



January 29, 2010

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Subject:

Quarterly Report Number 17

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 October 1, 2009 through December 31, 2009. 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 For Brian Bingham

Regulatory Services Director

O17 Certification KDEP 1-30-10

cc: H. J. Schardem, Jr.

Paula Purifoy

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Beneficial Use of Louisville's Biosolids www.louisvillegreen.com

Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #17



Reporting Period:

October 1, 2009 through December 31, 2009

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:

January 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 seventeenth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from October 1, 2009, through December 31, 2009. **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 that were active during the reporting period October 1, 2009, through December 31, 2009, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (January 1, 2010, through March 31, 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 that were active during the reporting period October 1, 2009, through December 31, 2009, and the anticipated activities that are scheduled to be performed during the next reporting period (October January 1, 2010, through March 31, 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 that were active during the reporting period October 1, 2009, through December 31, 2009, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (January 1, 2010, through March 31, 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 October 1, 2009, through December 31, 2009, and the anticipated activities that are scheduled to be performed during the next reporting period (January 1, 2010, through March 31, 2010) for continued compliance with the Amended Consent Decree.

Section 5: Capacity Management, Operations and Maintenance Report - The program activities performed during the reporting period October 1, 2009, through December 31, 2009, and activities planned for the next reporting period (January 1, 2010, through March 31, 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 October 1, 2009, through December 31, 2009, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (January 1, 2010, through March 31, 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 4024 catch basins within the combined sewer system (CSS) during this reporting period.
- Continued to inspect, maintain and properly operate the CSS pump stations and the Morris Forman WQTC.
- Performed 1372 weekly inspections on CSOs, 294 creek inspections, and initiated over 102 work orders for debris removal and/or repairs as determined to be necessary to allow proper system operation during this reporting period.
- Flushed 62 sewer line segments in the CSS, ranging in size from 6 inches to 15 inches, and performed formula TV inspection on 214 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 in second quarter of 2010. Design is complete on the Muncie Avenue siphon access and this project will be bid in the next reporting period.
- Achieved the following program metrics:

Target	Result	
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.	96.3% Compliance - There were 80 Debris work orders and 1 CSO Repair work order. Three were open longer than 5 days. These were basket cleans which took 6 days to complete on 3 occasions.
95% of the catch basins within the CSSA cleaned every 15 months.	100% Compliance - Currently we are on a 12 month cycle.

Annual Training

Performed no formal CSO training during this quarter.

Annual Asset Review and Documentation

- Re-published the CSO Inventory document with changes captured during the calendar year.
- Published CSO Schematic maps to show connectivity of assets and to aid preventive maintenance tasks.
- Updated and re-published siphon fact sheets and drawings.
- Reviewed the catch basin districts and staff is in the process of re-aligning the boundaries.
- Continued to assess quick CSO-closure opportunities within the Central Relief Drain.

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 175 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:

<u>Southeast Diversion Flowmeter Instability Analysis</u> – Installed two flowmeters at the Southeast Diversion Structure and one at 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. Programmed the new flow meters with the CSoft global programming software. Final programming and testing will be completed in January 2010.

<u>Web-Based Training</u> – Approved the Operators RTC Training modules and used the module in a training workshop held on December 18, 2009. During the next reporting period, MSD's Training Department will schedule test training groups from each division of MSD directly responsible for the operations and maintenance of the RTC system to test the effectiveness of the training modules. Feedback from the training groups will be



incorporated into the training modules. Final modules will be made available to all MSD staff.

Storage Optimization

- Beargrass Creek Flapgate Evaluation Presented the technical memorandum to document the findings of the September 2008 analysis to I&FP staff in January 2009. A prioritization plan was completed on June 19, 2009. Installed the first set of flap gates at CSOs: 83/119, 88, 92, 140, the first week of December 2009. Installation of the flap gate at CSO 149/179 will be completed prior to June 1, 2010.
- CSO086 Dam Modification Raised the Dam at CSO086, 1.3 feet on October 29, 2009.
- <u>CSO210 Dam Modification</u> 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.
- <u>CSO108 Dam Modification</u> Started project design in October, 2009. Construction of this project will be completed prior to December 31, 2010.
- <u>CSO156 Elimination</u> Disconnected downspouts and re-routed flows to allow for the closure of CSO156 on October 30, 2009.
- 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 will occur in the next reporting period.
- <u>CSO210 and CSO016</u> 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 NDDs of concern to determine if they
 discharge a disproportionate share of pollutants of concern to the CSS. In an effort to
 update the model data, MSD collected pollutant data in trunk sewers upstream of CSOs
 concurrent to industrial discharge locations during October 2009. This data, along with
 data collected in June, 2009 will used to update the model.
 - MSD will continue to review industrial user data of all NDDs of concern to determine if they discharge a disproportionate share of pollutants of concern to the CSS. MSD will utilize data collected in June and October, 2009 to validate that each NDD is still a significant contributor to their respective CSO, as well as identify possible new NDDs of concern. The criteria to determine a significant user is greater than 10% of the loading contribution of a particular 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 23 times prior to a rain event. There were 16 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 place rain event constraints on Unusual Discharge Requests to the CSS.
 MSD issued 4 UDRs in the CSS.
- Continued to include specific NMC #3 related language as appropriate in re-issued permits discharging to the CSS when those permits are due for re-issuance.
- 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 175 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.
- Completed a planning effort and developed a scope of work to achieve the following plant improvements:
 - 1) Enhance the performance metric displays for Morris Forman WQTC to include some of the underlying dynamics that affect available plant capacity. MSD currently tracks and displays the percentage of available plant capacity that is being treated, as determined by the capacity calculator. MSD will increase the frequency of completing the capacity calculation and enhance the plant wet weather SOP and update training to support this task. Additional performance metric displays that are planned include:
 - Display the percent availability of the critical (i.e. rate-limiting) unit processes to manage the timing of maintenance activities in an attempt to ensure capacity during wet weather events;
 - Display the percentage of time the full firm capacity of the treatment system is available to treat wet weather flows, for managing the timing of major maintenance and capital projects for improvements to the Morris Forman WQTC and;
 - Display the percentage of time that the plant operates near the peak flow capacity of the plant when CSOs are occurring at the Southwestern Pump Station (CSO015) or at the Main Diversion Structure (CSO211).
 - 2) Initiate studies and, if appropriate, improvements to flow measurement at several places in the Morris Forman WQTC, including:



- Develop an algorithm to calculate flow under Sluice Gate 1 at the Main Diversion Structure during wet weather events;
- Enhance the Parshall Flumes at the New Headworks to improve flow measurement under high flow/submerged flume conditions;
- Develop a weir equation to allow flow measurement by the movable weir upstream of the old Headworks;
- Replace the flow meters upstream of the 20 secondary clarifiers; and
- Evaluate operating levels in the Final Effluent Pump Station to see if the existing effluent flume can be used during pumping operations.
- 3) Investigate the potential to increase the peak flow delivery capacity of the Southwestern Pump Station, including:
- Evaluate wet well cleaning frequencies;
- Review the Standard Operating Procedures for wet weather conditions and update as necessary; and
- Explore the observed reduction of flow capacity at SWPS determine if impellers are worn, if screening has reduced the capacity of the pumps, or if operating levels can be adjusted to restore original flow capacity.
- 4) Enhance SOP for flow handling at MDS to allow for maximum treatment at Morris Forman WQTC prior to any flow being stored. Evaluate flow management strategy and subsequent CSoft/local station programming to determine if refinement is necessary.
- 5) Schedule time with RS and Operations staff in the computer room during a rain event to observe the decision making process and reaction of Morris Forman WQTC processes to the event.

1.6 NMC 5: Elimination of CSOs During Dry Weather

Flood Pump Stations

- Received 50% design submittal for the 4th Street FPS Dry Weather Overflow (DWO) Elimination Project (Budget ID H08477) on November 19, 2009. The 34th Street FPS DWO Elimination Project (Budget ID H08478) 50% design submittal was received on November 30, 2009. Negotiated final design services for the 27th Street FPS (Budget ID H09126) and Shawnee FPS (Budget ID H09136) DWO projects. During the next reporting period 80% and 100% final design documents will be received for the 4th Street and 34th Street DWO Elimination projects.
- Negotiated a contract for professional services 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. During the next



- reporting period a contract will be awarded to begin the manual updates. Plan is to have a draft manual update completed June 2010.
- 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. 4 UDRs were processed in this quarter.
- Award a final design contract for the 27th Street and Shawnee FPS DWO Elimination projects. The actual design, work for both stations, is scheduled to start August 2010.

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).
- Review Louisville Water Company protocols for hydrant flow tests to prevent any DWOs caused by hyper-chlorinated discharges. Develop a letter outlining changes to this protocol if necessary.
- Perform inspection and cleaning of FOG hotspots within the CSS, in accordance with CMOM commitments.

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 during and after a
 rain event compared to a standard for aesthetics. MSD captured a qualifying event on
 November 17, 2009. Findings and recommendations with the volume of floatables
 removed will be summarized in the FY10 Annual Report.
- Completed the initial rehabilitation work on CSO108 on April 28, 2009. The CDS unit wet wells had several inflow points causing the system to activate during dry weather conditions, causing a false wet weather discharge alarm/report. The CDS unit has been sealed but inflows are still observed on site. Water is following the interceptor to the CDS unit. Due to wet weather and high ground water conditions, staff was not able to enter the CDS unit and incoming 24-inch diameter sewer for inspection. Staff will plan to enter the unit and line for detailed inspection during the next reporting period. The interceptor line entering the unit will also be CCTV'd for a potential CIPP lining project. Investigations were not possible during this period due to high water conditions. Due to safety concerns, this inspection will have to be completed during dry weather. MSD will also review alternate inspection technologies that may allow inspections without direct entry by staff.
- Continued to monitor and document performance of the CSO108 Solids and Floatable structure operation in accordance with the MOU with the Kentucky Nature Preserve.



- Submitted the annual report on CSO108 to the Kentucky Nature Preserve.
- Perform wet weather inspections on two routes (weather permitting), as part of the
 expanded visual inspection program to determine the efficacy of installed controls before
 March 30, 2010. 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 an event
 compared to a standard for aesthetics. Evaluate the need for enhanced solids and
 floatable control.
- Review new S&F technologies for potential incorporation into the program as a potential pilot project.

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, 67 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. In the last quarter:

Location	Amount of Debris Removed
Catch Basin cleaning	678 CY
S&F Controls and Sneads Branch	13 CY
Headworks of Morris Forman WQTC	2880 CY
Street Sweeping	376 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 (garbage pick-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. During the reporting period, 33 field correction notices and no NOVs were issued

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for activities in the CSS. The tracking system will be used for mapping and reporting.

- 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 37 rain barrels in this quarter and an additional 15 rain barrels were installed as part of the CSO206 separation project.
- Review and evaluate the MSD Design Manual and Standard Drawings for opportunities to include green infrastructure components as an alternative.
- Partner with Louisville Metro and Louisville Metro Police Department at pharmaceutical destruction events.
- Continue to prepare and distribute informational pieces, targeted to inform customers and residents on activities that can be practiced within their homes to assist in the reduction of overflows within the collection system.
- Develop a workplan to review and enhance the Green Infrastructure BMP manual for items such as rain gardens, rain barrels, and pervious pavement.
- Develop literature for distribution to SIUs on BMPs for prevention of pollution.
- Develop an IOAP green infrastructure tracking program.
- 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.
- Distribute the rain garden handbook to Louisville Metro agencies and to the public in order to encourage green infrastructure utilization.

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 monitor the largest CSOs for flow volume to define the wet weather contribution of the overflows to the stream.
- 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 online at MSD 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. The testing of this data transfer continued during this quarter and adjustments to the data delivery to improve performance are currently underway. 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. Event notifications and alarms are being tested at several sites using customized parameters.
- Reviewed sampling data gathered during previous dry weather sampling events upstream and downstream of CSO206 and surrounding the 'Big Four' SSO elimination projects. Post-construction monitoring around these sites will begin scoping during the next quarter.
- Completed the implementation of flow monitoring with remote viewing capabilities on CSOs with an AAOV exceeding 10 million gallons per year. A plan for monitoring, measuring, or calculating flows at each location was developed June 30, 2009. New flow meters were installed at these locations prior to December 31, 2009. MSD staff is working with the new software system and available reports to analyze the data.
- Worked on the development of an alternate monitoring or flow calculation plan for two sites. CSO023 and the Sneads Branch outfall are not readily suited for flow meter installation.
- Identified appropriate locations and developed an installation plan for additional CSS flow meters for use in improving CSS model calibration in areas that have poor calibration.
- 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.
- Received an enhanced radar/rainfall dataset that will improve MSD's ability to simulate
 past rainfall events. This data will improve model calibration over time and allow MSD to
 investigate wet weather operations issues more effectively.
- Continued to collect Sonde data through the USGS Automated Data Processing System (ADAPS) site and define additional quality control review procedures.
- Produced the bi-annual Water Quality Synthesis Report by December 31, 2009.
- Produced an updated CSO and sewer pollutant characterization table.



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.
- 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 eight different days.
- Continued review and adjustment of the overflow/wet weather inspection routes as part of the annual SORP review.
- Continued daily review, monthly review and quarterly 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 24 unauthorized discharges. Inspection routes were run during rain events on October 9, 2009, October 31, 2009, and December 8, 2009. 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 2,018,800 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.
- Conducted monthly meetings with staff to perform quality control on discharge work orders.



- 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 fourth quarter SORP training classes on overflow field documentation.

Division	Date	Number of Attendees
Eng/Reg.Srvs	12/1/09	50
I&FP	12/11/09	13
I&FP	12/11/09	9
Metro and Morris	11/4/09	1
Forman WQTC		
Metro and Morris	11/19/09	15
Forman WQTC		
Metro and Morris	11/19/09	41
Forman WQTC		
Metro and Morris	11/19/09	12
Forman WQTC		
Metro and Morris	12/2/09	2
Forman WQTC		
Metro and Morris	12/2/09	15
Forman WQTC		
Metro and Morris	12/2/09	9
Forman WQTC		
Metro and Morris	12/9/09	16
Forman WQTC		
Metro and Morris	12/9/09	19
Forman WQTC		
Metro and Morris	12/10/09	19
Forman WQTC		



- Continued to enhance the SORP Implementation Manual as new modules are developed. The target for completion of this document is June 30, 2010.
- Continued to review and update the data associated with overflows.
- Conducted the Annual SORP training for 607 staff and contractors.

Location	Date	Number of Attendees
Main Office	11/9/2009	42
Central Maintenance Facility	11/11/2009	32
Main Office	11/12/2009	40
Central Maintenance Facility	11/17/2009	107
Main Office	11/18/2009	64
Morris Forman WQTC	11/19/2009	68
Central Maintenance Facility	11/20/2009	22
Central Maintenance Facility	12/1/2009	49
Morris Forman WQTC	12/2/2009	25
Hite Creek WQTC	12/9/2009	17
Cedar Creek WQTC	12/9/2009	22
Central Maintenance Facility	12/18/2009	97
Derek R. Guthrie WQTC	12/10/2009	22

• Review and update the training documentation in January 2010, for the first quarter training. Focus the first quarter training on monitoring, staging, reconnaissance and mobilization.

2.5 Annual Program Review

• Reviewed and modified the routes to reflect new SSO locations. Publish new routes by March 30, 2010.

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). In response to questions from EPA and KDEP, MSD revised and clarified portions of the IOAP and resubmitted all three volumes with a revision date of June 19, 2009.

The following IOAP activities were performed during this reporting period and planned for the next period:

- Received verbal approval of the IOAP during a conference call on September 23, 2009. Following this call MSD made the requested clarifications, and began assembling a submittal dated September 30, 2009, to accompany EPA and KDEP's recommendation for approval to the Court. This submittal was transmitted to EPA, KDEP and DOJ by November 6, 2009. Prior to transmittal of the final copies, MSD received a conditional approval letter on October 23, 2009.
- Prepared for a public comment period that will be required prior to formal acceptance
 and incorporation of the IOAP into the Amended Consent Decree. In support of this
 MSD distributed complete copies of the IOAP (including DVDs containing the
 Appendices) for public review at MSD's Main Office Building, and at all branches of the
 Louisville and Jefferson County Free Public Library system. DVDs of the entire IOAP
 were also available for purchase through MSD's standard document distribution system.
- Posted the IOAP (not including the Appendices) on the Project WIN website in November 2009.

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. Completed all activities required under the Updated Sanitary Sewer Overflow Plan (SSOP).



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 (Budget IDs E07261 and E08034) Beechwood Village East (Budget ID E07261) This project was bid on January 7, 2009. As of December 18, 2009, the contractor has completed 299 of 328 (91%) house plumbing modifications, installed 327 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 120 sump pumps from the sanitary sewer, closed 3 open yard/foundation drains that connected directly into the sewer and installation of 4,038 feet (100%) of 18-inch relief sewer. Beechwood Village 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 December 18, 2009, 8459 feet (98%) of the 8-inch sewer line has received cured-in-place pipe lining and 42 of 45 manholes have been lined. In the next reporting period, work will begin on the property service connections and plumbing modifications. Both projects will be completed by April 27, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.
- The Sinking Fork Relief Sewer (Budget ID H08357) This project extended the existing Sinking Fork Interceptor to provide an outlet for the Beechwood Village projects. This project was bid on February 12, 2009. Construction on the interceptor was substantially completed on November 30th, 2009, and the project was certified on December 23, 2009. This project was completed in advance of the December 30, 2010, date outlined in the ISSDP schedule and the Amended Consent Decree. This project will be removed from the next quarter report.
- 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.) Since the last report period, the design size of the interceptor has been determined and an alignment selected. Design is now at the 60% 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 sewer and 600 feet of tunnel. The design of the diversion structure is progressing and will be complete before the next reporting period. The diversion structure has been delayed and will not be bid with the Hikes Lane Interceptor Phase I as previously mentioned. The construction to eliminate the Southeast Diversion overflow will be completed by December 2011, in accordance with the revised ISSDP schedule and the Amended Consent Decree. 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) A route has been selected and the design work is 90% complete for the proposed Hikes Lane Interceptor and the Hikes Point Relief Sewer Improvements. The Hikes Lane Interceptor will be 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, has 3 easements and design is 100% complete as of December 2009. The Carson-Ribble Sewer Relief Project has also been separated from the other projects in the Hikes Point Relief 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. 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 sewer and 102 feet of tunnel at National Turnpike and construction is in progress with 20% installed as of December 31, 2009. Scheduled construction completion of phase I is November, 2010. Phase II starts after the tunnel and includes 4770 feet of 84-inch pipe and a diversion structure at the existing 72-inch Northern Ditch Interceptor. Phase II bids were opened on August 20, 2009, and award date was November 4, 2009. Notice to proceed date for phase II was November 30, 2009. The entire project package will be completed by July 31, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.
- Derek R. Guthrie WQTC Wet Weather Equalization and Treatment Project (Budget ID H06302) The final design is continuing in three separate packages Pumping Package (PP), Wet Weather Treatment Facility (WWTF), and the Equalization Basin. In this



reporting period, the 90% plans and specifications for the PP and the WWTF were submitted to MSD for review and comment. MSD's comments were returned to the design engineers during this reporting period. On October 3, 2009, MSD held a neighborhood Open House, inviting residents living in a one mile radius of the WQTC. MSD staff was present to lead tours and discuss the purpose and scope of the project along with the expected impacts the construction will have to the site. Unfortunately the Open House was sparsely attended by less than 10 residents. For the Equalization Basin during this reporting period, MSD began negotiations with the adjacent property owner for a needed easement based on the 60% design plans. In the next reporting period, MSD expects to receive the 100% contract plans and specifications for the PP and the WWTF. This will allow MSD to advertise for construction contracts on the two major projects by February 2010 and hold mandatory pre-bid meetings. Easement negotiations will continue for the Equalization Basin Project. Construction of 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, prior to the December 31, 2008, deadline as Volume 3 of the Integrated Overflow Abatement Plan (IOAP). In response to questions from EPA and KDEP, MSD revised and clarified portions of the IOAP and resubmitted all three volumes with a revision date of June 19, 2009. MSD received verbal approval of the IOAP during a conference call on September 23, 2009 and submitted the final version dated September 30, 2009. MSD received a conditional approval letter on October 23, 2009.

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. Design on this project was completed on April 28, 2009. This project was bid on December 11, 2009. Easement acquisition is complete. Construction is scheduled to be completed by 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.



Little Cedar Creek Interceptor Improvements (Budget ID H09163) – SSES planning for this service area was completed. To address observed high wet weather flows and existing SSOs in the project area, the Little Cedar Creek SSES project (Budget ID H09389) scope was finalized to investigate this sub-basin in the Cedar Creek WQTC service area. An engineering consultant submitted a proposal on October 15, 2009. Final negotiations were completed in November with a Board award date of November 23, 2009. During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. 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

- Floydsburg Road Pump Station I&I Investigation and Rehabilitation (Budget ID H09172) SSES planning for this service area was completed. To address observed high wet weather flows and existing SSOs in the project area, the Hite Creek SSES Project (H09394) scope was finalized to investigate this sub-basin in the Hite Creek WQTC service area. An engineering consultant submitted a proposal on October 30, 2009. Final negotiations were completed in November with a Board award date of December 14, 2009. During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. 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.
- Meadow Stream Pump Station In-line Storage Project (Budget ID H09174) SSES planning for this service area was completed as part of the Hite Creek SSES Project. Please see the above Floydsburg Road Pump Station I&I Investigation and Rehabilitation project for more details on the Hite Creek SSES 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 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) SSES planning for this service area was completed as part of the Hite Creek SSES Project. Please see the above Floydsburg Road Pump Station I&I Investigation and Rehabilitation project for more details on the Hite Creek SSES 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 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 LF 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 of this project will occur in January 2010. All phases of the project are currently targeted to be completed well in advance of December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.
- Eden Care Pump Station SSO Investigations (Budget ID H09170) SSES planning for this service area was completed. To address observed high wet weather flows and existing SSOs in the project area, the project scope was finalized to investigate this subbasin in the Floyds Fork WQTC service area. An engineering consultant submitted a proposal on November 30, 2009. Final negotiations started in December and will need to continue before a contract can be awarded. During the next reporting period, final negotiations will be completed, the project will be awarded and a notice-to-proceed will be issued to begin the SSES project. In addition, public meetings will be scheduled and field inspection activities will commence. 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) Planning for this project will start in FY10. 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. All phases of the project will be completed by 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. Since this project is being completed by a private developer it has not been assigned a Budget ID and it does not appear on MSD's project management schedule. MSD will monitoring the developer's progress, and will self-perform this project if needed to ensure that all phases of this project will 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 will be completed during the next reporting period, and submitted to EPA and KDEP by March 31, 2010. This plan will select an approach and a schedule to either eliminate or upgrade the WQTC. 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 of the basin are in progress. We expect negotiations to be completed in the next quarter and design to be in progress. 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) The planning phase for this project continued. This project area is located in the Lower Middle Fork Interceptor ICA Phase 2 assessment report that was completed in April 2009. The ICA discovered several defects in the Lower Middle Fork Interceptor that correspond to the sanitary sewer overflows (SSOs) associated with this project. During the next reporting period the rehabilitation recommendations will be finalized and planning will begin to develop 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. During the next reporting period the project rehabilitation scope will be finalized and staff will begin the preparation of bid documents. The project is schedule to be advertised for construction Spring 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. 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

<u>Charleswood Interceptor #23 Project (Budget ID C94103) / Cooper Chapel Road Widening</u> – 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.

- Avanti Pump Station Elimination (Budget ID A09090) The project consisted of diverting the existing sanitary sewer flow from the Avanti Way Pump Station to an existing gravity sanitary sewer system via gravity flow. This revised route results in the flow being diverted from the Derek R. Guthrie WQTC to the Cedar Creek WQTC for treatment. Decommissioning of the pump station was also included in this project. In response to maintenance issues with this pump station the project was accelerated to avoid a costly rehabilitation of a facility planned to eventually be eliminated. Project was substantially complete with the flow diverted on July 10, 2009. This project was certified on July 28, 2009. All phases of the project are complete and the project has been closed out. The project was completed well in advance of December 31, 2010, 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 design and easement acquisition are expected to be complete by March 30, 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) SSES planning for this area is complete. This project will be completed under the Lea Ann Way SSES project (see 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. Final negotiations were completed in November with a Board award date of November 23, 2009. During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. 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.
- <u>Edsel Pump Station I&I Investigation and Rehabilitation (Budget ID H09197)</u> SSES planning for this area is complete. This project will be completed with the Little Cedar



Creek SSES project (see above <u>Little Cedar Creek Interceptor Improvements Project</u>). An engineering consultant submitted a proposal on October 15, 2009. Final negotiations were completed in November with a Board award date of November 23, 2009. During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. 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 is complete. 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. Final negotiations were completed in November with a Board award date of November 23, 2009. A portion of the condition assessment in this area was performed by our ICA (Interceptor Condition Assessment) Contractor. The ICA contractor completed all remaining field inspections and submitted a draft ICA report on December 29, 2009, for MSD review.

During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. 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. The final Lea Ann Way ICA report will be submitted to MSD. 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 facility and force main upgrades to replace the existing Mellwood Pump Station. The pump station facility lies in the Ohio River Floodplain, thus requires significant design criteria. 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 will be in progress in the next reporting period. 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 Hunting Creek North and Shadow Wood WQTCs, a River Road Interceptor (Budget ID D94210) to transport the Hunting Creek North flow to a new, third 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 at the existing Ken Carla WQTC (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. Anticipated closing of the pump station site is within the next reporting period. Final design of the previously prepared plans for the River Road Interceptor is nearly complete and easement acquisition is in progress. The River Road Interceptor was scheduled for bid in the spring of 2010 but has been delayed due to environmental concerns by USF&W over potential for Running Buffalo Clover. Project has been delayed until after the spring blooming season. 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.

Mill Creek Area

- East Rockford Lane Pump Station Relocation (Budget ID A09091) The project consists of relocating the pump station facility, 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. Design and easement acquisition should be complete in the next reporting period. Construction is scheduled to be complete in calendar year 2010. All phases of the project are targeted to be completed well 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 LF of interceptor which may range in size from 8-inch to 27-inch diameter. The 90% design plans have been submitted to MSD for review. Easement acquisition started September 16, 2009, and approximately 75% of the easements have been acquired. Project is pending DOW approval and during the next reporting period this project is scheduled to be advertised for bid. 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

<u>Camp Taylor # 1 SSES (Budget ID H09201)</u> – SSES planning for this project is complete. To address observed high wet weather flows and existing SSOs in the project area, the Camp Taylor SSES Project (Budget ID H09388) scope was finalized. Final negotiations were completed in November with a Board award date of December 14,



2009. During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. The consultant started their initial field review and data collection. Once complete, the field data collected will be used to finalize the SSES project plan. Final contract negotiations will then be held so that a notice-to-proceed can be issued for the SSES services. 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 our ICA (Interceptor Condition Assessment) Contractor. The ICA contractor completed all remaining field inspections. During the next reporting period, the ICA contractor will assess the data and submit a draft ICA report for MSD review. 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. A project area and scope was finalized for an SSES project. An engineering consultant was selected to perform the SSES services. The consultant was given an RFP letter on October 22, 2009. The consultant submitted their proposal on December 5, 2009, with preliminary negotiations occurring on December 18, 2009. During the next reporting period, final negotiations will be completed, the project will be awarded and 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. A project area and scope was finalized for an SSES project. An engineering consultant was selected to perform the SSES services. The consultant was given an RFP letter on October 22, 2009. The consultant submitted their proposal on December 5, 2009, with preliminary negotiations occurring on December 18, 2009. During the next reporting period, final negotiations will be completed, the project will be awarded and 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 area is complete. To address observed high wet weather flows and existing SSOs in the project area, the Lake Forest SSES Project (Budget ID H09396) scope has been finalized. The consultant was given an RFP letter on October 10, 2009. The consultant submitted their proposal on December 4, 2009, with preliminary negotiations occurring on December 22, 2009. During the next reporting period, final negotiations will be completed, the project will be awarded and 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. 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 is complete. A project area and scope was finalized for an SSES project in this area. The Riding Ridge Pump Station is in the North Hunting Creek WQTC service area. The Prospect Area SSES (H09391) was created and expanded to include all of the North Hunting Creek and Hunting Creek South WQTC service area. 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). An engineering consultant submitted a proposal on October 30, 2009. Final negotiations were completed in November with a Board award date of December 14, 2009. During the next reporting period, a notice-to-proceed will be issued to begin the SSES project, public meetings will be scheduled and field inspection activities will commence. 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) SSES planning
 for this project is complete. Please see the above Riding Ridge Pump Station
 Improvements project information. 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 Inline Storage Project (Budget ID H09176) SSES planning for this project is complete. Please see the above Riding Ridge Pump Station Improvements project information. 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) SSES planning for this project is complete. Please see the above Riding Ridge Pump Station Improvements project information. 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, prior to the December 31, 2008, deadline as Volume 2 of the Integrated Overflow Abatement Plan (IOAP). In response to questions from EPA and KDEP, MSD revised and clarified portions of the IOAP and resubmitted all three volumes with a revision date of June 19, 2009. MSD received verbal approval of the IOAP during a conference call on September 23, 2009 and submitted the final version dated September 30, 2009. MSD received a conditional approval letter on October 23, 2009.

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. 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) Planning for this project is underway and design will begin in the next quarter. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- <u>Second and Broadway Green Parking Lot (Budget ID H09426)</u> Planning for this project is underway and design will begin in the next quarter. 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 will continue in the next quarter. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- <u>Sixth and Muhammad Ali Green Parking Lot (Budget ID H09428)</u> Planning for this project is underway and design will begin in the next quarter. 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) Planning for this project is underway and design will begin in the next quarter. 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 will continue in the next quarter. 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 in the next quarter. 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 in the next quarter. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- 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 in the next quarter. 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 are for: Christ the King Church and Clifton Triangle Area. Planning for this project is underway and design will begin in the next quarter. All phases of these projects will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- <u>I-264 Off-Ramp Dry Well (Budget ID H09442)</u> Planning for this project will start by March 30, 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.
- <u>I-264 On-Ramp Dry Well (Budget ID H09443)</u> Planning for this project will start by March 30, 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) Planning for this project will start by March 30, 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) Planning for this project will start by March 30, 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) Planning for this project will start by March 30, 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 LF of new interceptor sewers. Initiated the preliminary design study to evaluate available/alternative technologies and establish some level of 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 60% complete. Surveying and geotechnical field work is currently underway along the proposed location of the interceptor line and at the storage basin site. Alternatives for the basin site and the CSO interceptor alignment have been investigated. Trenchless alternatives have been reviewed for interceptor construction. A draft report of the Phase I Environmental Site Assessment, historical and archaeological review, and permit requirements has been completed. A Phase II Environmental Site Assessment is in progress. The preliminary (30%) design study is expected to be complete in the next report period. All phases of the project will be completed by December 31, 2017, in accordance with the IOAP schedule and the Amended Consent Decree.
- <u>CSO108 Dam Modification (Budget ID H09128)</u> Initiated project design in October 2009. All phases of the project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- <u>CSO206 Downspout Disconnections (Budget ID H09131)</u> Continued planning for this
 project to disconnect downspouts. A demonstration project to disconnect downspouts
 by private property owners will begin in the next reporting period. All phases of the
 project will be completed by December 30, 2013, in accordance with the IOAP schedule
 and the Amended Consent Decree.
- <u>I-64 and Grinstead Drive Storage Basin (Budget ID H09121)</u> Solicited a request for proposal from a design consultant. During the next reporting period, design negotiations will be finalized. Notice to proceed is expected to be completed by March 31, 2010. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.
- <u>Paddy's Run Wet Weather Treatment Facility (Budget ID H09124)</u> Selected a design firm to prepare a project definition and a schematic design for this proposed facility. The



fee proposal was reviewed and negotiations initiated. During the next reporting period, it is expected that the contract negotiations will be complete and the contract awarded. All phases of the project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.

Flood Pump Station Projects

- 34th Street Flood Pump Station (Budget ID H08478) Received 50% design submittal for the project on November 30, 2009. During the next reporting period 80% and 100% final design documents will be received. 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 (Budget ID H08477) Received 50% design submittal for the project on November 19, 2009. During the next reporting period 80% and 100% final design documents will be received. 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 (Budget ID H09126) Completed planning for this project. Final design services were negotiated on December 29, 2009. During the next reporting period a final design contract will be awarded. The actual 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 (Budget ID H09136) Completed planning for this project.
 Final design services were negotiated on December 29, 2009. During the next reporting
 period a final design contract will be awarded. The actual 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 program, water quantity and 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. Negotiations to begin the development of the site are underway and will be completed by March 31, 2010. In the meantime, 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 being tested that
 will 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. The ongoing sewer flow monitoring network expansion, which will add significant in-system and CSO meters to MSD's network, will aid in assessment of the programmatic watershed effects of the green program as projects are completed. Additional watershed monitoring needs will be defined in the next fiscal year.
- Sewer Hydraulic and Stream Water Quality Modeling for Impact Analyses Developed calibrated sewer hydraulic models for all service areas as well as water quality models for Beargrass Creek and the Ohio River. These models were used extensively in the development of the IOAP. Completed negotiations for sewer modeling services to address model cleanup, further standardization, and additional calibration to new flow information before December 31, 2009. 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 Performed dry and wet weather sampling over the past few months surrounding the ISSDP SSO areas as well as CSO206. MSD assessed the data collected to date around these project areas and will initiate further sampling if deemed necessary. Additionally, MSD will identify a timeline for wet weather sampling across the Long Term Monitoring Network as noted in the IOAP. Recreational contact sampling will continue throughout this same network 5 times per month during the recreational contact season.
- Sewer Flow Monitoring Network Expansion Implemented new telemetry software on its system. Approximately 70 new flow monitoring sites, including 18 CSO sites, now report through the Telog Enterprise software system, in addition to the CSOs and sewer flows reported through SCADA. MSD is testing the event notification capabilities of the software to assist in notifying MSD staff when certain sewer conditions or battery levels are reached.
- 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. Training was held for MSD staff on the use of this application. MSD will continue to collect this data and will also complete an evaluation of its current rain gauge network that will review new equipment needs, network gaps, and weather service reporting needs.
- Fish, Algae, Macroinvertebrate and Habitat Surveys Completed in December 2009, the fish, macroinverterbrate and habitat surveys for the Long Term Monitoring Network and scheduled the collection of this information every other year as 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 be meeting regularly to discuss 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 started in FY10.

- 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, and purchased equipment to install preconstruction monitors in the next reporting period. Data will be utilized to document the efficacy of the demonstration technologies for "right-sizing" of gray IOAP projects.



- Initiated development of design guidance documents for green infrastructure, and develop a work plan to update appropriate MSD design documents.
- Initiated 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.
- Initiated 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.
- 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 on the objectives of Project WIN and how to lessen the risks associated with coming into contact with The following activities occurred within this reporting period or are sewage overflows. scheduled to occur.

4.1.1 Overflow Advisory Signs

- Worked with the Parks Department to develop 3 additional interpretive signs. These signs will be installed in the next quarter at Grinstead Drive and Lexington Road in accordance with the National Parks signage specifications. See Appendix H for a preview of these signs.
- Schedule the annual sign inspection process.
- Perform an annual evaluation of the sign location against the documented overflows to ensure all needed signs are in place.

4.1.2 Project WIN Website

- Developed a website to facilitate communication with customers on the Beechwood Village project. The site is available with a link on the Project WIN website. Select Construction Projects to link to the website. http://inet.msdlouky.org/bwvillage
- Continued to develop a website to facilitate communication with customers on the Camp Taylor SSES project. The site will become available to the public from a link on the Project WIN website by March 30, 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.

4.1.3 Electronic Notifications

- Notified customers who voluntarily sign up to receive email alerts regarding sewer overflows.
- Provided notification of on 9 Dry Weather Unauthorized Discharges of more than 1000 gallons. These events required additional notification due to the volume of dry weather overflow involved.



Begin 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.

4.1.4 Print Notifications

- Mailed 1,100 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 0 FOG residential public outreach letters to areas that had FOG issues during this reporting period.
- Distribute informational material, providing a general overview and awareness relating to public health impacts associated with sewer overflows and an update of Project WIN initiatives by May 1, 2010.
- 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 during the Troubleshooter Show (WAVE TV) on Mondays 10:30 am 11:00 am. Spots ran once a week through the end of December. The commercial focused on FOG issues.
- Started to run TV spots on WLKY TV in October. The spots in October focused on Stormwater. In November through December, the spots focused on the FOG program.
- Appeared on WAVE 3 Listens on October 6, 2009. MSD was represented by Exceutive Director Bud Schardein.
- 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. During this quarter the video was shown 5 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.
- Placed Project WIN ads in the "Her Magazine" (a publication put out by Courier Journal) in the Holiday 2009 issue.
- Printed 5,000 2nd Edition Rain Garden Manuals for distribution to customers.

4.2.3 IOAP Project and Program Meetings

- During this reporting period there were no Project WIN public meetings.
- Scheduled a Stakeholders Group meeting for January 28, 2010. At this meeting MSD
 will describe the IOAP approval process and status. The implementation schedule will
 be reviewed, and the status of current and upcoming projects will be discussed.
- Provided information to the WWT through the Project WIN website, at www.msdlouky.org/projectwin.
- Attended or will attend the following "Mayor's Community Conversations"

October 19, 2009 - Southern High School large gym, 8620 Preston Highway
November 16, 2009 - Central High School large gym, 1130 W Chestnut Street
Monday, January 25 - Newburg Middle School Gym, 4901 Exeter Avenue
Monday, February 15 - Carter Elementary School Cafeteria, 3600 Bohne Avenue
Monday, March 15 - Valley High School Gym, 10200 Dixie Highway

4.4 Public Education Programs

MSD has developed a public education program aimed at expanding the public's knowledge on MSD's primary business functions with emphasis on wastewater, stormwater and flood protection. The following activities occurred within this reporting period or are scheduled to occur.

4.3.1 Green Infrastructure Workshops and Activities

- Facilitated presentation to the New Direction Housing Neighborhood Round Table on Urban Storm Water and Residential Rain Gardens in November 2009.
- Planted the final tree and shrubs in the Main Office Rain Garden during October 2009.
- Constructed a rain garden at Jackson Woods Apartments in October 2009.
- Scheduled rain garden workshops at various times throughout the year:
 - Selected the sites for Clifton Green Triangle Rain Garden Workshops. April 10, 2010, for 3213 University Road and April 24, 2010, for Brownsboro Road.
 - Scheduled presentation to Bon Air Community group on Urban Storm Water for January 18, 2010.
 - Scheduled presentation for the Jeffersontown Garden Club on Urban Storm Water



and Rain Gardens for February 4, 2010.

- Scheduled presentation for the Audubon Garden Club on Urban Storm Water and Rain Gardens February 8, 2010.
- Scheduled presentation for the Women in Construction on Urban Storm Water and Rain Gardens for February 8, 2010.
- Designed interpretive signage for the Main Office Rain Garden. Installation scheduled for the 2nd Quarter 2010.
- Schedule rain garden installations for John Paul II Elementary School & Brandeis Apartments.
- Begin planning for internal and external workshops explaining the Green Infrastructure Program in the next quarter.

4.3.2 Clean Streams Workshops and Activities

• Facilitate the X-Stream Clean Sweep on March 27, 2010.

4.3.3 Children's Education Activities

- Provided direction on the implementation of outdoor classrooms at: Brandeis Elementary, Jeffersontown Elementary, DuPont Manual High School, and the Floyds Fork WQTC.
- Participated in the Kentucky Green and Healthy Schools Water Inventory on October 19, 2009. See www.greenschools.ky.gov for more information.
- Participated in the Rain Gardens & Square Foot Measuring, educational opportunity, for the Environmental Club of John Paul II Elementary School on October 21, 2009.
- Participated in discussions with Environmental Magnet Schools Portland and Cane Run Elementary Schools regarding the plans for environmental classroom/green education opportunities on-site.
- Continued support for Eastern High School's Environmental Program at Floyds Fork WQTC by providing meeting space on-site for classes.



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 **MSD** CMOM document can be viewed on the 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-E-4 Engineering Programs (Sewer System Design Program)

This Quarter

• Posted the revised Design Manual to the MSD website. Updates to the manual will continue to be made as needed.

Next Quarter

• Complete the migration to tracking performance measures and project milestones through SharePoint.

M-E-8 Continuing Sewer System Assessment

This Quarter

- Initiated 14 SSES projects to find system defects to help determine the potential number of credits available from rehabilitation.
- Received 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 for the SSES's or condition assessments is captured in PACP format.
- 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 79 MHs as part of the SSES projects and completed 122 inspections in the Caven Pump Station service area.
- Identified new priority areas for Condition Assessment and initiate associated inspections.



- Performed formula-based CCTV inspection on a total of 86.92 miles. These inspections were performed by a combination of contractors and MSD crews.
- Installed the Neztek software in production to facilitate data transfer for PACP TV
 inspections from the Hansen asset management system to remote inspection software
 and back. Conducted a project meeting on November 2, 2009, with the SSES vendors
 to outline data collection and transfer protocols for the various inspections associated
 with the SSES projects.
- Continued ICA Phase 3 professional services to complete the following interceptor condition assessments. Condition assessment reports will be completed for each area:
 - <u>Mill Creek Trunk (Budget ID H09399)</u> FY10 CSSA Area. Completed all field TISCIT inspections. Draft report will be delivered next reporting period.
 - Ohio River Interceptor (Budget ID H09400) FY10 CSSA Area. Completed 95% of all field TISCIT inspections. Access limited inspection of approximately 3,500 LF. MSD will coordinate with contractor to provide access to this site, all field TISCIT inspections will be completed and a draft report will be delivered during next reporting period.
 - Upper Dry Run Trunk (Budget ID H09404) FY10 CSSA Area. Completed all field TISCIT inspections. Draft report will be delivered next reporting period.
 - Sneads Branch Relief (Budget ID H09402) FY10 CSSA Area. Completed all field TISCIT inspections. Draft report will be delivered next reporting period.
 - Lea Ann Way Interceptors (Budget ID H09398) IOAP SSES Project.
 Completed all field TISCIT inspections. Draft report was delivered December 28, 2009. During the next reporting period MSD will review the report and begin planning for any potential rehabilitation as identified in the assessment report.
 - Camp Taylor Interceptors (Budget ID H09407) IOAP SSES Project. Completed all field TISCIT inspections. Draft report will be delivered next reporting period, MSD will review the report and begin planning for any potential rehabilitation as identified in the assessment.
 - Flood Protection System COE inspection requirement. Completed 95% of all field TISCIT inspections. Additional work was requested by I&FP to assess the gates along the flood levee in addition to all pipe penetrations delaying submittal of draft report. Draft report will be delivered next reporting period.

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.
- Delineate and prioritize 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.
- Review and develop a plan to start rehab efforts identified in the Anchor Estates SSES project.
- Receive ICA Phase 3 reports for the following projects:
 - Camp Taylor Interceptors (Budget ID H09407) IOAP SSES Project.
 - Mill Creek Trunk (Budget ID H09399) FY10 CSSA Area.
 - Ohio River Interceptor (Budget ID H09400) FY10 CSSA Area.
 - Upper Dry Run Trunk (Budget ID H09404) FY10 CSSA Area.
 - Sneads Branch Relief (Budget ID H09402) FY10 CSSA Area.
 - Flood Protection System COE inspection requirement.

M-E-9 Infrastructure Rehabilitation

This Quarter

- Edgewood Separation (Budget ID H09202) This project is in the CSO209 sewershed which was separated and CSO eliminated September 30, 2005. A new project scope was created to correct sanitary connectivity to the storm sewer by installing a new 8-inch sewer and abandon the existing sewer. Sanitary sewer connections were found to be installed in both the existing storm and sewer system. All sewer connections to the drainage facility were located and will be disconnected as part of the new project. Plans have been finalized as of December 31, 2009. Project is expected to be awarded in the next reporting period. Construction is scheduled to be complete by June 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 flood plain 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.
- Sears Avenue Sewer Replacement (Budget ID A09501) This project, located on Sears & Oechsli Avenue replaced approximately 1,100 L.F. of an 8-inch diameter sanitary sewer that had a history of FOG issues. MSD staff completed the design in May 2009. This project was bid on July 22, 2009. Construction was completed on December 22, 2009.
- Goose Creek Pump Station (Budget ID F07070) Grinder Installation The project was awarded on December 14, 2009. During the next reporting period a notice to proceed for construction will be issued. Construction is scheduled to begin February 2010.
- <u>Lea Ann Way Pump Station (Budget ID F07069) Grinder Installation</u> 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 is scheduled to begin January 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 is scheduled to begin January 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. During the next reporting period, budget will be appropriated to create a project and a notice-to-proceed will be issued to initiate design services.
- Meadow Stream ARV Replacement (Budget ID H09338) New draw down studies were completed during October that determined no significant capacity improvements were gained from the installation of the 10 new air release valves(ARVs). The pump station will have an SSES project completed during FY 11.
- <u>Fairmount Road Pump Station Expansion (Budget ID E00303)</u> Received technical memo and scope to expand pump station from consultant. MSD completed negotiations and design will start for the expansion during the next reporting period
- 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 March 31, 2010. Construction is scheduled to be complete by December 1, 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. Design has been completed. 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
 Feb. 26, 2010.
- Lake Louisvilla 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 60% stage and easement acquisition has started. Design is scheduled for completion, with easement acquisition and KDOW approval, by Dec. 31, 2010. 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. These pump stations contribute to capacity problems downstream, and 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 on this project is scheduled to start in the next reporting period, with substantial completion by June 30, 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 addition 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 first quarter of 2010 with construction complete in first quarter 2011. The second phase is scheduled to start construction by fourth quarter 2010, with construction complete by October 31, 2011. The third and fourth phases are scheduled to start construction in 2011 and should be completed in 2012.

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.
- Continue to work on the procedures for documentation of rehabilitation and calculation of SCAP credits.

M-E-10 System Capacity Assurance Program

This Quarter

- Started 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.
- Complete development of an SCAP training module and schedule training dates for staff. Additional GIS information and reports related to sewer capacity will be published or updated and made available to general personnel. Credit calculation protocols and tracking in Hansen will be evaluated and a detailed process will be written. An update to the SCAP planning document will also be initiated to adjust the program's details and direction as new or altered activities are encountered as the plan is implemented.

M-H-1 Spare Parts Inventory Management Program

This Quarter

- Reviewed security scan control pads access for inventory control measures.
- Continued review of inventory with department managers to identify obsolete items.
- Completed the first phase of the Bar-Code Scanning Project which included consultation of site survey and estimated charges for software, hardware and training.
- Initiated phase one of cycle counting (SAP operations delayed event.)

Next Quarter

- Begin 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.
- Begin testing of SAP processes with new location of Hite Creek WQTC Storeroom for implementation of cycle counting.
- Prepare for Annual Physical Inventory.

M-H-2 Equipment and Tools Repair Management

This Quarter

- Initiated final phase of testing the Silt Filter System to replace stone bags around catch basins at CMF. Initial testing showed a cost savings of \$500 a month (labor and materials) and significant increase in filtration of contaminants from entering the sewer system.
- Initiated odor control initiatives and vegetation improvements at CMF with management.
- Utilized two approved contracts for motor and pump repair.
- Repaired ITX Gas Safety Monitors through an outside contractor after internal calibration and testing is complete. All repair files and history log is maintained by the CMF Storeroom, which is the central repair station for MSD.



Next Quarter

- Finalize Vehicle Tool Inventory checklists and SOP for purchasing and replacement tools for Infrastructure and Flood Protection crew vans and trucks.
- Initiate the Kaizen event for Equipment and Tool Repair process in February 2010.

M-H-4 Supplies Management

This Quarter

- Negotiated and approved Vendor Managed Inventory (VMI) contract with a local vendor for electrical supplies.
- Approved for quoting, the bid proposal for inventory managed of gas cylinders for all locations, which will provide better chemical and gas controls throughout MSD.
- Tested soy-based industrial hand cleaners and lotions for all maintenance and fleet shop employees.
- Continued environmental assessment of chemical and oil clean-up at Metro Operations and Morris Forman WQTC.
- Approved two contracts for hazardous and non-hazardous waste removal.
- Established monthly meetings with all locations to better service tool and inventory needs.

Next Quarter

- Complete bid proposal for inventory managed of gas cylinders for all locations, which will
 provide better chemical and gas controls throughout MSD and maintain emergency
 records for Fire Department.
- Implement 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.
- Begin recycling pick up service to Metro.
- Complete testing and installation of soy-based industrial hand cleaners and lotions for all maintenance and fleet shop employees.
- Continue environmental assessment of chemical and oil clean-up at Metro Operations and MFWQTC.
- Complete cost savings initiatives with janitorial supplies for all divisions at MSD for bid package by January 2010.
- Continue monthly meetings with all locations to better service tool and inventory needs.

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:
 - Six Vacuum Catch Basin & Sewer Cleaners were available 98.91 % of the time.
 - Seven Sewer Flushers were available 97.36 % of the time. Two additional units were out of service.
 - Four Catch Basin Cleaners (Clamshell) were available 97.28 % of the time. One additional unit was out of service.
 - Six TV Inspection Trucks were available 93.66 % of the time.
 - Thirteen Sound Attenuated 6" Trash Pumps were available 99.00 % of the time.
- Initiated Procurement for the following:
 - Catch Basin Cleaners (mechanical clamshell type). Expected delivery 01/2010.
 - 5 TV Inspection Vehicles. Expected delivery 4 03/2010 and 1 07/2010.
 - 4 Vacuum Sewer & Catch Basin Cleaner Trucks. Expected delivery 3 01/2010 and 1 - 07/2010.
- Continued utilizing manual techniques for analyzing availability/downtime data and compiling quarterly reports for mission critical equipment :
- Selected the Fleet Management Information System (FMIS) system to be procured: CCG FASTER.

Next Quarter

- Procure the FASTER software in the first quarter of 2010.
- 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.
- Finalize performance measures for CMOM critical equipment by June 2010.
- Complete in-service processing and release new mission critical equipment acquired during fiscal year.



- Provide in-house Vacuum Catch Basin Cleaner "Basic Mechanics" factory training program for sixteen (16) Fleet Services technicians.
- Initiate out-of-town Vacuum Catch Basin Cleaner "Advanced Mechanics" factory training program for eight (8) Fleet Services technicians upon completion of basic program.
- Identify "Performance Measures" to be tracked with new Fleet Management Information System (FMIS) and establish acceptable benchmarks for each element to be measured.
- Deploy the new FMIS software by December 2010.

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 during the next reporting period.

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

- Negotiated a contract for professional services 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. During the next reporting period a contract will be awarded as part of a fiscal year 2011 design services contract to begin the manual updates. Plan is to have a draft manual update completed by June 30, 2010.
- Determined capital project priorities and the budgetary needs in monthly meetings with Metro Operations and Regulatory Services staff.
- Evaluated the ISCO 4501 Pump Station Flow Monitor. The monitor was installed at the Meadow Steam Pump Station on November 19, 2009. The unit pump station draw down data collected data for one week. The data obtained needed a third party software for evaluation, a modeling program was used to review the data. MSD will continue to use the unit to evaluate pump stations on a case by case basis. To date, the evaluation has



determined the unit may not be a valid tool for day to day pump station operations.

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.
- Analyze the master draw down pump station database with all test results and develop an action plan for the pump stations that have performance issues. Rehabilitation projects will be prioritized from this database. These tasks will be coordinated with the Greenline and Emergency Generator Programs.

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 plan will be developed to correct any pump station operation level settings to prevent line surcharging. The information will also be used to analyze pump station performance and prioritize rehabilitation for the pump station draw down program. A scope for professional services support was issued and fees negotiated. A contract was awarded December 14, 2009.
- 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. Awarded the project on October 12, 2009, and issued a notice to proceed for construction on November 18, 2009. Held a pre-construction meeting on October 29, 2009. Construction began in November 2009. Concrete generator pads have been poured, all utilities have been installed and the generators have been ordered.
- 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. Awarded the project on October 12, 2009 and issued a notice to proceed for construction on November 18, 2009. Held a pre-construction meeting on October 29, 2009. Construction began in November 2009. Concrete generator pads have been poured, all utilities have been installed and the generators have been ordered.
- 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. Awarded the project on November 13, 2009 and held a pre-construction meeting on December 22, 2009.
- <u>Terrier Lane PS Generator (Budget ID H09337)</u> An emergency purchase order was issued on September 22, 2009, for a 30KW stand-by generator. The generator was delivered to MSD on November 9, 2009. MSD staff completed the installation and all testing on November 19, 2009.



Next Quarter

- Issue a work order to continue the Greenline analyses. Review lowest home opening elevations and confirmed pump station as-constructed information for the West Region. Begin planning, based on the field information obtain from the lowest home elevations 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.
- <u>East Region Emergency Generator Project (Budget ID H10082)</u> Install and operate the generators by January 31, 2010.
- West Region Emergency Generator Project (Budget ID H10084) Install and operate the generators by February 28, 2010.
- <u>Central Region Emergency Generator Project (Budget ID H10083)</u> Issue a notice-to-proceed and begin construction. The generators will be installed and operable by March 15, 2010.

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

This Quarter

- Issued 98 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.
- Mailed no FOG residential public outreach letters to areas that had FOG issues during this reporting period.
- Mailed 2230 FOG commercial public outreach letters and FOG brochures to Food Service Establishments in the MSD service area during this reporting period.
- Removed 605,560 gallons of FOG from Grease Control Equipment at Food Service Establishments in the MSD service area.
- Handed out FOG Program related information to Food Service Establishment representatives at the annual Kentucky Restaurant Association Exposition on October 21-22, 2009.
- Advertised in the Fall 2009 edition of PREP Magazine, which is a Food Service Establishment industry journal.

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 to 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 to send educational materials to Food Service Establishments in the MSD service area.
- Conduct another Certified Grease Waste Hauler Training session.
- Plan and schedule an outreach event for Food Service Establishments in the MSD service area.
- Advertise in the Spring edition of PREP Magazine, which is a Food Service Establishment industry journal.
- Initiate Certified Grease Waste Hauler audits.
- MSD will begin 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 task and corrective work orders for Metro Operations staff that maintain sewer lift stations and small water quality treatment centers.
- Trained Metro Operations staff on October 29, 2009, for the setup of PM work orders for vactoring pump stations.
- Completed the WQTC inventory design and started inventory data input.
- Started the inspections on pump station sites that have deficiencies determined during
 the Draw Down and Greenline Programs. These two programs relate only to pump
 performance and 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

- Continue the WQTC inventory input.
- 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.

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

This Quarter

- Completed inspections on the following force mains:
 - November 18, 2009 Bridgepointe
 - December 30, 2009 West County
- Conducted the annual force main program evaluation on December 14, 2009. Adjusted the inspection schedule as needed.

Next Quarter

- Schedule the following force mains for inspection:
 - Ohio River Force Main
 - Louisville Boat Club
 - Mockingbird Valley
 - Lake Forest

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 203 line segments and root cut 375 line segments.
- Approved the contract to perform chemical root treatment.
- Defined the areas to target in the next quarter for chemical root treatment.

Next quarter

- Continue working with contractors on CCTV and chemical root treatment.
- Refine the Gravity Line Preventative 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.



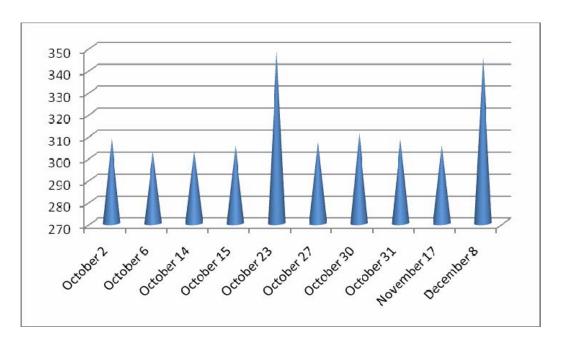
SECTION 6: Program Activities for Water Quality Treatment Centers

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 10 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

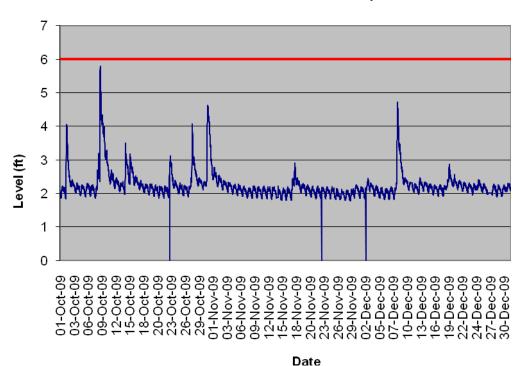
MSD submitted a Jeffersontown WQTC Process Control Program on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this 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 October 2, October 9, October 27, October 31 and December 8, 2009. The total blended amount, from all events, reported and documented on the Project WIN webpage was 3,077,842 gallons.



- Conducted one inspection route for the Jeffersontown siphon during this reporting period on October 9, 2009. No overflows were identified during these inspections.
- <u>Jeffersontown Siphon Access Road (Budget ID # H08400)</u> Installed an access road for the Jeffersontown siphon. This project was developed to provide a paved access road up to the siphon structure for cleaning and maintenance with our equipment. The asphalt road was installed in an existing easement under a small purchase contract and was constructed in the first 2 weeks of December, 2009.
- See Section 6.5.1 for an update on the CPE/CCE projects for the Jeffersontown WQTC.

Jeffersontown Siphon Level



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.

- Initiate the contract to amend the North County Action Plan Update by June 30, 2010.
- See Section 6.5.4 for an update on the CPE/CCE projects for the Hite Creek WQTC.

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6.1.4 Floyds Fork Water Quality Treatment Center

Completed a Preliminary Engineering Report, for the Phase 2 expansion of the Floyds Fork WQTC, to an average daily design flow of 6.5 MGD, in October 2008. The future needs and the current capacity commitments may require MSD to consider an expansion beyond Phase 2. MSD will move forward on the final design once a requested waste load allocation is completed by KDEP.

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/CCE 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, (Hunting Creek North, 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.

- Prospect Phosphorus Removal Solicited bids for alternative methods of delivery of the sodium aluminate to the Prospect WQTCs. Currently the feed systems require a weekly delivery of chemical by MSD staff at four of the five sites. All sites have physical challenges that prevent bulk storage on site and also limit the type of drum delivery to the site. Bids were received in December 2009 for the service to supply and deliver the drums to each of the sites, at a lower per pound rate than currently being paid. Price quotes have also been obtained for a new spill containment system with provisions for freeze protection. In the next reporting period, MSD expects to award the chemical supply and delivery contract, purchase spill containment systems and equipment to prevent freezing of the chemical solution, for all of the sites except Ken Carla. 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

6.3.1 Starview Water Quality Treatment Center

 Rehabilitated and installed an existing 80 KW generator (from the eliminated Polo Fields site) at the Starview WQTC. Poured a new generator pad and completed all electrical site modifications. Installed, tested, and accepted the generator in November.

6.3.2 Chenoweth Hills Water Quality Treatment Center

 Rehabilitated and installed an existing 250 KW generator (from the eliminated Freeway Reserve Pump Station site) at the Chenoweth Hills WQTC. Poured a new generator



pad and completed all electrical site modifications. Installed, tested, an accepted the generator in November.

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 target for
electronic generation of DMRs is February 2010 for the January DMRs.

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 and Composite Correction Plans 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

- Completed an SOP for operation of the Plant No. 1 aeration basins in parallel flow (rather than sequential plug flow as operated now) in the current reporting period. Complete a review of the SOP and train the Jeffersontown WQTC staff on this SOP during the next reporting period. Begin an evaluation of the effectiveness of the SOP during the next reporting period, after the staff have been trained and the SOP implemented.
- Added facilities to allow addition of sodium aluminate to the raw sewage to the existing screenings building. Determined it was easier and more effective to move the chemical feed function even though the CPE recommended extending chemical feed lines from the existing sodium aluminate feed system. Completed construction and put into operation during December, 2009.
- Completed the extension the walls of the Plant No. 1 west aeration basin, using in-house forces, before the end of December, 2009. This work was scheduled for completion by June 2010.
- Started the structure and equipment condition assessment during the current reporting period. Continue assessment through the next reporting period as part of the process to covert 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.
 Start training staff on this SOP during the next reporting period.

6.5.3 Cedar Creek Water Quality Treatment Center

 Drafted and transmitted for MSD review a computerized process control program on September 23, 2009. Finalized the process control program and trained staff on the use of this program during the current reporting period.

6.5.4 Hite Creek Water Quality Treatment Center

 Drafted a computerized process control program for MSD review during the current reporting period. Train staff on this program during the next reporting period.

6.5.5 Timberlake Water Quality Treatment Center

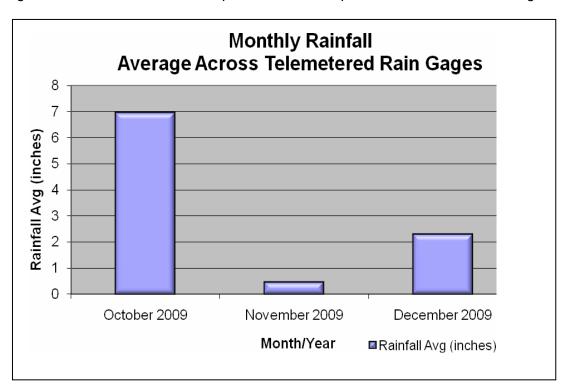
- Completed a SOP for operating this WQTC during this reporting period. Train staff on this SOP during the next reporting period.
- Worked with Metro Operations to develop a plan to replace the existing splitter box. Gave preliminary design requirements to a steel fabricating company in December 2009. Initiate replacement of the flow splitter box during the next reporting period. Continue to work with the fabricator to complete a "turn-key" project to replace the existing splitter box. Schedule to replace the splitter box by the end of April, 2010.
- Submitted a request to KDEP 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. No
 response has been received.



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 52 unauthorized discharges this reporting period. 12 were reported during dry weather and 40 were wet weather related.

Performed and analysis of the 12 dry weather unauthorized discharges:

- One (mechanical) occurred at a pump station.
- Two occurred at treatment plants (bypass).



- Seven occurred at CSOs due to mechanical failures (3), electrical problems (1), power related issues (1), and damage caused by another utility (2).
- Two occurred at manholes due to grease and an obstruction.

Performed an analysis of the 40 wet weather unauthorized discharges:

- 10 were pumped overflows
- 5 were blending events at Jeffersontown WQTC
- 4 were bypass events at various WQTCs
- 21 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:

- Cedar Creek (MSD0289) KPDES Permit Number KY0098540 (2)
- Derek R. Guthrie (MSD0277) KPDES Permit Number KY0078956
- Chenoweth Hills (MSD0263) KPDES Number KY0029459 (2)
- Starview (MSD0247) KPDES Number KY0031712

7.2.2 Blending Events

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

• Started blending on October 2, October 9, October 27, October 31, and December 8, 2009. The total blended amount, from all events, reported and documented on the Project WIN webpage was 3,077,842 gallons.

7.2.3 Dry Weather CSOS

Documented during this reporting period seven Dry Weather overflows from a permitted CSO location. A dry weather overflow occurred at CSO018 on October 1, 2009, due to an electrical failure of a control panel. A dry weather overflow occurred on November 1, 2009, at CSO020 because of a power failure. Dry weather overflows occurred on November 11, 2009, and November 12, 2009, at CSO210. Both of these occurrences were related to the mechanical failure of the diversion gate. A dry weather overflow also occurred on November 11, 2009, at CSO016 because of the mechanical failure of the diversion gate. On December 8, 2009, a dry weather overflow occurred at CSO132 and on December 21, 2009, a dry weather overflow occurred at CSO022. Both of these overflows were due to water main breaks. 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.

Identified through the new InfoWorks model additional CSOs that have AAOVs exceeding 10 million gallons per year due to additional model detail and a revised typical rainfall year. These additional CSOs are as follows: CSO153, CSO149, CSO121, CSO119, CSO105, CSO97, CSO84, CSO58, CSO55, CSO50, CSO23, CSO18, CSO16, and CSOs discharging to Sneads Branch Relief (combined AAOV). These CSOs have been fitted with appropriate monitoring equipment and identical Telog equipment as the long term sewer network monitors and are reporting to the new flow data site.

Completed, in this reporting period, one project that impacted permitted CSOs.

Closed CSO156 on October 30, 2009.

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

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.

- Tested batteries before installation. Inspected CSO flow monitoring sites every three weeks. Replaced batteries every 90 days or when the voltage falls below four.
- Tested 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.
- Completed the rehabilitation project to eliminate the infiltration at CSO108 on April 30, 2009. Changed pump programming to route any residual groundwater into the relief sewer rather than the overflow line to the stream.
- Enter the unit and influent interceptors to investigate additional sources of I&I. Create a rehabilitation project to address the source of I&I if any is found during the investigation.



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.
- Waycross Way Pump Station Elimination (Budget ID C09062 Diverted flow from the pump station on December 28, 2009. Final construction completion is scheduled for February 26, 2010.

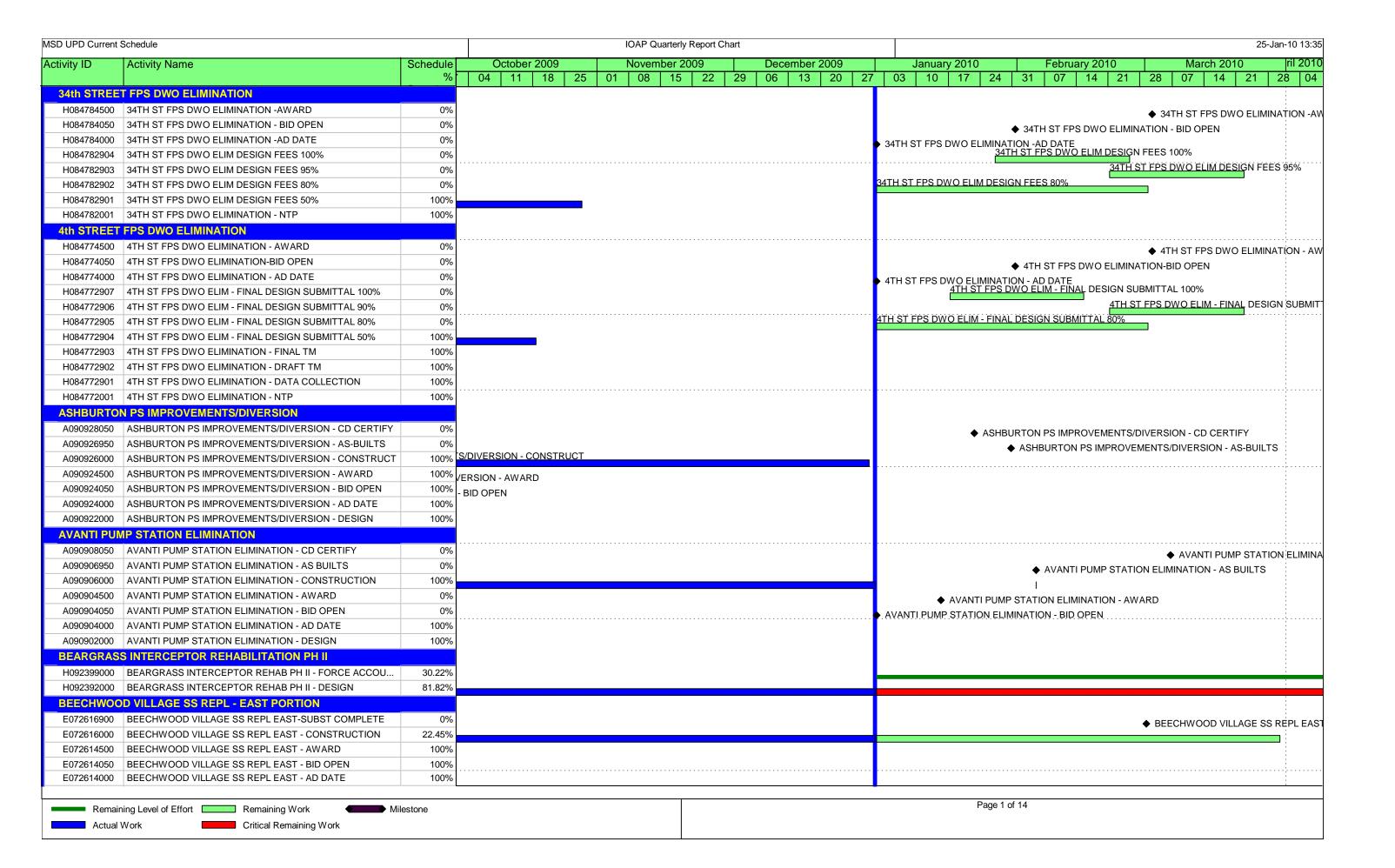
7.7 Phosphorus Monitoring at the Prospect WQTCs

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

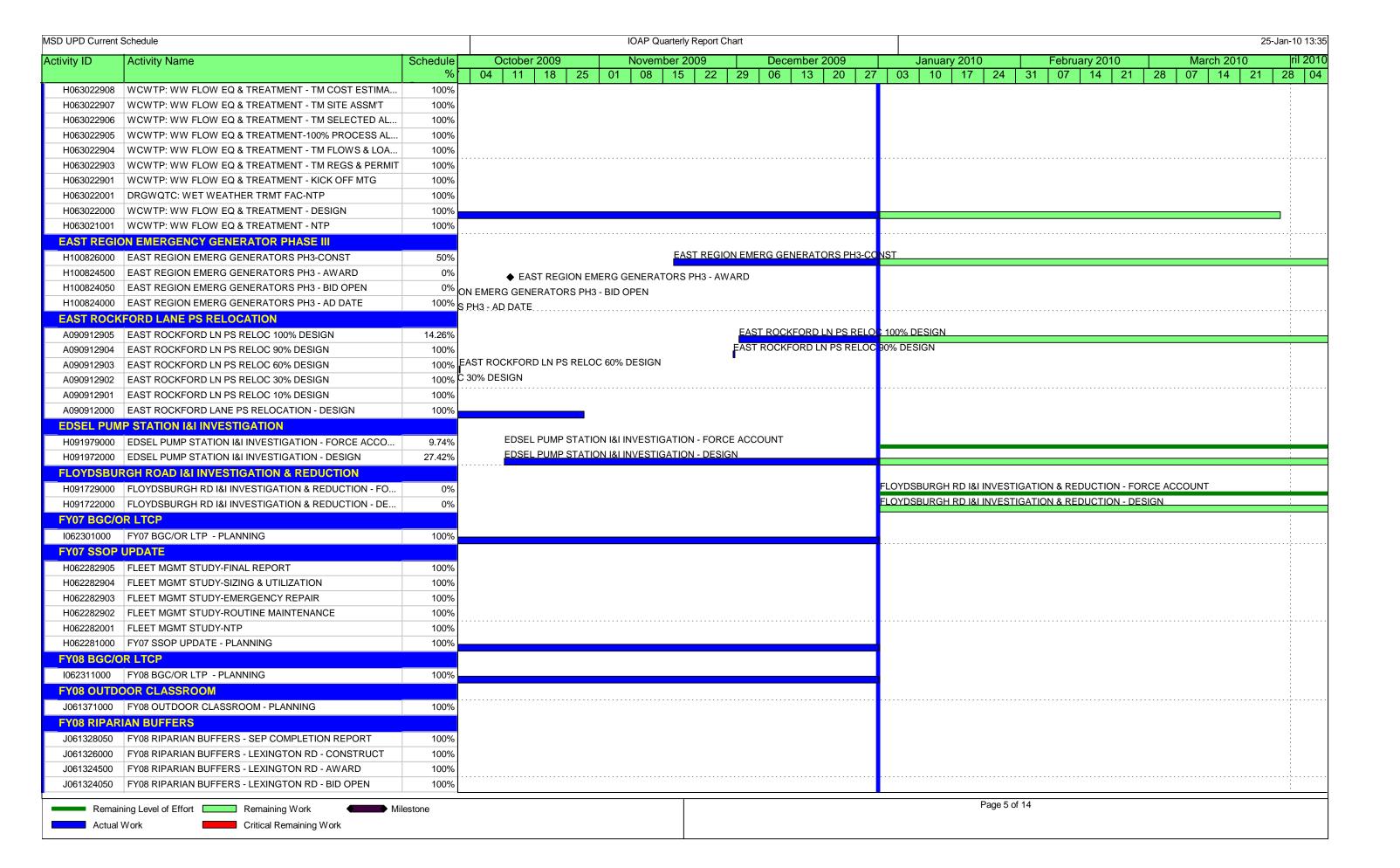




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E072612913	BEECHWOOD VILLAGE SS EAST-C&R'S	100%													
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MSD UPD Current Schedule			IC	OAP Quarte	rly Report C	Chart													25-	Jan-10 13:3	
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	%	04 11	18 25	01	08 1	5 22	29	06	13 2	0 27	03	10 1	7 2	24 3	07	14	21	28 0	7 14	21	28 04
J061324000 FY08 RIPARIAN BUFFERS - LEXINGTON RD - AD DATE	100%																				
J061321000 FY08 RIPARIAN BUFFERS - PLANNING	100%																				
FY08 SSOP UPDATE																					
H062298050 FY08 SSOP UPDATE - CD CERTIFICATION	100%																				
H062291000 FY08 SSOP UPDATE - PLANNING	100%										<u>, </u>										
FY09 BGC/OR LTCP																					
I062338050 FY09 BGC/OR LTP - CD CERTIFICATION	100%																				
I062331000 FY09 BGC/OR LTP - PLANNING	100%]										
FY09 OUTDOOR CLASSROOM																					
J061381000 FY09 OUTDOOR CLASSROOM - PLANNING	100%																				
FY09 SSOP UPDATE																					
H062328050 FY09 SSOP UPDATE - CD CERTIFICATION	100%																				
H062321000 FY09 SSOP UPDATE - PLANNING	100%																				
FY10 OUTDOOR CLASSROOM																					
J061398050 FY10 OUTDOOR CLASSROOM-SEP COMPLETION RPT	0% _	SEP COMPLETION	N RPT																		
J061391000 FY10 OUTDOOR CLASSROOM - PLANNING	100%	, LI OOWII LLIIC	214 101 1																		
GI 12th & JEFFERSON GREEN STREET																					:
H094331000 GI 12TH & JEFFERSON GREEN STREET - PLANNING	0%										GI 12TH 8	JEFFERS	ON GR	EEN STE	EET - PL	ANNING					:
GI 17th & HILL ALLEY																					:
H094301000 GI 17TH & HILL ALLEY - PLANNING	0%										GI 17TH 8	HILL ALLE	EY - PL	ÁNNÍNG.							
GI 2nd & BROADWAY PARKING LOT	0,70																				- :
H094261000 GI 2ND & BROADWAY PARKING LOT - PLANNING	0%										GI 2ND &	BROADWA	AY PAR	KING LO	T - PLAN	NING					
GI 3rd & ORMSBY BIOSWALE	078																				:
H094271000 GI 3RD & ORMSBY BIOSWALE - PLANNING	09/										GL3RD &	ORMSBY E	BIOSW	ALF - PLA	NNING						
GI 6th & BROADWAY RAIN GARDEN	0%													· · · ·							
=	00/										GL6TH &	BROADW <i>A</i>	ΔΥ ΡΔΙΝ	I GARDE	N - PI AN	INING					
H094291000 GI 6TH & BROADWAY RAIN GARDEN - PLANNING	0%										CIOIIIG	BICORDIVI	VI IVIII	· O/ ((A)	1 1 1 1 1 1 1	ITTIITO					
GI 6th & MUHAMMAD ALI PARKING LOT	00/										CLETH &	MUHAMMA	م م م	DADKING	I OT - DI	ANNING					
H094281000 GI 6TH & MUHAMMAD ALI PARKING LOT - PLANNING	0%										Gronna	IVIOT IAIVIIVIA		AIXINI	LOT-11	LAMMINO					
GI 7th & CEDAR PARKING LOT											C. 77	CEDAR PA	HIZIKIO	TOT D	ANIMINIO						
H094251000 GI 7TH & CEDAR PARKING LOT - PLANNING	0%										GI/IFI &	CEDAR PA	ARKING	LOT - PI	AININING						·
GI 7th & MARKET ALLEY											01.7711.0	MADKET A		DI ANINII	10						
H094311000 GI 7TH & MARKET ALLEY - PLANNING	0%										GI/IH&	MARKET A	ALLEY -	PLANNII	NG .						
GI ADD'L RAIN GARDENS PH 1 FY10																					
H100396000 GI ADD'L RAIN GARDENS PH 1 FY10 - PLANNING	0%										GI ADD'L	RAIN GAR	DENS F	PH 1 FY10) - PLANN	VING					<u> </u>
GI ADD'L RAIN GARDENS PH 2 FY10																					
H100406000 GI ADD'L RAIN GARDENS PH 2 FY10 - PLANNING	0%										GI ADD'L	RAIN GAR	DENS F	PH 2 FY10) - PLANI	VING					:
GI ALLEYS FY09																					
H094131000 GI ALLEYS FY09 - PLANNING	0%										GI ALLEY	S FY09 - P	PLANNI	VG				l			
GI ALLEYS FY10																		-			:
H094181000 GI ALLEYS FY10 - PLANNING	0%										GI ALLEY	S FY10 - P	PLANNII	NG							
GI CAMPBELL & MAIN ALLEY																					:
H094321000 GI CAMPBELL & MAIN ALLEY - PLANNING	0%										GI CAMPI	BELL & MA	IN ALLE	Y - PLAN	INING						- :
GI MSD MO BIOSWALE																					1
H094241000 GI MSD MO BIOSWALE - PLANNING	0%										GI MSD M	IO BIOSW <i>A</i>	ALE - P	LANNING							
GI PARKING PUBLIC FY09																					:
<u> </u>						1							D	o C of 4 4							<u> </u>
Remaining Level of Effort Remaining Work	Milestone												Pag	e 6 of 14							
Actual Work Critical Remaining Work																					

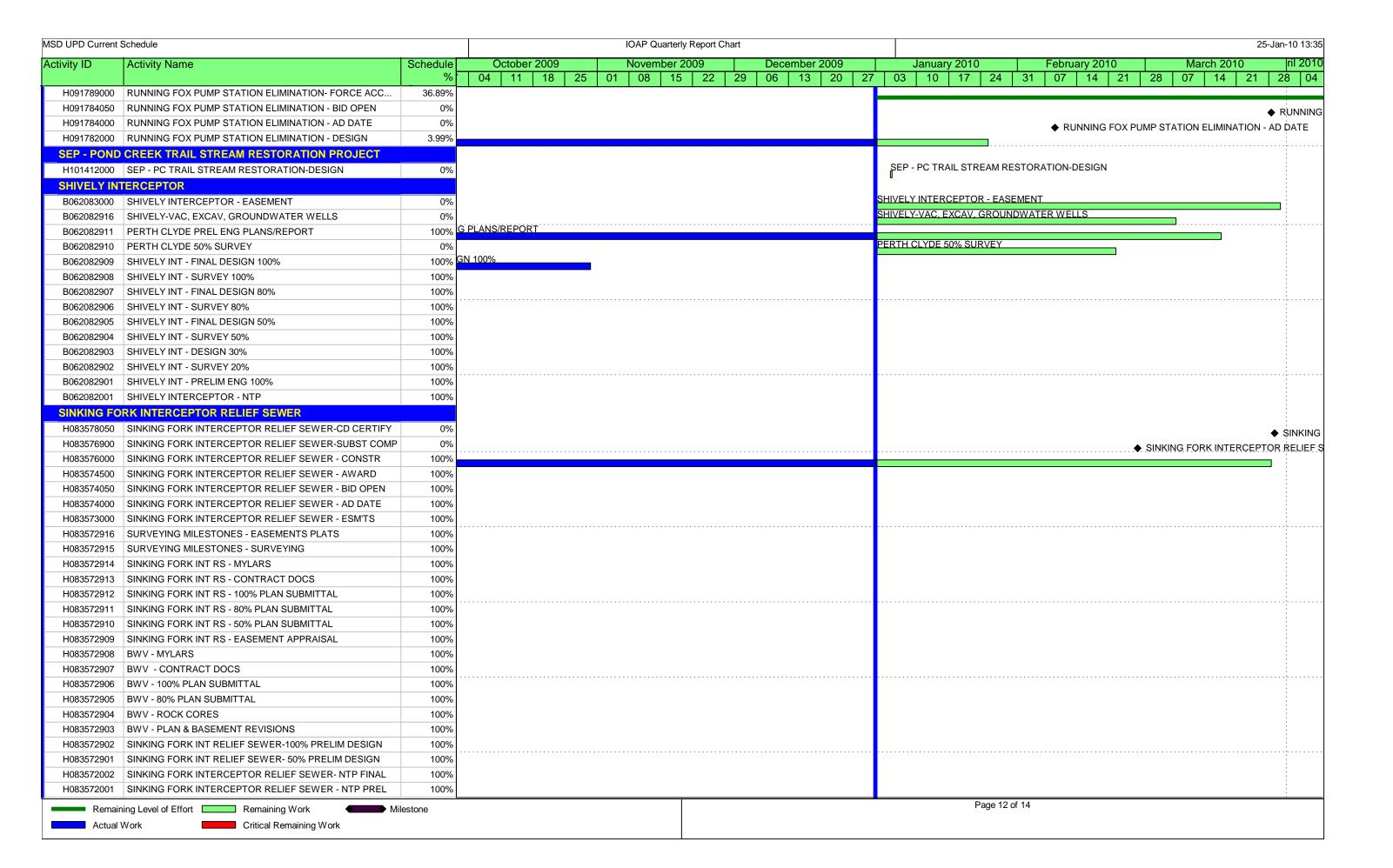
21 1 ID	The second		0.1.1		Quarterly Report Chart	D	20	1		F.1	0040			1		<u> </u>
ctivity ID	Activity Name	Schedule	October 2009	25 01 08	mber 2009 22 29	December 200	20 27	January 2010 03 10 17	24 3		ary 2010 14			March 2010 7 14		ril 20 28 0
H094151000	GI PARKING PUBLIC FY09 - PLANNING	0%		01 00	10 22 20	10 10 2		GI PARKING PUBLIC FYOS			'''		<u> </u>		- -	-0 10
GI PARKING	G PUBLIC FY10															
_	GI PARKING PUBLIC FY10 - PLANNING	0%						GI PARKING PUBLIC FY10	0 - PLANN	IING						
	DRY WELLS FY10															1
<u> </u>	GI PUBLIC DRY WELLS FY10 - PLANNING	0%						GI PUBLIC DRY WELLS F	Y10 - PLA	NNING						
	RRELS FY10	0,70														:
	GI RAIN BARRELS FY10 - PLANNING	0%						GI RAIN BARRELS FY10 -	- PLANNIN	IG						
	RDENS FY10	0,70														:
	GI RAIN GARDENS FY10 - PLANNING	0%						GI RAIN GARDENS FY10	- PLANNII	٧G						-
	PUBLIC FY09	078														-:
	GI ROOFS PUBLIC FY09 - PLANNING	00/						GI ROOFS PUBLIC FY09 -	PI ANNIN	G						
		0%						000.0.00	,							
	PUBLIC FY10	00/						GI ROOFS PUBLIC FY10	- DI ANNIN	IG						
	GI ROOFS PUBLIC FY10 - PLANNING	0%						STROOT OT OBLICT TTO	- I LANNIN							\leftarrow
GI STREETS								GI STREETS FY09 - PLAN	UNING							
	GI STREETS FY09 - PLANNING	0%						SISTREETS FYU9 - PLAN	NINING							:
GI STREETS																
	GI STREETS FY10 - PLANNING	0%						GI STREETS FY10 - PLAN	NINING							
GI URBAN F	REFORESTATION FY09								. .		_					
H094141000	GI URBAN REFORESTATION FY09 - PLANNING	0%						GI URBAN REFORESTAT	ION FY09	- PLANNIN	G		.			
GI URBAN F	REFORESTATION FY10															
H094211000	GI URBAN REFORESTATION FY10 - PLANNING	0%						GI URBAN REFORESTAT	ION FY10	- PLANNIN	G					:
GOLDSMITH	H INTERCEPTOR IMPROVEMENTS															-
H072968050	GOLDSMITH INTERCEPTOR IMPROVEMENTS - CD CERTIFY	100%														
H072966990	GOLDSMITH INTERCEPTOR IMPROVEMENTS - WARRANTY	0%						GOLDSMITH INTERCER	PTOR IMPI	ROVEMENT	ΓS - WAR	RANTY				
H072966950	GOLDSMITH INTERCEPTOR IMPROVEMENTS - AS-BUILTS	100%														
H072966900	GOLDSMITH INTERCEPTOR IMPR - SUBST COMPLETE	100%														
H072966000	GOLDSMITH INTERCEPTOR IMPROVEMENTS - CONSTRUCT	100%														:
H072964500	GOLDSMITH INTERCEPTOR IMPROVEMENTS - AWARD	100%														:
H072964050	GOLDSMITH INTERCEPTOR IMPROVEMENTS - BID OPEN	100%														
H072964000	GOLDSMITH INTERCEPTOR IMPROVEMENTS - AD DATE	100%														:
H072962800	GOLDSMITH INTERCEPTOR IMP - PUBLIC NOTIFICATION	100%														
H072962000	GOLDSMITH INTERCEPTOR IMPROVEMENTS - DESIGN	100%														
GOVERNME	ENT CENTER PUMP STATION WET WEATHER STORAG	E BASIN														
H091949000	GOVERNMENT CENTER PS WW STORAGE - FORCE ACCO	0%						GOVERNMENT CENTER	PS WW S	TORAGE - I	FORCE A	CCOUN	IT 			:
H091944050	GOVERNMENT CENTER PS WW STORAGE - BID OPEN	0%												♦ GOVEI	RNMENT (CENT
H091944000	GOVERNMENT CENTER PS WW STORAGE - AD DATE	0%										•	GOVERN	MENT CEN GE - EASEM	ER PS W	vw st
H091943000	GOVERNMENT CENTER PS WW STORAGE - EASEMENT	0%										R PS WV	V STORA	GE - EASEM	ENT	
H091942000	GOVERNMENT CENTER PS WW STORAGE - DESIGN	0%						GOVERNMENT CENTER	PS WW S	TORAGE - I	DESIGN					:
HARRODS (CREEK INT PHASE II															
D002492907	HARRODS CRK INT PH II - EASEMENT PLATS	100%														
D002492906	HARRODS CRK INT PH II - UPDATE & FINALIZE PLANS	0%						HARRODS CRK INT PH II	- UPDATE	& FINALIZ	E PLANS					:
HARRODS (CREEK PS & FM															
D942062925	HC/PROSPECT AREA STUDY-TASK 4.4	0%						HC/PROSPECT AREA ST	UDY-TASK	(4.4						
D942062924	HC/PROSPECT AREA STUDY-TASK 4.1-4.3	100%		HC/PROSPE	CT AREA STUDY-TAS	K 4.1-4.3										:
	HC/PROSPECT AREA STUDY-TASK 3.3	100% H	C/PROSPECT AREA STUD	Y-TASK 3.3												

MSD UPD Current	Schedule			IOAP Q	uarterly Report Cha	rt								25-Jan-10 13:35	
Activity ID	Activity Name	Schedule	October 2009)	Novem	nber 2009	December 2009		January 201	0	February 2	010	ı	March 2010	ril 2010
		%	04 11 18	25	01 08	15 22	29 06 13 20 2	27 03	10 17	24 3	1 07 14	21	28 0	7 14 2	1 28 04
D942062922	HC/PROSPECT AREA STUDY-TASK 3.1-3.2	100%	ASK 3.1-3.2		·										:
D942062921	HC/PROSPECT AREA STUDY-TASK 2.3-2.4	100%													}
D942062920	HC/PROSPECT AREA STUDY-TASK 2.2	100%													
D942062919	HC/PROSPECT AREA STUDY-TASK 2.1	100%													
D942062918	HC/PROSPECT AREA STUDY-TASK 1.1 & 2.1	100%													
HIKES POIN	IT INTERCEPTOR														
H072863000	HIKES POINT INTERCEPTOR - EASEMENTS	0%						HIKES P	OINT INTERC						:
H072862906	HIKES POINT INTERCEPTOR - 100% DESIGN SUBMITTAL	0%								HIKE	S POINT INTER	CEPTOR	- 100% DES	IGN SUBMITT	AL :
H072862905	HIKES POINT INTERCEPTOR - 90% DESIGN SUBMITTAL	0%							-		DESIGN SÜBMI				
H072862904	HIKES POINT INTERCEPTOR - 60% DESIGN SUBMITTAL	100%													:
H072862903	HIKES POINT INTERCEPTOR - ENVIRON/SURVEY	100%													
H072862902	HIKES POINT INTERCEPTOR - 30% DESIGN SUBMITTAL	100%													
H072862901	HIKES POINT INTERCEPTOR - 10% DESIGN SUBMITTAL	100%													
H072862001	HIKES POINT INTERCEPTOR - NTP	100%													
H072862000	HIKES POINT INTERCEPTOR - DESIGN	100%													
HIKES POIN	IT INTERCEPTOR IMPROVEMENTS														
	HIKES POINT AREA SEWER REHAB PH 1 - CD CERTIFY	100%													!
H072956950	HIKES POINT AREA SEWER REHAB PH 1 - AS-BUILTS	100%													:
	HIKES POINT AREA SEWER REHAB PH 1-SUBST COMPLETE	100%													:
H072956000	HIKES POINT AREA SEWER REHAB PH 1 - CONSTRUCTION	100%													
H072954500	HIKES POINT AREA SEWER REHAB PH 1 - AWARD	100%													
H072954050	HIKES POINT AREA SEWER REHAB PH 1 - BID OPEN	100%													:
	HIKES POINT AREA SEWER REHAB PH 1 - AD DATE	100%													
H072952800	HIKES POINT AREA SEWER REHAB PH 1 -PUBLIC NOTIFY	100%													:
	HIKES POINT AREA SEWER REHAB PH 1 - DESIGN	100%													
HIKES POIN	IT RELIEF EFFORT														
H072873000	HIKES POINT RELIEF SEWER EFFORT - EASEMENTS	0%						HIKES P	OINT RELIEF	SEWER EFF	ORT - EASEMEN	ITS			
	HP INT REPORT W/PRESENTATION-100%	100%													:
	HIKES POINT INT - CONSTRUCTABILITY; COST & SCHED	100%													
H072872908		100%													
	HIKES POINT INT - HYDRAULIC HOR/VER ALIGN TM	100%													
H072872906		100%													
H072872905		100%													1
	HIKES POINT INT - PROPERTY RESEARCH	100%													
	HIKES POINT INT - TRAFFIC ANALYSIS	100%													
	HIKES POINT INT - GEOTECH REPORT	100%													
		100%													
	HIKES POINT INT - NTP	100%													
	RNE I&I INVEST & REHAB	10070													
	HURSTBOURNE I&I INVEST & REHAB - DESIGN	0%						HÜRSTE	BOURNE I&I IN	VEST & REH	AB - DESIGN				
	STEAD STORAGE BASIN	0 70													:
	I-64 & GRINSTEAD STORAGE BASIN - FORCE ACCOUNT	0%						I-64 & GI	RINSTEAD ST	ORAGE BASI	N - FORCE ACC	OUNT			
	I-64 & GRINSTEAD STORAGE BASIN - PORCE ACCOUNT	0%							RINSTEAD ST						1
	ON OF SWPS/MDS/MFWTP TO RTC	0 70													:
1050568050	INTEGRATION OF SWPS/MDS/MFWTP TO RTC-CD CERTIFY	100%													
1050566950	INTEGRATION OF SWPS/MDS/MFWTP TO RTC-CD CERTIFY INTEGRATION OF SWPS/MDS/MFWTP TO RTC- AS-BUILTS	100%													
1030300930	INTEGRATION OF OWN ONNIDONNI WITH TO KITO- AC-BUILTS	100 /6	INTEGRATION OF SW	PS/MDS/M	<u>IFWTP TO R</u>	C- AS-BUILTS									:
Ramai	ning Level of Effort Remaining Work	lilestone								Page 8 of 14					
		IIIG31011 C								-					
Actual	Work Critical Remaining Work														

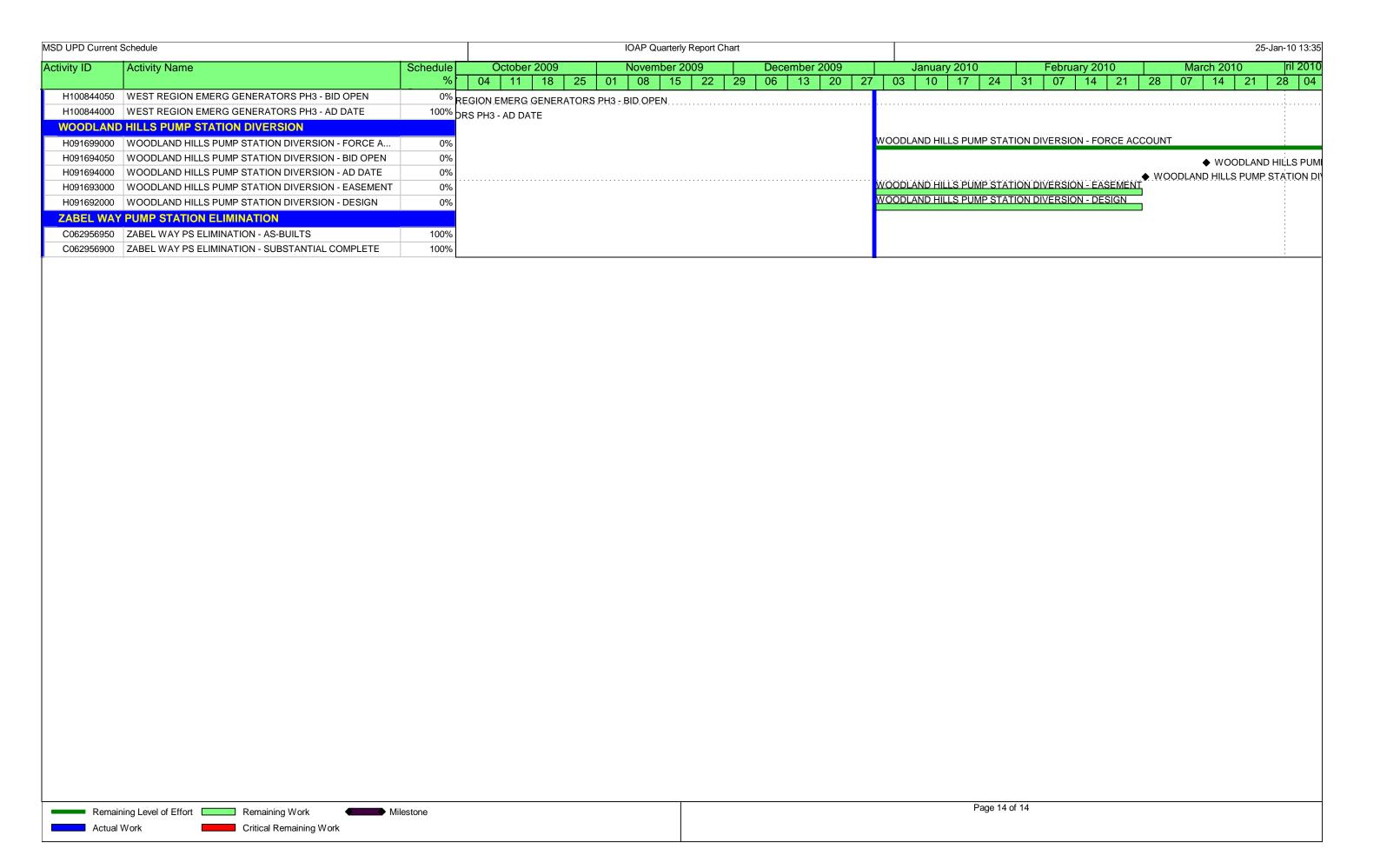
MSD UPD Current S	Schedule			IOAP (Quarterly Report Chart														25-Jan-1	0 13
Activity ID	Activity Name	Schedule	October 2009	Nover	mber 2009	December 200	9		Januar	y 2010			ebrua	ry 2010		N	March	2010	r	il 20
·	,	%	04 11 18 25	01 08	15 22 2	9 06 13 2	0 27	03	10	17	24	31	07	14 2	1 2	8 07	7 1	4 2	1 28	0
1050566900	INTEGRATION OF SWPS/MDS/MFWTP TO RTC-SUBST CO	100%	MFWTP TO RTC-SUBST COMP		•	•							•	•			•	•		
1050566000	INTEGRATION OF SWPS/MDS/MFWTP TO RTC-CONSTR.	100%																		
1050564500	INTEGRATION OF SWPS/MDS/MFWTP TO RTC - AWARD	100%																		
1050564050	INTEGRATION OF SWPS/MDS/MFWTP TO RTC - BID OPEN	100%																		
1050564000	INTEGRATION OF SWPS/MDS/MFWTP TO RTC - AD DATE	100%																		
1050562000	INTEGRATION OF SWPS/MDS/MFWTP TO RTC - DESIGN	100%																		
INTEGRATIO	ON OF WHEELER BASIN TO RTC																			
1050572000	INTEGRATION OF WHEELER BASIN TO RTC- DESIGN	100%																		
JEFFERSON	ITOWN TP ELIMINATION																			
H072938050	JEFFERSONTOWN WQTC ELIMINATION - CD CERTIFY	0%						ırrr	DOONIT	·	OTO EL IN	AIN I A T	ON 0	OFDTIEN	,					
	JEFFERSONTOWN TP ELIMINATION - PLANNING	0%						JEFFER JEFFER	SONTO	WN TP E	LIMINATI	ION - F	ON - CI PLANNII	CERTIFY IG					1	
	H ROAD PUMP STATION IMPROVEMENT	0,0																	:	
	KAVANAUGH RD PUMP STATION IMPROVEMENTS - FORC	0%						KAVANA	AUGH RI	D PUMP	STATION	I IMPR	OVEME	NTS - FOR	RCF AC	COUNT			:	
	KAVANAUGH RD PUMP STATION IMPROVEMENTS - DESIGN	0%												NTS - DES						
		0%								O I OIVII	017111011	<u> </u>	O V EIVIE	THE DEC	71011					
	UMP STATION WET WEATHER STORAGE BASIN							LANITAN		O STATIC	NIWET V	∧/ ⊏ ∧ ⊤ ι	JED OT	DRAGE - F	ODCE	٨٥٥٥١١	NIT			
	LANTANA PUMP STATION WET WEATHER STORAGE - FO	0%												DRAGE - I			IN I			_
	LANTANA PUMP STATION WET WEATHER STORAGE - DE	0%						LANTAN	IA PUMP	STATIC	N WEI V	WEATI	IER ST	JRAGE - L	JESIGN					
	AY PS SYSTEM SSES																			
H090962000	LEA ANN WAY PS SYSTEM SSES - DESIGN	100%) 												
LOGAN STR	EET & BRECKINRIDGE STREET STORAGE BASIN																			
H091422904	LOGAN ST STOR BASIN-PRELIM DESING & PRMT	0%									-PRELIM			MT					<u> </u>	
H091422903	LOGAN ST STOR BASIN-SITE & TECH SELECT	0%									-SITE & T								:	
H091422902	LOGAN ST STOR BASIN-INFO COLLECTION	0%									-INFO CC		ΓΙΟΝ						- :	
H091422901	LOGAN ST STOR BASIN-BUILD TEAM	0%						LOGAN	ST STO	R BASIN	-BUILD TI	EAM							:	
H091422000	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - DESIGN	65.93%																	- :	=
MELLWOOD	PS ELIMINATION & FORCE MAIN																		:	
A095563000	MELLWOOD PS ELIMINATION & FORCE MAIN - EASEMENTS	0%						MELLW	OOD PS	ELIMINA	ATION & F	FORCE	MAIN -	EASEME	NTS					
A095562904	MELLWOOD PS ELIMINATION & FORCE MAIN 90% DESIGN	0%														MELL	WOOD	PS ELI	MINATIO	<u>↓</u> & F
A095562903	MELLWOOD PS ELIMINATION & FORCE MAIN 60% DESIGN	0%														MELLW	VOOD	PS ELIM	INATION	& FC
A095562902	MELLWOOD PS ELIMINATION & FORCE MAIN 30% DESIGN	0%									ľ	MELLV	/OOD F	S ELIMINA	NOITA	FORCE ،	E MAIN	30% DE	SIGN	
A095562901	MELLWOOD PS ELIMINATION & FORCE MAIN 10% DESIGN	0%						MELLW	OOD PS	ELIMINA	ATION & F	FORCE	MAIN	0% DESIG	ΘN					
	MELLWOOD PS ELIMINATION & FORCE MAIN - DESIGN	100%									_								:	
MIDDLE FOR	RK SYSTEM IMPROVEMENTS PH.1																			
	MIDDLE FORK SYS IMP PH.1 - CD CERTIFICATION	100%																		
	MIDDLE FORK SYS IMP PH.1 - AS-BUILTS	100%																		
	MIDDLE FORK SYS IMP PH.1 - SUBSTANTIAL COMPLETE	100%																	:	
	MIDDLE FORK SYS IMP PH.1 - CONSTRUCTION	100%																		
	MIDDLE FORK SYS IMP PH.1 - AWARD	100%																		
	MIDDLE FORK SYS IMP PH.1 - BID OPEN	100%																		
	MIDDLE FORK SYS IMP PH.1 - AD DATE	100%																	:	
	MIDDLE FORK SYS IMP PH.1 - CAPACITY ASSM'T PH.1	100%																	:	
	MIDDLE FORK SYS IMP PH.1 - PUBLIC NOTIFICATION	100%																	:	
	MIDDLE FORK SYS IMP PH.1 - NTP	100%																	:	
	DITCH INT PHASE 2	10070																		
	NORTHERN DITCH INT PHASE 2 - CONSTRUCTION	7.11%			NO	RTHERN DITCH INT F	PHASE 2	- CONST	RUCTIO	ON										
	NORTHERN DITCH INT PHASE 2 - AWARD	100%]												
AU322U40UU	NOTITIENT DITOTINT FINGE 2 - AWARD	100%		◆ NORTH	HERN DITCH INT PHA	ASE 2 - AWARD														
Remain Actual	ning Level of Effort Remaining Work Milwork Critical Remaining Work	lestone								P	age 9 of 1	14								

MSD UPD Current	Schedule					IOAP Qu	arterly Report	t Chart												25-Jan-10 13:
Activity ID	Activity Name	Schedule	October	2009		Novem	ber 2009		Decembe	er 2009		Janua	ary 2010		Febr	uary 2010		Ma	rch 2010	ril 201
		%	04 11	18 25	5 01	08	15 22	29	06 13	20 2	27 03	10	17	24 3	1 07	14 2	1 28	07	14	21 28 04
A092264050	NORTHERN DITCH INT PHASE 2 - BID OPEN	100% _{FI}	N		<u> </u>		<u> </u>	•	<u>. </u>	<u> </u>			<u> </u>	<u> </u>				•		•
A092264000	NORTHERN DITCH INT PHASE 2 - AD DATE	100%	•																	
NORTHERN	DITCH INT PHASE 3																			
A095003000	NORTHERN DITCH INT PHASE 3 - EASEMENT	0%									NOF	RTHER	N DITCH I	NT PHASE	3 - EASE	MENT				
	DITCH INTERCEPTOR (NR-1A)																			
	NORTHERN DITCH INTERCEPTOR (NR-1A) - CONSTR.	12.17%																		
	NORTHERN DITCH INTERCEPTOR (NR-1A) - AWARD	100%																		:
	NORTHERN DITCH INTERCEPTOR (NR-1A) - BID OPEN	100%									· <mark></mark>									
	NORTHERN DITCH INTERCEPTOR (NR-1A) - AD DATE	100%																		
	NORTHERN DITCH INT (NR-1A) - EASMENTS - 2	100%																		
	NORTHERN DITCH INTERCEPTOR (NR-1A) - EASEMENTS *	100%																		
	NO DITCH INT (NR-1A)-BIDDING SERVICES	100%																		
	NO DITCH INT (INC-TA)-BIDDING SERVICES NO DITCH INT (INR-1A)-ADD DIVERSION STR TO PLANS	100%																		
		100%																		
	NO DITCH INT (NR-1A)-PARTITION PLANS INTO 3 PROJ	-																		
C850172921	NO DITCH FLOW CONTROL STRUCTURE 100% PLANS	100%																		
C850172920	NO DITCH FLOW CONTROL STRUCTURE-90% PLANS	100%																		
	NO DITCH INT (NR-1A)-100% DESIGN	100%									<mark>.</mark>									
	NO DITCH INT (NR-1A)-90% DESIGN	100%																		
	NO DITCH INT (NR-1A)-100% SURVEY	100%																		
	NO DITCH INT (NR-1A)-TRIB ESMT PLATS/60% DESIGN	100%																		
	NO DITCH INT (NR-1A)-75% SURVEY	100%																		
	NO DITCH INT (NR-1A)-50% SURVEY/ND ESMT PLATS	100%																		
	NO DITCH INT (NR-1A)-30% DESIGN/FINAL GEOTECH	100%																		
	NO DITCH INT (NR-1A)-25% SURVEY/GWATER/BIOLOGIC	100%																		
	NORTHERN DITCH INT (NR-1A) - ECO/GEOTECH TESTING	100%																		
C850172910	NORTHERN DITCH INT (NR-1A) - DRILLING/ESA/W'LAND	100%																		
C850172909	NORTHERN DITCH INT (NR-1A) - 10% DESIGN	100%																		
C850172908	NORTHERN DITCH INT (NR-1A) - 100% DESIGN	100%																		
C850172907	NORTHERN DITCH INT (NR-1A) - 95% DESIGN	100%																		
C850172906	NORTHERN DITCH INT (NR-1A) 0 80% & ESMT PLATS	100%																		
C850172905	NORTHERN DITCH INT (NR-1A) - GEOTECH EXPLORATION	100%																		
C850172904	NORTHERN DITCH INT (NR-1A) - 90% SURVEY	100%																		
C850172903	NORTHERN DITCH INT (NR-1A) - 50% & PRELIM REPORT	100%																		
C850172902	NORTHERN DITCH INTERCEPTOR (NR-1A) - 30% DESIGN	100%																		:
C850172901	NORTHERN DITCH INTERCEPTOR (NR-1A) - 60% SURVEY	100%																		
C850172090	NORTHERN DITCH INTERC. (NR-1A) - EASEMENT PLATS*	100%																		
C850172080	NORTHERN DITCH INT (NR-1A) - 100% DESIGN	100%																		
C850172070	NORTHERN DITCH INT (NR-1A)- 95% DESIGN	100%																		
C850172060	NORTHERN DITCH INT (NR-1A) - 80% & ESMT PLATS	100%																		:
C850172050	NORTHERN DITCH INT (NR-1A) - GEOTECH EXPLORATION	100%																		
C850172040	NORTHERN DITCH INT (NR-1A) - 90% SURVEY	100%																		1
C850172030	NORTHERN DITCH INT (NR-1A) - 50% & PRELIM REPORT	100%																		1
C850172020	NORTHERN DITCH INTERCEPTOR (NR-1A) - 30% DESIGN	100%																		· · · · · · · · · · · · · · · · · · ·
C850172010	NORTHERN DITCH INTERCEPTOR (NR-1A) - 60% SURVEY	100%																		
	NORTHERN DITCH INTERCEPTOR (NR-1A) - PLANNING	100%																		
	DITCH INTERCEPTOR IMPROVEMENTS																			
	NORTHERN DITCH INTERCEPTOR IMPR - CD CERTIFY	100%																		
		ilestone											F	Page 10 of 14						<u> </u>
Actual																				
Actual	vvoin Cilical Remaining Work																			

	Schedule						arterly Repo	ort Orial t															25-Jan-1	
ctivity ID	Activity Name	Schedule	October 2009	1 05			er 2009	0 00		ember 200		<u> </u>	anuary 20				ebruary		4 0		March			ril 20
1107000000	NODTHERN DITCH INTERCEPTOR IMPROVINGE WARRANTY	90	04 11 18	25	01 (80	15 2	2 29	06	13 20	0 27		10 17		24 3			4 2	1 2	8 0	7 1	4 21	28	8 0
	NORTHERN DITCH INTERCEPTOR IMPR - WARRANTY	0%										NORTH	ERN DITCH	INTE	RCEPTO	OR IMP	R - WAF	RRANTY						
	NORTHERN DITCH INTERCEPTOR IMPR - AS-BUILTS	100%																						
	NORTHERN DITCH INTERCEPTOR IMPR - SUBST COMPLETE	100%																						
	NORTHERN DITCH INTERCEPTOR IMPR - CONSTRUCTION	100%																						
	NORTHERN DITCH INTERCEPTOR IMPR - AWARD	100%																						
	NORTHERN DITCH INTERCEPTOR IMPR - BID OPEN	100%																						
	NORTHERN DITCH INTERCEPTOR IMPR - AD DATE	100%																					:	
	NORTHERN DITCH INTERCEPTOR IMPR-PUBLIC NOTIFY	100%																						
PADDY'S RU	JN WW TREATMENT FACILITY																						:	
H091249000	PADDY'S RUN WW TREATMENT FACILITY - FORCE ACCOU	0%											RUN WW T						OUNT				:	
H091242000	PADDY'S RUN WW TREATMENT FACILITY - DESIGN	0%										PADDY'S	RUN WW T	REAT	MENT F	ACILIT	Y - DES	GN						
PARKVIEW	ESTATES I&I INVESTIGATION																							
H091989000	PARKVIEW ESTATES I&I INVESTIGATION - FORCE ACCOUNT	0%											V ESTATES						DUNT				- :	
H091982000	PARKVIEW ESTATES I&I INVESTIGATION - DESIGN	0%										PARKVIE	V ESTATES	S 1&1 IN	VESTIC	ATION	I - DESI	3N						
PUBLIC HEA	ALTH SCREENINGS																							
J062488050	PUBLIC HEALTH SCREENINGS - SEP COMPLETION REPORT	100%																						
	PUBLIC HEALTH SCREENINGS - PLANNING	100%																						
	D INTERCEPTOR	100,0																						
	100% DESIGN	0%										100% DE	IGN											:
	90% DESIGN	100%																					:	
		100 /8																						
RTC @ CSO		1000/																						
	RTC @ CSO 108 (BGI3) - CD CERTIFICATION	100%																						
	RTC @ CSO 108 (BGI3) - AS-BUILT PLANS	100%																						
1035886900	RTC @ CSO 108 (BGI3) - SUBST COMPLETE	100%																						
1035886000	RTC @ CSO 108 (BGI3) - CONSTR.	100%																						
1035884500	RTC @ CSO 108 (BGI3) - AWARD	100%																						
1035884050	RTC @ CSO 108 (BGI3) - BID OPEN	100%																						
	RTC @ CSO 108 (BGI3) - AD DATE	100%																						
1035882000	RTC @ CSO 108 (BGI3) - DESIGN	100%																						
RTC @ CSO	SOUTHWESTERN OUTFALL SWOR2																							
1050558050	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 -CD CER	100%																					:	
1050556950	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 - AS-BUIL	100%																						
1050556900	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2-SUBST. C	100%																						
1050556000	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 - CONST	100%																						
1050554500	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 - AWARD	100%																						,
1050554050	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 - BID OPEN	100%																						
1050554000	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 - AD DATE	100%																						
1050552911	NEEDS ANALYSIS-RAIN GAUGE COVERAGE STUDY	100%																						
1050552910	DATA FILTER HIKES PT, BUECHEL BR, BEARGRASS INT	100%																						
1050552909	CONTROL STUDY INFLOW NORTHERN DITCH PS	100%																						
1050552908	STUDY FLOOD PROTECTION MODE, CSOFT ADAPTATION	100%																						:
1050552000	RTC @ CSO SOUTHWESTERN OUTFALL SWOR2 - DESIGN	100%																						
RTC SYSTE	M FORECASTING																							
<u> </u>	RTC SYSTEM FORECASTING - PROGRAM & DOCUMENTAT	100%										RTC SYST	EM FOREC	ASTIN	G - PRC	GRAM	I & DOC	JMENTA	ATION					
	RTC SYSTEM FORECASTING - DES MONITORING STATIONS	100%										RTC SYST	EM FOREC	ASTIN	G - DES	MONI	TORING	STATIC	NS					
	OX PUMP STATION ELIMINATION																							
RUNNING																								



MSD UPD Current	Schedule			IOAP C	Quarterly Report Chart										2	25-Jan-10 13
Activity ID	Activity Name	Schedule	October 2009	Nover	mber 2009	December 2009		Janı	uary 2010		Febr	uary 2010		Marcl	h 2010	ril 20
		%	04 11 18	25 01 08	15 22 29	06 13 20	27	03 1	0 17	24 3	1 07	14 21	28	07	14 21	28 0
SINKING FO	RK REHAB PHASE 1 (B'WOOD VLG)															
H072948050	SINKING FORK REHAB PH1(B'WOOD VLG) - CD CERTIFY	100%														
H072946950	SINKING FORK REHAB PH1(B'WOOD VLG) - AS-BUILTS	100%														
H072946900	SINKING FORK REHAB PH1(B'WOOD VLG) - SUBST COMP	100%														
H072946000	SINKING FORK REHAB PH1(B'WOOD VLG) - CONSTR	100%														:
H072944500	SINKING FORK REHAB PH1(B'WOOD VLG) - AWARD	100%														
H072944050	SINKING FORK REHAB PH1(B'WOOD VLG) - BID OPEN	100%														
H072944000	SINKING FORK REHAB PH1(B'WOOD VLG) - AD DATE	100%														
H072942800	SINKING FORK REHAB PH1 (B'WOOD VLG)-PUBL NOTIFY	100%														:
SNEADS BF	ANCH S&F															
1050878050	SNEADS BRANCH S&F - CD CERTIFICATION	100%														
SOLIDS & F	LOATABLES @ CSO #146															:
	SOLIDS & FLOATABLES @ CSO #146- SUBST COMPLETE	100%														
	TERN INTERCEPTOR RELIEF SEWER	100,0														
	SEI RELIEF SEWER-100% DIVERSION STRUCT PLANS/BID	0%											S	SEI RELIEF	SEWER-1	00% DIVERS
	SEI RELIEF SEWER-60% SEIRS PLANS/FNL PLANS/BID DOCS												1			% SEIRS PL
	SEI RELIEF SEWER-90% DIVERSION STRUCT PLANS/BID DOGS	0%								SE	RELIEF	SEWER-90% D	1			
	SEI RELIEF SEWER-60% DIVERSION STRUC PLANS/BID DO	0%					······SÉ	I RELIEF S	SEWER-609	II		PLANS/BID D				
H083582909	SEI RELIEF SEWER-SUBSURFACE INVEST. REPORT	0%		SEI RELIEF SEW	/ER-SUBSURFACE IN	/EST. REPORT	D									:
H083582908	SEI RELIEF SEWER-30% SEIRS PLANS/REPORTS	0%		J	/ER-30% SEIRS PLAN											
H083582907	SEI RELIEF SEWER-30% DIVERSION STRUCTURE PLANS		 EF SEWER-30%DIVERSION													
	SEI RELIEF SEWER-SURVEY &DRAFT PLATS	0 70	F SEWER-SURVEY &DRA													
	SEI RELIEF SEWER - 10% DESIGN	0%					······SE	RELIEF S	SEWER - 10	0% DESIGN						
	SEI RELIEF SEWER - 10% DESIGN SEI RELIEF SEWER - PD - FINAL REPORT	100%					<u>"</u>		,	,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	SEI RELIEF SEWER - PD - PHASE 1 5% DRAFT REPORT	100%														
H083582902	SEI RELIEF SEWER - PD - SUBMIT 10% DRAFT RPT	100%														
	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - NTP	100%														
	DRIVE PS ELIMINATION	100 %					<mark>.</mark>									
		4000/														
B062998050	THURMAN DRIVE PS ELIMINATION - CD CERTIFICATION	100%														
B062996990	THURMAN DRIVE PS ELIMINATION - WARRANTY	0%					▶ 7	THURMAN	DRIVE PS	ELIMINATIO	N - WAR	RANTY				
	THURMAN DRIVE PS ELIMINATION - AS-BUILTS	100%														
B062996900	THURMAN DRIVE PS ELIMINATION - SUBST COMPLETE	100%					<mark>.</mark>									
B062996000	THURMAN DRIVE PS ELIMINATION - CONSTRUCTION	100%														:
B062994500	THURMAN DRIVE BS ELIMINATION - RID OPEN	100%														
B062994050	THURMAN DRIVE PS ELIMINATION - BID OPEN	100%														:
B062994000	THURMAN DRIVE PS ELIMINATION - AD DATE	100%														
B062992906	THURMAN DR PS ELIM - ADD'L ALIGNMENT/SCOPE	100%														
B062992905	THURMAN DR PS ELIM - JUSTIFICATION MEMO/BID ASST	100%														;
B062992904	THURMAN DR PS ELIM - FINAL DESIGN	100%														
B062992903	THURMAN DR PS ELIM - PRELIMINARY DESIGN/GMA VOTE	100%														
B062992902	THURMAN DR PS ELIM - SURVEYING FOR PS ELIM	100%														
B062992901	THURMAN DR PS ELIM - NOTICE TO PROCEED	100%														
	THURMAN DR PS ELIM - NOTICE TO PROCEED	100%														
	ON EMERGENCY GENERATOR PHASE III				WEST DESIGN F	AEDO OENES ATOROS		ОТ.								!
	WEST REGION EMERG GENERATORS PH3-CONST	50%			WEST REGION EN	MERG GENERATORS P	H3-CONS	51								i
H100844500	WEST REGION EMERG GENERATORS PH3 - AWARD	0%	♦ WEST REGIO	ON EMERG GENER	ATORS PH3 - AWARD											
Remai	<u> </u>	ilestone	▼ WEST REGIN	JN LIVIERG GENER	ATORS FITS - AWARD				F	Page 13 of 14						





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







KPDES# **Water Quality Treatement Center Receiving Stream of Treatment Center Facility ID** Region KY0022420 MSD0202 **HITE CREEK HITE CREEK EAST**

Facility Type Facility ID **Facility Address** If Pump Station, Name of Pump Station: **Receiving Stream** Discharge to

7510 MEADOW STREAM CT 91087 STREAM SMH Sewer Manhole SOUTH FORK HARRODS

CREEK

Activity Code / Description WO# **Initiated** Initiated By Assigned To **Disch Status Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 969327 10/09/09 06:30 AM **ELDER** MILLS DOCUMENTED 03/18/08 LACK OF SYSTEM UNAUTHORIZED 10/09/09 02:00

DISCHARGE CAPACITY DISCHAGE -

PM

WATERS

Spot Inspections:

Discharge Amount:	56,250 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
Impact:	SEWAGE & DEBRIS FOUND AROUND THE MANHOLE
Repair:	THIS SITE WAS FOUND DURING RAIN EVENT RECON

10/09/09 08:41 AM	DISPUB	PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES #Facility IDWater Quality Treatement CenterReceiving Stream of Treatment CenterRegionKY0031712MSD0247STARVIEWCHENOWETH RUNCENT

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

WO # Activity Code / Description <u>Initiated</u> Initiated By Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 989838 12/08/09 09:53 PM **ELDER** LAMBDIN JR REPAIRED -12/08/09 BYPASS AT WQTC **UNAUTHORIZED** 12/08/09 10:24 РМ DISCHARGE ISSUE DISCHAGE -**RESOLVED** WATERS

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

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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0025194 MSD0255 JEFFERSONTOWN CHENOWETH RUN CENT

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

WO # Activity Code / Description <u>Initiated</u> Initiated By Assigned To **Disch Status Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 964033 10/02/09 08:36 AM SINGLETON **STEPHENSON** DOCUMENTED 01/14/07 **BLENDING AT JTOWN** UNAUTHORIZED 10/02/09 10:40 DISCHARGE WQTC DISCHAGE -AM WATERS

Spot Inspections:

Peak Plant Flow when Blending:	11,110,000 GPD
Total Plant Flow when Blending:	5,160,000 GAL
Discharge Amount:	34,813 GAL
Cause:	FLOW EXCEEDED PLANT CAPACITY
Clean Up:	NO CLEANUP PERFORMED- PIPE DISCHARGING UNDERWATER
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED- FACILITY UNDER ELEVATED CREEK LEVEL.
Repair:	A SOLUTION FOR THIS LOCATION IS IN THE IOAP

10/02/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/02/09 08:36 AM	DISPUB	TEMPORARY SIGNS POSTED
10/02/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194 (Cont'd) Facility ID MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region CENT

Activity Code / Description
DISREV: RAIN EVENT
DISCHARGE

<u>WO #</u> 969277 Initiated 10/09/09 04:31 AM Initiated By ELDER Assigned To MILLS Disch Status

DOCUMENTED

01/14/07

e Problem
BLENDING AT JTOWN

WQTC

Result
UNAUTHORIZED
DISCHAGE WATERS

Completed 10/10/09 01:58

AM

Spot Inspections:

-p	
Peal Plant Flow when Blending:	16,855,000 GPD
Total Plant Flow when Blending:	9,090,339 GAL
Discharge Amount:	1,650,306 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN 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:	NO IMPACT OBSERVED - FACILITY UNDER ELEVATED CREEK LEVEL
Repair:	NOGOTATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 12:00 AM	DISPUB	PERMANENT SIGNS POSTED IN AREA
10/09/09 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



Initiated Oct 01, 2009 12:00 AM thru Dec 31, 2009 11:59 PM

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

KPDES # KY0025194 (Cont'd) Facility ID MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region CENT

Condition

Activity Code / Description
DISREV: RAIN EVENT
DISCHARGE

<u>WO #</u> 974557 Initiated 10/27/09 11:43 PM Initiated By ELDER Assigned To WRIGHT Disch Status

DOCUMENTED

01/14/07

e Problem
BLENDING AT JTOWN
WQTC

Result
UNAUTHORIZED
DISCHAGE WATERS

Completed 10/28/09 02:02

GE - AM

Spot Inspections:

Peal Plant Flow when Blending:	11,222,128 GPD
Total Plant Flow when Blending:	9,049,000 GAL
Discharge Amount:	47,447 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	NO CLEAN UP PERFORMED - WATER RECEIVED PRIMARY & UV TREATMENT
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NO IMPACT OBSERVED - FLOW RECEIVED PRIMARY & UV TREATMENT
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

10/28/09 12:58 AM	DISPUB	Permanent signs posted in area & http://www.msdlouky.org/projectwin/
10/27/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/27/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0025194 (Cont'd) Facility ID MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region CENT

Activity Code / Description
DISREV: RAIN EVENT
DISCHARGE

<u>WO #</u> 975855 Initiated 10/31/09 03:27 AM Initiated By ELDER Assigned To CLARK Disch Status

DOCUMENTED

01/14/07

e Problem
BLENDING AT JTOWN

WQTC

UNAUTHORIZED DISCHAGE -WATERS

Result

Completed 10/31/09 04:00

IAGE - PM

Spot Inspections:

r · · · · · · · · · · · · · · · · · · ·	
Peal Plant Flow when Blending:	14,320,000 GPD
Total Plant Flow when Blending:	8,350,000 GAL
Discharge Amount:	966,634 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	PERMANENT SIGNS IN PLACE. PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM.
Impact:	NO IMPACT OBSERVED - FACILITY UNDER ELEVATED CREEK LEVEL
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

10/31/09 08:11 AM	DISPUB	Permanent signs posted in area & http://www.msdlouky.org/projectwin/
10/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/31/09 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



Initiated Oct 01, 2009 12:00 AM thru Dec 31, 2009 11:59 PM

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

KPDES# KY0025194 (Cont'd) **Facility ID** MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region **CENT**

Condition

Activity Code / Description DISREV: RAIN EVENT DISCHARGE

WO # 989835

<u>Initiated</u> 12/08/09 08:53 PM Initiated By **ELDER**

Assigned To MILLS

Disch Status DOCUMENTED Event Date 01/14/07

Problem BLENDING AT JTOWN WQTC

Result UNAUTHORIZED DISCHAGE -WATERS

Completed 12/09/09 02:51

AM

Spot Inspections:

-p	
Peal Plant Flow when Blending:	13,410,000 GPD
Total Plant Flow when Blending:	7,360,000 GAL
Discharge Amount:	378,622 GAL
Cause:	LACK OF CAPACITY DUE TO RAIN EVENT IN AREA
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL
Control Zone:	PERMENANT SIGNS, - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

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
12/10/09 06:45 AM	DISPUB	PERMANANT SIGNS POSTED IN AREA
		& http://www.msdlouky.org/projectwin/
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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0029459 MSD0263 CHENOWETH HILLS CHENOWETH RUN CENT

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

WO # **Activity Code / Description** <u>Initiated</u> Initiated By Assigned To Disch Status Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 967725 10/05/09 03:15 PM **ELDER** WRIGHT DOCUMENTED 09/27/02 BYPASS AT WQTC **UNAUTHORIZED** 10/05/09 05:35 DISCHARGE РМ DISCHAGE -WATERS

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.

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





KPDES# KY0029459 (Cont'd) **Facility ID** MSD0263

Water Quality Treatement Center CHENOWETH HILLS

BRAZEL

Receiving Stream of Treatment Center CHENOWETH RUN

Region **CENT**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 989842

<u>Initiated</u> 12/08/09 09:50 PM

ELDER

Initiated By

Assigned To Disch Status DOCUMENTED **Event Date** 09/27/02

Problem BYPASS AT WQTC Result UNAUTHORIZED Completed Condition 12/09/09 02:40

DISCHAGE -AM

WATERS

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

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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0078956 MSD0277 DEREK R. GUTHRIE OHIO RIVER WEST

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

WO # Activity Code / Description <u>Initiated</u> **Initiated By** Assigned To Disch Status Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 996579 12/31/09 12:19 AM MARKS JR LAMBDIN JR DOCUMENTED 10/17/06 BYPASS AT WQTC **UNAUTHORIZED** 12/31/09 02:29 DISCHARGE DISCHAGE -AM WATERS

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

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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0022411 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 08935-SM 1001 BRECKENRIDGE LN MIDDLE FORK STREAM

BEARGRASS CREEK

Activity Code / Description WO# Initiated Initiated By **Assigned To Disch Status Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 969304 10/09/09 05:10 AM GRIFFITH **GRIFFITH** DOCUMENTED 11/29/01 LACK OF SYSTEM UNAUTHORIZED 10/09/09 09:05

DISCHARGE

CAPACITY

DISCHAGE - PM

ACITI DISCHAGE -

WATERS

Spot Inspections:

Discharge Amount:	1,288 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUMBERGED
Control Zone:	PERMANENT SIGNS PLACED AROUND DISCHARGE SITE
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/12/09 10:35 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0022411 (Cont'd) **Facility ID** MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 974577

<u>Initiated</u> 10/27/09 11:34 PM Initiated By GRIFFITH

Assigned To GRIFFITH

Disch Status DOCUMENTED Event Date 11/29/01

Problem LACK OF SYSTEM CAPACITY

Result UNAUTHORIZED DISCHAGE -

WATERS

Completed 10/28/09 12:14

AM

Spot Inspections:

Discharge Amount:	3,078 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	PERMANENT SIGNS PLACED AROUND DISCHARGE SITE
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/28/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/29/09 02:59 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/28/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# **Facility ID** KY0022411 (Cont'd) MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 975876 <u>Initiated</u>

10/31/09 07:29 AM

Initiated By MITCHELL

Assigned To GRIFFITH

Disch Status DOCUMENTED Event Date **Problem** 11/29/01

LACK OF SYSTEM CAPACITY

Result UNAUTHORIZED DISCHAGE -

Completed 10/31/09 02:52

PM WATERS

Spot Inspections:

Discharge Amount:	223,896 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	PERMANENT SIGNS PLACED AROUND DISCHARGE SITE
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/04/09 11:10 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANTENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/31/09 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





KPDES # Facility ID Water Quality Treatement 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 104231 4119 LEE AVE CAMP TAYLOR DITCH GROUND

WO # Activity Code / Description <u>Initiated</u> **Initiated By** Assigned To Disch Status **Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 969396 10/09/09 04:55 AM MITCHELL **GRIFFITH** DOCUMENTED 10/23/07 LACK OF SYSTEM **UNAUTHORIZED** 10/09/09 08:10 DISCHARGE **CAPACITY** DISCHAGE -AM WATERS

Spot Inspections:

Discharge Amount:	108,000 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969694
Control Zone:	BARRICADES AND TEMORARY SIGNS WERE PLACED AROUND IMPACTED AREA
Impact:	SOLIDS AND DEBRIS OBSERVED AROUND DISCHARGED AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 02:32 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 13943 4119 LEE AVE SOUTH FORK GROUND

BEARGRASS CREEK

Activity Code / Description WO # Initiated Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969402 10/09/09 04:57 AM MITCHELL GRIFFITH DOCUMENTED 03/19/08 LACK OF SYSTEM UNAUTHORIZED 10/09/09 08:11

DISCHARGE CAPACITY DISCHAGE - AM

WATERS

Spot Inspections:

Discharge Amount:	554 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969683
Control Zone:	TEMPORARY SIGNS WERE PLACED AROUND IMPACTED AREA
Impact:	SOLIDS AND DEBRIS WERE OBSERVED AT DISCHARGE SITE
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

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





KPDES# **Water Quality Treatement Center Receiving Stream of Treatment Center** Facility ID 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

1726 FRASER DR DITCH 16649 SMH Sewer Manhole SOUTH FORK

BEARGRASS CREEK

Activity Code / Description WO# Initiated Initiated By Assigned To **Disch Status Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 969381 10/09/09 04:40 AM MITCHELL **GRIFFITH** DOCUMENTED 01/24/02 LACK OF SYSTEM UNAUTHORIZED 10/11/09 12:01

DISCHARGE CAPACITY DISCHAGE -AM

WATERS

Spot Inspections:

Discharge Amount:	234,426 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969901
Control Zone:	NONE NEEDED-DISCHARGE IS UNDERGROUND (DOOR HANGERS WERE PLACED)
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

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 08:58 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0022411 (Cont'd) **Facility ID** MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 974587 <u>Initiated</u>

10/28/09 02:50 AM

Initiated By MITCHELL

Assigned To GRIFFITH

Disch Status DOCUMENTED **Event Date** 01/24/02

Problem LACK OF SYSTEM CAPACITY

Result UNAUTHORIZED DISCHAGE -

WATERS

Completed 10/28/09 10:45

AM

Spot Inspections:

Discharge Amount:	44,757 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #975101
Control Zone:	NONE NEEDED-PIPE SUBMERGED
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

10/28/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/29/09 02:47 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/28/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0022411 (Cont'd) **Facility ID** MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 975877

<u>Initiated</u> 10/31/09 04:00 AM **Initiated By** MITCHELL

Assigned To GRIFFITH

Disch Status DOCUMENTED **Event Date** 01/24/02

Problem LACK OF SYSTEM CAPACITY

Result UNAUTHORIZED DISCHAGE -

WATERS

Completed 11/01/09 12:01

AM

Spot Inspections:

Discharge Amount:	133,357 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN W/O #976136
Control Zone:	NONE NEEDED-PIPE SUBMERGED
Impact:	LIGHT DEBRIS AND SOLIDS OBSERVED AROUND DISCHARED SITE
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31,2009

10/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/02/09 11:14 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/31/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# **Facility ID** KY0022411 (Cont'd) MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 989844

<u>Initiated</u> 12/08/09 10:10 PM **Initiated By** MITCHELL

Assigned To GRIFFITH

Disch Status DOCUMENTED **Event Date** 01/24/02

Problem LACK OF SYSTEM CAPACITY

Result UNAUTHORIZED DISCHAGE -

Completed 12/09/09 04:50 PM

WATERS

Spot Inspections:

Discharge Amount:	70,180 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WO #990609
Control Zone:	NONE NEEDED-PIPE SUBMERGED
Impact:	LIGHT DEDRIS AND SOLIDS OBSERVED AROUND DISCHARGED SITE
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2009

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
12/09/09 07:53 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS AND DOOR HANGERS AT LOCATION TO AVOID DISCHARGED CONTENT
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





KPDES # Facility ID Water Quality Treatement 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 17571 3035 CARSON WAY SOUTH FORK CATCH BASIN

BEARGRASS CREEK

PM

Activity Code / Description WO # Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969281 10/09/09 05:14 AM BRIGHT BRIGHT DOCUMENTED 02/17/00 PUMPED OVERFLOW UNAUTHORIZED 10/09/09 02:30

DISCHAGE -WATERS

Spot Inspections:

DISCHARGE

Discharge Amount:	528,200 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:50 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 18471 3107 DELL BROOKE AVE SOUTH FORK CATCH BASIN

BEARGRASS CREEK

Activity Code / Description WO # Initiated Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969285 10/09/09 05:26 AM BRIGHT BRIGHT DOCUMENTED 02/17/00 PUMPED OVERFLOW UNAUTHORIZED 10/09/09 07:37

DISCHARGE DISCHARGE

WATERS

Spot Inspections:

Discharge Amount:	1,067,200 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:49 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 18483 3015 BOAIRES LN SOUTH FORK CATCH BASIN

BEARGRASS CREEK

Activity Code / Description WO # Initiated Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969284 10/09/09 05:23 AM BRIGHT BRIGHT DOCUMENTED 02/17/00 PUMPED OVERFLOW UNAUTHORIZED 10/09/09 02:25

DISCHARGE - PM

WATERS

Spot Inspections:

Discharge Amount:	564,300 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:50 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 18505 3540 RAMONA AVE SOUTH FORK CATCH BASIN

BEARGRASS CREEK

Activity Code / Description WO # Initiated By Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969282 10/09/09 05:31 AM BRIGHT BRIGHT DOCUMENTED 02/17/00 PUMPED OVERFLOW UNAUTHORIZED 10/09/09 01:05
DISCHARGE DISCHARGE

WATERS

Spot Inspections:

Discharge Amount:	446,600 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:49 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 18595 3101 WEDGEWOOD WAY WEDGEWOOD DITCH DITCH

WO # Activity Code / Description Initiated Initiated By Assigned To Disch Status Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 969283 10/09/09 05:18 AM **BRIGHT BRIGHT** DOCUMENTED 02/17/00 PUMPED OVERFLOW **UNAUTHORIZED** 10/09/09 03:22 РМ DISCHARGE DISCHAGE -WATERS

Spot Inspections:

Discharge Amount:	590,100 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:50 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 21061 4432 CORDOVA RD UPPER SINKING FORK CATCH BASIN

WO # Activity Code / Description Initiated Initiated By Assigned To Disch Status Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 969278 10/09/09 05:20 AM **BRIGHT BRIGHT** DOCUMENTED 02/17/00 PUMPED OVERFLOW **UNAUTHORIZED** 10/09/09 09:36 DISCHARGE DISCHAGE -AM WATERS

Spot Inspections:

Discharge Amount:	272,700 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:50 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov





KPDES # Facility ID Water Quality Treatement 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 21153 4522 CORDOVA RD UPPER SINKING FORK CATCH BASIN

WO # Activity Code / Description <u>Initiated</u> Initiated By Assigned To Disch Status Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 969279 10/09/09 05:50 AM **BRIGHT BRIGHT** DOCUMENTED 02/17/00 PUMPED OVERFLOW **UNAUTHORIZED** 10/09/09 10:30 DISCHARGE DISCHAGE -AM WATERS

Spot Inspections:

Discharge Amount:	472,100 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:48 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov





KPDES # Facility ID Water Quality Treatement 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 21156 100 STONEHENGE DR UPPER SINKING FORK CATCH BASIN

WO # Activity Code / Description Initiated Initiated By Assigned To Disch Status Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 969280 10/09/09 05:40 AM **BRIGHT BRIGHT** DOCUMENTED 02/17/00 PUMPED OVERFLOW **UNAUTHORIZED** 10/09/09 06:01 РМ DISCHARGE DISCHAGE -WATERS

Spot Inspections:

Discharge Amount:	1,263,500 GAL
Cause:	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED
Control Zone:	MSD PERSONNEL SET OUT BARRICADES AND TEMPORARY SIGNS ON THE PUMP
Impact:	SEWAGE VISIBLE AROUND PUMPED DISCHARGE SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 06:49 AM	DISPUB	MSD PERSONNEL PLACED SIGNS
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 27005 1012 ALTA CIR MIDDLE FORK GROUND

BEARGRASS CREEK

Activity Code / Description WO# Initiated Initiated By Assigned To **Disch Status Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 969350 10/09/09 06:32 AM **FIELDS GRIFFITH** DOCUMENTED 09/02/03 LACK OF SYSTEM UNAUTHORIZED 10/09/09 09:32

DISCHARGE CAPACITY DISCHAGE - AM

WATERS

Spot Inspections:

Discharge Amount:	4,200 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969783
Control Zone:	BARRICADES AND CAUTION TAPE WERE PLACED AROUND IMPACTED AREA
Impact:	LIGHT DEBRIS AND SOLIDS OBSERVED AROUND DISCHARGE SITE
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 07:55 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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

SSL Sewer Service Line 33609 3510 GLADDEN DR SOUTH FORK CATCH BASIN

BEARGRASS CREEK

Activity Code / Description WO# **Initiated** Initiated By **Assigned To Disch Status Event Date Problem** Result Completed Condition DISDW: DRY WEATHER 993572 12/26/09 12:00 PM RICHARDSON RICHARDSON REPAIRED -12/26/09 **OBSTRUCTION-NOT** UNAUTHORIZED 12/26/09 02:00 MAIN

DISCHARGE ISSUE GREASE / ROOTS DISCHAGE - PM
RESOLVED WATERS

Spot Inspections:

Discharge Amount:	5 GAL
Cause:	OBSTRCTUION IN THE MSD MAIN SEWER
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	MSD PERSONNEL ADVISED CUSTOMER TO AVOID CONTACT WITH SEWAGE
Impact:	SEWAGE COMING FROM THE MSD CLEANOUT GOING INTO THE STORM DRAIN
Repair:	WORK ORDER 993575 - ROOTCUT AND OPEN THE MAIN SEWER

12/26/09 12:00 PM	DISPUB	ADVISED CUSTOMER BY DOORCARD,ON SITE AND POSTING SIGNS
12/26/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov





KPDES # Facility ID Water Quality Treatement 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 45544 7904 BROWNSBORO RD GOOSE CREEK GROUND

WO # **Activity Code / Description** <u>Initiated</u> **Initiated By** Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 983491 11/20/09 09:30 AM RICHARDSON RICHARDSON REPAIRED -11/20/09 GREASE BLOCKAGE **UNAUTHORIZED** 11/20/09 05:06 MAIN DISCHARGE ISSUE DISCHAGE -PM **RESOLVED** WATERS

Spot Inspections:

Discharge Amount:	75 GAL
Cause:	GREASE IN THE MAIN SEWER
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	MSD PERSONNEL ADVISED CUSTOMER TO AVOID CONTACT WITH SEWAGE
Impact:	SEWAGE COMING FROM THE MANHOLE
Repair:	WORK ORDER 983493 - FLUSHED AND OPEN THE MAIN SEWER

11/20/09 09:15 AM	DISPUB	PLACED DISCHARGE SIGNS AND AVISED CUSTOMER ON SITE
11/20/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov





KPDES # Facility ID Water Quality Treatement 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 45835 1132 ROSTREVOR CIR MIDDLE FORK GROUND

BEARGRASS CREEK

Activity Code / Description WO # Initiated By Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969357 10/09/09 06:40 AM FIELDS GRIFFITH DOCUMENTED 09/02/03 LACK OF SYSTEM UNAUTHORIZED 10/09/09 09:40

DISCHARGE CAPACITY DISCHAGE - AM WATERS

Spot Inspections:

Discharge Amount:	4,200 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969779
Control Zone:	BARRICADES AND CAUTION TAPE WERE PLACED AROUND IMPACTED AREA
Impact:	SOLIDS AND DEBRIS WERE OBSERVED AROUND DISCHARGE AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 07:05 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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





KPDES# **Water Quality Treatement Center Receiving Stream of Treatment Center** Facility ID 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

3305 INDIAN CREEK CT **GROUND** 51160 SMH Sewer Manhole SOUTH FORK

BEARGRASS CREEK

Activity Code / Description WO# Initiated Initiated By **Assigned To Disch Status Event Date Problem** Result Completed Condition

DISREV: RAIN EVENT 969384 10/09/09 06:43 AM MITCHELL **GRIFFITH** DOCUMENTED 04/04/08 LACK OF SYSTEM UNAUTHORIZED 10/09/09 08:24 DISCHARGE CAPACITY DISCHAGE -AM

WATERS

Spot Inspections:

Discharge Amount:	1,080 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NO CLEAN-UP NEEDED
Control Zone:	CAUTION TAPE AND TEMPORARY SIGNS WERE PLACED AROUND IMPACTED AREA
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 05:56 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 51301 4200 LEE AVE SOUTH FORK GROUND

BEARGRASS CREEK

Activity Code / Description WO # Initiated Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969392 10/09/09 05:00 AM MITCHELL GRIFFITH DOCUMENTED 09/20/09 LACK OF SYSTEM UNAUTHORIZED 10/09/09 08:14

DISCHARGE CAPACITY DISCHAGE - AM

DISCHARGE CAPACITY DISCHAGE - WATERS

Spot Inspections:

Discharge Amount:	540 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969688
Control Zone:	TEMPORARY SIGNS AND CAUTION TAPE WERE PLACED AROUND IMPACTED AREA
Impact:	SOLIDS AND DEBRIS WERE OBSERVED AROUND DISCHARGE SITE
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 02:24 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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





KPDES # Facility ID Water Quality Treatement 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 51594 1418 TREVILIAN WAY SOUTH FORK DITCH

BEARGRASS CREEK

Activity Code / Description WO# Initiated Initiated By **Assigned To Disch Status Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 969376 10/09/09 04:50 AM MITCHELL **GRIFFITH** DOCUMENTED 09/12/06 LACK OF SYSTEM UNAUTHORIZED 10/09/09 08:55

DISCHARGE CAPACITY DISCHAGE - AM

WATERS

Spot Inspections:

Discharge Amount:	9,720 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WORK ORDER #969775
Control Zone:	TEMPORARY SIGNS AND CAUTION TAPE 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

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 06:35 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT DISCHARGE TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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





KPDES# **Water Quality Treatement Center Receiving Stream of Treatment Center** Facility ID 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

4600 CHAMPIONS TRACE LN STREAM 72571-X SMH Sewer Manhole SOUTH FORK

BEARGRASS CREEK

Activity Code / Description WO# Initiated Initiated By Assigned To **Disch Status Event Date Problem** Result Completed Condition

DISREV: RAIN EVENT 969305 10/09/09 04:14 AM GRIFFITH **GRIFFITH** DOCUMENTED 11/29/01 LACK OF SYSTEM UNAUTHORIZED 10/09/09 03:17

CAPACITY

DISCHAGE -PM

WATERS

Spot Inspections:

DISCHARGE

Discharge Amount:	930 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-REMOTE LOCATION ON MSD PROPERTY
Control Zone:	NONE NEEDED
Impact:	NO IMPACT OBSERVED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/12/09 10:43 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/09/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0022411 (Cont'd) **Facility ID** MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 974827 <u>Initiated</u>

10/28/09 06:20 AM

Initiated By **FRENCH**

Assigned To Disch Status GRIFFITH DOCUMENTED

Event Date **Problem** LACK OF SYSTEM 11/29/01

CAPACITY

Result UNAUTHORIZED DISCHAGE -

WATERS

Completed 10/28/09 06:22

AM

Spot Inspections:

Discharge Amount:	224 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN
Clean Up:	NONE POSSIBLE DUE TO MAGNITUDE OF STORM
Control Zone:	NO CONTROL ZONE REQUIRED - NO ACCESS TO OVERFLOW LOCATION. PERMANENT SIGNS POSTED ALONG STREAM.
Impact:	NO IMPACT OBSERVED - MAGNITUDE OF STORM FLUSHED SOLIDS AND DEBRIS FROM SITE
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/28/09 04:30 PM	DISPUB	Public notified by updates to MSD and Project WIN Overflow Advisory on website and permanent signs posted along the South Fork of Beargrass Creek.
10/28/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd) Facility ID MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region WEST

Activity Code / Description
DISREV: RAIN EVENT

DISCHARGE

<u>WO #</u> 975874

'4

Initiated 10/31/09 03:36 AM Initiated By MITCHELL Assigned To Disch Status
GRIFFITH DOCUMENTED

<u>Ev</u>

Event Date Problem
11/29/01 LACK OF SYSTEM

CAPACITY

Result
UNAUTHORIZED
DISCHAGE -

WATERS

Completed 10/31/09 03:36

AM

Spot Inspections:

Discharge Amount:	1,627 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	NO CONTROL ZONE-NO ACCESS TO OVERFLOW LOCATION. PERMANENT SIGNS POSTED AT SITE
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

10/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/04/09 11:23 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
10/31/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0022411 (Cont'd) **Facility ID** MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region **WEST**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 989845 <u>Initiated</u>

12/08/09 10:36 PM

Initiated By GRIFFITH

Assigned To GRIFFITH

Disch Status DOCUMENTED Event Date **Problem** 11/29/01

LACK OF SYSTEM CAPACITY

Result UNAUTHORIZED DISCHAGE -

Completed 12/09/09 01:34

AM

WATERS

Spot Inspections:

Discharge Amount:	16,206 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	None Needed-Pipe Submerged
Control Zone:	NO CONTROL ZONE-NO ACCESS TO OVERFLOW LOCATION. PPERMANENT SIGNS POSTED AT SITE.
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

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
12/09/09 07:36 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS AT DISCHARGE LOCATION TO AVOID DISCHARGED CONTENT
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





KPDES # Facility ID Water Quality Treatement 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 CS0016 4522 WINNROSE WAY OHIO RIVER STREAM

WO # **Activity Code / Description** Initiated **Initiated By** Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 979931 11/11/09 12:00 PM MULLER REPAIRED -11/12/09 MECHANICAL FAILURE UNAUTHORIZED 11/12/09 12:17 DISCHARGE ISSUE DISCHAGE -AM **RESOLVED** WATERS

Spot Inspections:

Discharge Amount:	9,185,000 GAL
Cause:	MECHANICAL FAILURE OF THE GATE AT THE MAIN DIVERSION STRUCTURE
Clean Up:	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO RIVER
Control Zone:	NO CONTROL ZONE SET UP. PERMANENT SIGN POSTED AT OUTFALL.
Impact:	SUBMERGED DICHARGE
Repair:	TEMPORARY MODIFICATIONS MADE TO ALLOW OPERATION OF GATE

11/11/09 04:50 PM	DISPUB	Notification made through MSD website, email listserve and local news agencies.
11/11/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/11/09 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





KPDES # Facility ID Water Quality Treatement 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 CS0018 1800 NIGHTINGALE RD SOUTH FORK STREAM

BEARGRASS CREEK

Activity Code / Description WO # Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISDW: DRY WEATHER 963868 10/01/09 03:00 PM SINGLETON BRAZEL REPAIRED - 10/01/09 ELECTRICAL UNAUTHORIZED 10/01/09 03:58

DISCHARGE ISSUE PROBLEMS AT MSD DISCHAGE - PM RESOLVED WATERS

Spot Inspections:

Discharge Amount:	4,483 GAL
Cause:	ELECTRICAL CONTROLS PROBLEMS
Clean Up:	PIPE DISCHARGE SUBMERGED- NO CLEANUP
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	DISCOLORATION IN STREAM; SEWAGE OBSERVED.
Repair:	MAINTENACE REPAIRED ELECTRICAL PROBLEMS.

10/01/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/01/09 03:00 PM	DISPUB	TEMPORARY SIGNS POSTED
10/01/09 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





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

Facility TypeFacility IDFacility AddressIf Pump Station, Name of Pump Station:Receiving StreamDischarge toSMH Sewer ManholeCS0020147 BUCHANAN STOHIO RIVERGROUND

WO # **Activity Code / Description** Initiated **Initiated By Assigned To Disch Status Event Date Problem** Result Completed Condition DISDW: DRY WEATHER 975993 11/01/09 01:00 PM THOMPSON **THOMPSON** REPAIRED -11/01/09 POWER OUTAGE **UNAUTHORIZED** 11/01/09 01:30 DISCHARGE РМ ISSUE (LG&E) DISCHAGE -**RESOLVED** WATERS

Spot Inspections:

Discharge Amount:	1,073,000 GAL
Cause:	POWER ISSUE CAUSED PUMPS TO FAIL AND BYPASS OVER CSO 20 UNTIL PUMPS WERE ABLE TO BE RESTARTED.
Clean Up:	NONE REQUIRED; SUBMERGED OUTLET IN THE OHIO RIVER
Control Zone:	MSD HAS PERMANENT SIGNS LOCATED AT THE SUBMERGED OUTLET PIPE INTO THE OHIO RIVER
Impact:	NONE
Repair:	NONE REQUIRED. POWER WAS RESTORED AND PUMPS WERE RESTARTED

11/01/09 01:30 PM	DISPUB	OVERFLOW SIGNS INSTALLED AT OUTFALL TO OHIO RIVER
11/01/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov





KPDES # Facility ID Water Quality Treatement 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 CS0022 342 W MAIN ST OHIO RIVER STREAM

WO # **Activity Code / Description Initiated** Initiated By **Assigned To** Disch Status **Event Date Problem** Result Completed Condition DISDW: DRY WEATHER 992903 12/21/09 12:37 PM **ELDER THOMPSON** DOCUMENTED 01/04/04 UTILITY DAMAGED **UNAUTHORIZED** 12/21/09 01:07 DISCHARGE MSD ASSET DISCHAGE -PMWATERS

Spot Inspections:

Discharge Amount:	312,000 GAL
Cause:	LOUISVILLE WATER COMPANY HAD A WATER MAIN BREAK @ 3RD STREET & ALI BLVD. UTILITY DAMAGE:
Clean Up:	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO RIVER
Control Zone:	NO CONTROL ZONE SET UP - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO RIVER
Impact:	NONE OBSERVED BY MSD PERSONNEL - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO RIVER
Repair:	WHEN FLOW SUBSIDED MSD PUMPS RECOVERED CAUSING THE OVERFLOW TO END

12/21/09 05:09 PM	DISPUB	http://www.msdlouky.org/projectwin/
12/21/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
12/21/09 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





KPDES # Facility ID Water Quality Treatement 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 CSO132 1919 BROWNSBORO RD MUDDY FORK STREAM

BEARGRASS CREEK

Activity Code / Description WO # Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISDW: DRY WEATHER 989746 12/08/09 12:30 AM FRENCH GRIFFITH REPAIRED - 12/08/09 UTILITY DAMAGED UNAUTHORIZED 12/08/09 12:45
DISCHARGE ISSUE MSD ASSET DISCHAGE - AM

RESOLVED WATERS

Spot Inspections:

Discharge Amount:	3,333 GAL
Cause:	WATER MAIN BREAK ALONG LOWER BROWNSBORO ROAD
Clean Up:	LIMITED ACCESS TO OVERFLOW OUTFALL - NO CLEAN UP REQUIRED
Control Zone:	LIMITED ACCESS TO OVERFLOW OUTFALL - NO CLEAN UP REQUIRED
Impact:	LIMITED ACCESS TO OVERFLOW OUTFALL - NO IMPACT OBSERVED
Repair:	LOUISVILLE WATER COMPANY IS ON SITE MAKING REPAIRS TO WATER MAIN

12/11/09 10:42 AM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
12/11/09 10:46 AM	DISPUB	No public notification was made. Overflow event had stopped and a rain event began before verification that the dry weather overflow had
		actually occurred.





KPDES # Facility ID Water Quality Treatement 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 CSO210 4522 WINNROSE WAY OHIO RIVER STREAM

WO # **Activity Code / Description Initiated Initiated By** Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 979932 11/11/09 10:45 AM MULLER REPAIRED -11/12/09 MECHANICAL FAILURE UNAUTHORIZED 11/12/09 01:21 DISCHARGE ISSUE DISCHAGE -AM **RESOLVED** WATERS

Spot Inspections:

Discharge Amount:	1,150,000 GAL
Cause:	MECHANICAL FAILURE OF THE GATE AT THE MAIN DIVERSION STRUCTURE
Clean Up:	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO RIVER
Control Zone:	NO CONTROL ZONE SET UP. PERMANENT SIGN POSTED AT OUTFALL.
Impact:	SUBMERGED OUTLET
Repair:	TEMPORARY MODIFICATIONS MADE TO ALLOW OPERATION OF GATE

11/11/09 04:53 PM	DISPUB	Notification made through MSD website, email listserve and local news agencies.
11/11/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/11/09 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





KPDES # Facility ID Wate KY0022411 (Cont'd) MSD0278 MOR

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region WEST

Activity Code / Description
DISDW: DRY WEATHER
DISCHARGE

WO # 980591

<u>Initiated</u> 11/12/09 10:39 AM Initiated By FRENCH Assigned To Disch Status REPAIRED -

atus ED -

Event Date Problem

11/12/09 MECHANICAL FAILURE

Result
UNAUTHORIZED

WATERS

Completed Condition 11/12/09 11:59

AM

DISCHAGE -

Spot Inspections:

Discharge Amount:	18,781 GAL
Cause:	DIVERSION GATE CLOSED TO FACILITATE REPAIR WORK.
Clean Up:	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO RIVER
Control Zone:	NO CONTROL ZONE SET UP. PERMANENT SIGN POSTED NEAR OUTFALL.
Impact:	SUBMERGED DISCHARGE
Repair:	REPAIRS COMPLETE

ISSUE

RESOLVED

11/12/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/13/09 01:15 PM	DISPUB	Notification made to public through MSD website, listserve and local media outlets.
11/12/09 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





KPDES # Facility ID Water Quality Treatement 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 CSO211 1423 SOUTHWESTERN PKY OHIO RIVER STREAM

WO # **Activity Code / Description Initiated Initiated By** Assigned To Disch Status Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 979933 11/11/09 07:00 AM MULLER DOCUMENTED 11/22/03 MECHANICAL FAILURE UNAUTHORIZED 11/11/09 07:00 DISCHARGE DISCHAGE -AM WATERS

Spot Inspections:

Discharge Amount:	1 GAL
Cause:	MECHANICAL FAILURE OF THE GATE AT THE MAIN DIVERSION STRUCTURE - ADDITIONAL ANALYSIS INDICATES NO DISCHARGE OCCURRED AT THIS CSO.
Clean Up:	ADDITIONAL ANALYSIS INDICATES NO DISCHARGE OCCURRED AT THIS CSO.
Control Zone:	NO CONTROL ZONE SET UP. PERMANENT SIGN POSTED AT OUTFALL.
Impact:	SUBMERGED OUTLET - ADDITIONAL ANALYSIS INDICATES NO DISCHARGE OCCURRED AT THIS CSO.
Repair:	REPAIRS ARE UNDERWAY - ADDITIONAL ANALYSIS INDICATES NO DISCHARGE OCCURRED AT THIS CSO.

11/11/09 04:54 PM	DISPUB	Notification made through MSD website, email listserve and local news agencies.
11/11/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
11/11/09 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





KPDES # Facility ID Water Quality Treatement 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

SLS Sewer Lift Station MSD0012-PS 3246 RADIANCE RD HIGHGATE SPRINGS SOUTH FORK STREAM

BEARGRASS CREEK

Activity Code / Description WO # Initiated Initiated By Assigned To Disch Status Event Date Problem Result Completed Condition

DISREV: RAIN EVENT 969276 10/09/09 04:26 AM ELDER MILLS DOCUMENTED 12/16/00 PUMPED OVERFLOW UNAUTHORIZED 10/10/09 08:49
DISCHARGE DISCHARGE

WATERS

Spot Inspections:

Discharge Amount:	1,627,860 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

10/09/09 06:06 AM	DISPUB	PERMANENT SIGNS POSTED IN AREA
10/09/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/09/09 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, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES # KY0022411 (Cont'd) Facility ID MSD0278

Water Quality Treatement Center MORRIS FORMAN

Receiving Stream of Treatment Center OHIO RIVER

Region WEST

Activity Code / Description
DISREV: RAIN EVENT

DISCHARGE

<u>WO #</u> 975856 Initiated 10/31/09 04:46 AM Initiated By ELDER Assigned To MILLS Disch Status

DOCUMENTED

Event Date Problem
12/16/00 PUMPED OVERFLOW

Result

/ UNAUTHORIZED

DISCHAGE -

WATERS

Completed 11/01/09 06:10

AM

Spot Inspections:

Discharge Amount:	415,740 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Control Zone:	PERMANENT SIGNS, - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM
Impact:	NONE OBSERVED - OUTLETS SUBMERGED
Repair:	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN FOR ABATEMENT

10/31/09 08:23 AM	DISPUB	PERMANENT SIGNS POSTED IN AREA
10/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/31/09 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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0098540 MSD0289 CEDAR CREEK CEDAR CREEK CENT

Facility Type Facility ID Facility Address If Pump Station, Name of Pump Station: Receiving Stream Discharge to

SSL Sewer Service Line 160264 6023 COOPER CHAPEL RD FISHPOOL CREEK GROUND

WO # Activity Code / Description <u>Initiated</u> Initiated By Assigned To Disch Status **Event Date Problem** Result Completed Condition DISREV: RAIN EVENT 964012 10/02/09 07:40 AM SINGLETON **PATTERSON** DOCUMENTED 06/03/06 LACK OF SYSTEM **UNAUTHORIZED** 10/02/09 10:40 DISCHARGE **CAPACITY** DISCHAGE -AM WATERS

Spot Inspections:

Discharge Amount:	2,700 GAL
Cause:	LACK OF CAPACITY DUE TO RAIN EVENT IN THE AREA
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE & DEBRIS OBSERVED
Repair:	THIS SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR.

10/02/09 08:42 AM	DISPUB	TEMPORARY SIGNS POSTED
10/02/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/02/09 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



KPDES # KY0098540 (Cont'd) Facility ID MSD0289

Water Quality Treatement Center CEDAR CREEK

Receiving Stream of Treatment Center CEDAR CREEK

Region CENT

Condition

Activity Code / Description
DISREV: RAIN EVENT

DISCHARGE

<u>WO #</u> 969528 Initiated 10/09/09 05:00 AM Initiated By SINGLETON Assigned To KESSEL Disch Status

DOCUMENTED

Event Date Pro 06/03/06 LAC

e Problem LACK OF SYSTEM

CAPACITY

Result
UNAUTHORIZED
DISCHAGE -

Completed 10/09/09 06:00

DISCHAGE - AM WATERS

Spot Inspections:

Discharge Amount:	50 GAL
Cause:	OVERFLOWED AT CLEAN OUT DUE TO RAIN EVENT IN THE AREA
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE & SOLIDS OBSERVED
Repair:	HAULING TO PREVENT FURTHER DISCHARGE #969313

10/09/09 05:00 AM	DISPUB	TEMPORARY SIGNS POSTED
10/09/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0098540 (Cont'd) MSD0289 CEDAR CREEK CEDAR CREEK CENT

Facility TypeFacility IDFacility AddressIf Pump Station, Name of Pump Station:Receiving StreamDischarge toSMN Sewer Main98169A-V10200 CEDAR CREEK RDCEDAR CREEKGROUND

WO # Activity Code / Description **Initiated** Initiated By Assigned To **Disch Status** Event Date **Problem** Result Completed Condition **DISSUS: SUSPECTED** 988419 12/03/09 07:37 PM **KIMBROUGH KIMBROUGH** REPAIRED -12/03/09 STRUCTURAL **UNAUTHORIZED** 12/03/09 08:48 РМ OVERFLOW EVID. FOUND ISSUE **FAILURE** DISCHAGE -**RESOLVED** WATERS

Spot Inspections:

Discharge Amount:	5 GAL
Cause:	STRUCTURAL FAILURE FORCE MAIN BREAK
Clean Up:	CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
Impact:	SEWAGE/DEBRIS/SOLIDS/PERSONAL HYGIENE PRODUCTS FOUND ON THE GROUND
Repair:	REFERRED TO OPERATION FOR REPAIRS

12/03/09 07:37 PM	DISPUB	placed signs in the area
12/00/00 01:01 1:01	2.0. 02	placed eight in the area





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0098540 (Cont'd) MSD0289 CEDAR CREEK CEDAR CREEK CENT

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 RD

WO # **Activity Code / Description Initiated** Initiated By Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 975966 11/01/09 05:00 AM **ELDER** MILLS REPAIRED -12/08/09 BYPASS AT WQTC **UNAUTHORIZED** 11/01/09 06:15 DISCHARGE ISSUE DISCHAGE -AM **RESOLVED** WATERS

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

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



Initiated Oct 01, 2009 12:00 AM thru Dec 31, 2009 11:59 PM

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

KPDES # KY0098540 (Cont'd) Facility ID MSD0289

Water Quality Treatement Center CEDAR CREEK

Receiving Stream of Treatment Center CEDAR CREEK

Region CENT

Activity Code / Description
DISREV: RAIN EVENT

DISCHARGE

<u>WO #</u> 989846 Initiated 12/08/09 11:00 PM Initiated By ELDER Assigned To MILLS <u>Disch Status</u> REPAIRED -ISSUE

RESOLVED

Event Date Problem
12/08/09 BYPASS AT WQTC

<u>Result</u> UNAUTHORIZED Completed Condition 12/08/09 11:30

PM

DISCHAGE -WATERS

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

12/08/09 11:56 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA SUPLIMENTED 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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0029114 MSD0292 HUNTING CREEK SOUTH HARRODS CREEK EAST

Facility Type Facility ID Facility Address If Pump Station, Name of Pump Station: Receiving Stream Discharge to

SLS Sewer Lift Station MSD1064-PS 8619 WESTOVER DR WESTOVER HARRODS CREEK DITCH

WO # **Activity Code / Description Initiated Initiated By** Assigned To **Disch Status Event Date Problem** Result Completed Condition DISDW: DRY WEATHER 972767 10/20/09 01:53 PM MARKS JR KAISER REPAIRED -10/20/09 MECHANICAL FAILURE UNAUTHORIZED 10/20/09 02:05 DISCHARGE РМ ISSUE DISCHAGE -**RESOLVED** WATERS

Spot Inspections:

Discharge Amount:	150 GAL
Cause:	ONE PUMP HAS PROBLEM WITH BEARINGS
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE ON GROUND AND IN CREEK
Repair:	STATION BEING HAULED UNTIL REPAIRS ARE COMPLETED

Notifications:

10/20/09 02:36 PM	DISPUB	MSD NOTIFIED PUBLIC WITH TEMPORARY SIGNS
10/20/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 37
Total Work Orders Printed: 54



Appendix B-2 - Discharge Work Orders - BYPASS







KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0031712 MSD0247 STARVIEW CHENOWETH RUN CENT

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

WO # **Activity Code / Description Initiated** Initiated By Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 989838 12/08/09 09:53 PM **ELDER** LAMBDIN JR REPAIRED -12/08/09 BYPASS AT WQTC **UNAUTHORIZED** 12/08/09 10:24 РМ DISCHARGE ISSUE DISCHAGE -**RESOLVED** WATERS

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

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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0029459 MSD0263 CHENOWETH HILLS CHENOWETH RUN CENT

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

WO # **Activity Code / Description Initiated** Initiated By Assigned To Disch Status Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 967725 10/05/09 03:15 PM **ELDER** WRIGHT DOCUMENTED 09/27/02 BYPASS AT WQTC **UNAUTHORIZED** 10/05/09 05:35 DISCHARGE РМ DISCHAGE -WATERS

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.

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 Treatement Center CHENOWETH HILLS

Receiving Stream of Treatment Center CHENOWETH RUN

Region **CENT**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO # 989842 <u>Initiated</u>

12/08/09 09:50 PM

Initiated By **ELDER**

Assigned To BRAZEL

Disch Status DOCUMENTED **Event Date Problem** BYPASS AT WQTC 09/27/02

Result UNAUTHORIZED **DISCHAGE -**

Completed 12/09/09 02:40

AM

WATERS

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

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





KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0078956 MSD0277 DEREK R. GUTHRIE OHIO RIVER WEST

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

WO # Activity Code / Description **Initiated Initiated By** Assigned To Disch Status Event Date **Problem** Result Completed Condition DISREV: RAIN EVENT 996579 12/31/09 12:19 AM MARKS JR LAMBDIN JR DOCUMENTED 10/17/06 BYPASS AT WQTC **UNAUTHORIZED** 12/31/09 02:29 DISCHARGE DISCHAGE -AM WATERS

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

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



DISCHAGE -

WATERS

AM



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

KPDES # Facility ID Water Quality Treatement Center Receiving Stream of Treatment Center Region
KY0098540 MSD0289 CEDAR CREEK CEDAR CREEK CENT

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 RD

CEDAR CREEK GROUND

WO # **Activity Code / Description Initiated** Initiated By Assigned To **Disch Status** Event Date **Problem** Result Completed Condition DISDW: DRY WEATHER 975966 11/01/09 05:00 AM **ELDER** MILLS REPAIRED -12/08/09 BYPASS AT WQTC **UNAUTHORIZED** 11/01/09 06:15

ISSUE

RESOLVED

Spot Inspections:

DISCHARGE

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

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



Initiated Oct 01, 2009 12:00 AM thru Dec 31, 2009 11:59 PM

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

KPDES# KY0098540 (Cont'd) Facility ID MSD0289

Water Quality Treatement Center CEDAR CREEK

Receiving Stream of Treatment Center CEDAR CREEK

Region **CENT**

Activity Code / Description DISREV: RAIN EVENT

DISCHARGE

WO# 989846 <u>Initiated</u> 12/08/09 11:00 PM Initiated By **ELDER**

Assigned To MILLS

Disch Status REPAIRED -ISSUE

RESOLVED

Event Date <u>Problem</u> 12/08/09

BYPASS AT WQTC

Result UNAUTHORIZED **DISCHAGE -**

WATERS

Completed Condition 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 SUPLIMENTED 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

Total Facilities Printed: 4 Total Work Orders Printed: 6



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 Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region **CENT**

Facility Type

Facility ID

Facility Address

If Pump Station, Name of Pump Station:

Receiving Stream

Discharge to

Condition

SPL Sewer Treatment Plant

MSD0255

10725 OLD TAYLORSVILLE RD

CHENOWETH RUN

STREAM

Activity Code / Description DISREV: RAIN EVENT DISCHARGE

WO # 964033 <u>Initiated</u> 10/02/09 08:36 AM

Initiated By SINGLETON Assigned To **Disch Status STEPHENSON**

Event Date DOCUMENTED 01/14/07

Problem BLENDING AT JTOWN

WQTC

Result UNAUTHORIZED Completed 10/02/09 10:40

DISCHAGE -AM

WATERS

Spot Inspections:

Peak Plant Flow when Blending:	11,110,000 GPD
Total Plant Flow when Blending:	5,160,000 GAL
Discharge Amount:	34,813 GAL
Cause:	FLOW EXCEEDED PLANT CAPACITY
Clean Up:	NO CLEANUP PERFORMED- PIPE DISCHARGING UNDERWATER
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED- FACILITY UNDER ELEVATED CREEK LEVEL.
Repair:	A SOLUTION FOR THIS LOCATION IS IN THE IOAP

10/02/09 01:00 AM DISNOT Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov					
10/02/09 08:36 AM	DISPUB	TEMPORARY SIGNS POSTED			
10/02/09 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: BLEND, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0025194 (Cont'd) **Facility ID** MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region CENT

Activity Code / Description DISREV: RAIN EVENT DISCHARGE

WO# 969277 <u>Initiated</u> 10/09/09 04:31 AM

Initiated By **ELDER**

Assigned To Disch Status MILLS DOCUMENTED **Event Date** 01/14/07

<u>Problem</u> **BLENDING AT JTOWN**

WQTC

Result UNAUTHORIZED DISCHAGE -WATERS

Completed Condition 10/10/09 01:58

AM

Spot Inspections:

Peal Plant Flow when Blending:	16,855,000 GPD
Total Plant Flow when Blending:	9,090,339 GAL
Discharge Amount:	1,650,306 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN 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:	NO IMPACT OBSERVED - FACILITY UNDER ELEVATED CREEK LEVEL
Repair:	NOGOTATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

10/09/09 01:00 AM	DISNOT	DISNOT Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov						
10/09/09 12:00 AM	0 AM DISPUB PERMANENT SIGNS POSTED IN AREA							
10/09/09 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						

Condition





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

KPDES# KY0025194 (Cont'd) **Facility ID** MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region CENT

Activity Code / Description DISREV: RAIN EVENT DISCHARGE

WO# 974557 <u>Initiated</u> 10/27/09 11:43 PM

Initiated By **ELDER**

Assigned To WRIGHT

Disch Status DOCUMENTED **Event Date** 01/14/07

<u>Problem</u> **BLENDING AT JTOWN**

WQTC

UNAUTHORIZED DISCHAGE -WATERS

Result

Completed 10/28/09 02:02 AM

Spot Inspections:

r · · · · · · · · · · · · · · · · · · ·					
Peal Plant Flow when Blending:	11,222,128 GPD				
Total Plant Flow when Blending:	9,049,000 GAL				
Discharge Amount:	47,447 GAL				
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA				
Clean Up:	NO CLEAN UP PERFORMED - WATER RECEIVED PRIMARY & UV TREATMENT				
Control Zone:	NO CONTROL ZONE WAS SET UP - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM				
Impact:	NO IMPACT OBSERVED - FLOW RECEIVED PRIMARY & UV TREATMENT				
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION				

10/28/09 12:58 AM	DISPUB	Permanent signs posted in area & http://www.msdlouky.org/projectwin/
10/27/09 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/27/09 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: BLEND, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0025194 (Cont'd) **Facility ID** MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region CENT

Activity Code / Description DISREV: RAIN EVENT DISCHARGE

WO# 975855 <u>Initiated</u>

10/31/09 03:27 AM

Initiated By **ELDER**

Assigned To CLARK

Disch Status DOCUMENTED **Event Date** 01/14/07

Problem BLENDING AT JTOWN WQTC

Result UNAUTHORIZED DISCHAGE -WATERS

Completed Condition 10/31/09 04:00

PM

Spot Inspections:

The state of the s				
Peal Plant Flow when Blending:	14,320,000 GPD			
Total Plant Flow when Blending:	8,350,000 GAL			
Discharge Amount:	966,634 GAL			
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA			
Clean Up:	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM			
Control Zone:	PERMANENT SIGNS IN PLACE. PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM.			
Impact:	NO IMPACT OBSERVED - FACILITY UNDER ELEVATED CREEK LEVEL			
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION			

10/31/09 08:11 AM	DISPUB	Permanent signs posted in area & http://www.msdlouky.org/projectwin/
10/31/09 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
10/31/09 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: BLEND, Result: WUS, Act Code: DISDW, DISREV, DISSUS

KPDES# KY0025194 (Cont'd)

Facility ID MSD0255

Water Quality Treatement Center JEFFERSONTOWN

Receiving Stream of Treatment Center CHENOWETH RUN

Region **CENT**

Activity Code / Description DISREV: RAIN EVENT DISCHARGE

WO# 989835

<u>Initiated</u> 12/08/09 08:53 PM **Initiated By ELDER**

Assigned To MILLS

Disch Status DOCUMENTED Event Date 01/14/07

Problem BLENDING AT JTOWN WQTC

Result UNAUTHORIZED **DISCHAGE -**WATERS

Completed 12/09/09 02:51

AM

Condition

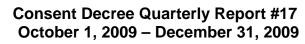
Spot Inspections:

pot inspections.					
Peal Plant Flow when Blending:	13,410,000 GPD				
Total Plant Flow when Blending:	7,360,000 GAL				
Discharge Amount:	378,622 GAL				
Cause:	LACK OF CAPACITY DUE TO RAIN EVENT IN AREA				
Clean Up:	CLEANUP NOT POSSIBLE DUE TO ELEVATED CREEK LEVEL				
Control Zone:	PERMENANT SIGNS, - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM				
Impact:	NONE OBSERVED - OUTLETS SUBMERGED PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM				
Repair:	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION				

Notifications:

	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
	12/10/09 06:45 AM	DISPUB	PERMANANT SIGNS POSTED IN AREA
-		& http://www.msdlouky.org/projectwin/	
	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

Total Facilities Printed: 1 Total Work Orders Printed: 5





Appendix C – Annual Average Overflow Volume



Louisville MSD Existing Condition AAOV

				October 20	08 IWCS	January 20	009 IWCS	
			\mathcal{C}	(ver		January 2009 IWCS (ver 9.5)		Change in
		RECEIVING		OF		OF		AAOV
		STREAM	Area (Acres)	AAOV	Incidents	AAOV	Incidents	(MG/YR)
CSO	CSO NAME			(MG/YR)	(# OF/YR)	(MG/YR)	(# OF/YR)	Jan-Oct
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	RENT 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
	VESTERN OUTFALL @ BROADWA	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

1 of 3 PRINT DATE: 2/2/2010

Louisville MSD Existing Condition AAOV

			ING Drainage	October 20		January 2009 IWCS		Change in
		RECEIVING		(ver8.0)		(ver 9.5)		AAOV
		STREAM	Area (Acres)	AAOV	OF	AAOV	OF	(MG/YR)
CSO	CSO NAME			(MG/YR)	Incidents (# OF/YR)	(MG/YR)	Incidents (# OF/YR)	Jan-Oct
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	EG 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	10.00	4.0	10.12	4.0	0.01
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

2 of 3 PRINT DATE: 2/2/2010

Louisville MSD Existing Condition AAOV

		RECEIVING Drainage		October 2008 IWCS (ver8.0)		January 2009 IWCS (ver 9.5)		Change in AAOV
CSO	CSO NAME	STREAM	Area (Acres)	AAOV (MG/YR)	OF Incidents (# OF/YR)	AAOV (MG/YR)	OF Incidents (# OF/YR)	(MG/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	SBR CSOs 142,174,180,182,183,184,185,186,187,188,205				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%

D 4 11	D. H. AV H. I. JGDD GGO						
Details	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

3 of 3 PRINT DATE: 2/2/2010



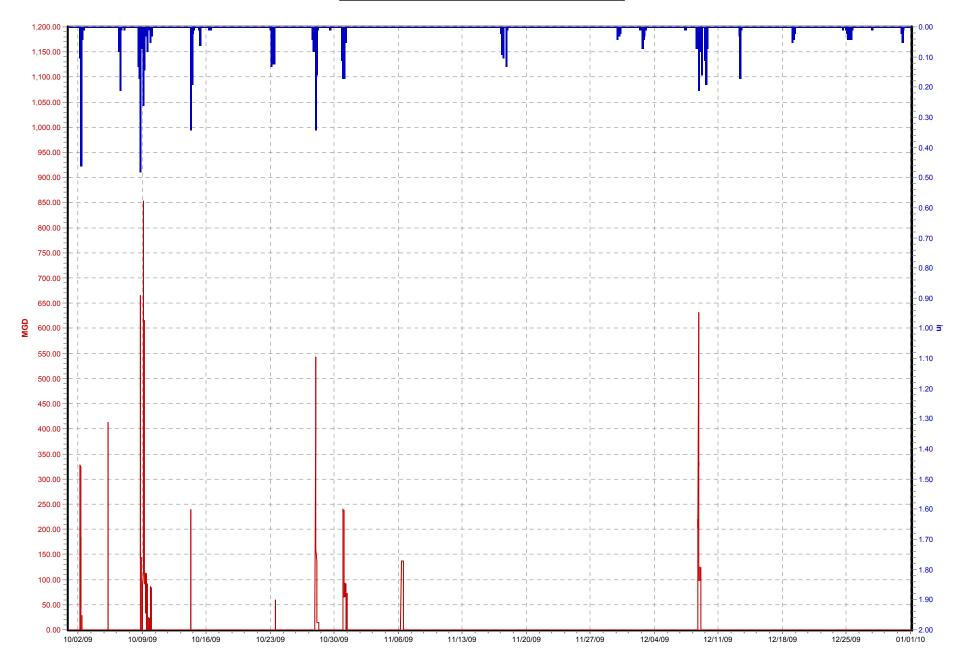
Appendix D - CSO Flow Monitoring Data



CSO#	Data Summary	
CSO015	All data is present.	
CSO016	All data is present.	
CSO018	All data is present.	
CSO019	All data is present.	
CSO050	Flow meter installed on 11/17/2009.	
CSO055	Flow meter installed on 11/17/2009.	
CSO058	Flow meter installed on 12/16/2009.	
CCO094	Flow meter installed on 11/18/2009. Configuration problems	
CSO084	existed until 12/11/2009 which caused data gaps.	
CSO097	All data is present.	
CCO10F	Flow meter installed on 11/18/2009. Configuration problems	
CSO105	existed until 12/02/2009 which caused data gaps.	
CSO108	All data is present.	
CSO110	All data is present.	
CSO117	All data is present.	
CSO118	All data is present.	
660434	Flow meter installed on 11/20/2009. Configuration problems	
CSO121	existed until 12/30/2009 which caused data gaps.	
CSO125	All data is present.	
CSO127	All data is present.	
CSO132	All data is present.	
CSO140	All data is present.	
CSO146	All data is present.	
CCO140	Flow meter installed on 11/17/2009. Configuration problems	
CSO149	existed until 12/02/2009 which caused data gaps.	
CSO151	All data is present.	
CSO152	All data is present.	
CCO1F2	Flow meter installed on 11/17/2009. Configuration problems	
CSO153	existed until 12/03/2009 which caused data gaps.	
CSO166	All data is present.	
CCO174	Flow meter installed in November of 2009. Configuration problems	
CSO174	existed until 12/15/2009.	
CSO182	2 All data is present.	
CSO189	All data is present.	
CSO190	All data is present.	
CSO191	All data is present.	
CSO206	All data is present.	
CSO210	All data is present.	
CSO211	All data is present.	

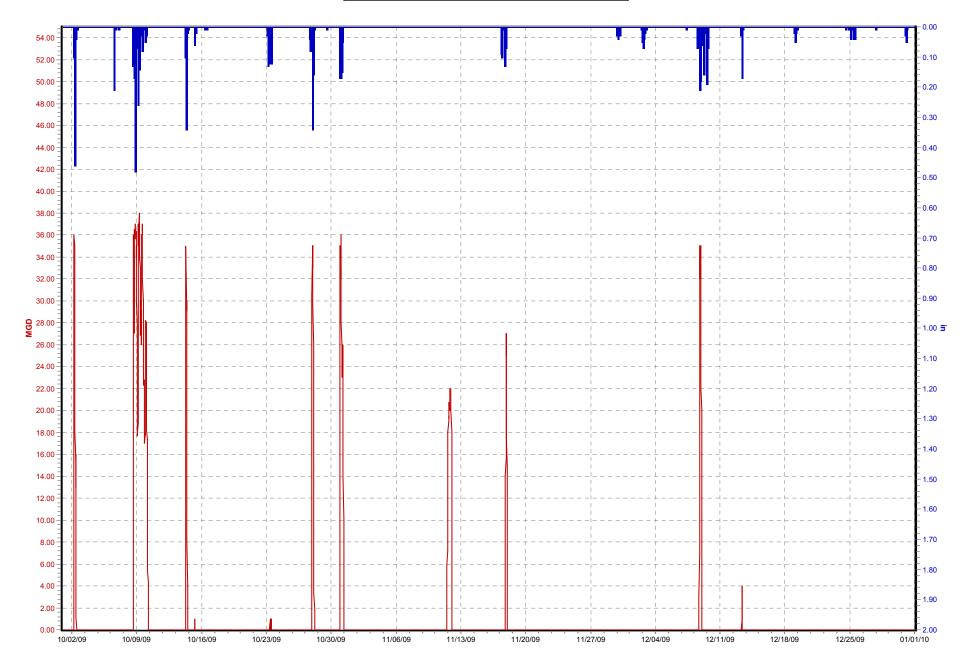
CSO015 (10/01/09 to 01/01/10)





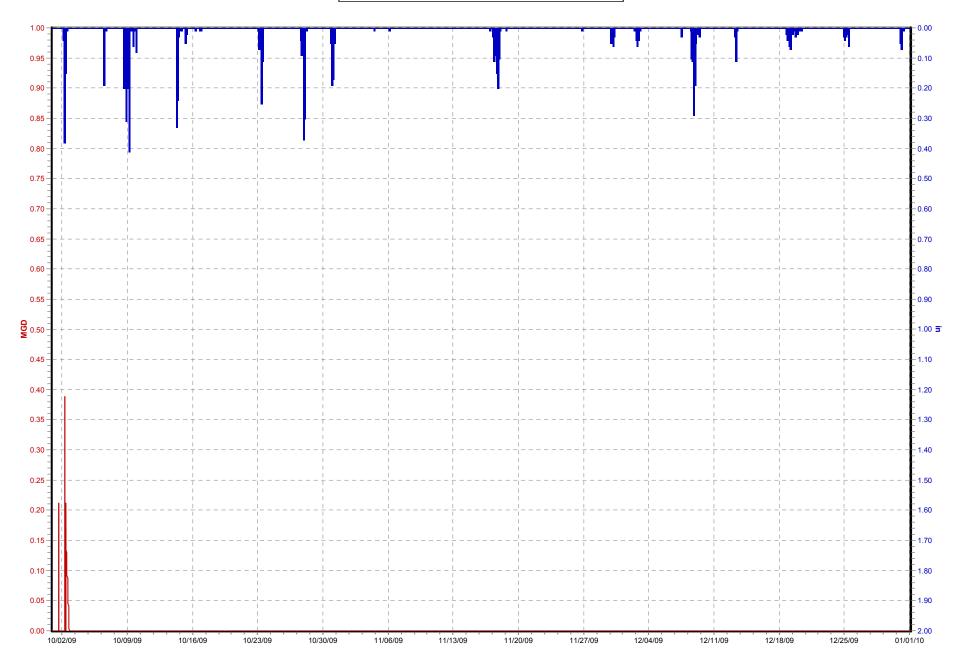
CSO016 (10/01/09 to 01/01/10)





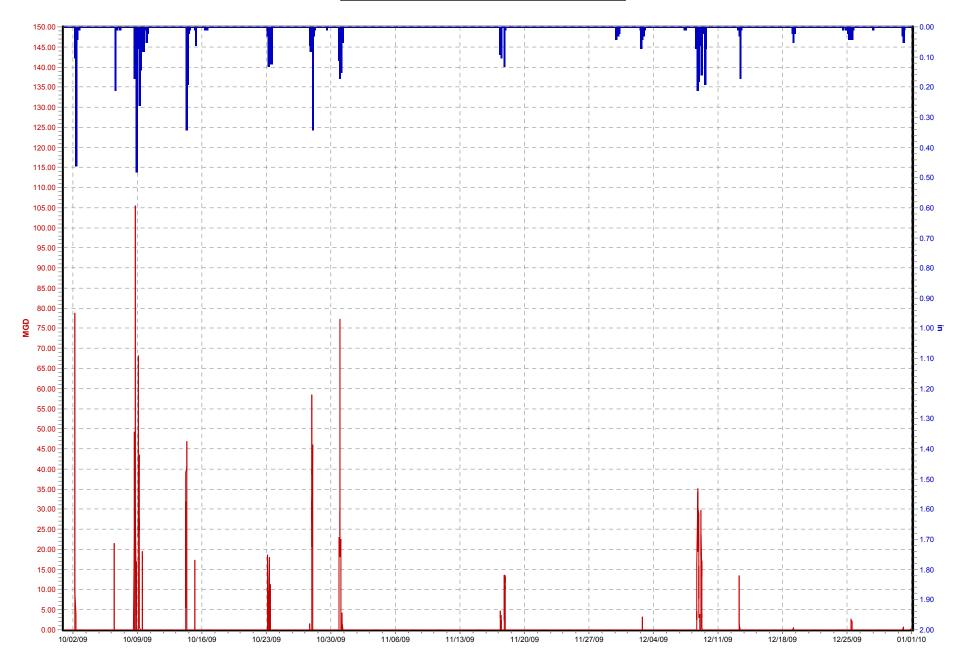
CSO018 (10/01/09 to 01/01/10)





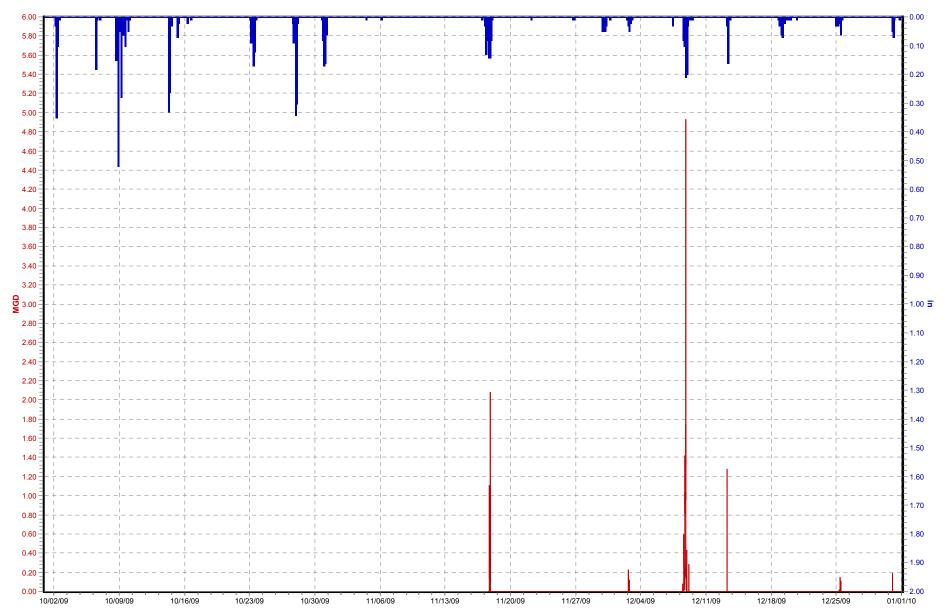
CSO019 (10/01/09 to 01/01/10)





CSO050 (10/01/09 to 01/01/10)

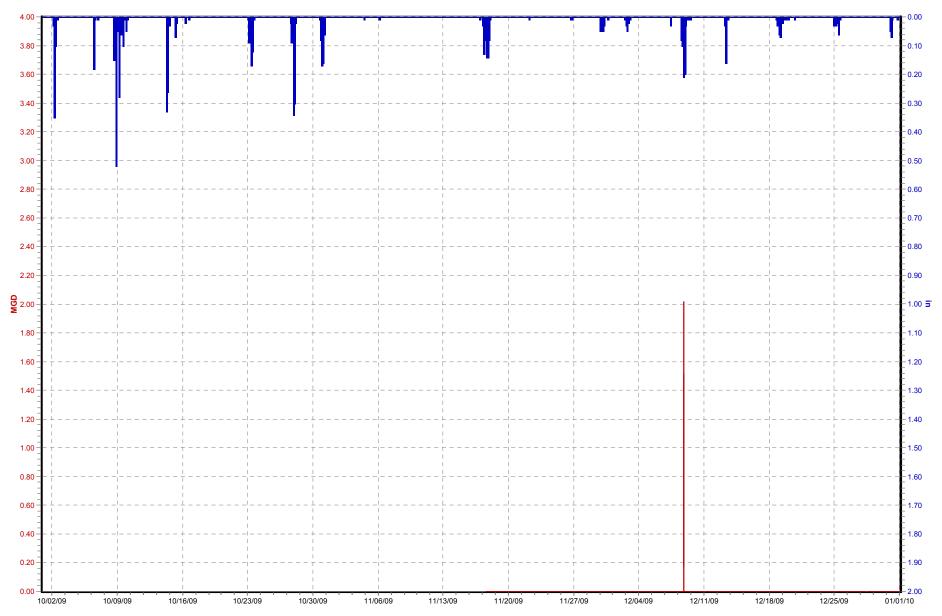




Flow Meter Installed on 11/17/2009.

CSO055 (10/01/09 to 01/01/10)

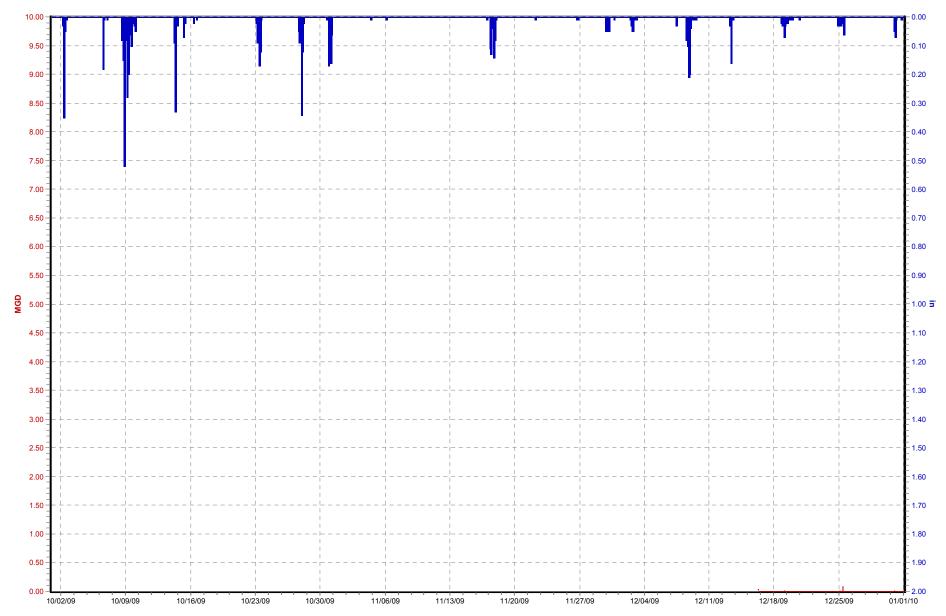




Flow Meter Installed on 11/17/2009.

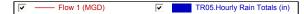
CSO058 (10/01/09 to 01/01/10)

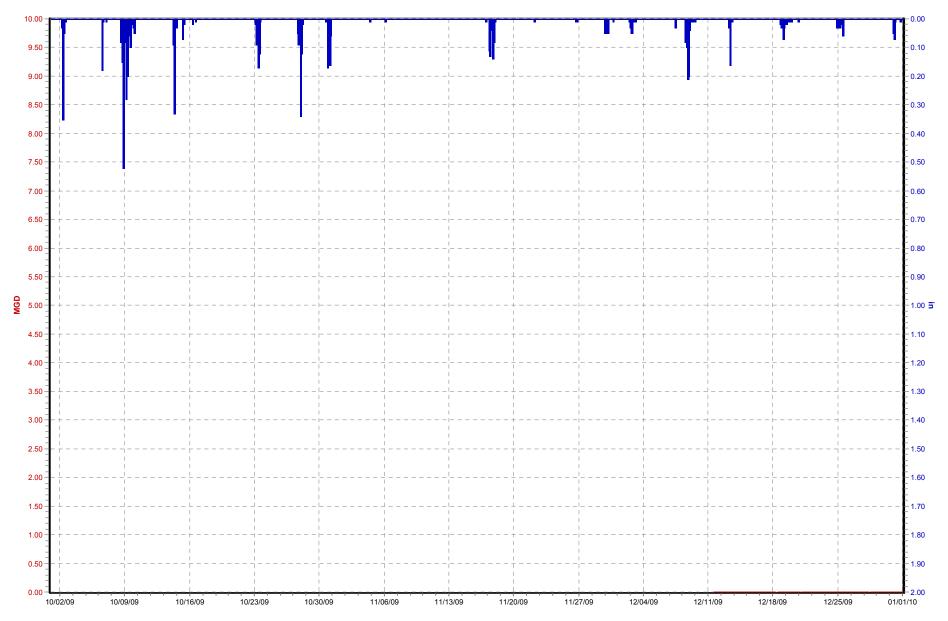




Flow Meter Installed on 12/16/2009.

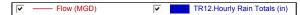
CSO084 (10/01/09 to 01/01/10)

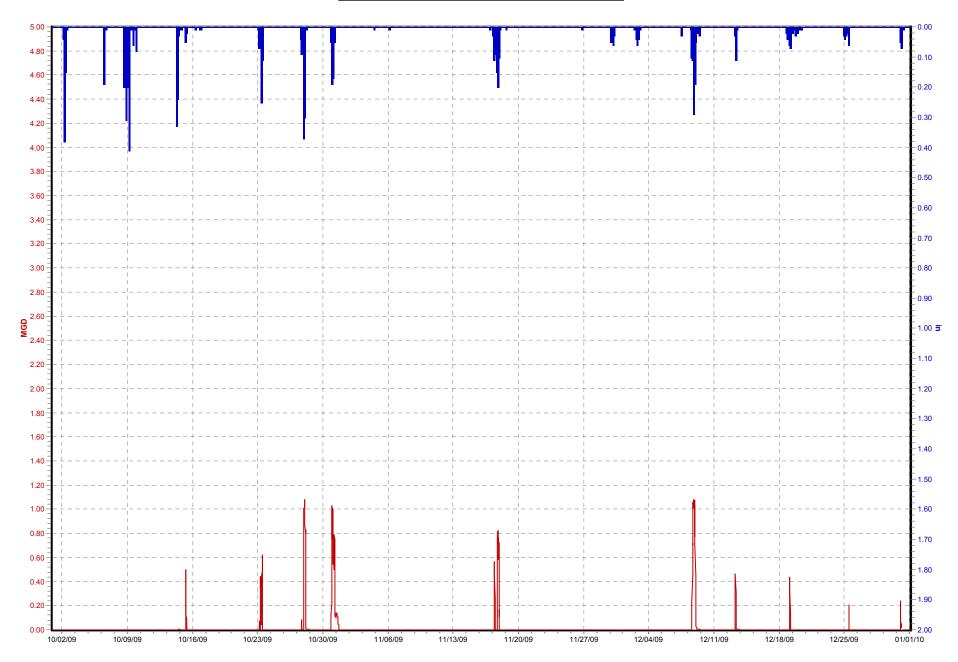




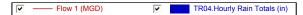
Flow Meter Installed on 11/18/2009. Configuration problems existed until 12/11/2009.

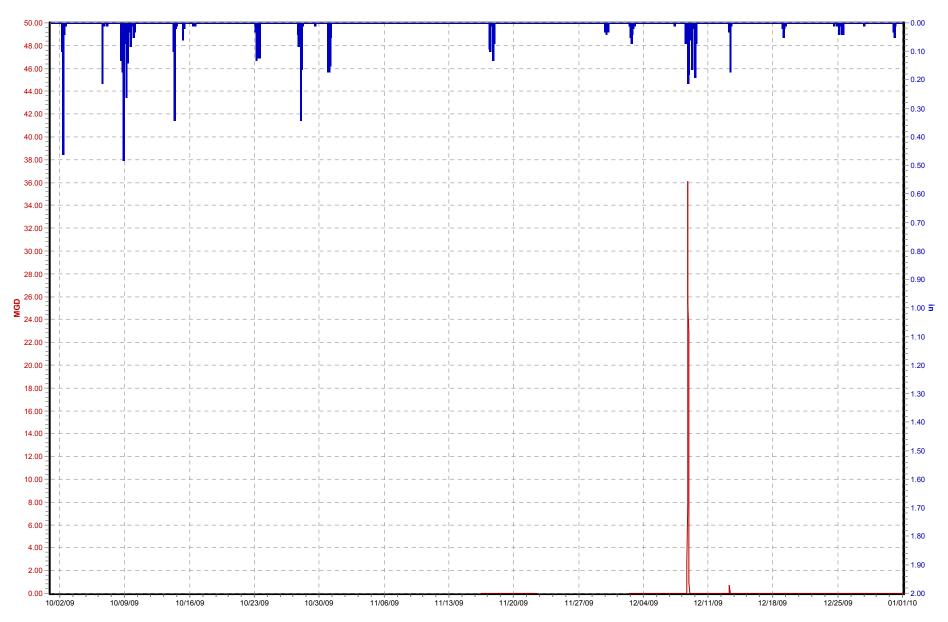
CSO097 (10/01/09 to 01/01/10)





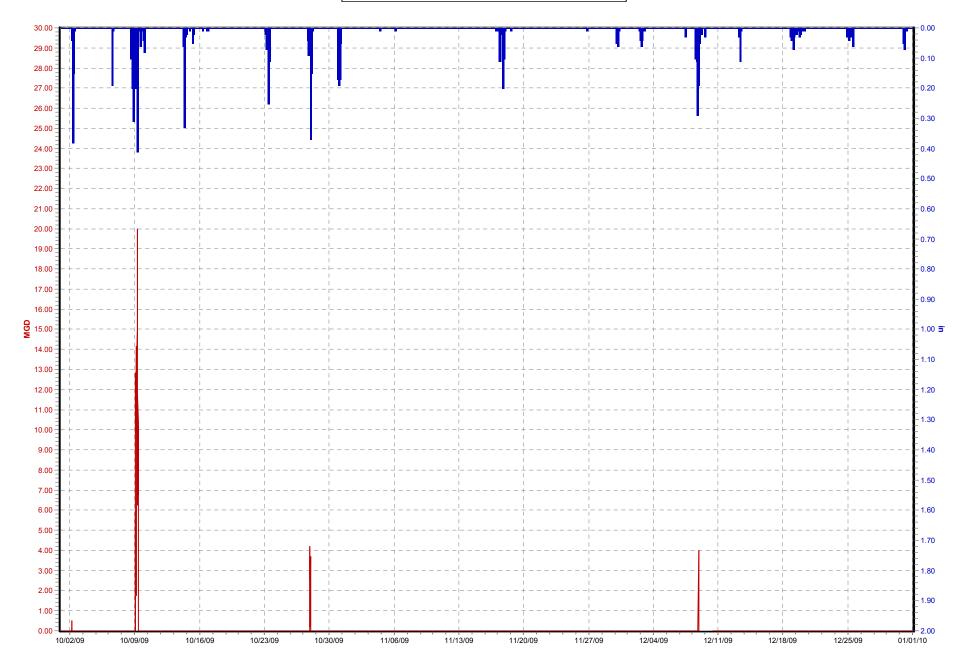
CSO105 (10/01/09 to 01/01/10)





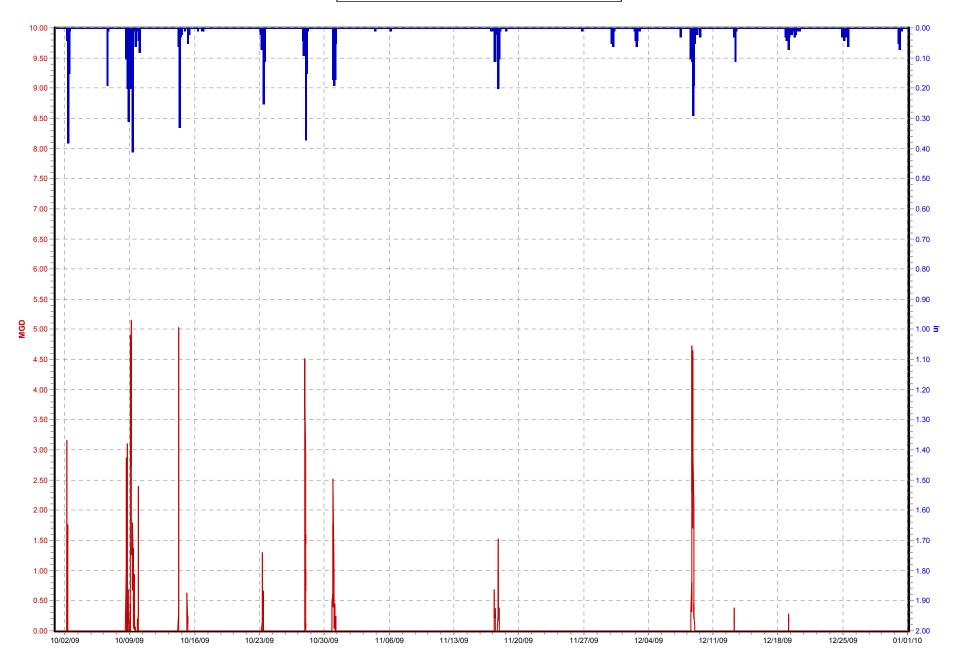
CSO108 (10/01/09 to 01/01/10)





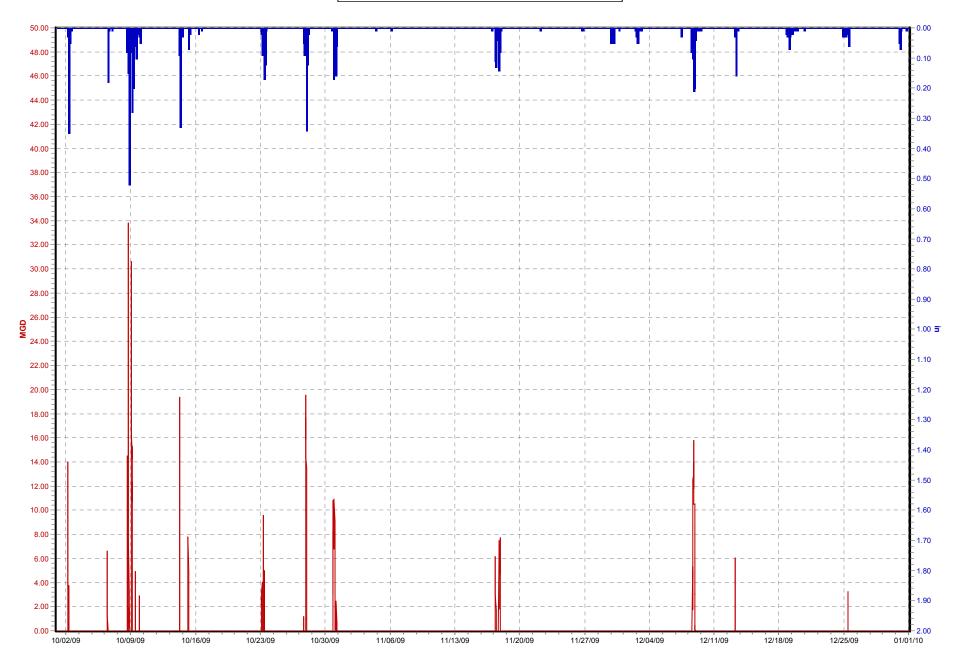
CSO110 (10/01/09 to 01/01/10)





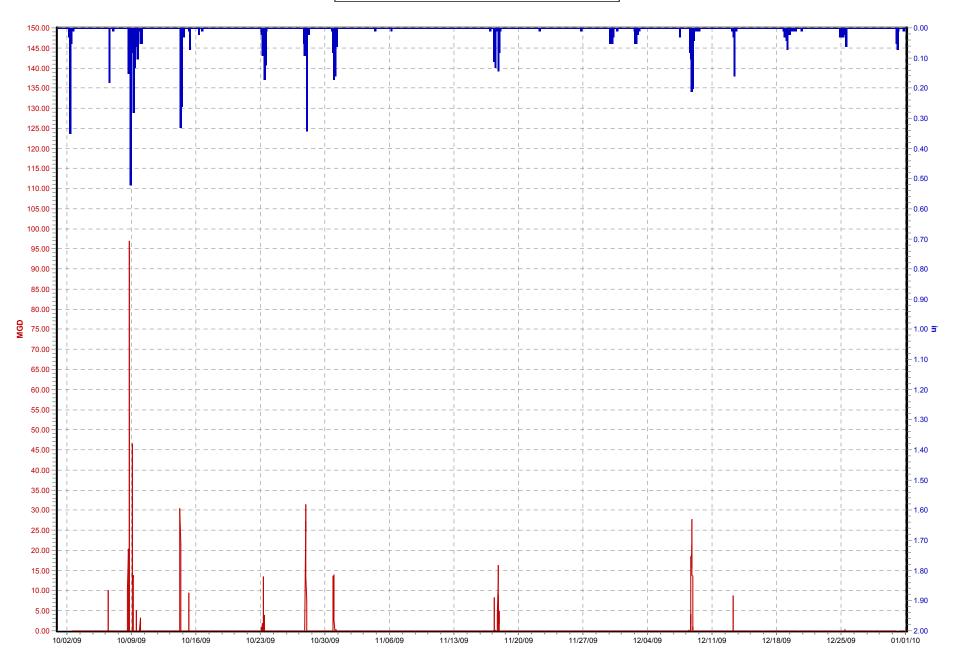
CSO117 (10/01/09 to 01/01/10)



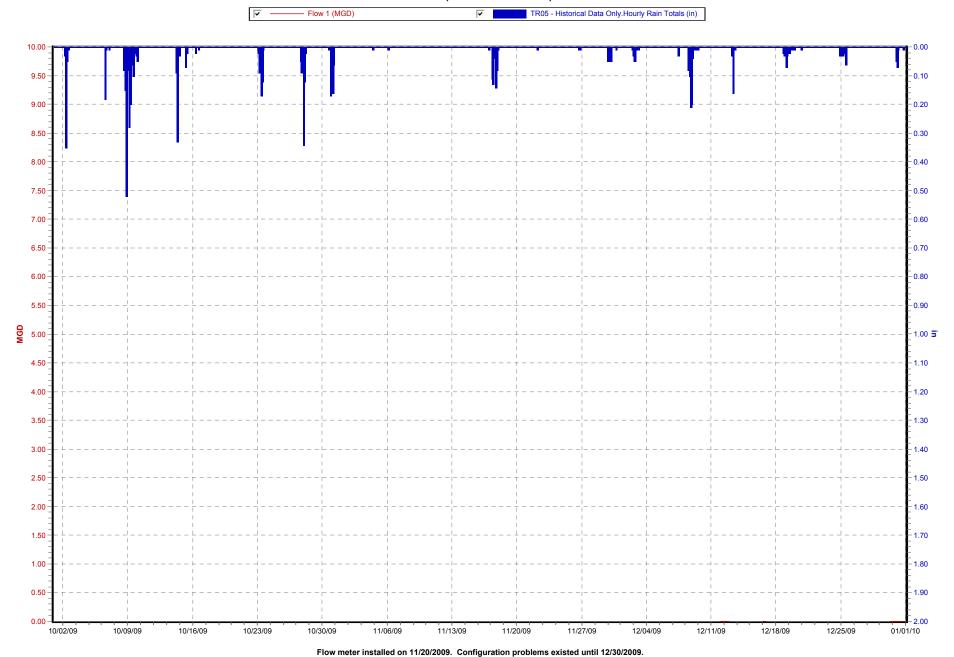


CSO118 (10/01/09 to 01/01/10)



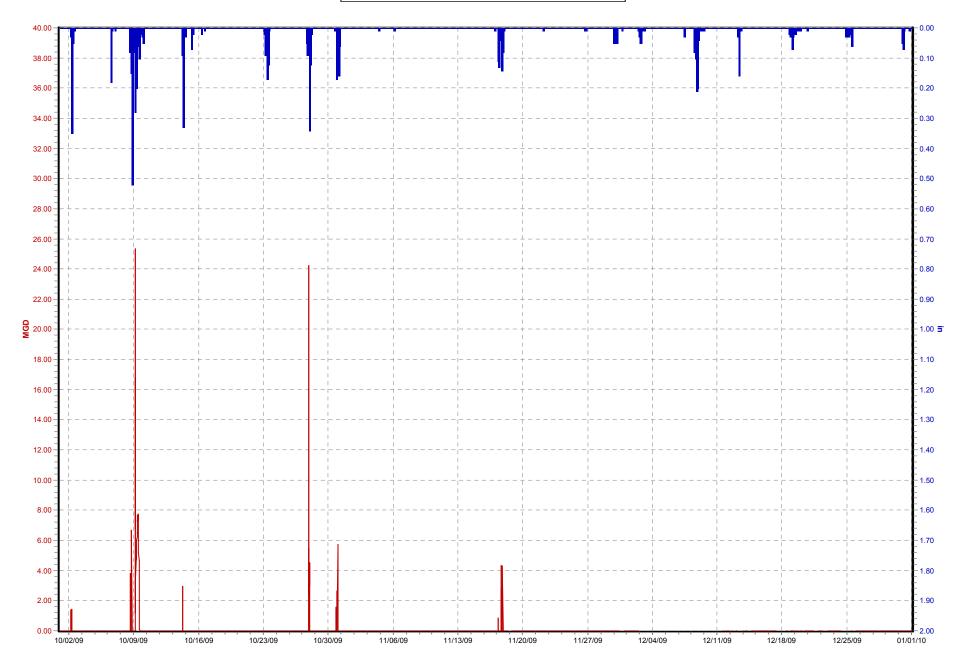


CSO121 (10/01/09 to 01/01/10)



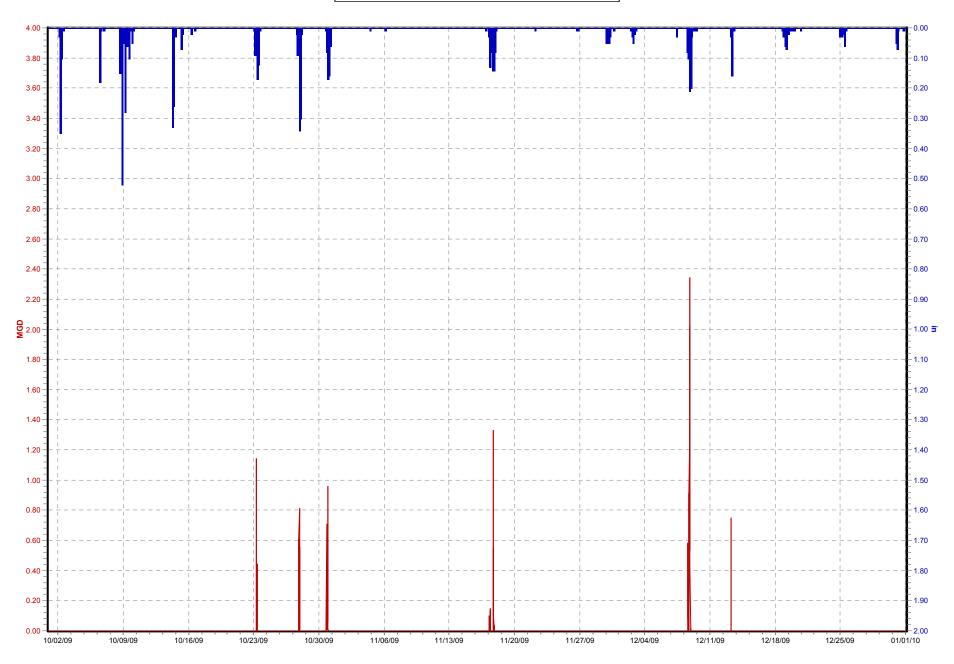
CSO125 (10/01/09 to 01/01/10)





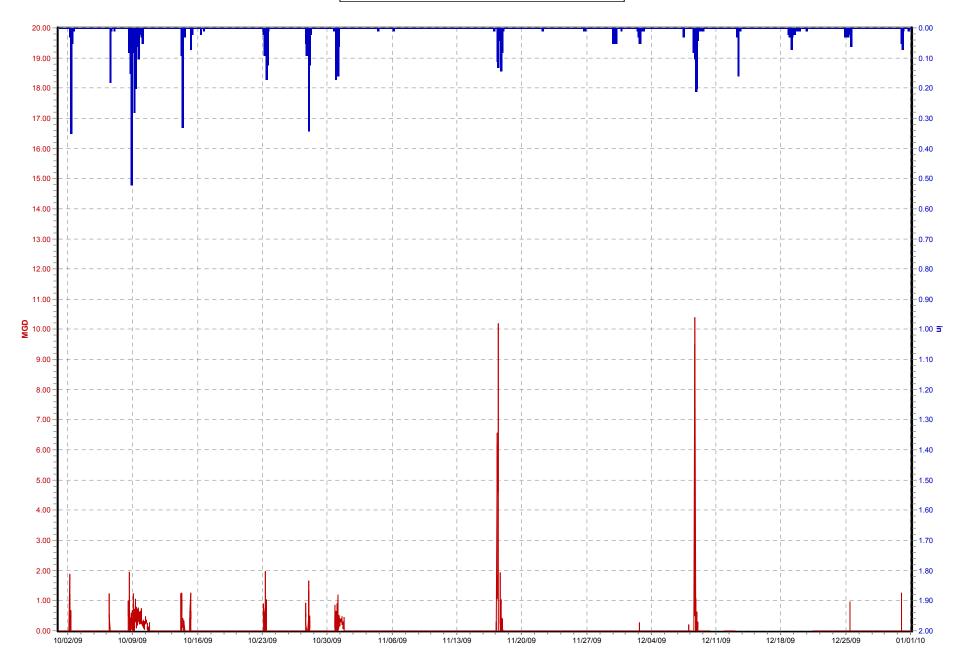
CSO127 (10/01/09 to 01/01/10)





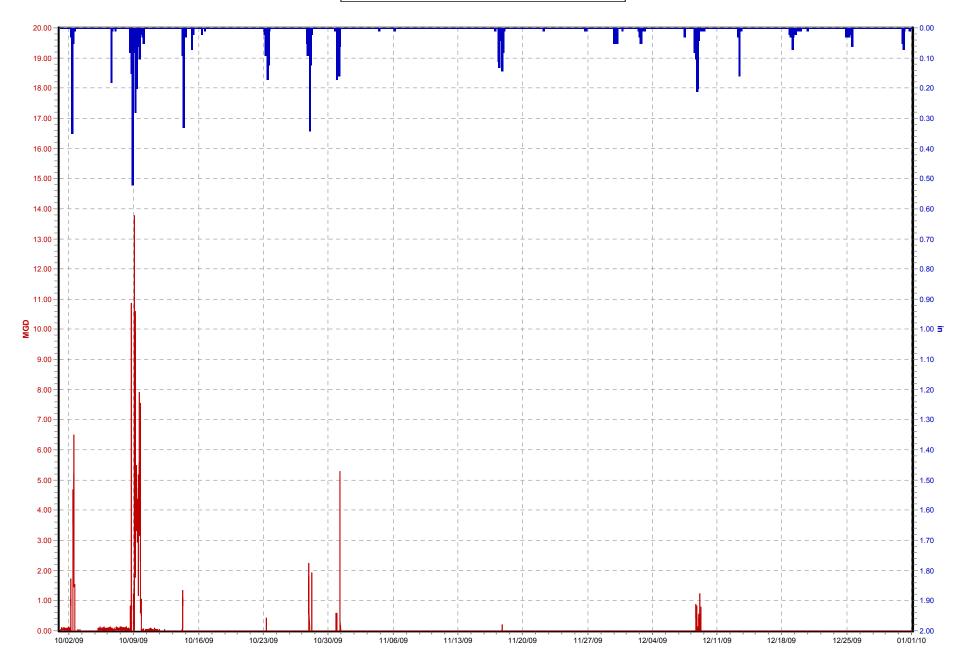
CSO132 (10/01/09 to 01/01/10)





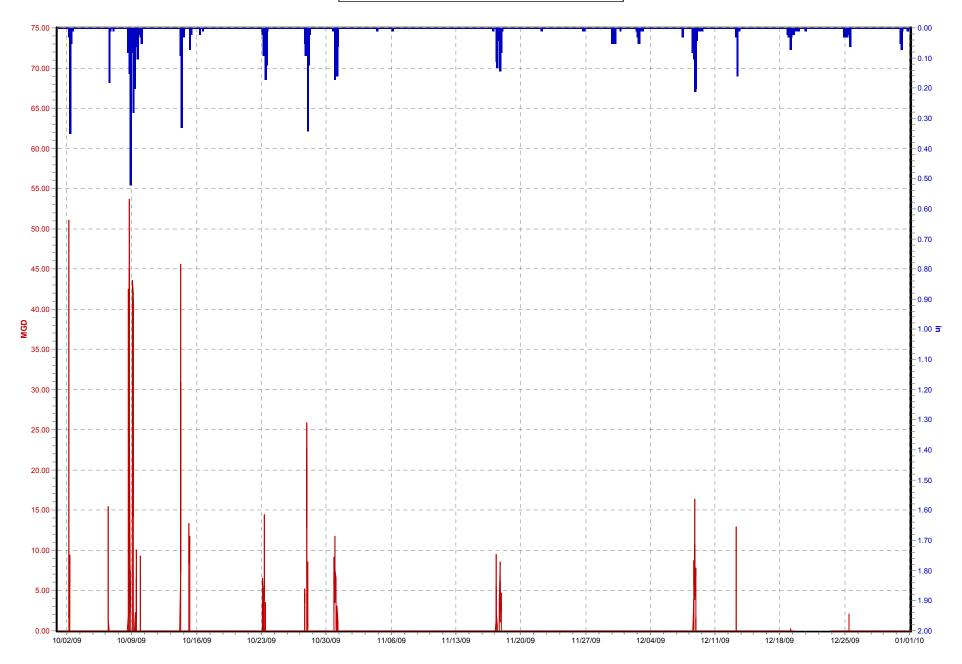
CSO140 (10/01/09 to 01/01/10)





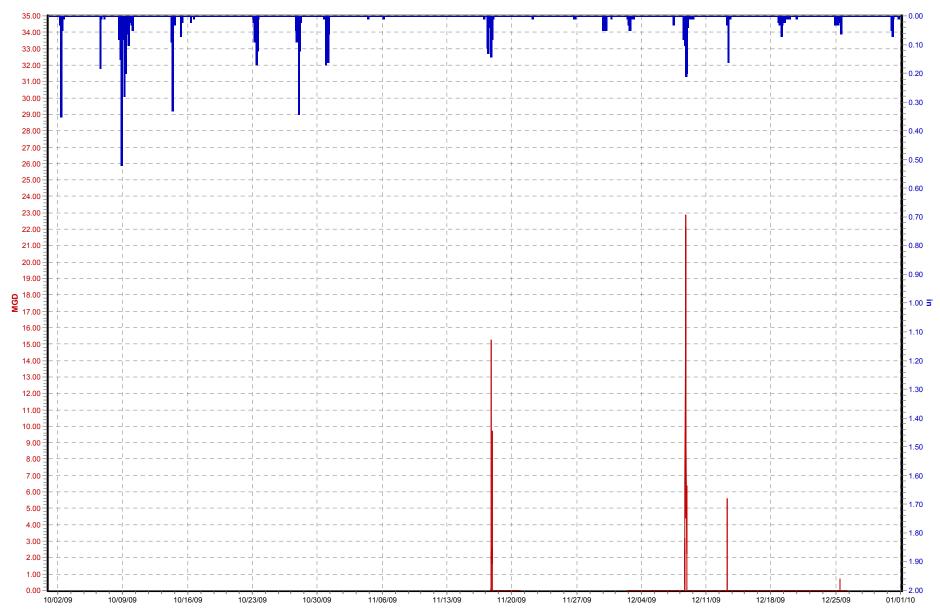
CSO146 (10/01/09 to 01/01/10)





CSO149 (10/01/09 to 01/01/10)

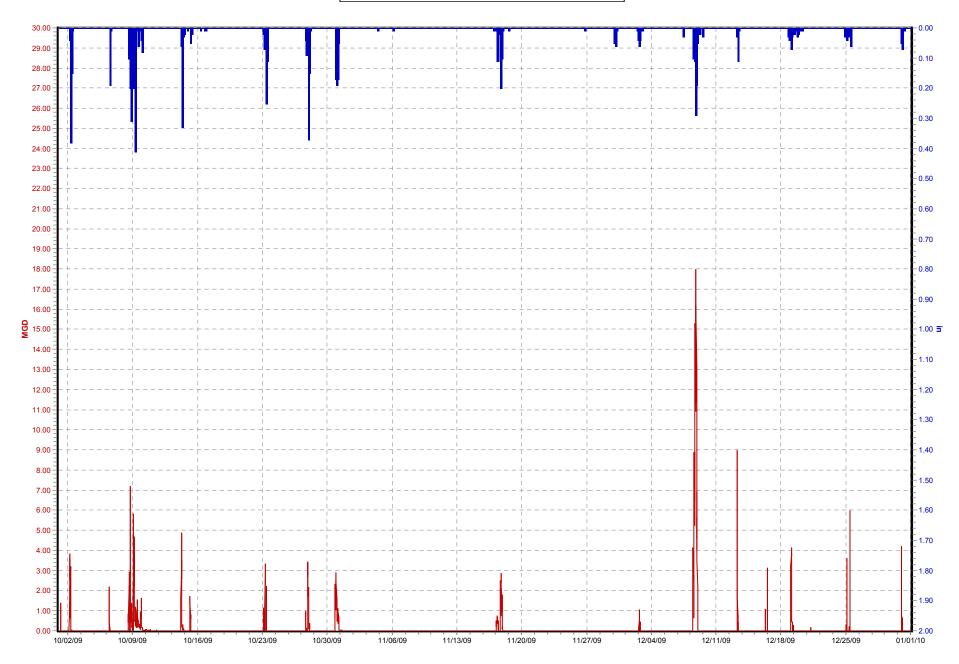




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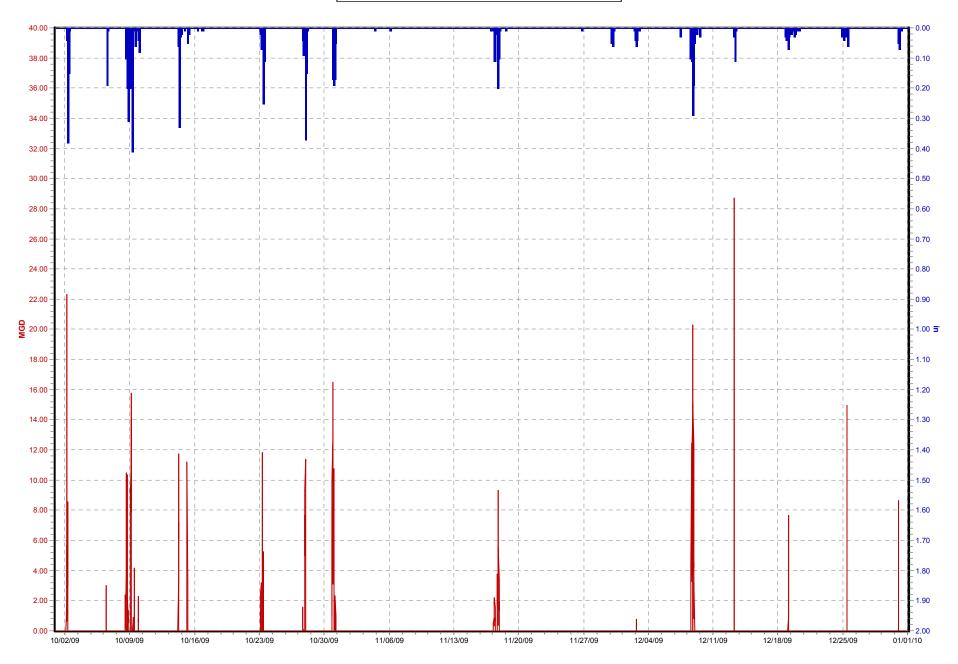
CSO151 (10/01/09 to 01/01/10)





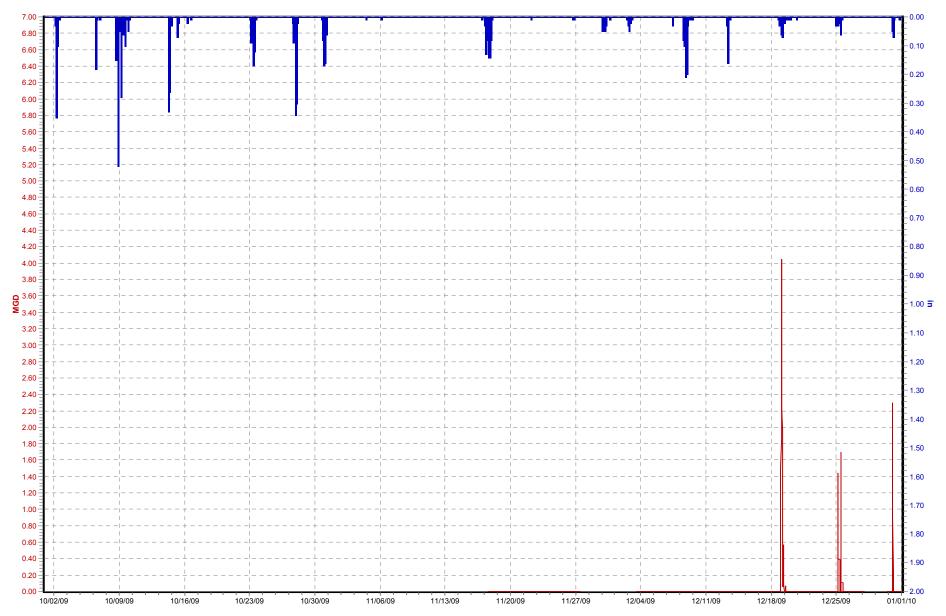
CSO152 (10/01/09 to 01/01/10)





CSO153 (10/01/09 to 01/01/10)

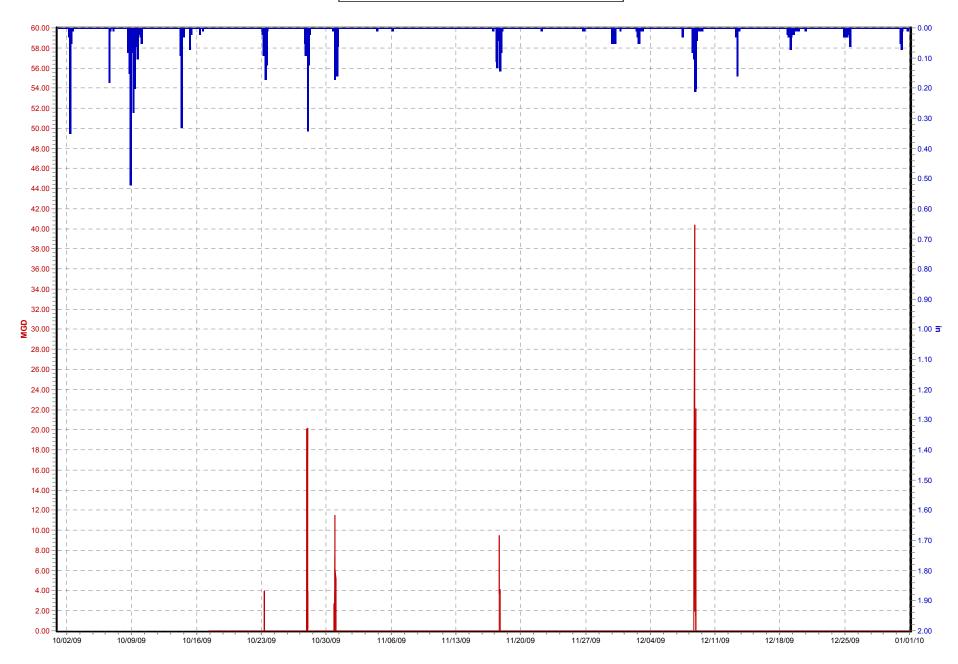




Flow Meter Installed on 11/17/2009. Configuration problems existed until 12/3/2009.

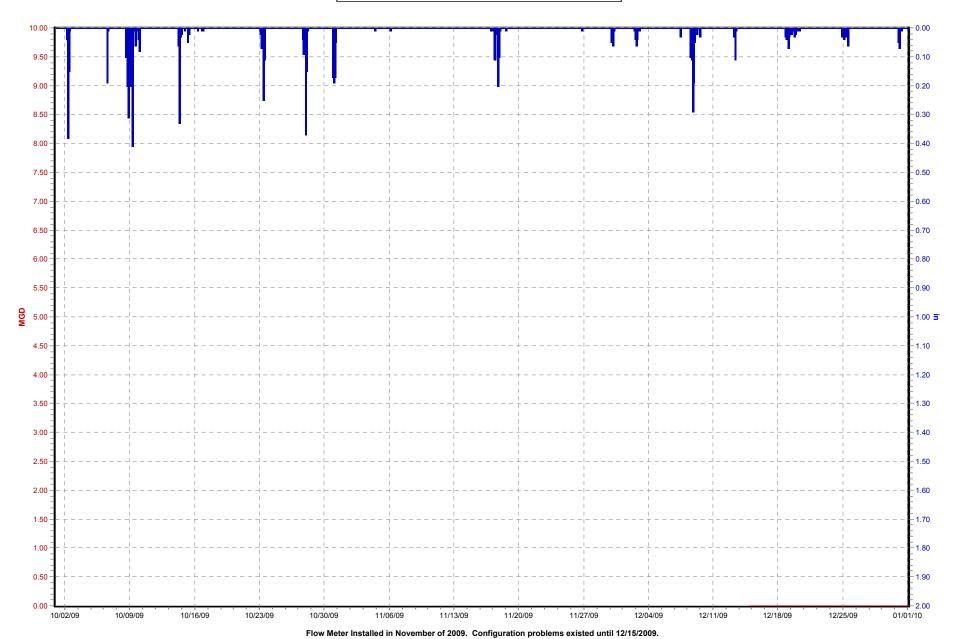
CSO166 (10/01/09 to 01/01/10)





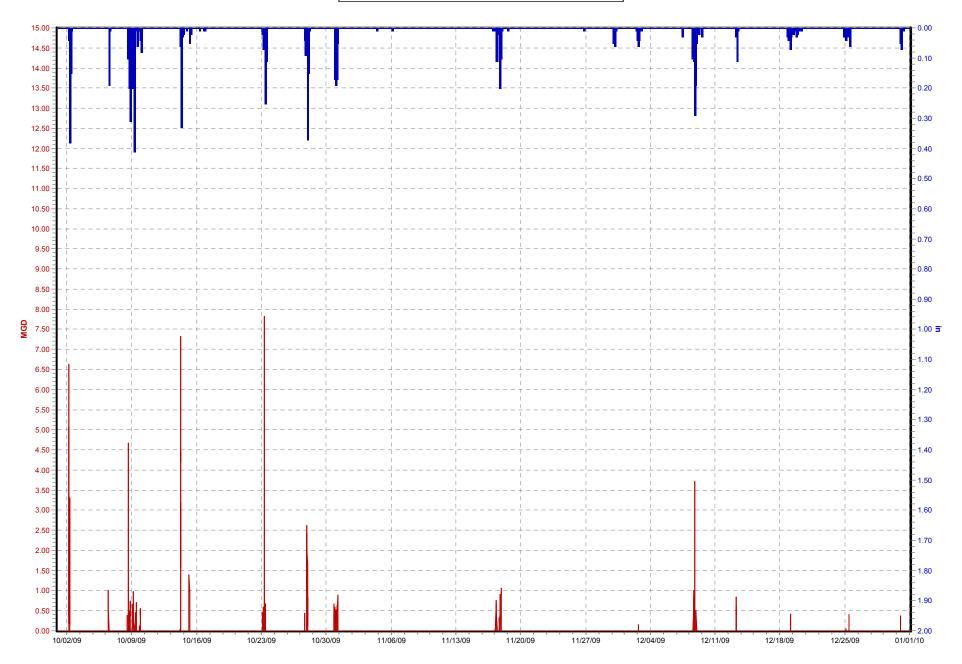
CSO174 (10/01/09 to 01/01/10)



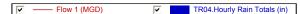


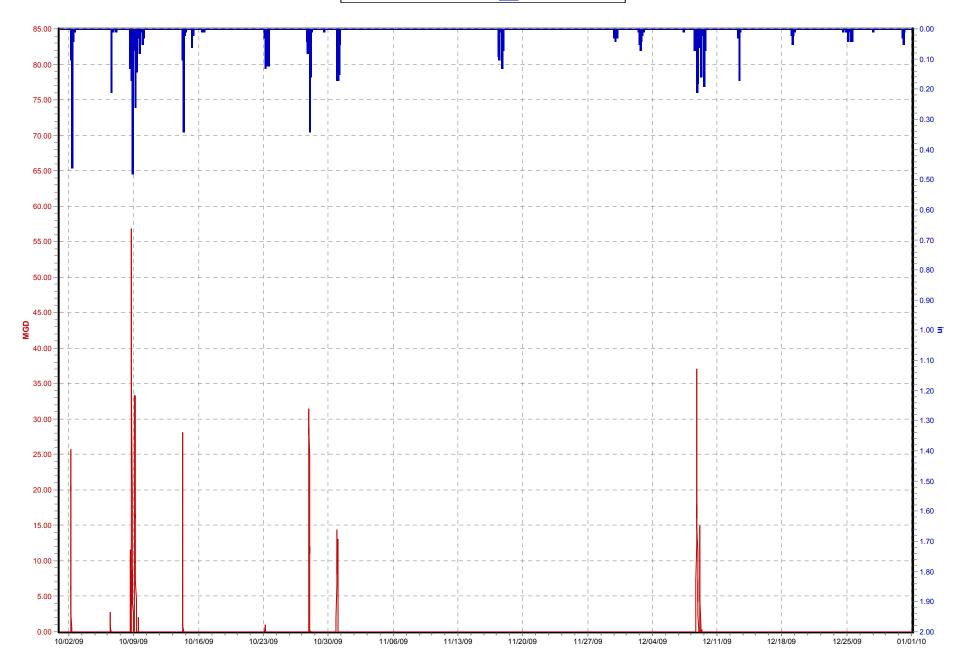
CSO182 (10/01/09 to 01/01/10)



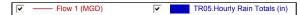


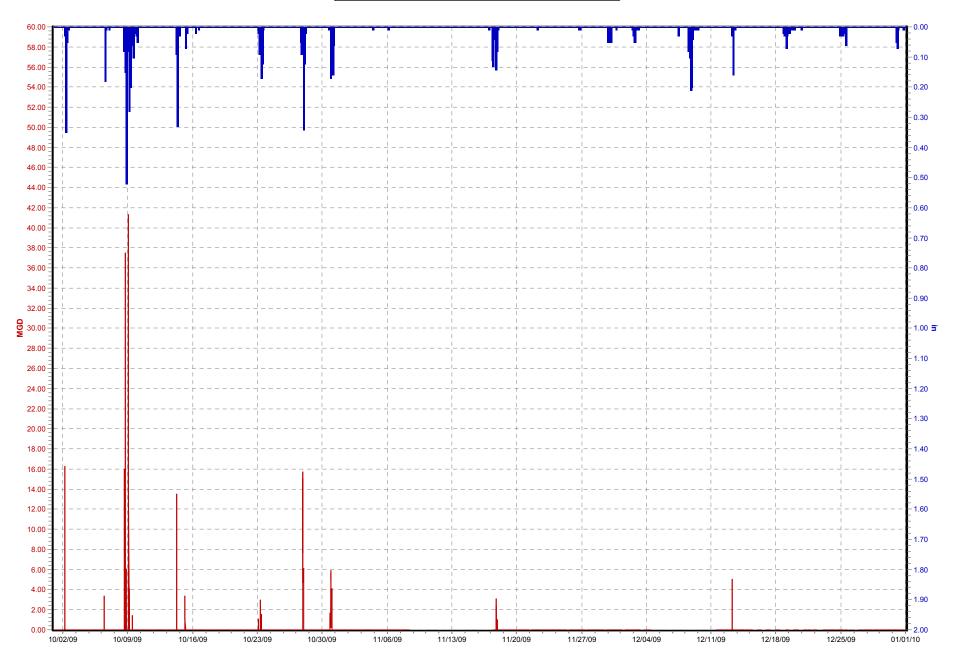
CSO189 (10/01/09 to 01/01/10)





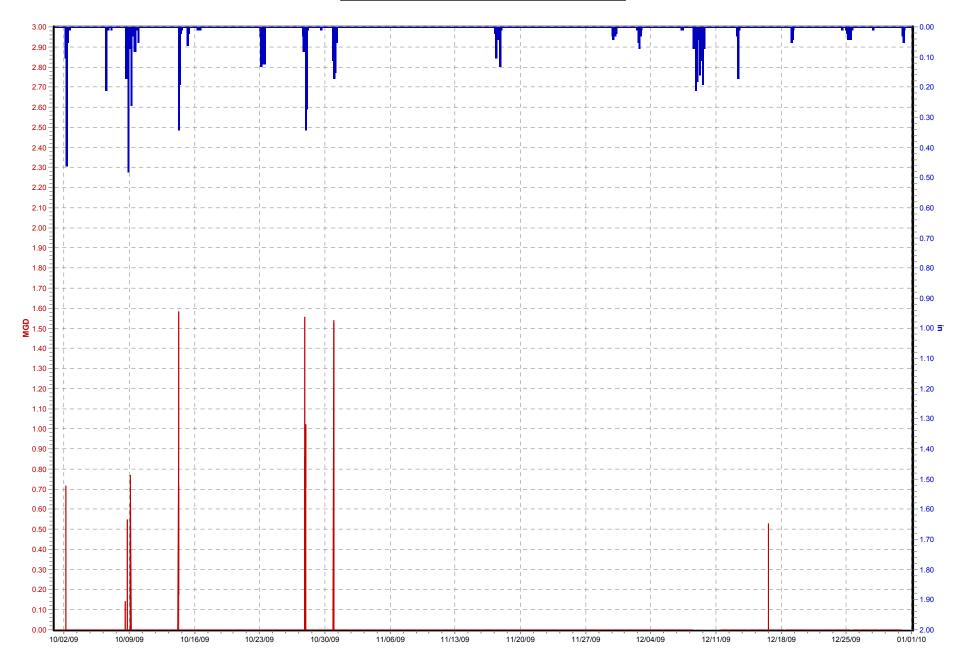
CSO190 (10/01/09 to 01/01/10)



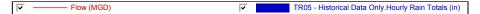


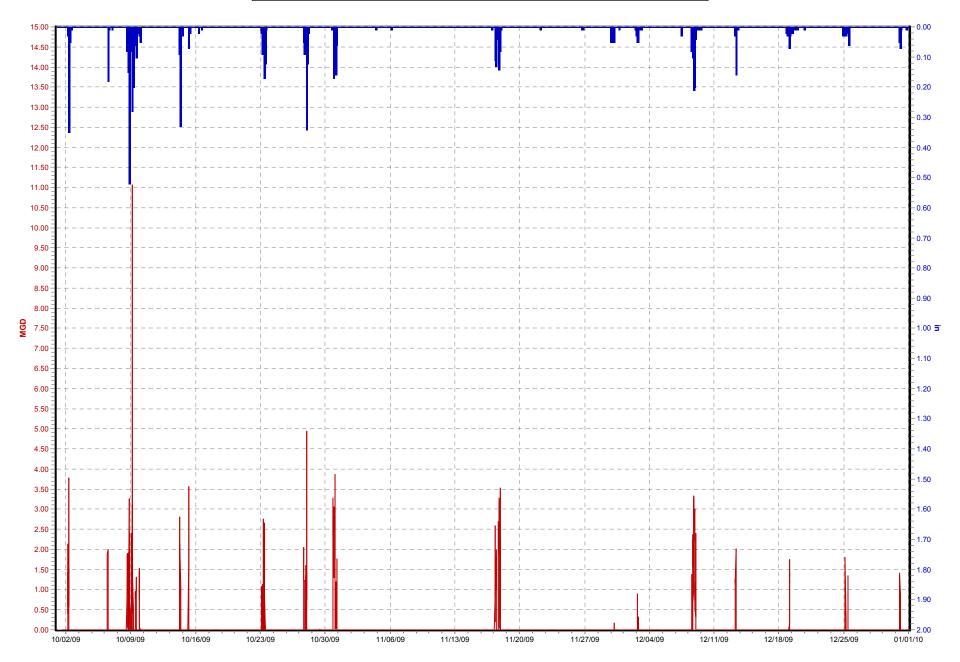
CSO191 (10/01/09 to 01/01/10)





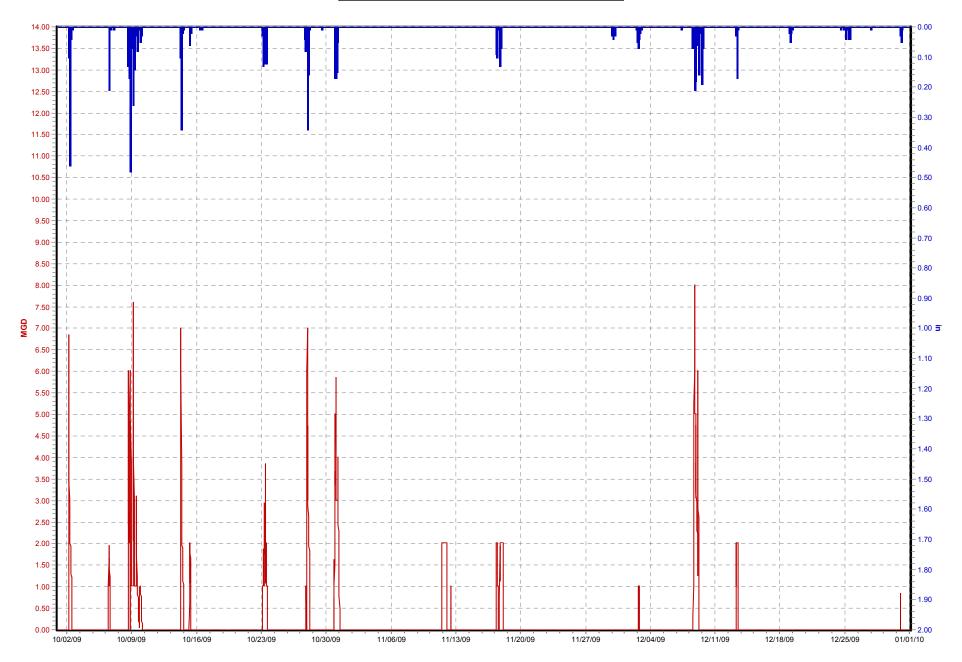
CSO206 (10/01/09 to 01/01/10)





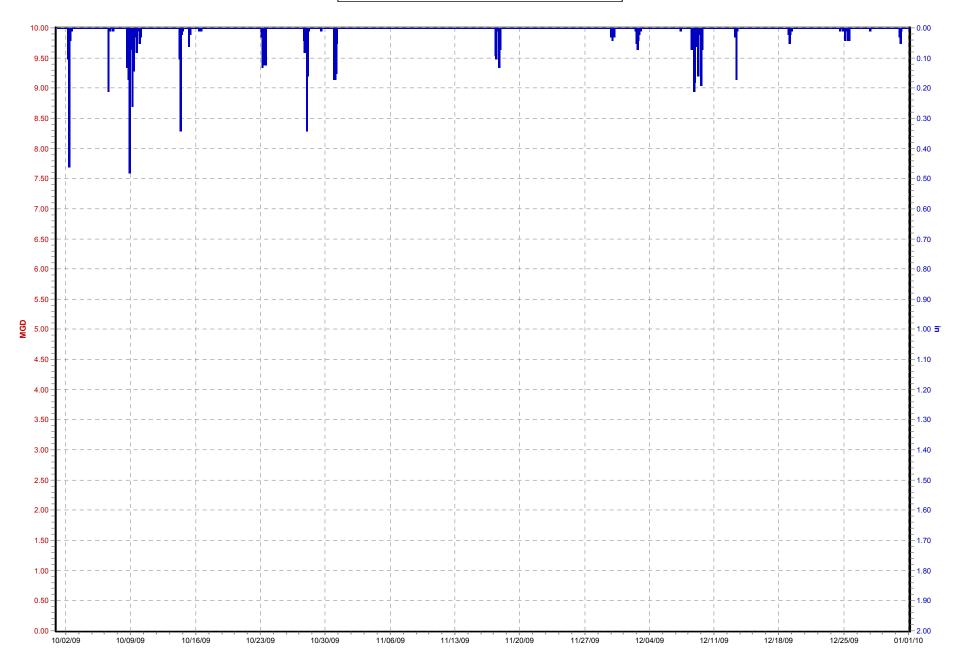
CSO210 (10/01/09 to 01/01/10)

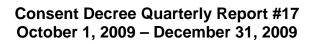




CSO211 (10/01/09 to 01/01/10)









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 SystemIOAP Integrated Overflow Abatement PlanISSDP Interim Sanitary Sewer Discharge Plan

IT Information TechnologyIWD Industrial Waste DepartmentJCPS 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 Understandi

MOU Memorandum of Understanding

MSD Metropolitan Sewer District (Louisville and Jefferson County)

NDD Non-Domestic DischargersNMC Nine Minimum ControlsNPR 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



Appendix F – RTC Report





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

 Period

 From:
 10/1/09

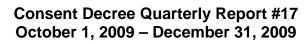
 To:
 12/31/09

	We	et Weather Event		Rainfall		Wet Weather Storage Volume (MG)								
Event Number				Average* TRFD (in)	Max**		SWPS SG		Brady Lake and	Southern	Ohio	Sneads		High River
rumser	Start Date	End Date	Duration		TRFD (in)	Rain Gauge	Chamber	SWOR2	Executive Inn Storage	Outfall	River Interceptor	Branch	Total	Levels
2009-082	10/2/09 2:45	10/2/09 23:05	20:20	1.043	1.360	TR15	14.25	0.00	2.10	0.00	0.00	0.00	16.35	No
2009-083	10/6/09 9:45	10/6/09 19:05	9:20	0.220	0.260	TR04	3.30	0.00	0.10	0.00	0.00	0.00	3.40	No
2009-084	10/8/09 12:20	10/11/09 3:45	63:25	2.379	2.880	TR14	14.45	2.95	3.90	0.00	0.00	0.95	22.25	No
2009-085	10/14/09 4:50	10/15/09 3:30	22:40	0.747	0.810	TR14	12.00	1.75	1.70	0.00	0.00	0.00	15.45	No
2009-086	10/15/09 3:30	10/15/09 18:40	15:10	0.069	0.080	TR04	8.10	0.00	0.50	0.00	0.00	0.00	8.60	No
2009-087	10/23/09 0:00	10/23/09 22:50	22:50	0.666	0.960	TR15	15.50	3.00	0.00	0.00	0.00	0.00	18.50	No
2009-088	10/27/09 12:50	10/29/09 0:55	36:05	1.164	1.280	TR14	15.25	0.00	1.65	0.00	0.00	0.55	17.45	No
2009-089	10/30/09 18:30	11/1/09 8:15	37:45	1.100	1.260	TR15	14.70	0.00	1.15	0.00	0.00	0.00	15.85	No
2009-090	11/17/09 10:50	11/18/09 8:15	21:25	0.521	0.760	TR14	18.25	0.00	0.45	0.00	0.00	0.00	18.70	No
2009-093	12/8/09 11:15	12/10/09 1:30	38:15	1.410	1.720	TR04	12.55	10.25	0.45	0.00	0.00	0.60	23.85	No
2009-094	12/13/09 3:35	12/13/09 14:10	10:35	0.250	0.310	TR14	3.80	1.95	0.10	0.00	0.00	0.00	5.85	No
2009-095	12/18/09 17:35	12/20/09 5:35	36:00	0.537	0.710	TR14	1.05	2.90	0.10	0.00	0.00	0.00	4.05	No
2009-096	12/24/09 19:30	12/25/09 17:40	22:10	0.277	0.390	TR11	2.85	2.00	0.15	0.00	0.00	0.00	5.00	No
Total							136.05	24.80	12.35	0.00	0.00	2.10	175.30	

^{*}Average Total Rainfall Depth Based on Rain Gauge TR04, TR05, TR11, TR12, TR13, TR14 and TR15

Printed on: 01/13/2010 1:09 pm Page 1 of 1

^{**}Maximum Total Rainfall Depth Measurement and its Location during the Wet Weather Event





Appendix G – Phosphorus Data



Timberlake Wastewater Treatment Plant KY0043087 Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
10/5/2009	EPA 200.7	Total Phosphorous via ICP	0.361	mg/l	MSD
10/12/2009	EPA 200.7	Total Phosphorous via ICP	0.298	mg/l	MSD
10/19/2009	EPA 200.7	Total Phosphorous via ICP	0.344	mg/l	MSD
10/26/2009	EPA 200.7	Total Phosphorous via ICP	0.493	mg/l	MSD
		Monthly Average	0.37	mg/l	
11/3/2009	EPA 200.7	Total Phosphorous via ICP	0.481	mg/l	MSD
11/10/2009	EPA 200.7	Total Phosphorous via ICP	0.379	mg/l	MSD
11/17/2009	EPA 200.7	Total Phosphorous via ICP	0.528	mg/l	MSD
11/24/2009	EPA 200.7	Total Phosphorous via ICP	0.633	mg/l	MSD
		Monthly Average	0.51	mg/l	
12/2/2009	EPA 200.7	Total Phosphorous via ICP	0.734	mg/l	MSD
12/9/2009	EPA 200.7	Total Phosphorous via ICP	0.444	mg/l	MSD
12/16/2009	EPA 200.7	Total Phosphorous via ICP	0.338	mg/l	MSD
12/22/2009	EPA 200.7	Total Phosphorous via ICP	0.496	mg/l	MSD
12/29/2009	EPA 200.7	Total Phosphorous via ICP	0.666	mg/l	MSD
		Monthly Average	0.54	mg/l	

Hunting Creek South Wastewater Treatment Plant KY0029114 Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
10/5/2009	EPA 200.7	Total Phosphorous via ICP	0.416	mg/l	MSD
10/12/2009	EPA 200.7	Total Phosphorous via ICP	0.368	mg/l	MSD
10/19/2009	EPA 200.7	Total Phosphorous via ICP	0.525	mg/l	MSD
10/26/2009	EPA 200.7	Total Phosphorous via ICP	0.351	mg/l	MSD
		Monthly Average	0.42	mg/l	
11/3/2009	EPA 200.7	Total Phosphorous via ICP	0.375	mg/l	MSD
11/10/2009	EPA 200.7	Total Phosphorous via ICP	0.668	mg/l	MSD
11/17/2009	EPA 200.7	Total Phosphorous via ICP	0.384	mg/l	MSD
11/24/2009	EPA 200.7	Total Phosphorous via ICP	0.27	mg/l	MSD
		Monthly Average	0.42	mg/l	
12/2/2009	EPA 200.7	Total Phosphorous via ICP	0.453	mg/l	MSD
12/9/2009	EPA 200.7	Total Phosphorous via ICP	0.399	mg/l	MSD
12/16/2009	EPA 200.7	Total Phosphorous via ICP	0.34	mg/l	MSD
12/22/2009	EPA 200.7	Total Phosphorous via ICP	0.466	mg/l	MSD
12/29/2009	EPA 200.7	Total Phosphorous via ICP	0.37	mg/l	MSD
		Monthly Average	0.41	mg/l	

Ken Carla Wastewater Treatment Plant KY0022497 Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
10/5/2009	EPA 200.7	Total Phosphorous via ICP	0.28	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	0.28	mg/l	
11/3/2009	EPA 200.7	Total Phosphorous via ICP	1.44	mg/l	MSD
11/17/2009	EPA 200.7	Total Phosphorous via ICP	0.326	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	0.88	mg/l	
12/2/2009	EPA 200.7	Total Phosphorous via ICP	0.36	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	0.36	mg/l	

North Hunting Creek Wastewater Treatment Plant KY0029106 Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
10/5/2009	EPA 200.7	Total Phosphorous via ICP	0.543	mg/l	MSD
10/12/2009	EPA 200.7	Total Phosphorous via ICP	0.434	mg/l	MSD
10/19/2009	EPA 200.7	Total Phosphorous via ICP	0.463	mg/l	MSD
10/26/2009	EPA 200.7	Total Phosphorous via ICP	0.137	mg/l	MSD
		Monthly Average	0.39	mg/l	
11/3/2009	EPA 200.7	Total Phosphorous via ICP	0.564	mg/l	MSD
11/10/2009	EPA 200.7	Total Phosphorous via ICP	0.397	mg/l	MSD
11/17/2009	EPA 200.7	Total Phosphorous via ICP	0.683	mg/l	MSD
11/24/2009	EPA 200.7	Total Phosphorous via ICP	0.504	mg/l	MSD
		Monthly Average	0.54	mg/l	
12/2/2009	EPA 200.7	Total Phosphorous via ICP	1.27	mg/l	MSD
12/9/2009	EPA 200.7	Total Phosphorous via ICP	0.847	mg/l	MSD
12/16/2009	EPA 200.7	Total Phosphorous via ICP	1.13	mg/l	MSD
12/22/2009	EPA 200.7	Total Phosphorous via ICP	1.22	mg/l	MSD
12/29/2009	EPA 200.7	Total Phosphorous via ICP	0.508	mg/l	MSD
12/31/2009	EPA 200.7	Total Phosphorous via ICP	0.851	mg/l	MSD
		Monthly Average	0.97	mg/l	

Shadow Wood Wastewater Treatment Plant KY0031810 Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
10/5/2009	EPA 200.7	Total Phosphorous via ICP	0.322	mg/l	MSD
10/12/2009	EPA 200.7	Total Phosphorous via ICP	0.406	mg/l	MSD
10/19/2009	EPA 200.7	Total Phosphorous via ICP	0.567	mg/l	MSD
10/26/2009	EPA 200.7	Total Phosphorous via ICP	0.549	mg/l	MSD
		Monthly Average	0.46	mg/l	
11/3/2009	EPA 200.7	Total Phosphorous via ICP	0.491	mg/l	MSD
11/10/2009	EPA 200.7	Total Phosphorous via ICP	0.413	mg/l	MSD
11/17/2009	EPA 200.7	Total Phosphorous via ICP	0.434	mg/l	MSD
11/24/2009	EPA 200.7	Total Phosphorous via ICP	0.324	mg/l	MSD
		Monthly Average	0.42	mg/l	
12/2/2009	EPA 200.7	Total Phosphorous via ICP	0.471	mg/l	MSD
12/9/2009	EPA 200.7	Total Phosphorous via ICP	0.592	mg/l	MSD
12/16/2009	EPA 200.7	Total Phosphorous via ICP	0.676	mg/l	MSD
12/22/2009	EPA 200.7	Total Phosphorous via ICP	0.701	mg/l	MSD
12/29/2009	EPA 200.7	Total Phosphorous via ICP	0.618	mg/l	MSD
		Monthly Average	0.61	mg/l	

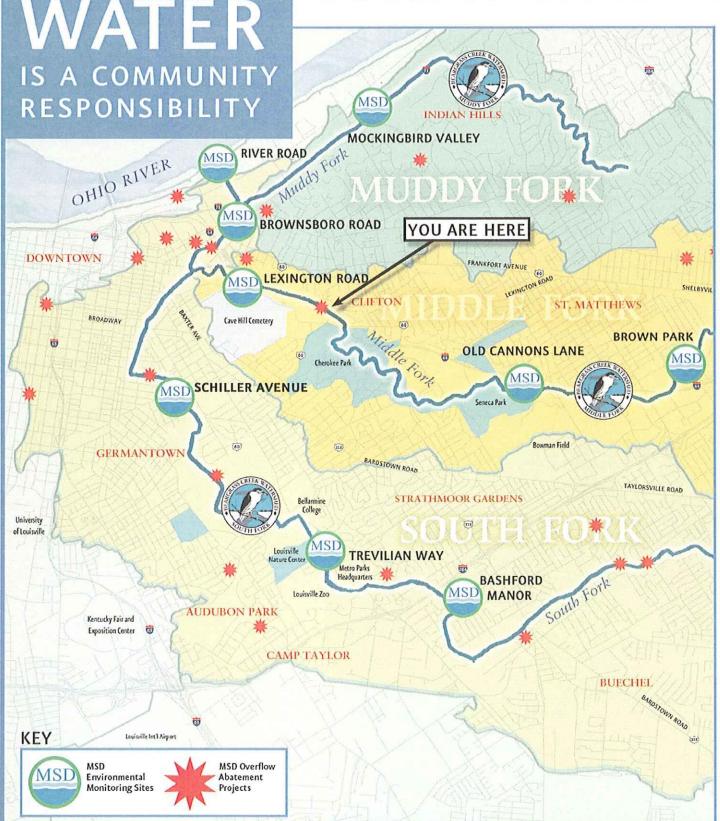


Appendix H – Project WIN Interpretive Signs



CLEAN
WATER

WHAT HAPPENS WHEN IT RAINS?

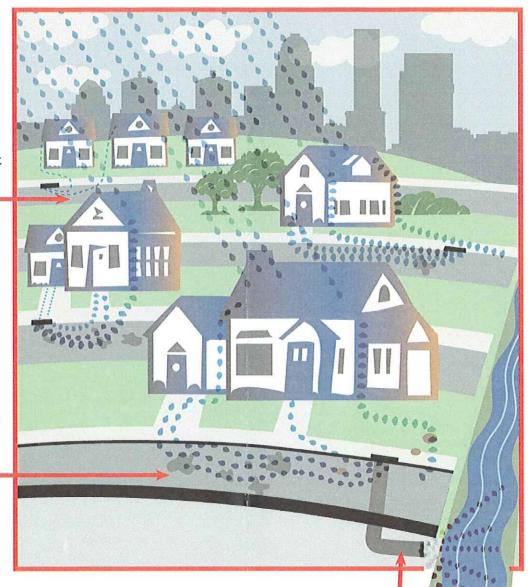


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Rain runs off roads, parking lots, rooftops, patios and other surfaces it can't penetrate.

2.

As stormwater flows into storm pipes, drainage channels and streams, it collects harmful oilbased products, lawn chemicals, pesticides, pet waste and toxic substances.



3.

In a heavy downpour, when the drainage system fills to capacity, water mixed with pollutants and sewage overflows into streams — harming fish and wildlife, killing native vegetation and making recreational areas unsafe.





CLEAN WATER

IS A COMMUNITY RESPONSIBILITY



The Beargrass Infiltration Project at Grinstead Drive and Lexington Road developed with the intention to improve infiltration, re-establish native species and help resolve water quality issues resulting from stormwater run-off. Due to the impact of urban development over the years, the hydrological functions of Beargrass Creek and adjacent riparian buffer have severely degraded. Adjacent highway and road construction eliminated native wetland plants that once grew there.

MSD and Metro Parks collaborated to implement a well-designed managed wetland landscape by enlarging the remnant wetland and increasing the riparian buffer zone. This improved ecosystem helps to filter out any pollutants from the storm water runoff and increases the overall diversity of plant and animal life.

In Fall of 2009, volunteers of all ages transplanted over a thousand native trees, shrubs, wildflowers and grasses. With continued support from community volunteers, as the natural components continue to recover, the connection between the natural world and the human-influenced world expands.







IMPROVING NATURAL ECOSYSTEMS AND WATER QUALITY

RIPARIAN BUFFERS

Riparian buffers are wooded or meadow areas along streams that filter for pollutant runoff frequently associated with herbicides, fertilizers, eroded soil and debris. Aquatic life requires shade to thrive. Many of the stream buffers along Beargrass Creek contain invasive non-native bush honeysuckle and garlic mustard. Our community depends on citizens to maintain riparian buffer zones by removing harmful plants and replacing with native flora.

NATIVE VEGETATION

Re-establishing native plants is a vital part of the naturalizing process. Native plants are adapted to local conditions and are able to withstand extremes in the weather. Migrating birds and many butterflies depend on native plants for food and shelter.

Invasive plants are creeping into natural areas at an alarming rate and they do not support bio-diversity. They frequently out-compete native varieties and, once established, are difficult to remove.

WETLAND AREA

Wetlands are critical components for increasing water quality protection and maintaining bio-diversity. As part of the Grinstead Drive Lexington Road Infiltration Project the area of remnant wetland increased. The improved wetland provides habitat for migrating water birds, amphibians, beneficial insects and small mammals and lessening in a small way the impact of the 80% wetland acreage already lost throughout the Commonwealth of Kentucky.

Once part of the original Beargrass Creek floodplain, this small wetland receives stormwater runoff from the Lexington Road corridor. The installation of a rock weir helps to safely back up stormwater runoff water and hold it for a short time, allowing it to soak in. Some of the pollutants in the water are absorbed into the soil and taken up by the native plants before reaching the stream.

INVASIVE PLANTS REMOVED



SOME OF THE FLOWERING PLANTS AND SHRUBS NATIVE TO OUR AREA













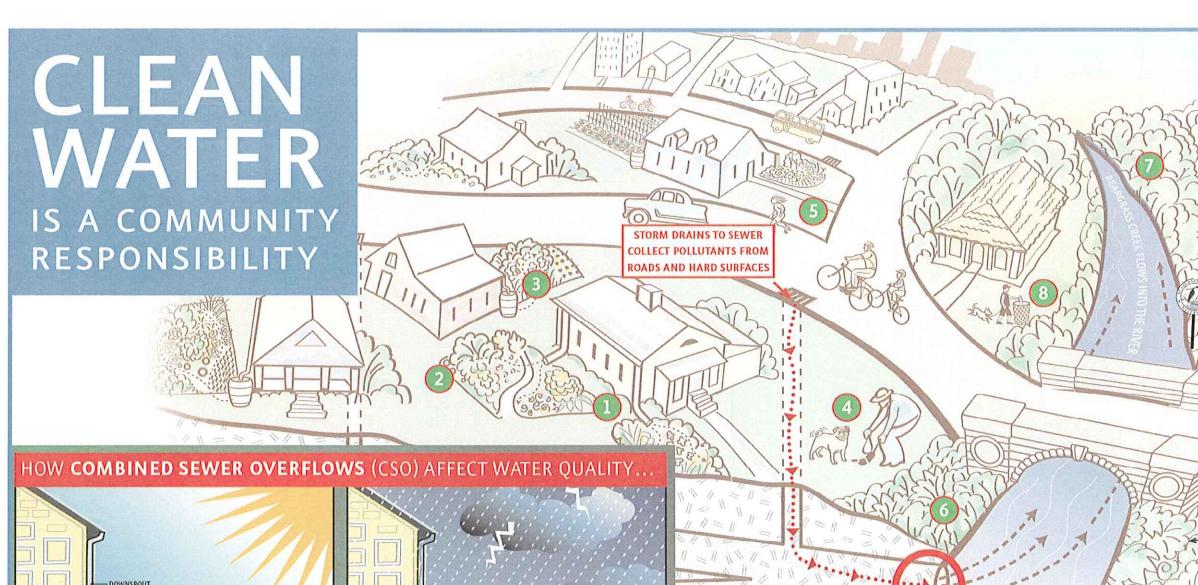










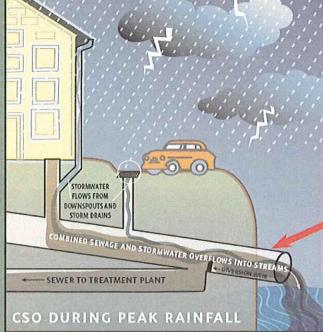


WASTE FROM HOMES AND BUSINESSES FLOWS INTO THE SEWER TO TREATMENT PLANT

CSO DURING DRY WEATHER

CSO DURING DRY WEATHER

Prior to 1985, sewers were constructed to carry sanitary sewage from homes and businesses. When it rained, the same pipes collected stormwater runoff from streets and rooftops and carried the combined mixture to the treatment plant.



During heavy rainfall, stormwater runoff from streets, rooftops and paved surfaces fills the sanitary sewers to capacity. To prevent this mixture from backing up into our homes and communities, untreated sewage and stormwater may be discharged into our streams and river which then contributes to water pollution.

- DISCONNECT downspouts that drain rain water from your roof into the combined sewer.
- PLANT a rain garden to infiltrate water from downspouts and hard surfaces.
- 3 COLLECT rain water in a rain barrel to use during dry weather periods.

- PICK UP after your pet. Pet waste contibutes significantly to bacteria and organic matter in stormwater runoff.
- MINIMIZE use of fertilizers and chemicals on your lawn. REPLACE turf with drought resistant native plants.
- If you live on a stream, **DON'T MOW** to the edge. Riparian (stream-side) buffers filter pollutants from stormwater before it reaches the stream.
- REMOVE invasive plants especially from riparian buffers. Bush Honeysuckle, English Ivy, Burning Bush and Periwinkle are non-native invasives commonly found expanding into natural areas and overcoming native vegetation.
- B DISPOSE of trash properly. Plastic bags and bottles are clogging our streams causing major pollution problems and killing wildlife.

MSD IS WORKING TO
CORRECT THE WATER
QUALITY PROBLEMS
ASSOCIATED WITH AGED
INFRASTRUCTURE. SUCCESS
DEPENDS ON THE EFFORTS
OF ALL CITIZENS TO KEEP
STORMWATER AND
POLLUTANTS FROM EVER
REACHING THE DRAINS.

POROUS PAVING

SURFACES CURB RUNOFF

RIPARIAN BUFFERS
FILTER POLLUTANTS



