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April 30, 2010

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Subject: Quarterly Report Number 18
Civil Action No. 3:08-cv-00608-CRS

Attention Chief:

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, 2010 through March 31, 2010. This report provides an overview of significant program elements, issues, and accomplishments 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, Water Quality Treatment Centers, Performance Overview and CMOM.

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) 649-3850.

Sincerely,

W. Brian Bingham
Regulatory Services Director

Q18 Certification KDEP 4-30-10

cc: H. J. Schardein, Jr.

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Beneficial Use of Louisville's Biosolids
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Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #18



Reporting Period:

January 1, 2010 through March 31, 2010

Submitted To:

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

Submitted By:

Louisville and Jefferson County Metropolitan Sewer District

700 W. Liberty Street

Louisville, Kentucky 40203-1911

Submittal Date:

April 30, 2010

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INTRODUCTION

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

This is the eighteenth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from January 1, 2010, through March 31, 2010. **The structure for this report is outlined as follows:**

Section 1: Program Activities for Nine Minimum Controls - This section describes the scope, schedule and status for projects and other activities related to NMC that were active during the reporting period January 1, 2010, through March 31, 2010, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (April 1, 2010, through June 30, 2010) for continued compliance with the Amended Consent Decree.

Section 2: Program Activities for Sewer Overflow Response Protocol - This section describes the scope, schedule and status for activities related to SORP that were active during the reporting period January 1, 2010, through March 31, 2010, and the anticipated activities that are scheduled to be performed during the next reporting period (April 1, 2010, through June 30, 2010) for continued compliance with the Amended Consent Decree.

Section 3: Program Activities for Discharge Abatement Plans - This section describes the scope, schedule and status for projects and other activities related to DAP that were active during the reporting period January 1, 2010, through March 31, 2010, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (April 1, 2010, through June 30, 2010) 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, education, notification and participation that were active during the reporting period January 1, 2010, through March 31, 2010, and the anticipated activities that are scheduled to be performed during the next reporting period (April 1, 2010, through June 30, 2010) for continued compliance with the Amended Consent Decree.

Section 5: Capacity Management, Operations and Maintenance Report - The CMOM program activities performed during the reporting period January 1, 2010, through March 31, 2010, and activities planned for the next reporting period (April 1, 2010, through June 30, 2010) are included in this section for continued compliance with the Amended Consent Decree.

Section 6: Program Activities for Water Quality Treatment Centers - This section describes the scope, schedule and status for projects and other activities related to WQTCs that were active during the reporting period January 1, 2010, through March 31, 2010, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (April 1, 2010, through June 30, 2010) for continued compliance with the Amended Consent Decree.

Section 7: Performance Overview - This section provides an accounting of the number of overflow occurrences, including unauthorized discharges, from the separate sanitary sewer and combined sewer system and the estimated volumes of each. A discussion of the probable reductions 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.

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 www.msdlouky.org/projectwin. Highlights of the NMC program implementation over this reporting period are outlined below.

1.2 NMC 1: Proper Operation and Maintenance Programs

Program Metrics

- Inspected and cleaned 4287 catch basins within the combined sewer system (CSS) during this reporting period.
- Continued to conduct inspections of all the catch basin leads within the combined sewer system and other key areas. These inspections involve testing each basin by filling it with water and ensuring it drains properly. During this quarter, 814 catch basins were inspected with 45 of those inspections resulting in follow-up repair or rehabilitation work orders.
- Continued to inspect, maintain and properly operate the CSS pump stations and the Morris Forman WQTC.
- Performed 1365 weekly inspections on CSOs, 252 creek inspections, and initiated 64 work orders for debris removal and/or repairs as determined to be necessary to allow proper system operation during this reporting period.
- Flushed 55 sewer line segments in the CSS, ranging in size from 6 inches to 15 inches, and performed formula TV inspection on 17 lines, as part of the gravity sewer preventive maintenance program.
- Continued several projects to create improved access to some CSO sites to facilitate cleaning activities. Design is complete on the access road on Castlevale for CSO097. Easement acquisition is underway and bidding is expected prior to June 30, 2010. Design is complete on the Muncie Avenue siphon access and this project will be bid prior to June 30, 2010.

- Achieved the following program metrics:

<u>Target</u>	<u>Result</u>
95% of CSOs inspected weekly.	100% Compliance - All CSOs were inspected weekly.
95% of flap gates inspected weekly.	100% Compliance - 14 flapgates on CSOs were inspected weekly.
95% of siphons inspected monthly.	100% Compliance – 10 siphons were inspected weekly and 9 additional siphons were inspected monthly.
95% of Debris or Repair Work Orders on CSO assets created the next work day after the inspection of the asset and open for no more than 5 days.	100% Compliance - There were 62 Debris work orders and 2 CSO Repair work orders. All work orders were created and completed within the target range.
95% of the catch basins within the CSSA cleaned every 15 months.	100% Compliance - Currently we are on a 12 month cycle.

Annual Training

- Scheduled no formal CSO training during this quarter. Annual CSO training will be revised to include modules on pump stations in the combined system, and a refresher course will be developed for personnel that have been trained previously. The updated training course will be administered prior to June 30, 2010.

Annual Asset Review and Documentation

- Continued to work on the re-aligning of the catch basin boundaries.
- Implemented closure activities for CSO026 as outlined in a memorandum detailing quick closure opportunities in the Central Relief Drain area. This CSO will be eliminated prior to June 30, 2010. No other CSOs have been prioritized for study as part of this memorandum.

1.3 NMC 2: Maximization of Storage in the Collection System

Real Time Control Operation

- Continued operation of Phase I and Phase 2 of the Real Time Control system. During this reporting period, approximately 188 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See **Appendix F** for a detailed report.
- Continued the following RTC projects:

Southeast Diversion Flowmeter Instability Analysis – Flowmeters were installed at the Southeast Diversion Structure and the Nightingale Pump Station in November 2009. Staff has completed the local programming for each flow meter and the instability issues seem to be corrected. Final programming and testing was completed on January 19, 2010.

Web-Based Training – The Operators RTC Training modules were used in a workshop held on December 18, 2009. MSD developed a beta group with the responsibility of participating in the initial training and attending work groups to review the training modules to determine each module's effectiveness. This beta group includes personnel within each division of MSD. By June 30, 2010, feedback from the beta group will be incorporated into the training modules and the modules will be made available to all staff.

Storage Optimization

- Beargrass Creek Flapgate Evaluation – Installed the first set of flap gates at CSOs: 83/119, 88, 92, 140, the first week of December 2009, in accordance with the prioritization plan submitted in December 2008. Installation of the flap gate at CSO 149/179 was completed on February 3, 2010. An additional flap gate will be installed at CSO146 prior to September 30, 2010.
- CSO210 Dam Modification – Completed the design of the dam modification in December 2009. Project budget for construction has been requested. Construction is scheduled to be completed prior to June 30, 2010, pending budget approval.
- CSO108 Dam Modification – Started project design in October, 2009. The project is scheduled to be bid prior to June 30, 2010. Construction of this project will be completed prior to December 31, 2010.
- Spring Drive Diversion - Designed a diversion structure to route flows from a fresh water spring away from the CSS and into Beargrass Creek during November 2009. Construction of the diversion structure was completed on March 29, 2010.
- CSO210 and CSO016 – Initiated design on an additional 24-inch low flow line between CSO016 and CSO210 to expand the conveyance of flow and minimize the overflow. Construction is scheduled for completion by June 30, 2010, pending budget approval.

1.4 NMC 3: Review and Modification of Pretreatment Requirements

- Continued to review industrial user data of all Non-Domestic Dischargers (NDDs) of concern and trunk line sewer data contributory to CSOs to determine if they discharge a disproportionate share of pollutants of concern to the CSS. MSD utilized data collected in June and October, 2009, to determine whether the 9 NDDs previously identified as significant contributors to their respective CSOs should remain as such. The data review validated that 7 of the 9 previously identified NDDs of concern are still significant contributors to their respective CSOs. Two of the original 9 NDDs of concern were found to be contributing less than historical amounts to their respective CSOs. However, MSD is choosing to continue oversight of these two NDDs of concern at this time. No new NDDs of concern were identified. The criteria to determine a significant user is

greater than 10% of the loading contribution of a particular Pollutant of Concern (POC) to Beargrass Creek CSOs and 20% to Ohio River CSOs.

- Continued to send wet weather alerts to NDD of concern prior to rain events, reminding them of their commitment to implement voluntary controls during wet weather events. During this period, MSD sent email notices to NDDs 25 times prior to a rain event. There were 17 rain events during this quarter. There are currently 9 NDDs that voluntarily implement control during wet weather by alternating their cleaning schedule or by storing during a rain event and releasing later.
- Continued to include specific NMC #3 related language as appropriate, in new and re-issued wastewater discharge permits to facilities located in the CSS, as well as in all Unusual Discharge Requests approved for discharge to the CSS. MSD re-issued 2 wastewater discharge permits in the CSS and issued 3 Unusual Discharge Requests in the CSS.
- Continued to seek out green infrastructure opportunities at NDDs discharging to CSS.
- Continued to track performance measures to monitor the effectiveness of the implementation of NMC #3 within the Pretreatment Program.

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

- Continued operation of RTC Phase I and Phase II, which minimizes wet weather CSOs by providing an optimized method for delivering more consistent flows into Morris Forman WQTC during and after wet weather events. During this reporting period, approximately 188 MG was stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See **Appendix F** for a detailed report.
- Continued the implementation of the RTC Phase II programmatic enhancement initiatives previously discussed in NMC #2.
- Awarded a contract for professional services on December 11, 2009, for the RTC System-Wide Optimization and Controls Project. The purpose of the project is to develop a holistic operating strategy for MSD's facilities, including pump stations, flow diversions, in-line and off-line storage, and treatment facilities. The role of MSD's existing Csoft program will be evaluated to determine if additional sites should be added to the system and establish its long-term role in the MSD operating system. If the project concludes that some operable facilities should not be controlled by Csoft, the interface needs between Csoft and other MSD operating control systems will be defined. The project will outline an approach to maximize regulatory compliance, minimize water quality impacts due to permitted and unpermitted discharges, and identify resource needs to ensure sustainability and continuous improvement of the optimization control system. Budgetary impacts on existing operating systems will also be identified. By June 30, 2010, a kick-off meeting will be scheduled and staff will begin working with the consultant.
- Awarded a contract for professional services on December 11, 2009, for the Morris Forman WQTC Wet Weather SOP Enhancements Project. A notice-to-proceed was

issued on March 29, 2010. This project will enhance the performance at the Morris Forman WQTC to address some of the underlying dynamics that affect available plant capacity, flow monitoring and wet weather operations. MSD will increase the frequency of completing the capacity calculation and enhance the plant wet weather SOP and update training to support this task. A kick-off meeting will be held on April 7, 2010, and MSD will begin the SOP enhancement activities.

1.6 NMC 5: Elimination of CSOs During Dry Weather

Flood Pump Stations

- Reduced duplication by reporting all Flood Pump Station activities in Section 3.3.2.2 Gray Infrastructure Projects.
- Approved the contract for professional services to update the current U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual on January 25, 2010. The project will update the four volumes of the operations and maintenance manuals for the Flood Pump Stations (FPS) that will reflect current operational procedures and protocols along with revisions related to changes proposed to reduce dry weather overflows. By June 30, 2010, a work order will be executed as part of a fiscal year 2011 design services contract to begin the manual updates.
- Continued the implementation of the Unusual Discharge Request permit program to prevent negative impacts on the CSS from discharges not already covered by a wastewater discharge permit. 3 UDRs were processed in this quarter.
- Pumped approximately 185,000 gallons of trapped flow back into the sanitary sewer system to avoid dry weather overflows as a result of operation of the flood protection system from Flood Gate 22A on 4 different occasions.
- Awarded the contract for final design services on January 25, 2010, for the 27th Street and Shawnee FPS DWO Elimination projects. The actual design work is scheduled to start August 2010. All phases of the project will be completed by June 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.

Asset Analysis

- Performed the quarterly evaluation of dry weather unauthorized discharges to the Waters of the United States, with emphasis on the CSS, to determine causes and to determine if there is a need for corrective activities. MSD will continue to report dry weather overflows from the CSS in accordance with the Sewer Overflow Response Protocol (SORP).
- Performed inspection and cleaning of FOG hotspots within the CSS, in accordance with CMOM commitments.
- Review SOPs and practices with the Louisville Water Company relative to line breaks, hydrant flow tests and line flushing that may create DWOs or stormwater discharges by hyper-chlorinated releases by June 30, 2010.

1.7 NMC 6: Control of Solid and Floatable Materials in Combined Sewer Overflows

Field Verification

- Continued to implement the expanded visual inspection program to determine the efficacy of installed controls. The intent of the visual inspections is to verify the installed controls are working by checking the appearance of the creek/river before, during and after a rain event compared to a standard for aesthetics. MSD captured a qualifying event on March 25, 2010. Findings and recommendations with the volume of floatables removed will be summarized in the FY10 Annual Report.
- Continued to review ground water concerns in the CDS unit at CSO108. The rehabilitation work completed to seal the unit from the ground water issues and reprogramming of the PLC that controls the pumping operations has resolved the dry weather overflow issues to date. Two new hydrostatic level sensors will be installed to help with reliability with the operations. Staff will continue to review the site to determine if the ground water issues have been eliminated.
- Continued to monitor and document performance of the CSO108 Solids and Floatable structure operation in accordance with the MOU with the Kentucky Nature Preserve.
- Continued planning a pilot sampling program for solids and floatables efficacy to begin prior to December 31, 2010.
- Continued to review new S&F technologies for potential incorporation into the program. Recommendations to be prepared by September 30, 2010.

Solids and Floatables Debris Removal

- Continued inspection and maintenance procedures for the solids and floatables structures as part of the weekly CSO inspections and PM cleaning routines, outlined under NMC #1. During this period, 43 work orders were issued for debris removal at the solids and floatables structures.
- Continued working with staff to determine the quantity of debris and floatables captured by street sweeping, catch basin cleaning, at the headworks of the Morris Forman WQTC, and at the end of line S&F controls. Reports have been developed to capture the amount of material removed through catch basin cleaning and at the end of the line S&F controls. Results for the time period January 1, 2010 – March 31, 2010 are shown in the table below:

Location	Amount of Debris Removed
Catch Basin cleaning	574 CY
S&F Controls and Sneads Branch	0.25 CY
Headworks of Morris Forman WQTC	2440 CY
Street Sweeping	82.2 Tons

1.8 NMC 7: Pollution Prevention Programs to Reduce Contaminants in CSOs

- Continued coordination of activities performed by Louisville Metro such as: street sweeping, Operation Brightside (trash and litter clean-up), and other Metro pollution prevention programs.
- Continued administration of the Hazardous Materials Ordinance, which requires users with hazardous materials on site to submit a spill prevention and control plan. Continued response to spills of hazardous materials and incidents involving discharges to the sewer system and provided spill mitigation kits to the Louisville Metro Fire Department to use to absorb vehicle fluids rather than flushing to the sewer.
- Continued administration of the Erosion Prevention and Sediment Control Ordinance. Developed a tracking system for EPSC NOVs and Field Correction Notices within the CSS. From January 1, 2010 to March 31, 2010, 8 field correction notices and 1 NOV were issued for activities within the CSS.
- Continued issuance of Wastewater Discharge Permits under the Industrial Pretreatment Program.
- Continued to facilitate clean sweep events and coordinate volunteers to remove trash and debris from the waterways in Jefferson County; facilitate rain barrel sales in partnership with the Louisville Nature Center; prepare and distribute informational pieces targeted to inform customers and residents on activities that can be practiced within their homes to assist in the reduction of overflows within the collection system; promote Green Infrastructure initiatives within Jefferson County, such as pervious pavement and aqua pavers; and distribute a rain garden manual outlining design and installation procedures for homeowners throughout the next reporting period. The Louisville Nature Center distributed 28 rain barrels from January 1, 2010, to March 31, 2010.
- Continued to prepare and distribute informational pieces, targeted to inform customers and residents on activities that can be practiced within their homes to assist in the reduction of overflows within the collection system.
- Execute a contract to develop Stormwater Pollution Prevention Plans (SWPPPs) for the WQTCs, major Pump Stations, and CMF. Plans and training modules will be completed by June 30, 2011.
- Develop literature for distribution to SIUs on BMPs for prevention of pollution.

1.9 NMC 8: Public Notification

- Reduced duplication by reporting all public notification information in **Section 4: Project WIN Program Activities for Public Outreach, Education, Notification and Participation.**

1.10 NMC 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls

- Continued to collect stream flow, sonde and other environmental data sets for use in further characterization of the combined service area. Data is centralized in an Oracle database and routinely updated by staff.

- Posted predictive and real-time radar rainfall services with 4-hour predictive rainfall estimates across 700 pixels countywide in addition to MSD's rain gauge network. These services streamline rainfall data transfer between MSD's rainfall data vendor and the Real Time Control interface and model simulation. MSD also receives monthly, calibrated radar rainfall data for use in historical event analysis and modeling simulations. A website was developed that allows MSD staff to view and export rainfall data as well as USGS stream monitoring data.
- Scoped a project for post-construction monitoring around the 'Big Four' SSOs and a Board action authorizing the monitoring and sampling services has been approved. MSD will complete negotiation and work order execution for these services prior to June 30, 2010, and initiate sampling when favorable weather conditions are predicted.
- Monitored all CSOs with an AAOV greater than 10 MG, except for two overflows that have proven to be highly difficult to install monitors (CSO023 and Sneads Branch Relief). The quarterly discharge volumes at these sites will be generated using the sewer hydraulic model along with each quarter's radar rainfall data. Reporting on these two CSOs will begin April 1, 2010.
- Continued to identify appropriate locations for additional CSS flow meters for use in improving CSS model calibration and green infrastructure assessment in areas that have poor calibration or will be targeted for intensive green infrastructure implementation. Selected locations along with an installation schedule will be developed by June 30, 2010.
- Continued the ecological database design and import of historical biological, macro invertebrate and habitat assessment data.
- Started the review of RTC performance reports versus modeled site performance and resultant AAOV reductions.
- Defined and began the implementation of a program to utilize the remote flow monitoring viewing capabilities to monitor for and provide quicker response to dry weather overflows, battery depletion, and meter drift. Alarms are now set on all sewer flow monitoring locations to notify staff of low batteries, unusual flow conditions, and possible dry weather discharges.

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 resubmitted the revised SORP on May 12, 2006, and received an approval letter for the SORP on August 22, 2006. The most recent version is dated November 5, 2008, which received approval on January 14, 2009. The approved SORP document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin. The following activities were performed during this reporting period.

2.2 Overflow Management and Field Documentation

- Continued to schedule additional field reviews of SORP procedures after rain events to both ensure successful implementation and to assist with the annual SORP overall review. A field review was conducted on March 3, 2010.
- Monitored 11 locations and took preventive measures to reduce basement backups. Work orders are used to track these various activities. During this period, MSD I&FP staff mobilized pumps on four different days.
- Continued daily, monthly and quarterly data reviews with staff from Metro Operations, Infrastructure & Flood Protection and Regulatory Services.
- Monitored approximately 139 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, RS and Engineering staff documented 11 unauthorized discharges. Inspection routes were run during rain events on January 21, January 24, and February 5, 2010. During the next quarter routes will continue to be monitored as needed.
- Monitored over 300 sites via telemetry. There are approximately 20 sites where sewage is routinely hauled from pump stations to prevent overflows during rain events depending on the magnitude and location of the storm. Due to capacity issues during this reporting period, MSD Metro Operations staff hauled approximately 1,381,000 gallons of sewage.

2.3 Regulatory Reporting and Data Management

- Continued to improve the accessibility of data captured by the SCADA system for pump station and Real Time Control information. MSD continues to standardize various environmental data sets in preparation for integration with the SharePoint site.
- Performed the monthly review of discharge work orders. The associated assets in Hansen were updated to track any new overflow locations.
- Performed a detailed data review and trend analysis and incorporated into the quarterly training sessions and documented the findings in Section 7 of this quarterly report.

2.4 Staff Training and Communication

- Focused the third quarter SORP training classes on overflow field documentation.

Division	Date	Number of Attendees
Eng/Reg.Srvs	3/4/2010	57
Eng/Reg.Srvs	3/11/2010	27
IFP	3/5/2010	18
IFP	3/12/2010	9
Metro/MFWQTC	2/10/2010	24
Metro/MFWQTC	2/10/2010	11
Metro/MFWQTC	2/11/2010	20
Metro/MFWQTC	2/11/2010	10
Metro/MFWQTC	2/24/2010	13
Metro/MFWQTC	2/24/2010	42
Metro/MFWQTC	3/3/2010	17
Metro/MFWQTC	3/17/2010	6
Metro/MFWQTC	3/17/2010	19

- Continued to enhance the SORP Implementation Manual as new training modules are developed. The target for enhancement of this document is June 30, 2010.
- Continued to review and update the data associated with overflows.
- Reviewed and updated the training documentation in January 2010, for the first quarter training. Focused the first quarter training on monitoring, staging, reconnaissance and mobilization.
- Developed a SORP training course for SSES contractors. Classes are scheduled for April 28, 2010.
- Started planning for the second quarter SORP training that will focus on setting up control zones, mitigation, and volume estimation.

2.5 Annual Program Review

- Published the revised overflow/wet weather inspection routes as part of the annual SORP review. Five new locations were added. Sent new routes to KDEP and EPA via Webcargo on March 24, 2010. See **Appendix H** for the revised maps and updated routes.

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- Performed a review of new SSO locations that have been identified since the submission of the SSDP in December 2008. 67 sites were investigated.
 - 35 are addressed by capital and ISSDP projects
 - 10 are addressed by FPS projects
 - 15 are addressed by projects established in the SSDP
 - 6 overflows were beyond the design storm chosen as the “MSD Maximum Level of Protection”
 - 1 has been recently repaired

2.6 Public Notification and Communication

- Reduced duplication by reporting all public notification information in **Section 4: Project WIN Program Activities for Public Outreach, Education, Notification and Participation.**

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 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.

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 Sanitary Sewer Overflow Plan (SSOP) have been completed.

3.2.2 Interim Sanitary Sewer Discharge Plan

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

Refer to **Appendix A** for a chart showing the schedule of the activities described in this section. **All projects are now listed by Budget ID in the chart.** Note that the schedule in **Appendix A** shows completion dates that are earlier than contained in the ISSDP. These early completion dates represent targets for MSD's project management use, but do not represent a change in schedule commitments. The dates in the approved ISSDP remain the committed dates for completion of the ISSDP projects.

The following activities were performed during this reporting period or are planned activities for the next period.

- Beechwood Village Sanitary Sewer Replacement East (Budget ID E07261) – This project was bid on January 7, 2009. As of March 31, 2010, the contractor has

completed 302 of 303 (99%) of the house plumbing modifications. No internal plumbing changes were needed on 25 other houses. MSD has installed 329 of 330 new property service connections (PSCs), completed 15,085 feet (100%) of cured-in-place pipe (CIPP) lining of the existing sewers and epoxy-lined 75 manholes. This project has removed 122 sump pumps from the sanitary sewer, closed 3 open yard/foundation drains that connected directly into the sewer and installed 4,038 feet (100%) of 18-inch relief sewer. This project will be completed by April 27, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.

- Beechwood Village Sanitary Sewer Replacement West (Budget ID E08034) – This project was bid on June 9, 2009, and awarded on July 13, 2009. Notice to proceed was given on September 9, 2009. As of March 31, 2010, 8480 feet (100%) of the 8-inch sewer line has received cured-in-place pipe lining and 42 of 45 manholes have been lined. MSD has completed 120 of 247 in house plumbing modifications and installed 137 of 247 new property service connections. This project will be completed by April 27, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.
- Southeast Interceptor Relief Sewer (Budget ID H08358) - Construction will be required for a new relief interceptor parallel to the Southeast Interceptor from the Southeast Diversion Structure to the Northern Ditch Interceptor. A new junction structure will connect this relief sewer to the proposed Hikes Lane Interceptor and the existing Buechel Branch Interceptor. During development of the Final SSDP, alternatives were identified for the Upper Middle Fork Pump Station and the Jeffersontown WQTC that could impact the sizing of this relief interceptor, and require the addition of a flow equalization basin somewhere along the route. (The Buechel Basin will be addressed under separate paragraph.) Design is now at the 90% stage for the Southeast Interceptor Relief Sewer. Easement acquisition has begun and is approximately 30% complete. The Interceptor will consist of 7800 feet of 60-inch open cut sewer and 600 feet of tunnel. The Southeast Interceptor Relief Sewer project will be coordinated with the Highgate Springs and Hikes Point Area (Budget ID H07286 and H07287) projects with a completion date of May 12, 2012.
- Hikes Lane Interceptor & Highgate Springs Pump Station (Budget ID H07286 and Budget ID H07287) - The Hikes Lane Interceptor has been divided into Phase I and Phase II in order to allow bidding and construction to begin on the lower portion of the project while easement acquisition and final design continues on the upper section. Phase I, or the lower section, was advertised on February 2, 2010, and bids were opened on March 23, 2010. Phase II of Hikes Lane Interceptor is under easement acquisition and is scheduled to be bid in the first quarter of 2011. The Hikes Point Relief Sewer and Carson-Ribble Relief Sewer are two small interceptor improvements that are in the same area as the Hikes Lane Interceptor. Hikes Point Relief Sewer (ID H07287) is scheduled for bid in the fourth quarter of 2011. The Carson-Ribble Relief Sewer Project (ID H09008) has also been separated from the other projects in the Hikes Point Sewer Improvements in order to expedite the construction. The Carson-Ribble Project was awarded on June 22, 2009, and construction was substantially completed on November 20, 2009. The entire project package will be completed by November 27, 2012, in accordance with the ISSDP schedule and the Amended Consent Decree.

- Northern Ditch Diversion Interceptor (Budget ID C85017) - Improvements described in the previous paragraphs will result in significantly more wet weather flow in the Derek R. Guthrie WQTC and Morris Forman WQTC service areas. The proposed plan will include the installation of a new interceptor parallel to the Northern Ditch drainage channel, allowing wet weather flow to be diverted from the Morris Forman WQTC service area (currently through the Northern Ditch Pump Station) to the Derek R. Guthrie WQTC. This effort will provide relief for the closure of the existing Southeastern Diversion Overflow. The entire improvement is divided into three phases. Construction of the first phase was awarded on May 26, 2009, and notice to proceed was given on June 15, 2009. Phase I consists of 6910 feet of 84-inch open cut sewer and 102 feet of tunnel at National Turnpike and construction is in progress with 2000 ft. installed as of March 31, 2010. Scheduled construction completion of Phase I is November, 2010.

Phase II starts at the upstream end of the tunnel and includes 4770 feet of 84-inch pipe and a diversion structure at the existing 72-inch Northern Ditch Interceptor. Phase II notice to proceed date was November 30, 2009. The contractor has begun work on the diversion structure and has installed about 1000 ft. of 84-inch Interceptor as of March 31, 2010. Phase I & Phase II will be completed by July 31, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.

Phase III consists of several tributary lines to eliminate 3 existing pump stations. Phase III can only be bid after Phase I is complete. Phase III does not address SSO elimination and is not a requirement of the Amended Consent Decree or committed to in the ISSDP. This project is being tracked as part of the Northern Ditch Diversion Interceptor project and should be complete by December 2011. The construction to close the Southeast Diversion overflow is a separate maintenance activity and will be completed by December 2011, in accordance with the revised ISSDP schedule and the Amended Consent Decree.

- Derek R. Guthrie WQTC Wet Weather Equalization and Treatment Project (Budget ID H06302) - The final design is divided into three separate packages, Pumping Package (PP), Wet Weather Treatment Facility (WWTF), and the Equalization Basin. Design is complete on two of the three packages. MSD advertised for construction bids on the PP Project (H06302) and the WWTF Project (H095614) on January 29, 2010. Three mandatory pre-bid meetings were held for these two projects as well as optional site visits. The PP bids were opened on March 11, 2010 with six bids submitted. The WWTF bids were opened on March 26, 2010 with seven bids submitted.

Prior to June 30, 2010, MSD will request the MSD Board's approval to award two of the contracts to the most qualified bidder based on the evaluation criteria. MSD will also hold a public meeting for the neighbors of the WQTC to explain the expected impacts of the construction activities that will occur as a result of these projects. For the Equalization Basin, (H095634), MSD continued property negotiations during the first quarter of 2010. Additional property is needed to construct the Basin and relocate the West County Force Main. MSD expects to finalize the plat and review the 90% plans and specifications for the Equalization Basin in the second quarter of 2010. Construction of the flow equalization and expanded secondary treatment to address the higher peak wet weather flows at the Derek R. Guthrie WQTC will be completed by

December 31, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.

3.2.3 Final Sanitary Sewer Discharge Plan

MSD submitted for approval a Final Sanitary Sewer Discharge Plan (SSDP) on December 19, 2008, deadline 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.

This section will report on the progress of the projects identified in the IOAP, Volume 3 – Final SSDP Projects. Refer to **Appendix A** for a chart showing the schedule of the activities described in this section. **All projects are now listed by Budget ID in the chart.** Note that the schedule in **Appendix A** shows completion dates that are earlier than contained in the Final SSDP. These early completion dates represent targets for MSD's project management use, but do not represent a change in schedule commitments. The dates in the submitted Final SSDP remain the committed dates for completion of the Final SSDP projects.

The following activities were performed during this reporting period or are planned activities for the next period.

Cedar Creek Area

- Running Fox Pump Station Elimination (Budget ID H09178) – The project consists of diverting the existing sanitary sewer flow from the Running Fox Pump Station to an existing gravity sanitary sewer system via gravity flow. Decommissioning of the pump station is also included in this project. This project was bid on December 11, 2009. Flow was diverted from the pump station on March 8, 2010. Construction was completed on March 10, 2010. The project will be certified before April 10, 2010. All phases of the project were completed before the deadline of December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Little Cedar Creek Interceptor Improvements (Budget ID H09163) – A notice-to-proceed for the Little Cedar Creek SSES project (Budget ID H09389) was issued on February 15, 2010. An open house public meeting was held on March 23, 2010. By the end of June 30, 2010, field activities will begin to address observed high wet weather flows and existing SSOs in the project area. These activities consist of the following: smoke testing and manhole, CCTV and private property inspections. Data delivery to MSD will begin and the consultant will start analyzing the collected data to develop rehabilitation recommendations. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. All phases of the project will be completed by December 31, 2024, in accordance with the IOAP schedule and the Amended Consent Decree.

Hite Creek Area

- Meadow Stream Pump Station In-line Storage Project (Budget ID H09174) – A notice-to-proceed for the Meadow Stream SSES Project (H09394) was issued on February 2, 2010. Field activities have begun to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of March 31, 2010

include 134 manhole inspections. An open house public meeting was held on March 2, 2010. During the period April 1, 2010 to June 30, 2010, manhole inspections will continue and CCTV and smoke testing field inspection activities will begin. The consultant will begin the field inspection data QA/QC and data delivery to MSD. The consultant will also begin the recommended rehabilitation analysis. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- Floydsburg Road Pump Station I&I Investigation and Rehabilitation (Budget ID H09172) – Please see the above Meadow Stream Pump Station In-line Storage Project for more details on the Meadow Stream SSES project. This pump station is in the Meadow Stream Pump Station service area. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by December 31, 2016, in accordance with the IOAP schedule and the Amended Consent Decree.
- Kavanaugh Road Pump Station Improvements Project (Budget ID H09171) – Please see the above Meadow Stream Pump Station In-line Storage Project for more details on the Meadow Stream SSES project. The Kavanaugh Road pump station is in the Meadow Stream Pump Station service area. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by December 31, 2024, in accordance with the IOAP schedule and the Amended Consent Decree.

Floyds Fork Area

- Ashburton Pump Station Improvements and Diversion (Budget ID A09092) – This project addressed overflows at Ashburton and Olde Copper Court Pump Stations by directing flow from Ashburton PS through 475 linear feet of upsized force main to an 8-inch gravity sewer system in a neighboring subdivision. This project was accelerated from what is shown in the Final SSDP. Notice to proceed for construction was issued on August 31, 2009. A new 3-inch FM was installed in place of the existing 2-inch FM on November 19, 2009. Problems with damage to an adjacent water main delayed the completion of construction. Construction was substantially completed on December 30, 2009. Certification letters were sent dated January 22, 2010. All phases of the project are complete in advance of December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree. In the next report this project will be removed.
- Eden Care Pump Station SSO Investigations (Budget ID H09170) - SSES planning for this service area has been completed to address observed high wet weather flows and existing SSOs in the project area. The project scope was finalized to investigate this sub-basin in the Floyds Fork WQTC service area. Final negotiations with the SSES consultant were completed in January with a Board award date of February 22, 2010. A contract has been sent to the consultant for signature and a project kick-off meeting was held March 23, 2010. By June 30, 2010, a notice-to-proceed will be issued to begin the

SSES field inspection activities and a public meeting will be scheduled. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.

- Woodland Hills PS Diversion (Budget ID H09169) - This project consists of installing diversion pipe to allow dry weather flow to drain to an interceptor and use the pump station only during wet weather flow. This project was completed on March 1, 2010. The project will be certified by April 1, 2010. All phases of the project were completed prior to the deadline of June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Jeffersontown Area

- Raintree and Marian Court Phase 1 - Pump Station Eliminations (Budget ID H09180) - Both these pump stations will be eliminated by a private development project. Design includes 320 linear feet of 8-inch diameter sewer to eliminate Marian Court Pump Station and 410 linear feet of 8-inch diameter sewer to eliminate Raintree Pump Station. Final design and easement acquisition have been placed on hold by the developer. Economic conditions have affected the schedule and the project is on hold. MSD will monitor the developer's progress, and will self-perform this project if needed to ensure that all phases of this project will be completed in advance of the December 31, 2021, date in the IOAP schedule.
- Jeffersontown WQTC Elimination (Budget ID H07293) - The final plan for eliminating blending at the Jeffersontown WQTC was submitted to EPA and KDEP on March 31, 2010. This plan selected an approach and a schedule to eliminate the WQTC. See **Appendix I** for the detailed plan. All phases of the project will be completed by December 31, 2015, in accordance with the IOAP schedule and the Amended Consent Decree.

Beargrass Creek Middle Fork Area

- Upper Middle Fork #1- Buechel Basin (Budget ID H07288) – This project consists of construction of a flow equalization basin on a 96-acre parcel of land in the Jennings Lane/Produce Road area (hereinafter referred to as the Buechel Site). The project will provide an outlet for the ISSDP proposed Southeast Diversion Relief Interceptor and will provide capacity for surcharge from the Northern Ditch Interceptor during wet weather. Property for the basin was purchased on August 27, 2009, and a Phase II Environmental Assessment has been completed. Negotiations for design are complete and design is underway. The project will be completed by December 31, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.
- Hurstbourne I&I Investigation and Rehabilitation (Budget ID H09219) - This project area is located in the Lower Middle Fork Interceptor ICA Phase 2 assessment report that was completed in April 2009. Review of the ICA data is complete with rehabilitation recommendations. To assist MSD's rehabilitation program, an asset management rehabilitation tool is being created to review inspection data, prioritize work to be completed and prepare bid documents with cost estimates. This Hansen/Arcview GIS

application will use logic based if/then statements to filter inspection data to create rehabilitation projects. The Hurstbourne I&I Investigation and Rehabilitation Project was selected as the test area to use in the development of the application. By June 30, 2010, the rehabilitation tool will be used to develop rehabilitation recommendations and construction documents. All phases of the project will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Southeastern Diversion Area

- Beargrass Interceptor Rehabilitation Phase 2 (Budget ID H09239) – The planning for this project continues. By June 30, 2010, the rehabilitation tool, discussed above, will be used to develop rehabilitation recommendations and construction documents. This will be another project to be used as a test area for the rehabilitation tool. Using the tool, final recommendations will be completed and bid documents prepared. The project is scheduled to be advertised for construction in July 2010. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Parkview Estates I&I Investigation & Rehabilitation (Budget ID H09198) - SSES planning will start by June 30, 2010. This project area has been added to the FY11 CSSA area. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Pond Creek Area

- Charleswood Interceptor #23 Project (Budget ID C94103) / Cooper Chapel Road Widening – This is a joint project with Louisville Metro Public Works. This project will be constructed under a Metro Public Works Contract. The project includes the construction of an interceptor, elimination of the Cooper Chapel Pump Station, and construction of collector sewers for properties with septic tanks in the area. This project is in the easement acquisition stage. Since the last reporting period, Metro Public Works has delayed its construction schedule for the road project and the sewer construction has been put on hold. Despite the road project delay, all phases of the project are targeted to be completed well in advance of December 31, 2022, in accordance with the IOAP schedule and the Amended Consent Decree.
- Government Center Pump Station Elimination (Budget ID H09194) – This project consists of diverting existing sanitary sewer flow from the Government Center Pump Station to an existing 15-inch diameter sanitary sewer line via gravity flow. Decommissioning of the existing pump station is also included in this project. In response to maintenance issues with the existing pump station this project has been accelerated to avoid the need for a significant rehabilitation of a pump station scheduled for elimination. Design started on August 15, 2009, and is currently at a 90% design stage and easement acquisition is in progress. The project is expected to be advertised by June 1, 2010. All phases of the project are targeted to be completed well in advance of December 31, 2024, in accordance with the IOAP schedule and the Amended Consent Decree.

- Lantana Pump Station Investigation and Rehabilitation (Budget ID H09193) - This project will be completed under the Lea Ann Way SSES project (see below Lea Ann Way System Improvements Project). To address observed high wet weather flows and existing SSOs in the project area, the Lantana Pump Station SSES scope was finalized to investigate this sub-basin in the Lea Ann Way Pump Station service area. A notice-to-proceed was issued on January 4, 2010. An open house public meeting was held on February 8, 2010. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. All phases of the project will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Edsel Pump Station I&I Investigation and Rehabilitation (Budget ID H09197) – This project will be completed with the Little Cedar Creek SSES project (for details, see the Little Cedar Creek Interceptor Improvements Project). Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. All phases of the project will be completed by September 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Lea Ann Way System Improvements (Budget ID C08433) - SSES planning for this area has been completed to address observed high wet weather flows and existing SSOs in the project area. The Lea Ann SSES project (Budget ID H09096) scope was finalized. Due to the large size of the area, over 680,000 linear feet, the SSES project has been divided into two areas, East and West.

Lea Ann Way West SSES - A notice-to-proceed for the West section was issued on January 4, 2010. Field activities have begun to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of March 31, 2010 include: 1,255 linear feet of smoke testing, 522 manhole inspections, 128,435 linear feet of CCTV inspections and 4 private property inspections. An open house public meeting was held on February 24, 2010.

Lea Ann Way East SSES - A notice-to-proceed for the East section was issued on January 11, 2010. Field activities have begun to address observed high wet weather flows and existing SSOs in the project area. An open house public meeting was held on March 9, 2010.

Field inspection activities will continue for both areas through June 30, 2010. After field activities are completed, data will be delivered to MSD and the consultants will begin the recommended rehabilitation analysis. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. All phases of the project will be completed by December 31, 2015, in accordance with the IOAP schedule and the Amended Consent Decree.

Ohio River Force Main Area

- Mellwood System 1 - Mellwood Pump Station and Force Main (Budget ID A09556) – The project consists of constructing a new 3 MGD pump station and force main upgrades to replace the existing Mellwood Pump Station. The pump station lies in the

Ohio River Floodplain, thus requires significant flood proofing considerations. To address immediate issues with the pump station condition and provide for cost-sharing opportunities with a potential developer this project has been divided into phases, and the pump station replacement phase accelerated from the schedule shown in the Final SSDP. The design of Phase I is at the 60% stage and property acquisition is in progress. Design and acquisition is expected to be complete by June 30, 2010. Phase I construction will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.

- Prospect #1 - WQTC Elimination (Budget ID multiple) – A plan to eliminate the five WQTC's serving the Prospect area was approved by EPA and KDEP on September 24, 2009. This plan included five separate phases of work to accomplish the elimination of the treatment facilities in the Prospect area. The phases include pump stations and force mains to eliminate the North Hunting Creek and Shadow Wood WQTCs, a River Road Interceptor (Budget ID D94210) to transport the North Hunting Creek flow to a new pump station near the existing Ken Carla WQTC, a new Harrods Creek Interceptor (Budget ID D00249) to transport the Hunting Creek South and the Timberlake WQTC to the proposed pump station (Budget ID D94206).

The proposed regional pump station near the Ken Carla WQTC would then be connected to MSD's Hite Creek WQTC via a new force main. Notice to proceed was issued on July 10, 2009, for the preliminary design that will finalize the needed infrastructure and determine the necessary capacity. The preliminary design study for the alternate alignments was completed November 30, 2009. Final design will determine the need for easements based on the final alignment of the interceptors and force main. However some sections are progressing ahead of the overall schedule and the site for the main pump station has been located and is in negotiations for purchase at present. Finalizing purchase of the pump station site is anticipated before June 30, 2010.

Final design of the previously prepared plans for the River Road Interceptor is nearly complete and easement acquisition is ready to start, plats and appraisals are in progress. The River Road Interceptor was scheduled for bid in the spring of 2010 but easement acquisition and bidding has been delayed due to environmental concerns by US Fish & Wildlife (USF&W) over the potential for Running Buffalo Clover to be present at the site. USF&W requested a field survey by letter dated October 15, 2009, to determine if the species is present. The survey must be conducted between mid April through the end of June, during the flowering season. If the buffalo clover is present, the alignment may have to be changed. Therefore, all easement acquisition and bidding has been placed on hold until after this determination. All phases of the project will be completed by December 31, 2015, in accordance with the IOAP schedule, approved elimination plan, and the Amended Consent Decree.

- Derington Court Pump Station I&I Investigation and Rehabilitation (Budget ID H09091) - SSES planning will start by June 30, 2010. This project area has been added to the FY11 CSSA area. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Mill Creek Area

- East Rockford Lane Pump Station Relocation (Budget ID A09091) - The project consists of relocating the pump station, as well as increasing the size of existing pumps and force main. In response to maintenance issues with the existing pump station this project has been accelerated to avoid the need for a significant rehabilitation of a pump station scheduled for replacement. A notice to proceed for design was issued on June 26, 2009. Design has reached the 90% stage and easement acquisition is in progress. Advertisement for construction is scheduled for June 2010. All phases of the project are targeted to be completed in advance of December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.
- Shively Interceptor (Budget ID B06208) – This project will eliminate five pump stations within the City of Shively. The project consists of the installation of approximately 19,000 linear feet of interceptor ranging in size from 8-inch to 27-inch diameter. Easement acquisition started September 16, 2009, and approximately 90% of the easements have been acquired. Project has been approved by KDEP and was advertised for bid on March 19, 2010. Bid opening is scheduled for May 5, 2010. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.

Combined Sewer System Area

- Camp Taylor # 1 System Improvements (Budget ID H09288) – SSES planning for this project has been completed. The Camp Taylor SSES Project (Budget ID H09388) scope was finalized. A notice-to-proceed for was issued on January 4, 2010. Field activities have begun to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of March 31, 2010, include: 855 linear feet of smoke testing, 561 manhole inspections, 29,899 linear feet of CCTV inspections and 72 private property inspections. Two open house public meetings were held, one on November 4, 2009, and the second on March 29, 2010. Field inspection activities will continue, data delivery to MSD will begin and the consultants will begin the recommended rehabilitation analysis during the next quarter. All phases of the project will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Camp Taylor #2 Sewer Replacement (Budget ID H09220) - The planning for this project continues. A portion of the condition assessment in this area was performed by the ICA (Interceptor Condition Assessment) Contractor. The ICA contractor completed all remaining field inspections and submitted a final report on January 18, 2010. Initial review of the data revealed approximately 1,800 linear feet on a section of 15-inch diameter sewer was in need of replacement. Work is underway to complete this repair. The remainder of the interceptor will be assessed with the Camp Taylor SSES project recommendations. All phases of the project will be completed by December 31, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.
- Sonne Pump Station I&I Investigation and Rehabilitation (Budget ID H09187) – SSES planning for this project is complete. For the SSES project, final negotiations were completed and Board award was February 22, 2010. By June 30, 2010, a notice-to-

proceed will be issued to begin the SSES project. In addition, planning for the public meetings and field inspection activities will commence. All phases of the project will be completed by June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

- Hazelwood Pump Station I&I Investigation and Rehabilitation (Budget ID H09181) - SSES planning for this project is complete. For the SSES project, final negotiations with the SSES consultant were completed and Board award was February 22, 2010. By June 30, 2010, a notice-to-proceed will be issued to begin the SSES project. In addition, planning for the public meetings and field inspection activities will commence. All phases of the project will be completed by June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Small WQTC Areas

- Lake Forest Pump Station SSO Investigation (Budget ID H09173) - SSES planning for this service area has been completed to address observed high wet weather flows and existing SSOs in the project area. For the SSES project, final negotiations with the SSES consultant were completed and Board award was February 22, 2010. A contract has been sent to the consultant for signature and a project kick-off meeting was held March 23, 2010. By June 30, 2010, a notice-to-proceed will be issued to begin the SSES field inspection activities and a public meeting will be scheduled. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.
- Riding Ridge PS Improvements (Budget ID H09175) – SSES planning for this project has been completed and the project area and scope finalized for the Prospect SSES Project (H09391). The Riding Ridge Pump Station is in the North Hunting Creek WQTC service area in Prospect, Kentucky. The SSES project will look for sources of I&I reduction for the following SSDP projects: Riding Ridge PS Improvements (Budget ID H09175), the Gunpowder PS Inline Storage Project (Budget ID H09242), the Fox Harbor Inline Storage Project (Budget ID H09176) and the Fairway View PS Improvements Project (Budget ID H09177). A notice-to-proceed was issued to the SSES consultant on February 8, 2010. Field activities have begun to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of March 31, 2010, include: 355 manhole inspections and 12 private property inspections. An open house public meeting was held on February 25, 2010. Field inspection activities will continue, data delivery to MSD will begin and the consultant will begin the recommended rehabilitation analysis during the next quarter. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.
- Gunpowder Pump Station In-line Storage Project (Budget ID H09242) – This project is located in the Prospect SSES area. Please see the above Riding Ridge Pump Station Improvements project information for details. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be

completed by December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.

- Fox Harbor In-line Storage Project (Budget ID H09176) – This project is located in the Prospect SSES area. Please see the above Riding Ridge Pump Station Improvements project information for details. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.
- Fairway View Pump Station Improvements Project (Budget ID H09177) - This project is located in the Prospect SSES. Please see the above Riding Ridge Pump Station Improvements project information for details. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.

Other Projects

- For CPE/CCP modification projects refer to **Section 6.5: Comprehensive Performance Evaluations and Composite Correction Plans**

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.msdlouky.org/projectwin.

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.

This section will report on the progress of the projects identified in the IOAP, Volume 2 – Final CSO LTCP. Refer to **Appendix A** for a chart showing the schedule of the activities described in this section. All projects are now listed by Budget ID in the chart. Note that the schedule in **Appendix A** shows completion dates that are earlier than contained in the Final LTCP. These early completion dates represent targets for MSD's project management use, but do not

represent a change in schedule commitments.

The following activities were performed during this reporting period or are planned for the next period.

3.3.2.1 Green Demonstration Projects

- MSD Main Office Parking Lot Bioswale (Budget ID H09424) – Planning for this project is underway and will continue in the next quarter. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Seventh and Cedar Green Parking Lot (Budget ID H09425) – Preliminary design for this project initiated in January 2010. During this month, introductory meetings were held with the property owners to discuss green opportunities. Site analysis for sewer flow monitoring equipment has been completed and equipment was installed in March 2010, downstream of the project site for performance assessment of the green technologies that will be used. Geotechnical analysis and a topographic survey will occur prior to June 30, 2010. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Second and Broadway Green Parking Lot (Budget ID H09426) – Planning for this project is underway and design will begin prior to June 30, 2010. Introductory meetings have been held with the Louisville Metro personnel to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Third and Ormsby Biofiltration Swales (Budget ID H09427) – Planning for this project is underway and design will begin prior to June 30, 2010. Introductory meetings have been held with the Louisville Metro personnel to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Sixth and MLK Place (Previously listed as Sixth and Muhammad Ali) (Budget ID H09428) – Preliminary design for this project initiated in the reporting period. Introductory meetings have been held with the property owners to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. Geotechnical analysis and topographic survey will occur prior to June 30, 2010. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Sixth and Broadway Rain Garden (Budget ID H09429) - Preliminary design for this project initiated in the reporting period. Introductory meetings have been held with the

property owners to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. Geotechnical analysis and topographic survey will occur prior to June 30, 2010. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- Seventeenth and W Hill Permeable Alley (Budget ID H09430) – Planning for this project is underway and design will commence prior to June 30, 2010. Introductory meetings have been held with the Louisville Metro personnel to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Seventh and Market Permeable Alley (Budget ID H09431) – Planning for this project is underway and design will begin prior to June 30, 2010. Introductory meetings have been held with the Louisville Metro personnel to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Campbell and Main Permeable Alley (Budget ID H09432) – Planning for this project is underway and design will begin prior to June 30, 2010. Introductory meetings have been held with the Louisville Metro personnel to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Fourth Street Green Street (formerly Roy Wilkins and Market Green Street) (Budget ID H09433) – Relocated the project to allow for greater public visibility. Planning for this project is underway and design will begin prior to June 30, 2010. Introductory meetings have been held with the Louisville Metro personnel to discuss green opportunities. Monitoring equipment has been Board approved and site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Two (2) Additional Rain Garden Projects (Budget ID H10039 and H10040) – Selected preliminary locations of rain gardens for Christ the King Church and Clifton Triangle Area. Preliminary design for this project was initiated in March 2010. Introductory meetings have been held with the property owners to discuss green opportunities. Monitoring equipment has been Board approved and site analysis has been initiated to determine the placement of flow meters for performance assessment of the installed green technologies. Geotechnical analysis and topographic survey will occur prior to

June 30, 2010. All phases of these projects will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- I-264 Off-Ramp Dry Well (Budget ID H09442) – Design will start by July 1, 2010, contingent on coordination with EPA Region 4 regarding permitting requirements. All phases of these projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- I-264 On-Ramp Dry Well (Budget ID H09443) - Design will start by July 1, 2010, contingent on coordination with EPA Region 4 regarding permitting requirements. All phases of these projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- I-264 and Gibson Dry Well (Budget ID H09444) - Design will start by July 1, 2010, contingent on coordination with EPA Region 4 regarding permitting requirements. All phases of these projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Russell Lee Drive Dry Well (Budget ID H09445) - Design will start by July 1, 2010, contingent on coordination with EPA Region 4 regarding permitting requirements. All phases of these projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- JFK Montessori Area Dry Well (Budget ID H09446) - Design will start by July 1, 2010, contingent on coordination with EPA Region 4 regarding permitting requirements. All phases of these projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

3.3.2.2 Gray Infrastructure Projects

- Logan Street Basin (Budget ID H09142) – This project consists of an 11.83 MG underground storage basin, and approximately 5,000 linear feet of new interceptor sewers. Initiated the preliminary design study to evaluate available/alternative technologies and establish design protocols for the other 12 CSO basin designs. This study will provide a design of the basin to a 30% stage. The study is complete. Alternatives for the basin site and the CSO interceptor alignment have been investigated. A draft report of the Phase I Environmental Site Assessment, historical and archaeological review, and permit requirements have been completed. A Phase II Environmental Site Assessment is in progress. The acquisition of the property for the basin is in negotiations. The preferred alignment of the interceptor has been selected and the final design will be in negotiations prior to June 30, 2010. All phases of the project will be completed by December 31, 2017, in accordance with the IOAP schedule and the Amended Consent Decree.
- CSO108 Dam Modification (Budget ID H09128) – Initiated project design in October 2009. Project will be bid prior to June 30, 2010. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- CSO206 Downspout Disconnections (Budget ID H09131) – Continued planning for this project to disconnect downspouts. A demonstration project to disconnect downspouts by private property owners was developed during the reporting period. A meeting with homeowners to discuss options for disconnection will be held prior to June 30, 2010. All phases of the project will be completed by December 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.
- I-64 and Grinstead Drive Storage Basin (Budget ID H09121) – Design negotiations have been finalized for a 10% design which is expected to be completed July 31, 2010. The 10% design will answer several questions to allow for a scope to be prepared for a final design. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.
- Paddy's Run Wet Weather Treatment Facility (Budget ID H09124) – In the first quarter of 2010, a design firm was selected to prepare a project definition and schematic design for this proposed facility and contract negotiations were completed. MSD expects to execute the work order to initiate this first step in designing the treatment facility prior to June 30, 2010. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.
- Adams Street Storage Basin (Budget ID H09135) – Design negotiations have been initiated for this project to reduce overflows from CSO172. Project includes a 0.12 MG storage basin. All phases of the project are scheduled to be complete by December 31, 2012, in accordance with the Amended Consent Decree.
- Story Avenue & Main Street Storage Basin (Budget ID H09127) – Design negotiations have been initiated for this project to reduce overflows from CSO020. Project includes a 0.13 MG storage basin. All phases of the project are scheduled to be complete by December 31, 2013, in accordance with the Amended Consent Decree.

Flood Pump Station Projects

- 34th Street Flood Pump Station DWO Elimination (Budget ID H08478) - Received 80% design submittal for the project on February 18, 2010. After review, MSD requested additional electrical and controls improvements to be added to the project. By June 30, 2010, the project scope will be amended to include the requested modifications, and revised 80% and 100% final design documents will be received. Planning will begin for advertisement and construction. All phases of the project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.
- 4th Street Flood Pump Station DWO Elimination (Budget ID H08477) - Received 80% design submittal for the project on February 18, 2010. After review, MSD requested additional improvements to be added to the project. Staff requested to have scope added to actuate Gate 32. This will allow de-watering of the facility by using the existing sanitary wet well and eliminate trapped water dry weather overflows. By June 30, 2010, the project scope will be amended to include the requested modifications, and revised 80% and 100% final design documents will be received. Planning will begin for advertisement and construction. All phases of the project will be completed by

December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.

- 27th Street Flood Pump Station DWO Elimination (Budget ID H09126) – The contract for final design services was awarded on January 25, 2010. The design work is planned to start August 2010. All phases of the project will be completed by June 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.
- Shawnee Flood Pump Station DWO Elimination (Budget ID H09136) – The contract for final design services was awarded on January 25, 2010. The design work is planned to start August 2010. All phases of the project will be completed by June 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.

3.4 Post Construction Compliance Monitoring Program

Within the Integrated Overflow Abatement Plan, monitoring efforts that will support the impact evaluation of the plan implementation are discussed in Volume 1, Section 6.5 Post Construction Compliance Monitoring. These efforts will be incorporated into MSD's overall system and environmental data management planning and activities, which support various MSD initiatives including operational support, the Municipal Separate Storm Sewer System (MS4) program, hydraulic and water quality modeling, and a range of regulatory reporting and trending requirements as well as overflow abatement impact analyses related to the IOAP.

The following is a brief discussion of recent and upcoming activities related to each element:

- Environmental Data Integration Site Development - Defined the integrated site needs and the concept of centralizing the access to its numerous monitoring data sets – rainfall, sewer flow, stream data, plant information data from SCADA, etc. A full proposal for the development of this site was completed in March 2010, and is currently under review. MSD has continued to improve the overall accessibility of data reported from its SCADA and LIMS systems for pump station, Real Time Control and laboratory information as well as standardize various environmental data sets in preparation for integrated data querying and display through an upcoming data site.
- Quality Assurance and Quality Control Definition and Implementation – Worked on the development of standard QA/QC procedures for various data sets and set a frequency for data review. In addition, proactive data notification processes are currently in place at sewer flow meter sites which allow the real-time data sets to notify MSD staff when certain conditions are recorded in the field. MSD will begin to formally document and define the QA/QC procedures that either exist or need to be developed for each data set intended to be part of the integrated data site.
- Green Demonstration Project & Programmatic Monitoring and Assessment - Identified the green demonstration projects as part of the IOAP and will perform case studies on the effectiveness of these projects on stormwater reduction into the combined sewer. MSD identified equipment needs for each project and developed an installation plan and timeline for each that will capture the data needed to perform the case study during December 2009. Monitoring site locations have been identified and equipment is being

installed for each demonstration project as well as project control sites. Additional watershed monitoring needs will be defined during FY11.

- Sewer Hydraulic and Stream Water Quality Modeling for Impact Analyses – Executed work orders for sewer modeling services to address model cleanup, further standardization, calibration and integration. The models will be used as the IOAP is implemented to aid in design decisions and systematic impacts and performance.
- Water Quality Sampling for IOAP Projects and the Long Term Monitoring Network – Recreational contact sampling will continue throughout this same network 5 times per month during the recreational contact season. Consultant contracts to provide continued dry and wet weather sampling around the Big 4 SSO project areas are currently under negotiation. In the next quarter, MSD will identify a specific timeline for wet weather sampling across the Long Term Monitoring Network as noted in the IOAP.
- Sewer Flow Monitoring Network Expansion – Sewer flow monitoring network is currently being maintained and site notifications are being enhanced.
- Stream Flow & Ambient Monitoring – Continued MSD's partnership with the USGS with an annual cost and resource share for the maintenance of stream flow gauges and data sondes that are installed at the Long Term Monitoring Network locations. This data is reported by telemetry to the USGS public website as well as MSD's internal Contrail website. These monitoring efforts will continue through the next year.
- Rain Gauge and Radar Rainfall Data Collection – Continued to operate an established rain gauge network of 17 gauges that report data every 5 minutes through telemetry. In addition, MSD receives 4-hour predictive and real time radar rainfall data from a vendor across approximately 700, 1-square kilometer pixels that cover the county. The vendor also delivers a gauge-adjusted radar rainfall data set at the end of each month. This data is used to support operational decisions as rain events are approaching and are occurring. The Real Time Control system also utilizes the rainfall data to run simulations and develop set points for control sites throughout the combined sewer system. The radar rainfall is also used for modeling simulations that support various planning and design decisions. The radar rainfall data along with rain gauge and stream monitor information is served to users through an internet application.
- Fish, Algae, Macroinvertebrate and Habitat Surveys - Fish, macroinvertebrate and habitat surveys for the Long Term Monitoring Network were completed in December 2009 as part of the every other year schedule identified in the IOAP. MSD is currently working to complete an ecological database to house this information as it is collected in order to keep a cleaner historical record of this complex information. This effort will continue through the next year along with contract negotiations with the University of Louisville to complete an algae analysis for collected data.

The environmental data collection program will continue to mature. MSD will continue to assess environmental data needs of the utility, upcoming reporting needs, and the direction of the different program aspects.

Finally, as part of the IOAP and MS4 commitments, MSD completed a 2009 water quality synthesis report at the end of December 2009, which trended water quality information gathered and correlated impacts of various pollutant sources such as combined sewer overflows, impervious area, and land use.

3.5 Green Program Development

The Green Program framework was submitted as part of the IOAP. The following programmatic development was underway during this reporting period.

- Initiated 17 of the 19 green infrastructure demonstration projects as described in the IOAP, with completion dates ranging from December 31, 2010, to December 31, 2011.
- Conducted internal discussions on the development of the programmatic elements, including the financial incentives program for government and private (commercial and residential) partners, public information, outreach and education, project identification, prioritization and implementation, etc.
- Developed the plan for the green infrastructure effectiveness monitoring for the 19 demonstration projects. The preconstruction monitoring equipment will be purchased by June 30, 2010. Data will be utilized to document the efficacy of the demonstration technologies for “right-sizing” of gray IOAP projects.
- Initiated meetings with internal staff to discuss partnership opportunities and potential green projects.
- Continued development of design guidance documents for green infrastructure including the MSD BMP manual, and a work plan to update appropriate MSD design documents.
- Continued development of a green infrastructure tracking program followed by an inspection program for those green assets constructed by MSD, its partners, and private residents; specifically inspect those assets that are being used in impervious area reductions and CSO reduction and project sizing calculations.
- Continued a review of the existing Louisville Metro Land Development Code to identify potential impediments to green infrastructure implementation, and also began to identify proactive measures that could facilitate institutionalizing green practice in typical developments.
- Developed and submitted a grant application for State of Kentucky funding of Green Infrastructure projects as part of the Louisville MSD program. Updates on the results of this grant submittal will be provided in future quarterly reports.
- Continue to develop a plan to present recommended suggested Land Development Code changes to Louisville Metro government for consideration.

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

4.1 Public Notification Program

MSD produced and distributed a number of products 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. The following activities occurred within this reporting period or are scheduled to occur during the next reporting period.

4.1.1 Overflow Advisory Signs

- Worked with the Parks Department to develop 3 additional interpretive signs. These signs were installed at Grinstead Drive and Lexington Road in accordance with the National Parks signage specifications.
- Completed the annual sign inspection process on March 25, 2010. 1206 signs were inspected. 173 signs were replaced, cleaned or repaired.
- Performed an annual evaluation of the sign locations against the documented overflows to ensure all needed signs are in place. Identified 16 locations for the installation of new signs. New signs have been installed and these locations have been incorporated into the routes for next year's inspection.



4.1.2 Project WIN Website

- Updated the website to facilitate communication with customers on the Beechwood Village project. The site is available with a link on the Project WIN website. Select "Major Capital Project Updates", to link to the website. <http://inet.msdlouky.org/bwvillage>
- Developed a website to facilitate communication with customers on the Camp Taylor SSES project. The site became available to the public from a link on the Project WIN website on March 17, 2010.



- Continue to post Project WIN information on the website. On MSD's home page, the Project WIN area provides important information on the condition of area streams and shows a warning if overflows are likely to be happening or have happened in the past 48 hours. Clicking on the Project WIN logo brings up the Project

WIN site, which includes a repository of public documents related to Project WIN, tips for customers to help control overflows through their personal actions, information about the history and background of Project WIN and a place to sign up for overflow advisory emails warning when significant precipitation has caused overflows in MSD's system. This website can be found at www.msdlouky.org/projectwin.

- Completed the updates to the CSO/SSO Overflow Location Maps on March 25, 2010, to reflect changes in the documented overflows.

4.1.3 Electronic Notifications

- Notified customers who voluntarily sign up to receive email alerts regarding sewer overflows.
- Provided notification on 2 Dry Weather Unauthorized Discharges of more than 1000 gallons. These events required additional notification due to the volume of dry weather overflow involved.
- Continued the process to evaluate the email alert program and messages and develop an action plan to increase participation in the email program, and to improve retention of those who sign up. Investigating the use of “Dean” to broadcast messages to the public.

4.1.4 Print Notifications

- Mailed 738 Project WIN information packets to customers who called with questions about the Amended Consent Decree – specifically regarding overflows, discharges, plumbing modification and the surcharge fee. Distributed approximately 250 packets at public meetings.
- Mailed out 330 FOG residential public outreach letters to areas that had FOG issues during this reporting period.
- Developed an informational flyer that will provide a general overview and awareness to the public on health impacts associated with sewer overflows. The flyer will also provide information to encourage water conservation during rain events and proper grease disposal. This information will be distributed via a 2-page full slick insert in the Sunday April 18, 2010, Courier Journal. This insert will be provided in the next quarterly report.
- Distribute, prior to May 1, 2010, the annual mailing to residents within 500 feet of Beargrass Creek and Ohio River.

4.2 Public Outreach Programs

MSD has developed a public outreach program aimed at involving the public on MSD's primary business functions with emphasis on wastewater, stormwater and flood protection. Efforts continued to utilize various media outlets, including television, radio, magazines, and newspapers to serve as a conduit for disseminating information to the public. The following activities occurred within this reporting period or are scheduled to occur.

4.2.1 Radio and Television Activities

- Continued to run TV spots on WLKY TV. The spots during the reporting period were focused on flooding issues and the FOG program. These ads ran 99 times during the reporting period.
- Continued to show on Metro TV (Channel 25) the **Project WIN 2008 video series** - a series of seven videos to inform the public about MSD, the Amended Consent Decree and Project WIN. From January 1, 2010 – March 31, 2010, the video was shown 35 times.

4.2.2 Printed Media Activities

- Advertised to inform the public on Project WIN activities in *Business First*, *Today's Woman*, and in *Louisville Magazine*.
- Provided the MSD *Crosscurrents* to all elected officials, internal staff, and customers that have contacted MSD with either drainage or a back-up problem. The majority of the articles relate to Project WIN.
- Provided the MSD *Update* to customers and staff each month. Project WIN related articles are contained in each issue. These publications are available on the MSD Web site.
- Worked with the Courier Journal to run newspaper advertisements warning the public about overflows and pollutants in waterways. Messages will be coordinated with stakeholder priorities and seasonal information. Advertisements are scheduled to start running on April 18, 2010.

4.2.3 Electronic Media Activities

- Worked with the Courier Journal to develop educational advertisements for the on-line edition of the newspaper to warn the public about overflows and pollutants in waterways. Messages are focused at reaching dog owners, families, and the general public. On-line advertisements will direct interested readers to the Project WIN website for additional information. Advertisements are scheduled to start running on April 17, 2010.

4.2.4 IOAP Project and Program Meetings

- Held two public meetings on the Jeffersontown WQTC blending elimination plan:
 - Jeffersontown Community Center on March 16, 2010, from 4:00 pm to 7:00 pm. Attended by 15 people.
 - Sun Valley Community Center on March 17, 2010, from 3:00 pm to 6:00 pm. Attended by 3 people.
- Held a Stakeholders Group meeting on January 28, 2010. At this meeting MSD described the IOAP approval process and status. The implementation schedule was reviewed, and the status of current and upcoming projects was discussed.
- Provided information to the WWT through the Project WIN website, at www.msdlouky.org/projectwin.

4.3 Public Education Programs

- MSD has developed a public education program aimed at expanding the public's knowledge of MSD's primary business functions with emphasis on wastewater, stormwater and flood protection. A survey of customers was performed prior to December 31, 2009. The results of this survey are posted on the Project WIN website, [http://www.msdlouky.org/projectwin/pdfs/IOAP/IOAP-012810/1300w-Public-Outreach-Study-D2-\(12-15-09\).pdf](http://www.msdlouky.org/projectwin/pdfs/IOAP/IOAP-012810/1300w-Public-Outreach-Study-D2-(12-15-09).pdf) and included in **Appendix J**.

4.3.1 Green Infrastructure Workshops and Activities

- Delivered presentation to Bon Air Community group on Urban Storm Water on January 18, 2010.
- Delivered presentation for the Jeffersontown Garden Club on Urban Storm Water and Rain Gardens on February 4, 2010.
- Delivered presentation for the Audubon Garden Club on Urban Storm Water and Rain Gardens on February 8, 2010.
- Delivered presentation for the Louisville Master Gardeners on Urban Storm Water and Rain Gardens on March 2, 2010.
- Started planning of internal and external workshops explaining the Green Infrastructure Program.
- Scheduled rain garden workshops to be presented during the fall of 2010 at 3213 University Road and 2817 Brownsboro Road as part of the Clifton Green Triangle initiatives.
- Plan for installation of rain garden at 3213 University Road by June 30, 2010.
- Designed interpretive signage for the Main Office Rain Garden. Fabrication and installation of the sign will be complete by October 30, 2010.
- Scheduled rain garden installation for May 23, 2010, at the John Paul II Elementary School. A rain garden will also be installed at the Brandeis Apartments by September 30, 2010.
- Agreed to make presentations on urban stormwater issues for the Iroquois Neighborhood Association and the Louisville Iris Society will be scheduled by June 30, 2010.

4.3.2 Clean Streams Workshops and Activities

- Organized and staffed the X-Stream Clean Sweep on March 27, 2010. (400 volunteers)

4.3.3 Children's Education Activities

- Provided direction on the implementation of outdoor classrooms at the Floyds Fork WQTC.
- Participated in discussions with Jefferson County Public Schools regarding construction methods for outdoor classrooms supporting environmental classroom/green education opportunities at the Portland Elementary School environmental magnet program.
- Continued support for Eastern High School's Environmental Program at Floyds Fork WQTC by providing meeting space on-site for classes.
- Scheduled educational stormwater activities and tours of the Floyds Fork WQTC for Kennedy Montessori 4th graders. 180 students scheduled for May 19, 20 and 25, 2010.

SECTION 5: Capacity Management Operations and Maintenance (CMOM)

5.1 Capacity Management Operations and Maintenance Program Activities

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.msdlouky.org/projectwin. Highlights of the CMOM program implementation over this reporting period are outlined below.

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.

5.1.1 Management Programs

M-D-1 Utility Information Management Systems

This Quarter

- Completed the migration of existing performance measures tracking system (PWIN Dashboard) to SharePoint.
- Improved PWIN Dashboard information presentation and began expansion of performance measures displayed on SharePoint site.
- Completed conversion of MSD capital project tracking from Primavera P3 to P6. Linked P6 information to Project Control System (PCS) display on SharePoint. Began display of monthly updates to P6 in SharePoint.
- Formed internal work group to guide continued development of the SharePoint project management tool set, and set up beta-test projects to assist in tool set testing.

Next Quarter

- Continue to expand performance measure tracking system on the PWIN Dashboard.
- Develop SharePoint project management sites for all active IOAP projects.
- Initiate SharePoint training program for general users, project managers and project assistants to expand the use of the SharePoint system.

M-E-4 Engineering Programs (Sewer System Design Program)

This Quarter

- Developed a Sewer Service Line Replacement Program to provide interest free loans to customers who need to replace the private portion of their property service connection. This program will help to address I/I issues related to private property. See **Appendix L** for a copy of the program brochure.

Next Quarter

- Schedule a press conference to announce the Sewer Service Line Replacement Program for April 19, 2010.

M-E-8 Continuing Sewer System Assessment

This Quarter

- As part of the CSSA Program, MSD started the development of a standardized process to review CCTV sewer and manhole condition assessment data to develop cleaning and rehabilitation recommendations. The process will have a procedural manual and utilize MSD's GIS capabilities and asset condition data, asset data and spatial location to prioritize efforts. The final process will create bid quantities, drawings, SCAP credit projections and construction cost estimates for rehabilitation projects as well as cleaning activity recommendations. The process will also define work that can be completed in-house by MSD staff versus work requiring a construction contractor. The process will include project close out steps, activity documentation and SCAP credits gained. A draft procedure document is complete. Staff worked on taking CCTV data through the draft procedures in three areas creating 60% construction drawings, estimates and SCAP credit calculations.
- Initiated 17 SSES projects to find system defects to help determine the potential number of credits available from rehabilitation.
- Approved the final SSES report for Anchor Estates Pump Stations 1 and 2.
- Continued to perform the Interceptor Condition Assessments and review the results of the ICAs to determine the potential number of credits available for rehabilitation. Budget has been allocated to develop additional rehabilitation projects from the ICA Phase 1 and 2 data review.
- Ensured that CCTV inspection data is captured in PACP format.
 - SSES contractors inspected 158,334 linear feet of sanitary sewers
 - ICA contractor inspected 1726 linear feet of sanitary sewers
 - MSD crews inspected 99,079 linear feet of sanitary sewers
 - CCTV contractor inspected 489,691 linear feet of sanitary sewers as part of their annual contract
- Continued condition assessments for manholes in strategic areas. MSD will follow the Gravity Line Preventive Maintenance FY10 schedule. Inspection data will be reviewed and manhole defects will be corrected as they are found. Inspected a total of 1,572 MHs as part of the SSES projects.
- Identified new priority areas for FY11 Condition Assessment and initiate planning for future inspections.
- Continued ICA Phase 3 professional services to complete the following interceptor condition assessments. Condition assessment reports will be completed for each area:
 - Mill Creek Trunk (Budget ID H09399) – Draft report was delivered March 18, 2010. Draft report will be reviewed and a final report will be submitted May 31, 2010.

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- Ohio River Interceptor (Budget ID H09400) – FY10 CSSA Area. Completed 100% of all field TISCIT inspections per original scope. Final report for the Ohio River Interceptor ICA will be submitted May 31, 2010. Project scope was expanded to include interceptor lines in the Maple Street area. All Maple Street field activities and a final report for this section will be completed by June 30, 2010.
 - Upper Dry Run Trunk (Budget ID H09404) – FY10 CSSA Area. Completed all field TISCIT inspections. Draft report will be reviewed and a final report will be submitted June 30, 2010.
 - Sneads Branch Relief (Budget ID H09402) – FY10 CSSA Area. Completed all field TISCIT inspections. Draft report will be reviewed and a final report will be submitted June 30, 2010.
 - Lea Ann Way Interceptors (Budget ID H09398) – IOAP SSES Project. Final report was delivered January 12, 2010. Draft report will be reviewed and a final report will be submitted May 31, 2010. MSD will utilize the final report and begin planning for any potential rehabilitation as identified in the Lea Ann Way SSES Project.
 - Camp Taylor Interceptors (Budget ID H09407) – IOAP SSES Project. Final report was delivered January 12, 2010. MSD will review the report and begin planning for any potential rehabilitation as identified in the Camp Taylor SSES Project.
 - Flood Protection System – COE inspection requirement. Completed 100% of all field TISCIT inspections. Draft report was delivered January 12, 2010. Draft report will be reviewed and a final report will be submitted June 30, 2010.

Next Quarter

- Continue to perform the Interceptor Condition Assessments and review the results of the ICAs to determine the potential number of credits available for rehabilitation.
- Perform CSSA tasks and review results of CSSA to determine the potential number of credits available for rehabilitation.
- Finalize CSSA Rehabilitation process procedures manual and mapping standards. Use the final process to create three rehabilitation construction documents and cleaning recommendations. Continue to work on the procedures for documentation of rehabilitation and calculation of SCAP credits.
- Finalize prioritization and begin planning of areas/lines for FY11 rehabilitation based upon the need for credits, the data from condition assessments and the results from the ICA and SSES data.
- Develop projects for rehabilitation to target priority lines in FY11.

M-E-9 Infrastructure Rehabilitation

This Quarter

- Edgewood Separation (Budget ID H09202) – The existing storm and sanitary lines in the area need to be replaced due to their poor condition. A project was created to replace the existing storm line and install new sanitary sewer lines. All existing sewer connections to the drainage facility were located and will be re-directed to the new line. Project is expected to be bid by March 30, 2010. Construction is scheduled to be complete by December 30, 2010.
- Whipps Mill Basin (Budget ID H09202) – This project called for raising two manholes on the Middle Fork Interceptor to a height two foot above the floodplain along Middle Fork. Chimney seals will also be installed on both manholes. The manholes are located in the Whipps Mill Basin. Work was advertised April 15, 2009, and awarded on May 4, 2009. Wet weather has delayed the completion of this work as the manholes are located in wetlands near a large regional basin. MSD will continue to monitor site for access.
- Goose Creek Pump Station (Budget ID F07070) Grinder Installation – A pre-construction meeting was held on January 14, 2010, with the notice-to-proceed issued on January 21, 2010. Construction started in February 2010 and is scheduled to be completed by August 30, 2010.
- Lea Ann Way Pump Station (Budget ID F07069) Grinder Installation – The project was awarded on October 26, 2009, and a notice to proceed for construction was issued on November 24, 2009. A pre-construction meeting was held December 22, 2009. Construction started in January 2010 and is scheduled to be completed by May 31, 2010.
- Brandeis Viaduct #2 Pump and Controls Modifications (Budget ID F04192) – The project was awarded on October 26, 2009, and a notice to proceed for construction was issued on December 7, 2009. A pre-construction meeting was held December 28, 2009. Construction started in January 2010 and is scheduled to be completed by June 15, 2010.
- Shively Pump Station Grinder Replacement Project – Planning was completed to replace the existing grinders. An RFP was issued and fees negotiated for design services for the replacement project. Final negotiations have been completed. By April 30, 2010, budget will be appropriated to create a project and a notice-to-proceed will be issued to initiate design services.
- Fairmount Road Pump Station Expansion (Budget ID E00303) – The contract for final design services was awarded on January 25, 2010. By May 31, 2010, a notice-to-proceed will be issued to begin design services.
- Gorham Way Pump Station Elimination – MSD staff is reviewing several sewer alignments. Substantial rock will be encountered in all possible elimination routes. The final design and easement acquisition is scheduled to be complete by April 30, 2010. Construction is scheduled to be complete by December 1, 2010.

- Anchor Estates Rehab Project (Budget ID F08443) - During the SSES for the Anchor Estates area, multiple defects in the existing clay tile sewer system were discovered. This project was created to make corrections to address these defects. Project will include about 2000 feet of 8-inch cured-in-place pipe, manhole repairs and spot repairs. This work is expected to be bid by the end of June, 2010 with work completed by December, 2010.
- Waycross Road Pump Station Elimination (Budget ID CO9062) - This project involves the elimination of the Waycross Road Pump Station and the installation of approximately 1,200 feet of 8-inch diameter gravity sewers. Notice to proceed for construction was issued on October 26, 2009, flow was diverted from the pump station on December 28, 2009, and final construction completion is scheduled for April 1, 2010.
- Lake Louisville Sanitary Sewers (Budget ID D98344) - This project will involve the elimination of four pump stations - (Forest Springs, Bay Tree, Willow Cove and Cottages of Westport) and construction of approximately 5,550 linear feet of gravity line. The new system will be designed to serve approximately 1,100 single family homes in the Hite Creek WQTC service area. This is a joint effort between private development and MSD to eliminate these facilities. The design on this project has reached the 90% stage and easement acquisition has started. Construction is scheduled for completion by December 1, 2011.
- Canoe Lane/Fairway Lane Pump Station Elimination (Budget ID F06298) - This project will allow for the elimination of the Canoe Lane and Fairway Lane Pump Stations. The elimination of these pump stations will assist in the elimination of SSO's that currently exist downstream of these facilities. Design and easement acquisition are complete. Construction bid date on this project is April 12, 2010. Substantial completion is expected by December 2010.
- Lake Forest Pump Station, Force Main, and Interceptor (Budget ID E05509) - This project will allow for the elimination of the Berrytown, Starview, and Chenoweth Run WQTCs. Additionally, the St. Clair Drive and Arnold Palmer Pump Stations will be eliminated with this project. The effluent from these facilities will be directed to a proposed pump station that will pump into the existing Old Henry Force Main sending the wastewater to the Floyds Fork WQTC. Design on this project is 90% complete and easement acquisition is in progress. Some changes in the alignments and additional line segments are being included in the design. Design will continue through the next reporting period. The project will be constructed in four phases. Phase I will be the construction of the new pump station and is the critical facility. The pump station completion will dictate the schedule for the completion of the interceptor to eliminate the existing pump stations and treatment plants. Phase I will allow for the start of the pump station construction while design and easement acquisition is in progress on the interceptor sections. The second phase is the interceptor that will eliminate the existing Arnold Palmer PS and Chenoweth Run/Lake Forest WQTC. The third phase is a section of interceptor that will be completed by developers. The fourth phase will be the interceptor to eliminate St. Clair PS, Starview WQTC and Berrytown WQTC. Phase I, the new pump station, is scheduled to be advertised for construction in second quarter of 2010 with construction complete in third quarter 2011. The second phase is scheduled to

start construction in fourth quarter 2010, with construction complete in fourth quarter of 2011. The third and fourth phases are scheduled to start construction in 2011 and should be completed in 2012.

- Federal Building PSC Reconnection (Emergency Contract 2010-1) – An existing property service connection (PSC) on a combined sewer, upstream of a CSO, was disconnected and tied into an adjacent 10-inch PSC that discharges into a sanitary only system. This work was completed January 26, 2010.
- 1219 Wolfe Ave Sewer Repair (Emergency Contract 2010-2) - An existing 12-inch clay pipe failed. Approximately 39 linear feet of this sewer was removed and replaced with PVC pipe. Sewer was also cleaned and inspected by camera approximately 400 linear feet upstream of this location and 350 linear feet downstream to ensure no additional failures. This work was completed March 19, 2010.
- 831 E. Liberty Sewer Repair (Emergency Contract 2010-3) – An existing 27-inch single ring brick sewer failed at a property service connection. This section of sewer was replaced with 6 linear feet of 24-inch PVC pipe. The existing 6-inch clay pipe service connection was also replaced with PVC pipe. This work was completed March 19, 2010.
- 3600 Downing Way Sewer Repair (Emergency Small Purchase) – An existing 33-inch South Fork Beargrass Interceptor was repaired at MH #48897. A gap was in the sewer line between the pipe and the manhole. The gap was plugged with grout and a concrete collar poured around the pipe and manhole connection. Work was completed on March 6, 2010.
- McNeely Lake WQTC Influent Pump Station – Completed planning of a new collection box with bar screen to protect the influent pumps. Currently there is no means to capture debris from the existing 12-inch diameter influent line ahead of the influent pump station. Design drawings were created for the modifications. By June 30, 2010, MSD will advertise the project, award a small purchase order and issue a notice-to-proceed to install the new collection box and bar screen.
- Yorktown Pump Station – Completed review of the existing pump station discharge bases. The existing duplex pump station was pumping under capacity due to excessive grout in the bottom of the wet well. The grout was not allowing the correct suction required for the pump to operate correctly. On January 22, 2010, a meeting was held on site with three contractors to obtain a quote to replace each pump base and re-grout the wet well. By June 30, 2010, a notice-to-proceed will be issued to complete the pump station improvements.
- As part of the CSSA Program, MSD started the development of a standardized process to review CCTV sewer and manhole condition assessment data to develop cleaning and rehabilitation recommendations. The process will have a procedural manual and utilize MSD's GIS capabilities and asset condition data, asset data and spatial location to prioritize efforts. The final process will create bid quantities, drawings, SCAP credit projections and construction cost estimates for rehabilitation projects as well as cleaning activity recommendations. The process will also define work that can be completed in-house by MSD staff versus work requiring a construction contractor. The process will include project close out steps, activity documentation and SCAP credits gained. A draft

procedure document is complete. Staff worked on taking CCTV data through the draft procedures in three areas creating 60% construction drawings, estimates and SCAP credit calculations.

Next Quarter

- Continue to develop a Request for Proposal for time and material sewer and manhole rehabilitation construction, both to be based on a fiscal year schedule and budget.
- Continue to complete rehabilitation work and report accordingly.
- Finalize CSSA Rehabilitation process procedures manual and the Arcview mapping tool. Use the final process to create three rehabilitation construction documents. Review work to be completed with I&FP and Engineering Design to assign who will complete projects. Continue to work on the procedures for documentation of rehabilitation and calculation of SCAP credits.

M-E-10 System Capacity Assurance Program

This Quarter

- Continued to collect formula-based defect inspection of significant footage of sewer lines in various sewersheds across the county. In addition, contract arrangements moved forward to increase these efforts. This information will be used to prioritize cleaning and rehabilitation efforts that will remove inflow and infiltration from the system and create capacity credits.
- Enhanced the tracking of Pump Station capacities, reviewed testing results and identified action items pertaining to deficiencies. Critical results of this effort are being documented on each station asset within the Hansen system.

Next Quarter

- Continue to track WQTC capacities and new development flows in accordance with the SCAP, as previously described. Pump station capacity investigation needs resulting from the pump testing and deficiency identification will be refined and remedial actions will be initiated for the highest priority stations.
- Complete a capacity credit evaluation for each credit catchment and balance with approved new flows. Rehabilitation efforts using existing sewer condition data will be advanced to remove inflow and infiltration and generate capacity credits.
- Completed development of an SCAP training module and held training dates for staff in January 2010. Additional GIS information and reports related to sewer capacity were published and made available to staff. An update to the SCAP planning document was also completed, which outlines new or altered activities that have arisen as the plan has been implemented.

M-H-1 Spare Parts Inventory Management Program

This Quarter

- Reviewed security scan control pad access for inventory control measures.
- Started the second phase of the Bar-Code Scanning Project to review all information and determine if budget allowances can support a project initiative before implementation of a bar-code system.
- Started testing of SAP processes with new location of Hite Creek WQTC Storeroom for implementation of cycle counting.
- Investigated the Storeroom Bar-Code Scanning Project as an improvement for inventory management at MF and CMF Storerooms. Budget allowances were included in the 2009/2010 budget.
- Performed successful physical inventory count of Hite Creek WQTC Storeroom.

Next Quarter

- Continue to review security scan control pad access for inventory control measures.
- Continue to review inventory with department managers to identify obsolete items.
- Begin third phase of the Bar-Code Scanning Project for quoting and procurement compliance to implement a portion of the bar-code system.
- Begin regular cycle counting at Hite Creek WQTC Storeroom.
- Perform physical inventory counts at Morris Forman WQTC Storeroom and Central Maintenance Facility Storeroom.

M-H-2 Equipment and Tools Repair Management

This Quarter

- Conducted Vehicle Tool Inventories for Infrastructure and Flood Protection crew vans and trucks. Storeroom Standard Operating Procedures (SOP) and processes for purchasing, replacing and exchanging assets for improved security were implemented.
- Evaluated the Equipment and Tool Repair Kaizen and showed a need to strictly enforce the exchange/approval process for inventory supplies, and the need to keep central recordkeeping of repairs.
- Implemented Security Asset group meetings to access the current policy and processes for improvements and tighter security. Storeroom access and policies was the first item for consideration.

Next Quarter

- Continued efforts to control odor issues and vegetation improvements at CMF with management.
- Storeroom SOP and processes for equipment and tool repair will be finalized and communicated to all staff.

- Security Asset group will continue to meet on recommendations of Security Asset Policy and SOP for improvements and tighter security.

M-H-3 Vehicle Repair

MSD's vehicle repair maintenance program addresses over 600 pieces of rolling stock, including automobiles, trucks, trailers, construction equipment (backhoes, mobile cranes, etc.) and specialty sewer maintenance equipment. For the purpose of the CMOM program, MSD established a list of "Mission Critical" (MC) equipment required for sewer inspection and maintenance. "MC" equipment includes:

- Catch Basin Cleaners (mechanical clamshell type)
- High-Pressure Sewer Flusher Trucks
- TV Inspection Vehicles
- Vacuum Sewer & Catch Basin Cleaner Trucks
- Sound Attenuated 6" Trash Pumps

This Quarter

- Performed an evaluation of work order history on mission critical equipment. This data review indicated that on average the:
 - 3 older Catch Basin Cleaners (clamshell type) were taken out of service during this quarter and replaced with new units. The units were available 33 days, 56 days and 63 days before being replaced by new equipment on March 1, 2010, and were available 83% of the time between January 1, 2010 and February 28, 2010.
 - 1 Catch Basin Cleaner (clamshell type) was available 100% of the time.
 - 4 new Catch Basin Cleaners (clamshell type) were placed into service on March 1, 2010 and were available 100% of the time for 31 days.
 - 7 Sewer Flushers were available 94.92% of the time.
 - 6 TV Inspection Trucks were available 99% of the time.
 - 6 Vacuum Catch Basin & Sewer Cleaners were available 95% of the time.
 - 14 Sound-Attenuated 6" Trash Pumps were available 99% of the time.
- Procured the following:
 - 4 Ford/Stetco 950 Catch Basin Cleaners (mechanical clamshell type) were delivered and placed into service on March 1, 2010.
 - 5 Ford/CUES TV Inspection Vehicles. 4 delivered March 17, 2010, with in-service processing currently underway. 1 expected delivery in July, 2010.
 - 4 International/Vactor 2100 Plus, Vacuum Sewer & Catch Basin Cleaner Trucks. 3 delivered January 18, 2010, and placed into service March 22, 23 & 24, 2010. 1 expected delivery in July, 2010.

- Continued utilizing manual techniques for analyzing availability/downtime data and compiling quarterly reports for mission critical equipment.
- Received Board approval to procure the FASTER software at the January 25, 2010, board meeting.
- Conducted the Faster Implementation Team kick-off meeting on March 18, 2010.
- Provided in-house Vacuum Catch Basin Cleaner “Vactor Basic Mechanics” factory training program for sixteen (16) Fleet Services technicians on January 19-21, 2010.
- Scheduled 2010 out-of-town Vacuum Catch Basin Cleaner “Vactor Advanced Mechanics” factory training program as follows:
 - 4 Fleet Services personnel, June 14-17
 - 4 Fleet Services personnel, September 20-23
 - 4 Fleet Services personnel, October 11-14
 - 6 Fleet Services personnel, December 6-9

Next Quarter

- Define the data to migrate to FASTER prior to June 30, 2010.
- Determine the information and reporting components/attributes/processes needed in FASTER to better manage availability of mission critical equipment, and enhance MSD’s ability to perform core business.
- Identify “Performance Measures” to be tracked with new Fleet Management Information System (FMIS) and establish acceptable benchmarks for each element to be measured for CMOM critical equipment by June 2010.
- Attend Vacuum Catch Basin Cleaner “Vactor Advanced Mechanics” factory training program for Fleet Services personnel as scheduled above.
- Complete in-service processing and release new mission critical equipment acquired during fiscal year.

M-H-4 Supplies Management

This Quarter

- Approved a contract for vendor inventory management of gas cylinders for all locations, which will provide better chemical and gas controls throughout MSD and maintain emergency records for Fire Department.
- Continued environmental assessment of chemical and oil clean-up at Metro Operations and MFWQTC.

Next Quarter

- Continue lean manufacturing quality improvements, such as 5-S, in the warehouse non-inventory working area at CMF. 5-S is a system to identify waste and opportunities for improvement, then bring order to the work environment through establishing efficient flow of material, supplies and activities.

- Continue efforts to provide recycling pick up service within Metro Operations facilities.
- Finalize testing and installation of soy-based industrial hand cleaners and lotions for all maintenance and fleet shop employees.
- Continue monthly meetings with all locations to better service tool and inventory needs.

M-J-2 Legal Support Programs (Ordinances)

This Quarter

- Deferred further work on the redraft of the Private Property Ordinance. MSD has a significant increase in participation in the voluntary Plumbing Modification Program, probably as a result of backups caused by the August 4, 2009, storm. Work on this ordinance will be restarted later in calendar year 2010, after the backlog of Plumbing Modification projects has been reduced.

Next Quarter

- Continue to defer work on a redraft of the Private Property Ordinance as noted above. No activity is anticipated during the period of April through June, 2010.

M-K-1 Water Quality Monitoring Programs (Routine Water Quality Monitoring Programs)

- Refer to **Section 3.4 Post Construction Monitoring Program** for details on water quality monitoring efforts.

5.1.2 Operations Programs

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

This Quarter

- Approved the contract for final professional services on January 25, 2010, to update the current U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual. The project will update the four volumes of the operations and maintenance manuals for the Flood Pump Stations (FPS) that will reflect current operational procedures and protocols along with revisions related to changes proposed to reduce dry weather overflows. By June 30, 2010, a work order to begin the updates to the manuals is expected to be executed as part of a fiscal year 2011 design services contract.
- Determined capital project priorities and the budgetary needs in monthly meetings with Metro Operations and Regulatory Services staff.
- Continued re-testing pump stations based on the previous draw down study that was completed in November 2007. The study information was used to prioritize the second round of draw down testing. The new draw down data was compared against the 2007 results to update the baseline operations of each pump station. MSD staff completed new draw down tests on 91 pump stations. The testing was expanded to include an assessment of the mechanical and electrical equipment at each station. The data collected to date has been documented in a spreadsheet that uses logic statements to filter the data in an effort to prioritize rehabilitation projects. The data assessment tool will be used to help prioritize rehabilitation projects.

Next Quarter

- Meet on a monthly basis with Operations staff to determine capital project priorities and advise on the budgetary needs on a quarterly basis.
- Continue to analyze the pump station draw down database with all test results and use the pump station spreadsheet tool to prioritize pump station rehabilitation efforts. These tasks will be coordinated with the Greenline and Emergency Generator Programs. Perform data review meetings with Operations to help prioritize rehabilitation efforts.

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

This Quarter

- Continued to evaluate the Greenline technical memo's documentation of the lowest home opening elevations and confirmed pump station as-constructed information. A kick-off meeting was held March 26, 2010 and a notice-to-proceed issued that date to begin field elevation surveys for the Central Region Greenline pump stations. Greenline pump stations for all regions were prioritized under the program to complete new draw down tests and pump station site assessments. The data from this effort has been collected and will be used to plan future rehabilitation projects. The future rehabilitation work will also correct any pump station operation level settings to prevent line surcharging.
- East Region Emergency Generator Project (Budget ID H10082) – The purpose of this project is to install permanent stand-by generators at the following MSD pump stations: Brittany Woods Circle, Devondale, Fairway View Court, and Saurel Drive. All generators have been installed. Contractor is completing final start up activities and testing. Additional landscaping has been added at the Brittany Woods site per discussions with the neighborhood association.
- West Region Emergency Generator Project (Budget ID H10084) – The purpose of this project is to install permanent stand-by generators at the following MSD pump stations: Francell Court, Park Ridge Woods, Sunlight and Tree Line. All generators have been installed. Contractor is completing final start up activities and testing. Additional landscaping has been added at the Francell Court site per discussions with the neighborhood association.
- Central Region Emergency Generator Project (Budget ID H10083) – The purpose of this project is to install permanent stand-by generators at the following MSD pump stations: Griffytown #1, Middletown Christian Village, Monticello Place and Six Mile Lane. The generator shop drawings provided by the contractor during the shop drawing review phase of the project were rejected by MSD. The generators were under sized by the contractor's generator supplier. On March 11, 2010, MSD approved the resubmitted generator shop drawings submitted by the contractor. The generators have been ordered and the contractor is beginning to pour the concrete pads and install the utilities.
- Reviewed sites for the next round of generator installations. The following four sites in the West Operational Region were selected: Caven, Wathen, Villa Anna and Shady Villa Pump Stations. Staff collected site data and began developing specifications and bid documents for each site.

Next Quarter

- Continue to review lowest home opening elevations and confirmed pump station as-constructed information for the West Region. Begin planning, based on the field information obtained from the lowest home elevations for all regions and the as-constructed information, to prevent future home back-ups. Adjust pump station operating levels and install level sensors. Evaluate a wet well level gauge for each pump station site to help in O&M.
- East Region Emergency Generator Project (Budget ID H10082) – Complete start up testing and training to have generators operable by April 30, 2010.
- West Region Emergency Generator Project (Budget ID H10084) – Complete start up testing and training to have generators operable by April 30, 2010.
- Central Region Emergency Generator Project (Budget ID H10083) – Complete installation; start up testing and training to have generators operable by June 15, 2010.
- Complete design and bid documents for the next round of generator sites mentioned above (Caven, Wathen, Villa Anna and Shady Villa Pump Stations). Use remaining FY10 generator program funds to advertise the pump stations for bid and award construction contract by June 30, 2010.

O-D-1 Grease Trap Inspection and Enforcement Program (Permitting Program)

This Quarter

- Conducted a Certified Grease Waste Hauler Training session on March 31, 2010.
- Issued 66 enforcement actions against Food Service Establishments for FOG violations found during reconnaissance and follow-up inspections conducted at Food Service Establishments that recently failed certification by an approved MSD Certified Grease Waste Hauler, as well as collection system grease blockage incidents.
- Mailed 330 FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.
- Removed 212,177 gallons of FOG from Grease Control Equipment at Food Service Establishments in the MSD service area.
- Started tracking and reporting FOG Program performance measures.

Next Quarter

- Continue to conduct follow-up inspections at Food Service Establishments recently receiving failed grease control equipment certifications from approved MSD Certified Grease Waste Haulers and recon, as well as collection system grease blockage incidents. MSD will issue enforcement actions as appropriate to Food Service Establishments found to be in violation of the MSD Wastewater/Stormwater Discharge Regulations.

- Continue to send FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.
- Continue tracking and reporting FOG Program performance measures.

O-F-1, 2 Flow Monitoring Field Operation Programs (Permanent Stations; Temp Stations)

- Refer to **Section 3.4 Post Construction Monitoring Program** for details on water quality monitoring efforts.

5.1.3 Maintenance Programs

S-A-1, 2 & 3 Pump Station Preventive Maintenance (Electrical; Mechanical; Physical)

This Quarter

- Continued the process of updating the preventive maintenance and inspection plan for flood pump stations based on a review of the USACE Inspection Guide. Staff is using the Hansen asset management system to track Flood Pump Station work orders as well as associated flood pump station assets such as station related floodgates.
- Continued to use Hansen for preventive maintenance tasks and corrective work orders for Metro Operations staff that maintain sewer lift stations and small water quality treatment centers.
- Continued the inspections on pump station sites that have deficiencies determined during the Draw Down and Greenline Programs. To date, 91 pump stations have been inspected. These two programs identify deficiencies in pump performance and evaluate potential improvements possible by modifying set-points in the level controls. Staff proactively inspected all critical equipment on site during these inspections. Check lists were created to document the inspection and list corrective actions needed. Corrective work orders were issued as needed.

Next Quarter

- Conduct additional Hansen training for Metro Operations staff, as more PM processes are converted to Hansen.
- Continue to perform inspections on pump station sites that have deficiencies determined during the Draw Down and Greenline Programs.
- Meet with Operations to review data collected from the Draw Down and Greenline Programs and start prioritizing pump stations for rehabilitation. Start the process of executing purchase orders to replace equipment and rehabilitation project to correct site deficiencies.

S-B-1 & 2 Force Main Preventive Maintenance (Air Release Valves, Valve Exercise Program)

This Quarter

- Completed inspections on the following force mains:
 - Ohio River Force Main
 - Mockingbird Valley
 - Lake Forest
 - Louisville Boat Club – inspection was initiated but could not be completed due to high water conditions (will be rescheduled)

Next Quarter

- Schedule the following force mains for inspection:

▪ Covered Cove	• Lucas Lane
▪ Creel Drive	• Monticello
▪ Grand Lakes	• Riding Ridge
▪ John Hancock	• Tucker Lake

S-C-1, 2, 3 & 4 Gravity Line Preventive Maintenance (Routine Hydraulic Cleaning, Routine Mechanical Cleaning, Root Control Program, Manhole Preventive Maintenance)

This Quarter

- Performed sewer flushing on 459 line segments and root cut 436 line segments.
- Contractor performed chemical root treatment on 41,778 feet of main sewer.
- Defined target areas for chemical root treatment in the next quarter.

Next Quarter

- Continue working with contractors on CCTV and chemical root treatment.
- Refine the Gravity Line Preventive Maintenance (GLPM) work plan for activities through June 30, 2010.
- Continue working with the contracted sewer evaluation, cleaning, and root cutting consultants and contractors and internal personnel to inspect FY10 priority areas and initiate blockage abatement maintenance measures as appropriate.
- Develop a Standard Operating Procedure for GLPM and enhance the Blockage Abatement Program (BAP) to ensure that sewer lines with certain defect conditions are placed in the program to periodically perform appropriate maintenance actions.
- Schedule and conduct CSSA training and begin development of implementation training for the BAP.
- Review equipment, fleet, and personnel resource needs and availability to allow for completion of tasks developed in the CSSA.

5.1.4 Safety Programs

M-C-1 Safety Committee

Last Quarter

- Chaired safety committee meetings with representatives from I&FP, Metro Operations, and the Morris Forman WQTC. The committee meetings are held on a quarterly basis and were conducted in the last quarter with each individual group. The committee membership consisted of both union and management representatives.

Next Quarter

- Continue safety committee meetings, and process improvements, on a quarterly basis to address safety concerns.

M-C-2 Confined Space Entry

Last Quarter

- Conducted confined space entry training in accordance with the OSHA Confined Space Entry standard 29 CFR 1910.146 for new employees, and on an "as needed" basis for employees who have job descriptions requiring confined space entry. MSD also maintained and purchased entry equipment and personal protective equipment to provide for safe entry conditions and to maintain compliance with 29 CFR 1910.146.

Next Quarter

- Continue to administer training and monitor procedures on confined space entry in order to maintain compliance with 29 CFR 1910.146.

M-C-3 General Safety Procedures

Last Quarter

- Established various general safety procedures based on both 29 CFR 1910 & 1926 OSHA regulations, input from internal personnel, and on the specific needs of the district in order to maintain regulatory compliance and provide safe working procedures for employees.

Next Quarter

- Continue to assess the need to update existing procedures and/or create new procedures as conditions and regulatory requirements dictate.

M-C-4 Traffic Management

Last Quarter

- Purchased and maintained traffic control equipment to be utilized whenever the control of traffic is required due to operational exposure. MSD provides training on traffic control through licensing and equipment operating training as employees are hired or their job duties require.

Next Quarter

- Continue to train on traffic control and will continue to provide/maintain traffic control equipment.

M-C-5 Lock Out/Tag Out

Last Quarter

- Established Lock Out/Tag Out (LO/TO) procedures as required by the OSHA 29 CFR 1910.147 for the control of Hazardous Energy standards. Procedures are kept, maintained and communicated to employees.

Next Quarter

- Develop LO/TO procedures as equipment is added/replaced, or as processes are changed.

M-C-6 Safety Equipment

Last Quarter

- Budgeted for the purchase and maintenance of confined space monitors, safety shoes and safety glasses for employees.
- Marked hole covers with the word "Hole" or "Cover" as a result of the procedure change implemented last quarter.

Next Quarter

- Continue to provide required Personal Protective Equipment to employees at no cost to the employees themselves. MSD will maintain safety related equipment or replace the equipment per governing policies or as the need arises. MSD will monitor the market in order to procure improved safety equipment as technology advances.

M-C-7 Performance Measures

Last Quarter

- Worked 270,848.05 hours in the period January 1, 2010 – March 31, 2010.
- Recorded 26 safety incidents.
- Recorded 8 lost time accidents.
- Filed 10 Workers' Compensation Claims.
- Missed work a total of 75 days due to work-related issues.

Next Quarter

- Continue to track accident statistics in accordance with the OSHA Recordkeeping Standard 29 CFR 1904.

5.1.5 Training Programs

M-B-1 Technical Training

M-B-2 Skills Training

M-B-3 Safety Training

Last Quarter

Performed training on the following initiatives:

Type of Training	Number of Hours	Number of Sessions
Collection System	51	24
Equipment	208.5	68
Reporting	23.5	7
Safety & Hazmat	48	25
Wastewater	12.5	12

- Conducted 24 training sessions related to its Collection System, representing a total of 51 hours of training. These session included topics such as Sewer Cleaning and Maintenance, Trenching and Shoring, SORP, and Equipment Procurement Procedures.
- Delivered over 208.5 hours of training in 68 sessions on equipment needed to maintain and operate the collection system, pump stations and treatment plants. Types of equipment training included Backhoe, Combination Sewer Cleaner, Excavators, cranes and Air Hammer & Compressor. .
- Conducted 7 training sessions totaling 23.5 hours related to reporting, including Pipeline Assessment Software, and MSD's other asset management software.
- Delivered 48 hours of safety training over 25 training sessions and included topics such as trenching and excavation safety, bloodborne pathogens, CPR & First Aid, and Hazmat training.
- Provided 12.5 hours of training related to wastewater treatment process and control. This training was delivered through 12 different sessions that included Operator Log Book entries, "Why Treat Waste" (basic wastewater treatment processes), operator technician guidelines, and Environmental Management Systems.

Next Quarter:

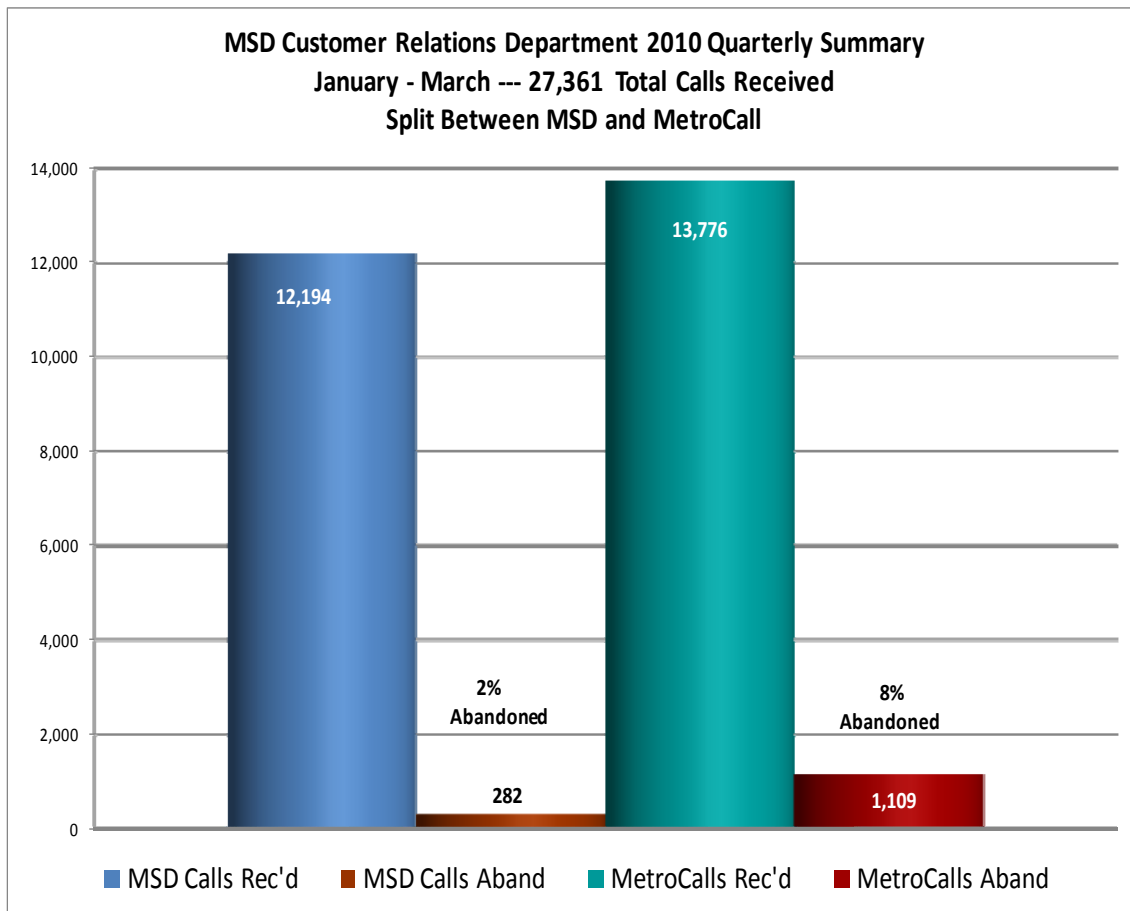
- Continue working with MSD's IT department on developing enhancements to the training log database. Potential enhancements would increase the training department's ability to target those employees who need to participate in specific consent decree related training, and then more accurately track their participation in the training.
- Review of both CIPP and CCTV training programs will be completed to determine if enhancements are needed to improve employee performance with these related tasks.

5.1.6 Customer Service Programs

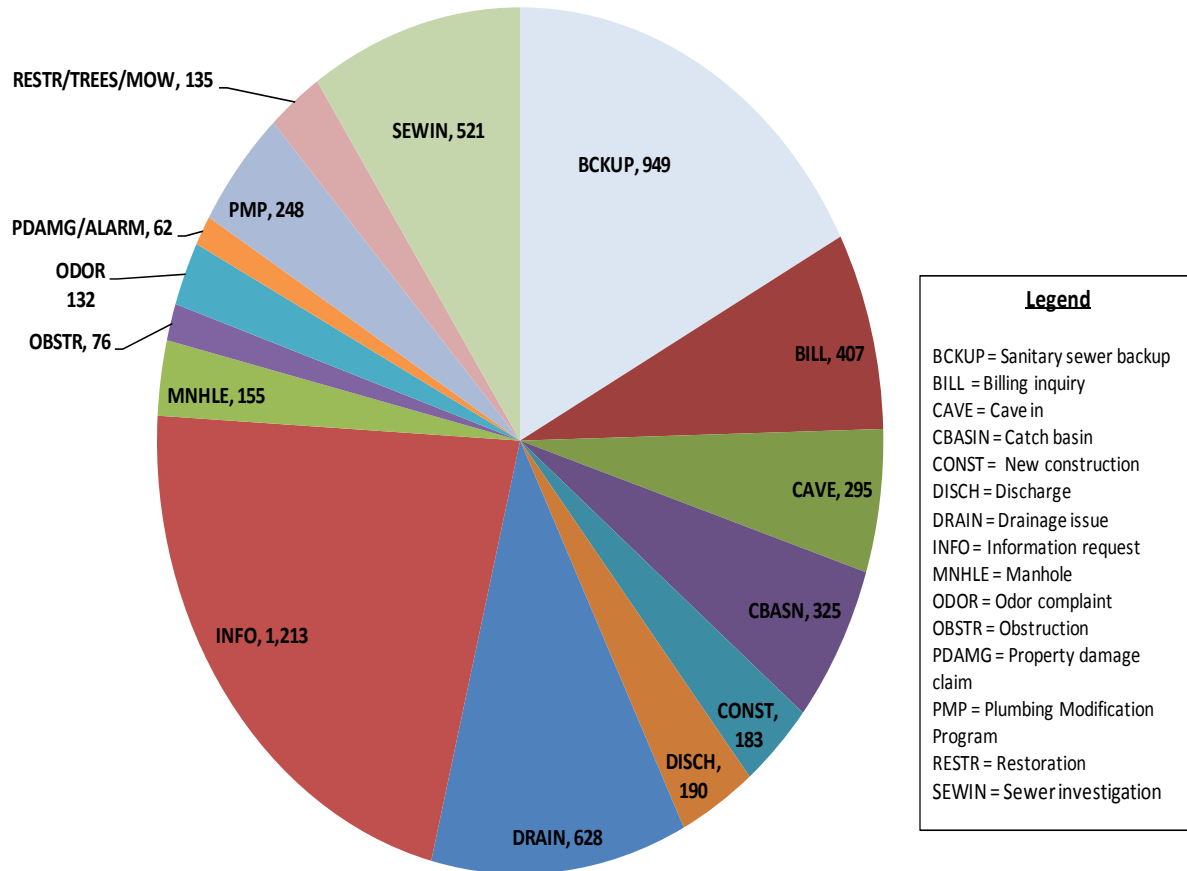
M-I-1 Customer Service
M-I-2 Public Information
M-I-3 Public Education

Last Quarter

- Attended 12 public meetings from January 2010 - March 2010.
- Tracked calls received, outcomes, walk-in customers, and resolutions from those customers. Graphs depicting the activities from the quarter are shown below:



MSD Customer Relations Department 2010 Quarterly Report
5,519 MSD Service Requests Entered by Problem Code
January --March



MSD Customer Relations 2010 Quarterly Summary Service Center Walk-In Customers January - March	
Service Provided	# Customers
Administrative Fee	3
Assessment Payment/Payoff	35
Assistance to Field Staff	100
Auction Items	2
Bill Requests	3
Capacity Charge Fee	7
Connection Fee Purchased	2
CSD/ Map Copies	23
Drainage Requests	3
EPSC Fine	2
I & I Fee	3
LOJIC	9
Minor Plat Review	39
Placing Customers O/C	329
Plan Review Fee	3
PMP / Senior Discount	23
Sewer Related Requests	23
Water Mgmt File Review	3
TOTAL CUSTOMERS IN SERVICE CENTER	612

Next Quarter

- Continue to track and trend calls received and outcomes associated with customer questions.
- Continue to draft performance measures for Customer Relations.

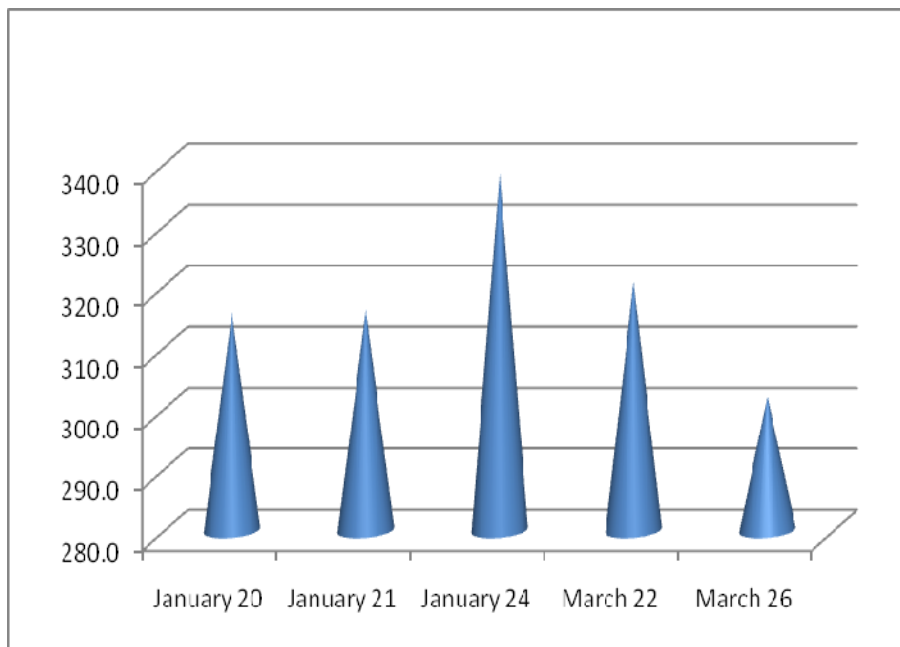
SECTION 6: Program Activities for Water Quality Treatment Centers

6.1 Regional Water Quality Treatment Center Updates

6.1.1 Morris Forman Water Quality Treatment Center

- Treated peak flows greater than 300 MGD at Morris Forman WQTC on 5 different days.
- Operated the Morris Forman WQTC during this reporting period without any permit violations.

Morris Forman WQTC – Flows over 300 MGD

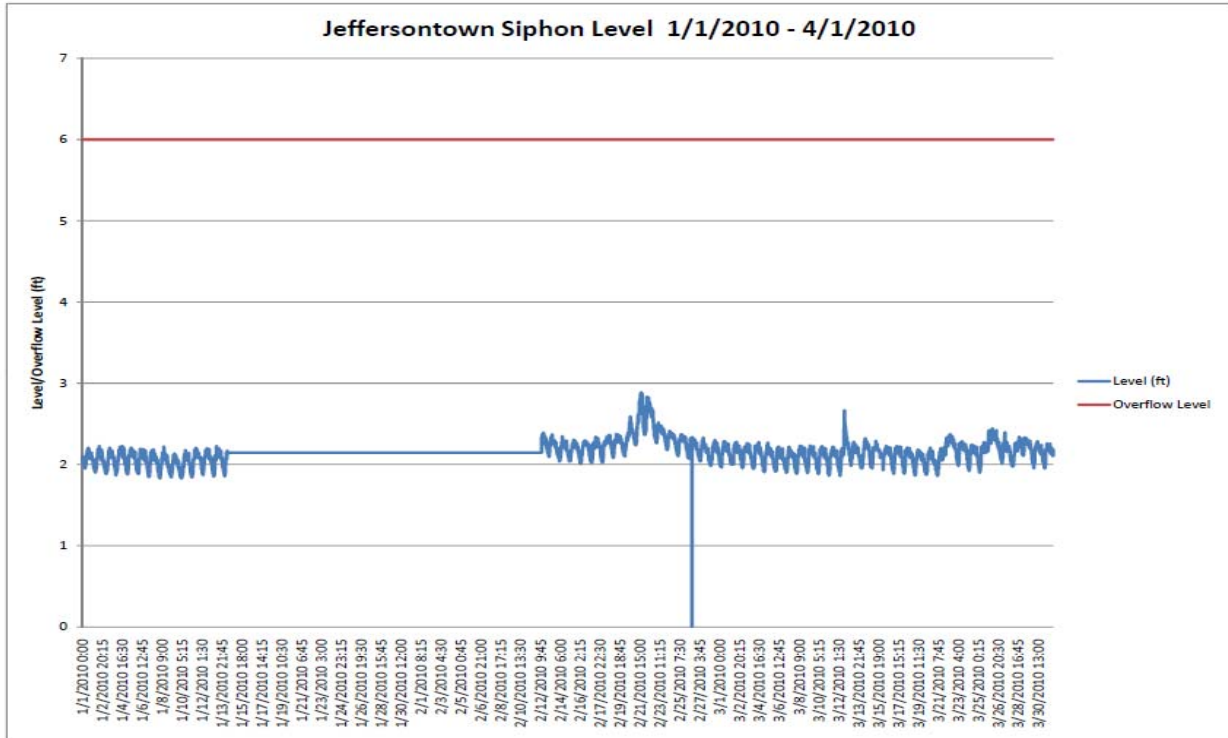


6.1.2 Jeffersontown Water Quality Treatment Center

MSD submitted a Jeffersontown WQTC Process Control Program on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this document from EPA on April 1, 2009, pending finalization of the Amended Consent Decree that was under consideration by the Federal Court at the time the Process Control Program was submitted.

- Reported blending events at the Jeffersontown WQTC during this period on January 21, January 24, and February 5, 2010. The total blended amount, from all events, reported and documented on the Project WIN webpage was 3,580,651 gallons.
- Conducted three inspection routes for the Jeffersontown siphon during this reporting period on January 21, 24 and February 5, 2010. No overflows were identified during these inspections from the siphon or associated manholes.

- See Section 6.5.1 for an update on the Comprehensive Performance Evaluations (CPE) /Composite Correction Plans (CCP) projects for the Jeffersontown WQTC.



6.1.3 Hite Creek Water Quality Treatment Center

A waste load allocation request for the Hite Creek WQTC was submitted to the Division of Water on March 30, 2009. This allocation is necessary to allow elimination of the Prospect Area WQTCs by December 15, 2015, as required by the Amended Consent Decree. Approval for this new allocation was received from the DOW on June 10, 2009. MSD will initiate negotiations with a consultant to assist in developing an amendment to the North County Action Plan Update by June 30, 2010.

- See Section 6.5.4 for an update on the CPE/CCP projects for the Hite Creek WQTC.

6.1.4 Floyds Fork Water Quality Treatment Center

MSD received Board approval to award a contract for design services to complete the design of the Phase 2 expansion of the Floyds Fork WQTC, to an average daily design flow of 6.5 MGD in January 2010. The future needs and the current capacity commitments may require MSD to consider an expansion beyond Phase 2. MSD has received the requested waste load allocation from KDEP for the Phase 2 project.

6.1.5 Derek R. Guthrie Water Quality Treatment Center

- See Section 3.2.2 for an update on the design phase of the Derek R. Guthrie WQTC Wet Weather Equalization and Treatment Project (Budget ID H06302).

6.1.6 Cedar Creek Water Quality Treatment Center

- See Section 6.5.3 for an update on the CPE/CCP projects for the Cedar Creek WQTC.

6.2 Prospect Area Water Quality Treatment Center Updates

Submitted the elimination plan, for the five WQTCs serving Prospect, (North Hunting Creek, Hunting Creek South, Ken Carla, Shadow Wood and Timberlake), to EPA and KDEP on March 31, 2009. Received approval of this plan on September 24, 2009, and work is proceeding on the projects defined in the IOAP.

- Awarded the chemical supply and delivery contract for the Prospect WQTC sites at a lower per pound rate than previously paid. Deliveries under the new contract began in January 2010. New spill containment systems have been installed to allow sodium aluminate at the sites to be protected from freezing and provide a more reliable inventory of the chemical on site. Effluent testing in the past three months have shown that each of the five Prospect WQTCs were below the 1.0 mg/l effluent limit.
- Included the phosphorus monitoring data for the five WQTCs, including the calculation of monthly averages, in **Appendix G**.

6.3 Other Small Water Quality Treatment Center Updates

- No updates for this quarter

6.4 Monitoring, Record-Keeping and Reporting

6.4.1 Discharge Monitoring Reports

In July 2008, MSD started posting, on the Project WIN website, a Discharge Monitoring Report (DMR) packet for each WQTC. Historical DMR data are available back through January 2007. The new DMR packets include the DMR, Monthly Operating Report (MOR), discharge report and the 5-day follow up letter for any bypass events that occurred during that period.

The information on the DMRs may be found at www.msdlouky.org/projectwin in the section labeled Wastewater Treatment Plant Reports.

- Continued to work towards the creation of electronically generated DMRs. This requires coordination with the State, upgrades to the LIMS system and the modification to internal tools. The LIMS upgrade started in September 2009. The new software has been installed and MSD staff has entered the testing phase of this project. The January and February DMRs were electronically generated for the regional WQTCs. The new release of LIMS should be in production prior to June 30, 2010.

6.5 Comprehensive Performance Evaluations and Composite Correction Plans

In accordance with paragraphs 26.b and 26.c of the Amended Consent Decree, MSD submitted the required Comprehensive Performance Evaluations (CPE) and Composite Correction Plans (CCP) as part of the IOAP on December 19, 2008. Based on comments MSD received from EPA/KDEP, these plans were re-submitted as part of the IOAP Volume 1 on June 19, 2009. Verbal approval of the CPEs was received on September 23, 2009. The following describes progress on the Type 1 and Type 2 activities required in the approved CPEs.

6.5.1 Jeffersontown Water Quality Treatment Center

- Trained the Jeffersontown WQTC staff on the parallel plant operating mode, and began operating in this mode. Began an evaluation of the effectiveness of the parallel plant operating mode. This evaluation will continue through May 31, 2010. If the parallel plant operating mode proves beneficial, SOPs for this operating mode will be incorporated into the wet weather SOP and the overall plant operations and maintenance manual by July 31, 2010. If the parallel plant operating mode is not sufficiently beneficial to warrant the added operational complexity, an operating strategy will be developed for full contact stabilization operating mode. If this strategy is to be developed, it will be completed by the end of January, 2011.
- Operated the new facilities that allow addition of sodium aluminate to the raw sewage in the existing screenings building. Start up and initial operation has been successful, and phosphorus removal performance continues to meet KPDES permit limits.
- Completed the structure and equipment condition assessment as part of the process to convert asset management activities from SAP to Hansen.

6.5.2 Lake Forest Water Quality Treatment Center

- Developed an operations SOP prior to the CPE scheduled date of November 30, 2009. Initial training of staff on the operational SOP was completed on December 16 and 17, 2009. While this occurred during the previous reporting period, the training was not reported in the previous quarterly report.
- Completed the structure and equipment condition assessment as part of the process to convert asset management activities from SAP to Hansen.

6.5.3 Cedar Creek Water Quality Treatment Center

- Trained staff on the computerized process control program on February 16, 2010.

6.5.4 Hite Creek Water Quality Treatment Center

- Trained staff on the computerized process control program on February 17, 2010.

6.5.5 Timberlake Water Quality Treatment Center

- Trained staff on the updated process control SOP on December 16 and 17, 2009.
- Worked with steel fabricator to complete a “turn-key” project to replace the existing splitter box. Fabrication began during this reporting period. Scheduled to replace the splitter box by the end of April, 2010.
- Received verbal response from KDEP regarding MSD’s request to be allowed to install and operate a by-pass around the polishing pond during times when use of the polishing pond degrades plant effluent. KDEP will allow a permit modification that removes the pond from the flow stream (always, not just under certain conditions). MSD met with KDEP representatives to discuss the proposed approach and received informal concurrence. MSD is preparing a request for a permit amendment to allow implementation of this change. By June 30, 2010, MSD will determine an implementation approach to get this work done by the scheduled date of March 31,

2011.

- Completed the structure and equipment condition assessment as part of the process to convert asset management activities from SAP to Hansen.

6.5.6 Other Water Quality Treatment Centers

- Started the structure and equipment condition assessment at North Hunting Creek, Hunting Creek South, and Starview WQTCs as part of the process to convert asset management activities from SAP to Hansen. It is anticipated that the structure and condition assessments will be completed for these WQTCs by the end of June, 2010.
- Planned the structure and equipment condition assessment at Berrytown, Chenoweth Hills, Hunting Creek South, North Hunting Creek, Ken Carla, and Starview WQTCs as part of the process to convert asset management activities from SAP to Hansen.

6.6 Bypass Corrective Actions

Appendix K includes a memorandum summarizing actions completed and proposed to mitigate WQTC Bypasses for the period of July 1, 2008 through December 31, 2009. In addition, bypasses that occurred between January 1, 2010 and March 31, 2010 are evaluated in Section 7.2.1.

The following corrective actions related to reported bypasses were completed during this quarter.

- Chenoweth Hills WQTC (Hansen Discharge WO: 823275): This activity provided backup power on critical processes for the Chenoweth Hills WQTC. The implementation of backup power corrected the root causes of the bypass that occurred at this WQTC on September 14, 2008. Substantial completion occurred on February 1, 2010.
- Jeffersontown WQTC (Hansen Discharge WO: 1008290): This activity repaired a malfunctioning secondary influent pump station control at Jeffersontown WQTC. The minor construction activity to repair this control system as well as enhancements to make these controls operate independently of the PLC corrected the root causes of the bypass that occurred at this WQTC on January 31, 2010. Substantial completion occurred on February 2, 2010.
- Floyds Fork WQTC (Hansen Discharge WO: 1011592/1012504): This activity repaired a malfunctioning control systems at Floyds Fork WQTC. The minor construction activity to repair these control systems as well as enhancements to SOPs and training during wet weather to make sand filter adjustments corrected the root causes of the bypass that occurred at this WQTC on February 5, 2010. Substantial completion occurred on February 9, 2010.
- Chenoweth Hills WQTC (Hansen Discharge WO: 1015412): This activity provided automation of backup and tank switching equipment on the chemical disinfection system at the Chenoweth Hills WQTC. In addition, enhancements of SOPs and training occurred to prevent the human error related to the root cause of the bypass. The implementation of this backup system and enhancements to SOPs and training corrected the root causes of the bypass that occurred at this WQTC on February 14, 2010. Substantial completion occurred on March 3, 2010.

- Floyds Fork WQTC (Hansen Discharge WO: 1036756): This activity involved a review of the bypass that was reported at this WQTC on March 10, 2010. Investigation revealed that a momentary power lapse reset the UV disinfection system. Given the short duration of the power outage it is unlikely that a bypass occurred. However the corrective action for this event is to enhance SOPs and training to ensure that the UV system is operational. Substantial completion of this response enhancement occurred on March 10, 2010.
- Berrytown WQTC (Hansen Discharge WO: 852902): This activity provided backup power on critical processes for the Berrytown WQTC. The implementation of backup power corrected the root causes of the bypass that occurred at this WQTC on September 23, 2008. Substantial completion occurred on March 16, 2010.
- Berrytown WQTC (Hansen Discharge WO: 1043411): This activity repaired a damaged water line at the Berrytown WQTC. The repair of this water line, reconfiguration of the water feed system, and reinforcement of the pipe corrected the root causes of the bypass that occurred at this WQTC on March 26, 2010. Substantial completion occurred on March 30, 2010.
- Bancroft WQTC (Hansen Discharge WO: 824503): This activity replaced a collector drive that malfunctioned at the Bancroft WQTC. The replacement of the collector drive corrected the bypass that occurred at this WQTC on September 19, 2008. Substantial completion occurred on March 31, 2010.
- Bancroft WQTC (Hansen Discharge WO: 944513): This activity replaced a collector drive that malfunctioned at the Bancroft WQTC. The replacement of the collector drive corrected the bypass that occurred at this WQTC on August 17, 2009. Substantial completion occurred on March 31, 2010.

The following corrective actions related to reported bypasses will be in progress or completed prior to June 30, 2010:

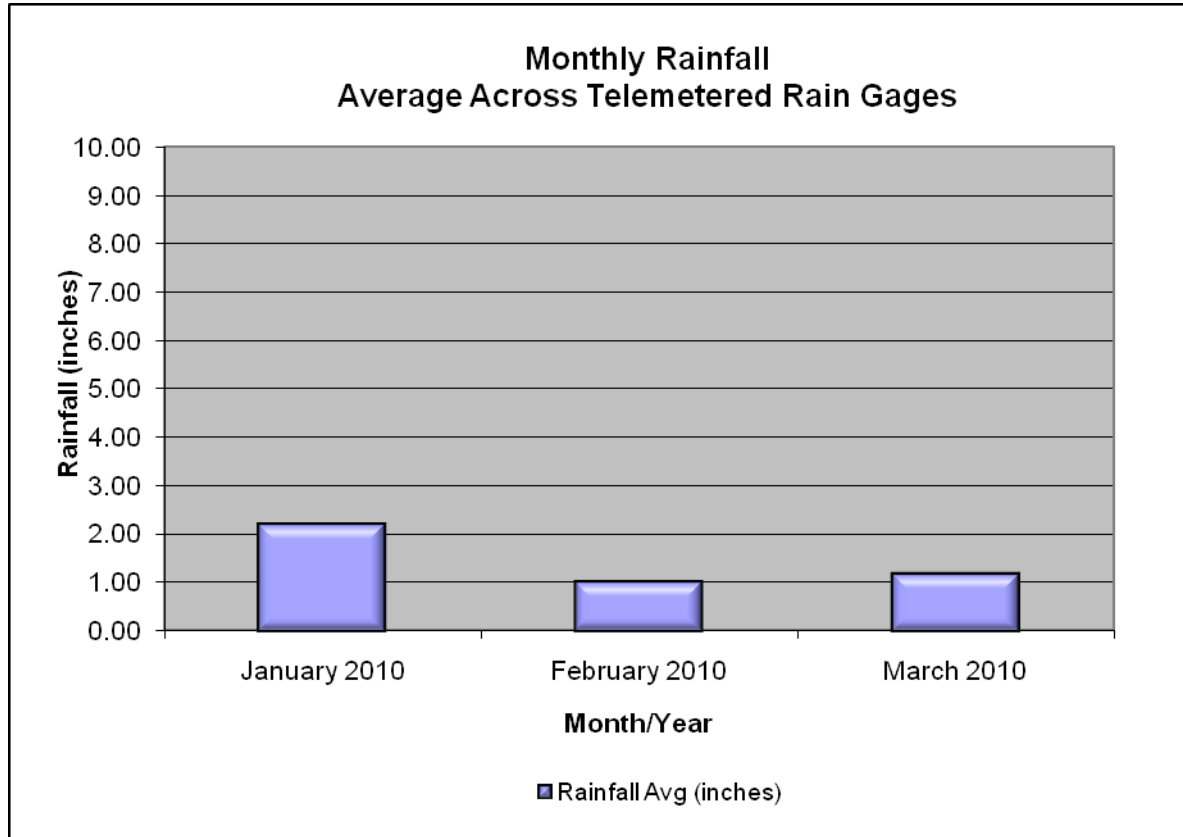
- Hunting Creek South WQTC (Hansen Discharge WO: 1043442): This activity will replace a polishing pond effluent pipe that was damaged and plugged at Hunting Creek South WQTC. The replacement of the effluent pipe and reinforcement of exposed piping will correct the bypass that occurred at this WQTC on September 19, 2008. Substantial completion will occur by April 14, 2010.
- Chenoweth Hills WQTC (Hansen Discharge WO: 967725): A 3rd party audit of disinfection processes will occur for the Chenoweth Hills WQTC. This audit will identify additional corrective actions to address the root causes of the bypass that occurred at this WQTC on October 6, 2009. Substantial completion of the audit will occur by June 30, 2010, including schedule development for any corrective actions recommended.
- Cedar Creek WQTC (Hansen Discharge WO: 804753): A 3rd party audit of disinfection processes will occur for the Cedar Creek WQTC. This audit will identify additional corrective actions to address the root causes of the bypass that occurred at this WQTC on July 6, 2008. Substantial completion of the audit will occur by June 30, 2010, including schedule development for any corrective actions recommended.

- Cedar Creek WQTC (Hansen Discharge WO: 975966): A 3rd party audit of disinfection processes will occur for the Cedar Creek WQTC. This audit will identify additional corrective actions to address the root causes of the bypass that occurred at this WQTC on November 1, 2008. Substantial completion of the audit will occur by June 30, 2010, including schedule development for any corrective actions recommended.
- Chenoweth Hills WQTC (Hansen Discharge WO: 852911): A 3rd party audit of disinfection processes will occur for the Chenoweth Hills WQTC. This audit will identify additional corrective actions to address the root causes of the bypass that occurred at this WQTC on December 1, 2008. Substantial completion of the audit will occur by June 30, 2010, including schedule development for any corrective actions recommended.
- Derek R. Guthrie WQTC (Hansen Discharge WO: 817920): The SOPs and training modules for the DRG WQTC will be reviewed and enhanced. This enhancement will correct the bypass that occurred at this WQTC on August 20, 2008. Substantial completion of the SOP and training enhancement will occur by June 30, 2010.
- Derek R. Guthrie WQTC (Hansen Discharge WO: 818054): The SOPs and training modules for the DRG WQTC will be reviewed and enhanced. This enhancement will correct the bypass that occurred at this WQTC on August 21, 2008. Substantial completion of the SOP and training enhancement will occur by June 30, 2010.
- Derek R. Guthrie WQTC (Hansen Discharge WO: 923712): The SOPs and training modules for the DRG WQTC will be reviewed and enhanced. This enhancement will correct the bypass that occurred at this WQTC on June 26, 2009. Substantial completion of the SOP and training enhancement will occur by June 30, 2010.
- Derek R. Guthrie WQTC (Hansen Discharge WO: 857175): The SOPs and training modules for the DRG WQTC will be reviewed and enhanced. In addition, flow metering and alarms on the hypochlorination process will be enhanced. These enhancements will correct the bypass that occurred at this WQTC on December 17, 2008. Substantial completion of the SOP and training, flow metering on hypochlorination, and hypochlorination alarm enhancements will occur by June 30, 2010.
- Silver Heights WQTC (Hansen Discharge WO: 831889): A 3rd party audit of disinfection processes will occur for the Silver Heights WQTC. This audit will identify additional corrective actions to address the root causes of the bypass that occurred at this WQTC on October 13, 2008. Substantial completion of the audit will occur by June 30, 2010, including schedule development for any corrective actions recommended.

SECTION 7: Performance Overview

7.1 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 Gauges.



7.2 Unauthorized Discharges to Waters of the United States

Appendix B-1 includes information related to MSD's discharges to Waters of the United States for the reporting period. This information is entered and maintained in the Hansen Information Management System (Hansen) utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These discharges have been reported to KDEP and EPA through automated email, telephone calls and monthly wastewater treatment plant discharge monitoring reports (DMRs).

There were 34 unauthorized discharges this reporting period. 10 were reported during dry weather and 24 were wet weather related.

Performed an analysis of the 10 dry weather unauthorized discharges:

- One (mechanical) occurred at a pump station.
- Five occurred at treatment plants (bypass).
- One occurred at a CSO due to an obstruction.
- Three occurred at manholes due to obstructions and roots.

Performed an analysis of the 24 wet weather unauthorized discharges:

- Three were pumped overflows
- Three were blending events at Jeffersontown WQTC
- One was a bypass event at a WQTC
- Seventeen were system capacity issues at MHs

7.2.1 Bypass Events at Water Quality Treatment Centers

Included in **Appendix B-2** is a report that lists the details of the 6 bypasses that occurred at water quality treatment centers (WQTC) during this reporting period. Bypasses were reported for the following WQTCs:

- Floyds Fork (MSD0294) - KPDES Permit Number KY0102784 (2)
- Chenoweth Hills (MSD0263) - KPDES Permit Number KY0029459
- Hunting Creek South (MSD0292) - KPDES Permit Number KY0029114
- Jeffersontown (MSD0255) - KPDES Permit Number KY0025194
- Berrytown (MSD0209) - KPDES Permit Number KY0036501

Included in **Appendix K** is a memorandum that describes the analysis of 44 bypass events that occurred between July 1, 2008 and December 31, 2009. This analysis revealed that emphasis to reduce or eliminate bypass events should be focused on the following categories:

- Equipment Failure (Mechanical -MCH, Electrical - ELE, Structural-STR)
- Human Error (OPN)
- External Power failures (LGE Related – PWR)
- Capacity (CAP)

Each quarter, an assessment of bypasses will occur 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 Section 6.6 for corrective actions.

The bypasses for the period of January 1, 2010, to March 31, 2010, are shown below:

- Equipment Failure (Mechanical -MCH, Electrical - ELE, Structural-STR)
 - Jeffersontown - Hansen Discharge WO: 1008290 – Bypass (facility failure electrical) occurred on January 31, 2010, when the secondary influent pump station controls malfunctioned.

- Floyds Fork - Hansen Discharge WO: 1011592/1012504 – Bypass (facility failure electrical) occurred on February 5, 2010, when control systems related to disinfection malfunctioned.
- Hunting Creek South - Hansen Discharge WO: 1043442 – Bypass (facility failure mechanical) occurred on March 26, 2010, when a polishing pond effluent pipe collapsed and impeded flow.
- Berrytown - Hansen Discharge WO: 1043411 - Bypass (facility failure mechanical) occurred on March 26, 2010, when a water line ruptured and the feed to the plant was disrupted.
- Human Error (OPN)
 - Chenoweth Hills - Hansen Discharge WO: 1015412 – Bypass (human error) occurred on February 14, 2010, when an empty chlorine cylinder was deployed by the operator.
- External Power failures (LGE Related – PWR)
 - Floyds Fork - Hansen Discharge WO: 1036756 – Bypass (external power outage) was reported at this WQTC on March 10, 2010. Investigation revealed that a momentary power lapse reset the UV disinfection system. Given the short duration of the power outage it is unlikely that a bypass occurred.
- Capacity (CAP)
 - No capacity related bypasses were reported during this quarter.

7.2.2 Blending Events

Included in **Appendix B-3** is a report that lists the details from the three blending events that occurred at the Jeffersontown WQTC during this quarter.

- Started blending on January 21, January 24, and February 5, 2010. The total blended amount, from all events, reported and documented on the Project WIN webpage was 3,580,651 gallons.

7.2.3 Dry Weather CSOS

Documented during this reporting period one Dry Weather overflow from a permitted CSO location. A dry weather overflow occurred at CSO153 on January 15, 2010, due to a blockage in the siphon. At this time, all repairs have been made and CSOs are functioning properly.

7.3 Overflows to Ground

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, 2009, through June 30, 2010.

7.4 Overflows to Interior

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, 2009, through June 30, 2010.

7.5 CSO Reductions

Included in **Appendix C** is an updated version of the modeled Annual Average Overflow Volume (AAOV) for the permitted CSOs.

Completed, in this reporting period, two projects that impacted permitted CSOs.

- Re-routed sanitary flows from the Federal Building at 6th and MLK Place to allow for the closure of CSO026.
- Routed flows from the Spring Drive storm sewer to reduce the amount of overflow at CSO206.

Included the CSO data for this quarter in **Appendix D**. 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.

The following activities occurred over the reporting period related to CSO monitoring.

- Tested batteries before installation. Inspected CSO flow monitoring sites every three weeks. Replaced batteries every 90 days or when the voltage falls below four.
- Established CSO event notifications from the new Telog enterprise software to immediately notify MSD staff by e-mail and/or text message when battery power drops below the specified levels needed to operate or a CSO discharges. Continue work on this effort.

7.6 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 actual observations or from flow monitoring information. The following projects that impacted SSOs were completed during this reporting period:

- Ashburton Pump Station Improvements and Diversion (Budget ID A09092) – Installed a larger force main to accommodate flow from the pump station on November 19, 2009. Additional problems with an adjacent water main delayed the project completion until December 30, 2009. This project was certified on January 22, 2010.
- Waycross Way Pump Station Elimination (Budget ID C09062) – Diverted flow from the pump station on December 28, 2009. Final construction will be completed by April 1, 2010.
- Woodland Hills PS Diversion (Budget ID H09169) - This project consisted of installing a diversion pipe to allow dry weather flow to drain to an interceptor and to use the pump

station only during wet weather flow. This project was completed on March 1, 2010. The project will be certified by April 1, 2010. All phases of the project were completed prior to the deadline of June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

7.7 Phosphorus Monitoring at the Prospect WQTCs

As part of the Amended Consent Decree, MSD has agreed to submit phosphorus monitoring data including the calculations of monthly averages with the quarterly reports. See **Appendix G** for this quarter's report.

Appendix A – Activity Schedules

MSD UPD Current Schedule			IOAP Quarterly Report Chart														28-Apr-10 08:04													
Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010			
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04	
34th STREET FPS DWO ELIMINATION																														
H084782001	34TH ST FPS DWO ELIMINATION - NTP	100%																												
H084782901	34TH ST FPS DWO ELIM DESIGN FEES 50%	100%																												
H084782902	34TH ST FPS DWO ELIM DESIGN FEES 80%	100%																												
H084782903	34TH ST FPS DWO ELIM DESIGN FEES 95%	0%																												
H084782904	34TH ST FPS DWO ELIM DESIGN FEES 100%	0%																												
H084784000	34TH ST FPS DWO ELIMINATION -AD DATE	0%																												
H084784050	34TH ST FPS DWO ELIMINATION - BID OPEN	0%																												
H084784500	34TH ST FPS DWO ELIMINATION -AWARD	0%																												
4th STREET FPS DWO ELIMINATION																														
H084772001	4TH ST FPS DWO ELIMINATION - NTP	100%																												
H084772901	4TH ST FPS DWO ELIMINATION - DATA COLLECTION	100%																												
H084772902	4TH ST FPS DWO ELIMINATION - DRAFT TM	100%																												
H084772903	4TH ST FPS DWO ELIMINATION - FINAL TM	100%																												
H084772904	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 50%	100%																												
H084772905	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 80%	100%																												
H084772906	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 90%	0%																												
H084772907	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 100%	0%																												
ADAMS STREET STORAGE BASIN																														
H091352000	ADAMS STREET STORAGE BASIN - DESIGN	0%																												
ASHBURTON PS IMPROVEMENTS/DIVERSION																														
A090922000	ASHBURTON PS IMPROVEMENTS/DIVERSION - DESIGN	100%																												
A090924000	ASHBURTON PS IMPROVEMENTS/DIVERSION - AD DATE	100%																												
A090924050	ASHBURTON PS IMPROVEMENTS/DIVERSION - BID OPEN	100%																												
A090924500	ASHBURTON PS IMPROVEMENTS/DIVERSION - AWARD	100%																												
A090926000	ASHBURTON PS IMPROVEMENTS/DIVERSION - CONSTRUCT	100%																												
A090926950	ASHBURTON PS IMPROVEMENTS/DIVERSION - AS-BUILTS	100%																												
A090928050	ASHBURTON PS IMPROVEMENTS/DIVERSION - CD CERTIFY	100%																												
BEARGRASS INTERCEPTOR REHABILITATION PH II																														
H092392000	BEARGRASS INTERCEPTOR REHAB PH II - DESIGN	50%																												
BEECHWOOD VILLAGE SS REPL - EAST PORTION																														
E072612001	BEECHWOOD VILLAGE SS REPL EAST - NTP	100%																												
E072612901	BEECHWOOD VILLAGE SS EAST - PUBLIC MTGS	100%																												
E072612902	BEECHWOOD VILLAGE SS EAST-50% SURVEY/PVMTCORE	100%																												
E072612903	BEECHWOOD VILLAGE SS EAST -30% PLAN SUBMITTAL	100%																												
E072612904	BEECHWOOD VILLAGE SS EAST -100% SEWER SURVEY	100%																												
E072612905	BEECHWOOD VILLAGE SS EAST -50% PLAN SUBMITTAL	100%																												
E072612906	BEECHWOOD VILLAGE SS EAST -80% PLAN SUBMITTAL	100%																												
E072612907	BEECHWOOD VILLAGE SS EAST-100% PLAN SUBMITTAL	100%																												
E072612908	BEECHWOOD VILLAGE SS EAST-HOUSE SURVEYS	100%																												
E072612909	BEECHWOOD VILLAGE SS EAST-PREPARE LTRS TO PO'S	100%																												
E072612910	BEECHWOOD VILLAGE SS EAST-RES REQ FOR SPEC	100%																												
E072612911	BEECHWOOD VILLAGE SS EAST-PSC CONNECTION DWGS	100%																												
E072612912	BEECHWOOD VILLAGE SS EAST-RESIDENTIAL PHOTOS	100%																												
E072612913	BEECHWOOD VILLAGE SS EAST-C&R'S	100%																												
E072612914	BEECHWOOD VILLAGE SS EAST-COORD W/VENHOFF	100%																												
Legend: <div>Remaining Level of Effort</div> <div>Remaining Work</div> <div>Milestone</div> <div>Actual Work</div> <div>Critical Remaining Work</div> <div>% Complete</div>			Page 1 of 17																											

MSD UPD Current Schedule

IOAP Quarterly Report Chart

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Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010			
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04	
E072612915	BEECHWOOD VILLAGE SS EAST-95% PLAN SUBMITTAL	100%																												
E072613000	BEECHWOOD VILLAGE SS REPL EAST - EASEMENT	100%																												
E072614000	BEECHWOOD VILLAGE SS REPL EAST - AD DATE	100%																												
E072614050	BEECHWOOD VILLAGE SS REPL EAST - BID OPEN	100%																												
E072614500	BEECHWOOD VILLAGE SS REPL EAST - AWARD	100%																												
E072616000	BEECHWOOD VILLAGE SS REPL EAST - CONSTRUCTION	90%																												
E072616900	BEECHWOOD VILLAGE SS REPL EAST-SUBST COMPLETE	0%																												
BEECHWOOD VILLAGE SS REPL - WEST PORTION																														
E080344000	BEECHWOOD VILLAGE SS REPL WEST - AD DATE	100%																												
E080344050	BEECHWOOD VILLAGE SS REPL WEST - BID OPEN	100%																												
E080344500	BEECHWOOD VILLAGE SS REPL WEST - AWARD	100%																												
E080346000	BEECHWOOD VILLAGE SS REPL WEST - CONSTRUCTION	10%																												
BERRYTOWN SSES																														
H093871000	BERRYTOWN SSES - PLANNING	100%																												
H093871220	BERRYTOWN SSES REPORT	0%																												
BUECHEL SURGE BASIN																														
H072882000	BUECHEL SURGE BASIN - DESIGN	2%																												
H072882901	BUECHEL BASIN 10% DESIGN	0%																												
H072882902	BUECHEL BASIN 30% DESIGN	0%																												
H072882906	BUECHEL BASIN ASSISTANCE DURING BIDDING	0%																												
H072883000	BUECHEL SURGE BASIN - EASEMENTS	100%																												
CAMP TAYLOR #1 - SSES																														
H092011000	CAMP TAYLOR #1 SSES - SSES	0%																												
H092012000	CAMP TAYLOR #1 SSES - DESIGN	0%																												
CAMP TAYLOR #2 - REPLACE SEWERS																														
H092202000	CAMP TAYLOR #2 REPLACE SEWERS - DESIGN	0%																												
H092203000	CAMP TAYLOR #2 REPLACE SEWERS - EASEMENT	0%																												
CAMP TAYLOR PHASE 1 SSES																														
H093881000	CAMP TAYLOR PHASE 1 SSES - PLANNING	0%																												
H093882901	CAMP TAYLOR RECON AREA 1	0%																												
H093882902	CAMP TAYLOR RECON AREA 2	0%																												
H093882903	CAMP TAYLOR RECON AREA 3	0%																												
H093882904	CAMP TAYLOR RECON AREA 4	0%																												
H093882905	CAMP TAYLOR RECON AREA 5	0%																												
H093882906	PROJECT WORK PLAN	0%																												
H093882907	INITIAL DATA COLLECTION AND REVIEW	0%																												
H093882909	SMOKE TESTING - ENGINEERING/COORDINATION	0%																												
H093882911	MANHOLE INSPECTION - ENGINEERING/COORDINATION	0%																												
H093882919	FLOW MONITORING - ENGINEERING/COORDINATION	0%																												
H093882920	STORMWATER INVENTORY - ENGINEERING/COORDINATION	0%																												
CAMP TAYLOR SSR PHASE 1																														
H094071000	CAMP TAYLOR SSR PHASE 1 - PLANNING	99%																												
CEDAR CREEK SSES																														
H093891000	CEDAR CREEK SSES - PLANNING	100%																												
H093891220	CEDAR CREEK SSES REPORT	0%																												
CENTRAL REGION EMERGENCY GENERATOR PHASE III																														

Remaining Level of Effort

 Remaining Work

Actual Work

Critical Remaining Work

Milestone

% Complete

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Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20
H100834000	CENTRAL REGION EMERG GENERATOR PH3 - AD DATE	100%																									
H100834050	CENTRAL REGION EMERG GENERATOR PH3 - BID OPEN	100%																									
H100834500	CENTRAL REGION EMERG GENERATOR PH3 - AWARD	100%																									
H100836000	CENTRAL REGION EMERG GENERATOR PH3-CONST	10%	R PH3-CONST																								
CHARLESWOOD SUBDIVISION INT. #23																											
C941030500	CHARLESWOOD SUBD. INT. #23 - CONS. SEL.	100%																									
C941031000	CHARLESWOOD SUBD. INT. #23 - DESIGN	100%																									
C941032005	CHARLESWOOD SUBD. INT. #23 - NTP	100%																									
C941032010	CHARLESWOOD SUBD. INT. #23 - 50% PRELIM. DESIGN	100%																									
C941032020	CHARLESWOOD SUBD. INT. #23 - 100% PRELIM. DESIGN	100%																									
C941032040	CHARLESWOOD SUBD. INT. #23 - RED MEETING	100%																									
C941032100	CHARLESWOOD SUBD. INT. #23 - SURVEYING	100%																									
C941032110	CHARLESWOOD SUBD. INT. #23 - AMMEND NTP	100%																									
C941032500	CHARLSEWOOD SUBD. INT. #23 - 50% FINAL DESIGN	100%																									
C941032510	CHARLESWOOD SUBD. INT. #23 - 80% FINAL DESIGN	100%																									
C941032520	CHARLESWOOD SUBD. INT. #23 - 95% FINAL DESIGN	100%																									
C941032530	CHARLESWOOD SUBD. INT. #23 - 100% FINAL DESIGN	100%																									
C941032901	50% PRELIMINARY DESIGN SUBMITTAL	100%																									
C941032902	100% PRELIMINARY DESIGN SUBMITTAL	100%																									
C941032903	SURVEY COMPLETE	100%																									
C941032904	50% FINAL DESIGN SUBMITTAL	100%																									
C941032905	CHARLESWOOD SUBD #23 -80% FINAL DESIGN SUBMITTAL	100%																									
C941032906	CHARLESWOOD #23 95% FINAL DESIGN SUBMITTAL	100%																									
C941032907	CHARLESWOOD #23 - 100% FINAL DESIGN SUBMITTAL	100%																									
C941032908	SURVEY COMPLETE/AMEND	100%																									
C941032909	50% FINAL DESIGN SUBMITTAL/AMEND	100%																									
C941032910	CHARLESWOOD #23 - 80% FINAL DESIGN SUBMIT/AMEND	100%																									
C941032911	CHARLESWOOD # 23 95% FINAL DESIGN SUBMIT/AMEND	100%																									
C941032912	CHARLESWOOD # 23 -100% FINAL DESIGN SUBMIT/AMEND	100%																									
C941032913	CHARLESWOOD # 23 -25% DESIGN COOPER C WIDENING	100%																									
C941032914	CHARLESWOOD # 23 -50% DESIGN COOPER C WIDENING	100%																									
C941032915	CHARLESWOOD # 23 -75% DESIGN COOPER C WIDENING	100%																									
C941032916	CHARLESWOOD # 23 -90% DESIGN COOPER C WIDENING	100%																									
C941032917	CHARLESWOOD # 23 -100% DESIGN COOPER C WIDENING	100%																									
C941033000	CHARLESWOOD SUBD. INT. #23 - EASEMENTS	96%																									
C941034000	CHARLESWOOD SUBD. INT. #23 - AD DATE	0%															◆ CHARLESWOOD SUBD. INT. #23 - AD										
CHEROKEE SSES																											
H093901000	CHEROKEE SSES - PLANNING	100%																									
H093901220	CHEROKEE SSES REPORT	0%															CHEROKEE SSES REPORT										
CLIMATE CHANGE STORM INTENSITY IMPACTS																											
H101341000	CLIMATE CHANGE STORM INTENSITY IMPACTS - PLANNING	0%															CLIMATE CHANGE STORM INTENSITY IMPACTS - PLANNING										
CMOM AAM FY10																											
H093431000	CMOM AAM FY10 - PLANNING	0%															CMOM AAM FY10 - PLANNING										
CMOM CPE/CCP FY10																											
H093461000	CMOM CPE/CCP FY10 - PLANNING	0%															CMOM CPE/CCP FY10 - PLANNING										
CMOM DATA FY10																											
</																											

MSD UPD Current Schedule

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			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04	
H093401000	CMOM DATA FY10 - PLANNING	0%	<div>CMOM DATA FY10 - PLANNING</div>																											
CMOM FLOW MONITORING FY10																														
H093471000	CMOM FLOW MONITORING FY10 - PLANNING	0%	<div>CMOM FLOW MONITORING FY10 - PLANNING</div>																											
CMOM FOG FY10																														
H093361000	CMOM FOG FY10 - PLANNING	0%	<div>CMOM FOG FY10 - PLANNING</div>																											
CMOM GENERATORS FY10																														
H093371000	CMOM GENERATORS FY10 - PLANNING	0%	<div>CMOM GENERATORS FY10 - PLANNING</div>																											
CMOM GIS SUPPORT FY10																														
H093421000	CMOM GIS SUPPORT FY10 - PLANNING	0%	<div>CMOM GIS SUPPORT FY10 - PLANNING</div>																											
CMOM PM ASSISTANCE FY10																														
H093491000	CMOM PM ASSISTANCE FY10 - PLANNING	0%	<div>CMOM PM ASSISTANCE FY10 - PLANNING</div>																											
CMOM PRE/POST FM FY10																														
H093481000	CMOM PRE/POST FM FY10 - PLANNING	0%	<div>CMOM PRE/POST FM FY10 - PLANNING</div>																											
CMOM PS UPGRADES FY10																														
H093381000	CMOM PS UPGRADES FY10 - PLANNING	0%	<div>CMOM PS UPGRADES FY10 - PLANNING</div>																											
CMOM REPORTING FY10																														
H093411000	CMOM REPORTING FY10 - PLANNING	0%	<div>CMOM REPORTING FY10 - PLANNING</div>																											
CMOM SCAP FY10																														
H093441000	CMOM SCAP FY10 - PLANNING	0%	<div>CMOM SCAP FY10 - PLANNING</div>																											
CMOM WEB PORTAL FY10																														
H093451000	CMOM WEB PORTAL FY10 - PLANNING	0%	<div>CMOM WEB PORTAL FY10 - PLANNING</div>																											
CMOM WWTP WO FY10																														
H093391000	CMOM WWTP WO FY10 - PLANNING	0%	<div>CMOM WWTP WO FY10 - PLANNING</div>																											
CONSENT DECREE REPORTING																														
R000001000	CONSENT DECREE REPORTING	0%																												
CPE/CCP MODIFICATIONS TO WWTP																														
H092212000	CPE/CCP MODIFICATIONS TO WWTP - DESIGN	100%																												
CSO 108 DAM MODIFICATIONS																														
H091282000	CSO 108 DAM MODIFICATIONS - DESIGN	60%																												
H091284000	CSO 108 DAM MODIFICATIONS - AD DATE	0%	<div>CSO 108 DAM MODIFICATIONS - AD DATE</div>																											
H091284050	CSO 108 DAM MODIFICATIONS - BID OPEN	0%	<div>CSO 108 DAM MODIFICATIONS - BID OPEN</div>																											
H091284500	CSO 108 DAM MODIFICATIONS - AWARD	0%	<div>CSO 108 DAM MODIFICATIONS - AWARD</div>																											
H091286000	CSO 108 DAM MODIFICATIONS - CONSTRUCTION	0%	<div>CSO 108 DAM MODIFICATIONS - CONSTRUCTION</div>																											
CSO 206 SEWER SEPARATION																														
H091312000	CSO 206 SEWER SEPARATION - DESIGN	10%																												
CSO 58 SEWER SEPARATION																														
H091302000	CSO 58 SEWER SEPARATION - DESIGN	0%	<div>CSO 58 SEWER SEPARATION - DESIGN</div>																											
DERINGTON COURT PUMP STATION I&I INVESTIGATION																														
H091902000	DERINGTON CT PUMP STATION I&I INVESTIGATION - DESI...	0%	<div>DERINGTON CT PUMP STATION I&I INVESTIGATION - DESIGN</div>																											
DOWNSPOUT DISCONNECT CSO 206																														
I042492901	DOWNSPOUT DISCONNECT CSO 206 - CLOSURE STARTUP	100%																												
I042494000	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - AD DATE	100%																												
I042494050	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - BID OPEN	100%																												
I042494500	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - AWARD	100%																												
I042496000	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - CONST	90%																												

Remaining Level of Effort

Remaining Work

Milestone

Actual Work

Critical Remaining Work

% Complete

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			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04
DRG WQTC FACILITIES PLAN AMENDMENT																													
H101331000	DRG WQTC FACILITIES PLAN AMENDMENT - PLANNING	0%	DRG WQTC FACILITIES PLAN AMENDMENT - PLANNING																										
DRGWQTC: BLOWER PACKAGE																													
H095622914	DRG: BLOWER REPL - DRAFT INSTALLATION DRAWINGS	0%	DRG: BLOWER REPL - DRAFT INSTALLATION DRAWINGS																										
H095624000	DRGWQTC: BLOWER EQUIPMENT PKG - AD DATE	100%																											
H095624050	DRGWQTC: BLOWER EQUIPMENT PKG - BID OPEN	100%																											
H095624500	DRGWQTC: BLOWER EQUIPMENT PKG - AWARD	100%																											
DRGWQTC: WET WEATHER TREATMENT FACILITY																													
H095613000	DRGWQTC: WET WEATHER TREATMENT FACILITY-ESMTS	10%	DRGWQTC: WET WEATHER TREATMENT FACILITY-ESMTS																										
H095614000	DRGWQTC: WET WEATHER TREATMENT FACILITY- AD DA...	100%	◆ DRGWQTC: WET WEATHER TREATMENT FACILITY- AD DATE																										
H095614050	DRGWQTC: WET WEATHER TREATMENT FACILITY-BID OP...	100%	◆ DRGWQTC: WET WEATHER TREATMENT FACILITY-BID OPEN																										
H095614500	DRGWQTC: WET WEATHER TREATMENT FACILITY- AWARD	0%	◆ DRGWQTC: WET WEATHER TREATMENT FACILITY- AWARD																										
H095616000	DRGWQTC: WET WEATHER TREATMENT FACILITY- CONS...	0%	DRGWQTC: WET WEATHER TREATMENT FACILITY- CONSTRUCTION																										
DRGWQTC: WW FLOW EQUALIZATION & TREATMENT																													
H063021001	WCWTP: WW FLOW EQ & TREATMENT - NTP	100%																											
H063022000	WCWTP: WW FLOW EQ & TREATMENT - DESIGN	100%																											
H063022001	DRGWQTC: WET WEATHER TRMT FAC-NTP	100%																											
H063022901	WCWTP: WW FLOW EQ & TREATMENT - KICK OFF MTG	100%																											
H063022903	WCWTP: WW FLOW EQ & TREATMENT - TM REGS & PERMIT	100%																											
H063022904	WCWTP: WW FLOW EQ & TREATMENT - TM FLOWS & LOA...	100%																											
H063022905	WCWTP: WW FLOW EQ & TREATMENT-100% PROCESS AL...	100%																											
H063022906	WCWTP: WW FLOW EQ & TREATMENT - TM SELECTED AL...	100%																											
H063022907	WCWTP: WW FLOW EQ & TREATMENT - TM SITE ASSM'T	100%																											
H063022908	WCWTP: WW FLOW EQ & TREATMENT - TM COST ESTIMA...	100%																											
H063022909	WCWTP: WW FLOW EQ & TREATMENT - TM PD EVALUATI...	100%																											
H063022910	WCWTP: WW FLOW EQ & TREATMENT - FINAL REPORT	100%																											
H063022912	DRG: BLOWER REPL - DRAFT SPECIFICATIONS	100%																											
H063022913	DRG: BLOWER REPL - FINAL SPECIFICATIONS	100%																											
H063022916	DRGWQTC: WET WEATHER TRMT FAC-GEOTECH	100%																											
H063022917	DRGWQTC: WET WEATHER TRMT FAC-OPS STRATEGY TM	100%																											
H063022918	DRGWQTC: WET WEATHER TRMT FAC-PROGRESS RPT 3	100%																											
H063022919	DRGWQTC: WET WEATHER TRMT FAC-60% SUBMITTAL	100%																											
H063022920	DRGWQTC: WET WEATHER TRMT FAC-KDOW SUBMITTAL	100%																											
H063022921	DRGWQTC: WET WEATHER TRMT FAC-PROGRESS RPT 6	100%																											
H063022922	DRGWQTC: WET WEATHER TRMT FAC-PROGRESS RPT 7	100%																											
H063022923	DRGWQTC: WET WEATHER TRMT FAC-KDOW COMMENT ...	100%	HER TRMT FAC-KDOW COMMENT RESP																										
H063022924	DRGWQTC: WET WEATHER TRMT FAC-90% SUBMITTAL	100%																											
H063022925	DRGWQTC: WET WEATHER TRMT FAC-100% SUBMITTAL	100%	DRGWQTC: WET WEATHER TRMT FAC-100% SUBMITTAL																										
H063022926	DRGWQTC: WET WEATHER TRMT FAC-BID ASSISTANCE	100%	DRGWQTC: WET WEATHER TRMT FAC-BID ASSISTANCE																										
H063022927	DRGWQTC: WET WEATHER TRMT FAC-BID EVALUATION	100%	DRGWQTC: WET WEATHER TRMT FAC-BID EVALUATION																										
H063022928	DRGWQTC: PUMP PKG - PROJECT MANAGEMENT	95%	DRGWQTC: PUMP PKG - PROJECT MANAGEMENT																										
H063022929	DRGWQTC: PUMP PKG - SUBSURFACE INVESTIGATION	100%																											
H063022930	DRGWQTC: PUMP PKG - SITE SURVEY	100%																											
H063022932	DRGWQTC: PUMP PKG - PRELIM ENGINEERING UPDATES	100%																											
H063022933	DRGWQTC: PUMP PKG - EQUIPMENT PREPURCHASE	0%	DRGWQTC: PUMP PKG - EQUIPMENT PREPURCHASE																										
H063022934	DRGWQTC: PUMP PKG - HM - NTP FOR EXISTING PS HYD	100%																											

Remaining Level of Effort

Remaining Work

Milestone

Actual Work

Critical Remaining Work

% Complete

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			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04	
H063022935	DRGWQTC: PUMP PKG - HM - NTP FOR NEW PS	100%																												
H063022936	DRGWQTC: PUMP PKG-HM-TEST'G COMP FOR EXIST'G PS	100%																												
H063022937	DRGWQTC: PUMP PKG-HM-TEST'G COMP FOR NEW PS	100%																												
H063022938	DRGWQTC: PUMP PKG-HM-FINAL RPT FOR EXISTING PS	50%	AL RPT FOR EXISTING PS																											
H063022939	DRGWQTC: PUMP PKG-HM-FINAL RPT FOR NEW PS	20%	DRGWQTC: PUMP PKG-HM-FINAL RPT FOR NEW PS																											
H063022940	DRGWQTC: PUMP PKG - CFD SET-UP	100%																												
H063022941	DRGWQTC: PUMP PKG - CFD FINAL REPORT	100%																												
H063022942	DRGWQTC: PUMP PKG - PROC/MECH 60% COMPLETE	100%																												
H063022943	DRGWQTC: PUMP PKG - STRUCTURAL 60% COMPLETE	100%																												
H063022944	DRGWQTC: PUMP PKG - COMPLETE 60% SUBMITTAL	100%																												
H063022945	DRGWQTC: PUMP PKG - 90% DESIGN	100%																												
H063022946	DRGWQTC: PUMP PKG - 100% DESIGN	100%	DRGWQTC: PUMP PKG - 100% DESIGN																											
H063022947	DRGWQTC: PUMP PKG - BID ASSIST	100%	DRGWQTC: PUMP PKG - BID ASSIST																											
H063022950	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #1	100%																												
H063022951	DRGWQTC: EQUALIZATION BASIN - FIELD SURVEY	100%																												
H063022952	DRGWQTC: EQUALIZATION BASIN - 30% DESIGN	100%																												
H063022953	DRGWQTC: EQUALIZATION BASIN - 60% DESIGN	100%																												
H063022954	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #2	100%	HLY REPORT #2																											
H063022955	DRGWQTC: EQUALIZATION BASIN - 90% DESIGN	0%	DRGWQTC: EQUALIZATION BASIN - 90% DESIGN																											
H063022956	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #3	0%	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #3																											
H063022962	DRGWQTC: EQ BASIN EASEMENT ACQUISITION	50%																												
H063023000	DRGWQTC: WW FLOW EQUAL & TREATMENT- ESMTS	0%	DRGWQTC: WW FLOW EQUAL & TREATMENT- ESMTS																											
H063024000	DRGWQTC: PUMPING PACKAGE - AD DATE	100%	◆ DRGWQTC: PUMPING PACKAGE - AD DATE																											
H063024050	DRGWQTC: PUMPING PACKAGE - BID OPEN	100%	◆ DRGWQTC: PUMPING PACKAGE - BID OPEN																											
H063024500	DRGWQTC: PUMPING PACKAGE - AWARD	0%	◆ DRGWQTC: PUMPING PACKAGE - AWARD																											
H063026000	DRGWQTC: PUMPING PACKAGE - CONSTRUCT	0%	DRGWQTC: PUMPING PACKAGE - CONSTRUCT																											
EAST REGION EMERGENCY GENERATOR PHASE III																														
H100824000	EAST REGION EMERG GENERATORS PH3 - AD DATE	100%																												
H100824050	EAST REGION EMERG GENERATORS PH3 - BID OPEN	100%																												
H100824500	EAST REGION EMERG GENERATORS PH3 - AWARD	100%																												
H100826000	EAST REGION EMERG GENERATORS PH3-CONST	80%	NST																											
EAST ROCKFORD LANE PS RELOCATION																														
A090912000	EAST ROCKFORD LANE PS RELOCATION - DESIGN	100%																												
A090912901	EAST ROCKFORD LN PS RELOC 10% DESIGN	100%																												
A090912902	EAST ROCKFORD LN PS RELOC 30% DESIGN	100%																												
A090912903	EAST ROCKFORD LN PS RELOC 60% DESIGN	100%																												
A090912904	EAST ROCKFORD LN PS RELOC 90% DESIGN	100%	90% DESIGN																											
A090912905	EAST ROCKFORD LN PS RELOC 100% DESIGN	0%	C 100% DESIGN																											
A090913000	EAST ROCKFORD LN PS RELOC - EASEMENT	0%	EAST ROCKFORD LN PS RELOC - EASEMENT																											
EAST ROCKFORD SSES																														
H093931000	EAST ROCKFORD SSES - PLANNING	100%																												
H093931220	EAST ROCKFORD SSES REPORT	0%	EAST ROCKFORD SSES REPORT																											
EDEN CARE PUMP STATION INLINE STORAGE																														
H091701200	EDEN CARE PUMP STATION ILS - SSES	0%	EDEN CARE PUMP STATION ILS - SSES																											
EDSEL PUMP STATION I&I INVESTIGATION																														
H091971200	EDSEL PUMP STATION I&I INVESTIGATION - SSES	5%	EDSEL PUMP STATION I&I INVESTIGATION - SSES																											
<div>Remaining Level of Effort Remaining Work Milestone Actual Work Critical Remaining Work % Complete</div>																														
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MSD UPD Current Schedule			IOAP Quarterly Report Chart														28-Apr-10 08:04																						
Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010												
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04										
H091971220	EDSEL PS I&I INVESTIGATION - SSES REPORT	0%															EDSEL PS I&I INVESTIGATION - SSES REPORT																						
H091972000	EDSEL PUMP STATION I&I INVESTIGATION - DESIGN	0%																																					
FAIRWAY VIEW PUMP STATION IMPROVEMENT																																							
H091771200	FAIRWAY VIEW PUMP STATION IMPROVEMENT - SSES	5%															FAIRWAY VIEW PUMP STATION IMPROVEMENT - SSES																						
FLOYDSBURGH ROAD I&I INVESTIGATION & REDUCTION																																							
H091721000	FLOYDSBURGH RD I&I INVESTIG & REDUCTION-SSES PLA...	5%															FLOYDSBURGH RD I&I INVESTIG & REDUCTION-SSES PLANNING																						
H091724000	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION- AD ...	0%															◆ FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION- AD DATE																						
H091724050	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - BI...	0%															◆ FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - BID OPEN																						
H091724500	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - A...	0%															◆ FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - AWARD																						
H091726000	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - CO...	0%															FLOYDSBURGH RD I&I INVESTIGATION & R																						
FOX HARBOR INLINE STORAGE																																							
H091761200	FOX HARBOR ILS - SSES	0%															FOX HARBOR ILS - SSES																						
FY08 SSOP UPDATE																																							
H062291000	FY08 SSOP UPDATE - PLANNING	75%																																					
H062298050	FY08 SSOP UPDATE - CD CERTIFICATION	100%																																					
FY09 BGC/OR LTCP																																							
I062331000	FY09 BGC/OR LTP - PLANNING	0%																																					
I062338050	FY09 BGC/OR LTP - CD CERTIFICATION	100%																																					
FY09 I&I REDUCTION PROGRAM																																							
H092026000	FY09 I/I REDUCTION PROGRAM - CONSTRUCTION	0%															FY09 I/I REDUCTION PROGRAM - CONSTRUCTION																						
FY09 SSOP UPDATE																																							
H062321000	FY09 SSOP UPDATE - PLANNING	0%																																					
H062328050	FY09 SSOP UPDATE - CD CERTIFICATION	100%																																					
FY10 GREEN INFRASTRUCTURE PROJECTS																																							
H091486000	FY10 GREEN INFRASTRUCTURE PROJECTS - PLANNING	0%																																					
FY10 I&I REDUCTION PROGRAM																																							
H092036000	FY10 I/I REDUCTION PROGRAM - CONSTRUCTION	0%															FY10 I/I REDUCTION PROGRAM - CONSTRUCTION																						
FY10 REGULATORY ASSISTANCE & REPORTING																																							
H101321000	FY10 REGULATORY ASSIST & REPORTING - PLANNING	0%															FY10 REGULATORY ASSIST & REPORTING - PLANNING																						
GI 12th & JEFFERSON GREEN STREET																																							
H094336000	GI 12TH & JEFFERSON GREEN STREET - PLANNING	0%	GI 12TH & JEFFERSON GREEN STREET - PLANNING																																				
GI 17th & HILL ALLEY																																							
H094301000	GI 17TH & HILL ALLEY - PLANNING	0%															GI 17TH & HILL ALLEY - PLANNING																						
GI 2nd & BROADWAY PARKING LOT																																							
H094261000	GI 2ND & BROADWAY PARKING LOT - PLANNING	0%															GI 2ND & BROADWAY PARKING LOT - PLANNING																						
GI 3rd & ORMSBY BIOSWALE																																							
H094271000	GI 3RD & ORMSBY BIOSWALE - PLANNING	0%	GI 3RD & ORMSBY BIOSWALE - PLANNING																																				
GI 6th & BROADWAY RAIN GARDEN																																							
H094296000	GI 6TH & BROADWAY RAIN GARDEN - PLANNING	0%	GI 6TH & BROADWAY RAIN GARDEN - PLANNING																																				
GI 6th & MUHAMMAD ALI PARKING LOT																																							
H094286000	GI 6TH & MUHAMMAD ALI PARKING LOT - PLANNING	0%															GI 6TH & MUHAMMAD ALI PARKING LOT - PLANNING																						
GI 7th & CEDAR PARKING LOT																																							
H094251000	GI 7TH & CEDAR PARKING LOT - PLANNING	0%																																					
GI 7th & MARKET ALLEY																																							
H094311000	GI 7TH & MARKET ALLEY - PLANNING	0%															GI 7TH & MARKET ALLEY - PLANNING																						
<div><div></div> Remaining Level of Effort<div></div> Remaining Work<div></div> Milestone<div></div> Actual Work<div></div> Critical Remaining Work<div></div> % Complete</div>																														Page 7 of 17									

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			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04
GI ADD'L RAIN GARDENS PH 1 FY10																													
H100396000	GI ADD'L RAIN GARDENS PH 1 FY10 - PLANNING	0%	GI ADD'L RAIN GARDENS PH 1 FY10 - PLANNING																										
GI ADD'L RAIN GARDENS PH 2 FY10																													
H100406000	GI ADD'L RAIN GARDENS PH 2 FY10 - PLANNING	0%	GI ADD'L RAIN GARDENS PH 2 FY10 - PLANNING																										
GI ALLEYS FY09																													
H094131000	GI ALLEYS FY09 - PLANNING	0%	GI ALLEYS FY09 - PLANNING																										
GI ALLEYS FY10																													
H094181000	GI ALLEYS FY10 - PLANNING	0%	GI ALLEYS FY10 - PLANNING																										
GI CAMPBELL & MAIN ALLEY																													
H094326000	GI CAMPBELL & MAIN ALLEY - PLANNING	0%	GI CAMPBELL & MAIN ALLEY - PLANNING																										
GI MSD MO BIOSWALE																													
H094241000	GI MSD MO BIOSWALE - PLANNING	0%																											
GI PARKING PUBLIC FY09																													
H094151000	GI PARKING PUBLIC FY09 - PLANNING	0%	GI PARKING PUBLIC FY09 - PLANNING																										
GI PARKING PUBLIC FY10																													
H094221000	GI PARKING PUBLIC FY10 - PLANNING	0%	GI PARKING PUBLIC FY10 - PLANNING																										
GI PUBLIC DRY WELLS FY10																													
H094231000	GI PUBLIC DRY WELLS FY10 - PLANNING	0%	GI PUBLIC DRY WELLS FY10 - PLANNING																										
GI RAIN BARRELS FY10																													
H094191000	GI RAIN BARRELS FY10 - PLANNING	0%	GI RAIN BARRELS FY10 - PLANNING																										
GI RAIN GARDENS FY10																													
H094201000	GI RAIN GARDENS FY10 - PLANNING	0%	GI RAIN GARDENS FY10 - PLANNING																										
GI ROOFS PUBLIC FY09																													
H094111000	GI ROOFS PUBLIC FY09 - PLANNING	0%	GI ROOFS PUBLIC FY09 - PLANNING																										
GI ROOFS PUBLIC FY10																													
H094161000	GI ROOFS PUBLIC FY10 - PLANNING	0%	GI ROOFS PUBLIC FY10 - PLANNING																										
GI STREETS FY09																													
H094121000	GI STREETS FY09 - PLANNING	0%	GI STREETS FY09 - PLANNING																										
GI STREETS FY10																													
H094171000	GI STREETS FY10 - PLANNING	0%	GI STREETS FY10 - PLANNING																										
GI URBAN REFORESTATION FY09																													
H094141000	GI URBAN REFORESTATION FY09 - PLANNING	0%	GI URBAN REFORESTATION FY09 - PLANNING																										
GI URBAN REFORESTATION FY10																													
H094211000	GI URBAN REFORESTATION FY10 - PLANNING	0%	GI URBAN REFORESTATION FY10 - PLANNING																										
GOVERNMENT CENTER PUMP STATION WET WEATHER STORAGE BASIN																													
H091942000	GOVERNMENT CENTER PS WW STORAGE - DESIGN	0%	GOVERNMENT CENTER PS WW STORAGE - EASEMENT																										
H091943000	GOVERNMENT CENTER PS WW STORAGE - EASEMENT	0%																											
H091944000	GOVERNMENT CENTER PS WW STORAGE - AD DATE	0%																											
H091944050	GOVERNMENT CENTER PS WW STORAGE - BID OPEN	0%	◆ GOVERNMENT CENTER PS WW STORA																										
GUNPOWDER PUMP STATION INLINE STORAGE																													
H092421200	GUNPOWDER PUMP STATION ILS - SSES	10%	◆ GOVERNMENT CENTER P																										
HARRODS CREEK INT PHASE II																													
D002492000	HARRODS CRK INT PHASE II - DESIGN	90%																											
D002492005	PRELIMINARY FIELD WALK-THRU	100%																											
D002492040	OBTAIN UTILITY COMMENTS	100%																											

Remaining Level of Effort

Remaining Work

Milestone

Actual Work

Critical Remaining Work

% Complete

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			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04	
D002492045	FEILD WALK-THRU TO REVIEW UTILITY COMMENTS	100%																												
D002492055	MSD PLAN & PLAT REVIEW	100%																												
D002492070	REVISE PLANS/PLATS PER MSD COMMENTS	100%																												
D002492090	HARRODS CRK INT PHASE II - PLATS	100%																												
D002492901	50% SURVEY COMPLETE	100%																												
D002492902	30% PLANS SUBMITTAL	100%																												
D002492903	50% PLAN UTILITY SUBMITTAL	100%																												
D002492904	80% PLANS SUBMITTAL	100%																												
D002492905	100% PLANS & CONTRACT DOCUMENTS	100%																												
D002492907	HARRODS CRK INT PH II - EASEMENT PLATS	100%																												
HARRODS CREEK INTERCEPTOR																														
D942072000	HARRODS CRK INT PH. I - DESIGN	100%																												
D942072005	PRELIMINARY FIELD WALK-THRU	100%																												
D942072040	OBTAIN UTILITY COMMENTS	100%																												
D942072045	FEILD WALK-THRU TO REVIEW UTILITY COMMENTS	100%																												
D942072055	MSD PLAN & PLAT REVIEW	100%																												
D942072901	50% SURVEY COMPLETE	100%																												
D942072902	30% PLANS SUBMITTAL	100%																												
D942072903	50% PLAN UTILITY SUBMITTAL	100%																												
D942072904	80% PLANS SUBMITTAL	100%																												
D942072905	100% PLANS & CONTRACT DOCUMENTS	100%																												
D942072906	EPSC PLANS	0%																												
HARRODS CREEK PS & FM																														
D942062000	HARRODS CREEK P.S. & F.M. - DESIGN	0%																												
D942062005	PRELIMINARY FIELD WALK-THRU	100%																												
D942062010	PRELIMINARY DESIGN	100%																												
D942062046	FINAL ALIGNMENT WALK-THRU	100%																												
D942062047	FINAL ALIGNMENT APPROVAL	100%																												
D942062901	HARRODS CREEK - 50% SURVEY COMPLETE	100%																												
D942062902	MILESTONE #2	100%																												
D942062903	HARRODS CREEK - CONCEPTUAL DESIGN	100%																												
D942062904	HARRODS CREEK - 30% PLAN SUBMITTAL	100%																												
D942062905	MILESTONE #5	100%																												
D942062906	HARRODS CREEK - R.E.D. MEETING	100%																												
D942062907	PRELIMINARY PLANS	100%																												
D942062908	STORAGE	100%																												
D942062909	HARRODS CREEK - VALUE ENGINEERING	100%																												
D942062913	HARRODS CREEK - 50% PLAN UTILITY SUBMITTAL	100%																												
D942062914	HARRODS CREEK - 80% PLANS SUBMITTAL	0%																												
D942062915	HARRODS CREEK - 100% PLANS & CONTRACT DOCS	0%																												
D942062918	HC/PROSPECT AREA STUDY-TASK 1.1 & 2.1	100%																												
D942062919	HC/PROSPECT AREA STUDY-TASK 2.1	100%																												
D942062920	HC/PROSPECT AREA STUDY-TASK 2.2	100%																												
D942062921	HC/PROSPECT AREA STUDY-TASK 2.3-2.4	100%																												
D942062922	HC/PROSPECT AREA STUDY-TASK 3.1-3.2	100%																												
D942062923	HC/PROSPECT AREA STUDY-TASK 3.3	100%																												
D942062924	HC/PROSPECT AREA STUDY-TASK 4.1-4.3	100%																												

Remaining Level of Effort
Actual Work

Remaining Work
Critical Remaining Work

Milestone
% Complete

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Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20
D942062925	HC/PROSPECT AREA STUDY-TASK 4.4	100%	HC/PROSPECT AREA STUDY-TASK 4.4																								
HAZELWOOD PUMP STATION I&I INVESTIGATION																	HAZELWOOD PUMP STATION I&I INVESTIGATION - SSES										
H091811200	HAZELWOOD PUMP STATION I&I INVESTIGATION - SSES	0%															HAZELWOOD PUMP STATION I&I INVESTIGATION - SSES										
H091811220	HAZELWOOD PS I&I INVESTIGATION - SSES REPORT	0%															HAZELWOOD PS I&I INVESTIGATION - SSES REPORT										
H091812000	HAZELWOOD PUMP STATION I&I INVESTIGATION - DESIGN	0%															HAZELWOOD PUMP STATION I&I INVESTIGATION - DESIGN										
H091813000	HAZELWOOD PUMP STATION I&I INVESTIGATION - EASEM...	0%															HAZELWOOD PUMP STATION I&I INVESTIGATION - EASEMENT										
H091814000	HAZELWOOD PUMP STATION I&I INVESTIGATION- AD DATE	0%															◆ HAZELWOOD PUMP STATION I&I INVES										
HIKES POINT INTERCEPTOR																											
H072862000	HIKES POINT INTERCEPTOR - DESIGN	90%																									
H072862001	HIKES POINT INTERCEPTOR - NTP	100%																									
H072862901	HIKES POINT INTERCEPTOR - 10% DESIGN SUBMITTAL	100%																									
H072862902	HIKES POINT INTERCEPTOR - 30% DESIGN SUBMITTAL	100%																									
H072862903	HIKES POINT INTERCEPTOR - ENVIRON/SURVEY	100%																									
H072862904	HIKES POINT INTERCEPTOR - 60% DESIGN SUBMITTAL	100%																									
H072862905	HIKES POINT INTERCEPTOR - 90% DESIGN SUBMITTAL	100%																									
H072862906	HIKES POINT INTERCEPTOR - 100% DESIGN SUBMITTAL	0%					HIKES POINT INTERCEPTOR - 100% DESIGN SUBMITTAL																				
H072863000	HIKES POINT INTERCEPTOR - EASEMENTS	0%																									
HIKES POINT RELIEF EFFORT																											
H072872001	HIKES POINT INT - NTP	100%																									
H072872901	HIKES POINT INT - BACKGROUND & STDS	100%																									
H072872902	HIKES POINT INT - GEOTECH REPORT	100%																									
H072872903	HIKES POINT INT - TRAFFIC ANALYSIS	100%																									
H072872904	HIKES POINT INT - PROPERTY RESEARCH	100%																									
H072872905	HIKES POINT INT - PIPE MATERIAL RECM & TECH MEMO	100%																									
H072872906	HIKES POINT INT - STRUCTURAL MEMO & PRELIM DRAWG	100%																									
H072872907	HIKES POINT INT - HYDRAULIC HOR/VER ALIGN TM	100%																									
H072872908	HIKES POINT INT - TRAFFIC ANALYSIS TECH MEMO	100%																									
H072872909	HIKES POINT INT - CONSTRUCTABILITY; COST & SCHED	100%																									
H072872910	HP INT REPORT W/PRESENTATION-100%	100%																									
H072873000	HIKES POINT RELIEF SEWER EFFORT - EASEMENTS	70%																									
HURSTBOURNE I&I INVEST & REHAB																											
H092192000	HURSTBOURNE I&I INVEST & REHAB - DESIGN	0%																									
I-64 & GRINSTEAD STORAGE BASIN																											
H091211000	I-64 & GRINSTEAD STORAGE BASIN - PLANNING	100%																									
H091212000	I-64 & GRINSTEAD STORAGE BASIN - DESIGN	0%															I-64 & GRINSTEAD STORAGE BASIN - DESIGN										
IOAP REVISIONS																											
H094551000	IOAP REVISIONS - PLANNING	0%															IOAP REVISIONS - PLANNING										
JEFFERSONTOWN SSES																											
H093951000	JEFFERSONTOWN SSES - PLANNING	5%					JEFFERSONTOWN SSES - PLANNING																				
KAVANAUGH ROAD PUMP STATION IMPROVEMENT																											
H091711000	KAVANAUGH RD PUMP STATION IMP - SSES PLANNING	5%					KAVANAUGH RD PUMP STATION IMP - SSES PLANNING																				
LAKE FOREST PUMP STATION IMPROVEMENT																											
H091731200	LAKE FOREST PUMP STATION IMPROVEMENT - SSES	5%					LAKE FOREST PUMP STATION IMPROVEMENT - SSES																				
LAKE FOREST SSES																											
H093961000	LAKE FOREST SSES - PLANNING	100%																									
H093961220	LAKE FOREST SSES REPORT	0%															LAKE FOREST SSES REPORT										
Remaining Level of Effort			Remaining Work				Milestone				Page 10 of 17																
Actual Work			Critical Remaining Work				% Complete																				

MSD UPD Current Schedule

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Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010					
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04			
LANTANA PUMP STATION WET WEATHER STORAGE BASIN																																
H091931200	LANTANA PUMP STATION WET WEATHER STORAGE - SSES	10%												LANTANA PUMP STATION WET WEATHER STORAGE - SSES																		
H091932000	LANTANA PUMP STATION WET WEATHER STORAGE - DE...	0%												LANTANA PUMP STATION WET WEATHER STORAGE - DESIGN																		
H091933000	LANTANA PUMP STATION WET WEATHER STORAGE - EAS...	0%																													LANTANA	
LEA ANN WAY PHASE 2 ICA																																
H093981000	LEA ANN WAY PHASE 2 ICA - PLANNING	80%																														
LEA ANN WAY PS SYSTEM SSES																																
H090962000	LEA ANN WAY PS SYSTEM SSES - PLANNING	10%																														
H090962901	LEA ANN WAY PS SYSTEM SSES HOURLY	0%												LEA ANN WAY PS SYSTEM SSES HOURLY																		
H090962902	EAST PROJECT WORK PLAN	100%												EAST PROJECT WORK PLAN																		
H090962903	EAST DATA, COLLECTION, REVIEW&BASIN DELINEATION	100%												EAST DATA, COLLECTION, REVIEW&BASIN DELINEATION																		
H090962904	LEA ANN SSES EAST NOTIFICATION PLAN	100%												LEA ANN SSES EAST NOTIFICATION PLAN																		
H090962906	LEA ANN EAST NBHD MEETINGS	90%												LEA ANN EAST NBHD MEETINGS																		
H090962907	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 1	0%																													LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 1	
H090962908	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 2	0%																													LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 2	
H090962915	LA WEST/LANTANA KICKOFF MTG	100%												LA WEST/LANTANA KICKOFF MTG																		
H090962916	LEA ANN WEST/LANTANA WORK PLAN	100%												LEA ANN WEST/LANTANA WORK PLAN																		
H090962917	PUBLIC MTG - LANTANA BEFORE	100%												PUBLIC MTG - LANTANA BEFORE																		
H090962919	PUBLIC MTG - LEA ANN WEST BEFORE	100%												PUBLIC MTG - LEA ANN WEST BEFORE																		
H090962921	MANHOLE INSPECTIONS LANTANA	0%												MANHOLE INSPECTIONS LANTANA																		
H090962922	MANHOLE INSP LEA ANN WEST 1	0%												MANHOLE INSP LEA ANN WEST 1																		
H090962923	MANHOLE INSP LEA ANN WEST 2	0%												MANHOLE INSP LEA ANN WEST 2																		
H090962924	MANHOLE INSP LEA ANN WEST 3	0%												MANHOLE INSP LEA ANN WEST 3																		
H090962925	MANHOLE INSP LEA ANN WEST 4	0%												MANHOLE INSP LEA ANN WEST 4																		
H090962926	SMOKE TESTING LANTANA	0%												SMOKE TESTING LANTANA																		
H090962928	DYE TRACING/FLOODING - LANTANA	0%												DYE TRACING/FLOODING - LANTANA																		
H090962930	FINAL REPORT SUBMITTAL - LANTANA	0%												FINAL REPORT SUBMITTAL - LANTANA																		
LEA ANN WAY SANITARY SEWER I/I REHABILITATION																																
C084331200	LEA ANN WAY SANITARY SEWER I/I REHAB - SSES	10%												LEA ANN WAY SANITARY SEWER I/I REHAB - SSES																		
LEA ANN WAY SSR PHASE 1																																
H094052000	LEA ANN WAY SSR PHASE 1 - DESIGN	0%																													LEA ANN WAY SSR PHASE 1 - DESIGN	
LOGAN STREET & BRECKINRIDGE STREET STORAGE BASIN																																
H091422000	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - DESIGN	10%																														
H091422901	LOGAN ST STOR BASIN-BUILD TEAM	50%												LOGAN ST STOR BASIN-BUILD TEAM																		
H091422902	LOGAN ST STOR BASIN-INFO COLLECTION	50%												LOGAN ST STOR BASIN-INFO COLLECTION																		
H091422903	LOGAN ST STOR BASIN-SITE & TECH SELECT	50%												LOGAN ST STOR BASIN-SITE & TECH SELECT																		
H091422904	LOGAN ST STOR BASIN-PRELIM DESING & PRMT	50%												LOGAN ST STOR BASIN-PRELIM DESING & PRMT																		
MEADOW STREAM PUMP STATION INLINE STORAGE																																
H091741200	MEADOW STREAM PUMP STATION ILS - SSES	0%												MEADOW STREAM PUMP STATION ILS - SSES																		
MEADOW STREAM/HITE CREEK SSES																																
H093941000	MEADOW STREAM SSES - PLANNING	100%																														
H093941220	MEADOW STREAM SSES REPORT	0%												MEADOW STREAM SSES REPORT																		
H093942000	MEADOW STREAM SSES - DESIGN	0%												MEADOW STREAM SSES - DESIGN																		
H093942901	MEADOW STREAM SSES PROJECT WORK PLAN	0%												MEADOW STREAM SSES PROJECT WORK PLAN																		
H093942902	MEADOW STREAM SSES MONTHLY MTG&MGMT	0%												MEADOW STREAM SSES MONTHLY MTG&MGMT																		
H093942903	MEADOW STREAM SSES INITIAL FIELD REVIEW	0%												MEADOW STREAM SSES INITIAL FIELD REVIEW																		

Remaining Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

% Complete

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MSD UPD Current Schedule

IOAP Quarterly Report Chart

28-Apr-10 08:04

Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010	
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27
H093942907	MEADOW STREAM SSES PRIVATE PROP INSP	0%																										
H093942909	MEADOW STREAM SSES PUBLIC NOTIFICATION	0%																										
MELLWOOD PS ELIMINATION & FORCE MAIN																												
A095562000	MELLWOOD PS ELIMINATION & FORCE MAIN - DESIGN	100%																										
A095562901	MELLWOOD PS ELIMINATION & FORCE MAIN 10% DESIGN	100%																										
A095562902	MELLWOOD PS ELIMINATION & FORCE MAIN 30% DESIGN	100%																										
A095562903	MELLWOOD PS ELIMINATION & FORCE MAIN 60% DESIGN	100%																										
A095562904	MELLWOOD PS ELIMINATION & FORCE MAIN 90% DESIGN	0%																										
A095562905	MELLWOOD PS ELIMINATIN & FORCE MAIN 100% DESIGN	0%																										
A095563000	MELLWOOD PS ELIMINATION & FORCE MAIN - EASEMENTS	0%																										
MILL CREEK SSES																												
H093991000	MILL CREEK SSES - PLANNING	5%																										
MUNCIE AVENUE ACCESS ROAD FOR ISO 05																												
B101486000	MUNCIE AVE ACCESS ROAD FOR ISO 05 -CONSTRUCT	0%																										
NMC 1 FY10																												
H093061000	NMC 1 FY10 - PLANNING	0%																										
NMC 2 FY10																												
H093071000	NMC 2 FY10 - PLANNING	0%																										
NMC 3 FY10																												
H093081000	NMC 3 FY10 - PLANNING	0%																										
NMC 4 FY10																												
H093091000	NMC 4 FY10 - PLANNING	0%																										
NMC 5 FY10																												
H093101000	NMC 5 FY10 - PLANNING	0%																										
NMC 6 FY10																												
H093111000	NMC 6 FY10 - PLANNING	0%																										
NMC 7 FY10																												
H093121000	NMC 7 FY10 - PLANNING	0%																										
NMC 8 FY10																												
H093131000	NMC 8 FY10 - PLANNING	0%																										
NMC 9 FY10																												
H093141000	NMC 9 FY10 - PLANNING	0%																										
NMC AAOV FY10																												
H093151000	NMC AAOV FY10 - PLANNING	0%																										
NORTHERN DITCH INT PHASE 2																												
A092264000	NORTHERN DITCH INT PHASE 2 - AD DATE	100%																										
A092264050	NORTHERN DITCH INT PHASE 2 - BID OPEN	100%																										
A092264500	NORTHERN DITCH INT PHASE 2 - AWARD	100%																										
A092266000	NORTHERN DITCH INT PHASE 2 - CONSTRUCTION	0%																										
NORTHERN DITCH INT PHASE 3																												
A095003000	NORTHERN DITCH INT PHASE 3 - EASEMENT	100%																										
A095004000	NORTHERN DITCH INT PHASE 3 - AD DATE	0%																										
NORTHERN DITCH INTERCEPTOR (NR-1A)																												
C850171000	NORTHERN DITCH INTERCEPTOR (NR-1A) - PLANNING	100%																										
C850172010	NORTHERN DITCH INTERCEPTOR (NR-1A) - 60% SURVEY	100%																										

Remaining Level of Effort

Remaining Work

Milestone

Actual Work

Critical Remaining Work

% Complete

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[illegible]

MSD UPD Current Schedule

IOAP Quarterly Report Chart

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Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010				
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04		
H091983000	PARKVIEW ESTATES I&I INVESTIGATION - EASEMENT	0%	<div></div>																												PARKVIEW
PROSPECT SSES																															
H093911000	PROSPECT SSES - PLANNING	100%	<div></div>																												
H093911220	PROSPECT SSES REPORT	0%	<div></div>																												PROSPECT SSES REPORT
H093912000	PROSPECT SSES REPORT - DESIGN	0%	<div></div>																												PROSPECT SSES REPORT - DESIGN
H093912901	PROSPECT HUNTING CREEK SSES PROJECT WORK PLAN	0%	<div></div>																												PROSPECT HUNTING CREEK SSES PROJECT WORK PLAN
H093912902	PROSPECT HUNTING CREEK SSES MONTHLY MTG&MGMT	0%	<div></div>																												PROSPECT HUNTING CREEK SSES MONTHLY MTG&MGMT
H093912903	PROSPECT HUNTING CREEK SSES INITIAL FIELD REVIEW	0%	<div></div>																												PROSPECT HUNTING CREEK SSES INITIAL FIELD REVIEW
H093912907	PROSPECT HUNTING CREEK SSES PRIVATE PROP INSP	0%	<div></div>																												PROSPECT HUNTING CREEK SSES PRIVATE PROP INSP
H093912909	PROSPECT HUNTING CREEK SSES PUBLIC NOTIFICATION	0%	<div></div>																												PROSPECT HUNTING CREEK SSES PUBLIC NOTIFICATION
RAINTREE & MARIAN COURT PUMP STATION ELIMINATION																															
H091801200	RAINTREE & MARIAN CT PUMP STATION ELIMINATION - SS...	100%	<div></div>																												RAINTREE & MARIAN CT PUMP STATION ELIMINATION - SSES
H091802000	RAINTREE & MARIAN CT PUMP STATION ELIMINATION - DE...	100%	<div></div>																												RAINTREE & MARIAN CT PUMP STATION ELIMINATION - DESIGN
RIDING RIDGE PUMP STATION IMPROVEMENT																															
H091751200	RIDING RIDGE PUMP STATION IMP - SSES PLANNING	5%	<div></div>																												RIDING RIDGE PUMP STATION IMP - SSES PLANNING
RIVER ROAD INTERCEPTOR																															
D942102000	RIVER ROAD INTERCEPTOR - DESIGN	95%	<div></div>																												
D942102005	PRELIMINARY FIELD WALK-THRU	100%	<div></div>																												
D942102901	50% SURVEY COMPLETE	100%	<div></div>																												
D942102902	30% PLANS SUBMITTAL	100%	<div></div>																												
D942102903	50% PLANS UTILITY SUBMITTAL	100%	<div></div>																												
D942102904	80% PLANS SUBMITTAL	100%	<div></div>																												
D942102906	90% DESIGN	100%	<div></div>																												
D942102907	100% DESIGN	0%	<div></div>																												100% DESIGN
D942103000	RIVER RD INT - EASEMENT	0%	<div></div>																												
D942104000	RIVER ROAD INTERCEPTOR - AD DATE	0%	<div></div>																												◆ RIVER ROAD INTERCEPTOR - AD DATE
D942104050	RIVER ROAD INTERCEPTOR - BID OPENING	0%	<div></div>																												◆ RIVER ROAD INTERCEPTOR - BID OPENING
D942104500	RIVER ROAD INTERCEPTOR - AWARD	0%	<div></div>																												◆ RIVER ROAD INTERCEPTOR - AWARD
RUNNING FOX PUMP STATION ELIMINATION																															
H091782000	RUNNING FOX PUMP STATION ELIMINATION - DESIGN	100%	<div></div>																												
H091783000	RUNNING FOX PUMP STATION ELIMINATION - EASEMENTS	100%	<div></div>																												
H091784000	RUNNING FOX PUMP STATION ELIMINATION - AD DATE	100%	<div></div>																												
H091784050	RUNNING FOX PUMP STATION ELIMINATION - BID OPEN	100%	<div></div>																												
H091784500	RUNNING FOX PUMP STATION ELIMINATION - AWARD	100%	<div></div>																												
H091786000	RUNNING FOX PUMP STATION ELIMINATION - CONSTRUC...	100%	<div></div>																												
H091786900	RUNNING FOX PUMP STATION ELIMINATION - SUBSTANTI...	100%	<div></div>																												◆ RUNNING FOX PUMP STATION ELIMINATION - SUBSTANTIALLY COMPLETE
H091786950	RUNNING FOX PUMP STATION ELIMINATION - AS-BUILTS	0%	<div></div>																												
H091788050	RUNNING FOX PUMP STATION ELIMINATION - CD CERTIFI...	100%	<div></div>																												◆ RUNNING FOX PUMP STATION ELIMINATION - CD CERTIFICATION
SEP - CHEROKEE PARK STREAM RESTORATION PROJECT																															
H101402000	SEP CHEROKEE PARK STREAM RESTORATION - PLANNING	80%	<div></div>																												SEP CHEROKEE PARK STREAM RESTORATION - PLANNING
H101402901	SEP CHEROKEE PK STREAM RESTOR PERMITTING	0%	<div></div>																												SEP CHEROKEE PK STREAM RESTOR PERMITTING
H101402902	SEP CHEROKEE PK STREAM RESTOR 80% SUBMITTAL	0%	<div></div>																												SEP CHEROKEE PK STREAM RESTOR 80% SUBMITTAL
H101402903	SEP CHEROKEE PK STREAM RESTOR 95% SUBMITTAL	0%	<div></div>																												SEP CHEROKEE PK STREAM RESTOR 95% SUBMITTAL
H101402904	SEP STREAM RESTOR FINAL SUBMIT/BID ASSISTANCE	0%	<div></div>																												SEP STREAM RESTOR FINAL SUBMIT/BID ASSISTANCE
H101404000	SEP CHEROKEE PARK STREAM RESTORATION - AD DATE	0%	<div></div>																												◆ SEP CHEROKEE PARK STREAM RESTORATION - AD DATE
H101404050	SEP CHEROKEE PARK STREAM RESTORATION - BID OPEN	0%	<div></div>																												◆ SEP CHEROKEE PARK STREAM RESTORATION - BID OPEN

Remaining Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

% Complete

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Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010		
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	04
H101404500	SEP CHEROKEE PARK STREAM RESTORATION - AWARD	0%													◆ SEP CHEROKEE PARK STREAM RESTORATI SEP CHEROKEE PARK STREAM RESTORATIO														
H101406000	SEP CHEROKEE PARK STREAM RESTORATION - CONSTR...	0%																											
H101408050	CHEROKEE PK STREAM RESTOR - SEP COMPLETION REP...	0%													◆ CHERO														
SEP - POND CREEK TRAIL STREAM RESTORATION PROJECT																													
H101412000	SEP - PC TRAIL STREAM RESTORATION-DESIGN	100%	TRAIL STREAM RESTORATION-DESIGN																										
H101412901	PERMIT/CONCEPTUAL STREAM RESTORE DESIGN	100%	ONCEPTUAL STREAM RESTORE DESIGN																										
H101412902	SEP - PC STREAM RESTORATION - 80% DESIGN	100%	SEP - PC STREAM RESTORATION - 80% DESIGN																										
H101412903	SEP - PC STREAM RESTORATION -95% DESIGN	0%													SEP - PC STREAM RESTORATION -95% DESIGN														
H101412904	SEP - PC STREAM RESTORATION -100% DESIGN	0%													SEP - PC STREAM RESTORATION -100% DESIGN														
H101412905	SEP-PC STREAM RESTOR -CONSTRUC OVERSIGHT	0%													SEP-PC STREAM RESTOR -CONSTRUC OVERSIGHT														
SHIVELY INTERCEPTOR																													
B062082001	SHIVELY INTERCEPTOR - NTP	100%																											
B062082901	SHIVELY INT - PRELIM ENG 100%	100%																											
B062082902	SHIVELY INT - SURVEY 20%	100%																											
B062082903	SHIVELY INT - DESIGN 30%	100%																											
B062082904	SHIVELY INT - SURVEY 50%	100%																											
B062082905	SHIVELY INT - FINAL DESIGN 50%	100%																											
B062082906	SHIVELY INT - SURVEY 80%	100%																											
B062082907	SHIVELY INT - FINAL DESIGN 80%	100%																											
B062082908	SHIVELY INT - SURVEY 100%	100%																											
B062082909	SHIVELY INT - FINAL DESIGN 100%	100%																											
B062082910	PERTH CLYDE 50% SURVEY	100%																											
B062082911	PERTH CLYDE PREL ENG PLANS/REPORT	100%																											
B062082912	PERTH CLYDE 50% DESIGN SUBMITTAL	100%																											
B062082913	PERTH CLYDE 100% SURVEY	0%																											
B062082914	PERTH CLYDE 80% DESIGN SUBMITTAL	0%																											
B062082916	SHIVELY-VAC, EXCAV, GROUNDWATER WELLS	100%																											
B062083000	SHIVELY INTERCEPTOR - EASEMENT	80%																											
SHIVELY PUMP STATION CHANNEL GRINDER REPLACEMENT PROJECT																													
H101512000	SHIVELY PS CHANNEL GRINDER REPLACEMENT - DESIGN	0%																											
SHIVELY SSES																													
H094011000	SHIVELY SSES - PLANNING	0%																											
SINKING FORK INTERCEPTOR RELIEF SEWER																													
H083572001	SINKING FORK INTERCEPTOR RELIEF SEWER - NTP PREL	100%																											
H083572002	SINKING FORK INTERCEPTOR RELIEF SEWER- NTP FINAL	100%																											
H083572901	SINKING FORK INT RELIEF SEWER- 50% PRELIM DESIGN	100%																											
H083572902	SINKING FORK INT RELIEF SEWER-100% PRELIM DESIGN	100%																											
H083572903	BWV - PLAN & BASEMENT REVISIONS	100%																											
H083572904	BWV - ROCK CORES	100%																											
H083572905	BWV - 80% PLAN SUBMITTAL	100%																											
H083572906	BWV - 100% PLAN SUBMITTAL	100%																											
H083572907	BWV - CONTRACT DOCS	100%																											
H083572908	BWV - MYLARS	100%																											
H083572909	SINKING FORK INT RS - EASEMENT APPRAISAL	100%																											
H083572910	SINKING FORK INT RS - 50% PLAN SUBMITTAL	100%																											
H083572911	SINKING FORK INT RS - 80% PLAN SUBMITTAL	100%																											

Remaining Level of Effort

Remaining Work

Milestone

Actual Work

Critical Remaining Work

% Complete

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MSD UPD Current Schedule			IOAP Quarterly Report Chart														28-Apr-10 08:04											
Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010	
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27
H083572912	SINKING FORK INT RS - 100% PLAN SUBMITTAL	100%																										
H083572913	SINKING FORK INT RS - CONTRACT DOCS	100%																										
H083572914	SINKING FORK INT RS - MYLARS	100%																										
H083572915	SURVEYING MILESTONES - SURVEYING	100%																										
H083572916	SURVEYING MILESTONES - EASEMENTS PLATS	100%																										
H083573000	SINKING FORK INTERCEPTOR RELIEF SEWER - ESM'TS	100%																										
H083574000	SINKING FORK INTERCEPTOR RELIEF SEWER - AD DATE	100%																										
H083574050	SINKING FORK INTERCEPTOR RELIEF SEWER - BID OPEN	100%																										
H083574500	SINKING FORK INTERCEPTOR RELIEF SEWER - AWARD	100%																										
H083576000	SINKING FORK INTERCEPTOR RELIEF SEWER - CONSTR	95%																										
H083576900	SINKING FORK INTERCEPTOR RELIEF SEWER-SUBST COMP	100%	RELIEF SEWER-SUBST COMP																									
H083576950	SINKING FORK INTERCEPTOR RELIEF SEWER - AS-BUILT	0%																										◆ SINKING F
H083578050	SINKING FORK INTERCEPTOR RELIEF SEWER-CD CERTIFY	100%	SINKING FORK INTERCEPTOR RELIEF SEWER-CD CERTIFY																									
SNEADS BRANCH ICA																												
H094021000	SNEADS BRANCH ICA - PLANNING	60%																										
SONNE PUMP STATION I&I INVESTIGATION																												
H091871200	SONNE PUMP STATION I&I INVESTIGATION - SSES	0%															SONNE PUMP STATION I&I INVESTIGATION - SSES											
H091871220	SONNE PS I&I INVESTIGATION - SSES REPORT	0%															SONNE PS I&I INVESTIGATION - SSES REPORT											
SORP FY10																												
H093781000	SORP FY10 - PLANNING	0%															SORP FY10 - PLANNING											
SOUTHEASTERN INTERCEPTOR RELIEF SEWER																												
H083581000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - PLANNI...	100%																										
H083582000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - DESIGN	90%																										
H083582001	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - NTP	100%																										
H083582901	SEI RELIEF SEWER - PD - SUBMIT 10% DRAFT RPT	100%																										
H083582902	SEI RELIEF SEWER - PD - PHASE 1 5% DRAFT REPORT	100%																										
H083582903	SEI RELIEF SEWER - PD - FINAL REPORT	100%																										
H083582904	SEI RELIEF SEWER - 10% DESIGN	100%																										
H083582905	SEI RELIEF SEWER-SURVEY &DRAFT PLATS	100%																										
H083582906	SEI RELIEF SEWER-30%DIVERSION STRUCTURE PLANS	100%																										
H083582907	SEI RELIEF SEWER-30% SEIRS PLANS/REPORTS	100%																										
H083582908	SEI RELIEF SEWER-SUBSURFACE INVEST. REPORT	100%																										
H083582909	SEI RELIEF SEWER-60% DIVERSION STRUC PLANS/BID DO...	100%	STRUC PLANS/BID DOCS																									
H083582910	SEI RELIEF SEWER-90% DIVERSION STRUCT PLANS/BID D...	100%	SEI RELIEF SEWER-90% DIVERSION STRUCT PLANS/BID DOCS																									
H083582911	SEI RELIEF SEWER-60% SEIRS PLANS/FNL PLANS/BID DOCS	100%	SEI RELIEF SEWER-60% SEIRS PLANS/FNL PLANS/BID DOCS																									
H083582912	SEI RELIEF SEWER-100% DIVERSION STRUCT PLANS/BID ...	0%															SEI RELIEF SEWER-100% DIVERSION ST											
H083582913	SEI RELIEF SEWER-90% SEIRS PLANS/BID DOCS/PERMITS	100%	SEI RELIEF SEWER-90% SEIRS PLANS/BID DOCS/PERMITS																									
H083582914	SEI RELIEF SEWER-100% SEIRS PLANS/BID DOCS	0%															SEI RELIEF SEWER-100% SEIRS PLANS/											
H083583000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - ESM'TS	10%																										
H083584000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - AD DATE	0%															◆ SOUTHEASTERN INTE											
STARVIEW SSES																												
H094031000	STARVIEW SSES - PLANNING	100%																										
H094031220	STARVIEW SSES REPORT	0%															STARVIEW SSES REPORT											
STORY AVENUE & MAIN STREET STORAGE BASIN																												
H091272000	STORY AVE & MAIN ST STORAGE BASIN- DESIGN	0%															STORY AVE & MAIN ST STORAGE BASIN- DESIGN											
UDRT SSES																												

Remaining Level of Effort

Remaining Work

Milestone

Actual Work

Critical Remaining Work

% Complete

MSD UPD Current Schedule			IOAP Quarterly Report Chart												28-Apr-10 08:04													
Activity ID	Activity Name	Physical % Complete	January 2010				February 2010				March 2010				April 2010				May 2010				June 2010				July 2010	
			03	10	17	24	31	07	14	21	28	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27
H094041000	UDRT SSES - PLANNING	80%																										
WEST REGION EMERGENCY GENERATOR PHASE III																												
H100844000	WEST REGION EMERG GENERATORS PH3 - AD DATE	100%																										
H100844050	WEST REGION EMERG GENERATORS PH3 - BID OPEN	100%																										
H100844500	WEST REGION EMERG GENERATORS PH3 - AWARD	100%																										
H100846000	WEST REGION EMERG GENERATORS PH3-CONST	70%	CONST																									
WOODLAND HILLS PUMP STATION DIVERSION																												
H091692000	WOODLAND HILLS PUMP STATION DIVERSION - DESIGN	100%	WOODLAND HILLS PUMP STATION DIVERSION - DESIGN																									
H091693000	WOODLAND HILLS PUMP STATION DIVERSION - EASEMENT	100%	WOODLAND HILLS PUMP STATION DIVERSION - EASEMENT																									
H091694000	WOODLAND HILLS PUMP STATION DIVERSION - AD DATE	100%	WOODLAND HILLS PUMP STATION DIVERSION - AD DATE																									
H091694050	WOODLAND HILLS PUMP STATION DIVERSION - BID OPEN	100%	WOODLAND HILLS PUMP STATION DIVERSION - BID OPEN																									
H091694500	WOODLAND HILLS PUMP STATION DIVERSION - AWARD	100%	WOODLAND HILLS PUMP STATION DIVERSION - AWARD																									
H091696000	WOODLAND HILLS PUMP STATION DIVERSION - CONSTRU...	100%	WOODLAND HILLS PUMP STATION DIVERSION - CONSTRUCTION																									
H091696900	WOODLAND HILLS PUMP STATION DIVERSION - SUBSTAN...	100%	WOODLAND HILLS PUMP STATION DIVERSION - SUBSTANTIALLY COMPLETE																									
H091698050	WOODLAND HILLS PUMP STATION DIVERSION - CD CERTI...	100%	WOODLAND HILLS PUMP STATION DIVERSION - CD CERTIFICATION																									



Consent Decree Quarterly Report #18
January 1, 2010 – March 31, 2010

Appendix B-1 - Discharge Work Orders – Waters of the United States

April 30, 2010





Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0036501	Facility ID MSD0209	Water Quality Treatment Center BERRYTOWN	Receiving Stream of Treatment Center FLOYDS FORK	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0209	1203 HEAFER RD		FLOYDS FORK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1043411	03/26/10 11:23 AM	ELDER	WRIGHT	REPAIRED - ISSUE RESOLVED	03/26/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/26/10 11:53 AM	

Spot Inspections:

Discharge Amount:	3,000 GAL
Cause:	BROKEN DOMESTIC WATER LINE THAT FEEDS THE SO2 SYSTEM
Clean Up:	NO DEBRIS, NO CLEANUP
Control Zone:	PERMANENT SIGNS, - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NON DECHLORINATED WATER RELEASED THROUGH EFFLUENT LINE DUE TO SO2 FEED LINE BREAK
Repair:	WATER SUPPLY SHUT OFF WHILE REPAIRS WERE MADE TO THE LINE & RETURNED TO SERVICE

Notifications:

03/26/10 01:44 PM	DISPUB	o PERMANENT SIGNS POSTED IN AREA o http://www.msdlouky.org/projectwin/
03/29/10 09:41 AM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0255	10725 OLD TAYLORSVILLE RD		CHENOWETH RUN	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1003387	01/21/10 01:19 PM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 02:38 AM	

Spot Inspections:

Peak Plant Flow when Blending:	14,280,000 GPD
Total Plant Flow when Blending:	13,600,000 GAL
Discharge Amount:	2,208,502 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NO IMPACT OBSERVED - FACILITY DISCHARGE UNDER ELEVATED CREEK LEVEL
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Notifications:

01/21/10 01:46 PM	DISPUB	Notification by http://www.msdlouky.org/projectwin/ Also,PERMANENT SIGNS POSTED IN AREA
01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0025194 (Cont'd)Facility ID
MSD0255Water Quality Treatment Center
JEFFERSONTOWNReceiving Stream of Treatment Center
CHENOWETH RUNRegion
CENT

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1004033	01/24/10 10:38 AM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/25/10 04:52 AM	

Spot Inspections:

Peal Plant Flow when Blending:	10,760,000 GPD
Total Plant Flow when Blending:	12,970,000 GAL
Discharge Amount:	855,454 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Notifications:

01/24/10 10:54 AM	DISPUB	Notification by http://www.msdlouky.org/projectwin/ Also,PERMANENT SIGNS POSTED IN AREA
01/24/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0025194 (Cont'd)Facility ID
MSD0255Water Quality Treatment Center
JEFFERSONTOWNReceiving Stream of Treatment Center
CHENOWETH RUNRegion
CENT

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1008290	01/31/10 07:27 AM	ELDER	RHEINLAENDER JR	DOCUMENTED	01/14/07	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/31/10 07:30 AM	

Spot Inspections:

Discharge Amount:	2,082 GAL
Cause:	BYPASS EVENT, BLENDING OCCURED DUE TO UPS CONTROLS FAILURE. 01/31/2010. 07:
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	PERMANENT SIGN IN PLACE - NO ADDITIONAL CONTROL ZONE SET UP
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	PUT PUMPS IN HAND OPERATION, & RESET UPS CONTROLS, RESUMED NORMAL OPERATION

Notifications:

01/31/10 11:17 AM	DISPUB	PERMANANT SIGNS POSTED IN AREA http://www.msdlouky.org/projectwin/
01/31/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/31/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0025194 (Cont'd)Facility ID
MSD0255Water Quality Treatment Center
JEFFERSONTOWNReceiving Stream of Treatment Center
CHENOWETH RUNRegion
CENT

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011559	02/05/10 04:34 PM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/06/10 02:24 AM	

Spot Inspections:

Peal Plant Flow when Blending:	12,768,834 GPD
Total Plant Flow when Blending:	11,721,000 GAL
Discharge Amount:	516,697 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	NOGOTATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Notifications:

02/05/10 05:22 PM	DISPUB	Notification by http://www.msdlouky.org/projectwin/ Also,PERMANENT SIGNS POSTED IN AREA
02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029459	Facility ID MSD0263	Water Quality Treatment Center CHENOWETH HILLS	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0263	4305 ST RENE CT		CHENOWETH RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1015412	02/14/10 08:20 AM	MARKS JR	SMITH	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/14/10 08:23 AM	

Spot Inspections:

Discharge Amount:	510 GAL
Cause:	OPERATOR FOUND NO CHLORINE FEED DUE TO LOW CHLORINE CYLINDER
Clean Up:	NO CLEAN UP REQUIRED
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED
Repair:	OPERATOR CHANGED CHLORINE CYLINDER WITH A FULL ONE

Notifications:

02/14/10 10:38 AM	DISPUB	temporary signs posted to warn public of bypass
02/14/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	08935-SM	1001 BRECKENRIDGE LN		MIDDLE FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003548	01/21/10 06:09 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 01:18 AM	

Spot Inspections:

Discharge Amount:	811,385 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-MAGNITUDE OF STORM CLEARED DEBRIS
Control Zone:	PERMANENT SIGNS ARE PLACED AROUND IMPACTED AREA
Impact:	NO IMPACT OBSERVED DUE TO MAGNITUDE OF STORM
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:02 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1004219	01/24/10 02:04 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/24/10 03:12 PM	

Spot Inspections:

Discharge Amount:	242 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN
Clean Up:	NONE NEEDED - MAGNITUDE OF STORM CLEARED DEBRIS
Control Zone:	PERMANENT SIGNS ARE PLACED AROUND THE IMPACTED AREA
Impact:	NO IMPACT OBSERVED DUE TO MAGNITUDE OF STORM
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED DECEMBER 2008

Notifications:

01/24/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011589	02/05/10 08:43 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/05/10 10:03 PM	

Spot Inspections:

Discharge Amount:	272 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	PERMANENT SIGNS ARE PLACED AROUND DISCHARGE LOCATION
Impact:	NO IMPACT OBSERVED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/08/10 02:31 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	16649	1726 FRASER DR		SOUTH FORK BEARGRASS CREEK	DITCH

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003546	01/21/10 04:15 PM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 08:00 PM	

Spot Inspections:

Discharge Amount:	240,555 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED- PIPE SUBMERGED
Control Zone:	PERMANENT SIGNS ARE PLACED AROUND IMPACTED AREA
Impact:	NONE OBSERVED-MAGNITUDE OF STORM
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:25 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1004217	01/24/10 07:30 AM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/26/10 07:45 AM	

Spot Inspections:

Discharge Amount:	269,068 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	A DISCHARGE CLEANUP WORK ORDER HAS BEEN CREATED FOR IFP TO COMPLETE THIS WORK. WO#1007406
Control Zone:	PERMANENT SIGNS ARE PLACED AROUND IMPACTED AREA
Impact:	NONE OBSERVED-MAGNITUDE OF STORM
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCAHRGE PLAN SUBMITTED ON DECEMBER 31,2008

Notifications:

01/24/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/27/10 01:30 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
01/24/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011582	02/05/10 02:40 PM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/26/10 02:00 PM	

Spot Inspections:

Discharge Amount:	241,169 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WO# 1011783
Control Zone:	PIPE SUBMERGED-TEMPORARY SIGNS AND DOOR HANGERS
Impact:	LIGHT DEBRIS AND SOLIDS OBSERVED AROUND IMPACTED AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/08/10 10:54 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS, PERMANENT SIGNS, AND TEMPORARY SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SSL Sewer Service Line	167449	3101 BARDSTOWN RD		SOUTH FORK BEARGRASS CREEK	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISSUS: SUSPECTED OVERFLOW EVID. FOUND	1005848	01/25/10 10:45 AM	RICHARDSON	RICHARDSON	REPAIRED - ISSUE RESOLVED	01/25/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHARGE - WATERS	01/25/10 11:50 AM	LAT

Spot Inspections:

Discharge Amount:	20 GAL
Cause:	OBSTRUCTION IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	MSD PERSONNEL ADVISED CUSTOMER TO AVOID CONTACT WITH SEWAGE
Impact:	SEWAGE AROUND THE MSD CLEANOUT
Repair:	WORK ORDER 1005841 - FLUSHED OPEN THE MSD PROPERTY SERVICE CONNECTION

Notifications:

01/25/10 11:00 AM	DISPUB	ADVISED CUSTOMER ON SITE,DOORCARDS AND POSTED DISCHARGE SIGNS
01/25/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	27005	1012 ALTA CIR		MIDDLE FORK BEARGRASS CREEK	GROUND

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1003550	01/21/10 08:35 PM	CLARK	GRIFFITH	DOCUMENTED	09/02/03	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 11:30 AM	

Spot Inspections:

Discharge Amount:	48,000 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN W/O# 1003990
Control Zone:	BARRICADES AND CAUTION TAPE WERE PLACED AROUND IMPACTED AREA
Impact:	LIGHT SOLIDS AND DEBRIS AROUND DISCHARGE AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/23/10 04:37 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011588	02/05/10 08:08 PM	GRIFFITH	GRIFFITH	DOCUMENTED	09/02/03	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/05/10 08:08 PM	

Spot Inspections:

Discharge Amount:	23,000 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WO# 1011620
Control Zone:	BARRICADES, CAUTION TAPE, AND TEMPORARY SIGNS WERE PLACED AROUND IMPACTED AREA
Impact:	LIGHT DEBRIS AND SOLIDS WERE OBSERVED AROUND DISCHARGE AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGED PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/06/10 03:41 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT AND TEMPORARY SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	40475	1544 CHEROKEE RD			

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1037245	03/11/10 09:00 AM	GITTINGS	GITTINGS	REPAIRED - ISSUE RESOLVED	03/11/10	ROOTS	UNAUTHORIZED DISCHARGE - WATERS	03/11/10 11:26 AM	MAIN

Spot Inspections:

Discharge Amount:	150 GAL
Cause:	ROOTS IN MAIN SEWER
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	PLACED TEMPRARY DISCHARGE SIGNS AROUND IMPACTED AREA
Impact:	MANHOLE DISCHARGED. GOING INTO A CATCH BASIN THAT DRAINED INTO CREEK
Repair:	WORK ORDER 1037223 - ROOT CUT THE MAIN SEWER AND STOPPED THE DISCHARGE

Notifications:

03/11/10 09:00 AM	DISPUB	ADVISED METRO PARKS BY TELEPHONE
03/11/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411 (Cont'd)	MSD0278	MORRIS FORMAN	OHIO RIVER	WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	40872	2105 INDIAN HILLS TRL		MUDDY FORK BEARGRASS CREEK	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003553	01/21/10 09:17 PM	ELDER	SPENCER	DOCUMENTED	12/15/07	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 12:03 AM	

Spot Inspections:

Discharge Amount:	12,450 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANED, SANITIZED & SPREAD LIME.
Control Zone:	PLACED BARRICADES AROUND THE IMPACTED AREA
Impact:	DEBRIS OBSERVED
Repair:	MANHOLE COVER REPLACED & BARRICADES REMOVED WHEN SAFE TO DO SO

Notifications:

01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/21/10 09:17 PM	DISPUB	BARRICADES PLACED AROUND AFFECTED AREA.
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	48897	3600 DOWNING WAY		SOUTH FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003551	01/21/10 10:30 PM	ELDER	WRIGHT	REPAIRED - ISSUE RESOLVED	03/06/10	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	01/22/10 02:00 AM	

Spot Inspections:

Discharge Amount:	1,050 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	NO DEBRIS
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE WATER OBSERVED
Repair:	CONTRACTOR REPAIRING MANHOLE

Notifications:

01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/21/10 10:30 PM	DISPUB	TEMPORARY SIGNS POSTED
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	49604	3007 WINTERHAVEN RD		SOUTH FORK BEARGRASS CREEK	DITCH

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1036178	03/08/10 11:00 AM	GITTINGS	GITTINGS	REPAIRED - ISSUE RESOLVED	03/08/10	ROOTS	UNAUTHORIZED DISCHARGE - WATERS	03/08/10 01:52 PM	MAIN

Spot Inspections:

Discharge Amount:	25 GAL
Cause:	ROOTS IN MAIN SEWER
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	PLACED TEMPORARY DISCHARGE SIGNS AROUND AREA
Impact:	PAPER/WATER COMING FROM MANHOLE GOING INTO THE CREEK
Repair:	WORK ORDER 1036181 - ROOT CUT THE MAIN SEWER

Notifications:

03/08/10 11:00 AM	DISPUB	ADVISED CUSTOMER ON SITE
03/15/10 04:15 PM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	51594	1418 TREVILIAN WAY		SOUTH FORK BEARGRASS CREEK	DITCH

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011584	02/05/10 04:17 PM	MITCHELL	GRIFFITH	DOCUMENTED	09/12/06	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/26/10 11:00 AM	

Spot Inspections:

Discharge Amount:	600 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WO# 1011729
Control Zone:	CAUTION TAPE AND TEMPORARY SIGNS WERE PLACED AROUND IMPACTED AREA
Impact:	LIGHT SOLIDS AND DEBRIS WERE OBSERVED AROUND DISCHARGE AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/08/10 09:34 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT.
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	68410	1533 LEXINGTON RD		MIDDLE FORK BEARGRASS CREEK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISSUS: SUSPECTED OVERFLOW EVID. FOUND	1010699	02/03/10 02:00 PM	FRENCH	GRIFFITH	NO REPORTED DISCHARGE	02/03/10	UTILITY DAMAGED MSD ASSET	UNAUTHORIZED DISCHARGE - WATERS	02/03/10 02:00 PM	

Spot Inspections:

Discharge Amount:	1 GAL
Cause:	MSD IWD INVESTIGATION INDICATED NO DISCHARGE, ODOR AND STREAM DISCOLORATION DUE TO SALT AND BRINE RUN OFF FROM HIGHWAY.
Clean Up:	NO CLEAN UP REQUIRED, NO DISCHARGE OCCURRED.
Control Zone:	CAUTION TAPE AND TEMPORARY SIGNS ALONG STREAM BANK BOTH SIDES OF DISCHARGE POINT. DOOR HANGERS PLACED ALONG LOCUST STREET.
Impact:	HYDROGEN SULFIDE, SOLIDS AND DISCOLORATION OBSERVED AT DRAINAGE HEADWALL ALONG CREEK
Repair:	NO REMEDIAL ACTION REQUIRED. MSD IWD INVESTIGATION INDICATED NO DISCHARGE, ODOR AND STREAM DISCOLORATION DUE TO SALT AND BRINE RUN OFF FROM HIGHWAY.

Notifications:

02/03/10 04:30 PM	DISPUB	Placed temporary signs and hung door hangers along Locust Street.
02/03/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/03/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	72571-X	4600 CHAMPIONS TRACE LN		SOUTH FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003547	01/21/10 05:22 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 05:55 AM	

Spot Inspections:

Discharge Amount:	715,687 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	PERMANENT SIGNS ARE PLACED AROUND IMPACTED AREA
Impact:	NO IMPACTED OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGED PLAN

Notifications:

01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:13 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1011583	02/05/10 05:41 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/06/10 06:37 AM	

Spot Inspections:

Discharge Amount:	535,724 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	NONE NEEDED-PIPE SUBMERGED. PERMANENT SIGNS ARE PLACED NEAR DISCHARGE LOCATION
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS IN THE SANITARY SEWER DISCHARGE PLAN

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/08/10 02:25 PM	DISPUB	PUBLIC NOTIFIED BY PERMANENT SIGNS AND OVERFLOW ADVISORY ON PROJECT WIN WEBSITE
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)		Facility ID MSD0278		Water Quality Treatment Center MORRIS FORMAN			Receiving Stream of Treatment Center OHIO RIVER		Region WEST		
Facility Type		Facility ID		Facility Address		If Pump Station, Name of Pump Station:		Receiving Stream		Discharge to	
SMH Sewer Manhole		CSO153		1201 LEXINGTON RD				SOUTH FORK BEARGRASS CREEK		STREAM	
<u>Activity Code / Description</u>		<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE		1002128	01/15/10 12:15 PM	BRIGHT	BRIGHT	REPAIRED - ISSUE RESOLVED	01/15/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHARGE - WATERS	01/15/10 02:20 PM	

Spot Inspections:

Discharge Amount:	100 GAL
Cause:	OBSTRUCTION IN SIPHON
Clean Up:	PIPE DISCHARGES DIRECTLY INTO BEARGRASS CREEK
Control Zone:	PERMANENT SIGNS ALREADY IN PLACE THROUGHOUT THE IMPROVED CHANNEL
Impact:	SEWAGE/WATER DISCHARGING FROM OVERFLOW FLAPGATE
Repair:	MSD PERSONNEL FLUSHED THE SIPHON TO RELIEVE OBSTRUCTION

Notifications:

01/15/10 02:19 PM	DISPUB	TEMPORARY SIGNS PLACED NEAR ENTRANCE TO CREEK
01/15/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)		Facility ID MSD0278		Water Quality Treatment Center MORRIS FORMAN			Receiving Stream of Treatment Center OHIO RIVER		Region WEST		
Facility Type		Facility ID		Facility Address		If Pump Station, Name of Pump Station:		Receiving Stream		Discharge to	
SLS Sewer Lift Station		MSD0012-PS		3246 RADIANCE RD		HIGHGATE SPRINGS		SOUTH FORK BEARGRASS CREEK		STREAM	
Activity Code / Description		WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE		1003538	01/21/10 05:41 PM	ELDER	WRIGHT	DOCUMENTED	12/16/00	PUMPED OVERFLOW	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 08:24 AM	

Spot Inspections:

Discharge Amount:	171,600 GAL
Cause:	LACK OF CAPACITY DUE TO RAIN EVENT IN AREA
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	PERMANENT SIGN IN PLACE - NO ADDITIONAL CONTROL ZONE SET UP
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

Notifications:

01/21/10 07:20 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA
01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1004030	01/24/10 10:00 AM	ELDER	WRIGHT	DOCUMENTED	12/16/00	PUMPED OVERFLOW	UNAUTHORIZED DISCHARGE - WATERS	01/25/10 11:00 AM	

Spot Inspections:

Discharge Amount:	357,552 GAL
Cause:	LACK OF CAPACITY DUE TO RAIN EVENT IN AREA
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	PERMANENT SIGN IN PLACE - NO ADDITIONAL CONTROL ZONE SET UP
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

Notifications:

01/24/10 10:47 AM	DISPUB	PERMANENT SIGNS POSTED IN AREA
01/24/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1011572	02/05/10 06:21 PM	ELDER	WRIGHT	DOCUMENTED	12/16/00	PUMPED OVERFLOW	UNAUTHORIZED DISCHARGE - WATERS	02/05/10 10:31 PM	

Spot Inspections:

Discharge Amount:	125,580 GAL
Cause:	LACK OF CAPACITY DUE TO RAIN EVENT IN THE AREA
Clean Up:	PIPE SUBMERGED, NO CLEANUP
Control Zone:	PERMANENT SIGNS POSTED
Impact:	NO IMPACT OBSERVED- FACILITY UNDER ELEVATED CREEK LEVEL
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 10:31 AM	DISPUB	PERMANENT SIGNS POSTED
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SLS Sewer Lift Station	MSD0023-PS	501 MOCKINGBIRD VALLEY RD	MELLWOOD AVENUE	MUDDY FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003597	01/22/10 03:00 AM	SINGLETON	CARTER SR	DOCUMENTED	01/02/04	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 11:30 AM	

Spot Inspections:

Discharge Amount:	12,750 GAL
Cause:	LACK OF SYSTEM CAPACITY
Clean Up:	PIPE DISCHARGED SUBMERGED- NO DEBRIS
Control Zone:	TEMPORARY SIGNS POSTED AROUND AFFECTED AREA
Impact:	NO IMPACT OBSERVED
Repair:	HAULED TO PREVENT FURTHER DISCHARGE. HANSEN HAUL WORK ORDER #1003758

Notifications:

01/22/10 03:00 AM	DISPUB	TEMPORARY SIGNS POSTED AROUND AFFECTED AREA.
01/22/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1006088	01/25/10 10:25 AM	SINGLETON	HOWARD	DOCUMENTED	01/02/04	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	01/25/10 12:30 PM	

Spot Inspections:

Discharge Amount:	1,800 GAL
Cause:	LACK OF SYSTEM CAPACITY
Clean Up:	NO CLEANUP REQUIRED, NO DEBRIS OBSERVED
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED- PIPE SUBMERGED
Repair:	THIS SITE FOUND DURING RAIN EVENT RECON- WILL BE MONITORED AND EVALUATED FOR REPAIR.

Notifications:

01/25/10 12:30 PM	DISPUB	TEMPORARY SIGNS POSTED
01/26/10 03:14 PM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011594	02/05/10 09:10 PM	ELDER	RHEINLAENDER JR	DOCUMENTED	01/02/04	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/06/10 03:00 AM	MAIN

Spot Inspections:

Discharge Amount:	9,000 GAL
Cause:	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN AREA
Clean Up:	NO DEBRIS- PIPE SUBMERGED
Control Zone:	PERMANENT SIGNS POSTED IN AREA SUPPLEMENTED BY TEMPORARY SIGNS
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	THIS SITE FOUND DURING RAIN EVENT RECON- WILL BE MONITORED AND EVALUATED FOR REPAIR.

Notifications:

02/05/10 10:56 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA SUPPLEMENTED BY TEMPORARY SIGNS
02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd)	Facility ID MSD0278	Water Quality Treatment Center MORRIS FORMAN	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SLS Sewer Lift Station	MSD0116-PS	2318 STANNYE DR	STANNYE DR	OHIO RIVER	DITCH

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1041314	03/18/10 07:15 PM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	03/18/10	MECHANICAL FAILURE	UNAUTHORIZED DISCHARGE - WATERS	03/18/10 07:20 PM	

Spot Inspections:

Discharge Amount:	500 GAL
Cause:	AIR LOCKED PUMPS
Clean Up:	MSD CLEANED, SANITIZED & SPREAD LIME
Control Zone:	TEMPORARY SIGNS POSTED IN AND AROUND AREA
Impact:	CLEAR SEWAGE ON THE GROUND AND SLIGHT DISCOLORATION IN STREAM
Repair:	OPERATOR CLEARED AIRLOCK IN PUMPS AND PUT PUMPS BACK IN SERVICE

Notifications:

03/18/10 08:46 PM	DISPUB	msd notified public with web site and temporary signs
03/18/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
03/18/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0098540	Facility ID MSD0289	Water Quality Treatment Center CEDAR CREEK	Receiving Stream of Treatment Center CEDAR CREEK	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	98799	7100 HAWKINS RILL DR		CEDAR CREEK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1002426	01/18/10 06:30 PM	BRIGHT	BRIGHT	REPAIRED - ISSUE RESOLVED	01/18/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHARGE - WATERS	01/18/10 07:05 PM	MAIN

Spot Inspections:

Discharge Amount:	200 GAL
Cause:	OBSTRUCTION IN MAIN SEWER
Clean Up:	NO CLEAN UP PERFORMED. MANHOLE DISCHARGING DIRECTLY INTO STREAM
Control Zone:	PLACED TEMPORARY SIGNS AROUND IMPACTED AREA AND DOWNSTREAM ALONG THE CREEK
Impact:	SEWAGE/WATER DISCHARGING FROM MANHOLE
Repair:	WORK ORDER 1002438 AND 1002439 - FLUSHED THE MAIN SEWER AND REMOVED OBSTRUCTION

Notifications:

01/18/10 07:05 PM	DISPUB	MSD PERSONNEL PLACED TEMPORARY SIGNS ALONG CREEK ON BOTH SIDES WARNING ANYONE WHO WOULD GET NEAR STREAM.
01/18/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029114	Facility ID MSD0292	Water Quality Treatment Center HUNTING CREEK SOUTH	Receiving Stream of Treatment Center HARRODS CREEK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0292	6530 MONTERO DR		HARRODS CREEK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1043442	03/26/10 08:00 AM	ELDER	RHEINLAENDE R JR	REPAIRED - ISSUE RESOLVED	03/26/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/26/10 10:30 AM	

Spot Inspections:

Discharge Amount:	29,117 GAL
Cause:	DAMAGED SO2 FEED LINE
Clean Up:	NO DEBRIS, NO CLEANUP
Control Zone:	NO CONTROL ZONE SET UP OR REQUIRED
Impact:	NON DECHLORINATED WATER RELEASED THROUGH EFFLUENT LINE DUE TO SO2 FEED LINE BREAK
Repair:	CHEROKEE REPAIRED SO2 FEED LINE

Notifications:

03/26/10 03:03 PM	DISPUB	o PERMANENT SIGNS POSTED IN AREA o http://www.msdlouky.org/projectwin/
03/29/10 09:43 AM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029114 (Cont'd)	Facility ID MSD0292	Water Quality Treatment Center HUNTING CREEK SOUTH	Receiving Stream of Treatment Center HARRODS CREEK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SLS Sewer Lift Station	MSD1063-PS	6210 DEEP CREEK CT	DEEP CREEK	HARRODS CREEK	DITCH

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011562	02/05/10 04:50 PM	ELDER	RHEINLAENDE R JR	DOCUMENTED	12/16/00	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHARGE - WATERS	02/05/10 05:00 PM	

Spot Inspections:

Discharge Amount:	150 GAL
Cause:	LACK OF CAPACITY, OVERFLOW DUE TO RAIN EVENT IN AREA.
Clean Up:	MSD CLEANED, SANITIZED & LIMED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED
Repair:	HAULOP WO# 1011561 TO ELIMINATE OVERFLOW

Notifications:

02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 04:50 PM	DISPUB	TEMPORARY SIGNS POSTED



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0102784	Facility ID MSD0294	Water Quality Treatment Center FLOYDS FORK	Receiving Stream of Treatment Center FLOYDS FORK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0294	1100 BLUE HERON RD		FLOYDS FORK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011592	02/05/10 09:40 PM	ELDER	RHEINLAENDE R JR	REPAIRED - ISSUE RESOLVED	03/10/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/05/10 09:50 PM	

Spot Inspections:

Discharge Amount:	15,000 GAL
Cause:	SAND FILTER OVERWHELMED & OVERFLOWED DUE TO CONTROLS FAILURE OF ELECTRONIC LEVEL INDICATOR.
Clean Up:	B&H VACTORING ALL POSSIBLE AREAS. MSD TO LIME & SANITIZE AREA
Control Zone:	TEMPORARY SIGNS POSTED AROUND AFFECTED AREA
Impact:	SLIGHTLY DISCOLORED WATER, NO DEBRIS. BYPASS SAND FILTER & UV TREATMENT
Repair:	BY ADJUSTING DIVERSION GATE ELIMINATING BYPASS

Notifications:

02/05/10 10:36 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA SUPPLEMENTED BY TEMPORARY SIGNS
02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center				Receiving Stream of Treatment Center			Region	
KY0102784 (Cont'd)	MSD0294	FLOYDS FORK				FLOYDS FORK			EAST	
<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1036756	03/10/10 12:18 AM	ELDER	SPENCER	REPAIRED - ISSUE RESOLVED	03/10/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/10/10 12:34 AM	

Spot Inspections:

Discharge Amount:	24,365 GAL
Cause:	BYPASS UV DISINFECTION DUE TO MOMENTARY POWER DISRUPTION FROM LG&E - GENERATOR DID NOT DETECT POWER DISRUPTION
Clean Up:	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	MANUAL START OF EMERGENCY GENERATOR TO RESTORE POWER - GENERATOR INSPECTION INDICATES GENERATOR SYSTEMS FUNCTIONING PROPERLY

Notifications:

03/10/10 02:19 AM	DISPUB	PERMANANT SIGNS POSTED IN AREA http://www.msdlouky.org/projectwin/
03/10/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 22

Total Work Orders Printed: 36



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Appendix B-2 - Discharge Work Orders – BYPASS

April 30, 2010





Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0036501	Facility ID MSD0209	Water Quality Treatment Center BERRYTOWN	Receiving Stream of Treatment Center FLOYDS FORK	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0209	1203 HEAFER RD		FLOYDS FORK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1043411	03/26/10 11:23 AM	ELDER	WRIGHT	REPAIRED - ISSUE RESOLVED	03/26/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/26/10 11:53 AM	

Spot Inspections:

Discharge Amount:	3,000 GAL
Cause:	BROKEN DOMESTIC WATER LINE THAT FEEDS THE SO2 SYSTEM
Clean Up:	NO DEBRIS, NO CLEANUP
Control Zone:	PERMANENT SIGNS, - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NON DECHLORINATED WATER RELEASED THROUGH EFFLUENT LINE DUE TO SO2 FEED LINE BREAK
Repair:	WATER SUPPLY SHUT OFF WHILE REPAIRS WERE MADE TO THE LINE & RETURNED TO SERVICE

Notifications:

03/26/10 01:44 PM	DISPUB	o PERMANENT SIGNS POSTED IN AREA o http://www.msdlouky.org/projectwin/
03/29/10 09:41 AM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0255	10725 OLD TAYLORSVILLE RD		CHENOWETH RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1008290	01/31/10 07:27 AM	ELDER	RHEINLAENDE R JR	DOCUMENTED	01/14/07	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/31/10 07:30 AM	

Spot Inspections:

Discharge Amount:	2,082 GAL
Cause:	BYPASS EVENT, BLENDING OCCURED DUE TO UPS CONTROLS FAILURE. 01/31/2010. 07:
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	PERMANENT SIGN IN PLACE - NO ADDITIONAL CONTROL ZONE SET UP
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	PUT PUMPS IN HAND OPERATION, & RESET UPS CONTROLS, RESUMED NORMAL OPERATION

Notifications:

01/31/10 11:17 AM	DISPUB	PERMANANT SIGNS POSTED IN AREA http://www.msdlouky.org/projectwin/
01/31/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/31/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029459	Facility ID MSD0263	Water Quality Treatment Center CHENOWETH HILLS	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0263	4305 ST RENE CT		CHENOWETH RUN	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1015412	02/14/10 08:20 AM	MARKS JR	SMITH	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/14/10 08:23 AM	

Spot Inspections:

Discharge Amount:	510 GAL
Cause:	OPERATOR FOUND NO CHLORINE FEED DUE TO LOW CHLORINE CYLINDER
Clean Up:	NO CLEAN UP REQUIRED
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED
Repair:	OPERATOR CHANGED CHLORINE CYLINDER WITH A FULL ONE

Notifications:

02/14/10 10:38 AM	DISPUB	temporary signs posted to warn public of bypass
02/14/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029114	Facility ID MSD0292	Water Quality Treatment Center HUNTING CREEK SOUTH	Receiving Stream of Treatment Center HARRODS CREEK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0292	6530 MONTERO DR		HARRODS CREEK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	1043442	03/26/10 08:00 AM	ELDER	RHEINLAENDE R JR	REPAIRED - ISSUE RESOLVED	03/26/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/26/10 10:30 AM	

Spot Inspections:

Discharge Amount:	29,117 GAL
Cause:	DAMAGED SO2 FEED LINE
Clean Up:	NO DEBRIS, NO CLEANUP
Control Zone:	NO CONTROL ZONE SET UP OR REQUIRED
Impact:	NON DECHLORINATED WATER RELEASED THROUGH EFFLUENT LINE DUE TO SO2 FEED LINE BREAK
Repair:	CHEROKEE REPAIRED SO2 FEED LINE

Notifications:

03/26/10 03:03 PM	DISPUB	o PERMANENT SIGNS POSTED IN AREA o http://www.msdlouky.org/projectwin/
03/29/10 09:43 AM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0102784	Facility ID MSD0294	Water Quality Treatment Center FLOYDS FORK	Receiving Stream of Treatment Center FLOYDS FORK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0294	1100 BLUE HERON RD		FLOYDS FORK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011592	02/05/10 09:40 PM	ELDER	RHEINLAENDE R JR	REPAIRED - ISSUE RESOLVED	03/10/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/05/10 09:50 PM	

Spot Inspections:

Discharge Amount:	15,000 GAL
Cause:	SAND FILTER OVERWHELMED & OVERFLOWED DUE TO CONTROLS FAILURE OF ELECTRONIC LEVEL INDICATOR.
Clean Up:	B&H VACTORING ALL POSSIBLE AREAS. MSD TO LIME & SANITIZE AREA
Control Zone:	TEMPORARY SIGNS POSTED AROUND AFFECTED AREA
Impact:	SLIGHTLY DISCOLORED WATER, NO DEBRIS. BYPASS SAND FILTER & UV TREATMENT
Repair:	BY ADJUSTING DIVERSION GATE ELIMINATING BYPASS

Notifications:

02/05/10 10:36 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA SUPPLEMENTED BY TEMPORARY SIGNS
02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0102784 (Cont'd)	Facility ID MSD0294	Water Quality Treatment Center FLOYDS FORK	Receiving Stream of Treatment Center FLOYDS FORK	Region EAST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1036756	03/10/10 12:18 AM	ELDER	SPENCER	REPAIRED - ISSUE RESOLVED	03/10/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/10/10 12:34 AM	

Spot Inspections:

Discharge Amount:	24,365 GAL
Cause:	BYPASS UV DISINFECTION DUE TO MOMENTARY POWER DISRUPTION FROM LG&E - GENERATOR DID NOT DETECT POWER DISRUPTION
Clean Up:	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	MANUAL START OF EMERGENCY GENERATOR TO RESTORE POWER - GENERATOR INSPECTION INDICATES GENERATOR SYSTEMS FUNCTIONING PROPERLY

Notifications:

03/10/10 02:19 AM	DISPUB	PERMANANT SIGNS POSTED IN AREA http://www.msdlouky.org/projectwin/
03/10/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 5

Total Work Orders Printed: 6



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Appendix B-3 - Discharge Work Orders – BLENDING





Report Selections: Excluding PPI, CSO, Prob Code: BLEND, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0255	10725 OLD TAYLORSVILLE RD		CHENOWETH RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1003387	01/21/10 01:19 PM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/22/10 02:38 AM	

Spot Inspections:

Peak Plant Flow when Blending:	14,280,000 GPD
Total Plant Flow when Blending:	13,600,000 GAL
Discharge Amount:	2,208,502 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NO IMPACT OBSERVED - FACILITY DISCHARGE UNDER ELEVATED CREEK LEVEL
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Notifications:

01/21/10 01:46 PM	DISPUB	Notification by http://www.msdlouky.org/projectwin/ Also,PERMANENT SIGNS POSTED IN AREA
01/21/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/21/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BLEND, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194 (Cont'd)	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1004033	01/24/10 10:38 AM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/25/10 04:52 AM	

Spot Inspections:

Peal Plant Flow when Blending:	10,760,000 GPD
Total Plant Flow when Blending:	12,970,000 GAL
Discharge Amount:	855,454 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Notifications:

01/24/10 10:54 AM	DISPUB	Notification by http://www.msdlouky.org/projectwin/ Also,PERMANENT SIGNS POSTED IN AREA
01/24/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/24/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BLEND, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0025194 (Cont'd)Facility ID
MSD0255Water Quality Treatment Center
JEFFERSONTOWNReceiving Stream of Treatment Center
CHENOWETH RUNRegion
CENT

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	1011559	02/05/10 04:34 PM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/06/10 02:24 AM	

Spot Inspections:

Peal Plant Flow when Blending:	12,768,834 GPD
Total Plant Flow when Blending:	11,721,000 GAL
Discharge Amount:	516,697 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	NOGOTATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Notifications:

02/05/10 05:22 PM	DISPUB	Notification by http://www.msdlouky.org/projectwin/ Also,PERMANENT SIGNS POSTED IN AREA
02/05/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
02/05/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 1

Total Work Orders Printed: 3

Appendix C – Annual Average Overflow Volume

Louisville MSD
Existing Condition AAOV

CSO	CSO NAME	RECEIVING STREAM	Drainage Area (Acres)	October 2008 IWCS (ver8.0)		January 2009 IWCS (ver 9.5)		Change in AAOV (MG/YR) Jan-Oct
				AAOV (MG/YR)	OF Incidents (# OF/YR)	AAOV (MG/YR)	OF Incidents (# OF/YR)	
015	SOUTHWESTERN PS	OR	7,496.7	1177.03	56	845.75	66	-331.28
016	MILES PARK BYPASS	OR		82.38	37	29.94	30	-52.44
018	NIGHTINGALE PS	SF BGC		49.00	16	44.93	16	-4.07
019	34th STREET PS	OR	1,094.0	297.92	60	305.40	60	7.48
020	BUCHANAN PS	OR	86.6	6.46	14	6.60	12	0.14
022	FOURTH ST PS	OR	100.9	0.95	4	0.96	4	0.00
023	ORI @ 4th ST PS	OR		85.96	26	76.78	28	-9.18
026	CRD 6th & BROADWAY	OR	8.4	0.00	0	0.00	0	0.00
027	CRD 7th & BROADWAY	OR	10.1	0.00	0	0.00	0	0.00
028	CRD 6th & YORK	OR	6.1	0.00	0	0.00	0	0.00
029	CRD 8th & YORK	OR	34.8	5.66	33	5.66	33	0.00
030	CRD 9th & YORK "A"	OR	Eliminated					
031	CRD 6th & BRECKINRIDGE	OR	3.7	0.00	0	0.00	0	0.00
032	CRD 4th & BRECKINRIDGE	OR	Eliminated					
033	CRD ON YORK E OF 4th	OR	Eliminated					
034	CRD 4th & YORK	OR	5.1	0.00	0	0.00	0	0.00
035	CRD 2nd & BROADWAY NO 1	OR	14.3	0.23	11	0.23	11	0.00
036	CRD 3rd & BROADWAY	OR	23.1	0.03	4	0.03	4	0.00
038	CRD 5th & BROADWAY	OR	9.5	0.00	0	0.00	0	0.00
049	PRESTON ST	OR	Eliminated					
050	12th STREET	OR	36.3	43.75	42	39.77	41	-3.98
051	11th STREET	OR	6.3	4.95	27	3.90	28	-1.05
052	10th STREET	OR	8.7	9.81	33	8.66	30	-1.15
053	8th STREET	OR	34.1	4.61	23	4.54	23	-0.07
054	7th STREET	OR	7.1	0.11	32	0.11	23	0.00
055	6th STREET	OR	18.0	21.10	34	19.17	31	-1.93
056	5th STREET	OR	22.0	2.91	18	2.81	18	-0.10
057	FIRST STREET OVFL WEIR	OR		0.00	0	0.00	0	0.00
058	PRESTON ST OVFL WEIR	OR	105.4	121.51	51	124.16	51	2.65
062	LOGAN COMPANY	OR		0.00	0	0.00	0	0.00
065	LAMPTON STREET	SF BGC	Eliminated					
080	PAYNE STREET	MF BGC	Eliminated					
081	LETTERLE	SF BGC	Eliminated					
082	BGI AT BGC	SF BGC		1.16	24	1.13	24	-0.03
083	BRENT ST & BROADWAY CONNEC	SF BGC	38.1	0.00	0	0.00	0	0.00
084	BRENT ST @ BGC	SF BGC	125.1	17.96	34	17.94	34	-0.02
086	PAYNE AT SPRING	MF BGC	6.1	0.00	0	0.00	0	0.00
087	BLUEHORSE	SF BGC	Eliminated					
088	MELLWOOD AVE INT	SF BGC	18.8	0.58	6	0.58	6	0.00
091	SCHILLER AVE OVFL	SF BGC	15.0	1.62	34	1.62	34	0.00
092	ST CATHERINE @ BGC	SF BGC	7.7	0.00	0	0.00	0	0.00
093	SPRING STREET	SF BGC	20.8	1.81	37	1.81	37	0.00
097	CANTONMENT SIPHON NO 2	SF BGC		16.19	44	16.07	45	-0.12
104	SW PKWY SEWER @ BROADWAY	OR	62.0	0.20	5	0.20	5	0.00
105	WESTERN OUTFALL @ BROADWAY	OR	1,881.2	21.43	19	21.46	19	0.03
106	ROYAL - NEFF	SF BGC	11.8	0.34	17	0.34	17	0.00
108	REG N0 1 - NEWBURG	SF BGC	485.2	31.83	13	36.07	27	4.24

Louisville MSD
Existing Condition AAOV

CSO	CSO NAME	RECEIVING STREAM	Drainage Area (Acres)	October 2008 IWCS (ver8.0)		January 2009 IWCS (ver 9.5)		Change in AAOV (MG/YR) Jan-Oct
				AAOV (MG/YR)	OF Incidents (# OF/YR)	AAOV (MG/YR)	OF Incidents (# OF/YR)	
109	REG NO 2 - DEER PARK	SF BGC	95.4	0.27	3	0.27	3	0.00
110	REG NO 3 - GOSS AVE	SF BGC	73.0	30.49	44	30.39	43	-0.10
111	EMERSON STREET SEWER	SF BGC	99.4	0.00	0	0.00	0	0.00
113	ELLISON AVENUE SEWER	SF BGC	67.6	7.74	37	7.74	37	0.00
117	REG NO 11 - DRY RUN	SF BGC	74.2	94.99	41	94.13	41	-0.86
118	REG NO 15 - E BRDWY	SF BGC	354.1	100.49	39	100.17	39	-0.32
119	BRENT STREET SEWER	SF BGC	7.6	12.59	40	12.51	40	-0.08
120	PHOENIX HILL SEWER	SF BGC	16.5	9.24	51	9.24	51	0.00
121	REG NO 18 - GREEN ST	SF BGC	107.2	11.26	28	11.23	28	-0.03
123	REG NO 20 - RUTH-SULGRV	MF BGC	Eliminated					
125	REG NO 24 - GRINSTEAD DR	MF BGC	391.0	48.58	55	48.63	54	0.05
126	REG NO 26 - RAYMOND AVE	MF BGC	35.3	0.55	13	0.55	13	0.00
127	ETLEY AVENUE	MF BGC	192.3	4.63	21	4.63	21	0.00
130	WEBSTER STREET	SF BGC	28.4	0.86	10	0.85	10	-0.01
131	REG NO 33 - MELWD & FRANKFOR	SF BGC	50.3	0.06	3	0.06	3	0.00
132	REG NO 35 - BROWNSBORO	MudF BGC	674.0	149.39	56	149.36	56	-0.03
137	CALVARY CEMETARY	SF BGC	26.7	3.94	37	3.93	37	-0.01
140	LOCUST STREET	MF BGC	75.5	17.01	54	17.01	54	0.00
141	BAXTER AVE @ BGC	SF BGC	7.7	5.07	27	5.06	27	-0.01
143	KENTUCKY ST BLOW-OFF	SF BGC	Eliminated					
144	VANCE ST REGULATOR	MF BGC	16.4	0.00	0	0.00	0	0.00
145	POINT PUMP STATION	SF BGC	Eliminated					
146	SNEADS BRANCH DIVERSION	SF BGC	112.6	50.45	46	52.57	58	2.12
147	SWAN STREET DIVERSION	SF BGC	Eliminated					
148	EASTERN PKWY DIVERSION	SF BGC	24.9	1.27	26	1.27	26	0.00
149	DRY RUN DIVERSION	SF BGC	226.5	56.93	38	56.78	37	-0.15
150	8th ST @ COMMON PLACE	OR	1.8	8.50	35	7.95	32	-0.55
151	REG NO 5 - CASTLEWOOD	SF BGC	219.7	85.00	56	86.01	57	1.01
152	REG NO 7 - SOUTHEASTERN	SF BGC	260.6	76.43	52	76.34	52	-0.09
153	COOPER STREET	SF BGC	41.7	15.67	56	15.66	56	-0.01
154	MELLWOOD @ SCHOEFFEL	MudF BGC	31.0	1.96	16	1.96	16	0.00
155	ROWAN ST @ 12th ST	OR	11.9	2.06	39	2.05	39	-0.01
156	6th & WASHINGTON SAN DIV	OR	Eliminated					
160	SEWER IN ALLEY SAN DIV	OR	2.0	0.28	28	1.24	76	0.96
161	MARKET ST SAN DIV	OR	2.5	0.01	1	0.001	1	-0.01
162	BEALS BRANCH HW REG	MF BGC	Eliminated					
166	BEALS BRANCH SAN DIV	MF BGC	696.6	10.09	19	10.13	19	0.04
167	BROWNSBORO LAT NO 2	MudF BGC	11.0	1.00	12	0.95	12	-0.05
172	ADAMS STREET	OR	13.7	1.28	31	1.28	31	0.00
178	CRD 9th & YORK "B"	OR	58.0	1.44	16	1.44	16	0.00
179	KENTUCKY ST SEWER OVFL	SF BGC	456.2	0.00	0	0.00	0	0.00
181	CRD 2nd & BROADWAY NO 2	OR	22.6	0.27	11	0.01	3	-0.26
189	NORTHWESTERN SAN DIV	OR	1,148.7	184.41	38	175.86	37	-8.55
190	SEVENTEENTH ST SAN DIV	OR	145.4	36.19	49	36.19	49	0.00
191	ALGONQUIN PKWY SAN DIV	OR	339.7	51.08	30	40.26	21	-10.82
192	CRD S 6th & GARLAND	OR	9.0	0.00	0	0.00	0	0.00

Louisville MSD
Existing Condition AAOV

CSO	CSO NAME	RECEIVING STREAM	Drainage Area (Acres)	October 2008 IWCS (ver8.0)		January 2009 IWCS (ver 9.5)		Change in AAOV (MG/YR) Jan-Oct
				AAOV (MG/YR)	OF Incidents (# OF/YR)	AAOV (MG/YR)	OF Incidents (# OF/YR)	
193	CRD S 6th & KENTUCKY	OR	22.7	0.04	5	0.04	5	0.00
194	CRD S OAK W OF 4th	OR	Eliminated					
195	CRD S 4th & OAK	OR	7.3	2.19	55	2.19	55	0.00
196	CRD S 3rd & OAK	OR	2.2	0.24	19	0.13	11	-0.11
197	CRD S 3rd S OF OAK	OR	4.5	4.17	53	3.02	47	-1.15
198	CRD S 3rd & ORMSBY	OR	4.4	0.00	5	0.00	2	0.00
199	CRD S 3rd N OF MAGNOLIA	OR	8.6	0.46	45	0.46	45	0.00
200	CRD S 3rd & MAGNOLIA	OR	10.3	4.91	65	4.91	65	0.00
201	CRD S 5th & KENTUCKY	OR	8.3	0.00	0	0.00	0	0.00
202	CRD S ORMSBY W OF 3rd	OR	5.3	0.09	13	0.09	13	0.00
203	CRD S 4th & ORMSBY	OR	14.2	0.00	0	0.00	0	0.00
204	CRD S FIFTH & BRECKINRIDGE	OR	Eliminated					
206	CHEROKEE PARK @ SPRING DR	MF BGC	464.6	8.64	39	19.91	52	11.27
207	2nd & JEFFERSON	OR	2.3	0.05	2	0.04	1	-0.02
208	12th & JEFFERSON	OR	11.2	0.33	11	0.33	11	0.00
209	CHEROKEE PK @ PARK BD RD	MF BGC	Eliminated					
210	45th STREET-GREENWOOD	OR	166.7	503.73	52	197.29	51	-306.44
211	MAIN DIVERSION STRUCTURE	OR	3,554.9	465.55	29	377.61	29	-87.94
SBR	CSOs 142,174,180,182,183,184,185,186,187,188,205			12.15	9	12.14	9	-0.01

Total 4,092 2,314 3,298 2,348

Total AAOV Difference (MG/YR) 613.82 -793.02
Total AAOV Difference (Percentage) 15% -19%

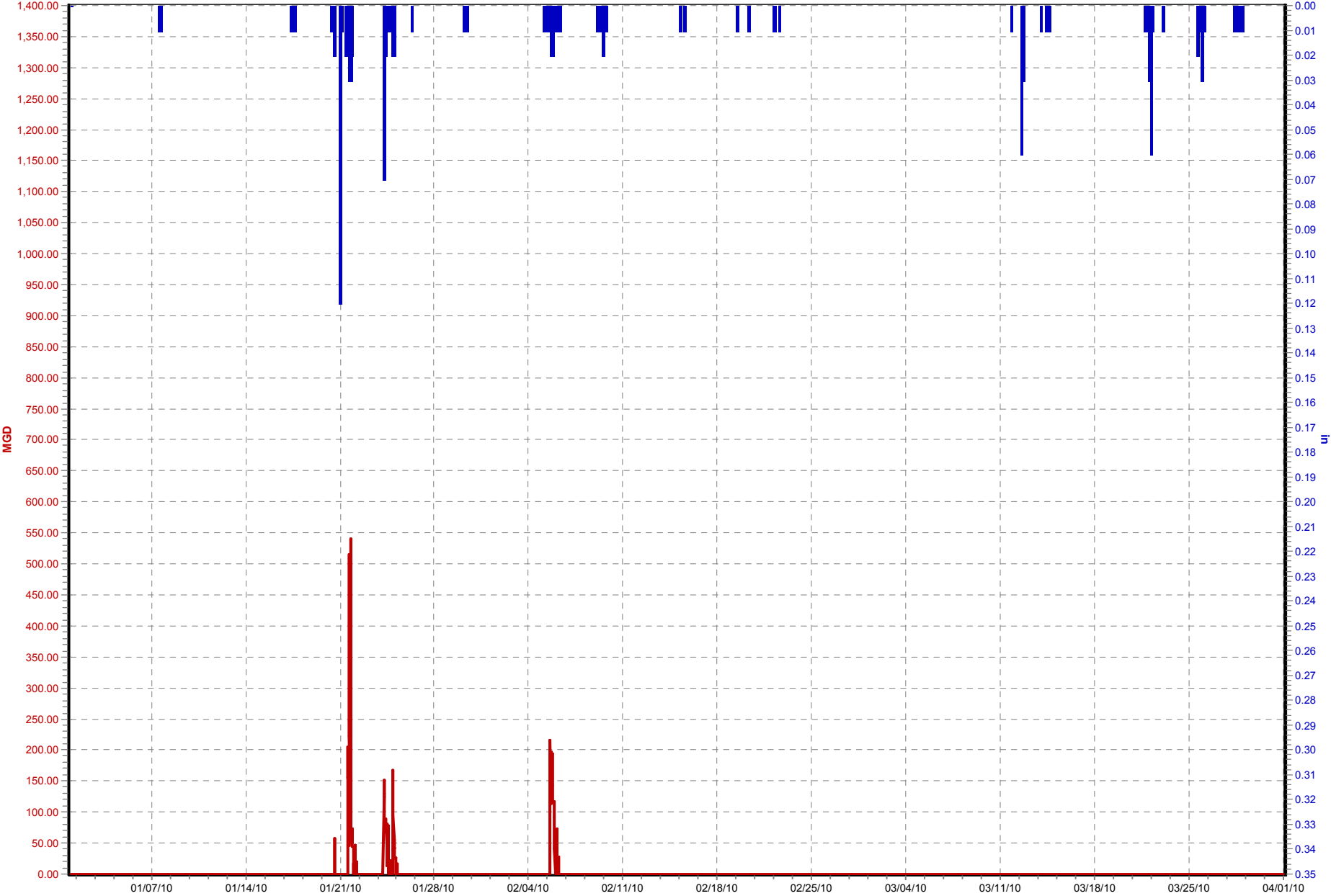
Details of Individual SBR CSOs

SBR	CSOs 142,174,180,182,183,184,185,186,187,188,205							
142	SBR LOGAN ST @ ST CATHERINE	SF BGC	157.5	0.00	0	0.00	0	
174	SBR GOSS & BOYLE	SF BGC	6.8	37.31	57	37.30	57	
180	SBR ORMSBY AVE RELIEF	SF BGC	221.6	0.27	11	0.27	11	
182	SBR SHELBY & BURNETT	SF BGC	3.6	44.75	44	44.76	44	
183	SBR ALEXANDER & KESWICK	SF BGC	104.8	0.00	0	0.00	0	
184	SBR FETTER & ALEXANDER	SF BGC	108.2	0.43	13	0.43	13	
185	SBR SHELBY & KESWICK	SF BGC	4.7	0.55	7	0.55	7	
186	SBR LOGAN & OAK	SF BGC	7.2	0.00	0	0.00	0	
187	SBR SHELBY & CAMP	SF BGC	13.1	0.00	0	0.00	0	
188	SBR SHELBY & CLAY	SF BGC	11.5	0.03	8	0.03	8	
205	SBR MORGAN STREET RELIEF	SF BGC	9.5	0.00	0	0.00	0	

Appendix D – CSO Flow Monitoring Data

CSO015 - Historical Data Only (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



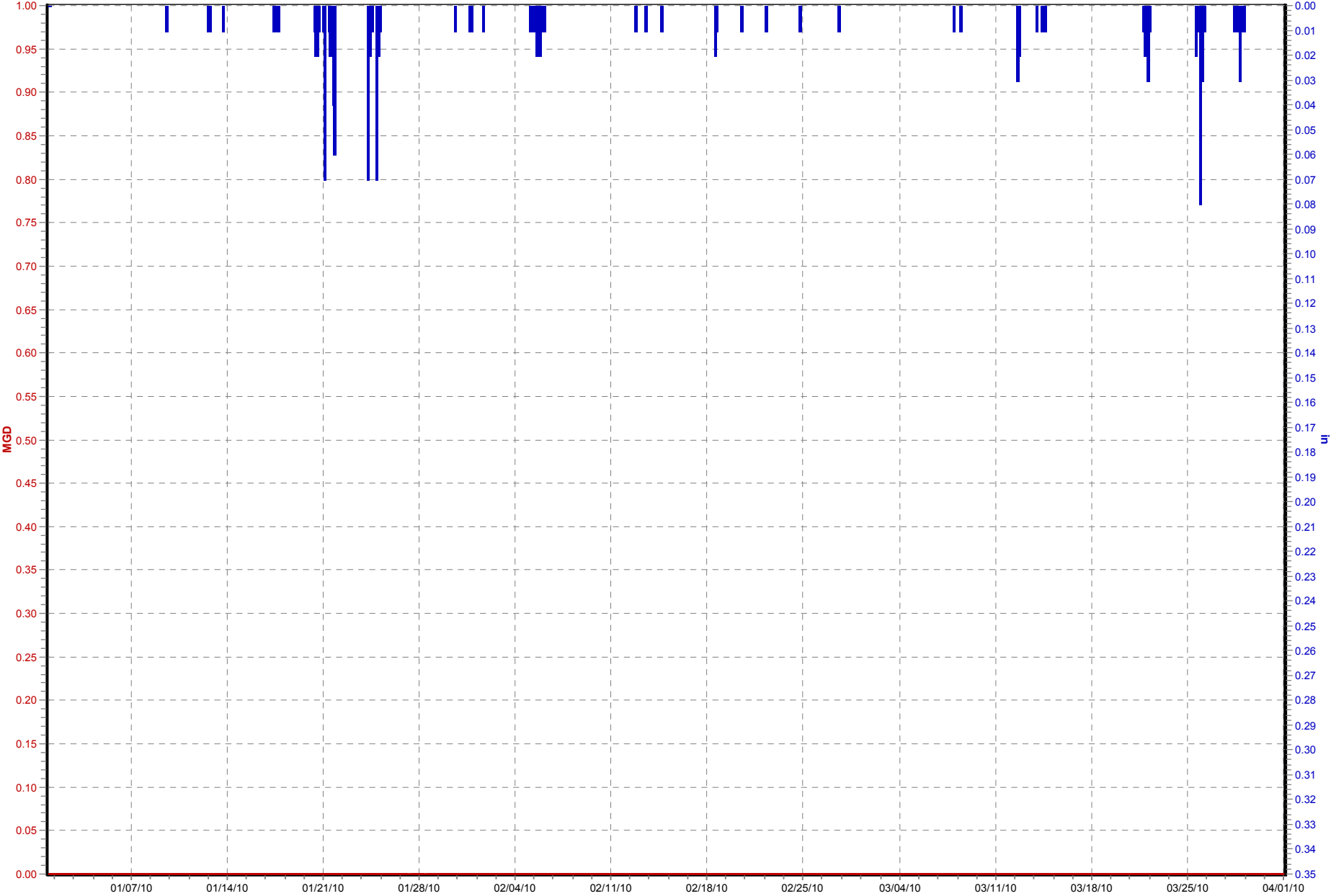
CSO016 - Historical Data Only (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



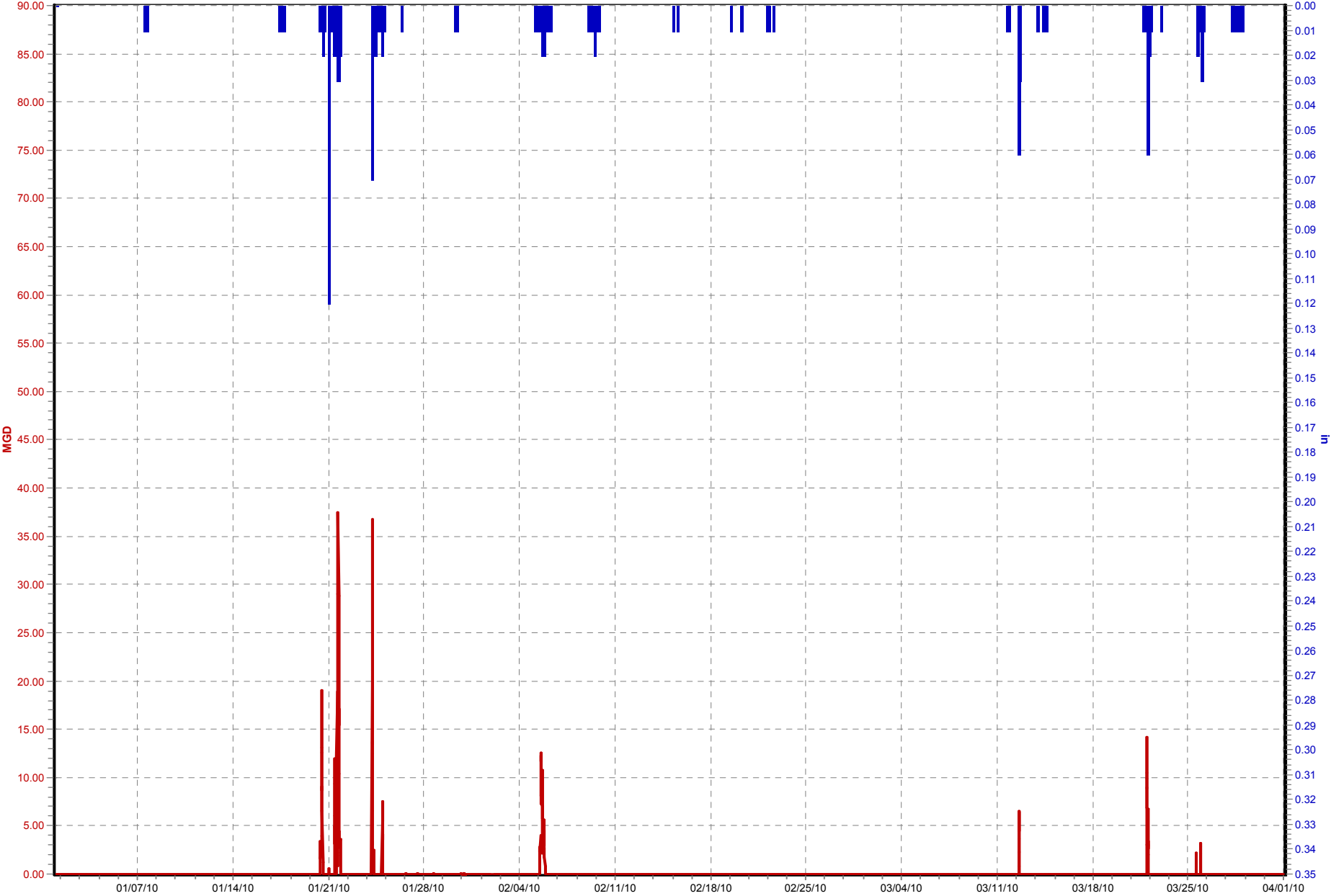
CSO018 - Historical Data Only (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



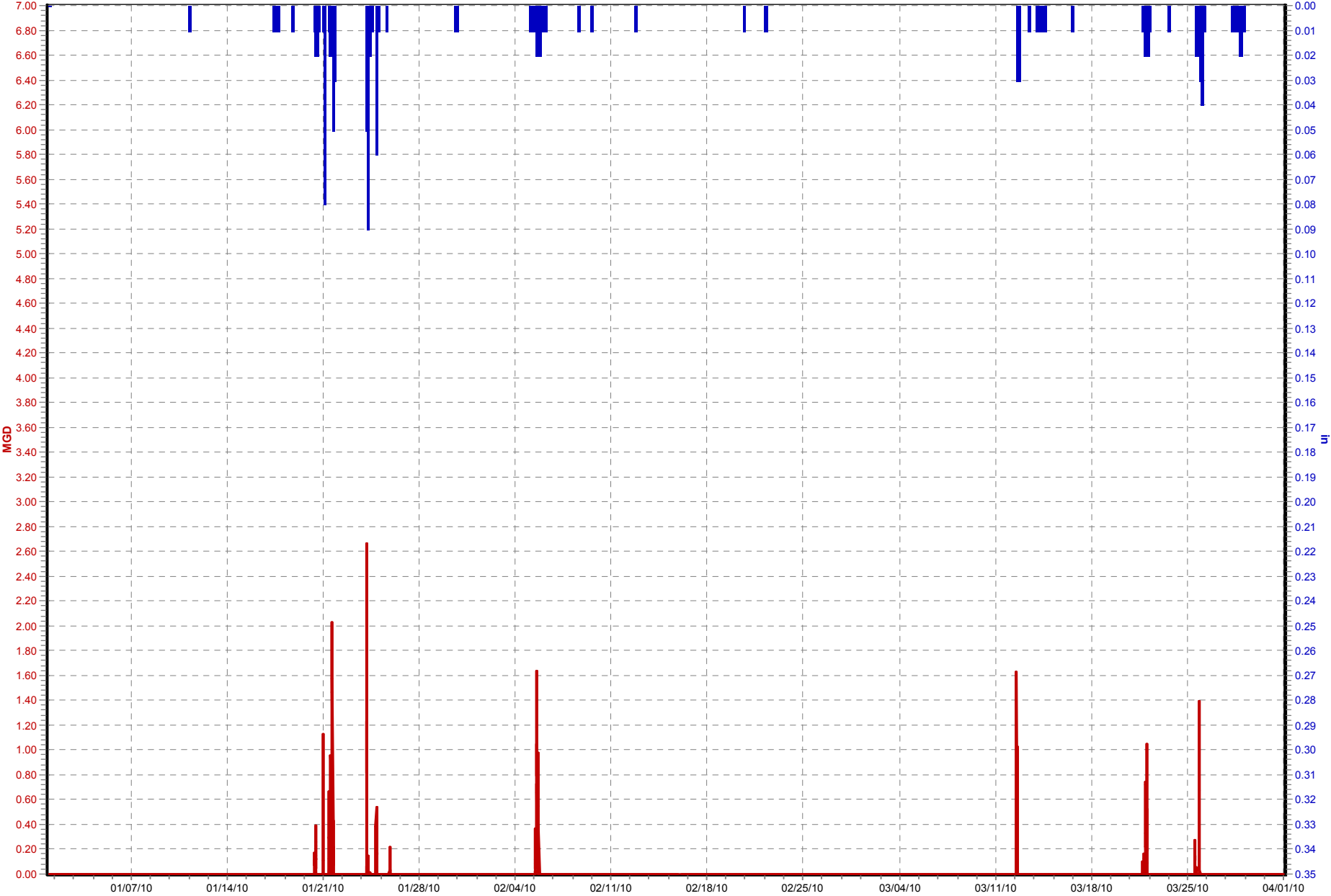
CSO019 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



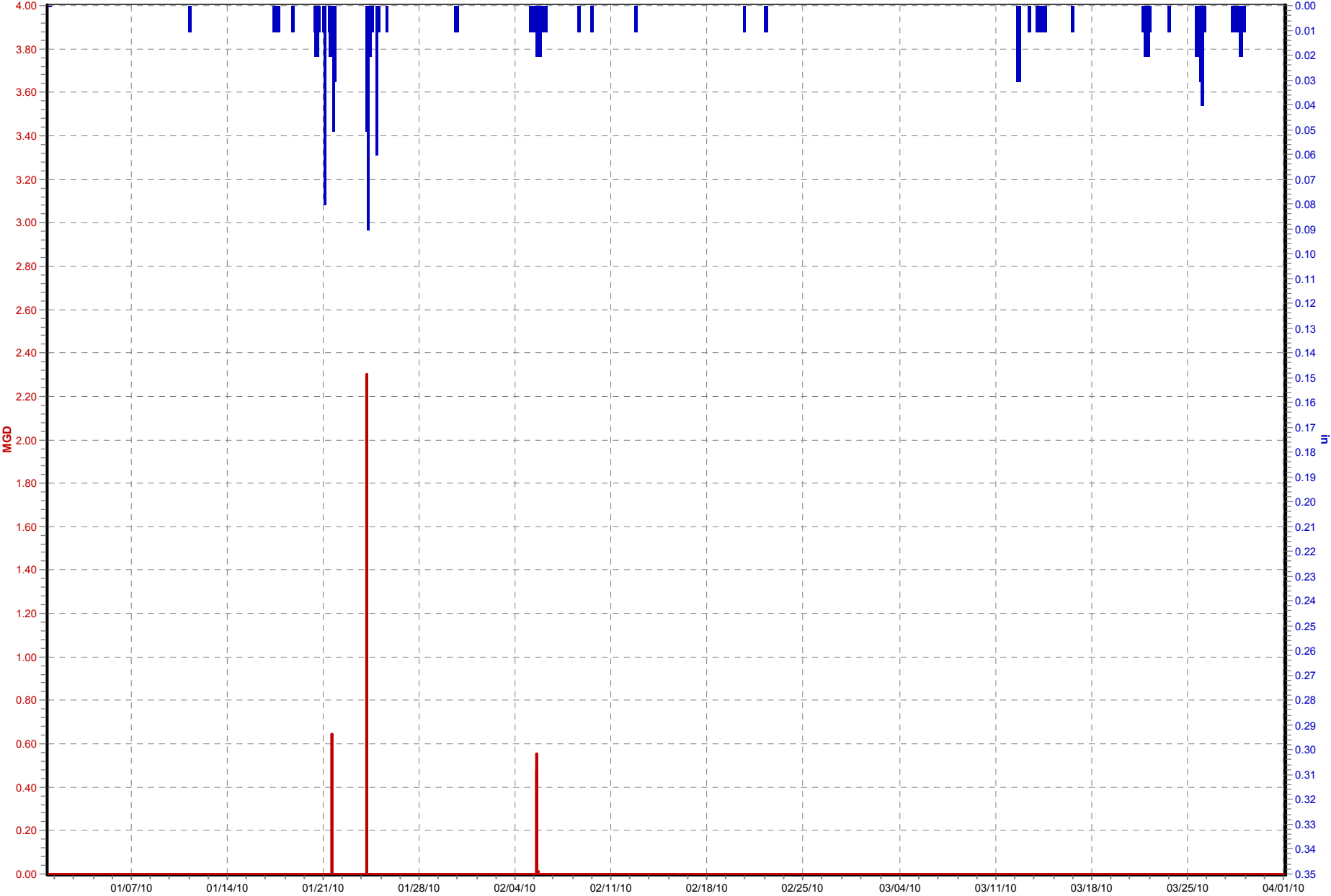
CSO050 (01/01/10 to 04/01/10)

☒ Flow (in) ☒ Rain (in)



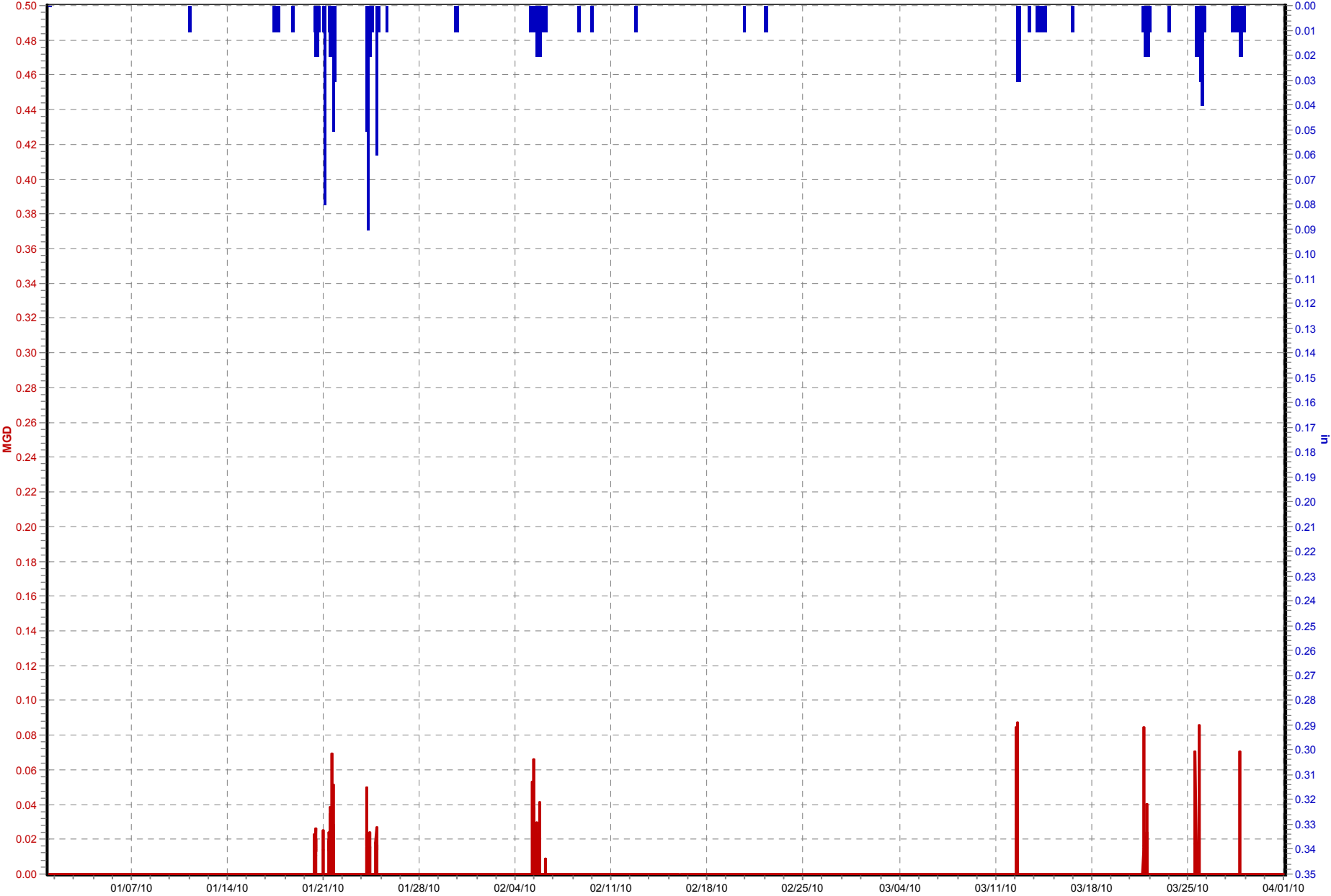
CSO055 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



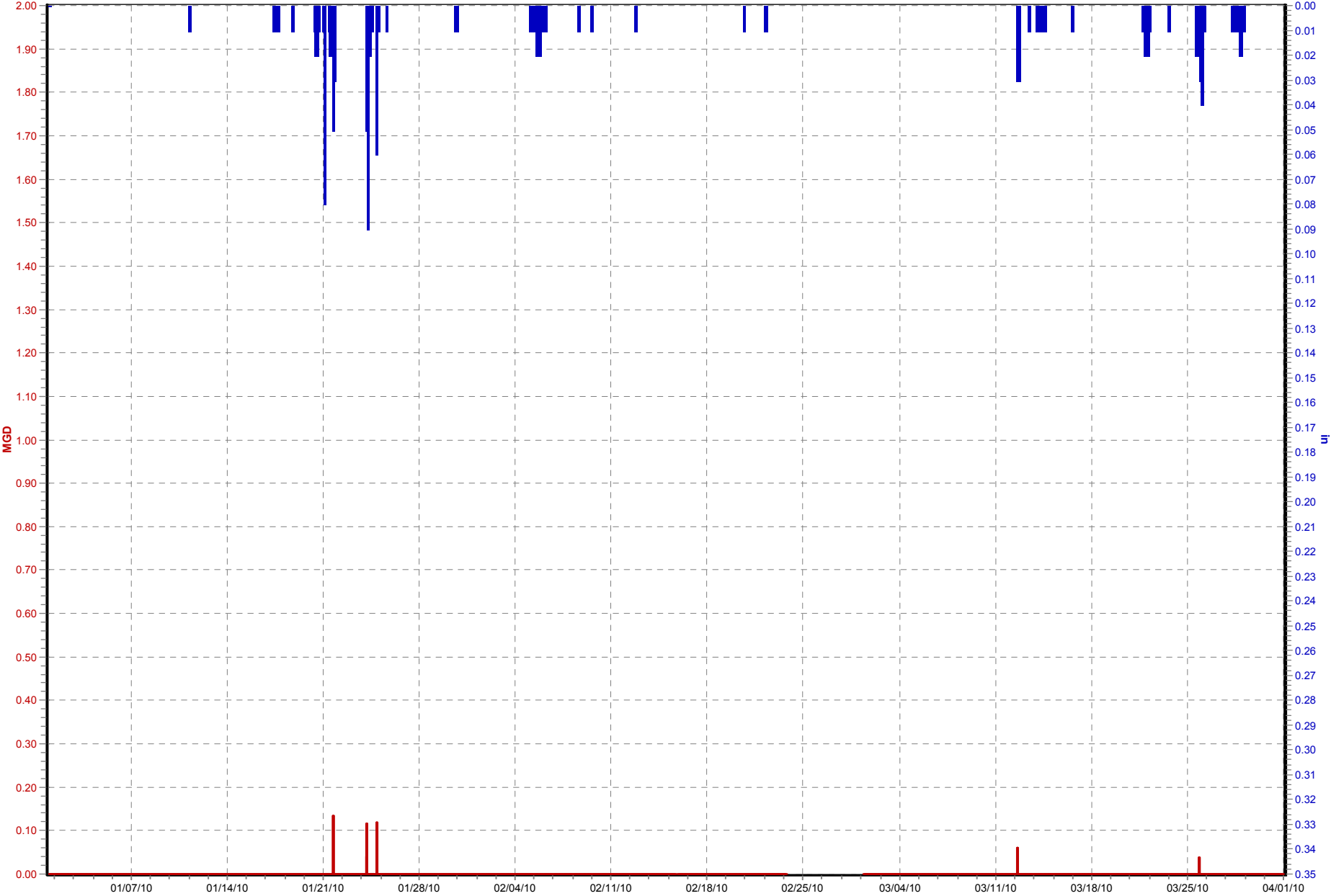
CSO058 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



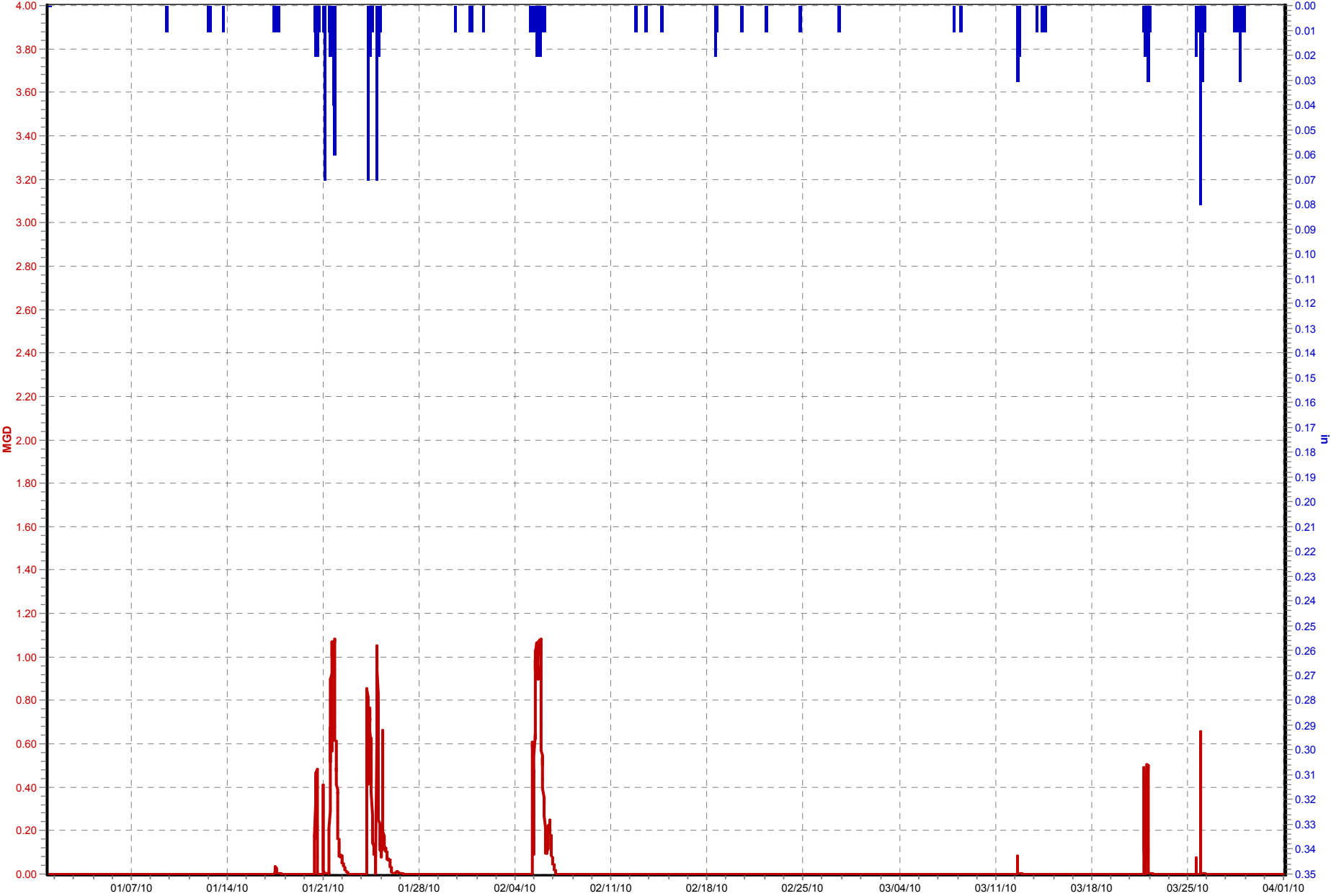
CSO084 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



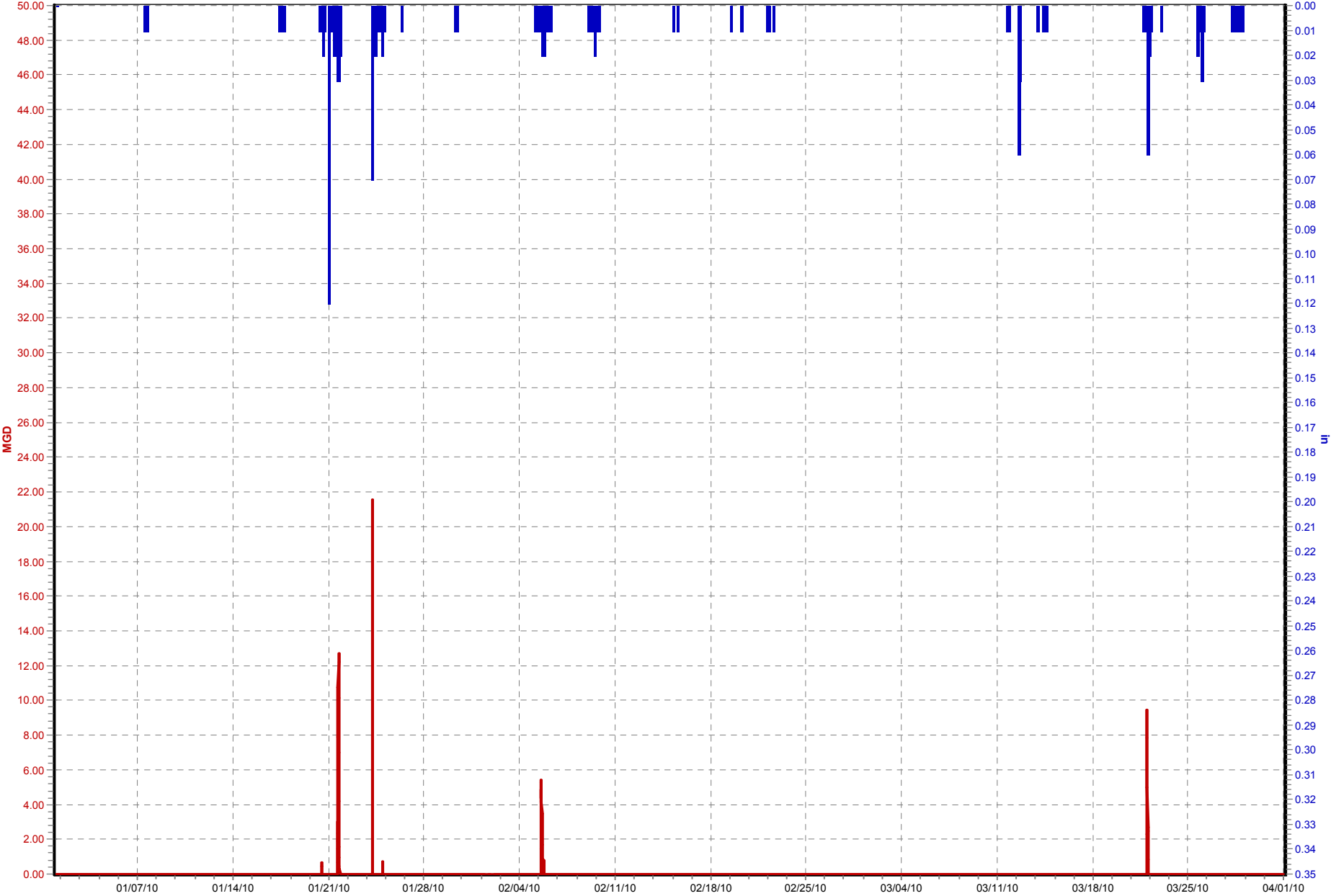
CSO097 - Historical Data Only (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



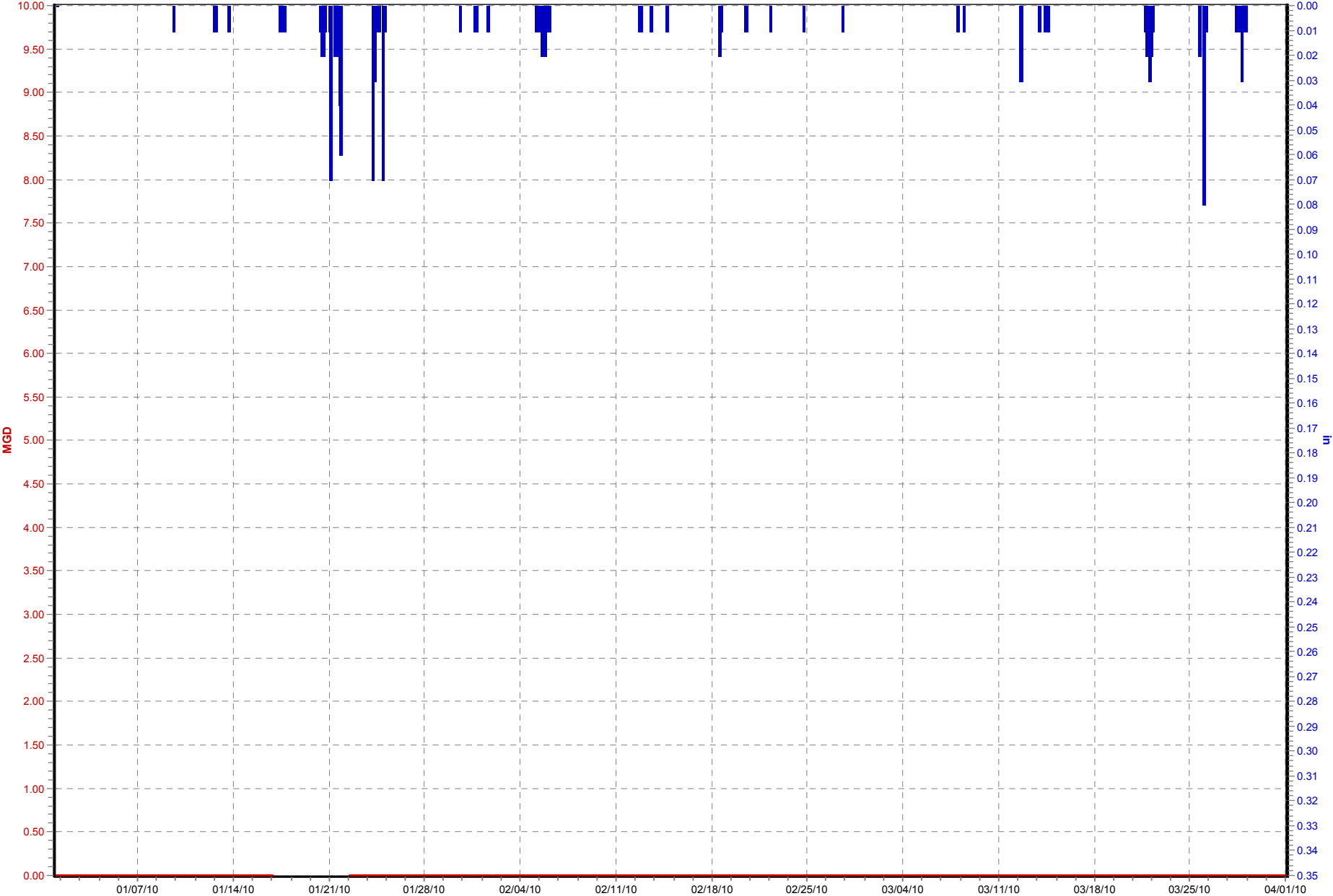
CSO105 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



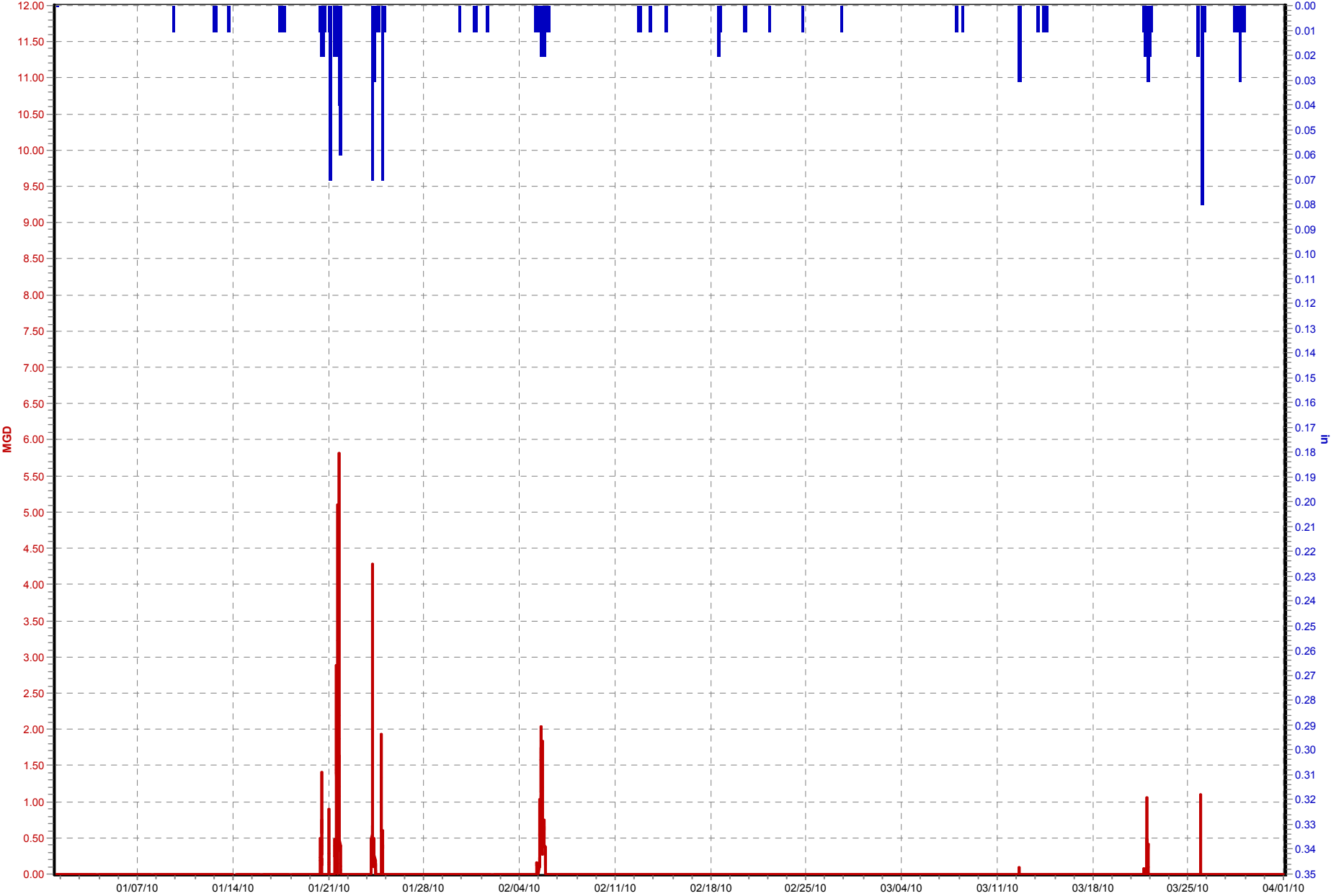
CSO108 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



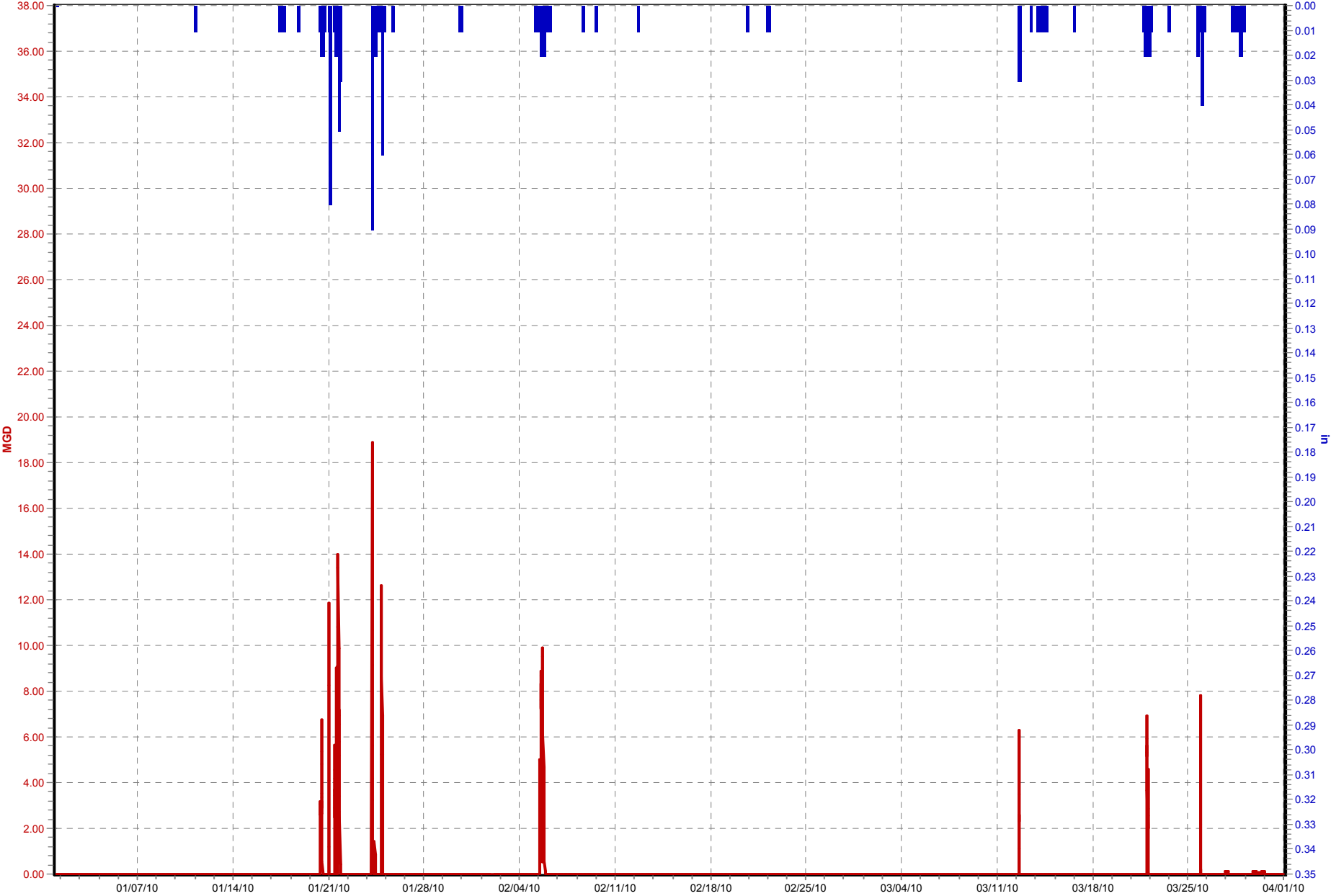
CSO110 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



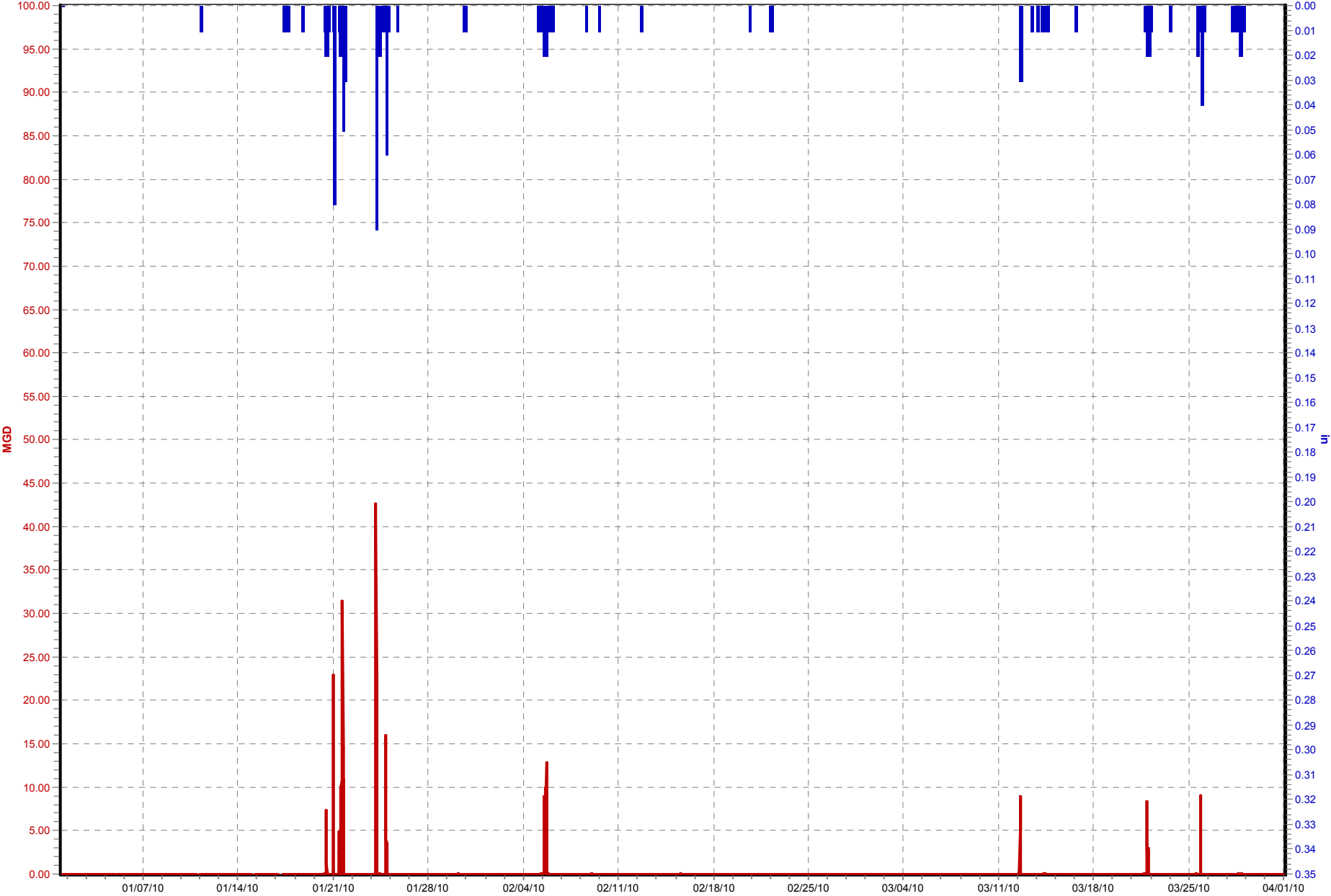
CSO117 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



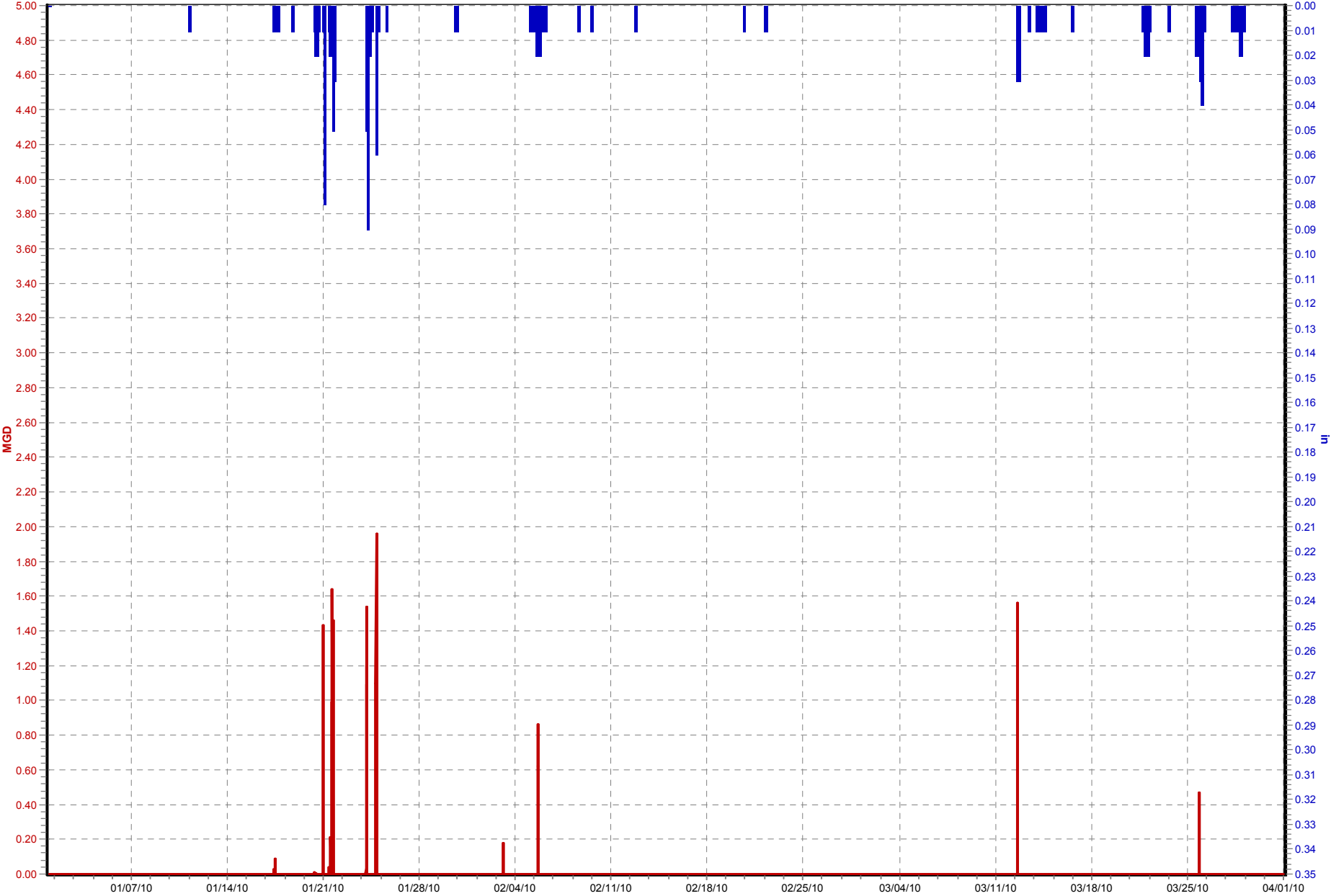
CSO118 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



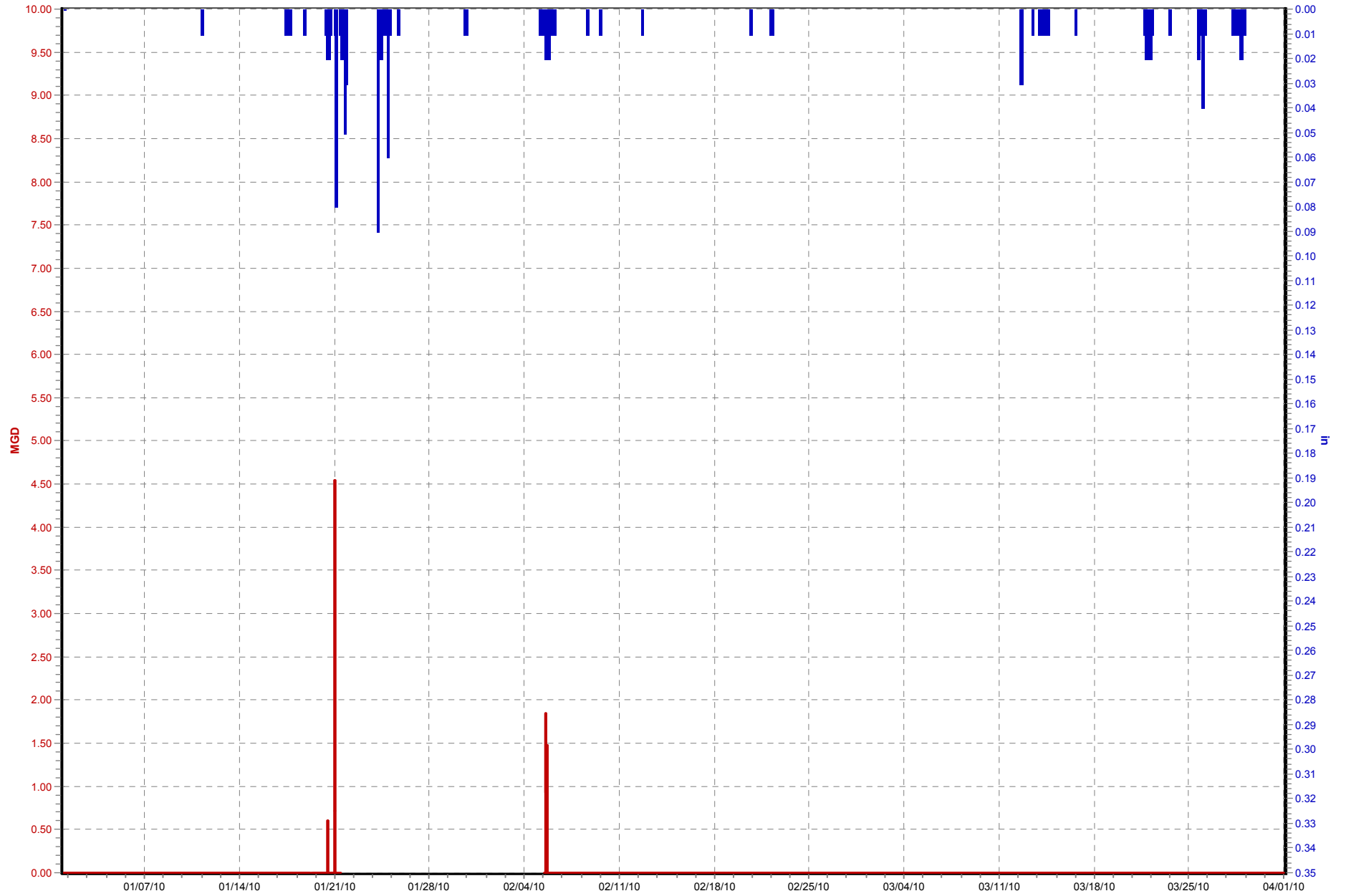
CSO121 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



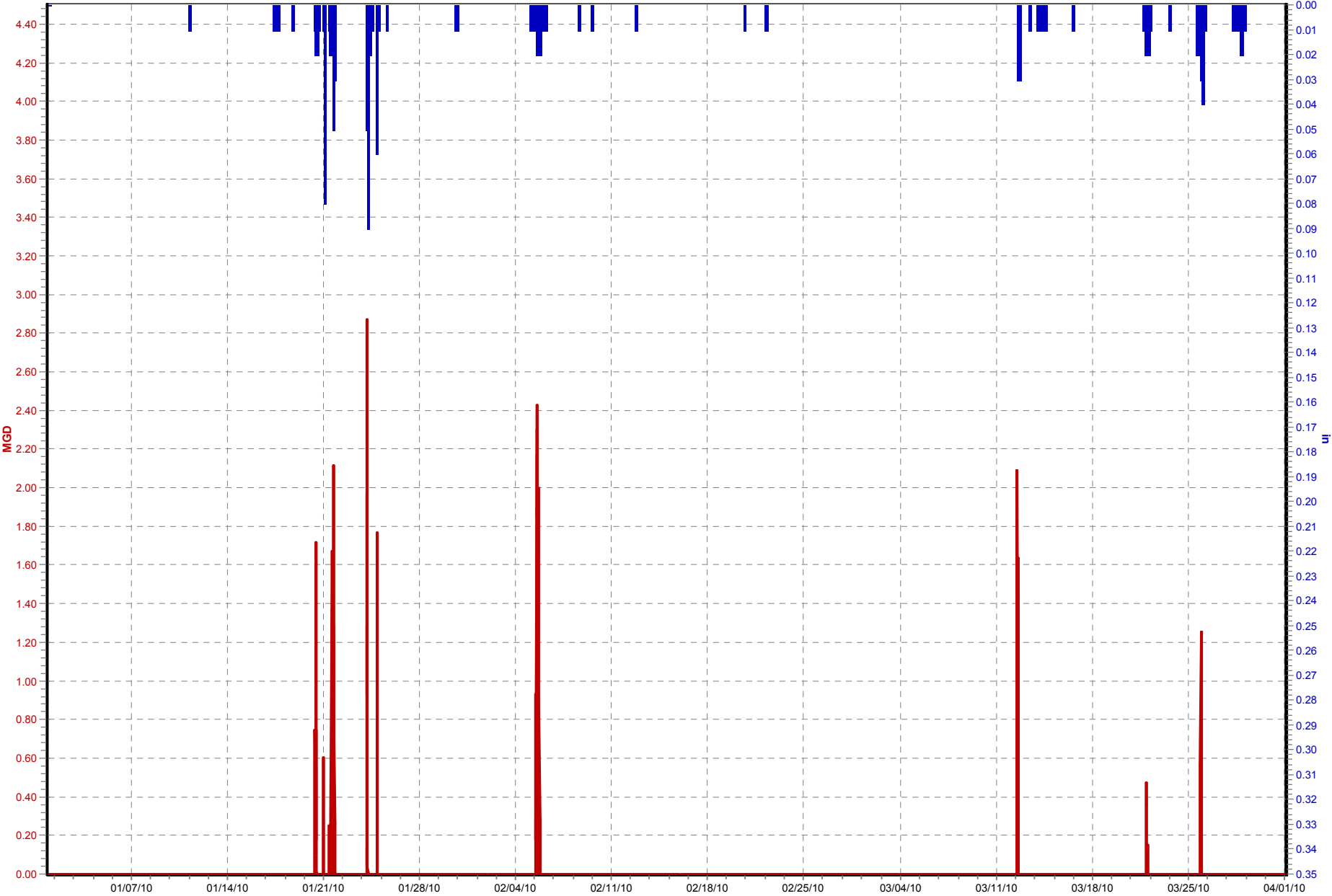
CSO125 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



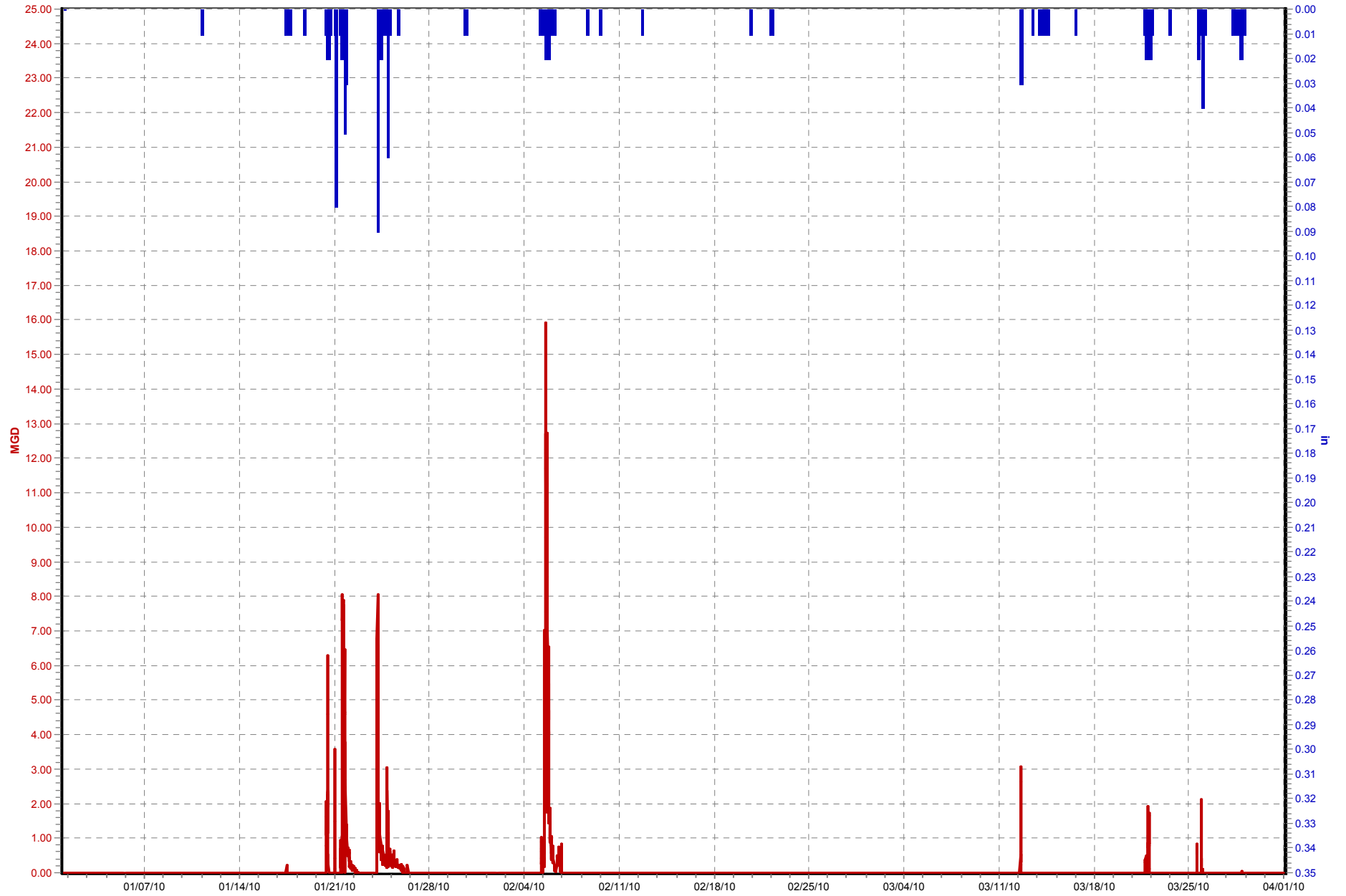
CSO127 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



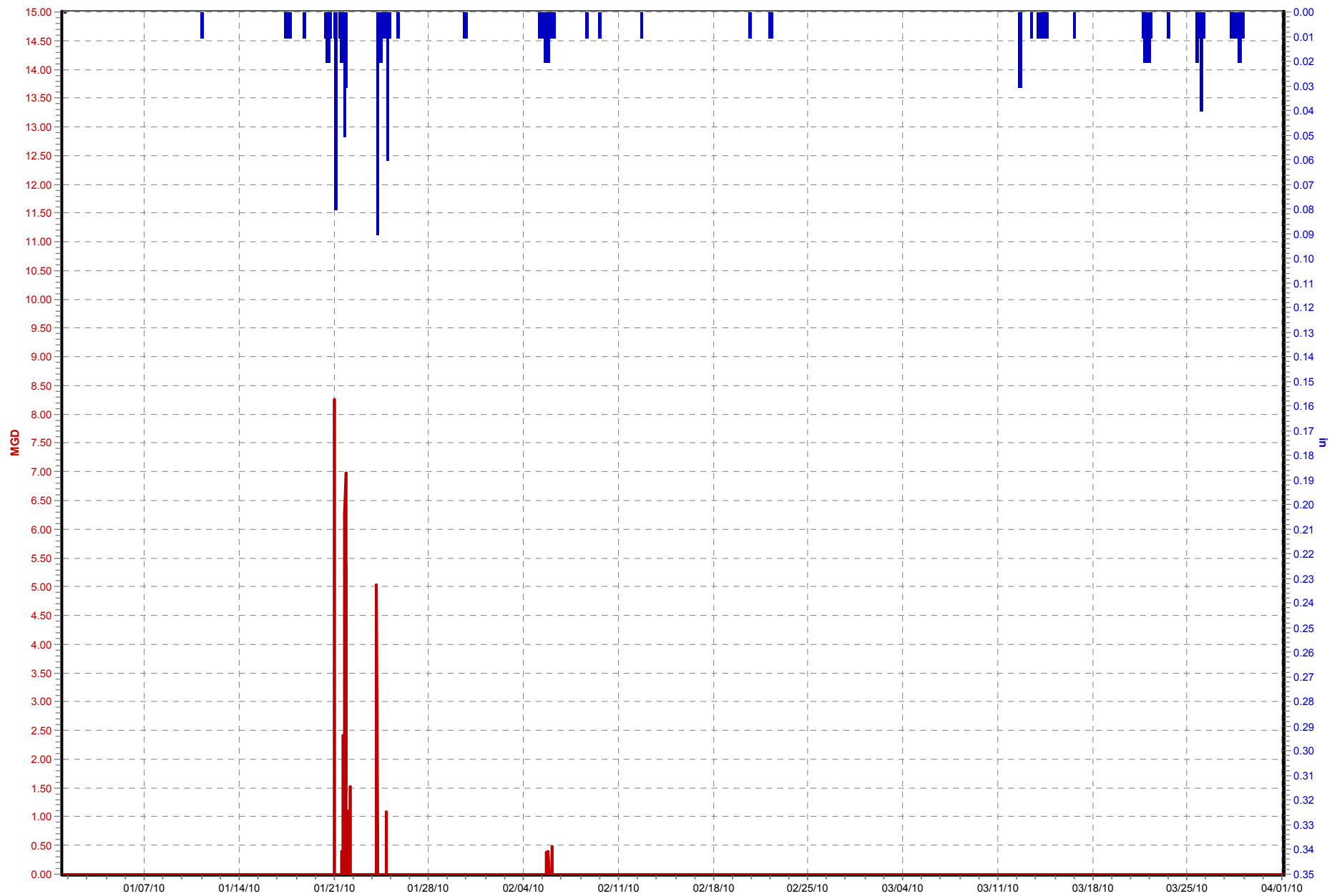
CSO132 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



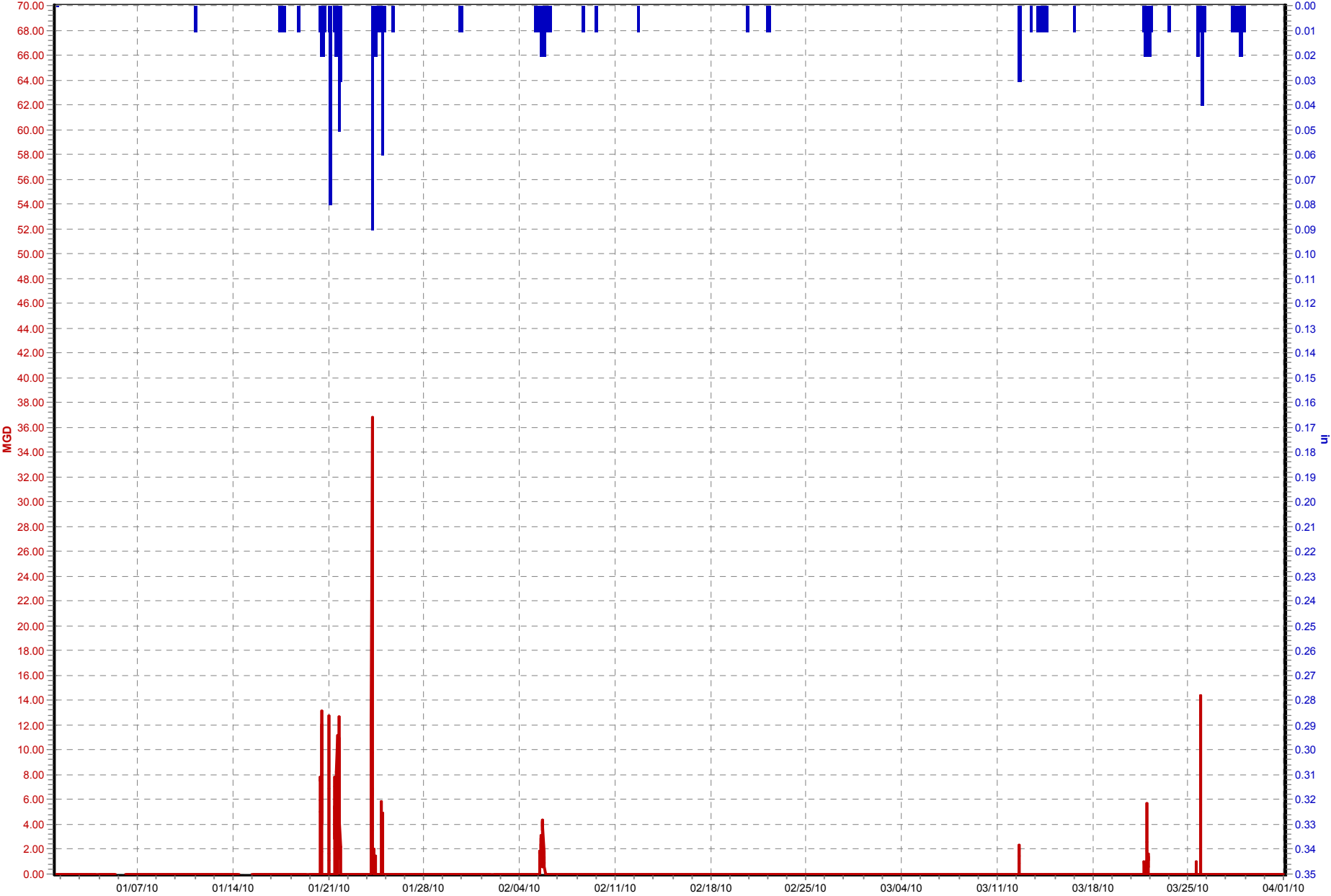
CSO140 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



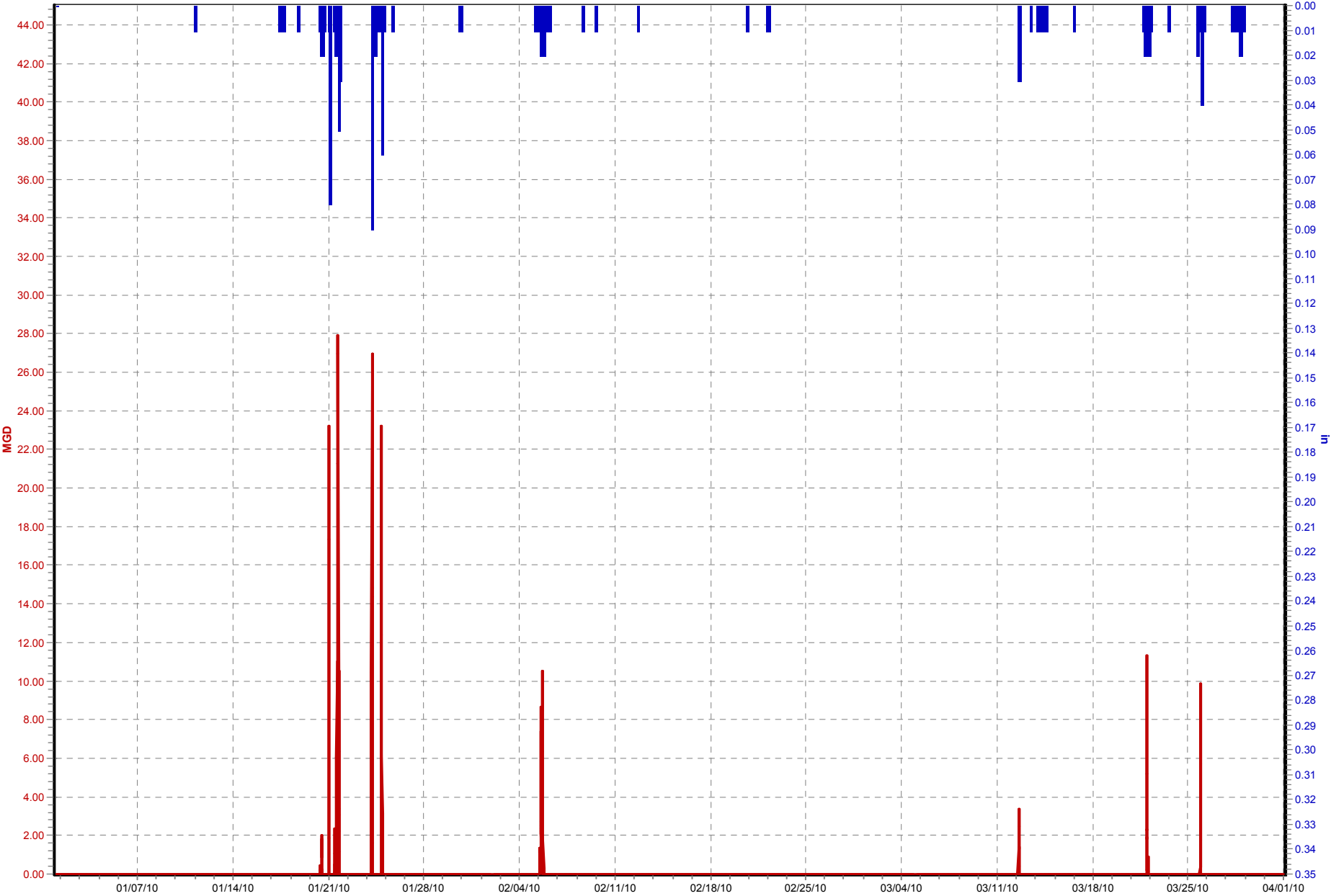
CSO146 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



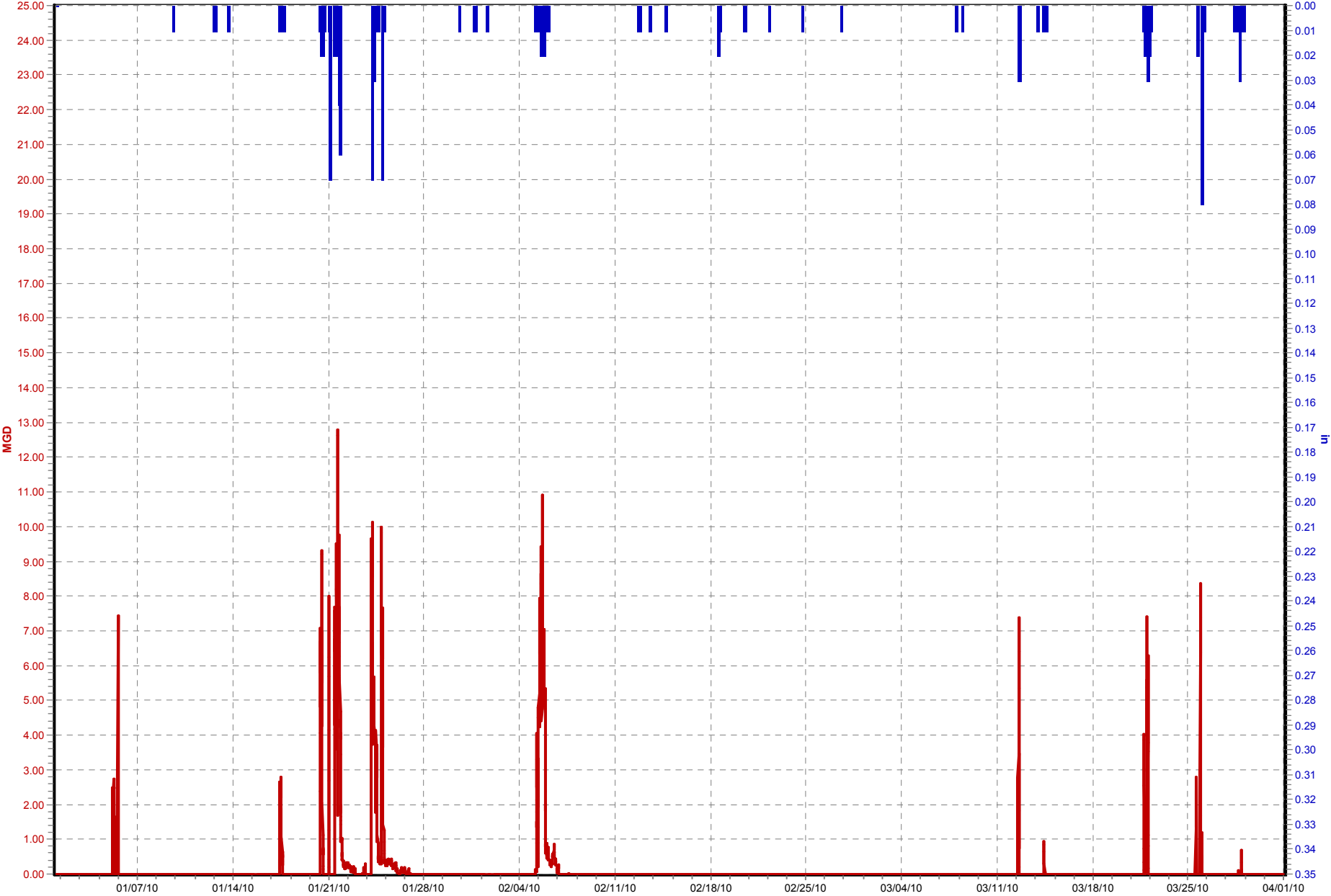
CSO149 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



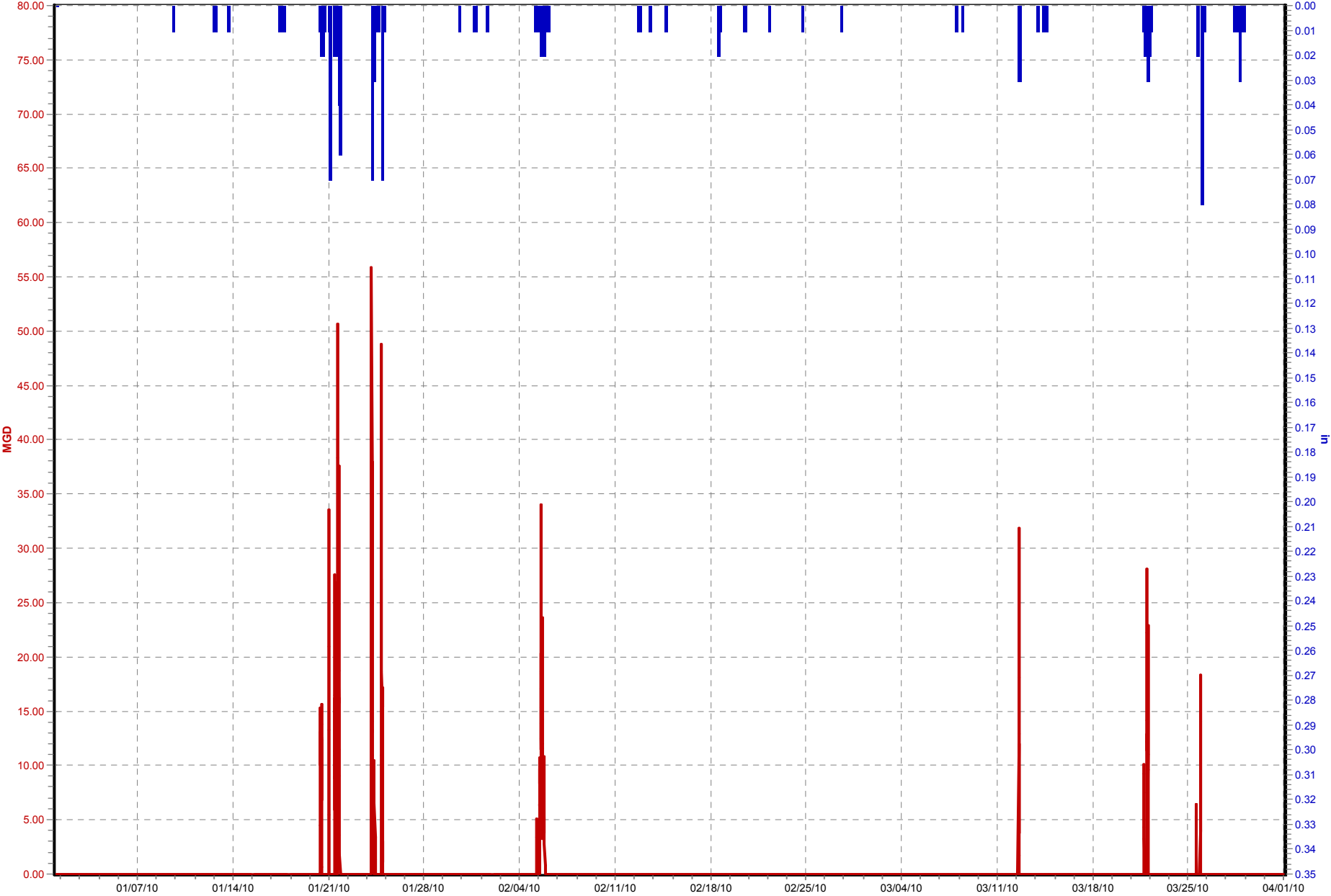
CSO151 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



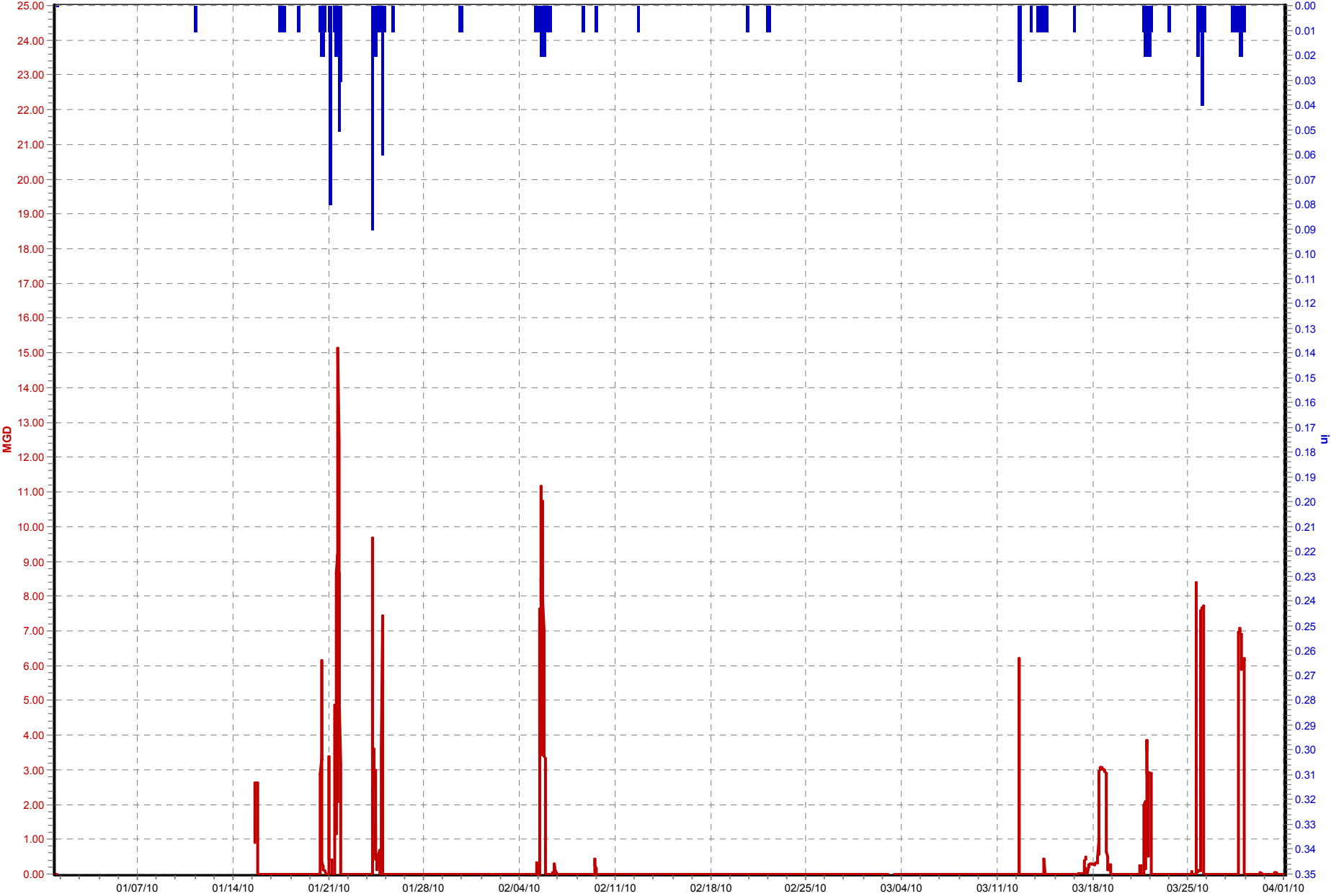
CSO152 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



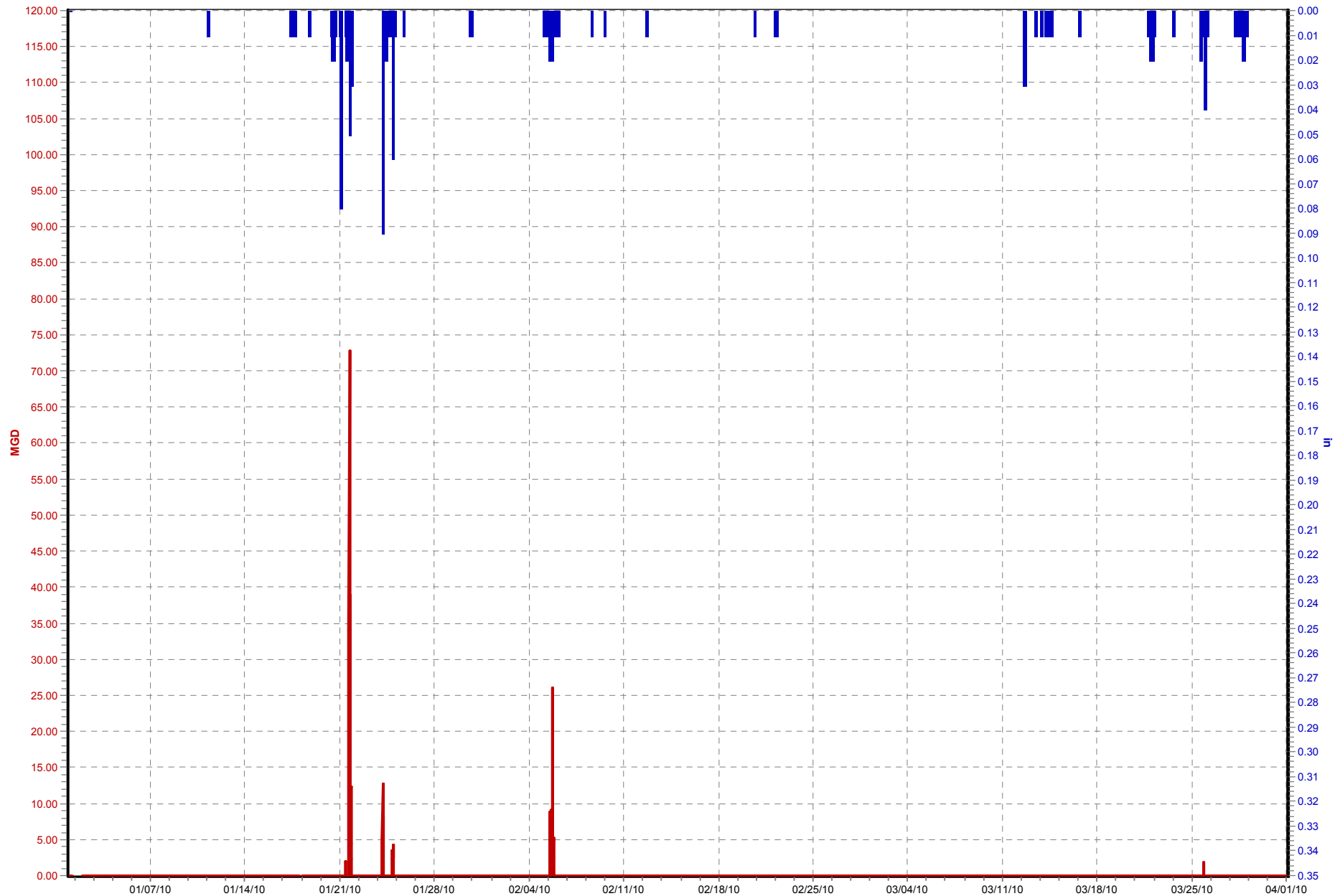
CSO153 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



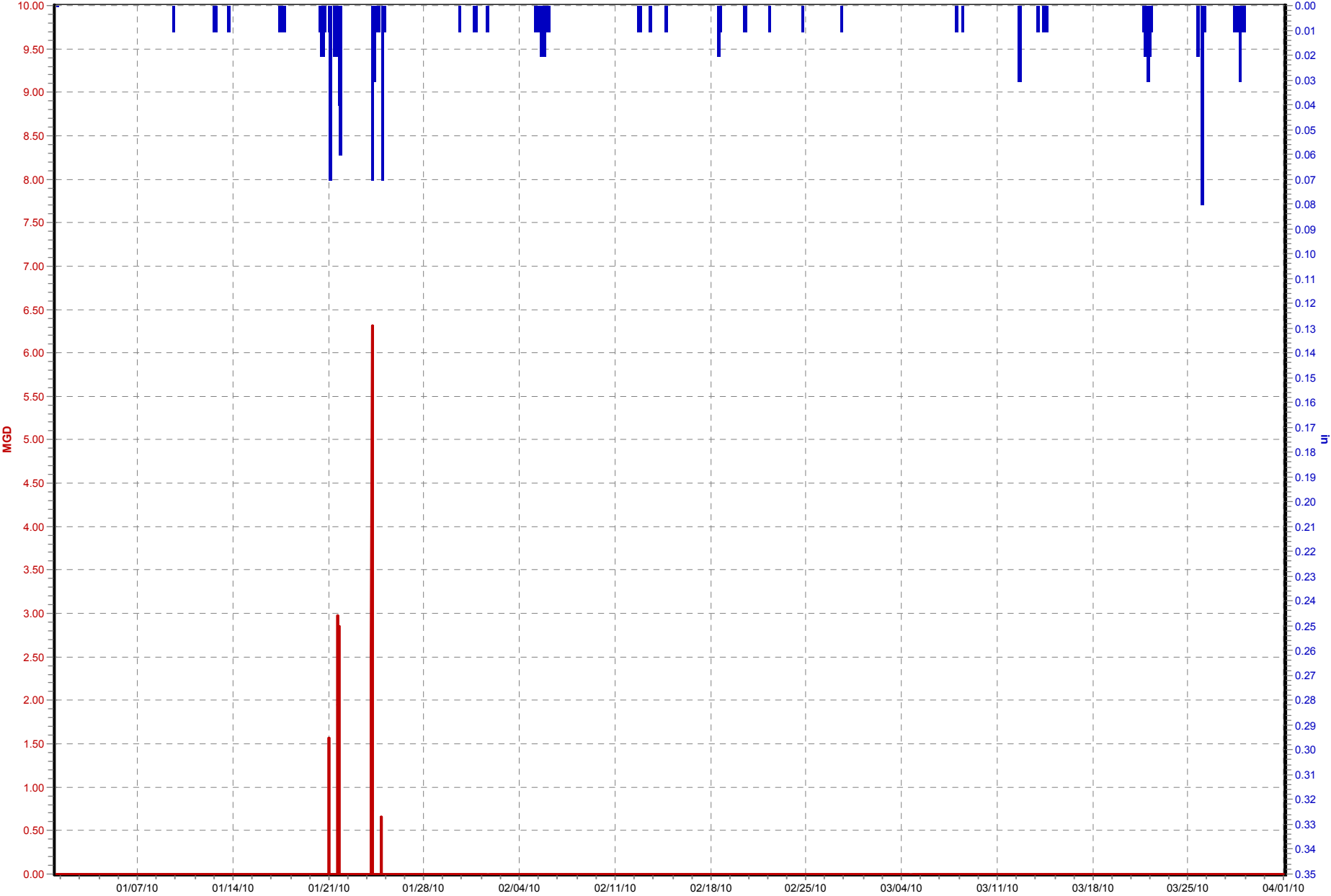
CSO166 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



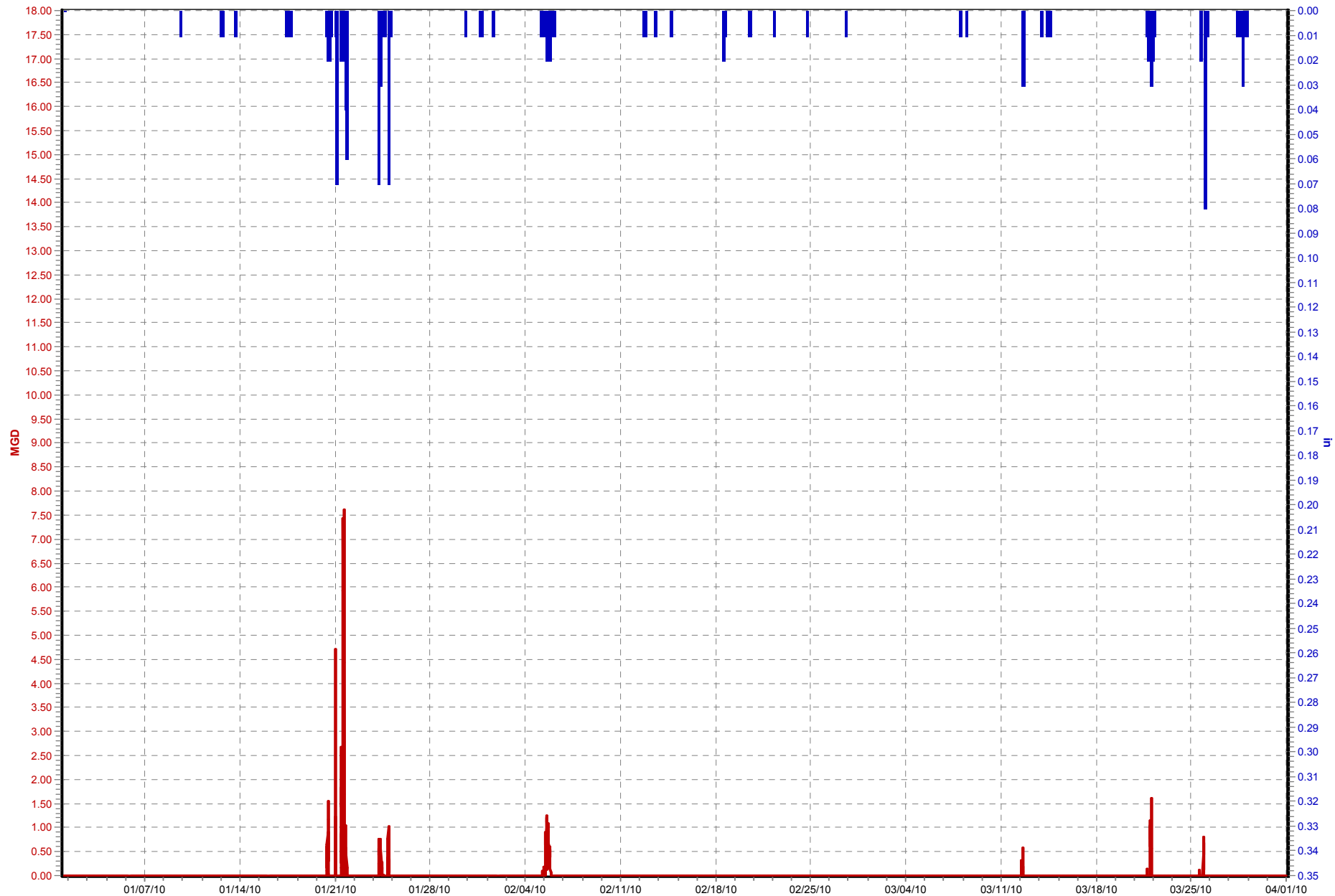
CSO174 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



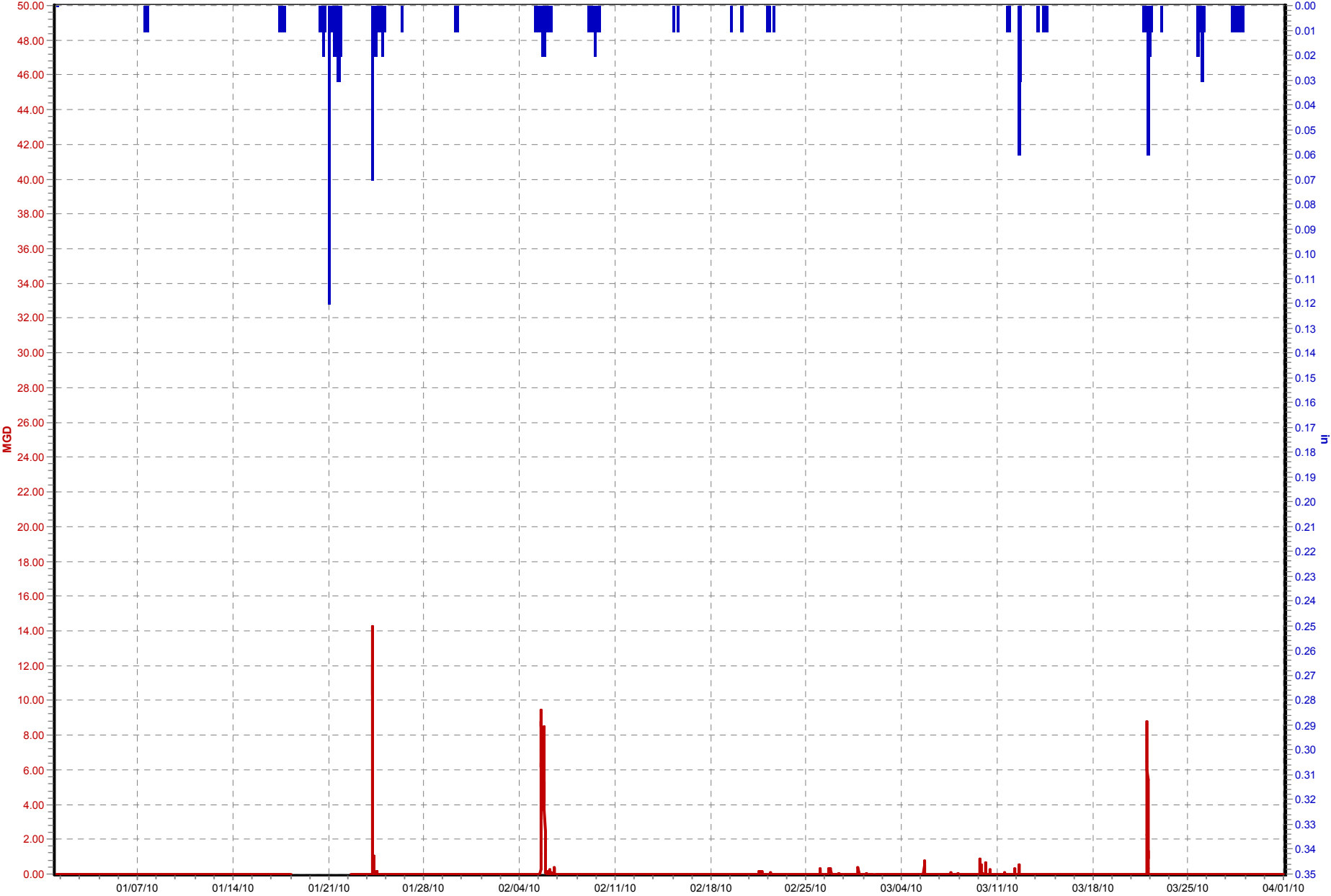
CSO182 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



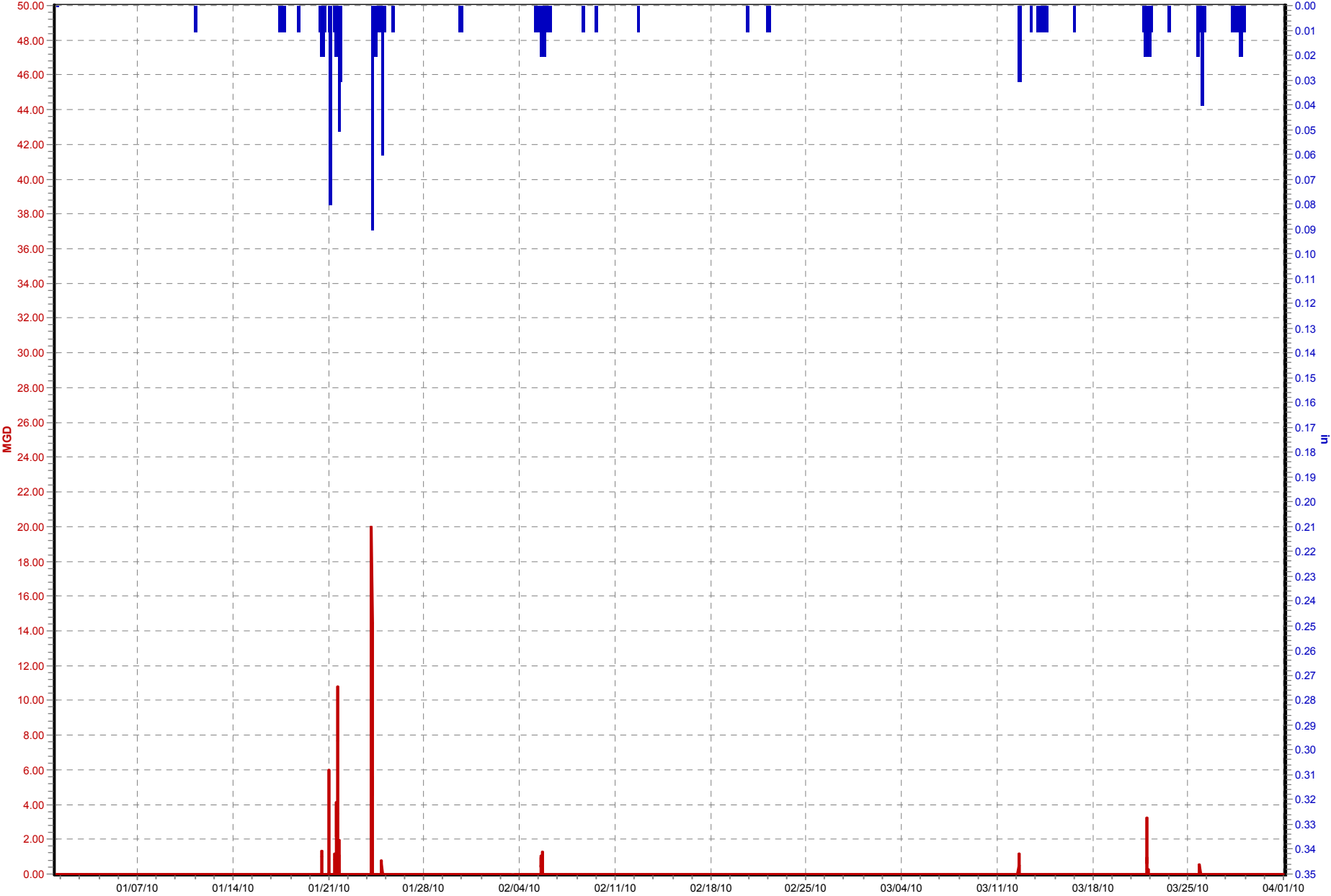
CSO189 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



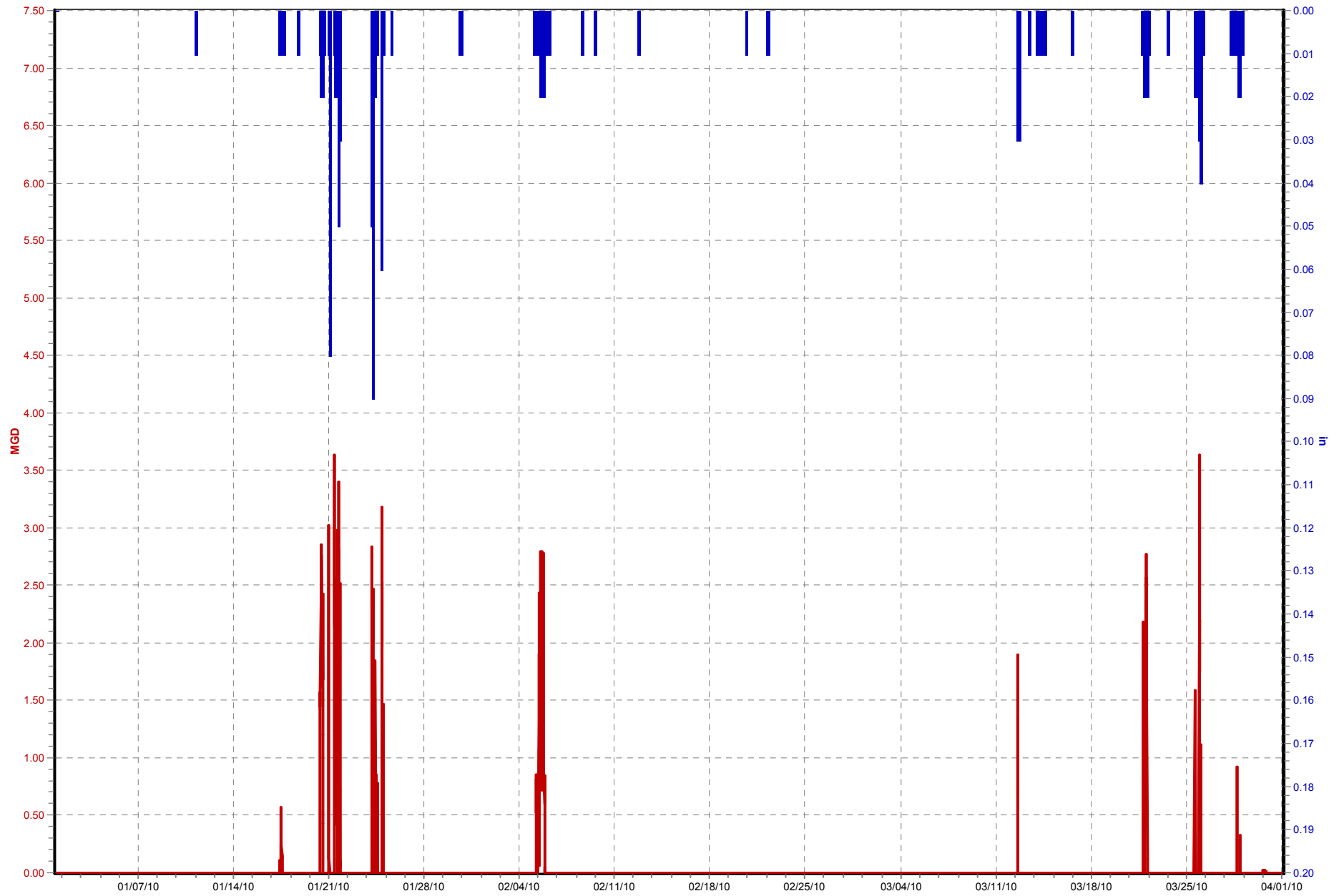
CSO190 (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



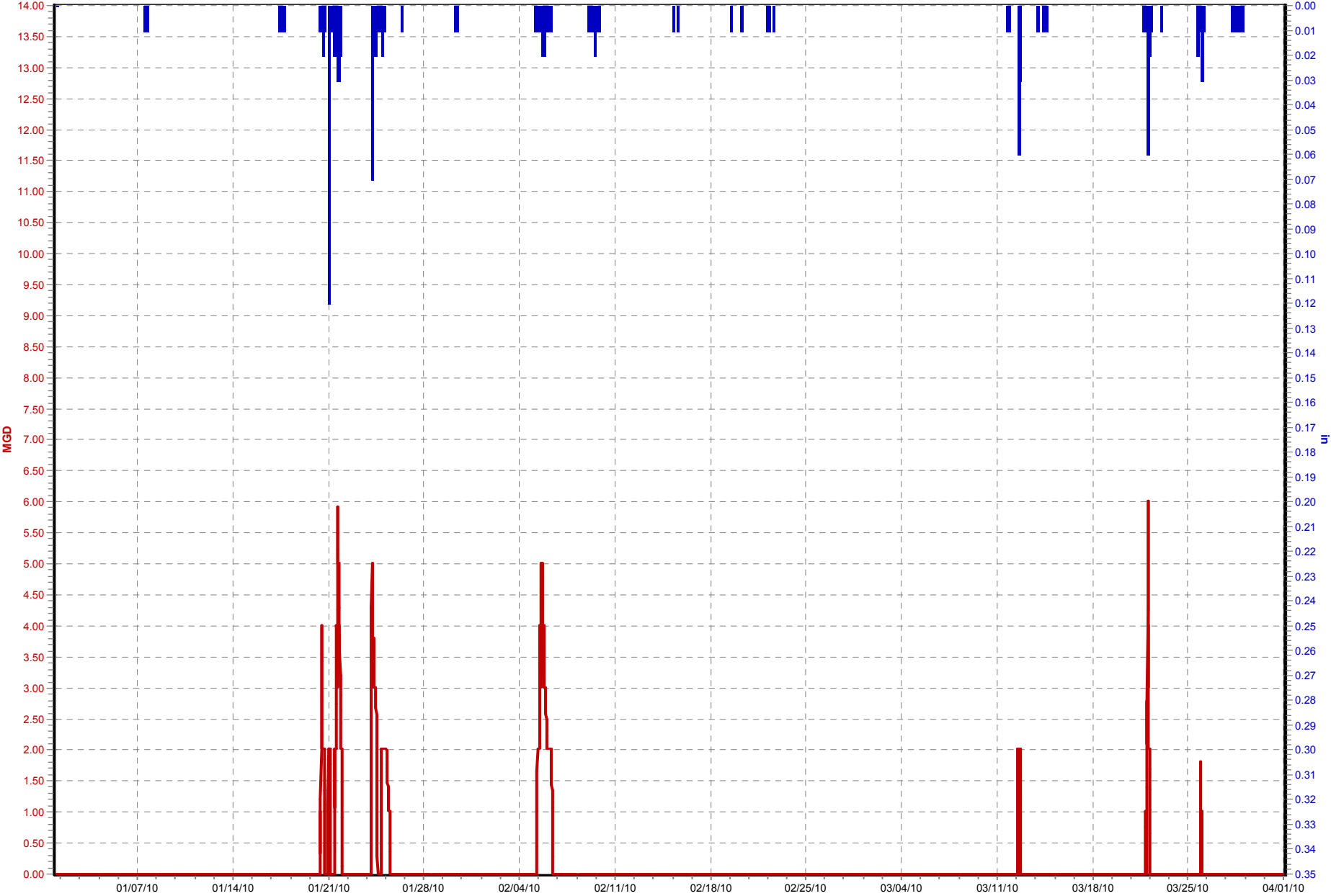
CSO206_Historical Data (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



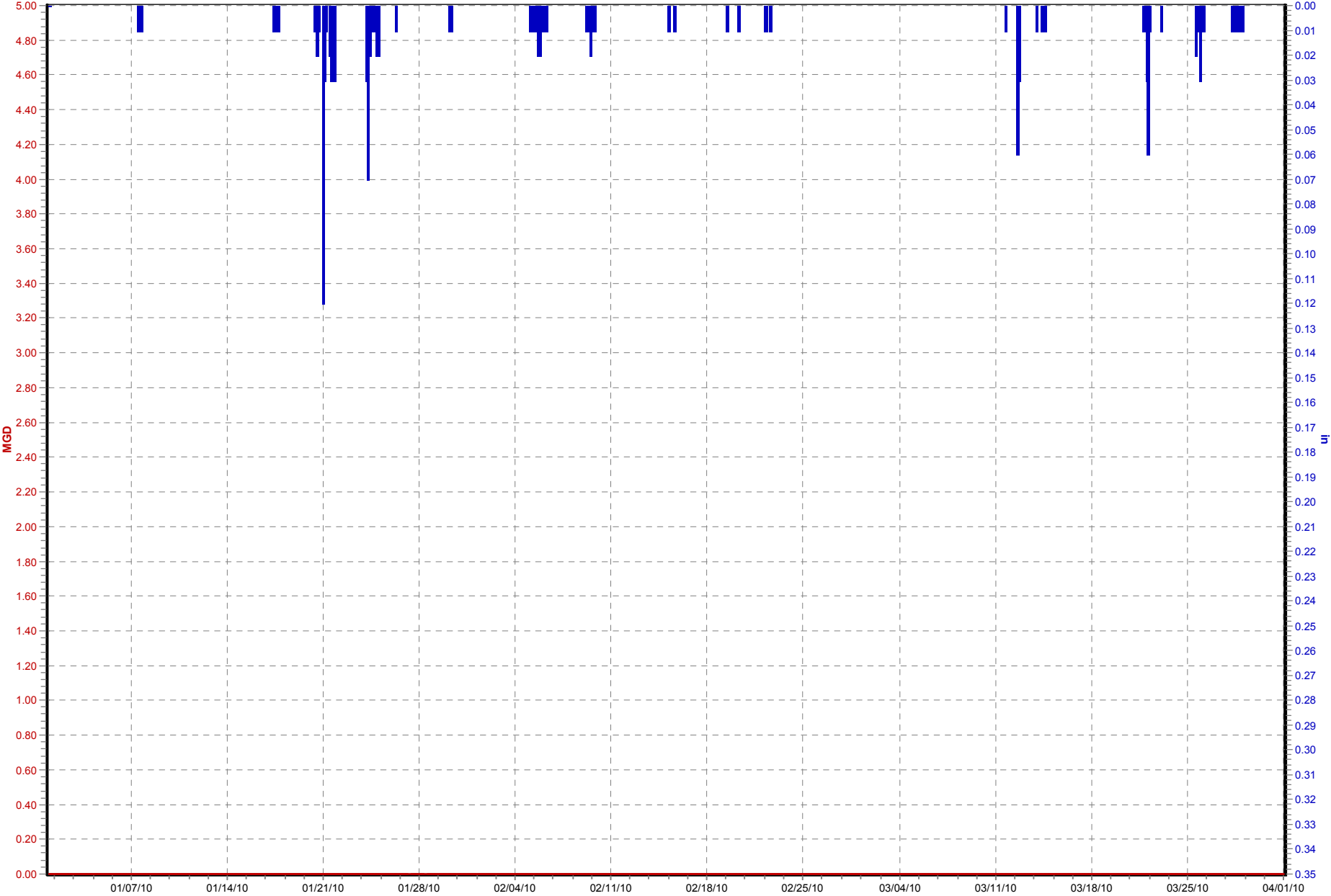
CSO210 - Historical Data Only (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



CSO211 - Historical Data Only (01/01/10 to 04/01/10)

☒ Flow (mgd) ☒ Rain (in)



Appendix E – Acronyms

Appendix E - 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
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

Appendix E - Acronyms for Project WIN Quarterly Report

MEB	Main Equipment Building
MFWTP	Morris Forman Wastewater Treatment Plant
MG	Million Gallons
MGD	Million Gallons Per Day
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
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
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
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



Consent Decree Quarterly Report #18
January 1, 2010 – March 31, 2010

Appendix F – RTC Report

April 30, 2010





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

Period	
From :	1/1/10
To :	3/31/10

Event Number	Wet Weather Event					Rainfall			Wet Weather Storage Volume (MG)							High River Levels
	Start Date	End Date	Duration	Average* TRFD (in)	Max**		SWPS SG Chamber	SWOR2	Brady Lake and Executive Inn Storage	Southern Outfall	Ohio River Interceptor	Sneads Branch	Total			
					TRFD (in)	Rain Gauge										
2010-004	1/20/10 7:25	1/24/10 3:10	91:45	1.539	1.800	TR14	52.55	21.75	1.30	0.00	0.00	0.85	76.45	No		
2010-005	1/24/10 3:10	1/27/10 0:00	68:50	0.911	1.050	TR05	14.70	12.25	1.10	0.00	0.00	1.00	29.05	No		
2010-008	2/5/10 0:50	2/9/10 3:30	98:40	1.224	1.350	TR14	17.50	2.90	1.00	0.00	0.00	0.00	21.40	No		
2010-009	2/9/10 3:30	2/11/10 16:25	60:55	0.059	0.370	TR04	0.00	4.90	0.20	0.00	0.00	0.00	5.10	Yes		
2010-011	2/12/10 12:50	2/18/10 11:40	142:50	0.089	0.220	TR14	0.00	0.00	0.00	0.00	0.00	2.25	2.25	No		
2010-013	3/12/10 12:30	3/12/10 22:15	9:45	0.337	0.590	TR15	5.20	3.10	0.15	2.25	2.50	0.00	13.20	Yes		
2010-015	3/21/10 17:55	3/22/10 13:25	19:30	0.521	0.730	TR04	11.25	5.60	0.65	3.95	4.20	0.00	25.65	No		
2010-016	3/25/10 14:00	3/26/10 9:40	19:40	0.391	0.500	TR05	5.35	4.75	0.35	1.30	1.55	0.00	13.30	No		
2010-017	3/28/10 10:45	3/29/10 5:50	19:05	0.181	0.290	TR15	0.00	1.25	0.10	0.00	0.60	0.00	1.95	No		
Total							106.55	56.50	4.85	7.50	8.85	4.10	188.35			

*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

Appendix G – Phosphorus Data

Hunting Creek South Wastewater Treatment Plant KY0029114

Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
1/5/2010	EPA 200.7	Total Phosphorous via ICP	0.499	mg/l	MSD
1/12/2010	EPA 200.7	Total Phosphorous via ICP	0.494	mg/l	MSD
1/20/2010	EPA 200.7	Total Phosphorous via ICP	0.308	mg/l	MSD
1/25/2010	EPA 200.7	Total Phosphorous via ICP	0.258	mg/l	MSD
		Monthly Average	0.39	mg/l	
2/3/2010	EPA 200.7	Total Phosphorous via ICP	0.311	mg/l	MSD
2/10/2010	EPA 200.7	Total Phosphorous via ICP	0.336	mg/l	MSD
2/17/2010	EPA 200.7	Total Phosphorous via ICP	0.354	mg/l	MSD
2/24/2010	EPA 200.7	Total Phosphorous via ICP	0.27	mg/l	MSD
		Monthly Average	0.32	mg/l	
3/3/2010	EPA 200.7	Total Phosphorous via ICP	0.123	mg/l	MSD
3/10/2010	EPA 200.7	Total Phosphorous via ICP	0.422	mg/l	MSD
3/17/2010	EPA 200.7	Total Phosphorous via ICP	0.404	mg/l	MSD
3/24/2010	EPA 200.7	Total Phosphorous via ICP	0.328	mg/l	MSD
3/31/2010	EPA 200.7	Total Phosphorous via ICP	0.395	mg/l	MSD
		Monthly Average	0.33	mg/l	

Ken Carla Wastewater Treatment Plant KY0022497

Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
1/5/2010	EPA 200.7	Total Phosphorous via ICP	0.379	mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
		Monthly Average	0.38	mg/l	
2/3/2010	EPA 200.7	Total Phosphorous via ICP	0.315	mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
		Monthly Average	0.32	mg/l	
3/4/2010	EPA 200.7	Total Phosphorous via ICP	0.692	mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
		Monthly Average	0.69	mg/l	

North Hunting Creek Wastewater Treatment Plant KY0029106

Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
1/5/2010	EPA 200.7	Total Phosphorous via ICP	0.591	mg/l	MSD
1/12/2010	EPA 200.7	Total Phosphorous via ICP	0.537	mg/l	MSD
1/20/2010	EPA 200.7	Total Phosphorous via ICP	0.478	mg/l	MSD
1/26/2010	EPA 200.7	Total Phosphorous via ICP	0.885	mg/l	MSD
		Monthly Average	0.62	mg/l	
2/3/2010	EPA 200.7	Total Phosphorous via ICP	0.097	mg/l	MSD
2/10/2010	EPA 200.7	Total Phosphorous via ICP	0.548	mg/l	MSD
2/17/2010	EPA 200.7	Total Phosphorous via ICP	0.094	mg/l	MSD
2/24/2010	EPA 200.7	Total Phosphorous via ICP	0.497	mg/l	MSD
		Monthly Average	0.31	mg/l	
3/3/2010	EPA 200.7	Total Phosphorous via ICP	0.384	mg/l	MSD
3/10/2010	EPA 200.7	Total Phosphorous via ICP	0.245	mg/l	MSD
3/17/2010	EPA 200.7	Total Phosphorous via ICP	0.486	mg/l	MSD
3/24/2010	EPA 200.7	Total Phosphorous via ICP	0.304	mg/l	MSD
3/31/2010	EPA 200.7	Total Phosphorous via ICP	0.757	mg/l	MSD
	EPA 200.7	Total Phosphorous via ICP		mg/l	MSD
		Monthly Average	0.44	mg/l	

Shadow Wood Wastewater Treatment Plant KY0031810

Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
1/5/2010	EPA 200.7	Total Phosphorous via ICP	1.08	mg/l	MSD
1/12/2010	EPA 200.7	Total Phosphorous via ICP	0.558	mg/l	MSD
1/20/2010	EPA 200.7	Total Phosphorous via ICP	0.312	mg/l	MSD
1/26/2010	EPA 200.7	Total Phosphorous via ICP	0.175	mg/l	MSD
		Monthly Average	0.53	mg/l	
2/3/2010	EPA 200.7	Total Phosphorous via ICP	0.169	mg/l	MSD
2/10/2010	EPA 200.7	Total Phosphorous via ICP	0.112	mg/l	MSD
2/17/2010	EPA 200.7	Total Phosphorous via ICP	0.141	mg/l	MSD
2/24/2010	EPA 200.7	Total Phosphorous via ICP	0.173	mg/l	MSD
		Monthly Average	0.15	mg/l	
3/3/2010	EPA 200.7	Total Phosphorous via ICP	0.127	mg/l	MSD
3/10/2010	EPA 200.7	Total Phosphorous via ICP	0.193	mg/l	MSD
3/17/2010	EPA 200.7	Total Phosphorous via ICP	0.202	mg/l	MSD
3/24/2010	EPA 200.7	Total Phosphorous via ICP	0.209	mg/l	MSD
3/31/2010	EPA 200.7	Total Phosphorous via ICP	0.222	mg/l	MSD
		Monthly Average	0.19	mg/l	

Timberlake Wastewater Treatment Plant KY0043087 **Quarterly Effluent Total Phosphorus Results**

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
1/5/2010	EPA 200.7	Total Phosphorous via ICP	0.835	mg/l	MSD
1/12/2010	EPA 200.7	Total Phosphorous via ICP	0.868	mg/l	MSD
1/20/2010	EPA 200.7	Total Phosphorous via ICP	0.786	mg/l	MSD
1/25/2010	EPA 200.7	Total Phosphorous via ICP	0.794	mg/l	MSD
1/26/2010	EPA 200.7	Total Phosphorous via ICP	0.78	mg/l	MSD
		Monthly Average	0.81	mg/l	
2/3/2010	EPA 200.7	Total Phosphorous via ICP	0.816	mg/l	MSD
2/10/2010	EPA 200.7	Total Phosphorous via ICP	0.166	mg/l	MSD
2/17/2010	EPA 200.7	Total Phosphorous via ICP	0.619	mg/l	MSD
2/24/2010	EPA 200.7	Total Phosphorous via ICP	0.71	mg/l	MSD
		Monthly Average	0.58	mg/l	
3/3/2010	EPA 200.7	Total Phosphorous via ICP	0.77	mg/l	MSD
3/11/2010	EPA 200.7	Total Phosphorous via ICP	0.892	mg/l	MSD
3/17/2010	EPA 200.7	Total Phosphorous via ICP	0.532	mg/l	MSD
3/24/2010	EPA 200.7	Total Phosphorous via ICP	0.412	mg/l	MSD
3/31/2010	EPA 200.7	Total Phosphorous via ICP	0.734	mg/l	MSD
		Monthly Average	0.67	mg/l	

Appendix H – SSO Inspection Routes

Monitoring of Overflows

<u>Route Stop</u>	<u>UNITID</u>	<u>Asset</u>	<u>Overflow Status</u>	<u>Initial Event Date</u>	<u>Responsibility</u>	<u>Monitoring</u>
Engineering						
1	65531	SMH	S	3/20/2008	Engineering	Hot Spot
2	33003	SMH	S	3/20/2008	Engineering	Hot Spot
3	28998	SMH	D	1/24/2002	Engineering	Hot Spot
4	28984	SMH	D	1/24/2002	Engineering	Hot Spot
5	63094	SMH	D	4/4/2008	Engineering	Hot Spot
6	63095	SMH	D	4/4/2008	Engineering	Hot Spot
7	70158	SMH	D	1/24/2002	Engineering	Hot Spot
8	67997	SMH	S	4/4/2008	Engineering	Hot Spot
9	67999	SMH	S	4/4/2008	Engineering	Hot Spot
10	31083	SMH	S	4/4/2008	Engineering	Hot Spot
11	29933	SMH	S	4/4/2008	Engineering	Hot Spot
12	31084	SMH	S	4/4/2008	Engineering	Hot Spot
13	29943	SMH	S	3/20/2008	Engineering	Hot Spot
14	29948	SMH	D	3/4/2008	Engineering	Hot Spot
15	79076	SMH	S	3/19/2008	Engineering	Hot Spot
16	19360	SMH	S	3/20/2008	Engineering	Hot Spot
17	19369	SMH	S	3/20/2008	Engineering	Hot Spot
18	17724	SMH	D	9/27/2003	Engineering	Hot Spot
19	70212	SMH	S	5/12/2008	Engineering	Hot Spot
20	36409	SMH	S	4/7/2008	Engineering	Hot Spot
21	31074	SMH	S	2/11/2009	Engineering	Hot Spot
22	31073	SMH	S	2/11/2009	Engineering	Hot Spot
Regulatory Services						
Route 1						
1	64505	SMH	S	10/9/2006	Regulatory Services	ROUTE 1
2	28395	SMH	D	12/15/2007	Regulatory Services	ROUTE 1
3	28392	SMH	D	11/29/2001	Regulatory Services	ROUTE 1
4	28391	SMH	D	5/30/2004	Regulatory Services	ROUTE 1
5	31733	SMH	S	5/9/2008	Regulatory Services	ROUTE 1
6	28711	SMH	S	3/21/2008	Regulatory Services	ROUTE 1
7	28413	SMH	D	3/20/2002	Regulatory Services	ROUTE 1
8	28414	SMH	D	1/3/2005	Regulatory Services	ROUTE 1
9	28415	SMH	D	12/19/2002	Regulatory Services	ROUTE 1
10	28416	SMH	D	4/4/2008	Regulatory Services	ROUTE 1
11	28417	SMH	D	4/4/2008	Regulatory Services	ROUTE 1
12	28451	SMH	S	4/8/2008	Regulatory Services	ROUTE 1
13	28250	SMH	D	1/3/2005	Regulatory Services	ROUTE 1
14	28249	SMH	D	3/12/2006	Regulatory Services	ROUTE 1
15	28340	SMH	D	1/3/2005	Regulatory Services	ROUTE 1
16	104289	SMH	S	10/4/2006	Regulatory Services	ROUTE 1
17	28336	SMH	D	8/30/2005	Regulatory Services	ROUTE 1
Route 2						
1	72571-X	SMH	D	11/29/2001	Regulatory Services	Route 2/Telemetry
2	30681	SMH	D	10/18/2004	Regulatory Services	Route 2
3	30680	SMH	D	5/30/2004	Regulatory Services	Route 2
4	63779	SMH	D	2/17/2000	Regulatory Services	Route 2
5	08426	SMH	D	9/3/2003	Regulatory Services	Route 2
6	49647	SMH	D	11/29/2001	Regulatory Services	Route 2

Monitoring of Overflows

<u>Route Stop</u>	<u>UNITID</u>	<u>Asset</u>	<u>Overflow Status</u>	<u>Initial Event Date</u>	<u>Responsibility</u>	<u>Monitoring</u>
7	08427	SMH	D	3/19/2008	Regulatory Services	Route 2
8	08431	SMH	D	9/2/2003	Regulatory Services	Route 2
9	30701	SMH	D	4/4/2008	Regulatory Services	Route 2
10	30702	SMH	D	4/4/2008	Regulatory Services	Route 2
11	08430	SMH	D	2/17/2000	Regulatory Services	Route 2
12	30704	SMH	S	9/30/2006	Regulatory Services	Route 2
13	49673	SMH	D	4/4/2008	Regulatory Services	Route 2
14	49672	SMH	D	12/15/2007	Regulatory Services	Route 2
15	18298	SMH	D	5/28/2004	Regulatory Services	Route 2
16	18302	SMH	S	6/28/2007	Regulatory Services	Route 2
17	18134	SMH	D	4/4/2008	Regulatory Services	Route 2
18	49236	SMH	D	4/4/2008	Regulatory Services	Route 2
19	49513	SMH	S	4/7/2008	Regulatory Services	Route 2
20	25676	SMH	D	2/18/2000	Regulatory Services	Route 2
21	26651	SMH	D	4/4/2008	Regulatory Services	Route 2
22	26650	SMH	D	3/19/2008	Regulatory Services	Route 2
23	18434	SMH	D	4/4/2008	Regulatory Services	Route 2
24	49224	SMH	D	3/19/2008	Regulatory Services	Route 2
25	18370	SMH	S	3/20/2008	Regulatory Services	Route 2
26	47960A	SMH	D	12/6/2007	Regulatory Services	Route 2
27	51160	SMH	D	4/4/2008	Regulatory Services	Route 2
28	51161	SMH	D	4/4/2008	Regulatory Services	Route 2
29	23212	SMH	D	4/4/2008	Regulatory Services	Route 2
30	23211	SMH	D	2/22/2000	Regulatory Services	Route 2
31	51221	SMH	D	3/4/2008	Regulatory Services	Route 2
32	16556	SMH	D	4/4/2008	Regulatory Services	Route 2
33	16649	SMH	D	1/24/2002	Regulatory Services	Route 2
34	51594	SMH	D	9/12/2006	Regulatory Services	Route 2
35	36763	SMH	S	12/17/2007	Regulatory Services	Route 2
36	08717	SMH	D	12/15/2007	Regulatory Services	Route 2
37	66349	SMH	D	3/4/2008	Regulatory Services	Route 2
38	44397	SMH	D	5/27/2004	Regulatory Services	Route 2
39	44396	SMH	D	4/4/2008	Regulatory Services	Route 2
40	104231	SMH	D	10/23/2007	Regulatory Services	Route 2
41	104223	SMH	D	5/20/2005	Regulatory Services	Route 2
42	13931	SMH	D	3/4/2008	Regulatory Services	Route 2
43	13943	SMH	D	3/19/2008	Regulatory Services	Route 2
44	08537	SMH	D	9/27/2002	Regulatory Services	Route 2/Telemetry
45	51301	SMH	D	9/20/2009	Regulatory Services	Route 2
46	99259	SMH	D	7/29/2009	Regulatory Services	Route 2
Route 3						
1	08935-SM	SMH	D	11/29/2001	Regulatory Services	Route 3/Telemetry
2	43726	SMH	S	4/4/2008	Regulatory Services	Route 3
3	24507	SMH	S	4/4/2008	Regulatory Services	Route 3
4	24448	SMH	S	3/19/2008	Regulatory Services	Route 3
5	96020	SMH	D	3/12/2006	Regulatory Services	Route 3
6	63319	SMH	D	10/23/2007	Regulatory Services	Route 3
7	01793	SMH	D	3/4/2008	Regulatory Services	Route 3
8	47603	SMH	D	3/4/2008	Regulatory Services	Route 3
9	47604	SMH	D	3/19/2008	Regulatory Services	Route 3

Monitoring of Overflows

<u>Route Stop</u>	<u>UNITID</u>	<u>Asset</u>	<u>Overflow Status</u>	<u>Initial Event Date</u>	<u>Responsibility</u>	<u>Monitoring</u>
10	47593	SMH	D	3/19/2008	Regulatory Services	Route 3
11	90700	SMH	D	3/19/2008	Regulatory Services	Route 3
12	02932	SMH	D	3/19/2008	Regulatory Services	Route 3
13	02933	SMH	D	3/4/2008	Regulatory Services	Route 3
14	47596	SMH	S	1/28/2008	Regulatory Services	Route 3
15	47583	SMH	D	2/6/2008	Regulatory Services	Route 3
16	02935	SMH	D	3/19/2008	Regulatory Services	Route 3
17	25012	SMH	D	5/28/2004	Regulatory Services	Route 3
18	21103	SMH	D	3/19/2008	Regulatory Services	Route 3
19	41416	SMH	S	3/21/2008	Regulatory Services	Route 3
20	41374	SMH	D	3/27/2008	Regulatory Services	Route 3
21	26752	SMH	S	4/4/2008	Regulatory Services	Route 3
22	45835	SMH	D	9/2/2003	Regulatory Services	Route 3
23	27005	SMH	D	9/2/2003	Regulatory Services	Route 3
24	IS021A-SI	SMH	D	8/1/1969	Regulatory Services	Route 3
25	71004	SMH	S	3/6/2009	Regulatory Services	Route 3
1	59169	SMH	D	3/12/2006	Regulatory Services	Telemetry
2	22385	SMH	D	3/12/2006	Regulatory Services	Telemetry
3	22370	SMH	D	12/19/2002	Regulatory Services	Telemetry
4	32682	SMH	D	3/12/2006	Regulatory Services	Telemetry
5	32688	SMH	D	12/17/2001	Regulatory Services	Telemetry

Metro Operations

1	MSD0006-PS	SLS	D	09/15/02	Operations	Telemetry
2	MSD0007-PS	SLS	D	03/20/02	Operations	Telemetry
3	MSD0010-PS	SLS	D	05/05/03	Operations	Telemetry
4	MSD0012-PS	SLS	D	12/16/00	Operations	Telemetry
5	MSD0023-PS	SLS	D	01/02/04	Operations	Telemetry
6	MSD0024-PS	SLS	D	12/16/00	Operations	Telemetry
7	MSD0039-PS	SLS	D	01/03/05	Operations	Telemetry
8	MSD0042-PS	SLS	D	12/16/00	Operations	Telemetry
9	MSD0047-PS	SLS	D	12/16/00	Operations	Telemetry
10	MSD0050-PS	SLS	D	12/16/00	Operations	Telemetry
11	MSD0057-LS	SLS	D	12/16/00	Operations	Telemetry
12	MSD0082-PS	SLS	D	02/08/08	Operations	Telemetry
13	MSD0087-PS	SLS	D	02/07/08	Operations	Telemetry
14	MSD0095-PS	SLS	D	01/01/03	Operations	Telemetry
15	MSD0101-PS	SLS	D	12/16/00	Operations	Telemetry
16	MSD0111-LS	SLS	D	03/19/08	Operations	Telemetry
17	MSD0123-PS	SLS	D	09/28/02	Operations	Telemetry
18	MSD0130-PS	SLS	D	08/30/05	Operations	Telemetry
19	MSD0133-PS	SLS	D	04/04/08	Operations	Telemetry
20	MSD0149-PS	SLS	D	07/17/78	Operations	Telemetry
21	MSD0151-PS	SLS	D	03/19/08	Operations	Telemetry
22	MSD0165-PS	SLS	D	12/16/00	Operations	Telemetry
23	MSD0166-PS	SLS	D	05/13/02	Operations	Telemetry
24	MSD0180-PS	SLS	D	12/16/00	Operations	Telemetry
25	MSD0183-PS	SLS	D	03/20/02	Operations	Telemetry

Monitoring of Overflows

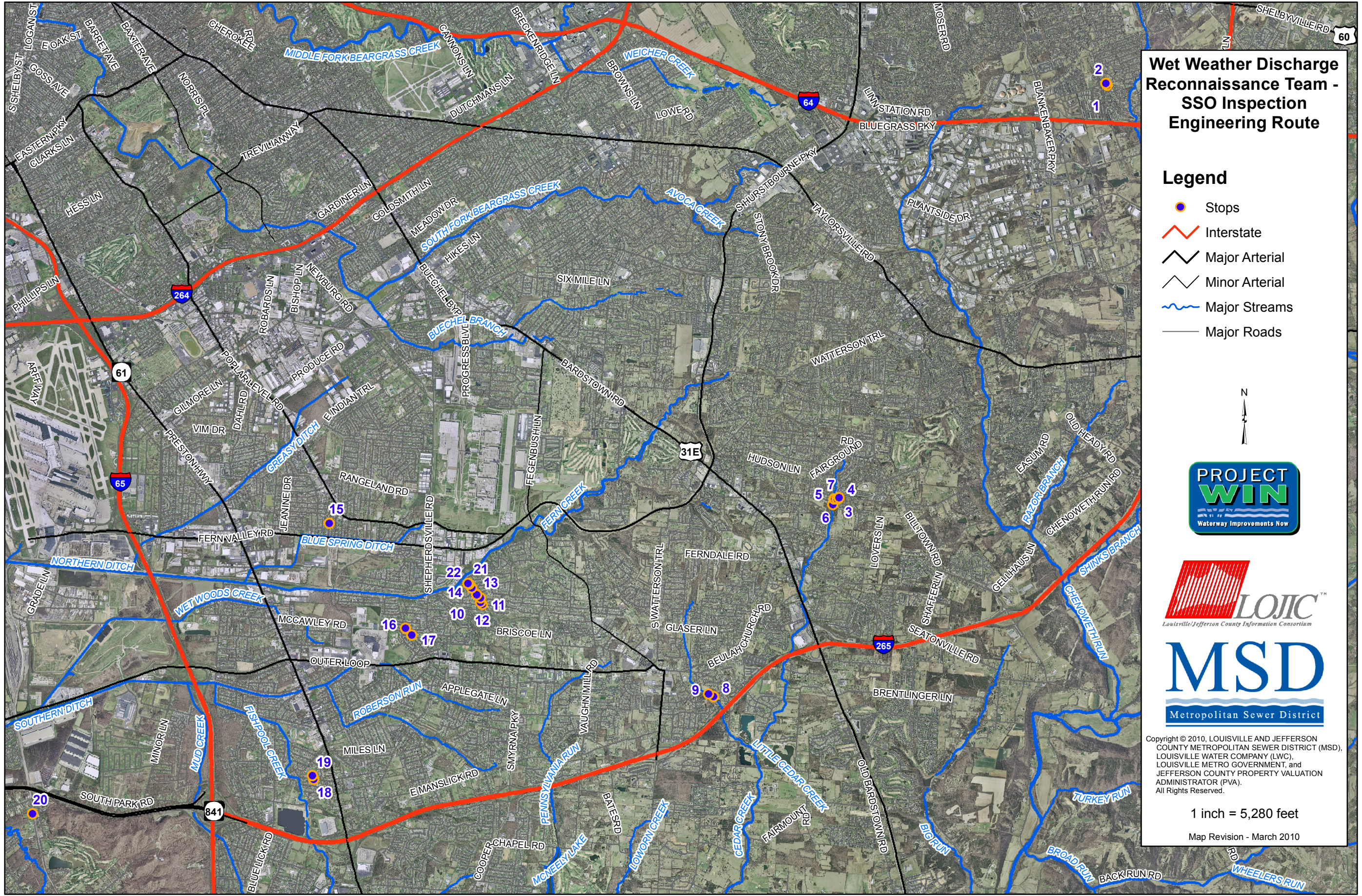
<u>Route Stop</u>	<u>UNITID</u>	<u>Asset</u>	<u>Overflow Status</u>	<u>Initial Event Date</u>	<u>Responsibility</u>	<u>Monitoring</u>
26	MSD0191-PS	SLS	D	09/27/02	Operations	Telemetry
27	MSD0192-PS	SLS	D	12/16/00	Operations	Telemetry
28	MSD0193-PS	SLS	D	01/06/05	Operations	Telemetry
29	MSD0196-PS	SLS	D	03/19/08	Operations	Telemetry
30	MSD0199-LS	SLS	D	03/12/06	Operations	Telemetry
31	MSD0209A-PS	SLS	D	12/17/01	Operations	Telemetry
32	MSD0255	STP	D	01/14/07	Operations	Telemetry
33	MSD0263	STP	D	09/27/02	Operations	Telemetry
34	MSD0263A-PS	SLS	D	10/24/07	Operations	Telemetry
35	MSD0271	STP	D	04/04/08	Operations	Telemetry
36	MSD0277	STP	D	10/17/06	Operations	Telemetry
37	MSD0292	STP	D	03/20/08	Operations	Telemetry
38	MSD0294	STP	D	04/04/08	Operations	Telemetry
39	MSD0403	STP	D	05/20/05	Operations	Telemetry
40	MSD1010-PS	SLS	D	12/15/07	Operations	Telemetry
41	MSD1013-PS	SLS	D	11/29/01	Operations	Telemetry
42	MSD1044-PS	SLS	D	03/20/02	Operations	Telemetry
43	MSD1048-PS	SLS	D	03/04/08	Operations	Telemetry
44	MSD1055-LS	SLS	D	01/24/02	Operations	Telemetry
45	MSD1060-LS	SLS	D	12/16/00	Operations	Telemetry
46	MSD1063-PS	SLS	D	12/16/00	Operations	Telemetry
47	MSD1065-PS	SLS	D	10/14/02	Operations	Telemetry
48	MSD1080-LS	SLS	D	03/19/08	Operations	Telemetry
49	MSD1082-PS	SLS	D	01/03/05	Operations	Telemetry
50	MSD1085-PS	SLS	D	05/11/03	Operations	Telemetry
51	MSD1086-PS	SLS	D	08/30/05	Operations	Telemetry
52	MSD1099-LS	SLS	D	12/16/00	Operations	Telemetry
53	MSD1105-PS	SLS	D	03/18/06	Operations	Telemetry
54	00746	SMH	D	12/16/2000	Operations	Telemetry
55	04498	SMH	S	5/9/2008	Operations	Telemetry
56	04542	SMH	D	12/15/2007	Operations	Telemetry
57	11877	SMH	D	7/18/2001	Operations	Telemetry
58	22436	SMH	D	7/14/2004	Operations	Telemetry
59	25477	SMH	S	3/20/2008	Operations	Telemetry
60	25478	SMH	S	7/15/2006	Operations	Telemetry
61	25480	SMH	D	12/16/2000	Operations	Telemetry
62	25484	SMH	D	10/23/2007	Operations	Telemetry
63	27116	SMH	S	3/20/2008	Operations	Telemetry
64	27969	SMH	S	5/9/2008	Operations	Telemetry
65	30520	SMH	D	5/27/2004	Operations	Telemetry
66	35309	SMH	D	10/23/2007	Operations	Telemetry
67	36419	SMH	S	4/7/2008	Operations	Telemetry
68	40870	SMH	D	9/27/2002	Operations	Telemetry
69	40871	SMH	D	3/4/2008	Operations	Telemetry
70	40872	SMH	D	12/15/2007	Operations	Telemetry
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72	43472	SMH	D	3/4/2008	Operations	Telemetry
73	46891	SMH	D	6/15/2003	Operations	Telemetry
74	55665	SMH	D	3/19/2008	Operations	Telemetry
75	60679	SMH	D	12/15/2007	Operations	Telemetry

Monitoring of Overflows

<u>Route Stop</u>	<u>UNITID</u>	<u>Asset</u>	<u>Overflow Status</u>	<u>Initial Event Date</u>	<u>Responsibility</u>	<u>Monitoring</u>
76	61683	SMH	D	4/4/2008	Operations	Telemetry
77	62418	SMH	D	4/4/2008	Operations	Telemetry
78	64096	SMH	D	3/19/2008	Operations	Telemetry
79	65633	SMH	D	4/4/2008	Operations	Telemetry
80	65635	SMH	D	4/4/2008	Operations	Telemetry
81	86052	SMH	S	5/9/2008	Operations	Telemetry
82	88545	SMH	S	5/12/2008	Operations	Telemetry
83	90776	SMH	D	1/3/2005	Operations	Telemetry
84	91087	SMH	D	3/18/2008	Operations	Telemetry
85	91629	SMH	D	3/19/2008	Operations	Telemetry
86	91630	SMH	D	3/19/2008	Operations	Telemetry
87	92061	SMH	D	2/15/2001	Operations	Telemetry
88	92098	SMH	D	5/16/2008	Operations	Telemetry
89	93719	SMH	D	10/23/2007	Operations	Telemetry
90	94187	SMH	D	3/19/2008	Operations	Telemetry
91	97362	SMH	D	4/23/2004	Operations	Telemetry
92	97806	SMH	D	4/4/2008	Operations	Telemetry
93	100830	SMH	S	4/8/2008	Operations	Telemetry
94	105936	SMH	D	3/4/2008	Operations	Telemetry
95	108956	SMH	D	12/12/2007	Operations	Telemetry
96	108957	SMH	D	4/4/2008	Operations	Telemetry
97	81316	SMH	D	4/23/2004	Operations	Telemetry

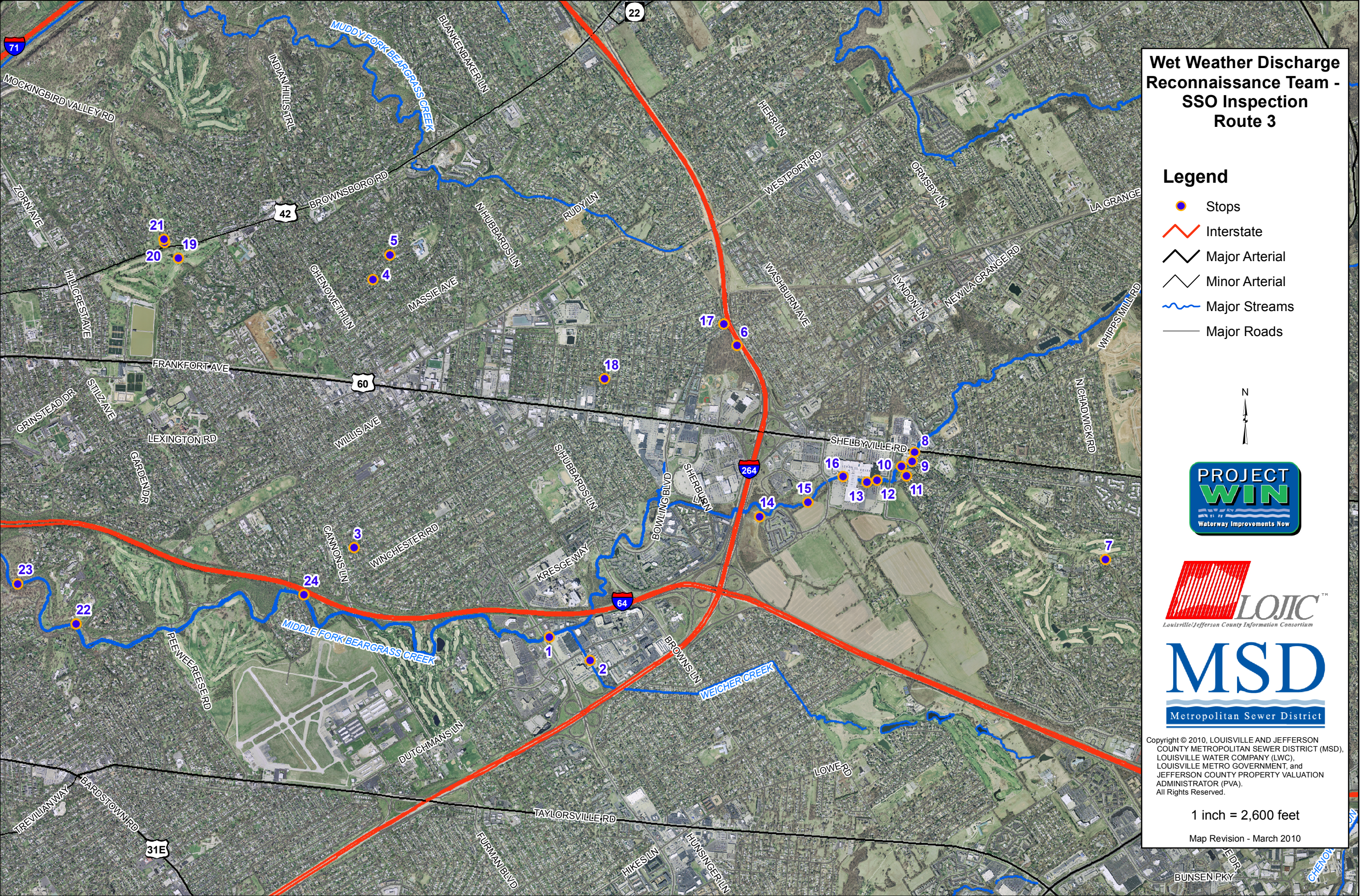
Infrastructure and Flood Pumping

1	17571	SMH	D	02/17/00	I&FP	Pumped
2	18471	SMH	D	02/17/00	I&FP	Pumped
3	18483	SMH	D	02/17/00	I&FP	Pumped
4	18505	SMH	D	02/17/00	I&FP	Pumped
5	18595	SMH	D	02/17/00	I&FP	Pumped
6	21061	SMH	D	02/17/00	I&FP	Pumped
7	21089	SMH	D	02/17/00	I&FP	Pumped
8	21101	SMH	D	02/17/00	I&FP	Pumped
9	21153	SMH	D	02/17/00	I&FP	Pumped
10	21156	SMH	D	02/17/00	I&FP	Pumped
11	21506	SMH	D	02/17/00	I&FP	Pumped
12	CSO015	SMH	D	12/19/07	I&FP	Telemetry
13	CSO191	SMH	D	03/23/08	I&FP	Telemetry
14	MSD0310-FP	STLS	D	11/22/03	I&FP	Telemetry
15	MSD0308-FP	STLS	D	11/24/03	I&FP	Telemetry
16	MSD0306-FP	STLS	D	01/04/04	I&FP	Telemetry
17	MSD0303-FP	STLS	D	03/11/04	I&FP	Telemetry









**Wet Weather Discharge
Reconnaissance Team -
SSO Inspection
Route 3**

- Legend**
- Stops
 - Interstate
 - Major Arterial
 - Minor Arterial
 - Major Streams
 - Major Roads



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1 inch = 2,600 feet

Map Revision - March 2010



Consent Decree Quarterly Report #18
January 1, 2010 – March 31, 2010

Appendix I – Jeffersontown WQTC Blending Elimination Plan

April 30, 2010





Metropolitan Sewer District

700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

March 31, 2010

Chief, Water Programs Enforcement Branch
Water Management Program
US 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

Jeff Cummins, Acting Director
Division of Enforcement
Department of Environmental Protection
300 Fair Oaks Lane
Frankfort, KY 40601

Subject: Jeffersontown Water Quality Treatment Center
Blending Elimination Plan
Civil Action No. 3:08-cv-00608-CRS

Attention Chiefs and Director:

The Louisville and Jefferson County Metropolitan Sewer District (MSD) has developed this plan to eliminate the practice of "blending" at the Jeffersontown Water Quality Treatment Center (WQTC), in accordance with Paragraph 26 (c) of the Amended Consent Decree filed with the Federal Court on March 9, 2009.

BACKGROUND

Located in eastern Jefferson County, the Jeffersontown WQTC was formerly named the Jeffersontown Wastewater Treatment Plant (WWTP) which is how it is referred to in the Amended Consent Decree. The WQTC is currently rated at 4.0 million gallons per day (MGD) annual average flow. During wet weather events flows to the WQTC can approach 20 MGD, which exceeds both the hydraulic and treatment capacity of the existing secondary treatment process units. To prevent the discharge of untreated wastewater from the headworks of the facility, MSD currently provides partial treatment (screening, grit removal, primary sedimentation) to a portion of the wet weather flows, and then "blends" this partially treated flow with effluent from the secondary treatment process. The blended flow is then disinfected by ultra-violet light and discharged to Chenoweth Run.

Requirements of the Amended Consent Decree

While the practice of blending reduces pollutant discharges during wet weather flows, regulatory agencies have determined that the routing of flows around the secondary treatment system does not meet the intent of the regulations enforcing the Clean Water Act. To address this, the Amended Consent Decree Paragraph 26 (c) requires:



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"...appropriate alternatives for both the complete elimination of the Jeffersontown WWTP and long term upgrades to the Jeffersontown WWTP should elimination not be practical or achievable."

"...expeditious implementation and completion schedules not extending past December 31, 2015..."

and,

"No later than March 31, 2010, MSD must select and commit to perform pursuant to this Amended Consent Decree one of the alternatives for either the elimination or long term upgrade of the Jeffersontown WWTP...and inform Cabinet/EPA of its selection."

The purpose of this report is to document the process used to select the approach for eliminating blending at the WQTC, and to describe the approach and the schedule for implementing.

Comprehensive Performance Evaluation and IOAP

The Comprehensive Performance Evaluation (CPE) performed for the Jeffersontown WQTC in 2009 evaluated a number of plant upgrade alternatives to eliminate blending. The Integrated Overflow Abatement Plan (IOAP) incorporated the preferred plant upgrade alternative into an overall evaluation that also considered eliminating the Jeffersontown WQTC and diverting flows to other locations for treatment and discharge. The IOAP found that complete elimination of the WQTC was both practical and achievable, and recommended an approach that pumps flow to the Hikes Lane Interceptor. Dry weather flow is then routed to the Morris Forman WQTC, and wet weather flow can be routed to the Derek R. Guthrie WQTC.

When this plan was presented to the public during review of the final draft IOAP, strong reaction was received from residents of southwest Jefferson County, suggesting that MSD re-consider sending all wet weather flows to the Derek R. Guthrie WQTC. MSD agreed to investigate refinements to the blending elimination plan and review the final recommendation prior to committing to an approach as required by the Amended Consent Decree.

EVALUATION OF ALTERNATIVES

The evaluation process used to select the final approach to eliminate blending at the Jeffersontown WQTC is documented in the following text.

Decision Process

During development of the IOAP, MSD developed a decision model based on a risk-management approach to protecting key community values as identified by the Wet Weather Team Stakeholder Group. This decision model was used to evaluate, select, and prioritize the projects required to mitigate sewer overflows. This decision model was well received by stakeholders, regulators, and the general public. It was determined that a similar process would be used to select the final blending elimination approach as well.

The decision model used in the Jeffersontown WQTC blending elimination evaluation uses the same set of values as the IOAP. Most of the performance measure evaluation scales and scoring criteria were also retained, with a few exceptions that recognize the differences in the decision required in the blending elimination evaluation. For example, in the Eco-Friendly Solutions value, the IOAP performance measures include a factor that assigns benefit points for alternatives that reduce overall pollutant loadings in the watershed. To better differentiate between blending elimination alternatives, this performance measure was modified to assign benefit points based on how much of the effluent load was diverted to the Ohio River, as compared to diversion to other discharge points still within the overall Floyd's Fork watershed of which Chenoweth Run is a part. As a result of these changes, the benefit scores calculated in this evaluation cannot be used to compare projects described in this report with projects described in the IOAP. The benefit scores used in this report can only be used to compare the alternatives described herein.

Similarly, the project costs for the IOAP were developed using a standardized cost model useful for planning-level estimating. Projects in this report used the IOAP cost model where appropriate, but some components such as pipe lining could be more accurately estimated using unit prices from recent MSD bids. As a result, the costs shown herein cannot be directly compared to costs in the IOAP, and are referred to as "comparative" to clarify their intended use for alternative evaluation.

Public Input on Blending Elimination Alternatives

After development and evaluation of the alternatives, MSD conducted "open house" public meetings in both the Jeffersontown area and in the Valley Station area in southwest Jefferson County. While the meetings did not generate the same level of interest as the previous meetings, residents and other interested parties were able to express ongoing concerns and suggest refinements to the plans presented.

Representatives of the Floyds Fork Future Fund Land Trust (Future Fund) expressed concern about the planned relocation of the proposed "Billtown Road Pump Station" approximately 4000 feet south to a more accessible site at Seatonville Road. Figure 1 shows the location of the Billtown Road Pump Station and the boundaries of the proposed service area as defined in the 2000 Cedar Creek Action Plan Update (CCAPU), the currently approved Facilities Plan for the area. Since Future Fund is a non-profit organization formed to purchase land and conservation easements for parks and green space, they are concerned that the relocation of the pump station and the associated expansion of the Cedar Creek WQTC service area could negatively impact their ability to acquire land and easements in the area. While the blending elimination plan may rely on downstream infrastructure provided under the CCAPU, the exact location of the pump station does not impact the blending elimination decision. An update to the Action Plan is currently being prepared that will address potential service area modifications, and providing sewer service to additional properties and potential customers in the watershed. The review process for this Action Plan is the established forum to discuss service area boundaries and pump station locations in the Cedar Creek WQTC basin.

Property owners who live immediately south of the Jeffersontown WQTC along the route of the current Chenoweth Run Force Main noted that Alternative 3 (the lowest cost alternative) showed the elimination of the Jeffersontown WQTC being achieved by a pump station at the current WQTC site

with a force main pumping south along the same route as the Chenoweth Run Force Main to a connection point with the Cedar Creek WQTC collection system. They questioned if a gravity sewer could be used instead, thereby allowing sewer service to be provided to property south of the WQTC currently served only by septic tanks. A preliminary evaluation of the gravity sewer option showed higher construction costs for the gravity sewer design based on the assumption that the existing force main could be reused for the pumped option. Further evaluation showed that the force main would need to be replaced if the pumped option was selected, resulting in essentially equal construction costs for the pumped and gravity options. The gravity option will have lower total present worth costs when operation and maintenance costs are considered. As a result of this evaluation and the public input received at the open house, the connection between the Jeffersontown WQTC site and the Cedar Creek WQTC collection system has been changed to a gravity sewer in the alternatives presented herein.

BLENDING ELIMINATION ALTERNATIVES

Three additional alternative approaches were developed to be compared to the elimination approach presented in the IOAP. The following is a summary of the IOAP solution and the three additional alternatives that were evaluated.

IOAP Approach

The approach presented in the IOAP is illustrated in Figures 2 and 3. Figure 2 summarizes the amount of dry weather flow diverted to the Floyds Fork WQTC and the Morris Forman WQTC. Dry weather flow is used to illustrate the approximate split of flow diversions. Wet weather flow is assumed to be split in approximately the same proportions. As Figure 2 shows, except for a small portion of flow diverted to the Floyds Fork WQTC (an approach common to all Alternatives), all flow is pumped from the existing Jeffersontown WQTC site up to the Hikes Lane Interceptor. Figure 3 shows the preliminary pipe routing used for cost estimating. Table 1 presents the major cost elements and the comparative cost estimate for this approach.

Table 1 - Original IOAP Approach Flows Diverted to Hikes Lane Interceptor		
Main Projects	Description	Comparative Cost
J-Town to HLI Improvements (<i>replace interceptor from Grassland area to WQTC, Storage and PS at the WQTC, force main to HLI</i>)	Range of 15"-42" Interceptor Upsize; 5.7 MG Storage; 10 MGD PS; 24" FM to HLI	\$ 23,737,000
Chenoweth Run PS Improvements	2.7 MGD PS; Upsize FM to 12"	\$ 2,207,000
Total:		\$ 25,944,000

Alternative 1

Alternative 1 differs from the IOAP approach in that a portion of the service area south of the WQTC is diverted to the Cedar Creek WQTC. Figure 4 shows the proportion of flow diverted, and Figure 5 shows the preliminary pipe routing. Note that this alternative is consistent with the concepts contained in the CCAPU as shown in Figure 1. For the purpose of alternative comparison, costs for blending elimination are calculated based on what is specifically needed for Jeffersontown WQTC elimination, or the upsizing required to accommodate WQCT elimination in facilities planned for other purposes (such as serving areas not currently sewered). Costs for facilities such as the Billtown Road Pump Station are not included in the evaluation, except to the extent that they must be enlarged to accommodate the Jeffersontown WQTC flows (as compared to the Hikes Lane Interceptor diversion approach presented in the IOAP). Table 2 presents the major cost elements and the comparative cost estimate for this approach.

Table 2 - Alternative 1 Costs 80% Diverted to Hikes Lane Interceptor 20% Diverted to Cedar Creek WQTC		
Main Projects	Description	Comparative Cost
J-Town to HLI Improvements (replace interceptor from Grassland to WQTC, Storage and PS at the WQTC, FM to HLI)	Interceptor Upsize: 2,613 LF ~ 42"; 1,525 LF ~ 36"; 1,370 LF ~ 24"; 700 LF ~ 15"; 2.3 MG Storage; 10 MGD PS; 32,100 LF ~ 24" FM to HLI	\$ 20,596,000
Upsize Billtown Road Interceptor	4,511 LF ~ 30"; 7,093 LF ~ 24" Chenoweth Run PS Elimination	\$ 1,304,000
Upsize Billtown Road PS & FM	15 MGD PS; 5,814 LF ~ 30" FM	\$ 1,811,000
Upsize Fairmount Road PS Improvements	21.7 MGD PS; 9,935 LF ~ 36" FM	\$ 1,526,000
Total:		\$ 25,237,000

Alternative 2

Alternative 2 is the only alternative under consideration that keeps the Jeffersontown WQTC in operation (at reduced flows). As shown in Figure 6, the northwest part of the service area is pumped to the Hikes Lane Interceptor from a new pump station site assumed to be located on or near the existing Sanitary Sewer Overflow at Grassland Avenue. The south area is routed to the Cedar Creek WQTC similar to Alternative 1. Approximately 0.8 MGD of dry weather flow continues to be treated and discharged from the current Jeffersontown WQTC, which would require substantial rehabilitation to assure reliable service into the future. Figure 7 shows the preliminary pipe line routing and pump station locations. Table 3 presents the major cost elements and the comparative cost estimate for this approach.

Table 3 - Alternative 2 Costs 55% Diverted to Hikes Lane Interceptor 20% Diverted to Cedar Creek WQTC 25% Continues Treatment at Existing WQTC		
Main Projects	Description	Comparative Cost
J-Town to HLI Improvements (replace interceptor from Grassland to WWTP, Storage and PS at the WWTP, FM to HLI)	Interceptor Upsize: 680 LF ~ 24"; 700 LF ~ 15" 0.54 MG Storage; 10 MGD PS; 25,820 LF ~ 24" FM to HLI	\$ 13,460,000
Jeffersontown WTP Improvements	Equipment Repairs Needed if Plant is kept in Place (This cost needs to be corrected by CH2)	\$ 3,000,000
Pipe Cured In Place Pipe Lining	2,638 LF ~ 36"; 2,836 LF ~ 30"; 172 LF ~ 24"; 735 LF ~ 18"	\$ 2,675,000
Upsize Billtown Road Interceptor	4,511 LF ~ 30"; 7,093 LF ~ 24" Chenoweth Run PS Elimination	\$ 1,304,000
Upsize Billtown Road PS & FM	15 MGD PS; 5,814 LF ~ 30" FM	\$ 1,811,000
Upsize Fairmount Road PS Improvements	21.7 MGD PS; 9,935 LF ~ 36" FM	\$ 1,526,000
Total:		\$ 23,766,000

Alternative 3

Alternative 3 is illustrated in Figures 8 and 9. This alternative diverts the northwest area to the Hikes Lane interceptor similar to Alternative 2. In this alternative all remaining flows (except those diverted to Floyds Fork WQTC) are diverted to the Cedar Creek WQTC. The pump station site is anticipated to be located on or near the existing Jeffersontown Municipal Services storage yard. It is expected that a connection will be retained between the pump station diverting flow to the Hikes Lane Interceptor and the interceptor carrying flow south to the Cedar Creek WQTC. This connection will allow MSD more flexibility in flow routing, and allows the option of sending all from this watershed to a new regional treatment facility on the Salt River, should that become available in the future. Table 4 presents the major cost elements and the comparative cost estimate for this approach.

Table 4 - Alternative 3 Costs 60% Diverted to Hikes Lane Interceptor 40% Diverted to Cedar Creek WQTC		
Main Projects	Description	Comparative Cost
J-Town to HLI Improvements (replace interceptor from Grassland to WQTC, Storage and PS at the WQTC, FM to HLI)	Interceptor Upsize: 1,370 LF ~ 24"; 700 LF ~ 15"; 0.8 MG Storage; 10 MGD PS; 28,110 LF ~ 24" FM to HLI	\$ 15,014,000
Pipe Cured In Place Pipe Lining	2,638 LF ~ 24"; 172 LF ~ 18"	\$ 268,000
Upper Billtown Rd Interceptor	8,030 LF ~ 24" Interceptor from Jtown WQTC to Chenoweth Run PS	\$ 1,047,000
Upsize Billtown Road Interceptor	9,179 LF ~ 30"; 2,426 LF ~ 24" Chenoweth Run PS Elimination	\$ 1,505,000
Upsize Billtown Road PS & FM	19.5 MGD PS; 5,814 LF ~ 36" FM	\$ 3,194,000
Upsize Fairmount Road PS Improvements	25.9 MGD PS; 9,935 LF 36" FM	\$ 2,227,000
Total:		\$ 23,255,000

ALTERNATIVE EVALUATION

Table 5 summarizes the benefit scores, comparative costs, and benefit/cost ratios for the IOAP approach and the three alternatives. Detailed benefit scoring sheets are attached at the end of this report, following the figures.

Table 5 - Cost and Benefit Summary				
	<i>Original IOAP</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Comparative Cost	\$ 25,944,000	\$ 25,237,000	\$ 23,776,000	\$ 23,255,000
Benefit Score	3,636	3,636	2,826	3,564
Benefit/Cost Ratio (x100,000)	14.01	14.41	11.89	15.33

As Table 5 shows, Alternative 3 has the lowest comparative construction cost, and also has the best benefit/cost ratio. This Alternative has an additional benefit not quantified by the benefit/cost evaluation. Since it retains connectivity between the northwest diversion and the southern diversion, it has the potential to make maximum use of a future regional treatment facility on the Salt River should that become available in the future.

At the time this report was prepared, a bill (HB 221) was being considered by the Kentucky legislature that would allow the creation of a regional sewer district to serve the Salt River watershed. If this regional sewer district is formed in the future, MSD would retain the option to include all its Salt River basin facilities within the service area of this new entity.

SELECTED BLENDING ELIMINATION APPROACH

Alternative 3 is the approach selected by MSD to eliminate blending at the Jeffersontown WQTC. It eliminates the WQTC in its entirety, which is clearly the preferred approach stated in the Amended Consent Decree. It is consistent with concepts in the Cedar Creek Action Plan Update, and will be included in the Floyds Fork Watershed Plan Update currently being prepared to update the facilities plans for all WQTCs in the Floyds Fork watershed.

Phasing Plan

Completion of the elimination plan requires coordination with enabling projects in the Cedar Creek WQTC service area. Figure 10 presents the general phasing plan for all the projects required to implement the selected plan.

Schedule

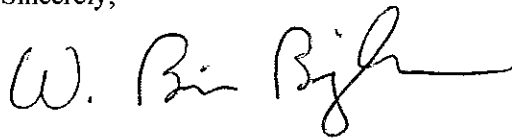
Figure 11 presents the proposed schedule for all the components of the elimination plan. Critical schedule elements include the design and construction of the force main from the new pump station

assumed to be located at or near the existing Jeffersontown Municipal Services storage yard and the east end of the Hikes Lane Interceptor. The biggest unknowns in this project are issues surrounding land and easement acquisition and permitting of stream crossings etc. MSD plans to complete the components of this plan by the December 31, 2015, requirement for blending elimination, and will be able to complete the elimination in advance of the required date if the force main construction can be completed early.

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) 649-3850.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Brian Bingham". The signature is fluid and cursive, with a long horizontal stroke at the end.

W. Brian Bingham
Regulatory Services Director

Attachments

cc: H. J. Schardein, Jr.

Paula Purifoy

Laurence J. Zielke

Figure 2 - Jeffersontown Diversion Projects: Original IOAP - J-Town to HLI

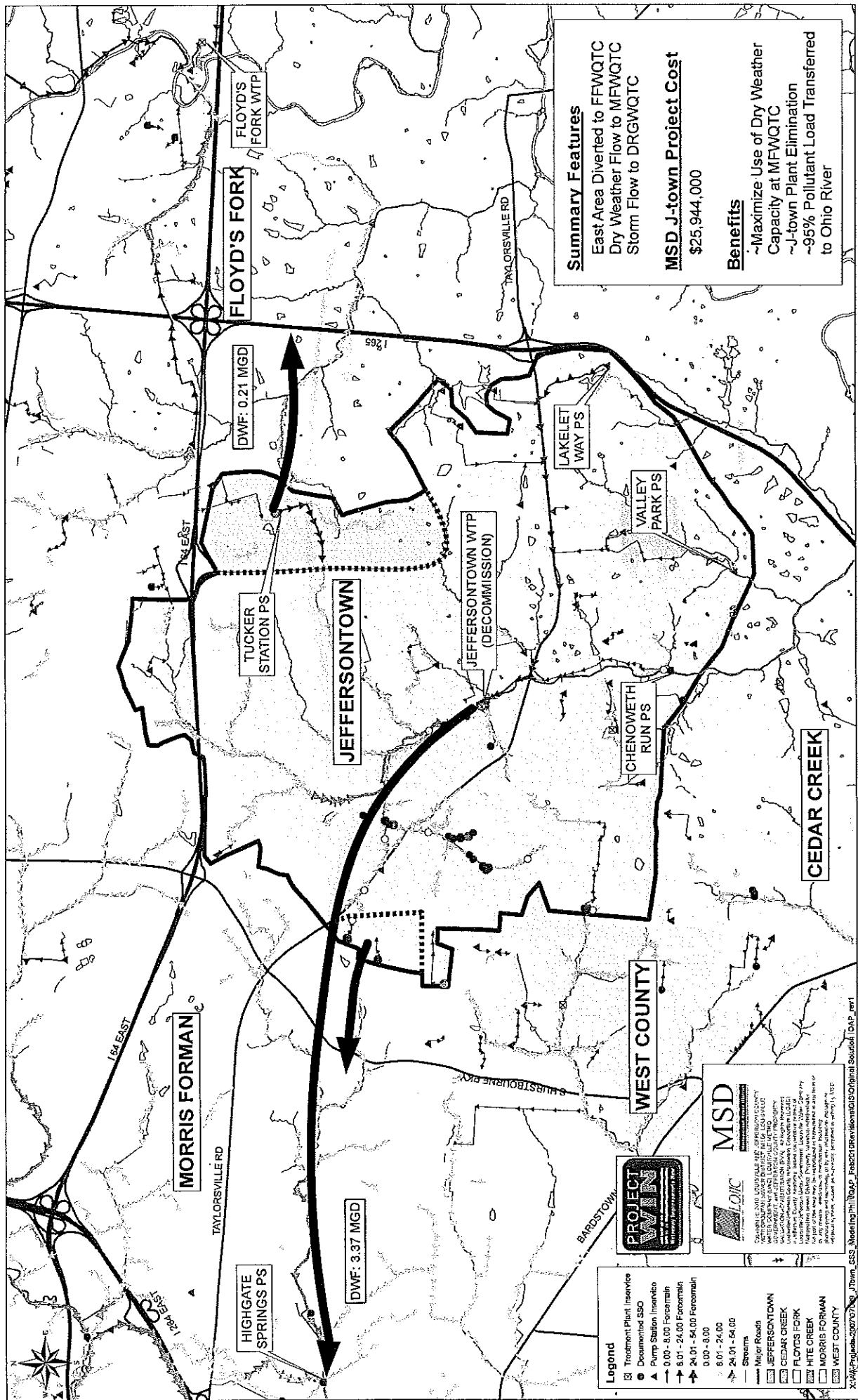


Figure 4 - Jeffersontown Diversion Projects: Alternate 1 - Gravity to HLI / Pumped to Cedar Creek

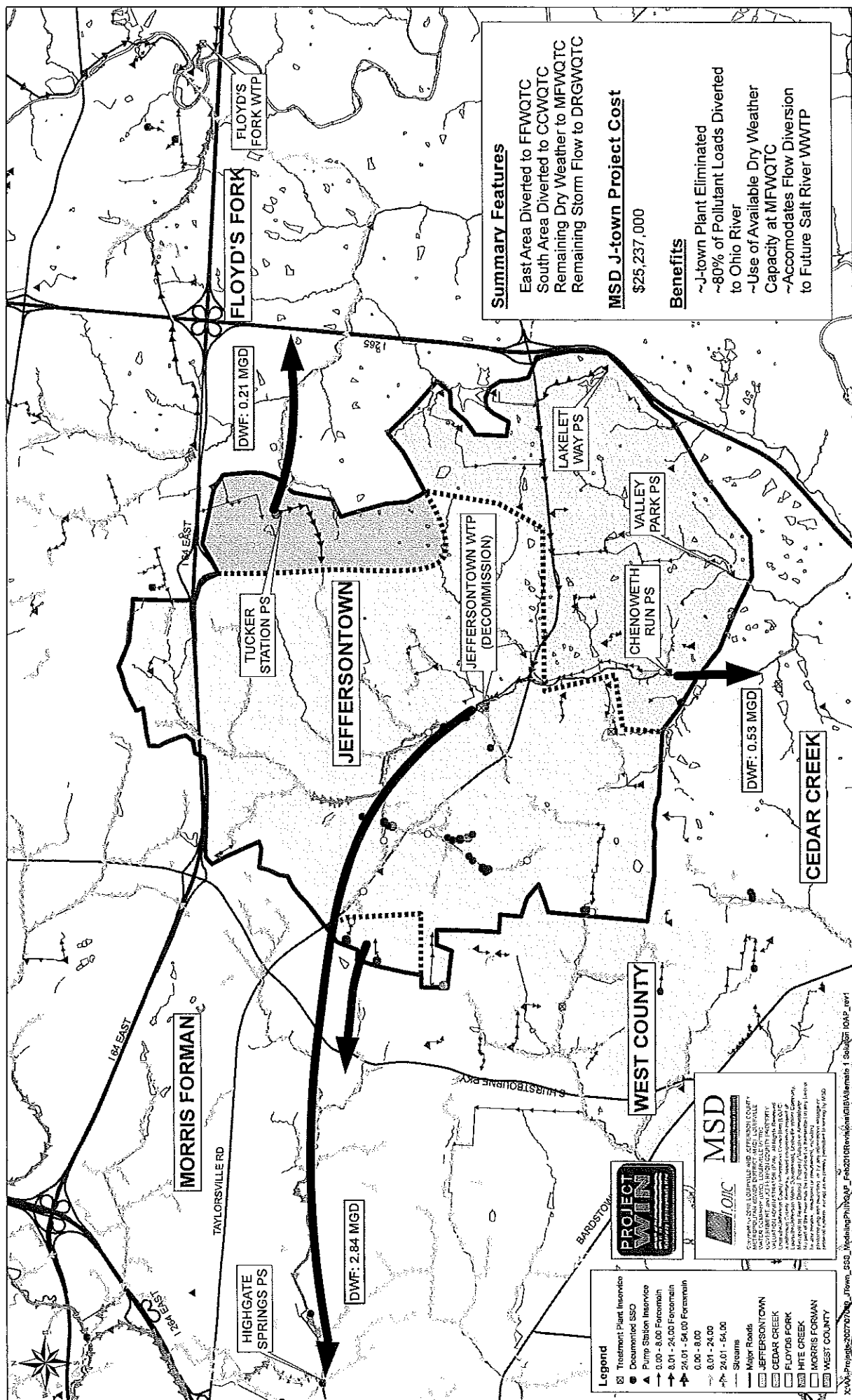


Figure 5 - Jeffersonstown Diversion Projects: Alternate 1 - Gravity to HLI & Pumped to Cedar Creek

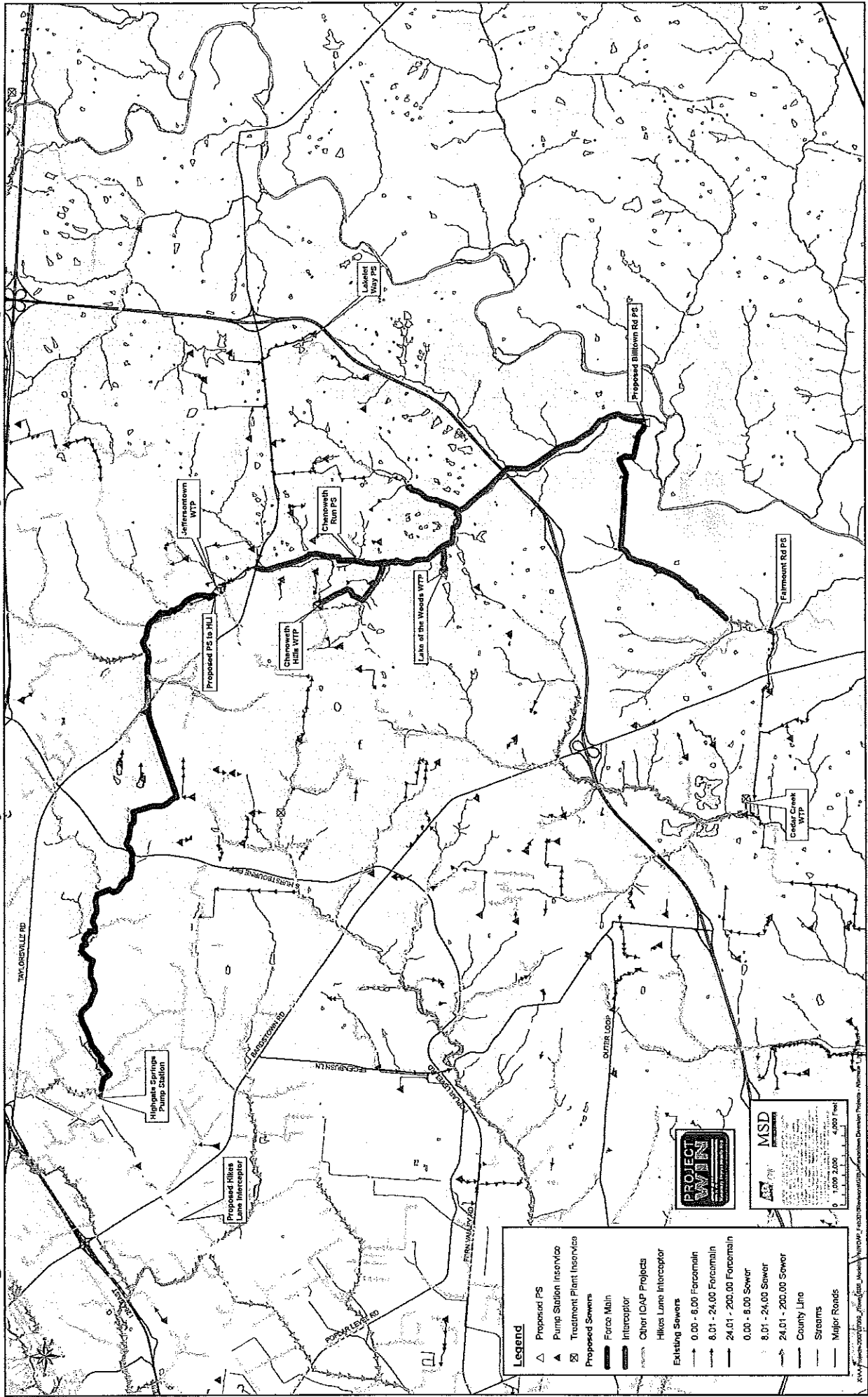


Figure 6 - Jeffersonstown Diversion Projects: Alternate 2 - Grassland to HLI / Gravity and Pumped to Cedar Creek

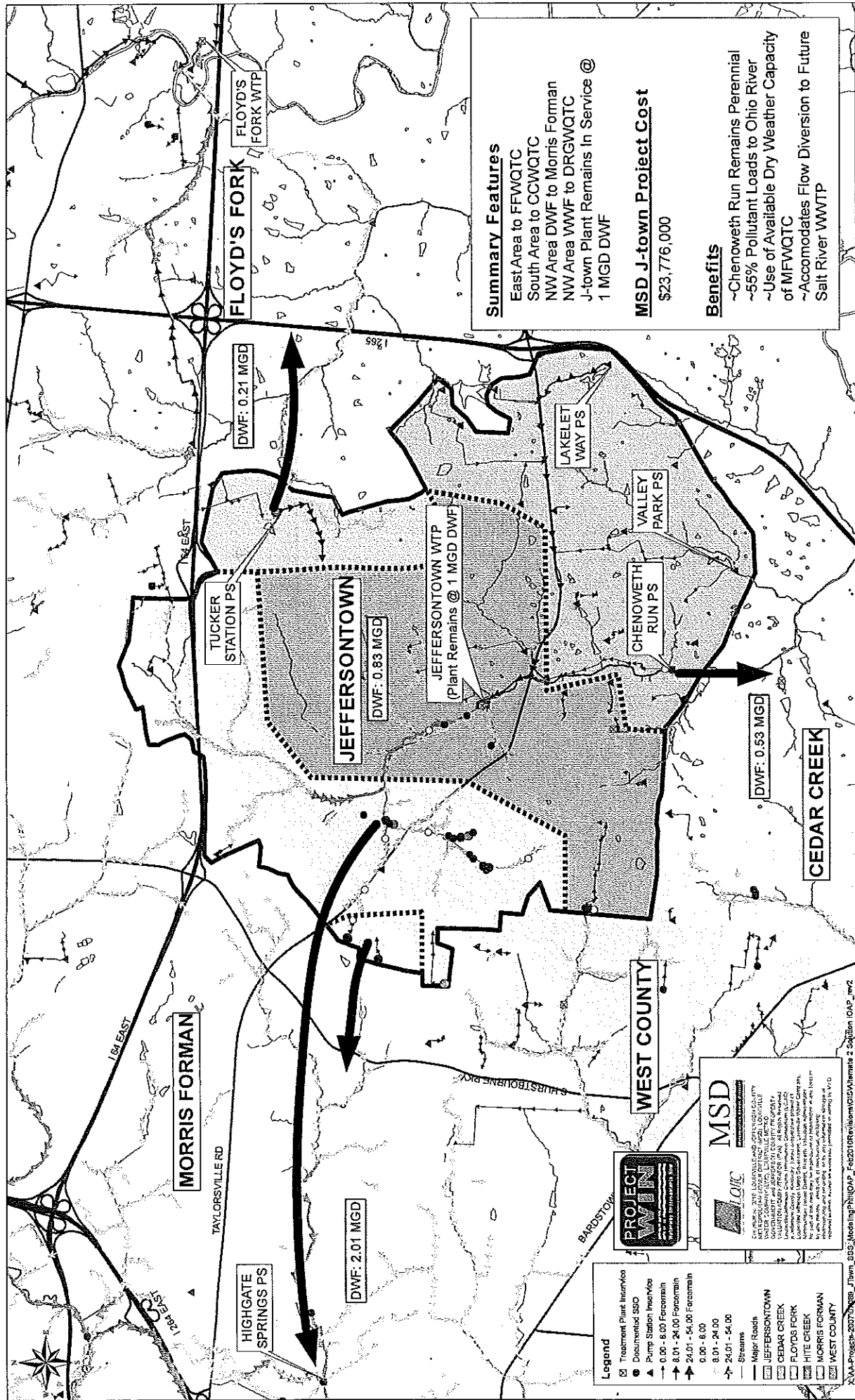


Figure 7 - Jeffersonstown Diversion Projects: Alternate 2 - Grassland PS to HLI & Gravity and Pumped to Cedar Creek

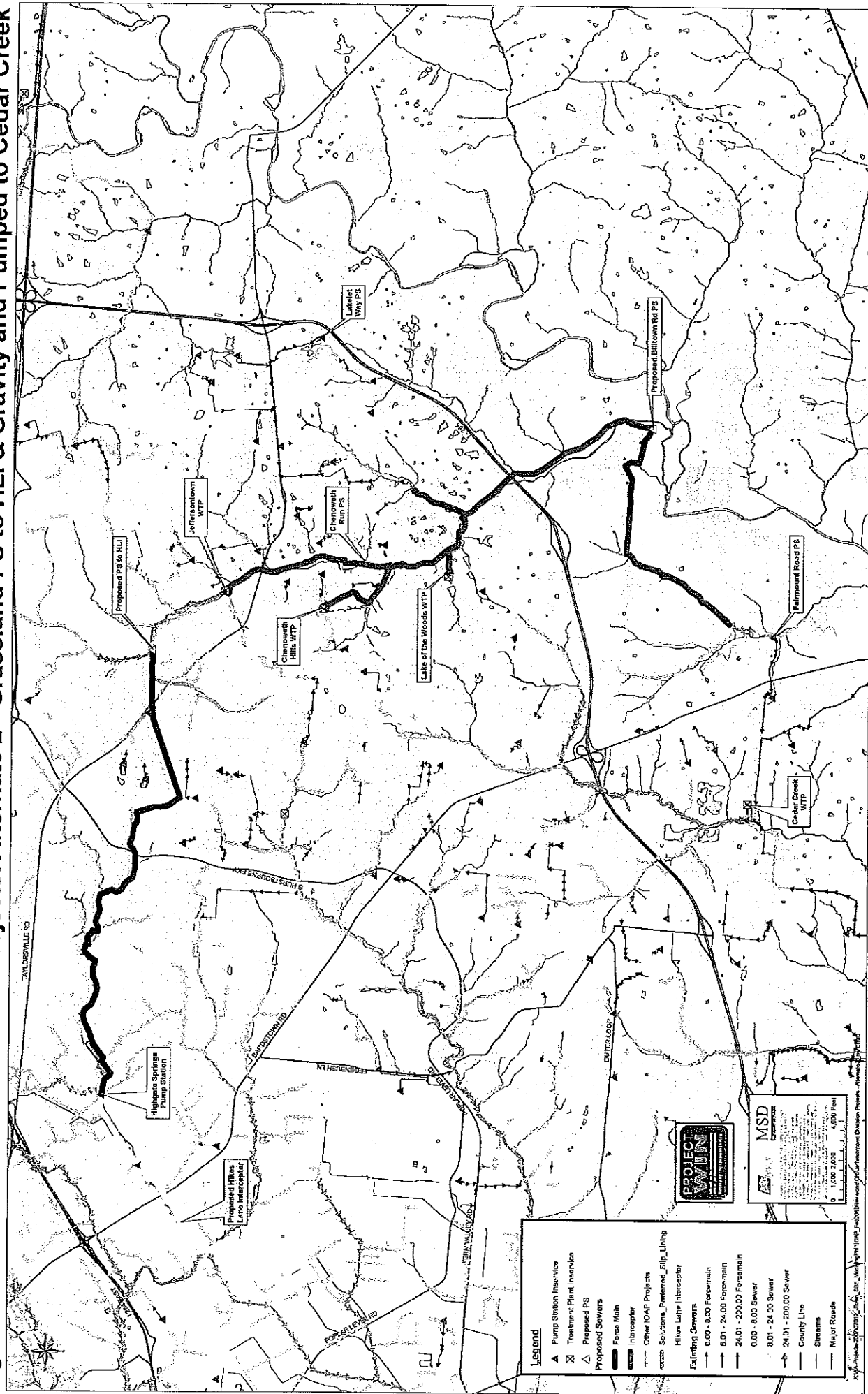


Figure 8 - Jeffersonstown Diversion Projects: Alternate 3 - Public Works to HLI / Gravity and Pumped to Cedar Creek

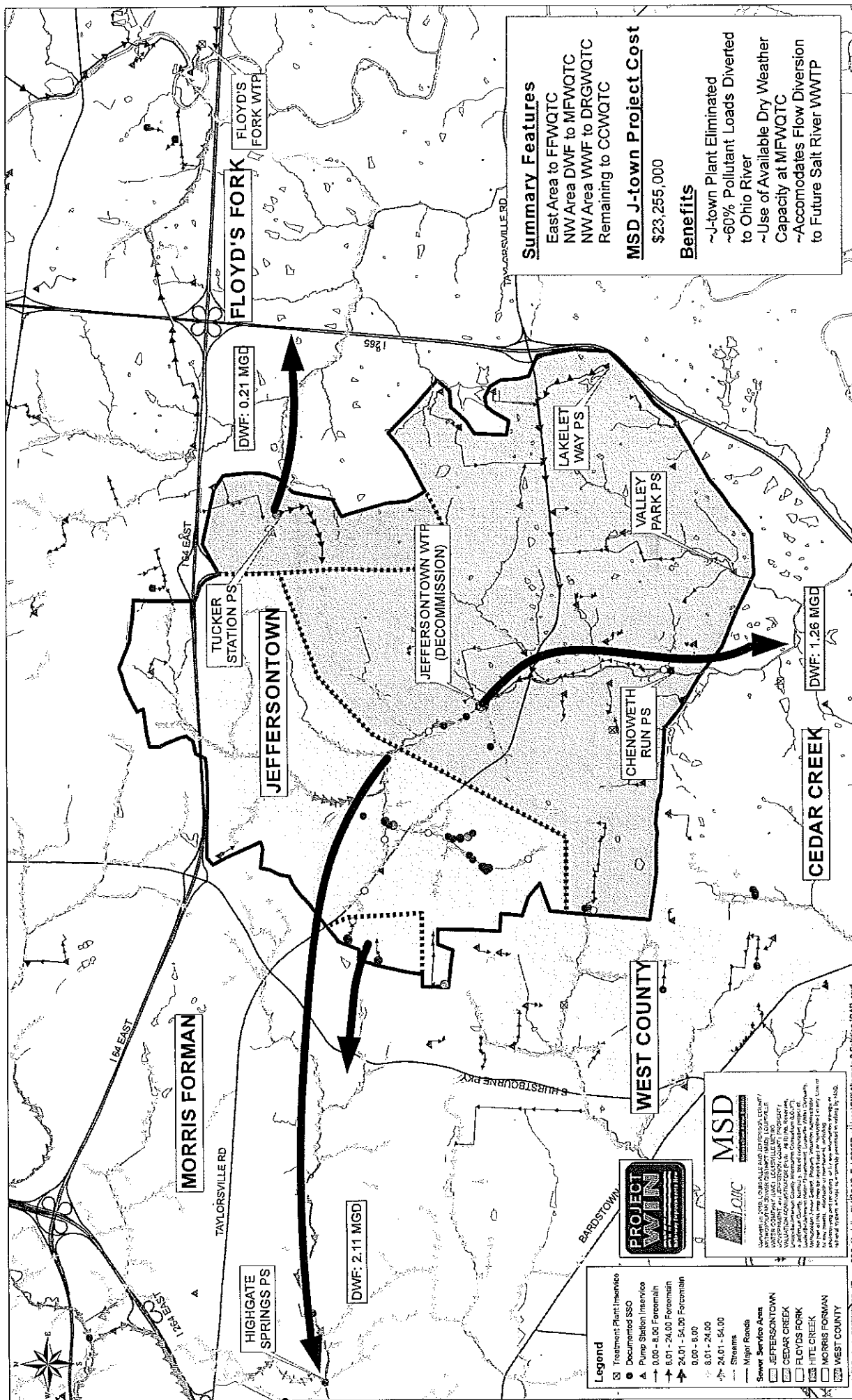


Figure 9 - Jeffersontown Diversion Projects: Alternate 3 - Public Works PS to HLI & Gravity and Pumped to Cedar Creek

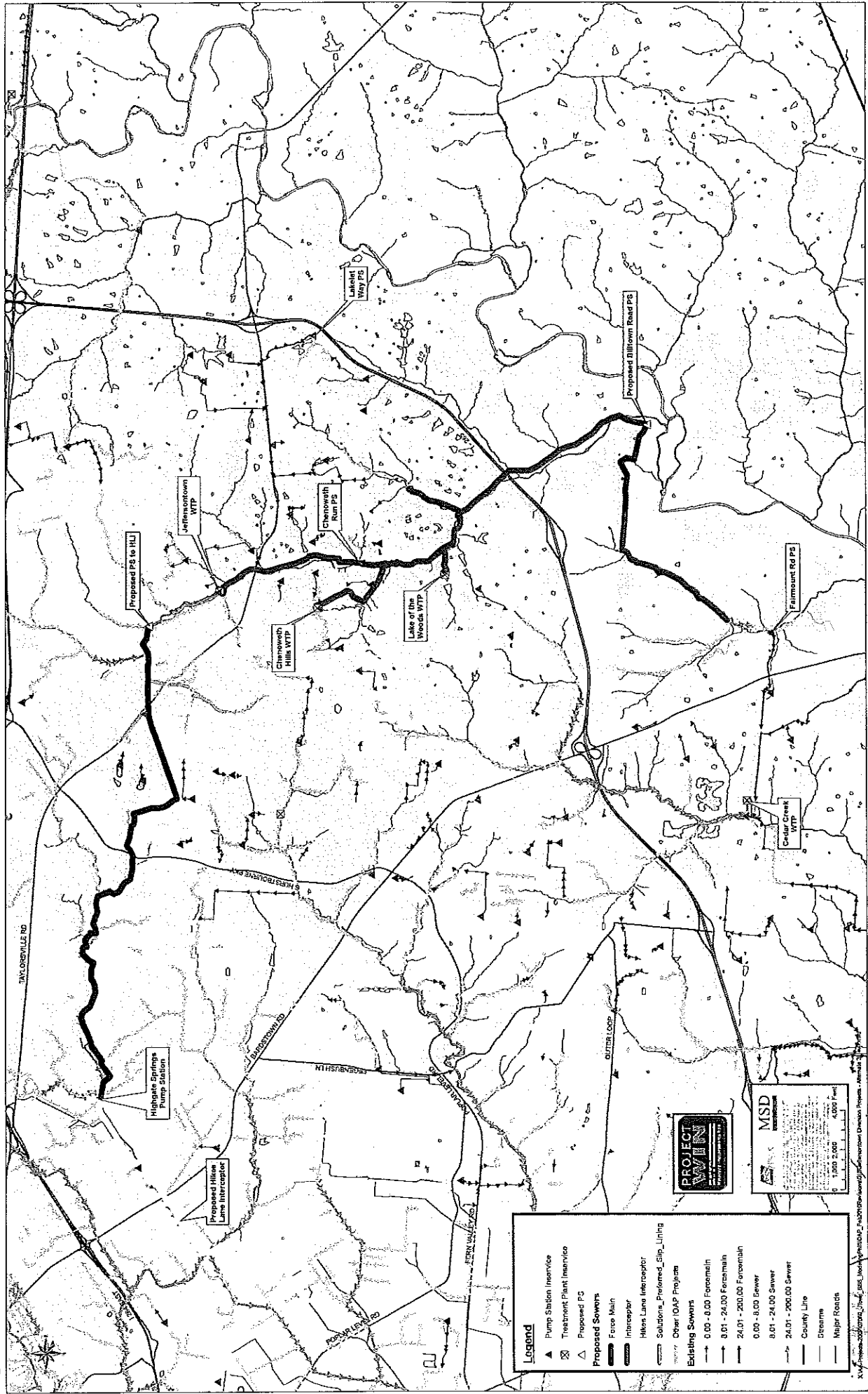


Figure 10 – Project Phasing for Bid Packages

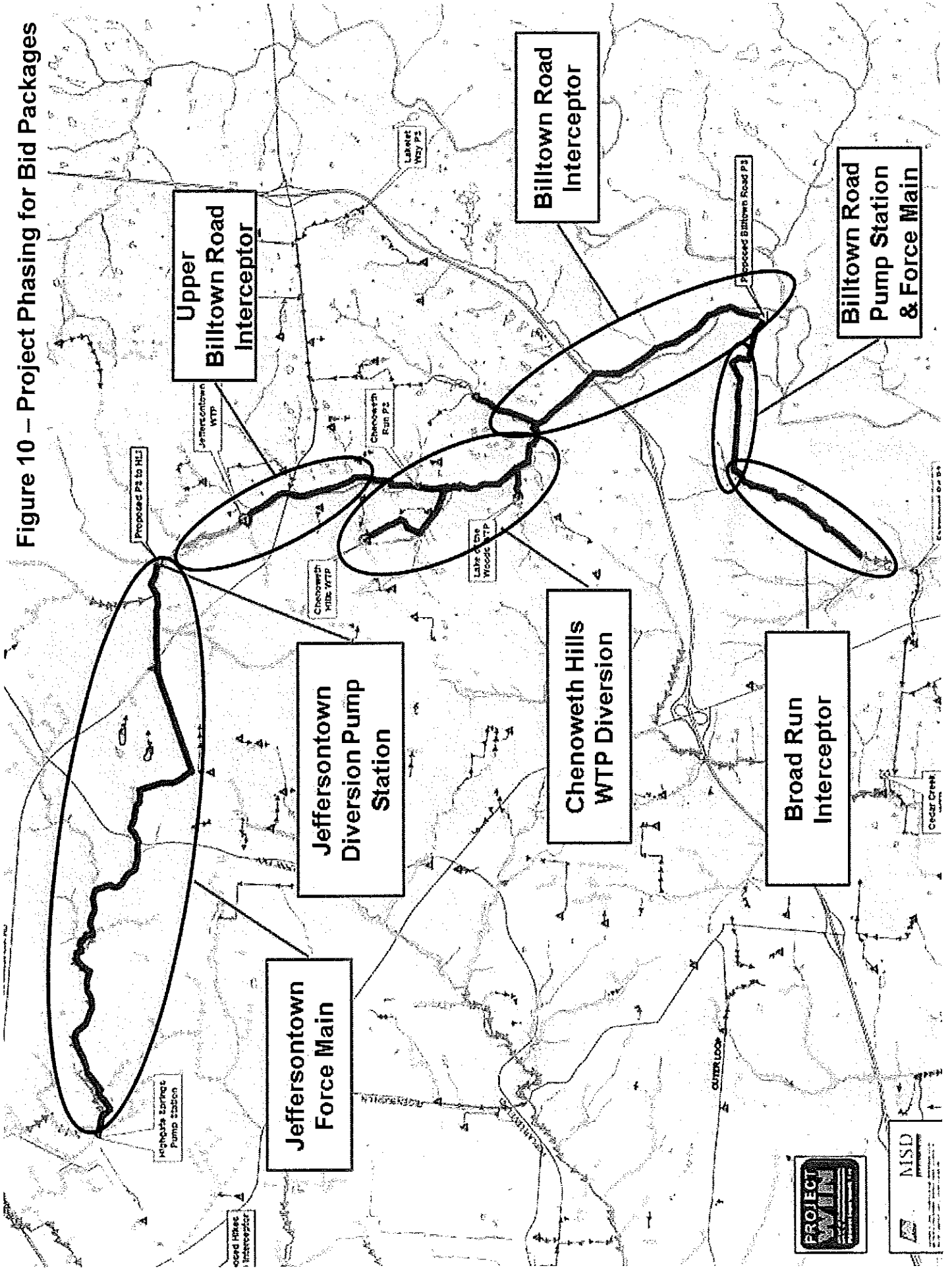
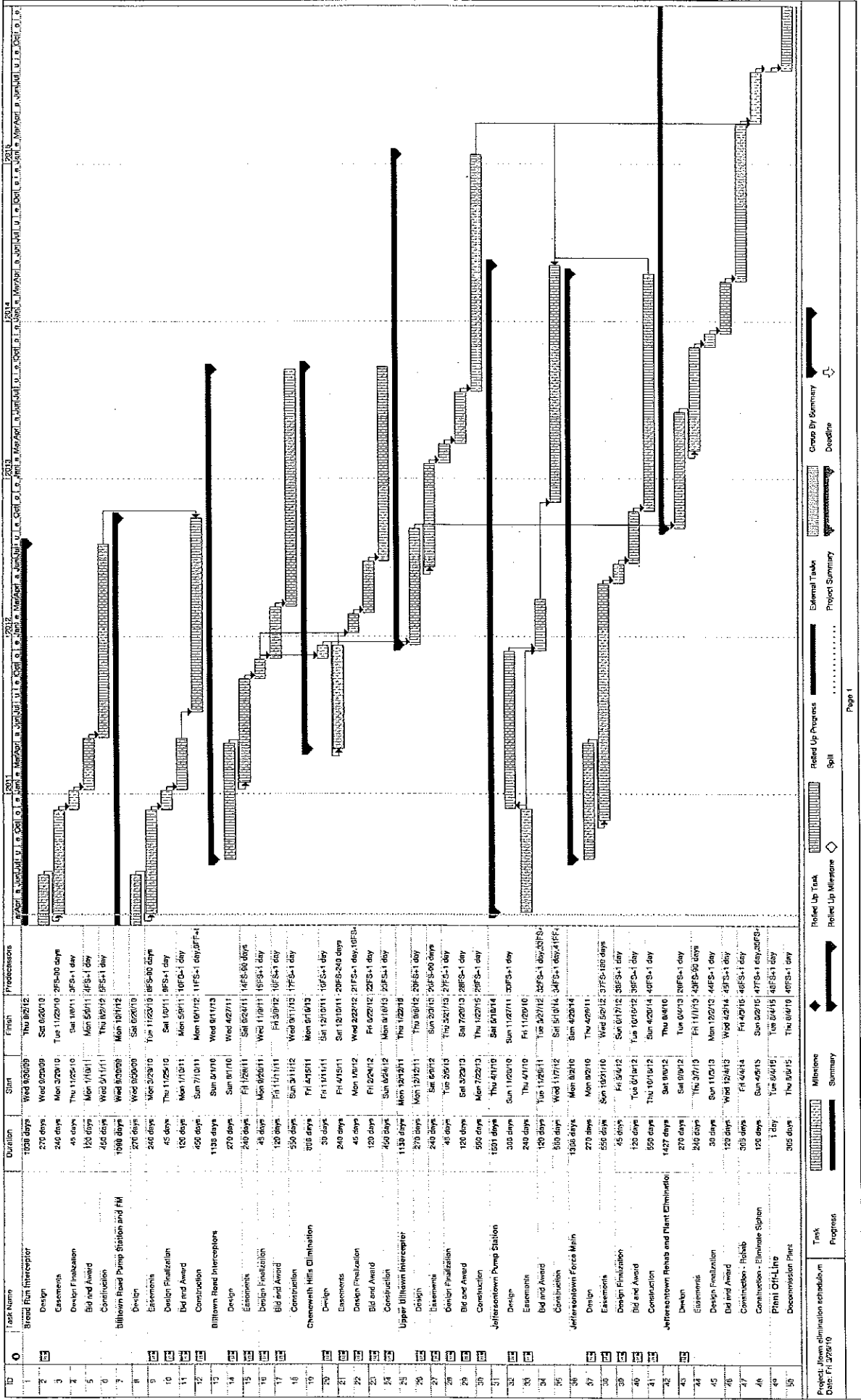


FIGURE 11-SCHEDULE



Attachment

Benefit Scoring Sheets

(References LOC_JT_JT_NB01_Q_Q.xls and LOC_JT_JT_NB01A.xls)

Cluster Comparison						
Project #1: S_JT_JT_NB01_01_C_A (Original IOAP)						
CSO/SSO ID	Raw Benefit Score ²					
	Regulatory Performance	Public Health	Asset Protection	Environmental Enhance	Eco-Friendly Solutions	
18008	14	24	10	11	3	
20190	14	24	10	11	3	
21735	14	24	10	11	3	
23804	14	24	10	11	3	
24501	14	24	10	11	3	
25005	14	24	10	11	3	
25007	14	24	10	11	3	
25009	14	24	10	11	3	
25010	14	24	10	11	3	
25011	14	24	10	11	3	
25012	14	24	10	11	3	
25013	14	24	10	11	3	
25014	14	24	10	11	3	
25015	14	24	10	11	3	
25016	14	24	10	11	3	
25017	14	24	10	11	3	
25018	14	24	10	11	3	
25019	14	24	10	11	3	
25020	14	24	10	11	3	
25021	14	24	10	11	3	
25022	14	24	10	11	3	
25023	14	24	10	11	3	
25024	14	24	10	11	3	
25025	14	24	10	11	3	
25026	14	24	10	11	3	
25027	14	24	10	11	3	
25028	14	24	10	11	3	
25029	14	24	10	11	3	
25030	14	24	10	11	3	
25031	14	24	10	11	3	
25032	14	24	10	11	3	
25033	14	24	10	11	3	
25034	14	24	10	11	3	
25035	14	24	10	11	3	
25036	14	24	10	11	3	
25037	14	24	10	11	3	
25038	14	24	10	11	3	
25039	14	24	10	11	3	
25040	14	24	10	11	3	
25041	14	24	10	11	3	
25042	14	24	10	11	3	
25043	14	24	10	11	3	
25044	14	24	10	11	3	
25045	14	24	10	11	3	
25046	14	24	10	11	3	
25047	14	24	10	11	3	
25048	14	24	10	11	3	
25049	14	24	10	11	3	
25050	14	24	10	11	3	
25051	14	24	10	11	3	
25052	14	24	10	11	3	
25053	14	24	10	11	3	
25054	14	24	10	11	3	
25055	14	24	10	11	3	
25056	14	24	10	11	3	
25057	14	24	10	11	3	
25058	14	24	10	11	3	
25059	14	24	10	11	3	
25060	14	24	10	11	3	
25061	14	24	10	11	3	
25062	14	24	10	11	3	
25063	14	24	10	11	3	
25064	14	24	10	11	3	
25065	14	24	10	11	3	
25066	14	24	10	11	3	
25067	14	24	10	11	3	
25068	14	24	10	11	3	
25069	14	24	10	11	3	
25070	14	24	10	11	3	
25071	14	24	10	11	3	
25072	14	24	10	11	3	
25073	14	24	10	11	3	
25074	14	24	10	11	3	
25075	14	24	10	11	3	
25076	14	24	10	11	3	
25077	14	24	10	11	3	
25078	14	24	10	11	3	
25079	14	24	10	11	3	
25080	14	24	10	11	3	
25081	14	24	10	11	3	
25082	14	24	10	11	3	
25083	14	24	10	11	3	
25084	14	24	10	11	3	
25085	14	24	10	11	3	
25086	14	24	10	11	3	
25087	14	24	10	11	3	
25088	14	24	10	11	3	
25089	14	24	10	11	3	
25090	14	24	10	11	3	
25091	14	24	10	11	3	
25092	14	24	10	11	3	
25093	14	24	10	11	3	
25094	14	24	10	11	3	
25095	14	24	10	11	3	
25096	14	24	10	11	3	
25097	14	24	10	11	3	
25098	14	24	10	11	3	
25099	14	24	10	11	3	
25100	14	24	10	11	3	
25101	14	24	10	11	3	
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25103	14	24	10	11	3	
25104	14	24	10	11	3	
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25106	14	24	10	11	3	
25107	14	24	10	11	3	
25108	14	24	10	11	3	
25109	14	24	10	11	3	
25110	14	24	10	11	3	
25111	14	24	10	11	3	
25112	14	24	10	11	3	
25113	14	24	10	11	3	
25114	14	24	10	11	3	
25115	14	24	10	11	3	
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25117	14	24	10	11	3	
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25119	14	24	10	11	3	
25120	14	24	10	11	3	
25121	14	24	10	11	3	
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25130	14	24	10	11	3	
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25135	14	24	10	11	3	
25136	14	24	10	11	3	
25137	14	24	10	11	3	
25138	14	24	10	11	3	
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25140	14	24	10	11	3	
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25143	14	24	10	11	3	
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25206	14	24	10	11	3	
25207	14	24	10	11	3	
25208	14	24	10	11	3	
25209	14	24	10	11	3	
25210	14	24	10	11	3	
25211	14	24	10	11	3	
25212	14	24	10	11	3	
25213	14	24	10	11	3	
25214	14	24	10	11	3	
25215	14	24	10	11	3	
25216	14	24	10	11	3	
25217	14	24	10	11	3	
25218	14	24	10	11	3	
25219	14	24	10	11	3	
25220	14	24	10	11	3	
25221	14	24	10	11	3	
25222	14	24	10	11	3	
25223	14	24	10	11	3	

2-Year

Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value: Regulatory Performance - SS0s

Performance Measure	Measure	Impact / Frequency				Modeled Overflow Point or No discharge	Rationale	Measurement Method		
		6 month	1 Year	2 Year	5 Year	10 Year				
Frequency	SSOs									
	Value	25	12	0	4	1	0			
	ISO28	BL			PR			25	4	21
	28390			BL	PR			9	4	5
	31733	BL			PR			25	4	21
	28395A			BL	PR			9	4	5
	64505			BL	PR			9	4	5
	MSD0255						BL	0	0	0
	28392						BL	0	0	
	28391						BL	0	0	
	28173						BL	0	0	
Note - This value sheet calculates the total benefit								Subtotal		
Acronyms								57		
AAOV - Average annual overflow volume										
CSO - Combined sewer overflow										
WQS - Water quality standards										
WWTPs - Wastewater treatment plants										

Measurement methods will be via hydraulic models to quantify the SSO discharge.

Regulations do not distinguish between potential impact of SSOs, therefore frequency and impact are the same for Regulatory Performance value.. Modeled Overflow Points are not considered until verified.

2-Year		Network Branch #1A											
Value: Regulatory Performance - SS0s													
Performance Measure	Measure	Impact / Frequency					Rationale	Measurement Method					
		6 month	1 Year	2 Year	5 Year	10 Year							
	SSOs						Modeled Overflow Point or No discharge	Regulations do not distinguish between potential impact of SSOs, therefore frequency and impact are the same for Regulatory Performance value.. Modeled Overflow Points are not considered until verified.					
	Value	25	16	9	4	1	0						
	64096	BL			PR						25	4	21
	86052	BL			PR						25	4	21
92061						BL	0				0	0	
	MSD0263	BL			PR			25	4	21			
Note - This value sheet calculates the total benefit.													
Acronyms													
WQS - Water quality standards													
AAOV - Average annual overflow volume													
SSO - Combined sewer overflow													
WWTPs - Wastewater treatment plants													
Subtotal								63					

ISO28 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value:	Public Health Enhancement - SSOs				Release Impact				Rationale	Measurement Method								
	Measure																	
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforcement. Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.										
		6 Month	25	20	15	10	5							0	Releases 900,000 gallons	25	0	25
		1 Year	20	16	12	8	4							0	Releases 2,000,000 gallons	20	0	20
		2 Year	15	12	9	6	3							0	Releases 3,080,000 gallons	15	0	15
		5 Year	10	8	6	4	2							0	Releases 4,600,000 gallons	10	6	4
10 Year	5	4	3	2	1	0	Releases 5,720,000 gallons	5	4	1								
Frequency										Average Total Score				13				
										Corrected Score				22				

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms

- CSO - Combined sewer overflow
- FC - Feet column
- GIS - Geographic information system

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

SSOs - Combined sewer overflow
FC - Feet callform
GIS - Geographic information system

28390 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value:	Public Health Enhancement - SSOs				Release Impact				Rationale	Measurement Method		
Performance Measures	Measure	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforcement.	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.			
Frequency	6 Month	25	20	15	10	5	0	No Discharge	0	0	0	0
	1 Year	20	16	12	8	4	0	No Discharge	0	0	0	0
	2 Year	15	12	9	6	3	0	Releases 63,000 gallons	12	0	12	12
	5 Year	10	8	6	4	2	0	Releases 167,000 gallons	8	2	6	6
	10 Year	5	4	3	2	1	0	Releases 248,000 gallons	5	2	3	3
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.								Average Total Score			4	
Accuracy								Corrected Score			7	
CSO - Combined sewer overflow FC - Fiscal calendar FC - Fiscal calendar FC - Fiscal calendar												

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

SSOs - Combined sewer overflow
FC - Feet callform
GIS - Geographic information system

31733 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Public Health Enhancement - SSOs									
Performance Measures	Measure		Release Impact				Rationale	Measurement Method	
	SSOs		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		
Frequency	6 Month	25	20	15	10	5	0	Releases 80,000 gallons	20
	1 Year	20	16	12	8	4	0	Releases 172,000 gallons	16
	2 Year	15	12	9	6	3	0	Releases 269,000 gallons	15
	5 Year	10	8	6	4	2	0	Releases 393,000 gallons	10
	10 Year	5	4	3	2	1	0	Releases 495,000 gallons	5
Average Total Score									12
Corrected Score									20

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 CSC - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

28395A - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Public Health Enhancement - SSOs									
Performance Measures	Measure		Release Impact				Rationale	Measurement Method	
	SSOs		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		
Frequency	6 Month	25	20	15	10	5	0	No Discharge	0
	1 Year	20	16	12	8	4	0	No Discharge	0
	2 Year	15	12	9	6	3	0	Releases 2,000 gallons	3
	5 Year	10	8	6	4	2	0	Releases 31,000 gallons	4
	10 Year	5	4	3	2	1	0	Releases 46,000 gallons	2
Average Total Score									2
Corrected Score									3

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 CSC - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

64505 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)											
Value:	Public Health Enhancement - SSOs										
Performance Measures	Measure	Release Impact				Rationale	Measurement Method				
		Basement Flooding or Park or Blue- Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 99,999 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals					Release 10,000 - 19,999 Gals	
Frequency	6 Month	25	20	15	10	5	0	No Discharge	0	0	0
	1 Year	20	15	12	8	4	0	No Discharge	0	0	0
	2 Year	15	12	9	6	3	0	Releases 13,600 gallons	3	0	3
	5 Year	10	8	6	4	2	0	Releases 170,000 gallons	8	2	6
	10 Year	5	4	3	2	1	0	Releases 282,000 gallons	5	2	3
							Average Total Score				2
							Corrected Score				3
<p>Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.</p> <p>Acronyms CSO - Combined sewer overflow FC - Fecal coliform GIS - Geographic information system</p>											

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
 CSO - Combined sewer overflow
 FCS - Fecal coliform
 GIS - Geographic Information System

64096 - 2 YR Network Branch #1A

Value: Public Health Enhancement - SSOs

Performance Measures	Measure		Release Impact				Rationale	Measurement Method
	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		
Frequency	6 Month	25	20	15	10	5	Releases 600 gallons	5
	1 Year	20	16	12	8	4	Releases 16,000 gallons	4
	2 Year	15	12	9	6	3	Releases 55,000 gallons	12
	5 Year	10	8	6	4	2	Releases 123,000 gallons	8
	10 Year	5	4	3	2	1	Releases 160,000 gallons	4
Average Total Score								5
Corrected Score								8

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

86052-PS - 2 YR Network Branch #1A

Value: Public Health Enhancement - SSOs

Performance Measures	Measure		Release Impact				Rationale	Measurement Method
	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		
Frequency	6 Month	25	20	15	10	5	Releases 155,000 gallons	20
	1 Year	20	16	12	8	4	Releases 223,000 gallons	20
	2 Year	15	12	9	6	3	Releases 292,000 gallons	15
	5 Year	10	8	6	4	2	Releases 360,000 gallons	10
	10 Year	5	4	3	2	1	Releases 405,000 gallons	5
Average Total Score								13
Corrected Score								22

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

MSD0263 - 2 YR Network Branch #1A											
Value:		Public Health Enhancement - SSOs									
Performance Measures	Measure	Release Impact					Rationale	Measurement Method			
		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals					
Frequency	6 Month	25	20	15	10	5	0	Releases 36,000 gallons	20	0	20
	1 Year	20	16	12	8	4	0	Releases 71,000 gallons	16	0	16
	2 Year	15	12	9	6	3	0	Releases 123,000 gallons	12	0	12
	5 Year	10	8	6	4	2	0	Releases 204,000 gallons	10	4	6
	10 Year	5	4	3	2	1	0	Releases 274,000 gallons	5	2	3
Average Total Score							11				
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.							Corrected Score				
Acronyms CSO - Combined sewer overflow FG - Feed collection GIS - Geographic information system							18				

92061 - 2 YR Network Branch #1A													
Value:		Public Health Enhancement - SSOs											
Performance Measures	Measure	Release Impact					Rationale	Measurement Method					
		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals or > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals							
Frequency	6 Month	25	20	15	10	5	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	0	0			
	1 Year	20	16	12	8	4					No Release		
	2 Year	15	12	9	6	3						No Release	
	5 Year	10	8	6	4	2							No Release
	10 Year	5	4	3	2	1							
Average Total Score							0						
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.							Corrected Score						
Acronyms CSO - Combined sewer overflow GIS - Feed collection GIS - Geographic information system													



Jeffersonstown Blending Elimination Evaluation - Original IOAP Solution and Alternatives 1, 2, and 3 (all the same)

Value:	Asset Protection	Measure	Impact					Rationale	Measurement Method					
Frequency	Performance Measures	Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor structural damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected	No standing water	Stormwater BMPs can reduce stormwater peaks and reduce extent of flooded areas, while sewer separation may increase localized stormwater peak flows and increase the flooding impacts of storms. Alternatively, purchase of highly impacted properties may be a cheaper way to reduce flood damage and create green space and buffer zones.	Drainage models where available, historic customer complaints from MSD Customer Information System, or historic observations of flood-prone areas can be used to estimate the expected relative impacts of sewer system modifications on storm water flows.				
			Basement Back-ups	Sewer surcharging within 6 feet of ground surface for more than 20% of manholes	Sewer surcharging within 6 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 6 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 6 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 1% of manholes			No surcharging within 6 feet of ground surface	First floor levels are typically 1 - 2 feet above finished grade, and basement floors are typically 8 - 10 feet below ground. A sewer surcharge of 6 feet below ground surface is highly likely to cause back-ups in homes with basement service.	Measurement methods will be via hydraulic models to quantify the hydraulic grade line compared to ground surface elevations at manholes.	
			Storm Events	Most Severe Impact	Least Impact	No Impact	Assumptions	Base Case Score			Alternative Score			Total Score
		6 Months	Most Likely	5	25	4	3	2	1	0	0			0
		1 Year		4	20	16	12	8	4	0	0	12	4	8
		2 Year		3	15	12	9	6	3	0	0	9	3	6
		5 Year		2	10	8	6	4	2	0	0	6	4	4
		10 Year	Least Likely	1	5	4	3	2	1	0	0	5	3	2
		Not Possible	Not Possible	0	0	0	0	0	0	0	Average Total Score			6
		Corrected Score											10	

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Assumptions
BMPs - Best management practices



S_JT_JT_NB01A_03_C

Project #1		S_JT_JT_NB01A_03_C										
Value:		Asset Protection										
		Measure					Impact			Rationale	Measurement Method	
Performance Measures	Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor damage or structural damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected	No standing water	Stormwater BMPs can reduce stormwater and reduce extent of flooded areas, while some water will still infiltrate and localized stormwater peak flows and increase the flooding impacts of storms. Alternatively, purchase of highly impacted properties may be a cheaper way to reduce flood damage and create green space and buffer zones.	Drainage models where available, historic customer complaints from MSD Customer Information System, or historic observations of flood-prone areas combined with the expected relative impacts of sewer system modifications on storm water flows.			
	Basement Back-ups	Sewer surcharging within 6 feet of ground surface for more than 20% of manholes	Sewer surcharging within 6 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 6 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 6 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 1% of manholes	No surcharging within 6 feet of ground surface	First floor levels are typically 1 - 2 feet above ground surface, and basement floors are typically 8 - 10 feet below the first floor. A sewer surcharge of 6 feet below ground surface is highly likely to cause back-ups in homes with basement service.	Measurement methods will be via hydraulic models to quantify the hydraulic grade lines compared to ground surface elevations at manholes.			
	Storm Events	Most Severe Impact				Least Impact	No Impact					
	5 Month	Most Likely	5	4	3	2	1	0	Assumptions	Base Case Score	Alternative Score	Total Score
	1 Year		25	20	15	10	5	0		5	0	5
Frequency	1 Year	4	16	12	8	4	0			4	4	0
	2 Year	3	15	12	9	6	3	0		9	3	6
	5 Year	2	10	8	6	4	2	0		8	6	2
	10 Year	1	5	4	3	2	1	0		4	3	1
	Not Possible	0	0	0	0	0	0	0	Average Score			3
							Corrected Score					5

Note: * This value sheet calculates the average benefit over the recurrence interval. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
BMPs: Best management practices



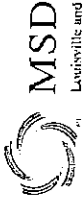
Jeffersontown Blending Elimination - Original IOAP Solution

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S JT JT NB01A 03 C

[illegible]



Jeffersonstown Blending Elimination Evaluation - Original IOAP Solution

Eco-Friendly Solutions									
Value:	0	1	2	3	4	5	Assumptions	Score Per Aspect	
Non-Renewable Energy Consumption	Primary energy consumption equal to 75% of secondary treatment	Primary energy consumption equal to 10-15% of secondary treatment	No energy consumption except for cleaning and maintenance	NA	NA	NA	Energy consumption needed for storage and pumping station at the plant. 10% of flow is used for secondary treatment at the plant and of pipe	-4	
Use of Natural Systems	Constructed facilities permanently replace 1-3 acres of green space	Constructed facilities permanently replace 1-3 acres of green space	Alternative does not use natural systems, but enhances green space or creates green space	Natural systems play a minor role in alternative function, up to 1 acre wetland or 10% wetland created or 25-50% additional green space	Alternative uses natural wetland, 1-3 acres of wetland created or 25-50% additional green space	Alternative results in multiple wetland system development, 1-3 acres of wetland created or 25-50% additional green space	Construction would temporarily divert green space, but potentially allow new green space to be created at the existing plant site	1	
Multiple-Use Facilities	Constructed facilities permanently replace 1-3 acres of green space	Constructed facilities permanently replace 1-3 acres of green space	Alternative improves recreational opportunities	Alternative has limited positive impact on recreation opportunities	Alternative increases recreational opportunities	Alternative results in multiple use facility	Portion of plant site could be converted to multiple use recreation when treatment process is decommissioned	2	
Source Control of substantiated pollutant loads	Reduced pollutant load by 10-20%	Reduced pollutant load by 10-20%	End of pipe pollutant loadings are increased by 10-15%	Diversion transfers more than 25% of pollutant loadings to other treatment facility	Diversion transfers more than 50% of pollutant loadings to other treatment facility	Diversion transfers more than 100% of pollutant loadings to other treatment facility	100% of pollutant loads transferred to Ohio River, a less sensitive watershed.	4	
Non-Obtrusive Construction Techniques	Minimal disruption to green space or surrounding area	Minimal disruption to green space or surrounding area	No construction impacts	Alternative improves facility appearance and compatibility with neighborhood	Alternative improves facility appearance and compatibility with neighborhood	Alternative improves facility appearance and compatibility with neighborhood	Construction would cause landscape detail and noise with typical construction	-2	
Consistent Land Use	Facilities incorporated with neighborhood or adjacent to existing facilities	Facilities incorporated with neighborhood or adjacent to existing facilities	No impact on land use or no above ground facilities	Alternative improves facility appearance and compatibility with neighborhood	Alternative improves facility appearance and compatibility with neighborhood	Alternative improves facility appearance and compatibility with neighborhood	Facilities on plant site will be reduced to a minimum and integrated with existing landscape	2	
Impermeable Surfaces	2 acres of impermeable surfaces are added	2 acres of impermeable surfaces are added	No change in impermeable surface	Up to 1 acre of impermeable surfaces removed	Up to 1 acre of impermeable surfaces removed	Up to 1 acre of impermeable surfaces removed	No change in impermeable surface in all options	0	
LEEDS Performance	NA	NA	LEEDS score < 10	LEEDS Score 10 - 25	LEEDS Certified	LEEDS Silver	LEEDS Platinum	0	
Instructions: (1) Score each alternative for each of the eight aspects of the value. Scores can be positive or negative, depending on the impact of the alternative on each aspect to get the total score for this alternative in this value. (2) Shaded area represents "fair score". Alternatives that score in this area would not be proposed.									
Total Raw Score Calculated									
3									
Corrected Score									
Note: The total score calculated may be more than 25. In the instances where this might occur, a default maximum score of 25 will be calculated.									

Aspect	Measurement Method
Non-Renewable Energy Consumption	Evaluation of primary energy consumed per MGD of flow treated, compared to the energy consumed at the WQWTP per MGD treated.
Use of Natural Systems	Amount of wetlands and other types of green space created or eliminated. Also include subjective evaluation of the "look" of the alternative - "green" or "gray".
Multiple-Use Facilities	Subjective evaluation of changes predicted in the aquatic or riparian environment as a result of alternative. Subjective evaluation of the "look" of the alternative - "green" or "gray".
Source Control of substantiated pollutant loads	Modelled landscape pollutant loading reductions as calculated by the BOC Water Quality Test or by comparison to baseline values or pilot program measurements.
Non-Obtrusive Construction Techniques	Subjective evaluation of probable construction impacts based on the type of construction envisioned for the alternative.
Consistent Land Use	All planning level projects can be defined to avoid negative impacts on the surrounding properties. Depending on the availability of land, enhancement is possible. This aspect encourages project definition and budgets to anticipate, not prevent.
Impermeable Surfaces	Amount of permeable surfaces created or eliminated.
LEEDS Performance	Application of LEED evaluation points.

Acronyms:
BOC - Designated Creek
LEEDS - Leadership in Energy and Environmental Design
MG - million gallons
WQWTP - West County Wastewater Treatment Plant

S JT JT_NB01A_03_C

S_JT_JT_NB01A_03_C													
Eco-Friendly Solutions													
Scoring													
Aspect	1	2	3	4	5	Assumptions		Score Per Aspect					
Non-Renewable Energy Consumption	Primary energy consumption is 10% or less of secondary treatment	Primary energy consumption is 15-20% of secondary treatment	Primary energy consumption is 20-30% of secondary treatment	Primary energy consumption is 30-40% of secondary treatment	Primary energy consumption is 40-50% of secondary treatment	Energy consumption due to increase in pumping		-1					
Use of Natural Systems	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Alternative fully uses riparian area for natural system development, 25 acres of wetland or 25-50% additional green space		-1					
Multiple-Use Facilities	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Constructed facilities permanently replace 1-3 acres wetlands or up to 10% of disturbed green space	Alternative results in multi-use facility		0					
Source Control of Subwatershed Pollutant Loads	Reduced pollutant loads by 10-20%	Reduced pollutant loads by 20-30%	Reduced pollutant loads by 30-40%	Reduced pollutant loads by 40-50%	Reduced pollutant loads by 50-60%	Source control reduces pollutant loadings by more than 50%		-1					
Non-Obstructive Construction Techniques	Minimized dust and noise, traffic, and street closures	Minimized dust and noise, traffic, and street closures	Minimized dust and noise, traffic, and street closures	Minimized dust and noise, traffic, and street closures	Minimized dust and noise, traffic, and street closures	Force main construction would result in minor dust and noise abatement		-1					
Consistent Land Use	Facilities consistent with neighborhood character	Facilities consistent with neighborhood character	Facilities consistent with neighborhood character	Facilities consistent with neighborhood character	Facilities consistent with neighborhood character	Alternative provides enhancements that significantly improve facilities in all options		0					
Impermeable Surfaces	3-5 acres of impermeable surfaces removed	3-5 acres of impermeable surfaces removed	3-5 acres of impermeable surfaces removed	3-5 acres of impermeable surfaces removed	3-5 acres of impermeable surfaces removed	No change in impermeable surfaces in all options		0					
LEEDS Performance	NA	NA	NA	NA	NA	LEEDS not applicable or LEEDS score < 10 in all options		0					
Total Raw Score Calculated									-4				
Corrected Score									-4				
Note: The total score calculated may be more than 25. In the instances where this might occur, a default maximum score of 25 will be calculated.													
Aspect	Measurement Method												
Non-Renewable Energy Consumption	Evaluation of primary energy consumed per MG of four treated, compared to the energy consumed at the WCVTP per MG treated.												
Use of Natural Systems	Amount of wetlands and other types of green space created or maintained. Also includes subjective evaluation of the "look" of the disturbance - "green" or "gray".												
Multiple-Use Facilities	Subjective evaluation of changes provided in the aquatic or riparian environment as a result of better water quality. Increased base flow or decreased flow peaks, increased base flow or regulated riparian areas, etc.												
Source Control of Subwatershed Pollutant Loads	Modeled land-use pollutant loading reductions as calculated by the BOC Water Quality Tool or by comparison to baseline values in pilot program measurements.												
Non-Obstructive Construction Techniques	Subjective evaluation of probable construction impacts based on the type of construction envisioned for the alternative.												
Consistent Land Use	At the planning level, projects can be defined to avoid negative impacts on the surrounding properties. Depending on the availability of land, enhancements are made to the project. This project encompasses project definition and design to enhance, not detract.												
Impermeable Surfaces	Amount of permeable surfaces created or retained.												
LEEDS Performance	Application of LEED evaluation points.												
Autonym													
BOC - BOD5 Creek													
WCVTP - West County Wastewater Treatment Plant													
LEEDS - Leadership in Energy and Environmental Design													

Cluster Comparison

Project #1: S_JT_JT_NB01_01_C_A (Alternative 1)

Raw Benefit Score²

CSO/SSO ID	Regulatory Performance	Public Health	Asset Protection	Environmental Enhance	Eco-Friendly Solutions
ISO28	21	22	10	11	3
28390	5	7	10	11	3
31733	21	20	10	11	3
28395A	5	3	10	11	3
64505	5	3	10	11	3
MSD0255	0	0	10	11	3
28392	0	0	10	11	3
28391	0	0	10	11	3
28173	0	0	10	11	3
64096	21	8	5	4	4
86052	21	22	5	4	4
92061	0	0	5	4	4
MSD0263	21	18	5	4	4
Weighting Factor	8	10	6	8	6
Weighted Benefit Score	960	1030	660	920	66

Total Benefit Score	3636
Total Capital Cost³	24831000
Total Present Worth Costs³	0
Weighted Benefit/Cost Ratio (Capital Costs)	14.642987
Weighted Benefit/Cost Ratio (Total Present Worth Costs)	#DIV/0!

Notes:

1. Data Input Cells are highlighted in yellow
2. Raw Benefit Scores for Regulatory Performance and Public Health values are from the CSO or SSO Level of Control Benefit Sheets
3. Capital and Total Present Worth Costs from the "Proj Summary" Page of the Cost Model for the clustered alternative

2-Year Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value: Regulatory Performance - SS0s									
	Measure	Impact / Frequency					Rationale	Measurement Method	
Performance Measure	SSOs	6 month	1 Year	2 Year	5 Year	10 Year	Modeled Overflow Point or No discharge	Regulations do not distinguish between potential impact of SSOs, therefore frequency and impact are the same for Regulatory Performance value.. Modeled Overflow Points are not considered until verified.	Measurement methods will be via hydraulic models to quantify the SSO discharge.
	Value	25	12	0	4	1	0		
	ISO28	BL			PR			25	4
	28390			BL	PR			9	4
	31733	BL			PR			25	4
	28395A			BL	PR			9	4
	64505			BL	PR			9	4
	MSD0255						BL	0	0
	28392						BL	0	0
	28391						BL	0	0
	28173						BL	0	0
Note - This value sheet calculates the total benefit.								Subtotal	57
Acronyms		WQS - Water quality standards WWTPs - Wastewater treatment plants							
AAOV - Average annual overflow volume									
CSO - Combined sewer overflow									

2-Year		JT_NBB1A_BCA_v16		Network Branch #1A										
Value: Regulatory Performance - SS0s														
Performance Measure	Measure	Impact / Frequency					Rationale	Measurement Method						
	SSOs	6 month	1 Year	2 Year	5 Year	10 Year	Modeled Overflow Point or No discharge	Regulations do not distinguish between potential impact of SSOs, therefore frequency and impact are the same for Regulatory Performance value.. Modeled Overflow Points are not considered until verified.	Measurement methods will be via hydraulic models to quantify the SSO discharge.					
Frequency	Value	25	16	9	4	1	0							
	64096	BL			PR			25	4			21		
	86052	BL			PR			25	4			21		
	92061						BL	0	0			0		
	MSD0263	BL			PR			25	4			21		
Note - This value sheet calculates the total benefit.														
Acronyms														
AAOV - Average annual overflow volume														
WQS - Water quality standards														
CSO - Combined sewer overflow														
WWTPs - Wastewater treatment plants														
												Subtotal		63

ISO28 - 2 YR	Jeffersontown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value:	Public Health Enhancement - SSOs				Release Impact				Rationale	Measurement Method		
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals or Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce		Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.			
Frequency	6 Month	25	20	15	10	5	0	Releases 900,000 gallons	25	0	25	
	1 Year	20	16	12	8	4	0	Releases 2,000,000 gallons	20	0	20	
	2 Year	15	12	9	6	3	0	Releases 3,080,000 gallons	15	0	15	
	5 Year	10	8	6	4	2	0	Releases 4,600,000 gallons	10	5	4	
	10 Year	5	4	3	2	1	0	Releases 5,720,000 gallons	5	4	1	
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.								Average Total Score			13	
Acronyms CWS - Combined sewer overflow FCO - Fecal coliform GIS - Geographic information system								Corrected Score			22	

Note - This value wheel calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a

Acronyms
 CSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

28390 - 2 YR	Jeffersontown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value:		Public Health Enhancement - SSOs					Release Impact		Rationale		Measurement Method	
Measure												
Performance	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce		Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.		
		6 Month	25	20	15	10	5	0	No Discharge	0	0	0
		1 Year	20	16	12	8	4	0	No Discharge	0	0	0
		2 Year	15	12	9	6	3	0	Releases 63,000 gallons	12	0	12
		5 Year	10	8	6	4	2	0	Releases 167,000 gallons	8	2	6
10 Year	5	4	3	2	1	0	Releases 248,000 gallons	5	2	3		
Frequency								Average Total Score		4		
		Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.						Corrected Score		7		

Acronyms

SSO - Combined sewer overflow

EC - Fiscal condition

Information sources

Notes - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a

imum score of 25.

Acronyms

CSO - Combined sewer overflow
EC - Fecal coliform
GIS - Geographic information system

31733 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)										
Value:		Public Health Enhancement - SSOs								
Performance Measures	Measure	Release Impact					Rationale	Measurement Method		
	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge				
	6 Month	25	20	15	10	5			0	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce
	1 Year	20	15	12	8	4			0	
	2 Year	15	12	9	5	3			0	
	5 Year	10	8	5	4	2			0	
	10 Year	5	4	3	2	1			0	
Average Total Score							12			
Corrected Score							20			

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Legend:
CSO - Combined sewer overflow
FG - Fecal coliform
GIS - Geographic information system

Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)												
Value:		Public Health Enhancement - SSOs			Release Impact			Rationale	Measurement Method			
Measure												
Performance Measures	SSOs:	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their enforce	Measurement methods will be via hydraulic models to quantify the SSO discharges and the GIS to establish relative distance from designated locations or objects.			
		6 Month	25	20	15	10	5	0	No Discharge	0	0	0
		1 Year	20	15	12	8	4	0	No Discharge	0	0	0
		2 Year	15	12	9	6	3	0	Releases 2,000 gallons	3	0	3
		5 Year	10	8	6	4	2	0	Releases 31,000 gallons	4	0	4
		10 Year	5	4	3	2	1	0	Releases 46,000 gallons	2	1	1
Frequency									Average Total Score			2
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.												
CSO - Combined sewer overflow												
FC - Fecal coliform												
GIS - Geographic information system												
Corrected Score										3		

Acronyms
CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic Information system

64096 - 2 YR Network Branch #1A											
Public Health Enhancement - SSOs											
Value:	Measure	Release Impact					Rationale	Measurement Method			
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.		
		6 Month	25	20	15	10	5			0	5
		1 Year	20	16	12	8	4			0	4
		2 Year	15	12	9	6	3			0	12
		5 Year	10	8	6	4	2			0	4
		10 Year	5	4	3	2	1			0	3
Frequency	Average Total Score							5			
	Corrected Score							8			

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CCO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CSO - Combined sewer overflow
GIS - Geographic information system

86052-PS - 2 YR Network Branch #1A												
Public Health Enhancement - SSOs												
Value:	Measure	Release Impact					Rationale	Measurement Method				
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Areas > 50,000 Gals or Park or Blue Line <50,000 Gals or > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.			
Frequency	6 Month	25	20	15	10	5	0	Releases 155,000 gallons	20	0	20	
	1 Year	20	16	12	8	4	0	Releases 223,000 gallons	20	0	20	
	2 Year	15	12	9	6	3	0	Releases 292,000 gallons	15	0	15	
	5 Year	10	8	6	4	2	0	Releases 360,000 gallons	10	2	8	
	10 Year	5	4	3	2	1	0	Releases 405,000 gallons	5	2	3	
Note - This value should calculate the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.										Average Total Score		13
Acronyms CSO - Combined sewer overflow GIS - Geographic Information System GPS - Global Positioning System GIS - Geographic Information System										Corrected Score		22

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CSO - Combined sewer overflow
GIS - Geographic information system

92061 - 2 YR				Network Branch #1A							
Value:	Public Health Enhancement - SSOs										
Performance Measures	Measure	Release Impact					Rationale	Measurement Method			
	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals					
		6 Month	25	20	15	10			5	0	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce
		1 Year	20	16	12	8			4	0	
		2 Year	15	12	9	6			3	0	
		5 Year	10	8	6	4			2	0	
10 Year	5	4	3	2	1	0					
Average Total Score							0				
Corrected Score							0				

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms

CSO - Combined sewer overflow

FC - Fiscal calendar

FC - Fiscal calendar

FC - Fiscal calendar

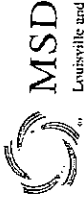


Jeffersontown Blending Elimination Evaluation - Original IOAP Solution and Alternatives 1, 2, and 3 (all the same)

Value	Asset Protection	Measure	Impact					Rationale	Measurement Method				
Performance Measures	Frequency	Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected	No standing water	Stormwater BMPs can reduce stormwater peaks and reduce extent of flooded areas. Modified stormwater peak flows and timing can reduce the flooding impacts of storms. Also, if highly impacted properties may be a choice to reduce flood damage and create green space and buffer zones.	Drainage models where available, historic customer complaints from MSD Customer Information System, or historic observations of flooded areas combined with the expected relative impacts of sewer system modifications on storm water flows.			
		Basement Back-ups	Sewer surcharging within 6 feet of ground surface for more than 20% of manholes	Sewer surcharging within 8 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 6 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 6 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 1% of manholes	No surcharging within 6 feet of ground surface	First floor levels are typically 1 - 2 feet above ground surface, and basement floors are typically 8 - 10 feet below the first floor. Surcharging of 6 feet below ground surface is highly likely to cause back-ups in homes with basement service.				
		Storm Events	Most Severe Impact				Least Impact	No Impact					
		6 Month	Most Likely	5	25	15	10	5	0	Assumptions	Base Case Score	Alternative Score	Total Score
		1 Year		4	20	12	8	4	0		10	0	10
Frequency	Frequency	2 Year		15	9	6	3	0		12	4	9	
		5 Year		10	6	4	2	0		9	3	6	
		10 Year		5	3	2	1	0		8	4	4	
		Not Possible		0	0	0	0	0		5	3	2	
Average Total Score												6	
Corrected Score												10	

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 23.

Acronyms
BMPs - Best management practices



Project #1		S_JT_JT_NB01A_03_C													
Value:		Asset Protection		Measure						Impact		Rationale		Measurement Method	
Performance Measures	Frequency	Storm Events	Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor structural damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected	No standing water	Stormwater BMPs can reduce stormwater peaks and reduce extent of flooded areas, while sewer separation may increase localized stormwater peak flows and increase the flooding impacts of storms. Alternatively, purchase of highly impacted properties may be a cheaper way to reduce flood damage and create green space and buffer zones.	Drainage models where available, historic customer complaints from MSD Customer Information System, or historic observations of flood-prone areas combined with the expected relative impacts of sewer system modifications on storm water flows.				
				Basement Back-ups	Sewer surcharging within 6 feet of ground surface for more than 20% of manholes	Sewer surcharging within 6 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 6 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 5% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 5% of manholes	First floor levels are typically 1 - 2 feet above ground surface, and basement floors are typically 8 - 10 feet below the first floor. A sewer surcharge of 6 feet below ground surface is highly likely to cause back-ups in homes with basement service.					
				Most Severe Impact	Least Impact	No Impact									
				5	4	3	2	1	0	Base Case Score	Alternative Score	Total Score			
				6 Month	Most Likely	5	25	20	15	10	5	0	5		
1 Year		4	20	16	12	8	4	0	4	4	0				
2 Year		3	15	12	9	6	3	0	9	3	6				
5 Year		2	10	8	6	4	2	0	8	6	2				
10 Year	Least Possible	1	5	4	3	2	1	0	4	3	1				
Not Possible	Most Likely	0	0	0	0	0	0	0	Average Score		3				
Corrected Score												5			

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

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BMPs - Best management practices

Note: This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 Assumptions
 BMPs - Best management practices



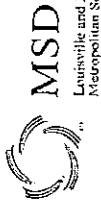
Jeffersonton Blending Elimination - Alternative 1

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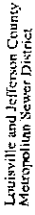
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Jeffersontown Blending Elimination Evaluation - Alternative 1

Wentworth Community Planning Commission Evaluation - Alternative 1													
Value:	Eco-Friendly Solutions												
Aspect	-5	-4	-3	-2	-1	0	1	2	3	4	5	Assumptions	Score Per Aspect
Non-Renewable Energy Consumption	Primary energy consumption equal to 75 - 100% of secondary treatment	Primary energy consumption equal to 50 - 75% of secondary treatment	Primary energy consumption equal to 30 - 50% of secondary treatment	Primary energy consumption equal to 15 - 30% of secondary treatment	Primary energy consumption equal to 10% of secondary treatment	No energy consumption needed for cleaning and maintenance	NA	NA	NA	NA	NA	Energy consumption needed for storage and pump station at the plant, 50% of flow from secondary treatment will be required end of pipe	-3
Use of Natural Systems	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	1
Multiple-Use Facilities	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	Constructed facilities (3 - 5 acres) locally available green space	2
Source Control of Subwatershed Pollutant Loads	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	Rehabilitate buildings are increased by 30 - 50%	3
Non-Obstructive Construction Techniques	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	Minimize disturbance to existing vegetation	-2
Consistent Land Use	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	Facilities consistent with surrounding area	2
Impermeable Surfaces	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	3 acres of impermeable surfaces are added	0
LEEDS Performance	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	LEEDS not applicable or LEEDS score < 10	0
Instructions: (1) Score each alternative for each of the eight aspects of the plan. Scores can be positive or negative, depending on the impact of the alternative on the value. (2) Total the scores for each aspect to get the total score for this alternative (in this value, (3) Shaded area represents "net flow". Alternatives that score in this area should not be proposed.													
Total Raw Score Calculated													
Total Score (Default)													
Note: The total score calculated may be more than 25. In the instances where this might occur, a default maximum score of 25 will be calculated.													
Aspect	Measurement Method												
Non-Renewable Energy Consumption	Evaluation of primary energy consumed per MG of flow treated, compared to the energy consumed at the WWTTP per MG treated.												
Use of Natural Systems	Acres of wetlands and other types of green space created or eliminated. Also includes subjective evaluation of the "look" of the alternative, "green" or "gray".												
Multiple-Use Facilities	Subjective evaluation of changes provided in the design or design improvement as a result of better water quality. Increased flow of decreased flow peaks, increased flow cover or vegetated riparian areas etc.												
Source Control of Subwatershed Pollutant Loads	Modelled land-side pollutant loading reductions as calculated by the SOC Water Quality Tool or by comparison to literature values or peer program measurements.												
Non-Obstructive Construction Techniques	Subjective evaluation of probable construction impacts based on the type of construction envisioned for the alternative.												
Consistent Land Use	All the planning level, projects can be defined to avoid negative impacts on the surrounding properties. Depending on the availability of land, enhancements are possible. This aspect encourages project definition and budget to enhance, not prevent.												
Impermeable Surfaces	Acres of permeable surfaces created or eliminated												
LEEDS Performance	Application of LEED evaluation points.												
Acronyms	MG - million gallons WWTTP - West County Wastewater Treatment Plant												



Project #1	
Value:	Eco-Friendly Solutions

Note: The total score calculated may be more than 25. In the instances where this might occur, a default maximum score of 25 will be calculated.

Cluster Comparison						
Project #1: S_JT_JT_NB01_01_C_A (Alternative 2)						
CSO/SSO ID	Raw Benefit Score ²					Eco-Friendly Solutions
	Regulatory Performance	Public Health	Asset Protection	Environmental Enhance		
ISO28	21	22	10	2		0
28390	5	7	10	2		0
31733	21	20	10	2		0
28395A	5	3	10	2		0
64505	5	3	10	2		0
MSD0255	0	0	10	2		0
28392	0	0	10	2		0
28391	0	0	10	2		0
28173	0	0	10	2		0
64096	21	8	5	4		4
86052	21	22	5	4		4
92061	0	0	5	4		4
MSD0263	21	18	5	4		4
Weighting Factor	8	10	6	8		6
Weighted Benefit Score	960	1030	660	272		-96
Total Benefit Score	2826					
Total Capital Cost ³	25798000					
Total Present Worth Costs ³						
Weighted Benefit/Cost Ratio (Capital Costs)	10.954338					
Weighted Benefit/Cost Ratio (Total Present Worth Costs)	#DIV/0!					
Notes:						
1. Data Input Cells are highlighted in yellow						
2. Raw Benefit Scores for Regulatory Performance and Public Health values are from the CSO or SSO Level of Control Benefit Sheets						
3. Capital and Total Present Worth Costs from the "Proj Summary" Page of the Cost Model for the clustered alternative						

2-Year **Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)****Value: Regulatory Performance - SS0s**

Performance Measure	Measure	Impact / Frequency					Rationale	Measurement Method		
		6 month	1 Year	2 Year	5 Year	10 Year		Modeled Overflow Point or No discharge		
Frequency	SSOs									Measurement methods will be via hydraulic models to quantify the SSO discharge.
	Value	25	12	0	4	1	0			
	ISO28	BL			PR			25	4	
	28390			BL	PR			9	4	
	31733	BL			PR			25	4	
	28395A			BL	PR			9	4	
	64505			BL	PR			9	4	
	MSD0255						BL	0	0	
	28392						BL	0	0	
	28391						BL	0	0	
	28173						BL	0	0	
Note - This value sheet calculates the total benefit.								Subtotal		57
Acronyms AAOV - Average annual overflow volume CSO - Combined sewer overflow WQS - Water quality standards WWTPs - Wastewater treatment plants										

2-Year		JT_NB01A_BCA.xls		Network Branch #1A											
Value: Regulatory Performance - SS0s															
	Measure	Impact / Frequency					Rationale	Measurement Method							
Performance Measure	SSOs	6 month	1 Year	2 Year	5 Year	10 Year	Modeled Overflow Point or No discharge	Regulations do not distinguish between potential impact of SSOs, therefore frequency and impact are the same for Regulatory Performance value.. Modeled Overflow Points are not considered until verified.	Measurement methods will be via hydraulic models to quantify the SSO discharge.						
	Value.	25	16	9	4	1	0								
	64096	BL			PR				25	4		21			
	86052	BL			PR				25	4		21			
	92061						BL		0	0		0			
	MSD0263	BL			PR				25	4		21			
Note - This value sheet calculates the total benefit.													Subtotal	63	
Acronyms															
AAOV - Average annual overflow volume															
CSO - Combined sewer overflow															
WQS - Water quality standards															
WWTPs - Wastewater treatment plants															

IS028 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)																										
Value:		Public Health Enhancement - SSOs																								
Performance Measures	Measure	Release Impact					Rationale	Measurement Method																		
	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		No discharges	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	25	0	25														
		6 Month	25	20	15	10							5	0	Releases 900,000 gallons	20	0	20								
		1 Year	20	16	12	8							4	0					Releases 2,000,000 gallons	15	0	15				
		2 Year	15	12	9	6							3	0									Releases 3,080,000 gallons	10	6	4
		5 Year	10	8	6	4							2	0												
10 Year	5	4	3	2	1	0	Releases 5,720,000 gallons	Average Total Score			13															
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a final score of 22.								Corrected Score			22															
CSO - Combined sewer overflow FC - Fecal coliform GIS - Geographic information system																										

28390 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)															
Value:	Public Health Enhancement - SSOs														
Performance Measures	Measure	Release Impact					Rationale	Measurement Method							
	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.						
		6 Month	25	20	15	10				5	0	No Discharge	0	0	0
		1 Year	20	16	12	8				4	0	No Discharge	0	0	0
		2 Year	15	12	9	6				3	0	Releases 63,000 gallons	12	0	12
		5 Year	10	8	6	4				2	0	Releases 167,000 gallons	8	2	6
10 Year	5	4	3	2	1	0	Releases 248,000 gallons	5	2	3					
Frequency							Average Total Score	4							
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.															
Acronyms															
SSO - Combined sewer overflow															
GIS - Geographic Information system															
								Corrected Score	7						

31733 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Public Health Enhancement - SSOs						
Measure	Release Impact			Rationale	Measurement Method	
Performance Measures	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce.
Frequency	6 Month	20	15	10	5	0
	1 Year	20	12	8	4	0
	2 Year	15	9	6	3	0
	5 Year	10	6	4	2	0
	10 Year	5	3	2	1	0
Average Total Score						12
Corrected Score						20

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 Acronym: SSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

28395A - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Public Health Enhancement - SSOs						
Measure	Release Impact			Rationale	Measurement Method	
Performance Measures	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce.
Frequency	6 Month	20	15	10	5	0
	1 Year	20	12	8	4	0
	2 Year	15	9	6	3	0
	5 Year	10	6	4	2	0
	10 Year	5	3	2	1	0
Average Total Score						2
Corrected Score						3

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 Acronym: SSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25

64096 - 2 YR Network Branch #1A										
Value:	Public Health Enhancement - SSOs									
Performance Measures	Measure	Release Impact				Rationale	Measurement Method			
		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or > 100,000 Gals	Release 20,000-45,999 Gals or Release 50,000 - 99,999 Gals	Release 10,000 - 19,999 Gals					
Frequency	6 Month	25	20	15	10	5	0	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	
	1 Year	20	16	12	8	4	0			5
	2 Year	15	12	9	6	3	0			4
	5 Year	10	8	6	4	2	0			12
	10 Year	5	4	3	2	1	0			8
						Average Total Score			5	
						Corrected Score			8	

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Legend:
SSO - Combined sewer overflow
FG - Fecal coliform
OIS - Geographic Information system

86052-PS - 2 YR Network Branch #1A											
Value:		Public Health Enhancement - SSOs									
	Measure	Release Impact					Rationale	Measurement Method			
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals or >200,000 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforcement.	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.			
Frequency	6 Month	25	20	15	10	5	0	Releases 155,000 gallons	20	0	20
	1 Year	20	16	12	8	4	0	Releases 223,000 gallons	20	0	20
	2 Year	15	12	9	6	3	0	Releases 292,000 gallons	15	0	15
	5 Year	10	8	6	4	2	0	Releases 350,000 gallons	10	2	8
	10 Year	5	4	3	2	1	0	Releases 405,000 gallons	5	2	3
								Average Total Score			13
								Corrected Score			22

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

CSO points
SSO - Combined sewer overflow
FC - Flood callout
GIS - Geographic information system.

MSD0263 - 2 YR Network Branch #1A						
Value: Public Health Enhancement - SSOs						
Performance Measures	Measure	Release Impact				Measurement Method
		Basement Flooding or Park or Blue Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals or > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals
Frequency	6 Month	25	20	15	10	5
	1 Year	20	16	12	8	4
	2 Year	15	12	9	6	3
	5 Year	10	8	6	4	2
	10 Year	5	4	3	2	1
Average Total Score						11
Corrected Score						18

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 CSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce

Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.

Releases 36,000 gallons
 Releases 71,000 gallons
 Releases 123,000 gallons
 Releases 204,000 gallons
 Releases 274,000 gallons

20 0 20
 16 0 16
 12 0 12
 10 4 6
 5 2 3

92061 - 2 YR Network Branch #1A						
Value: Public Health Enhancement - SSOs						
Performance Measures	Measure	Release Impact				Measurement Method
		Basement Flooding or Park or Blue Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals or > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals
Frequency	6 Month	25	20	15	10	5
	1 Year	20	16	12	8	4
	2 Year	15	12	9	6	3
	5 Year	10	8	6	4	2
	10 Year	5	4	3	2	1
Average Total Score						0
Corrected Score						0

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.
 CSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce

Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.

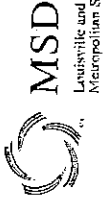
No discharge
 No Release
 No Release
 No Release
 No Release

0 0 0
 0 0 0
 0 0 0
 0 0 0
 0 0 0



Jeffersonstown Blending Elimination Evaluation - Original IOAP Solution and Alternatives 1, 2, and 3 (all the same)

	Measure	Impact					Rationale	Measurement Method			
Frequency	Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor to moderate structural damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected	No standing water	Stormwater BMPs can reduce stormwater peaks and reduce extent of flooded areas, while sewer separation may increase localized stormwater peak flows and increase the flooding impacts of storms. Alternatively, purchase of highly impacted properties may be a cheaper way to reduce flood damage and create green space and buffer zones.	Curtain System, or historic observations of flood-prone areas combined with the expected relative impacts of sewer system modifications on storm water flows.		
	Basement Back-ups	Sewer surcharging within 5 feet of ground surface for more than 20% of manholes	Sewer surcharging within 5 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 5 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 5 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 5 feet of ground surface for 0 - 1% of manholes	No surcharging within 5 feet of ground surface	First floor levels are typically 1 - 2 feet above ground surface, and basement floors are typically 8 - 10 feet below the first floor. A sewer surcharge of 5 foot below ground surface is highly likely to cause back-ups in homes with basement service.	Measurement methods will be via hydraulic models to quantify the hydraulic grade lines compared to ground surface elevations at manholes.		
	Storm Events	Most Severe Impact				Least Impact		No Impact			
	6 Month Most Likely	5	20	15	10	5	0	10	0	Total Score	
	1 Year	4	16	12	8	4	0	12	4	8	
	2 Year	3	12	9	6	3	0	9	3	5	
	5 Year	2	8	6	4	2	0	6	4	4	
	10 Year	1	4	3	2	1	0	5	3	2	
	Not Possible	0	0	0	0	0	0	Average Total Score		6	
	Note - This value sheet calculates the average benefit over the recurrence intervals. A surcession calculation is included in order to obtain a maximum score of 25. Assumptions BMPs - Best management practices										Corrected Score



MSD
Louisville and Jefferson County
Metropolitan Sewer District

Project #1		S_JT_JT_NB01A_03_C																								
Value:		Asset Protection Measure			Impact				Rationale	Measurement Method																
Performance Measures	Storm Events	Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor structural damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected	No standing water	Stormwater BMPs can reduce stormwater peaks and reduce extent of flooded areas, while sewer separation may increase localized stormwater peak flows and increase the flooding impacts of storms. Alternatively, purchase of highly impacted properties may be a cheaper way to reduce flood damage and create green space and buffer zones.	Drainage models where available, historic customer complaints from MSD Customer Information System, or historic observations of flood-prone areas combined with the expected relative impacts of sewer system modifications on storm water flows.																
			Basement Back-ups	Sewer surcharging within 5 feet of ground surface for more than 20% of manholes	Sewer surcharging within 5 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 5 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 5 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 5 feet of ground surface for 0 - 1% of manholes	No surcharging within 6 feet of ground surface					First floor levels are typically 1 - 2 feet above ground surface, and basement floors are typically 8 - 10 feet below the first floor. A sewer surcharge of 6 feet below ground surface is highly likely to cause back-ups in homes with basement service.												
		Frequency	Not Possible	Least Possible	1	5	4	3	2	1	0	Assumptions	Base Case Score	Alternative Score	Total Score											
																Most Likely	5	25	20	15	10	5	0	5	0	5
																1 Year	4	20	16	12	8	4	0	4	4	0
																2 Year	3	15	12	9	6	3	0	9	3	6
5 Year	2	10	8	6	4	2	0	8	6	2																
10 Year	1	5	4	3	2	1	0	4	3	1																
Not Possible	0	0	0	0	0	0	0	0	Average Score	3	3	1	3	5												
Corrected Score																										
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25. Anonymus DMPs - Best management practices																										



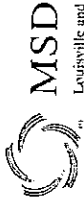
Jeffersonstown Blending Elimination - Alternative 2

[illegible]



S_JT_JT_NB01A_03 C

[illegible]



Jeffersonstown Blending Elimination Evaluation - Alternative 2

Eco-Friendly Solutions									
Value:	Scoring								
Aspect	-5	-4	-3	-2	-1	0	1	2	3
Non-Renewable Energy Consumption	Primary energy consumption is greater than 75% of secondary energy.	Primary energy consumption is 75% of secondary energy.	Primary energy consumption is 50% of secondary energy.	Primary energy consumption is 25% of secondary energy.	Primary energy consumption is 10% of secondary energy.	No energy consumption except for cleaning and maintenance.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
Use of Natural Systems	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
Multiple-Use Facilities	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
Source Control of Suburbanized Pollutant Loads	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
Non-Obtrusive Construction Techniques	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
Consistent Land Use	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
Impermeable Surfaces	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Constructed facilities (sewerage treatment, water supply, etc.) are located in areas with available green space.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.	Alternative doesn't use or enhance green space or wetland.
LEEDS Performance	NA	NA	NA	NA	NA	NA	NA	NA	NA
Instructions: (1) Score each alternative for each of the eight aspects of the value. Scores can be positive or negative, depending on the impact of the alternative on the value. (2) Total the scores for each aspect to get the total score for the alternative in this value. (3) Shaded areas represent "Total flow". Alternatives that score in this area should not be proposed.									
Aspect	Measurement Method								
Non-Renewable Energy Consumption	Evaluation of primary energy consumed per MG of flow treated, compared to the energy consumed at the WQVTP per MG treated.								
Use of Natural Systems	Assess of wetlands and other types of green space created or eliminated. Also includes subjective evaluation of the "green" of the alternative.								
Multiple-Use Facilities	Subjective evaluation of changes predicted in the aquatic or riparian environment as a result of better water quality, increased flow or decreased flow peaks, increased tree cover or riparian riparian area, etc.								
Source Control of Suburbanized Pollutant Loads	Modelled first-flush pollutant loading reductions as calculated by the BCC Water Quality Tool or by consultation to Southern states or peer program measurements.								
Non-Obtrusive Construction Techniques	Subjective evaluation of probable construction impacts based on the type of construction envisioned for the alternative.								
Consistent Land Use	At the planning level, projects can be defined to avoid negative impacts on the surrounding properties. Depending on the availability of land, enhancements are possible. The impact mitigation project definition and design to enhance, not detract.								
Impermeable Surfaces	Areas of permeable surfaces created or eliminated.								
LEEDS Performance	Application of LEED evaluation points.								
Acronym	MSD - million gallons								
LEEDS - Understanding in Energy and Environmental Design	WQVTP - West County Wastewater Treatment Plant								
Total Row Score Calculated									
Total Score (Default)									
Notes: The total score calculated may be more than 25. In the instances where this might occur, a default maximum score of 25 will be calculated.									



S JT JT_NB01A_03_C

Eco-Friendly Solutions

Assessment	1	2	3	4	5	Assessment	Score Per Aspect
Non-Renewable Energy Consumption	Primary energy consumption equal to 15% of secondary	Primary energy consumption equal to 30% of secondary	Primary energy consumption equal to 45% of secondary	Primary energy consumption equal to 60% of secondary	Primary energy consumption equal to 75% of secondary	Energy consumption due to increase in primary energy	-1
Use of Natural Systems	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Alternative 100% reuse of water in all systems, 3% reuse of additional green space	-1
Multiple-Use Facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Alternative 100% reuse of water in all systems, 3% reuse of additional green space	0
Source Control of Suburbanized Pollutant Loads	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Source control reduces pollutant loadings by 20-30%	-1
Non-Obtrusive Construction Techniques	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Source control reduces pollutant loadings by 20-30%	-1
Consistent Land Use	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Source control reduces pollutant loadings by 20-30%	0
Impermeable Surfaces	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Source control reduces pollutant loadings by 20-30%	0
LEEDS Performance	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Constructed facilities	Source control reduces pollutant loadings by 20-30%	0

Instructions: (1) Score each alternative for each of the eight aspects of the value. Scores can be positive or negative, depending on the impact of the alternative on the value. (2) Total the scores for each aspect to get the total score for the alternative in this value. (3) Shaded area represents "total flow". Alternatives that score in this area should not be proposed.

Aspect	Rationale	Measurement Method	Score
Non-Renewable Energy Consumption	Eco-friendly solutions would be expected to be low consumers of non-renewable energy. Directly measuring energy consumption against conventional secondary treatment provides primary points for high energy consuming alternatives.	Evaluation of primary energy consumed per MG of flow treated, compared to the energy consumed in the WQTRF per MG treated.	-4
Use of Natural Systems	Natural systems replace concrete and steel construction with wet bottom storage lagoons, constructed wetlands, rain gardens, etc. that increase green space of wetland area.	Acres of wetlands and other types of green space created or eliminated. Also includes subjective evaluation of the "look" of the alternative - "green or gray".	-4
Multiple-Use Facilities	Eco-friendly solutions create recreational opportunities for both water-based and riparian recreation. Boating, canoeing, kayaking, fishing, walking, swimming, etc. would be direct water-based recreation. Bird watching, hiking, jogging, cycling, etc. would be indirect water-based recreation. Bird watching, hiking, jogging, cycling, etc. would be indirect water-based recreation.	Subjective evaluation of changes predicted in the aquatic or riparian environment as a result of water quality, increased flow or decreased flow peaks, increased green space or riparian habitat area, etc.	-4
Source Control of Suburbanized Pollutant Loads	Controlling pollutant loads at the source through behavior modification, product replacements or stormwater management (DMF) that capture pollutants before entering the sewer system.	Modelled land-use pollutant loading reductions as calculated by the BCC Water Quality Tool or by comparison to literature values or pilot program measurements.	-4
Non-Obtrusive Construction Techniques	Feasible construction impacts on traffic, noise and dust are all measures of the feasibility of an alternative. Construction impacts per primary point for existing resource conditions.	Subjective evaluation of probable construction impacts based on the type of construction environment for the alternative.	-4
Consistent Land Use	Alternative configuration can either enhance or detract from the surrounding property. For example, an extremely unattractive pump station can be noisy, smelly, and detract from the view of landscaping, and a community garden or other green space would detract from the surrounding property.	All the planning level, projects can be selected to avoid negative impacts on the surrounding property. The project encourages project selection and design to enhance, not detract.	-4
Impermeable Surfaces	Adding impermeable surfaces (total runoff volume, peak runoff flow rate, and the total transport of any pollutant deposited on the surface from any source). Generally, permeable surfaces can reduce flow volume and peaks, and provide filtering mechanisms for pollutants.	Assessment of permeable surfaces created or eliminated.	-4
LEEDS Performance	LEED standards are applicable to alternatives that include above-ground building structures.	Application of LEED evaluation points.	-4

MSD - Jefferson County Wastewater Treatment Plant

WQTRF - WQTRF County Wastewater Treatment Plant

MSD - Jefferson County Wastewater Treatment Plant

WQTRF - WQTRF County Wastewater Treatment Plant

Cluster Comparison

Project #1: S_JT_JT_NB01_01_C_A (Alternative 3)

CSO/SSO ID	Raw Benefit Score ²				
	Regulatory Performance	Public Health	Asset Protection	Environmental Enhance	Eco-Friendly Solutions
ISO28	21	22	10	10	3
28390	5	7	10	10	3
31733	21	20	10	10	3
28395A	5	3	10	10	3
64505	5	3	10	10	3
MSD0255	0	0	10	10	3
28392	0	0	10	10	3
28391	0	0	10	10	3
28173	0	0	10	10	3
64096	21	8	5	4	4
88052	21	22	5	4	4
92061	0	0	5	4	4
MSD0263	21	18	5	4	4
Weighting Factor	8	10	6	8	6
Weighted Benefit Score	960	1030	660	848	66
Total Benefit Score	3564				
Total Capital Cost³	20209000				
Total Present Worth Costs³					
Weighted Benefit/Cost Ratio (Capital Costs)	17.635707				
Weighted Benefit/Cost Ratio (Total Present Worth Costs)	#DIV/0!				

Notes:

1. Data Input Cells are highlighted in yellow
2. Raw Benefit Scores for Regulatory Performance and Public Health values are from the CSO or SSO Level of Control Benefit Sheets
3. Capital and Total Present Worth Costs from the "Proj Summary" Page of the Cost Model for the clustered alternative

2-Year Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value: Regulatory Performance - SS0s

Performance Measure	Measure	Impact / Frequency				Rationale	Measurement Method	
		6 month	1 Year	2 Year	5 Year	10 Year		
Frequency	SSOs							Measure methods will be via hydraulic models to quantify the SSO discharge.
	Value	25	12	0	4	1	0	
	ISO28	BL			PR			25 4 21
	28390			BL	PR			9 4 5
	31733	BL			PR			25 4 21
	28395A			BL	PR			9 4 5
	64505			BL	PR			9 4 5
	MSD0255						BL	0 0 0
	28392						BL	0 0
	28391						BL	0 0
	28173						BL	0 0
Note - This value sheet calculates the total benefit.							Subtotal	
Acronyms							57	
AAOV - Average annual overflow volume								
CSO - Combined sewer overflow								
WQS - Water quality standards								
WWTPs - Wastewater treatment plants								

2-Year		Network Branch #1A											
Value:		Regulatory Performance - SS0s											
Performance Measure	Measure	Impact / Frequency					Rationale	Measurement Method					
	SSOs	6 month	1 Year	2 Year	5 Year	10 Year	Regulations do not distinguish between potential impact of SSOs, therefore frequency and impact are the same for Regulatory Performance value.. Modeled Overflow Points are not considered until verified.	Measurement methods will be via hydraulic models to quantify the SSO discharge.					
Frequency	Value	25	16	9	4	1	0						
	64096	BL			PR			25	4	21			
	86052	BL			PR			25	4	21			
	92061						BL	0	0	0			
	MSD0263	BL			PR			25	4	21			
Note - This value sheet calculates the total benefit.											Subtotal	63	
Acronyms													
WQS - Water quality standards AAOV - Average annual overflow volume WWTPs - Wastewater treatment plants CSO - Combined sewer overflow													

ISO28 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value:	Public Health Enhancement - SSOs	Measure	Release Impact					Rationale	Measurement Method
Performance Measures	SSOs	Basement Flooding or Park or Blue- Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue- Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.
Frequency		6 Month	20	15	10	5	0	Releases 900,000 gallons	25 0 25
		1 Year	16	12	8	4	0	Releases 2,000,000 gallons	20 0 20
		2 Year	15	12	9	6	3	Releases 3,080,000 gallons	15 0 15
		5 Year	10	8	6	4	2	Releases 4,800,000 gallons	10 6 4
		10 Year	5	4	3	2	1	Releases 5,720,000 gallons	5 4 1
Average Total Score									13
Corrected Score									22

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
 CSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

28390 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)

Value:	Public Health Enhancement - SSOs	Measure	Release Impact					Rationale	Measurement Method
Performance Measures	SSOs	Basement Flooding or Park or Blue- Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue- Line <50,000 Gals or >100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.
Frequency		6 Month	20	15	10	5	0	No Discharge	0 0 0
		1 Year	16	12	8	4	0	No Discharge	0 0 0
		2 Year	15	12	9	6	3	Releases 63,000 gallons	12 0 12
		5 Year	10	8	6	4	2	Releases 167,000 gallons	8 2 6
		10 Year	5	4	3	2	1	Releases 248,000 gallons	5 2 3
Average Total Score									4
Corrected Score									7

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
 CSO - Combined sewer overflow
 FC - Fecal coliform
 GIS - Geographic information system

31733 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)									
Value: Public Health Enhancement - SSOs									
Performance Measures	Measure	Release Impact					Rationale	Measurement Method	
	SSOs	Basement Flooding or Park or Blue Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		Measurement Method	
Frequency	6 Month	25	20	15	10	5	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	
	1 Year	20	16	12	8	4		Releases 80,000 gallons	
	2 Year	15	12	9	6	3		Releases 172,000 gallons	
	5 Year	10	8	6	4	2		Releases 269,000 gallons	
	10 Year	5	4	3	2	1		Releases 393,000 gallons	
							Releases 495,000 gallons		3
							Average Total Score		12
							Corrected Score		20

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

28395A - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)									
Value: Public Health Enhancement - SSOs									
Performance Measures	Measure	Release Impact					Rationale	Measurement Method	
	SSOs	Basement Flooding or Park or Blue Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals		Measurement Method	
Frequency	6 Month	25	20	15	10	5	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	
	1 Year	20	16	12	8	4		No Discharge	
	2 Year	15	12	9	6	3		No Discharge	
	5 Year	10	8	6	4	2		Releases 2,000 gallons	
	10 Year	5	4	3	2	1		Releases 31,000 gallons	
							Releases 46,000 gallons		1
							Average Total Score		2
							Corrected Score		3

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

64505 - 2 YR Jeffersonstown Blending Elimination Plan - Original IOAP, Alternatives 1, 2, 3 (all the same)									
Value: Public Health Enhancement - SSOs									
Performance Measures	Measure	Release Impact				Rationale	Measurement Method		
		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals or > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals			
Frequency	SSOs						Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce.		
	6 Month	25	20	15	10	5			
	1 Year	20	16	12	8	4			
	2 Year	15	12	9	6	3			
	5 Year	10	8	6	4	2			
	10 Year	5	4	3	2	1			
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.							Average Total Score		
Acronyms CSO - Combined sewer overflow FC - Fecal coliform GIS - Geographic Information system							Corrected Score		
							2		
							3		

64096 - 2 YR Network Branch #1A									
Public Health Enhancement - SSOs									
Value:	Measure	Release Impact					Rationale	Measurement Method	
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	
Frequency	6 Month	25	20	15	10	5	0	Releases 600 gallons	5
	1 Year	20	16	12	8	4	0	Releases 16,000 gallons	4
	2 Year	15	12	9	6	3	0	Releases 55,000 gallons	12
	5 Year	10	8	6	4	2	0	Releases 123,000 gallons	8
	10 Year	5	4	3	2	1	0	Releases 160,000 gallons	4
Average Total Score									
Corrected Score									
8									

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

86052-PS - 2 YR Network Branch #1A									
Public Health Enhancement - SSOs									
Value:	Measure	Release Impact					Rationale	Measurement Method	
Performance Measures	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue-Line <50,000 Gals > 100,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Measurement methods will be via hydraulic models to quantify the SSO discharge and the GIS to establish relative distance from designated locations or objects.	
Frequency	6 Month	25	20	15	10	5	0	Releases 155,000 gallons	20
	1 Year	20	16	12	8	4	0	Releases 223,000 gallons	20
	2 Year	15	12	9	6	3	0	Releases 292,000 gallons	15
	5 Year	10	8	6	4	2	0	Releases 360,000 gallons	10
	10 Year	5	4	3	2	1	0	Releases 405,000 gallons	5
Average Total Score									
Corrected Score									
22									

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

CSO - Combined sewer overflow
FC - Fecal coliform
GIS - Geographic information system

MSD0263 - 2 YR Network Branch #1A													
Value:		Public Health Enhancement - SSOs											
Performance Measures	Measure	Release Impact					Rationale	Measurement Method					
	SSOs	Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 Gals	Release 50,000 - 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	No discharge	Not all discharges violate the Clean Water Act. Discharges vary in the impact to public health and the environment. Therefore, EPA developed guidance on how to set priorities based on the risk to the public's health and the environment under their Enforce	Measurement methods will be via hydraulic models to quantify the SSO discharges and the GIS to establish relative distance from designated locations or objects.				
	Frequency	6 Month	25	20	15	10	5		0	Releases 36,000 gallons	20	0	20
	1 Year	20	16	12	8	4	0		0	Releases 71,000 gallons	16	0	16
	2 Year	15	12	9	6	3	0		0	Releases 123,000 gallons	12	0	12
	5 Year	10	8	6	4	2	0		0	Releases 204,000 gallons	10	4	6
	10 Year	5	4	3	2	1	0		0	Releases 274,000 gallons	5	2	3
							Average Total Score		11				
							Corrected Score		18				

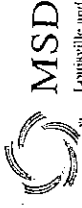
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
CFS - Combined sewer overflow
FC - Flood cell/m
GIS - Geographic information system

92061 - 2 YR Network Branch #1A									
Value:		Public Health Enhancement - SSOs							
Performance Measures	Frequency	Measure	Release Impact				Rationale	Measurement Method	
		Basement Flooding or Park or Blue-Line Stream > 50,000 Gals or >200,000 Gals	Residential Area > 50,000 Gals or Park or Blue Line <50,000 99,999 Gals	Release 20,000-49,999 Gals	Release 10,000 - 19,999 Gals	*			
		Average Total Score				0			
		Corrected Score				0			

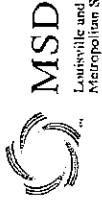
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
SSO - Sanitary sewer overflow
FCI - Fecal coliform
GIS - Geographic information system



Jeffersontown Blending Elimination Evaluation - Original IOAP Solution and Alternatives 1, 2, and 3 (all the same)

Value:	Asset Protection Measure	Measure	Impact					Impact	Rationale	Measurement Method		
		Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor structural damage	Flooding limits access to recreational areas	Standing water on property, but not affected and no damage expected	No standing water	Stormwater pipes can reduce stormwater peaks and reduce extent of flooded areas, while sewer separation may increase localized stormwater peak flows and increase the flooding impacts of storms. Alternatively, purchase of highly impacted properties may be a cheaper way to reduce flood damage and create green space and buffer zones.	Drainage models where available, historic customer complaints from MSD Customer Information System, or historic observations of flood-prone areas combined with the expected relative impacts of sewer system modifications on storm water flows.			
		Basement Back-ups	Sewer surcharging within 6 feet of ground surface for more than 20% of manholes	Sewer surcharging within 6 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 6 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 1% of manholes	No surcharging within 6 feet of ground surface	First floor levels are typically 1 - 2 feet above ground surface, and basement floors are typically 8 - 10 feet below the first floor. A sewer surcharge of 6 feet below ground surface is highly likely to cause back-ups in homes with basement devices.	Measurement methods will be via hydraulic models to quantify the hydraulic grade lines compared to ground surface elevations at manholes.			
		Storm Events	Most Severe Impact			Least Impact	No Impact					
			5	4	3	2	1	0	Assumptions	Base Case Score	Alternative Score	Total Score
Frequency	6 Month	Most Likely	25	20	15	10	5	0		10	0	10
	1 Year		20	16	12	8	4	0		12	4	8
	2 Year		15	12	9	6	3	0		9	3	6
	5 Year		10	8	6	4	2	0		8	4	4
	10 Year	Least Likely	5	4	3	2	1	0		5	3	2
	Not Possible	Not Possible	0	0	0	0	0	0	Average Total Score			
Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.										Corrected Score		
Acronyms BMPs - Best management practices												



MSD
Louisville and Jefferson County
Metropolitan Sewer District

Project #1		SJT JT_NB01A_03 C													
Value:		Asset Protection				Measurement Method									
Performance Measures	Frequency	Measure		Impact				Rationale	Measurement Method						
		Flood Damage	Homes or businesses are subject to severe structural damage	Homes or businesses are subject to minor structural damage	Flooding limits access to homes or businesses	Flooding limits access to recreational areas	Standing water on property, but access not affected and no damage expected			No standing water					
			Sewer surcharging within 6 feet of ground surface for more than 20% of manholes	Sewer surcharging within 6 feet of ground surface for 10 - 20% of manholes	Sewer surcharging within 6 feet of ground surface for 5 - 10% of manholes	Sewer surcharging within 6 feet of ground surface for 1 - 5% of manholes	Sewer surcharging within 6 feet of ground surface for 0 - 1% of manholes			No surcharging within 6 feet of ground surface					
			Most Severe Impact				Least Impact			No Impact					
			Storm Events												
			5 Month	5	20	15	10			5	0	Assumptions	Base Case Score	Alternative Score	Total Score
			1 Year	4	20	15	8			4	0		4	4	0
2 Year	3	15	12	9	6	3	0		9	3	6				
5 Year	2	10	8	6	4	2	0		8	6	2				
10 Year	1	5	4	3	2	1	0		4	3	1				
Not Possible	0	0	0	0	0	0	0		Average Score			3			
Corrected Score												5			

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Accuracy BMPs, Best management practices

Note - This value sheet calculates the average benefit over the recurrence intervals. A correction calculation is included in order to obtain a maximum score of 25.

Acronyms
BMPs - Best management practices



[illegible]

ICMAA Project-200707092_From_SBS_ModellingMINDA?_Feb2010SemiannualCost EstimationKnown blending elimination benefit scoring Asset Environment and Eco friendly sh

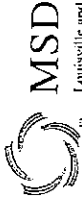


Project #1		Environmental Enhancement										S JT JT NB01A.03 C																																																																																									
Value:	Aspect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Value:	Aspect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Value:	Aspect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Value:	Aspect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Value:	Aspect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96				



Jeffersonstown Blending Elimination Evaluation - Alternative 3

[illegible]



S_JT_JT_NB01A_03_C																		
Eco-Friendly Solutions																		
Project #1	Value:																	
Aspect	1	2	3	4	5	6	7	8	9									
Non-Generable Energy Consumption	Primary energy consumption equal to 20% of secondary treatment	Primary energy consumption equal to 15% of secondary treatment	Primary energy consumption equal to 10% of secondary treatment	Primary energy consumption equal to 5% of secondary treatment	Primary energy consumption equal to 0% of secondary treatment	Primary energy consumption equal to 0% of secondary treatment	Primary energy consumption equal to 0% of secondary treatment	Primary energy consumption equal to 0% of secondary treatment	Primary energy consumption equal to 0% of secondary treatment									
Use of Natural Systems	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
Multiple-Use Facilities	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
Source Control of Subwatershed Pollutants	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
Non-Obstructive Construction Techniques	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
Consistent Land Use	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
Impermeable Surfaces	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
LEEDS Performance	Constructed facilities permanently displace 1-2 acres of natural green space	Constructed facilities permanently displace 0.5-1 acres of natural green space	Constructed facilities permanently displace 0.1-0.5 acres of natural green space	Constructed facilities permanently displace 0.05-0.1 acres of natural green space	Constructed facilities permanently displace 0.01-0.05 acres of natural green space	Constructed facilities permanently displace 0.005-0.01 acres of natural green space	Constructed facilities permanently displace 0.001-0.005 acres of natural green space	Constructed facilities permanently displace 0.0005-0.001 acres of natural green space	Constructed facilities permanently displace 0.0001-0.0005 acres of natural green space									
Instructions: (1) Score each alternative for each of the eight aspects of the value. (2) Total the scores for each aspect to get the total score for this alternative. (3) Shaded areas represent "Total flow". Alternatives that score in this area should not be proposed.																		
Aspect	Measurement Method																	
Non-Generable Energy Consumption	Evaluation of primary energy consumption per MG of flow treated, compared to the energy consumed at the WWTGP per MG treated.																	
Use of Natural Systems	Agree on standards and other types of green space created or eliminated. Also include subjective evaluation of the quality of the alternative "green" or "gray".																	
Multiple-Use Facilities	Subjective evaluation of changes predicted in the amount of impervious impervious as a result of better water quality, increased lower flow or decreased flow peaks, increased flow cover or impervious surface area etc.																	
Source Control of Subwatershed Pollutants	Modelled landscape-related loading reductions are calculated by the DDC Value Quality Tool or by comparison to current values or past program measurements.																	
Non-Obstructive Construction Techniques	Subjective evaluation of probable construction impacts based on the type of construction envisioned for the alternative.																	
Consistent Land Use	At the planning level, projects can be defined to avoid negative impacts on the surrounding properties. Depending on the availability of land, enhancements are possible. This aspect encourages project definition and budget to enhance, not protect.																	
Impermeable Surfaces	Assess of permeable surfaces created or eliminated.																	
LEEDS Performance	Application of LEED evaluation points.																	
Autonyms	MG - million gallons WWTGP - West County Wastewater Treatment Plant																	
LEEDS - Leadership in Energy and Environmental Design																		
Total Raw Score Calculated																		
Converted Score																		
Note: The total score calculated may be more than 25. In the instances where this might occur, a default maximum score of 25 will be calculated.																		



Consent Decree Quarterly Report #18
January 1, 2010 – March 31, 2010

Appendix J – Customer Survey

April 30, 2010





Public Outreach Study

December 17, 2009



1941 Bishop Lane Ste. 1017

Louisville, KY 40218

www.torinc.net

Research Methodology

1,200 telephone interviews were conducted with a random selection of adult residents of Jefferson County, KY.

Analysis Group	# of Interviews	Max Margin of Error at 95% Confidence
Males	516	+/- 4.3 percentage points
Females	684	+/- 3.7 percentage points
Age 18-34	96	+/- 10.0 percentage points
Age 35-54	559	+/- 4.1 percentage points
Age 55 +	536	+/- 4.2 percentage points
Total Sample	1,200	+/- 2.8 percentage points

- Interviews averaged 12 minutes in length
- Research dates: November 30, 2009 through December 7, 2009
- Survey data is weighted to actual demographic distribution of population.

Demographic Profile

	Total
Males	47%
Females	53%
Average Age	45.9
% 4-year College Degree	39%
Average HH Income	\$63,900

Base: All respondents

About This Presentation

Parts of the survey asked respondents to indicate their level of agreement or disagreement to a series of statements (some of the statements being true, and some being false). This presentation of the survey data will focus on the percentage of the adult population with “incorrect” knowledge – the percentage that future communication efforts will need to reach and educate.

For “true” statements, the incorrect responses are those who responded **3 or lower** on the five-point scale shown below, plus the “Don’t Know” responses.

For the “false” statements, the incorrect responses are those who responded **3 or higher** on the five-point scale shown below, plus the “Don’t Know” responses.

	True Statements	False Statements
5 – Completely Agree		✓
4		✓
3	✓	✓
2	✓	
1 – Completely Disagree	✓	
Don’t Know	✓	✓

Correct Answer

Incorrect Answer

Attitudes About Stormwater Pollution

Q. How much do you agree or disagree that...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Stormwater that flows into streams, drains, or ditches negatively affects stream water quality (TRUE)</u>						
• Rated 1 – Completely Disagree	9%	10%	9%	7%	10%	11%
• Rated 2	8%	10%	6%	9%	8%	6%
• Rated 3	24%	28%	20%	36%	22%	16%
• Don't Know	1%	1%	1%	2%	1%	1%
<i>Sub-total Incorrect</i>	42%	50%	35%	55%	40%	34%
<u>Stormwater may be polluted from lawn or yard chemicals (TRUE)</u>						
• Rated 1 – Completely Disagree	6%	9%	3%	7%	3%	8%
• Rated 2	7%	11%	3%	12%	6%	4%
• Rated 3	17%	20%	15%	18%	18%	16%
• Don't Know	+	-	1%	-	-	1%
<i>Sub-total Incorrect</i>	30%	40%	21%	37%	27%	28%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Attitudes About Stormwater Pollution

Q. How much do you agree or disagree that...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Stormwater may be polluted from sediment, petroleum or untreated sewage (TRUE)</u>						
• Rated 1 – Completely Disagree	4%	4%	4%	2%	4%	6%
• Rated 2	7%	8%	6%	8%	7%	6%
• Rated 3	15%	18%	12%	15%	18%	11%
• Don't Know	1%	2%	+	2%	+	1%
<i>Sub-total Incorrect</i>	26%	32%	22%	27%	29%	24%
<u>Stormwater may be polluted from litter (TRUE)</u>						
• Rated 1 – Completely Disagree	5%	8%	4%	3%	6%	7%
• Rated 2	7%	10%	3%	8%	5%	8%
• Rated 3	16%	18%	14%	18%	15%	16%
• Don't Know	+	+	+	-	-	1%
<i>Sub-total Incorrect</i>	29%	36%	22%	29%	26%	32%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Hard Surfaces and Stormwater

Q. How much do you agree or disagree that...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Hard surfaces like concrete and rooftops reduce the amount of water and pollutants that flow into storm drains and ditches (FALSE)</u>						
• Rated 5 – Completely Agree	13%	12%	13%	14%	10%	16%
• Rated 4	11%	10%	12%	13%	9%	10%
• Rated 3	32%	24%	39%	35%	35%	27%
• Don't Know	3%	2%	3%	2%	1%	5%
<i>Sub-total Incorrect</i>	58%	48%	67%	64%	55%	58%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Impact of Pet Waste

Q. How much do you agree or disagree that...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Leaving pet waste on the ground can pollute creeks and streams when it rains (TRUE)</u>						
• Rated 1 – Completely Disagree	14%	19%	10%	12%	15%	14%
• Rated 2	11%	16%	7%	7%	16%	10%
• Rated 3	23%	26%	21%	27%	25%	19%
• Don't Know	1%	1%	1%	2%	1%	1%
<i>Sub-total Incorrect</i>	50%	63%	39%	48%	57%	44%
<u>Stormwater may be polluted from pet waste (TRUE)</u>						
• Rated 1 – Completely Disagree	12%	17%	8%	11%	13%	12%
• Rated 2	12%	14%	9%	6%	15%	11%
• Rated 3	23%	25%	21%	22%	26%	20%
• Don't Know	1%	2%	+	2%	+	1%
<i>Sub-total Incorrect</i>	48%	59%	38%	41%	54%	45%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in RED.

Impact of Pet Waste

Q. How much do you agree or disagree that...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Leaving pet waste on the ground has no impact on public health</u> (FALSE)						
• Rated 5 – Completely Agree	15%	12%	17%	9%	13%	21%
• Rated 4	12%	11%	13%	14%	12%	9%
• Rated 3	19%	24%	15%	20%	20%	17%
• Don't Know	+	+	+	-	+	1%
<i>Sub-total Incorrect</i>	46%	47%	45%	44%	46%	47%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Impact of Pet Waste

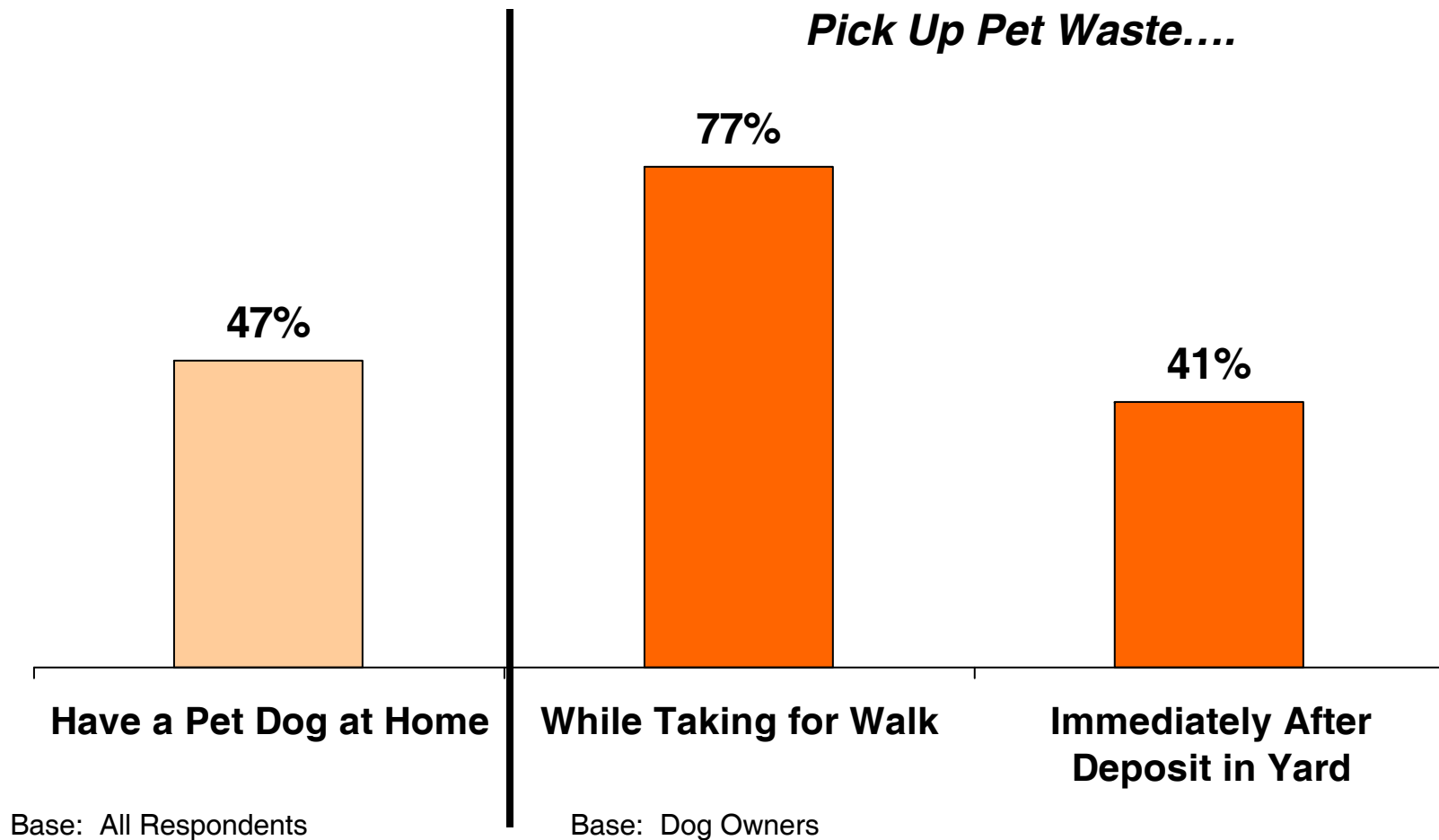
Q. How much do you agree or disagree that...?

	Total	Dog Owners	Non-Owners
<u>Leaving pet waste on the ground can pollute creeks and streams when it rains (TRUE)</u>			
• Disagree (Rated 1/2)	25%	30%	22%
• Neutral/Don't Know	25%	24%	25%
<i>Sub-total Incorrect</i>	50%	54%	47%
<u>Stormwater may be polluted from pet waste (TRUE)</u>			
• Disagree (Rated 1/2)	24%	26%	22%
• Neutral/Don't Know	24%	23%	24%
<i>Sub-total Incorrect</i>	48%	50%	46%
<u>Leaving pet waste on the ground has no impact on public health (FALSE)</u>			
• Agree (Rated 5/4)	26%	28%	25%
• Neutral/Don't Know	20%	19%	20%
<i>Sub-total Incorrect</i>	46%	46%	46%

Those who own pet dogs are no more likely to be knowledgeable about the potential impact of pet waste on water quality than are those who do not have pet dogs.

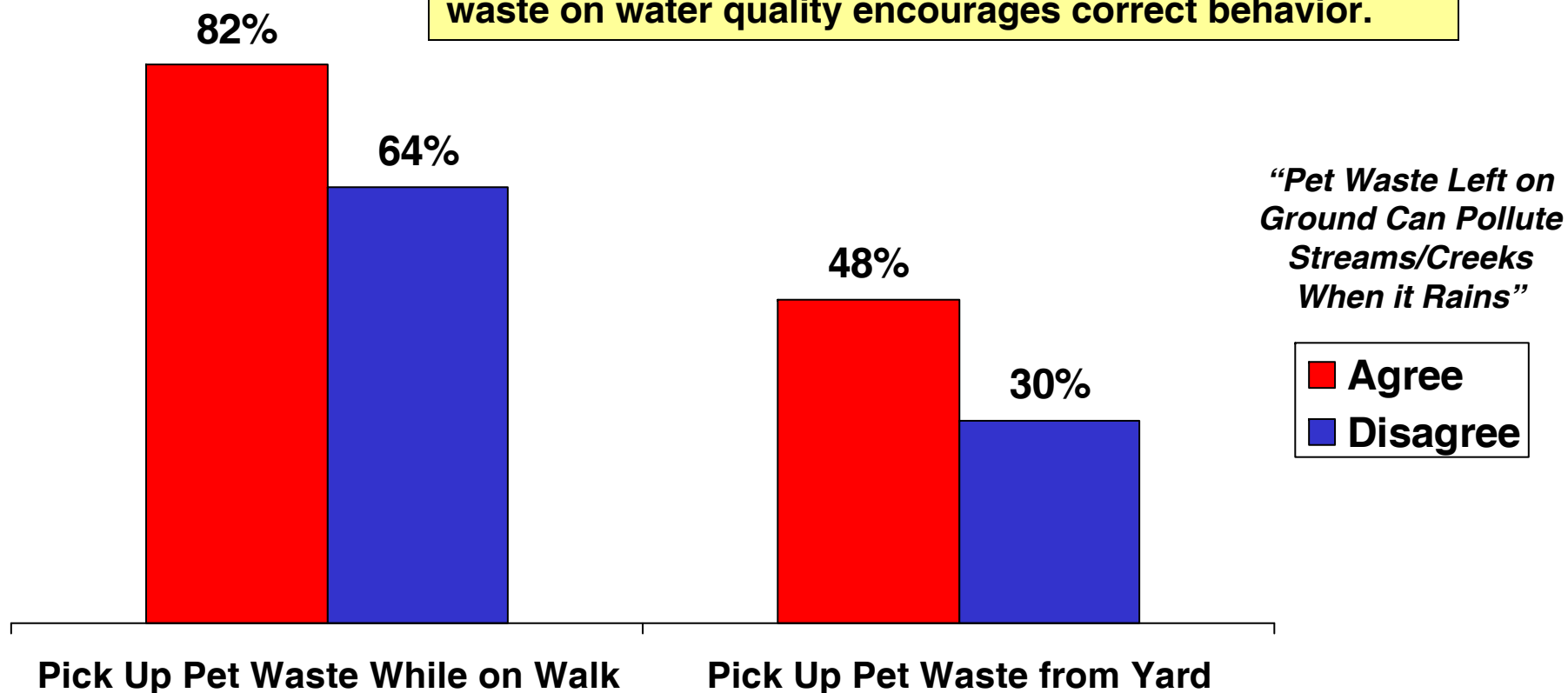
Base: All respondents

Dog Ownership and Pet Waste



Impact of Awareness on Dog Owners' Behavior

Among pet dog owners, awareness of the impact of pet waste on water quality encourages correct behavior.



Base: Dog Owners

Lawn Chemicals

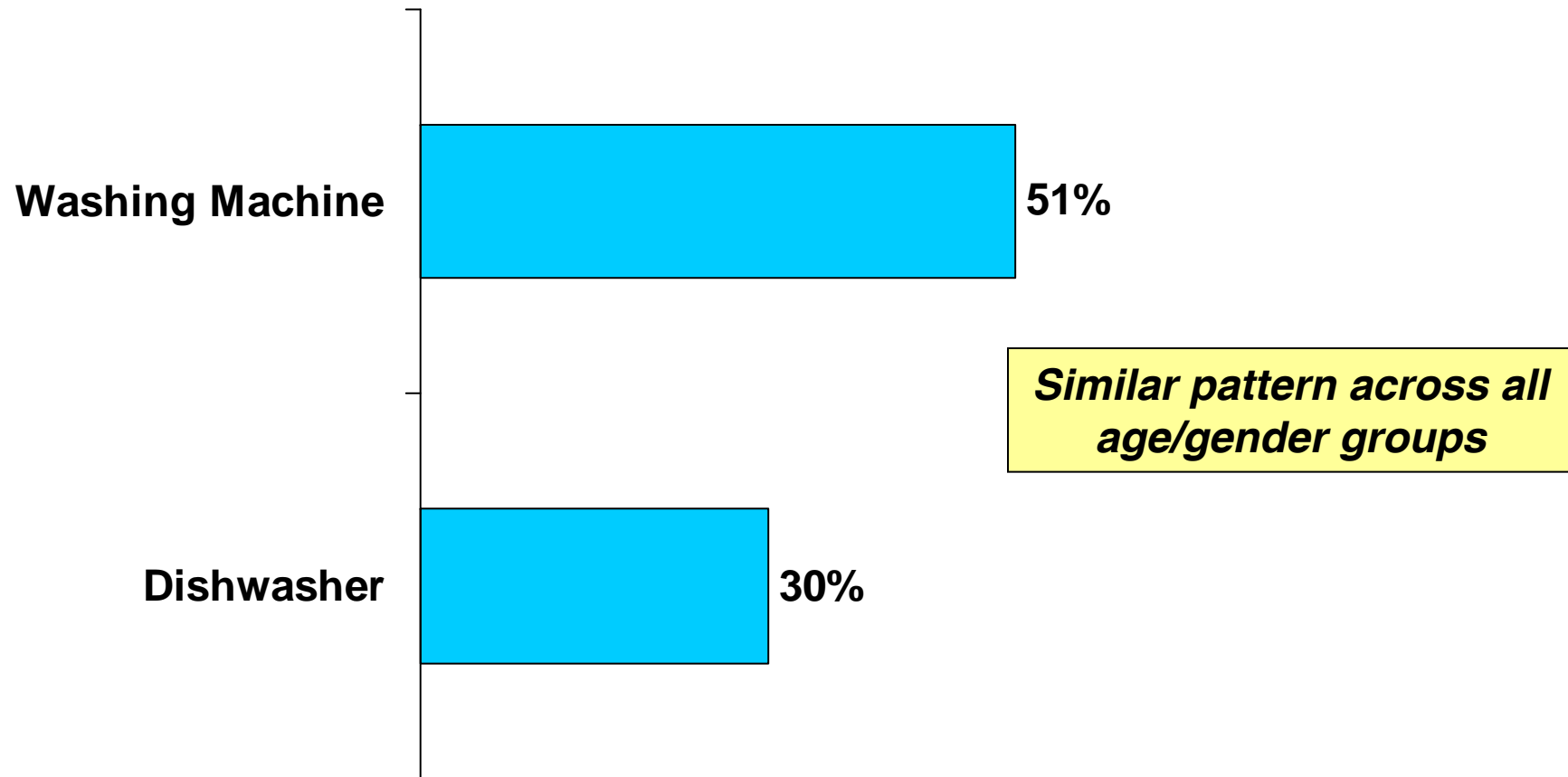
	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
Use Lawn Chemicals on Yard	41%	49%	35%	28%	47%	46%
<u>Typically Apply Lawn Chemicals...</u>						
• Before a rainstorm	23%	23%	24%	21%	24%	24%
• Immediately after a rainstorm	4%	6%	2%	6%	3%	4%
• At least 48 hours after a rain	19%	19%	19%	12%	24%	18%
• Rain not a consideration	47%	46%	50%	51%	47%	46%
• Don't know/No answer	6%	7%	5%	10%	2%	8%

Base: All respondents / Those who use lawn chemicals

Significantly lower levels of use highlighted in **BLUE**.

Appliance Use During Rainstorms

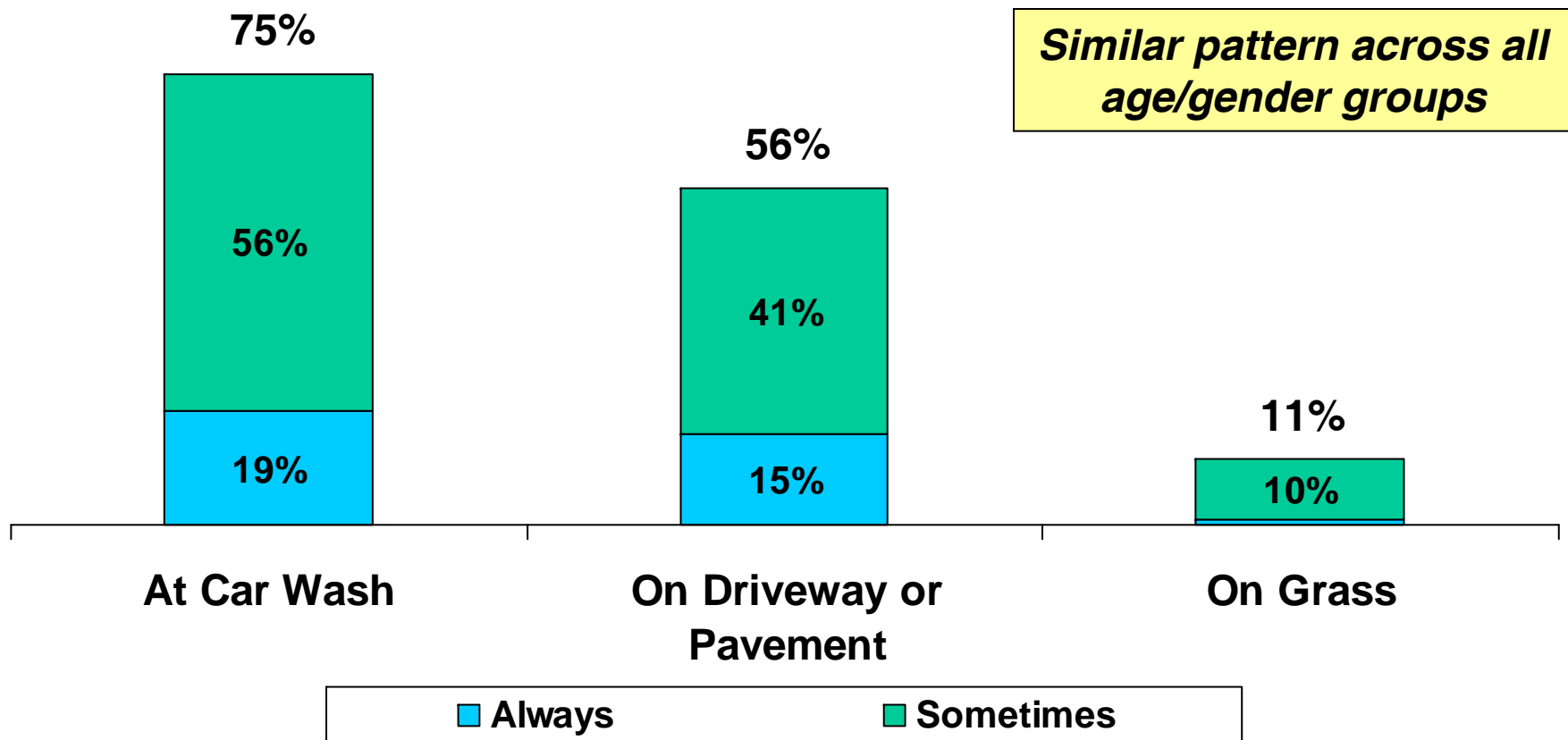
Q. Do you run your ____ during a rainstorm?



Base: All Respondents

Car Washing Habits

Q. How often do you wash your car at a car wash? On the driveway or pavement? On grass?



Base: All Respondents

Destination of Polluted Stormwater

Q. How much do you agree or disagree that...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Pollution picked up by storm water flows to a sewage treatment plant</u> (FALSE)						
• Rated 5 – Completely Agree	36%	31%	41%	37%	33%	40%
• Rated 4	18%	16%	19%	15%	20%	16%
• Rated 3	28%	28%	28%	36%	27%	22%
• Don't Know	2%	1%	2%	2%	1%	3%
<i>Sub-total Incorrect</i>	83%	76%	89%	89%	81%	81%
<u>Pollution picked up by storm water flows to local creeks or streams</u> (TRUE)						
• Rated 1 – Completely Disagree	4%	5%	3%	3%	3%	6%
• Rated 2	4%	7%	2%	6%	3%	4%
• Rated 3	17%	21%	14%	26%	15%	12%
• Don't Know	+	1%	+	1%	+	+
<i>Sub-total Incorrect</i>	25%	33%	19%	36%	20%	22%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Disposal of Paints and Household Cleaners

Q. How often do you dispose of paints or household cleaners by...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Taking them to a chemical drop off</u>						
• Always	31%	30%	32%	15%	36%	39%
• Sometimes	25%	30%	20%	18%	28%	25%
• Never	44%	40%	48%	67%	36%	36%
<u>Putting them in the trash</u>						
• Always	15%	16%	15%	22%	14%	11%
• Sometimes	29%	30%	28%	25%	33%	28%
• Never	56%	54%	57%	53%	53%	61%
<u>Running them down a sink drain</u>						
• Always	4%	2%	6%	8%	3%	2%
• Sometimes	14%	15%	13%	20%	15%	9%
• Never	82%	83%	81%	72%	82%	89%

Base: All respondents

Significantly higher levels of incorrect responses are highlighted in **RED**.

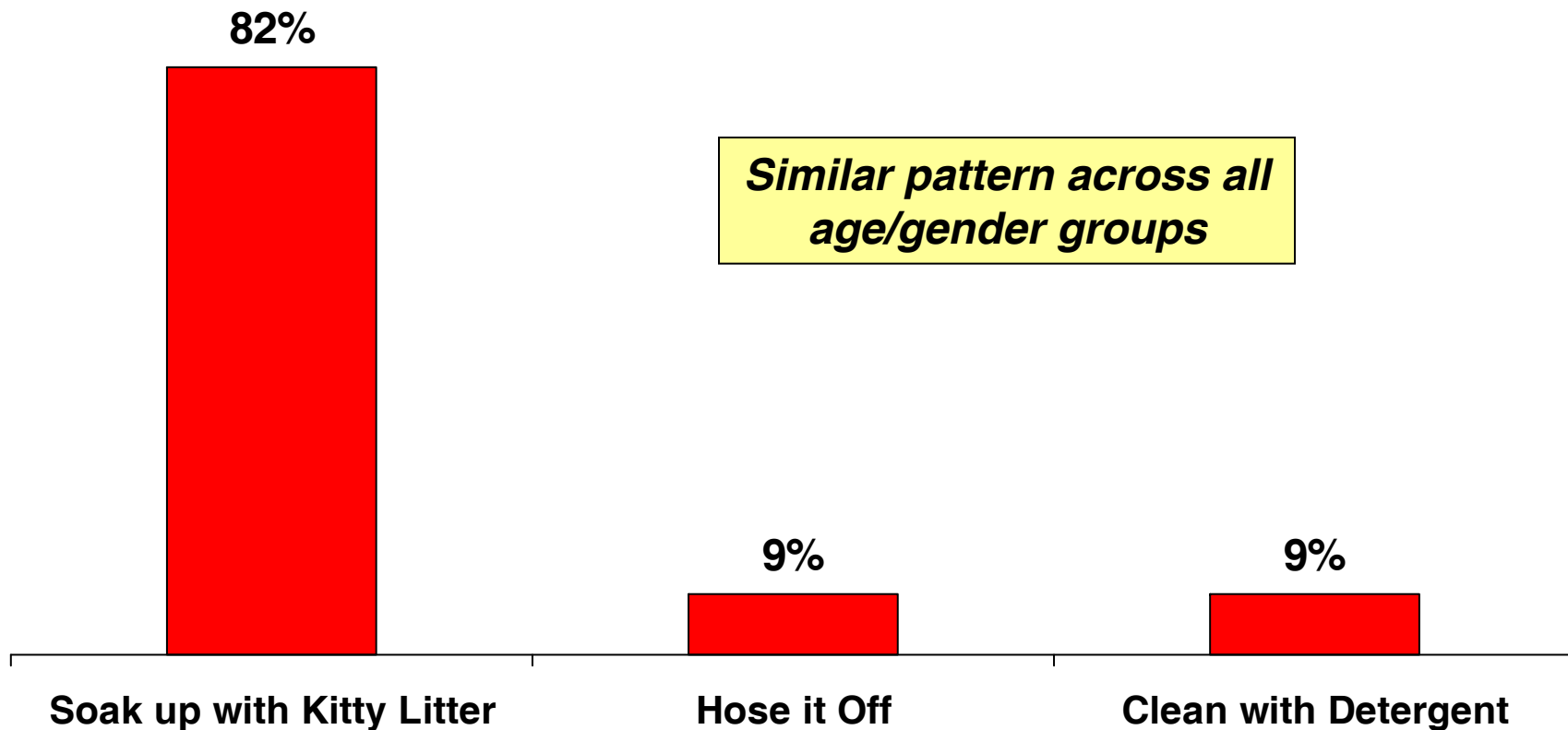
Disposing of Fats, Oils and Grease

Q. How often do you dispose of fats, oils, and grease by...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Scraping them off into the trash</u>						
• Always	44%	37%	50%	37%	48%	46%
• Sometimes	41%	46%	37%	45%	41%	38%
• Never	15%	17%	13%	17%	12%	6%
<u>Running hot water/dish soap and running them down the drain</u>						
• Always	7%	6%	8%	10%	7%	4%
• Sometimes	34%	39%	29%	39%	37%	27%
• Never	59%	55%	63%	50%	56%	70%
<u>Flushing them down the toilet</u>						
• Always	2%	3%	2%	7%	1%	1%
• Sometimes	8%	7%	8%	8%	8%	7%
• Never	90%	90%	90%	85%	91%	92%

Base: All respondents

Best Way to Clean Oils, Chemicals or Gasoline that Spills Outdoors



Base: All Respondents

Awareness of Ways to Reduce Water Run-Off

Q. How much do you agree or disagree that you can reduce the amount of water that flows into creeks or streams by...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Capturing and Storing Stormwater (TRUE)</u>						
• Rated 1 – Completely Disagree	10%	11%	10%	15%	7%	11%
• Rated 2	7%	10%	5%	10%	6%	7%
• Rated 3	25%	25%	26%	35%	23%	20%
• Don't Know	1%	1%	1%	2%	+	2%
<i>Sub-total Incorrect</i>	44%	47%	42%	62%	36%	39%
<u>Redirecting stormwater to grassy areas (TRUE)</u>						
• Rated 1 – Completely Disagree	9%	9%	8%	17%	5%	7%
• Rated 2	6%	9%	3%	8%	5%	4%
• Rated 3	24%	21%	26%	31%	22%	20%
• Don't Know	2%	3%	1%	3%	+	2%
<i>Sub-total Incorrect</i>	40%	42%	38%	59%	32%	33%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in RED.

Awareness of Ways to Reduce Water Run-Off

Q. How much do you agree or disagree that you can reduce the amount of water that flows into creeks or streams by...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Changing your landscaping (TRUE)</u>						
• Rated 1 – Completely Disagree	9%	12%	7%	11%	7%	11%
• Rated 2	8%	9%	7%	14%	6%	5%
• Rated 3	20%	21%	19%	25%	18%	19%
• Don't Know	1%	2%	1%	2%	+	2%
<i>Sub-total Incorrect</i>	39%	44%	34%	52%	31%	38%

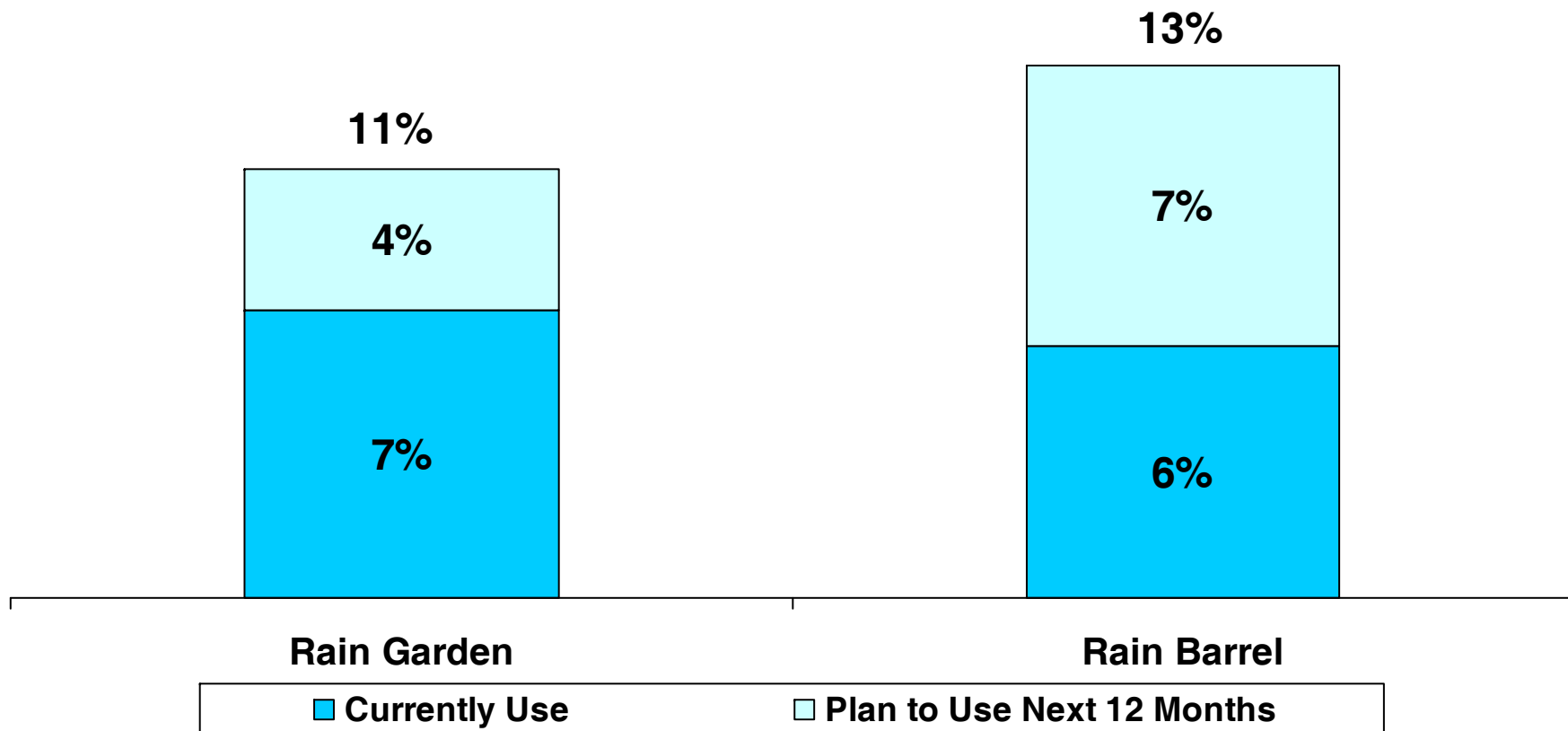
Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Use of Rain Gardens and Rain Barrels

Similar pattern across all age/gender groups



Base: All Respondents

Awareness of Uses of Water Barrels

Q. How much do you agree or disagree that rain barrels can collect stormwater from...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Your Yard (FALSE)</u>						
• Rated 5 – Completely Agree	27%	25%	29%	29%	27%	27%
• Rated 4	10%	11%	9%	11%	11%	7%
• Rated 3	21%	16%	25%	25%	21%	17%
• Don't Know	1%	1%	2%	-	1%	3%
<i>Sub-total Incorrect</i>	59%	53%	65%	65%	60%	54%
<u>Your Driveway (FALSE)</u>						
• Rated 5 – Completely Agree	19%	17%	21%	22%	17%	5%
• Rated 4	7%	8%	6%	10%	7%	20%
• Rated 3	22%	17%	26%	25%	24%	18%
• Don't Know	1%	1%	1%	-	2%	2%
<i>Sub-total Incorrect</i>	49%	43%	55%	57%	50%	44%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Awareness of Uses of Water Barrels

Q. How much do you agree or disagree that rain barrels can collect stormwater from...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Your Roof (TRUE)</u>						
• Rated 1 – Completely Disagree	9%	10%	9%	18%	4%	9%
• Rated 2	3%	4%	3%	6%	2%	3%
• Rated 3	13%	11%	15%	19%	13%	10%
• Don't Know	1%	+	1%	-	+	1%
<i>Sub-total Incorrect</i>	26%	25%	27%	43%	19%	23%

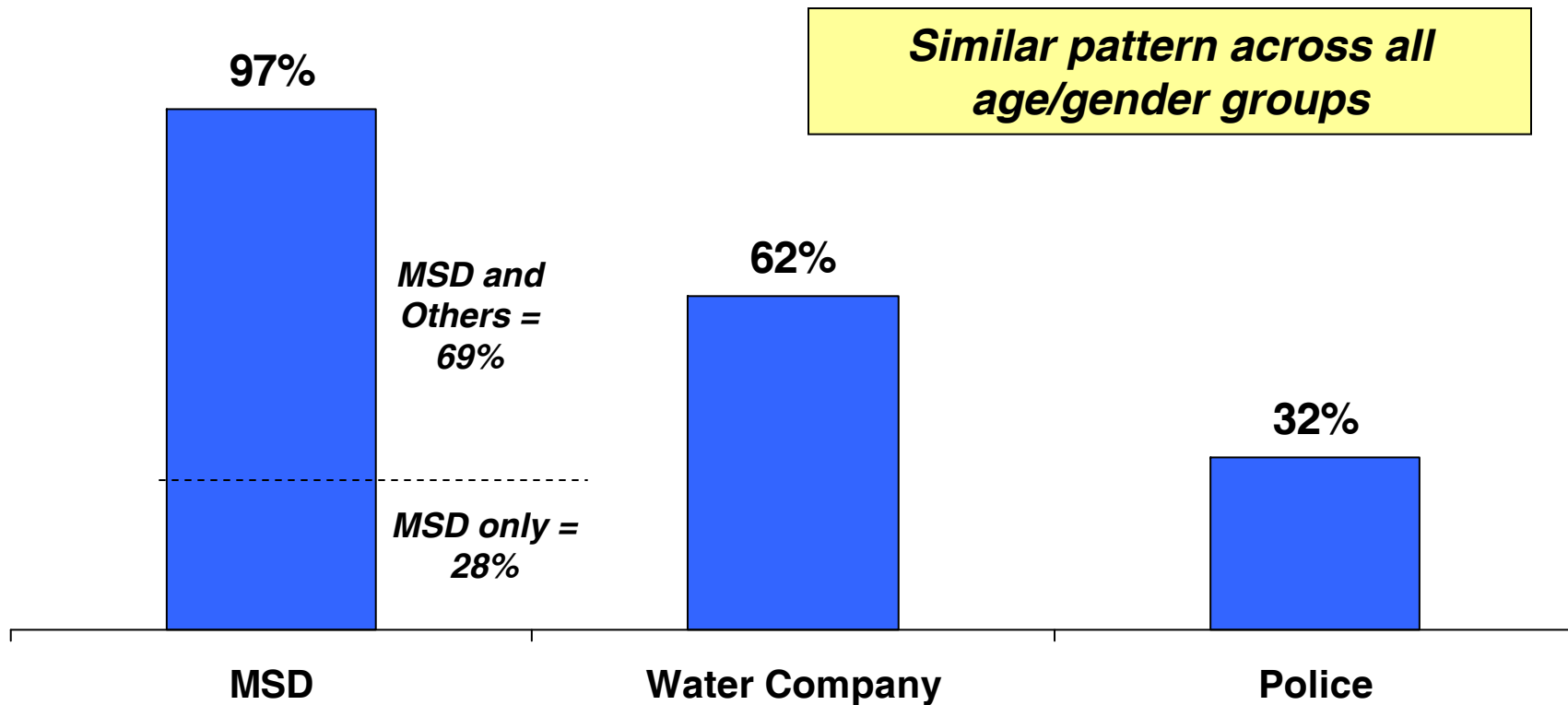
Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Who to Contact to Report Violations

Q. To report the draining or dumping of pollutants into storm drains or ditches, should you contact...?



Base: All Respondents

Materials that Wash Off Vehicles

Q. How much do you agree or disagree that materials that wash off of vehicles onto roads and driveways...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Have no effect on stream water quality (FALSE)</u>						
• Rated 5 – Completely Agree	11%	11%	12%	12%	8%	15%
• Rated 4	8%	10%	7%	12%	6%	8%
• Rated 3	20%	22%	19%	22%	20%	20%
• Don't Know	1%	1%	1%	2%	+	1%
<i>Sub-total Incorrect</i>	41%	43%	39%	48%	34%	43%
<u>Are cleaned before reaching creeks or streams (FALSE)</u>						
• Rated 5 – Completely Agree	9%	9%	10%	8%	7%	12%
• Rated 4	9%	10%	8%	15%	7%	6%
• Rated 3	22%	24%	20%	20%	22%	22%
• Don't Know	+	+	1%	-	-	1%
<i>Sub-total Incorrect</i>	40%	43%	38%	43%	37%	42%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Materials that Wash Off Vehicles

Q. How much do you agree or disagree that materials that wash off of vehicles onto roads and driveways...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>End up in creeks or streams (TRUE)</u>						
• Rated 1 – Completely Disagree	6%	5%	6%	5%	5%	7%
• Rated 2	10%	14%	6%	18%	8%	6%
• Rated 3	20%	22%	18%	23%	19%	20%
• Don't Know	1%	1%	+	2%	+	1%
<i>Sub-total Incorrect</i>	37%	44%	31%	48%	32%	33%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Excess Pesticides, Weed Killers and Yard Chemicals

Q. How much do you agree or disagree that excess pesticides, weed killers and other lawn chemicals...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Soak into the ground (FALSE)</u>						
• Rated 5 – Completely Agree	40%	34%	45%	34%	39%	47%
• Rated 4	20%	25%	16%	20%	25%	15%
• Rated 3	26%	29%	24%	28%	25%	25%
• Don't Know	+	+	+	-	-	1%
<i>Sub-total Incorrect</i>	86%	88%	85%	72%	88%	87%
<u>Remain in the Yard (TRUE)</u>						
• Rated 1 – Completely Disagree	17%	14%	19%	14%	17%	20%
• Rated 2	16%	16%	15%	23%	13%	13%
• Rated 3	31%	34%	28%	26%	36%	28%
• Don't Know	+	1%	+	-	-	1%
<i>Sub-total Incorrect</i>	64%	65%	63%	63%	66%	62%

Base: All respondents

+ indicates a response of less than 0.5%

Excess Pesticides, Weed Killers and Yard Chemicals

Q. How much do you agree or disagree that excess pesticides, weed killers and other lawn chemicals...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
<u>Are carried away with stormwater into drains and ditches (TRUE)</u>						
• Rated 1 – Completely Disagree	5%	6%	4%	6%	3%	5%
• Rated 2	8%	12%	4%	11%	7%	7%
• Rated 3	20%	23%	17%	20%	21%	19%
• Don't Know	+	+	+	-	-	1%
<i>Sub-total Incorrect</i>	33%	42%	25%	36%	32%	32%

Base: All respondents

+ indicates a response of less than 0.5%

Significantly higher levels of incorrect responses are highlighted in **RED**.

Proper Placement of Roof Gutters and Downspouts

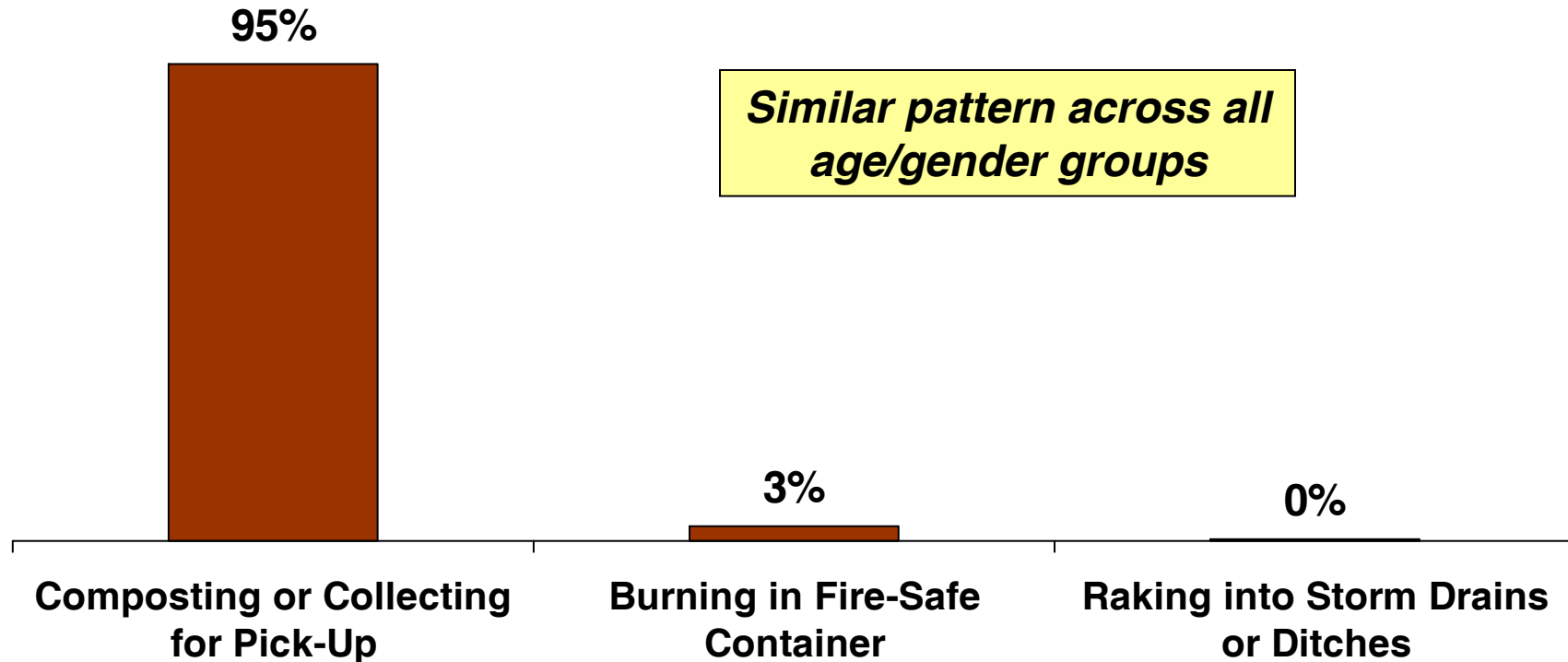
Q. In your opinion, should roof gutters and downspouts drain...?

	Total	Males	Females	Age 18-34	Age 35-54	Age 55 +
Onto a paved surface where water runs off	7%	5%	10%	9%	7%	7%
Onto a lawn or garden where water can soak into the yard	63%	67%	59%	49%	69%	67%
Directly into a storm drain or ditch	12%	13%	12%	17%	12%	9%
Directly into the sewer	16%	13%	18%	22%	11%	16%
Don't know//No answer	2%	3%	1%	3%	1%	2%

Base: All respondents

Proper Disposal of Leaves and Grass Clippings

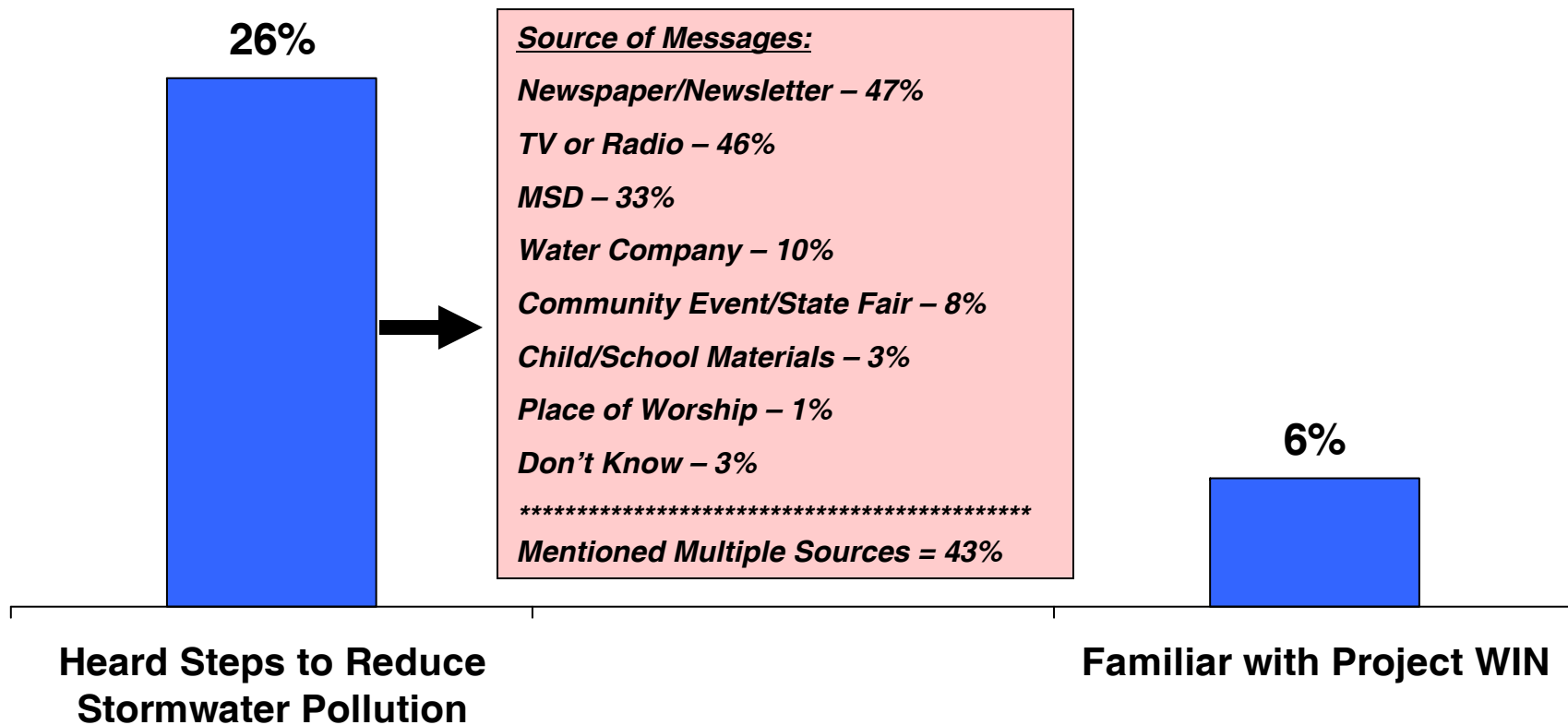
Q. In your opinion, should leaves and grass clippings be disposed of by...?



Base: All Respondents

Message Awareness

Similar pattern across all age/gender groups



Base: All Respondents/Those Aware of Message



Consent Decree Quarterly Report #18
January 1, 2010 – March 31, 2010

Appendix K – Bypass Report (July 1, 2008 – December 31, 2009)

April 30, 2010



WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

Introduction

In February 2010, Water Quality Treatment Center (WQTC) bypasses from the 18-month period of July 1, 2008, through December 31, 2009, were analyzed to determine the cause of each bypass, summary of corrective actions taken, trends of the causes, and recommendations for programmatic improvements. A total of 44 bypasses occurred during this report period.

From this review, the bypasses were grouped into the following categories outlining the bypass root cause:

- Equipment Failure (Mechanical -MCH, Electrical - ELE, Structural-STR)
- Human Error (OPN)
- External Power Outage (LGE Related – PWR)
- Capacity (CAP)

Details of bypasses analyzed during this timeframe are provided in Attachment 1. Bypass work orders are in Attachment 2. Copies of the letters to EPA related to these bypasses are included in Attachment 3. Proposed and implemented corrective actions are provided in Table 1 at the end of this report.

Bypasses – Facility Failure

Sixteen (16) bypasses were caused by mechanical, electrical, or equipment failures. A summary of these bypasses is as follows:

- 16 of 44 bypasses were caused by equipment failures
 - 6 were caused by electrical failures
 - 9 were caused by mechanical failures
 - 1 was caused by a structural failure
- 8 bypasses will be corrected by implementation of minor construction activities.
- 7 bypasses will be corrected by completion of a disinfection audit
- 1 bypass will be corrected as part of the design process at the DRG WQTC expansion

Solutions for preventing these bypasses in the future include performing an audit of disinfection systems to outline activities and standard operating procedures (SOPs) for operations and maintenance. Minor construction activities will also be required at certain facilities to address equipment failure bypasses. When the solution is the implementation of previously-approved Integrated Overflow Abatement Plan (IOAP) Comprehensive Performance Evaluations (CPE) Type II activities, these activities will be performed in accordance with the CPE schedules provided in Attachment 4.

Bypasses - Human Error

Fourteen (14) bypasses were caused by human errors. A summary of these bypasses is as follows:

- 14 of 44 bypasses were caused by human errors
 - 6 were related to staffing during wet weather events
 - 8 were related to incorrect operations or maintenance procedures
- 4 bypasses will be corrected by implementation of previously-approved Integrated Overflow Abatement Plan (IOAP) Comprehensive Performance Evaluations (CPE) Type I activities

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

- 10 bypasses will be corrected by enhanced SOP's & staff training. Off-shift staffing has also been increased to improve staff response time to alarms.

Solutions for human error bypasses include enhancement to SOPs for WQTC operations and maintenance, and implementation of previously-approved IOAP CPEs Type I activities (SOPs and training).

Bypasses - External Power Outage

Seven (7) bypasses were caused by LG&E power outages, several of which were related to the ice and wind storms that caused massive outages across the Louisville Metro area. A summary of these bypasses is as follows:

- 7 of 44 bypasses were caused by power outages
 - 3 were related to the widespread outages due to the wind storm of September 14, 2008 or ice storm of January 28, 2009.
 - 4 were miscellaneous power company interruptions
- The external power outage bypasses occurred at Jeffersontown, McNeely Lake and Starview WQTCs.

Solutions to bypasses related to loss of incoming power include providing dual redundant power feeds to the WQTC or installation of permanent generators for critical processes. Until the permanent generators are installed, MSD will use mobile generators to power critical processes during power outages. When the solution is the implementation of a generator, these activities will be performed in accordance with the Generator List/Schedule provided in Attachment 5.

Bypasses - Capacity

Seven (7) bypasses were caused by system capacity limitations. A summary of these bypasses is as follows:

- 7 of 44 bypasses were caused by lack of system capacity
- All capacity bypasses occurred during wet weather at three plants: Starview, Chenoweth Hills, and Jeffersontown WQTCs
- Starview and Jeffersontown are scheduled for elimination.

Solutions for capacity related bypasses include implementation of previously-approved IOAP CPEs Type I (SOPs and training) and Type II (minor construction) activities, and enhancement of additional SOPs and enhanced training. When the solution is the implementation of previously-approved CPE Type I or II activities, these activities will be performed in accordance with the CPE schedules provided in Attachment 4.

Corrective Actions Summary

Programmatic activities to be implemented at WQTCs to remedy bypasses that occurred during the review period include the following:

- Conduct an evaluation/audit of the disinfections systems in use at MSD facilities for applicability, reliability, and maintenance requirements. The facilities that have had bypasses occur during this 18-month period will be evaluated by June 30, 2010. The remaining facilities will be evaluated by June 30, 2011. If an additional bypass occurs prior to the scheduled evaluation, the schedule will be revised to prioritize the WQTC audit where the bypass occurred.

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

Those WQTCs to be completed by June 30, 2010 include:

- Jefferstown WQTC
- Cedar Creek WQTC
- Chenoweth Hills WQTC
- Silver Heights WQTC

Those WQTCs to be completed by June 30, 2011 include:

- McNeely Lake WQTC
- Lake of the Woods WQTC
- Bancroft WQTC
- Floyds Fork WQTC
- Hite Creek WQTC

Plants scheduled for elimination and therefore not undergoing disinfection audits include:

- Yorktown WQTC, November 2010
- Lake Forest WQTC, April 2011
- Starview and Berrytown WQTCs, December 2012
- Shadowood, Hunting Creek South, North Hunting Creek, and Timberlake WQTCs, December 2015
- Perform minor construction activities including: backup power provisions, structural improvements, or electrical and mechanical modifications,
- Implement previously-approved CPE Type I and II activities in accordance with the IOAP schedule included as Attachment 4,
- Enhance SOPs and training programs for WQTCs not included in the previously-approved IOAP CPE Type I schedule.

Table 1 below lists the corrective actions implemented, and those to be implemented, as measures to prevent further bypasses at the respective WQTC(s). Some of the 44 bypasses required multiple actions, which is indicated by the list of 48 actions. Task items 1 through 13 have been completed. Progress and completion of the remaining tasks will be documented in the Quarterly Reports.

Table 1: Proposed and Implemented Corrective Actions					
Task #	Discharge Date	WQTC	Hanson Discharge WO#	Corrective Action	Corrective Action Date
1	10/20/2008	SILVER HEIGHTS WQTC	833368	Minor Construction - Install Redundant/Alternate Water Supply Line	11/30/2008
2	2/8/2009	HITE CREEK WQTC	870195	Minor Construction - Repair Electrical Equipment	2/28/2009

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

Table 1: Proposed and Implemented Corrective Actions					
Task #	Discharge Date	WQTC	Hanson Discharge WO#	Corrective Action	Corrective Action Date
3	2/11/2009	CHENOWETH HILLS WQTC	870870	IOAP CPE Type I	5/1/2009
4	5/8/2009	CHENOWETH HILLS WQTC	905614	IOAP CPE Type I	5/1/2009
5	12/8/2009	CHENOWETH HILLS WQTC	989842	IOAP CPE Type I	5/1/2009
6	2/12/2009	CHENOWETH HILLS WQTC	871157	IOAP CPE TYPE I	5/1/2009
7	8/20/2008	D.R. GUTHRIE WQTC	817918	Minor Construction - Re-set overloads and create notification alarm	9/1/2009
8	9/27/2009	JEFFERSONTOWN WQTC	961491	IOAP CPE Type II	10/31/2009
9	7/4/2008	JEFFERSONTOWNNN WQTC	803781	IOAP CPE Type II	10/31/2009
10	9/14/2008	CHENOWETH HILLS WQTC	823275	Provide Permanent Backup Power on critical processes	2/1/2010
11	9/23/2008	BERRYTOWN WQTC	825902	Provide Permanent Backup Power on critical processes	3/16/2010
12	9/19/2008	BANCROFT WQTC	824503	Minor Construction - Replace Collector Drive	3/31/2010

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

Table 1: Proposed and Implemented Corrective Actions					
Task #	Discharge Date	WQTC	Hanson Discharge WO#	Corrective Action	Corrective Action Date
13	8/17/2009	BANCROFT WQTC	944513	Minor Construction - Replace Collector Drive	3/31/2010
14	10/6/2009	CHENOWETH HILLS WQTC	967725	Disinfection Audit	6/30/2010
15	7/6/2008	CEDAR CREEK WQTC	804753	Disinfection Audit	6/30/2010
16	11/1/2009	CEDAR CREEK WQTC	975966	Disinfection Audit	6/30/2010
17	12/1/2008	CHENOWETH HILLS WQTC	852911	Disinfection Audit	6/30/2010
18	8/20/2008	D.R. GUTHRIE WQTC	817920	Enhanced SOP and Training	6/30/2010
19	8/21/2008	D.R. GUTHRIE WQTC	818054	Enhanced SOP and Training	6/30/2010
20	6/26/2009	D.R. GUTHRIE WQTC	923712	Enhanced SOP and Training	6/30/2010
21	12/17/2008	D.R. GUTHRIE WQTC	857175	Enhanced SOP and Training	6/30/2010
22	12/17/2008	D.R. GUTHRIE WQTC	857175	Minor Construction – Enhance alarms, and enhance flow metering of Hypochlorination.	6/30/2010
23	10/13/2008	SILVER HEIGHTS WQTC	831889	Disinfection Audit	6/30/2010
24	10/5/2008	HUNTING CRK N. WQTC	829929	IOAP CPE TYPE I	10/1/2010

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

Table 1: Proposed and Implemented Corrective Actions					
Task #	Discharge Date	WQTC	Hanson Discharge WO#	Corrective Action	Corrective Action Date
25	11/10/2008	HUNTING CRK N. WQTC	841287	IOAP CPE TYPE I	10/1/2010
26		YORKTOWN WQTC		Plant Elimination	11/30/2010
27	9/4/2008	BANCROFT WQTC	821512	Enhanced SOP and Training	12/31/2010
28	4/19/2009	CEDAR CREEK WQTC	898050	Enhanced SOP and Training	12/31/2010
29	9/21/2009	CEDAR CREEK WQTC	956949	Enhanced SOP and Training	12/31/2010
30	12/8/2009	CEDAR CREEK WQTC	989846	Enhanced SOP and Training	12/31/2010
31	9/16/2009	D.R. GUTHRIE WQTC	955750	Enhanced SOP and Training	12/31/2010
32	5/9/2009	FLOYDS FORK WQTC	906122	Enhanced SOP and Training	12/31/2010
33	5/9/2009	FLOYDS FORK WQTC	906059	Enhanced SOP and Training	12/31/2010
34	8/29/2009	HITE CREEK WQTC	948395	Enhanced SOP and Training	12/31/2010
35	3/4/2009	HITE CREEK WQTC	879926	Enhanced SOP and Training	12/31/2010
36	3/30/2009	MCNEELY LAKE WQTC	889653	Enhanced SOP and Training	12/31/2010
37	2/10/2009	STARVIEW WQTC	870868	Enhanced SOP and Training	12/31/2010
38	12/8/2009	STARVIEW WQTC	989838	Enhanced SOP and Training	12/31/2010

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

Table 1: Proposed and Implemented Corrective Actions					
Task #	Discharge Date	WQTC	Hanson Discharge WO#	Corrective Action	Corrective Action Date
39	7/3/2008	YORKTOWN WQTC	803647	Enhanced SOP and Training	12/31/2010
40	8/29/2009	HITE CREEK WQTC	948358	Disinfection Audit	6/30/2011
41	6/18/2009	JEFFERSONTOWN WQTC	921262	Disinfection Audit	6/30/2011
42	9/14/2008	D.R. GUTHRIE WQTC	823278	Provide Backup Power on critical processes	12/31/2011
43	12/31/2009	D.R. GUTHRIE WQTC	996579	Provide Backup Power on critical processes	12/31/2011
44	8/20/2008	D.R. GUTHRIE WQTC	817920	Expansion in the design phase – many of the disinfection issues will be resolved through the design process.	12/31/2011
45	N/A	BERRYTOWN WQTC	N/A	Plant Elimination	12/31/2012
46	N/A	STARVIEW WQTC	N/A	Plant Elimination	12/31/2012
47	N/A	HUNTING CRK N. WQTC	N/A	Plant Elimination	12/31/2015
48	N/A	JEFFERSONTOWN WQTC	N/A	Plant Elimination	12/31/2015

WQTC Bypass Analysis - July 1, 2008, through December 31, 2009

List of Attachments

Attachment 1 – Spreadsheet outlining bypasses and resolutions

Attachment 2 – Work order forms

Attachment 3 – Bypass cover letters

Attachment 4 – IOAP CPE Type I and II schedule

Attachment 5 – Generator List/Schedule

Attachment 1 – Spreadsheet outlining bypasses and resolutions

Facility Failure Related Bypasses

INITDTTM	WQTC	Volume	Hanson WO#	DISCIPLINE	DOW Letter Resolution
7/6/2008	CEDAR CREEK WQTC	338437	804753	ELE	Maintenance to repair. Ordered new device.
8/20/2008	D.R. GUTHRIE WQTC	3791667	817918	ELE	Set up alarm notification if blower stops
9/19/2008	BANCROFT WQTC	900	824503	ELE	Electrician reset overload on equipment electrical bucket
2/8/2009	HITE CREEK WQTC	50000	870195	ELE	Manufacturer (Eaton) repaired equipment
6/18/2009	JEFFERSONTOWN WQTC	377559	921262	ELE	Bypassed low level switch. Change UV control scheme
11/1/2009	CEDAR CREEK WQTC	207997	975966	ELE	Contacted manufacturer rep for recommendations. System Repaired - back in "auto"
8/20/2008	D.R. GUTHRIE WQTC	902778	817920	MCH	Restablish feed by bypassing underground hypo feed lines.
8/21/2008	D.R. GUTHRIE WQTC	520883	818054	MCH	Established plant chlorination by valving in primary hypo feed system
10/13/2008	SILVER HEIGHTS WQTC	223190	831889	MCH	Installed new rotometer assembly
10/20/2008	SILVER HEIGHTS WQTC	35169	833368	MCH	MSD installed alternate water supply line. LWCo repaired original line.
3/30/2009	MCNEELY LAKE WQTC	30300	889653	MCH	Additional outage to replace worn damaged collector arm. Obtain prior approval before future work that may cause bypass.

ATTACHMENT 1 - List of Bypasses and Causes - July 2008 Through December 2009

INITDTM	WQTC	Volume	Hanson WO#	DISCIPLINE	DOW Letter Resolution
5/9/2009	FLOYDS FORK WQTC	8970000	906122	MCH	Study and analyze PM program for orbital drives.
6/26/2009	D.R. GUTHRIE WQTC	20500000	923712	MCH	Run additional hypo pump to adjust automatically to maintain hypo dose. Enhance existing alarms on hypo system
8/17/2009	BANCROFT WQTC	250	944513	MCH	Mechanical maintenance of collector chain, placed back in service.
8/29/2009	HITE CREEK WQTC	25000	948358	STR	Baffle broke, blocked flow - diverted plant flow around structure to available tanks
10/6/2009	CHENOWETH HILLS WQTC	7953	967725	MCH	MSD investigate Cl2-SO2 regulators and automatic switch over

Operations Related Bypasses

INITDTM	WQTC	Volume	Hanson WO#	DISCIPLINE	DOW Letter Resolution
7/3/2008	YORKTOWN WQTC	10	803647	OPN	SOP Implemented February 1, 2010- provide followup or refresher training as necessary
9/4/2008	BANCROFT WQTC	400	821512	OPN	Start bottom sludge collector during startup of clarifier
10/5/2008	HUNTING CRK N. WQTC	9000	829929	OPN	Investigate need for increased frequency of treatment plant checks
11/10/2008	HUNTING CRK N. WQTC	2655	841287	OPN	Clean leaves from clarifier on daily basis.
12/1/2008	CHENOWETH HILLS WQTC	35333	852911	OPN	Provide training on Cl2 operations procedures
12/17/2008	D.R. GUTHRIE WQTC	632091	857175	OPN	Purge air from hypo suction and discharge line - flow resumed
2/12/2009	CHENOWETH HILLS WQTC	2000	871157	OPN	SOP Implemented February 1, 2010- provide followup or refresher training as necessary
3/4/2009	HITE CREEK WQTC	1	879926	OPN	NO cover letter written
4/19/2009	CEDAR CREEK WQTC	16500	898050	OPN	Leave plant influent pumps in auto to maintain control scheme. Ensure plant drain system is closed during wet weather events
5/9/2009	FLOYDS FORK WQTC	20000	906059	OPN	Bypass gate to sand filters opened. MSD to institute procedure to monitor and open bypass gates in wet weather to prevent overloading sandfilters. Investigate automating bypass procedures
8/29/2009	HITE CREEK WQTC	10000	948395	OPN	Additional pump set up to empty process water well to allow maintenance to remove obstruction

ATTACHMENT 1 - List of Bypasses and Causes - July 2008 Through December 2009

INITDTTM	WQTC	Volume	Hanson WO#	DISCIPLINE	DOW Letter Resolution
9/16/2009	D.R. GUTHRIE WQTC	153000	955750	OPN	Run additional dechlorination pump, process check. Increase volume of dechlor feed until system fully automated
9/21/2009	CEDAR CREEK WQTC	500	956949	OPN	Diverted flow to alternate oxidation ditch
12/8/2009	CEDAR CREEK WQTC	100	989846	OPN	Repair drain piping

Power Related Bypasses

INITDTTM	WQTC	Volume	Hanson WO#	DISCIPLINE	DOW Letter Resolution
9/14/2008	CHENOWETH HILLS WQTC	600	823275	PWR	None
9/14/2008	D.R. GUTHRIE WQTC	69444	823278	PWR	Closed 120" influent, stored flow, reduced effluent from plant.
9/23/2008	BERRYTOWN WQTC	2375	825902	PWR	Investigate permanent onsite generator
1/28/2009	MCNEELY LAKE WQTC	1000	868047	PWR	MSD continue to use generators during inclement weather
5/18/2009	JEFFERSONTOWN WQTC	62383	908502	PWR	Review PM of UV system and evaluate UV system UPS
6/18/2009	STARVIEW WQTC	1075	921140	PWR	Evaluate alternate power source - generator
12/31/2009	D.R. GUTHRIE WQTC	1500000	996579	PWR	Standby generation for chlor/dechlor in design. Currently using additional and off shift staffing for monitoring.

Capacity Related Bypasses

INITDTTM	WQTC	Volume	Hanson WO#	DISCIPLINE	DOW Letter Resolution
7/4/2008	JEFFERSONTOWN WQTC	500	803781	CAP	No recommendation
2/10/2009	STARVIEW WQTC	8754	870868	CAP	Continued reduction of secondary aeration timers
2/11/2009	CHENOWETH HILLS WQTC	8143	870870	CAP	Continued reduction of secondary aeration timers
5/8/2009	CHENOWETH HILLS WQTC	21454	905614	CAP	Continued reduction of secondary aeration timers
9/27/2009	JEFFERSONTOWN WQTC	100	961491	CAP	Type II Mods --extended walls
12/8/2009	CHENOWETH HILLS WQTC	67535	989842	CAP	Continued reduction of secondary aeration timers
12/8/2009	STARVIEW WQTC	2139	989838	CAP	Continued reduction of secondary aeration timers

Attachment 2 – Work order forms



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022420	Facility ID MSD0202	Water Quality Treatment Center HITE CREEK	Receiving Stream of Treatment Center HITE CREEK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0202	5500 HITT RD		HITE CREEK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	870195	02/08/09 03:15 AM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	08/29/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/08/09 05:00 AM	

Spot Inspections:

Discharge Amount:	50,000 GAL
Cause:	ELECTRICAL PROBLEMS @ MSD
Clean Up:	LIME AND SANITIZE AREA OF DISCHARGE
Control Zone:	TEMP SIGNS POSTED MSD WEB SITE UPDATED
Impact:	SEWAGE OBSERVED
Repair:	TROUBLE SHOOTING TO RESOLVE PROBLEM PLANT RUNNING ON BACKUP GENERATORS

Notifications:

02/08/09 08:47 AM	DISPUB	temp signs posted and msd web site updated to notify public
02/08/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022420 (Cont'd)	MSD0202	HITE CREEK	HITE CREEK	EAST

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	879926	03/04/09 01:29 PM	SINGLETON	RHEINLAENDER JR	REPAIRED - ISSUE RESOLVED	08/29/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/04/09 01:45 PM	

Spot Inspections:

Discharge Amount:	1 GAL
Cause:	DEFOAMER TOO LOW
Clean Up:	NO CLEANUP- FOAM DISSOLVED IN WATER
Control Zone:	NO CONTROL ZONE- FOAM DISSOLVED.
Impact:	APPROXIMATELY 3 CUBIC YARDS OF FOAM WAS VISIBLE IN THE CREEK
Repair:	DEFOAMER WAS INCREASED

Notifications:

03/06/09 01:26 PM	DISNOT	Automated notification not sent due to system issue. Manual notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
04/01/09 10:39 AM	DISPUB	Permanent warning signs posted on opposite side of creek, behind apartment buildings.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022420 (Cont'd)	Facility ID MSD0202	Water Quality Treatment Center HITE CREEK	Receiving Stream of Treatment Center HITE CREEK	Region EAST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	948358	08/29/09 07:00 AM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	08/29/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	08/29/09 07:20 AM	

Spot Inspections:

Discharge Amount:	25,000 GAL
Cause:	OBSTRUCTION IN DISCHARGE LINE FROM SAND FILTER TO UV SYSTEM
Clean Up:	MSD WILL CLEAN AND SANITIZE AREA
Control Zone:	AREA TAPED OFF AND SIGNS POSTED
Impact:	NO IMPACT OR DEBRIS OBSERVED TREATED WATER WITHOUT UV PROCESS
Repair:	USING PUMP AROUND FOR ADDITIONAL STORAGE UNTIL REPAIRS ARE COMPLETED

Notifications:

08/29/09 07:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/31/09 12:26 PM	DISPUB	PUBLIC NOTIFIED BY WEBSITE AND SIGNS



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022420 (Cont'd)	Facility ID MSD0202	Water Quality Treatment Center HITE CREEK	Receiving Stream of Treatment Center HITE CREEK	Region EAST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	948395	08/29/09 03:17 PM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	08/29/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	08/29/09 06:00 PM	

Spot Inspections:

Discharge Amount:	10,000 GAL
Cause:	OBSTRUCTION IN LINE BETWEEN SAND FILTERS AND UV SYSTEM
Clean Up:	MSD CLEANED AND SANITIZED AREA
Control Zone:	TAPE AND SIGNS ARE POSTED
Impact:	NO IMPACT OBSERVED WATER IS TREATED ONLY MISSING UV SYSTEM
Repair:	WILL CONT REPAIRS AND PUMP AROUND TILL REPAIRS ARE COMPLETE

Notifications:

08/29/09 06:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/31/09 12:27 PM	DISPUB	PUBLIC NOTIFIED BY WEBSITE AND SIGNS POSTED



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0036501	Facility ID MSD0209	Water Quality Treatment Center BERRYTOWN	Receiving Stream of Treatment Center FLOYDS FORK	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0209	1203 HEAFER RD		FLOYDS FORK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	825902	09/23/08 08:35 PM	MARKS JR	OTTO	REPAIRED - ISSUE RESOLVED	03/26/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/23/08 10:10 PM	

Spot Inspections:

Discharge Amount:	2,375 GAL
Cause:	LG&E CUT POWER TO REPAIR STORM DAMAGED UTILITY POLES
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE AREA
Control Zone:	TEMP SIGNS POSTED
Impact:	SEWAGE OBSERVED DISCHARGING
Repair:	GENERATOR PLACED TO PUT WWTP PLANT BACK IN SERVICE WO# 825901 SAP WO# 5196202

Notifications:

09/23/08 12:57 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
09/23/08 09:49 PM	DISPUB	temp signs posted to warn public
09/23/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029416	Facility ID MSD0228	Water Quality Treatment Center MCNEELY LAKE	Receiving Stream of Treatment Center PENNSYLVANIA RUN	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0228	10300 ROD N REEL RD		PENNSYLVANIA RUN	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	868047	01/28/09 08:30 AM	ELDER	KUSTES	REPAIRED - ISSUE RESOLVED	03/30/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	01/28/09 08:50 AM	

Spot Inspections:

Discharge Amount:	1,000 GAL
Cause:	LOSS OF POWER FROM LG&E DUE TO ICE
Clean Up:	MSD CLEANED & SANITIZED AREA
Control Zone:	TEMPORARY SIGNS PLACED AROUND AFFECTED AREA
Impact:	CLEAR EFFLUENT, NO DEBRIS
Repair:	LG&E RESTORRED POWER TO STP, RESUME NORMAL SERVICE

Notifications:

01/28/09 01:23 PM	DISPUB	Temporary signs placed around affected area.
01/28/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029416 (Cont'd)		Facility ID MSD0228		Water Quality Treatment Center MCNEELY LAKE			Receiving Stream of Treatment Center PENNSYLVANIA RUN			Region WEST	
<u>Activity Code / Description</u>		<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE		889653	03/30/09 10:00 AM	SINGLETON	KUSTES	REPAIRED - ISSUE RESOLVED	03/30/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	03/30/09 02:40 PM	

Spot Inspections:

Discharge Amount:	30,300 GAL
Cause:	HAD TO BYPASS SECONDARY CLARIFIER FOR MAINTENANCE INSPECTION OF COLLECTION ARM. WATER IS STILL RECEIVING DISINFECTION (CL2 & SO2)
Clean Up:	NO DEBRIS
Control Zone:	TEMPORARY SIGNS POSTED AROUND THE AFFECTED AREA
Impact:	NO IMPACT OBSERVED
Repair:	MAINTENANCE INSPECTION COMPLETED

Notifications:

03/30/09 10:00 AM	DISPUB	Temporary signs placed around the affected area
03/30/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
03/30/09 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0031712	Facility ID MSD0247	Water Quality Treatment Center STARVIEW	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0247	423 BERMUDA WAY		CHENOWETH RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	870868	02/10/09 10:40 PM	SINGLETON	LAMBDIN JR	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/10/09 11:25 PM	

Spot Inspections:

Discharge Amount:	8,754 GAL
Cause:	BYPASSED DUE TO CAPACITY OF STORM FLOW
Clean Up:	NO CLEANUP REQUIRED
Control Zone:	PERMANENT SIGNS ALONG CREEK
Impact:	NO NOTICEABLE IMPACT OBSERVED
Repair:	STORM FLOW RECEDED

Notifications:

02/10/09 10:40 PM	DISPUB	Permanent signs along creek
02/11/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0031712 (Cont'd)	Facility ID MSD0247	Water Quality Treatment Center STARVIEW	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	921140	06/18/09 02:17 PM	ELDER	VIERLING	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	06/18/09 03:00 PM	

Spot Inspections:

Discharge Amount:	1,075 GAL
Cause:	LOSS OF POWER FROM LG&E THUNDER STORM
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS
Impact:	SEWAGE ON THGE GROUND
Repair:	PLACED GENERATOR, 105KW, MSD#0020

Notifications:

06/18/09 03:26 PM	DISPUB	Temporary signs
06/18/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
06/18/09 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0031712 (Cont'd)	Facility ID MSD0247	Water Quality Treatment Center STARVIEW	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	989838	12/08/09 09:53 PM	ELDER	LAMBDIN JR	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	12/08/09 10:24 PM	

Spot Inspections:

Discharge Amount:	2,139 GAL
Cause:	HIGH FLOW DUE TO RAIN EVENT IN AREA
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	PERMANENT SIGN IN PLACE - NO ADDITIONAL CONTROL ZONE SET UP
Impact:	SOME DISCOLORATION OF STREAM
Repair:	TURNED OFF BLOWERS TO SETTLE PLANT

Notifications:

12/08/09 10:55 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA
12/08/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
12/08/09 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0255	10725 OLD TAYLORSVILLE RD		CHENOWETH RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	803781	07/04/08 10:40 PM	MARKS JR	LARUE	DOCUMENTED	01/14/07	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	07/04/08 10:43 PM	

Spot Inspections:

Discharge Amount:	500 GAL
Cause:	SURGE IN PLANT FLOW CAUSED A DISCHARGE
Clean Up:	MSD CONTRACTOR CLEANED AND SANITIZED AREA
Control Zone:	TEMP SIGNS POSTED
Impact:	SOILS OBSERVED
Repair:	CONTINUE TO MONITOR PLANT FLOW TILL RAIN EVENT ENDS

Notifications:

07/04/08 12:57 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/04/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/14/08 11:09 AM	DISPUB	Notification made by permanent sign at effluent.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0025194 (Cont'd)Facility ID
MSD0255Water Quality Treatment Center
JEFFERSONTOWNReceiving Stream of Treatment Center
CHENOWETH RUNRegion
CENT

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	908502	05/18/09 02:29 AM	ELDER	LAMBDIN JR	DOCUMENTED	01/14/07	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	05/18/09 03:10 AM	

Spot Inspections:

Discharge Amount:	62,383 GAL
Cause:	POWER FAIL LG&E (BLIP) CAUSED DEVICENET TO SHUT DOWN
Clean Up:	NOT POSSIBLE, FLOWS DIRECT TO CREEK
Control Zone:	PERMANANT SIGNS ALONG CREEK
Impact:	NONE OBSERVED
Repair:	PUT UV IN MANUAL & RESET DEVICE NET TO RESTORE UV SYSTEM TO SERVICE

Notifications:

05/18/09 07:24 AM	DISPUB	Permanant signs along creek
05/18/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194 (Cont'd)	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	921262	06/18/09 07:37 PM	ELDER	CISSELL	DOCUMENTED	01/14/07	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	06/18/09 08:45 PM	

Spot Inspections:

Discharge Amount:	377,559 GAL
Cause:	UV SYSTEM MOTHERBOARD FAILED
Clean Up:	NO CLEANUP
Control Zone:	NO CONTROL ZONE REQUIRED
Impact:	NO IMPACT OBSERVED
Repair:	REPLACED MOTHERBOARD & RETURNED TO SERVICE

Notifications:

06/18/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
06/19/09 01:00 AM	DISPUB	Posted on Project WIN
06/18/09 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194 (Cont'd)	Facility ID MSD0255	Water Quality Treatment Center JEFFERSONTOWN	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	961491	09/27/09 12:30 AM	MARKS JR	MILLS	DOCUMENTED	01/14/07	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/27/09 02:45 AM	

Spot Inspections:

Discharge Amount:	100 GAL
Cause:	RAIN EVENT CAUSED LACK OF SYSTEM CAPACITY
Clean Up:	CONTRACTOR CLEANED & SANITIZED THE AREA; MSD LIMED.
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SOILDS SEWAGE AND DEBRIS OBSERVED
Repair:	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.

Notifications:

09/27/09 01:40 AM	DISPUB	MSD NOTIFIED PUBLIC WITH TEMPORARY SIGNS AND WEB SITE
09/27/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
09/27/09 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0028801	Facility ID MSD0258	Water Quality Treatment Center SILVER HEIGHTS	Receiving Stream of Treatment Center MUD CREEK	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0258	9412 SLAYTON CT		MUD CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	831889	10/13/08 11:30 AM	ELDER	FLORENCE	REPAIRED - ISSUE RESOLVED	10/20/08	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	10/13/08 01:50 PM	

Spot Inspections:

Discharge Amount:	223,190 GAL
Cause:	MECHANICAL FAILURE OF ROTOMETER ON DE-CHLORINATION
Clean Up:	NO CLEANUP POSSIBLE
Control Zone:	TEMPORARY SIGNS PLACED AROUND AFFECTED AREA.
Impact:	NO IMPACT OBSERVED
Repair:	ROTOMETER REPAIRED, SAP WO# 4013435

Notifications:

10/13/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/11/08 03:42 PM	DISPUB	Temporary signs were placed around the affected area to notify public.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0028801 (Cont'd)	MSD0258	SILVER HEIGHTS	MUD CREEK	WEST

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	833368	10/20/08 10:00 AM	SINGLETON	RIES	REPAIRED - ISSUE RESOLVED	10/20/08	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	10/20/08 01:40 PM	

Spot Inspections:

Discharge Amount:	35,169 GAL
Cause:	LOUISVILLE WATER COMPANY SYSTEM DISRUPTED.
Clean Up:	NO DEBRIS
Control Zone:	TEMPORARY SIGNS POSTED AT AFFECTED AREA.
Impact:	NO IMPACT OBSERVED
Repair:	CALLED LOUISVILLE WATER CO. TO REPAIR, ALSO MSD MECHANIC HOOKED UP AN ALTERNATE WATER SUPPLY.

Notifications:

10/20/08 10:00 AM	DISPUB	Temporary sign posted at effected area.
10/20/08 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029459	Facility ID MSD0263	Water Quality Treatment Center CHENOWETH HILLS	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0263	4305 ST RENE CT		CHENOWETH RUN	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	823275	09/14/08 03:00 PM	MARKS JR	TUTTLE	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/14/08 05:00 PM	

Spot Inspections:

Discharge Amount:	600 GAL
Cause:	POWER FAILUER CAUSED BY WIND STORM
Clean Up:	NO CLEAN UP REQUIRED
Control Zone:	NO CONTROL ZONE REQUIRED
Impact:	NO IMPACT BYPASS WAS TREATED WATER
Repair:	GENERATOR PLACED TO RUN TREATMENT PLANT TIL POWER IS RESTORED

Notifications:

09/14/08 06:18 PM	DISPUB	notice of bypass was sent to general public
09/14/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029459 (Cont'd)	Facility ID MSD0263	Water Quality Treatment Center CHENOWETH HILLS	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	852911	12/01/08 07:30 PM	SINGLETON	PORTER JR	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	12/02/08 07:30 AM	

Spot Inspections:

Discharge Amount:	35,333 GAL
Cause:	RAN OUT OF CHLORINE
Clean Up:	NO CLEANUP REQUIRED
Control Zone:	TEMPORARY SIGNS PLACED AT DISCHARGE OUTLET NEAR CREEK
Impact:	NO VISUAL IMPACT OBSERVED
Repair:	REPLACED CHLORINE TANK

Notifications:

12/02/08 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
12/02/08 01:00 PM	DISPUB	Temporary signs placed around the affected area

Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center				Receiving Stream of Treatment Center			Region	
KY0029459 (Cont'd)	MSD0263	CHENOWETH HILLS				CHENOWETH RUN			CENT	
<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	870870	02/11/09 12:05 AM	SINGLETON	LAMBDIN JR	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/11/09 01:10 AM	

Spot Inspections:

Discharge Amount:	8,143 GAL
Cause:	BYPASSED DUE TO CAPACITY OF STORM FLOW
Clean Up:	NO CLEANUP REQUIRED
Control Zone:	PERMANENT SIGNS ALONG CREEK
Impact:	NO VISUAL IMPACT OBSERVED
Repair:	A SOLUTION FOR THIS LOCATION HAS BEEN DEVELOPED AND IS INCLUDED IN THE IOAP SUBMITTED DECEMBER 2008

Notifications:

02/11/09 12:05 AM	DISPUB	Permanent signs along creek
02/11/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center				Receiving Stream of Treatment Center			Region	
KY0029459 (Cont'd)	MSD0263	CHENOWETH HILLS				CHENOWETH RUN			CENT	
Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	871157	02/12/09 06:50 AM	SINGLETON	MATTINGLY	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	02/12/09 07:30 AM	

Spot Inspections:

Discharge Amount:	2,000 GAL
Cause:	DEAD ANIMAL & DEBRIS FROM RAIN, CLOG IN THE SPLITTER BOX
Clean Up:	REMOVED DEBRIS, CLEANED & SANITIZED THE AREA
Control Zone:	PERMANENT & TEMPORARY SIGNS POSTED
Impact:	SEWAGE OBSERVED
Repair:	REMOVED DEBRIS

Notifications:

02/12/09 06:50 AM	DISPUB	Permanent & temporary signs posted
02/12/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029459 (Cont'd)	Facility ID MSD0263	Water Quality Treatment Center CHENOWETH HILLS	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	905614	05/08/09 07:44 AM	SINGLETON	TUTTLE	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	05/08/09 08:46 AM	

Spot Inspections:

Discharge Amount:	21,454 GAL
Cause:	LACK OF SYSTEM CAPACITY
Clean Up:	MSD PERSONNEL CLEANED & SANITIZED THE AREA.
Control Zone:	TEMPORARY SIGNS PLACED AROUND THE AREA.
Impact:	SOLIDS OBSERVED.
Repair:	STORM FLOW RECEDED

Notifications:

05/08/09 07:44 AM	DISPUB	Temporary signs placed around the area.
05/08/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #		Facility ID		Water Quality Treatment Center			Receiving Stream of Treatment Center			Region	
KY0029459 (Cont'd)		MSD0263		CHENOWETH HILLS			CHENOWETH RUN			CENT	
<u>Activity Code / Description</u>		<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE		967725	10/05/09 03:15 PM	ELDER	WRIGHT	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	10/05/09 05:35 PM	

Spot Inspections:

Discharge Amount:	7,953 GAL
Cause:	MECHANICAL, FITTING FAILURE
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NO IMPACT OBSERVED PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Repair:	REMOVED FAILED FITTING & REPLACED. RETURNED TO SERVICE.

Notifications:

10/05/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/05/09 12:00 AM	DISPUB	NOTIFICATION WAS MADE THROUGH THE PROJECT wIN WEBSITE AND LISTSERVE.
10/05/09 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029459 (Cont'd)	Facility ID MSD0263	Water Quality Treatment Center CHENOWETH HILLS	Receiving Stream of Treatment Center CHENOWETH RUN	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	989842	12/08/09 09:50 PM	ELDER	BRAZEL	DOCUMENTED	09/27/02	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	12/09/09 02:40 AM	

Spot Inspections:

Discharge Amount:	67,535 GAL
Cause:	RAIN EVENT IN AREA CAUSING SOLIDS TO WASH OUT OF PLANT
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	PERMANENT SIGN IN PLACE - NO ADDITIONAL CONTROL ZONE SET UP
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	TURNED BLOWERS OFF TO SETTLE THE PLANT SOLIDS

Notifications:

12/08/09 11:06 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA
12/08/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
12/08/09 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0036323	Facility ID MSD0271	Water Quality Treatment Center YORKTOWN	Receiving Stream of Treatment Center NORTHERN DITCH	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0271	7418 YORKTOWN RD		NORTHERN DITCH	DITCH

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	803647	07/03/08 08:00 AM	SINGLETON	RIES	DOCUMENTED	04/04/08	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	07/03/08 08:05 AM	

Spot Inspections:

Discharge Amount:	10 GAL
Cause:	SOLIDS INVENTORY AT PLANT WAS TOO HIGH
Clean Up:	CONTRACTOR CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS WERE PLACED AROUND AFFECTED AREA
Impact:	SOLIDS & DISCOLORATION IN THE STREAM WAS OBSERVED
Repair:	HAD PLANT BIOSOLIDS HAULED THEN STARTED WASTING BIOSOLIDS.

Notifications:

07/03/08 08:00 AM	DISPUB	Temporary signs placed around affected area
07/07/08 03:40 PM	DISNOT	DISCHARGE NOTIFICATION FOR THIS WORK ORDER SENT MANUALLY ON JULY 7, 2008



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0078956	Facility ID MSD0277	Water Quality Treatment Center DEREK R. GUTHRIE	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0277	11621 LOWER RIVER RD		OHIO RIVER	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	817918	08/20/08 12:15 AM	ELDER	JONES	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	08/20/08 07:15 AM	

Spot Inspections:

Discharge Amount:	3,791,667 GAL
Cause:	#2 BLOWER,BREAKER TRIPPED ON OVERLOAD
Clean Up:	PIPE DISCHARGE SUBMERGED - NO CLEANUP
Control Zone:	PIPE DISCHARGE SUBMERGED - NO CONTROL ZONE SET UP
Impact:	PIPE DISCHARGE SUBMERGED - NO IMPACT OBSERVED
Repair:	RESET BREAKER ON #2 BLOWER.

Notifications:

08/20/08 12:57 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/20/08 12:15 AM	DISPUB	Flow was through the TP as usual but bypassed secondary aeration treatment.No notification made.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0078956 (Cont'd)Facility ID
MSD0277Water Quality Treatment Center
DEREK R. GUTHRIEReceiving Stream of Treatment Center
OHIO RIVERRegion
WEST

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	817920	08/20/08 09:00 AM	ELDER	JONES	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	08/20/08 10:40 AM	

Spot Inspections:

Discharge Amount:	902,778 GAL
Cause:	FOUND HYPOCHLORITE LEAKING FROM GROUND NEAR W2 BUILDING ON PAVEMENT. EFFLUENT DISCHARGED WITHOUT FULL TREATMENT
Clean Up:	CONTRACTOR VACTORED HYPOCHLORITE FROM GROUND THEN CLEANED & SANITIZED AREA.
Control Zone:	BARRICADES PLACED TO PROTECT PERSONNEL
Impact:	GRASS KILLED IN AREA & DISCOLORATION OF PAVEMENT
Repair:	API CONTRACTOR VACTORED HYPOCHLORITE UP & DISCHARGED BACK INTO MSD SEWAGE SYSTEM

Notifications:

08/20/08 09:00 AM	DISPUB	MSD notified employees & contractor (API) on site, & placed barricades.
08/20/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0078956 (Cont'd)	MSD0277	DEREK R. GUTHRIE	OHIO RIVER	WEST

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	818054	08/21/08 07:15 AM	SINGLETON	RIES	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	08/21/08 08:30 AM	

Spot Inspections:

Discharge Amount:	520,833 GAL
Cause:	BACKUP CHEMICAL FEED HOSES STARTED TO LEAK
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	BARRICADES & TAPE WERE PUT OUT AROUND EFFECTED AREA.
Repair:	MAINTENANCE IS INSTALLING A NEW FITTING ON CHEMICAL FEED LINE & PURCHASING NEW HOSES. SAP WO#4013224

Notifications:

08/21/08 09:36 AM	DISPUB	Notified Robert Francis of the DOW #2283072 & set up barricades & tape around effected area.
08/21/08 12:57 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0078956 (Cont'd)	MSD0277	DEREK R. GUTHRIE	OHIO RIVER	WEST

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	823278	09/14/08 04:20 PM	MARKS JR	LANGFORD	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/14/08 04:25 PM	

Spot Inspections:

Discharge Amount:	69,444 GAL
Cause:	LGE POWER FAILURE
Clean Up:	NO CLEAN UP REQUIRED
Control Zone:	NO CONTROL ZONE REQUIRED
Impact:	NO IMPACT OBSERVED
Repair:	CLOSED 120INCH GATE TO STOP PLANT FLOW TIL POWER RESTORED

Notifications:

09/14/08 09:43 PM	DISPUB	Public notified by Project WIN website & permanent signs.
09/14/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0078956 (Cont'd)	MSD0277	DEREK R. GUTHRIE	OHIO RIVER	WEST

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	857175	12/17/08 07:30 AM	SINGLETON	LANGFORD	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	12/17/08 08:30 AM	

Spot Inspections:

Discharge Amount:	632,091 GAL
Cause:	#3 HYPO PUMP AIR LOCKED
Clean Up:	NO DEBRIS; NO CLEANUP REQUIRED
Control Zone:	PIPE DISCHARGE SUBMERGED
Impact:	NO IMPACTS OBSERVED
Repair:	BLEED AIR FROM LINES; HYPO FEED STARTED BACK UP

Notifications:

12/17/08 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
01/14/09 01:03 PM	DISPUB	Notification was made through the MSD Project WIN website.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0078956 (Cont'd)	Facility ID MSD0277	Water Quality Treatment Center DEREK R. GUTHRIE	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	923712	06/25/09 11:12 AM	SINGLETON	THOMPSON	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	06/26/09 06:30 AM	

Spot Inspections:

Discharge Amount:	20,500,000 GAL
Cause:	MECHANICAL FAILURE- #1 HYPO PUMP NOT PUMPING
Clean Up:	NO DEBRIS; PIPE DISCHARGE SUBMERGED
Control Zone:	NO CONTROL ZONE- PIPE DISCHARGE SUBMERGEED
Impact:	NO IMPACT OBSERVED
Repair:	OPERATOR STARTED #2 HYPO PUMP

Notifications:

06/26/09 02:07 PM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
06/26/09 10:53 AM	DISPUB	Permanent signs posted & posted on Project WIN website



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0078956 (Cont'd)	Facility ID MSD0277	Water Quality Treatment Center DEREK R. GUTHRIE	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	955750	09/16/09 03:25 AM	MARKS JR	LAMBDIN JR	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/16/09 03:28 AM	

Spot Inspections:

Discharge Amount:	153,000 GAL
Cause:	#2 BISULFITE PUMP NOT PUMPING ENOUGH
Clean Up:	NO DEBRIS
Control Zone:	PIPE DISCHARGE SUBMERGED NO CONTROL ZONE
Impact:	NO IMPACT OBSERVED
Repair:	STARTED #1 BISULFITE PUMP RETOOK CL2 READING

Notifications:

09/16/09 12:47 PM	DISPUB	Bypass stopped within 3 minutes. Public notice was not posted on the website because overflow was directly into the Ohio River and was quickly diluted. (Per BB)
09/16/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0078956 (Cont'd)	Facility ID MSD0277	Water Quality Treatment Center DEREK R. GUTHRIE	Receiving Stream of Treatment Center OHIO RIVER	Region WEST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	996579	12/31/09 12:19 AM	MARKS JR	LAMBDIN JR	DOCUMENTED	10/17/06	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	12/31/09 02:29 AM	

Spot Inspections:

Discharge Amount:	1,500,000 GAL
Cause:	POWER FAILURE CAUSED BY L G & E
Clean Up:	NO DEBRIS ,ONLY A BYPASS OF DISINFECTION
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED
Repair:	L G & E RESTORED POWER ALL SYSTEMS BACK IN SERVICE

Notifications:

12/31/09 12:58 PM	DISPUB	public notified by web site and temporary signs
12/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
12/31/09 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0098540	Facility ID MSD0289	Water Quality Treatment Center CEDAR CREEK	Receiving Stream of Treatment Center CEDAR CREEK	Region CENT
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0289	8605 CEDAR CREEK RD		CEDAR CREEK	GROUND

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	804753	07/06/08 08:00 AM	ELDER	SMITH	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	07/06/08 01:30 PM	

Spot Inspections:

Discharge Amount:	338,437 GAL
Cause:	ELECTRICAL FAILURE OF THE LOW LEVEL UV PROBE.
Clean Up:	CLEANUP NOT POSSIBLE.
Control Zone:	NOT POSSIBLE
Impact:	INCOMPLETE UV TREATMENT
Repair:	IMMEDIATE SHUTTING OF GATES TO STOP FLOW.TAKE 1 CHANNEL OUT OF SERVICE WITH FAILED DEVICE.ORDERED NEW DEVICE FOR REPAIRS TO SYSTEM

Notifications:

07/08/08 02:02 PM	DISNOT	Discharge notification email forwarded manually July 08, 2008 at 2:04 PM
08/14/08 11:17 AM	DISPUB	Notification made by permanent sign at effluent.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #
KY0098540 (Cont'd)Facility ID
MSD0289Water Quality Treatment Center
CEDAR CREEKReceiving Stream of Treatment Center
CEDAR CREEKRegion
CENT

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	898050	04/19/09 11:49 PM	ELDER	LAMBDIN JR	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	04/20/09 12:22 AM	

Spot Inspections:

Discharge Amount:	16,500 GAL
Cause:	RAIN EVENT IN AREA CAUSING PLANT DRAINS TO OVERWHELM WETWELL, 4 OF THE PUMPS WERE OUT OF SERVICE FOR MAINTENANCE OF THE WETWELL & OPS FAILED TO RESET
Clean Up:	MSD CLEANED & SANITIZED AREA & SPREAD LIME.
Control Zone:	TEMPORARY SIGNS POSTED AROUND AFFECTED AREA. PERMANENT SIGNS ALONG CREEK
Impact:	SEWAGE TO CREEK
Repair:	REPLACED MH COVER

Notifications:

04/20/09 09:36 AM	DISPUB	TEMPORARY SIGNS POSTED AROUND AFFECTED AREA. PERMANENT SIGNS ALONG CREEK
04/20/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center				Receiving Stream of Treatment Center			Region	
KY0098540 (Cont'd)	MSD0289	CEDAR CREEK				CEDAR CREEK			CENT	
<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	956949	09/21/09 01:30 AM	ELDER	WRIGHT	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/21/09 01:45 AM	

Spot Inspections:

Discharge Amount:	500 GAL
Cause:	OVERFLOWED OXIDATION DITCH DUE TO ELEVATED FLOWS DURING RAIN EVENT
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	DEBRIS CONTAINED ON MSD PROPERTY. WATER TO WUS.
Impact:	SOLIDS OBSERVED
Repair:	RAISED CENTER WELL GATE & LOWERED BYPASS GATE TO REMOVE WATER LEVEL IN OX. DITCH.

Notifications:

09/21/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
09/21/09 09:58 AM	DISPUB	NO PUBLIC NOTIFICATION REQUIRED; SOLIDS AND DEBRIS CONTAINED TO WQTC.



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0098540 (Cont'd)	Facility ID MSD0289	Water Quality Treatment Center CEDAR CREEK	Receiving Stream of Treatment Center CEDAR CREEK	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	975966	11/01/09 05:00 AM	ELDER	MILLS	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	11/01/09 06:15 AM	

Spot Inspections:

Discharge Amount:	207,997 GAL
Cause:	UV EAST CHANNEL EFFLUENT GATE FAILED TO COMPLETELY CLOSE IN AUTOMATIC
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING DIRECTLY INTO STREAM
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED
Repair:	CLOSED GATE IN MANUAL TO STOP FLOW UNTIL CAUSE INVESTIGATED & REPAIRS CAN BE MADE

Notifications:

11/01/09 10:31 AM	DISPUB	Permanent signs posted in area & notification up chain of command for notification by http://www.msdlouky.org/projectwin/
11/01/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0098540 (Cont'd)	Facility ID MSD0289	Water Quality Treatment Center CEDAR CREEK	Receiving Stream of Treatment Center CEDAR CREEK	Region CENT
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	989846	12/08/09 11:00 PM	ELDER	MILLS	REPAIRED - ISSUE RESOLVED	12/08/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	12/08/09 11:30 PM	

Spot Inspections:

Discharge Amount:	100 GAL
Cause:	HEAVY RAIN EVENT IN AREA & ADJUSTMENT OF CENTER WELL GATE. INSPECT DRAIN LINE FOR BREAKAGE
Clean Up:	NO CLEANUP OCCURRED DUE TO HEAVY RAIN
Control Zone:	PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
Impact:	SEWAGE/WATER DISCHARGING FROM CURB BY AERATION TANK
Repair:	ADJUSTED CENTER WELL GATE TO STOP BYPASS

Notifications:

12/08/09 11:56 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA SUPPLEMENTED BY TEMPORARY SIGNS
12/08/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0039021	Facility ID MSD0290	Water Quality Treatment Center BANCROFT	Receiving Stream of Treatment Center GOOSE CREEK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0290	7610 OLD ORCHARD CIR		GOOSE CREEK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	821512	09/04/08 09:00 AM	MARKS JR	BROWN	REPAIRED - ISSUE RESOLVED	08/17/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/04/08 09:20 AM	

Spot Inspections:

Discharge Amount:	400 GAL
Cause:	CLARIFIER OVER LOADED
Clean Up:	NO DEBRIS OBSERVED MSD PERSONEL CLEANED AND SANITIZED AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	DISCOLORATION IN STREAM
Repair:	IN FUTURE, START COLLECTOR AND START WASTING DURING REFILLING OF CLARIFIER

Notifications:

09/04/08 01:29 PM	DISPUB	temporary signs posted around area of discharge
09/04/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0039021 (Cont'd)	MSD0290	BANCROFT	GOOSE CREEK	EAST

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISDW: DRY WEATHER DISCHARGE	824503	09/19/08 04:10 PM	MARKS JR	BROWN	REPAIRED - ISSUE RESOLVED	08/17/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	09/19/08 05:00 PM	

Spot Inspections:

Discharge Amount:	900 GAL
Cause:	COLLECTOR DRIVE MALFUNCTIONED
Clean Up:	NO CLEAN UP REQUIRED
Control Zone:	TEMP SIGNS POSTED
Impact:	DISCOLORATION OF STREAM
Repair:	REPAIRED COLLECTOR DRIVE AND CLEANED OUT CHLORINE CONTACT CHAMBER

Notifications:

09/19/08 08:12 PM	DISPUB	public notified by temporary signs
09/19/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0039021 (Cont'd)	Facility ID MSD0290	Water Quality Treatment Center BANCROFT	Receiving Stream of Treatment Center GOOSE CREEK	Region EAST
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Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	944513	08/17/09 11:35 AM	MARKS JR	LARUE	REPAIRED - ISSUE RESOLVED	08/17/09	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	08/17/09 11:45 AM	

Spot Inspections:

Discharge Amount:	250 GAL
Cause:	MECHANICAL PROBLEM WITH CLARIFIER COLLECTOR ARM
Clean Up:	CONTRACTOR CLEANED AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SOLIDS SEEN IN CREEK
Repair:	MAINTENANCE IS REPAIRED COLLECTOR DRIVE AND HAULING TANKS TO PREVENT FURTHER DISCHARGE #944509

Notifications:

08/17/09 03:32 PM	DISPUB	TEMPORARY SIGNS POSTED TO WARN PUBLIC
08/17/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0029106	Facility ID MSD0291	Water Quality Treatment Center HUNTING CREEK NORTH	Receiving Stream of Treatment Center HARRODS CREEK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0291	7300 SHADWELL LN		HARRODS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	829929	10/05/08 11:00 AM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	11/10/08	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	10/05/08 12:00 PM	

Spot Inspections:

Discharge Amount:	9,000 GAL
Cause:	#3 SECONDARY CLARIFIER SLUDGE RETURN NOT WORKING
Clean Up:	MSD CONTRACTED CLEANUP
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SOILS OBSERVED IN CREEK
Repair:	CALLED CONTRACTOR TO UNSTOP SLUDGE RETURN LINE

Notifications:

10/05/08 03:39 PM	DISPUB	Temporary signs posted to warn public
10/05/08 12:57 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center					Receiving Stream of Treatment Center			Region
KY0029106 (Cont'd)	MSD0291	HUNTING CREEK NORTH					HARRODS CREEK			EAST
Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	841287	11/10/08 12:00 PM	MARKS JR	COOMER	REPAIRED - ISSUE RESOLVED	11/10/08	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	11/10/08 12:45 PM	

Spot Inspections:

Discharge Amount:	2,655 GAL
Cause:	CLOGGED UP SLUDGE RETURN LINE
Clean Up:	MSD CONTRACTOR CLEANED AND SANITIZED AREA
Control Zone:	TEMP SIGNS POSTED
Impact:	SOLIDS OBSERVED IN CREEK
Repair:	MSD CONTRACTOR UNCLOGGED SLUDGE RETURN LINE SAP WORK ORDER #5199531

Notifications:

11/10/08 02:14 PM	DISPUB	temporary signs posted to warn public of discharge
11/10/08 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0102784	Facility ID MSD0294	Water Quality Treatment Center FLOYDS FORK	Receiving Stream of Treatment Center FLOYDS FORK	Region EAST
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Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0294	1100 BLUE HERON RD		FLOYDS FORK	STREAM

<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	906059	05/09/09 12:50 AM	MARKS JR	KAISER	REPAIRED - ISSUE RESOLVED	03/10/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	05/09/09 01:50 AM	

Spot Inspections:

Discharge Amount:	20,000 GAL
Cause:	RAINEVENT CAUSED SURGE IN PLANT FLOW CAUSING SAND FILTERS TO OVERFLOW
Clean Up:	MSD CLEANED AND SANITIZED AREA
Control Zone:	TEMP SIGNS POSTED
Impact:	SOLIDS AND DEBRIS OBSERVED
Repair:	OPENED BYPASS GATE TO ALLEVIATE FLOW

Notifications:

05/09/09 11:50 AM	DISPUB	public notified by signs and msd website
05/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov



Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES #	Facility ID	Water Quality Treatment Center				Receiving Stream of Treatment Center			Region	
KY0102784 (Cont'd)	MSD0294	FLOYDS FORK				FLOYDS FORK			EAST	
<u>Activity Code / Description</u>	<u>WO #</u>	<u>Initiated</u>	<u>Initiated By</u>	<u>Assigned To</u>	<u>Disch Status</u>	<u>Event Date</u>	<u>Problem</u>	<u>Result</u>	<u>Completed</u>	<u>Condition</u>
DISREV: RAIN EVENT DISCHARGE	906122	05/09/09 03:45 PM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	03/10/10	BYPASS AT WQTC	UNAUTHORIZED DISCHARGE - WATERS	05/12/09 01:40 PM	

Spot Inspections:

Discharge Amount:	8,970,000 GAL
Cause:	HIGH INFLUENT FLOW CAUSED,SAND FILTERS TO OVERFLOW(30,000 GAL),SOLIDS TO WASH OUT OF SECONDARY TO CREEK(50,000 GAL) AND NO TERTIARY TREATMENT(8.89 MG)
Clean Up:	AREA CLEANED AND SANITIZED
Control Zone:	SIGNS POSTED
Impact:	SOLIDS OBSERVED LEAVING PLANT
Repair:	OPENED BYPASS GATE ON SAND FILTERS, TURNED OFF AERATORS, CLEANED SAND FILTERS AND FIXED COUPLING

Notifications:

05/09/09 06:52 PM	DISPUB	signs posted to warn public and msd updated web site
05/09/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
05/09/09 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 13

Total Work Orders Printed: 44

Attachment 3 – Bypass cover letters



MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

July 8, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Yorktown WTP – KPDES Permit KY0036323

Dear Mr. Roth:

This plant experienced a bypass event sometime prior to 8:00 AM on July 8, 2008. Upon finding the plant process upset, MSD staff found evidence of bio solids in the plant receiving stream. This was reported through our electronic notification system at approximately 3:42 PM on July 7, 2008, referencing Work Order 803647 as a Plant Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

An estimated amount of 500 gallons of Secondary biomass wastewater washed into the plant effluent. This was a result of filamentous found in the plant secondary system and the bio solids inventory in the plant secondary system exceeded our normal operating parameters. This bypass did receive full chlorination and de-chlorination treatment.

Please advise if you have any questions concerning this information. You can contact me at my office (502) 540-6031 or cell phone (502) 396-7543.

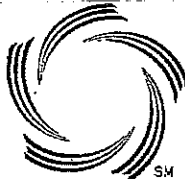
Sincerely,

Kevin D. Ries
Process Supervisor

cc: Sean Ireland, EPA R. Shaw/eB File
Gary Levy, KDEP Paula Purifoy, MSD



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www.louisvillegreen.com*



MSD

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September 19, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the West County WTP – KPDES Permit KY0078956

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on September 15, 2008, referencing Work Order 823278 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Power outage due to wind storm caused 69,444 gallons of secondary treated wastewater, to be discharged to Waters of the US without disinfection and dechlorination.
- Period of noncompliance: Starting 04:20 PM on September 14, 2008 and stopping 04:25 PM on September 14, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Impact to WUS was reduced by closing the 120" influent gate to prevent flooding pump station and reduce the amount of effluent leaving the wastewater plant.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-396-7543 or via email at ries@msdlouky.org.

Sincerely,

Kevin Ries

Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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December 19, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

**Re: Bypass Report for the Derek Guthrie WQTP (West County) – KPDES Permit
KY0078956**

Dear Mr. Roth:


This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on December 17, 2008, referencing Work Order 857175 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Found #3 hypochlorite pump air locked. All water that was bypassed received full secondary treatment except disinfection.
- Period of noncompliance: Starting 07:30 AM on December 17, 2008 and stopping 08:30 AM on December 17, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: On 12/16 we experienced a power outage at 730pm. We started hypochlorite feed and took a residual, and avoided any bypasses. Later that night due to electrical reasons from the first power outage the plant power had to be taken down to isolate an electrical feeder that had blown and was caused by the first power outage. During startup from the second time hypo feed was started and then the rest of the plant was brought up. At approximately 730am we found the #3 hypochlorite pump airlocked. We then purged all air from the suction and discharge line and the hypochlorite feed resumed..

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,


John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

August 25, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the West County WTP – KPDES Permit KY 0078956

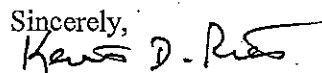
Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on August 21, 2008, referencing Work Order 818054 as a Plant Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The cause of the loss of plant effluent disinfection was due to shutting down our backup disinfection process to prevent a sodium hypochlorite spill. The sodium hypochlorite was causing the hose fittings on our backup disinfection process to corrode. An estimated amount of 520,833 gallons of plant effluent occurred without disinfection due to this problem with our backup disinfection feed system. We found the cause of the sodium hypochlorite spill was due to a faulty pressure relief valve.
- Period of noncompliance: Starting 07:15 AM on August 21, 2008 and stopping 08:30 AM on August 21, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We established plant chlorination feed by valving in an existing chemical feed pump.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,

Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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August 25, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the West County WTP – KPDES Permit KY 0078956

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on August 21, 2008, referencing Work Order 817920 as a Plant Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The cause of the loss of plant effluent disinfection was due to shutting down our disinfection process in order to stop a sodium hypochlorite leak. An estimated amount of 902,778 gallons of plant effluent occurred without disinfection due to stopping disinfection process to troubleshoot cause of sodium hypochlorite leak and the time to properly establish a disinfection backup system.
- Period of noncompliance: Starting 09:00 AM on August 20, 2008 and stopping 10:40 AM on August 20, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We established plant chlorination feed by bypassing the underground location of pipe that we suspected to be leaking.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,

Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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August 25, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the West County WTP – KPDES Permit KY 0078956

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on August 20, 2008, referencing Work Order 817918 as a Plant Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The cause of the aeration blower failure is due to the blower tripped on overload. An estimated amount of 3,791,667 gallons of plant effluent occurred during our Secondary aeration blower shut down. We are unable to pin point an exact time of the blower shut down due to an alarm system failure. I feel this is a very conservative estimate due to the last time that an operator physically checked the blower operation was 15 minutes prior to our estimated noncompliance start time, and also due the fact that Secondary process degradation is not an instantaneous action with an aeration blower failure.
- Period of noncompliance: Starting 12:15 AM on August 20, 2008 and stopping 07:15 AM on August 20, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We have set up alarm notification to supervisory personnel if plant blowers stop.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,

Kevin D. Ries

Process Supervisor-Operations.

cc: Gary Levy, KDEP

eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
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June 29, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Derek R Guthrie WQTC – KPDES Permit KY0078956

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on June 26, 2009, referencing Work Order 923712 as a Dry Weather Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The #1 Hypochlorite pump experienced an internal, mechanical failure. However, the pump continued to run which thus, prevented the alarm from triggering a faster response.
- Period of noncompliance: Starting 11:12 AM on June 25, 2009 and stopping 06:30 AM on June 26, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: This will include running an additional hypochlorite pump to adjust automatically if the CL2 dose is not maintained. Also further investigation will be done to enhance the existing alarms on the Hypochlorite feed system. Also the KDOW hotline was called at 10:30am on June 26, 2009, and incident # 2297540 was issued .

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,

John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
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December 31, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Derek R. Guthrie WQTC - KPDES KY0078956

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on December 31, 2009, referencing Work Order 996579 as a wet weather bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: A bypass of wastewater that did not receive full disinfection has occurred due to a Louisville Gas and Electric (LG&E) power failure. . Aproximately 1.5million gallons of wastewater was bypassed. Full primary and secondary treatment was met and the discharge did receive risidual disinfection. All treatment requirements were met except for chlorination and dechlorination.
- Period of noncompliance: Starting 12:19 AM on December 31, 2009 and stopping 02:37 AM on December 31, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD is currently working on designs to install an place generators on our Hypochlorite and Bisulfite pumps. Having this type of equipment will prevent or decrease this type of incident from future by-passes of disinfection caused by power interuptions. Until the generator is in place we will add additional staffing to the off shifts, which will help in reducing our response times to emergencys. .
- Additional comments: The equipment that LG&E lost last night was recently replaced by them several weeks ago. It is unknown at this time if the transformers were struck by lighting or internal mechanical failure was the result of the power failure... This bypass was also reported to the DOW referencing incident #20094927.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,


John Kessel
Process Supervisor-Operations



Mr. Charlie Roth, District Supervisor
KY Division of Water
Page 2

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File



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9/17/09

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Derek R. Guthrie WQTC - KPDES KY0078956

Dear Mr. Roth:


This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on September 16, 2009, referencing Work Order 955750 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: During an equipment check, a sample taken by the operator indicated that the wastewater was not receiving full dechlorination treatment. Although a pre-effluent residual chlorine reading indicated some level of dechlorination was achieved, full dechlorination demand was not met. An estimated volume of 153,000 gallons received full treatment except for dechlorination.
- Period of noncompliance: Starting 03:25 AM on September 16, 2009 and stopping 03:28 AM on September 16, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: To eliminate this bypass, the operator started another dechlorination chemical feed pump. An immediate pre-effluent residual chlorine reading was then taken, which indicated full dechlorination compliance. We will increase volume of dechlorination feed until we fully automate our dechlorination system.
- Additional comments: none

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,


John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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February 13, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Starview WTP – KPDES Permit KY0031712

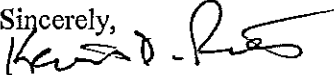
Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on February 11, 2009, referencing Work Order 870868 as a wet weather discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Plant biosolids discharged through the plant effluent. Secondary aeration timers were decreased in preparation to prevent a bypass of this nature. Storm flow exceeded plant capacity and caused the bypass.
- Period of noncompliance: Starting 10:40 PM on February 10, 2009 and stopping 11:25 PM on February 10, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Continue decreasing secondary aeration timers.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,

Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
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www.msdlouky.org

December 10, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Starview WQTC- KPDES Permit: KY0031712

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on December 09, 2009, referencing Work Order 989838 as a Rain Event discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Rain event in area caused elevated flow to treatment plant causing solids to be washed out of one of the clarifiers. Approximately 2,139 gallons of solids were washed to the Effluent. Flow at the time of bypass was 0.4MGD
- Period of noncompliance: Starting 09:53 PM on December 08, 2009 and stopping 10:24 PM on December 08, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Reduce plant aeration times during rain events..
- Additional comments: No additional comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

June 19, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Starview STP – KPDES Permit KY0031712

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on June 19, 2009, referencing Work Order 921140 as a Wet Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Treatment plant lost electrical power due to thunderstorm causing the influent pump station to bypass.
- Period of noncompliance: Starting 02:17 PM on June 18, 2009 and stopping 03:00 PM on June 18, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD is evaluating the possibility of installing an alternate power source.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





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Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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February 13, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Starview WTP – KPDES Permit KY0031712

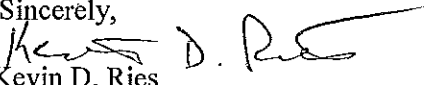
Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on February 11, 2009, referencing Work Order 870868 as a wet weather discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Plant biosolids discharged thru the plant effluent. Secondary aeration timers were decreased in preparation to prevent a bypass of this nature. Storm flow exceeded plant capacity and caused the bypass.
- Period of noncompliance: Starting 10:40 PM on February 10, 2009 and stopping 11:25 PM on February 10, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Continue decreasing secondary aeration timers.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-231-982, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,

Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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October 16, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Silver Heights WTP – KPDES Permit KY0028801

Dear Mr. Roth:

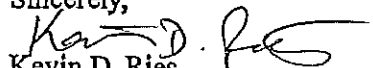
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on October 14, 2008, referencing Work Order 831889 as a plant bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The rotometer on the Sulfur Dioxide (SO₂) dechlorination Sulfinator unit malfunctioned. 22319 gallons of non dechlorinated plant effluent water discharged into the receiving stream of Silver Height's WTP. This water received full treatment with exception of dechlorination. A residual chlorine result of 0.06 ppm was taken downstream of the plant discharge site. No negative signs of impact were noticed in the receiving stream.
- Period of noncompliance: Starting 11:30 AM on October 13, 2008 and stopping 01:50 PM on October 13, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We installed a new Sulfur Dioxide(SO₂) rotometer assembly.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,


Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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October 24, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Silver Heights WTP – KPDES Permit KY00287801

Dear Mr. Roth:

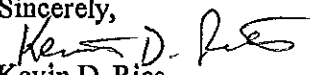
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on October 21, 2008, referencing Work Order 833368 as a plant bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The chlorination and dechlorination carrier water supply (Louisville Water Co. supply) had a disruption in the service. 35169 gallons bypassed chlorination and dechlorination treatment. MSD maintenance personnel installed temporary carrier water to stop the bypass.
- Period of noncompliance: Starting 10:00 AM on October 20, 2008 and stopping 01:40 PM on October 20, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We installed a alternate water supply line.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-396-7543 or via email at @msdlouky.org.

Sincerely,


Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
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March 31, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the McNeely Lake Treatment Plant – KPDES Permit KY0029416

Dear Mr. Roth:

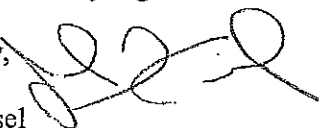
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on March 30, 2009, referencing Work Order 889653 as a bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Bypassed secondary clarifier for maintenance inspection. Inspection was needed due to clarifier bulking. We found that the return sludge line was partially plugged with debris, and the rubber strips on the clarifier need to be replaced. All effluent that was bypassed received complete disinfection with chlorine and dechlorination with sulfur dioxide.
- Period of noncompliance: Starting 10:00 AM on March 30, 2009 and stopping 2:40 PM on March 30, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: An additional outage will have to be rescheduled to replace the worn and damaged parts on the collector arm. Proper notification and approval will be requested prior to scheduling the work. This preventive maintenance should reduce or eliminate the issues with the clarifier.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,


John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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www.msdlouky.org*

February 2, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the McNeely Lake STP – KPDES Permit KY0029416

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on January 29, 2009, referencing Work Order 868047 as a Rain Event Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Power outage from ice and snow storm causing the influent pump station to overflow. A generator was started to restore power. Area was cleaned and sanitized.
- Period of noncompliance: Starting 08:30 AM on January 28, 2009 and stopping 08:50 AM on January 28, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Power failure was due to extreme conditions. MSD will continue to use backup generators to restore power caused by inclement weather conditions.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-540-6031, my cell phone at (502)-648-5984 or via email at kessel@msdlouky.org.

Sincerely,


John Kessel *REGULATORY ENGINEER*
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

July 8, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Jeffersontown WTP – KPDES Permit KY0025194

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 11:00 PM on July 04, 2008, referencing Work Order #803781 as a bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Rain events where in excess of 2.66 inches fell in an eight hour period caused the aeration basin to overflow when stormwater surge overwhelmed the plant causing 500 gallons of mixed liquor to reach waters of the US.
- Period of noncompliance: Starting 09:00 PM on July 04, 2008 and stopping 09:30 PM on July 04, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Due to amount of rain in short period of time, unable to predict recurrence.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-523-9957 or via email at jporter@msdlouky.org.

Sincerely,


James E. Porter Jr.

Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

May 20, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Jefferstown WQTC (MSD0255) – KPDES Permit KY0025194

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on May 18, 2009, referencing Work Order 908502 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Momentary LG&E power outage to plant caused the Ultraviolet (UV) disinfection system to fail.
- Period of noncompliance: Starting 02:29 AM on May 18, 2009 and stopping 03:10 AM on May 18, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We will review our preventive maintenance records of plant UV system and evaluate the UV system's uninterrupted power supply(UPS).

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
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www.msdlouky.org

June 22, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Jeffersontown WQTC – KPDES Permit KY0025194

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on June 19, 2009, referencing Work Order 9212626 as a wet weather bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Faulty low water level sensor in the ultraviolet disinfection system caused partial outage to bulbs. Panel mate showed all bulbs were out, but visual observation indicated some bulbs were illuminated.
- Period of noncompliance: Starting 07:37 PM on June 18, 2009 and stopping 08:45 PM on June 18, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD is considering making changes to the ultraviolet control scheme in regards to the low level sensor.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

September 29, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Jeffersontown WQTC- KPDES Permit: KY0025194

Dear Mr. Roth:

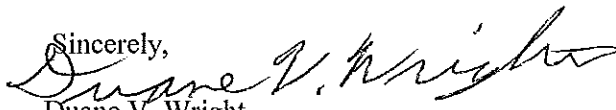
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on September 27, 2009, referencing Work Order 961491 as a Rain Event Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Rain event caused elevated levels in aeration basin to overflow to ground. Approximately 100 gallons of solids were discharged.
- Period of noncompliance: Starting 12:30 AM on September 27, 2009 and stopping 02:45 AM on September 27, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD will soon make Type 2 modification to aeration basins which should prevent recurrence.
- Additional comments: No further comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,


Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





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Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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October 9, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Hunting Creek North WTP – KPDES Permit KY0029106

Dear Mr. Roth:

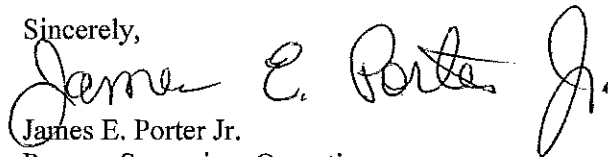
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on October 06, 2008, referencing Work Order #829929 as a Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Sludge return on #3 clarifier stopped working causing solids to go over weirs and enter waters of the US. Control zone was set up and temporary signs put in place.
- Period of noncompliance: Starting 11:00 AM on October 05, 2008 and stopping 12:00 PM on October 05, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Investigate need to increase frequency of treatment plant checks.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-523-9957 or via email at jporter@msdlouky.org.

Sincerely,



James E. Porter Jr.
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
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www.msdlouky.org*

November 11, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the North Hunting Creek – KPDES Permit KY0029106

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on November 11, 2008, referencing Work Order 841287 as a Dry weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: #3 clarifier sludge return was clogged, this caused solids to be bypassed to the creek
- Period of noncompliance: Starting 12:00 PM on November 10, 2008 and stopping 12:45 PM on November 10, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: The steps taken to reduce the sludge returns from plugging is cleaning the leaves from the clarifiers on a daily basis.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-241-9093, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,

John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

February 10, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Hite Creek WTP – KPDES Permit KY0022420

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on February 08, 2009, referencing Work Order 870195 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The electrical controller that switches power from LG&E service to the backup generator failed. The interruption of power caused the pump station to fail resulting in an overflow that reached Waters of US.
- Period of noncompliance: Starting 03:15 AM on February 08, 2009 and stopping 05:00 AM on February 08, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Remedial repairs have been scheduled to prevent a recurrence of this event.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-241-9093, my cell phone at (502)-548-3209 or via email at rheinlae@msdlouky.org

Sincerely,


D.J. Rheinlaender
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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February 10, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Hite Creek WTP – KPDES Permit KY0037935

Dear Mr. Roth:

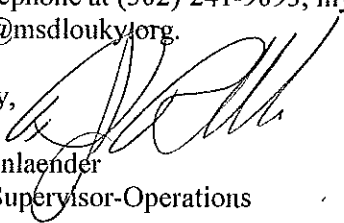
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on February 08, 2009, referencing Work Order 870195 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The electrical controller that switches power from LG&E service to the backup generator failed. The interruption of power caused the pump station to fail resulting in an overflow that reached Waters of US.
- Period of noncompliance: Starting 03:15 AM on February 08, 2009 and stopping 05:00 AM on February 08, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Remedial repairs have been scheduled to prevent a reoccurrence of this event.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-241-9093, my cell phone at (502)-548-3209 or via email at rheinlae@msdlouky.org.

Sincerely,


D.J. Rheinlaender
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





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Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Hite Creek WQTC- KPDES Permit: KY0022420

Dear Mr. Roth:

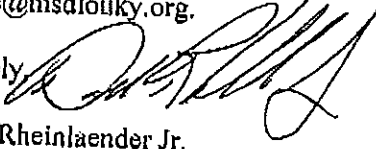
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on August 30, 2009, referencing Work Order 948395 as a dry weather bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: On August 29, 2009 Hite Creek WQTC bypassed 10,000 gallons due to the fact we had to stop and relocate pumps, to pump around the obstruction relating to the previous bypass earlier that day.
-
- Period of noncompliance: Starting 01:17 PM on August 29, 2009 and stopping 06:00 PM on August 29, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: On August 29, 2009 we set up another pump to empty the process water well so maintenance could enter tank and remove the obstruction.
- Additional comments:

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-587-5856, my cell phone at (502)-548-3209 or via email at rheinlae@msdlouky.org.

Sincerely,


Donald Rheinlaender Jr.
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

August 31, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Hite Creek WQTC- KPDES Permit: KY0022420

Dear Mr. Roth:

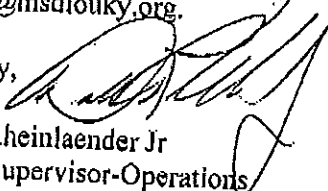
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on August 29, 2009, referencing Work Order 948358 as a dry weather discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: On August 29, 2009 Hite Creek WQTC bypassed 25,000 gallons due to a piece of sheet metal obstructed the process line between the plant sand filter and the UV disinfection area. The bypass water received full treatment except for UV disinfection.
- Period of noncompliance: Starting 07:00 AM on August 29, 2009 and stopping 07:20 AM on August 29, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Upon inspection we found the baffle structure in acceptable condition. We diverted plant flow to available tanks.
- Additional comments:

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-587-5856, my cell phone at (502)-548-3209 or via email at rheinlae@msdlouky.org.

Sincerely,


Donald Rheinlaender Jr
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

December 4, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Chenoweth Hills TP – KPDES Permit KY0029459

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on December 02, 2008, referencing Work Order #852911 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Failure to properly provide chlorine disinfection to the effluent. There was a miscalculation on the remaining amount in the chlorine cylinder.
- Period of noncompliance: Starting 07:30 PM on December 01, 2008 and stopping 07:30 AM on December 02, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Operating procedures have been discussed with the employee, and MSD will provide refresher training for staff for proper handling of chlorine cylinders for disinfection and sulfur dioxide for dechlorination.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-523-9957 or via email at jporter@msdlouky.org.

Sincerely,

James E. Porter Jr.
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
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October 6, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Chenoweth Hills WQTC- KPDES Permit: KY0029459

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on October 06, 2009, referencing Work Order 967725 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: A mechanical failure of the sulfur dioxide regulator resulted in approximately 7,953 gallons of disinfected wastewater not receiving full dechlorination. The sulfur dioxide feed was shut off to allow for the repair of regulator.
- Period of noncompliance: Starting 03:15 PM on October 05, 2009 and stopping 05:35 PM on October 05, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD is evaluating the possibility of installing back-up chlorine & sulfur dioxide regulators.
- Additional comments: No additional comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

December 4, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Chenoweth Hills TP – KPDES Permit KY0029459

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on December 02, 2008, referencing Work Order #852911 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Failure to properly provide chlorine disinfection to the effluent. There was a miscalculation on the remaining amount in the chlorine cylinder.
- Period of noncompliance: Starting 07:30 PM on December 01, 2008 and stopping 07:30 AM on December 02, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Operating procedures have been discussed with the employee, and MSD will provide refresher training for staff for proper handling of chlorine cylinders for disinfection and sulfur dioxide for dechlorination.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-523-9957 or via email at jporter@msdlouky.org.

Sincerely,

James E. Porter Jr.
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
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www.msdlouky.org*

September 17, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Chenoweth Hills TP – KPDES Permit KY0029459

Dear Mr. Roth:

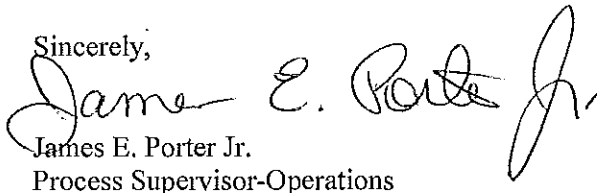
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 05:00 PM on September 14, 2008, referencing Work Order 823275 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Power outage due to wind storm caused 600 gallons of treated, disinfected wastewater to reach Waters of the US at a point other than permitted outfall.
- Period of noncompliance: Starting 03:00 PM on September 14, 2008 and stopping 05:00 PM on September 14, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: None, this was due to an electrical outage.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-523-9957 or via email at jporter@msdlouky.org.

Sincerely,


James E. Porter Jr.
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





700 West Liberty Street
Louisville Kentucky 40203-1911
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May 12, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Chenoweth Hills STP – KPDES Permit KY0029459

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 07:45 AM on May 08, 2009, referencing Work Order 905614 as a rain event discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Increased wet weather flow exceeded plant capacity. An estimated 21454 gallons biosolids washed through plant secondary system and entered plant chlorine contact channel. Peak plant flow rate for this time period was 0.686MGD. No negative visual impact of the plant effluent receiving stream was noticed.
- Period of noncompliance: Starting 07:44 AM on May 08, 2009 and stopping 08:46 AM on May 08, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Reduce plant aeration timers during elevated plant flow situations.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7475, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

December 10, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Chenoweth Hills WQTC- KPDES Permit: KY0029459

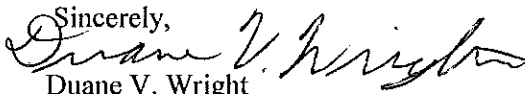
Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on December 09, 2009, referencing Work Order 989842 as a Rain Event discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Rain event in area caused elevated flow to treatment plant causing solids to be washed out of the clarifiers. Approximately 67,535 gallons of solids were washed to the Effluent. Flow at the time of bypass was 0.65MGD
- Period of noncompliance: Starting 09:50 PM on December 08, 2009 and stopping 02:40 AM on December 09, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Reduce plant aeration times during rain events..
- Additional comments: No additional comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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February 13, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Chenoweth Hills WTP – KPDES Permit KY0029459

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on February 11, 2009, referencing Work Order 870870 as a wet weather discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Plant biosolids discharged thru the plant effluent. Secondary aeration timers were decreased in preparation to prevent a bypass of this nature. Storm flow exceeded plant capacity and caused the bypass.
- Period of noncompliance: Starting 12:05 AM on February 11, 2009 and stopping 01:10 AM on February 11, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Continue decreasing secondary aeration timers.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-231-982, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,

Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
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www.msdlouky.org*

February 13, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Chenoweth Hills WTP – KPDES Permit KY0029459

Dear Mr. Roth:

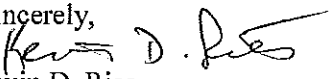
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on February 12, 2009, referencing Work Order 871157 as a dry weather discharge to WUS. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: A dead animal (opossum or cat) and debris clogged plant influent pipe in plant splitter box.
- Period of noncompliance: Starting 06:50 AM on February 12, 2009 and stopping 07:30 AM on February 12, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Inspect splitter box more often and try to scare away animals from facility.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-231-982, my cell phone at (502)-396-7543 or via email at Ries@insdlouky.org.

Sincerely,


Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

October 6, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Chenoweth Hills WQTC- KPDES Permit: KY0029459

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on October 06, 2009, referencing Work Order 967725 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: A mechanical failure of the sulfur dioxide regulator resulted in approximately 7,953 gallons of disinfected wastewater not receiving full dechlorination. The sulfur dioxide feed was shut off to allow for the repair of regulator.
- Period of noncompliance: Starting 03:15 PM on October 05, 2009 and stopping 05:35 PM on October 05, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD is evaluating the possibility of installing back-up chlorine & sulfur dioxide regulators.
- Additional comments: No additional comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

July 8, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Cedar Creek WTP – KPDES Permit KY0098540

Dear Mr. Roth:

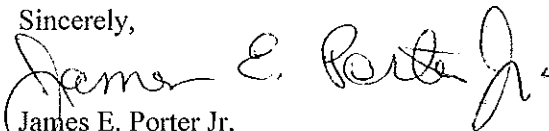
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 10:00 AM on July 08, 2008, referencing Work Order #804753 as a bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: A low level sensor failed on the UV system causing the system to shutdown allowing treated wastewater to exit the plant. Approximately 338,437 gallons of primary and secondary treated wastewater discharged without UV disinfection.
- Period of noncompliance: Starting 09:00 AM on July 06, 2008 and stopping 01:30 PM on July 06, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: The maintenance department is repairing the system to prevent further recurrences.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-523-9957 or via email at porter@msdlouky.org.

Sincerely,



James E. Porter Jr.
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

April 20, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Cedar Creek WTP – KPDES Permit KY0098540

Dear Mr. Roth:

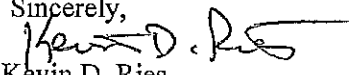
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on April 20, 2009, referencing Work Order 898050 as a plant bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Due to elevated influent plant flow caused by a recent storm event, 16,500 gallons of screened sewage was discharged from a manhole on our plant drainage system. This was caused by one or more of the following:
- 1. The East wet well influent pumps were not in Automatic control mode which did not allow these pumps to run when wet well level increased.
- 2. Due to increased flow of the original plant secondary aeration system, caused surcharge and overflowed the gates into the new secondary aeration system in which the drain valves were open. This caused an increase of volume to the plant drainage system that contributed to overflow.
- Period of noncompliance: Starting 11:49 PM on April 19, 2009 and stopping 12:22 AM on April 20, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: We will leave all plant influent pumps that are operational in Automatic control mode which will allow pumps to run when control scheme calls them to do so. Also, we will make every effort to ensure plant drain system is closed during wet weather events.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7695, my cell phone at (502)-396-7543 or via email at Ries@msdlouky.org.

Sincerely,


Kevin D. Ries
Process Supervisor-Operations



Mr. Charlie Roth, District Supervisor
KY Division of Water
Page 2

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File



700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

December 10, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Cedar Creek WQTC- KPDES Permit: KY0098540

Dear Mr. Roth:

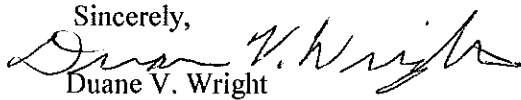
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on December 09, 2009, referencing Work Order 989846 as a Rain Event Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Rain event in area caused elevated flows to oxidation ditch resulting in high water level in ditch. Drain piping was broke and approximately 100 gallons of solids discharged to ground.
- Period of noncompliance: Starting 11:00 PM on December 08, 2009 and stopping 11:30 PM on December 08, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Repair drain piping.
- Additional comments: No additional comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,


Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

November 2, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Cedar Creek WQTC- KPDES Permit: KY0098540

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on November 01, 2009, referencing Work Order 975966 as a Dry Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: East channel U.V. gate failed to close while in automatic control. Approximately 207,997 gallons of effluent received full treatment except for U.V. disinfection. Upon discovery, the east channel gate was shut manually to stop the bypass.
- Period of noncompliance: Starting 05:00 AM on November 01, 2009 and stopping 06:15 AM on November 01, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD has contacted the manufacturers representative to evaluate the system to determine how this can be prevented from reoccurring.
- Additional comments: No additional comments.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File



700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

Sept. 23, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Cedar Creek WQTC- KPDES Permit: KY0098540

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 PM on September 21, 2009, referencing Work Order 956949 as a Rain Event Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Rain event caused elevated flows to oxidation ditch which increased water levels in ditch. Approximately 500 gallons of concentrated solids discharged to ground. Solids contained to plant grounds.
- Period of noncompliance: Starting 01:30 AM on September 21, 2009 and stopping 01:45 AM on September 21, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Divert flow to alternative oxidation ditch.
- Additional comments: No additional comments

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,

Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

August 7, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Berrytown STP MSD0209A – KPDES Permit KY0036501

Dear Mr. Roth:


This plant experienced a bypass event and has been reported through our electronic notification system at approximately 04:15 PM on August 04, 2009, referencing Work Order 938663 as a Wet Weather Discharge. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: The treatment plant experienced a bypass when an extremely unusual and heavy rain event caused elevated water levels in clarifier weirs. Because of the elevated levels in the tanks, water exited rust holes.
- Period of noncompliance: Starting 04:50 PM on August 04, 2009 and stopping 10:00 PM on August 04, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: MSD will repair rust holes ASAP.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-7574, my cell phone at (502)-396-9142 or via email at wrightd@msdlouky.org.

Sincerely,


Duane V. Wright
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

September 25, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Berrytown TP – KPDES Permit KY0036501

Dear Mr. Roth:

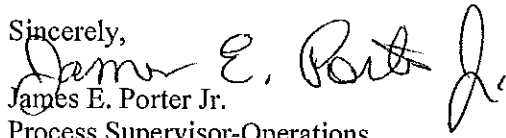
This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on September 24, 2008, referencing Work Order #825902 as a Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Power outage caused by tranformer failure owned by LG&E. This caused 2375 gallons of sewage from the influent wet well to reach Water of the US.
- Period of noncompliance: Starting 08:30 PM on September 23, 2008 and stopping 10:15 PM on September 23, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Investigate feasibility of placement of permanent/portable generators on site.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-239-2695, my cell phone at (502)-523-9957 or via email at jporter@msdlouky.org.

Sincerely,


James E. Porter Jr.

Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

*Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org*

September 22, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Bancroft – KPDES Permit KY0039021

Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on September 20, 2008, referencing Work Order 824503 as a Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Solids were bypassed to the creek due to electrical issues with the sludge collector.
- Period of noncompliance: Starting 04:10 PM on September 19, 2008 and stopping 05:00 PM on September 19, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Had electrician reset the overloads on the electrical bucket.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-241-9093, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.

Sincerely,

John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





MSD

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

September 5, 2008

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the Bancroft – KPDES Permit KY0039021

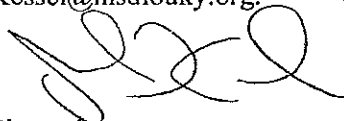
Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on September 05, 2008, referencing Work Order 821512 as a Bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Solids where bypassed to creek due to bottom sludge collector not operating.
- Period of noncompliance: Starting 09:00 AM on September 04, 2008 and stopping 09:20 AM on September 04, 2008.
- Steps taken or planned to reduce, eliminate and prevent recurrence: Start bottom sludge collector during the startup of the clarifier.

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-241-9093, my cell phone at (502)-648-5984 or via email at Kessel@msdlouky.org.


Sincerely,

John Kessel
Process Supervisor-Operations

cc: Gary Levy, KDEP
Sean Ireland, EPA

eB File
Paula Purifoy, MSD





700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

August 20, 2009

Mr. Charlie Roth, District Supervisor
KY Division of Water
Louisville Regional Office
9116 Leesgate Road
Louisville, KY 40222-5084

Re: Bypass Report for the: Bancroft WQTC- KPDES Permit: KY0039021

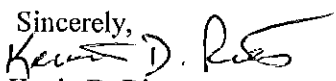
Dear Mr. Roth:

This plant experienced a bypass event and has been reported through our electronic notification system at approximately 01:00 AM on August 18, 2009, referencing Work Order 944513 as a dry weather bypass. This letter serves as a written report of the bypass as required by 401 KAR 5:065.

Provided below are the details of the bypass event:

- Description of the noncompliance and its cause: Wear on the clarifier sludge collector chain and sprockets caused excessive slack in the chain, resulting in the chain slipping and causing failure of sludge collection system. As a result, 250 gallons of biosolids bypassed through the plant secondary system and overflowed the plant effluent wier.
- Period of noncompliance: Starting 11:35 AM on August 17, 2009 and stopping 11:45 AM on August 17, 2009.
- Steps taken or planned to reduce, eliminate and prevent recurrence: On August 17, 2009, links were removed from the collector chain, top guiderails were repaired and the sludge collector put back into service. Maintenance staff will replace the collector chain and other associated parts in the near future to reduce a recurrence.
- Additional comments:

Please advise if you have any questions concerning this information. You can contact me on my office telephone at (502)-231-982, my cell phone at (502)-396-7543 or via email at ries@msdlouky.org.

Sincerely,

Kevin D. Ries
Process Supervisor-Operations

cc: Gary Levy, KDEP
Paula Purifoy, MSD
eB File



Attachment 4 – IOAP CPE Type 1 and II schedule

Attachment 5 – Generator List/Schedule

Pump Station Generator Sites
(Bold, under contract or already installed)

<u>Program</u>	<u>Project</u>	<u>Status</u>	<u>Next Step</u>	<u>Date</u>	<u>Final Deliverable</u>	<u>CD Date</u>	<u>Report Date</u>
East Region Emergency Generators Ph 3	Bid docs drafted, sites selected (Laurel, <u>Saurel (NG)</u> , Trail Ridge Ct, <u>Fairway View (NG)</u> , Louisville Boat, <u>Brittney Woods(NG)</u> , Floydsburg, <u>Devondale(NG)</u> , Stanney)	Finalize Quantities/Estimate.	Select final sites, advertise, bid and award	TBD	12/31/09, Four to Five sites each region, sub operational	N/A	2/24/2010
West Region Emergency Generators Ph 3	Bid docs drafted, sites selected (<u>Tree Line</u> , Valley Village, <u>Sunlight (NG)</u> , <u>Park Ridge Woods(NG)</u> , McNeely Lake, <u>Caven</u> , <u>Shady Villa</u> , <u>Villa Ana</u> , <u>Francell (NG)</u> , <u>Wathen</u>)	Finalize Quantities/Estimate.	Select final sites, advertise, bid and award	TBD	12/31/09, Four to Five sites each region, sub operational	N/A	2/24/2010
Central Region Emergency Generators Ph 3	Bid docs drafted, sites selected (Perwinkle Way, <u>Six Mile</u> , Dove Lake, Berrytown, English Station, <u>Terrier Ln</u> , <u>Monticello Place (NG)</u> , <u>Middletown (NG)</u> , Starview, <u>Griffytown #1 (NG)</u>)	Finalize Quantities/Estimate.	Select final sites, advertise, bid and award	TBD	12/31/09, Four to Five sites each region, sub operational	N/A	2/24/2010

Previously installed NG

Breakwwater

Widgeridge

Trailridge

Fairway

Anchor #2



Consent Decree Quarterly Report #18
January 1, 2010 – March 31, 2010

Appendix L – Sewer Service Line Replacement Program

April 30, 2010



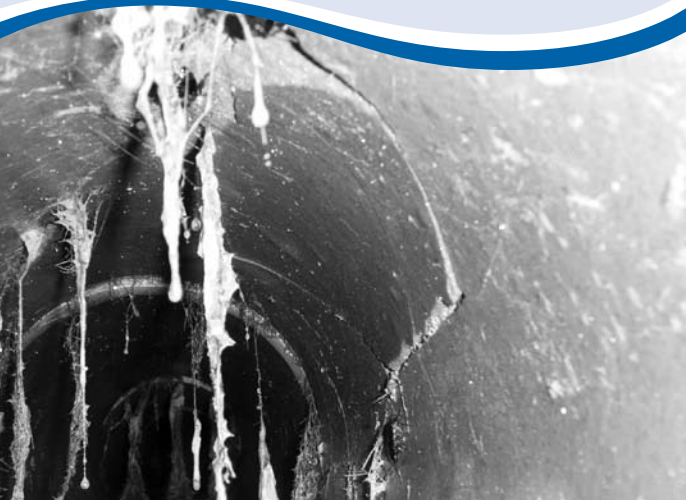


In August 2005, Louisville Metro and MSD signed an agreement with the Kentucky State Division of Water and the United States Environmental Protection Agency to address the problem of sewer overflows, as guided by the Federal Clean Water Act. This agreement is known as the Consent Decree.

The Consent Decree is an unfunded federal mandate and its projects are scheduled for completion by the end of 2024. The estimated cost to MSD and our customers is \$850 million.

To address these challenges, MSD has embarked on a comprehensive sewer improvement program called Project WIN, or Waterway Improvements Now. Project WIN's aim is to greatly reduce Louisville Metro's major sources of water pollution through public education and the rehabilitation of our 3,200 mile sewer system – a project that will affect nearly every neighborhood in our city.

Project WIN, once complete, will significantly improve water quality in Louisville Metro by reducing sewer overflows into our creeks and streams.



700 West Liberty Street
Louisville, KY 40203-1911



Sanitary Sewer Line Replacement Program 0% Financing



Clean, Green, Growing Community

0% Financing

ABOUT THE PROGRAM

The pipes that take wastewater from your home to the main sewer line are called sewer service lines. These pipes were typically made of clay if your home was built before 1980. Clay service lines can crack and/or separate over time, causing leaks and allowing roots to enter. Even newer service lines can leak if they were improperly installed.

Repairs to these pipes can be costly, and you are responsible for maintaining your sewer service line out to your property line. That's why MSD is happy to introduce the **Sanitary Sewer Line Replacement Program**.

Under this program, you are loaned the cost (up to \$5,000) of replacing your sewer service line with PVC, a much more durable and efficient material. You then have up to three (3) years to repay the loan at zero percent (0%) interest, along with a \$270 fee for administrative costs.

PROGRAM GUIDELINES

- The program is available only to single-family residential properties.
- Partial sewer line replacements are not eligible. The program applies to total replacement only.
- To be eligible for a loan, customers cannot be delinquent on any MSD billing.
- The program can only be used once per property.
- All work will be inspected by MSD and the state plumbing inspector.
- A lien will be placed on the property to secure the MSD loan, therefore the owner of the property will need to sign all agreements.
- Once the loan has been repaid in full, MSD will release the lien on the property.

NOTE: The MSD Sanitary Sewer Line Replacement Program is **not** related to any private utility insurance program and no monthly premiums are paid. The MSD customer pays **only the interest-free cost** of the sanitary sewer line replacement in monthly payments over the approved loan period **after** the new sewer line is installed.

This program not only helps you cover the cost of replacing your older service lines, it also works to update and improve our city's entire sewer system.

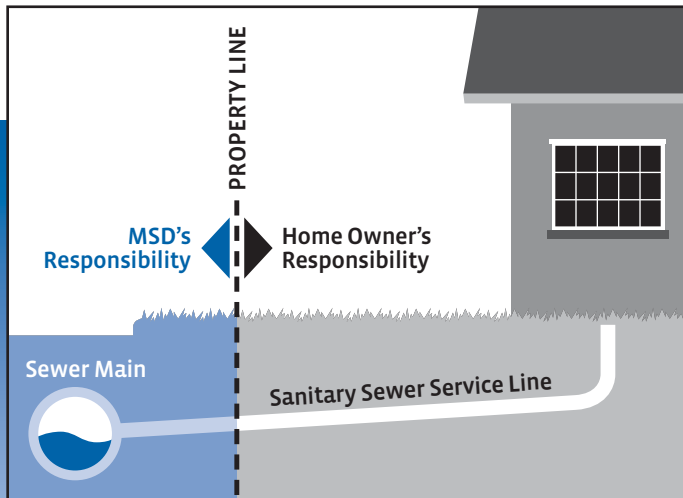
Call MSD Customer Relations at (502) 587-0603 to have a packet of information mailed to you.

PAYMENT TERMS

Payment terms vary depending on the replacement cost as follows:

Cost	Term
\$0 – \$1,200	1 Year
\$1,201 – \$2,400	2 Years
\$2,401 – \$5,000	3 Years

The replacement cost will not appear on your water bill. You will receive a monthly bill from MSD approximately 30 days after the plumbing contractor has been paid.



Clay pipes can crack and/or separate.

New PVC pipe is more efficient and durable.

