



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

April 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 42
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 January 1, 2016 – March 31, 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



QUARTERLY REPORT #42

WET WEATHER
CONSENT DECREE

REPORTING PERIOD:
JANUARY 1, 2016 - MARCH 31, 2016

SUBMITTAL DATE
APRIL 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 WEST LIBERTY STREET
LOUISVILLE, KENTUCKY, 40203-1911



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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-second Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from January 1, 2016, through March 31, 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 (January 1, 2016, through March 31, 2016).

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 (January 1, 2016, through March 31, 2016).

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 (January 1, 2016, through March 31, 2016).

Section 5: Capacity Management, Operations and Maintenance Report - The CMOM program activities and programmatic activities for WQTCs generating capital projects will be reported in a Gantt chart for the reporting period (January 1, 2016, through March 31, 2016), and the schedule for activities planned for the next reporting period (April 1, 2016, through June 30, 2016) are included in this section for continued compliance with the Amended Consent Decree.

Section 6: Performance Overview - This section provides an accounting of unauthorized discharge occurrences from the separate sanitary sewer and combined sewer systems and the estimated volumes of each. 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. Performance information on bypasses at WQTCs, are included in this section.

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 an approval letter, dated February 22, 2007, for the NMC Compliance Report. The approved NMC Compliance document can be viewed on the MSD Project WIN website <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 288.30 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)

The effects of a rain event beginning December 27, 2015, continued to the first week of January with a large surge of effluent through the Southwestern Gate Structure during January 5, 2016, causing an overflow at CSO015. Conversely, January experienced only two other significant rain events. Morris Forman WQTC was able to maximize flow through the treatment plant preventing overflows in the nearby CSOs.

During this time, the West Headworks Channel #1 continued to be out of service. At the end of January, West Headworks Channel #2 was removed from service at the request of the construction contractor for the Morris Forman Headworks Replacement Project. This brought the capacity to 235 MGD. This facilitates the construction on the West Headworks and expedites the project.

For the month of February rain events concentrated at the beginning and end of the month. A rain event on February 2, 2016, caused surges of influent flows into Morris Forman WQTC causing overflows at CSO015, CSO016, CSO191, CSO210 and CSO211. Through February, construction continued for the Morris Forman Headworks Replacement Project. West Headworks Channels #1 and #2 remained out of service. This affected the hydraulic capacity of the West Headworks Channel #3, the remaining influent channel. In order to prevent bypasses from West Headworks Morris Forman staff modulated flows at the Influent Gate upstream of the West Headworks. A rain event occurring on February 21, 2016, caused overflows at CSO015, CSO016, CSO191 and CSO210 while sustaining flows between 170 MGD and 200 MGD at Morris Forman. This was followed by, a rain event on February 24, 2016, which caused overflows at CSO015, CSO016, CSO191 and CSO210 while sustaining flows between 170 MGD to 250 MGD at Morris Forman WQTC.

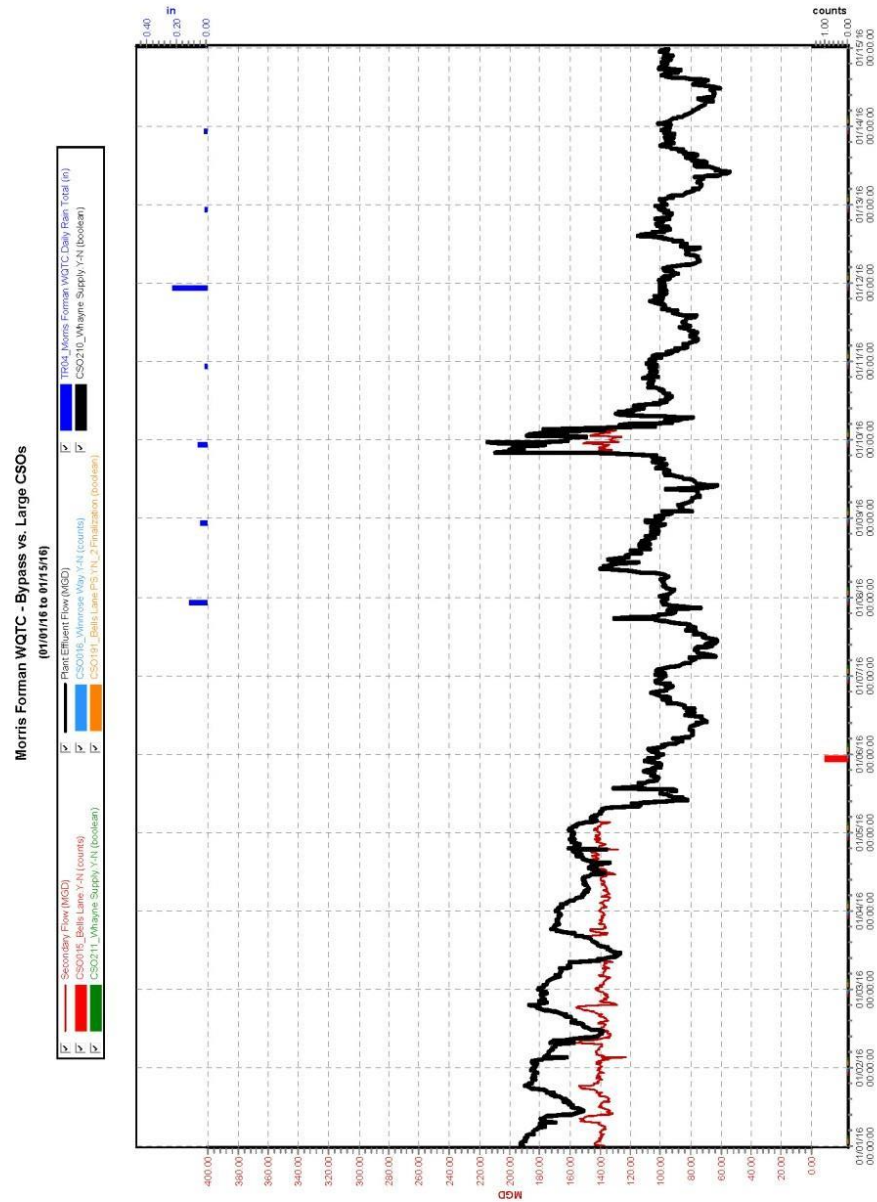
During rain events in March, plant effluent flows were sustained at 235 MGD before overflows occurred at CSO015, CSO016, CSO191, CSO210 and CSO211.

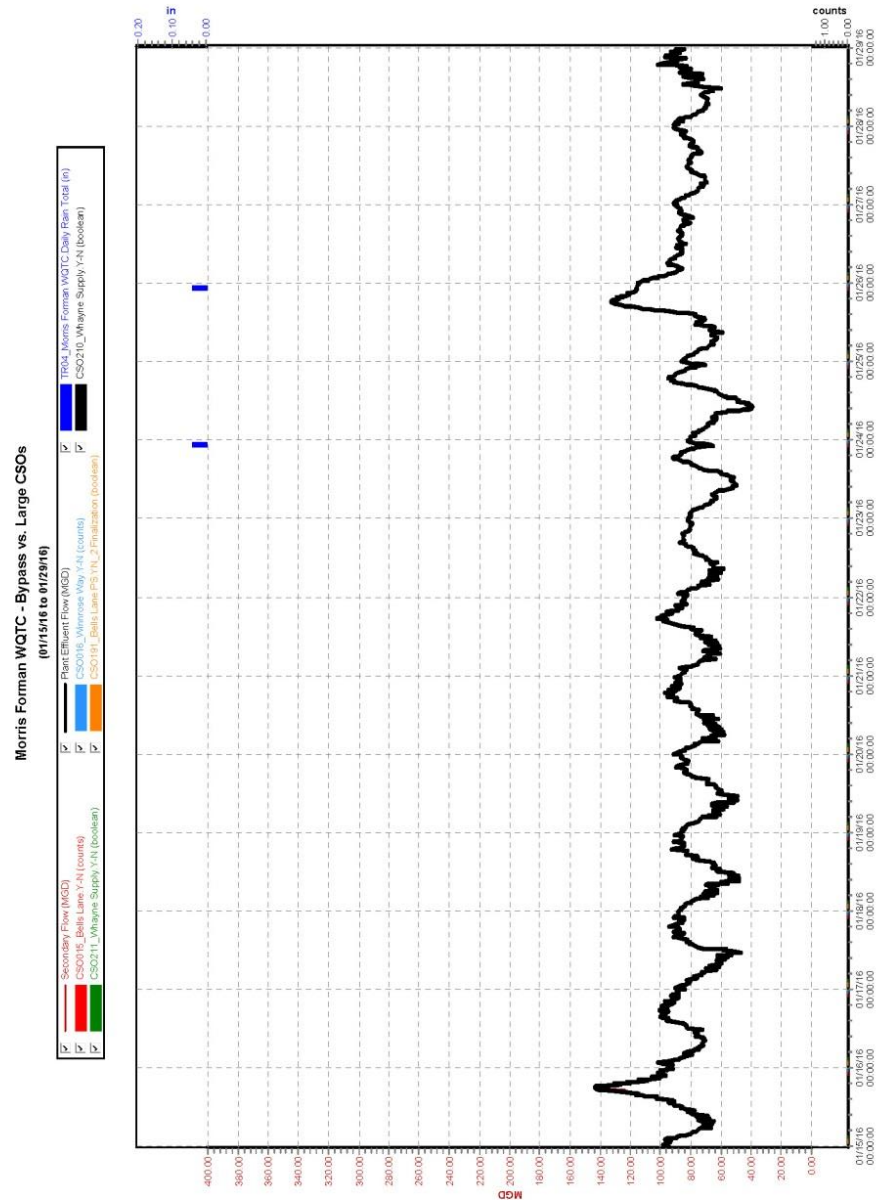
There were also outages in secondary treatment for this reporting period. Several secondary clarifiers were removed from service, maintained and placed back into service. Three clarifiers remain out of service at the end of March. High river levels at the end of the month prevented MFWQTC from draining the clarifiers to make necessary repairs. During rain events in this quarter, MFWQTC was able to maintain flows of 120 MGD to 140 MGD and above through the secondary treatment process.

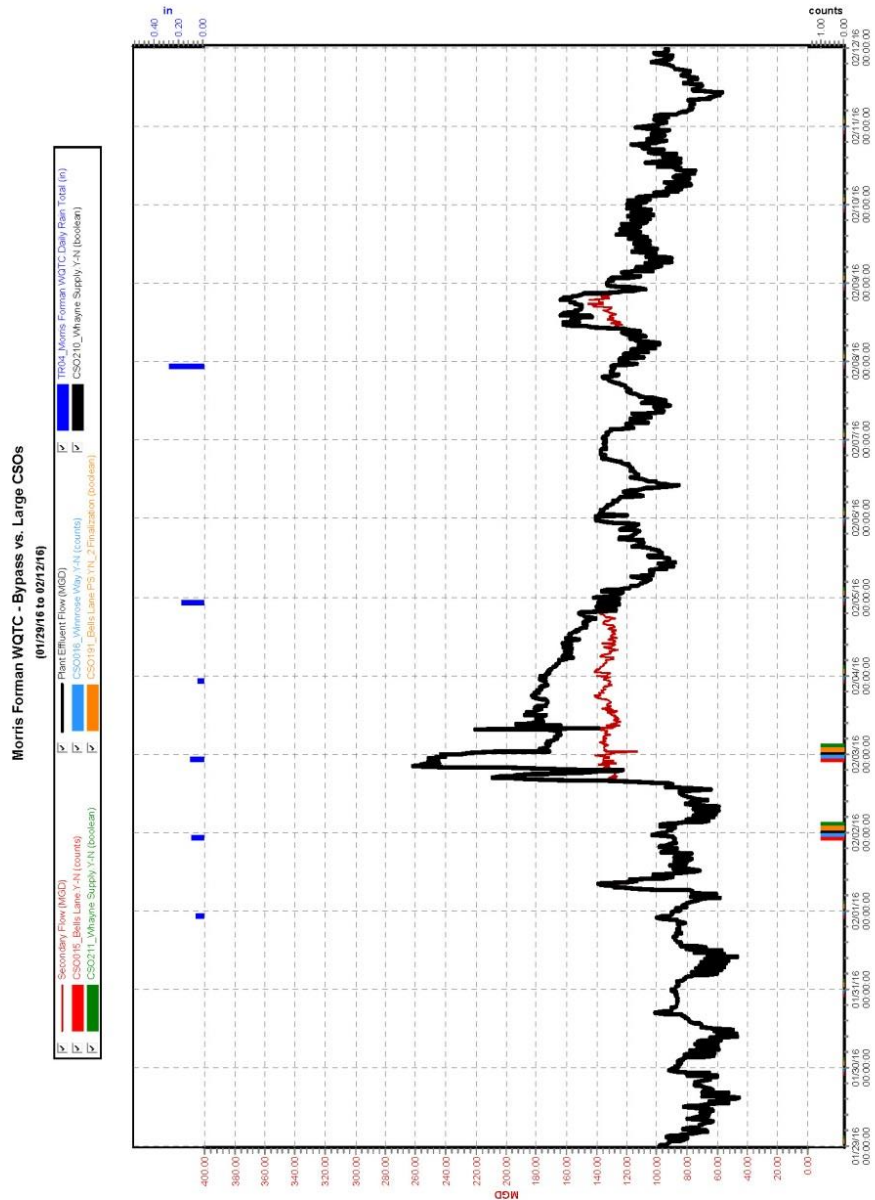
The Morris Forman Headworks Replacement project continues with West Headworks channels 1 and 2 out of service. The building has been cleaned and primer paint has been applied inside, work on the electrical room continues, the old screens for channels 1 and 2 have been removed and new bar screens installed but are not functional. Delivery of equipment continues. Work continues on the site preparation for the Final Effluent Pump Station (FEPS) Generator Project for the block wall installation.

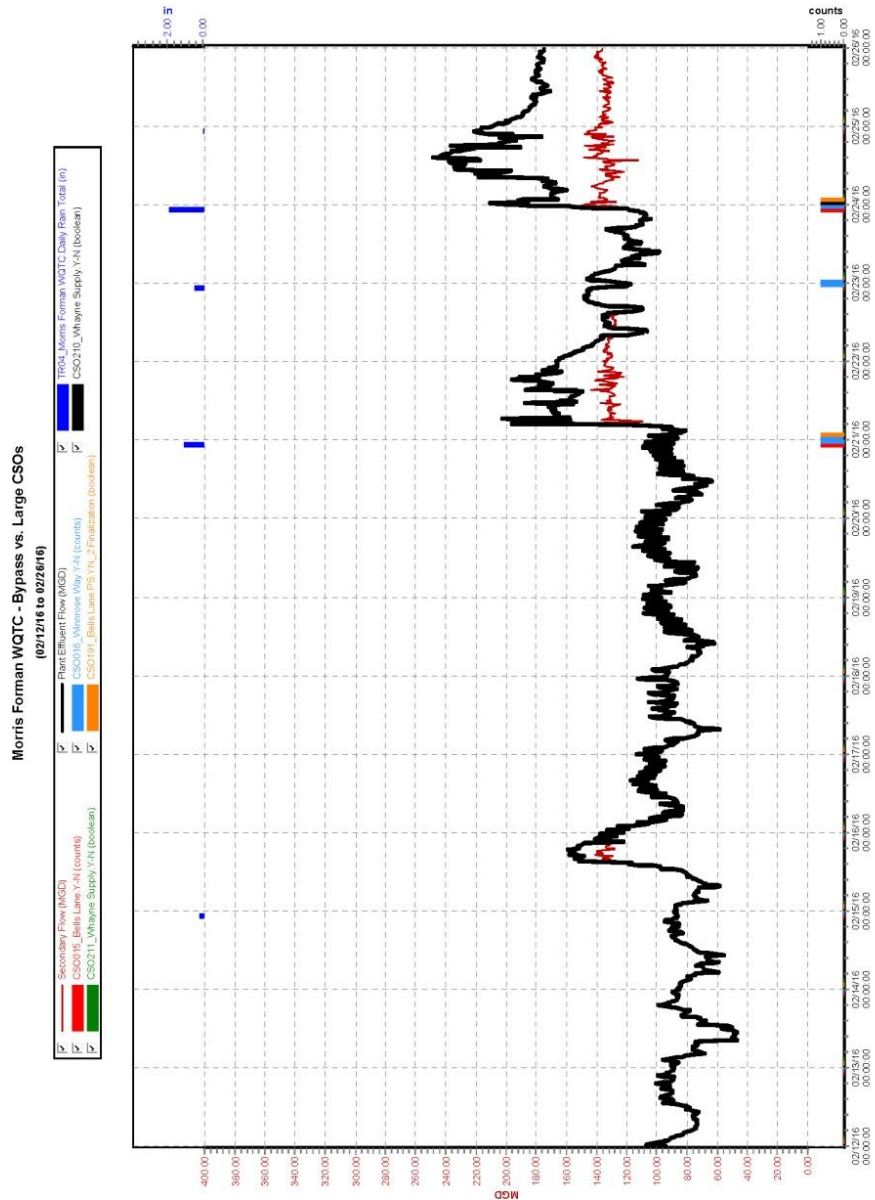
Even though these projects may not impact plant capacity upon completion, these projects support the efficacy of Morris Forman's performance during wet weather. Construction during the reporting period included the installation of the pump, slide gates, electrical and control panels for the Dewatering Cake Pump Project at Morris Forman. 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. The materials for this project have been received.

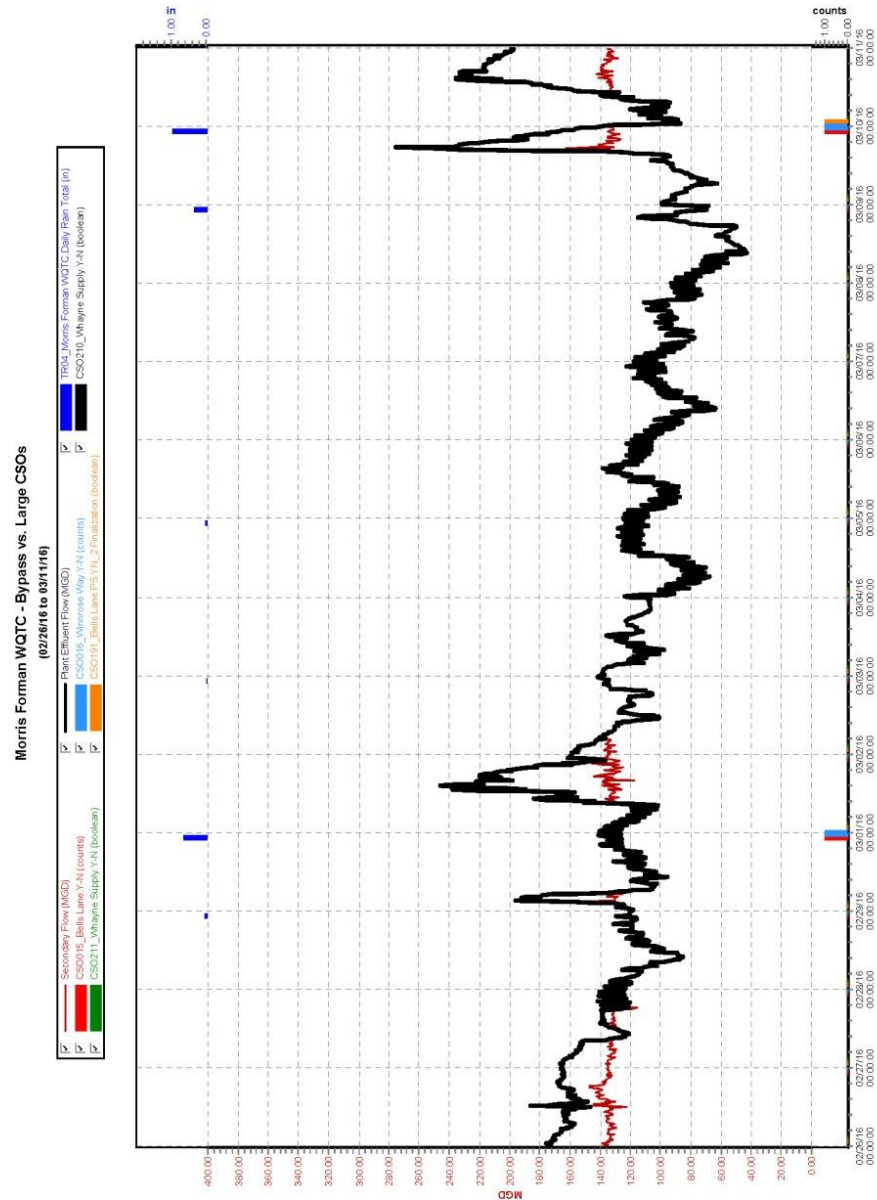
The following charts illustrate performance in maximizing flow to the Morris Forman WQTC. The top of the chart shows rainfall inches per day. The middle part of the chart shows Morris Forman WQTC effluent flow and secondary treatment flow. The difference between these is the secondary bypass flow. The 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 CSOs. 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.

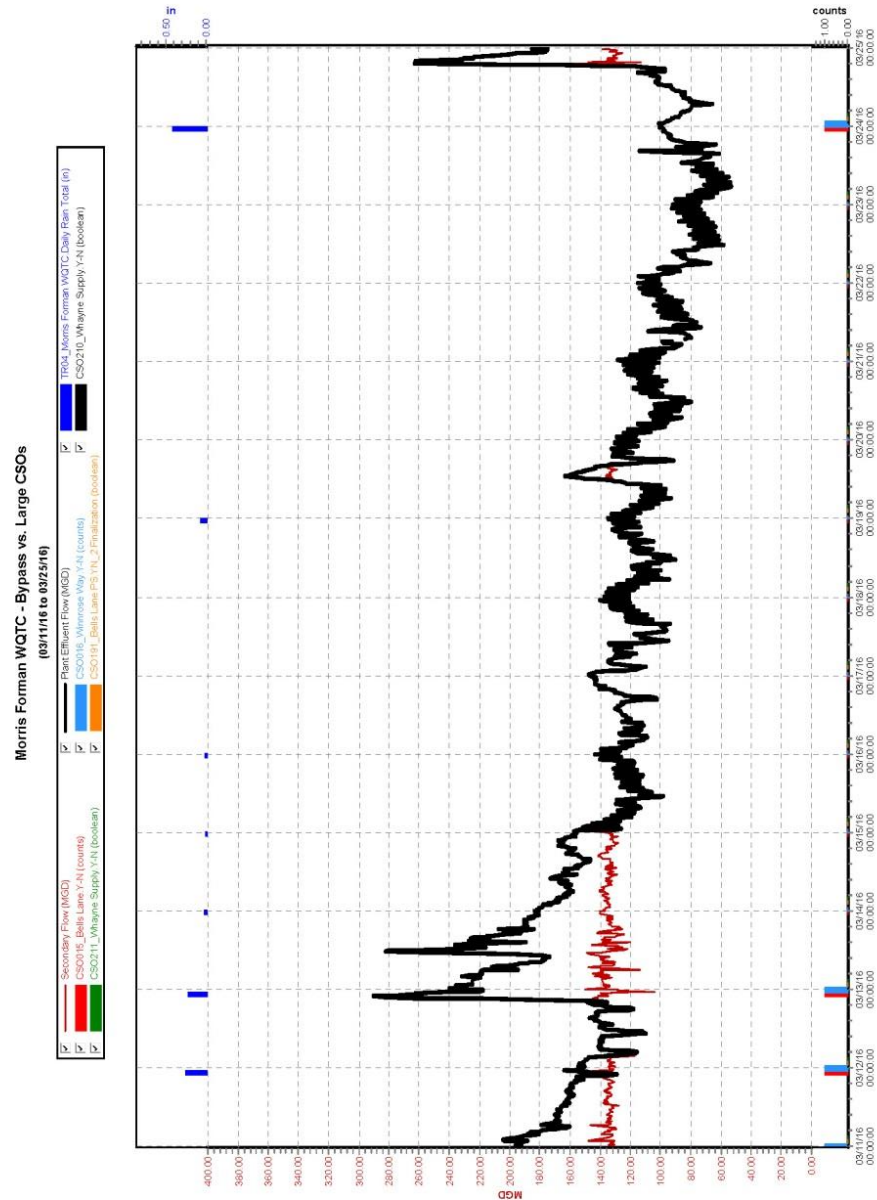


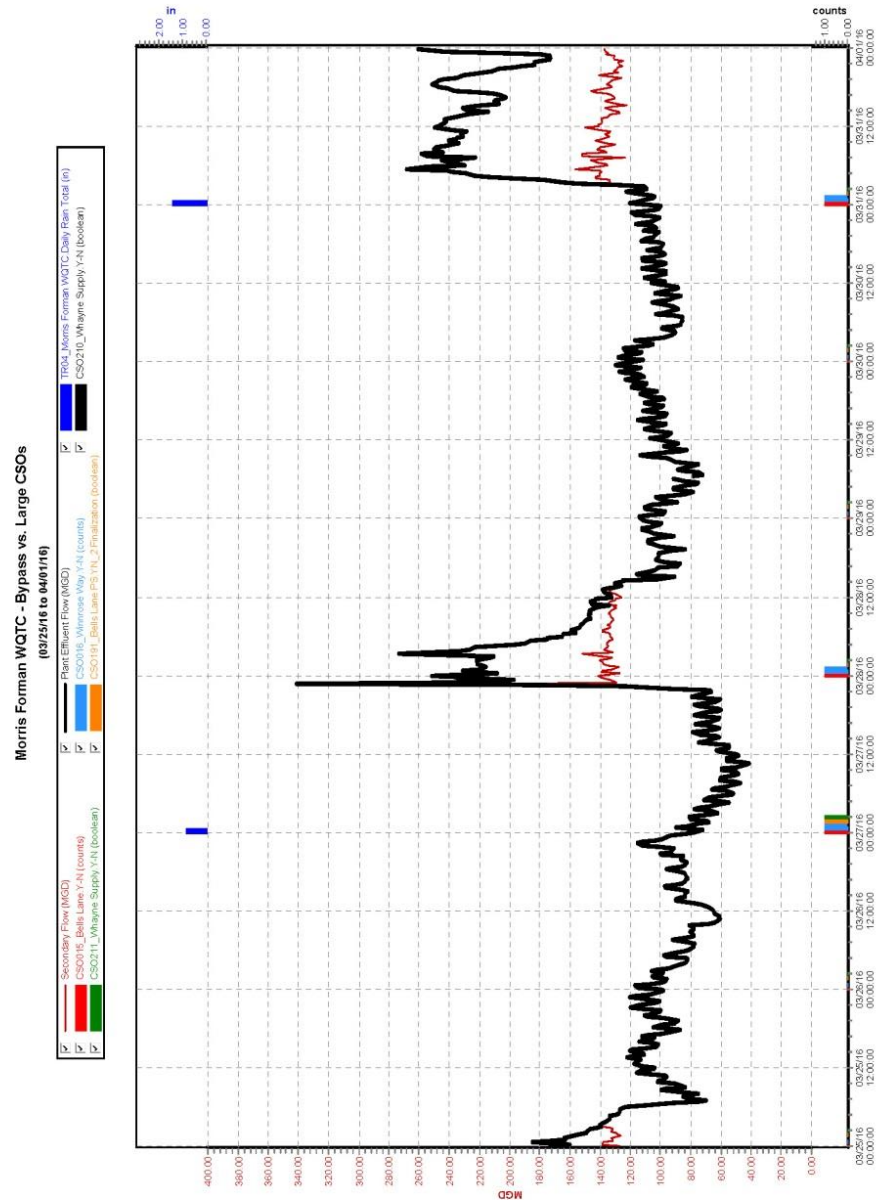












There were no violations at the Morris Forman WQTC for the month of January 2016. Meanwhile, for the month of February 2016, Morris Forman WQTC continued to experience reduced solids processing capabilities. Therefore, the monthly and Seven (7) Day Total Suspended Solids (TSS), Seven (7) Day Biological Oxygen Demand (BOD) and TSS percent removal effluent limits were not met. There were no violations at the Morris Forman WQTC for the month of March 2016.

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

- **RTC Integration** – Staff is working with the RTC consultant to review, revise and begin implementing the draft wet weather SOP 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 Fall 2016.
- **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. A revised approach to writing data utilizing an OPC Server to improve stability of the system and reduce HMI programming complexity will be evaluated. Performance of the upgraded SWOR2 facility continues to be evaluated. The set point for the facility has recently been

increased by two (2) feet. 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 expected to be made during the next period.

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

Period	
From :	01/01/2016
To :	03/31/2016

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										
2016-002	1/9/16 17:00	1/10/16 9:05	16:05:00	0.13	0.23	TR05	4.15	0.00	0.00	1.30	0.00	1.20	0.00	6.65	No	Small storm cell homogeneously distributed over the service area with dew atering of storage sites betw een cells. SWOR2, SWSG and Brady Lake were manually operated.
2016-010	2/2/16 13:15	2/4/16 18:40	53:25:00	1.19	2.25	TR12	18.75	8.50	4.80	3.50	0.70	4.20	2.70	43.15	No	Large storm cells heterogeneously distributed over the service area . SWSG was manually operated. SWOR2 site was put also in manual mode during this event due to a defective actuator component.
2016-012	2/8/16 3:20	2/8/16 23:05	19:45:00	0.10	0.15	TR04	4.85	0.00	0.00	0.50	0.00	0.95	0.00	6.30	No	Small storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated.
2016-014	2/21/16 2:25	2/22/16 8:00	29:35:00	0.71	1.27	TR12	14.65	2.00	2.25	3.50	1.10	4.85	0.60	28.95	No	Moderate storm cells hetrogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1).
2016-015	2/23/16 20:35	2/27/16 17:05	92:30:00	1.72	2.44	TR12	18.00	5.95	11.35	3.50	1.00	4.85	2.50	47.15	Yes	Large storm cells heterogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1).
2016-017	3/1/16 8:20	3/2/16 11:05	26:45:00	0.39	0.64	TR04	14.30	2.45	1.60	3.50	0.65	4.70	0.40	27.60	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).
2016-019	3/9/16 14:40	3/11/16 21:50	55:10:00	1.15	1.69	TR12	19.20	4.70	4.05	4.35	0.75	6.25	0.70	40.00	No	Back to back storm cells homogeneously distributed over the service area with dew atering of storage sites betw een cells. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1).
2016-020	3/12/16 10:50	3/14/16 11:15	48:25:00	0.79	1.30	TR12	14.60	4.10	4.10	6.20	0.60	8.25^	1.70	31.30	No	Large and back to back storm cells homogeneously distributed over the service area with dew atering of storage sites betw een cells. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1).
2016-024	3/24/16 17:45	3/25/16 9:50	16:05:00	0.38	0.57	TR12	15.35	4.85	2.30	3.50	0.50	4.6^	1.00	27.50	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).
2016-025	3/27/16 20:55	3/29/16 13:35	40:40:00	0.62	0.84	TR12	13.50	5.50	2.95	4.45	0.60	5.15^	2.70	29.70	No	Large storm cells homogeneously distributed over the service area. SWOR2 and SWSG were manually operated (storage occurred at SWOR2 nonetheless due to backflow from SWOR1).
TOTAL							137.35	38.05	33.40	34.30	5.90	27.00	12.30	288.30		

* 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 alw ays manually controlled by operator

^ Volume estimation made with water level sensor MDS-L7-LVL only (instead of an average between water level sensor MDS-L7-LVL and MDS-L8-LVL - MDS-L8-LVL was out of range)

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 the 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.msdpjprojectwin.org.

The current approved SORP document is dated February 21, 2012, and can be viewed on the MSD Project WIN website (www.msdpjprojectwin.org). Updates to the SORP document were submitted in August 2012, with confirmation of approvals on October 25, 2012. These updates are posted on the Project WIN website. 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 45 unauthorized discharges through route reconnaissance. Inspection routes were run during rain events as described in the following table:

ROUTE DESCRIPTION	02/03/2016	02/24/2016	03/10/2016	03/24/2016	03/27/2016	03/12/2016
ENGINEERING RAIN EVENT SSO INSPECTION ROUTE	X	X	X		X	X
RS JEFFERSONTOWN RAIN EVENT SSO INSPECTION ROUTE (JTOWN MANHOLES WITHIN 2000 LF OF HEADWORKS)	X	X	X		X	
RS JEFFERSONTOWN/FERN CREEK RAIN EVENT SSO INSPECTION ROUTE	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	

- Due to capacity-related issues during this reporting period, MSD Operations staff hauled 122,200 gallons of sewage. MSD also hauled due to other issues as indicated in the following table:

MSD Hauled Volumes In Gallons (January 1, 2016 - March 31, 2016)				
Problem	January	February	March	Total
LACK OF SYSTEM CAPACITY	0	100,500	21,700	122,200
STRUCTURAL FAILURE	0	15,000	3,000	18,000
Grand Total	0	115,500	224,700	140,200

2.3 Staff Training and Communication

- Reviewed and updated the training documentation for the 2016 first quarter SORP training that included Preparing, Monitoring and Response to Overflows.
- Began planning for the 2016 second quarter SORP training that will focus on Control Zones, Mitigation & Volume Estimation.
- Conducted the following SORP Quarterly training sessions which were attended by 229 employees.

Staff Training Participation January 1, 2016, through March 31, 2016.				
Date	Intended Audience	Location	Module	Attendees
3/8/2016	Morris Forman Staff	MFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	8
3/9/2016	Morris Forman Staff	MFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	31
3/9/2016	Morris Forman Staff	MFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	15
3/11/2016	Operations Staff	CMF B	Preparing Overflows: Monitoring, Staging & Mobilization	13
3/15/2016	Morris Forman Staff	MFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	7
3/16/2016	Morris Forman Staff	MFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	9
3/16/2016	Morris Forman Staff	MFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	5
3/17/2016	Engineering Staff	CMF A & B	Preparing Overflows: Monitoring, Staging & Mobilization	35
3/18/2016	Engineering Staff	CMF B	Preparing Overflows: Monitoring, Staging & Mobilization	11
3/23/2016	Operations Staff	CCWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	25

Staff Training Participation January 1, 2016, through March 31, 2016.				
Date	Intended Audience	Location	Module	Attendees
3/23/2016	Operations Staff	FFWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	16
3/25/2016	Operations Staff	CMF B	Preparing Overflows: Monitoring, Staging & Mobilization	0
3/30/2016	Operations Staff	DRGWQTC	Preparing Overflows: Monitoring, Staging & Mobilization	11
3/31/2016	Engineering Staff	CMF A & B	Preparing Overflows: Monitoring, Staging & Mobilization	43
Total				229

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 sewer system and the combined sewer system, 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, that was entered into public record 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.

3.1.1 Consent Decree Implementation Mid-Point Review

MSD solicited proposals for an independent, third-party evaluation of the Amended Consent Decree and associated IOAP program development, including progress and performance to date. As a result of the study, MSD was ranked "Best in Class" in plan development, adaptive management modifications, Consent Decree compliance record, public outreach and funding. MSD's program compared favorably to other large programs. However, the review also highlighted risks to the continued success of the program. These risks include vulnerabilities in program controls and schedule management, organizational structure and assets, future program costs and risk management. Therefore, MSD reorganized the Engineering Division to improve project delivery and efficiency, upgraded the project scheduling and cost management tools, implemented a multi-faceted approach to the reduction of bid costs and instituted a formal risk management approach following industry best practices.

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).

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 with 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. The facilities provided under the project have been brought on-line and operated in a manner that achieves the project's full intent – to eliminate local SSOs caused by plant capacity limitations and to provide secondary treatment to the wastewater received from the expanded wet weather service area resulting from the elimination of the SSOs at the Southeast Diversion, the Highgate Springs Pump Station, and the Hikes Point area.

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, that was entered into public record 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 involved the construction of the new Harrods Creek Interceptor, including 15,000 LF of 24"-42" sewer and 3400 LF of 6" force main to eliminate 5 Prospect WQTCs. The project also includes the construction of two new PSs and the elimination of Deep Creek PS by constructing 130 LF of 8" sewer to the new Harrods Creek Interceptor. Construction is complete. Flow was diverted to the Hite Creek WQTC on July 1, 2015, for the Timberlake WQTC Elimination, July 16, 2015, for the Hunting Creek South Elimination, August 31, 2015, for the Hunting Creek North WQTC Elimination, September 1, 2015, for the Shadow Wood WQTC Elimination and September 2, 2015, for the Ken Carla WQTC Elimination. 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 involved the construction of the new 7.2 MGD Harrods Creek PS and 24,000 LF of 24" force main to pump flow to the Hite Creek WQTC. All phases of this project are complete. A certification letter dated November 13, 2015, was submitted certifying the completion of the project.
- The Prospect #3: - ORFM System Improvements involves the upsizing of 8,300 LF of interceptor sewers upstream of Muddy Fork PS to 27 inches 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 is planned to be bid in May 2016.

3.3 CSO Long Term Control Plan

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

3.3.1 Interim CSO Long Term Control Plan

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

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, that was entered into public record 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 program 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

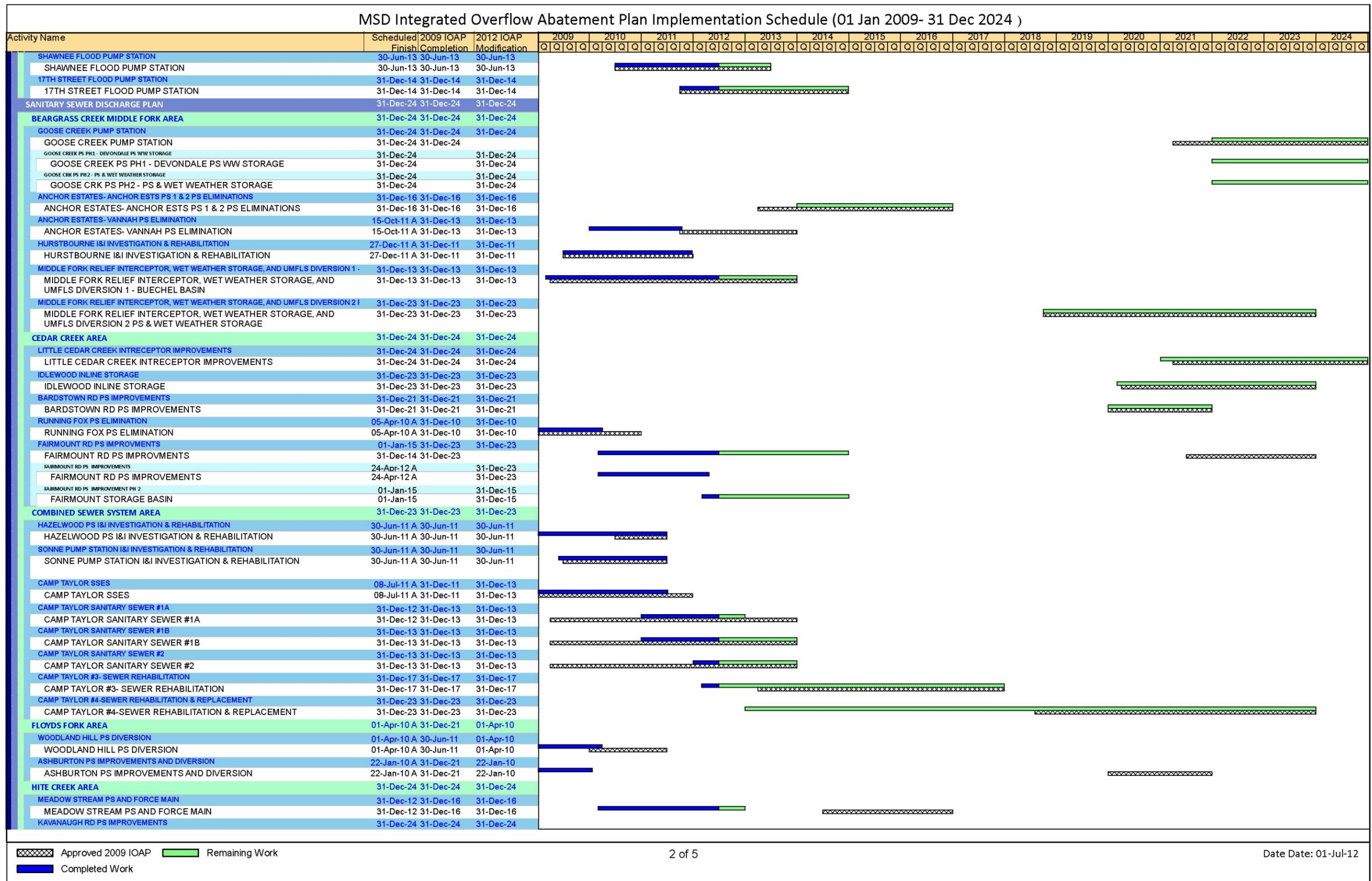
Memorandum of Understanding for reporting tree location, condition, and maintenance plan. Partners participating in the program are responsible for ongoing maintenance of the trees.

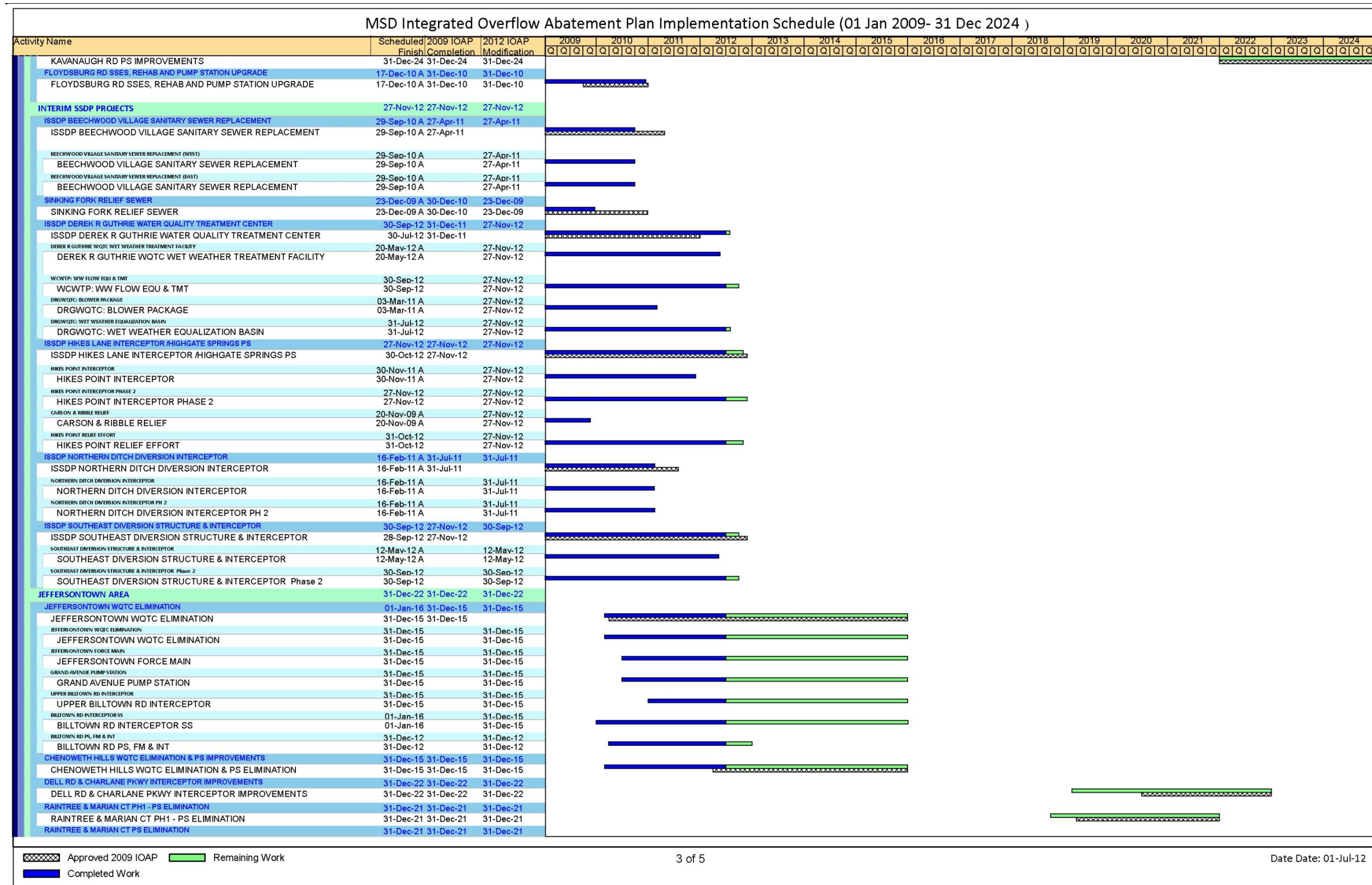
Updates to the Green Infrastructure Design Manual are underway. MSD facilitated an internal Stakeholder Group in January, and is iteratively incorporating those comments prior to publishing for public comment in the next reporting period. MSD is also working with other communities in the region to develop design standards for water quality and green BMPs. The next meeting on this effort is scheduled for the next review period.

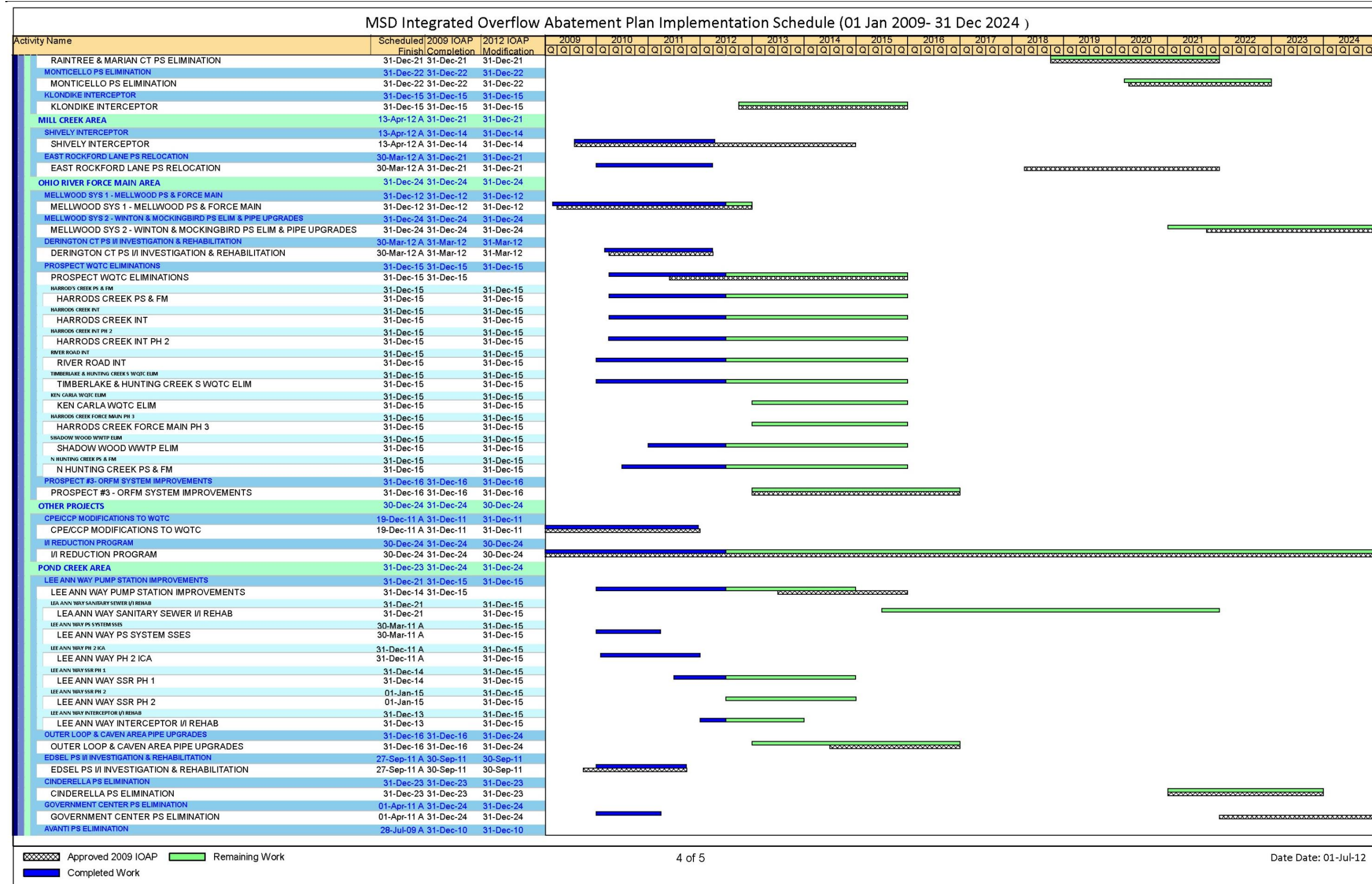
3.4 Activity Progress Chart

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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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April 30, 2016

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 the end of FY16 and will 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:

January

- 2 programs of the Conceptual Design Meeting for the Clifton Basin Conceptual Design Meeting.

February

- 3 programs of the Conceptual Design Meeting followed by 2 programs of the Advanced Design Meeting for the Clifton Heights Storage Basin Project;
- 1 program of the Orientation Meeting for the Lexington & Payne CSO Storage Basin Project;
- 8 programs of the Conceptual Design Meeting followed by 8 programs of the Advanced Design Meeting for the Southwestern Parkway Storage Basin Project; and
- 5 programs of the Orientation Meeting for the Story Avenue & Main Street Storage Basin Project.

March

- 3 programs of the Advanced Design Meeting for the Clifton Heights Storage Basin Project;
- 7 Programs of the Orientation Meeting for the Lexington & Payne CSO Storage Basin Project; and
- 3 programs of the Orientation Meeting followed by 13 programs of the Conceptual Design Meeting for the Story Avenue & Main Street Storage Basin 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, Advanced, 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:

- An Orientation Meeting for the Lexington & Payne Combined Sewer Overflow (CSO) Storage Basin project was held at Girl Scouts of Kentuckiana Headquarters was held on January 19, 2016. MSD staff provided information regarding MSD's Consent Decree, the role of underground storage basins and an overview of the project;
- An Orientation Meeting for the Portland CSO Storage Basin project was held at the Portland Neighborhood House on January 26, 2016. MSD staff provided information regarding MSD's Consent Decree, the role of underground storage basins and an overview of the project;
- A Pardon Our Dust Meeting for the Camp Taylor SSR 1A Project was held at the Camp Taylor Elementary School on February 9, 2016;
- A Conceptual Design Meeting for the Story & Main CSO Basin was held at the American Printing House for the Blind on February 10, 2016. MSD staff provided information about conceptual designs of the project and gathered input using the Structured Public Involvement Process;

- A Conceptual Design Meeting for the I-64 & Grinstead CSO Basin project was held at the Girl Scouts of Kentuckiana Headquarters on March 10, 2016. MSD staff provided information about conceptual designs of the project and gathered input using the Structured Public Involvement Process;
- MSD was invited to attend the Shawnee Neighborhood Association Meeting on February 11, 2016 and presented an update on the Southwestern Parkway Basin to attendees; and
- A Wet Weather Team Stakeholder Meeting was held on March 22, 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.

- The Lexington & Payne CSO Storage Basin Conceptual Design Meeting is scheduled for April 26, 2016;
- The Clifton Heights CSO Storage Basin Pardon Our Dust Meeting is tentatively scheduled for June 7, 2016;
- The Portland CSO Storage Basin Advanced Design Meeting is scheduled for June 14, 2016; and
- A Wet Weather Team Stakeholder Meeting is planned for June 28, 2016.

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.msdpowerwin.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 listed below during this reporting period. 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.msdpowerwin.org).

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

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 to be 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

During this reporting period, construction continued for the Hite Creek WQTC Hydraulic Improvements Project. The proposal for design services including support during construction for the Hite Creek WQTC Expansion Project was approved by the MSD Board and the consultant initiated final design.

During the next reporting period, the construction will continue on the Hite Creek WQTC Hydraulic Improvements Project. It is anticipated that all work will be completed by the end of the fiscal year. The design of the Hite Creek WQTC Expansion Project will continue.

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, a pre-construction meeting for the Floyds Fork Slope Repair Project was held. During the next reporting period, the construction for the project is scheduled to begin.

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 & 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.

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, & 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 began contract administration for the CCWQTC Influent Pump Station Gate Repair and UV Gate Replacement project. MSD began the design of the CCWQTC Influent Pump Station Variable Frequency Drive project and it reached the 60% design mark.

During the next reporting period, MSD will begin construction of the CCWQTC Influent Pump Station Gate Repair and UV Gate Replacement project. MSD will continue design of Cedar Creek Water Quality Treatment Center Influent Pump Station Variable Frequency Drive (VFD) project and begin the bidding process for that 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 began. 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**.

5.3.7 Starview Water Quality Treatment Center

During this reporting period, the construction for the Middletown Sanitary Recapture Phase II Section C was completed. Therefore, the flows at Starview WQTC were taken offline on

March 29, 2016, and were diverted to Floyds Fork WQTC. Demolition of the WQTC structures continues and is expected to be completed by the end of the fiscal year.

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

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. This gravity portion is approximately 75% of the total length of gravity line required to eliminate the McNeely Lake WQTC. A private developer has extended the remaining gravity sewer through a future residential development to within 600 feet of the McNeely Lake WQTC. The design of the interceptor that will serve to eliminate the McNeely Lake WQTC and the Brookbend Way PS is complete. Construction began to eliminate the Brook Bend pumping station and the McNeely Lake WQTC and demolition was completed at the Brookbend Way PS. During the next reporting period, construction will continue for the decommissioning of the McNeely Lake WQTC. MSD anticipates completing the elimination of the McNeely Lake WQTC by May 1, 2016, but is dependent on the legal processes required to obtain rights of access to the parcel surrounding the McNeely Lake WQTC.
- Bancroft WQTC – The scope of this project has been 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. During the last quarter construction of the basin was complete, the Bancroft WQTC was taken offline, and the new basin and pump station were put into service. During the next reporting period, MSD anticipates the completion of the site work, demolition of the Devondale Pump Station, and closeout of the project. The IOAP date for the Devondale Pump Station is December 2021 date.
- 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 continues and are expected to be completed by the end of the fiscal year.

5.4 CMOM Activity Schedule

CMOM capital project milestones for the period of January 1, 2016, through March 31, 2016, as well as a look-ahead for the period of April 1, 2016, through June 30, 2016, are provided in the schedule below.

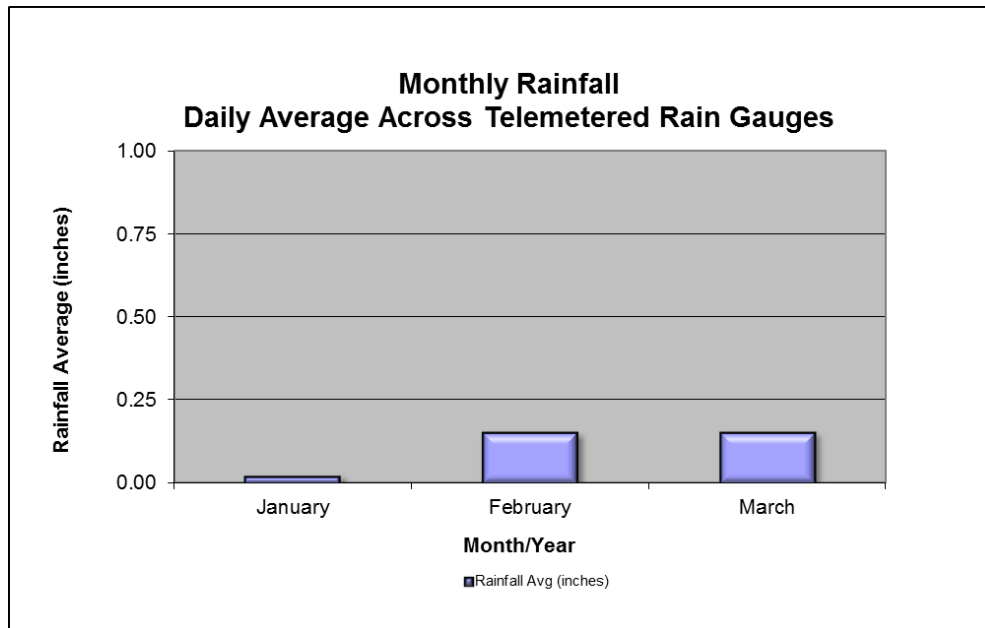
MSD CMOM FY16 Annual Commitments Schedule (01 January 2016 - 31 March 2016)				2016					
				Jan	Feb	Mar	Apr	May	Jun
Activity ID	Activity Name	Physical % Complete	Start						
CMOM FY ANNUAL REPORT COMMITMENTS FINAL									
M-E-9 Infrastructure Rehabilitation									
Prospect Phase I Sanitary Sewer Rehabilitation Project (H11311)									
A6470	Warranty	100%	23-Jan						
Middle Fork Beargrass Creek SSR Phase 1 (H11306)									
A5370	Design	0%	01-Jul						
FY15 Annual Sewer Rehabilitation (H09208)									
A5530	Construction	100%	01-Feb						
A5540	LAW Quad 3 - Whispering Hills Phase 2	100%	15-Feb						
A5650	LAW Quad 4	100%	15-Feb						
Melco Basin Tree Removal (F14171)									
A6290	Construction	100%	11-Aug						
A6860	Warranty	64%	19-Nov						
Pump Station Operations Programs									
Lea Ann Way West Quads 1 & 2 (H15125)									
A6510	Construction	100%	22-Jun						
A6830	Warranty	25%	31-Dec						
34th Street Hood Pump Station Gate 71 Replacement (F15008)									
A6550	Construction	100%	06-Aug						
A6840	Warranty	25%	15-Dec						
O-A-2 Emergency Operation Programs									
4th Street FPS Gate and Switch Gear Replacement Project (F12095)									
A5150	Design	100%	04-Jan						
A5160	Ad	100%	04-Feb						
A5170	Bid Open	100%	31-Mar						
A5180	Award	0%	23-May						
A5190	Construction	0%	30-Jun						
Melco Basin Crane (F14170)									
A6240	Construction	75%	17-Aug						
Starkey Flood Pump Station Rooftop A/C (F15006)									
A6560	Warranty	100%	18-Mar						
Bridgepointe Pump Station Access Road									
A6570	Warranty	80%	02-Jun						
Fairway View Pump Station Upgrade (H09177)									
A6350	Warranty	85%	06-May						
Riding Ridge Pump Station Improvements (H09175)									
A6370	Warranty	100%	15-Nov						
Rosa Terrace Pump Station Improvement									
A6460	Warranty	75%	10-Jul						
CPE/CPE Treatment Plant Activities									
West County Water Quality Treatment Center Gate 145 Electrical Service & Actuator (F14164)									
A6580	Ad	0%	09-May						
A6590	Bid Open	0%	13-Jun						
A6600	Award	0%	06-Jul						
A6610	Construction	0%	01-Aug						
SWOR 2 Improvements									
A6850	Warranty	70%	20-Jul						
MPWQTC Rubbertown FM Manhole Sampling (H14108)									

MSD CMOM FY16 Annual Commitments Schedule (01 January 2016 - 31 March 2016)					2016						Date: 26-Apr-16
Activity ID	Activity Name	Physical % Complete	Start		Jan	Feb	Mar	Apr	May	Jun	
A6630	AD	100%	21-Dec								
A6640	Bid Open	100%	22-Feb			◆					
A6650	Award	100%	22-Feb			◆					
A6660	Construction	50%	22-Mar								
Boggess Property Rehab (H12159)			13-Aug								
A6700	Construction	100%	13-Aug								
A6710	Warranty	50%	07-Oct								
17th Street FPS DWO Elimination (H09138)			18-Dec								
A6730	Warranty	100%	18-Dec								
South Pope Lick PS			01-Aug								
A6740	Design	90%	01-Aug								
A6750	Ad	0%	30-Apr								
A6760	Bid Open	0%	31-May								
A6770	Award	0%	30-Jun								
A6780	Construction	0%	31-Jul								

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**.

January, February and March Weather Event Summary

According to the National Weather Service the weather pattern for January 2016 was predominantly dry with around 1 inch of rainfall and 8.2 inches of snowfall. Temperatures fluctuated for the majority of February with 6.2 inches of snowfall. Towards the end of February rainfall accumulated to nearly 5 inches. Low pressures from the Gulf moved over the region leading to minor flooding. For March, there were only 5 severe weather events that were reported. The severe weather events occurred at the end of the month accumulating 5.5 inches of rainfall.

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, 61 unauthorized discharges to the Waters of the United States (WUS) have been reported.

Unauthorized Discharges (Waters of the United States) - January 1, 2016 - March 31, 2016			
Problem	Dry Weather	Wet Weather	Total
Blending at J-town WQTC	0	0	0
Bypass at WQTC	1	0	1
Lack of System Capacity	0	55	55
Structural Failure	2	1	3
Obstruction-Not Grease / Roots	1	0	1
Roots	1	0	1
Total	5	56	61

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 was one dry weather overflow reported at a CSO.

Dry Weather CSO - January 1, 2016 - March 31, 2016					
CSO	Type of Discharge	Date/Time	Problem	Cause	Volume (GAL)
CSO097	DISDW	3/29/16 10:30 AM	OBSTRUCTION-NOT GREASE / ROOTS	CONTRACTING CREW CLEANING 48" LINE DOWNSTREAM OF NIGHTINGALE PS. FLOW DIVERTED TO BGI, CAUSING ADDITIONAL SURCHARGE CONDITIONS AND OVERFLOW AT CSO097	76,000

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.

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 January 1, 2016, through March 31, 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							
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total	Target/ qtr	% of Annual Target
COMBINED SEWER AREA							
Catch Basins Cleaned CSO Area - PM	5,943	5,175	6,087	7,176	24,381	4,460	40%
CSO Inspections	1,301	1,235	1,364	1,273	5,173	1,272	25%
SANITARY SEWER AREA							
Catch Basins Cleaned SSO Area - PM	188	2,659	1,444	402	4,693	1,144	9%

Rolling Quarterly GLPM Performance With Targets							
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total	Target/ qtr	% of Annual Target
COUNTY WIDE							
Sewer Main Inspections MSD Crews (LF)	33,463	13,523	0	82,451	129,436	198,000	10%
Sewer Main Inspections Contractor (LF)	186,018	129,759	217,581	195,010	728,368	198,000	25%
Total Inspections (LF)	219,480	143,282	217,581	277,461	857,804	396,000	18%

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

Rolling Quarterly GLPM Performance						
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total	
COMBINED SEWER AREA						
Catch Basins Cleaned CSO Area - UM	319	363	226	165	1,073	
CSO Debris Removal WO	169	146	169	126	610	
Chemical Root Treatment CSO Area (LF)	0	0	11,980	22,377	34,357	
Root Cutting CSO Area (LF)	1,804	1,855	0	1,541	5,200	
Flushing and Cleaning of Sewer Mains CSO Area (LF)	7,112	4,837	27,496	4,127	43,572	
SANITARY SEWER AREA						
Catch Basins Cleaned SSO Area - UM	105	95	85	80	365	
Chemical Root Treatment SSO Area (LF)	49,808	0	85,820	144,079	279,707	
Root Cutting SSO Area (LF)	19,004	7,892	15,303	21,345	63,544	
Flushing and Cleaning of Sewer Mains SSO Area (LF)	30,170	39,361	41,861	32,663	144,054	

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 - January 1, 2016 to March 31, 2016			
Type of Bypass	Date	ID	Facility Name
Dry Weather Discharge	1/27/2016	MSD0247	STARVIEW

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 January 1, 2016, through March 31, 2016.

BYPASS SUMMARY - JANUARY 1, 2016, TO MARCH 31, 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)					
1/27/2016 12:00:00 PM	STARVIEW	2494614	STR	A structural crack in the Force Main from the Starview Effluent Pump Station to the permitted outfall was discovered during dry weather. The flow rate was discovered to be 1 gpm resulting in 210 gallons.	Contractor conducted repairs to the Force Main.
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 four 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

JANUARY 1, 2016 THROUGH MARCH 31, 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
MORRIS FORMAN	KY0022411	1174 CASTLEVALE DR	03/29/16 10:30: AM	03/29/16 05:55 PM	76,000	SEWER MANHOLE	CSO097	STREAM	SOUTH FORK BEARGRASS CREEK	CONTRACTING CREW CLEANING 48" LINE DOWNSTREAM OF NIGHTINGALE PS. FLOW DIVERTED TO BGI, CAUSING ADDITIONAL SURCHARGE CONDITIONS AND OVERFLOW AT	OBSTRUCTION-NOT GREASE / ROOTS	2533418	NO CLEAN UP PERFORMED – PIPE DISCHARGING DIRECTLY INTO STREAM	CONTRACTING CREW INSTRUCTED TO STOP CLEANING UNTIL SURCHARGE CONDITION SUBSIDES.

Appendix A-2 - Discharge Work Orders – Bypass

APPENDIX A-2

UNAUTHORIZED DISCHARGES

TO WATERS OF UNITED STATES

JANUARY 1, 2016 THROUGH MARCH 31, 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
STARVIEW	KY0031712	423 BERMUDA WAY	01/27/16 12:00: PM	01/27/16 03:30 PM	210	SEWER TREATMENT PLANT	MSD0247	STREAM	CHENOWETH RUN	FORCE MAIN BREAK.	BYPASS AT WQTC	2494614	FULLY TREATED WASTEWATER, DISCHARGE OCCURRED ALONG THE WQTC EFFLUENT LINE.	CONTRACTOR MADE REPAIRS.

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

APPENDIX A-3
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JANUARY 1, 2016 THROUGH MARCH 31, 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	10723 COPPER RIDGE DR	02/24/16 8:31 AM	03/02/16 10:51 AM	284,500	SEWER MANHOLE	108674	GROUND	HITE CREEK	ONLY 2 PUMPS IN WW @ HITE CREEK MH RISER OFF BASE	LACK OF SYSTEM CAPACITY	2511613	MSD CLEANED AND SANITIZED AREA	MSD REPAIRED THE RISER.
HITE CREEK	KY0022420	6605 GUNPOWDER LN	02/24/16 8:45 AM	02/24/16 03:30 PM	20,250	SEWER MANHOLE	66723	GROUND	HARRODS CREEK	CLEAN OUT CAP BROKEN	STRUCTURAL FAILURE	2511723	MSD CLEANED & SANITIZED THE AREA	MSD EMPLOYEES REPLACED THE CLEAN OUT CAP.
HITE CREEK	KY0022420	9519 U S HIGHWAY 42	03/26/16 10:15: PM	03/27/16 12:15 AM	800	SEWER MAIN	MSD1058-LS	GROUND	HARRODS CREEK	FORCE MAIN BREAK	STRUCTURAL FAILURE	2531214	CLEANED AND SANITIZED THE IMPACTED AREA	CONTRACTOR REPAIRED FORCE MAIN.
STARVIEW	KY0031712	423 BERMUDA WAY	01/27/16 12:00: PM	01/27/16 03:30 PM	210	SEWER TREATMENT PLANT	MSD0247	STREAM	CHENOWETH RUN	FORCE MAIN BREAK.	BYPASS AT WQTC	2494614	FULLY TREATED WASTEWATER. DISCHARGE OCCURRED ALONG THE WQTC EFFLUENT LINE.	CONTRACTOR REPAIRED FORCE MAIN.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	02/03/16 2:55: AM	02/03/16 09:30 AM	19,750	SEWER MANHOLE	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2499111	NO DEBRIS OBSERVED	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	02/24/16 7:10: AM	02/24/16 09:35 AM	3,625	SEWER MANHOLE	25484	STREAM	PENNSYLVANIA RUN	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	2511521	MSD CLEANED AND SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	02/02/16 11:47: PM	02/03/16 12:30 PM	19,125	SEWER MANHOLE	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	2499052	MSD CLEANED AND SANITIZED THE AFFECTED AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	02/24/16 4:30: AM	02/25/16 08:15 AM	40,500	SEWER MANHOLE	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	2511631	MSD CLEANED AND SANITIZED THE AFFECTED AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	03/10/16 4:30: PM	03/11/16 06:30 AM	21,000	SEWER MANHOLE	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	2521059	MSD TO CLEAN AND SANITIZE AFFECTED AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	03/12/16 11:55: PM	03/14/16 07:30 AM	47,375	SEWER MANHOLE	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	2521549	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	02/24/16 7:25: AM	02/24/16 04:50 PM	14,125	SEWER MANHOLE	60679	DITCH	FISHPOOL CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	2511535	MSD CLEANED AND SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	03/10/16 6:30: PM	03/10/16 10:08 PM	1,010	SEWER MANHOLE	60679	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2521072	MSD CLEANED & SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	804 N ARBOR DR	02/24/16 9:40: AM	02/24/16 05:00 PM	4,400	SEWER MANHOLE	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2511676	MSD CLEANED AND SANITIZED	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	804 N ARBOR DR	02/03/16 7:05: AM	02/03/16 11:05 AM	900	SEWER MANHOLE	00746	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2499405	NO DEBRIS OBSERVED	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	804 N ARBOR DR	03/10/16 10:45: PM	03/11/16 08:40 AM	2,975	SEWER MANHOLE	00746	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	2521086	MSD CLEANED & SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	806 PINE WAY	02/03/16 2:20: AM	02/03/16 11:15 AM	10,700	SEWER MANHOLE	00817	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2499110	NO DEBRIS OBSERVED	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	806 PINE WAY	03/10/16 11:00: PM	03/11/16 01:05 AM	250	SEWER MANHOLE	00817	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	2521087	MSD CLEANED & SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	7900 SHELBYVILLE RD	02/24/16 9:23: AM	02/25/16 09:00 AM	11,000	SEWER MANHOLE	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511856	WO# 25112296	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	02/03/16 7:24: AM	02/03/16 09:36 AM	27,000	SEWER MANHOLE	08717	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2499189	WO# 2499342	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.

APPENDIX A-3
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JANUARY 1, 2016 THROUGH MARCH 31, 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
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	02/24/16 6:26: AM	02/24/16 06:04 PM	180,000	SEWER MANHOLE	08717	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511812	WO# 2511959	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	02/03/16 1:53: AM	02/06/16 10:04 PM	394,824	SEWER MANHOLE	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2499149	NO CLEAN UP PERFORMED – PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	02/24/16 6:28: AM	02/25/16 01:49 AM	3,372,023	SEWER MANHOLE	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511518	NO CLEAN UP PERFORMED – PIPE DISCHARGES UNDERWATER, DIRECTLY INTO STREAM	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	03/07/16 6:38: AM	03/10/16 11:41 PM	209,554	SEWER MANHOLE	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2521106	NO CLEAN UP PERFORMED – PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	4103 LEE AVE	02/03/16 12:33: AM	02/03/16 09:23 AM	2,700	SEWER MANHOLE	104223	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2499072	WO# 2499329	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	4103 LEE AVE	02/24/16 5:36: AM	02/24/16 05:55 PM	54,000	SEWER MANHOLE	104223	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511815	WO# 2511962	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	7404 ARROWWOOD RD	02/24/16 7:30: AM	02/24/16 08:00 PM	18,750	SEWER MANHOLE	117721	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2511544	MSD CLEANED AND SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1600 BELMAR DR	02/24/16 5:35: AM	02/24/16 05:57 PM	18,000	SEWER MANHOLE	13946	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511839	WO# 2511973	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1726 FRASER DR	02/24/16 7:00: AM	02/24/16 05:40 PM	7,500	SEWER MANHOLE	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511849	WO# 2511982	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3302 TROUT CREEK DR	02/24/16 7:20: AM	02/24/16 05:35 PM	120,000	SEWER MANHOLE	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511825	WO# 2511967	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	2001 TERRIL LN	02/24/16 7:47: AM	02/24/16 05:38 PM	60,000	SEWER MANHOLE	23212	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511829	WO# 2511970	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1013 ALTA CIR	02/24/16 4:32: AM	02/24/16 06:50 PM	3,000	SEWER MANHOLE	27007	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511651	WO# 25111953	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	2408 GRAY FOX RD	03/24/16 6:50: PM	03/26/16 10:00 AM	216,000	SEWER MAIN	27012-LH	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2530360	WO# 2530737	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	9707 WILLOWWOOD WAY	02/24/16 7:40: AM	02/24/16 11:20 AM	7,500	SEWER MANHOLE	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511847	WO# 2511980	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3620 CHARLANE PKY	02/24/16 7:45: AM	02/24/16 11:30 AM	7,500	SEWER MANHOLE	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511848	WO# 2511981	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3406 DELL RD	02/24/16 7:30: AM	02/24/16 11:10 AM	7,500	SEWER MANHOLE	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511844	WO# 2511977	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	02/24/16 7:20: AM	02/24/16 05:45 PM	15,000	SEWER MANHOLE	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511843	WO# 2511975	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3406 CHARLANE PKY	03/10/16 8:56: PM	03/11/16 05:40 AM	13,500	SEWER MANHOLE	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2521075	WO# 2521120	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	02/03/16 6:15: AM	02/03/16 10:30 AM	6,000	SEWER MANHOLE	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2499263	WO# 2503649	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.

APPENDIX A-3
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JANUARY 1, 2016 THROUGH MARCH 31, 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
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	02/24/16 4:25: AM	02/24/16 05:50 PM	36,000	SEWER MANHOLE	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511841	WO# 2511974	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3402 CHARLANE PKY	03/10/16 6:20: PM	03/11/16 05:40 AM	30,000	SEWER MANHOLE	28453	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2521076	WO# 2521135	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1012 ALTA CIR	02/24/16 8:45: AM	02/24/16 06:05 PM	5,000	SEWER MANHOLE	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511853	WO# 2511985	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	02/24/16 4:32: AM	02/24/16 06:50 PM	3,000	SEWER MANHOLE	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511655	WO# 2511954	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1011 ALTA CIR	03/10/16 7:24: PM	03/11/16 09:27 AM	126,000	SEWER MANHOLE	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2521074	WO# 2521292	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1132 ROSTREVOR CIR	02/24/16 8:17: AM	02/24/16 05:48 PM	5,000	SEWER MANHOLE	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511851	WO# 2511984	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1132 ROSTREVOR CIR	03/10/16 7:07: PM	03/11/16 09:18 AM	36,000	SEWER MANHOLE	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2521073	WO# 2521288	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	4801 CASSIA CT	02/24/16 10:41: AM	02/24/16 07:03 PM	5,000	SEWER MANHOLE	46623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511863	WO# 2511988	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	202 OXMOOR LN	02/24/16 9:15: AM	02/25/16 09:00 AM	11,000	SEWER MANHOLE	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511854	WO# 2512288	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3305 INDIAN CREEK CT	02/24/16 7:20: AM	02/24/16 05:35 PM	30,000	SEWER MANHOLE	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511823	WO# 2511964	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	02/03/16 1:15: AM	02/03/16 10:02 AM	2,700	SEWER MANHOLE	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2499073	WO# 2499331	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	02/24/16 6:53: AM	02/24/16 05:49 PM	132,000	SEWER MANHOLE	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511833	WO# 2511971	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1804 ROUND RIDGE RD	02/24/16 10:41: AM	02/24/16 07:03 PM	5,000	SEWER MANHOLE	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511860	WO# 2511987	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	02/03/16 12:46: AM	02/03/16 09:36 AM	2,700	SEWER MANHOLE	66349	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2499071	WO# 2499324	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	02/24/16 6:29: AM	02/24/16 06:04 PM	72,000	SEWER MANHOLE	66349	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511810	WO# 2511957	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1700 SULGRAVE RD	02/02/16 11:45: PM	02/03/16 09:39 AM	3,500	SEWER MANHOLE	72289	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2499130	WO# 2499338	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	7913 SHELBYVILLE RD	02/24/16 10:00: AM	02/23/16 04:44 PM	5,000	SEWER MANHOLE	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511857	WO# 2511986	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	1174 CASTLEVALE DR	03/29/16 10:30: AM	03/29/16 05:55 PM	76,000	SEWER MANHOLE	CSO097	STREAM	SOUTH FORK BEARGRASS CREEK	CONTRACTING CREW CLEANING 48" LINE DOWNSTREAM OF NIGHTINGALE PS. FLOW DIVERTED TO BGI, CAUSING ADDITIONAL SURCHARGE CONDITIONS AND OVERFLOW AT	OBSTRUCTION-NOT GREASE / ROOTS	2533418	NO CLEAN UP PERFORMED – PIPE DISCHARGING DIRECTLY INTO STREAM	CONTRACTING CREW INSTRUCTED TO STOP CLEANING UNTIL SURCHARGE CONDITION SUBSIDES.
MORRIS FORMAN	KY0022411	4108 LEE AVE	02/03/16 12:30: AM	02/03/16 09:20 AM	2,700	SEWER SERVICE LINE	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2499074	WO# 2499335	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.

APPENDIX A-3

UNAUTHORIZED DISCHARGES

TO WATERS OF UNITED STATES

JANUARY 1, 2016 THROUGH MARCH 31, 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
MORRIS FORMAN	KY0022411	4108 LEE AVE	02/24/16 5:53: AM	02/24/16 05:56 PM	18,000	SEWER SERVICE LINE	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN.	LACK OF SYSTEM CAPACITY	2511836	WO# 2511972	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	4800 HAZELWOOD AVE	02/23/16 1:00: PM	02/23/16 02:00 PM	600	SEWER MAIN	MSD0002-PS	DITCH	MILL CREEK	FORCE MAIN BREAK	STRUCTURAL FAILURE	2511288	MSD CLEANED AND SANITIZED THE AREA	CONTRACTOR REPAIRED FORCE MAIN.
MORRIS FORMAN	KY0022411	806 PINE WAY	02/24/16 10:12: AM	02/24/16 05:00 PM	8,160	SEWER LIFT STATION	MSD0057-LS	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	2511678	MSD CLEANED AND SANITIZED THE AFFECTED AREA	A SOLUTION FOR THIS LOCATION CAN BE FOUND IN THE IOAP.
MORRIS FORMAN	KY0022411	4907 PRESTON DR	03/30/16 11:30: AM	03/30/16 01:00 PM	100	SEWER SERVICE LINE	PA12277029	GROUND	GREASY DITCH	ROOTS IN MAIN SEWER	ROOTS	2533806	MSD WILL CLEAN UP AROUND THE IMPACTED AREA	MSD MAINTENANCE ROOT CUT THE MAIN SEWER.

Appendix B – CSO Flow Monitoring Data

CSO	Status	Volume	Events	Project	Project Date
CSO015	I	1,113,232,564.35	11.00	Bells Lane Wet Weather Treatment Facility	12/31/2016
CSO016	I	88,125,593.35	10.00	Southern Outfall In-line Storage at 43rd St (SOR1)	12/31/2018
CSO018	I	2,254,098.75	8.00	Nightingale Pump Station Replacement & Storage	12/31/2015
CSO019	I	13,285,351.60	12.00	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	127,420,102.56	10.00	Story Avenue and Main Street Storage Basin	12/31/2020
CSO022	I	1,036,643.45	2.00	4th Street Flood Pump Station, 13th Street and Rowan Street Storage Basin	12/31/2012, 12/31/2020
CSO023	I	17,307,088.51	2.00	4th Street Flood Pump Station, 13th Street and Rowan Street Storage Basin	12/31/2012, 12/31/2020
CSO026	O				
CSO027	I	No Overflows	-		
CSO028	I	9,708.43	2.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO029	I	220,336.90	8.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO030	O				
CSO031	I	No Overflows	-		
CSO032	O				
CSO033	O				
CSO034	I	25,390.34	2.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO035	I	1,026,215.75	5.00		
CSO036	I	31,534.54	4.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO038	I	5,449.06	1.00		
CSO049-SM	O				
CSO050	I	7,373,626.72	14.00	13th Street and Rowan Street Storage Basin	12/31/2020
CSO051	I	109,963.55	9.00	13th Street and Rowan Street Storage Basin	12/31/2020
CSO052	I	931,739.85	9.00	13th Street and Rowan Street Storage Basin	12/31/2020
CSO053	I	1,755,324.91	11.00	13th Street and Rowan Street Storage Basin	12/31/2020
CSO054	I	162,813.53	6.00	13th Street and Rowan Street Storage Basin	12/31/2020
CSO055	I	155,334.28	10.00	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	No Overflows	-		
CSO058	I	8,061.44	8.00	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	1,782,836.56	7.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO083	I	66,871.98	4.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO084	I	64,846.26	11.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO086	O				
CSO087	O				
CSO088	I	205,746.11	7.00	Clifton Heights Storage Basin	12/31/2018

CSO	Status	Volume	Events	Project	Project Date
CSO091	I	Sensor Removed		Logan and Breckinridge Street Storage Basin	12/31/2017
CSO092	I	57,907.97	10.00		
CSO093	I	48,746.71	1.00	CSO093 Structural Modifications & Green Infrastructure	12/31/2015
CSO097	I	18,269,672.83	10.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO104	I	607,066.11	5.00	Southwestern Parkway Storage Basin, Shawnee Flood Pump Station	12/31/2018, 6/30/2013
CSO105	I	81,144,924.17	11.00	Southwestern Parkway Storage Basin, Shawnee Flood Pump Station	12/31/2018, 6/30/2013
CSO106	O			Logan and Breckinridge Street Storage Basin	12/31/2017
CSO108	I	2,713,243.30	10.00	CSO108 Dam Modification	12/31/2010
CSO109	I	2,273,682.88	8.00		
CSO110	I	10,131,685.69	10.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO111	I	3,558,230.34	5.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO113	I	Sensor Removed		Logan and Breckinridge Street Storage Basin	12/31/2017
CSO117	I	11,173,632.13	3.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO118	I	27,421,590.91	12.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO119	I	2,380,646.94	11.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO120	I	2,001,436.28	11.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO121	I	580,547.61	12.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO123	O			CSO123 Downspout Disconnection	12/31/2012
CSO125	I	1,120,309.41	11.00	I-64 and Grinstead Drive Storage Basin	12/31/2020
CSO126	I	2,821,256.63	9.00	I-64 and Grinstead Drive Storage Basin	12/31/2020
CSO127	I	4,452,250.41	11.00	I-64 and Grinstead Drive Storage Basin	12/31/2020
CSO130	I	9,719.73	1.00	Story Avenue and Spring Street Storage Basin	12/31/2016
CSO131	I	120,812.43	3.00	Clifton Heights Storage Basin	12/31/2018
CSO132	I	27,729,349.60	11.00	Clifton Heights Storage Basin	12/31/2018
CSO137	O			Logan and Breckinridge Street Storage Basin	12/31/2017
CSO140	I	1,286,792.67	11.00	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	52,885.09	1.00		
CSO143	O				
CSO144	I	1,641.45	1.00		
CSO145	O				
CSO146	I	2,877,889.36	1.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO147	O				
CSO148	I	292,827.94	10.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO149	I	706,548.48	11.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO150	I	1,129,386.25	8.00	13th Street and Rowan Street Storage Basin	12/31/2020
CSO151	I	4,983,522.53	15.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO152	I	7,400,227.88	12.00	Logan and Breckinridge Street Storage Basin	12/31/2017
CSO153	I	2,894,827.50	13.00	Lexington Road and Payne Street Storage Basin	12/31/2020
CSO154	I	14,634,858.40	6.00	Clifton Heights Storage Basin	12/31/2018
CSO155	I	123,764.78	8.00	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	Events	Project	Project Date
CSO161	I	3,658.99	1.00		
CSO162	O				
CSO166	I	12,487,067.63	11.00	I-64 and Grinstead Drive Storage Basin	12/31/2020
CSO167	I	3,928,594.29	11.00	Clifton Heights Storage Basin	12/31/2018
CSO172	O			Adams Street Sewer Separation	12/31/2012
CSO174	I	2,312,667.66	2.00		
CSO178	I		5.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO179	I	8,948.83	1.00		
CSO180	I	39,277.46	1.00		
CSO181	I	157,164.81	3.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO182	I	53,994.99	1.00		
CSO183	I	All Overflows Retained	-		
CSO184	I	All Overflows Retained	-		
CSO185	I	194,209.23	1.00		
CSO186	I	No Overflows	-		
CSO187	I	50,563.00	1.00		
CSO188	I	No Overflows	-		
CSO189	I	65,289,419.44	12.00	Southwestern Parkway Storage Basin, Shawnee Flood Pump Station	12/31/2018, 6/30/2013
CSO190	I	6,916,322.61	12.00	CSO190 Green Infrastructure Solution, 17th Street Flood Pump Station	12/31/2017, 12/31/2014
CSO191	I	2,503,397.84	6.00	Bells Lane Wet Weather Treatment Facility	12/31/2016
CSO192	O				
CSO193	I	8,015.33	3.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO194	O				
CSO195	I		10.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO196	I	125,016.50	9.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO197	I	980,202.64	21.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO198	I	842,527.45	19.00		
CSO199	I	77,795.81	9.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO200	I	75,384.94	7.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO201	I	NA*			
CSO202	I	29,712.78	6.00	Central Relief Drain CSO In-line Storage, Green Infrastructure & Distributed Storage	12/31/2018
CSO203	I	35,845.39	2.00		
CSO204	O				
CSO205	I	All Overflows Retained			
CSO206	I	NA		CSO206 Sewer Separation	12/30/2013
CSO207	I	All Overflows Retained			
CSO208	I	No Overflows			
CSO209	O				
CSO210	I	3,208,206.49	10.00	Southern Outfall In-line Storage at 43rd St (SOR1)	12/31/2018
CSO211	I	11,989,325.63	1.00		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 (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO015	1/6/2016 12:30	1/6/2016 22:15	105,070,097.83	0.41	2.8	37,525,034.94	0.05	0.91	48	Atlas	
CSO015	2/2/2016 21:15	2/3/2016 14:00	139,741,303.50	0.70	1.54	90,741,106.17	1.61	0.76	6	Atlas	
CSO015	2/21/2016 7:15	2/21/2016 16:45	40,677,634.31	0.40	0.73	55,722,786.73	0.91	0.33	12	Atlas	
CSO015	2/24/2016 0:30	2/24/2016 23:00	554,071,935.80	0.94	2.14	258,912,119.53	2.85	0.81	24	Atlas	
CSO015	3/1/2016 14:30	3/1/2016 20:45	9,642,142.33	0.26	0.61	15,806,790.70	2.8	0.32	6	Atlas	
CSO015	3/10/2016 15:45	3/11/2016 6:45	62,836,828.49	0.63	1.33	47,245,735.70	1.39	0.45	12	Atlas	
CSO015	3/12/2016 20:30	3/13/2016 15:30	83,306,433.35	0.79	0.47	177,247,730.53	1.86	0.18	24	Atlas	
CSO015	3/24/2016 18:30	3/24/2016 20:15	18,136,558.85	0.07	0.24	75,568,995.21	0.37	0.16	1	Atlas	
CSO015	3/27/2016 21:30	3/28/2016 2:15	58,304,130.39	0.20	0.75	77,738,840.53	0.99	0.50	3	Atlas	
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	4/1/2016 2:00	11,990,089.00	0.02	1.33	9,015,104.51	2.08	0.51	24	Atlas	
CSO015 Count			11.00								
CSO015 Total			1,113,232,564.35								
CSO016	2/2/2016 20:00	2/3/2016 13:00	18,520,940.84	0.71	1.51	12,265,523.74	1.58	0.75	6	Atlas	
CSO016	2/21/2016 5:30	2/21/2016 17:15	14,195,972.70	0.49	1.07	13,267,264.21	1.26	0.49	12	Atlas	
CSO016	2/23/2016 23:30	2/24/2016 16:30	19,918,763.86	0.71	2.24	8,892,305.29	3.14	0.86	12	Atlas	
CSO016	3/1/2016 13:00	3/1/2016 17:30	3,785,616.55	0.19	0.65	5,824,025.46	2.93	0.34	6	Atlas	
CSO016	3/10/2016 14:30	3/11/2016 1:30	12,446,445.65	0.46	1.31	9,501,103.55	1.36	0.43	48	Atlas	
CSO016	3/12/2016 21:30	3/13/2016 13:45	7,077,793.65	0.68	0.5	14,155,587.30	1.85	0.19	24	Atlas	
CSO016	3/24/2016 18:30	3/24/2016 20:00	693,519.84	0.06	0.31	2,237,160.77	0.39	0.21	1	Atlas	
CSO016	3/27/2016 21:30	3/28/2016 0:45	4,085,988.05	0.14	0.77	5,306,477.98	1.08	0.53	1	Atlas	
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 Count			10.00								
CSO016 Total			88,125,593.35								
CSO018	2/2/2016 23:30	2/3/2016 6:00	170,494.16	0.27	1.61	105,896.99	1.72	0.78	6	Atlas	
CSO018	2/24/2016 1:00	2/25/2016 0:15	1,818,375.23	0.97	1.96	927,742.46	2.69	0.76	12	Atlas	
CSO018	3/10/2016 18:15	3/10/2016 20:15	6,936.92	0.08	1.33	5,215.73	1.37	0.45	12	Atlas	
CSO018	3/12/2016 23:15	3/12/2016 23:15	1,346.29	-	0.89	1,512.69	1.88	0.33	24	Atlas	
CSO018	3/13/2016 9:00	3/13/2016 14:00	168,935.82	0.21	0.89	189,815.52	2.24	0.33	24	Atlas	
CSO018	3/24/2016 17:45	3/24/2016 18:15	17,811.41	0.02	0.35	50,889.75	0.56	0.25	1	Atlas	
CSO018	3/27/2016 21:30	3/27/2016 22:30	68,482.41	0.04	0.99	69,174.15	1.33	0.65	3	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO018	3/31/2016 23:30	3/31/2016 23:30	1,716.52	-	1.4	1,226.09	2.37	0.53	24	Atlas	
CSO018 Count			8.00								
CSO018 Total			2,254,098.75								
CSO019	1/9/2016 19:00	1/10/2016 8:00	315,840.59	0.54	0.28	1,128,002.10	0.41	0.11	12	Atlas	
CSO019	2/2/2016 14:30	2/3/2016 11:15	3,295,541.25	0.86	1.29	2,554,683.14	1.32	0.64	6	Atlas	
CSO019	2/21/2016 4:00	2/21/2016 18:30	410,011.81	0.60	0.71	577,481.43	0.9	0.33	6	Atlas	
CSO019	2/23/2016 22:15	2/25/2016 3:30	4,531,917.14	1.22	2.08	2,178,806.32	2.79	0.80	12	Atlas	
CSO019	2/29/2016 1:15	2/29/2016 2:00	7,459.98	0.03	0.05	149,199.59	2.14	0.04	1	Atlas	
CSO019	3/1/2016 8:30	3/1/2016 19:00	182,855.31	0.44	0.83	220,307.60	2.97	0.54	1	Atlas	
CSO019	3/9/2016 15:15	3/9/2016 23:45	91,701.52	0.35	1.34	68,433.97	0.55	0.44	48	Atlas	
CSO019	3/10/2016 8:15	3/11/2016 9:00	737,145.87	1.03	1.34	550,108.86	1.39	0.44	48	Atlas	
CSO019	3/12/2016 20:15	3/13/2016 17:15	1,091,929.62	0.88	0.55	1,985,326.59	1.92	0.21	24	Atlas	
CSO019	3/24/2016 17:00	3/24/2016 22:00	513,984.13	0.21	0.84	611,885.86	0.88	0.67	1	Atlas	
CSO019	3/27/2016 21:00	3/27/2016 23:00	962,246.61	0.08	0.54	1,781,938.17	1.38	0.37	1	Atlas	
CSO019	3/31/2016 1:30	4/1/2016 10:30	1,144,717.76	1.38	1.54	743,323.22	2.92	0.57	24	Atlas	
CSO019 Count			12.00								
CSO019 Total			13,285,351.60								
CSO020	2/2/2016 20:00	2/3/2016 10:45	20,044,929.93	0.61	1.36	14,738,919.07	1.41	0.62	12	Atlas	
CSO020	2/21/2016 5:30	2/21/2016 14:15	14,535,297.37	0.36	0.89	16,331,794.80	1.07	0.41	12	Atlas	
CSO020	2/23/2016 23:00	2/25/2016 17:00	65,361,301.40	1.75	1.92	34,042,344.48	2.81	0.75	12	Atlas	
CSO020	3/1/2016 12:30	3/1/2016 15:30	1,999,421.41	0.13	0.4	4,998,553.53	2.35	0.21	6	Atlas	
CSO020	3/10/2016 14:00	3/10/2016 22:30	8,356,871.57	0.35	1.17	7,142,625.27	1.21	0.38	48	Atlas	
CSO020	3/12/2016 20:45	3/13/2016 13:45	9,957,379.73	0.71	0.72	13,829,694.07	1.93	0.28	24	Atlas	
CSO020	3/24/2016 18:00	3/24/2016 19:45	758,224.01	0.07	0.27	2,808,237.08	0.33	0.17	1	Atlas	
CSO020	3/27/2016 21:15	3/27/2016 23:45	3,154,789.74	0.10	0.81	3,894,802.14	1.08	0.55	1	Atlas	
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 Count			10.00								
CSO020 Total			127,420,102.56								
CSO022	3/12/2016 22:45	3/12/2016 23:15	345,255.36	0.02	0.91	379,401.50	1.98	0.39	6	Atlas	
CSO022	3/27/2016 21:15	3/27/2016 21:45	691,388.09	0.02	0.77	897,906.60	1.03	0.51	3	Atlas	
CSO022 Count			2.00								

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO022 Total			1,036,643.45								
CSO023	2/2/2016 23:45	2/3/2016 0:00	14,533.71	0.01	1.29	11,266.44	1.23	0.61	6	Atlas	
CSO023	3/8/2016 9:45	3/8/2016 10:15	17,292,554.80	0.02	Discharge		0.39	DWO			
CSO023 Count			2.00								
CSO023 Total			17,307,088.51								
CSO028	2/3/2016 0:00	2/3/2016 0:00	4,121.05	-	1.29	3,194.61	1.25	0.63	6	Atlas	
CSO028	3/27/2016 21:30	3/27/2016 21:30	5,587.38	-	0.68	8,216.73	1.08	0.46	1	Atlas	
CSO028 Count			2.00								
CSO028 Total			9,708.43								
CSO029	2/2/2016 20:00	2/3/2016 0:00	45,986.23	0.17	1.29	35,648.24	1.25	0.63	6	Atlas	
CSO029	2/21/2016 4:00	2/21/2016 10:15	23,089.92	0.26	1.12	20,616.00	1.29	0.51	12	Atlas	
CSO029	2/24/2016 5:00	2/24/2016 7:00	31,532.46	0.08	1.91	16,509.14	2.67	0.72	12	Atlas	
CSO029	3/12/2016 22:30	3/12/2016 23:15	51,711.38	0.03	0.74	69,880.25	1.68	0.29	6	Atlas	
CSO029	3/13/2016 9:45	3/13/2016 9:45	3,670.57	-	0.74	4,960.23	1.89	0.29	6	Atlas	
CSO029	3/24/2016 17:30	3/24/2016 17:30	6,448.42	-	0.48	13,434.20	0.57	0.35	1	Atlas	
CSO029	3/27/2016 21:15	3/27/2016 21:15	56,111.23	-	0.68	82,516.52	1.02	0.46	1	Atlas	
CSO029	3/31/2016 22:00	3/31/2016 22:00	1,786.69	-	1.18	1,514.14	1.67	0.45	24	Atlas	
CSO029 Count			8.00								
CSO029 Total			220,336.90								
CSO034	2/3/2016 0:00	2/3/2016 0:00	18,397.79	-	1.29	14,261.85	1.25	0.63	6	Atlas	
CSO034	3/27/2016 21:30	3/27/2016 21:30	6,992.55	-	0.68	10,283.16	1.08	0.46	1	Atlas	
CSO034 Count			2.00								
CSO034 Total			25,390.34								
CSO035	2/2/2016 23:15	2/3/2016 0:15	353,628.75	0.04	1.21	292,255.16	1.18	0.58	6	Atlas	
CSO035	2/21/2016 4:15	2/21/2016 10:30	194,128.14	0.26	1.1	176,480.12	1.26	0.50	12	Atlas	
CSO035	3/12/2016 22:45	3/12/2016 23:15	114,457.50	0.02	0.77	148,646.10	1.68	0.30	24	Atlas	
CSO035	3/24/2016 17:45	3/24/2016 17:45	11,099.13	-	0.47	23,615.18	0.57	0.35	1	Atlas	
CSO035	3/27/2016 21:15	3/27/2016 21:45	352,902.23	0.02	0.72	490,141.99	1.14	0.49	1	Atlas	
CSO035 Count			5.00								
CSO035 Total			1,026,215.75								
CSO036	2/2/2016 20:00	2/3/2016 0:15	5,727.29	0.18	1.21	4,733.30	1.18	0.58	6	Atlas	
CSO036	2/21/2016 6:00	2/21/2016 10:30	4,158.59	0.19	1.1	3,780.54	1.26	0.50	12	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO036	2/24/2016 0:15	2/24/2016 6:15	15,339.68	0.25	1.98	7,747.31	2.55	0.77	12	Atlas	
CSO036	3/27/2016 21:30	3/27/2016 21:30	6,308.98	-	0.72	8,762.47	1.11	0.49	1	Atlas	
CSO036 Count			4.00								
CSO036 Total			31,534.54								
CSO038	2/3/2016 0:00	2/3/2016 0:00	5,449.06	-	1.29	4,224.08	1.25	0.63	6	Atlas	
CSO038 Count			1.00								
CSO038 Total			5,449.06								
CSO050	1/9/2016 18:45	1/9/2016 22:45	17,422.81	0.17	0.19	91,699.01	0.21	0.08	12	Atlas	
CSO050	2/2/2016 14:45	2/3/2016 1:45	1,683,451.40	0.46	1.5	1,122,300.94	1.54	0.71	6	Atlas	
CSO050	2/8/2016 9:45	2/8/2016 9:45	254.08	-	0.14	1,814.88	1.61	0.06	12	Atlas	
CSO050	2/21/2016 4:00	2/21/2016 11:00	524,288.79	0.29	0.83	631,673.24	1.01	0.38	12	Atlas	
CSO050	2/23/2016 22:15	2/24/2016 14:00	1,960,581.59	0.66	1.82	1,077,242.63	2.46	0.69	24	Atlas	
CSO050	2/29/2016 1:15	2/29/2016 1:45	17,880.00	0.02	0.03	596,000.02	1.86	0.03	1	Atlas	
CSO050	3/1/2016 8:45	3/1/2016 14:00	155,107.79	0.22	0.48	323,141.24	2.31	0.25	6	Atlas	
CSO050	3/9/2016 15:15	3/9/2016 20:00	89,459.47	0.20	1.34	66,760.80	0.34	0.44	12	Atlas	
CSO050	3/10/2016 13:15	3/10/2016 20:45	728,658.62	0.31	1.34	543,775.09	1.38	0.44	12	Atlas	
CSO050	3/12/2016 20:00	3/13/2016 0:15	669,303.95	0.18	0.65	1,029,698.38	1.86	0.27	6	Atlas	
CSO050	3/13/2016 9:00	3/13/2016 11:00	235,457.60	0.08	0.65	362,242.47	2.03	0.27	6	Atlas	
CSO050	3/24/2016 17:15	3/24/2016 17:45	92,176.89	0.02	0.33	279,323.92	0.36	0.21	1	Atlas	
CSO050	3/27/2016 20:30	3/27/2016 23:15	556,784.87	0.11	0.88	632,710.08	1.21	0.59	3	Atlas	
CSO050	3/31/2016 1:30	4/1/2016 1:00	642,798.84	0.98	1.38	465,796.26	2.59	0.52	24	Atlas	
CSO050 Count			14.00								
CSO050 Total			7,373,626.72								
CSO051	2/2/2016 19:00	2/3/2016 0:45	32,932.96	0.24	1.5	21,955.31	1.48	0.71	6	Atlas	
CSO051	2/21/2016 5:45	2/21/2016 10:15	5,697.88	0.19	0.83	6,864.91	1	0.38	12	Atlas	
CSO051	2/24/2016 5:00	2/24/2016 7:15	10,591.40	0.09	1.82	5,819.45	2.26	0.69	24	Atlas	
CSO051	3/1/2016 8:45	3/1/2016 8:45	2,272.18	-	0.48	4,733.70	2.06	0.25	6	Atlas	
CSO051	3/12/2016 20:15	3/12/2016 23:15	35,175.99	0.13	0.65	54,116.91	1.84	0.27	6	Atlas	
CSO051	3/13/2016 10:30	3/13/2016 10:30	695.55	-	0.65	1,070.08	2.02	0.27	6	Atlas	
CSO051	3/24/2016 17:15	3/24/2016 17:30	8,538.96	0.01	0.33	25,875.63	0.35	0.21	1	Atlas	
CSO051	3/27/2016 21:15	3/27/2016 21:15	13,003.01	-	0.88	14,776.15	1.05	0.59	3	Atlas	
CSO051	3/31/2016 22:00	3/31/2016 22:00	1,055.64	-	1.38	764.95	2.08	0.52	24	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO051 Count			9.00								
CSO051 Total			109,963.55								
CSO052	2/2/2016 18:45	2/3/2016 1:00	319,808.66	0.26	1.49	214,636.69	1.5	0.72	6	Atlas	
CSO052	2/21/2016 5:30	2/21/2016 10:30	57,157.28	0.21	0.86	66,461.96	1.03	0.39	12	Atlas	
CSO052	2/24/2016 0:00	2/24/2016 8:00	348,458.33	0.33	1.9	183,399.12	2.41	0.72	24	Atlas	
CSO052	3/10/2016 15:45	3/10/2016 19:00	33,599.08	0.14	1.32	25,453.85	1.31	0.44	12	Atlas	
CSO052	3/12/2016 20:00	3/12/2016 23:45	73,332.42	0.16	0.87	84,290.14	2.03	0.37	6	Atlas	
CSO052	3/24/2016 17:15	3/24/2016 17:15	8,575.52	-	0.29	29,570.76	0.31	0.17	1	Atlas	
CSO052	3/27/2016 20:45	3/27/2016 22:30	33,448.69	0.07	0.73	45,820.12	1.02	0.49	3	Atlas	
CSO052	3/31/2016 6:30	3/31/2016 7:45	34,501.67	0.05	1.33	25,941.10	1.83	0.50	24	Atlas	
CSO052	3/31/2016 21:45	4/1/2016 0:15	22,858.19	0.10	1.33	17,186.61	2.06	0.50	24	Atlas	
CSO052 Count			9.00								
CSO052 Total			931,739.85								
CSO053	2/2/2016 14:45	2/3/2016 0:45	470,046.18	0.42	1.49	315,467.23	1.49	0.72	6	Atlas	
CSO053	2/21/2016 4:00	2/21/2016 10:30	179,750.92	0.27	0.86	209,012.69	1.03	0.39	12	Atlas	
CSO053	2/23/2016 22:30	2/24/2016 7:30	370,867.40	0.38	1.9	195,193.37	2.41	0.72	24	Atlas	
CSO053	3/1/2016 8:45	3/1/2016 12:45	30,430.76	0.17	0.5	60,861.52	2.36	0.27	6	Atlas	
CSO053	3/9/2016 15:30	3/9/2016 16:30	8,937.00	0.04	1.32	6,770.45	0.29	0.44	12	Atlas	
CSO053	3/10/2016 13:15	3/10/2016 19:00	68,891.41	0.24	1.32	52,190.46	1.31	0.44	12	Atlas	
CSO053	3/12/2016 20:15	3/12/2016 23:15	223,000.09	0.13	0.87	256,321.94	2.02	0.37	6	Atlas	
CSO053	3/13/2016 9:00	3/13/2016 10:30	47,553.25	0.06	0.87	54,658.91	2.22	0.37	6	Atlas	
CSO053	3/24/2016 17:15	3/24/2016 17:45	55,404.93	0.02	0.29	191,051.48	0.33	0.17	1	Atlas	
CSO053	3/27/2016 21:00	3/27/2016 22:00	219,772.59	0.04	0.73	301,058.34	1.01	0.49	3	Atlas	
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 Count			11.00								
CSO053 Total			1,755,324.91								
CSO054	1/15/2016 15:15	1/15/2016 15:15	120.20	-	0.1	1,201.98	0.36	0.05	6	Atlas	
CSO054	2/2/2016 14:30	2/3/2016 2:30	65,770.49	0.50	1.49	44,141.27	1.54	0.72	6	Atlas	
CSO054	2/21/2016 3:45	2/21/2016 11:15	19,363.36	0.31	0.86	22,515.54	1.03	0.39	12	Atlas	
CSO054	2/23/2016 22:15	2/24/2016 14:30	45,499.02	0.68	1.9	23,946.85	2.58	0.72	24	Atlas	
CSO054	3/12/2016 20:15	3/13/2016 0:15	28,919.68	0.17	0.87	33,241.01	2.04	0.37	6	Atlas	
CSO054	3/13/2016 9:00	3/13/2016 11:15	3,140.78	0.09	0.87	3,610.09	2.23	0.37	6	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO054 Count			6.00								
CSO054 Total			162,813.53								
CSO055	2/2/2016 19:00	2/3/2016 1:15	41,259.40	0.26	1.49	27,690.87	1.52	0.72	6	Atlas	
CSO055	2/21/2016 4:15	2/21/2016 10:15	3,078.98	0.25	0.86	3,580.21	1.02	0.39	12	Atlas	
CSO055	2/24/2016 5:15	2/24/2016 7:00	2,410.82	0.07	1.9	1,268.85	2.37	0.72	24	Atlas	
CSO055	3/10/2016 16:15	3/10/2016 19:15	6,339.91	0.13	1.32	4,802.96	1.32	0.44	12	Atlas	
CSO055	3/12/2016 22:30	3/13/2016 0:15	49,615.61	0.07	0.87	57,029.44	2.04	0.37	6	Atlas	
CSO055	3/13/2016 9:15	3/13/2016 9:45	2,016.05	0.02	0.87	2,317.30	2.2	0.37	6	Atlas	
CSO055	3/24/2016 17:15	3/24/2016 17:30	2,527.50	0.01	0.29	8,715.52	0.32	0.17	1	Atlas	
CSO055	3/27/2016 21:15	3/27/2016 23:15	28,876.27	0.08	0.73	39,556.53	1.02	0.49	3	Atlas	
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 Count			10.00								
CSO055 Total			155,334.28								
CSO058	2/2/2016 20:00	2/3/2016 0:00	3,135.02	0.17	1.37	2,288.34	1.33	0.66	6	Atlas	
CSO058	2/21/2016 4:00	2/21/2016 10:15	797.50	0.26	1.07	745.33	1.22	0.49	12	Atlas	
CSO058	2/24/2016 5:00	2/24/2016 7:00	269.20	0.08	1.92	140.21	2.64	0.74	12	Atlas	
CSO058	3/12/2016 22:30	3/12/2016 23:00	1,092.92	0.02	0.8	1,366.15	1.73	0.32	6	Atlas	
CSO058	3/13/2016 9:00	3/13/2016 9:30	270.65	0.02	0.8	338.31	1.95	0.32	6	Atlas	
CSO058	3/24/2016 17:30	3/24/2016 17:30	120.99	-	0.41	295.10	0.46	0.29	1	Atlas	
CSO058	3/27/2016 21:00	3/27/2016 21:30	2,318.46	0.02	0.71	3,265.43	1.05	0.47	3	Atlas	
CSO058	3/31/2016 22:00	3/31/2016 22:00	56.71	-	1.13	50.18	1.71	0.43	24	Atlas	
CSO058 Count			8.00								
CSO058 Total			8,061.44								
CSO082	2/2/2016 20:00	2/3/2016 3:15	467,652.52	0.30	1.34	348,994.42	1.41	0.62	6	Atlas	
CSO082	2/21/2016 6:00	2/21/2016 12:15	235,401.00	0.26	1.1	214,000.91	1.27	0.50	12	Atlas	
CSO082	2/23/2016 23:30	2/25/2016 1:15	958,190.40	1.07	2.04	469,701.18	3.13	0.79	12	Atlas	
CSO082	3/10/2016 15:45	3/10/2016 19:00	4,573.11	0.14	1.11	4,119.92	1.12	0.36	48	Atlas	
CSO082	3/12/2016 22:30	3/12/2016 23:45	50,984.50	0.05	0.8	63,730.63	1.69	0.31	6	Atlas	
CSO082	3/13/2016 9:15	3/13/2016 10:45	43,200.21	0.06	0.8	54,000.26	1.94	0.31	6	Atlas	
CSO082	3/27/2016 21:15	3/27/2016 22:00	22,834.80	0.03	0.75	30,446.40	1.24	0.51	1	Atlas	
CSO082 Count			7.00								

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO082 Total			1,782,836.56								
CSO083	2/3/2016 0:00	2/3/2016 0:00	31,333.93	-	1.2	26,111.61	1.17	0.57	6	Atlas	
CSO083	2/21/2016 10:15	2/21/2016 10:15	2,905.46	-	1.12	2,594.16	1.25	0.51	12	Atlas	
CSO083	3/24/2016 17:30	3/24/2016 17:30	28,072.30	-	0.59	47,580.17	0.66	0.45	1	Atlas	
CSO083	3/27/2016 21:30	3/27/2016 21:30	4,560.29	-	0.8	5,700.36	1.31	0.54	1	Atlas	
CSO083 Count			4.00								
CSO083 Total			66,871.98								
CSO084	2/2/2016 19:00	2/3/2016 0:45	10,418.48	0.24	1.2	8,682.07	1.22	0.57	6	Atlas	
CSO084	2/21/2016 4:30	2/21/2016 10:45	4,947.14	0.26	1.12	4,417.09	1.29	0.51	12	Atlas	
CSO084	2/23/2016 23:30	2/24/2016 7:45	23,260.16	0.34	2.02	11,514.93	2.85	0.79	12	Atlas	
CSO084	3/1/2016 12:15	3/1/2016 13:00	2,095.74	0.03	0.25	8,382.96	2.24	0.15	3	Atlas	
CSO084	3/10/2016 13:45	3/10/2016 17:00	9,613.48	0.14	1.03	9,333.47	0.87	0.33	48	Atlas	
CSO084	3/12/2016 23:00	3/12/2016 23:30	3,782.32	0.02	0.92	4,111.22	1.7	0.37	6	Atlas	
CSO084	3/13/2016 9:15	3/13/2016 10:15	4,314.95	0.04	0.92	4,690.16	1.98	0.37	6	Atlas	
CSO084	3/24/2016 18:00	3/24/2016 18:00	1,364.04	-	0.59	2,311.94	0.68	0.45	1	Atlas	
CSO084	3/27/2016 22:00	3/27/2016 22:00	1,394.69	-	0.8	1,743.36	1.36	0.54	1	Atlas	
CSO084	3/31/2016 4:45	3/31/2016 4:45	1,918.49	-	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 Count			11.00								
CSO084 Total			64,846.26								
CSO088	2/2/2016 20:15	2/3/2016 0:30	69,847.15	0.18	1.49	46,877.28	1.47	0.68	12	Atlas	
CSO088	2/21/2016 10:30	2/21/2016 10:30	12,143.40	-	0.92	13,199.35	1.08	0.42	12	Atlas	
CSO088	2/24/2016 2:45	2/24/2016 7:45	92,984.51	0.21	2	46,492.25	2.61	0.78	12	Atlas	
CSO088	3/12/2016 23:00	3/12/2016 23:00	8,037.52	-	0.76	10,575.68	1.58	0.29	24	Atlas	
CSO088	3/13/2016 10:00	3/13/2016 10:00	4,446.80	-	0.76	5,851.05	1.86	0.29	24	Atlas	
CSO088	3/24/2016 17:45	3/24/2016 17:45	4,996.61	-	0.27	18,505.98	0.31	0.17	1	Atlas	
CSO088	3/27/2016 21:30	3/27/2016 21:45	13,290.12	0.01	0.75	17,720.16	0.98	0.50	3	Atlas	
CSO088 Count			7.00								
CSO088 Total			205,746.11								
CSO092	2/2/2016 14:30	2/3/2016 1:15	1,872.22	0.45	1.24	1,509.85	1.3	0.57	6	Atlas	
CSO092	2/8/2016 10:15	2/9/2016 1:30	148.39	0.64	0.11	1,348.96	1.35	0.04	24	Atlas	
CSO092	2/15/2016 11:30	2/15/2016 13:00	14.04	0.06	0.23	61.05	0.23	0.16	1	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO092	2/21/2016 4:00	2/21/2016 10:30	1,436.75	0.27	1.06	1,355.42	1.23	0.49	12	Atlas	
CSO092	2/23/2016 22:15	2/25/2016 1:00	3,493.67	1.11	2.02	1,729.54	3.07	0.78	12	Atlas	
CSO092	3/1/2016 11:45	3/1/2016 15:30	1,031.44	0.16	0.29	3,556.68	2.32	0.17	3	Atlas	
CSO092	3/19/2016 9:15	3/19/2016 19:45	7,510.42	2.61	0.16	46,940.10	1.14	0.10	1	Atlas	
CSO092	3/24/2016 17:30	3/24/2016 18:30	559.66	0.04	0.61	917.47	0.76	0.48	1	Atlas	
CSO092	3/27/2016 21:00	3/27/2016 21:30	11,294.88	0.02	0.81	13,944.29	1.34	0.55	1	Atlas	
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 Count			10.00								
CSO092 Total			57,907.97								
CSO093	1/20/2016 14:45	1/21/2016 13:15	48,746.71	0.94	0.18	270,815.05	0.24	0.08	12	Atlas	
CSO093 Count			1.00								
CSO093 Total			48,746.71								
CSO097	1/9/2016 22:15	1/10/2016 0:00	14,427.26	0.07	0.2	72,136.30	0.29	0.09	12	Atlas	
CSO097	2/2/2016 19:45	2/6/2016 0:30	2,707,240.09	3.20	1.51	1,792,874.23	1.61	0.72	6	Atlas	
CSO097	2/8/2016 9:45	2/8/2016 13:00	26,588.19	0.14	0.11	241,710.81	1.59	0.04	24	Atlas	
CSO097	2/21/2016 4:15	2/22/2016 23:45	650,372.27	1.81	0.84	774,252.71	1.03	0.39	12	Atlas	
CSO097	2/23/2016 22:45	3/3/2016 1:30	6,351,536.28	8.11	2.1	3,024,541.09	3.33	0.83	12	Atlas	
CSO097	3/3/2016 13:30	3/3/2016 15:45	981.45	0.09	0.01	98,144.80	0.4	0.01	1	Atlas	
CSO097	3/10/2016 11:30	3/18/2016 19:00	6,091,519.13	8.31	1.12	5,438,856.37	2.16	0.37	12	Atlas	
CSO097	3/24/2016 17:30	3/24/2016 22:00	139,320.77	0.19	0.44	316,638.12	0.62	0.31	1	Atlas	
CSO097	3/27/2016 21:00	3/28/2016 23:15	526,138.32	1.09	0.86	611,788.75	1.3	0.57	3	Atlas	
CSO097	3/31/2016 3:30	4/2/2016 0:00	1,761,549.06	1.85	1.15	1,531,781.79	2.45	0.44	24	Atlas	
CSO097 Count			10.00								
CSO097 Total			18,269,672.83								
CSO104	2/2/2016 23:00	2/3/2016 1:30	321,039.00	0.10	1.34	239,581.35	1.39	0.67	6	Atlas	
CSO104	2/21/2016 10:15	2/21/2016 10:45	8,099.85	0.02	0.8	10,124.82	0.97	0.37	12	Atlas	
CSO104	2/24/2016 3:45	2/24/2016 8:00	165,262.92	0.18	2.32	71,234.02	2.79	0.91	12	Atlas	
CSO104	3/11/2016 5:30	3/12/2016 0:00	75,175.89	0.77	1.31	57,386.18	1.34	0.43	48	Atlas	
CSO104	3/27/2016 21:30	3/27/2016 22:30	37,488.45	0.04	0.73	51,354.04	1.24	0.51	1	Atlas	
CSO104 Count			5.00								
CSO104 Total			607,066.11								
CSO105	2/2/2016 19:45	2/3/2016 4:00	19,533,430.92	0.34	1.34	14,577,187.25	1.39	0.67	6	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO105	2/21/2016 4:00	2/21/2016 13:15	7,913,092.22	0.39	0.8	9,891,365.27	1	0.37	12	Atlas	
CSO105	2/23/2016 22:00	2/24/2016 14:30	25,861,738.85	0.69	2.32	11,147,301.23	2.93	0.91	12	Atlas	
CSO105	3/1/2016 8:30	3/1/2016 15:30	1,571,731.10	0.29	0.71	2,213,705.77	3.08	0.38	6	Atlas	
CSO105	3/9/2016 15:00	3/9/2016 20:30	446,611.43	0.23	1.31	340,924.76	0.43	0.43	48	Atlas	
CSO105	3/10/2016 7:00	3/10/2016 21:30	6,427,478.96	0.60	1.31	4,906,472.49	1.35	0.43	48	Atlas	
CSO105	3/12/2016 20:30	3/13/2016 12:15	6,039,027.56	0.66	0.48	12,581,307.41	1.82	0.18	24	Atlas	
CSO105	3/24/2016 13:30	3/24/2016 20:45	1,762,602.52	0.30	0.51	3,456,083.37	0.58	0.39	1	Atlas	
CSO105	3/27/2016 20:30	3/28/2016 0:30	5,851,840.05	0.17	0.73	8,016,219.24	1.24	0.51	1	Atlas	
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 Count			11.00								
CSO105 Total			81,144,924.17								
CSO108	1/4/2016 6:15	1/5/2016 6:45	18,129.94	1.02	0.02	906,496.88	0.65	0.01	3	Atlas	
CSO108	1/10/2016 4:15	1/11/2016 6:30	225,702.52	1.09	0.18	1,253,902.90	0.39	0.08	12	Atlas	
CSO108	1/12/2016 15:45	1/16/2016 12:15	87,507.80	3.85	0.02	4,375,390.17	0.39	0.02	1	Atlas	
CSO108	1/17/2016 18:15	1/18/2016 8:45	38,999.99	0.60	0.01	3,899,999.00	0.12	0.01	1	Atlas	
CSO108	1/19/2016 4:45	1/19/2016 10:15	31,176.35	0.23	Discharge		0.12	DWO			
CSO108	2/2/2016 23:30	2/3/2016 3:15	543,355.69	0.16	1.59	341,733.14	1.73	0.77	6	Atlas	
CSO108	2/24/2016 3:00	2/24/2016 12:00	1,313,381.76	0.38	1.95	673,529.11	2.46	0.75	12	Atlas	
CSO108	3/24/2016 17:45	3/24/2016 18:15	176,606.58	0.02	0.43	410,712.97	0.62	0.33	1	Atlas	
CSO108	3/27/2016 21:30	3/27/2016 22:15	264,131.90	0.03	0.96	275,137.39	1.36	0.62	3	Atlas	
CSO108	3/31/2016 22:30	3/31/2016 22:30	14,250.77	-	1.42	10,035.75	2.25	0.54	24	Atlas	
CSO108 Count			10.00								
CSO108 Total			2,713,243.30								
CSO109	2/2/2016 23:45	2/3/2016 2:00	441,416.78	0.09	1.61	274,171.91	1.72	0.78	6	Atlas	
CSO109	2/21/2016 9:00	2/21/2016 10:30	50,103.16	0.06	0.74	67,706.97	0.92	0.34	12	Atlas	
CSO109	2/24/2016 5:30	2/24/2016 7:45	624,903.88	0.09	1.96	318,828.51	2.39	0.76	12	Atlas	
CSO109	3/12/2016 22:45	3/12/2016 22:45	38,233.94	-	0.89	42,959.48	1.8	0.33	24	Atlas	
CSO109	3/13/2016 9:00	3/13/2016 9:00	6,097.44	-	0.89	6,851.05	2.1	0.33	24	Atlas	
CSO109	3/24/2016 17:45	3/24/2016 18:00	315,183.59	0.01	0.35	900,524.55	0.56	0.25	1	Atlas	
CSO109	3/27/2016 21:30	3/27/2016 21:45	690,032.34	0.01	0.99	697,002.36	1.25	0.65	3	Atlas	
CSO109	3/31/2016 22:15	3/31/2016 22:15	107,711.77	-	1.4	76,936.98	2.24	0.53	24	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO109 Count			8.00								
CSO109 Total			2,273,682.88								
CSO110	2/2/2016 20:00	2/3/2016 5:15	2,040,026.31	0.39	1.28	1,593,770.56	1.37	0.61	6	Atlas	
CSO110	2/21/2016 4:45	2/21/2016 12:45	831,539.60	0.33	0.94	884,616.59	1.12	0.43	12	Atlas	
CSO110	2/23/2016 23:15	2/24/2016 23:15	2,859,792.33	1.00	2.03	1,408,764.70	2.96	0.79	12	Atlas	
CSO110	2/29/2016 2:00	2/29/2016 2:30	36,466.36	0.02	0.02	1,823,317.85	2.05	0.01	3	Atlas	
CSO110	3/1/2016 12:15	3/1/2016 15:30	417,711.98	0.14	0.29	1,440,386.13	2.33	0.17	3	Atlas	
CSO110	3/10/2016 13:45	3/10/2016 21:45	931,453.84	0.33	1.07	870,517.61	1.11	0.36	12	Atlas	
CSO110	3/12/2016 20:30	3/13/2016 13:30	946,672.64	0.71	0.9	1,051,858.49	1.98	0.34	24	Atlas	
CSO110	3/24/2016 18:00	3/24/2016 19:30	273,071.75	0.06	0.43	635,050.58	0.6	0.32	1	Atlas	
CSO110	3/27/2016 21:30	3/27/2016 23:45	820,766.88	0.09	0.97	846,151.42	1.4	0.65	1	Atlas	
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 Count			10.00								
CSO110 Total			10,131,685.69								
CSO111	2/3/2016 1:00	2/3/2016 22:30	734,657.20	0.90	1.28	573,950.94	1.37	0.61	6	Atlas	
CSO111	2/24/2016 5:45	2/24/2016 6:00	805.22	0.01	2.03	396.66	2.47	0.79	12	Atlas	
CSO111	2/24/2016 20:30	2/26/2016 16:15	2,507,018.63	1.82	2.03	1,234,984.55	2.97	0.79	12	Atlas	
CSO111	3/2/2016 0:45	3/2/2016 5:45	802.08	0.21	0.29	2,765.80	1.74	0.17	3	Atlas	
CSO111	3/27/2016 21:30	3/28/2016 13:45	314,947.20	0.68	0.97	324,687.84	1.4	0.65	1	Atlas	
CSO111 Count			5.00								
CSO111 Total			3,558,230.34								
CSO117	2/2/2016 19:15	2/3/2016 3:00	3,715,390.35	0.32	1.21	3,070,570.54	1.28	0.59	6	Atlas	
CSO117	2/21/2016 4:15	2/21/2016 11:45	2,403,265.85	0.31	1.12	2,145,773.08	1.29	0.51	12	Atlas	
CSO117	2/23/2016 22:45	2/24/2016 9:00	5,054,975.92	0.43	1.99	2,540,188.91	2.8	0.77	12	Atlas	
CSO117 Count			3.00								
CSO117 Total			11,173,632.13								
CSO118	1/9/2016 18:15	1/10/2016 5:45	2,884.48	0.48	0.19	15,181.47	0.31	0.08	12	Atlas	
CSO118	2/2/2016 14:30	2/3/2016 2:15	6,043,644.49	0.49	1.2	5,036,370.41	1.28	0.57	6	Atlas	
CSO118	2/21/2016 4:00	2/21/2016 11:15	2,825,296.22	0.30	1.12	2,522,585.91	1.29	0.51	12	Atlas	
CSO118	2/23/2016 22:15	2/24/2016 8:30	7,270,270.86	0.43	2.02	3,599,143.99	2.85	0.79	12	Atlas	
CSO118	3/1/2016 11:30	3/1/2016 14:30	481,361.71	0.13	0.25	1,925,446.83	2.29	0.15	3	Atlas	
CSO118	3/9/2016 15:15	3/9/2016 17:00	20,480.63	0.07	1.03	19,884.11	0.27	0.33	48	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO118	3/10/2016 13:15	3/10/2016 20:00	2,069,202.84	0.28	1.03	2,008,934.80	1.08	0.33	48	Atlas	
CSO118	3/12/2016 20:15	3/13/2016 0:00	2,147,573.91	0.16	0.92	2,334,319.47	1.71	0.37	6	Atlas	
CSO118	3/13/2016 8:45	3/13/2016 11:15	1,464,505.02	0.10	0.92	1,591,853.29	1.99	0.37	6	Atlas	
CSO118	3/24/2016 17:15	3/24/2016 19:00	695,853.40	0.07	0.59	1,179,412.55	0.7	0.45	1	Atlas	
CSO118	3/27/2016 21:00	3/27/2016 22:45	2,583,330.31	0.07	0.8	3,229,162.89	1.39	0.54	1	Atlas	
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 Count			12.00								
CSO118 Total			27,421,590.91								
CSO119	2/2/2016 19:00	2/3/2016 1:30	466,878.79	0.27	1.2	389,065.66	1.27	0.57	6	Atlas	
CSO119	2/21/2016 4:00	2/21/2016 10:45	267,708.62	0.28	1.12	239,025.56	1.29	0.51	12	Atlas	
CSO119	2/23/2016 23:00	2/24/2016 7:45	753,072.80	0.36	2.02	372,808.32	2.85	0.79	12	Atlas	
CSO119	3/1/2016 12:00	3/1/2016 13:00	68,055.36	0.04	0.25	272,221.44	2.24	0.15	3	Atlas	
CSO119	3/10/2016 13:30	3/10/2016 18:45	173,448.25	0.22	1.03	168,396.36	1.03	0.33	48	Atlas	
CSO119	3/12/2016 22:30	3/12/2016 23:30	118,879.38	0.04	0.92	129,216.71	1.7	0.37	6	Atlas	
CSO119	3/13/2016 8:45	3/13/2016 10:15	145,820.25	0.06	0.92	158,500.27	1.98	0.37	6	Atlas	
CSO119	3/24/2016 17:15	3/24/2016 17:45	86,317.92	0.02	0.59	146,301.56	0.67	0.45	1	Atlas	
CSO119	3/27/2016 21:00	3/27/2016 22:15	148,540.84	0.05	0.8	185,676.05	1.39	0.54	1	Atlas	
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 Count			11.00								
CSO119 Total			2,380,646.94								
CSO120	2/2/2016 14:45	2/3/2016 0:15	429,361.71	0.40	1.34	320,419.19	1.3	0.62	6	Atlas	
CSO120	2/21/2016 4:15	2/21/2016 10:45	217,034.31	0.27	1.1	197,303.92	1.27	0.50	12	Atlas	
CSO120	2/23/2016 23:15	2/24/2016 7:30	540,862.32	0.34	2.04	265,128.59	2.82	0.79	12	Atlas	
CSO120	3/1/2016 12:15	3/1/2016 13:00	85,182.43	0.03	0.29	293,732.53	2.29	0.15	3	Atlas	
CSO120	3/10/2016 13:45	3/10/2016 16:45	49,946.54	0.13	1.11	44,996.88	0.91	0.36	48	Atlas	
CSO120	3/12/2016 22:45	3/12/2016 23:15	140,921.69	0.02	0.8	176,152.11	1.67	0.31	6	Atlas	
CSO120	3/13/2016 9:00	3/13/2016 10:00	93,677.66	0.04	0.8	117,097.07	1.92	0.31	6	Atlas	
CSO120	3/24/2016 17:30	3/24/2016 17:45	117,201.47	0.01	0.51	229,806.80	0.57	0.38	1	Atlas	
CSO120	3/27/2016 21:15	3/27/2016 22:00	260,125.43	0.03	0.75	346,833.90	1.24	0.51	1	Atlas	
CSO120	3/31/2016 4:45	3/31/2016 4:45	1,561.82	-	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	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO120 Count			11.00								
CSO120 Total			2,001,436.28								
CSO121	2/1/2016 5:00	2/1/2016 5:15	220.38	0.01	0.07	3,148.21	0.09	0.05	3	Atlas	
CSO121	2/2/2016 19:00	2/3/2016 0:15	111,816.55	0.22	1.34	83,445.19	1.3	0.62	6	Atlas	
CSO121	2/21/2016 4:00	2/21/2016 10:45	23,656.00	0.28	1.1	21,505.46	1.27	0.50	12	Atlas	
CSO121	2/23/2016 22:30	2/24/2016 13:00	133,070.48	0.60	2.04	65,230.63	2.9	0.79	12	Atlas	
CSO121	3/1/2016 12:00	3/1/2016 15:00	8,911.83	0.13	0.29	30,730.46	2.35	0.15	3	Atlas	
CSO121	3/10/2016 13:30	3/10/2016 16:45	32,953.62	0.14	1.11	29,687.94	0.91	0.36	48	Atlas	
CSO121	3/12/2016 22:45	3/12/2016 23:30	26,178.58	0.03	0.8	32,723.23	1.68	0.31	6	Atlas	
CSO121	3/13/2016 9:15	3/13/2016 10:00	128,248.73	0.03	0.8	160,310.91	1.92	0.31	6	Atlas	
CSO121	3/24/2016 17:45	3/24/2016 17:45	3,139.48	-	0.51	6,155.84	0.57	0.38	1	Atlas	
CSO121	3/27/2016 21:00	3/27/2016 22:00	50,098.12	0.04	0.75	66,797.50	1.24	0.51	1	Atlas	
CSO121	3/31/2016 4:30	3/31/2016 4:30	252.46	-	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 Count			12.00								
CSO121 Total			580,547.61								
CSO125	2/2/2016 20:00	2/3/2016 2:00	83,669.64	0.25	1.61	51,968.72	1.68	0.74	6	Atlas	
CSO125	2/21/2016 4:30	2/21/2016 10:45	16,871.25	0.26	0.83	20,326.81	1	0.38	12	Atlas	
CSO125	2/23/2016 23:30	2/24/2016 9:45	299,620.92	0.43	2.03	147,596.51	2.59	0.81	12	Atlas	
CSO125	3/1/2016 12:30	3/1/2016 13:15	21,556.50	0.03	0.37	58,260.81	2.37	0.22	3	Atlas	
CSO125	3/10/2016 14:00	3/10/2016 19:00	91,744.44	0.21	1.18	77,749.53	1.2	0.38	48	Atlas	
CSO125	3/12/2016 20:15	3/12/2016 23:30	56,567.04	0.14	0.89	63,558.47	1.68	0.34	24	Atlas	
CSO125	3/13/2016 9:15	3/13/2016 10:15	52,184.82	0.04	0.89	58,634.63	2.07	0.34	24	Atlas	
CSO125	3/24/2016 17:45	3/24/2016 18:15	188,730.77	0.02	0.47	401,554.82	0.55	0.34	1	Atlas	
CSO125	3/27/2016 21:30	3/27/2016 22:15	155,059.20	0.03	0.86	180,301.39	1.32	0.57	3	Atlas	
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 Count			11.00								
CSO125 Total			1,120,309.41								
CSO126	2/2/2016 23:15	2/3/2016 2:15	304,730.44	0.13	1.61	189,273.56	1.68	0.74	6	Atlas	
CSO126	2/21/2016 10:30	2/21/2016 10:45	7,709.40	0.01	0.83	9,288.43	0.98	0.38	12	Atlas	
CSO126	2/24/2016 3:00	2/25/2016 9:00	2,378,831.44	1.25	2.03	1,171,838.15	2.86	0.81	12	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO126	3/10/2016 17:00	3/10/2016 19:15	5,366.94	0.09	1.18	4,548.25	1.21	0.38	48	Atlas	
CSO126	3/12/2016 23:30	3/12/2016 23:30	6,319.92	-	0.89	7,101.03	1.68	0.34	24	Atlas	
CSO126	3/13/2016 9:45	3/13/2016 10:00	13,094.66	0.01	0.89	14,713.10	2.06	0.34	24	Atlas	
CSO126	3/24/2016 17:45	3/24/2016 17:45	5,878.85	-	0.47	12,508.20	0.54	0.34	1	Atlas	
CSO126	3/27/2016 21:30	3/27/2016 21:45	78,486.47	0.01	0.86	91,263.34	1.27	0.57	3	Atlas	
CSO126	3/31/2016 23:15	4/1/2016 1:30	20,838.52	0.09	1.1	18,944.11	1.96	0.42	24	Atlas	
CSO126 Count			9.00								
CSO126 Total			2,821,256.63								
CSO127	2/2/2016 15:00	2/3/2016 2:45	686,485.12	0.49	1.63	421,156.51	1.71	0.76	6	Atlas	
CSO127	2/21/2016 4:15	2/21/2016 11:30	416,962.51	0.30	1.02	408,786.77	1.2	0.47	12	Atlas	
CSO127	2/23/2016 22:30	2/24/2016 9:30	711,156.47	0.46	2.05	346,905.59	2.76	0.80	12	Atlas	
CSO127	3/1/2016 12:15	3/1/2016 14:30	97,789.04	0.09	0.33	296,330.41	2.39	0.17	6	Atlas	
CSO127	3/9/2016 15:45	3/9/2016 17:00	30,989.77	0.05	1.24	24,991.75	0.29	0.40	12	Atlas	
CSO127	3/10/2016 13:45	3/10/2016 20:45	433,926.07	0.29	1.24	349,940.38	1.29	0.40	12	Atlas	
CSO127	3/12/2016 20:15	3/13/2016 0:00	120,474.17	0.16	0.88	136,902.47	1.78	0.33	24	Atlas	
CSO127	3/13/2016 9:00	3/13/2016 11:30	286,297.70	0.10	0.88	325,338.30	2.13	0.33	24	Atlas	
CSO127	3/24/2016 17:45	3/24/2016 18:30	25,213.37	0.03	0.46	54,811.66	0.6	0.33	1	Atlas	
CSO127	3/27/2016 21:00	3/27/2016 23:00	1,140,823.26	0.08	0.85	1,342,145.01	1.31	0.56	3	Atlas	
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 Count			11.00								
CSO127 Total			4,452,250.41								
CSO130	2/3/2016 0:00	2/3/2016 0:00	9,719.73	-	1.49	6,523.31	1.42	0.68	12	Atlas	
CSO130 Count			1.00								
CSO130 Total			9,719.73								
CSO131	2/2/2016 23:45	2/2/2016 23:45	35,625.00	-	1.49	23,909.40	1.38	0.68	12	Atlas	
CSO131	3/24/2016 17:15	3/24/2016 17:15	20,297.10	-	0.27	75,174.46	0.26	0.17	1	Atlas	
CSO131	3/27/2016 21:00	3/27/2016 21:15	64,890.33	0.01	0.75	86,520.44	0.91	0.50	3	Atlas	
CSO131 Count			3.00								
CSO131 Total			120,812.43								
CSO132	2/2/2016 14:45	2/3/2016 7:45	2,362,990.12	0.71	1.51	1,564,894.12	1.57	0.69	12	Atlas	
CSO132	2/21/2016 4:15	2/21/2016 11:45	1,024,352.67	0.31	0.94	1,089,736.89	1.12	0.43	12	Atlas	
CSO132	2/23/2016 22:30	2/25/2016 9:30	13,998,916.44	1.46	1.99	7,034,631.38	2.93	0.77	12	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO132	3/1/2016 12:00	3/1/2016 14:45	1,412,976.77	0.11	0.34	4,155,814.04	2.33	0.19	3	Atlas	
CSO132	3/9/2016 15:45	3/9/2016 17:00	326,359.49	0.05	1.12	291,392.41	0.31	0.36	48	Atlas	
CSO132	3/10/2016 13:30	3/10/2016 21:30	2,893,122.95	0.33	1.12	2,583,145.49	1.16	0.36	48	Atlas	
CSO132	3/12/2016 20:00	3/13/2016 0:45	811,186.75	0.20	0.81	1,001,465.12	1.62	0.30	24	Atlas	
CSO132	3/13/2016 9:00	3/13/2016 13:45	2,352,596.19	0.20	0.81	2,904,439.74	1.95	0.30	24	Atlas	
CSO132	3/24/2016 17:30	3/24/2016 18:30	1,624,215.00	0.04	0.29	5,600,741.39	0.34	0.19	1	Atlas	
CSO132	3/27/2016 21:30	3/27/2016 23:00	223,124.40	0.06	0.73	305,649.86	1.02	0.48	3	Atlas	
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 Count			11.00								
CSO132 Total			27,729,349.60								
CSO140	2/2/2016 19:00	2/3/2016 1:30	321,769.02	0.27	1.45	221,909.67	1.51	0.67	6	Atlas	
CSO140	2/21/2016 4:00	2/21/2016 10:30	74,532.26	0.27	1.07	69,656.31	1.24	0.49	12	Atlas	
CSO140	2/23/2016 23:30	2/24/2016 7:45	368,290.46	0.34	2.09	176,215.53	2.87	0.83	12	Atlas	
CSO140	3/1/2016 12:30	3/1/2016 12:45	11,609.58	0.01	0.29	40,033.04	2.34	0.16	3	Atlas	
CSO140	3/10/2016 13:30	3/10/2016 16:45	52,571.04	0.14	1.1	47,791.85	0.91	0.36	12	Atlas	
CSO140	3/12/2016 20:00	3/12/2016 23:15	46,537.80	0.14	0.86	54,113.73	1.68	0.33	24	Atlas	
CSO140	3/13/2016 8:45	3/13/2016 10:00	54,065.05	0.05	0.86	62,866.34	1.97	0.33	24	Atlas	
CSO140	3/24/2016 17:30	3/24/2016 17:45	36,838.45	0.01	0.46	80,083.58	0.53	0.34	1	Atlas	
CSO140	3/27/2016 21:00	3/27/2016 22:00	289,345.41	0.04	0.82	352,860.26	1.25	0.57	1	Atlas	
CSO140	3/31/2016 4:30	3/31/2016 4:30	5,130.60	-	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 Count			11.00								
CSO140 Total			1,286,792.67								
CSO142	2/2/2016 19:45	2/3/2016 0:00	35,841.65	0.18	1.21	29,621.19	1.19	0.57	6	Atlas	R
CSO142	2/21/2016 4:15	2/21/2016 10:15	17,952.51	0.25	1.09	16,470.19	1.25	0.50	12	Atlas	R
CSO142	3/12/2016 22:45	3/12/2016 23:15	27,549.33	0.02	0.85	32,410.98	1.67	0.32	24	Atlas	R
CSO142	3/24/2016 17:30	3/24/2016 17:45	5,301.24	0.01	0.6	8,835.40	0.75	0.46	1	Atlas	R
CSO142	3/27/2016 21:15	3/27/2016 21:30	52,885.09	0.01	0.85	62,217.75	1.37	0.60	1	Atlas	
CSO142 Count			5.00								
CSO142 Total			139,529.81								
CSO144	3/27/2016 21:15	3/27/2016 21:15	1,641.45	-	0.84	1,954.10	1.12	0.56	3	Atlas	
CSO144 Count			1.00								

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO144 Total			1,641.45								
CSO146	2/2/2016 15:15	2/3/2016 3:00	2,877,889.36	0.49	1.21	2,378,420.96	1.29	0.57	6	Atlas	
CSO146 Count			1.00								
CSO146 Total			2,877,889.36								
CSO148	2/21/2016 4:15	2/21/2016 10:45	48,018.45	0.27	0.84	57,164.82	1.03	0.39	12	Atlas	
CSO148	2/23/2016 23:45	2/24/2016 7:30	84,407.44	0.32	2.1	40,194.02	2.64	0.83	12	Atlas	
CSO148	3/1/2016 12:15	3/1/2016 12:45	2,697.01	0.02	0.36	7,491.70	2.4	0.21	3	Atlas	
CSO148	3/10/2016 15:30	3/10/2016 16:45	6,082.71	0.05	1.12	5,430.99	0.91	0.37	12	Atlas	
CSO148	3/12/2016 20:15	3/12/2016 22:45	946.53	0.10	0.9	1,051.70	1.64	0.33	24	Atlas	
CSO148	3/13/2016 9:00	3/13/2016 9:45	9,921.39	0.03	0.9	11,023.76	1.99	0.33	24	Atlas	
CSO148	3/24/2016 17:30	3/24/2016 17:45	36,943.33	0.01	0.44	83,962.12	0.59	0.31	1	Atlas	
CSO148	3/27/2016 21:15	3/27/2016 21:45	84,004.05	0.02	0.86	97,679.13	1.22	0.57	3	Atlas	
CSO148	3/31/2016 4:30	3/31/2016 4:30	2,107.58	-	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 Count			10.00								
CSO148 Total			292,827.94								
CSO149	2/2/2016 22:00	2/3/2016 6:45	256,125.96	0.36	1.21	211,674.34	1.29	0.57	6	Atlas	
CSO149	2/21/2016 4:15	2/21/2016 10:30	14,188.00	0.26	1.09	13,016.51	1.26	0.50	12	Atlas	
CSO149	2/23/2016 23:15	2/24/2016 14:30	277,886.34	0.64	2.08	133,599.20	3.02	0.81	12	Atlas	
CSO149	3/1/2016 12:00	3/1/2016 13:15	2,933.28	0.05	0.27	10,864.00	2.32	0.14	3	Atlas	
CSO149	3/9/2016 15:45	3/9/2016 15:45	62.63	-	1.12	55.92	0.23	0.36	48	Atlas	
CSO149	3/10/2016 13:30	3/10/2016 19:30	53,371.43	0.25	1.12	47,653.07	1.15	0.36	48	Atlas	
CSO149	3/12/2016 20:30	3/13/2016 0:00	33,844.15	0.15	0.85	39,816.65	1.69	0.32	24	Atlas	
CSO149	3/13/2016 9:00	3/13/2016 10:45	11,757.86	0.07	0.85	13,832.77	1.98	0.32	24	Atlas	
CSO149	3/24/2016 17:45	3/24/2016 20:00	7,601.98	0.09	0.6	12,669.96	0.77	0.46	1	Atlas	
CSO149	3/27/2016 21:30	3/27/2016 22:00	40,756.18	0.02	0.85	47,948.44	1.42	0.60	1	Atlas	
CSO149	3/31/2016 22:15	4/1/2016 0:00	8,020.68	0.07	1.18	6,797.18	2.03	0.45	24	Atlas	
CSO149 Count			11.00								
CSO149 Total			706,548.48								
CSO150	2/2/2016 22:00	2/3/2016 1:15	248,016.14	0.14	1.49	166,453.79	1.52	0.72	6	Atlas	
CSO150	2/21/2016 10:15	2/21/2016 11:00	45,652.95	0.03	0.86	53,084.83	1.01	0.39	12	Atlas	
CSO150	2/24/2016 1:00	2/24/2016 8:15	479,715.63	0.30	1.9	252,481.91	2.41	0.72	24	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO150	3/10/2016 16:00	3/10/2016 20:00	124,713.86	0.17	1.32	94,480.20	1.34	0.44	12	Atlas	
CSO150	3/12/2016 22:45	3/13/2016 0:15	50,285.29	0.06	0.87	57,799.18	2.04	0.37	6	Atlas	
CSO150	3/27/2016 21:00	3/27/2016 23:00	77,002.29	0.08	0.73	105,482.59	1.02	0.49	3	Atlas	
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 Count			8.00								
CSO150 Total			1,129,386.25								
CSO151	1/9/2016 19:45	1/9/2016 23:15	5,663.83	0.15	0.22	25,744.70	0.31	0.09	12	Atlas	
CSO151	2/1/2016 6:00	2/1/2016 6:15	1,186.50	0.01	0.07	16,949.99	0.1	0.05	3	Atlas	
CSO151	2/2/2016 15:00	2/3/2016 23:45	742,590.49	1.36	1.38	538,109.05	1.45	0.64	6	Atlas	
CSO151	2/21/2016 4:30	2/21/2016 14:00	262,482.78	0.40	0.99	265,134.12	1.17	0.45	12	Atlas	
CSO151	2/23/2016 22:30	2/26/2016 21:00	1,490,692.55	2.94	2.04	730,731.64	3.04	0.80	12	Atlas	
CSO151	2/29/2016 1:45	2/29/2016 3:00	19,772.04	0.05	0.02	988,601.82	2.06	0.01	3	Atlas	
CSO151	3/1/2016 12:00	3/1/2016 16:00	144,058.98	0.17	0.38	379,102.58	2.43	0.21	3	Atlas	
CSO151	3/3/2016 13:30	3/3/2016 14:00	740.00	0.02	0.01	73,999.70	0.42	0.01	1	Atlas	
CSO151	3/9/2016 15:45	3/9/2016 17:45	70,937.93	0.08	1.05	67,559.94	0.24	0.34	12	Atlas	
CSO151	3/10/2016 10:00	3/11/2016 1:30	620,120.31	0.65	1.05	590,590.77	1.12	0.34	12	Atlas	
CSO151	3/12/2016 20:15	3/14/2016 0:00	563,147.34	1.16	0.85	662,526.29	1.92	0.32	24	Atlas	
CSO151	3/19/2016 9:15	3/19/2016 11:00	18,025.01	0.07	0.15	120,166.74	1.11	0.10	1	Atlas	
CSO151	3/24/2016 18:00	3/24/2016 20:00	53,931.51	0.08	0.57	94,616.68	0.72	0.43	1	Atlas	
CSO151	3/27/2016 21:00	3/28/2016 0:15	242,554.75	0.14	0.82	295,798.48	1.39	0.54	3	Atlas	
CSO151	3/31/2016 1:45	4/1/2016 20:45	747,618.49	1.79	1.07	698,708.87	2.46	0.41	24	Atlas	
CSO151 Count			15.00								
CSO151 Total			4,983,522.53								
CSO152	2/2/2016 15:15	2/3/2016 2:45	1,003,114.33	0.48	1.24	808,963.17	1.32	0.57	6	Atlas	
CSO152	2/21/2016 4:30	2/21/2016 11:45	786,344.41	0.30	1.06	741,834.35	1.23	0.49	12	Atlas	
CSO152	2/23/2016 22:45	2/24/2016 14:45	2,487,841.99	0.67	2.02	1,231,604.95	2.94	0.78	12	Atlas	
CSO152	2/29/2016 2:15	2/29/2016 2:15	4,832.79	-	0.02	241,639.75	2.04	0.01	3	Atlas	
CSO152	3/1/2016 12:15	3/1/2016 14:45	379,534.41	0.10	0.29	1,308,739.33	2.32	0.17	3	Atlas	
CSO152	3/9/2016 16:00	3/9/2016 17:30	92,536.87	0.06	1.08	85,682.29	0.26	0.35	12	Atlas	
CSO152	3/10/2016 13:45	3/10/2016 21:00	789,335.62	0.30	1.08	730,866.31	1.13	0.35	12	Atlas	
CSO152	3/12/2016 20:30	3/13/2016 0:30	306,211.49	0.17	0.83	368,929.51	1.69	0.32	24	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO152	3/13/2016 9:15	3/13/2016 11:45	340,837.64	0.10	0.83	410,647.76	1.96	0.32	24	Atlas	
CSO152	3/24/2016 18:15	3/24/2016 19:30	76,665.04	0.05	0.61	125,680.40	0.77	0.48	1	Atlas	
CSO152	3/27/2016 21:15	3/27/2016 23:15	226,053.64	0.08	0.81	279,078.56	1.42	0.55	1	Atlas	
CSO152	3/31/2016 2:15	4/1/2016 1:00	906,919.65	0.95	1.07	847,588.46	2.49	0.41	24	Atlas	
CSO152 Count			12.00								
CSO152 Total			7,400,227.88								
CSO153	1/9/2016 18:30	1/9/2016 18:30	2,440.47	-	0.18	13,558.16	0.17	0.08	12	Atlas	
CSO153	2/2/2016 19:45	2/3/2016 1:30	691,594.60	0.24	1.34	516,115.37	1.41	0.62	6	Atlas	
CSO153	2/21/2016 4:00	2/21/2016 11:30	359,828.51	0.31	1.1	327,116.82	1.27	0.50	12	Atlas	
CSO153	2/23/2016 22:15	2/24/2016 7:15	632,688.77	0.38	2.04	310,141.55	2.81	0.79	12	Atlas	
CSO153	3/1/2016 11:45	3/1/2016 14:00	85,567.63	0.09	0.29	295,060.80	2.34	0.15	3	Atlas	
CSO153	3/9/2016 15:30	3/9/2016 15:30	4,129.30	-	1.11	3,720.09	0.21	0.36	48	Atlas	
CSO153	3/10/2016 13:15	3/10/2016 20:00	201,322.38	0.28	1.11	181,371.52	1.15	0.36	48	Atlas	
CSO153	3/12/2016 20:00	3/12/2016 23:45	166,926.09	0.16	0.8	208,657.62	1.69	0.31	6	Atlas	
CSO153	3/13/2016 8:45	3/13/2016 10:45	127,192.26	0.08	0.8	158,990.32	1.94	0.31	6	Atlas	
CSO153	3/24/2016 17:15	3/24/2016 17:45	82,112.07	0.02	0.51	161,004.05	0.57	0.38	1	Atlas	
CSO153	3/27/2016 21:00	3/27/2016 22:30	367,748.67	0.06	0.75	490,331.56	1.26	0.51	1	Atlas	
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 Count			13.00								
CSO153 Total			2,894,827.50								
CSO154	2/2/2016 23:00	2/3/2016 7:00	1,179,816.17	0.33	1.51	781,335.21	1.57	0.69	12	Atlas	
CSO154	2/21/2016 4:15	2/21/2016 16:30	118,329.23	0.51	0.94	125,882.15	1.12	0.43	12	Atlas	
CSO154	2/23/2016 23:00	2/26/2016 1:00	12,270,924.96	2.08	1.99	6,166,293.95	2.93	0.77	12	Atlas	
CSO154	3/1/2016 12:30	3/1/2016 17:30	1,033,027.87	0.21	0.34	3,038,317.26	2.35	0.19	3	Atlas	
CSO154	3/13/2016 10:00	3/13/2016 10:00	4,867.30	-	0.81	6,009.01	1.92	0.30	24	Atlas	
CSO154	3/27/2016 21:30	3/27/2016 21:30	27,892.88	-	0.73	38,209.42	0.94	0.48	3	Atlas	
CSO154 Count			6.00								
CSO154 Total			14,634,858.40								
CSO155	2/2/2016 19:30	2/3/2016 0:00	28,531.34	0.19	1.5	19,020.89	1.42	0.71	6	Atlas	
CSO155	2/21/2016 4:00	2/21/2016 10:00	5,322.84	0.25	0.83	6,413.07	0.93	0.38	12	Atlas	
CSO155	2/24/2016 1:00	2/24/2016 7:00	12,146.91	0.25	1.82	6,674.12	2.21	0.69	24	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO155	3/10/2016 15:45	3/10/2016 15:45	198.79	-	1.34	148.35	0.9	0.44	12	Atlas	
CSO155	3/12/2016 20:15	3/12/2016 23:15	56,218.65	0.13	0.65	86,490.23	1.84	0.27	6	Atlas	
CSO155	3/24/2016 17:15	3/24/2016 17:30	4,319.10	0.01	0.33	13,088.20	0.35	0.21	1	Atlas	
CSO155	3/27/2016 21:15	3/27/2016 21:45	14,363.22	0.02	0.88	16,321.85	1.17	0.59	3	Atlas	
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 Count			8.00								
CSO155 Total			123,764.78								
CSO161	3/27/2016 21:15	3/27/2016 21:15	3,658.99	-	0.71	5,153.51	0.93	0.47	1	Atlas	
CSO161 Count			1.00								
CSO161 Total			3,658.99								
CSO166	2/2/2016 20:30	2/3/2016 3:30	2,611,547.02	0.29	1.63	1,602,176.08	1.71	0.76	6	Atlas	
CSO166	2/21/2016 4:30	2/21/2016 12:00	717,833.47	0.31	1.02	703,758.30	1.2	0.47	12	Atlas	
CSO166	2/23/2016 23:45	2/24/2016 22:00	4,930,767.11	0.93	2.05	2,405,252.25	3.06	0.80	12	Atlas	
CSO166	3/1/2016 12:45	3/1/2016 14:00	339,020.12	0.05	0.33	1,027,333.70	2.38	0.17	6	Atlas	
CSO166	3/10/2016 14:15	3/10/2016 21:00	1,201,021.52	0.28	1.24	968,565.74	1.29	0.40	12	Atlas	
CSO166	3/12/2016 20:30	3/13/2016 0:30	574,669.07	0.17	0.88	653,033.03	1.78	0.33	24	Atlas	
CSO166	3/13/2016 9:15	3/13/2016 11:15	436,307.91	0.08	0.88	495,804.44	2.13	0.33	24	Atlas	
CSO166	3/24/2016 18:00	3/24/2016 18:45	205,773.08	0.03	0.46	447,332.77	0.61	0.33	1	Atlas	
CSO166	3/27/2016 21:15	3/27/2016 23:30	446,285.80	0.09	0.85	525,042.11	1.31	0.56	3	Atlas	
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 Count			11.00								
CSO166 Total			12,487,067.63								
CSO167	2/2/2016 15:00	2/3/2016 3:15	768,049.29	0.51	1.51	508,641.91	1.57	0.69	12	Atlas	
CSO167	2/21/2016 4:30	2/21/2016 11:15	283,281.22	0.28	0.94	301,363.00	1.12	0.43	12	Atlas	
CSO167	2/23/2016 22:45	2/24/2016 16:45	1,356,171.43	0.75	1.99	681,493.18	2.83	0.77	12	Atlas	
CSO167	3/1/2016 12:15	3/1/2016 14:30	126,094.53	0.09	0.34	370,866.27	2.33	0.19	3	Atlas	
CSO167	3/9/2016 16:00	3/9/2016 16:15	2,640.05	0.01	1.12	2,357.19	0.27	0.36	48	Atlas	
CSO167	3/10/2016 13:45	3/10/2016 20:30	304,214.88	0.28	1.12	271,620.43	1.16	0.36	48	Atlas	
CSO167	3/12/2016 20:15	3/13/2016 0:00	170,442.65	0.16	0.81	210,423.02	1.61	0.30	24	Atlas	
CSO167	3/13/2016 9:00	3/13/2016 11:45	220,164.04	0.11	0.81	271,807.45	1.95	0.30	24	Atlas	
CSO167	3/24/2016 17:30	3/24/2016 18:15	123,179.25	0.03	0.29	424,756.04	0.33	0.19	1	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO167	3/27/2016 21:15	3/27/2016 23:00	272,812.78	0.07	0.73	373,716.14	1.02	0.48	3	Atlas	
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 Count			11.00								
CSO167 Total			3,928,594.29								
CSO174	2/2/2016 20:00	2/3/2016 0:45	800,333.05	0.20	1.21	661,432.28	1.24	0.57	6	Atlas	R
CSO174	2/21/2016 4:30	2/21/2016 10:45	86,342.34	0.26	1.09	79,213.15	1.26	0.50	12	Atlas	R
CSO174	2/24/2016 0:15	2/24/2016 7:45	920,244.11	0.31	2.08	442,425.05	2.86	0.81	12	Atlas	
CSO174	3/1/2016 12:15	3/1/2016 13:00	15,533.89	0.03	0.27	57,532.91	2.31	0.14	3	Atlas	R
CSO174	3/10/2016 16:00	3/10/2016 17:00	31,473.75	0.04	1.12	28,101.56	0.95	0.36	48	Atlas	R
CSO174	3/12/2016 20:30	3/12/2016 23:30	122,400.33	0.13	0.85	144,000.38	1.68	0.32	24	Atlas	R
CSO174	3/13/2016 9:15	3/13/2016 10:15	231,981.71	0.04	0.85	272,919.66	1.97	0.32	24	Atlas	R
CSO174	3/24/2016 17:45	3/24/2016 18:00	337,640.53	0.01	0.6	562,734.22	0.75	0.46	1	Atlas	R
CSO174	3/27/2016 21:15	3/27/2016 22:00	1,392,423.55	0.03	0.85	1,638,145.36	1.42	0.60	1	Atlas	
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 Count			10.00								
CSO174 Total			4,136,817.48								
CSO179	3/27/2016 21:15	3/27/2016 21:15	8,948.83	-	0.85	10,528.04	1.32	0.60	1	Atlas	
CSO179 Count			1.00								
CSO179 Total			8,948.83								
CSO180	2/2/2016 19:30	2/3/2016 0:00	86,216.44	0.19	1.21	71,253.26	1.19	0.57	6	Atlas	R
CSO180	2/21/2016 4:00	2/21/2016 10:30	28,438.85	0.27	1.09	26,090.69	1.26	0.50	12	Atlas	R
CSO180	2/24/2016 5:00	2/24/2016 7:00	39,277.46	0.08	2.08	18,883.39	2.82	0.81	12	Atlas	
CSO180	3/1/2016 12:00	3/1/2016 12:00	5,454.47	-	0.27	20,201.74	2.25	0.14	3	Atlas	R
CSO180	3/12/2016 22:45	3/12/2016 23:00	9,474.58	0.01	0.85	11,146.57	1.66	0.32	24	Atlas	R
CSO180	3/13/2016 9:15	3/13/2016 9:15	6,849.29	-	0.85	8,057.99	1.89	0.32	24	Atlas	R
CSO180	3/24/2016 17:45	3/24/2016 17:45	23,970.32	-	0.6	39,950.54	0.75	0.46	1	Atlas	R
CSO180	3/27/2016 21:15	3/27/2016 21:45	168,352.73	0.02	0.85	198,062.04	1.4	0.60	1	Atlas	R
CSO180	3/31/2016 22:15	3/31/2016 22:15	6,750.27	-	1.18	5,720.57	1.86	0.45	24	Atlas	R
CSO180 Count			9.00								
CSO180 Total			374,784.43								
CSO181	2/3/2016 0:15	2/3/2016 0:30	95,819.96	0.01	1.21	79,190.05	1.21	0.58	6	Atlas	
CSO181	3/12/2016 23:15	3/12/2016 23:15	5,355.51	-	0.77	6,955.21	1.68	0.30	24	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO181	3/27/2016 21:45	3/27/2016 22:00	55,989.35	0.01	0.72	77,762.98	1.17	0.49	1	Atlas	
CSO181 Count			3.00								
CSO181 Total			157,164.81								
CSO182	1/9/2016 18:30	1/9/2016 22:30	7,233.52	0.17	0.2	36,167.60	0.28	0.09	12	Atlas	R
CSO182	2/1/2016 5:30	2/1/2016 5:45	2,334.68	0.01	0.1	23,346.77	0.13	0.05	3	Atlas	R
CSO182	2/2/2016 15:00	2/3/2016 3:30	61,712.63	0.52	1.18	52,298.84	1.28	0.57	6	Atlas	R
CSO182	2/21/2016 4:15	2/21/2016 11:15	54,565.16	0.29	0.95	57,437.01	1.13	0.44	12	Atlas	R
CSO182	2/23/2016 22:30	2/24/2016 15:00	125,781.08	0.69	2.11	59,611.88	2.9	0.83	12	Atlas	R
CSO182	2/29/2016 1:45	2/29/2016 2:00	8,634.40	0.01	0.02	431,719.78	2.13	0.01	3	Atlas	R
CSO182	3/1/2016 12:00	3/1/2016 14:30	35,954.32	0.10	0.26	138,285.86	2.38	0.14	3	Atlas	R
CSO182	3/9/2016 15:45	3/9/2016 17:00	23,033.56	0.05	1.11	20,750.96	0.28	0.36	48	Atlas	R
CSO182	3/10/2016 13:30	3/10/2016 21:00	112,421.49	0.31	1.11	101,280.62	1.16	0.36	48	Atlas	R
CSO182	3/12/2016 20:15	3/13/2016 0:45	39,140.52	0.19	0.86	45,512.23	1.72	0.33	24	Atlas	R
CSO182	3/13/2016 9:00	3/13/2016 12:45	21,390.11	0.16	0.86	24,872.22	2.02	0.33	24	Atlas	R
CSO182	3/19/2016 9:15	3/19/2016 10:00	17,156.32	0.03	0.18	95,312.91	1.18	0.13	1	Atlas	R
CSO182	3/24/2016 17:30	3/24/2016 18:30	8,566.80	0.04	0.53	16,163.78	0.71	0.41	1	Atlas	R
CSO182	3/27/2016 21:00	3/27/2016 23:00	53,994.99	0.08	0.83	65,054.20	1.36	0.58	1	Atlas	
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 Count			15.00								
CSO182 Total			654,444.86								
CSO183	2/3/2016 0:00	2/3/2016 0:00	678.23	-	1.23	551.41	1.2	0.60	6	Atlas	R
CSO183	3/27/2016 21:15	3/27/2016 21:15	790.59	-	0.84	941.18	1.18	0.56	1	Atlas	R
CSO183 Count			2.00								
CSO183 Total			1,468.82								
CSO184	1/10/2016 1:15	1/10/2016 10:00	542,910.23	0.36	0.17	3,193,589.57	0.33	0.08	12	Atlas	R
CSO184	2/3/2016 0:00	2/3/2016 0:00	775.06	-	1.23	630.13	1.2	0.60	6	Atlas	R
CSO184	2/8/2016 10:45	2/8/2016 18:00	5,582.15	0.30	0.12	46,517.88	1.34	0.05	24	Atlas	R
CSO184	2/24/2016 17:45	2/25/2016 4:15	525,678.91	0.44	2.13	246,797.61	2.9	0.82	12	Atlas	R
CSO184	3/12/2016 22:45	3/12/2016 22:45	3,290.74	-	0.93	3,538.43	1.71	0.37	6	Atlas	R
CSO184	3/13/2016 9:15	3/13/2016 9:15	1,196.26	-	0.93	1,286.30	1.96	0.37	6	Atlas	R
CSO184	3/24/2016 17:45	3/24/2016 17:45	12,224.33	-	0.48	25,467.36	0.65	0.37	1	Atlas	R
CSO184	3/27/2016 21:30	3/27/2016 21:45	109,622.84	0.01	0.84	130,503.39	1.25	0.56	1	Atlas	R

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO184	3/31/2016 22:15	3/31/2016 22:15	1,838.15	-	1.19	1,544.66	1.9	0.45	24	Atlas	R
CSO184 Count			9.00								
CSO184 Total			1,203,118.67								
CSO185	1/17/2016 16:30	1/19/2016 22:00	2,762,385.07	2.23	0.01	276,238,506.82	0.11	0.01	1	Atlas	R
CSO185	2/1/2016 6:15	2/1/2016 13:30	22,272.55	0.30	0.1	222,725.52	0.14	0.07	3	Atlas	R
CSO185	2/2/2016 17:30	2/3/2016 0:15	42,348.01	0.28	1.23	34,429.28	1.22	0.60	6	Atlas	R
CSO185	2/21/2016 9:00	2/21/2016 9:00	4,375.49	-	0.77	5,682.45	0.72	0.35	12	Atlas	R
CSO185	2/24/2016 5:15	2/25/2016 11:15	3,460,781.15	1.25	2.13	1,624,779.88	2.9	0.82	12	Atlas	R
CSO185	3/12/2016 22:45	3/12/2016 22:45	14,268.44	-	0.93	15,342.41	1.71	0.37	6	Atlas	R
CSO185	3/13/2016 9:15	3/13/2016 10:00	2,191.36	0.03	0.93	2,356.31	2.04	0.37	6	Atlas	R
CSO185	3/24/2016 17:45	3/24/2016 17:45	37,914.06	-	0.48	78,987.63	0.65	0.37	1	Atlas	R
CSO185	3/27/2016 21:15	3/27/2016 21:45	194,209.23	0.02	0.84	231,201.47	1.25	0.56	1	Atlas	
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 Count			10.00								
CSO185 Total			6,556,300.59								
CSO187	2/3/2016 0:00	2/3/2016 0:00	33,109.69	-	1.21	27,363.38	1.19	0.57	6	Atlas	R
CSO187	3/12/2016 22:45	3/12/2016 22:45	28,602.46	-	0.85	33,649.95	1.6	0.32	24	Atlas	R
CSO187	3/27/2016 21:15	3/27/2016 21:30	50,563.00	0.01	0.85	59,485.88	1.37	0.60	1	Atlas	
CSO187 Count			3.00								
CSO187 Total			112,275.14								
CSO189	2/2/2016 19:30	2/3/2016 3:45	19,221,026.69	0.34	1.34	14,344,049.77	1.39	0.67	6	Atlas	
CSO189	2/21/2016 6:00	2/21/2016 12:15	4,334,376.09	0.26	0.8	5,417,970.11	1	0.37	12	Atlas	
CSO189	2/23/2016 23:30	2/24/2016 12:15	25,843,279.50	0.53	2.32	11,139,344.61	2.81	0.91	12	Atlas	
CSO189	3/1/2016 12:30	3/1/2016 14:45	1,352,424.76	0.09	0.71	1,904,823.61	3.07	0.38	6	Atlas	
CSO189	3/9/2016 17:00	3/9/2016 17:15	10,024.56	0.01	1.31	7,652.34	0.37	0.43	48	Atlas	
CSO189	3/10/2016 14:45	3/10/2016 21:15	4,353,685.15	0.27	1.31	3,323,423.78	1.33	0.43	48	Atlas	
CSO189	3/12/2016 20:45	3/13/2016 0:30	815,768.28	0.16	0.48	1,699,517.26	1.63	0.18	24	Atlas	
CSO189	3/13/2016 10:00	3/13/2016 11:15	495,767.76	0.05	0.48	1,032,849.51	1.82	0.18	24	Atlas	
CSO189	3/24/2016 17:15	3/24/2016 18:30	1,735,910.09	0.05	0.51	3,403,745.27	0.58	0.39	1	Atlas	
CSO189	3/27/2016 21:15	3/27/2016 23:15	3,122,089.26	0.08	0.73	4,276,834.60	1.24	0.51	1	Atlas	
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	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO189 Count			12.00								
CSO189 Total			65,289,419.44								
CSO190	2/2/2016 14:45	2/3/2016 1:15	1,876,701.01	0.44	1.5	1,251,134.01	1.52	0.71	6	Atlas	
CSO190	2/21/2016 4:00	2/21/2016 11:15	459,850.18	0.30	0.83	554,036.37	1.01	0.38	12	Atlas	
CSO190	2/23/2016 22:30	2/24/2016 14:15	1,839,856.00	0.66	1.82	1,010,909.89	2.47	0.69	24	Atlas	
CSO190	2/29/2016 1:15	2/29/2016 1:45	2,480.60	0.02	0.03	82,686.82	1.86	0.03	1	Atlas	
CSO190	3/1/2016 8:45	3/1/2016 17:00	144,584.58	0.34	0.48	301,217.87	2.34	0.25	6	Atlas	
CSO190	3/9/2016 15:15	3/9/2016 20:15	12,612.62	0.21	1.34	9,412.41	0.34	0.44	12	Atlas	
CSO190	3/10/2016 13:30	3/10/2016 19:30	312,270.22	0.25	1.34	233,037.48	1.35	0.44	12	Atlas	
CSO190	3/12/2016 20:15	3/12/2016 23:30	680,614.74	0.14	0.65	1,047,099.60	1.85	0.27	6	Atlas	
CSO190	3/13/2016 9:00	3/13/2016 10:45	144,932.09	0.07	0.65	222,972.44	2.03	0.27	6	Atlas	
CSO190	3/24/2016 17:00	3/24/2016 18:00	242,806.87	0.04	0.33	735,778.38	0.36	0.21	1	Atlas	
CSO190	3/27/2016 21:00	3/27/2016 22:30	806,086.07	0.06	0.88	916,006.89	1.21	0.59	3	Atlas	
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 Count			12.00								
CSO190 Total			6,916,322.61								
CSO191	2/2/2016 22:15	2/3/2016 1:45	108,613.58	0.15	1.54	70,528.30	1.61	0.76	6	Atlas	
CSO191	2/3/2016 13:00	2/3/2016 13:30	777,668.38	0.02	0.24	3,240,284.92	1.61	0.07	48	Atlas	
CSO191	2/21/2016 10:00	2/21/2016 10:30	109,898.73	0.02	0.73	150,546.21	0.89	0.33	12	Atlas	
CSO191	2/24/2016 1:00	2/24/2016 9:00	1,411,233.57	0.33	2.14	659,454.94	2.47	0.81	24	Atlas	
CSO191	3/10/2016 16:15	3/10/2016 17:00	75,003.76	0.03	1.33	56,393.81	1.14	0.45	12	Atlas	
CSO191	3/27/2016 22:00	3/27/2016 22:00	20,979.82	-	0.75	27,973.10	0.98	0.50	3	Atlas	
CSO191 Count			6.00								
CSO191 Total			2,503,397.84								
CSO193	2/3/2016 0:00	2/3/2016 0:00	3,301.95	-	1.29	2,559.65	1.25	0.63	6	Atlas	
CSO193	2/21/2016 10:15	2/21/2016 10:15	2,731.70	-	1.12	2,439.02	1.26	0.51	12	Atlas	
CSO193	3/27/2016 21:30	3/27/2016 21:30	1,981.69	-	0.68	2,914.25	1.08	0.46	1	Atlas	
CSO193 Count			3.00								
CSO193 Total			8,015.33								
CSO196	2/2/2016 19:45	2/3/2016 0:15	37,803.54	0.19	1.26	30,002.81	1.25	0.61	6	Atlas	
CSO196	2/15/2016 14:30	2/15/2016 15:00	2,153.78	0.02	0.21	10,256.10	0.22	0.12	3	Atlas	
CSO196	2/21/2016 4:15	2/21/2016 10:30	20,025.16	0.26	1.04	19,254.96	1.2	0.48	12	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO196	2/24/2016 5:15	2/24/2016 7:15	7,048.75	0.08	2.14	3,293.81	2.85	0.83	12	Atlas	
CSO196	3/12/2016 22:30	3/12/2016 23:15	6,960.93	0.03	0.77	9,040.17	1.76	0.31	6	Atlas	
CSO196	3/13/2016 9:45	3/13/2016 9:45	1,427.31	-	0.77	1,853.65	1.99	0.31	6	Atlas	
CSO196	3/24/2016 17:30	3/24/2016 17:45	13,489.08	0.01	0.5	26,978.17	0.64	0.36	1	Atlas	
CSO196	3/27/2016 21:15	3/27/2016 21:45	31,169.10	0.02	0.94	33,158.61	1.4	0.67	1	Atlas	
CSO196	3/31/2016 22:00	3/31/2016 22:00	4,938.85	-	1.22	4,048.24	1.97	0.47	24	Atlas	
CSO196 Count			9.00								
CSO196 Total			125,016.50								
CSO197	1/8/2016 5:30	1/8/2016 6:00	124.59	0.02	0.1	1,245.94	0.1	0.05	12	Atlas	
CSO197	1/9/2016 18:45	1/9/2016 22:45	4,058.30	0.17	0.18	22,546.12	0.22	0.08	12	Atlas	
CSO197	1/15/2016 15:15	1/15/2016 15:30	83.06	0.01	0.06	1,384.38	0.31	0.03	3	Atlas	
CSO197	1/22/2016 11:00	1/22/2016 11:15	83.06	0.01	0.02	4,153.13	0.27	0.01	6	Atlas	
CSO197	1/24/2016 11:00	1/24/2016 13:15	2,220.01	0.09	0.02	111,000.52	0.23	0.02	1	Atlas	
CSO197	2/2/2016 14:30	2/3/2016 2:15	221,226.64	0.49	1.26	175,576.70	1.35	0.61	6	Atlas	
CSO197	2/8/2016 9:15	2/8/2016 11:30	3,393.05	0.09	0.14	24,236.09	1.37	0.06	12	Atlas	
CSO197	2/15/2016 9:00	2/15/2016 15:30	32,751.72	0.27	0.23	142,398.79	0.25	0.16	1	Atlas	
CSO197	2/21/2016 3:45	2/21/2016 11:15	129,712.02	0.31	1.04	124,723.10	1.2	0.48	12	Atlas	
CSO197	2/23/2016 22:00	2/24/2016 14:15	158,691.04	0.68	2.14	74,154.69	3.01	0.83	12	Atlas	
CSO197	2/29/2016 1:15	2/29/2016 2:00	1,339.18	0.03	0.02	66,958.86	2.16	0.01	3	Atlas	
CSO197	3/1/2016 11:30	3/1/2016 14:15	30,967.04	0.11	0.3	103,223.48	2.44	0.15	6	Atlas	
CSO197	3/9/2016 15:00	3/9/2016 17:00	9,532.39	0.08	1.2	7,943.65	0.3	0.39	12	Atlas	
CSO197	3/10/2016 13:15	3/10/2016 20:30	89,072.72	0.30	1.2	74,227.27	1.25	0.39	12	Atlas	
CSO197	3/12/2016 20:00	3/13/2016 0:15	59,204.65	0.18	0.77	76,889.15	1.78	0.31	6	Atlas	
CSO197	3/13/2016 8:45	3/13/2016 11:15	42,761.29	0.10	0.77	55,534.15	2	0.31	6	Atlas	
CSO197	3/19/2016 9:15	3/19/2016 9:30	263.53	0.01	0.17	1,550.18	1.09	0.11	1	Atlas	
CSO197	3/24/2016 17:15	3/24/2016 18:45	25,581.77	0.06	0.5	51,163.54	0.67	0.36	1	Atlas	
CSO197	3/27/2016 20:30	3/27/2016 23:00	139,974.33	0.10	0.94	148,908.86	1.44	0.67	1	Atlas	
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 23:45	11,988.15	0.33	1.22	9,826.35	2.59	0.47	24	Atlas	
CSO197 Count			21.00								
CSO197 Total			980,202.64								
CSO198	1/9/2016 19:15	1/9/2016 22:30	3,725.38	0.14	0.18	20,696.53	0.21	0.08	12	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO198	1/17/2016 18:45	1/17/2016 22:15	16,446.48	0.15	0.01	1,644,647.97	0.13	0.01	1	Atlas	
CSO198	2/1/2016 5:30	2/1/2016 5:30	123.82	-	0.09	1,375.81	0.11	0.05	3	Atlas	
CSO198	2/2/2016 19:45	2/3/2016 0:00	22,047.13	0.18	1.26	17,497.72	1.25	0.61	6	Atlas	
CSO198	2/8/2016 10:45	2/8/2016 10:45	123.82	-	0.14	884.45	1.37	0.06	12	Atlas	
CSO198	2/15/2016 14:30	2/15/2016 15:30	28,882.15	0.04	0.23	125,574.58	0.22	0.16	1	Atlas	
CSO198	2/21/2016 4:00	2/21/2016 11:00	106,333.71	0.29	1.04	102,243.96	1.2	0.48	12	Atlas	
CSO198	2/23/2016 22:15	2/24/2016 7:30	154,883.71	0.39	2.14	72,375.57	2.85	0.83	12	Atlas	
CSO198	2/24/2016 21:45	2/25/2016 5:15	5,771.05	0.31	2.14	2,696.75	3.17	0.83	12	Atlas	
CSO198	2/29/2016 1:45	2/29/2016 1:45	935.94	-	0.02	46,796.88	2.16	0.01	3	Atlas	
CSO198	3/1/2016 11:45	3/1/2016 14:00	38,565.74	0.09	0.3	128,552.47	2.43	0.15	6	Atlas	
CSO198	3/9/2016 15:30	3/9/2016 17:00	10,612.09	0.06	1.2	8,843.41	0.3	0.39	12	Atlas	
CSO198	3/10/2016 13:15	3/10/2016 20:15	89,235.14	0.29	1.2	74,362.61	1.25	0.39	12	Atlas	
CSO198	3/12/2016 20:15	3/13/2016 0:00	33,536.71	0.16	0.77	43,554.17	1.78	0.31	6	Atlas	
CSO198	3/13/2016 9:00	3/13/2016 10:45	24,879.29	0.07	0.77	32,310.77	2	0.31	6	Atlas	
CSO198	3/16/2016 5:30	3/16/2016 12:15	3,303.11	0.28	0.01	330,311.47	2.13	0.01	1	Atlas	
CSO198	3/24/2016 17:15	3/24/2016 18:30	41,336.70	0.05	0.5	82,673.40	0.66	0.36	1	Atlas	
CSO198	3/27/2016 21:00	3/27/2016 23:00	105,840.46	0.08	0.94	112,596.24	1.44	0.67	1	Atlas	
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 Count			19.00								
CSO198 Total			842,527.45								
CSO199	2/2/2016 19:45	2/3/2016 0:15	17,308.85	0.19	1.26	13,737.18	1.25	0.61	6	Atlas	
CSO199	2/21/2016 4:15	2/21/2016 10:30	4,172.48	0.26	1.04	4,012.00	1.2	0.48	12	Atlas	
CSO199	2/24/2016 5:15	2/24/2016 7:15	6,756.33	0.08	2.14	3,157.17	2.85	0.83	12	Atlas	
CSO199	3/10/2016 15:45	3/10/2016 15:45	394.69	-	1.2	328.91	0.8	0.39	12	Atlas	
CSO199	3/12/2016 20:15	3/12/2016 23:15	5,713.66	0.13	0.77	7,420.33	1.76	0.31	6	Atlas	
CSO199	3/13/2016 9:45	3/13/2016 9:45	1,262.66	-	0.77	1,639.81	1.99	0.31	6	Atlas	
CSO199	3/24/2016 17:30	3/24/2016 17:45	9,608.64	0.01	0.5	19,217.27	0.64	0.36	1	Atlas	
CSO199	3/27/2016 21:15	3/27/2016 21:45	18,610.43	0.02	0.94	19,798.33	1.4	0.67	1	Atlas	
CSO199	3/31/2016 22:00	4/1/2016 4:45	13,968.09	0.28	1.22	11,449.26	2.16	0.47	24	Atlas	
CSO199 Count			9.00								
CSO199 Total			77,795.81								
CSO200	2/2/2016 19:15	2/3/2016 0:15	36,456.05	0.21	1.26	28,933.37	1.25	0.61	6	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO200	2/21/2016 4:15	2/21/2016 10:30	1,065.24	0.26	1.04	1,024.27	1.2	0.48	12	Atlas	
CSO200	2/24/2016 5:15	2/24/2016 7:15	2,475.43	0.08	2.14	1,156.74	2.85	0.83	12	Atlas	
CSO200	3/12/2016 22:30	3/12/2016 23:15	1,760.47	0.03	0.77	2,286.32	1.76	0.31	6	Atlas	
CSO200	3/13/2016 9:45	3/13/2016 9:45	27.43	-	0.77	35.62	1.99	0.31	6	Atlas	
CSO200	3/24/2016 17:30	3/24/2016 17:45	7,124.00	0.01	0.5	14,248.00	0.64	0.36	1	Atlas	
CSO200	3/27/2016 21:15	3/27/2016 21:45	26,476.33	0.02	0.94	28,166.30	1.4	0.67	1	Atlas	
CSO200 Count			7.00								
CSO200 Total			75,384.94								
CSO202	2/3/2016 0:00	2/3/2016 0:00	5,725.70	-	1.26	4,544.20	1.25	0.61	6	Atlas	
CSO202	2/21/2016 4:15	2/21/2016 10:15	1,302.22	0.25	1.04	1,252.13	1.19	0.48	12	Atlas	
CSO202	3/12/2016 22:30	3/12/2016 23:15	3,244.48	0.03	0.77	4,213.61	1.76	0.31	6	Atlas	
CSO202	3/24/2016 17:30	3/24/2016 17:30	5,221.02	-	0.5	10,442.04	0.63	0.36	1	Atlas	
CSO202	3/27/2016 21:15	3/27/2016 21:45	12,747.22	0.02	0.94	13,560.87	1.4	0.67	1	Atlas	
CSO202	3/31/2016 22:00	3/31/2016 22:00	1,472.15	-	1.22	1,206.68	1.97	0.47	24	Atlas	
CSO202 Count			6.00								
CSO202 Total			29,712.78								
CSO203	2/3/2016 0:00	2/3/2016 0:00	23,407.91	-	1.26	18,577.70	1.25	0.61	6	Atlas	
CSO203	3/27/2016 21:15	3/27/2016 21:30	12,437.48	0.01	0.94	13,231.36	1.36	0.67	1	Atlas	
CSO203 Count			2.00								
CSO203 Total			35,845.39								
CSO205	2/21/2016 10:15	2/21/2016 10:15	621.20	-	0.95	653.89	1.1	0.44	12	Atlas	R
CSO205	2/24/2016 16:15	2/25/2016 7:00	93,019.66	0.61	2.11	44,085.15	3.06	0.83	12	Atlas	R
CSO205	3/1/2016 12:15	3/1/2016 20:45	5,514.50	0.35	0.26	21,209.62	2.39	0.14	3	Atlas	R
CSO205 Count			3.00								
CSO205 Total			99,155.36								
CSO206	2/1/2016 5:15	2/1/2016 5:45	13,016.62	0.02	0.1	130,166.15	0.12	0.06	3	Atlas	
CSO206	2/2/2016 14:45	2/3/2016 2:00	209,836.15	0.47	1.6	131,147.59	1.7	0.75	6	Atlas	
CSO206	2/21/2016 4:15	2/21/2016 11:00	226,916.38	0.28	0.88	257,859.52	1.07	0.40	12	Atlas	
CSO206	2/23/2016 22:30	2/24/2016 8:00	498,834.55	0.40	1.98	251,936.64	2.56	0.77	12	Atlas	
CSO206	3/1/2016 12:00	3/1/2016 14:15	76,966.21	0.09	0.36	213,795.03	2.33	0.21	3	Atlas	
CSO206	3/9/2016 15:30	3/9/2016 17:00	44,666.66	0.06	1.28	34,895.83	0.28	0.42	12	Atlas	
CSO206	3/10/2016 13:30	3/10/2016 19:30	149,745.28	0.25	1.28	116,988.50	1.29	0.42	12	Atlas	

CSO	Start Date-Time	End Date-Time	Total Volume (gal)	Duration (Days)	Rain Total (Inch)	Volume per Inch	Antecedent Rain (in)	Frequency (yr)	Period (hr)	Standard	SBRet
CSO206	3/12/2016 20:30	3/12/2016 23:30	21,931.77	0.13	0.8	27,414.71	1.72	0.30	24	Atlas	
CSO206	3/13/2016 9:30	3/13/2016 10:15	21,197.97	0.03	0.8	26,497.46	2.07	0.30	24	Atlas	
CSO206	3/19/2016 9:15	3/19/2016 9:45	11,338.90	0.02	0.16	70,868.10	1.09	0.11	1	Atlas	
CSO206	3/24/2016 17:45	3/24/2016 18:15	209,959.95	0.02	0.55	381,745.37	0.71	0.42	1	Atlas	
CSO206	3/27/2016 20:45	3/27/2016 22:45	381,904.94	0.08	0.8	477,381.17	1.35	0.53	3	Atlas	
CSO206	3/31/2016 1:45	4/1/2016 0:00	156,971.14	0.93	1.24	126,589.63	2.59	0.47	24	Atlas	
CSO206 Count			13.00								
CSO206 Total			2,023,286.51								
CSO210	2/2/2016 19:45	2/3/2016 13:45	1,448,627.58	0.75	1.51	959,356.02	1.58	0.75	6	Atlas	
CSO210	2/21/2016 6:30	2/21/2016 14:15	45,303.34	0.32	1.07	42,339.57	1.26	0.49	12	Atlas	
CSO210	2/24/2016 0:30	2/24/2016 17:00	1,399,388.18	0.69	2.24	624,726.87	3.16	0.86	12	Atlas	
CSO210	3/1/2016 13:00	3/1/2016 18:00	55,733.28	0.21	0.65	85,743.51	2.93	0.34	6	Atlas	
CSO210	3/10/2016 14:30	3/11/2016 1:45	36,278.46	0.47	1.31	27,693.48	1.36	0.43	48	Atlas	
CSO210	3/12/2016 23:15	3/13/2016 12:00	55,848.20	0.53	0.5	111,696.40	1.85	0.19	24	Atlas	
CSO210	3/24/2016 17:30	3/24/2016 19:30	10,963.09	0.08	0.31	35,364.82	0.39	0.21	1	Atlas	
CSO210	3/27/2016 22:00	3/28/2016 1:00	70,661.98	0.13	0.77	91,768.81	1.08	0.53	1	Atlas	
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 Count			10.00								
CSO210 Total			3,208,206.49								
CSO211	2/3/2016 0:00	2/3/2016 0:30	11,989,325.63	0.02	1.51	7,939,950.75	1.55	0.75	6	Atlas	
CSO211 Count			1.00								
CSO211 Total			11,989,325.63								
Grand Count			657.00								
Grand Total			1,735,514,031.19								

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
CCREEK						
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
FFORK						
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
359320	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	4,000	47,812

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
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

HCREEK

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
335610	ROCK SPRINGS FARM SEC 4B	LAT EXT	6,400	12/7/12	-13,920	5,675

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
362684	FY13 IFP ACTIVITY FIRST HALF - HCREEK	SCAPCREDIT		12/31/12	3	5,678
JTOWN						
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 Carting	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
MCREEK						
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
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

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
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
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

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
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
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

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
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
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

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
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 familv 11716 Wetherbv 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
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

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 Credit Required/ Flow Reduction</u>	<u>Running Total</u>
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
NDITCH						
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
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

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ORFM						
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
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

Capacity Credit Balance Sheet per Credit Basin

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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
LE929244	Summit Gardens Phase 2	LAT EXT	18,000	10/21/15	-39,150	131,538
LE938166	Spring Farm Lake Section 3	LAT EXT	3,200	12/14/15	-6,960	124,578

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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
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

Capacity Credit Balance Sheet per Credit Basin

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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
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

Capacity Credit Balance Sheet per Credit Basin

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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
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 Express Wash	LAT EXT	10,500	7/28/15	-22,838	513,371
LE951121	Allaeier 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

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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
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
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

Capacity Credit Balance Sheet per Credit Basin

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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

Appendix E

IOAP Project Crosswalk

January 1, 2016 through March 31, 2016

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

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

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

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

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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

January 1, 2016 through March 31, 2016

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

January 1, 2016 through March 31, 2016

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

Appendix E

IOAP Project Crosswalk

January 1, 2016 through March 31, 2016

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



700 West Liberty Street
Louisville, KY 40203-1911
LouisvilleMSD.org
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