4/28/2016 0:00  | 53,062.20          | 0.14            | 0.82              | 64,710.00       | 1.52            | 0.36            | 12          | Atlas      |        |       |
| CSO150              | 4/30/2016 12:45 | 4/30/2016 13:45 | 43,414.95          | 0.04            | 0.83              | 52,307.17       | 1.7             | 0.32            | 24          | Atlas      |        |       |
| CSO150              | 5/7/2016 23:00  | 5/7/2016 23:00  | 837.19             | 0.00            | 0.69              | 1,213.32        | 1.27            | 0.36            | 6           | Atlas      |        |       |
| CSO150              | 5/10/2016 17:00 | 5/10/2016 23:15 | 188,072.38         | 0.26            | 0.9               | 208,969.31      | 1.83            | 0.34            | 24          | Atlas      |        |       |
| CSO150              | 5/20/2016 15:15 | 5/20/2016 16:15 | 46,010.81          | 0.04            | 0.53              | 86,812.85       | 1.21            | 0.29            | 3           | Atlas      |        |       |
| CSO150              | 6/2/2016 15:15  | 6/2/2016 15:30  | 20,221.62          | 0.01            | 0.68              | 29,737.68       | 0.74            | 0.51            | 1           | Atlas      |        |       |
| CSO150              | 6/4/2016 16:30  | 6/4/2016 16:30  | 21,062.31          | 0.00            | 0.53              | 39,740.21       | 1.19            | 0.27            | 1           | Atlas      |        |       |
| CSO150              | 6/14/2016 16:30 | 6/14/2016 19:15 | 150,012.80         | 0.11            | 1.07              | 140,198.88      | 1.09            | 0.69            | 3           | Atlas      |        |       |
| CSO150              | 6/23/2016 16:00 | 6/23/2016 22:45 | 188,777.47         | 0.28            | 2.37              | 79,652.94       | 2.92            | 2.92            | 6           | Cloudburst |        |       |
| <b>CSO150 Count</b> |                 |                 | 13                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO150 Total</b> |                 |                 | 935,118.48         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO151              | 3/31/2016 1:45  | 4/1/2016 13:30  | 740,733.25         | 1.49            | 1.07              | 692,274.07      | 2.46            | 0.41            | 24          | Atlas      |        |       |
| CSO151              | 4/11/2016 14:00 | 4/11/2016 22:15 | 313,149.60         | 0.34            | 0.81              | 386,604.45      | 0.94            | 0.38            | 6           | Atlas      |        |       |
| CSO151              | 4/21/2016 14:45 | 4/21/2016 17:15 | 74,806.42          | 0.10            | 0.3               | 249,354.73      | 0.22            | 0.13            | 3           | Atlas      |        |       |
| CSO151              | 4/26/2016 21:00 | 4/26/2016 23:00 | 102,026.83         | 0.08            | 0.37              | 275,748.19      | 0.68            | 0.19            | 6           | Atlas      |        |       |
| CSO151              | 4/27/2016 13:15 | 4/28/2016 0:00  | 301,360.84         | 0.45            | 0.54              | 558,075.63      | 1.21            | 0.25            | 3           | Atlas      |        |       |
| CSO151              | 4/30/2016 9:00  | 5/1/2016 0:15   | 219,495.11         | 0.64            | 0.45              | 487,766.91      | 1.33            | 0.17            | 6           | Atlas      |        |       |
| CSO151              | 5/1/2016 15:15  | 5/1/2016 18:15  | 213,537.02         | 0.13            | 0.29              | 736,334.57      | 1.65            | 0.19            | 3           | Atlas      |        |       |
| CSO151              | 5/4/2016 11:15  | 5/4/2016 13:00  | 68,931.18          | 0.07            | 0.2               | 344,655.89      | 1.46            | 0.12            | 1           | Atlas      |        |       |
| CSO151              | 5/7/2016 16:45  | 5/7/2016 23:30  | 184,892.80         | 0.28            | 0.56              | 330,165.72      | 1.16            | 0.28            | 6           | Atlas      |        |       |
| CSO151              | 5/10/2016 8:30  | 5/11/2016 0:15  | 536,821.06         | 0.66            | 0.75              | 715,761.41      | 1.54            | 0.28            | 24          | Atlas      |        |       |
| CSO151              | 5/11/2016 19:30 | 5/12/2016 0:00  | 136,379.98         | 0.19            | 0.24              | 568,249.91      | 1.56            | 0.13            | 3           | Atlas      |        |       |
| CSO151              | 5/17/2016 6:00  | 5/17/2016 9:00  | 103,945.36         | 0.13            | 0.59              | 176,178.58      | 1.37            | 0.19            | 24          | Atlas      |        |       |
| CSO151              | 5/17/2016 20:15 | 5/18/2016 2:15  | 118,826.12         | 0.25            | 0.59              | 201,400.20      | 1.05            | 0.19            | 24          | Atlas      |        |       |
| CSO151              | 5/20/2016 13:30 | 5/20/2016 18:45 | 330,366.77         | 0.22            | 0.73              | 452,557.21      | 1.34            | 0.41            | 3           | Atlas      |        |       |
| CSO151              | 5/26/2016 14:00 | 5/26/2016 16:45 | 157,535.47         | 0.11            | 0.22              | 716,070.33      | 1.04            | 0.15            | 3           | Atlas      |        |       |
| CSO151              | 6/2/2016 15:45  | 6/2/2016 17:15  | 94,462.98          | 0.06            | 0.44              | 214,688.59      | 0.57            | 0.35            | 1           | Atlas      |        |       |
| CSO151              | 6/4/2016 18:30  | 6/4/2016 19:15  | 38,351.70          | 0.03            | 0.18              | 213,064.98      | 0.65            | 0.07            | 12          | Atlas      |        |       |
| CSO151              | 6/12/2016 18:30 | 6/12/2016 19:30 | 54,869.95          | 0.04            | 0.46              | 119,282.50      | 0.49            | 0.38            | 1           | Atlas      |        |       |
| CSO151              | 6/14/2016 17:00 | 6/14/2016 20:00 | 216,382.39         | 0.13            | 0.54              | 400,708.13      | 1               | 0.34            | 3           | Atlas      |        |       |
| CSO151              | 6/22/2016 8:45  | 6/22/2016 9:15  | 40,953.19          | 0.02            | 0.17              | 240,901.13      | 0.2             | 0.11            | 3           | Atlas      |        |       |
| CSO151              | 6/23/2016 16:15 | 6/24/2016 1:00  | 461,214.27         | 0.36            | 1.76              | 262,053.56      | 1.93            | 0.93            | 6           | Atlas      |        |       |
| <b>CSO151 Count</b> |                 |                 | 21                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO151 Total</b> |                 |                 | 4,509,042.30       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO152              | 3/31/2016 2:15  | 4/1/2016 1:00   | 56,993,266.83      | 0.95            | 1.07              | 53,264,735.35   | 2.49            | 0.41            | 24          | Atlas      |        |       |
| CSO152              | 4/11/2016 14:15 | 4/11/2016 21:30 | 338,622,995.06     | 0.30            | 0.85              | 398,379,994.19  | 0.97            | 0.41            | 6           | Atlas      |        |       |
| CSO152              | 4/21/2016 15:00 | 4/21/2016 16:45 | 39,819,117.50      | 0.07            | 0.3               | 132,730,391.67  | 0.21            | 0.11            | 3           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|----------|--------|-------|
| CSO152              | 4/22/2016 1:30  | 4/22/2016 1:45  | 9,441,653.20       | 0.01            | 0.3               | 31,472,177.33   | 0.25            | 0.11            | 3           | Atlas    |        |       |
| CSO152              | 4/26/2016 21:15 | 4/26/2016 22:45 | 85,712,245.65      | 0.06            | 0.33              | 259,734,077.73  | 0.64            | 0.16            | 6           | Atlas    |        |       |
| CSO152              | 4/27/2016 13:15 | 4/27/2016 23:15 | 499,043,892.15     | 0.42            | 0.55              | 907,352,531.18  | 1.18            | 0.26            | 1           | Atlas    |        |       |
| CSO152              | 4/30/2016 9:15  | 4/30/2016 14:00 | 124,591,137.40     | 0.20            | 0.47              | 265,087,526.38  | 1.23            | 0.17            | 6           | Atlas    |        |       |
| CSO152              | 4/30/2016 23:45 | 5/1/2016 0:00   | 14,967,557.00      | 0.01            | 0.47              | 31,845,865.96   | 1.32            | 0.17            | 6           | Atlas    |        |       |
| CSO152              | 5/1/2016 15:15  | 5/1/2016 17:00  | 279,347,555.00     | 0.07            | 0.32              | 872,961,109.38  | 1.67            | 0.22            | 1           | Atlas    |        |       |
| CSO152              | 5/4/2016 11:30  | 5/4/2016 12:15  | 35,037,232.00      | 0.03            | 0.2               | 175,186,160.00  | 1.52            | 0.12            | 1           | Atlas    |        |       |
| CSO152              | 5/7/2016 16:45  | 5/7/2016 22:45  | 180,143,822.00     | 0.25            | 0.63              | 285,942,574.60  | 1.27            | 0.33            | 6           | Atlas    |        |       |
| CSO152              | 5/10/2016 8:45  | 5/10/2016 22:45 | 193,909,049.35     | 0.58            | 0.85              | 228,128,293.35  | 1.72            | 0.32            | 24          | Atlas    |        |       |
| CSO152              | 5/11/2016 21:45 | 5/11/2016 23:00 | 61,334,509.97      | 0.05            | 0.25              | 245,338,039.88  | 1.75            | 0.13            | 3           | Atlas    |        |       |
| CSO152              | 5/12/2016 17:30 | 5/12/2016 18:00 | 3,110,431.50       | 0.02            | 0.09              | 34,560,350.00   | 1.85            | 0.06            | 1           | Atlas    |        |       |
| CSO152              | 5/17/2016 6:15  | 5/17/2016 7:30  | 62,702,146.00      | 0.05            | 0.62              | 101,132,493.55  | 1.51            | 0.20            | 24          | Atlas    |        |       |
| CSO152              | 5/17/2016 20:15 | 5/17/2016 21:30 | 39,070,104.50      | 0.05            | 0.62              | 63,016,297.58   | 1.15            | 0.20            | 24          | Atlas    |        |       |
| CSO152              | 5/20/2016 13:30 | 5/20/2016 16:30 | 401,135,173.00     | 0.13            | 0.63              | 636,722,496.83  | 1.27            | 0.35            | 3           | Atlas    |        |       |
| CSO152              | 5/26/2016 13:45 | 5/26/2016 16:00 | 53,445,026.45      | 0.09            | 0.22              | 242,931,938.41  | 0.92            | 0.15            | 3           | Atlas    |        |       |
| CSO152              | 6/2/2016 16:00  | 6/2/2016 16:00  | 11,138,396.00      | 0.00            | 0.47              | 23,698,714.89   | 0.58            | 0.39            | 1           | Atlas    |        |       |
| CSO152              | 6/4/2016 16:45  | 6/4/2016 18:45  | 52,465,878.00      | 0.08            | 0.11              | 476,962,527.27  | 0.7             | 0.05            | 1           | Atlas    |        |       |
| CSO152              | 6/12/2016 18:00 | 6/12/2016 18:45 | 51,900,447.00      | 0.03            | 0.34              | 152,648,373.53  | 0.35            | 0.28            | 1           | Atlas    |        |       |
| CSO152              | 6/14/2016 16:45 | 6/14/2016 19:15 | 162,063,181.16     | 0.10            | 0.63              | 257,243,144.70  | 0.97            | 0.41            | 3           | Atlas    |        |       |
| CSO152              | 6/22/2016 8:45  | 6/22/2016 9:00  | 11,744,286.00      | 0.01            | 0.14              | 83,887,757.14   | 0.15            | 0.09            | 3           | Atlas    |        |       |
| CSO152              | 6/23/2016 16:45 | 6/23/2016 22:00 | 137,226,876.10     | 0.22            | 1.62              | 84,707,948.21   | 1.76            | 0.87            | 6           | Atlas    |        |       |
| <b>CSO152 Count</b> |                 |                 | 24                 |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO152 Total</b> |                 |                 | 2,904,965,978.82   |                 |                   |                 |                 |                 |             |          |        |       |
| CSO153              | 3/31/2016 4:15  | 3/31/2016 7:30  | 78,737.21          | 0.14            | 1.04              | 75,708.86       | 1.89            | 0.40            | 24          | Atlas    |        |       |
| CSO153              | 3/31/2016 15:45 | 4/1/2016 0:00   | 94,539.54          | 0.34            | 1.04              | 90,903.41       | 2.25            | 0.40            | 24          | Atlas    |        |       |
| CSO153              | 4/11/2016 13:30 | 4/11/2016 19:15 | 161,893.96         | 0.24            | 1.04              | 155,667.27      | 1.09            | 0.46            | 6           | Atlas    |        |       |
| CSO153              | 4/21/2016 14:30 | 4/21/2016 15:45 | 15,849.71          | 0.05            | 0.31              | 51,128.09       | 0.21            | 0.13            | 3           | Atlas    |        |       |
| CSO153              | 4/26/2016 16:00 | 4/26/2016 21:45 | 48,401.58          | 0.24            | 0.43              | 112,561.82      | 0.75            | 0.22            | 6           | Atlas    |        |       |
| CSO153              | 4/27/2016 12:45 | 4/27/2016 22:15 | 241,100.15         | 0.40            | 0.58              | 415,689.91      | 1.29            | 0.25            | 12          | Atlas    |        |       |
| CSO153              | 4/30/2016 11:00 | 4/30/2016 12:45 | 39,044.27          | 0.07            | 0.53              | 73,668.43       | 1.37            | 0.20            | 6           | Atlas    |        |       |
| CSO153              | 5/1/2016 14:45  | 5/1/2016 15:00  | 10,606.62          | 0.01            | 0.26              | 40,794.71       | 1.69            | 0.17            | 3           | Atlas    |        |       |
| CSO153              | 5/4/2016 11:30  | 5/4/2016 11:30  | 5,888.67           | 0.00            | 0.2               | 29,443.33       | 1.54            | 0.12            | 1           | Atlas    |        |       |
| CSO153              | 5/7/2016 21:45  | 5/7/2016 22:00  | 10,164.92          | 0.01            | 0.5               | 20,329.83       | 1.06            | 0.26            | 6           | Atlas    |        |       |
| CSO153              | 5/10/2016 8:30  | 5/10/2016 22:00 | 276,093.12         | 0.56            | 0.7               | 394,418.75      | 1.44            | 0.26            | 24          | Atlas    |        |       |
| CSO153              | 5/11/2016 21:30 | 5/11/2016 22:00 | 21,142.54          | 0.02            | 0.21              | 100,678.77      | 1.43            | 0.12            | 3           | Atlas    |        |       |
| CSO153              | 5/17/2016 6:30  | 5/17/2016 6:45  | 8,388.44           | 0.01            | 0.66              | 12,709.75       | 1.46            | 0.22            | 24          | Atlas    |        |       |
| CSO153              | 5/17/2016 20:00 | 5/17/2016 20:30 | 49,232.48          | 0.02            | 0.66              | 74,594.67       | 1.23            | 0.22            | 24          | Atlas    |        |       |
| CSO153              | 5/20/2016 13:30 | 5/20/2016 16:00 | 243,278.42         | 0.10            | 0.53              | 459,015.89      | 1.22            | 0.29            | 3           | Atlas    |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO153              | 5/26/2016 13:30 | 5/26/2016 15:00 | 29,280.85          | 0.06            | 0.23              | 127,308.06      | 0.84            | 0.15            | 3           | Atlas      |        |       |
| CSO153              | 6/2/2016 15:15  | 6/2/2016 16:00  | 100,992.84         | 0.03            | 0.34              | 297,037.76      | 0.5             | 0.26            | 1           | Atlas      |        |       |
| CSO153              | 6/4/2016 16:30  | 6/4/2016 16:45  | 52,921.84          | 0.01            | 0.22              | 240,553.80      | 0.66            | 0.13            | 1           | Atlas      |        |       |
| CSO153              | 6/12/2016 17:45 | 6/12/2016 18:00 | 104,059.43         | 0.01            | 0.09              | 1,156,215.89    | 0.13            | 0.08            | 1           | Atlas      |        |       |
| CSO153              | 6/14/2016 16:30 | 6/14/2016 18:30 | 472,218.24         | 0.08            | 0.82              | 575,875.90      | 0.89            | 0.53            | 3           | Atlas      |        |       |
| CSO153              | 6/22/2016 8:15  | 6/22/2016 8:15  | 117,133.44         | 0.00            | 0.26              | 450,513.22      | 0.13            | 0.16            | 3           | Atlas      |        |       |
| CSO153              | 6/23/2016 16:00 | 6/24/2016 0:45  | 563,770.58         | 0.36            | 2.15              | 262,218.87      | 2.41            | 1.92            | 6           | Cloudburst |        |       |
| <b>CSO153 Count</b> |                 |                 | 22                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO153 Total</b> |                 |                 | 2,744,738.84       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO154              | 4/11/2016 18:00 | 4/11/2016 18:00 | 5,494.92           | 0.00            | 0.86              | 6,389.44        | 0.81            | 0.38            | 6           | Atlas      |        |       |
| CSO154              | 5/20/2016 15:00 | 5/20/2016 15:45 | 12,099.67          | 0.03            | 0.66              | 18,332.83       | 1.27            | 0.37            | 3           | Atlas      |        |       |
| CSO154              | 6/2/2016 16:00  | 6/2/2016 16:00  | 7,120.08           | 0.00            | 0.28              | 25,428.87       | 0.43            | 0.22            | 1           | Atlas      |        |       |
| CSO154              | 6/12/2016 18:00 | 6/12/2016 18:00 | 92,814.03          | 0.00            | 0.18              | 515,633.51      | 0.21            | 0.16            | 1           | Atlas      |        |       |
| CSO154              | 6/14/2016 16:45 | 6/14/2016 17:15 | 212,624.93         | 0.02            | 0.9               | 236,249.92      | 0.87            | 0.58            | 3           | Atlas      |        |       |
| CSO154              | 6/23/2016 16:30 | 6/24/2016 1:30  | 1,528,515.29       | 0.38            | 1.87              | 817,387.85      | 2.26            | 1.00            | 6           | Cloudburst |        |       |
| <b>CSO154 Count</b> |                 |                 | 6                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO154 Total</b> |                 |                 | 1,858,668.91       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO155              | 3/31/2016 15:45 | 3/31/2016 23:15 | 2,663.92           | 0.31            | 1.38              | 1,930.37        | 2.45            | 0.52            | 24          | Atlas      |        |       |
| CSO155              | 4/11/2016 17:00 | 4/11/2016 18:00 | 2,795.69           | 0.04            | 1.11              | 2,518.64        | 1.1             | 0.52            | 6           | Atlas      |        |       |
| CSO155              | 4/21/2016 14:30 | 4/21/2016 14:30 | 37.85              | 0.00            | 0.35              | 108.15          | 0.1             | 0.13            | 24          | Atlas      |        |       |
| CSO155              | 4/27/2016 19:30 | 4/27/2016 21:00 | 10,308.37          | 0.06            | 0.88              | 11,714.05       | 1.27            | 0.41            | 1           | Atlas      |        |       |
| CSO155              | 4/30/2016 11:00 | 4/30/2016 11:15 | 9,508.06           | 0.01            | 0.87              | 10,928.81       | 1.61            | 0.33            | 24          | Atlas      |        |       |
| CSO155              | 5/10/2016 14:15 | 5/10/2016 21:45 | 33,194.01          | 0.31            | 0.83              | 39,992.78       | 1.88            | 0.32            | 12          | Atlas      |        |       |
| CSO155              | 5/20/2016 15:00 | 5/20/2016 15:15 | 4,803.32           | 0.01            | 0.55              | 8,733.32        | 1.26            | 0.30            | 6           | Atlas      |        |       |
| CSO155              | 5/25/2016 18:00 | 5/25/2016 18:00 | 316.45             | 0.00            | 0.03              | 10,548.26       | 0.68            | 0.03            | 1           | Atlas      |        |       |
| CSO155              | 6/2/2016 15:45  | 6/2/2016 15:45  | 10,707.32          | 0.00            | 1.12              | 9,560.11        | 1.21            | 0.91            | 1           | Atlas      |        |       |
| CSO155              | 6/22/2016 8:15  | 6/22/2016 8:15  | 25,287.81          | 0.00            | 0.34              | 74,375.92       | 0.17            | 0.21            | 3           | Atlas      |        |       |
| CSO155              | 6/23/2016 16:00 | 6/23/2016 20:45 | 103,623.03         | 0.20            | 2.12              | 48,878.79       | 2.46            | 1.81            | 6           | Cloudburst |        |       |
| <b>CSO155 Count</b> |                 |                 | 11                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO155 Total</b> |                 |                 | 203,245.83         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO161              | 4/26/2016 16:00 | 4/26/2016 16:00 | 3,504.47           | 0.00            | 0.31              | 11,304.74       | 0.37            | 0.17            | 1           | Atlas      |        |       |
| CSO161              | 4/27/2016 20:45 | 4/27/2016 20:45 | 5,193.48           | 0.00            | 0.73              | 7,114.35        | 1.05            | 0.34            | 3           | Atlas      |        |       |
| CSO161              | 6/2/2016 15:30  | 6/2/2016 15:30  | 2,005.71           | 0.00            | 0.34              | 5,899.14        | 0.44            | 0.27            | 1           | Atlas      |        |       |
| CSO161              | 6/4/2016 16:30  | 6/4/2016 16:30  | 28,254.34          | 0.00            | 0.3               | 94,181.14       | 0.72            | 0.17            | 1           | Atlas      |        |       |
| CSO161              | 6/14/2016 16:30 | 6/14/2016 16:30 | 14,623.17          | 0.00            | 0.95              | 15,392.81       | 0.63            | 0.61            | 3           | Atlas      |        |       |
| CSO161              | 6/23/2016 16:00 | 6/23/2016 20:30 | 10,084.91          | 0.19            | 2.48              | 4,066.49        | 2.74            | 3.67            | 6           | Cloudburst |        |       |
| <b>CSO161 Count</b> |                 |                 | 6                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO161 Total</b> |                 |                 | 63,666.07          |                 |                   |                 |                 |                 |             |            |        |       |



| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO166              | 3/31/2016 5:15  | 3/31/2016 8:15  | 87,331.76          | 0.13            | 1.15              | 75,940.66       | 2               | 0.44            | 24          | Atlas      |        |       |
| CSO166              | 3/31/2016 22:30 | 4/1/2016 1:15   | 936,510.78         | 0.11            | 1.15              | 814,357.20      | 2               | 0.44            | 24          | Atlas      |        |       |
| CSO166              | 4/11/2016 17:45 | 4/11/2016 19:15 | 455,832.17         | 0.06            | 0.84              | 542,657.34      | 0.89            | 0.40            | 6           | Atlas      |        |       |
| CSO166              | 4/26/2016 22:00 | 4/26/2016 22:15 | 40,806.94          | 0.01            | 0.34              | 120,020.40      | 0.68            | 0.17            | 6           | Atlas      |        |       |
| CSO166              | 4/27/2016 21:30 | 4/27/2016 23:15 | 364,358.17         | 0.07            | 0.66              | 552,057.83      | 1.32            | 0.29            | 3           | Atlas      |        |       |
| CSO166              | 5/1/2016 15:15  | 5/1/2016 15:45  | 155,819.08         | 0.02            | 0.33              | 472,179.03      | 1.84            | 0.23            | 1           | Atlas      |        |       |
| CSO166              | 5/7/2016 17:00  | 5/7/2016 21:15  | 30,974.56          | 0.18            | 0.58              | 53,404.42       | 1.2             | 0.30            | 6           | Atlas      |        |       |
| CSO166              | 5/10/2016 19:00 | 5/10/2016 23:15 | 879,861.66         | 0.18            | 1.04              | 846,020.82      | 1.85            | 0.38            | 24          | Atlas      |        |       |
| CSO166              | 5/11/2016 22:15 | 5/11/2016 23:00 | 25,409.01          | 0.03            | 0.21              | 120,995.29      | 1.84            | 0.11            | 3           | Atlas      |        |       |
| CSO166              | 5/20/2016 14:30 | 5/20/2016 17:00 | 836,814.68         | 0.10            | 0.94              | 890,228.38      | 1.51            | 0.56            | 3           | Atlas      |        |       |
| CSO166              | 6/2/2016 16:00  | 6/2/2016 16:45  | 182,584.79         | 0.03            | 0.51              | 358,009.40      | 0.63            | 0.42            | 1           | Atlas      |        |       |
| CSO166              | 6/12/2016 18:00 | 6/12/2016 18:45 | 1,816,603.75       | 0.03            | 0.6               | 3,027,672.92    | 0.63            | 0.51            | 1           | Atlas      |        |       |
| CSO166              | 6/14/2016 17:00 | 6/14/2016 19:15 | 1,066,352.69       | 0.09            | 0.68              | 1,568,165.71    | 1.28            | 0.44            | 3           | Atlas      |        |       |
| CSO166              | 6/22/2016 8:30  | 6/22/2016 9:15  | 1,052,744.70       | 0.03            | 0.3               | 3,509,149.00    | 0.24            | 0.19            | 3           | Atlas      |        |       |
| CSO166              | 6/23/2016 16:15 | 6/23/2016 23:30 | 4,956,261.23       | 0.30            | 1.69              | 2,932,698.96    | 1.99            | 0.91            | 6           | Atlas      |        |       |
| <b>CSO166 Count</b> |                 |                 | 15                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO166 Total</b> |                 |                 | 12,888,265.97      |                 |                   |                 |                 |                 |             |            |        |       |
| CSO167              | 3/31/2016 4:45  | 4/1/2016 0:45   | 301,544.17         | 0.83            | 0.99              | 304,590.08      | 2.01            | 0.38            | 24          | Atlas      |        |       |
| CSO167              | 4/11/2016 16:30 | 4/11/2016 19:30 | 297,893.68         | 0.13            | 0.86              | 346,388.00      | 0.92            | 0.38            | 6           | Atlas      |        |       |
| CSO167              | 4/21/2016 16:00 | 4/21/2016 16:15 | 8,237.74           | 0.01            | 0.3               | 27,459.13       | 0.2             | 0.11            | 3           | Atlas      |        |       |
| CSO167              | 4/26/2016 16:15 | 4/26/2016 22:15 | 141,243.37         | 0.25            | 0.34              | 415,421.69      | 0.66            | 0.17            | 6           | Atlas      |        |       |
| CSO167              | 4/27/2016 14:15 | 4/27/2016 22:45 | 258,614.08         | 0.35            | 0.63              | 410,498.55      | 1.25            | 0.29            | 3           | Atlas      |        |       |
| CSO167              | 4/30/2016 11:30 | 4/30/2016 11:45 | 22,648.09          | 0.01            | 0.5               | 45,296.19       | 1.24            | 0.19            | 6           | Atlas      |        |       |
| CSO167              | 4/30/2016 23:45 | 4/30/2016 23:45 | 78.59              | 0.00            | 0.5               | 157.19          | 1.44            | 0.19            | 6           | Atlas      |        |       |
| CSO167              | 5/4/2016 11:45  | 5/4/2016 12:00  | 1,743.12           | 0.01            | 0.17              | 10,253.68       | 1.48            | 0.11            | 3           | Atlas      |        |       |
| CSO167              | 5/7/2016 16:45  | 5/7/2016 22:30  | 13,302.90          | 0.24            | 0.51              | 26,084.11       | 1.03            | 0.26            | 6           | Atlas      |        |       |
| CSO167              | 5/10/2016 9:00  | 5/10/2016 22:45 | 349,318.71         | 0.57            | 0.75              | 465,758.28      | 1.47            | 0.28            | 24          | Atlas      |        |       |
| CSO167              | 5/11/2016 22:00 | 5/11/2016 22:30 | 27,255.59          | 0.02            | 0.19              | 143,450.50      | 1.46            | 0.11            | 3           | Atlas      |        |       |
| CSO167              | 5/17/2016 20:45 | 5/17/2016 20:45 | 3,638.92           | 0.00            | 0.61              | 5,965.44        | 1.04            | 0.20            | 24          | Atlas      |        |       |
| CSO167              | 5/20/2016 14:00 | 5/20/2016 16:30 | 374,262.58         | 0.10            | 0.66              | 567,064.51      | 1.27            | 0.37            | 3           | Atlas      |        |       |
| CSO167              | 5/26/2016 14:00 | 5/26/2016 14:00 | 11,614.98          | 0.00            | 0.22              | 52,795.36       | 0.88            | 0.15            | 3           | Atlas      |        |       |
| CSO167              | 6/2/2016 15:30  | 6/2/2016 16:15  | 122,606.12         | 0.03            | 0.28              | 437,879.01      | 0.43            | 0.22            | 1           | Atlas      |        |       |
| CSO167              | 6/4/2016 16:45  | 6/4/2016 17:15  | 99,050.56          | 0.02            | 0.27              | 366,853.91      | 0.59            | 0.14            | 3           | Atlas      |        |       |
| CSO167              | 6/12/2016 18:00 | 6/12/2016 18:30 | 135,068.76         | 0.02            | 0.18              | 750,381.99      | 0.21            | 0.16            | 1           | Atlas      |        |       |
| CSO167              | 6/14/2016 16:45 | 6/14/2016 19:00 | 240,679.13         | 0.09            | 0.9               | 267,421.26      | 1.07            | 0.58            | 3           | Atlas      |        |       |
| CSO167              | 6/15/2016 13:30 | 6/15/2016 13:30 | 235.35             | 0.00            | 0.13              | 1,810.42        | 1.21            | 0.10            | 1           | Atlas      |        |       |
| CSO167              | 6/22/2016 8:15  | 6/22/2016 8:45  | 88,314.65          | 0.02            | 0.39              | 226,447.81      | 0.31            | 0.24            | 3           | Atlas      |        |       |
| CSO167              | 6/23/2016 16:15 | 6/23/2016 22:45 | 838,403.81         | 0.27            | 1.87              | 448,344.28      | 2.26            | 1.00            | 6           | Cloudburst |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| <b>CSO167 Count</b> |                 |                 | 21                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO167 Total</b> |                 |                 | 3,335,754.92       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO174              | 3/31/2016 22:15 | 3/31/2016 23:30 | 198,444.22         | 0.05            | 1.18              | 168,173.07      | 2.02            | 0.45            | 24          | Atlas      | *      | R     |
| CSO174              | 4/11/2016 17:30 | 4/11/2016 18:15 | 147,368.27         | 0.03            | 0.91              | 161,943.16      | 0.85            | 0.44            | 6           | Atlas      | *      | R     |
| CSO174              | 4/27/2016 21:00 | 4/27/2016 22:15 | 206,489.26         | 0.05            | 0.64              | 322,639.48      | 1.22            | 0.32            | 1           | Atlas      | *      | R     |
| CSO174              | 5/1/2016 15:00  | 5/1/2016 16:15  | 690,429.69         | 0.05            | 0.28              | 2,465,820.32    | 1.71            | 0.19            | 3           | Atlas      | *      | R     |
| CSO174              | 5/7/2016 16:45  | 5/7/2016 20:15  | 79,279.59          | 0.15            | 0.84              | 94,380.46       | 1.29            | 0.44            | 6           | Atlas      | *      | R     |
| CSO174              | 5/10/2016 18:45 | 5/10/2016 22:00 | 436,253.54         | 0.14            | 0.9               | 484,726.16      | 1.95            | 0.34            | 12          | Atlas      | *      | R     |
| CSO174              | 5/20/2016 14:30 | 5/20/2016 16:00 | 555,602.91         | 0.06            | 0.57              | 974,741.95      | 1.25            | 0.32            | 3           | Atlas      | *      | R     |
| CSO174              | 6/2/2016 15:30  | 6/2/2016 16:00  | 340,987.35         | 0.02            | 0.46              | 741,276.85      | 0.57            | 0.37            | 1           | Atlas      | *      | R     |
| CSO174              | 6/14/2016 17:00 | 6/14/2016 17:15 | 236,685.75         | 0.01            | 0.64              | 369,821.49      | 0.68            | 0.41            | 3           | Atlas      | *      | R     |
| CSO174              | 6/23/2016 16:15 | 6/23/2016 22:45 | 1,898,611.56       | 0.27            | 1.6               | 1,186,632.23    | 1.75            | 0.86            | 6           | Atlas      | *      | R     |
| <b>CSO174 Count</b> |                 |                 | 10                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO174 Total</b> |                 |                 | 4,790,152.16       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO179              | 6/14/2016 16:45 | 6/14/2016 17:15 | 10,884.60          | 0.02            | 0.64              | 17,007.20       | 0.68            | 0.41            | 3           | Atlas      |        |       |
| CSO179              | 6/23/2016 16:15 | 6/23/2016 22:30 | 96,716.18          | 0.26            | 1.6               | 60,447.61       | 1.75            | 0.86            | 6           | Atlas      |        |       |
| <b>CSO179 Count</b> |                 |                 | 2                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO179 Total</b> |                 |                 | 107,600.78         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO180              | 3/31/2016 22:15 | 3/31/2016 22:15 | 6,750.27           | 0.00            | 1.18              | 5,720.57        | 1.86            | 0.45            | 24          | Atlas      | *      | R     |
| CSO180              | 4/11/2016 17:30 | 4/11/2016 18:00 | 13,595.68          | 0.02            | 0.91              | 14,940.31       | 0.83            | 0.44            | 6           | Atlas      | *      | R     |
| CSO180              | 4/27/2016 21:00 | 4/27/2016 22:00 | 37,332.29          | 0.04            | 0.64              | 58,331.70       | 1.22            | 0.32            | 1           | Atlas      | *      | R     |
| CSO180              | 5/1/2016 15:00  | 5/1/2016 15:00  | 43,240.43          | 0.00            | 0.28              | 154,430.11      | 1.62            | 0.19            | 3           | Atlas      | *      | R     |
| CSO180              | 5/7/2016 16:30  | 5/7/2016 20:15  | 6,192.86           | 0.16            | 0.84              | 7,372.46        | 1.29            | 0.44            | 6           | Atlas      | *      | R     |
| CSO180              | 5/10/2016 18:45 | 5/10/2016 21:45 | 28,434.85          | 0.13            | 0.9               | 31,594.28       | 1.95            | 0.34            | 12          | Atlas      | *      | R     |
| CSO180              | 5/20/2016 14:45 | 5/20/2016 15:45 | 47,885.76          | 0.04            | 0.57              | 84,010.11       | 1.25            | 0.32            | 3           | Atlas      | *      | R     |
| CSO180              | 6/12/2016 18:00 | 6/12/2016 18:00 | 11,619.92          | 0.00            | 0.26              | 44,691.99       | 0.3             | 0.21            | 1           | Atlas      | *      | R     |
| CSO180              | 6/14/2016 16:45 | 6/14/2016 16:45 | 8,762.60           | 0.00            | 0.64              | 13,691.57       | 0.61            | 0.41            | 3           | Atlas      | *      | R     |
| CSO180              | 6/23/2016 16:00 | 6/23/2016 22:15 | 303,133.39         | 0.26            | 1.6               | 189,458.37      | 1.75            | 0.86            | 6           | Atlas      | *      | R     |
| <b>CSO180 Count</b> |                 |                 | 10                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO180 Total</b> |                 |                 | 506,948.06         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO181              | 4/26/2016 16:15 | 4/26/2016 16:15 | 429,609.41         | 0.00            | 0.33              | 1,301,846.69    | 0.43            | 0.16            | 6           | Atlas      |        |       |
| CSO181              | 5/10/2016 18:45 | 5/10/2016 22:00 | 15,731,720.00      | 0.14            | 0.94              | 16,735,872.34   | 1.85            | 0.36            | 12          | Atlas      |        |       |
| CSO181              | 6/2/2016 15:45  | 6/2/2016 15:45  | 19,382,620.00      | 0.00            | 0.34              | 57,007,705.88   | 0.43            | 0.27            | 1           | Atlas      |        |       |
| CSO181              | 6/4/2016 16:45  | 6/4/2016 17:00  | 88,931,898.00      | 0.01            | 0.23              | 386,660,426.09  | 0.63            | 0.12            | 1           | Atlas      |        |       |
| CSO181              | 6/14/2016 17:00 | 6/14/2016 17:00 | 21,864,124.00      | 0.00            | 0.84              | 26,028,719.05   | 0.64            | 0.54            | 3           | Atlas      |        |       |
| CSO181              | 6/23/2016 16:15 | 6/23/2016 21:00 | 296,881,494.00     | 0.20            | 1.88              | 157,915,688.30  | 2.05            | 1.17            | 6           | Cloudburst |        |       |
| <b>CSO181 Count</b> |                 |                 | 6                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO181 Total</b> |                 |                 | 443,221,465.41     |                 |                   |                 |                 |                 |             |            |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|----------|--------|-------|
| CSO182              | 3/31/2016 1:45  | 4/1/2016 1:00   | 82,525.28          | 0.97            | 1.17              | 70,534.43       | 2.53            | 0.45            | 24          | Atlas    | *      | R     |
| CSO182              | 4/11/2016 14:00 | 4/11/2016 21:15 | 56,769.15          | 0.30            | 1.03              | 55,115.68       | 1.14            | 0.46            | 12          | Atlas    | *      | R     |
| CSO182              | 4/21/2016 14:45 | 4/21/2016 16:15 | 12,033.76          | 0.06            | 0.31              | 38,818.58       | 0.21            | 0.11            | 3           | Atlas    | *      | R     |
| CSO182              | 4/22/2016 1:15  | 4/22/2016 1:30  | 4,726.15           | 0.01            | 0.31              | 15,245.63       | 0.25            | 0.11            | 3           | Atlas    | *      | R     |
| CSO182              | 4/26/2016 15:30 | 4/26/2016 22:15 | 27,107.19          | 0.28            | 0.31              | 87,442.54       | 0.63            | 0.15            | 6           | Atlas    | *      | R     |
| CSO182              | 4/27/2016 13:00 | 4/27/2016 22:45 | 14,455.09          | 0.41            | 0.6               | 24,091.82       | 1.21            | 0.29            | 3           | Atlas    | *      | R     |
| CSO182              | 4/30/2016 9:00  | 4/30/2016 13:45 | 25,633.18          | 0.20            | 0.5               | 51,266.35       | 1.27            | 0.18            | 24          | Atlas    | *      | R     |
| CSO182              | 5/1/2016 15:30  | 5/1/2016 17:00  | 15,854.29          | 0.06            | 0.43              | 36,870.45       | 1.83            | 0.29            | 1           | Atlas    | *      | R     |
| CSO182              | 5/4/2016 11:15  | 5/4/2016 12:00  | 15,844.16          | 0.03            | 0.19              | 83,390.30       | 1.7             | 0.12            | 1           | Atlas    | *      | R     |
| CSO182              | 5/7/2016 16:30  | 5/7/2016 22:45  | 27,542.94          | 0.26            | 0.65              | 42,373.75       | 1.41            | 0.34            | 6           | Atlas    | *      | R     |
| CSO182              | 5/10/2016 8:30  | 5/10/2016 22:45 | 50,993.58          | 0.59            | 0.91              | 56,036.90       | 1.75            | 0.33            | 24          | Atlas    | *      | R     |
| CSO182              | 5/11/2016 19:15 | 5/11/2016 22:45 | 27,341.81          | 0.15            | 0.32              | 85,443.17       | 1.86            | 0.17            | 3           | Atlas    | *      | R     |
| CSO182              | 5/12/2016 18:00 | 5/12/2016 18:00 | 479.39             | 0.00            | 0.08              | 5,992.32        | 1.97            | 0.06            | 1           | Atlas    | *      | R     |
| CSO182              | 5/17/2016 6:15  | 5/17/2016 7:30  | 43,884.06          | 0.05            | 0.37              | 118,605.57      | 1.62            | 0.15            | 12          | Atlas    | *      | R     |
| CSO182              | 5/17/2016 20:15 | 5/17/2016 21:15 | 28,861.82          | 0.04            | 0.27              | 106,895.64      | 1.33            | 0.14            | 3           | Atlas    | *      | R     |
| CSO182              | 5/20/2016 13:15 | 5/20/2016 16:45 | 47,444.14          | 0.15            | 0.62              | 76,522.80       | 1.28            | 0.35            | 3           | Atlas    | *      | R     |
| CSO182              | 5/26/2016 14:00 | 5/26/2016 16:00 | 14,704.03          | 0.08            | 0.26              | 56,553.97       | 0.96            | 0.17            | 3           | Atlas    | *      | R     |
| CSO182              | 6/2/2016 15:15  | 6/2/2016 16:15  | 7,220.65           | 0.04            | 0.51              | 14,158.13       | 0.63            | 0.42            | 1           | Atlas    | *      | R     |
| CSO182              | 6/4/2016 18:15  | 6/4/2016 18:45  | 5,714.08           | 0.02            | 0.15              | 38,093.89       | 0.69            | 0.08            | 1           | Atlas    | *      | R     |
| CSO182              | 6/7/2016 1:00   | 6/7/2016 1:00   | 546.23             | 0.00            | 0.06              | 9,103.82        | 0.76            | 0.05            | 1           | Atlas    | *      | R     |
| CSO182              | 6/12/2016 18:00 | 6/12/2016 19:30 | 17,971.63          | 0.06            | 0.29              | 61,971.12       | 0.35            | 0.24            | 1           | Atlas    | *      | R     |
| CSO182              | 6/14/2016 16:45 | 6/14/2016 19:00 | 13,051.59          | 0.09            | 0.64              | 20,393.11       | 0.92            | 0.41            | 3           | Atlas    | *      | R     |
| CSO182              | 6/15/2016 14:00 | 6/15/2016 14:00 | 2,618.02           | 0.00            | 0.22              | 11,900.09       | 1.15            | 0.19            | 1           | Atlas    | *      | R     |
| CSO182              | 6/23/2016 17:00 | 6/23/2016 23:15 | 16,912.65          | 0.26            | 1.58              | 10,704.21       | 1.67            | 0.83            | 6           | Atlas    | *      | R     |
| <b>CSO182 Count</b> |                 |                 | 24                 |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO182 Total</b> |                 |                 | 560,234.86         |                 |                   |                 |                 |                 |             |          |        |       |
| CSO184              | 3/31/2016 22:15 | 3/31/2016 22:15 | 1,838.15           | 0.00            | 1.19              | 1,544.66        | 1.9             | 0.45            | 24          | Atlas    | *      | R     |
| CSO184              | 4/27/2016 21:00 | 4/27/2016 21:00 | 18,423.74          | 0.00            | 0.54              | 34,118.04       | 1.01            | 0.25            | 3           | Atlas    | *      | R     |
| CSO184              | 5/1/2016 15:00  | 5/1/2016 15:00  | 147,723.92         | 0.00            | 0.39              | 378,779.29      | 1.67            | 0.26            | 3           | Atlas    | *      | R     |
| CSO184              | 5/8/2016 9:00   | 5/8/2016 9:15   | 1,364.52           | 0.01            | 0.48              | 2,842.75        | 1.08            | 0.25            | 6           | Atlas    | *      | R     |
| CSO184              | 5/10/2016 18:45 | 5/10/2016 21:45 | 21,913.44          | 0.13            | 0.66              | 33,202.18       | 1.36            | 0.24            | 24          | Atlas    | *      | R     |
| <b>CSO184 Count</b> |                 |                 | 5                  |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO184 Total</b> |                 |                 | 191,263.77         |                 |                   |                 |                 |                 |             |          |        |       |
| CSO185              | 3/31/2016 22:15 | 3/31/2016 23:15 | 15,555.21          | 0.04            | 1.19              | 13,071.60       | 1.99            | 0.45            | 24          | Atlas    | *      | R     |
| CSO185              | 4/11/2016 17:45 | 4/11/2016 18:00 | 3,927.31           | 0.01            | 0.96              | 4,090.95        | 0.88            | 0.44            | 12          | Atlas    | *      | R     |
| CSO185              | 4/27/2016 21:00 | 4/27/2016 21:00 | 33,025.61          | 0.00            | 0.54              | 61,158.54       | 1.01            | 0.25            | 3           | Atlas    | *      | R     |
| CSO185              | 5/1/2016 15:00  | 5/1/2016 16:15  | 217,734.39         | 0.05            | 0.39              | 558,293.31      | 1.8             | 0.26            | 3           | Atlas    | *      | R     |
| CSO185              | 5/7/2016 16:45  | 5/7/2016 16:45  | 505.10             | 0.00            | 0.48              | 1,052.30        | 0.95            | 0.25            | 6           | Atlas    | *      | R     |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO185              | 5/10/2016 18:45 | 5/10/2016 21:45 | 52,180.78          | 0.13            | 0.66              | 79,061.79       | 1.36            | 0.24            | 24          | Atlas      | *      | R     |
| CSO185              | 5/20/2016 14:45 | 5/20/2016 15:45 | 21,544.93          | 0.04            | 0.7               | 30,778.47       | 1.36            | 0.39            | 3           | Atlas      | *      | R     |
| CSO185              | 6/2/2016 15:30  | 6/2/2016 15:45  | 20,355.27          | 0.01            | 0.49              | 41,541.37       | 0.6             | 0.40            | 1           | Atlas      | *      | R     |
| CSO185              | 6/4/2016 18:15  | 6/4/2016 18:15  | 614.00             | 0.00            | 0.09              | 6,822.22        | 0.62            | 0.05            | 1           | Atlas      | *      | R     |
| CSO185              | 6/14/2016 16:45 | 6/14/2016 17:00 | 38,196.54          | 0.01            | 0.62              | 61,607.32       | 0.68            | 0.39            | 3           | Atlas      | *      | R     |
| CSO185              | 6/15/2016 13:45 | 6/15/2016 13:45 | 816.46             | 0.00            | 0.32              | 2,551.43        | 1.23            | 0.28            | 1           | Atlas      | *      | R     |
| CSO185              | 6/23/2016 16:15 | 6/23/2016 22:30 | 45,603.40          | 0.26            | 1.57              | 29,046.75       | 1.65            | 0.72            | 6           | Atlas      | *      | R     |
| <b>CSO185 Count</b> |                 |                 | 12                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO185 Total</b> |                 |                 | 450,059.00         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO186              | 6/23/2016 16:15 | 6/23/2016 16:15 | 37,216.92          | 0.00            | 1.6               | 23,260.57       | 0.82            | 0.86            | 6           | Atlas      | *      | R     |
| <b>CSO186 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO186 Total</b> |                 |                 | 37,216.92          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO187              | 6/4/2016 16:45  | 6/4/2016 16:45  | 3,874.87           | 0.00            | 0.12              | 32,290.62       | 0.62            | 0.06            | 1           | Atlas      | *      | R     |
| CSO187              | 6/12/2016 18:00 | 6/12/2016 18:00 | 256.99             | 0.00            | 0.26              | 988.42          | 0.3             | 0.21            | 1           | Atlas      | *      | R     |
| CSO187              | 6/23/2016 20:00 | 6/23/2016 20:45 | 88,641.86          | 0.03            | 1.6               | 55,401.16       | 1.74            | 0.86            | 6           | Atlas      | *      | R     |
| <b>CSO187 Count</b> |                 |                 | 3                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO187 Total</b> |                 |                 | 92,773.73          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO189              | 3/31/2016 5:00  | 3/31/2016 8:30  | 1,768,299.44       | 0.15            | 1.38              | 1,281,376.41    | 2.01            | 0.52            | 24          | Atlas      |        |       |
| CSO189              | 3/31/2016 22:15 | 4/1/2016 1:15   | 2,236,767.86       | 0.13            | 1.38              | 1,620,846.27    | 2.11            | 0.52            | 24          | Atlas      |        |       |
| CSO189              | 4/11/2016 16:30 | 4/11/2016 20:15 | 4,319,526.65       | 0.16            | 1.14              | 3,789,058.47    | 1.29            | 0.52            | 6           | Atlas      |        |       |
| CSO189              | 4/27/2016 21:00 | 4/27/2016 23:00 | 3,198,520.09       | 0.08            | 0.91              | 3,514,857.24    | 1.55            | 0.43            | 3           | Atlas      |        |       |
| CSO189              | 4/30/2016 11:30 | 4/30/2016 14:00 | 1,298,707.48       | 0.10            | 0.79              | 1,643,933.52    | 1.58            | 0.30            | 24          | Atlas      |        |       |
| CSO189              | 5/1/2016 16:45  | 5/1/2016 17:00  | 12,725.72          | 0.01            | 0.65              | 19,578.03       | 2.59            | 0.43            | 3           | Atlas      |        |       |
| CSO189              | 5/7/2016 20:15  | 5/7/2016 23:00  | 692,813.80         | 0.11            | 0.52              | 1,332,334.22    | 1.75            | 0.27            | 3           | Atlas      |        |       |
| CSO189              | 5/10/2016 14:30 | 5/10/2016 20:00 | 1,815,449.22       | 0.23            | 0.72              | 2,521,457.25    | 1.51            | 0.29            | 3           | Atlas      |        |       |
| CSO189              | 5/11/2016 22:45 | 5/11/2016 22:45 | 3,350.58           | 0.00            | 0.3               | 11,168.61       | 1.59            | 0.14            | 3           | Atlas      |        |       |
| CSO189              | 5/20/2016 14:15 | 5/20/2016 17:00 | 3,561,332.29       | 0.11            | 0.63              | 5,652,908.39    | 1.29            | 0.35            | 3           | Atlas      |        |       |
| CSO189              | 5/26/2016 14:00 | 5/26/2016 14:15 | 11,150.15          | 0.01            | 0.36              | 30,972.63       | 0.96            | 0.24            | 3           | Atlas      |        |       |
| CSO189              | 5/28/2016 15:00 | 5/28/2016 15:15 | 66,213.44          | 0.01            | 0.18              | 367,852.45      | 0.53            | 0.10            | 6           | Atlas      |        |       |
| CSO189              | 6/2/2016 15:15  | 6/2/2016 17:45  | 11,122,111.69      | 0.10            | 1.49              | 7,464,504.49    | 1.73            | 2.75            | 1           | Atlas      |        |       |
| CSO189              | 6/4/2016 17:00  | 6/4/2016 17:15  | 59,647.26          | 0.01            | 0.18              | 331,373.67      | 1.73            | 0.07            | 12          | Atlas      |        |       |
| CSO189              | 6/12/2016 18:15 | 6/12/2016 19:15 | 973,937.81         | 0.04            | 0.59              | 1,650,742.05    | 0.6             | 0.50            | 1           | Atlas      |        |       |
| CSO189              | 6/14/2016 16:15 | 6/14/2016 20:00 | 13,443,275.60      | 0.16            | 1.46              | 9,207,723.01    | 2.05            | 0.87            | 1           | Atlas      |        |       |
| CSO189              | 6/23/2016 16:00 | 6/23/2016 23:30 | 16,674,338.21      | 0.31            | 2.12              | 7,865,253.87    | 2.29            | 1.11            | 6           | Cloudburst |        |       |
| <b>CSO189 Count</b> |                 |                 | 17                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO189 Total</b> |                 |                 | 61,258,167.28      |                 |                   |                 |                 |                 |             |            |        |       |
| CSO190              | 3/31/2016 1:00  | 4/1/2016 9:30   | 393,527.63         | 1.35            | 1.38              | 285,164.95      | 2.59            | 0.52            | 24          | Atlas      |        |       |
| CSO190              | 4/11/2016 13:15 | 4/11/2016 20:30 | 571,109.14         | 0.30            | 1.11              | 514,512.73      | 1.25            | 0.52            | 6           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO190              | 4/26/2016 20:45 | 4/26/2016 21:45 | 12,601.52          | 0.04            | 0.31              | 40,650.07       | 0.67            | 0.20            | 1           | Atlas      |        |       |
| CSO190              | 4/27/2016 12:45 | 4/27/2016 23:00 | 486,155.41         | 0.43            | 0.88              | 552,449.33      | 1.51            | 0.41            | 1           | Atlas      |        |       |
| CSO190              | 4/30/2016 8:30  | 4/30/2016 14:00 | 319,181.34         | 0.23            | 0.87              | 366,875.10      | 1.76            | 0.33            | 24          | Atlas      |        |       |
| CSO190              | 4/30/2016 23:00 | 5/1/2016 3:15   | 29.97              | 0.18            | 0.87              | 34.45           | 2.01            | 0.33            | 24          | Atlas      |        |       |
| CSO190              | 5/1/2016 14:30  | 5/1/2016 15:00  | 13,702.00          | 0.02            | 0.33              | 41,521.22       | 2.2             | 0.22            | 3           | Atlas      |        |       |
| CSO190              | 5/4/2016 11:45  | 5/4/2016 11:45  | 793.69             | 0.00            | 0.21              | 3,779.46        | 2.22            | 0.11            | 3           | Atlas      |        |       |
| CSO190              | 5/7/2016 16:15  | 5/7/2016 22:45  | 71,435.04          | 0.27            | 0.8               | 89,293.80       | 1.63            | 0.42            | 6           | Atlas      |        |       |
| CSO190              | 5/10/2016 14:00 | 5/10/2016 22:45 | 404,214.69         | 0.36            | 0.83              | 487,005.65      | 1.88            | 0.32            | 12          | Atlas      |        |       |
| CSO190              | 5/11/2016 21:15 | 5/11/2016 22:30 | 7,815.15           | 0.05            | 0.23              | 33,978.89       | 1.88            | 0.12            | 3           | Atlas      |        |       |
| CSO190              | 5/12/2016 16:45 | 5/12/2016 16:45 | 613.95             | 0.00            | 0.16              | 3,837.17        | 1.98            | 0.11            | 3           | Atlas      |        |       |
| CSO190              | 5/17/2016 8:45  | 5/18/2016 22:15 | 11,641.30          | 1.56            | 0.32              | 36,379.07       | 1.76            | 0.13            | 12          | Atlas      |        |       |
| CSO190              | 5/20/2016 12:15 | 5/20/2016 16:30 | 428,301.50         | 0.18            | 0.55              | 778,730.00      | 1.28            | 0.30            | 6           | Atlas      |        |       |
| CSO190              | 5/25/2016 17:45 | 5/25/2016 18:15 | 40,395.36          | 0.02            | 0.03              | 1,346,511.85    | 0.68            | 0.03            | 1           | Atlas      |        |       |
| CSO190              | 5/26/2016 13:45 | 5/26/2016 15:00 | 3,010.73           | 0.05            | 0.37              | 8,137.11        | 1.01            | 0.25            | 3           | Atlas      |        |       |
| CSO190              | 5/30/2016 0:15  | 5/30/2016 0:15  | 823.20             | 0.00            | 0.01              | 82,319.79       | 0.51            | 0.01            | 1           | Atlas      |        |       |
| CSO190              | 6/2/2016 15:15  | 6/2/2016 16:30  | 1,159,264.03       | 0.05            | 1.12              | 1,035,057.17    | 1.26            | 0.91            | 1           | Atlas      |        |       |
| CSO190              | 6/4/2016 16:45  | 6/4/2016 17:00  | 59,291.53          | 0.01            | 0.33              | 179,671.30      | 1.48            | 0.16            | 3           | Atlas      |        |       |
| CSO190              | 6/14/2016 16:30 | 6/14/2016 18:30 | 1,810,037.00       | 0.08            | 1.14              | 1,587,751.76    | 1.13            | 0.72            | 3           | Atlas      |        |       |
| CSO190              | 6/22/2016 8:00  | 6/22/2016 10:45 | 112,147.05         | 0.11            | 0.34              | 329,844.25      | 0.39            | 0.21            | 3           | Atlas      |        |       |
| CSO190              | 6/23/2016 15:45 | 6/23/2016 21:15 | 2,465,812.21       | 0.23            | 2.12              | 1,163,118.96    | 2.46            | 1.81            | 6           | Cloudburst |        |       |
| <b>CSO190 Count</b> |                 |                 | 22                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO190 Total</b> |                 |                 | 8,371,903.41       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO191              | 4/11/2016 17:15 | 4/11/2016 18:00 | 57,058.94          | 0.03            | 0.96              | 59,436.40       | 1.01            | 0.43            | 12          | Atlas      |        |       |
| CSO191              | 4/27/2016 20:45 | 4/27/2016 21:45 | 153,518.83         | 0.04            | 1.18              | 130,100.71      | 1.78            | 0.54            | 3           | Atlas      |        |       |
| CSO191              | 5/11/2016 20:30 | 5/11/2016 20:30 | 5,601.94           | 0.00            | 0.38              | 14,741.94       | 1.51            | 0.17            | 6           | Atlas      |        |       |
| CSO191              | 5/20/2016 14:45 | 5/20/2016 15:30 | 137,082.79         | 0.03            | 0.79              | 173,522.52      | 1.54            | 0.45            | 3           | Atlas      |        |       |
| CSO191              | 6/2/2016 15:30  | 6/2/2016 16:00  | 532,184.42         | 0.02            | 0.87              | 611,706.23      | 1.14            | 0.69            | 1           | Atlas      |        |       |
| CSO191              | 6/14/2016 16:30 | 6/14/2016 18:00 | 1,293,159.81       | 0.06            | 1.08              | 1,197,370.19    | 1.77            | 0.59            | 6           | Atlas      |        |       |
| CSO191              | 6/23/2016 16:30 | 6/23/2016 23:15 | 1,264,248.26       | 0.28            | 2.15              | 588,022.45      | 2.19            | 0.99            | 12          | Atlas      |        |       |
| <b>CSO191 Count</b> |                 |                 | 7                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO191 Total</b> |                 |                 | 3,442,854.99       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO193              | 5/10/2016 21:45 | 5/10/2016 21:45 | 2,072.89           | 0.00            | 0.89              | 2,329.08        | 1.91            | 0.33            | 24          | Atlas      |        |       |
| CSO193              | 6/2/2016 15:45  | 6/2/2016 15:45  | 5,463.27           | 0.00            | 0.26              | 21,012.58       | 0.35            | 0.21            | 1           | Atlas      |        |       |
| CSO193              | 6/4/2016 16:45  | 6/4/2016 16:45  | 14,265.01          | 0.00            | 0.32              | 44,578.16       | 0.61            | 0.17            | 3           | Atlas      |        |       |
| CSO193              | 6/14/2016 16:45 | 6/14/2016 16:45 | 9,802.71           | 0.00            | 0.88              | 11,139.44       | 0.67            | 0.56            | 3           | Atlas      |        |       |
| CSO193              | 6/23/2016 16:15 | 6/23/2016 20:45 | 64,602.50          | 0.19            | 2.02              | 31,981.44       | 2.26            | 1.56            | 6           | Cloudburst |        |       |
| <b>CSO193 Count</b> |                 |                 | 5                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO193 Total</b> |                 |                 | 96,206.38          |                 |                   |                 |                 |                 |             |            |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO196              | 3/31/2016 22:00 | 3/31/2016 22:00 | 4,938.85           | 0.00            | 1.22              | 4,048.24        | 1.97            | 0.47            | 24          | Atlas      |        |       |
| CSO196              | 4/11/2016 17:30 | 4/11/2016 17:45 | 3,161.52           | 0.01            | 0.93              | 3,399.48        | 0.83            | 0.44            | 6           | Atlas      |        |       |
| CSO196              | 4/21/2016 14:30 | 4/21/2016 14:30 | 2,172.86           | 0.00            | 0.33              | 6,584.44        | 0.1             | 0.14            | 3           | Atlas      |        |       |
| CSO196              | 4/27/2016 21:00 | 4/27/2016 21:00 | 3,783.31           | 0.00            | 0.71              | 5,328.61        | 1.12            | 0.33            | 3           | Atlas      |        |       |
| CSO196              | 4/30/2016 11:15 | 4/30/2016 11:15 | 2,000.68           | 0.00            | 0.55              | 3,637.59        | 1.27            | 0.20            | 24          | Atlas      |        |       |
| CSO196              | 5/1/2016 15:00  | 5/1/2016 15:00  | 3,312.18           | 0.00            | 0.25              | 13,248.71       | 1.7             | 0.17            | 3           | Atlas      |        |       |
| CSO196              | 5/7/2016 16:30  | 5/7/2016 16:30  | 1,423.57           | 0.00            | 0.75              | 1,898.10        | 0.81            | 0.39            | 6           | Atlas      |        |       |
| CSO196              | 5/10/2016 18:45 | 5/10/2016 22:00 | 19,606.33          | 0.14            | 0.85              | 23,066.27       | 1.85            | 0.32            | 24          | Atlas      |        |       |
| CSO196              | 5/12/2016 16:15 | 5/12/2016 16:15 | 634.25             | 0.00            | 0.15              | 4,228.33        | 1.99            | 0.10            | 3           | Atlas      |        |       |
| CSO196              | 5/20/2016 15:15 | 5/20/2016 15:30 | 8,364.82           | 0.01            | 0.53              | 15,782.69       | 1.29            | 0.29            | 3           | Atlas      |        |       |
| CSO196              | 6/2/2016 15:30  | 6/2/2016 15:45  | 12,847.91          | 0.01            | 0.31              | 41,444.87       | 0.41            | 0.25            | 1           | Atlas      |        |       |
| CSO196              | 6/4/2016 16:45  | 6/4/2016 16:45  | 14,170.18          | 0.00            | 0.18              | 78,723.21       | 0.49            | 0.10            | 3           | Atlas      |        |       |
| CSO196              | 6/14/2016 16:45 | 6/14/2016 16:45 | 5,619.19           | 0.00            | 0.81              | 6,937.27        | 0.77            | 0.51            | 3           | Atlas      |        |       |
| CSO196              | 6/23/2016 16:15 | 6/23/2016 22:15 | 49,293.02          | 0.25            | 1.86              | 26,501.62       | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO196 Count</b> |                 |                 | 14                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO196 Total</b> |                 |                 | 131,328.67         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO197              | 3/31/2016 1:15  | 3/31/2016 7:30  | 17,174.08          | 0.26            | 1.22              | 14,077.12       | 2.11            | 0.47            | 24          | Atlas      |        |       |
| CSO197              | 3/31/2016 15:45 | 3/31/2016 22:45 | 8,049.60           | 0.29            | 1.22              | 6,598.04        | 2.48            | 0.47            | 24          | Atlas      |        |       |
| CSO197              | 4/11/2016 13:30 | 4/11/2016 20:45 | 44,584.33          | 0.30            | 0.93              | 47,940.14       | 1.05            | 0.44            | 6           | Atlas      |        |       |
| CSO197              | 4/21/2016 14:15 | 4/21/2016 16:15 | 26,007.68          | 0.08            | 0.33              | 78,811.14       | 0.24            | 0.14            | 3           | Atlas      |        |       |
| CSO197              | 4/22/2016 1:00  | 4/22/2016 1:00  | 402.08             | 0.00            | 0.33              | 1,218.43        | 0.29            | 0.14            | 3           | Atlas      |        |       |
| CSO197              | 4/26/2016 16:00 | 4/26/2016 21:45 | 9,518.62           | 0.24            | 0.3               | 31,728.72       | 0.67            | 0.15            | 3           | Atlas      |        |       |
| CSO197              | 4/27/2016 12:45 | 4/27/2016 22:30 | 56,132.92          | 0.41            | 0.71              | 79,060.44       | 1.35            | 0.33            | 3           | Atlas      |        |       |
| CSO197              | 4/30/2016 8:30  | 4/30/2016 13:30 | 24,318.48          | 0.21            | 0.55              | 44,215.42       | 1.39            | 0.20            | 24          | Atlas      |        |       |
| CSO197              | 5/1/2016 14:30  | 5/1/2016 16:15  | 22,143.48          | 0.07            | 0.25              | 88,573.91       | 1.8             | 0.17            | 3           | Atlas      |        |       |
| CSO197              | 5/4/2016 11:00  | 5/4/2016 11:45  | 3,036.20           | 0.03            | 0.22              | 13,800.90       | 1.7             | 0.13            | 1           | Atlas      |        |       |
| CSO197              | 5/7/2016 16:15  | 5/7/2016 22:15  | 34,065.22          | 0.25            | 0.75              | 45,420.29       | 1.38            | 0.39            | 6           | Atlas      |        |       |
| CSO197              | 5/10/2016 8:15  | 5/10/2016 22:00 | 62,360.51          | 0.57            | 0.85              | 73,365.30       | 1.85            | 0.32            | 24          | Atlas      |        |       |
| CSO197              | 5/11/2016 20:45 | 5/11/2016 22:30 | 12,808.18          | 0.07            | 0.3               | 42,693.93       | 1.91            | 0.16            | 3           | Atlas      |        |       |
| CSO197              | 5/12/2016 16:00 | 5/12/2016 17:45 | 15,301.56          | 0.07            | 0.15              | 102,010.42      | 2.09            | 0.10            | 3           | Atlas      |        |       |
| CSO197              | 5/17/2016 5:45  | 5/17/2016 7:00  | 3,840.34           | 0.05            | 0.73              | 5,260.75        | 1.69            | 0.25            | 24          | Atlas      |        |       |
| CSO197              | 5/17/2016 20:00 | 5/17/2016 21:00 | 4,521.09           | 0.04            | 0.73              | 6,193.28        | 1.35            | 0.25            | 24          | Atlas      |        |       |
| CSO197              | 5/20/2016 12:45 | 5/20/2016 15:45 | 86,593.86          | 0.13            | 0.53              | 163,384.63      | 1.29            | 0.29            | 3           | Atlas      |        |       |
| CSO197              | 5/26/2016 13:45 | 5/26/2016 15:00 | 484.38             | 0.05            | 0.31              | 1,562.50        | 0.89            | 0.21            | 3           | Atlas      |        |       |
| CSO197              | 6/2/2016 15:15  | 6/2/2016 16:00  | 18,073.56          | 0.03            | 0.31              | 58,301.82       | 0.44            | 0.25            | 1           | Atlas      |        |       |
| CSO197              | 6/4/2016 16:30  | 6/4/2016 18:15  | 33,160.02          | 0.07            | 0.18              | 184,222.33      | 0.6             | 0.10            | 3           | Atlas      |        |       |
| CSO197              | 6/14/2016 16:15 | 6/14/2016 18:15 | 29,920.94          | 0.08            | 0.81              | 36,939.44       | 1.01            | 0.51            | 3           | Atlas      |        |       |
| CSO197              | 6/22/2016 8:15  | 6/22/2016 8:30  | 5,931.64           | 0.01            | 0.16              | 37,072.72       | 0.23            | 0.10            | 3           | Atlas      |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO197              | 6/23/2016 16:00 | 6/23/2016 22:45 | 184,571.73         | 0.28            | 1.86              | 99,232.11       | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO197 Count</b> |                 |                 | 23                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO197 Total</b> |                 |                 | 703,000.50         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO198              | 3/31/2016 1:30  | 4/1/2016 0:15   | 155,945.00         | 0.95            | 1.22              | 127,823.77      | 2.66            | 0.47            | 24          | Atlas      |        |       |
| CSO198              | 4/11/2016 13:30 | 4/11/2016 20:45 | 85,149.30          | 0.30            | 0.93              | 91,558.39       | 1.05            | 0.44            | 6           | Atlas      |        |       |
| CSO198              | 4/21/2016 14:15 | 4/21/2016 16:15 | 50,731.76          | 0.08            | 0.33              | 153,732.61      | 0.24            | 0.14            | 3           | Atlas      |        |       |
| CSO198              | 4/22/2016 1:00  | 4/22/2016 1:15  | 1,059.76           | 0.01            | 0.33              | 3,211.40        | 0.29            | 0.14            | 3           | Atlas      |        |       |
| CSO198              | 4/26/2016 16:00 | 4/26/2016 22:00 | 36,980.85          | 0.25            | 0.3               | 123,269.51      | 0.67            | 0.15            | 3           | Atlas      |        |       |
| CSO198              | 4/27/2016 12:45 | 4/27/2016 22:30 | 83,882.26          | 0.41            | 0.71              | 118,144.03      | 1.35            | 0.33            | 3           | Atlas      |        |       |
| CSO198              | 4/30/2016 8:30  | 4/30/2016 13:45 | 73,684.74          | 0.22            | 0.55              | 133,972.25      | 1.39            | 0.20            | 24          | Atlas      |        |       |
| CSO198              | 5/1/2016 14:30  | 5/1/2016 16:15  | 39,630.58          | 0.07            | 0.25              | 158,522.32      | 1.8             | 0.17            | 3           | Atlas      |        |       |
| CSO198              | 5/4/2016 11:00  | 5/4/2016 12:00  | 13,597.26          | 0.04            | 0.22              | 61,805.73       | 1.7             | 0.13            | 1           | Atlas      |        |       |
| CSO198              | 5/7/2016 16:15  | 5/7/2016 22:30  | 81,354.15          | 0.26            | 0.75              | 108,472.21      | 1.38            | 0.39            | 6           | Atlas      |        |       |
| CSO198              | 5/10/2016 8:30  | 5/10/2016 22:30 | 89,447.46          | 0.58            | 0.85              | 105,232.30      | 1.85            | 0.32            | 24          | Atlas      |        |       |
| CSO198              | 5/11/2016 20:45 | 5/11/2016 22:30 | 23,255.07          | 0.07            | 0.3               | 77,516.91       | 1.91            | 0.16            | 3           | Atlas      |        |       |
| CSO198              | 5/12/2016 16:00 | 5/12/2016 17:15 | 20,916.27          | 0.05            | 0.15              | 139,441.80      | 2.08            | 0.10            | 3           | Atlas      |        |       |
| CSO198              | 5/17/2016 6:00  | 5/17/2016 7:15  | 13,909.38          | 0.05            | 0.73              | 19,053.94       | 1.69            | 0.25            | 24          | Atlas      |        |       |
| CSO198              | 5/17/2016 20:00 | 5/17/2016 21:00 | 11,439.45          | 0.04            | 0.73              | 15,670.48       | 1.35            | 0.25            | 24          | Atlas      |        |       |
| CSO198              | 5/20/2016 13:00 | 5/20/2016 16:15 | 102,890.20         | 0.14            | 0.53              | 194,132.46      | 1.29            | 0.29            | 3           | Atlas      |        |       |
| CSO198              | 5/26/2016 13:45 | 5/26/2016 15:30 | 11,300.39          | 0.07            | 0.31              | 36,452.86       | 0.92            | 0.21            | 3           | Atlas      |        |       |
| CSO198              | 6/2/2016 15:00  | 6/2/2016 16:30  | 43,806.62          | 0.06            | 0.31              | 141,311.66      | 0.46            | 0.25            | 1           | Atlas      |        |       |
| CSO198              | 6/4/2016 16:30  | 6/4/2016 18:30  | 59,058.06          | 0.08            | 0.18              | 328,100.36      | 0.6             | 0.10            | 3           | Atlas      |        |       |
| CSO198              | 6/14/2016 16:15 | 6/14/2016 18:45 | 67,378.51          | 0.10            | 0.81              | 83,183.35       | 1.03            | 0.51            | 3           | Atlas      |        |       |
| CSO198              | 6/22/2016 8:15  | 6/22/2016 8:45  | 8,755.47           | 0.02            | 0.16              | 54,721.68       | 0.23            | 0.10            | 3           | Atlas      |        |       |
| CSO198              | 6/23/2016 15:45 | 6/23/2016 23:15 | 344,765.79         | 0.31            | 1.86              | 185,357.95      | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO198 Count</b> |                 |                 | 22                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO198 Total</b> |                 |                 | 1,418,938.34       |                 |                   |                 |                 |                 |             |            |        |       |
| CSO199              | 3/31/2016 22:00 | 3/31/2016 23:00 | 4,875.16           | 0.04            | 1.22              | 3,996.03        | 2.09            | 0.47            | 24          | Atlas      |        |       |
| CSO199              | 4/11/2016 17:30 | 4/11/2016 17:45 | 1,104.79           | 0.01            | 0.93              | 1,187.95        | 0.83            | 0.44            | 6           | Atlas      |        |       |
| CSO199              | 4/21/2016 14:30 | 4/21/2016 14:30 | 712.27             | 0.00            | 0.33              | 2,158.40        | 0.1             | 0.14            | 3           | Atlas      |        |       |
| CSO199              | 4/27/2016 21:00 | 4/27/2016 21:00 | 596.66             | 0.00            | 0.71              | 840.36          | 1.12            | 0.33            | 3           | Atlas      |        |       |
| CSO199              | 5/1/2016 14:45  | 5/1/2016 14:45  | 4,114.65           | 0.00            | 0.25              | 16,458.58       | 1.7             | 0.17            | 3           | Atlas      |        |       |
| CSO199              | 5/7/2016 20:00  | 5/7/2016 20:00  | 2,904.50           | 0.00            | 0.75              | 3,872.67        | 1.1             | 0.39            | 6           | Atlas      |        |       |
| CSO199              | 5/10/2016 18:30 | 5/10/2016 21:45 | 15,071.59          | 0.14            | 0.85              | 17,731.29       | 1.85            | 0.32            | 24          | Atlas      |        |       |
| CSO199              | 5/20/2016 15:00 | 5/20/2016 15:30 | 6,769.96           | 0.02            | 0.53              | 12,773.50       | 1.29            | 0.29            | 3           | Atlas      |        |       |
| CSO199              | 5/26/2016 13:15 | 5/26/2016 13:45 | 1,846.55           | 0.02            | 0.31              | 5,956.62        | 0.77            | 0.21            | 3           | Atlas      |        |       |
| CSO199              | 6/2/2016 15:45  | 6/2/2016 15:45  | 1,773.45           | 0.00            | 0.31              | 5,720.80        | 0.4             | 0.25            | 1           | Atlas      |        |       |
| CSO199              | 6/4/2016 16:30  | 6/4/2016 16:30  | 145.54             | 0.00            | 0.18              | 808.56          | 0.5             | 0.10            | 3           | Atlas      |        |       |



| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard   | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|------------|--------|-------|
| CSO199              | 6/14/2016 16:30 | 6/14/2016 17:00 | 15,739.98          | 0.02            | 0.81              | 19,432.07       | 0.8             | 0.51            | 3           | Atlas      |        |       |
| CSO199              | 6/23/2016 16:15 | 6/23/2016 23:00 | 151,831.96         | 0.28            | 1.86              | 81,630.09       | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO199 Count</b> |                 |                 | 13                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO199 Total</b> |                 |                 | 207,487.05         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO200              | 4/11/2016 17:00 | 4/11/2016 18:00 | 2,509.65           | 0.04            | 0.93              | 2,698.54        | 0.86            | 0.44            | 6           | Atlas      |        |       |
| CSO200              | 4/21/2016 14:30 | 4/21/2016 14:30 | 691.24             | 0.00            | 0.33              | 2,094.67        | 0.1             | 0.14            | 3           | Atlas      |        |       |
| CSO200              | 4/27/2016 21:00 | 4/27/2016 23:15 | 315.11             | 0.09            | 0.71              | 443.82          | 1.36            | 0.33            | 3           | Atlas      |        |       |
| CSO200              | 5/1/2016 15:00  | 5/1/2016 15:00  | 38.57              | 0.00            | 0.25              | 154.29          | 1.7             | 0.17            | 3           | Atlas      |        |       |
| CSO200              | 5/7/2016 16:30  | 5/7/2016 16:30  | 317.39             | 0.00            | 0.75              | 423.18          | 0.81            | 0.39            | 6           | Atlas      |        |       |
| CSO200              | 5/10/2016 18:30 | 5/10/2016 21:45 | 6,138.37           | 0.14            | 0.85              | 7,221.62        | 1.85            | 0.32            | 24          | Atlas      |        |       |
| CSO200              | 5/20/2016 15:00 | 5/20/2016 15:30 | 543.77             | 0.02            | 0.53              | 1,025.98        | 1.29            | 0.29            | 3           | Atlas      |        |       |
| CSO200              | 6/2/2016 15:15  | 6/2/2016 15:45  | 788.42             | 0.02            | 0.31              | 2,543.28        | 0.43            | 0.25            | 1           | Atlas      |        |       |
| CSO200              | 6/4/2016 16:45  | 6/4/2016 16:45  | 1,161.51           | 0.00            | 0.18              | 6,452.84        | 0.49            | 0.10            | 3           | Atlas      |        |       |
| CSO200              | 6/14/2016 16:30 | 6/14/2016 16:45 | 3,769.89           | 0.01            | 0.81              | 4,654.18        | 0.77            | 0.51            | 3           | Atlas      |        |       |
| CSO200              | 6/23/2016 16:15 | 6/23/2016 22:15 | 90,472.09          | 0.25            | 1.86              | 48,640.91       | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO200 Count</b> |                 |                 | 11                 |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO200 Total</b> |                 |                 | 106,746.01         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO202              | 3/31/2016 22:00 | 3/31/2016 22:00 | 1,472.15           | 0.00            | 1.22              | 1,206.68        | 1.97            | 0.47            | 24          | Atlas      |        |       |
| CSO202              | 4/11/2016 16:00 | 4/11/2016 17:45 | 4,787.76           | 0.07            | 0.93              | 5,148.13        | 0.83            | 0.44            | 6           | Atlas      |        |       |
| CSO202              | 4/21/2016 14:30 | 4/21/2016 14:30 | 1,997.85           | 0.00            | 0.33              | 6,054.10        | 0.1             | 0.14            | 3           | Atlas      |        |       |
| CSO202              | 4/27/2016 21:00 | 4/27/2016 21:00 | 1,918.78           | 0.00            | 0.71              | 2,702.51        | 1.12            | 0.33            | 3           | Atlas      |        |       |
| CSO202              | 5/10/2016 21:45 | 5/10/2016 21:45 | 2,426.10           | 0.00            | 0.85              | 2,854.24        | 1.85            | 0.32            | 24          | Atlas      |        |       |
| CSO202              | 6/2/2016 15:15  | 6/2/2016 15:45  | 7,240.26           | 0.02            | 0.31              | 23,355.68       | 0.43            | 0.25            | 1           | Atlas      |        |       |
| CSO202              | 6/4/2016 16:45  | 6/4/2016 16:45  | 6,982.10           | 0.00            | 0.18              | 38,789.47       | 0.49            | 0.10            | 3           | Atlas      |        |       |
| CSO202              | 6/14/2016 16:45 | 6/14/2016 16:45 | 4,654.06           | 0.00            | 0.81              | 5,745.76        | 0.77            | 0.51            | 3           | Atlas      |        |       |
| CSO202              | 6/23/2016 16:00 | 6/23/2016 22:45 | 93,352.82          | 0.28            | 1.86              | 50,189.69       | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO202 Count</b> |                 |                 | 9                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO202 Total</b> |                 |                 | 124,831.89         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO203              | 6/2/2016 15:45  | 6/2/2016 15:45  | 3,128.46           | 0.00            | 0.31              | 10,091.80       | 0.4             | 0.25            | 1           | Atlas      |        |       |
| CSO203              | 6/4/2016 16:45  | 6/4/2016 16:45  | 14,038.50          | 0.00            | 0.18              | 77,991.66       | 0.49            | 0.10            | 3           | Atlas      |        |       |
| CSO203              | 6/14/2016 16:45 | 6/14/2016 16:45 | 2,669.15           | 0.00            | 0.81              | 3,295.24        | 0.77            | 0.51            | 3           | Atlas      |        |       |
| CSO203              | 6/23/2016 16:15 | 6/23/2016 22:30 | 59,961.04          | 0.26            | 1.86              | 32,237.12       | 2.02            | 1.03            | 6           | Cloudburst |        |       |
| <b>CSO203 Count</b> |                 |                 | 4                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO203 Total</b> |                 |                 | 79,797.14          |                 |                   |                 |                 |                 |             |            |        |       |
| CSO206              | 3/31/2016 1:45  | 3/31/2016 22:45 | 153,448.29         | 0.88            | 1.24              | 123,748.62      | 2.46            | 0.47            | 24          | Atlas      |        |       |
| <b>CSO206 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |            |        |       |
| <b>CSO206 Total</b> |                 |                 | 153,448.29         |                 |                   |                 |                 |                 |             |            |        |       |
| CSO207              | 6/23/2016 16:00 | 6/23/2016 20:30 | 48,265.53          | 0.19            | 2.48              | 19,461.91       | 2.74            | 3.67            | 6           | Cloudburst |        |       |

| CSO                 | Start Date-Time | End Date-Time   | Total Volume (Gal) | Duration (Days) | Rain Total (Inch) | Volume per Inch | Antecedent Rain | Frequency (yrs) | Period (hr) | Standard | Sneads | SBRet |
|---------------------|-----------------|-----------------|--------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------|----------|--------|-------|
| <b>CSO207 Count</b> |                 |                 | 1                  |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO207 Total</b> |                 |                 | 48,265.53          |                 |                   |                 |                 |                 |             |          |        |       |
| CSO210              | 3/31/2016 5:30  | 3/31/2016 10:00 | 43,080.49          | 0.19            | 1.34              | 32,149.62       | 1.9             | 0.51            | 24          | Atlas    |        |       |
| CSO210              | 3/31/2016 22:45 | 4/1/2016 2:45   | 42,321.88          | 0.17            | 1.34              | 31,583.49       | 2.11            | 0.51            | 24          | Atlas    |        |       |
| CSO210              | 4/11/2016 18:00 | 4/12/2016 2:15  | 52,180.91          | 0.34            | 0.97              | 53,794.75       | 1.12            | 0.44            | 6           | Atlas    |        |       |
| CSO210              | 4/27/2016 0:00  | 4/27/2016 1:15  | 4,297.16           | 0.05            | 0.24              | 17,904.82       | 0.7             | 0.14            | 3           | Atlas    |        |       |
| CSO210              | 4/27/2016 17:15 | 4/28/2016 2:30  | 47,774.77          | 0.39            | 1.03              | 46,383.27       | 1.72            | 0.49            | 3           | Atlas    |        |       |
| CSO210              | 4/30/2016 11:45 | 4/30/2016 16:45 | 23,164.95          | 0.21            | 0.79              | 29,322.72       | 1.8             | 0.30            | 24          | Atlas    |        |       |
| CSO210              | 5/1/2016 17:00  | 5/1/2016 19:15  | 17,621.07          | 0.09            | 0.32              | 55,065.85       | 2.37            | 0.21            | 3           | Atlas    |        |       |
| CSO210              | 5/7/2016 22:30  | 5/8/2016 1:15   | 21,183.47          | 0.11            | 0.37              | 57,252.62       | 1.14            | 0.19            | 3           | Atlas    |        |       |
| CSO210              | 5/10/2016 15:15 | 5/11/2016 3:45  | 95,941.04          | 0.52            | 0.85              | 112,871.81      | 1.52            | 0.32            | 24          | Atlas    |        |       |
| CSO210              | 5/11/2016 23:00 | 5/12/2016 3:15  | 39,077.75          | 0.18            | 0.36              | 108,549.31      | 1.71            | 0.17            | 12          | Atlas    |        |       |
| CSO210              | 5/12/2016 23:00 | 5/13/2016 0:00  | 3,397.95           | 0.04            | 0.16              | 21,237.17       | 1.83            | 0.10            | 3           | Atlas    |        |       |
| CSO210              | 5/17/2016 23:15 | 5/18/2016 0:30  | 7,573.10           | 0.05            | 0.67              | 11,303.14       | 1.28            | 0.22            | 24          | Atlas    |        |       |
| CSO210              | 5/20/2016 15:30 | 5/20/2016 21:45 | 74,178.33          | 0.26            | 0.73              | 101,614.15      | 1.42            | 0.43            | 3           | Atlas    |        |       |
| CSO210              | 5/26/2016 14:45 | 5/26/2016 17:30 | 19,321.37          | 0.11            | 0.42              | 46,003.25       | 1.26            | 0.28            | 3           | Atlas    |        |       |
| CSO210              | 6/2/2016 15:45  | 6/2/2016 22:30  | 122,858.19         | 0.28            | 0.9               | 136,509.10      | 1.24            | 0.73            | 1           | Atlas    |        |       |
| CSO210              | 6/4/2016 19:15  | 6/4/2016 22:30  | 10,027.79          | 0.14            | 0.3               | 33,425.97       | 1.23            | 0.13            | 12          | Atlas    |        |       |
| CSO210              | 6/12/2016 19:15 | 6/12/2016 20:30 | 6,207.03           | 0.05            | 0.9               | 6,896.70        | 0.96            | 0.77            | 1           | Atlas    |        |       |
| CSO210              | 6/14/2016 16:45 | 6/15/2016 0:45  | 271,022.86         | 0.33            | 1.41              | 192,214.80      | 2.31            | 0.77            | 6           | Atlas    |        |       |
| CSO210              | 6/23/2016 16:45 | 6/24/2016 2:15  | 531,499.26         | 0.40            | 2.03              | 261,822.29      | 2.08            | 0.93            | 12          | Atlas    |        |       |
| <b>CSO210 Count</b> |                 |                 | 19                 |                 |                   |                 |                 |                 |             |          |        |       |
| <b>CSO210 Total</b> |                 |                 | 1,432,729.36       |                 |                   |                 |                 |                 |             |          |        |       |
| <b>Grand Count</b>  |                 |                 | 959                |                 |                   |                 |                 |                 |             |          |        |       |
| <b>Grand Total</b>  |                 |                 | 4,686,261,542.26   |                 |                   |                 |                 |                 |             |          |        |       |

Note

R denotes events that were retained by the Sneads Branch Inflatable Dam and therefore did not reach the Waters of the US.

Appendix C – Acronyms



## Appendix C - Acronyms for Project WIN Quarterly Report

|       |                                                                       |
|-------|-----------------------------------------------------------------------|
| AAM   | Advanced Asset Management                                             |
| AAOV  | Annual Average Overflow Volume                                        |
| ADAPS | Automated Data Processing System                                      |
| BGC   | Beargrass Creek                                                       |
| BMP   | Best Management Practices                                             |
| CCP   | Composite Correction Plan                                             |
| CD    | Consent Decree                                                        |
| CMF   | Central Maintenance Facility                                          |
| CMMS  | Computerized Maintenance Management System                            |
| CMOM  | Capacity Management Operations and Maintenance                        |
| CPE   | Comprehensive Performance Evaluations                                 |
| CSO   | Combined Sewer Overflow                                               |
| CSS   | Combined Sewer System                                                 |
| CSSA  | Continuing Sewer System Assessment                                    |
| DAP   | Discharge Abatement Plan (DAP)                                        |
| DMR   | Discharge Monitoring Report                                           |
| eB    | Enterprise Bridge (Spescom scanning software for document management) |
| EMC   | Event Mean Concentration                                              |
| EPA   | Environmental Protection Agency                                       |
| ERP   | Enforcement Response Plan                                             |
| FM    | Force Main                                                            |
| FOG   | Fats, Oil & Grease                                                    |
| FPS   | Flood Pump Station                                                    |
| FSE   | Food Service Establishment                                            |
| FY    | Fiscal Year                                                           |
| GCE   | Grease Control Equipment                                              |
| GIS   | Geographical Information System                                       |
| GLPM  | Gravity Line Preventive Maintenance                                   |
| HMI   | Human Machine Interface                                               |
| I&FP  | Infrastructure & Flood Protection (MSD Division)                      |
| ICA   | Interceptor Condition Assessment                                      |
| ID    | Identification                                                        |
| I&I   | Inflow and Infiltration                                               |
| IMS   | Information Management System                                         |
| IOAP  | Integrated Overflow Abatement Plan                                    |
| ISSDP | Interim Sanitary Sewer Discharge Plan                                 |
| IT    | Information Technology                                                |
| IWD   | Industrial Waste Department                                           |
| JCPS  | Jefferson County Public Schools                                       |
| KDEP  | Kentucky Department of Environmental Protection                       |
| KPDES | Kentucky Pollutant Discharge Elimination System                       |
| KY    | Kentucky                                                              |
| LE    | Lateral Extension                                                     |
| LID   | Low Impact Development                                                |
| LIMS  | Laboratory Information Management System                              |
| LTC   | Long Term Control                                                     |
| LTCP  | Long Term Control Plan                                                |
| LOJIC | Louisville and Jefferson County Information Consortium                |
| MDS   | Main Diversion Structure                                              |
| MEB   | Main Equipment Building                                               |

## **Appendix C - Acronyms for Project WIN Quarterly Report**

|         |                                                               |
|---------|---------------------------------------------------------------|
| MFWTP   | Morris Forman Wastewater Treatment Plant                      |
| MG      | Million Gallons                                               |
| MGD     | Million Gallons Per Day                                       |
| MLK     | Martin Luther King                                            |
| MO      | Metro Operations                                              |
| MOA     | Memorandum of Agreement                                       |
| MOR     | Monthly Operating Report                                      |
| MOU     | Memorandum of Understanding                                   |
| MSD     | Metropolitan Sewer District (Louisville and Jefferson County) |
| NDD     | Non-Domestic Dischargers                                      |
| NMC     | Nine Minimum Controls                                         |
| NPR     | National Public Radio                                         |
| ORSANCO | Ohio River Valley Water Sanitation Commission                 |
| PACP    | Pipeline Assessment and Certification Program                 |
| PCM     | Post Construction Monitoring                                  |
| PI      | Plant Information System                                      |
| PM      | Preventive Maintenance                                        |
| POC     | Pollutants of Concern                                         |
| PP      | Pumping Package                                               |
| PS      | Pump Station                                                  |
| PSC     | Property Service Connection                                   |
| RDII    | Rainfall-Derived Infiltration and Inflow                      |
| RS      | Regulatory Services                                           |
| RTC     | Real Time Control                                             |
| SCADA   | Supervisory Control And Data Acquisition                      |
| SCAP    | System Capacity Assurance Plan                                |
| SIU     | Significant Industrial User                                   |
| SOP     | Standard Operating Procedure                                  |
| SORP    | Sewer Overflow Response Protocol                              |
| SSDP    | Sanitary Sewer Discharge Plan                                 |
| SSES    | Sanitary Sewer Evaluation Study                               |
| SSO     | Sanitary Sewer Overflow                                       |
| SSOP    | Sanitary Sewer Overflow Plan                                  |
| SWOR2   | Southwestern Outfall Relief - Phase 2                         |
| SWPS    | Southwestern Pump Station                                     |
| TM      | Technical Memorandum                                          |
| TMDL    | Total Maximum Daily Load                                      |
| TV      | Television                                                    |
| UIM     | Utility Information Management                                |
| UK      | University of Kentucky                                        |
| USACE   | US Army Corps of Engineers                                    |
| USF&W   | United States Fish and Wildlife                               |
| USGS    | United States Geological Survey                               |
| WDR     | Wastewater Discharge Regulators                               |
| WIN     | Waterway Improvements Now                                     |
| WQT     | Water Quality Tool                                            |
| WQTC    | Water Quality Treatment Center                                |
| WW      | Wet Weather                                                   |
| WWT     | Wet Weather Team                                              |

Appendix D – SCAP Balance





## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u>   | <u>APNAME</u>                              | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|---------------|--------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| <b>CCREEK</b> |                                            |               |             |                     |                                                         |                      |
| 235533        | CEDAR CK IFP WORK AUG05-NOV08              | SCAPCREDIT    |             | 11/1/08             | 6,521                                                   | 6,521                |
| 236380        | FAIRMOUNT ROAD MH REHAB                    | SCAPCREDIT    |             | 6/5/09              | 10,734                                                  | 17,255               |
| 362688        | CCRK IFP ACTIVITY NOV08-MAY12              | SCAPCREDIT    |             | 5/1/12              | 2,161                                                   | 19,416               |
| 362689        | CCRK IFP ACTIVITY JUN12-AUG12              | SCAPCREDIT    |             | 8/31/12             | 2,047                                                   | 21,463               |
| 320989        | LITTLE CEDAR CREEK I/I REHABIL             | SCAPCREDIT    |             | 9/27/12             | 652,907                                                 | 674,370              |
| 263934        | ST JAMES CROSSINGS                         | LAT EXT       | 9,000       | 11/30/12            | -19,575                                                 | 654,795              |
| 196927        | SONIC SPRINGS                              | LAT EXT       | 3,600       | 12/5/12             | -7,830                                                  | 646,965              |
| 14SC1000      | FY13 IFP ACTIVITY FIRST HALF - CEDAR CREEK | SCAPCREDIT    |             | 12/31/13            | 2,048                                                   | 649,013              |
| 13LE1155      | RAISING CANE'S CEDARLOOK DRIVE             | LAT EXT       | 1,175       | 5/23/14             | -2,556                                                  | 646,457              |
| 239030        | POPLAR LAKES PH 1                          | LAT EXT       | 18,000      | 1/26/15             | -39,150                                                 | 607,307              |
| 13LE1003      | Bardstown Woods Sec 6                      | LAT EXT       | 5,200       | 5/26/15             | -11,310                                                 | 595,997              |
| LE916330      | Altawood Development                       | LAT EXT       | 1,600       | 9/14/15             | -3,480                                                  | 592,517              |
| LE915727      | BARDSTOWN WOODS SEC 7                      | LAT EXT       | 4,400       | 5/25/16             | -9,570                                                  | 582,947              |
| <b>FFORK</b>  |                                            |               |             |                     |                                                         |                      |
| 235557        | FLOYDSFRK IFP WORK AUG05-NOV08             | SCAPCREDIT    |             | 11/1/08             | 14,540                                                  | 14,540               |
| 362638        | FY09 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/08            | 1                                                       | 14,541               |
| 362647        | FY09 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/09             | 4                                                       | 14,545               |
| 362651        | FY10 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/09            | 524                                                     | 15,069               |
| 230379        | SHAKES RUN SECTION 4                       | LAT EXT       | 3,770       | 1/5/10              | -8,200                                                  | 6,869                |
| 362655        | FY10 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/10             | 81                                                      | 6,950                |
| 362661        | FY11 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/10            | 14,155                                                  | 21,105               |
| 362669        | FY11 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/11             | 22,707                                                  | 43,812               |
| 242480        | CLAIBOURNE CROSSINGS PHASE 2               | LAT EXT       | 0           | 10/17/11            | 0                                                       | 43,812               |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                        | <u>APTTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|--------------------------------------|----------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 359320      | CALENDAR 2011 SUMP PUMP CREDIT       | SCAPCREDIT     |             | 12/31/11            | 4,000                                                   | 47,812               |
| 362674      | FY12 IFP ACTIVITY FIRST HALF         | SCAPCREDIT     |             | 12/31/11            | 2                                                       | 47,814               |
| 362678      | FY12 IFP ACTIVITY SECOND HALF        | SCAPCREDIT     |             | 6/30/12             | 331                                                     | 48,145               |
| 332823      | SINGLE FAMILY HOME                   | LAT EXT        | 400         | 7/13/12             | -870                                                    | 47,275               |
| 315945      | BROOKFIELD SEC 3                     | LAT EXT        | 12,800      | 10/26/12            | -27,840                                                 | 19,435               |
| 361689      | LAKE FOREST REHAB PH1                | SCAPCREDIT     |             | 12/18/12            | 174,769                                                 | 194,204              |
| 362683      | FY13 IFP ACTIVITY FIRST HALF - FFORK | SCAPCREDIT     |             | 12/31/12            | 3                                                       | 194,207              |
| 331397      | BROOKFIELD SEC 2A                    | LAT EXT        | 14,400      | 5/8/13              | -31,320                                                 | 162,887              |
| 13LE1062    | SPEEDWAY #9451                       | LAT EXT        | 540         | 2/18/15             | -1,175                                                  | 161,713              |
| LE941673    | Locust Creek Section 8B              | LAT EXT        | 2,000       | 1/7/16              | -4,350                                                  | 157,363              |

### HCCREEK

|        |                                |            |        |          |         |        |
|--------|--------------------------------|------------|--------|----------|---------|--------|
| 235561 | HITE CK IFP WORK AUG05-NOV08   | SCAPCREDIT |        | 11/1/08  | 6,404   | 6,404  |
| 362641 | FY09 IFP ACTIVITY FIRST HALF   | SCAPCREDIT |        | 12/31/08 | 2       | 6,406  |
| 362648 | FY09 IFP ACTIVITY SECOND HALF  | SCAPCREDIT |        | 6/30/09  | 8       | 6,414  |
| 362652 | FY10 IFP ACTIVITY FIRST HALF   | SCAPCREDIT |        | 12/31/09 | 8       | 6,422  |
| 362657 | FY10 IFP ACTIVITY SECOND HALF  | SCAPCREDIT |        | 6/30/10  | 329     | 6,751  |
| 295322 | FLOYDSBURG RD I/I INVEST/REHAB | SCAPCREDIT |        | 12/17/10 | 28,437  | 35,188 |
| 320906 | FLOYDSBURG ROAD I/I REHABILITA | SCAPCREDIT |        | 12/17/10 | 28,437  | 63,625 |
| 362662 | FY11 IFP ACTIVITY FIRST HALF   | SCAPCREDIT |        | 12/31/10 | 3       | 63,628 |
| 362670 | FY11 IFP ACTIVITY SECOND HALF  | SCAPCREDIT |        | 6/30/11  | 5       | 63,633 |
| 246638 | CHAPMAN COURT S/S              | LAT EXT    | 800    | 9/28/11  | -1,740  | 61,893 |
| 362675 | FY12 IFP ACTIVITY FIRST HALF   | SCAPCREDIT |        | 12/31/11 | 332     | 62,225 |
| 362679 | FY12 IFP ACTIVITY SECOND HALF  | SCAPCREDIT |        | 6/30/12  | 5,002   | 67,227 |
| 290181 | CAMDEN WOOD APARTMENTS         | LAT EXT    | 12,400 | 8/31/12  | -26,970 | 40,257 |
| 304536 | MAGNOLIA SPRINGS EAST PRIV P/S | LAT EXT    | 9,500  | 12/1/12  | -20,663 | 19,595 |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u>   | <u>APNAME</u>                                | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|---------------|----------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 335610        | ROCK SPRINGS FARM SEC 4B                     | LAT EXT       | 6,400       | 12/7/12             | -13,920                                                 | 5,675                |
| 362684        | FY13 IFP ACTIVITY FIRST HALF - HCREEK        | SCAPCREDIT    |             | 12/31/12            | 3                                                       | 5,678                |
| SC983697      | MEADOWSTREAM REHABILITATION - FY13           | SCAPCREDIT    |             | 3/13/15             | 448,447                                                 | 454,125              |
| <b>JTOWN</b>  |                                              |               |             |                     |                                                         |                      |
| 235563        | J-TOWN IFP WORK AUG05-NOV08                  | SCAPCREDIT    |             | 11/1/08             | 6,203                                                   | 6,203                |
| 359323        | CALENDAR 2008 SUMP PUMP CREDIT               | SCAPCREDIT    |             | 12/31/08            | 4,000                                                   | 10,203               |
| 254871        | LAKESIDE BAPT CHURCH PRIV PS                 | LAT EXT       | 2,500       | 8/10/10             | -5,438                                                  | 4,766                |
| 340213        | JEFFERSONTOWN ENG REHAB                      | SCAPCREDIT    |             | 8/11/11             | 997,448                                                 | 1,002,214            |
| 359324        | CALENDAR 2011 SUMP PUMP CREDIT               | SCAPCREDIT    |             | 12/31/11            | 4,000                                                   | 1,006,214            |
| 337261        | SINGLE FAMILY 2909 PELHAM CT                 | LAT EXT       | 400         | 5/28/13             | -870                                                    | 1,005,344            |
| 13LE1010      | SWOPE HR & TRAINING BLDG                     | LAT EXT       | 400         | 6/28/13             | -870                                                    | 1,004,474            |
| 13LE1092      | BALE EQUIPMENT                               | LAT EXT       | 450         | 10/25/13            | -979                                                    | 1,003,495            |
| 14SC1002      | FY13 IFP ACTIVITY FIRST HALF - JEFFERSONTOWN | SCAPCREDIT    |             | 12/31/13            | 3,458                                                   | 1,006,953            |
| 13LE1098      | UNIPAK                                       | LAT EXT       | 720         | 2/27/14             | -1,566                                                  | 1,005,387            |
| LE924043      | Bluegrass Indoor Cartina                     | LAT EXT       | 400         | 5/1/14              | -870                                                    | 1,004,517            |
| 13LE1067      | PARK COMMUNITY                               | LAT EXT       | 2,220       | 12/31/14            | -4,829                                                  | 999,688              |
| 14LE1149      | Grand Lakes Section 3                        | LAT EXT       | 5,600       | 2/1/16              | -12,180                                                 | 987,508              |
| LE924049      | Blankenbaker Road S/S                        | LAT EXT       | 9,010       | 3/10/16             | -19,597                                                 | 967,912              |
| 326360        | WATTERSON TRAIL CENTER                       | LAT EXT       | 2,745       | 5/4/16              | -5,970                                                  | 961,941              |
| LE930127      | Vantage Point Sec 3B                         | LAT EXT       | 7,200       | 6/21/16             | -15,660                                                 | 946,281              |
| <b>MCREEK</b> |                                              |               |             |                     |                                                         |                      |
| 359380        | CALENDAR 2005 DOWNSPOUT CREDIT               | SCAPCREDIT    |             | 12/31/05            | 12,000                                                  | 12,000               |
| 359381        | CALENDAR 2007 DOWNSPOUT CREDIT               | SCAPCREDIT    |             | 12/31/07            | 24,000                                                  | 36,000               |
| 235568        | MILL CK IFP WORK AUG05-NOV08                 | SCAPCREDIT    |             | 11/1/08             | 51,530                                                  | 87,530               |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                  | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|--------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 359382      | CALENDAR 2008 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/08            | 16,000                                                  | 103,530              |
| 362642      | FY09 IFP ACTIVITY FIRST HALF   | SCAPCREDIT    |             | 12/31/08            | 93                                                      | 103,623              |
| 362649      | FY09 IFP ACTIVITY SECOND HALF  | SCAPCREDIT    |             | 6/30/09             | 1,507                                                   | 105,130              |
| 236614      | DEVEROES                       | LAT EXT       | 960         | 9/9/09              | -2,088                                                  | 103,042              |
| 362653      | FY10 IFP ACTIVITY FIRST HALF   | SCAPCREDIT    |             | 12/31/09            | 25,272                                                  | 128,314              |
| 359383      | CALENDAR 2009 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/09            | 32,000                                                  | 160,314              |
| 253586      | KINGSFORD RETAIL CENTER        | LAT EXT       | 480         | 1/6/10              | -1,044                                                  | 159,270              |
| 238421      | 6840 DIXIE HWY OUTLOT          | LAT EXT       | 2,100       | 4/28/10             | -4,568                                                  | 154,703              |
| 362658      | FY10 IFP ACTIVITY SECOND HALF  | SCAPCREDIT    |             | 6/30/10             | 6,213                                                   | 160,916              |
| 259408      | FAMILY DOLLAR 5105 DIXIE       | LAT EXT       | 1,200       | 7/2/10              | -2,610                                                  | 158,306              |
| 264294      | SAINT PETER THE APOSTLE CATHOL | LAT EXT       | 2,000       | 7/23/10             | -4,350                                                  | 153,956              |
| 276215      | FAMILY DOLLAR - KRISTIN WAY    | LAT EXT       | 400         | 10/12/10            | -870                                                    | 153,086              |
| 362664      | FY11 IFP ACTIVITY FIRST HALF   | SCAPCREDIT    |             | 12/31/10            | 22,740                                                  | 175,826              |
| 359384      | CALENDAR 2010 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/10            | 4,000                                                   | 179,826              |
| 359325      | CALENDAR 2010 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/10            | 8,000                                                   | 187,826              |
| 320916      | SONNE AVE PS REHABILITATION -  | SCAPCREDIT    |             | 6/30/11             | 120,800                                                 | 308,626              |
| 362671      | FY11 IFP ACTIVITY SECOND HALF  | SCAPCREDIT    |             | 6/30/11             | 11,615                                                  | 320,241              |
| 299399      | FAMILY DOLLAR - GREENWOOD RD   | LAT EXT       | 800         | 10/4/11             | -1,740                                                  | 318,501              |
| 309018      | PRP PERFORMING ARTS ADDITION   | LAT EXT       | 1,134       | 11/9/11             | -2,466                                                  | 316,034              |
| 359385      | CALENDAR 2011 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/11            | 12,000                                                  | 328,034              |
| 362676      | FY12 IFP ACTIVITY FIRST HALF   | SCAPCREDIT    |             | 12/31/11            | 3,245                                                   | 331,279              |
| 359326      | CALENDAR 2011 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/11            | 12,000                                                  | 343,279              |
| 318096      | CRACKER BARREL OLD COUNTRY     | LAT EXT       | 6,000       | 1/19/12             | -13,050                                                 | 330,229              |
| 262545      | DIXIE MANOR SHOPPING CENTER    | LAT EXT       | 965         | 5/21/12             | -2,099                                                  | 328,130              |
| 300374      | FORT KNOX FEDERAL CREDIT UNION | LAT EXT       | 400         | 6/26/12             | -870                                                    | 327,260              |
| 362680      | FY12 IFP ACTIVITY SECOND HALF  | SCAPCREDIT    |             | 6/30/12             | 2,807                                                   | 330,067              |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                            | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 361693      | FY12 MILL CREEK REHAB                    | SCAPCREDIT    |             | 6/30/12             | 81,675                                                  | 411,742              |
| 231800      | PIONEER MOBILE HOME PARK                 | LAT EXT       | 11,200      | 7/24/12             | -24,360                                                 | 387,382              |
| 237457      | WAVERLY HILLS                            | LAT EXT       | 400         | 9/18/12             | -870                                                    | 386,512              |
| 341883      | NHK SPRING PRECISION                     | LAT EXT       | 17,800      | 10/19/12            | -38,715                                                 | 347,797              |
| 334997      | BEECHLAND BAPTIST CHURCH                 | LAT EXT       | 2,715       | 12/5/12             | -5,905                                                  | 341,892              |
| 359327      | CALENDAR 2012 SUMP PUMP CREDIT           | SCAPCREDIT    |             | 12/31/12            | 148,000                                                 | 489,892              |
| 362685      | FY13 IFP ACTIVITY FIRST HALF - MCREEK    | SCAPCREDIT    |             | 12/31/12            | 3,458                                                   | 493,350              |
| 359386      | CALENDAR 2012 DOWNSPOUT CREDIT           | SCAPCREDIT    |             | 12/31/12            | 4,000                                                   | 497,350              |
| 343763      | SOUTHEAST CHRISTIAN CHURCH SW            | LAT EXT       | 6,000       | 1/18/13             | -13,050                                                 | 484,300              |
| 224875      | ASHBY GREEN APARTMENT HOMES              | LAT EXT       | 36,400      | 3/20/13             | -79,170                                                 | 405,130              |
| 265944      | RIVERPORT PHASE 4A - MICHELIN            | LAT EXT       | 400         | 6/6/13              | -870                                                    | 404,260              |
| 314887      | DAYTON FREIGHT                           | LAT EXT       | 1,200       | 9/10/13             | -2,610                                                  | 401,650              |
| 13LE1014    | LOUISVILLE FREE PUBLIC LIBRARY SOUTHWEST | LAT EXT       | 8,200       | 9/26/13             | -17,835                                                 | 383,815              |
| 357140      | FAMILY DOLLAR CANE RUN ROAD              | LAT EXT       | 832         | 10/3/13             | -1,810                                                  | 382,005              |
| 13LE1171    | SINGLE FAMILY HOME 3700 ROMANIA DR       | LAT EXT       | 400         | 1/29/14             | -870                                                    | 381,135              |
| LE937142    | ZAXBYS DIXIE HWY                         | LAT EXT       | 924         | 8/10/15             | -2,010                                                  | 379,126              |

### MFORK

|        |                                |            |      |          |         |           |
|--------|--------------------------------|------------|------|----------|---------|-----------|
| 359400 | CALENDAR 2007 DOWNSPOUT CREDIT | SCAPCREDIT |      | 12/31/07 | 84,000  | 84,000    |
| 359328 | CALENDAR 2007 SUMP PUMP CREDIT | SCAPCREDIT |      | 12/31/07 | 20,000  | 104,000   |
| 235566 | MID FORK IFP WORK AUG05-NOV08  | SCAPCREDIT |      | 11/1/08  | 43,779  | 147,779   |
| 359329 | CALENDAR 2008 SUMP PUMP CREDIT | SCAPCREDIT |      | 12/31/08 | 8,000   | 155,779   |
| 236517 | ANCHOR ESTATES MH REHAB        | SCAPCREDIT |      | 1/16/09  | 15,552  | 171,331   |
| 217235 | SINKING FORK ICA PHASE I REHAB | SCAPCREDIT |      | 3/30/09  | 437,967 | 609,298   |
| 235376 | MIDDLE FORK INT REHAB PH1      | SCAPCREDIT |      | 5/15/09  | 487,744 | 1,097,042 |
| 179246 | SHADY GLEN OF LYNDON PERSONAL  | LAT EXT    | -500 | 5/26/09  | 1,088   | 1,098,130 |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                  | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|--------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 250572      | 1316 WITAWANGA AVE             | LAT EXT       | 400         | 11/4/09             | -870                                                    | 1,097,260            |
| 359331      | CALENDAR 2009 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/09            | 24,000                                                  | 1,121,260            |
| 359401      | CALENDAR 2009 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/09            | 4,000                                                   | 1,125,260            |
| 197432      | ALMOST HOME KENNELS - ALL PET  | LAT EXT       | 3,700       | 3/16/10             | -8,048                                                  | 1,117,212            |
| 260064      | OXMOOR GOLF FRONT 9            | LAT EXT       | 400         | 4/15/10             | -870                                                    | 1,116,342            |
| 260065      | OXMOOR GOLF BACK 9             | LAT EXT       | 400         | 4/15/10             | -870                                                    | 1,115,472            |
| 229834      | THE BROOK HOS- DUPONT ADDITION | LAT EXT       | 1,763       | 4/27/10             | -3,835                                                  | 1,111,637            |
| 265723      | Z-XPRESS CAR WASH              | LAT EXT       | 5,449       | 7/2/10              | -11,852                                                 | 1,099,786            |
| 255793      | HERR LANE APARTMENTS - 4 PLEX  | LAT EXT       | 1,200       | 7/14/10             | -2,610                                                  | 1,097,176            |
| 255792      | HERR LANE APARTMENTS - 8 PLEX  | LAT EXT       | 2,400       | 7/14/10             | -5,220                                                  | 1,091,956            |
| 274303      | FARM CREDIT SERVICES           | LAT EXT       | 525         | 9/9/10              | -1,142                                                  | 1,090,814            |
| 278015      | METROPOLITAN UROLOGY           | LAT EXT       | 400         | 12/15/10            | -870                                                    | 1,089,944            |
| 359402      | CALENDAR 2010 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/10            | 8,000                                                   | 1,097,944            |
| 359333      | CALENDAR 2010 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/10            | 12,000                                                  | 1,109,944            |
| 285637      | SHELBYHURST OFFICE BUILDING 1  | LAT EXT       | 6,600       | 1/20/11             | -14,355                                                 | 1,095,589            |
| 313465      | DORSEY POINTE/CODOMINIUMS 8-13 | LAT EXT       | 2,400       | 1/27/11             | -5,220                                                  | 1,090,369            |
| 291263      | BROWNS LANE BUILDING           | LAT EXT       | 400         | 4/14/11             | -870                                                    | 1,089,499            |
| 293400      | FOUR PLEX APARTMENTS           | LAT EXT       | 1,200       | 6/14/11             | -2,610                                                  | 1,086,889            |
| 330019      | FY11 ANCHOR ESTATES REHAB      | SCAPCREDIT    |             | 8/11/11             | 1,359                                                   | 1,088,248            |
| 310046      | EL NAPEL - MCMAHAN CENTER      | LAT EXT       | 3,100       | 10/31/11            | -6,743                                                  | 1,081,506            |
| 314591      | CHOCOLATE MARTINI BAR/REST     | LAT EXT       | 3,275       | 11/29/11            | -7,123                                                  | 1,074,382            |
| 320983      | HURSTBOURNE I/I INVESTIGATION  | SCAPCREDIT    |             | 12/27/11            | 1,408,279                                               | 2,482,661            |
| 359335      | CALENDAR 2011 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/11            | 16,000                                                  | 2,498,661            |
| 321228      | SINGLE FAMILY UNIT             | LAT EXT       | 400         | 2/15/12             | -870                                                    | 2,497,791            |
| 321647      | SINGLE FAMILY                  | LAT EXT       | 400         | 3/27/12             | -870                                                    | 2,496,921            |
| 328074      | SINGLE FAMILY-703 FOUNTAIN AVE | LAT EXT       | 400         | 6/22/12             | -870                                                    | 2,496,051            |



## Capacity Credit Balance Sheet per Credit Basin

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|-------------|----------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 193195      | CEDAR LAKE LODGE WASHBURN              | LAT EXT       | 1,900       | 8/20/12             | -4,133                                                  | 2,491,919            |
| 320923      | ST MATTHEWS I/I REHABILITATION         | SCAPCREDIT    |             | 8/23/12             | 20,841                                                  | 2,512,760            |
| 337796      | CHAMPPS                                | LAT EXT       | 635         | 9/5/12              | -1,381                                                  | 2,511,379            |
| 347126      | ADVANCE PRODUCTION SYSTEMS             | LAT EXT       | 400         | 12/28/12            | -870                                                    | 2,510,509            |
| 359336      | CALENDAR 2012 SUMP PUMP CREDIT         | SCAPCREDIT    |             | 12/31/12            | 92,000                                                  | 2,602,509            |
| 339367      | BAPTIST RADIATION ONCOLOGY             | LAT EXT       | 1,500       | 1/4/13              | -3,263                                                  | 2,599,246            |
| 340778      | PANDA RESTAURANT                       | LAT EXT       | 1,725       | 1/16/13             | -3,752                                                  | 2,595,494            |
| 349044      | BLAIRWOOD POOL ADDITION                | LAT EXT       | 400         | 1/29/13             | -870                                                    | 2,594,624            |
| 328659      | SINGLE FAMILY HOME - 6911 AMBR         | LAT EXT       | 400         | 2/4/13              | -870                                                    | 2,593,754            |
| 352805      | POOL HOUSE 9213 REIGATE COURT          | LAT EXT       | 200         | 2/20/13             | -435                                                    | 2,593,319            |
| 14LE1001    | MIRANDA LAGRANGE RD                    | LAT EXT       | 400         | 3/19/13             | -870                                                    | 2,592,449            |
| 350246      | SINGLE FAMILY - 218 BLISS AVE          | LAT EXT       | 400         | 3/20/13             | -870                                                    | 2,591,579            |
| 349974      | SINGLE FAMILY 205 N WATTERSON          | LAT EXT       | 400         | 3/26/13             | -870                                                    | 2,590,709            |
| 342433      | SHELBYHURST 700 OFFICE BLDG            | LAT EXT       | 7,500       | 4/15/13             | -16,313                                                 | 2,574,397            |
| 350340      | JARED THE GALLERY OF JEWELRY           | LAT EXT       | 770         | 4/16/13             | -1,675                                                  | 2,572,722            |
| 13LE1009    | Single family 11716 Wetherby Ave       | LAT EXT       | 400         | 6/7/13              | -870                                                    | 2,571,852            |
| 13SC1000    | FY14 STARVIEW REHABILITATION           | SCAPCREDIT    |             | 6/30/13             | 14,183                                                  | 2,586,035            |
| 13LE1001    | Single Family 835 Fountain Ave         | LAT EXT       | 400         | 8/28/13             | -870                                                    | 2,585,165            |
| 355162      | PROPOSED RESTAURANT                    | LAT EXT       | 7,540       | 9/10/13             | -16,400                                                 | 2,568,766            |
| 13LE1045    | SINGLE FAMILY 8325 WHIPPS MILL RD      | LAT EXT       | 400         | 9/30/13             | -870                                                    | 2,567,896            |
| 319292      | WATERMARK ON HURSTBOURNE               | LAT EXT       | 71,600      | 10/22/13            | -155,730                                                | 2,412,166            |
| 331542      | DENTAL/MEDICAL OFFICE BLDG             | LAT EXT       | 400         | 10/28/13            | -870                                                    | 2,411,296            |
| 13LE1128    | SINGLE FAMILY HOME 1327 ETAWAH AVE     | LAT EXT       | 400         | 11/5/13             | -870                                                    | 2,410,426            |
| 13LE1144    | SINGLE FAMILY 1329 ETAWAH AVE          | LAT EXT       | 400         | 11/5/13             | -870                                                    | 2,409,556            |
| 13LE1165    | SINGLE FAMILY 8504 LORE LANE           | LAT EXT       | 400         | 11/25/13            | -870                                                    | 2,408,686            |
| 13LE1146    | CITY OF ST MATTHEWS COMMUNITY CTR PARI | LAT EXT       | 1,500       | 11/26/13            | -3,263                                                  | 2,405,423            |

## Capacity Credit Balance Sheet per Credit Basin

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|---------------|--------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 13LE1099      | NICKLIES - ST MATTHEWS                     | LAT EXT       | 1,920       | 12/11/13            | -4,176                                                  | 2,401,247            |
| 353963        | DORSEY COMMONS TRACTS 1.2.3                | LAT EXT       | 4,335       | 12/18/13            | -9,429                                                  | 2,391,819            |
| 14SC1003      | FY13 IFP ACTIVITY FIRST HALF - MIDDLE FORK | SCAPCREDIT    |             | 12/31/13            | 3,230                                                   | 2,395,049            |
| 352026        | MCMAHAN PLAZA PHASE II BLDG B              | LAT EXT       | 766         | 12/31/13            | -1,666                                                  | 2,393,382            |
| 13LE1117      | THE VININGS                                | LAT EXT       | 850         | 4/10/14             | -1,849                                                  | 2,391,534            |
| 14LE1021      | KODA KENTUCKY ORGAN DONOR AFFILIATES       | LAT EXT       | 400         | 6/18/14             | -870                                                    | 2,390,664            |
| 14LE1128      | WALDORF SCHOOL OF LOUISVILLE               | LAT EXT       | 400         | 6/30/14             | -870                                                    | 2,389,794            |
| LE939199      | Westport Road Apartments                   | LAT EXT       | 62,800      | 6/8/16              | -136,590                                                | 2,253,204            |
| <b>NDITCH</b> |                                            |               |             |                     |                                                         |                      |
| 359404        | CALENDAR 2007 DOWNSPOUT CREDIT             | SCAPCREDIT    |             | 12/31/07            | 28,000                                                  | 28,000               |
| 235569        | N.DITCH IFP WORK AUG05-NOV08               | SCAPCREDIT    |             | 11/1/08             | 11,147                                                  | 39,147               |
| 236363        | NORTHERN DITCH INT REHAB PH1               | SCAPCREDIT    |             | 11/25/08            | 108,760                                                 | 147,907              |
| 359339        | CALENDAR 2009 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/09            | 4,000                                                   | 151,907              |
| 234678        | THE LIGHTHOUSE PROMISE COMPLEX             | LAT EXT       | 2,825       | 3/5/10              | -6,144                                                  | 145,763              |
| 284728        | SUBWAY - NEW CUT RD                        | LAT EXT       | 1,314       | 12/21/10            | -2,858                                                  | 142,905              |
| 359340        | CALENDAR 2010 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/10            | 4,000                                                   | 146,905              |
| 320908        | PARKVIEW ESTATES REHABILITATIO             | SCAPCREDIT    |             | 6/28/11             | 36                                                      | 146,941              |
| 312810        | WILLOW PLACE APT COMMUNITY CEN             | LAT EXT       | 400         | 11/11/11            | -870                                                    | 146,071              |
| 359341        | CALENDAR 2011 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/11            | 24,000                                                  | 170,071              |
| 359405        | CALENDAR 2011 DOWNSPOUT CREDIT             | SCAPCREDIT    |             | 12/31/11            | 12,000                                                  | 182,071              |
| 315723        | JCPS EARLY CHILDHOOD DEVELOP               | LAT EXT       | 6,000       | 1/26/12             | -13,050                                                 | 169,021              |
| 312057        | DOLLAR GENERAL - MEDALLION CT              | LAT EXT       | 400         | 3/21/12             | -870                                                    | 168,151              |
| 312659        | KROGER L-350 FUEL STATION                  | LAT EXT       | 400         | 8/20/12             | -870                                                    | 167,281              |
| 359343        | CALENDAR 2012 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/12            | 24,000                                                  | 191,281              |
| 13LE1147      | CARLON ROOFING                             | LAT EXT       | 992         | 12/5/13             | -2,158                                                  | 189,123              |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                              | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|--------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 13LE1126    | JENNINGS CROSSING TRACT 3                  | LAT EXT       | 2,100       | 12/12/13            | -4,568                                                  | 184,556              |
| 14SC1004    | FY13 IFP ACTIVITY FIRST HALF - NORTHERN DI | SCAPCREDIT    |             | 12/31/13            | 329                                                     | 184,885              |
| LE947316    | Heimbrock I                                | LAT EXT       | 400         | 8/14/15             | -870                                                    | 184,015              |
| LE947318    | Heimbrock II                               | LAT EXT       | 400         | 8/14/15             | -870                                                    | 183,145              |
| <b>ORFM</b> |                                            |               |             |                     |                                                         |                      |
| 359433      | CALENDAR 2007 DOWNSPOUT CREDIT             | SCAPCREDIT    |             | 12/31/07            | 56,000                                                  | 56,000               |
| 359344      | CALENDAR 2007 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/07            | 4,000                                                   | 60,000               |
| 235572      | ORFM IFP WORK AUG05-NOV08                  | SCAPCREDIT    |             | 11/1/08             | 19,826                                                  | 79,826               |
| 362643      | FY09 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/08            | 2                                                       | 79,828               |
| 362650      | FY09 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/09             | 3,836                                                   | 83,664               |
| 362654      | FY10 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/09            | 7,322                                                   | 90,986               |
| 263548      | SINGLE FAMILY CONNECTION                   | LAT EXT       | 400         | 5/18/10             | -870                                                    | 90,116               |
| 213488      | NORTHEAST CHRISTIAN CHURCH                 | LAT EXT       | 10,000      | 6/28/10             | -21,750                                                 | 68,366               |
| 362660      | FY10 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/10             | 6,630                                                   | 74,996               |
| 362665      | FY11 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/10            | 165                                                     | 75,161               |
| 362672      | FY11 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/11             | 4,124                                                   | 79,285               |
| 280837      | SPRINGHURST TOWNE CTR LOT C                | LAT EXT       | 400         | 9/20/11             | -870                                                    | 78,415               |
| 320920      | SHADOW WOOD I/I REHABILITATION             | SCAPCREDIT    |             | 9/30/11             | 14,279                                                  | 92,694               |
| 311412      | SPRINGHURST CHEVROLET                      | LAT EXT       | 855         | 10/14/11            | -1,860                                                  | 90,834               |
| 359345      | CALENDAR 2011 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/11            | 16,000                                                  | 106,834              |
| 359434      | CALENDAR 2011 DOWNSPOUT CREDIT             | SCAPCREDIT    |             | 12/31/11            | 16,000                                                  | 122,834              |
| 362677      | FY12 IFP ACTIVITY FIRST HALF               | SCAPCREDIT    |             | 12/31/11            | 7,258                                                   | 130,092              |
| 320921      | DERINGTON COURT I/I REHABILITA             | SCAPCREDIT    |             | 3/1/12              | 56,208                                                  | 186,300              |
| 187028      | GLENVIEW PARK SUBD SECTION 1               | LAT EXT       | 4,400       | 3/5/12              | -9,570                                                  | 176,730              |
| 213450      | GLENVIEW PARK SUB. SEC 2                   | LAT EXT       | 5,600       | 3/5/12              | -12,180                                                 | 164,550              |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u>   | <u>APNAME</u>                              | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|---------------|--------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 322455        | FIRST LADY NAILS                           | LAT EXT       | 400         | 3/12/12             | -870                                                    | 163,680              |
| 362681        | FY12 IFP ACTIVITY SECOND HALF              | SCAPCREDIT    |             | 6/30/12             | 18,220                                                  | 181,900              |
| 292239        | SPRINGHURST RESTAURANT/ RETAIL             | LAT EXT       | 3,440       | 7/5/12              | -7,482                                                  | 174,418              |
| 323821        | TIRE DISCOUNTERS WESTPORT RD               | LAT EXT       | 400         | 12/11/12            | -870                                                    | 173,548              |
| 363238        | FY13 PROSPECT MANHOLE REHAB                | SCAPCREDIT    |             | 12/18/12            | 72,703                                                  | 246,251              |
| 341319        | RAISING CANES RETAIL CENTER                | LAT EXT       | 1,225       | 12/18/12            | -2,664                                                  | 243,587              |
| 359346        | CALENDAR 2012 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/12            | 24,000                                                  | 267,587              |
| 363235        | FY13 MUDDY FORK MH REHAB                   | SCAPCREDIT    |             | 12/31/12            | 41,653                                                  | 309,240              |
| 362686        | FY13 IFP ACTIVITY FIRST HALF - ORFM        | SCAPCREDIT    |             | 12/31/12            | 1,148                                                   | 310,388              |
| 360262        | SINGLE FAMILY 3419 HILLVALE RD             | LAT EXT       | 400         | 5/13/13             | -870                                                    | 309,518              |
| 343729        | RETAIL & RESTAURANT                        | LAT EXT       | 3,500       | 6/21/13             | -7,613                                                  | 301,906              |
| 334154        | GLENVIEW PARK SUBD SEC 4                   | LAT EXT       | 3,600       | 11/7/13             | -7,830                                                  | 294,076              |
| 13LE1024      | Overlook at Beech Spring Farm Sec 4        | LAT EXT       | 5,600       | 12/31/13            | -12,180                                                 | 281,896              |
| 199896        | SPRINGDALE OFFICE BUILDING                 | LAT EXT       | 4,210       | 3/11/14             | -9,157                                                  | 272,739              |
| 225863        | SPRING FARM LAKES SEC 1                    | LAT EXT       | 4,800       | 5/16/14             | -10,440                                                 | 262,299              |
| 177756        | SUMMIT GARDENS PHASE 1                     | LAT EXT       | 32,000      | 9/22/14             | -69,600                                                 | 192,699              |
| 14LE1121      | Riverside Sewer Extension                  | LAT EXT       | 1,200       | 11/10/14            | -2,610                                                  | 190,089              |
| 13LE1071      | SPRING FARM LAKE SEC 2                     | LAT EXT       | 6,000       | 1/16/15             | -13,050                                                 | 177,039              |
| 352634        | BAUER PROPERTY                             | LAT EXT       | 2,920       | 2/12/15             | -6,351                                                  | 170,688              |
| SC983704      | PROSPECT I&I REHABILITATION - FY13 PHASE I | SCAPCREDIT    |             | 7/12/15             | 1,034,758                                               | 1,205,446            |
| LE929244      | Summit Gardens Phase 2                     | LAT EXT       | 18,000      | 10/21/15            | -39,150                                                 | 1,166,296            |
| LE938166      | Spring Farm Lake Section 3                 | LAT EXT       | 3,200       | 12/14/15            | -6,960                                                  | 1,159,336            |
| <b>PCREEK</b> |                                            |               |             |                     |                                                         |                      |
| 235574        | POND CRK IFP WORK AUG05-NOV08              | SCAPCREDIT    |             | 11/1/08             | 71,782                                                  | 71,782               |
| 359347        | CALENDAR 2008 SUMP PUMP CREDIT             | SCAPCREDIT    |             | 12/31/08            | 4,000                                                   | 75,782               |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                  | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|--------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 359438      | CALENDAR 2008 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/08            | 4,000                                                   | 79,782               |
| 359439      | CALENDAR 2009 DOWNSPOUT CREDIT | SCAPCREDIT    |             | 12/31/09            | 12,000                                                  | 91,782               |
| 359348      | CALENDAR 2009 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/09            | 4,000                                                   | 95,782               |
| 192513      | BANNON CROSSINGS SECTION 3A-1  | LAT EXT       | 800         | 2/17/10             | -1,740                                                  | 94,042               |
| 261115      | EMERGENCY RESTORATION          | LAT EXT       | 400         | 4/27/10             | -870                                                    | 93,172               |
| 276977      | DADISMAN BUILDERS-POPLAR TREE  | LAT EXT       | 400         | 10/13/10            | -870                                                    | 92,302               |
| 266833      | THORNTONS @ PRESTON HWY        | LAT EXT       | 400         | 12/1/10             | -870                                                    | 91,432               |
| 280751      | NOTTINGTON HILLS SEC 1         | LAT EXT       | 4,400       | 12/29/10            | -9,570                                                  | 81,862               |
| 359350      | CALENDAR 2010 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/10            | 12,000                                                  | 93,862               |
| 187739      | GLENGARRY INDUSTRIAL PARK      | LAT EXT       | 4,300       | 1/13/11             | -9,353                                                  | 84,510               |
| 277777      | TIRE DISCOUNTERS - BOERSTE WAY | LAT EXT       | 2,960       | 3/21/11             | -6,438                                                  | 78,072               |
| 304408      | UPS SUPPLY CHAIN SOLUTIONS #7  | LAT EXT       | 2,250       | 9/14/11             | -4,894                                                  | 73,178               |
| 320918      | EDSEL I/I REHABILITATION - FY1 | SCAPCREDIT    |             | 9/27/11             | 106,700                                                 | 179,878              |
| 313444      | PLANET FITNESS - JEFF BLVD     | LAT EXT       | 1,600       | 11/4/11             | -3,480                                                  | 176,398              |
| 312391      | LONGHORN STEAKHOUSE RESTAURANT | LAT EXT       | 4,840       | 11/29/11            | -10,527                                                 | 165,871              |
| 320919      | LANTANA I/I REHABILITATION - F | SCAPCREDIT    |             | 12/29/11            | 5,000                                                   | 170,871              |
| 359351      | CALENDAR 2011 SUMP PUMP CREDIT | SCAPCREDIT    |             | 12/31/11            | 20,000                                                  | 190,871              |
| 310845      | ZAXBY'S RESTAURANT             | LAT EXT       | 3,750       | 2/28/12             | -8,156                                                  | 182,715              |
| 255044      | ISA-RECYCLING CENTER           | LAT EXT       | 400         | 3/13/12             | -870                                                    | 181,845              |
| 312814      | MILLER TRANSPORTATION          | LAT EXT       | 1,800       | 3/19/12             | -3,915                                                  | 177,930              |
| 324554      | NORTONS TEMPORARY OFFICE       | LAT EXT       | 900         | 4/16/12             | -1,958                                                  | 175,972              |
| 234102      | ETHOS AT VALLEY FARM SR LIVING | LAT EXT       | 7,050       | 6/19/12             | -15,334                                                 | 160,638              |
| 322367      | SHEPHERDS CARE MEMORY HOME     | LAT EXT       | 2,000       | 6/21/12             | -4,350                                                  | 156,288              |
| 307332      | LOUISVILLE INDUSTRIAL BLDG B   | LAT EXT       | 2,520       | 8/6/12              | -5,481                                                  | 150,807              |
| 279860      | BANNON CROSSINGS SEC 3B-2      | LAT EXT       | 9,600       | 8/10/12             | -20,880                                                 | 129,927              |
| 312053      | DOLLAR GENERAL - CLEARWATER FA | LAT EXT       | 400         | 8/13/12             | -870                                                    | 129,057              |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                               | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|---------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 343455      | SINGLE FAMILY 1812 GREYLING DR              | LAT EXT       | 400         | 10/12/12            | -870                                                    | 128,187              |
| 243109      | OVERBROOK APARTMENTS                        | LAT EXT       | 41,200      | 11/9/12             | -89,610                                                 | 38,577               |
| 359354      | CALENDAR 2012 SUMP PUMP CREDIT              | SCAPCREDIT    |             | 12/31/12            | 56,000                                                  | 94,577               |
| 329624      | COPART                                      | LAT EXT       | 400         | 2/20/13             | -870                                                    | 93,707               |
| 346082      | ZAXBYS                                      | LAT EXT       | 2,065       | 5/2/13              | -4,491                                                  | 89,216               |
| 320924      | LEA ANN WAY INTERCEPTOR I&I RE              | SCAPCREDIT    |             | 6/30/13             | 1,017,423                                               | 1,106,639            |
| 335385      | HARRISON LOW PRESSURE S/S                   | LAT EXT       | 1,600       | 7/2/13              | -3,480                                                  | 1,103,159            |
| 320940      | 4 RESIDENCE SFU 7821 MANSCLICK              | LAT EXT       | 400         | 8/16/13             | -870                                                    | 1,102,289            |
| 361336      | RENAISSANCE SOUTH BUSINESS                  | LAT EXT       | 540         | 9/6/13              | -1,175                                                  | 1,101,114            |
| 324886      | PNC BANK                                    | LAT EXT       | 400         | 9/6/13              | -870                                                    | 1,100,244            |
| 13LE1083    | SINGLE FAMILY HOME 5402 (H) E MANSCLICK RE  | LAT EXT       | 400         | 9/26/13             | -870                                                    | 1,099,374            |
| 353125      | PEGASUS TRANSPORTATION                      | LAT EXT       | 250         | 12/9/13             | -544                                                    | 1,098,831            |
| 341439      | PRESTON GARDENS APTS                        | LAT EXT       | 22,200      | 12/10/13            | -48,285                                                 | 1,050,546            |
| 308206      | APPLEGATE FARMS                             | LAT EXT       | 57,200      | 12/10/13            | -124,410                                                | 926,136              |
| 14SC1005    | FY13 IFP ACTIVITY FIRST HALF - POND CREEK   | SCAPCREDIT    |             | 12/31/13            | 21,344                                                  | 947,480              |
| 13LE1179    | TIMBERBEND SUBDIVISION SEC 5B               | LAT EXT       | 6,400       | 2/14/14             | -13,920                                                 | 933,560              |
| 13LE1035    | RENAISSANCE SOUTH BUSINESS PARK TRACT       | LAT EXT       | 5,415       | 4/10/14             | -11,778                                                 | 921,782              |
| 13LE1115    | VERIZON-OUTER LOOP                          | LAT EXT       | 400         | 4/22/14             | -870                                                    | 920,912              |
| 348014      | ASHTON PARK TOWN HOMES                      | LAT EXT       | 9,000       | 4/24/14             | -19,575                                                 | 901,337              |
| 280180      | LOUISVILLE INDUSTRIAL CTR F                 | LAT EXT       | 2,480       | 5/16/14             | -5,394                                                  | 895,943              |
| 14LE1085    | Williams Properties - Self Storage Facility | LAT EXT       | 400         | 5/28/14             | -870                                                    | 895,073              |
| 13LE1034    | 6300 GEIL LANE WAREHOUSE                    | LAT EXT       | 720         | 6/9/14              | -1,566                                                  | 893,507              |
| 284215      | HURSTBOURNE POINTE APTS                     | LAT EXT       | 9,600       | 7/7/14              | -20,880                                                 | 872,627              |
| 344230      | AUSTIN PARK APARTMENTS PH6                  | LAT EXT       | 27,600      | 8/25/14             | -60,030                                                 | 812,597              |
| 13LE1105    | JEFFERSON COMMONS                           | LAT EXT       | 17,075      | 11/13/14            | -37,138                                                 | 775,459              |
| 13LE1017    | APEX ON PRESTON APT HOMES(Formerly CITY)    | LAT EXT       | 84,400      | 1/13/15             | -183,570                                                | 591,889              |

## Capacity Credit Balance Sheet per Credit Basin

| <u>APNO</u> | <u>APNAME</u>                                    | <u>APTYPE</u> | <u>FLOW</u> | <u>Release Date</u> | <u>Approved<br/>Credit Required/<br/>Flow Reduction</u> | <u>Running Total</u> |
|-------------|--------------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 354207      | COOPER FARMS SEC 11B                             | LAT EXT       | 12,400      | 4/29/15             | -26,970                                                 | 564,919              |
| 354209      | COOPER FARMS SEC 11A                             | LAT EXT       | 13,200      | 4/29/15             | -28,710                                                 | 536,209              |
| LE948692    | Jim's Expross Wash                               | LAT EXT       | 10,500      | 7/28/15             | -22,838                                                 | 513,371              |
| LE951121    | Allqeier Site                                    | LAT EXT       | 400         | 8/7/15              | -870                                                    | 512,501              |
| 13LE1086    | WOODS OF PENN RUN OFFSITE SS                     | LAT EXT       | 1,000       | 8/25/15             | -2,175                                                  | 510,326              |
| 13LE1140    | JEFFERSON POST APARTMENTS                        | LAT EXT       | 28,800      | 10/2/15             | -62,640                                                 | 447,686              |
| 14LE1116    | CATALPA SPRINGS                                  | LAT EXT       | 2,800       | 12/30/15            | -6,090                                                  | 441,596              |
| SC939830    | Lea Ann Wav West Quad 1 & 2 Rehabilitation Proje | SCAPCREDIT    |             | 12/31/15            | 445,911                                                 | 887,507              |
| 358356      | WOODS OF PENN RUN Section 1                      | LAT EXT       | 18,800      | 2/12/16             | -40,890                                                 | 846,617              |
| LE936598    | Jefferson Commerce Center Tract 1A               | LAT EXT       | 5,250       | 6/6/16              | -11,419                                                 | 835,199              |
| LE918484    | AUSTIN PARK SS PHASE 8                           | LAT EXT       | 16,800      | 6/21/16             | -36,540                                                 | 798,659              |
| 14LE1170    | Austin Park Phase 7 & 8                          | LAT EXT       | 26,400      | 6/21/16             | -57,420                                                 | 741,239              |

### SEDIV

|        |                                |            |       |          |         |         |
|--------|--------------------------------|------------|-------|----------|---------|---------|
| 359355 | CALENDAR 2007 SUMP PUMP CREDIT | SCAPCREDIT |       | 12/31/07 | 8,000   | 8,000   |
| 359440 | CALENDAR 2007 DOWNSPOUT CREDIT | SCAPCREDIT |       | 12/31/07 | 128,000 | 136,000 |
| 235575 | SE DIV IFP WORK AUG05-NOV08    | SCAPCREDIT |       | 11/1/08  | 71,472  | 207,472 |
| 236214 | GOLDSMITH BUECHB ICA PHI REHAB | SCAPCREDIT |       | 12/22/08 | 314,808 | 522,280 |
| 236296 | BEARGRASS INT REHAB PH1 SEDIV  | SCAPCREDIT |       | 12/22/08 | 122,688 | 644,968 |
| 359441 | CALENDAR 2008 DOWNSPOUT CREDIT | SCAPCREDIT |       | 12/31/08 | 16,000  | 660,968 |
| 359356 | CALENDAR 2008 SUMP PUMP CREDIT | SCAPCREDIT |       | 12/31/08 | 4,000   | 664,968 |
| 229854 | TINY HANDS DAYCARE             | LAT EXT    | 1,225 | 10/20/09 | -2,664  | 662,304 |
| 359357 | CALENDAR 2009 SUMP PUMP CREDIT | SCAPCREDIT |       | 12/31/09 | 12,000  | 674,304 |
| 359443 | CALENDAR 2009 DOWNSPOUT CREDIT | SCAPCREDIT |       | 12/31/09 | 8,000   | 682,304 |
| 235291 | SULLIVAN COLLEGE OF TECHNOLOGY | LAT EXT    | 900   | 2/11/10  | -1,958  | 680,346 |
| 238328 | LOUISVILLE COLLEGIATE SPORTS   | LAT EXT    | 400   | 3/1/10   | -870    | 679,476 |

## Capacity Credit Balance Sheet per Credit Basin

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|-------------|---------------------------------------------|---------------|-------------|---------------------|---------------------------------------------------------|----------------------|
| 241759      | FRISCHS BIG BOY RESTAURANT                  | LAT EXT       | 2,400       | 3/5/10              | -5,220                                                  | 674,256              |
| 257275      | LOUISVILLE JUNIOR ACADEMY                   | LAT EXT       | 520         | 4/16/10             | -1,131                                                  | 673,125              |
| 320993      | BEARGRASS CREEK PHASE II - FY1              | SCAPCREDIT    |             | 12/14/10            | 10,368                                                  | 683,493              |
| 359358      | CALENDAR 2010 SUMP PUMP CREDIT              | SCAPCREDIT    |             | 12/31/10            | 4,000                                                   | 687,493              |
| 359444      | CALENDAR 2010 DOWNSPOUT CREDIT              | SCAPCREDIT    |             | 12/31/10            | 24,000                                                  | 711,493              |
| 286513      | GARDINER POINT RESIDENCE HALL               | LAT EXT       | 10,800      | 2/16/11             | -23,490                                                 | 688,003              |
| 276378      | TIRE DISCOUNTERS - BARDSTOWN                | LAT EXT       | 1,500       | 5/6/11              | -3,263                                                  | 684,741              |
| 287888      | BEVERAGE WAREHOUSE                          | LAT EXT       | 1,180       | 5/30/11             | -2,567                                                  | 682,174              |
| 296295      | KEN TOWERY -3800 S HURSTBOURNE              | LAT EXT       | 400         | 7/1/11              | -870                                                    | 681,304              |
| 359445      | CALENDAR 2011 DOWNSPOUT CREDIT              | SCAPCREDIT    |             | 12/31/11            | 8,000                                                   | 689,304              |
| 359359      | CALENDAR 2011 SUMP PUMP CREDIT              | SCAPCREDIT    |             | 12/31/11            | 64,000                                                  | 753,304              |
| 307018      | HOOK PROPERTY FAMILY DOLLAR                 | LAT EXT       | 400         | 8/10/12             | -870                                                    | 752,434              |
| 359361      | CALENDAR 2012 SUMP PUMP CREDIT              | SCAPCREDIT    |             | 12/31/12            | 68,000                                                  | 820,434              |
| 359446      | CALENDAR 2012 DOWNSPOUT CREDIT              | SCAPCREDIT    |             | 12/31/12            | 4,000                                                   | 824,434              |
| 187741      | BROOKSTONE SENIOR APARTMENTS                | LAT EXT       | 16,800      | 3/11/13             | -36,540                                                 | 787,894              |
| 232601      | RAINTREE/MARIAN CT P/S ELIM                 | LAT EXT       | 105,800     | 6/14/13             | -230,115                                                | 557,779              |
| 330437      | COLLEGIATE ATHLETIC FIELD                   | LAT EXT       | 800         | 11/26/13            | -1,740                                                  | 556,039              |
| 14SC1006    | FY13 IFP ACTIVITY FIRST HALF - SE DIVERSION | SCAPCREDIT    |             | 12/31/13            | 20,623                                                  | 576,662              |
| LE919560    | Todd's Place Express Car Wash               | LAT EXT       | 4,830       | 12/22/15            | -10,505                                                 | 566,157              |



Appendix E – IOAP Project Crosswalk



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IOAP Project Crosswalk  
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| Project Name                                                                 | PROGRAM | ASSET ID   | PROJECT ID                |
|------------------------------------------------------------------------------|---------|------------|---------------------------|
| Avanti PS Elimination                                                        | IOAP    | 21229-W    | S_PO_WC_PC07_M_01_A       |
| Sinking Fork Relief Sewer                                                    | ISSDP   | 21103      | SFRS                      |
| Sinking Fork Relief Sewer                                                    | ISSDP   | 63319      | SFRS                      |
| Sinking Fork Relief Sewer                                                    | ISSDP   | 25012      | SFRS                      |
| Beargrass Interceptor Rehab Ph. 2                                            | IOAP    | 51594      | S_SD_MF_NB06_S_13_C       |
| Floydsburg Rd. I/I Investigation & Rehabilitation                            | IOAP    | 108958     | S_HC_HC_MSD1086_M_07_C_A  |
| Floydsburg Rd. I/I Investigation & Rehabilitation                            | IOAP    | 108956     | S_HC_HC_MSD1086_M_07_C_A  |
| Floydsburg Rd. I/I Investigation & Rehabilitation                            | IOAP    | MSD1086-PS | S_HC_HC_MSD1086_M_07_C_A  |
| Floydsburg Rd. I/I Investigation & Rehabilitation                            | IOAP    | 90776      | S_HC_HC_MSD1086_M_07_C_A  |
| Floydsburg Rd. I/I Investigation & Rehabilitation                            | IOAP    | 108957     | S_HC_HC_MSD1086_M_07_C_A  |
| Floydsburg Rd. I/I Investigation & Rehabilitation                            | IOAP    | 108953     | S_HC_HC_MSD1086_M_07_C_A  |
| Running Fox PS Elimination                                                   | IOAP    | MSD1080-LS | S_CC_CC_MSD1080_S_01_C    |
| Beechwood Village Sanitary Sewer Replacement                                 | ISSDP   | 21153      | BVSSR                     |
| Beechwood Village Sanitary Sewer Replacement                                 | ISSDP   | 21101      | BVSSR                     |
| Beechwood Village Sanitary Sewer Replacement                                 | ISSDP   | 21156      | BVSSR                     |
| Beechwood Village Sanitary Sewer Replacement                                 | ISSDP   | 21061      | BVSSR                     |
| Hazelwood PS I/I Investigation & Rehabilitation                              | IOAP    | 55667      | S_MC_MF_55665_S_07_C      |
| Hazelwood PS I/I Investigation & Rehabilitation                              | IOAP    | 55665      | S_MC_MF_55665_S_07_C      |
| Parkview Estates I/I Investigation & Rehabilitation                          | IOAP    | 47250      | S_SD_MF_NB03_S_07_C       |
| Sonne PS I/I Investigation & Rehabilitation                                  | IOAP    | MSD0042-PS | S_OR_MF_42007_S_07_C      |
| Woodland Hills PS Diversion                                                  | IOAP    | 33003      | S_FF_FF_NB01_S_01_C_A     |
| Anchor Estates- Anchor Ests PS 1 & 2 PS Eliminations                         | IOAP    | 0057-W     | S_MI_MF_NB06_M_01_A_A - 1 |
| Northern Ditch Diversion Interceptor                                         | ISSDP   | MSD0271    | NDDI                      |
| Edsel PS I/I Investigation & Rehabilitation                                  | IOAP    | MSD1048-PS | S_PO_WC_PC11_M_07_C       |
| Edsel PS I/I Investigation & Rehabilitation                                  | IOAP    | 94009      | S_PO_WC_PC11_M_07_C       |
| Edsel PS I/I Investigation & Rehabilitation                                  | IOAP    | 92098      | S_PO_WC_PC11_M_07_C       |
| Edsel PS I/I Investigation & Rehabilitation                                  | IOAP    | 92099      | S_PO_WC_PC11_M_07_C       |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 13946      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 44396      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 66349      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 51301      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 36763      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 8717       | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 44397      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 13931      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 99259      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 104223     | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 13943      | S_SF_MF_30917_M_09_A      |
| Camp Taylor System Improvements 3 - Sewer Replacement & Sewer Rehabilitation | IOAP    | 104231     | S_SF_MF_30917_M_09_A      |

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| Project Name                                                                   | PROGRAM | ASSET ID | PROJECT ID           |
|--------------------------------------------------------------------------------|---------|----------|----------------------|
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 44397    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 104223   | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 104231   | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 13946    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 13931    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 66349    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 51301    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 99259    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 36763    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 13943    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 44396    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 1 - SSES                                 | IOAP    | 8717     | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 13943    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 13931    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 66349    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 8717     | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 13946    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 99259    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 51301    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 36763    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 104223   | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 104231   | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 44397    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 2 - Sewer Replacement and Rehabilitation | IOAP    | 44396    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 44397    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 51301    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 99259    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 13943    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 8717     | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 13946    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 13931    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 44396    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 104223   | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 36763    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 66349    | S_SF_MF_30917_M_09_A |
| Camp Taylor System Improvements Phase 4 - Storage Basin and Sewer Upsize       | IOAP    | 104231   | S_SF_MF_30917_M_09_A |
| Hurstbourne I/I Investigation & Rehabilitation                                 | IOAP    | 67535    | S_MI_MF_NB07_S_07_C  |
| Hurstbourne I/I Investigation & Rehabilitation                                 | IOAP    | 47650    | S_MI_MF_NB07_S_07_C  |
| Hurstbourne I/I Investigation & Rehabilitation                                 | IOAP    | 47656    | S_MI_MF_NB07_S_07_C  |
| Hurstbourne I/I Investigation & Rehabilitation                                 | IOAP    | 1793     | S_MI_MF_NB07_S_07_C  |

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| Project Name                                        | PROGRAM | ASSET ID   | PROJECT ID          |
|-----------------------------------------------------|---------|------------|---------------------|
| Lantana PS #1 I/I Investigation and Rehabilitation  | IOAP    | 25484      | S_PO_WC_PC05_M_07_C |
| Lantana PS #1 I/I Investigation and Rehabilitation  | IOAP    | MSD0101-PS | S_PO_WC_PC05_M_07_C |
| Lantana PS #1 I/I Investigation and Rehabilitation  | IOAP    | 93719      | S_PO_WC_PC05_M_07_C |
| Derington Ct. PS I/I Investigation & Rehabilitation | IOAP    | MSD0095-PS | S_OR_MF_NB03_S_07_C |
| Derington Ct. PS I/I Investigation & Rehabilitation | IOAP    | 20155      | S_OR_MF_NB03_S_07_C |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 72571-X    | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 30704      | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 30702      | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 63779      | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 8426       | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 8427       | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 8431       | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 49647      | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 8430       | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 18654      | SDSI                |
| Southeastern Diversion Structure and Interceptor    | ISSDP   | 30701      | SDSI                |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | MSD0277    | DRGWQTC             |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | 32688      | DRGWQTC             |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | 59169      | DRGWQTC             |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | 22307      | DRGWQTC             |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | 22385      | DRGWQTC             |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | 22370      | DRGWQTC             |
| Derek R. Guthrie WQTC Wet Weather Facility          | ISSDP   | 32682      | DRGWQTC             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18370      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18434      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 30681      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | MSD0012-PS | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 49673      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 49236      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18483      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 49224      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18134      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18471      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18318-W    | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18505      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18595      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 73111      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 49672      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 17571      | HLIHSPS             |
| Hikes Lane Interceptor and Highgate Springs         | ISSDP   | 18302      | HLIHSPS             |

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| Project Name                                                                              | PROGRAM | ASSET ID   | PROJECT ID                |
|-------------------------------------------------------------------------------------------|---------|------------|---------------------------|
| Hikes Lane Interceptor and Highgate Springs                                               | ISSDP   | 18297      | HLIHSPS                   |
| Hikes Lane Interceptor and Highgate Springs                                               | ISSDP   | 18299      | HLIHSPS                   |
| Hikes Lane Interceptor and Highgate Springs                                               | ISSDP   | 30680      | HLIHSPS                   |
| Hikes Lane Interceptor and Highgate Springs                                               | ISSDP   | 48886      | HLIHSPS                   |
| Hikes Lane Interceptor and Highgate Springs                                               | ISSDP   | 48888      | HLIHSPS                   |
| Hikes Lane Interceptor and Highgate Springs                                               | ISSDP   | 48885      | HLIHSPS                   |
| Lake Forest PS SSO Investigation                                                          | IOAP    | MSD1169-LS | S_FF_LF_NB01_S_13_C_A     |
| Meadow Stream Pump Station & Force Main Upgrade                                           | IOAP    | MSD1082-PS | S_HC_HC_MSD1082_S_09A_C   |
| Meadow Stream Pump Station & Force Main Upgrade                                           | IOAP    | 91087      | S_HC_HC_MSD1082_S_09A_C   |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | 41374      | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | MSD0007-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | MSD0024-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | 26752      | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | MSD0023-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | MSD0010-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | 24472      | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | MSD0006-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Mellwood PS and FM Improvements           | IOAP    | 24152-W    | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | MSD0007-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | 24472      | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | 41374      | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | 26752      | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | MSD0023-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | MSD0024-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | 24152-W    | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | MSD0010-PS | S_OR_MF_NB01_M_01_B       |
| Mellwood System Improvements & PS Elimination - Winton and Mockingbird Valley Elimination | IOAP    | MSD0006-PS | S_OR_MF_NB01_M_01_B       |
| Anchor Estates PS Elimination 1 - Vannah PS Elimination                                   | IOAP    | MSD0057-LS | S_MI_MF_NB06_M_01_A_A - 2 |
| Anchor Estates PS Elimination 1 - Vannah PS Elimination                                   | IOAP    | 00056-W    | S_MI_MF_NB06_M_01_A_A - 2 |
| Anchor Estates PS Elimination 1 - Vannah PS Elimination                                   | IOAP    | 817        | S_MI_MF_NB06_M_01_A_A - 2 |
| Anchor Estates PS Elimination 1 - Vannah PS Elimination                                   | IOAP    | 0057-W     | S_MI_MF_NB06_M_01_A_A - 2 |

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| Project Name                                                                              | PROGRAM | ASSET ID | PROJECT ID                |
|-------------------------------------------------------------------------------------------|---------|----------|---------------------------|
| Anchor Estates PS Elimination 1 - Vannah PS Elimination                                   | IOAP    | 746      | S_MI_MF_NB06_M_01_A_A - 2 |
| Anchor Estates PS Elimination 1 - Vannah PS Elimination                                   | IOAP    | 1106     | S_MI_MF_NB06_M_01_A_A - 2 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 47583    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 47604    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 47603    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 2933     | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 2935     | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 8537     | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 72289    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 30376    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 45796    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 115183   | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 84155    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 23211    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 40559    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 51160    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 51180    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 47582    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 47034    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 72288    | S_MISF_MF_NB01_M_01_C_A1  |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin | IOAP    | 115184   | S_MISF_MF_NB01_M_01_C_A1  |

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| Project Name                                                                                          | PROGRAM | ASSET ID  | PROJECT ID               |
|-------------------------------------------------------------------------------------------------------|---------|-----------|--------------------------|
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 115185    | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 08935-SM  | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 45835     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 51161     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | IS021A-SI | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 23212     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 47593     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 27005     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 15194     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 2932      | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 27007     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 1- Buechel Basin             | IOAP    | 90700     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 47583     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 115184    | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 45796     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 47582     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 72289     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 40559     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 23211     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 27007     | S_MISF_MF_NB01_M_01_C_A1 |



Appendix E  
IOAP Project Crosswalk  
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| Project Name                                                                                          | PROGRAM | ASSET ID  | PROJECT ID               |
|-------------------------------------------------------------------------------------------------------|---------|-----------|--------------------------|
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 08935-SM  | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 15194     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | IS021A-SI | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 51180     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 2933      | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 51161     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 51160     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 47604     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 115185    | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 23212     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 47603     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 27005     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 2935      | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 8537      | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 90700     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 2932      | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 47034     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 72288     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 47593     | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 30376     | S_MISF_MF_NB01_M_01_C_A1 |

Appendix E  
IOAP Project Crosswalk  
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| Project Name                                                                                          | PROGRAM | ASSET ID    | PROJECT ID               |
|-------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------|
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 84155       | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 115183      | S_MISF_MF_NB01_M_01_C_A1 |
| Middle Fork Relief Interceptor, Wet Weather Storage, and UMFLS Diversion 2 - PS Diversion and Storage | IOAP    | 45835       | S_MISF_MF_NB01_M_01_C_A1 |
| Fairway View PS Improvements                                                                          | IOAP    | MSD1065-PS  | S_HC_HS_NB01_S_03_C_A    |
| Riding Ridge PS Improvements                                                                          | IOAP    | MSD1060-LS  | S_HC_HN_NB01_S_03_C_A    |
| Shively Interceptor                                                                                   | IOAP    | MSD0047-PS  | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | 4498        | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | MSD0049-PS  | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | 4542        | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | 81814-W     | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | MSD0016-PS  | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | MSD0044-PS  | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | MSD0048-PS  | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | MSD0050-PS  | S_MC_WC_NB01_M_01_A      |
| Shively Interceptor                                                                                   | IOAP    | MSD0043-PS  | S_MC_WC_NB01_M_01_A      |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | 92061       | S_JT_JT_NB01A_M_03_C     |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | 86052       | S_JT_JT_NB01A_M_03_C     |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | MSD0263     | S_JT_JT_NB01A_M_03_C     |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | MSD1043-PS  | S_JT_JT_NB01A_M_03_C     |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | MSD0196-PS  | S_JT_JT_NB01A_M_03_C     |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | 64096       | S_JT_JT_NB01A_M_03_C     |
| Chenoweth Hills WQTC Elimination & PS Improvements                                                    | IOAP    | MSD0263A-PS | S_JT_JT_NB01A_M_03_C     |
| Fairmount Road Pump Station Off-Line Storage                                                          | IOAP    | 81316       | S_FF_CC_81316_M_03_C_A   |
| Fairmount Road Pump Station Off-Line Storage                                                          | IOAP    | 97362       | S_FF_CC_81316_M_03_C_A   |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 28391       | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 64505       | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 28392       | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 28395       | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | IS028-SI    | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 31733       | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 28551       | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | MSD0255     | S_JT_JT_NB01_M_01_C_A    |
| Jeffersontown WQTC Elimination                                                                        | IOAP    | 28173       | S_JT_JT_NB01_M_01_C_A    |
| Klondike Interceptor                                                                                  | IOAP    | 26651       | S_SD_MF_NB04_S_01_B_A    |
| Klondike Interceptor                                                                                  | IOAP    | 26650       | S_SD_MF_NB04_S_01_B_A    |
| Klondike Interceptor                                                                                  | IOAP    | 20644       | S_SD_MF_NB04_S_01_B_A    |
| Klondike Interceptor                                                                                  | IOAP    | 66232       | S_SD_MF_NB04_S_01_B_A    |

| Project Name                          | PROGRAM | ASSET ID   | PROJECT ID            |
|---------------------------------------|---------|------------|-----------------------|
| Klondike Interceptor                  | IOAP    | 49513      | S_SD_MF_NB04_S_01_B_A |
| Klondike Interceptor                  | IOAP    | 25676      | S_SD_MF_NB04_S_01_B_A |
| Lea Ann Way System Improvements       | IOAP    | MSD1200-PS | S_PO_WC_PC08_M_01_C   |
| Lea Ann Way System Improvements       | IOAP    | 29933      | S_PO_WC_PC08_M_01_C   |
| Lea Ann Way System Improvements       | IOAP    | 31074      | S_PO_WC_PC08_M_01_C   |
| Lea Ann Way System Improvements       | IOAP    | 31073      | S_PO_WC_PC08_M_01_C   |
| Lea Ann Way System Improvements       | IOAP    | 57874      | S_PO_WC_PC08_M_01_C   |
| Lea Ann Way System Improvements       | IOAP    | 29948      | S_PO_WC_PC08_M_01_C   |
| Lea Ann Way System Improvements       | IOAP    | MSD1010-PS | S_PO_WC_PC08_M_01_C   |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD0192-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD1063-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD0123-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD0193-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 40870      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD1044-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD0183-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 22436      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 40872      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 40871      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 65635      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 42680      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 89791      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 89646      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 40879      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 42675      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 40880      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | MSD0186-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 65633      | S_OR_MF_NB04_M_03_B_B |
| Prospect #1 - WQTC Eliminations       | IOAP    | 65623      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | 40870      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | 89791      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | 65623      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | MSD0123-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | MSD1044-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | 89646      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | 40879      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | 40880      | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | MSD0186-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | MSD1063-PS | S_OR_MF_NB04_M_03_B_B |
| Prospect #2 - Harrods Creek PS and FM | IOAP    | MSD0192-PS | S_OR_MF_NB04_M_03_B_B |

| Project Name                                                              | PROGRAM | ASSET ID   | PROJECT ID                |
|---------------------------------------------------------------------------|---------|------------|---------------------------|
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | MSD0183-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 65633      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 22436      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 42675      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 40872      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 65635      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | MSD0193-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 40871      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #2 - Harrods Creek PS and FM                                     | IOAP    | 42680      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 40871      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 65635      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 22436      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 89646      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 40879      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 40880      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD0193-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD0183-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD1063-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD0192-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 42675      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 40872      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 65633      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD1044-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD0186-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | MSD0123-PS | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 40870      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 65623      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 42680      | S_OR_MF_NB04_M_03_B_B     |
| Prospect #3 - ORFM System Improvements                                    | IOAP    | 89791      | S_OR_MF_NB04_M_03_B_B     |
| Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination | IOAP    | 1106       | S_MI_MF_NB06_M_01_A_A - 1 |
| Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination | IOAP    | MSD0057-LS | S_MI_MF_NB06_M_01_A_A - 1 |
| Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination | IOAP    | 817        | S_MI_MF_NB06_M_01_A_A - 1 |
| Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination | IOAP    | 00056-W    | S_MI_MF_NB06_M_01_A_A - 1 |
| Anchor Estates PS Elimination 2 - Anchor Estates #1 and #2 PS Elimination | IOAP    | 746        | S_MI_MF_NB06_M_01_A_A - 1 |
| Caven Ave Pump Station Elimination                                        | IOAP    | 70212      | S_PO_WC_PC09_M_09B_C      |
| Caven Ave Pump Station Elimination                                        | IOAP    | 61667      | S_PO_WC_PC09_M_09B_C      |
| Caven Ave Pump Station Elimination                                        | IOAP    | MSD0133-PS | S_PO_WC_PC09_M_09B_C      |
| Caven Ave Pump Station Elimination                                        | IOAP    | 17724      | S_PO_WC_PC09_M_09B_C      |
| Caven Ave Pump Station Elimination                                        | IOAP    | 61687      | S_PO_WC_PC09_M_09B_C      |
| Caven Ave Pump Station Elimination                                        | IOAP    | 27116      | S_PO_WC_PC09_M_09B_C      |

## Appendix E

## IOAP Project Crosswalk

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| Project Name                                       | PROGRAM | ASSET ID   | PROJECT ID             |
|----------------------------------------------------|---------|------------|------------------------|
| Ashburton PS Improvements & Diversion              | IOAP    | MSD0165-PS | S_FF_FF_NB03_M_01_C_A  |
| Bardstown Rd. PS Improvements                      | IOAP    | 88545      | S_CC_CC_MSD1025_S_03_B |
| East Rockford PS Relocation                        | IOAP    | 04699-W    | S_MC_WC_NB02_S_03_C    |
| Fox Harbor Inline Storage                          | IOAP    | 62769      | S_HC_HN_NB03_S_09A_A_A |
| Gunpowder PS Inline Storage                        | IOAP    | MSD1055-LS | S_HC_HN_NB02_S_09A_C_B |
| Lucas Lane PS Inline Storage                       | IOAP    | MSD0199-LS | S_FF_BT_NB01_S_09A_C_A |
| Raintree and Marian Ct 1 - PS Elimination          | IOAP    | 28395A     | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 1 - PS Elimination          | IOAP    | 28719      | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 1 - PS Elimination          | IOAP    | 28729-W    | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 1 - PS Elimination          | IOAP    | MSD0149-PS | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 2 - Pipe Upgrades           | IOAP    | MSD0149-PS | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 2 - Pipe Upgrades           | IOAP    | 28395A     | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 2 - Pipe Upgrades           | IOAP    | 28719      | S_JT_JT_NB03_M_01_C    |
| Raintree and Marian Ct 2 - Pipe Upgrades           | IOAP    | 28729-W    | S_JT_JT_NB03_M_01_C    |
| St. Rene Rd. PS Inline Storage                     | IOAP    | 94187      | S_FF_CH_NB01_S_09A_C_A |
| Charleswood Interceptor Extension                  | IOAP    | 25480      | S_PO_WC_PC03_M_01_C    |
| Charleswood Interceptor Extension                  | IOAP    | 25479      | S_PO_WC_PC03_M_01_C    |
| Charleswood Interceptor Extension                  | IOAP    | 25477      | S_PO_WC_PC03_M_01_C    |
| Charleswood Interceptor Extension                  | IOAP    | MSD0130-PS | S_PO_WC_PC03_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28415      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 98564      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28250      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 99649      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28416      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28340      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 104289     | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28414      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28417      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28413      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28249      | S_JT_JT_NB02_M_01_C    |
| Dell Rd and Charlane Pkwy Interceptor Improvements | IOAP    | 28336      | S_JT_JT_NB02_M_01_C    |
| Leven PS Elimination                               | IOAP    | 36419      | S_PO_WC_PC10_M_01_C    |
| Monticello PS Elimination                          | IOAP    | 27969      | S_JT_JT_NB04_M_01_A    |
| Monticello PS Elimination                          | IOAP    | MSD0151-PS | S_JT_JT_NB04_M_01_A    |
| Cinderella PS Elimination                          | IOAP    | MSD1013-PS | S_PO_WC_PC04_M_01_C    |
| Cinderella PS Elimination                          | IOAP    | 60679      | S_PO_WC_PC04_M_01_C    |
| Cinderella PS Elimination                          | IOAP    | 35309      | S_PO_WC_PC04_M_01_C    |
| Idlewood Inline Storage                            | IOAP    | 63094      | S_CC_CC_70158_M_09A_C  |
| Idlewood Inline Storage                            | IOAP    | 63095      | S_CC_CC_70158_M_09A_C  |
| Idlewood Inline Storage                            | IOAP    | 70158      | S_CC_CC_70158_M_09A_C  |

| Project Name                                                                        | PROGRAM | ASSET ID   | PROJECT ID             |
|-------------------------------------------------------------------------------------|---------|------------|------------------------|
| Idlewood Inline Storage                                                             | IOAP    | 28984      | S_CC_CC_70158_M_09A_C  |
| Idlewood Inline Storage                                                             | IOAP    | 28998      | S_CC_CC_70158_M_09A_C  |
| Sutherland Interceptor                                                              | IOAP    | 16649      | S_SD_MF_NB05_M_01_A    |
| Goose Creek PS Improvements & Wet Weather Storage 1 - Devondale Wet Weather Storage | IOAP    | MSD0040-PS | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 1 - Devondale Wet Weather Storage | IOAP    | 117721     | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 62420      | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 91629      | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 46891      | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | MSD1024-PS | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 62418      | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 43472      | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 91630      | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 105936     | S_MI_MF_NB04_M_03_B    |
| Goose Creek PS Improvements & Wet Weather Storage 2 - PS and FM Upgrades            | IOAP    | 21628-W    | S_MI_MF_NB04_M_03_B    |
| Government Center PS Elimination                                                    | IOAP    | 94541      | S_PO_WC_PC06_M_01_C    |
| Government Center PS Elimination                                                    | IOAP    | MSD0180-PS | S_PO_WC_PC06_M_01_C    |
| Government Center PS Elimination                                                    | IOAP    | 94542      | S_PO_WC_PC06_M_01_C    |
| Kavanaugh Rd. PS Improvements                                                       | IOAP    | MSD1085-PS | S_HC_HC_MSD1085_S_03_A |
| Little Cedar Creek Interceptor Improvements                                         | IOAP    | 67997      | S_CC_CC_67997_M_01_C   |
| Little Cedar Creek Interceptor Improvements                                         | IOAP    | 89197      | S_CC_CC_67997_M_01_C   |
| Little Cedar Creek Interceptor Improvements                                         | IOAP    | 89196      | S_CC_CC_67997_M_01_C   |
| Little Cedar Creek Interceptor Improvements                                         | IOAP    | 86423      | S_CC_CC_67997_M_01_C   |
| Little Cedar Creek Interceptor Improvements                                         | IOAP    | 89195      | S_CC_CC_67997_M_01_C   |
| Little Cedar Creek Interceptor Improvements                                         | IOAP    | 86424      | S_CC_CC_67997_M_01_C   |
| Eden Care PS SSO Investigation                                                      | IOAP    | MSD1105-PS | S_FF_FF_NB02_S_13_C    |
| Leland Road SSO Investigation                                                       | IOAP    | 96020      | S_OR_MF_NB02_S_13_C    |

Appendix F – CSO108 Semi-Annual Report #16







700 West Liberty Street | Louisville, KY 40203-1911  
Phone: 502.540.6000 | LouisvilleMSD.org

June 30, 2016

Joyce Bender  
Nature Preserves and Natural Areas Branch Manager  
Kentucky State Nature Preserve Commission  
801 Schenkel Lane  
Frankfort, KY 40601

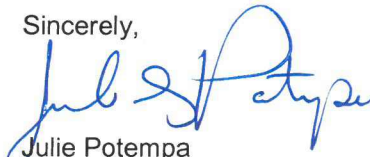
Subject: CSO 108 Semi-Annual Report #16

Dear Ms. Bender

As required in Paragraph #10 of the document titled "Memorandum of Understanding by and between the Kentucky State Nature Preserve Commission and the Louisville and Jefferson County Metropolitan Sewer District", MSD submits to you the MOU Semi-Annual Report #16. This report summarizes activities at the CSO 108 CDS Site during the reporting period of January 1, 2016 to June 30, 2016.

Should you have any questions or comments, please feel free to contact me via email at [julie.potempa@louisvillemsd.org](mailto:julie.potempa@louisvillemsd.org) or phone at (502) 540-6112.

Sincerely,



Julie Potempa  
Project Administrator

## **INTRODUCTION**

The Louisville and Jefferson County Metropolitan Sewer District (MSD) has entered into a Memorandum of Understanding (MOU) with the Kentucky State Nature Preserve Commission (Commission). The MOU was signed by MSD on July 30, 2008, and by the Commission on September 17, 2008. This MOU is effective for the period starting September 1, 2008, and ending on September 1, 2018.

This is the sixteenth Semi-Annual Report submitted in accordance with Paragraph 10 of the MOU. This report covers the time period of January 1, 2016 to June 30, 2016.

This Semi-Annual Report will address only those requirements considered ongoing. The initial Semi-Annual Report, MOU Semi-Annual Report #1, was comprehensive and included a response to each requirement addressed within the MOU. Please refer to the initial Semi-Annual Report should you need additional information not found within this document.

Work and activities undertaken by MSD and relating to the MOU are outlined in the paragraphs below:

### **Paragraph #10 of the MOU:**

MSD shall be diligent of this ten year period in more timely supplying the Commission with semi-annual reports on the efficacy of the CDS unit, water quality monitoring data, and any other such pertinent information. Said reports shall be provided to the Commission by June 30 and December 31 of each year.

- MSD Response: This document is the fifteenth semi-annual report to the Commission since the completion of the Project.
- Cleaning and Inspection Activities:

The CSO 108 CDS Unit is inspected weekly and cleaned on an as-needed basis. Between the dates of January 1, 2016, and June 30, 2016, MSD cleaned the CDS Unit bar racks four times. The information, shown in Table 1, is generated from work orders initiated whenever the CDS Unit is inspected and needs to be cleaned. Cleaning consists of either washing debris off of the bar racks or hauling the solids and floatables from the site. Both operations result in removing debris that would otherwise overflow into Beargrass Creek. When cleaning the bar racks, the debris is

reintroduced into the sewer system, and as a result, is difficult to accurately estimate the amount removed during the maintenance process. The Crystal Report often indicates the quantity removed as “unknown”.

**TABLE 1: CSO 108 CDS Unit Debris Removal**

| <u>ACTCO</u> | <u>UNITID</u> | <u>QTY</u>   | <u>COMMENTS</u>                                            | <u>COMPDTM</u> |
|--------------|---------------|--------------|------------------------------------------------------------|----------------|
| Debris       | CSO 108       | Unknown      | Cleaned medium debris from rack bars                       | 01/26/16       |
| Debris       | CSO 108       | Unknown      | No comments                                                | 02/01/16       |
| Debris       | CSO 108       | Unknown      | Cleaned medium debris off rack bar.                        | 02/29/16       |
| Debris       | CSO 108       | 1 Cubic Yard | Removed approximately 1 cubic yard of debris from CDS Unit | 06/24/16       |

- Maintenance Activities:

In addition to the weekly inspections, MSD has initiated a preventative maintenance program to insure that the CDS Unit and respective pumps are performing optimally. During these quarterly preventative maintenance activities MSD staff also cleans the CDS Unit and rack bars, washing the debris into the interceptor. The CDS Unit's pumps are removed from the facility twice yearly to more closely inspect and to perform any needed maintenance.

- Captured Flow

The CDS system was placed along the Trevillian Way Twin Trunk Sewer to capture solids and floatables from a 485 acre drainage area. The unit uses a vortex action created by the hydraulic energy of incoming flow to separate solids and floatable from the flow. The treated flow is then discharged through the outlet pipe to Beargrass Creek and the debris that is captured is pumped to the Morris Forman Water Quality Treatment Center (MFWQTC).



**MOU Semi-Annual Report #16  
January 1, 2016 – June 30, 2016**

In an effort to estimate the volume of debris captured by the CDS Unit and kept within the sewer system, a study of the efficiency of the unit was performed in the early 2002. The results of the study indicated that the concentration of solids kept within the sewer system was approximately 1ml/l. Using pump run times and knowing the efficiency of the pumps, MSD was able to determine a volume of solids captured by the CDS technology. MSD estimates that the CDS Unit captured 54.93 tons of solids during the reporting period. Attachment "B" lists the pump run times and calculations MSD used to determine the amount of debris captured by the CDS Unit and sent to the MFWQTC for treatment.



**ATTACHMENT “A”**

**PHOTOS**

**OF AREA ADJACENT TO**

**CSO 108 AND THE CDS UNIT**

**(dated June 23, 2016)**





**Figures 1 and 2 – Entrance to CDS Unit**

June 29, 2016





**Figures 3 and 4 – Area Adjacent to CDS Unit**

June 29, 2016





**Figure 5 – Area Adjacent to Creek**





## **ATTACHMENT “B”**

### **CDS UNIT PUMP RUN TIMES**

|           | Pump 1<br>Runtime | Pump 1<br>Starts | Pump 2<br>Runtime | Pump 2<br>Starts | Pump 3<br>Runtime | Daily Volume | Daily Volume | Daily Volume | Daily Volume<br>Debris |
|-----------|-------------------|------------------|-------------------|------------------|-------------------|--------------|--------------|--------------|------------------------|
| Date      | Hrs               | Hrs              | Hrs               | Hrs              | Hrs               | MG           | CF           | Gal          | Gal                    |
| 28-Dec-15 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.100128308  | 13,385.25    | 100,128.31   | 100.13                 |
| 29-Dec-15 | 11.37             | 1.00             | 8.38              | 63.00            | 23.98             | 0.395656615  | 52,891.77    | 395,656.62   | 395.66                 |
| 30-Dec-15 | 0.12              | 5.00             | 1.87              | 1.00             | 24.00             | 0.17816776   | 23,817.64    | 178,167.76   | 178.17                 |
| 31-Dec-15 | 0.00              | 0.00             | 0.00              | 0.00             | 16.70             | 0.084169202  | 11,251.82    | 84,169.20    | 84.17                  |
| 01-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.58              | 0.055825159  | 7,462.76     | 55,825.16    | 55.83                  |
| 02-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.18              | 0.044276487  | 5,918.93     | 44,276.49    | 44.28                  |
| 03-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.15              | 0.041887432  | 5,599.55     | 41,887.43    | 41.89                  |
| 04-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.041565884  | 5,556.57     | 41,565.88    | 41.57                  |
| 05-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.041630082  | 5,565.15     | 41,630.08    | 41.63                  |
| 06-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.037635528  | 5,031.15     | 37,635.53    | 37.64                  |
| 07-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.041421685  | 5,537.29     | 41,421.69    | 41.42                  |
| 08-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.037121084  | 4,962.38     | 37,121.08    | 37.12                  |
| 09-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.036268357  | 4,848.39     | 36,268.36    | 36.27                  |
| 10-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.03625562   | 4,846.69     | 36,255.62    | 36.26                  |
| 11-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.042384107  | 5,665.95     | 42,384.11    | 42.38                  |
| 12-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.038487304  | 5,145.02     | 38,487.30    | 38.49                  |
| 13-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037603978  | 5,026.94     | 37,603.98    | 37.60                  |
| 14-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.038322661  | 5,123.01     | 38,322.66    |                        |
| 15-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.04181106   | 5,589.34     | 41,811.06    | 41.81                  |
| 16-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.036292888  | 4,851.67     | 36,292.89    | 36.29                  |
| 17-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.03719113   | 4,971.75     | 37,191.13    | 37.19                  |
| 18-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037727047  | 5,043.39     | 37,727.05    | 37.73                  |
| 19-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.03917421   | 5,236.85     | 39,174.21    | 39.17                  |
| 20-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.043238878  | 5,780.22     | 43,238.88    | 43.24                  |
| 21-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.038077295  | 5,090.21     | 38,077.29    | 38.08                  |
| 22-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037928272  | 5,070.29     | 37,928.27    | 37.93                  |
| 23-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037975818  | 5,076.65     | 37,975.82    | 37.98                  |
| 24-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037919838  | 5,069.16     | 37,919.84    | 37.92                  |
| 25-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.038051192  | 5,086.72     | 38,051.19    | 38.05                  |
| 26-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.04159506   | 5,560.47     | 41,595.06    | 41.60                  |
| 27-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.036606263  | 4,893.56     | 36,606.26    | 36.61                  |
| 28-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037241306  | 4,978.46     | 37,241.31    | 37.24                  |
| 29-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.041605644  | 5,561.88     | 41,605.64    | 41.61                  |
| 30-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.036720127  | 4,908.78     | 36,720.13    | 36.72                  |
| 31-Jan-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.036849394  | 4,926.06     | 36,849.39    | 36.85                  |
| 01-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.03625562   | 4,846.69     | 36,255.62    | 36.26                  |
| 02-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.040625706  | 5,430.89     | 40,625.71    | 40.63                  |
| 03-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.120417744  | 16,097.56    | 120,417.74   | 120.42                 |
| 04-Feb-16 | 0.77              | 2.00             | 0.62              | 9.00             | 1.37              | 0.14043881   | 18,774.00    | 140,438.81   | 140.44                 |
| 05-Feb-16 | 2.32              | 0.00             | 0.25              | 6.00             | 23.98             | 0.052769639  | 7,054.30     | 52,769.64    | 52.77                  |
| 06-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.041844666  | 5,593.84     | 41,844.67    | 41.84                  |
| 07-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.073828012  | 9,869.40     | 73,828.01    | 73.83                  |
| 08-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.159023747  | 21,258.45    | 159,023.75   | 159.02                 |
| 09-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.066413067  | 8,878.17     | 66,413.07    | 66.41                  |
| 10-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 23.98             | 0.049917564  | 6,673.03     | 49,917.56    | 49.92                  |
| 11-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.039846983  | 5,326.78     | 39,846.98    | 39.85                  |
| 12-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.046910804  | 6,271.08     | 46,910.80    | 46.91                  |
| 13-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 7.12              | 0.037628517  | 5,030.22     | 37,628.52    | 37.63                  |
| 14-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.04278107   | 5,719.02     | 42,781.07    | 42.78                  |
| 15-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.038498167  | 5,146.47     | 38,498.17    | 38.50                  |
| 16-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.037251886  | 4,979.87     | 37,251.89    | 37.25                  |
| 17-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.036841545  | 4,925.01     | 36,841.55    | 36.84                  |
| 18-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.041688465  | 5,572.96     | 41,688.46    | 41.69                  |
| 19-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.037024513  | 4,949.47     | 37,024.51    | 37.02                  |
| 20-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.036307242  | 4,853.59     | 36,307.24    | 36.31                  |
| 21-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.036257699  | 4,846.97     | 36,257.70    | 36.26                  |
| 22-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.071865693  | 9,607.08     | 71,865.69    | 71.87                  |
| 23-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.38              | 0.049824465  | 6,660.58     | 49,824.47    | 49.82                  |
| 24-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.17              | 0.047619663  | 6,365.84     | 47,619.66    | 47.62                  |



|           | Pump 1<br>Runtime | Pump 1<br>Starts | Pump 2<br>Runtime | Pump 2<br>Starts | Pump 3<br>Runtime | Daily Volume | Daily Volume | Daily Volume | Daily Volume<br>Debris |
|-----------|-------------------|------------------|-------------------|------------------|-------------------|--------------|--------------|--------------|------------------------|
| Date      | Hrs               | Hrs              | Hrs               | Hrs              | Hrs               | MG           | CF           | Gal          | Gal                    |
| 25-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.10              | 0.886152744  | 118,461.79   | 886,152.74   | 886.15                 |
| 26-Feb-16 | 6.13              | 2.00             | 2.88              | 79.00            | 10.07             | 0.071172409  | 9,514.40     | 71,172.41    | 71.17                  |
| 27-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.35              | 0.065214016  | 8,717.87     | 65,214.02    | 65.21                  |
| 28-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.30              | 0.053494021  | 7,151.13     | 53,494.02    | 53.49                  |
| 29-Feb-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.17              | 0.049395859  | 6,603.29     | 49,395.86    | 49.40                  |
| 01-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.13              | 0.048742052  | 6,515.89     | 48,742.05    | 48.74                  |
| 02-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.13              | 0.04964504   | 6,636.60     | 49,645.04    | 49.65                  |
| 03-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.13              | 0.049992658  | 6,683.07     | 49,992.66    | 49.99                  |
| 04-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.12              | 0.044740766  | 5,980.99     | 44,740.77    | 44.74                  |
| 05-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.10              | 0.040848102  | 5,460.62     | 40,848.10    | 40.85                  |
| 06-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.041124724  | 5,497.59     | 41,124.72    | 41.12                  |
| 07-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.040718164  | 5,443.24     | 40,718.16    | 40.72                  |
| 08-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.036297712  | 4,852.31     | 36,297.71    | 36.30                  |
| 09-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.036255562  | 4,846.69     | 36,255.62    | 36.26                  |
| 10-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.040495642  | 5,413.50     | 40,495.64    | 40.50                  |
| 11-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.049545184  | 6,623.25     | 49,545.18    | 49.55                  |
| 12-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.13              | 0.056632705  | 7,570.72     | 56,632.71    | 56.63                  |
| 13-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.22              | 0.073253006  | 9,792.54     | 73,253.01    | 73.25                  |
| 14-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.38              | 0.093687944  | 12,524.30    | 93,687.94    | 93.69                  |
| 15-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.58              | 0.052145384  | 6,970.85     | 52,145.38    | 52.15                  |
| 16-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.22              | 0.041151676  | 5,501.20     | 41,151.68    | 41.15                  |
| 17-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.08              | 0.042900022  | 5,734.92     | 42,900.02    | 42.90                  |
| 18-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.08              | 0.038415454  | 5,135.42     | 38,415.45    | 38.42                  |
| 19-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.034772858  | 4,648.47     | 34,772.86    | 34.77                  |
| 20-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.039138809  | 5,232.12     | 39,138.81    | 39.14                  |
| 21-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.034807205  | 4,653.06     | 34,807.21    | 34.81                  |
| 22-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.0350146    | 4,680.79     | 35,014.60    | 35.01                  |
| 23-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034978583  | 4,675.97     | 34,978.58    | 34.98                  |
| 24-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.038378924  | 5,130.53     | 38,378.92    | 38.38                  |
| 25-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.09944915   | 13,294.46    | 99,449.15    | 99.45                  |
| 26-Mar-16 | 0.62              | 1.00             | 0.30              | 6.00             | 0.88              | 0.039373107  | 5,263.44     | 39,373.11    | 39.37                  |
| 27-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.035046384  | 4,685.04     | 35,046.38    | 35.05                  |
| 28-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.059924111  | 8,010.72     | 59,924.11    | 59.92                  |
| 29-Mar-16 | 0.52              | 5.00             | 0.87              | 1.00             | 3.23              | 0.105819419  | 14,146.05    | 105,819.42   | 105.82                 |
| 30-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 24.00             | 0.056466442  | 7,548.49     | 56,466.44    | 56.47                  |
| 31-Mar-16 | 0.00              | 0.00             | 0.00              | 0.00             | 8.70              | 0.044728097  | 5,979.30     | 44,728.10    | 44.73                  |
| 01-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.27              | 0.088298298  | 11,803.80    | 88,298.30    | 88.30                  |
| 02-Apr-16 | 0.22              | 1.00             | 0.00              | 0.00             | 0.58              | 0.057497099  | 7,686.27     | 57,497.10    | 57.50                  |
| 03-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.25              | 0.043270428  | 5,784.43     | 43,270.43    | 43.27                  |
| 04-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.10              | 0.039538711  | 5,285.57     | 39,538.71    | 39.54                  |
| 05-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.039050523  | 5,220.31     | 39,050.52    | 39.05                  |
| 06-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.035031077  | 4,682.99     | 35,031.08    | 35.03                  |
| 07-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.03921435   | 5,242.21     | 39,214.35    | 39.21                  |
| 08-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.034728859  | 4,642.59     | 34,728.86    | 34.73                  |
| 09-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034975518  | 4,675.56     | 34,975.52    | 34.98                  |
| 10-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.039549768  | 5,287.05     | 39,549.77    | 39.55                  |
| 11-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.034966957  | 4,674.42     | 34,966.96    | 34.97                  |
| 12-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.056228377  | 7,516.67     | 56,228.38    | 56.23                  |
| 13-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.25              | 0.038011771  | 5,081.45     | 38,011.77    | 38.01                  |
| 14-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.039081741  | 5,224.49     | 39,081.74    | 39.08                  |
| 15-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.03              | 0.034732245  | 4,643.04     | 34,732.24    | 34.73                  |
| 16-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034728725  | 4,642.57     | 34,728.72    | 34.73                  |
| 17-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034676965  | 4,635.65     | 34,676.97    | 34.68                  |
| 18-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034676965  | 4,635.65     | 34,676.97    | 34.68                  |
| 19-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.039268266  | 5,249.42     | 39,268.27    | 39.27                  |
| 20-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.05              | 0.034728725  | 4,642.57     | 34,728.72    | 34.73                  |
| 21-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034754604  | 4,646.03     | 34,754.60    | 34.75                  |
| 22-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034728725  | 4,642.57     | 34,728.72    | 34.73                  |
| 23-Apr-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034728725  | 4,642.57     | 34,728.72    | 34.73                  |



|           | Pump 1 Runtime | Pump 1 Starts | Pump 2 Runtime | Pump 2 Starts | Pump 3 Runtime | Daily Volume | Daily Volume | Daily Volume | Daily Volume Debris |
|-----------|----------------|---------------|----------------|---------------|----------------|--------------|--------------|--------------|---------------------|
| Date      | Hrs            | Hrs           | Hrs            | Hrs           | Hrs            | MG           | CF           | Gal          | Gal                 |
| 24-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.039215293  | 5,242.34     | 39,215.29    | 39.22               |
| 25-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.03           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 26-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034728725  | 4,642.57     | 34,728.72    | 34.73               |
| 27-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034728725  | 4,642.57     | 34,728.72    | 34.73               |
| 28-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.069449238  | 9,284.04     | 69,449.24    | 69.45               |
| 29-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.45           | 0.039080199  | 5,224.28     | 39,080.20    | 39.08               |
| 30-Apr-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034728725  | 4,642.57     | 34,728.72    | 34.73               |
| 01-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 02-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.103533253  | 13,840.43    | 103,533.25   | 103.53              |
| 03-May-16 | 0.38           | 5.00          | 0.68           | 1.00          | 1.18           | 0.039268084  | 5,249.40     | 39,268.08    | 39.27               |
| 04-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.03           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 05-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.039147381  | 5,233.26     | 39,147.38    | 39.15               |
| 06-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034703828  | 4,639.24     | 34,703.83    | 34.70               |
| 07-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 08-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.038847521  | 5,193.18     | 38,847.52    | 38.85               |
| 09-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 10-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.038890835  | 5,198.97     | 38,890.83    | 38.89               |
| 11-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.03           | 0.1382851    | 18,486.09    | 138,285.10   | 138.29              |
| 12-May-16 | 0.28           | 3.00          | 0.33           | 1.00          | 1.18           | 0.043598596  | 5,828.30     | 43,598.60    | 43.60               |
| 13-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.08           | 0.043462433  | 5,810.10     | 43,462.43    | 43.46               |
| 14-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.08           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 15-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.039368801  | 5,262.86     | 39,368.80    | 39.37               |
| 16-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.03473435   | 4,643.32     | 34,734.35    | 34.73               |
| 17-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.039239801  | 5,245.62     | 39,239.80    | 39.24               |
| 18-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.03           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 19-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 20-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 21-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.151839495  | 20,298.06    | 151,839.49   | 151.84              |
| 22-May-16 | 0.52           | 1.00          | 0.32           | 1.00          | 1.32           | 0.042570885  | 5,690.92     | 42,570.89    | 42.57               |
| 23-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.08           | 0.034728725  | 4,642.57     | 34,728.72    | 34.73               |
| 24-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.03           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 25-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034702845  | 4,639.11     | 34,702.84    | 34.70               |
| 26-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.039498519  | 5,280.20     | 39,498.52    | 39.50               |
| 27-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.07           | 0.033223592  | 4,441.36     | 33,223.59    | 33.22               |
| 28-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 29-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.028899595  | 3,863.33     | 28,899.60    | 28.90               |
| 30-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 31-May-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 01-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034676965  | 4,635.65     | 34,676.97    | 34.68               |
| 02-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034754604  | 4,646.03     | 34,754.60    | 34.75               |
| 03-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.047897015  | 6,402.92     | 47,897.01    | 47.90               |
| 04-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.18           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |
| 05-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034780484  | 4,649.49     | 34,780.48    | 34.78               |
| 06-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034780484  | 4,649.49     | 34,780.48    | 34.78               |
| 07-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |
| 08-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034832243  | 4,656.41     | 34,832.24    | 34.83               |
| 09-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.03958616   | 5,291.92     | 39,586.16    | 39.59               |
| 10-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034832243  | 4,656.41     | 34,832.24    | 34.83               |
| 11-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034832243  | 4,656.41     | 34,832.24    | 34.83               |
| 12-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034832243  | 4,656.41     | 34,832.24    | 34.83               |
| 13-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.118628189  | 15,858.33    | 118,628.19   | 118.63              |
| 14-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 1.22           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |
| 15-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.129715934  | 17,340.56    | 129,715.93   | 129.72              |
| 16-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.95           | 0.042845272  | 5,727.60     | 42,845.27    | 42.85               |
| 17-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.08           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |
| 18-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |
| 19-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |
| 20-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.00           | 0.036998682  | 4,946.02     | 36,998.68    | 37.00               |
| 21-Jun-16 | 0.00           | 0.00          | 0.00           | 0.00          | 0.05           | 0.034806363  | 4,652.95     | 34,806.36    | 34.81               |

|           | Pump 1<br>Runtime | Pump 1<br>Starts | Pump 2<br>Runtime | Pump 2<br>Starts | Pump 3<br>Runtime | Daily Volume | Daily Volume | Daily Volume | Daily Volume<br>Debris |
|-----------|-------------------|------------------|-------------------|------------------|-------------------|--------------|--------------|--------------|------------------------|
| Date      | Hrs               | Hrs              | Hrs               | Hrs              | Hrs               | MG           | CF           | Gal          | Gal                    |
| 22-Jun-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034806363  | 4,652.95     | 34,806.36    | 34.81                  |
| 23-Jun-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.060256179  | 8,055.11     | 60,256.18    | 60.26                  |
| 24-Jun-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.32              | 0.302042305  | 40,377.32    | 302,042.31   | 302.04                 |
| 25-Jun-16 | 0.20              | 3.00             | 0.25              | 1.00             | 3.15              | 0.063857511  | 8,536.54     | 63,857.51    | 63.86                  |
| 26-Jun-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.33              | 0.034806363  | 4,652.95     | 34,806.36    | 34.81                  |
| 27-Jun-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034806363  | 4,652.95     | 34,806.36    | 34.81                  |
| 28-Jun-16 | 0.00              | 0.00             | 0.00              | 0.00             | 0.00              | 0.034806363  | 4,652.95     | 34,806.36    | 34.81                  |
|           |                   |                  |                   |                  |                   |              |              |              | <b>10,129.23</b>       |

109850.71      Pounds  
54.93            Tons