Louisville and Jefferson County
Wet Weather Consent Decree
Quarterly Report #20

Reporting Period:

July 1, 2010 through September 30, 2010

Submitted To:

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

Submitted By:

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Submittal Date:

October 30, 2010

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October 30, 2010

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Subject: Quarterly Report Number 20
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 July 1, 2010 – September 30, 2010. This report provides an overview of significant program elements, issues, and accomplishments pertaining to Consent Decree compliance activities. Included are sections on Project WIN activities related to: NMC, SORP, Discharge Abatement Plans, Public Outreach, Education, Notification and Participation, Water Quality Treatment Centers, Performance Overview and CMOM.

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

If you have questions or need additional information, please contact me at (502) 649-3850.

Sincerely,

W. Brian Bingham
Regulatory Services Director

Q20 Certification KDEP 10-30-10
cc: H. J. Schardein, Jr. Paula Purifoy Laurence J. Zielke

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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 twentieth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from July 1, 2010, through September 30, 2010. **The structure for this report is outlined as follows:**

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

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

Section 5: Capacity Management, Operations and Maintenance Report - The CMOM program activities performed during the reporting period (July 1, 2010, through September 30, 2010), and activities planned for the next reporting period (October 1, 2010, through December 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 (July 1, 2010, through September 30, 2010), and the anticipated projects and activities that are scheduled to be performed during the next reporting

period (October 1, 2010, through December 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 6516 catch basins within the combined sewer system (CSS) during this reporting period.
- Continued to conduct inspections of the catch basin leads within the combined sewer system and other key areas. These inspections involve testing each basin by filling it with water and ensuring it drains properly. During this quarter, 1016 catch basins were inspected with 32 of those inspections resulting in follow-up repair or rehabilitation work orders.
- Continued to inspect, maintain and properly operate the CSS pump stations and the Morris Forman WQTC.
- Performed 1352 weekly inspections on CSOs, 273 creek inspections, and initiated 87 work orders for debris removal and/or repairs as determined to be necessary to allow proper system operation during this reporting period.

- Flushed 121 sewer line segments in the CSS, ranging in size from 6 inches to 15 inches.
- Continued several projects to create improved access to some CSO sites to facilitate cleaning activities. Construction activities are underway on the access road for CSO097. Construction of the access project for the CSO130 outfall pipe was completed on September 30, 2010. Construction is ongoing for an access road to CSO151. This project is scheduled to be completed in October 2010. Completed clearing of debris and vegetation in the improved channel of Beargrass Creek prior to September 30, 2010. Planning activities for access roads to CSO152 and CSO153 and their related siphons will begin prior to December 31, 2010.

- Achieved the following program metrics:

Target	Result
95% of CSOs inspected weekly.	100% Compliance – 104 CSOs were inspected weekly.
95% of flapgates inspected weekly.	100% Compliance - 14 flapgates on CSOs were inspected weekly.
95% of siphons inspected monthly.	100% Compliance - 10 siphons were inspected weekly and 9 additional siphons were inspected monthly.
95% of Debris or Repair Work Orders on CSO assets created the next work day after the inspection of the asset and open for no more than 5 days.	100% Compliance - There were 84 DEBRIS work orders and 0 CSOMOD work orders. 84 work orders were created and completed within the target range.
95% of the catch basins within the CSSA cleaned every 15 months.	100% Compliance - Currently MSD cleaning routines are performed on a 12 month cycle.

Annual Training

- No training activities were scheduled for implementation prior to September 30, 2010.

Annual Asset Review and Documentation

- Initiated construction activities for closure of CSO192, at the intersection of 6th Street and Garland Avenue near Downtown Louisville. This CSO contributes overflow to the Central Relief Drain. Substantial completion of the closure of CSO192 will occur prior to December 31, 2010.
- Continued planning of a grit chamber and designed a modification to the rack bars at CSO153 to better protect the siphon downstream of the CSO diversion.

1.3 NMC 2: Maximization of Storage in the Collection System

Real Time Control Operation

- Continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 278 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 project:

  Web-Based Training – Developed a beta group with the responsibility of participating in the initial training and attending work groups to review the training modules to determine each module's effectiveness. This beta group includes personnel within each division of MSD. Feedback from the beta group was reviewed prior to September 30, 2010.

Storage Optimization

- CSO130 Flapgate Installation – Completed the installation of a "duck-bill" style flapgate for the CSO130 outfall on July 1, 2010.
- Beargrass Creek Flapgate Evaluation – Installed a flexible flapgate at CSO146 on September 1, 2010.
- CSO108 Dam Modification – Started project design in October 2009. Design calls for the installation of a bending weir on the CSO108 dam to maximize storage in the upstream pipe network. Construction activities continued on the installation of the access hatch and bending weir. Construction of this project will be completed prior to December 31, 2010.

1.4 NMC 3: Review and Modification of Pretreatment Requirements

- Continued to collect industrial user sampling and modeling data for Non-Domestic Dischargers (NDDs) of concern and trunk line sewer data contributory to CSOs to determine if they discharge a disproportionate share of pollutants of concern to the CSS.
- 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 26 times prior to a rain event. There were 24 rain events during this quarter. There are currently 9 NDDs that voluntarily implement control during wet weather by alternating their cleaning schedule or by storing during a rain event and releasing later.
- Continued to include specific NMC #3 related language as appropriate, in new and re-issued wastewater discharge permits to facilities located in the CSS, as well as in Unusual Discharge Requests approved for discharge to the CSS. MSD re-issued 1 wastewater discharge permit in the CSS and issued 3 Unusual Discharge Requests in the CSS.
- Issued letters of commendation to NDDs of concern that have implemented voluntary controls.

- 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 1 and Phase 2, 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 278 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 RTC System-Wide Optimization Project. The purpose of the project is to develop a holistic operating strategy for MSD's facilities, including pump stations, flow diversions, in-line and off-line storage, and treatment facilities. A series of workshops were held on September 14 - 17, 2010, and September 27 - 29, 2010 to discuss history of the program and build the framework to move forward with enhancement of the RTC program. Discussions with staff will continue into the next quarter. Refer to **Section 6.1.1 Morris Forman WQTC** for more details on this initiative.
- Continued the Morris Forman WQTC Wet Weather SOP Enhancements Project. This project will enhance the performance at the Morris Forman WQTC to address some of the underlying dynamics that affect available plant capacity, flow monitoring and wet weather operations. MSD will increase the frequency of completing the capacity calculation, enhance the plant wet weather SOP, and update training to support this task. An update meeting was held on July 15, 2010. . Refer to **Section 6.1.1 Morris Forman WQTC** for more details on this initiative.

1.6 NMC 5: Elimination of CSOs During Dry Weather

Flood Pump Stations

- Continued a project to update the 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) to reflect current operational procedures and protocols along with revisions related to changes proposed to reduce dry weather overflows. A notice-to-proceed was issued on June 27, 2010. Beginning July 1, 2010, through September 30, 2010, meetings will be held with MSD staff to review the Operations and Maintenance Manual and start the update process.
- Pumped approximately 35,000 gallons of trapped flow back into the sanitary sewer system to avoid dry weather overflows as a result of operation of the flood protection system from the 34th Street, Starkey, and 4th Street Flood Pump Stations during the reporting period.
- Continued contract administration activities for the 27th Street and Shawnee Flood Pump Stations Dry Weather Overflow (DWO) Elimination projects. Prior to September 30, 2010, a notice-to-proceed was issued to begin final design for both projects. These

projects will be completed by June 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.

Asset Analysis

- Performed the quarterly evaluation of dry weather unauthorized discharges to the Waters of the United States, with emphasis on the CSS, to determine causes and corrective activities. MSD will continue to report dry weather overflows from the CSS in accordance with the Sewer Overflow Response Protocol (SORP).
- Performed inspection and cleaning of FOG hotspots within the CSS, in accordance with CMOM commitments.
- Performed a review of Louisville Water Company SOPs and practices relative to line breaks, hydrant flow tests and line flushing that may create DWOs or storm water discharges by hyper-chlorinated releases during the reporting period. Prior to December 31, 2010, MSD will request the participation of LWC staff on a workgroup to review the SOPs.

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

Field Verification

- Completed and compiled results of the expanded visual inspection program to determine the efficacy of installed controls. The intent of the visual inspections is to verify that the installed controls are working by checking the appearance of the creek/river before, during and after a rain event compared to a standard for aesthetics. Findings and recommendations with the volume of floatables removed will be summarized in the FY10 Annual Report.
- Continued to review ground water concerns in the CDS unit at CSO108. The rehabilitation work completed to seal the unit from the ground water issues and reprogramming of the PLC that controls the pumping operations have resolved the dry weather overflow issues to date. Continued planning of two new hydrostatic level sensors to help with reliability of facility operation. Staff will continue to monitor the ground water issues.

- Continued to monitor and document performance of the CSO108 Solids and Floatables control CDS operation in accordance with the MOU with the Kentucky Nature Preserve. A report of the efficacy of the CDS unit will be submitted to the Kentucky Nature Preserve prior to December 31, 2010.

- Continued to review new S&F technologies for potential incorporation into the program. MSD representatives will seek out additional technologies for S&F control at the Five Cities Plus Conference, and WEFTEC. Findings will be documented prior to December 31, 2010.

Solids and Floatables Debris Removal

- Continued inspection and maintenance procedures for the solids and floatables structures as part of the weekly CSO inspections and PM cleaning routines, outlined under NMC #1. During this period, 79 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. Results for the time period of July 1, 2010, through September 30, 2010, are shown in the table below:

Location	Amount of Debris Removed
Catch Basin and Sewer cleaning	1186 CY
S&F Controls and Sneads Branch	3.75 CY
Headworks of Morris Forman WQTC	1320 CY
Street Sweeping	352 Tons

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

- Continued coordination of activities performed by Louisville Metro such as: street sweeping, Operation Brightside (trash and litter clean-up), and other Metro pollution prevention programs.
- Continued administration of the Hazardous Materials Ordinance, which requires users with hazardous materials on site to submit a spill prevention and control plan. Continued response to spills of hazardous materials and incidents involving discharges to the sewer system and provided spill mitigation kits to the Louisville Metro Fire Department to use to absorb vehicle fluids rather than flushing to the sewer.
- Continued administration of the Erosion Prevention and Sediment Control (EPSC) Ordinance. Developed a tracking system for EPSC NOVs and Field Correction Notices within the CSS. From July 1, 2010, to September 30, 2010, 7 field correction notices and 7 NOVs were issued for activities within the CSS.
- Continued issuance of Wastewater Discharge Permits under the Industrial Pretreatment Program.

- Continued to 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.
- Continued preparation of Storm Water Pollution Prevention Plans (SWPPPs) to address the discharge of storm water pollutants from MSD WQTCs, wastewater pump stations, and other operating facilities, including the Morris Forman WQTC.

1.9 NMC 8: Public Notification

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

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

- Continued to collect stream flow, sonde and other environmental data sets for use in further characterization of the combined sewer area. Data is centralized in an Oracle database and routinely updated by staff.
- Posted predictive and real-time radar rainfall services with 4-hour predictive rainfall estimates across 700 pixels countywide in addition to MSD's rain gauge network. These services streamline rainfall data transfer between MSD's rainfall data vendor and the Real Time Control interface and model simulation. MSD also receives monthly, calibrated radar rainfall data for use in historical event analysis and modeling simulations. A website was developed that allows MSD staff to view and export rainfall data as well as USGS stream monitoring data.
- Continued the post-construction sampling project around the 'Big Four' SSOs that are being mitigated. MSD is currently evaluating the rainfall tolerances and weather patterns for making decisions on event mobilization.

- Monitored CSOs with an AAOV greater than 10 MG, except for two overflows that have proven to be highly difficult to install monitors (CSO023 and Sneads Branch Relief). The quarterly discharge volume at these sites is generated using the sewer hydraulic model along with each quarter's radar rainfall data.
- Identified monitoring locations and proposed equipment for CSS flow meters in areas that have poor calibration or will be targeted for intensive green infrastructure implementation. This equipment purchase will be presented to the MSD Board approval prior to October 31, 2010.
- Continued the ecological database design and import of historical biological, macro invertebrate and habitat assessment data.
- Continued the review of RTC performance reports versus modeled site performance and resultant AAOV reductions.
- Continued to monitor for and provide quicker response to dry weather overflows, battery depletion, and meter drift at CSO locations with flow meters installed. Alarms are now set on sewer flow monitoring locations to notify staff of low batteries, unusual flow conditions, and possible dry weather discharges.

SECTION 2: Program Activities for Sewer Overflow Response Protocol

2.1 SORP Program Background

Per Paragraph 24.d. of the Amended Consent Decree, MSD initially submitted the Sewer Overflow Response Protocol (SORP) to EPA and KDEP on February 10, 2006, and received comments on March 13, 2006. MSD resubmitted the revised SORP on May 12, 2006, and received an approval letter for the SORP on August 22, 2006. The most recent version is dated November 5, 2008, which received approval on January 14, 2009. The approved SORP document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin. The following activities were performed during this reporting period.

2.2 Overflow Management and Field Documentation

- There were no field reviews of SORP procedures this quarter due to the lack of significant rain events.
- Monitored 11 locations and took preventive measures to reduce basement backups. Work orders are used to track these various activities. During this period, MSD IFP staff mobilized pumps on 5 different days.
- Continued daily, monthly, and quarterly data reviews with staff from Metro Operations, IFP 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, Regulatory Services and Engineering staff documented 10 unauthorized discharges. Inspection routes were run during rain events on July 13, 2010, July 20, 2010, July 27, 2010, July 31, 2010, August 14, 2010, and August 24, 2010, as described in the following table:

DATE	ROUTE DESCRIPTION
July 13, 2010	RS MIDDLE/MUDDY FORK RAIN EVENT SSO INSPECTION ROUTE
July 13, 2010	RS JEFFERSONTOWN/FERN CREEK RAIN EVENT SSO INSPECTION ROUTE
July 13, 2010	RS HIKES POINT RAIN EVENT SSO INSPECTION ROUTE
July 20, 2010	RS MIDDLE/MUDDY FORK RAIN EVENT SSO INSPECTION ROUTE
July 27, 2010	RS HIKES POINT RAIN EVENT SSO INSPECTION ROUTE
July 31, 2010	RS HIKES POINT RAIN EVENT SSO INSPECTION ROUTE
August 14, 2010	RS HIKES POINT RAIN EVENT SSO INSPECTION ROUTE
August 14, 2010	RS MIDDLE/MUDDY FORK RAIN EVENT SSO INSPECTION ROUTE
August 24, 2010	RS MIDDLE/MUDDY FORK RAIN EVENT SSO INSPECTION ROUTE

- 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 238,600 gallons of sewage.

2.3 Regulatory Reporting and Data Management

- Continued to improve the accessibility of data captured by the SCADA system for pump station and Real Time Control information. MSD continues to standardize various environmental data sets in preparation for integration with the SharePoint site.
- Performed the monthly review of discharge work orders. The associated assets in Hansen were updated to track any new overflow locations.
- Performed a detailed data review and trend analysis and incorporated this into the quarterly training sessions and documented the findings in **Section 7: Project WIN Performance Overview**.
- Worked on enhancements to the CSO/SSO Overflow Location Maps found on the Project WIN Website.

2.4 Staff Training and Communication

- Reviewed and updated the training documentation for the 2010 third quarter training on clean up and public notification.
- Conducted the following SORP Quarterly training sessions which were attended by 283 employees.

Division	Date	Number of Attendees
Eng/Reg.Srvs	7/7/2010	23
Eng/Reg.Srvs	9/1/2010	21
Eng/Reg.Srvs	9/17/2010	28
Eng/Reg.Srvs	9/28/2010	22
IFP	9/3/2010	18
IFP	9/10/2010	14
Metro/MFWQTC	8/25/2010	50
Metro/MFWQTC	8/26/2010	39
Metro/MFWQTC	9/8/2010	38
Metro/MFWQTC	9/9/2010	13
Metro/MFWQTC	9/15/2010	17

- Administered a SORP training course for the contractors working on the Derek R. Guthrie WQTC improvement projects. Classes were held on August 31, 2010, and September 21, 2010, and attended by 33 contractors.

- Continued to enhance the SORP Implementation Manual as new training modules are developed. This manual will be placed on the SharePoint site to allow access by all staff when comments are incorporated.
- Commenced planning for the 2010 fourth quarter SORP training that will focus on overflow field documentation.
- Scheduled a SORP make-up class to be held on October 15, 2010, for staff that could not attend the 2010 third quarter training in August and September of 2010.

2.5 Annual Program Review

- Completed the process to review the FY10 overflow data. Any new overflow locations were incorporated into the existing routes.
- Completed the annual review of the SORP manual. The revised routes were sent to EPA/KDEP on August 20, 2010. No major changes were required.

2.6 Public Notification and Communication

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

SECTION 3: Program Activities for Discharge Abatement Plans

3.1 Integrated Overflow Abatement Plan (IOAP)

As a requirement of the Amended Consent Decree, per Paragraph 25, MSD is to prepare and submit for review and approval discharge abatement plans for the elimination of unauthorized discharges from the separate sanitary sewer system and the combined sewer system, the reduction and control of discharges from the CSO locations identified in the Morris Forman WQTC KPDES permit, and the improvement of water quality in the receiving waters.

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

3.2 Sanitary Sewer Discharge Plan (SSDP)

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

3.2.1 Updated Sanitary Sewer Overflow Plan Implementation

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

3.2.2 Interim Sanitary Sewer Discharge Plan

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

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

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

- Beechwood Village Sanitary Sewer Replacement East (Budget ID E07261) & West (Budget ID E08034) – As of September 30, 2010, the contractor has completed 524 (100%) house plumbing modifications and installed 575 (100%) property service connections. The contractor also completed 23,565 feet (100%) of cured-in-place pipe (CIPP) lining of the existing sewers, epoxy-lined 120 manholes (100%), removed 231 sump pumps (100%) from the sanitary sewer, and closed 3 open yard/foundation drains that connected directly into the sewer. The relief sewer was completed with 4,038 feet (100%) of 18-inch diameter sewer installed. Restoration and cleanup is in progress. Project certification letter was submitted September 29, 2010. During the period of October 1, 2010, to December 31, 2010, project construction restoration and clean-up will be completed. This project will be completed prior to April 27, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.

- Southeast Interceptor Relief Sewer Phase I & II (Budget ID H08358 & H11022) – Completed planning of a new relief interceptor parallel to the Southeast Interceptor from the Southeast Diversion Structure to the Northern Ditch Interceptor. The project is being divided into two phases to expedite construction. Phases I and II of the interceptor will consist of 7,800 feet of 60-inch diameter sewer and 600 feet of tunnel. A new junction structure will connect this relief sewer to the proposed Hikes Lane Interceptor, the existing Buechel Branch Interceptor, and the proposed Buechel Basin. Phase I was awarded on July 26, 2010, and given notice-to-proceed for construction on September 15, 2010. Phase II (lower section) final design was completed and easement acquisition is in progress. Phase II was advertised for bid on September 27, 2010. During the period of October 1, 2010, to December 31, 2010, Phase I will be under construction and Phase II is expected to be awarded for construction. The Southeast Interceptor Relief Sewer will be completed by May 12, 2012, in accordance with the ISSDP schedule and the Amended Consent Decree.

- Hikes Lane Interceptor Phase I & II & Hikes Point Relief (Budget ID H07286, H11026 and Budget ID H07287) - The Hikes Lane Interceptor has been divided into Phase I and Phase II in order to allow bidding and construction to begin on the lower portion of the project while easement acquisition and final design continues on the upper section. Phase I, or the lower section, was given notice-to-proceed for construction on May 31, 2010. Phase I is 25% complete with 768 feet of 72-inch diameter pipe installed out of a total of 2,966 ft. Phase II of Hikes Lane Interceptor is under easement acquisition and is scheduled to be bid in the first quarter of 2011. During the period of October 1, 2010, to December 31, 2010, Phase I construction will continue and Phase II will continue with easement acquisition. The Hikes Point Relief Sewer and Carson-Ribble Relief Sewer are two small interceptor improvements that are in the same area as the Hikes Lane Interceptor. The Hikes Point Relief Sewer (ID H07287) is scheduled for bid in the fourth quarter of 2011. The Carson-Ribble Relief Sewer Project (ID H09008) 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 as part of the ISSDP projects will result in significantly more wet weather flow in the Derek R. Guthrie WQTC and Morris Forman WQTC service areas. The proposed plan will

include the installation of a new interceptor parallel to the Northern Ditch drainage channel, allowing wet weather flow to be diverted from the Morris Forman WQTC service area (currently through the Northern Ditch Pump Station) to the Derek R. Guthrie WQTC. This effort will provide and allow relief for the closure of the existing Southeastern Diversion Overflow. The entire improvement is divided into three phases. Construction of the first phase was awarded on May 26, 2009, and notice-to-proceed was given on June 15, 2009. Phase I consists of 6,910 feet of 84-inch diameter sewer and 102 feet of tunnel at the National Turnpike. Construction is in progress with 6770 feet of the 84-inch diameter interceptor installed as of September 30, 2010. During the period of October 1, 2010, to December 31, 2010, construction of the 84-inch diameter sewer and tunnel will continue and is scheduled to be completed. The Yorktown WQTC will be eliminated with this phase of construction. Scheduled construction completion of Phase I is December 7, 2010.

The construction to close the Southeast Diversion overflow is a separate maintenance activity and will be completed by December 2011, in accordance with the revised ISSDP schedule and the Amended Consent Decree.

Phase II of the project starts at the upstream end of the tunnel and includes 4,770 feet of 84-inch diameter sewer pipe and a diversion structure at the existing 72-inch Northern Ditch Interceptor. Phase II notice-to-proceed date was November 30, 2009. As of September 30, 2010, the contractor has poured the diversion structure, installed the gates, and has installed 4720 feet of the 84-inch diameter interceptor. During the period October 1, 2010, to December 31, 2010, construction of the 84-inch diameter sewer will be complete and the diversion structure construction will continue. Phase I & Phase II will be completed by July 31, 2011, in accordance with the ISSDP schedule and the Amended Consent Decree.

Phase III of the project consists of several tributary lines to eliminate 3 existing pump stations. Phase III can only be bid after Phase I is completed. Phase III is not a requirement of the Amended Consent Decree or committed to in the ISSDP. This project is being tracked as part of the Northern Ditch Diversion Interceptor project and should be complete by December 2011.

- Derek R. Guthrie WQTC Wet Weather Equalization and Treatment Project (Budget ID H06302) - The final design is divided into three separate packages, Pumping Package (PP), Wet Weather Treatment Facility (WWTF), and the Equalization Basin. Initiated construction on two of the three packages. MSD's Board approved the award of a construction contract on the PP Project (H06302) and the WWTF Project (H09561) on April 12, 2010. Construction has continued on the WWTF with two of the six new clarifiers being excavated and concrete pours initiated during this period. On the PP, the Short Term Detention Basin has most of the concrete walls poured and the excavation for the raw wastewater pump station reaching within 30 feet to the bottom of the station floor. MSD has completed the review of the 90% design plans and submitted the contract to purchase additional land for the Equalization Basin. During the period of October 1, 2010, to December 31, 2010, MSD will execute the contract to purchase the adjacent property as well as prepare to advertise for construction bids on the Equalization Basin. Construction will continue on the PP and WWTF Projects in order to complete the expanded secondary treatment facilities which will address the higher peak wet weather flows at the Derek R. Guthrie WQTC. The three projects 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, as Volume 3 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

This section will report on the progress of the projects identified in the IOAP, Volume 3 – Final SSDP Projects. Refer to **Appendix A** for a chart showing the schedule of the activities described in this section. **Projects are now listed by Budget ID in the chart.** Note that the schedule in **Appendix A** shows completion dates that are earlier than the dates 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

- Little Cedar Creek Interceptor Improvements (Budget ID H09163) – The contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 651 manhole inspections (95%), 139,211 linear feet of CCTV inspection (100%), 151 private property inspections (100%), 135,000 linear feet of smoke testing (100%) and four wet weather inspections (100%). The consultant began to deliver the QA/QC data. The draft Edsel Lane PS SSES report was submitted on September 28, 2010. During the period of October 1, 2010, to December 31, 2010, data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations for the Little Cedar Creek Interceptor service area. Final SSES reports for both The Edsel Lane PS and the Little Cedar Creek Interceptor will be submitted to MSD by December 31, 2010. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. The project will be completed by December 31, 2024, in accordance with the IOAP schedule and the Amended Consent Decree.

Hite Creek Area

- Meadow Stream Pump Station In-line Storage Project (Budget ID H09174) – The SSES contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 673 manhole inspections (68%), 154,123 linear feet of CCTV inspection (84%), 101 private property inspections (67%), 173,829 linear feet of smoke testing (100%), and four wet weather inspections (100%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. Draw down tests performed during site assessment determined that the Floydsburg Road PS was only pumping at approximately 54% of its original design capacity. The assessment also determined both check valves need replacing. On July 22, 2010, MSD replaced the Floydsburg PS pumps to restore original design capacity. It is anticipated that the new valves will be installed during the next reporting period. During the period of October 1, 2010, to December 30, 2010, all CCTV, manhole and private property inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD by December 31, 2010. The data collected for the Floydsburg PS service area will be analyzed and a bid package will be created and advertised to complete any required rehabilitation by October 31, 2010. A purchase order will be completed for new check valves. Once the Floydsburg PS check valves are replaced, a new draw down test will be completed to determine the effects of the PS improvements. 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 project will be completed by December 31, 2016, in accordance with the IOAP schedule and the Amended Consent Decree.
- Floydsburg Road Pump Station I&I Investigation and Rehabilitation (Budget ID H09172) – Please see the above Meadow Stream Pump Station In-line Storage Project for more

details on the Meadow Stream SSES project. This pump station is in the Meadow Stream Pump Station service area. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. The project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

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

Floyds Fork Area

- Eden Care Pump Station SSO Investigations (Budget ID H09170) - The contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 26 manhole inspections (95%), 8 private property inspections (34%), 4,486 linear feet of smoke testing (100%), and four wet weather inspections (100%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. During the period of October 1, 2010, to December 31, 2010, manhole and private property inspections will be completed. The contractor will complete final data review and submit collected data to MSD. A final SSES report will be submitted to MSD by December 31, 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 December 31, 2012, 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 the Raintree and Marian Court pump stations will be eliminated by a private development project. Design includes 320 linear feet of 8-inch diameter sewer to eliminate Marian Court Pump Station and 410 linear feet of 8-inch diameter sewer to eliminate Raintree Pump Station. Final design and easement acquisition have been placed on hold by the developer. Economic conditions have affected the schedule and the project is on hold. MSD will monitor the developer's progress, and will self-perform this project if needed to ensure that the phases of this project will completed in advance of the December 31, 2021, date in the IOAP schedule and the Amended Consent Decree. Due to the delay in activity by the developer, this project will be removed from the report during the next reporting period.
- Jeffersontown WQTC Elimination (Budget ID H07293) - The final plan for eliminating blending at the Jeffersontown WQTC was submitted to EPA and KDEP on March 31, 2010. Prior to June 30, 2010, MSD began the process of selecting and negotiating with several consulting firms to initiate design of a new pump station, force main and

interceptors to eliminate the WQTC. Prior to September 30, 2010, negotiations were completed and design is in progress. During the period of October 1, 2010, to December 31, 2010, design will continue. Due to the size of this project, it has been divided into multiple phases and projects. Below is a summary of the project and various phases involved in this effort.

Phase I includes Billtown Interceptor, Broad Run Interceptor, Billtown Pump Station & FM, and Fairmount Pump Station Upgrade - scheduled for construction completion by May 2012.

Phase II includes Upper Billtown Interceptor, Lake of the Woods WQTC Elimination, Chenoweth Hills WQTC Elimination, Jeffersontown Pump Station, Jeffersontown Force Main, Jeffersontown WQTC & Siphon Elimination, Jeffersontown Surge Basin, and the Klondike Lane Interceptor – scheduled for construction completion prior to December 31, 2015.

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 Basin 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. A notice-to-proceed for design was issued on March 10, 2010. As of September 30, 2010, design continued. The project design is scheduled to be completed by December 31, 2010, with project bidding in 2011. The project will be completed by December 31, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.
- Hurstbourne I&I Investigation and Rehabilitation (Budget ID H09219) - This project area is described in the Lower Middle Fork Interceptor ICA Phase 2 assessment report that was completed in April 2009. Review of the ICA data is complete and rehabilitation recommendations have been made. Work on the asset management rehabilitation tool continues. This tool is being used to review inspection data, prioritize rehabilitation work, and prepare bid documents with cost estimates. The tool was used to create construction drawings, a construction estimate and SCAP credits for the recommended rehabilitation for the area. During the period of October 1, 2010, to December 31, 2010, MSD will continue the development of the asset management rehabilitation tool and bid documents for this project will be completed. Once completed, field reviews of the bid documents will be completed. Revisions to the bid documents will be completed for anticipated advertisement for construction in Spring 2011. 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 was completed. The rehabilitation tool, discussed above, was used to develop final rehabilitation recommendations and construction documents. Using the tool, final recommendations were developed for rehabilitation of the interceptor. The final recommendation includes rehabilitation of eight manholes with root removal and heavy cleaning of the interceptor. MSD completed the root removal work in-house with an annual contractor, who completed the work during July, 2010. MSD met with contractors on September 28, 2010, to review manhole rehabilitation and heavy cleaning requirements. During the period of October 1, 2010, to December 31, 2010, MSD will issue a notice-to-proceed for the rehabilitation. 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) - MSD finalized a schedule to have the Parkview system sewer lines inspected as part of the FY11 CSSA Program. During the period of October 1, 2010, to December 31, 2010, MSD will initiate an 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. The project will be completed by June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Pond Creek Area

- Charleswood Interceptor #23 Project (Budget ID C94103) / Cooper Chapel Road Widening – This is a joint project with Louisville Metro Public Works. This project will be constructed under a Metro Public Works Contract. The project includes the construction of an interceptor, elimination of the Cooper Chapel Pump Station, and construction of collector sewers for properties with septic tanks in the area. This project is in the easement acquisition stage. Since the last reporting period, Metro Public Works has delayed its construction schedule for the road project and the sewer construction has been put on hold. MSD will monitor Metro Public Works progress, and will self-perform this project if needed, to ensure the phases of the project are completed by December 31, 2022, in accordance with the IOAP schedule and the Amended Consent Decree.
- Government Center Pump Station Elimination (Budget ID H09194) – This project consists of diverting existing sanitary sewer flow from the Government Center Pump Station to an existing 15-inch diameter sanitary sewer line via gravity flow. Decommissioning 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. Final design started on August 15, 2009. During the reporting period MSD continued the easement acquisition phase. The project was advertised for construction on September 28, 2010. The bid opening is scheduled for October 15, 2010 and the project is anticipated to be awarded for construction. The project is scheduled to be completed by December 31, 2024, in accordance with the IOAP schedule and the Amended Consent Decree.

- Lantana Pump Station Investigation and Rehabilitation (Budget ID H09193) - This project will be completed under the Lea Ann Way SSES project (for details, see the Lea Ann Way System Improvements Project). To address observed high wet weather flows and existing SSOs in the project area, the Lantana Pump Station SSES scope was finalized to investigate this sub-basin in the Lea Ann Way Pump Station service area. A final SSES report was submitted to MSD on July 30, 2010. During the period of October 1, 2010, to December 31, 2010, MSD will review the report and begin the planning phase for any rehabilitation efforts. Any rehabilitation performed will be coordinated with the findings included in the final Lea Ann Way SSES report due by December 31, 2010. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation for this project. The project will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Edsel Pump Station I&I Investigation and Rehabilitation (Budget ID H09197) – This project will be completed with the Little Cedar Creek SSES project (for details, see the Little Cedar Creek Interceptor Improvements Project). 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 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) – The SSES project for this area continues to address observed high wet weather flows and existing SSOs in the project area. Due to the large size of the area (over 680,000 feet), the Lea Ann Way SSES Project (Budget ID H09096) was divided into two areas: East and West.

  Lea Ann Way West SSES - The contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include: 1,710 manhole inspections (85%), 341,573 linear feet of CCTV inspection (95%), 171 private property inspections (100%), 346,844 linear feet of smoke testing (100%), and two wet weather inspections (50%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. During the period of October 1, 2010, to December 30, 2010, CCTV, manhole, and wet weather inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD by December 31, 2010.

  Lea Ann Way East SSES - The contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 1,270 manhole inspections (100%), 261,401 linear feet of CCTV inspection (100%), 266 private property inspections (100%), 291,440 linear feet of smoke testing (100%), and four wet weather inspections (100%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. During the period of October 1, 2010, to December 30, 2010, CCTV, data delivery to MSD will be completed and the consultant

will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD by December 31, 2010.

The project will be completed by December 31, 2015, in accordance with the IOAP schedule and the Amended Consent Decree.

Ohio River Force Main Area

- Mellwood System 1 - Mellwood Pump Station and Force Main (Budget ID A09556) – The project consists of constructing a new 3 MGD pump station and force main upgrades to replace the existing Mellwood Pump Station. The pump station lies in the Ohio River Floodplain, thus requires significant flood proofing considerations. To address immediate capacity issues with the existing pump station during wet weather conditions and provide for cost-sharing opportunities with a potential developer, this project has been accelerated from the schedule shown in the Final SSDP. The design is at the 100% stage and now is in the property acquisition phase. As of September 30, 2010, property acquisition has not progressed due to property owners withholding consent. During the period of October 1, 2010, to December 31, 2010, MSD anticipates condemnation for property acquisition to be initiated. If right of entry is provided by the courts, advertisement for construction will occur. The project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.

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

  Notice-to-proceed was issued on July 10, 2009, for the preliminary design of the proposed regional Harrods Creek Pump Station to finalize the needed infrastructure and determine the necessary capacity for the elimination of the Prospect WQTCs. 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 Harrods Creek Interceptor and force main. As of September 30, 2010, design is in progress on the interceptors, the site for the regional pump station was selected, and MSD entered into negotiations for purchase of the pump station site. Easement plats have been completed for the River Road Interceptor and appraisals are complete. Notice of easement acquisition has been sent to the property owners and the process of easement acquisition was initiated. Environmental studies of potential routes are in progress.

The River Road Interceptor was delayed due to questions by US Fish & Wildlife (USF&W) over the potential for Running Buffalo Clover to be present at the site. USF&W requested a field survey by letter dated October 15, 2009, to determine if the species is present. The survey was conducted between April and the end of June, 2010, during the flowering season. Buffalo clover has been determined to not be present.

During the period of October 1, 2010, to December 31, 2010, easement acquisition will continue on River Road Interceptor and the negotiations for purchase of the regional pump station site. Design will proceed for the elimination of the North Hunting Creek WQTC, Shadow Wood WQTC, Ken Carla WQTC, South Hunting Creek WQTC, and Timberlake WQTC. Design of the new regional pump station and force main will also continue. The project will be completed by December 31, 2015, in accordance with the IOAP schedule, approved elimination plan, and the Amended Consent Decree.

- Derington Court Pump Station I&I Investigation and Rehabilitation (Budget ID H09091) - Draw down tests performed on September 9, 2010, determined that the Derington Court PS was only pumping at approximately 65% of its original design capacity. MSD finalized a schedule to have the system sewer lines inspected as part of the FY11 CSSA Program. During the period of October 1, 2010, to December 31, 2010, MSD will initiate the planning phase for an SSES project. MSD will evaluate the original pump station design to select and order new replacement pumps to bring the PS back to its original design capacity. 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. The project will be completed by June 30, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

Mill Creek Area

- East Rockford Lane Pump Station Relocation (Budget ID A09091) - The project consists of relocating the pump station, as well as increasing the size of the 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. As of September 30, 2010, design and easement acquisition is complete. During the period of October 1, 2010, to December 31, 2010, advertisement and bidding for construction is scheduled to occur. Construction is expected to begin in the first quarter of 2011. The project is targeted to be completed prior to December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.

- Shively Interceptor (Budget ID B06208) – This project will eliminate five pump stations within the City of Shively. The project consists of the installation of approximately 19,000 linear feet of interceptor ranging in size from 8-inch to 27-inch diameter. The project was bid on June 8, 2010, and was awarded for construction on June 28, 2010. As of September 30, 2010, a public meeting was held and notice-to-proceed was provided to the contractor on August 30, 2010. Construction began in September, 2010. During the period of October 1, 2010, to December 31, 2010, construction activities will continue. Construction is scheduled to last 18 months. The project will be completed

by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.

Combined Sewer System Area

- Camp Taylor #1 System Improvements SSES (Budget ID H09288) – The SSES contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 694 manhole inspections (93%), 111,403 linear feet of CCTV inspection (77%), 368 private property inspections (60%), 144,478 linear feet of smoke testing (100%), and four wet weather inspections (100%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. Initial investigations have found 14 catch basins and 292 homes in the SSES project area with downspouts connected to the combined system. Plans have begun to address the removal of these connections from the combined system. During the period of October 1, 2010, to December 31, 2010, CCTV, manhole and private property inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. MSD will finalize a plan to start removing the 14 catch basins and the downspouts from the combined system using in-house design and construction resources. A final SSES report will be submitted to MSD by December 31, 2010. The project will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Camp Taylor #2 Sewer Replacement (Budget ID H09220) - The planning for this project continues. A portion of the condition assessment in this area was performed by the ICA (Interceptor Condition Assessment) Contractor. The ICA contractor completed remaining field inspections and submitted a final report on January 18, 2010. Initial review of the data revealed approximately 1,800 linear feet of 15-inch diameter sewer was in need of replacement. During this reporting period, design was performed in-house to complete this replacement project. The project was awarded on September 13, 2010, and a notice-to-proceed for construction was issued on September 27, 2010. During the period of October 1, 2010, to December 31, 2010, construction of the replacement project will be completed. The remainder of the interceptor will be assessed with the Camp Taylor SSES project recommendations due by December 31, 2010. 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) – The SSES contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 45 manhole inspections (75%), 1,360 linear feet of CCTV inspection (90%), 12 private property inspections (45%), 1,360 linear feet of smoke testing (90%), and one wet weather inspection (25%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. CCTV investigations found significant roots in the Sonne system and planning was completed to have this area included in the FY11 Root Removal program. A second open house public meeting was held on September 27, 2010. The second

open house was scheduled due to limited attendance during the first open house. During the period of October 1, 2010, to December 31, 2010, manhole, smoke testing, wet weather and private property inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD prior to December 31, 2010. MSD will complete a condition assessment of the pump station site to determine if a rehabilitation project is needed to improve pump station performance. 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) - The SSES contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, included 53 manhole inspections (85%), 9,000 linear feet of CCTV inspection (90%), 4 private property inspections (19%), 11,431 linear feet of smoke testing (100%), and one wet weather inspection (25%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. CCTV investigations found significant roots in the Hazelwood system and planning was completed to have this area included in the FY11 Root Removal program. A second open house public meeting was held on September 27, 2010. The second open house was scheduled due to limited attendance during the first open house. During the period of October 1, 2010, to December 31, 2010, manhole, wet weather and private property inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD by December 31, 2010. MSD will complete a condition assessment of the pump station site to determine if a rehabilitation project is needed to improve pump station performance. 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) - The SSES contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 532 manhole inspections (82%), 191 private property inspections (84%), 11,431 linear feet of smoke testing (100%), and four wet weather inspections (100%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. During the period of October 1, 2010, to December 31, 2010, manhole, smoke testing and private property inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD by December 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. The project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.

- Riding Ridge PS Improvements (Budget ID H09175) – SSES planning for this project has been completed in the project area and scope finalized for the Prospect SSES Project (H09391). The Riding Ridge Pump Station is in the North Hunting Creek WQTC service area in Prospect, Kentucky. The SSES project will look for sources of I&I reduction for the following SSDP projects: Riding Ridge PS Improvements (Budget ID H09175), the Gunpowder PS Inline Storage Project (Budget ID H09242), the Fox Harbor Inline Storage Project (Budget ID H09176) and the Fairway View PS Improvements Project (Budget ID H09177). The SSES contractor continued field inspection activities to address observed high wet weather flows and existing SSOs in the project area. Field activities completed as of September 30, 2010, include 380 manhole inspections (74%), 78,696 linear feet of CCTV inspection (78%), 161 private property inspections (64%), 97,165 linear feet of smoke testing (100%), and four wet weather inspections (100%). Data delivery to MSD began and the consultant started analyzing the collected data to develop rehabilitation recommendations. During the period of October 1, 2010, to December 31, 2010, CCTV, manhole, smoke testing and private property inspections will be completed. Data delivery to MSD will be completed and the consultant will start analyzing the collected data to develop rehabilitation recommendations. A final SSES report will be submitted to MSD by November 30, 2010. 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 H0924) – This project is located in the Prospect SSES area. Please see the above Riding Ridge Pump Station Improvements project information for details. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. The project will be completed by December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.
- Fox Harbor In-line Storage Project (Budget ID H09176) – This project is located in the Prospect SSES area. Please see the above Riding Ridge Pump Station Improvements project information for details. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. The project will be completed by December 31, 2021, in accordance with the IOAP schedule and the Amended Consent Decree.
- Fairway View Pump Station Improvements Project (Budget ID H09177) - This project is located in the Prospect SSES. Please see the above Riding Ridge Pump Station Improvements project information for details. Any potential I&I reduction determined from the SSES project results and any completed remediation will be monitored and included in the final design evaluation of this project. The project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.

Other Projects

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

3.3 CSO Long Term Control Plan

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

3.3.1 Interim CSO Long Term Control Plan

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

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

3.3.2 Final CSO Long Term Control Plan

MSD submitted for approval the Final CSO LTCP on December 19, 2008, as Volume 2 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

This section will report on the progress of the projects identified in the IOAP, Volume 2 – Final CSO LTCP. Refer to **Appendix A** for a chart showing the schedule of the activities described in this section. 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) – A sewer flow meter was installed downstream of the project area for pre-construction monitoring. Three types of Best Management Practices (BMPs) have been installed on the MSD site. Pervious concrete has been installed in the main parking lot and pavers in the front of the building along Liberty Street. A bio-swale/rain garden has been installed along the north-east corner of the property. Half of the building's roof drains have been disconnected from the combined sewer system and redirected to the bio-swale/rain garden. These BMPs will be monitored and additional BMPs may be installed based on the flow monitoring data. During the period of October 1, 2010, to December 31, 2010, the site will be monitored to determine effectiveness of BMPs installed and MSD will determine whether additional BMPs are required or if the project can be certified complete. The project will be completed prior to December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Seventh and Cedar Green Parking Lot (Budget ID H09425) – Final design documents were received and bid. The project was advertised on August 26, 2010, and awarded on

September 27, 2010. During the period of October 1, 2010, to December 31, 2010, a notice-to-proceed for construction will be issued. The project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- Second and Broadway Green Parking Lot (Replaced with Scholar House Green Parking Lot Project) (Budget ID H09426) – Planning for this project has been postponed due to delays in discussions with the property owners. As these discussions move forward, design will continue. An alternate demonstration project at the Scholar House Green Parking Lot will replace this project as a demonstration. The new project will be completed prior to 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 the site has been determined to be unfavorable. An alternate site was being evaluated. As of September 30, 2010, a new site was selected and the property owners contacted. The new location is along the right-of-way adjacent to 1246, 1250 and 1256 S. 3rd Street. The proposal is to construct a bioswale in the areas between the sidewalk and the curb. During the period of October 1, 2010, to December 31, 2010, vacuum excavations will be completed to identify possible utility conflicts. If there are no conflicts, a design will be completed and the project will be bid by way of a small purchase order in November, 2010. Construction will be completed prior to December 31, 2010. Site analysis will be initiated to determine the placement of flow meters for performance assessment of the installed green technologies. The project will be completed prior to December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Sixth and Martin Luther King (MLK) Place (Formerly Sixth and Muhammad Ali) (Budget ID H09428) – Final design documents were received. The project was advertised on August 26, 2010, and awarded on September 27, 2010. During the period of October 1, 2010, to December 31, 2010, a notice-to-proceed for construction will be issued. The project will be completed prior to December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- Housing Authority Green Roof at 801 Vine Street (Formerly Sixth and Broadway Rain Garden) (Budget ID H09429) – In the previous reporting period, the Courier Journal declined participation with MSD on the green parking lot and rain garden. The project has been modified to demonstrate the effectiveness of a green roof at 801 Vine Street. A contract was awarded prior to September 20, 2010. During the period of October 1, 2010, to December 31, 2010, the site will be monitored to determine effectiveness of BMPs installed and the Contractor will install the liner, base, and medium of the green roof. The medium will be monitored during the rainy season, and compared to the performance of the roof with the addition of sedum plantings in Spring 2011. The project will be substantially complete prior to December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- W. Gaulbert and W. Hill (Formerly Seventeenth and W. Hill) Permeable Alley (Budget ID H09430) – Planning for this project was underway and the site has been determined to

be unfavorable due to its steep terrain and an alternate site was located and selected in an adjacent alley between 17th and 18th streets and W. Gaulbert and W. Hill Street. The project was awarded on August 23, 2010, and notice-to-proceed given for construction on September 13, 2010. During the period of October 1, 2010, to December 31, 2010, the construction of the project will be completed. Site analysis will be initiated to determine the placement of flow meters for performance assessment of the installed green technologies. The project will be completed prior to December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- 2300 Block of Congress (Formerly Seventh and Market) Permeable Alley (Budget ID H09431) – During planning for the Seventh and Market project it was determined that a high rise office building and parking structure is currently under construction at this location and the alley is being used for construction staging. This project has been relocated to another block of the same alley. The project was advertised on August 27, 2010, and notice-to-proceed given for construction on September 30, 2010. During the period of October 1, 2010, to December 31, 2010, the construction of the project will be completed. Site analysis will be initiated to determine the placement of flow meters for performance assessment of the installed green technologies. The project will be completed prior to December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- Billy Goat Strut (Formerly Campbell and Main) Permeable Alley (Budget ID H09432) – The project was renamed the Billy Goat Strut Alley Project. The project was bid on June 30, 2010, and construction was completed on August 30, 2010. Paver blocks were used for the resurfacing. Only a section of the alley was included in the project due to the location of a sanitary sewer already in the alley. The project was completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- Fourth Street (Formerly Twelfth and Jefferson) Green Street (Budget ID H09433) – Design was initiated prior to June 30, 2010. Monitoring equipment has been Board approved and a site analysis was initiated to determine the placement of flow meters for performance assessment of the installed green technologies. During the period of October 1, 2010, to December 31, 2010, the construction of the project will be completed. 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) – Preliminary design of rain gardens for Christ the King Church (now Brandeis Apartments) and Clifton Triangle Area were initiated in March 2010. Construction of both projects was initiated. During the period of October 1, 2010 to December 31, 2010, construction of both projects will be completed. These projects will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.

- I-264 Off-Ramp Dry Well (Budget ID H09442) – Design has been placed on hold, contingent on coordination with EPA Region 4 regarding permitting requirements. MSD is reviewing other possible green opportunities as a replacement for this project. These

projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

- I-264 On-Ramp Dry Well (Budget ID H09443) - Design has been placed on hold, contingent on coordination with EPA Region 4 regarding permitting requirements. MSD is reviewing other possible green opportunities as a replacement for this project. These projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- I-264 and Gibson Dry Well (Budget ID H09444) - Design has been placed on hold, contingent on coordination with EPA Region 4 regarding permitting requirements. MSD is reviewing other possible green opportunities as a replacement for this project. These projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Russell Lee Drive Dry Well (Budget ID H09445) - Design has been placed on hold, contingent on coordination with EPA Region 4 regarding permitting requirements. MSD is reviewing other possible green opportunities as a replacement for this project. These projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- JFK Montessori Area Dry Well (Budget ID H09446) - Design has been placed on hold, contingent on coordination with EPA Region 4 regarding permitting requirements. MSD is reviewing other possible green opportunities as a replacement for this project. These projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.
- Two Remaining (2) Additional Rain Garden Projects – During the period October 1, 2010 to December 30, 2010, MSD will begin the selection and planning phases of these projects. These are two remaining, unnamed Green Demonstration Project commitments listed in the IOAP. These projects will be completed by December 31, 2011, in accordance with the IOAP schedule and the Amended Consent Decree.

3.3.2.2 Gray Infrastructure Projects

- Logan Street Basin (Budget ID H09142) – This project consists of an 11.83 MG underground storage basin, and approximately 5,000 linear feet of new interceptor sewers. Completed the preliminary design study to evaluate available/alternative technologies and establish design protocols for the other 12 CSO basin designs. This study provided a design of the basin to a 10% stage. Alternatives for the basin site and the CSO interceptor alignment have been investigated. Phase I Environmental Site Assessment, historical and archaeological review, and review of permit requirements have also been completed. Preliminary design has been initiated and in progress. A Phase II Environmental Site Assessment is in progress. The acquisition of the property for the basin is in negotiations. During the period of October 1, 2010, to December 31, 2010, 30% design, negotiations for the basin property and the Phase II Environmental Site Assessment will continue. The project will be completed by December 31, 2017, in accordance with the IOAP schedule and the Amended Consent Decree.

- CSO108 Dam Modification (Budget ID H09128) – Initiated construction activities. Shop drawings were approved and the new bendable weir was ordered. During the period of October 1, 2010, to December 30, 2010, construction will be completed. The project will be completed by December 31, 2010, in accordance with the IOAP schedule and the Amended Consent Decree.
- CSO206 Downspout Disconnections (Budget ID H09131) – Continued the project for private property owners to be reimbursed for downspout disconnection in the CSO206 area. During the period of October 1, 2010, to December 31, 2010, inspections and dye tests for property owners expressing an interest in participation of the program will continue. Payment for disconnections has started to occur, and data is being tracked in HANSEN. The project will be completed by December 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.
- CSO123 Downspout Disconnection (Budget ID I04247) – During the period of October 1, 2010, to December 31, 2010, MSD will begin the planning phase of this project. The project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.
- CSO058 Sewer Separation (Budget ID H09130) – Initiated planning of the separation project in the CSO058 sewershed. During the period of October 1, 2010, to December 31, 2010, MSD will begin the planning phase of this project. The project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.
- CSO140 Sewer Separation (Budget ID H09122) - Initiated planning of the separation project in the CSO140 sewershed. During the period of October 1, 2010, to December 31, 2010, MSD will begin the planning phase of this project. The project will be completed by December 31, 2015, in accordance with the IOAP schedule and the Amended Consent Decree.
- I-64 and Grinstead Drive Storage Basin (Budget ID H09121) – As of September 30, 2010, design negotiations have been finalized for a 10% design and is in progress. The 10% design will answer several questions to allow for a scope to be prepared for final design. During the period of October 1, 2010, to December 31, 2010, the 10% design is expected to be completed. The project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.
- Paddy's Run Wet Weather Treatment Facility (Budget ID H09124) – MSD and the design consultant met with representatives from the USACE, and two adjacent property owners to explore site access alternatives. In addition, MSD met with representatives of the KDEP staff regarding the scope of this project and potential permitting conditions. MSD has evaluated alternative sites for the treatment facility and determined that the preferred site is adjacent to the Paddy's Run Flood Pump Station building. MSD is proceeding with further discussions with the adjacent property owner to coordinate access to the proposed site. During the period October 31, 2010, to December 31, 2010, MSD expects to meet with the adjacent property owners regarding possible easement restrictions, expansion of the existing access route and continue with the

schematic design. The project will be completed by December 31, 2014, in accordance with the IOAP schedule and the Amended Consent Decree.

- Adams Street Storage Basin (Budget ID H09135) – Design negotiations have been initiated for this project to reduce overflows from CSO172. During this reporting period, it was determined that all storm water connections to this CSO have already been separated, thus eliminating overflows. The project included a 0.12 MG storage basin. During the next quarter, further study of the drainage area and monitoring will occur. Recommendations on the IOAP project will be compiled prior to March 31, 2011.
- Story Avenue & Main Street Storage Basin (Budget ID H09127) – Design negotiations have been initiated for this project to reduce overflows from CSO020. Project includes a 0.13 MG storage basin. During this reporting period, it was determined through additional studies of the South Fork of Beargrass Creek IOAP solutions that this basin may need to be increased in size and scope. Therefore, the design negotiations have been suspended until the scope is defined. The expected re-start of the 10% design negotiations is the first quarter of 2011. The project is scheduled to be complete by December 31, 2013, in accordance with the Amended Consent Decree.

Flood Pump Station Projects

- 34th Street Flood Pump Station DWO Elimination (Budget ID H08478) – Final design documents were received September 24, 2010. Final preparation of the documents determined that the gate and gate actuators will take 30 weeks for delivery once ordered. The advertisement date was moved to October, 2010, to schedule the anticipated arrival of the gate and gate actuators during July, 2011. During the period of October 1, 2010, to December 31, 2010, advertisement activities will be completed and it is anticipated that the project will be awarded for construction. The project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.
- 4th Street Flood Pump Station DWO Elimination (Budget ID H08477) - Final design documents were received September 24, 2010. Final preparation of the documents determined that the gate and gate actuators will take 30 weeks for delivery once ordered. The advertisement date was moved to October, 2010, to schedule the anticipated arrival of the gate and gate actuators during July, 2011. During the period of October 1, 2010, to December 31, 2010, advertisement activities will be completed and it is anticipated that the project will be awarded for construction. The project will be completed by December 31, 2012, in accordance with the IOAP schedule and the Amended Consent Decree.
- 27th Street Flood Pump Station DWO Elimination (Budget ID H09126) – The contract for final design services was awarded on January 25, 2010. During this reporting period, MSD completed the project planning phase and finalized the schedule to start final design. This project is being designed by the same engineering consultant working on the 4th and 34th Street Flood Pump Station DWO Elimination Projects mentioned above. The plan is to start this project design phase once the previously mentioned project designs are completed. During the period of October 1, 2010, to December 31, 2010, a notice-to-proceed for final design will be issued and final design activities will begin. The

project will be completed by June 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.

- Shawnee Flood Pump Station DWO Elimination (Budget ID H09136) – The contract for final design services was awarded on January 25, 2010. During this reporting period, MSD completed the project planning phase and finalized the schedule to start final design. This project is being designed by the same engineering consultant working on the 4th and 34th Street Flood Pump Station DWO Elimination Projects mentioned above. The plan is to start this project's design phase once the previously mentioned project designs are completed. During the period of October 1, 2010, to December 31, 2010, a notice-to-proceed for final design will be issued and final design activities will begin. The project will be completed by June 30, 2013, in accordance with the IOAP schedule and the Amended Consent Decree.

3.4 Post Construction Compliance Monitoring Program

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

The following is a brief summary 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. Executed a contract and work order for a proposal for the development of this site. MSD began development of this site. The hardware setup and software installation are currently underway. Coordination of the various databases to be integrated is also occurring. Exports of large historical data sets will commence and import of that data into the integrated site will begin after September 30, 2010. Testing of the mapping capabilities and data pushes to keep data sets current will also begin prior to December 31, 2010.

- Quality Assurance and Quality Control Definition and Implementation – Used proactive data notification processes at sewer flow meter sites which allow the real-time data sets to notify MSD staff when certain conditions are recorded in the field. MSD executed a contract that will formally establish and document proper quality control measures to be used on MSD's data. The development of these measures is approximately 50% complete. 90% completion of the recommended measures will occur by December 31, 2010. MSD will then work to implement the measures that are reasonable and fit the utility needs.

- 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 storm water 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. For project sites that have been finalized, monitoring locations have been identified and equipment has been installed for the demonstration project as well as project control sites. After initial review, a few sites have been determined as unsuitable for green project sites. Alternative sites have been selected and equipment has been moved accordingly. See Section 3.3.2.1 Green Demonstration Projects for further details. Additional watershed monitoring needs have also been defined along with equipment needs. The board package to acquire this additional equipment will be developed prior to October 30, 2010. MSD is also working toward defining and implementing the gray to green right-sizing effort as outlined in the IOAP in two pilot CSO basins.

- Sewer Hydraulic and Stream Water Quality Modeling for Impact Analyses – Executed work orders for sewer modeling services to address model cleanup, further standardization, calibration and integration. The models were reorganized to simplify use and recalibration efforts began. Recalibration is currently ongoing. Model integration will begin in the next reporting period.
- Water Quality Sampling for IOAP Projects and the Long Term Monitoring Network – Recreational contact sampling will continue throughout this same network 5 times per month during the recreational contact season. Consultant contracts to provide continued dry and wet weather sampling around the Big 4 SSO project areas have been executed. Prior to September 30, 2010, MSD confirmed a specific timeline for wet weather sampling across the Long Term Monitoring Network as noted in the IOAP. A dry weather sampling event and wet weather event will be captured prior to December 31, 2010.
- Sewer Flow Monitoring Network Expansion – Sewer flow monitoring network is currently being maintained and site notifications are being enhanced in MSD's Telog Enterprise system. Additional monitoring needs for inflow and infiltration reduction assessment have been identified and a board package to acquire this equipment was developed prior to September 30, 2010. The board package will be taken to the board in the next quarter.
- 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 FY11.
- Rain Gauge and Radar Rainfall Data Collection – Continued to operate an established rain gauge network of 17 gauges that report data every 5 minutes through telemetry. In addition, MSD receives 4-hour predictive and real time radar rainfall data from a vendor across approximately 700, 1-square kilometer pixels that cover the county. The vendor also delivers a gauge-adjusted radar rainfall data set at the end of each month. This data is used to support operational decisions as rain events are approaching and are occurring. The Real Time Control system also utilizes the rainfall data to run simulations

and develop set points for control sites throughout the combined sewer system. The radar rainfall is also used for modeling simulations that support various planning and design decisions. The radar rainfall data along with rain gauge and stream monitor information is served to users through an internet application.

- Fish, Algae, Macroinvertebrate and Habitat Surveys - Fish, macroinvertebrate and habitat surveys for the Long Term Monitoring Network were completed in December 2009 as part of the every other year schedule identified in the IOAP. MSD is currently working to complete an ecological database to house this information as it is collected in order to keep a cleaner historical record of this complex information. This effort will continue through the next year along with contract negotiations with the University of Louisville to complete an algae analysis for collected data. Fish sampling at the LTMN sites will also occur by December 31, 2010.

3.5 Green Program Development

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

- Continued the IOAP 2010 green infrastructure demonstration projects as described in the IOAP, with completion dates ranging from December 31, 2010, to December 31, 2011.
- Continued 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.
- Initiated the plan for the green infrastructure effectiveness monitoring for the 19 demonstration projects. The preconstruction monitoring equipment has been installed for the demonstration projects that are under design. Data will be utilized to document the efficacy of the demonstration technologies for “right-sizing” of gray IOAP projects.
- Continued meetings with internal staff to discuss partnership opportunities and potential green projects.
- Continued development of design guidance documents for green infrastructure including the MSD BMP manual, and a work plan to update appropriate MSD design documents.
- Continued development of a green infrastructure tracking program followed by an inspection program for those green assets constructed by MSD, its partners, and private residents; specifically inspect those assets that are being used in impervious area reductions and CSO reduction and project sizing calculations.
- Continued a review of the existing Louisville Metro Land Development Code to identify potential impediments to green infrastructure implementation, and also began to identify proactive measures that could facilitate institutionalizing green practice in typical developments. A plan to present recommended suggested Land Development Code changes to Louisville Metro government for consideration will be developed.
- Awaited the results of the grant submittal for State of Kentucky funding of Green Infrastructure projects. Updates will be provided in future quarterly reports.

- Initiated discussions with the EPA Office of Research and Development on the possibility of collaborative performance monitoring for the impacts of green infrastructure from a project level to a basin level. MSD began development of a scope to complete this task and plan to receive MSD Board approval prior to December 31, 2010.

3.6 Green Program Miscellaneous Projects

The following projects are a continuation of the Green Program IOAP commitments to continue to implement and complete green projects until December 31, 2020. These projects are in addition to the 19 Green Demonstration projects. The following projects were active during this reporting period.

- Warren and Cliff Permeable Alley (Budget ID C10184) – This project was added to the original list of green alley projects due to its suitability for improvements. The project was bid on June 9, 2010, and awarded on June 28, 2010. During the period of October 1, 2010 to December 31, 2010, construction was completed on August 30, 2010. Construction includes undercutting the alley, back filling with #3 stone, and installing paver blocks for the final surface restoration.
- Forrest and Morgan Permeable Alley (Budget ID C09110) - This project was added to the original list of green alley projects due to its suitability for improvements. The project was bid on June 30, 2010. During the period of October 1, 2010 to December 31, 2010, construction was completed on August 30, 2010. Construction includes undercutting the alley, back filling with #3 stone, and installing paver blocks for the final surface restoration.
- Bardstown Road Presbyterian Church Bioswale (Budget ID H11044) – Started discussions with the property owner to develop a green project. The project area serves as a church parking lot as well as a weekend Farmers Market. The owners need to repave the parking lot and wanted to partner with MSD to install green solutions on site. MSD negotiated a design contract and issued a notice-to-proceed on September 4, 2010, for final design. Several meetings were held during the reporting period with the owners to finalize the scope. The improvements will contain a bio-filtration swale, pervious pavement and pavers for the parking areas. The church will also have their downspouts disconnected from the combined system, directed to cisterns for water harvesting. During the period of October 1, 2010, to December 31, 2010, MSD will receive 30% design and will meet with the property owners for final approval. It is anticipated that the project will be under construction early 2011.

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

4.1 Public Notification Program

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

4.1.1 Overflow Advisory Signs

- No overflow advisory signs were repaired or replaced between July 1, 2010, and September 30, 2010.

4.1.2 Electronic Notifications

- Notified customers who voluntarily sign up to receive email alerts regarding sewer overflows.
- Provided notification on 5 Dry Weather Unauthorized Discharge of more than 1000 gallons. This event required additional notification due to the volume of dry weather overflow involved.
- Continued the process to evaluate the email alert program and messages and develop an action plan to increase participation in the email program, and to improve retention of those who sign up. Investigating the use of "Dean" to broadcast messages to the public.

4.1.3 Print Notifications

- Mailed 646 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.
- Mailed out 48 FOG residential public outreach letters to areas that had FOG issues during this reporting period.

4.2 Public Education Programs

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

4.2.1 Radio and Television Activities

- Continued to show on Metro TV (Channel 25) the Project WIN 2008 video series - a series of seven videos to inform the public about MSD, the Amended Consent Decree and Project WIN. From July 1, 2010, to September 30, 2010, the video was shown 91 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 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. On-line copies of *Crosscurrents* can be viewed at http://www.msdlouky.org/aboutmsd/cross/cc_spring10web.pdf
- 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. On-line versions of *Update* can be viewed at http://www.msdlouky.org/aboutmsd/updatenews.htm
- Worked with the Courier Journal to run newspaper advertisements educating the public about overflows and pollutants in waterways. Messages are coordinated with stakeholder priorities and seasonal information. The messages include: Flooding, the FOG program, water safety, pet waste pickup, and conscientious use of washing machines and dishwashers during wet weather.

4.2.3 Electronic Media Activities

- Initiated planning on movie theatre advertisements describing how residents can positively impact water quality by diligent pet waste pickup, and proper swimming pool opening and closing procedures. A contract for these services will be initiated prior to December 31, 2010.
- Worked with the Courier Journal to develop educational advertisements for the on-line edition of the newspaper to warn the public about overflows and pollutants in waterways. Messages are focused at reaching dog owners, families, and the general public. On-line advertisements will direct interested readers to the Project WIN website for additional information. A report from the Courier Journal outlining the web traffic, impressions, and web hits from visitors directed to the Project WIN website from the Courier Journal website for the quarter is summarized below:
    - There were a total of 615,307 impressions. An impression is a page view of how many times the ads were loaded onto the Courier Journal website.
    - During the quarter there were 164 clicks. This makes the average click-through rate .03 (number of times the ad was clicked on per number of impressions). The average click-through rate for the Courier Journal is .05.
- Ads can be viewed at the following website links:
    - Courier Journal: www.courierjournal.com
    - Moms Like Me: www.louisville.momslikeme.com
    - Louisville Metromix: www.louisville.metromix.com

4.2.2 Project WIN Website

- Continued 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.
- Published a new web page on the Project WIN website titled: *How to be Part of the Solution*. This new page includes information on how individuals can help reduce sewer overflows and make a positive impact on stream water quality during their daily activities. This page was made available in July 2010.

4.3 Public Outreach Programs

MSD has developed a public education program aimed at expanding the public's knowledge on MSD's primary business functions of wastewater, stormwater and flood protection, with an emphasis on Project WIN Program elements.

4.3.1 Green Infrastructure Workshops and Activities

- Delivered a presentation to Metro Inspections, Permits, and Licenses regarding the inspection of installed sustainable features on July 28, 2010.
- Installed interpretive signage for the Main Office Rain Garden prior to September 30, 2010. Planning for additional signage for green demonstration sites and green partnership locations began in July 2010.
- Presented MSD's green program to the Kentucky Watershed Watch on August 13, 2010.
- Delivered a presentation about rain gardens, bioswales, and other sustainable BMPs on August 23, 2010.
- Continued planning on a rain garden workshop for the Clifton Triangle Neighborhood tentatively planned for October 2010.
- Continued planning of internal and external workshops explaining the Green Infrastructure Program.

4.3.2 Clean Streams Workshops and Activities

- There were no clean stream activities during the reporting period.

4.3.3 Outreach Activities for Students

- Continued planning of the implementation of outdoor classrooms at the Floyds Fork WQTC.

4.3.4 IOAP Project and Program Meetings

- There were no public IOAP meetings held during the reporting period.
- Provided information to the WWT through the Project WIN website, at www.msdlouky.org/projectwin.

SECTION 5: Capacity Management Operations and Maintenance Report

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

The primary objectives of CMOM are as follows:

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

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

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

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

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

5.1 Management Programs

M-D-1 Utility Information Management Systems

This Quarter

- Continued to expand the performance measure tracking system on the Project WIN Dashboard.
- Completed revisions to the capital project site template.
- Migrated revised site template to production server and began to develop project sites for IOAP projects.
- Developed overview SharePoint training program for capital project teams and scheduled initial round of training, focusing on teams with active capital projects.
- Continued to support special requests for non-standard project site development.

Next Quarter

- Continue to expand the performance measure tracking system on the PWIN Dashboard.
- Enhance Project Control System interfaces to support external fact sheet generation, automatic updating, etc.

- Deliver overview SharePoint training to project managers and project teams.
- Deliver advanced SharePoint training to project coordinators and site content managers.
- Work with MSD IT to establish site administrator roles.
- Work with MSD Work Group to establish Governance standards for the site use and control.
- Assess user issues/problems with the SharePoint sites, and address as appropriate with training and/or modifications.
- Provide one-on-one training on an as-needed basis for SharePoint.
- Develop on-going training needs for project management, risk management, and similar topics.
- Begin development of programmatic sites not related to capital project management.
- Continue to support special requests for non-standard project site development.

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

This Quarter

- Processed 24 customer applications for participation in the Sewer Service Line Replacement Program this quarter, totaling over $70,000 in no-interest loans for service line replacement. Several additional customers are currently in the process of applying for the program.

Next Quarter

- Continue implementing the program to finance replacement of private sewer service lines at property owner request.

M-E-8 Continuing Sewer System Assessment

This Quarter

- Developed draft assessment and prioritization guidance to facilitate development of cleaning and rehabilitation recommendations resulting from inspection projects. The document outlines the decision making process for determining the actions – or lack of action – needed to properly maintain and operate individual sewer system assets, then re-assess those actions spatially and in the field to determine constructability. Bid quantities, drawings, SCAP credit projections and construction cost estimates for rehabilitation projects as well as cleaning activity recommendations are generated. Several areas in the Middle Fork Beargrass Creek watershed were used as pilot areas in developing these recommendations. Document has been issued in draft form to SSES firms for their reference as they develop their reports.

- Continued PACP sewer inspection to set baseline conditions for prioritization:
  - SSES Contractors completed CCTV project areas totaling 608,661 linear feet (115.3 miles)
  - CCTV Contractor completed 124,947 linear feet (23.6 miles)
  - No ICA CCTV activity this reporting period
- Scheduled CCTV work to be completed by MSD and CCTV Contractor crews totaling 288,537 linear feet (55 miles)
- Confirmed new priority areas for FY11 Condition Assessment and initiated planning for future inspections.
- Completed training and initial rollout of Flexidata software to MSD CCTV Crews.
- Completed QA/QC of three project area deliverables.

Next Quarter

- Continue quality assurance and quality control on the data received from sewer inspections.
- Continue analysis of the data gathered in the ICA, CCTV and SSES efforts to prioritize maintenance and rehabilitation needs. Begin development of bid packages to execute these priorities.
- Continue improvement of the Blockage Abatement Plan to define cyclical maintenance procedures for lines demonstrating recurring blockage abatement needs.
- Collect and address comments from the SSES consultants regarding CSSA system analysis guidelines.
- Prepare bid documents for areas/lines for FY11 rehabilitation based upon the need for credits, the data from condition assessments and evaluations, and results from the ICA and SSES data.
- Initiate ICA4 and targeted SSES projects.
- Expand Flexidata rollout to additional crews.
- Plan for the BGI rehabilitation bid.
- Schedule cleaning and CCTV work in 6 additional sub basin areas

<u>M-E-9 Infrastructure Rehabilitation</u>

This Quarter

- <u>Edgewood Separation (Budget ID H09202)</u>- The existing storm and sanitary lines in the area need to be replaced due to their poor condition. A project was created to replace the existing storm line and install new sanitary sewer lines. All existing sewer connections to the drainage facility were located and will be re-directed to the new line. Prior to September 30, 2010, final design documents were received and the project was advertised for bid. Construction will begin during the next reporting period.

- Whipps Mill Basin (Budget ID H09202)- This project called for raising two manholes on the Middle Fork Interceptor to a height two feet above the floodplain along Middle Fork. Chimney seals will also be installed on both manholes. The manholes are located in the Whipps Mill Basin. Contract has been awarded. Siltation from wet weather events has covered the manholes again and they must be relocated in order to be sealed. MSD will locate the manholes and seal during the next quarter.
- Goose Creek Pump Station (Budget ID F07070) Grinder Installation- A pre-construction meeting was held on January 14, 2010, with the notice-to-proceed issued on January 21, 2010. Construction started in February 2010 and was completed by August 30, 2010. Change Order No. 1 was approved in June 2010. This change order approved the installation of slide gates instead of stop gates (as was originally specified in the bid documents). The change order also added 60 days to the project schedule, which extends the completion date to October 30, 2010. Construction of the project is complete. MSD will meet with the contractor at the site on October 19, 2010 to observe the operation of the grinders. Final start-up and acceptance is scheduled for October 29, 2010.
- Lea Ann Way Pump Station (Budget ID F07069) Grinder Installation- The project was awarded on October 26, 2009, and a notice-to-proceed for construction was issued on November 24, 2009. A pre-construction meeting was held December 22, 2009. Construction started in January 2010 and was completed by May 31, 2010. Change Order No. 1 was approved in February 2010 and included the installation of two stilling wells. Change Order No. 2 was approved in May 2010 and contained numerous pump station upgrades including the addition of stop gates and also channel grating. Both change orders extended the contract time by a total of 90 days. The project was substantially completed on September 13, 2010. Construction of the project is complete. Final start-up and acceptance of the grinders will take place on October 11, 2010. The start-up of the new hydraulic gates should take place in early November 2010.
- Brandeis Viaduct #2 Pump and Controls Modifications (Budget ID F04192) - The project was awarded on October 26, 2009, and a notice-to-proceed for construction was issued on December 7, 2009. A pre-construction meeting was held December 28, 2009. Construction started in January 2010. Change Order No. 1 was approved in May 2010 and consisted of extending the contract completion date by 60 days. The contract has experienced difficulty getting a firm delivery date from the pump supplier. The pumps were delivered on August 14, 2010. Project was substantially complete on September 30, 2010. Final start-up and acceptance will take place on October 21, 2010.
- Shively Pump Station Grinder Replacement Project Planning (H10151) - The project will replace the existing grinders. On June 30, 2010, the 90% design plans were reviewed and only minor changes noted. Final design plans and specifications were delivered to MSD by the end of July 2010. The final specifications and mylars will be delivered to MSD by October 20, 2010. The project should be advertised the first week of November 2010.
- Fairmount Road Pump Station Expansion (Budget ID E00303)- The contract for final design services was awarded on January 25, 2010. The final design documents were received by September 30, 2010. The final specifications and mylars should be

delivered to MSD by October 29, 2010. The project should be advertised in early November.

- Gorham Way Pump Station Elimination (C09061) - MSD staff reviewed several sewer alignments to eliminate this station. Substantial rock will likely be encountered in possible routes. A route was selected and final design was completed by September 30, 2010. Approval from the Kentucky Division of Water is currently pending. Once obtained, the project will be advertised.
- Anchor Estates Rehab Project (Budget ID F08443) - During the SSES for the Anchor Estates area, multiple defects in the existing clay tile sewer system were discovered. This project was created to make corrections to address these defects. Project will include about 2000 feet of 8-inch cured-in-place pipe, manhole repairs and spot repairs. This work was bid prior to July 31, 2010 and is currently under construction with work scheduled to be completed by December, 2010.
- Canoe Lane/Fairway Lane Pump Station Elimination (Budget ID F06298)- This project will allow for the elimination of the Canoe Lane and Fairway Lane Pump Stations. The elimination of these pump stations will assist in the elimination of SSO's that currently exist downstream of these facilities. Design and easement acquisition are complete. Project was bid on April 12, 2010 and is currently under construction. Substantial completion will occur by December 31, 2010.
- Lake Forest Pump Station, Force Main, and Interceptor (Budget ID E05509)- This project will allow for the elimination of the Berrytown, Starview, and Chenoweth Run WQTCs. Additionally, the St. Clair Drive and Arnold Palmer Pump Stations will be eliminated with this project. The effluent from these facilities will be directed to a proposed pump station that will pump into the existing Old Henry Force Main sending the wastewater to the Floyds Fork WQTC. Design on this project is 90% complete and easement acquisition is in progress. Some changes in the alignments and additional line segments are being included in the design. Design will continue through the next reporting period.

  The project will be constructed in four phases. Phase I will be the construction of the new pump station and is the critical facility. The pump station completion will dictate the schedule for the completion of the interceptor to eliminate the existing pump stations and treatment plants. Phase I will allow for the start of the pump station construction while design and easement acquisition is in progress on the interceptor sections. The second phase is the interceptor that will eliminate the existing Arnold Palmer PS and Chenoweth Run/Lake Forest WQTC. The third phase is a section of interceptor that will be completed by developers. The fourth phase will be the interceptor to eliminate St. Clair PS, Starview WQTC and Berrytown WQTC.

  Phase I, the new pump station, was advertised for construction on June 30, 2010, with construction scheduled to be completed by September 30, 2011. The second phase is scheduled to start construction by December 31, 2010, with construction completed by December 31, 2011. The third and fourth phases are scheduled to start construction in 2011 and should be completed in 2012.

- McNeely Lake WQTC Influent Pump Station (Budget ID H09338)- Completed planning of a new collection box with bar screen and trash rake to protect the influent pumps. Currently there is no means to capture debris from the existing 12-inch diameter influent line ahead of the influent pump station. Design drawings were created for the modifications. A meeting was held on site on June 4, 2010, with three contractors to obtain a quote for the project. Several questions came up during the meeting and the drawings required revisions. Revised drawings were received by June 30, 2010. On August 30, 2010, MSD advertised the project, and awarded a small purchase order on September 22, 2010. The construction is scheduled to be completed by December 31, 2010.
- Yorktown Pump Station Maintenance (Budget ID H09338)- Completed review of the existing pump station discharge bases. The existing duplex pump station was pumping under capacity due to excessive grout in the bottom of the wet well. The grout was not allowing the correct suction required for the pump to operate correctly. On January 22, 2010, a meeting was held on site with three contractors to obtain a quote to replace each pump base and re-grout the wet well. A purchase request to complete the work was approved in June 2010. Work was completed in August 2010.
- Starkey Flood Pump Station Air Discharge Valve Project (Budget ID H09517)- A project was initiated to relieve a vacuum problem in the discharge piping that is causing pump and flow meter operational issues. This site is associated with CSO020 and accurate flow measurement is required. The project will install electrical valves that will act as automatic vacuum breaks when the pumps shut down. A notice-to-proceed for design was issued on May 10, 2010. Final design drawings and specification were received on June 11, 2010, and bid documents have been completed. The project was advertised on July 20, 2010, awarded September 13, 2010, and a notice to proceed issued on September 30, 2010 with a scheduled construction completion date of December 30, 2010.

Next Quarter

- Continued the Blockage Abatement Program improvement, including definition of a Request for Proposal for time and material sewer and manhole maintenance and rehabilitation activities, both to be based on a fiscal year schedule and budget.
- Continue system rehabilitation projects currently underway as described above.

M-E-10 System Capacity Assurance Program

This Quarter

- Coordinated activities related to the System Capacity Assurance Plan with tasks outlined in M-E-8 Continuing Sewer System Assessment, and O-A-1 Pump Station Operations Programs (Routine Operating Programs).
- Continued to collect formula-based defect inspection of significant footage of sewer lines in various sewersheds across the county. In addition, contract arrangements moved forward to increase these efforts. This information is currently being used to prioritize cleaning and rehabilitation efforts that will remove inflow and infiltration from the system and create capacity credits.

- Continued the assessment 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.
- Performed a gap analysis of the capacity assurance program and initiated reporting improvements that should better address the impacts of internal capital projects.

Next Quarter

- Continue to track WQTC capacities, pump station capacities, and compare to new development flows in accordance with the SCAP, as previously described. Pump station capacity needs resulting from the pump testing and deficiency identification will be refined and remedial actions will be initiated for the highest priority stations.
- Post 2010 version of the SCAP document on the Project WIN website, once final revisions are made.

5.1.1.8 Equipment and Tools Management and Maintenance Program

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

MSD continued to implement the strategic inventory and spare parts plan. Major activities achieved for third quarter of 2010 include the following:

M-H-1 Spare Parts Inventory Management

This Quarter

- Reviewed security scan control pads access for inventory control measures.
- Began processing 100 material numbers for consideration of obsolescence with department managers.
- Continued review of spare parts required at East and Central Regions with emphasis on old spare parts removal.

Next Quarter

- Review security scan control pads access for inventory control.
- Continue processing material numbers for consideration of obsolescence with department managers.
- Remove old spare parts not essential for core operations.

M-H-2 Equipment and Tools Repair Management

This Quarter

- Continued communication with Union representation on the Storeroom SOP and processes for equipment and tools repair to finalize implementation.

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

Next Quarter

- Continue working with the Union representation on the Storeroom SOP along with equipment and tool repair.
- Draft recommendation of Security Asset Policy and SOP for security.

M-H-4 Supplies Management

This Quarter

- Continued 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.
- Continued recycling efforts for MSD, with pick-up service within Metro.
- Completed installation of soy-based industrial hand cleaner in maintenance and fleet shops.
- Continued monthly meetings with all locations to better service tool and inventory needs

Next Quarter

- Continue lean manufacturing quality improvements, such as 5-S, in the warehouse non-inventory working area at CMF. 5-S is a system to identify waste and opportunities for improvement, then bring order to the work environment through establishing efficient flow of material, supplies and activities.
- Continue recycling efforts for MSD, with pick-up service within Metro.
- Continue monthly meetings with locations to better service tool and inventory needs.

M-J-2 Legal Support Programs (Ordinances)

This Quarter

- Deferred further work on the redraft of the Private Property Ordinance. MSD has a significant increase in participation in the voluntary Plumbing Modification Program, most likely due to backups caused by the August 4, 2009, storm. In addition MSD has initiated a voluntary Sanitary Sewer Line Replacement Program to address many of the issues that are the focus of the draft Private Property Ordinance. Work on this ordinance may be restarted later in calendar year 2010, after the backlog of Plumbing Modification projects has been reduced and the extent of participation in the Sanitary Sewer Line Replacement Program has been assessed.

Next Quarter

- No activity is anticipated on redrafting the Private Property Ordinance during the period of July through September, 2010. Efforts to address private property I/I will continue to focus on expanding participation in voluntary programs.

M-K-1 Water Quality Monitoring Programs

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

5.2 Operations Programs

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

This Quarter

- Performed 6 electrical repairs and 9 mechanical repairs at various stations.
- Cleaned 18, installed 33 and repaired 52 miscellaneous items at various stations.
- Replaced 41 generators at various stations.
- Vactored 177 wet wells at various stations.
- Performed 55 hauling operations during wet weather or during service at various stations.
- Approved the contract for final professional services on January 25, 2010, to update the current U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual. The project will update the four volumes of the operations and maintenance manuals for the Flood Pump Stations (FPS) that will reflect current operational procedures and protocols along with revisions related to changes proposed to reduce dry weather overflows. On June 30, 2010, a work order was issued to update the manuals during FY11.
- Determined capital project priorities and the budgetary needs in monthly meetings with Metro Operations and Regulatory Services staff.
- Continued re-testing pump stations based on the previous draw down deficiency priorities. The study information was used to prioritize the second round of draw down testing. The new draw down data was compared against the 2007 results to update the baseline operations of each pump station. MSD staff completed new draw down tests on 107 pump stations. The testing was expanded to include an assessment of the mechanical and electrical equipment at each station. The data collected to date has been documented in a spreadsheet that uses logic statements to filter the data in an effort to prioritize rehabilitation projects. The data assessment tool will be used to help prioritize rehabilitation projects.
- Placed historical drawdown test information in eB, MSD's document management system, and hard linked the documents to pump station assets in Hansen.

Next Quarter

- Meet on a monthly basis with Operations staff to determine capital project priorities and advise on the budgetary needs on a quarterly basis.
- Continue to analyze the pump station draw down database with test results and use the pump station spreadsheet tool to prioritize pump station rehabilitation efforts. These

tasks will be coordinated with the Greenline and Emergency Generator Programs. Perform data review meetings with Operations to help prioritize rehabilitation efforts.

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

This Quarter

- 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: Devondale, Fairway View Court. The generators at both the Devondale and Fairway View Court sites experienced problems during load bank testing and solutions are underway to resolve these issues. However, the generators are currently functional.
- Central Region Emergency Generator Project (Budget ID H10083)– The purpose of this project is to install permanent stand-by generators at the following MSD pump stations: Griffytown #1, Middletown Christian Village, Monticello Place and Six Mile Lane. The testing and start-up for the sites is scheduled for early November, pending shop drawing approval.
- Completed design and bid documents for the next round of generator sites (Caven, Wathen, Villa Anna, and Shady Villa Pump Stations). During the next reporting period, FY11 generator program funds will be used to create the Emergency Generator Phase 4 project for these sites. The project will be advertised by November 30, 2010 and an anticipated notice-to-proceed for construction will occur during the first quarter of 2011.

Next Quarter

- Continue to review lowest home opening elevations and confirmed pump station as-constructed information for the West Region. Begin planning, based on the field information obtained from the lowest home elevations for all regions and the as-constructed information, to prevent future home back-ups. Adjust pump station operating levels and install level sensors. Evaluate a wet well level gauge with telemetry for each pump station site to help in O&M.
- Advertise design and bid documents for the next round of generator sites mentioned above (Caven, Wathen, Villa Anna and Shady Villa Pump Stations). Projects have been delayed due to specification revisions from lessons learned on previous projects. Use remaining FY10 generator program funds to advertise the pump stations for bid and award construction contract by December 31, 2010.

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

This Quarter

MSD issued 30 enforcement actions against Food Service Establishments for FOG violations found during reconnaissance and follow-up inspections conducted at Food Service Establishments that recently failed certification by an approved MSD Certified Grease Waste Hauler, as well as collection system grease blockage incidents.

- Distributed 48 FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.

- Removed 304,203 gallons of FOG from Grease Control Equipment at Food Service Establishments in the MSD service area, as reported by Certified FOG Haulers.
- Conducted 10 Certified Grease Waste Hauler audits.
- Began tracking and reporting FOG Program performance measures.

Next Quarter

- Continue to conduct follow-up inspections at Food Service Establishments recently receiving failed grease control equipment certifications from approved MSD Certified Grease Waste Haulers and recon, as well as collection system grease blockage incidents. MSD will issue enforcement actions as appropriate to Food Service Establishments found to be in violation of the MSD Wastewater/Stormwater Discharge Regulations.
- Continue to send FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.
- Conduct a FOG Hot Spot Recon in November and December 2010.
- Host an informational booth at the Annual Kentucky Restaurant Association Day at the Races Exposition on November 18, 2010. This is a showcase for the Food Service Industry which is attended by local and regional food service professionals. It is an excellent opportunity to educate the industry on MSD's Consent Decree and Fats, Oils and Grease Program.
- Continue tracking and reporting FOG Program performance measures.

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

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

5.3 Maintenance Programs

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

This Quarter

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

on site during these inspections. Check lists were created to document the inspection and list corrective actions needed. Corrective work orders were issued as needed.

Next Quarter

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

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

This Quarter

- Completed inspections on the following force mains:

Hensley	Treeline
Hillsdale	Rubbertown
Jefferson Hill	Olde Copper Court
Bircham	

Next Quarter

- Schedule the following force mains for inspection:

Marina View	Louisville Boat Club
Old Brownsboro Crossing	West County Sludge FM
Meadowstream	

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 7,646 routine catch basin cleanings.
- Repaired 32 catch basins with deteriorating conditions.
- Performed 1,352 combined sewer outfall inspections.
- Performed 273 creek inspections.
- Performed 157 siphon inspections.
- Flushed 33,243 linear feet of sewer main.

- Cleaned 27,000 linear feet of sewer line.
- Root cut 19,229 linear feet of sewer line.
- Inspected 150,257 linear feet of sewer main with internal MSD resources.
- Performed chemical root treatment on 69,835 feet of main sewer.
- Defined target areas for chemical root treatment in FY11 and completed contract arrangements for services.

Next Quarter

- Schedule and perform chemical root treatment on approximately 100,000 feet of main sewer.
- Begin development and testing of decision matrix and implementation protocol for the BAP, including inspection life cycles and work initiation.
- Develop review of contract, equipment, fleet, and personnel resource needs and availability to allow for completion of tasks developed in the CSSA over the FY11 and assess gaps.
- Continue working with the contracted sewer evaluation, cleaning, and root cutting consultants and contractors and internal personnel to inspect FY11 priority areas and initiate blockage abatement maintenance measures as appropriate.

M-C-1 Safety Committee

Last Quarter

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

Next Quarter

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

M-C-2 Confined Space Entry

Last Quarter

- Conducted confined space entry training in accordance with the OSHA Confined Space Entry standard 29 CFR 1910.146 for new employees, and on an "as needed" basis for employees who have job descriptions requiring confined space entry. MSD also maintained and purchased entry equipment and personal protective equipment to provide for safe entry conditions and to maintain compliance with 29 CFR 1910.146. Assisted the Training Department in conducting confined space training in the Operations Division. Purchased/installed multi-gas monitors and calibration stations for the flood pumping staff.

Next Quarter

- Continue to administer training and monitor procedures on confined space entry in order to maintain compliance with 29 CFR 1910.146. In addition the Health and Safety Department is in the process of purchasing additional multi-gas monitors for Metro Operations Division.

M-C-3 General Safety Procedures

Last Quarter

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

Next Quarter

- Continue to assess the need to update existing procedures and/or create new procedures as conditions and regulatory requirements dictate. Currently planning 40 Hr HAZMAT Technician level training for the MSD Emergency Response Team to be conducted in 2010.
- Work with KYOSHA to provide Trench Shoring training for IFP Division employees.
- Work with the IFP Division to develop a fall protection system to be used during flood gate installation.

M-C-4 Traffic Management

Last Quarter

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

Next Quarter

- Continue to train on traffic control and will continue to audit traffic control equipment.

M-C-5 Lock Out/Tag Out

Last Quarter

- Established lock out and tag out procedures as required by the OSHA 29 CFR 1910.147 Control of Hazardous Energy standard. Procedures are kept, maintained and communicated to employees.

Next Quarter

- Develop lockout/tagout procedures as equipment is added/replaced, or as processes are changed.

M-C-6 Safety Equipment

Last Quarter

- Monitored the need for and issued safety equipment as needed.

Next Quarter

- Continue to provide required PPE to employees at no cost to the employees themselves.
- Maintain safety related equipment or replace the equipment per governing policies or as the need arises.
- Monitor the market in order to procure improved safety equipment as technology advances.
- Work with vendor to conduct annual inspections of existing confined space equipment.

M-C-7 Performance Measures

Last Quarter

In the 3rd quarter of 2010, there were 307,474 hours worked.

- Recorded 45 safety incidents
- Recorded 0 lost time incidents
- 45 Workers' Compensation Claims filed
- MSD staff were off from work a total of 0 days due to work-related issues

Next Quarter

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

M-B-1 Technical Training

This Quarter

Performed training in the following areas:

Type of Training	Number of Hours	Number of Sessions
Collection System	76	49
Equipment	249	74
Reporting	0	0
Safety & Hazmat	57	25
Wastewater	26	9

- Conducted 49 training sessions related to its collection system, representing a total of 76 hours of training. This increase over the previous quarter is in part due to the annual CMOM Pump Station PM Training taking place during this period. Other collection system related training includes sewer overflow prevention and response, as well as basin cleaning and sewer cleaning & maintenance.

- Conducted 74 training sessions, totaling 249 hours, focusing on the safe and effective operation of equipment necessary to maintain and operate the collection system. This included training on combination sewer cleaners, excavators, dump trucks, and backhoes.
- Conducted 25 sessions related to safety, totaling 57 hours of training. These sessions covered such areas as hearing protection, CPR & First Aid, traffic control and trench shoring.
- Conducted nine sessions, totaling 26 hours of training, on topics that were primarily related to wastewater treatment processes SOP's at Morris Forman WQTC and small treatment plants.

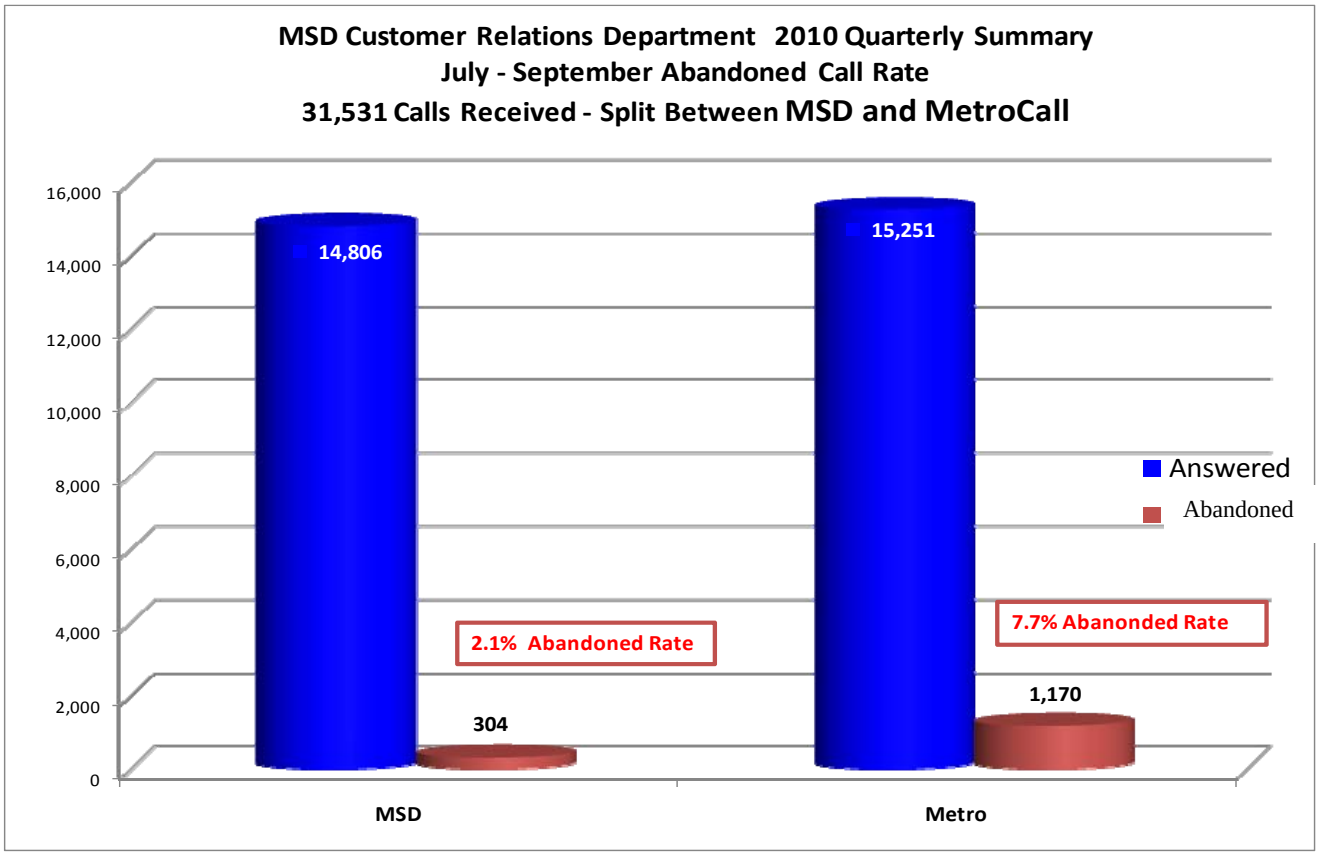
Next Quarter

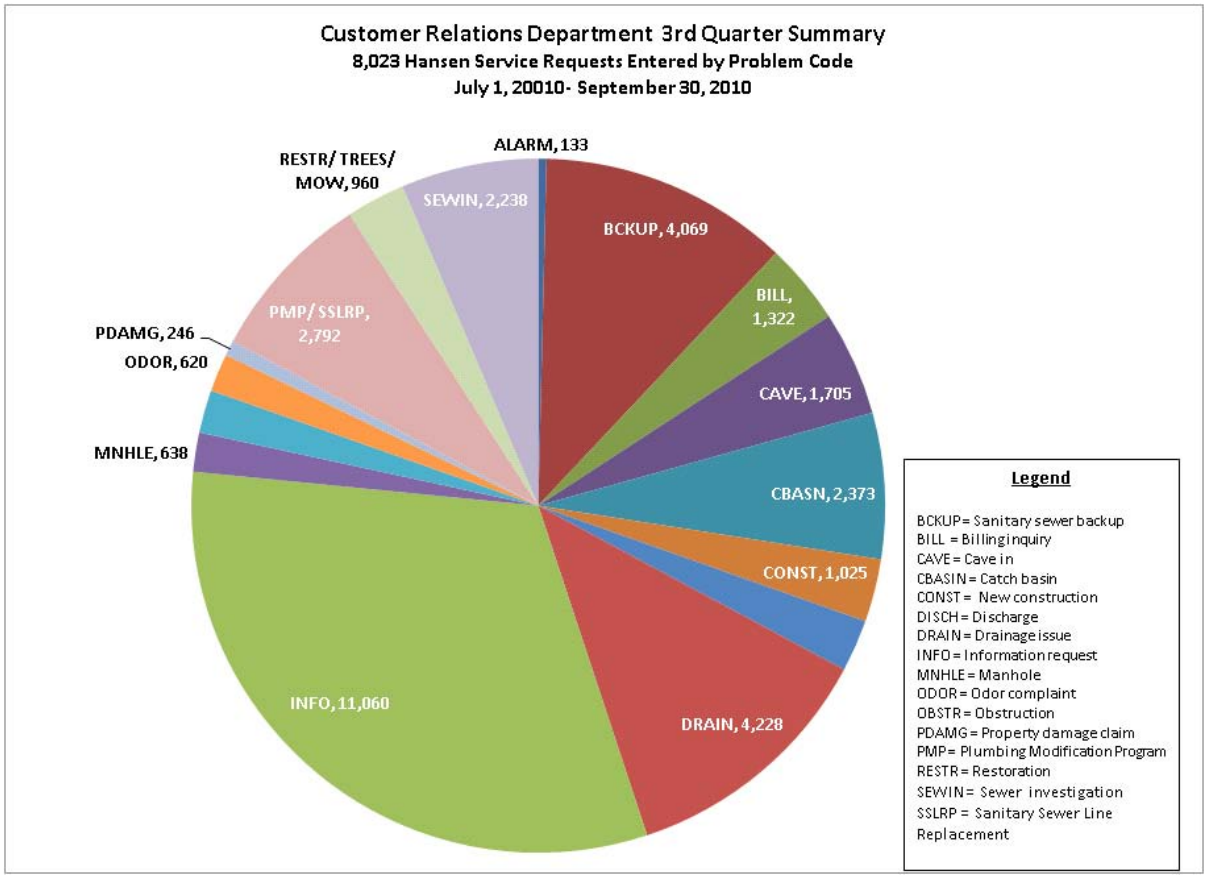
- Administer 40-hour hazmat training to be completed prior to December 31, 2010.
- Administer mandatory annual SORP training to MSD employees, contractors, and temporary employees.
- Administer quarterly SORP training to field response personnel.
- Continue working with MSD's IT department on developing enhancements to the training log database. Potential enhancements would increase the training department's ability to target those employees who need to participate in specific consent decree related training, and then more accurately track their participation in the training.
- Continue review of both CIPP and CCTV training programs will be completed to determine if enhancements are needed to improve employee performance with these related tasks.

M-I-1 Customer Service

Last Quarter

- Tracked calls received, customer outcomes, walk-in customers, and resolutions from those customers. Graphs depicting the activities from the quarter are shown below:





MSD Customer Relations 2010 Quarterly Summary	
Service Center Walk-In Customers	
July 1 through September 30	
Administrative Fee	27
Assessment Payment/Payoff	89
Capacity Charge Fee	15
Connection Fee Purchased	9
CSD/ Map Copies	66
Easement Release Fee	1
Field Staff Needing Assistance	5
File Research	97
Haz-Mat Fee	1
I & I Fee	9
LOJIC	27
Minor Plat Review	58
Placing Customers O/C	196
Plan Review Fee	1
Water Mgmt File Review	9
TOTAL CUSTOMERS ASSISTED IN SERVICE CENTER	610

Next Quarter

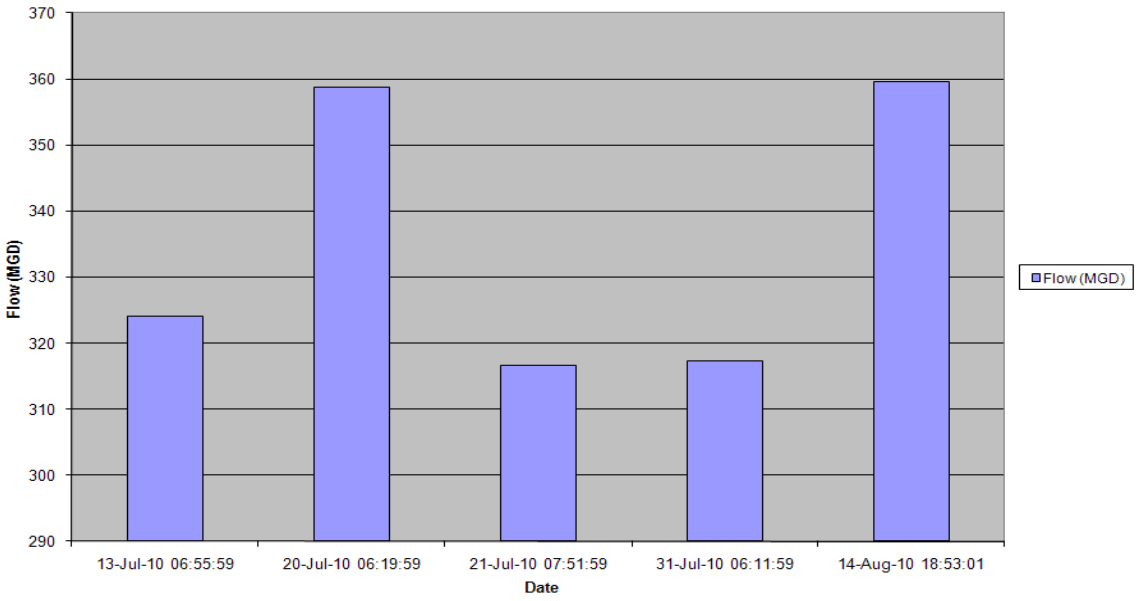
- Continue to track and trend calls received and outcomes associated with customer questions.
- Continue to draft performance measures for Customer Relations.

SECTION 6: Program Activities for Water Quality Treatment Centers

6.1 Regional Water Quality Treatment Center Updates

6.1.1 Morris Forman Water Quality Treatment Center

- Treated peak flows greater than 300 MGD at Morris Forman WQTC on 5 different days.



Morris Forman WQTC – Flows over 300 MGD

- Recorded two monthly KPDES permit violations at Morris Forman WQTC during this reporting period. The first violation began on July 12, 2010, after an exceedance of the permitted maximum daily chlorine total residual (TRC) occurred. The second violation occured on August 6, 2010, after an exceedance in the permited weekly fecal coliform average.
    - The first violation occurred on July 12, 2010, with a total of five days exceeding the TRC daily permit limit of 0.019 mg/l. Investigation found the exeedance was due to the failure of the device that mixes sodium hypochlorite and the chlorine neutralizing chemical (sodium bisulfate) with the effluent. The situation was monitored and after a similar one day exceedance occurred in July, 2010, it was determined that one of the two hoses which mix the sodium hypochlorite with the plant effluent was damaged. This damaged hose prevented uniform mixing of the sodium hypochlorite with the effluent. The hose was replaced on July 18, 2010.
    - The second violation occurring on August 6, 2010, was attributed to staff lowering effluent chlorine dosing which affected the fecal coliform count for the

week. As previously reported, staff had issues meeting the TRC permitted limit for the month of July, 2010. Staff lowered chlorine dosage in an attempt to reduce the TRC exceedances and in doing so affected the fecal coliform count. In correcting the TRC problems during the previous month (July 2010) and increasing the chlorine dosage back to normal, staff had corrected the problems. Fecal counts for Sepember, 2010, indicate the corrective measures are working with both fecal coliform counts and TRC meeting permit limits.

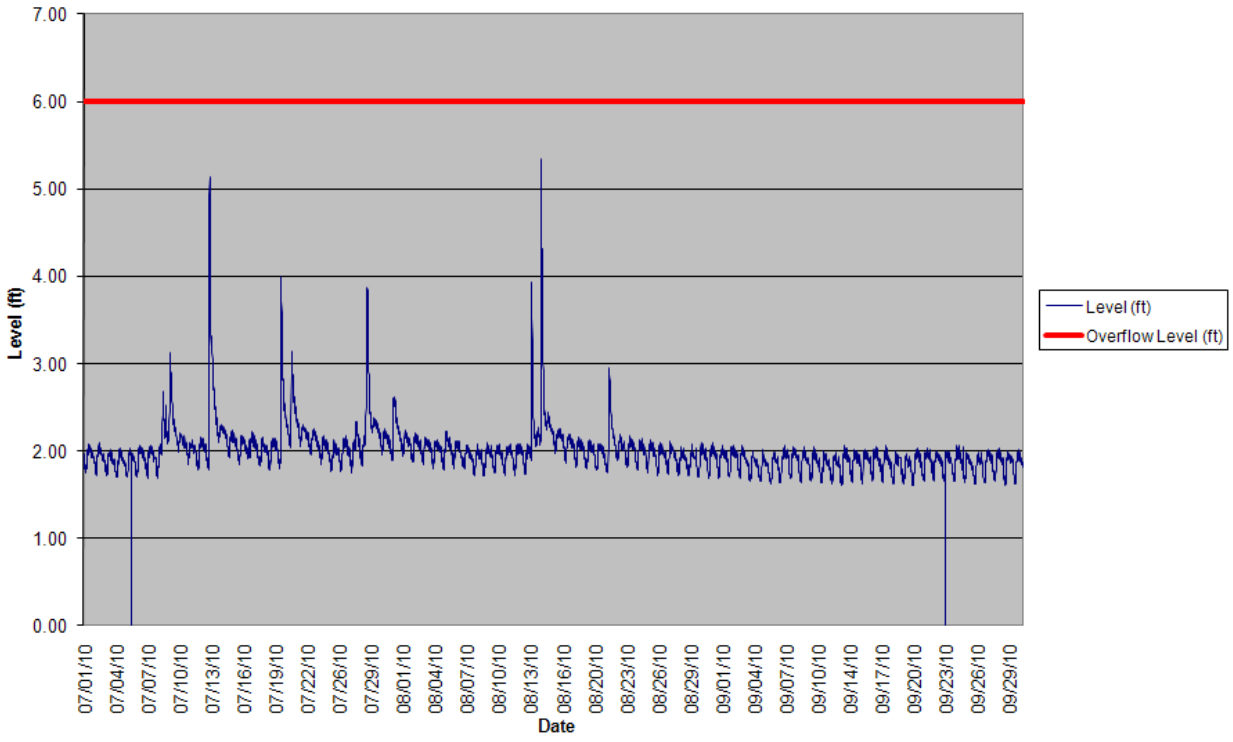
- Continued the project to update the Morris Forman WQTC Wet Weather Operations Standard Operating Procedures (SOPs). The SOPs are being updated to improve plant reliability and to put procedures in place to maximize plant flow during wet weather events. During this reporting period, the following activities were completed:
  - A meeting was held July 15, 2010, to discus how flow is measured at each plant process. Staff determined that two processes needed further testing to document both measurement accuracy and reliability. Plans were developed to calibrate plant headworks flow measurement equipment and to verify headworks flow data accuracy using the flow data collected from the site's final effluent pumps (FEPS). During July and August, 2010, staff conducted field measurements of the new headwork flumes at various flow ranges to determine flow aeration and turbulence impacts of the approach channel and to develop new rating curve for flumes. Field measurements of old headworks weir gate at various flow ranges were collected to develop new rating curve for weir gate. Reviewed plant flow data for several dry and wet weather days and compared headworks flow to final effluent (FE) flow measurements. Staff also gathered and reviewed various types of rating curves for flumes for the SOP.
  - A meeting was held August 24, 2010, to review the existing plant SOPs and Operation and Maintenance (O&M) manuals. Two interviews with plant staff were completed regarding plant operation strategies in both preparing for a wet weather event and operations during an event. Staff developed a testing protocol to determine disinfection requirements at peak wet weather flows with combined primary and secondary. Reviewed flow control strategies to maximize flows to Morris Forman WQTC from the Southwestern Pump Station (SWPS) and the Main Diversion Structure (MDS) sites. Staff conducted flow tests of SWPS pumps. Began development of draft Wet Weather SOPs.
  - During the next reporting period, staff will finalize flow calibration of the headwork flumes and weir gates, prepare rating curves for flumes and weir gates, and conduct final flow test of FEPS pumps to determine minimum acceptable depth of wet well. Staff will also complete reviews of draft SOPs. Final SOPs and planning for training on these SOPs are anticipated to be completed by December 31, 2010.

6.1.2 Jeffersontown Water Quality Treatment Center

MSD submitted a Jeffersontown WQTC Process Control Plan 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 Plan was submitted. The Process Control Plan was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

- Reported one blending event at the Jeffersontown WQTC during this period on August 14, 2010. The total blended amount, from this event, reported and documented on the Project WIN webpage was 275,497 gallons.
- Conducted one inspection route for the Jeffersontown siphon during this reporting period on August 14, 2010. No overflows were identified during the inspection from the siphon or associated manholes.
- See Section 6.5.1 for an update on the Comprehensive Performance Evaluations (CPE) /Composite Correction Plans (CCP) projects for the Jeffersontown WQTC.



Jeffersontown Siphon Level - July 1, 2010 to 10/1/2010

6.1.3 Hite Creek Water Quality Treatment Center

A waste load allocation request for the Hite Creek WQTC was submitted to the KDEP 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 KDEP on June 10, 2009. Prior to June 30, 2010, MSD initiated negotiations with a consultant to assist in developing an amendment to the North County Action Plan Update. MSD will finalize negotiations and issue a notice-to-proceed for the action plan update by December 31, 2010.

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

6.1.4 Floyds Fork Water Quality Treatment Center

MSD received Board approval to award a contract for design services to complete the design of the Phase 2 expansion of the Floyds Fork WQTC, to an average daily design flow of 6.5 MGD in January 2010. The design continued through the third quarter of 2010, reaching the 80% design stage and MSD completed review of the plans and specifications. MSD requested an updated waste load allocation from the KDOW which was received during this reporting period. MSD also submitted an application for a new KPDES permit for the proposed expansion to KDOW. The design team met with 21st Century Parks representatives in September, 2010, to coordinate the proposed plant expansion and the future Parklands at Floyds Fork which is a new linear park system being created adjacent to and through the Floyds Fork WQTC property. During the next reporting period, MSD will continue the process to obtain all necessary construction permits. The design will reach the 100% stage and MSD expects to advertise for construction bids before the end of 2010.

6.1.5 Derek R. Guthrie Water Quality Treatment Center

- See Section 3.2.2 for an update on the design and construction of the three projects that make up the Derek R. Guthrie WQTC Wet Weather Equalization and Treatment Project (Budget ID multiple).

6.1.6 Cedar Creek Water Quality Treatment Center

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

6.2 Prospect Area Water Quality Treatment Center Updates

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

- See Section 3.2.3 for an update on the design phase of the Prospect #1 - WQTC Elimination Project (Budget ID multiple).
- South Hunting Creek WQTC - Submitted a letter on August 27, 2010, to KDEP a request for the elimination of the polishing pond and the relocation of the chlorine contact tank. Upon receipt of approval for the elimination of the polishing pond, MSD will determine an implementation approach and begin the planning phase for the elimination by June 30, 2011.
- 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 Update

- McNeely Lake WQTC Influent Pump Station – Held a pre-bid meeting with contractors on August 23, 2010, to review the proposed influent screenings box and bar screen design. MSD received bids on September, 6, 2010 and issued a construction notice-to-proceed on September 22, 2010. The new screenings box is scheduled to be completed by November 30, 2010. Following the August 23, 2010, meeting, MSD held a meeting on site with a structural consultant and discussed having a detailed structural condition assessment of the site. The consultant was asked to submit a proposal to review the existing process tankage and prepare a technical memorandum recommending solutions to repair the tanks. The consultant submitted a proposal fee on September 29, 2010. During the next reporting period MSD will finalize negotiations for the structural assessment services and issue a notice-to-proceed.
- Silver Heights WQTC – Conducted meetings in September, 2010, to discuss replacing the existing aeration system and installing mechanical aeration. This work will require professional engineer certified drawings for a permit modification submittal. Prior to December 30, 2010, MSD will have a consultant review the site and prepare a technical memorandum detailing work and costs associated with the aeration process modifications.

6.4 Monitoring, Record-Keeping and Reporting

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 posted 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<http://www.msdlouky.org/projectwin/ in the section labeled Wastewater Treatment Plant Reports.

MSD continued to work towards the creation of electronically generated DMRs. This requires coordination with KDOW, 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 and troubleshooting phase of this project. Electronic generation of paper copies of the DMRs for the regional WQTCs began in January 2010. MSD is working towards installation of an upgraded LIMS software version that is expected to simplify generation of the electronic DMRs. As of September 30, 2010, MSD was working with the LIMS vendor to correct system "bugs" that have inhibited MSD's ability to use the upgraded LIMS version. Prior to December 31, 2010, MSD will schedule training on NetDMR, which may allow full electronic submittal of DMRs, subject to acceptance of this approach by the State. Pending a decision on the use of NetDMR, MSD will continue to work with the LIMS vendor to upgrade the LIMS software and if successful will begin to expand the use of LIMS-generated paper DMRs to include the non-regional WQTCs on a prioritized basis.

6.5 Comprehensive Performance Evaluations and Composite Correction Plans

In accordance with paragraphs 26.b and 26.c of the Amended Consent Decree, MSD submitted the required Comprehensive Performance Evaluations (CPE) and Composite Correction Plans (CCP) as part of the IOAP on December 19, 2008. Based on comments MSD received from

EPA/KDEP, these plans were re-submitted as part of the IOAP Volume 1 on June 19, 2009. Verbal approval of the CPEs was received on September 23, 2009. The CPEs and CCPs were accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

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

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.2 Lake Forest Water Quality Treatment Center

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.3 Cedar Creek Water Quality Treatment Center

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.4 Hite Creek Water Quality Treatment Center

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.5 Timberlake Water Quality Treatment Center

- Submitted a letter on July 22, 2010, to KDEP a request for the elimination of the polishing pond and the relocation of the chlorine contact tank. Upon receipt of approval for the elimination of the polishing pond, MSD will determine an implementation approach to complete construction by the scheduled date of March 31, 2011.
- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.6 North Hunting Creek Water Quality Treatment Centers

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.7 South Hunting Creek Water Quality Treatment Centers

- Submitted a letter on August 27, 2010, to KDEP requesting the elimination of the polishing pond. Upon receipt of approval for the elimination of the polishing pond, MSD

will determine an implementation approach to complete construction and give an update on the schedule in the appropriate quarterly report.

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.8 Starview Water Quality Treatment Center

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.9 Berrytown Water Quality Treatment Center

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.10 Ken Carla Water Quality Treatment Center

- Trained staff on the operational SOP by July 1, 2010, prior to the CPE scheduled date of April 30, 2011.
- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.

6.5.11 Chenoweth Hills Water Quality Treatment Center

- Continued the process to convert asset management activities from SAP to Hansen. During the next reporting period, staff will complete the SAP to Hansen conversion by the CPE scheduled date of December 31, 2010.
- Coordinated with a contractor on August 23, 2010, to discuss the scope required to flood proof the plant's effluent pump station. The contractor will raise the wet well structure 18 inches above the existing grade. The new elevation will ensure a creek running parallel to the plant site will not flood the pump station. This work will be completed by the CPE scheduled date of December 31, 2010.

6.5.12 Other Water Quality Treatment Centers

- Continued the planning to complete the structure and equipment condition assessment for the remaining MSD WQTCs that were not included as a part of the CPE process to convert asset management activities from SAP to Hansen. This will complete the process for MSD's WQTCs. Prior to December 31, 2010, MSD will complete the review of equipment for these remaining WQTCs: Floyds Fork, Cedar Creek, Hite Creek, Silver Heights, Bancroft, McNeely Lake, Shadow Wood and the Lake of the Woods WQTCs.

6.6 Bypass Corrective Actions

Each quarter, an assessment of bypasses will occur to determine the root cause of the bypass, the failure category, corrective actions to be taken, possible programmatic solutions, and

corrective action completion date. Refer to the table below for causes of bypasses and respective corrective actions that occurred between July 1, 2010, and September 30, 2010.

Bypass Description	Bypass Corrective Actions
Capacity	
- Jeffersontown WQTC (Hansen Discharge WO: 1120818): Bypass (capacity) was reported at this WQTC on August 14, 2010, when flows were routed around a plant aeration basin. Investigation revealed that excessive plant flows (1.75 times design daily flow) occurred during the rain event of August 14, 2010.	- No corrective action developed for this capacity related bypass.
External Power failures (LGE Related – PWR)	
- Hite Creek WQTC (Hansen Discharge WO: 1120760): Bypass (electrical) was reported at this WQTC on August 13, 2010, when the breaker for the generator tripped and disabled pumping.	- Breaker controls were adjusted to minimize the loads that would occur at one time, in order to prevent the breaker from overloading. Action was completed on August 13, 2010.
Facility Failure (Mechanical -MCH, Electrical - ELE, Structural-SRT)	
- McNeely Lake WQTC (Hansen Discharge Wo: 1111722): Bypass (facility/structural) was reported at this WQTC on July 23, 2010, when the plant effluent line failed and a discharge occurred upstream of the permitted plant outfall.	- Effluent line was repaired to prevent the discharge upstream of the permitted outfall. Action was completed on July 23, 2010.
- Cedar Creek WQTC (Hansen Discharge WO: 1116789): Bypass (electrical) was reported at this WQTC on August 2, 2010, when a UV channel gate failed to close in automatic control.	- PLC programming was revised to prevent the channel gate from being opened without UV lights powered up. Action was completed on August 3, 2010.

Human Error (OPN)	
- Morris Forman WQTC (Hansen Discharge WO: 1115253): Bypass (human error) was reported at this WQTC on July 27, 2010, when the operators routed flows around a battery of clarifiers in an effort to protect plant microbiology due to high residual chlorine levels.	- Modified sampling points and procedures for chlorine residual. Enhanced and executed training for chlorine sampling. Provided coloreactor tools to Operators to allow for more accurate sampling. Actions were completed by September 30, 2010.

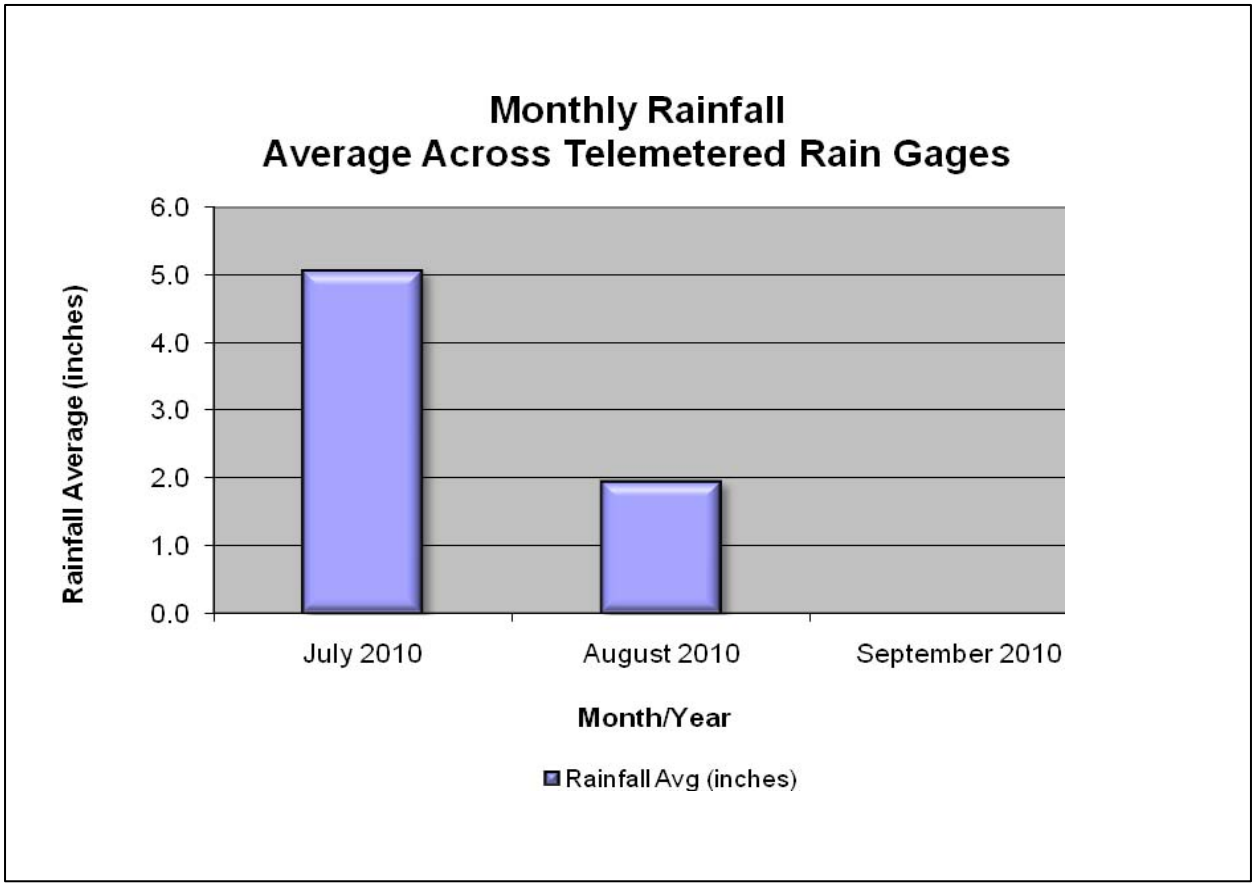
The following corrective actions related to reported bypasses will be in progress or completed prior to December 31, 2010:

- See Section 6.5.1 for an update on the Comprehensive Performance Evaluations (CPE) /Composite Correction Plans (CCP) activities that will occur prior to December 31, 2010.
- Deliver training modules with results from the 3rd party disinfection audits incorporated.
- Revise PM schedules for disinfection based upon recommendations from the 3rd party disinfection audits.
- Continue to implement automatic switch over mechanisms and alarms for chemical feed tanks for chemical disinfection WQTCs.
- Continue SOP and training enhancement for the following WQTCs:
  - Bancroft WQTC
  - Cedar Creek WQTC
  - DRG WQTC
  - Floyds Fork WQTC
  - Hite Creek WQTC
  - McNeely Lake WQTC
  - Starview WQTC

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

7.2.1 Bypass Events at Water Quality Treatment Centers

Included in **Appendix B-2** is a report that lists the details of the 4 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 No. KY0098540
- Hite Creek (MSD0202) - KPDES Permit No. KY0022420

- McNeely Lake (MSD0228) - KPDES Permit No. KY0029416
- Morris Forman (MSD0278) - KPDES Permit No. KY0022411

Each quarter, an assessment of bypasses will occur to determine the root cause of the bypass, the failure category, corrective actions to be taken, possible programmatic solutions, and corrective action completion date. Refer to Section 6.6 for detailed review of this quarters bypass events.

7.2.2 Blending Events

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

- Started blending on August 14, 2010. The total blended amount, from events, reported and documented on the Project WIN webpage was 275,497 gallons.

7.2.3 Dry Weather CSOS

Recorded information related to dry weather overflows from permitted combined sewer overflow outfalls. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows will be included in the Annual Report for the period of July 1, 2010, through June 30, 2011.

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, 2010, through June 30, 2011.

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, 2010, through June 30, 2011.

7.5 CSO Reductions

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

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.

No projects that impacted CSOs were completed during this reporting period.

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:

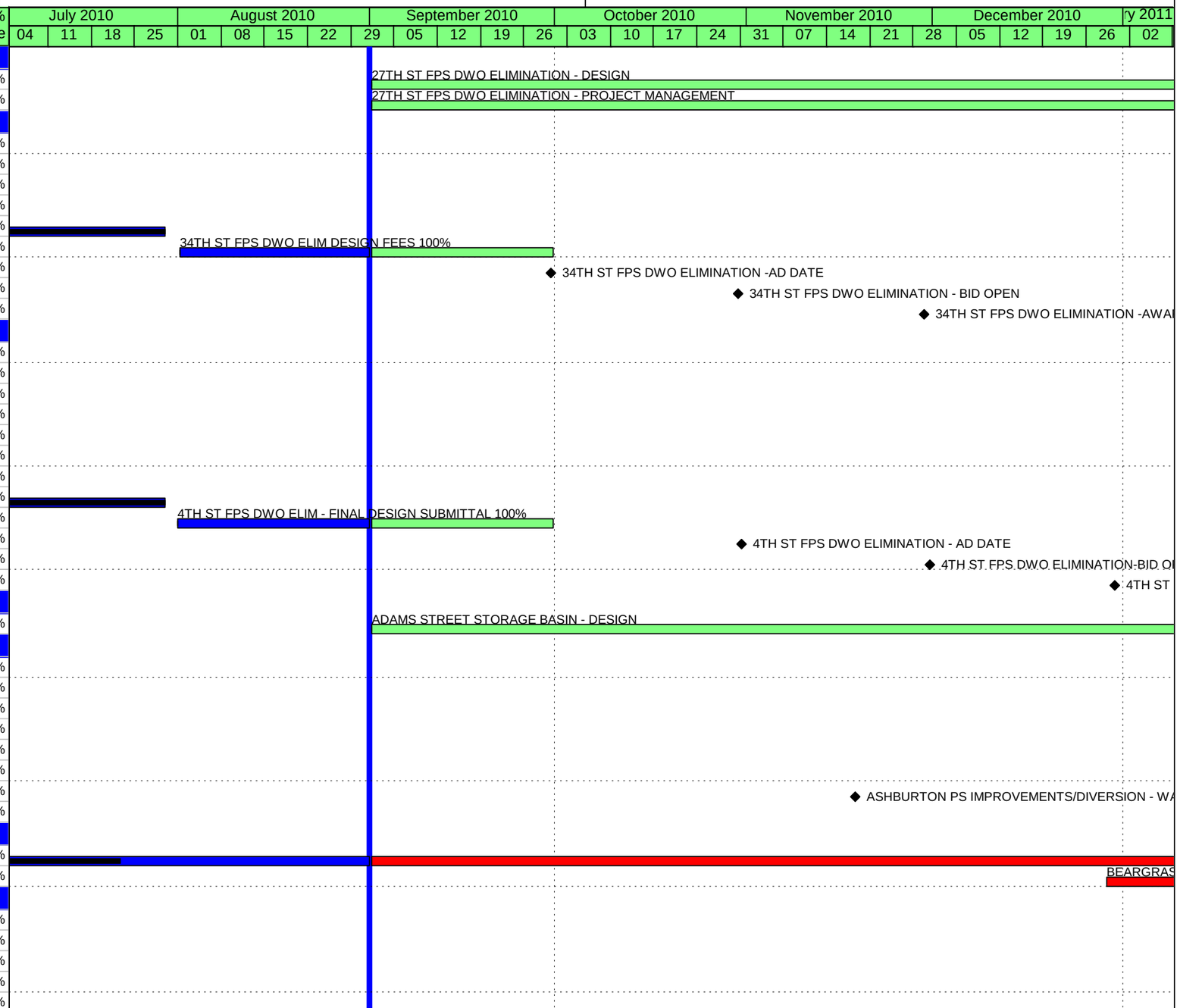
- Beechwood Village Sanitary Sewer Replacement East (Budget ID E07261) & West (Budget ID E08034) Projects were completed.

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. MSD WQTCs were under the 1mg/l limit during the reporting period, per the Amended Consent Decree requirement. See **Appendix G** for this quarter's report.

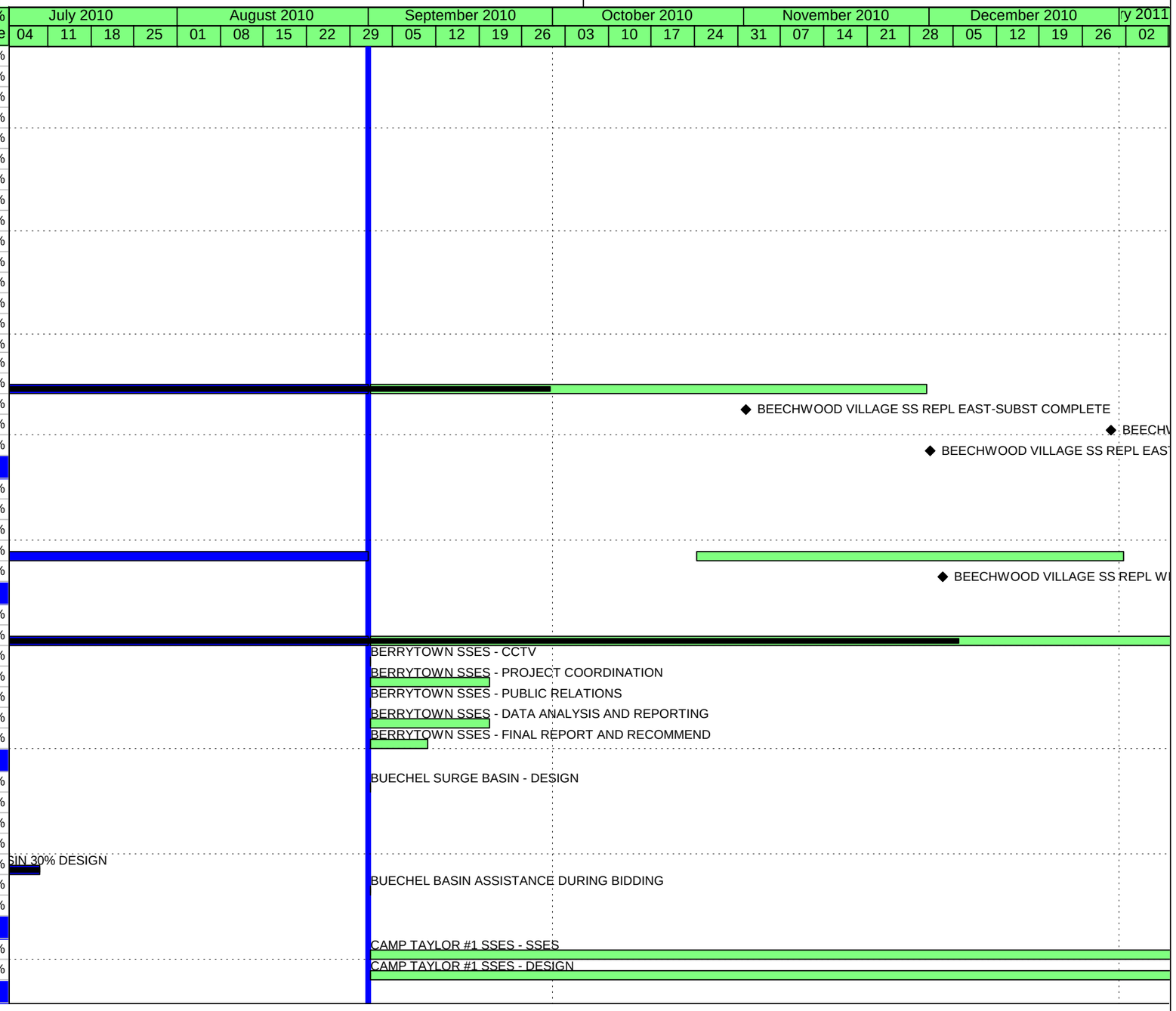
Appendix A – Activity Schedules

Activity ID	Activity Name	Physical % Complete
27th STREET FLOOD PUMP STATION		
H091262000	27TH ST FPS DWO ELIMINATION - DESIGN	0%
H091262901	27TH ST FPS DWO ELIMINATION - PROJECT MANAGEMENT	0%
34th STREET FPS DWO ELIMINATION		
H084782000	34TH ST FPS DWO ELIMINATION - DESIGN	100%
H084782001	34TH ST FPS DWO ELIMINATION - NTP	100%
H084782901	34TH ST FPS DWO ELIM DESIGN FEES 50%	100%
H084782902	34TH ST FPS DWO ELIM DESIGN FEES 80%	100%
H084782903	34TH ST FPS DWO ELIM DESIGN FEES 95%	100%
H084782904	34TH ST FPS DWO ELIM DESIGN FEES 100%	0%
H084784000	34TH ST FPS DWO ELIMINATION -AD DATE	0%
H084784050	34TH ST FPS DWO ELIMINATION - BID OPEN	0%
H084784500	34TH ST FPS DWO ELIMINATION -AWARD	0%
4th STREET FPS DWO ELIMINATION		
H084772000	4TH ST FPS DWO ELIMINATION - DESIGN	100%
H084772001	4TH ST FPS DWO ELIMINATION - NTP	100%
H084772901	4TH ST FPS DWO ELIMINATION - DATA COLLECTION	100%
H084772902	4TH ST FPS DWO ELIMINATION - DRAFT TM	100%
H084772903	4TH ST FPS DWO ELIMINATION - FINAL TM	100%
H084772904	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 50%	100%
H084772905	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 80%	100%
H084772906	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 95%	100%
H084772907	4TH ST FPS DWO ELIM - FINAL DESIGN SUBMITTAL 100%	0%
H084774000	4TH ST FPS DWO ELIMINATION - AD DATE	0%
H084774050	4TH ST FPS DWO ELIMINATION-BID OPEN	0%
H084774500	4TH ST FPS DWO ELIMINATION - AWARD	0%
ADAMS STREET STORAGE BASIN		
H091352000	ADAMS STREET STORAGE BASIN - DESIGN	0%
ASHBURTON PS IMPROVEMENTS/DIVERSION		
A090922000	ASHBURTON PS IMPROVEMENTS/DIVERSION - DESIGN	100%
A090924000	ASHBURTON PS IMPROVEMENTS/DIVERSION - AD DATE	100%
A090924050	ASHBURTON PS IMPROVEMENTS/DIVERSION - BID OPEN	100%
A090924500	ASHBURTON PS IMPROVEMENTS/DIVERSION - AWARD	100%
A090926000	ASHBURTON PS IMPROVEMENTS/DIVERSION - CONSTRUCT	100%
A090926950	ASHBURTON PS IMPROVEMENTS/DIVERSION - AS-BUILTS	100%
A090926990	ASHBURTON PS IMPROVEMENTS/DIVERSION - WARRANTY	0%
A090928050	ASHBURTON PS IMPROVEMENTS/DIVERSION - CD CERTIFY	100%
BEARGRASS INTERCEPTOR REHABILITATION PH II		
H092392000	BEARGRASS INTERCEPTOR REHAB PH II - DESIGN	60%
H092393000	BEARGRASS INTERCEPTOR REHAB PH II - EASEMENT	0%
BEECHWOOD VILLAGE SS REPL - EAST PORTION		
E072612000	BEECHWOOD VILLAGE SS REPL EAST - DESIGN	100%
E072612001	BEECHWOOD VILLAGE SS REPL EAST - NTP	100%
E072612901	BEECHWOOD VILLAGE SS EAST - PUBLIC MTGS	100%
E072612902	BEECHWOOD VILLAGE SS EAST-50% SURVEY/PVMTCORE	100%
E072612903	BEECHWOOD VILLAGE SS EAST -30% PLAN SUBMITTAL	100%



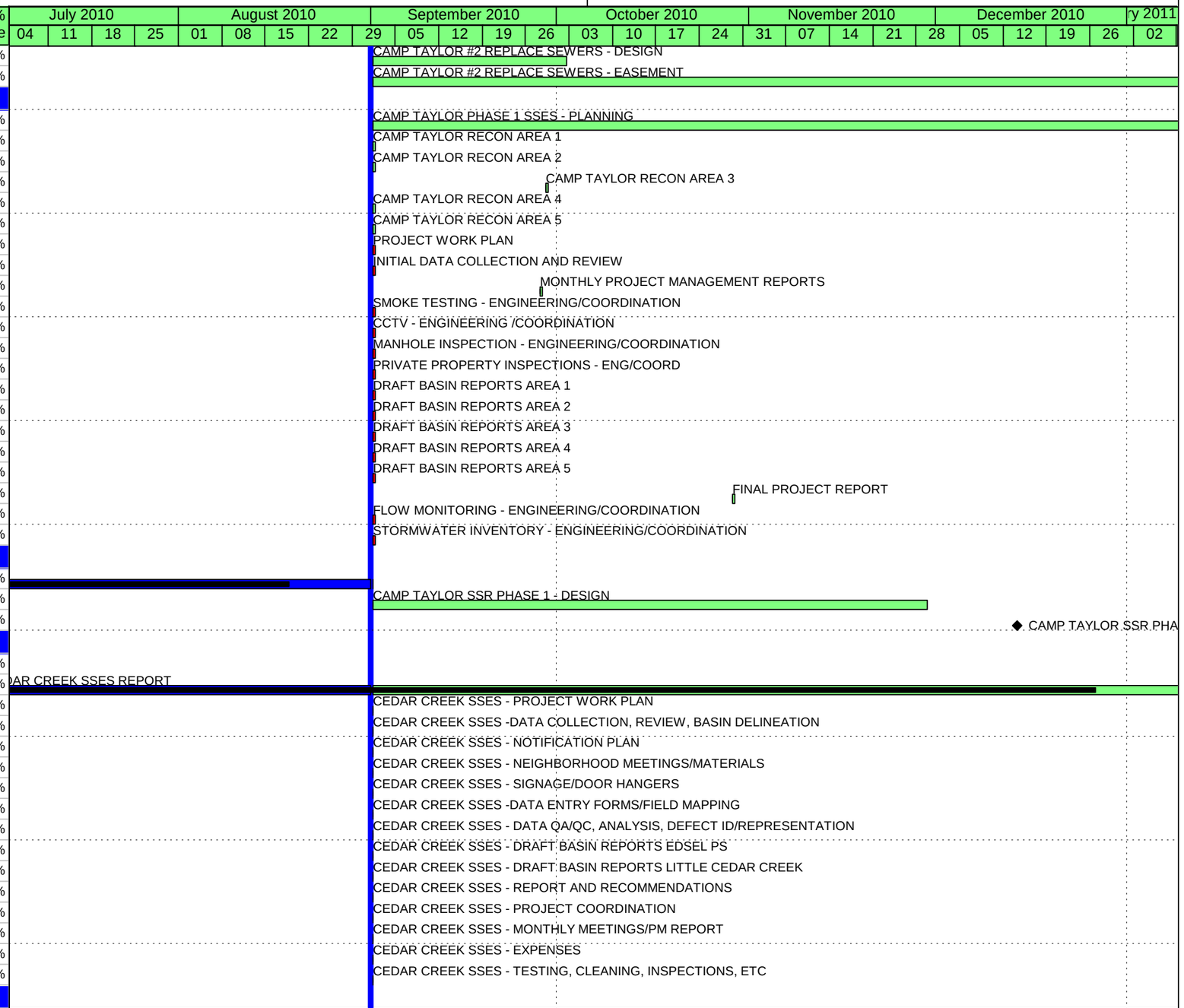
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
E072612904	BEECHWOOD VILLAGE SS EAST -100% SEWER SURVEY	100%
E072612905	BEECHWOOD VILLAGE SS EAST -50% PLAN SUBMITTAL	100%
E072612906	BEECHWOOD VILLAGE SS EAST -80% PLAN SUBMITTAL	100%
E072612907	BEECHWOOD VILLAGE SS EAST-100% PLAN SUBMITTAL	100%
E072612908	BEECHWOOD VILLAGE SS EAST-HOUSE SURVEYS	100%
E072612909	BEECHWOOD VILLAGE SS EAST-PREPARE LTRS TO PO'S	100%
E072612910	BEECHWOOD VILLAGE SS EAST-RES REQ FOR SPEC	100%
E072612911	BEECHWOOD VILLAGE SS EAST-PSC CONNECTION DWGS	100%
E072612912	BEECHWOOD VILLAGE SS EAST-RESIDENTIAL PHOTOS	100%
E072612913	BEECHWOOD VILLAGE SS EAST-C&R'S	100%
E072612914	BEECHWOOD VILLAGE SS EAST-COORD W/VENHOFF	100%
E072612915	BEECHWOOD VILLAGE SS EAST-95% PLAN SUBMITTAL	100%
E072613000	BEECHWOOD VILLAGE SS REPL EAST - EASEMENT	100%
E072614000	BEECHWOOD VILLAGE SS REPL EAST - AD DATE	100%
E072614050	BEECHWOOD VILLAGE SS REPL EAST - BID OPEN	100%
E072614500	BEECHWOOD VILLAGE SS REPL EAST - AWARD	100%
E072616000	BEECHWOOD VILLAGE SS REPL EAST - CONSTRUCTION	90%
E072616900	BEECHWOOD VILLAGE SS REPL EAST-SUBST COMPLETE	0%
E072616950	BEECHWOOD VILLAGE SS REPL EAST - AS-BUILTS	0%
E072618050	BEECHWOOD VILLAGE SS REPL EAST - CD CERTIFY	0%
BEECHWOOD VILLAGE SS REPL - WEST PORTION		
E080344000	BEECHWOOD VILLAGE SS REPL WEST - AD DATE	100%
E080344050	BEECHWOOD VILLAGE SS REPL WEST - BID OPEN	100%
E080344500	BEECHWOOD VILLAGE SS REPL WEST - AWARD	100%
E080346000	BEECHWOOD VILLAGE SS REPL WEST - CONSTRUCTION	10%
E080346900	BEECHWOOD VILLAGE SS REPL WEST - SUBST COMPL	0%
BERRYTOWN SSES		
H093871000	BERRYTOWN SSES - PLANNING	100%
H093871220	BERRYTOWN SSES REPORT	50%
H093872901	BERRYTOWN SSES - CCTV	0%
H093872902	BERRYTOWN SSES - PROJECT COORDINATION	0%
H093872903	BERRYTOWN SSES - PUBLIC RELATIONS	0%
H093872904	BERRYTOWN SSES - DATA ANALYSIS AND REPORTING	0%
H093872905	BERRYTOWN SSES - FINAL REPORT AND RECOMMEND	0%
BUECHEL SURGE BASIN		
H072882000	BUECHEL SURGE BASIN - DESIGN	0%
H072882901	BUECHEL BASIN 5% DESIGN	100%
H072882902	BUECHEL BASIN 10% DESIGN	100%
H072882903	BUECHEL BASIN 20% DESIGN	100%
H072882904	BUECHEL BASIN 30% DESIGN	100%
H072882908	BUECHEL BASIN ASSISTANCE DURING BIDDING	0%
H072883000	BUECHEL SURGE BASIN - EASEMENTS	100%
CAMP TAYLOR #1 - SSES		
H092011000	CAMP TAYLOR #1 SSES - SSES	0%
H092012000	CAMP TAYLOR #1 SSES - DESIGN	0%
CAMP TAYLOR #2 - REPLACE SEWERS		



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H092202000	CAMP TAYLOR #2 REPLACE SEWERS - DESIGN	0%
H092203000	CAMP TAYLOR #2 REPLACE SEWERS - EASEMENT	0%
CAMP TAYLOR PHASE 1 SSES		
H093881000	CAMP TAYLOR PHASE 1 SSES - PLANNING	0%
H093882901	CAMP TAYLOR RECON AREA 1	0%
H093882902	CAMP TAYLOR RECON AREA 2	0%
H093882903	CAMP TAYLOR RECON AREA 3	0%
H093882904	CAMP TAYLOR RECON AREA 4	0%
H093882905	CAMP TAYLOR RECON AREA 5	0%
H093882906	PROJECT WORK PLAN	0%
H093882907	INITIAL DATA COLLECTION AND REVIEW	0%
H093882908	MONTHLY PROJECT MANAGEMENT REPORTS	0%
H093882909	SMOKE TESTING - ENGINEERING/COORDINATION	0%
H093882910	CCTV - ENGINEERING /COORDINATION	0%
H093882911	MANHOLE INSPECTION - ENGINEERING/COORDINATION	0%
H093882912	PRIVATE PROPERTY INSPECTIONS - ENG/COORD	0%
H093882913	DRAFT BASIN REPORTS AREA 1	0%
H093882914	DRAFT BASIN REPORTS AREA 2	0%
H093882915	DRAFT BASIN REPORTS AREA 3	0%
H093882916	DRAFT BASIN REPORTS AREA 4	0%
H093882917	DRAFT BASIN REPORTS AREA 5	0%
H093882918	FINAL PROJECT REPORT	0%
H093882919	FLOW MONITORING - ENGINEERING/COORDINATION	0%
H093882920	STORMWATER INVENTORY - ENGINEERING/COORDINATION	0%
CAMP TAYLOR SSR PHASE 1		
H094071000	CAMP TAYLOR SSR PHASE 1 - PLANNING	99%
H094072000	CAMP TAYLOR SSR PHASE 1 - DESIGN	0%
H094074000	CAMP TAYLOR SSR PHASE 1 - AD DATE	0%
CEDAR CREEK SSES		
H093891000	CEDAR CREEK SSES - PLANNING	100%
H093891220	CEDAR CREEK SSES REPORT	50%
H093892901	CEDAR CREEK SSES - PROJECT WORK PLAN	0%
H093892902	CEDAR CREEK SSES -DATA COLLECTION, REVIEW, BASIN ...	0%
H093892903	CEDAR CREEK SSES - NOTIFICATION PLAN	0%
H093892904	CEDAR CREEK SSES - NEIGHBORHOOD MEETINGS/MATE...	0%
H093892905	CEDAR CREEK SSES - SIGNAGE/DOOR HANGERS	0%
H093892906	CEDAR CREEK SSES -DATA ENTRY FORMS/FIELD MAPPING	0%
H093892907	CEDAR CREEK SSES - DATA QA/QC, ANALYSIS, DEFECT ID...	0%
H093892908	CEDAR CREEK SSES - DRAFT BASIN REPORTS EDSEL PS	0%
H093892909	CEDAR CREEK SSES - DRAFT BASIN REPORTS LITTLE CE...	0%
H093892910	CEDAR CREEK SSES - REPORT AND RECOMMENDATIONS	0%
H093892911	CEDAR CREEK SSES - PROJECT COORDINATION	0%
H093892912	CEDAR CREEK SSES - MONTHLY MEETINGS/PM REPORT	0%
H093892913	CEDAR CREEK SSES - EXPENSES	0%
H093892914	CEDAR CREEK SSES - TESTING, CLEANING, INSPECTIONS...	0%
CENTRAL REGION EMERGENCY GENERATOR PHASE III		

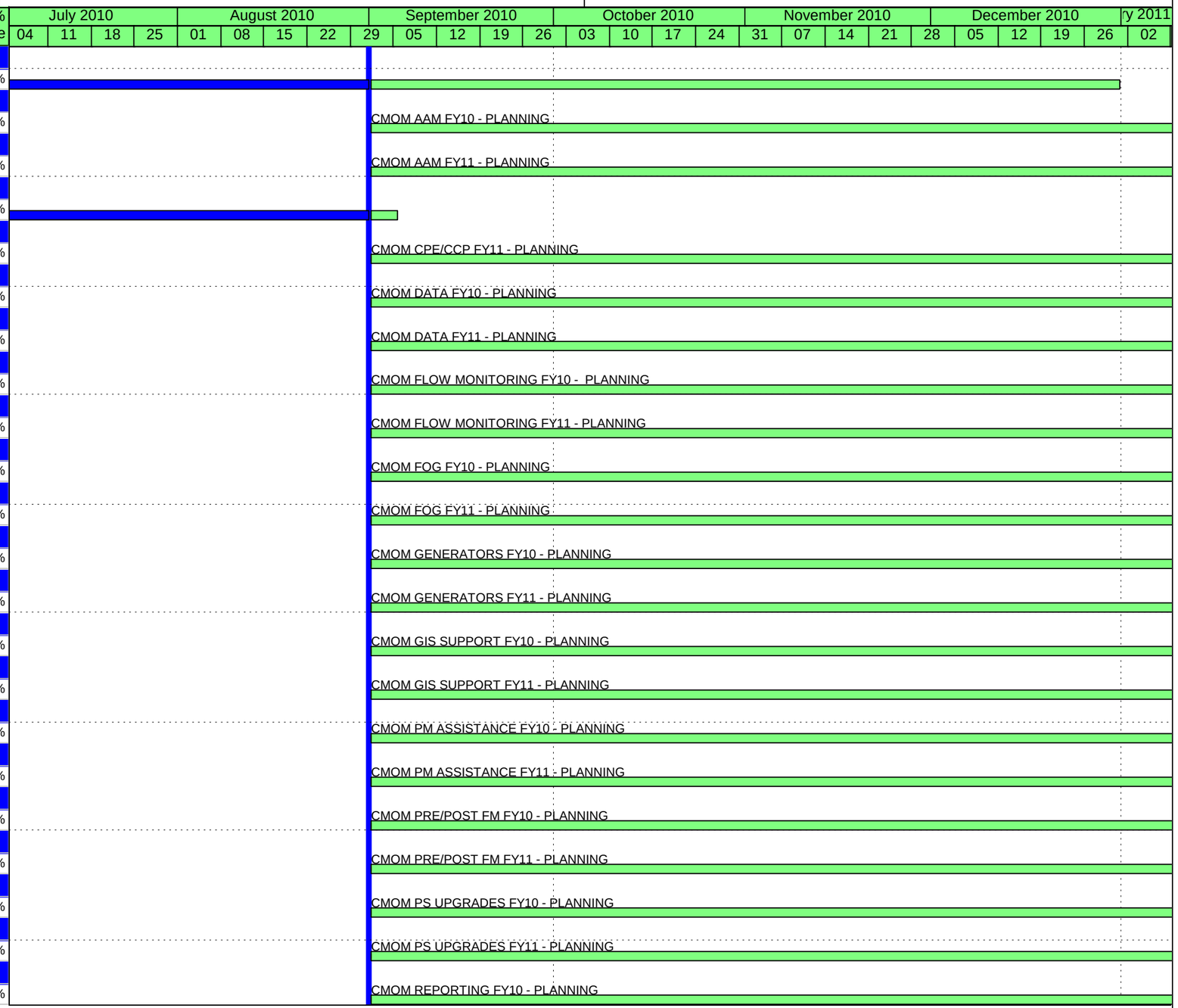


Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H100834000	CENTRAL REGION EMERG GENERATOR PH3 - AD DATE	100%
H100834050	CENTRAL REGION EMERG GENERATOR PH3 - BID OPEN	100%
H100834500	CENTRAL REGION EMERG GENERATOR PH3 - AWARD	100%
H100836000	CENTRAL REGION EMERG GENERATOR PH3-CONST	90%
CHARLESWOOD SUBDIVISION INT. #23		
C941030500	CHARLESWOOD SUBD. INT. #23 - CONS. SEL.	100%
C941031000	CHARLESWOOD SUBD. INT. #23 - DESIGN	100%
C941032000	CHARLESWOOD SUBD. INT. #23 - DESIGN	100%
C941032005	CHARLESWOOD SUBD. INT. #23 - NTP	100%
C941032010	CHARLESWOOD SUBD. INT. #23 - 50% PRELIM. DESIGN	100%
C941032020	CHARLESWOOD SUBD. INT. #23 - 100% PRELIM. DESIGN	100%
C941032040	CHARLESWOOD SUBD. INT. #23 - RED MEETING	100%
C941032100	CHARLESWOOD SUBD. INT. #23 - SURVEYING	100%
C941032110	CHARLESWOOD SUBD. INT. #23 - AMMEND NTP	100%
C941032500	CHARLSEWOOD SUBD. INT. #23 - 50% FINAL DESIGN	100%
C941032510	CHARLESWOOD SUBD. INT. #23 - 80% FINAL DESIGN	100%
C941032520	CHARLESWOOD SUBD. INT. #23 - 95% FINAL DESIGN	100%
C941032530	CHARLESWOOD SUBD. INT. #23 - 100% FINAL DESIGN	100%
C941032901	50% PRELIMINARY DESIGN SUBMITTAL	100%
C941032902	100% PRELIMINARY DESIGN SUBMITTAL	100%
C941032903	SURVEY COMPLETE	100%
C941032904	50% FINAL DESIGN SUBMITTAL	100%
C941032905	CHARLESWOOD SUBD #23 -80% FINAL DESIGN SUBMITTAL	100%
C941032906	CHARLESWOOD #23 95% FINAL DESIGN SUBMITTAL	100%
C941032907	CHARLESWOOD #23 - 100% FINAL DESIGN SUBMITTAL	100%
C941032908	SURVEY COMPLETE/AMEND	100%
C941032909	50% FINAL DESIGN SUBMITTAL/AMEND	100%
C941032910	CHARLESWOOD #23 - 80% FINAL DESIGN SUBMIT/AMEND	100%
C941032911	CHARLESWOOD # 23 95% FINAL DESIGN SUBMIT/AMEND	100%
C941032912	CHARLESWOOD # 23 -100% FINAL DESIGN SUBMIT/AMEND	100%
C941032913	CHARLESWOOD # 23 -25% DESIGN COOPER C WIDENING	100%
C941032914	CHARLESWOOD # 23 -50% DESIGN COOPER C WIDENING	100%
C941032915	CHARLESWOOD # 23 -75% DESIGN COOPER C WIDENING	100%
C941032916	CHARLESWOOD # 23 -90% DESIGN COOPER C WIDENING	100%
C941032917	CHARLESWOOD # 23 -100% DESIGN COOPER C WIDENING	100%
C941032918	CHARLESWOOD SUBD. INT. #23 - DESIGN Revision	100%
C941033000	CHARLESWOOD SUBD. INT. #23 - EASEMENTS	96%
C941034000	CHARLESWOOD SUBD. INT. #23 - AD DATE	0%
C941034050	CHARLESWOOD SUBD. INT. #23 - BID OPEN	0%
C941034500	CHARLESWOOD SUBD. INT. #23 - AWARD	0%
C941038050	CHARLESWOOD SUBD. INT. EXTENSION - CD CERTIFY	0%
CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION		
H092382000	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMIN...	0%
CHEROKEE SSES		
H093901000	CHEROKEE SSES - PLANNING	100%
H093901220	CHEROKEE SSES REPORT	0%

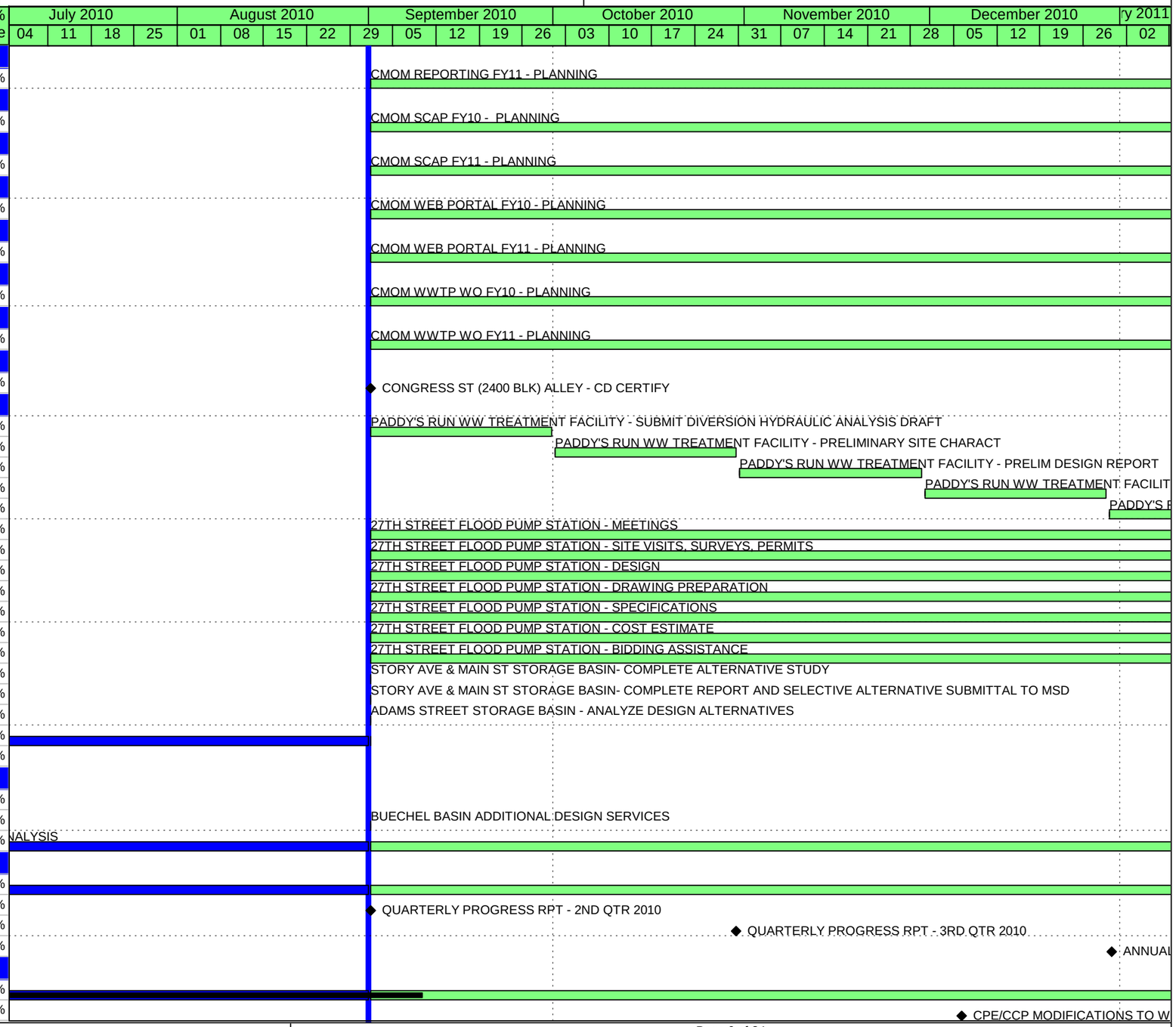
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
CLIMATE CHANGE STORM INTENSITY IMPACTS		
H101341000	CLIMATE CHANGE STORM INTENSITY IMPACTS - PLANNING	0%
CMOM AAM FY10		
H093431000	CMOM AAM FY10 - PLANNING	0%
CMOM AAM FY11		
H093571000	CMOM AAM FY11 - PLANNING	0%
CMOM CPE/CCP FY10		
H093461000	CMOM CPE/CCP FY10 - PLANNING	0%
CMOM CPE/CCP FY11		
H093601000	CMOM CPE/CCP FY11 - PLANNING	0%
CMOM DATA FY10		
H093401000	CMOM DATA FY10 - PLANNING	0%
CMOM DATA FY11		
H093541000	CMOM DATA FY11 - PLANNING	0%
CMOM FLOW MONITORING FY10		
H093471000	CMOM FLOW MONITORING FY10 - PLANNING	0%
CMOM FLOW MONITORING FY11		
H093611000	CMOM FLOW MONITORING FY11 - PLANNING	0%
CMOM FOG FY10		
H093361000	CMOM FOG FY10 - PLANNING	0%
CMOM FOG FY11		
H093501000	CMOM FOG FY11 - PLANNING	0%
CMOM GENERATORS FY10		
H093371000	CMOM GENERATORS FY10 - PLANNING	0%
CMOM GENERATORS FY11		
H093511000	CMOM GENERATORS FY11 - PLANNING	0%
CMOM GIS SUPPORT FY10		
H093421000	CMOM GIS SUPPORT FY10 - PLANNING	0%
CMOM GIS SUPPORT FY11		
H093561000	CMOM GIS SUPPORT FY11 - PLANNING	0%
CMOM PM ASSISTANCE FY10		
H093491000	CMOM PM ASSISTANCE FY10 - PLANNING	0%
CMOM PM ASSISTANCE FY11		
H093631000	CMOM PM ASSISTANCE FY11 - PLANNING	0%
CMOM PRE/POST FM FY10		
H093481000	CMOM PRE/POST FM FY10 - PLANNING	0%
CMOM PRE/POST FM FY11		
H093621000	CMOM PRE/POST FM FY11 - PLANNING	0%
CMOM PS UPGRADES FY10		
H093381000	CMOM PS UPGRADES FY10 - PLANNING	0%
CMOM PS UPGRADES FY11		
H093521000	CMOM PS UPGRADES FY11 - PLANNING	0%
CMOM REPORTING FY10		
H093411000	CMOM REPORTING FY10 - PLANNING	0%



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
CMOM REPORTING FY11		
H093551000	CMOM REPORTING FY11 - PLANNING	0%
CMOM SCAP FY10		
H093441000	CMOM SCAP FY10 - PLANNING	0%
CMOM SCAP FY11		
H093581000	CMOM SCAP FY11 - PLANNING	0%
CMOM WEB PORTAL FY10		
H093451000	CMOM WEB PORTAL FY10 - PLANNING	0%
CMOM WEB PORTAL FY11		
H093591000	CMOM WEB PORTAL FY11 - PLANNING	0%
CMOM WWTP WO FY10		
H093391000	CMOM WWTP WO FY10 - PLANNING	0%
CMOM WWTP WO FY11		
H093531000	CMOM WWTP WO FY11 - PLANNING	0%
CONGRESS ST (2400 BLK) ALLEY		
H110318050	CONGRESS ST (2400 BLK) ALLEY - CD CERTIFY	0%
CONSENT DECREE - LONG TERM CONTROL PLAN (LTCP)		
H091242901	PADDY'S RUN WW TREATMENT FACILITY - SUBMIT DIVER...	0%
H091242902	PADDY'S RUN WW TREATMENT FACILITY - PRELIMINARY ...	0%
H091242903	PADDY'S RUN WW TREATMENT FACILITY - PRELIM DESIG...	0%
H091242904	PADDY'S RUN WW TREATMENT FACILITY - DESIGN	0%
H091242905	PADDY'S RUN WW TREATMENT FACILITY - FINAL PRELIMI...	0%
H091262902	27TH STREET FLOOD PUMP STATION - MEETINGS	0%
H091262903	27TH STREET FLOOD PUMP STATION - SITE VISITS, SURV...	0%
H091262904	27TH STREET FLOOD PUMP STATION - DESIGN	0%
H091262905	27TH STREET FLOOD PUMP STATION - DRAWING PREPAR...	0%
H091262906	27TH STREET FLOOD PUMP STATION - SPECIFICATIONS	0%
H091262907	27TH STREET FLOOD PUMP STATION - COST ESTIMATE	0%
H091262908	27TH STREET FLOOD PUMP STATION - BIDDING ASSISTAN...	0%
H091272901	STORY AVE & MAIN ST STORAGE BASIN- COMPLETE ALTE...	0%
H091272902	STORY AVE & MAIN ST STORAGE BASIN- COMPLETE REP...	0%
H091352901	ADAMS STREET STORAGE BASIN - ANALYZE DESIGN ALT...	0%
H094322901	GI CAMPBELL & MAIN ALLEY - DRILLING	0%
H094328050	GI CAMPBELL & MAIN ALLEY - CD CERTIFY	100%
CONSENT DECREE - SANITARY SEWER DISCHARGE PLAN (SSDP)		
B062082917	SHIVELY- ADDITIONAL DESIGN SERVICES	100%
H072882909	BUECHEL BASIN ADDITIONAL DESIGN SERVICES	0%
H095612901	DRGWQTC: WET WEATHER TREATMENT FACILITY- PM/IN...	0%
CONSENT DECREE REPORTING		
R000001000	CONSENT DECREE REPORTING	0%
R000002923	QUARTERLY PROGRESS RPT - 2ND QTR 2010	0%
R000002924	QUARTERLY PROGRESS RPT - 3RD QTR 2010	0%
R000002925	ANNUAL REPORT - FY10	0%
CPE/CCP MODIFICATIONS TO WWTP		
H092212000	CPE/CCP MODIFICATIONS TO WWTP - DESIGN	75%
H092214000	CPE/CCP MODIFICATIONS TO WWTP - AD DATE	0%

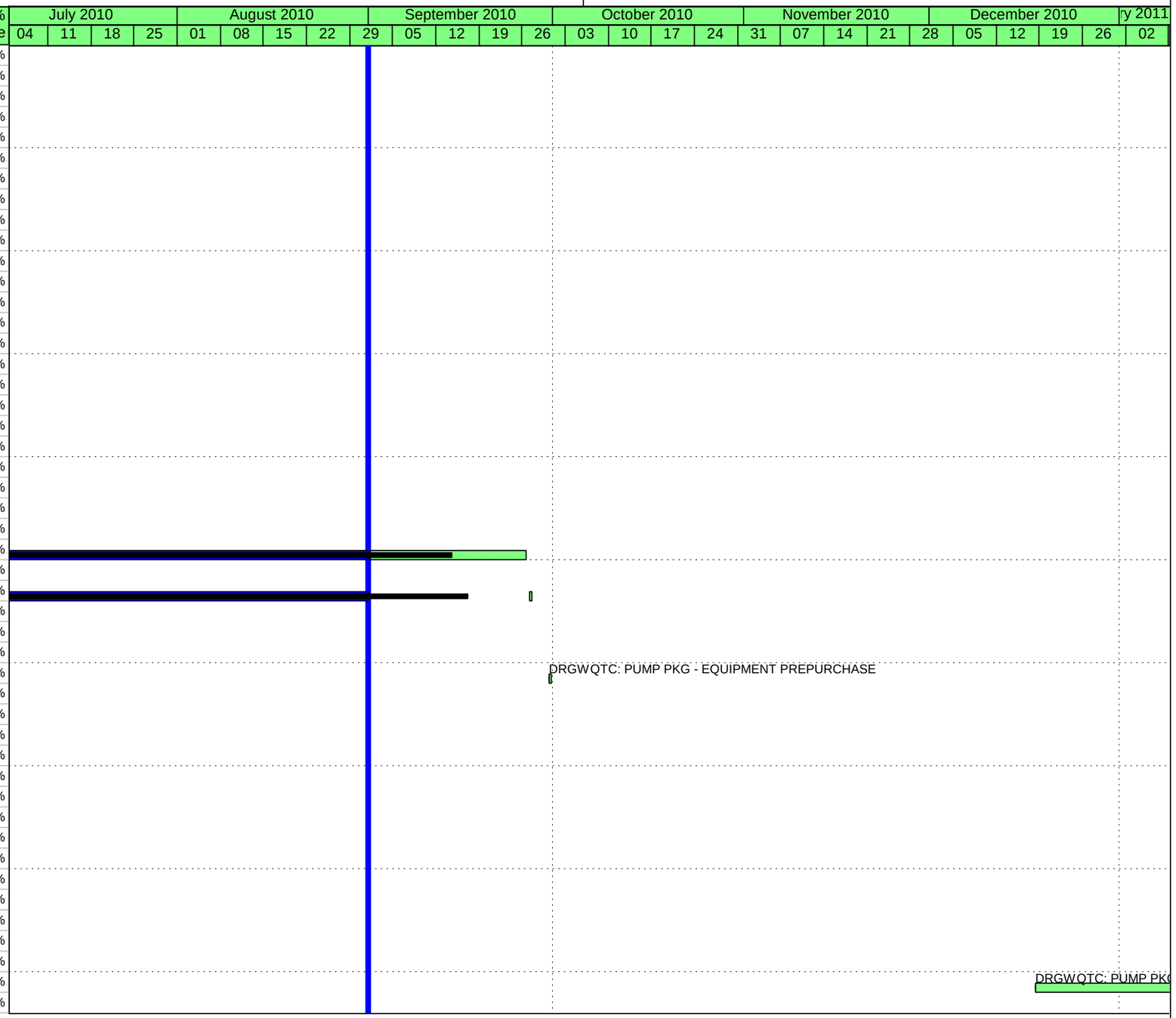


Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
CSO 108 DAM MODIFICATIONS		
H091282000	CSO 108 DAM MODIFICATIONS - DESIGN	0%
H091284000	CSO 108 DAM MODIFICATIONS - AD DATE	0%
H091284050	CSO 108 DAM MODIFICATIONS - BID OPEN	0%
H091284500	CSO 108 DAM MODIFICATIONS - AWARD	0%
H091286000	CSO 108 DAM MODIFICATIONS - CONSTRUCTION	0%
CSO 206 SEWER SEPARATION		
H091312000	CSO 206 SEWER SEPARATION - DESIGN	10%
CSO 210/216 CONVEYANCE LINE EMERGENCY REPAIR		
H110056000	CSO 210/216 CONVEYANCE LINE EMERGENCY REPAIR- CO...	0%
CSO 58 SEWER SEPARATION		
H091302000	CSO 58 SEWER SEPARATION - DESIGN	0%
DERINGTON COURT PUMP STATION I&I INVESTIGATION		
H091902000	DERINGTON CT PUMP STATION I&I INVESTIGATION - DESI...	0%
DOWNSPOUT DISCONNECT CSO 123		
I042472000	DOWNSPOUT DISCONNECT CSO 123 - DESIGN	0%
DOWNSPOUT DISCONNECT CSO 206		
I042492000	DOWNSPOUT DISCONNECT CSO 206 - DESIGN	100%
I042492901	DOWNSPOUT DISCONNECT CSO 206 - CLOSURE STARTUP	100%
I042494000	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - AD DATE	100%
I042494050	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - BID OPEN	100%
I042494500	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - AWARD	100%
I042496000	DOWNSPOUT DISCONNECT CSO 206 PHASE 1 - CONST	100%
I042496900	DOWNSPOUT DISCONNECT CSO 206 P1- SUBST COMPLETE	100%
DRG WQTC FACILITIES PLAN AMENDMENT		
H101331000	DRG WQTC FACILITIES PLAN AMENDMENT - PLANNING	0%
H101334000	DRG WQTC FACILITIES PLAN AMENDMENT - AD DATE	0%
H101334050	DRG WQTC FACILITIES PLAN AMENDMENT - BID OPEN	0%
H101334500	DRG WQTC FACILITIES PLAN AMENDMENT - AWARD	0%
DRGWQTC: BLOWER PACKAGE		
H095622914	DRG: BLOWER REPL - DRAFT INSTALLATION DRAWINGS	0%
H095622915	DRG: BLOWER REPL - FINAL INSTALLATION DRAWINGS	0%
H095622916	BLOWER INSTALL AD DATE	100%
H095622917	BLOWER INSTALL - BID OPEN	100%
H095622918	BLOWER INSTALL - AWARD	100%
H095624000	DRGWQTC: BLOWER EQUIPMENT PKG - AD DATE	100%
H095624050	DRGWQTC: BLOWER EQUIPMENT PKG - BID OPEN	100%
H095624500	DRGWQTC: BLOWER EQUIPMENT PKG - AWARD	100%
DRGWQTC: WET WEATHER TREATMENT FACILITY		
H095613000	DRGWQTC: WET WEATHER TREATMENT FACILITY-ESM'TS	10%
H095614000	DRGWQTC: WET WEATHER TREATMENT FACILITY- AD DA...	100%
H095614050	DRGWQTC: WET WEATHER TREATMENT FACILITY-BID OP...	100%
H095614500	DRGWQTC: WET WEATHER TREATMENT FACILITY- AWARD	0%
H095616000	DRGWQTC: WET WEATHER TREATMENT FACILITY- CONS...	0%
DRGWQTC: WW FLOW EQUALIZATION & TREATMENT		
H063021000	WCWTP: WW FLOW EQ & TREATMENT - PRELIM ENG'G	100%

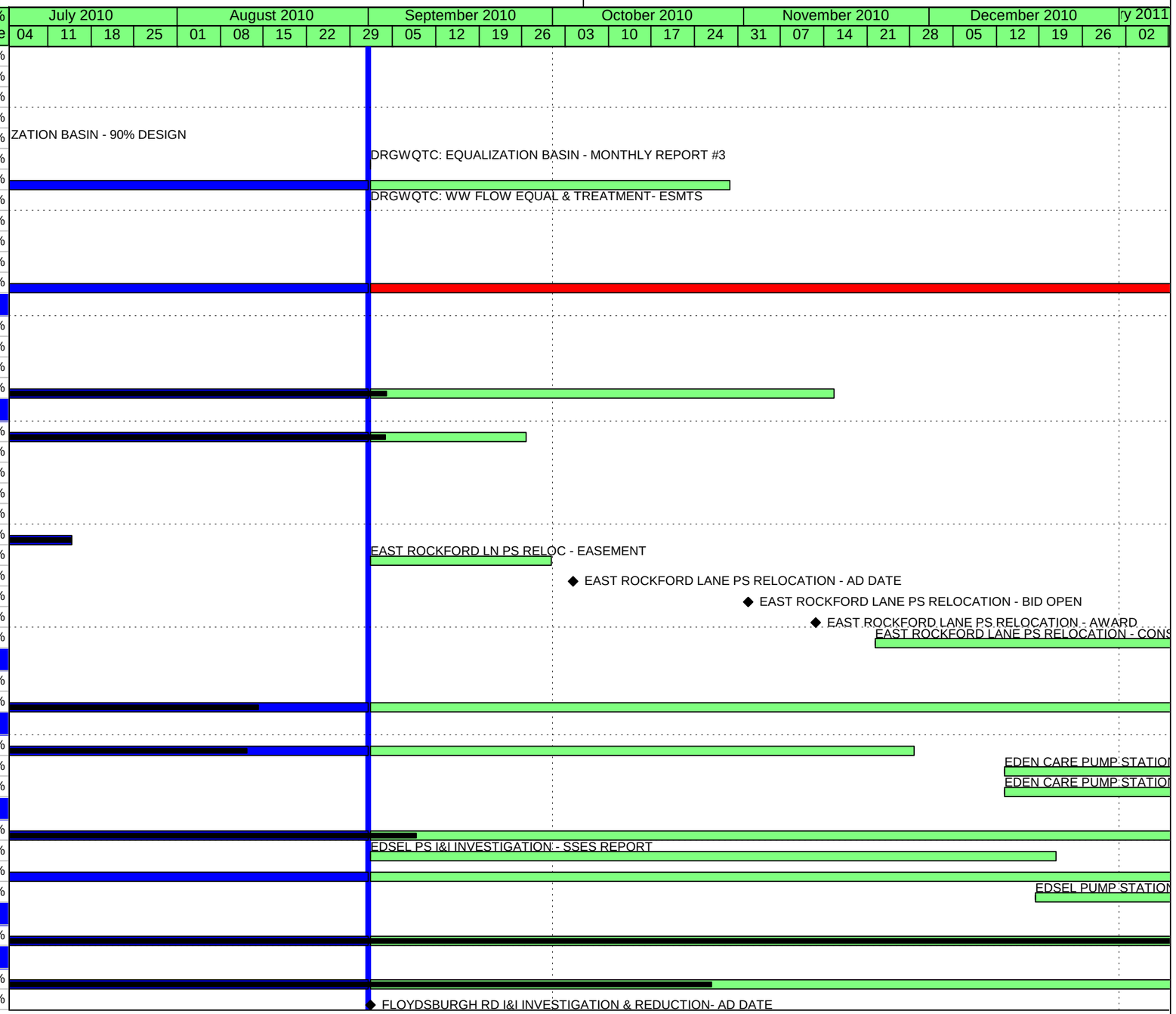
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H063021001	WCWTP: WW FLOW EQ & TREATMENT - NTP	100%
H063022000	WCWTP: WW FLOW EQ & TREATMENT - DESIGN	100%
H063022001	DRGWQTC: WET WEATHER TRMT FAC-NTP	100%
H063022901	WCWTP: WW FLOW EQ & TREATMENT - KICK OFF MTG	100%
H063022903	WCWTP: WW FLOW EQ & TREATMENT - TM REGS & PERMIT	100%
H063022904	WCWTP: WW FLOW EQ & TREATMENT - TM FLOWS & LOA...	100%
H063022905	WCWTP: WW FLOW EQ & TREATMENT-100% PROCESS AL...	100%
H063022906	WCWTP: WW FLOW EQ & TREATMENT - TM SELECTED AL...	100%
H063022907	WCWTP: WW FLOW EQ & TREATMENT - TM SITE ASSM'T	100%
H063022908	WCWTP: WW FLOW EQ & TREATMENT - TM COST ESTIMA...	100%
H063022909	WCWTP: WW FLOW EQ & TREATMENT - TM PD EVALUATI...	100%
H063022910	WCWTP: WW FLOW EQ & TREATMENT - FINAL REPORT	100%
H063022912	DRG: BLOWER REPL - DRAFT SPECIFICATIONS	100%
H063022913	DRG: BLOWER REPL - FINAL SPECIFICATIONS	100%
H063022916	DRGWQTC: WET WEATHER TRMT FAC-GEOTECH	100%
H063022917	DRGWQTC: WET WEATHER TRMT FAC-OPS STRATEGY TM	100%
H063022918	DRGWQTC: WET WEATHER TRMT FAC-PROGRESS RPT 3	100%
H063022919	DRGWQTC: WET WEATHER TRMT FAC-60% SUBMITTAL	100%
H063022920	DRGWQTC: WET WEATHER TRMT FAC-KDOW SUBMITTAL	100%
H063022921	DRGWQTC: WET WEATHER TRMT FAC-PROGRESS RPT 6	100%
H063022922	DRGWQTC: WET WEATHER TRMT FAC-PROGRESS RPT 7	100%
H063022923	DRGWQTC: WET WEATHER TRMT FAC-KDOW COMMENT ...	100%
H063022924	DRGWQTC: WET WEATHER TRMT FAC-90% SUBMITTAL	100%
H063022925	DRGWQTC: WET WEATHER TRMT FAC-100% SUBMITTAL	100%
H063022926	DRGWQTC: WET WEATHER TRMT FAC-BID ASSISTANCE	95%
H063022927	DRGWQTC: WET WEATHER TRMT FAC-BID EVALUATION	100%
H063022928	DRGWQTC: PUMP PKG - PROJECT MANAGEMENT	95%
H063022929	DRGWQTC: PUMP PKG - SUBSURFACE INVESTIGATION	100%
H063022930	DRGWQTC: PUMP PKG - SITE SURVEY	100%
H063022932	DRGWQTC: PUMP PKG - PRELIM ENGINEERING UPDATES	100%
H063022933	DRGWQTC: PUMP PKG - EQUIPMENT PREPURCHASE	0%
H063022934	DRGWQTC: PUMP PKG - HM - NTP FOR EXISTING PS HYD	100%
H063022935	DRGWQTC: PUMP PKG - HM - NTP FOR NEW PS	100%
H063022936	DRGWQTC: PUMP PKG-HM-TEST'G COMP FOR EXIST'G PS	100%
H063022937	DRGWQTC: PUMP PKG-HM-TEST'G COMP FOR NEW PS	100%
H063022938	DRGWQTC: PUMP PKG-HM-FINAL RPT FOR EXISTING PS	100%
H063022939	DRGWQTC: PUMP PKG-HM-FINAL RPT FOR NEW PS	100%
H063022940	DRGWQTC: PUMP PKG - CFD SET-UP	100%
H063022941	DRGWQTC: PUMP PKG - CFD FINAL REPORT	100%
H063022942	DRGWQTC: PUMP PKG - PROC/MECH 60% COMPLETE	100%
H063022943	DRGWQTC: PUMP PKG - STRUCTURAL 60% COMPLETE	100%
H063022944	DRGWQTC: PUMP PKG - COMPLETE 60% SUBMITTAL	100%
H063022945	DRGWQTC: PUMP PKG - 90% DESIGN	100%
H063022946	DRGWQTC: PUMP PKG - 100% DESIGN	100%
H063022947	DRGWQTC: PUMP PKG - BID ASSIST	100%
H063022949	DRGWQTC: PUMP PKG - WWT PKG START-UP ASSISTANCE	0%
H063022950	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #1	100%



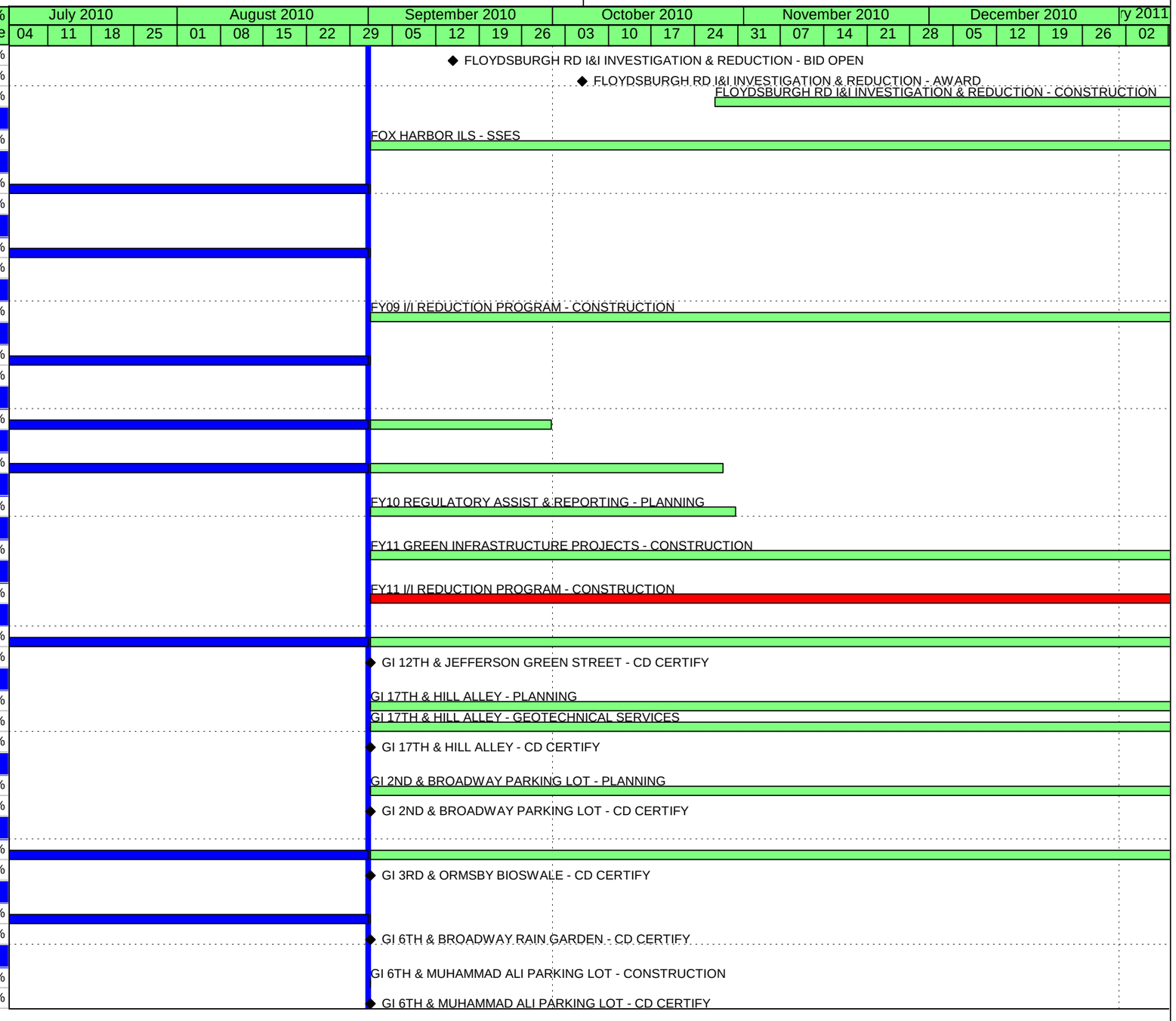
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H063022951	DRGWQTC: EQUALIZATION BASIN - FIELD SURVEY	100%
H063022952	DRGWQTC: EQUALIZATION BASIN - 30% DESIGN	100%
H063022953	DRGWQTC: EQUALIZATION BASIN - 60% DESIGN	100%
H063022954	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #2	100%
H063022955	DRGWQTC: EQUALIZATION BASIN - 90% DESIGN	100%
H063022956	DRGWQTC: EQUALIZATION BASIN - MONTHLY REPORT #3	0%
H063022962	DRGWQTC: EQ BASIN EASEMENT ACQUISITION	50%
H063023000	DRGWQTC: WW FLOW EQUAL & TREATMENT- ESMTS	0%
H063024000	DRGWQTC: PUMPING PACKAGE - AD DATE	100%
H063024050	DRGWQTC: PUMPING PACKAGE - BID OPEN	100%
H063024500	DRGWQTC: PUMPING PACKAGE - AWARD	100%
H063026000	DRGWQTC: PUMPING PACKAGE - CONSTRUCT	5%
EAST REGION EMERGENCY GENERATOR PHASE III		
H100824000	EAST REGION EMERG GENERATORS PH3 - AD DATE	100%
H100824050	EAST REGION EMERG GENERATORS PH3 - BID OPEN	100%
H100824500	EAST REGION EMERG GENERATORS PH3 - AWARD	100%
H100826000	EAST REGION EMERG GENERATORS PH3-CONST	80%
EAST ROCKFORD LANE PS RELOCATION		
A090912000	EAST ROCKFORD LANE PS RELOCATION - DESIGN	95%
A090912901	EAST ROCKFORD LN PS RELOC 10% DESIGN	100%
A090912902	EAST ROCKFORD LN PS RELOC 30% DESIGN	100%
A090912903	EAST ROCKFORD LN PS RELOC 60% DESIGN	100%
A090912904	EAST ROCKFORD LN PS RELOC 90% DESIGN	100%
A090912905	EAST ROCKFORD LN PS RELOC 100% DESIGN	100%
A090913000	EAST ROCKFORD LN PS RELOC - EASEMENT	0%
A090914000	EAST ROCKFORD LANE PS RELOCATION - AD DATE	0%
A090914050	EAST ROCKFORD LANE PS RELOCATION - BID OPEN	0%
A090914500	EAST ROCKFORD LANE PS RELOCATION - AWARD	0%
A090916000	EAST ROCKFORD LANE PS RELOCATION - CONSTRUCTION	0%
EAST ROCKFORD SSES		
H093931000	EAST ROCKFORD SSES - PLANNING	100%
H093931220	EAST ROCKFORD SSES REPORT	25%
EDEN CARE PUMP STATION INLINE STORAGE		
H091701200	EDEN CARE PUMP STATION ILS - SSES	50%
H091702000	EDEN CARE PUMP STATION ILS - DESIGN	0%
H091703000	EDEN CARE PUMP STATION ILS - EASEMENT	0%
EDSEL PUMP STATION I&I INVESTIGATION		
H091971200	EDSEL PUMP STATION I&I INVESTIGATION - SSES	60%
H091971220	EDSEL PS I&I INVESTIGATION - SSES REPORT	0%
H091972000	EDSEL PUMP STATION I&I INVESTIGATION - DESIGN	0%
H091973000	EDSEL PUMP STATION I&I INVESTIGATION - EASEMENT	0%
FAIRWAY VIEW PUMP STATION IMPROVEMENT		
H091771200	FAIRWAY VIEW PUMP STATION IMPROVEMENT - SSES	75%
FLOYDSBURGH ROAD I&I INVESTIGATION & REDUCTION		
H091721000	FLOYDSBURGH RD I&I INVESTIG & REDUCTION-SSES PLA...	75%
H091724000	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION- AD ...	0%



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H091724050	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - BI...	0%
H091724500	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - A...	0%
H091726000	FLOYDSBURGH RD I&I INVESTIGATION & REDUCTION - CO...	0%
FOX HARBOR INLINE STORAGE		
H091761200	FOX HARBOR ILS - SSES	0%
FY08 SSOP UPDATE		
H062291000	FY08 SSOP UPDATE - PLANNING	75%
H062298050	FY08 SSOP UPDATE - CD CERTIFICATION	100%
FY09 BGC/OR LTCP		
I062331000	FY09 BGC/OR LTP - PLANNING	0%
I062338050	FY09 BGC/OR LTP - CD CERTIFICATION	100%
FY09 I&I REDUCTION PROGRAM		
H092026000	FY09 I/I REDUCTION PROGRAM - CONSTRUCTION	0%
FY09 SSOP UPDATE		
H062321000	FY09 SSOP UPDATE - PLANNING	0%
H062328050	FY09 SSOP UPDATE - CD CERTIFICATION	100%
FY10 GREEN INFRASTRUCTURE PROJECTS		
H091486000	FY10 GREEN INFRASTRUCTURE PROJECTS - PLANNING	0%
FY10 I&I REDUCTION PROGRAM		
H092036000	FY10 I/I REDUCTION PROGRAM - CONSTRUCTION	0%
FY10 REGULATORY ASSISTANCE & REPORTING		
H101321000	FY10 REGULATORY ASSIST & REPORTING - PLANNING	0%
FY11 GREEN INFRASTRUCTURE PROJECTS		
H091496000	FY11 GREEN INFRASTRUCTURE PROJECTS - CONSTRUC...	0%
FY11 I&I REDUCTION PROGRAM		
H092046000	FY11 I/I REDUCTION PROGRAM - CONSTRUCTION	0%
GI 12th & JEFFERSON GREEN STREET		
H094336000	GI 12TH & JEFFERSON GREEN STREET - PLANNING	20%
H094338050	GI 12TH & JEFFERSON GREEN STREET - CD CERTIFY	0%
GI 17th & HILL ALLEY		
H094301000	GI 17TH & HILL ALLEY - PLANNING	0%
H094302901	GI 17TH & HILL ALLEY - GEOTECHNICAL SERVICES	0%
H094308050	GI 17TH & HILL ALLEY - CD CERTIFY	0%
GI 2nd & BROADWAY PARKING LOT		
H094261000	GI 2ND & BROADWAY PARKING LOT - PLANNING	0%
H094268050	GI 2ND & BROADWAY PARKING LOT - CD CERTIFY	0%
GI 3rd & ORMSBY BIOSWALE		
H094271000	GI 3RD & ORMSBY BIOSWALE - PLANNING	0%
H094278050	GI 3RD & ORMSBY BIOSWALE - CD CERTIFY	0%
GI 6th & BROADWAY RAIN GARDEN		
H094296000	GI 6TH & BROADWAY RAIN GARDEN - PLANNING	0%
H094298050	GI 6TH & BROADWAY RAIN GARDEN - CD CERTIFY	0%
GI 6th & MUHAMMAD ALI PARKING LOT		
H094286000	GI 6TH & MUHAMMAD ALI PARKING LOT - CONSTRUCTION	0%
H094288050	GI 6TH & MUHAMMAD ALI PARKING LOT - CD CERTIFY	0%



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
GI 7th & CEDAR PARKING LOT		
H094251000	GI 7TH & CEDAR PARKING LOT - PLANNING	0%
GI 7th & MARKET ALLEY		
H094311000	GI 7TH & MARKET ALLEY - PLANNING	0%
H094318050	GI 7TH & MARKET ALLEY - CD CERTIFY	0%
GI ADD'L RAIN GARDENS PH 1 FY10		
H100391000	GI ADD'L RAIN GARDENS PH 1 FY10 - PLANNING	0%
GI ADD'L RAIN GARDENS PH 1 FY11		
H100411000	GI ADD'L RAIN GARDENS PH 1 FY11 - PLANNING	0%
GI ADD'L RAIN GARDENS PH 2 FY10		
H100401000	GI ADD'L RAIN GARDENS PH 2 FY10 - PLANNING	0%
GI ADD'L RAIN GARDENS PH 2 FY11		
H100421000	GI ADD'L RAIN GARDENS PH 2 FY11 - PLANNING	0%
GI ALLEYS FY09		
H094131000	GI ALLEYS FY09 - PLANNING	0%
GI ALLEYS FY10		
H094181000	GI ALLEYS FY10 - PLANNING	0%
GI ALLEYS FY11		
H094361000	GI ALLEYS FY11 - PLANNING	0%
GI CAMPBELL & MAIN ALLEY		
H094322902	GI CAMPBELL & MAIN ALLEY - AMEC FIELD PERSONNEL A...	0%
H094322903	GI CAMPBELL & MAIN ALLEY- GEOTECHNICAL SERVICES	0%
H094326000	GI CAMPBELL & MAIN ALLEY - PLANNING	0%
GI I-264 & GIBSON DRY WELL		
H094441000	GI I-264 & GIBSON DRY WELL - PLANNING	0%
GI I-264 OFF-RAMP DRY WELL		
H094421000	GI I-264 OFF-RAMP DRY WELL - PLANNING	0%
GI I-264 ON-RAMP DRY WELL		
H094431000	GI I-264 ON-RAMP DRY WELL - PLANNING	0%
GI JFK MONTESSORI AREA DRY WELL		
H094461000	GI JFK MONTESSORI AREA DRY WELL - PLANNING	0%
GI MSD MO BIOSWALE		
H094241000	GI MSD MO BIOSWALE - PLANNING	0%
H094248050	GI MSD MO BIOSWALE - CD CERTIFY	0%
GI PARKING PUBLIC FY09		
H094151000	GI PARKING PUBLIC FY09 - PLANNING	0%
GI PARKING PUBLIC FY10		
H094221000	GI PARKING PUBLIC FY10 - PLANNING	0%
GI PARKING PUBLIC FY11		
H094391000	GI PARKING PUBLIC FY11 - PLANNING	0%
GI PORTLAND MUSEUM		
H101822000	GI PORTLAND MUSEUM - DESIGN	0%
GI PUBLIC DRY WELLS FY10		
H094231000	GI PUBLIC DRY WELLS FY10 - PLANNING	0%
GI PUBLIC DRY WELLS FY11		

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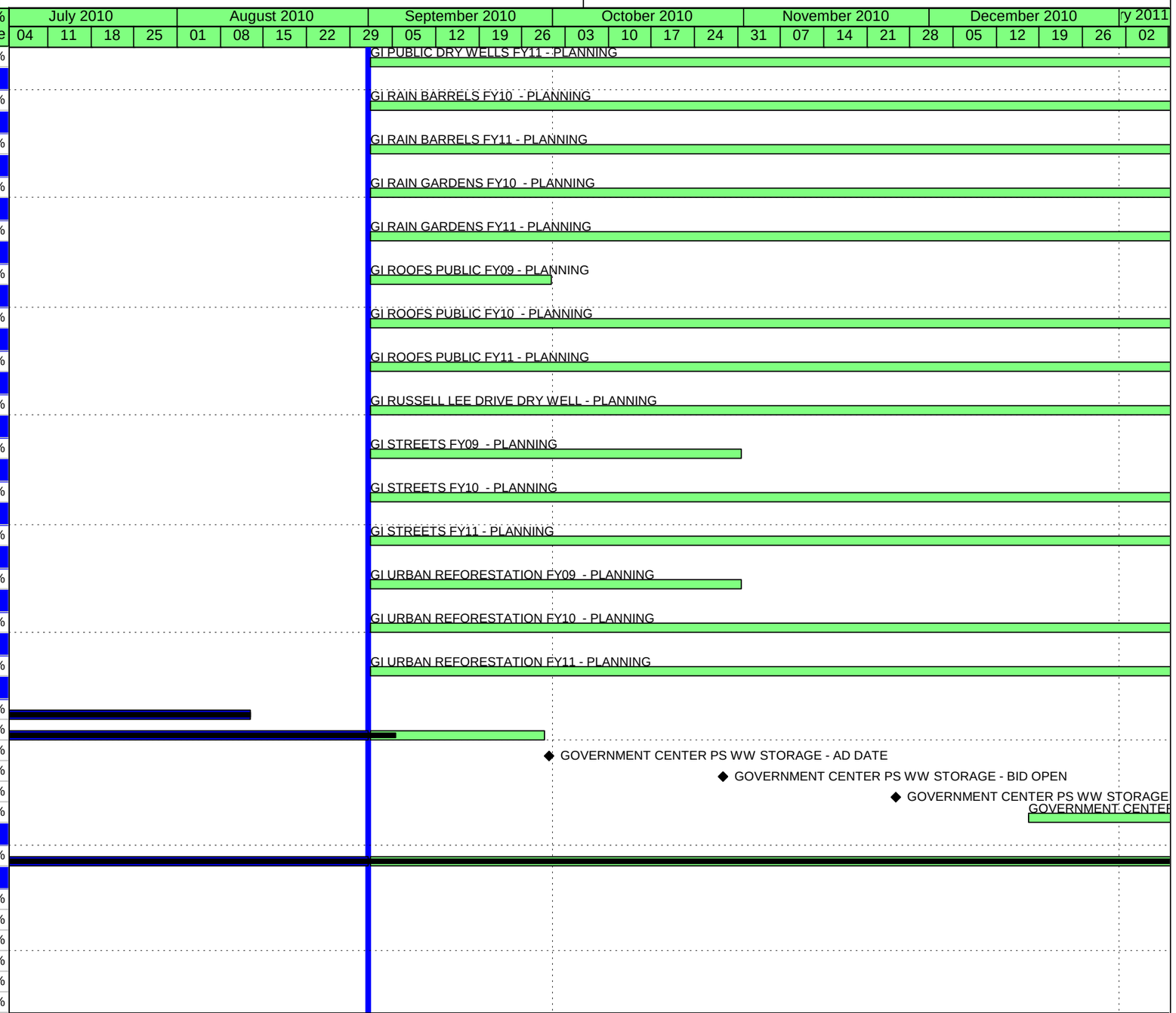
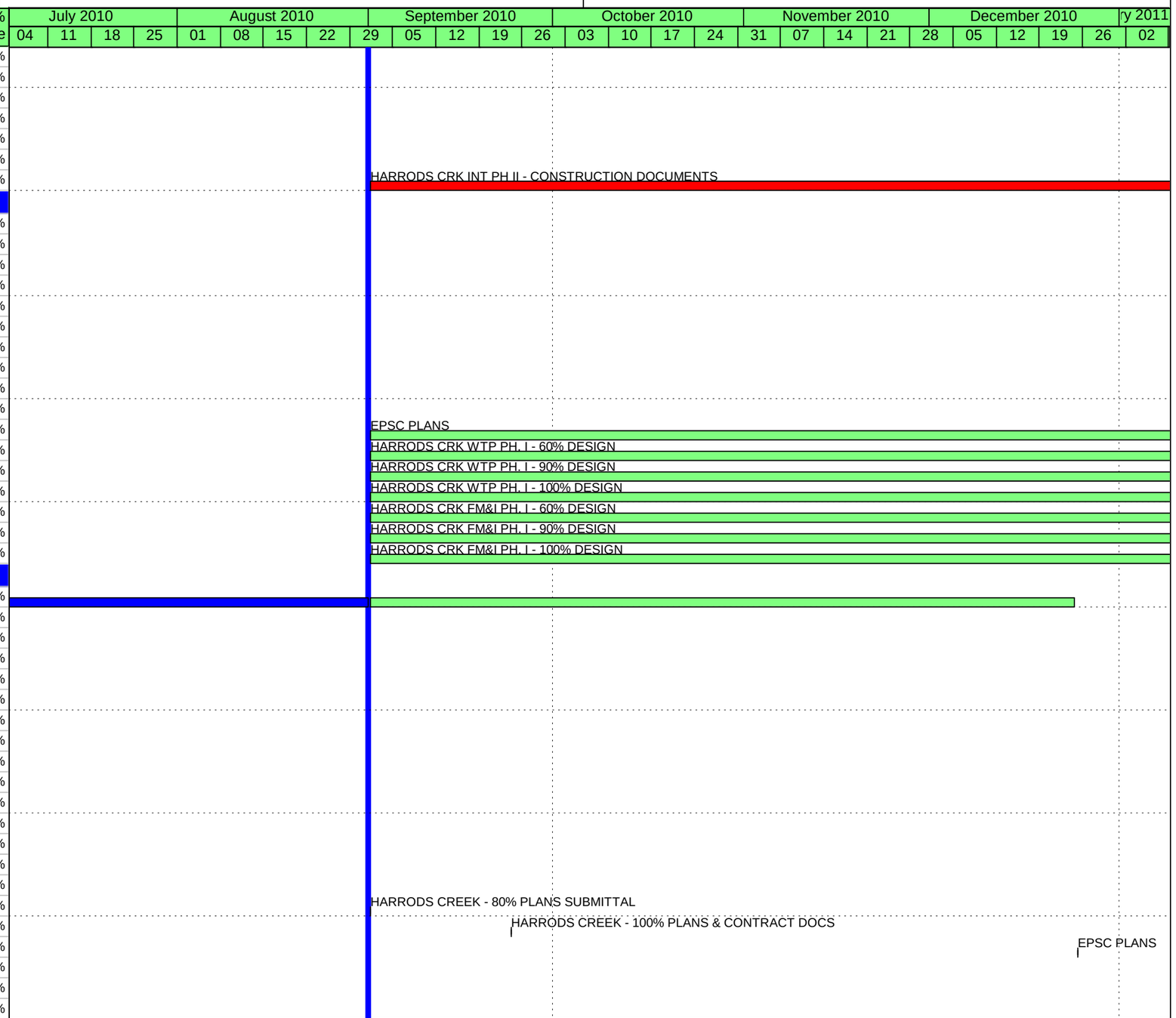
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H094401000	GI PUBLIC DRY WELLS FY11 - PLANNING	0%
GI RAIN BARRELS FY10		
H094191000	GI RAIN BARRELS FY10 - PLANNING	0%
GI RAIN BARRELS FY11		
H094371000	GI RAIN BARRELS FY11 - PLANNING	0%
GI RAIN GARDENS FY10		
H094201000	GI RAIN GARDENS FY10 - PLANNING	0%
GI RAIN GARDENS FY11		
H094411000	GI RAIN GARDENS FY11 - PLANNING	0%
GI ROOFS PUBLIC FY09		
H094111000	GI ROOFS PUBLIC FY09 - PLANNING	0%
GI ROOFS PUBLIC FY10		
H094161000	GI ROOFS PUBLIC FY10 - PLANNING	0%
GI ROOFS PUBLIC FY11		
H094341000	GI ROOFS PUBLIC FY11 - PLANNING	0%
GI RUSSELL LEE DRIVE DRY WELL		
H094451000	GI RUSSELL LEE DRIVE DRY WELL - PLANNING	0%
GI STREETS FY09		
H094121000	GI STREETS FY09 - PLANNING	0%
GI STREETS FY10		
H094171000	GI STREETS FY10 - PLANNING	0%
GI STREETS FY11		
H094351000	GI STREETS FY11 - PLANNING	0%
GI URBAN REFORESTATION FY09		
H094141000	GI URBAN REFORESTATION FY09 - PLANNING	0%
GI URBAN REFORESTATION FY10		
H094211000	GI URBAN REFORESTATION FY10 - PLANNING	0%
GI URBAN REFORESTATION FY11		
H094381000	GI URBAN REFORESTATION FY11 - PLANNING	0%
GOVERNMENT CENTER PUMP STATION WET WEATHER STORAGE BASIN		
H091942000	GOVERNMENT CENTER PS WW STORAGE - DESIGN	100%
H091943000	GOVERNMENT CENTER PS WW STORAGE - EASEMENT	90%
H091944000	GOVERNMENT CENTER PS WW STORAGE - AD DATE	0%
H091944050	GOVERNMENT CENTER PS WW STORAGE - BID OPEN	0%
H091944500	GOVERNMENT CENTER PS WW STORAGE - AWARD	0%
H091946000	GOVERNMENT CENTER PS WW STORAGE - CONSTRUCTI...	0%
GUNPOWDER PUMP STATION INLINE STORAGE		
H092421200	GUNPOWDER PUMP STATION ILS - SSES	75%
HARRODS CREEK INT PHASE II		
D002492005	PRELIMINARY FIELD WALK-THRU	100%
D002492040	OBTAIN UTILITY COMMENTS	100%
D002492045	FEILD WALK-THRU TO REVIEW UTILITY COMMENTS	100%
D002492055	MSD PLAN & PLAT REVIEW	100%
D002492070	REVISE PLANS/PLATS PER MSD COMMENTS	100%
D002492090	HARRODS CRK INT PHASE II - PLATS	100%



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
D002492901	50% SURVEY COMPLETE	100%
D002492902	30% PLANS SUBMITTAL	100%
D002492903	50% PLAN UTILITY SUBMITTAL	100%
D002492904	80% PLANS SUBMITTAL	100%
D002492905	100% PLANS & CONTRACT DOCUMENTS	100%
D002492907	HARRODS CRK INT PH II - EASEMENT PLATS	100%
D002492908	HARRODS CRK INT PH II - CONSTRUCTION DOCUMENTS	0%
HARRODS CREEK INTERCEPTOR		
D942072000	HARRODS CRK INT PH. I - DESIGN	100%
D942072005	PRELIMINARY FIELD WALK-THRU	100%
D942072040	OBTAIN UTILITY COMMENTS	100%
D942072045	FEILD WALK-THRU TO REVIEW UTILITY COMMENTS	100%
D942072055	MSD PLAN & PLAT REVIEW	100%
D942072901	50% SURVEY COMPLETE	100%
D942072902	30% PLANS SUBMITTAL	100%
D942072903	50% PLAN UTILITY SUBMITTAL	100%
D942072904	80% PLANS SUBMITTAL	100%
D942072905	100% PLANS & CONTRACT DOCUMENTS	100%
D942072906	EPSC PLANS	0%
D942072907	HARRODS CRK WTP PH. I - 60% DESIGN	0%
D942072908	HARRODS CRK WTP PH. I - 90% DESIGN	0%
D942072909	HARRODS CRK WTP PH. I - 100% DESIGN	0%
D942072910	HARRODS CRK FM&I PH. I - 60% DESIGN	0%
D942072911	HARRODS CRK FM&I PH. I - 90% DESIGN	0%
D942072912	HARRODS CRK FM&I PH. I - 100% DESIGN	0%
HARRODS CREEK PS & FM		
D942062000	HARRODS CREEK P.S. & F.M. - DESIGN	0%
D942062005	PRELIMINARY FIELD WALK-THRU	100%
D942062010	PRELIMINARY DESIGN	100%
D942062046	FINAL ALIGNMENT WALK-THRU	100%
D942062047	FINAL ALIGNMENT APPROVAL	100%
D942062901	HARRODS CREEK - 50% SURVEY COMPLETE	100%
D942062902	MILESTONE #2	100%
D942062903	HARRODS CREEK - CONCEPTUAL DESIGN	100%
D942062904	HARRODS CREEK - 30% PLAN SUBMITTAL	100%
D942062905	MILESTONE #5	100%
D942062906	HARRODS CREEK - R.E.D. MEETING	100%
D942062907	PRELIMINARY PLANS	100%
D942062908	STORAGE	100%
D942062909	HARRODS CREEK - VALUE ENGINEERING	100%
D942062913	HARRODS CREEK - 50% PLAN UTILITY SUBMITTAL	100%
D942062914	HARRODS CREEK - 80% PLANS SUBMITTAL	0%
D942062915	HARRODS CREEK - 100% PLANS & CONTRACT DOCS	0%
D942062916	EPSC PLANS	0%
D942062918	HC/PROSPECT AREA STUDY-TASK 1.1 & 2.1	100%
D942062919	HC/PROSPECT AREA STUDY-TASK 2.1	100%
D942062920	HC/PROSPECT AREA STUDY-TASK 2.2	100%



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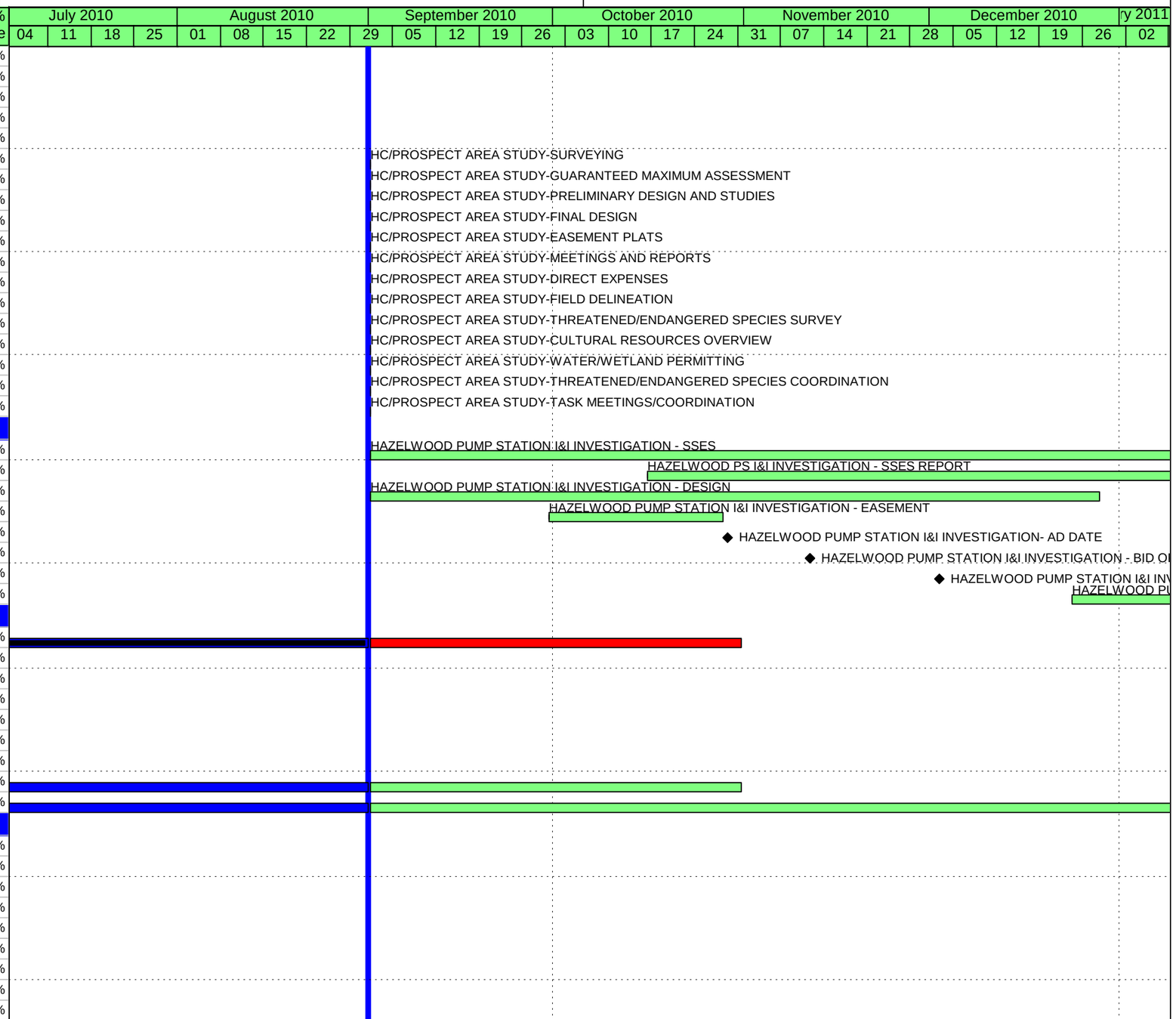
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
D942062921	HC/PROSPECT AREA STUDY-TASK 2.3-2.4	100%
D942062922	HC/PROSPECT AREA STUDY-TASK 3.1-3.2	100%
D942062923	HC/PROSPECT AREA STUDY-TASK 3.3	100%
D942062924	HC/PROSPECT AREA STUDY-TASK 4.1-4.3	100%
D942062925	HC/PROSPECT AREA STUDY-TASK 4.4	100%
D942062926	HC/PROSPECT AREA STUDY-SURVEYING	0%
D942062927	HC/PROSPECT AREA STUDY-GUARANTEED MAXIMUM ASS...	0%
D942062928	HC/PROSPECT AREA STUDY-PRELIMINARY DESIGN AND S...	0%
D942062929	HC/PROSPECT AREA STUDY-FINAL DESIGN	0%
D942062930	HC/PROSPECT AREA STUDY-EASEMENT PLATS	0%
D942062931	HC/PROSPECT AREA STUDY-MEETINGS AND REPORTS	0%
D942062932	HC/PROSPECT AREA STUDY-DIRECT EXPENSES	0%
D942062933	HC/PROSPECT AREA STUDY-FIELD DELINEATION	0%
D942062934	HC/PROSPECT AREA STUDY-THREATENED/ENDANGERED...	0%
D942062935	HC/PROSPECT AREA STUDY-CULTURAL RESOURCES OV...	0%
D942062936	HC/PROSPECT AREA STUDY-WATER/WETLAND PERMITTI...	0%
D942062937	HC/PROSPECT AREA STUDY-THREATENED/ENDANGERED...	0%
D942062938	HC/PROSPECT AREA STUDY-TASK MEETINGS/COORDINA...	0%
HAZELWOOD PUMP STATION I&I INVESTIGATION		
H091811200	HAZELWOOD PUMP STATION I&I INVESTIGATION - SSES	0%
H091811220	HAZELWOOD PS I&I INVESTIGATION - SSES REPORT	0%
H091812000	HAZELWOOD PUMP STATION I&I INVESTIGATION - DESIGN	0%
H091813000	HAZELWOOD PUMP STATION I&I INVESTIGATION - EASEM...	0%
H091814000	HAZELWOOD PUMP STATION I&I INVESTIGATION- AD DATE	0%
H091814050	HAZELWOOD PUMP STATION I&I INVESTIGATION - BID OPEN	0%
H091814500	HAZELWOOD PUMP STATION I&I INVESTIGATION - AWARD	0%
H091816000	HAZELWOOD PUMP STATION I&I INVESTIGATION - CONST...	0%
HIKES POINT INTERCEPTOR		
H072862000	HIKES POINT INTERCEPTOR - DESIGN	90%
H072862001	HIKES POINT INTERCEPTOR - NTP	100%
H072862901	HIKES POINT INTERCEPTOR - 10% DESIGN SUBMITTAL	100%
H072862902	HIKES POINT INTERCEPTOR - 30% DESIGN SUBMITTAL	100%
H072862903	HIKES POINT INTERCEPTOR - ENVIRON/SURVEY	100%
H072862904	HIKES POINT INTERCEPTOR - 60% DESIGN SUBMITTAL	100%
H072862905	HIKES POINT INTERCEPTOR - 90% DESIGN SUBMITTAL	100%
H072862906	HIKES POINT INTERCEPTOR - 100% DESIGN SUBMITTAL	0%
H072863000	HIKES POINT INTERCEPTOR - EASEMENTS	0%
HIKES POINT RELIEF EFFORT		
H072872000	HIKES POINT RELIEF SEWER EFFORT - DESIGN	100%
H072872001	HIKES POINT INT - NTP	100%
H072872901	HIKES POINT INT - BACKGROUND & STDS	100%
H072872902	HIKES POINT INT - GEOTECH REPORT	100%
H072872903	HIKES POINT INT - TRAFFIC ANALYSIS	100%
H072872904	HIKES POINT INT - PROPERTY RESEARCH	100%
H072872905	HIKES POINT INT - PIPE MATERIAL RECM & TECH MEMO	100%
H072872906	HIKES POINT INT - STRUCTURAL MEMO & PRELIM DRAWG	100%
H072872907	HIKES POINT INT - HYDRAULIC HOR/VER ALIGN TM	100%



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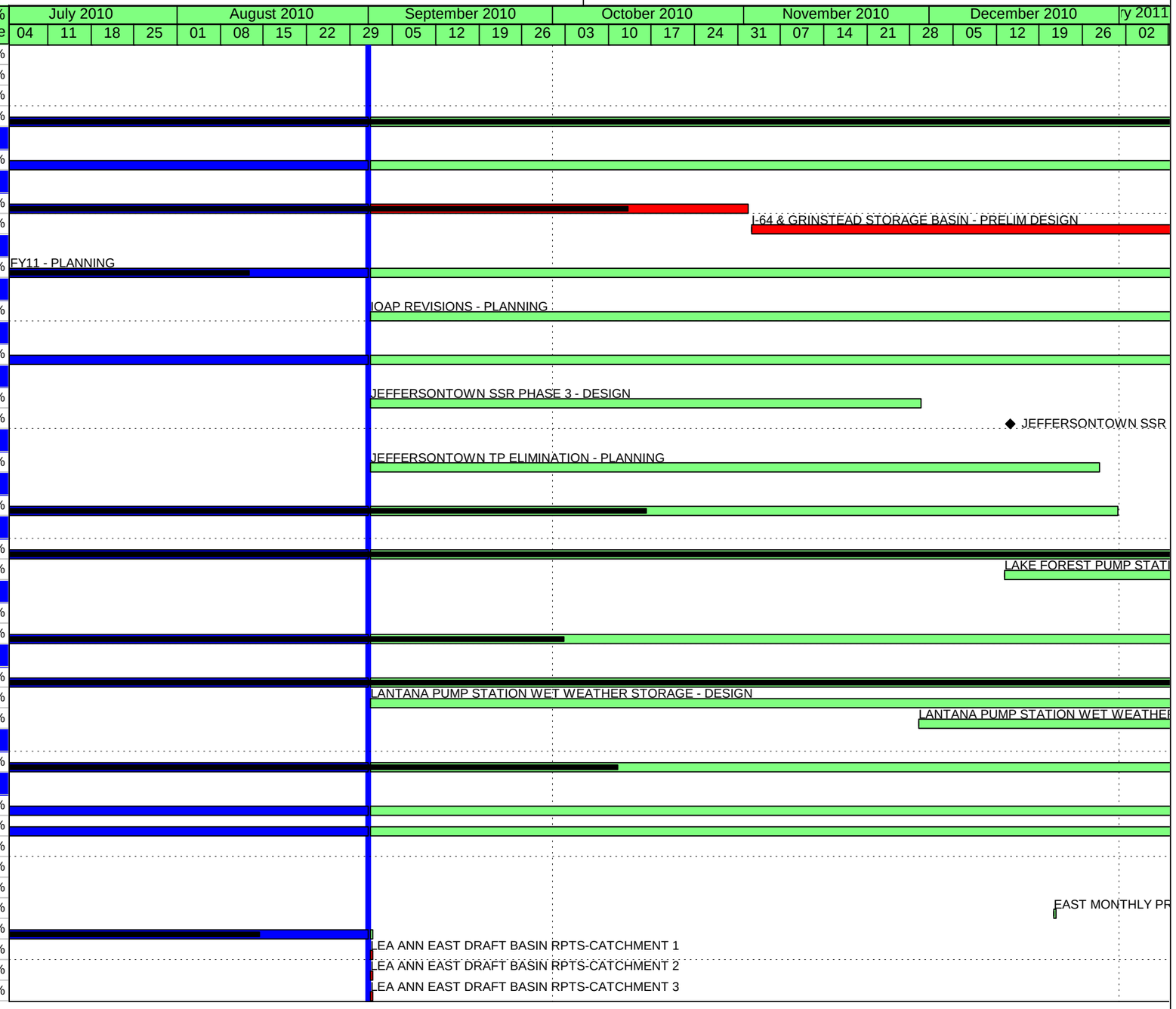
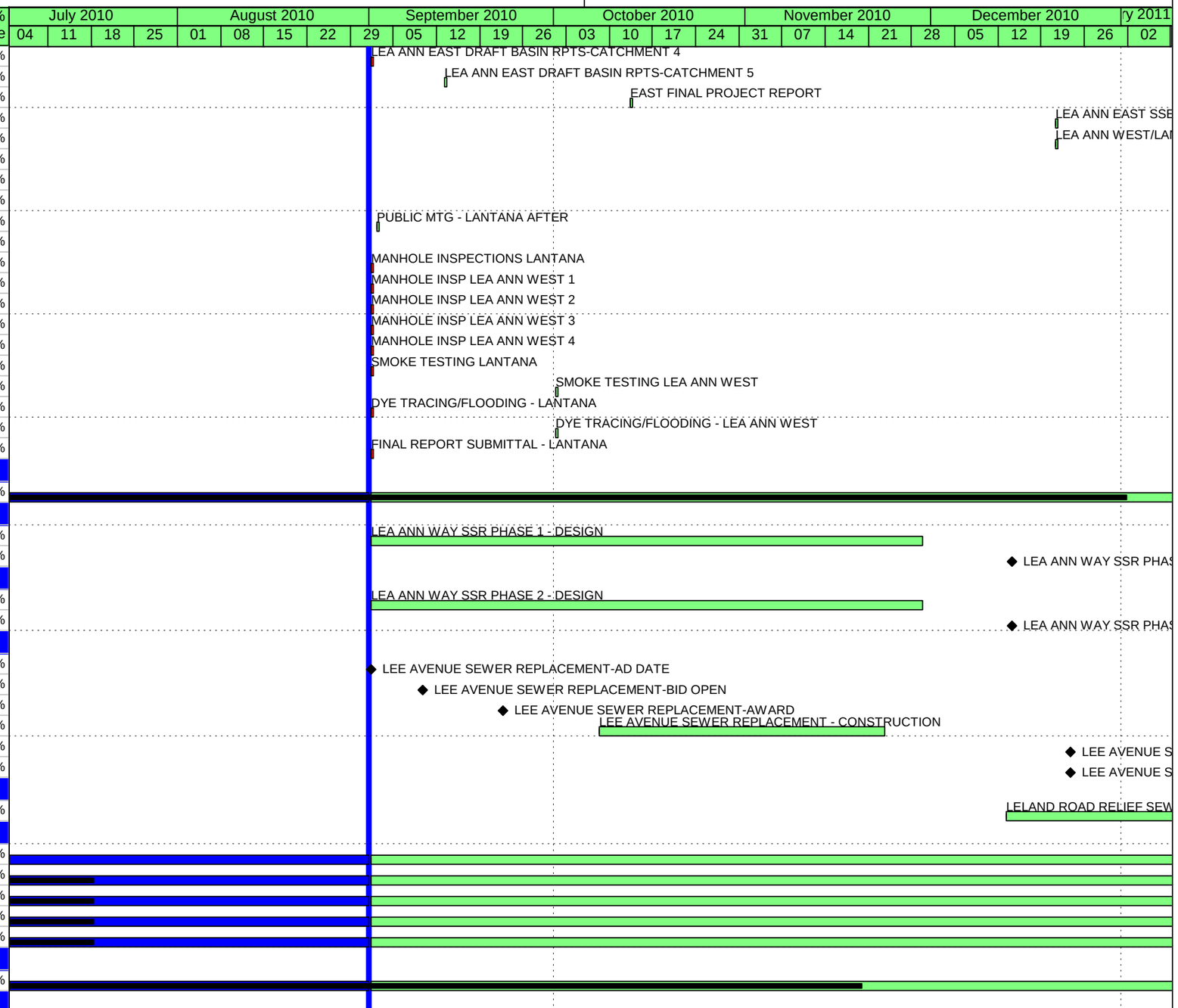
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H072872908	HIKES POINT INT - TRAFFIC ANALYSIS TECH MEMO	100%
H072872909	HIKES POINT INT - CONSTRUCTABILITY; COST & SCHED	100%
H072872910	HP INT REPORT W/PRESENTATION-100%	100%
H072873000	HIKES POINT RELIEF SEWER EFFORT - EASEMENTS	85%
HURSTBOURNE I&I INVEST & REHAB		
H092192000	HURSTBOURNE I&I INVEST & REHAB - DESIGN	0%
I-64 & GRINSTEAD STORAGE BASIN		
H091211000	I-64 & GRINSTEAD STORAGE BASIN - PLANNING	95%
H091212000	I-64 & GRINSTEAD STORAGE BASIN - PRELIM DESIGN	0%
ICA FY11		
H093811000	ICA FY11 - PLANNING	10%
IOAP REVISIONS		
H094551000	IOAP REVISIONS - PLANNING	0%
JEFFERSONTOWN SSES		
H093951000	JEFFERSONTOWN SSES - PLANNING	5%
JEFFERSONTOWN SSR PHASE 3		
H094092000	JEFFERSONTOWN SSR PHASE 3 - DESIGN	0%
H094094000	JEFFERSONTOWN SSR PHASE 3 - AD DATE	0%
JEFFERSONTOWN TP ELIMINATION		
H072931000	JEFFERSONTOWN TP ELIMINATION - PLANNING	0%
KAVANAUGH ROAD PUMP STATION IMPROVEMENT		
H091711000	KAVANAUGH RD PUMP STATION IMP - SSES PLANNING	75%
LAKE FOREST PUMP STATION IMPROVEMENT		
H091731200	LAKE FOREST PUMP STATION IMPROVEMENT - SSES	75%
H091732000	LAKE FOREST PUMP STATION IMPROVEMENT - DESIGN	0%
LAKE FOREST SSES		
H093961000	LAKE FOREST SSES - PLANNING	100%
H093961220	LAKE FOREST SSES REPORT	50%
LANTANA PUMP STATION WET WEATHER STORAGE BASIN		
H091931200	LANTANA PUMP STATION WET WEATHER STORAGE - SSES	90%
H091932000	LANTANA PUMP STATION WET WEATHER STORAGE - DE...	0%
H091933000	LANTANA PUMP STATION WET WEATHER STORAGE - EAS...	0%
LEA ANN WAY PHASE 2 ICA		
H093981000	LEA ANN WAY PHASE 2 ICA - PLANNING	80%
LEA ANN WAY PS SYSTEM SSES		
H090962000	LEA ANN WAY PS SYSTEM SSES - PLANNING	10%
H090962901	LEA ANN WAY PS SYSTEM SSES HOURLY	0%
H090962902	EAST PROJECT WORK PLAN	100%
H090962903	EAST DATA, COLLECTION, REVIEW&BASIN DELINEATION	100%
H090962904	LEA ANN SSES EAST NOTIFICATION PLAN	100%
H090962905	EAST MONTHLY PROJECT MGMT REPORTS	0%
H090962906	LEA ANN EAST NBHD MEETINGS	90%
H090962907	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 1	0%
H090962908	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 2	0%
H090962909	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 3	0%



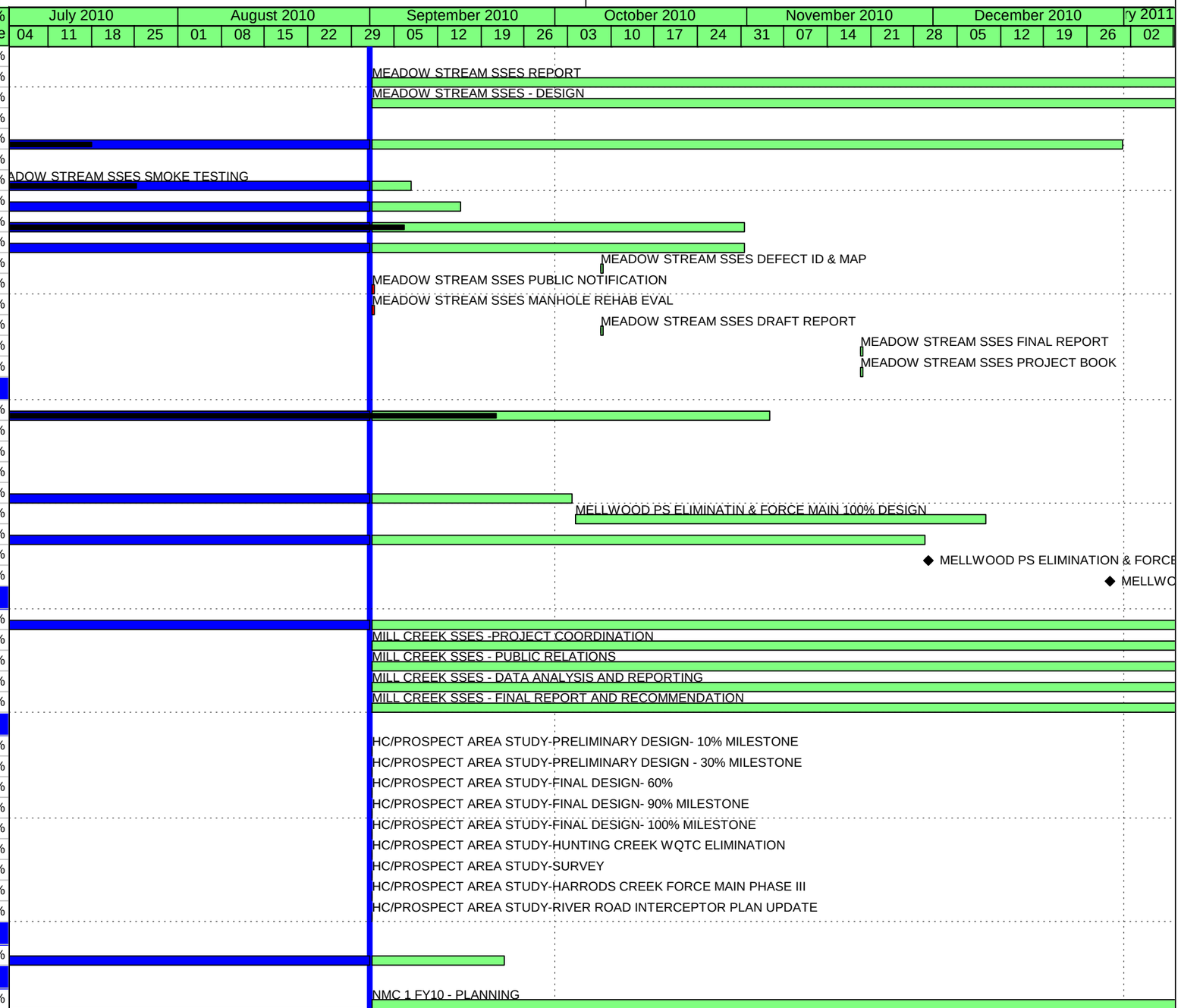
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H090962910	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 4	0%
H090962911	LEA ANN EAST DRAFT BASIN RPTS-CATCHMENT 5	0%
H090962912	EAST FINAL PROJECT REPORT	0%
H090962913	LEA ANN EAST SSES EXPENSES	0%
H090962914	LEA ANN WEST/LANTANA SSES- HOURLY	0%
H090962915	LA WEST/LANTANA KICKOFF MTG	100%
H090962916	LEA ANN WEST/LANTANA WORK PLAN	100%
H090962917	PUBLIC MTG - LANTANA BEFORE	100%
H090962918	PUBLIC MTG - LANTANA AFTER	0%
H090962919	PUBLIC MTG - LEA ANN WEST BEFORE	100%
H090962921	MANHOLE INSPECTIONS LANTANA	0%
H090962922	MANHOLE INSP LEA ANN WEST 1	0%
H090962923	MANHOLE INSP LEA ANN WEST 2	0%
H090962924	MANHOLE INSP LEA ANN WEST 3	0%
H090962925	MANHOLE INSP LEA ANN WEST 4	0%
H090962926	SMOKE TESTING LANTANA	0%
H090962927	SMOKE TESTING LEA ANN WEST	0%
H090962928	DYE TRACING/FLOODING - LANTANA	0%
H090962929	DYE TRACING/FLOODING - LEA ANN WEST	0%
H090962930	FINAL REPORT SUBMITTAL - LANTANA	0%
LEA ANN WAY SANITARY SEWER I/I REHABILITATION		
C084331200	LEA ANN WAY SANITARY SEWER I/I REHAB - SSES	60%
LEA ANN WAY SSR PHASE 1		
H094052000	LEA ANN WAY SSR PHASE 1 - DESIGN	0%
H094054000	LEA ANN WAY SSR PHASE 1 - AD DATE	0%
LEA ANN WAY SSR PHASE 2		
H094062000	LEA ANN WAY SSR PHASE 2 - DESIGN	0%
H094064000	LEA ANN WAY SSR PHASE 2 - AD DATE	0%
LEE AVE SEWER REPLACEMENT		
A101944000	LEE AVENUE SEWER REPLACEMENT-AD DATE	0%
A101944050	LEE AVENUE SEWER REPLACEMENT-BID OPEN	0%
A101944500	LEE AVENUE SEWER REPLACEMENT-AWARD	0%
A101946000	LEE AVENUE SEWER REPLACEMENT - CONSTRUCTION	0%
A101946950	LEE AVENUE SEWER REPLACEMENT-AS-BUILTS	0%
A101948050	LEE AVENUE SEWER REPLACEMENT-CD CERTIFY	0%
LELAND ROAD RELIEF SEWER		
H091892000	LELAND ROAD RELIEF SEWER - DESIGN	0%
LOGAN STREET & BRECKINRIDGE STREET STORAGE BASIN		
H091422000	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - DESIGN	10%
H091422901	LOGAN ST STOR BASIN-BUILD TEAM	50%
H091422902	LOGAN ST STOR BASIN-INFO COLLECTION	50%
H091422903	LOGAN ST STOR BASIN-SITE & TECH SELECT	50%
H091422904	LOGAN ST STOR BASIN-PRELIM DESING & PRMT	50%
MEADOW STREAM PUMP STATION INLINE STORAGE		
H091741200	MEADOW STREAM PUMP STATION ILS - SSES	50%
MEADOW STREAM/HITE CREEK SSES		



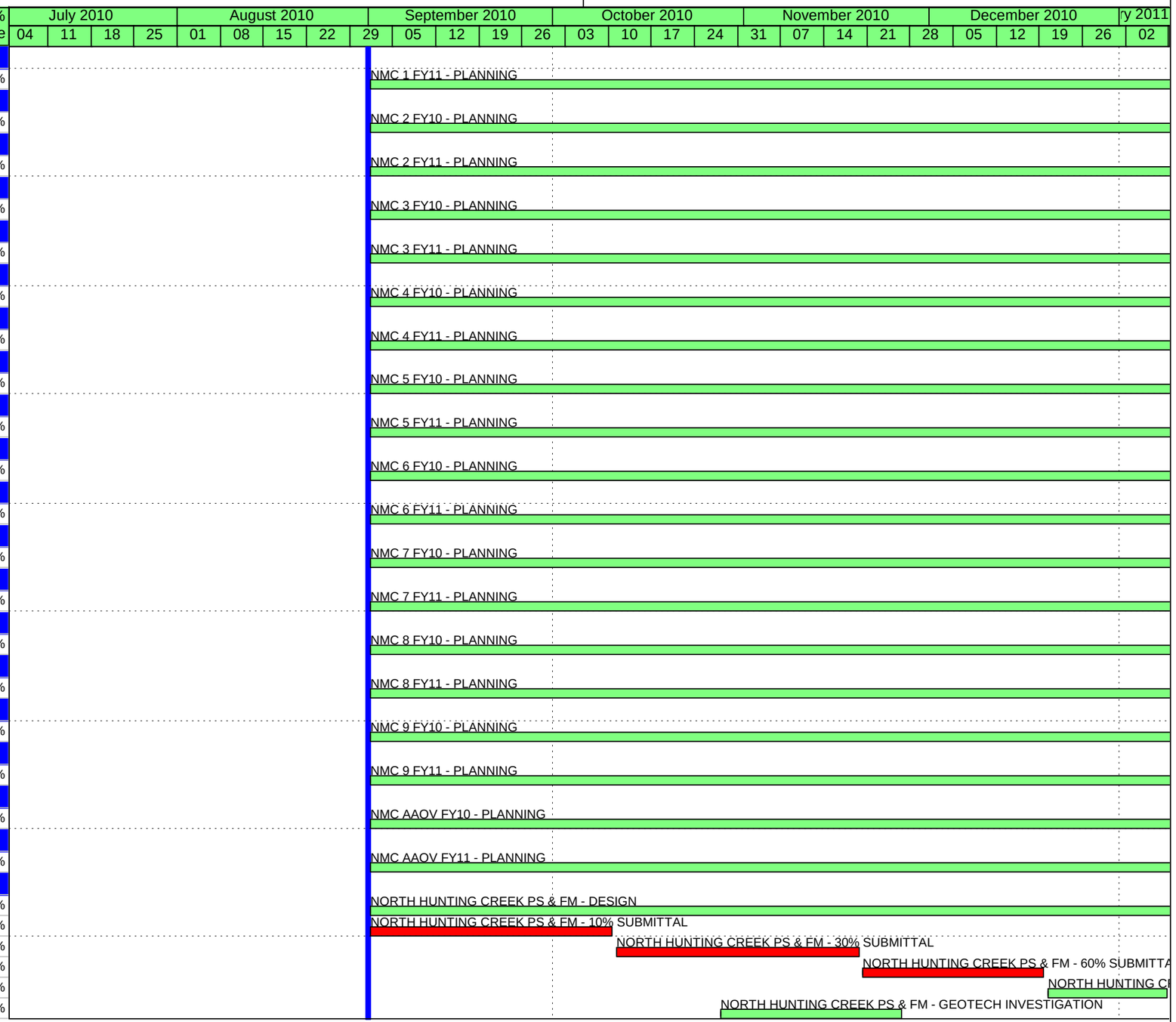
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H093941000	MEADOW STREAM SSES - PLANNING	100%
H093941220	MEADOW STREAM SSES REPORT	0%
H093942000	MEADOW STREAM SSES - DESIGN	0%
H093942901	MEADOW STREAM SSES PROJECT WORK PLAN	100%
H093942902	MEADOW STREAM SSES MONTHLY MTG&MGMT	50%
H093942903	MEADOW STREAM SSES INITIAL FIELD REVIEW	100%
H093942904	MEADOW STREAM SSES SMOKE TESTING	35%
H093942905	MEADOW STREAM SSES CCTV DATA ANALYSIS	50%
H093942906	MEADOW STREAM SSES MANHOLE INSPECTION	70%
H093942907	MEADOW STREAM SSES PRIVATE PROP INSP	20%
H093942908	MEADOW STREAM SSES DEFECT ID & MAP	0%
H093942909	MEADOW STREAM SSES PUBLIC NOTIFICATION	0%
H093942910	MEADOW STREAM SSES MANHOLE REHAB EVAL	0%
H093942911	MEADOW STREAM SSES DRAFT REPORT	0%
H093942912	MEADOW STREAM SSES FINAL REPORT	0%
H093942913	MEADOW STREAM SSES PROJECT BOOK	0%
MELLWOOD PS ELIMINATION & FORCE MAIN		
A095562000	MELLWOOD PS ELIMINATION & FORCE MAIN - DESIGN	92%
A095562901	MELLWOOD PS ELIMINATION & FORCE MAIN 10% DESIGN	100%
A095562902	MELLWOOD PS ELIMINATION & FORCE MAIN 30% DESIGN	100%
A095562903	MELLWOOD PS ELIMINATION & FORCE MAIN 60% DESIGN	100%
A095562904	MELLWOOD PS ELIMINATION & FORCE MAIN 90% DESIGN	0%
A095562905	MELLWOOD PS ELIMINATIN & FORCE MAIN 100% DESIGN	0%
A095563000	MELLWOOD PS ELIMINATION & FORCE MAIN - EASEMENTS	0%
A095564000	MELLWOOD PS ELIMINATION & FORCE MAIN - AD DATE	0%
A095564050	MELLWOOD PS ELIMINATION & FORCE MAIN - BID OPEN	0%
MILL CREEK SSES		
H093991000	MILL CREEK SSES - PLANNING	5%
H093992901	MILL CREEK SSES -PROJECT COORDINATION	0%
H093992902	MILL CREEK SSES - PUBLIC RELATIONS	0%
H093992903	MILL CREEK SSES - DATA ANALYSIS AND REPORTING	0%
H093992904	MILL CREEK SSES - FINAL REPORT AND RECOMMENDATION	0%
MSD UPD Current Schedule		
D942062939	HC/PROSPECT AREA STUDY-PRELIMINARY DESIGN- 10% ...	0%
D942062940	HC/PROSPECT AREA STUDY-PRELIMINARY DESIGN - 30% ...	0%
D942062941	HC/PROSPECT AREA STUDY-FINAL DESIGN- 60%	0%
D942062942	HC/PROSPECT AREA STUDY-FINAL DESIGN- 90% MILESTO...	0%
D942062943	HC/PROSPECT AREA STUDY-FINAL DESIGN- 100% MILEST...	0%
D942062944	HC/PROSPECT AREA STUDY-HUNTING CREEK WQTC ELI...	0%
D942062945	HC/PROSPECT AREA STUDY-SURVEY	0%
D942062946	HC/PROSPECT AREA STUDY-HARRODS CREEK FORCE MA...	0%
D942062947	HC/PROSPECT AREA STUDY-RIVER ROAD INTERCEPTOR ...	0%
MUNCIE AVENUE ACCESS ROAD FOR ISO 05		
B101486000	MUNCIE AVE ACCESS ROAD FOR ISO 05 -CONSTRUCT	0%
NMC 1 FY10		
H093061000	NMC 1 FY10 - PLANNING	0%



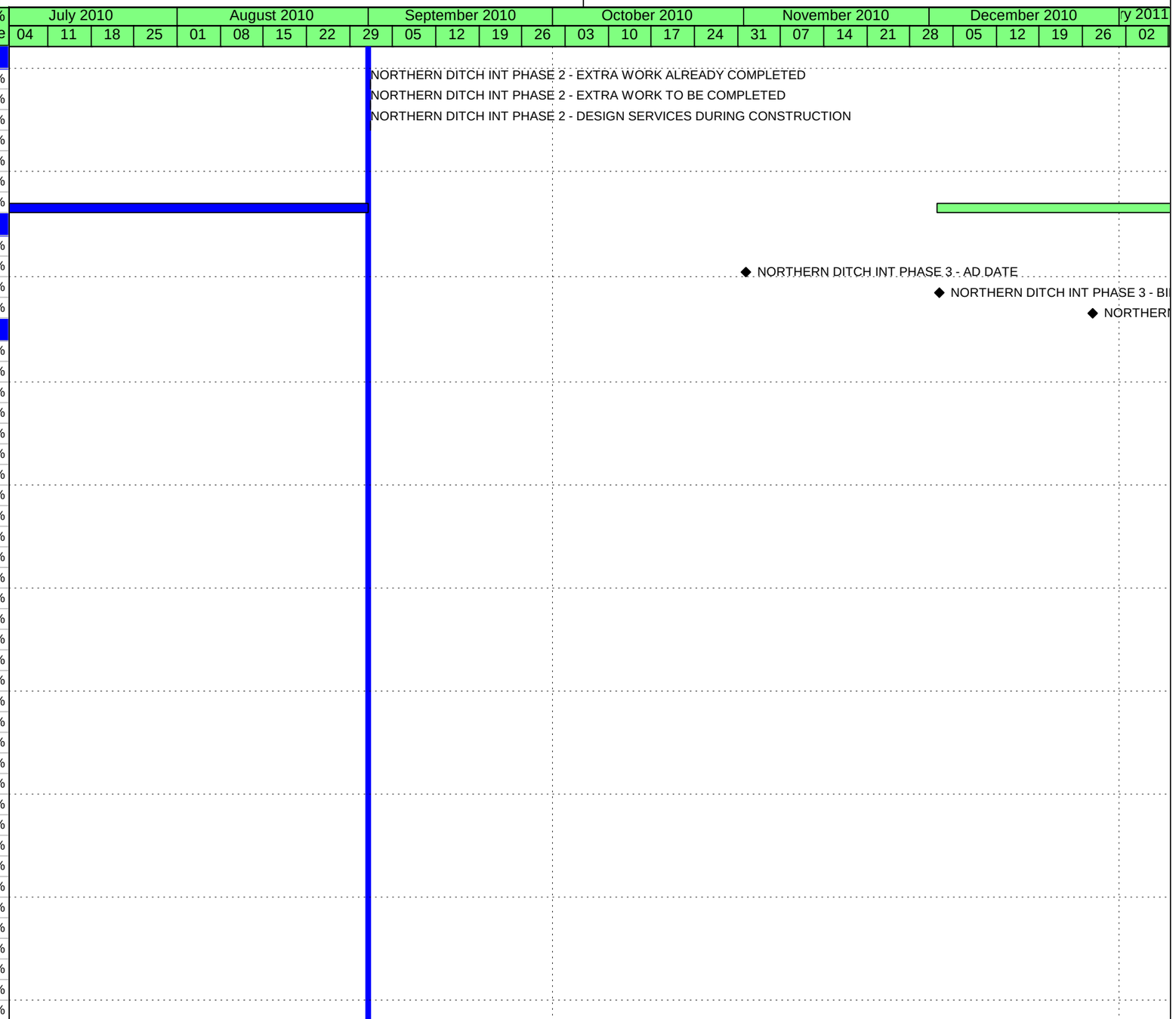
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
NMC 1 FY11		
H093161000	NMC 1 FY11 - PLANNING	0%
NMC 2 FY10		
H093071000	NMC 2 FY10 - PLANNING	0%
NMC 2 FY11		
H093171000	NMC 2 FY11 - PLANNING	0%
NMC 3 FY10		
H093081000	NMC 3 FY10 - PLANNING	0%
NMC 3 FY11		
H093181000	NMC 3 FY11 - PLANNING	0%
NMC 4 FY10		
H093091000	NMC 4 FY10 - PLANNING	0%
NMC 4 FY11		
H093191000	NMC 4 FY11 - PLANNING	0%
NMC 5 FY10		
H093101000	NMC 5 FY10 - PLANNING	0%
NMC 5 FY11		
H093201000	NMC 5 FY11 - PLANNING	0%
NMC 6 FY10		
H093111000	NMC 6 FY10 - PLANNING	0%
NMC 6 FY11		
H093211000	NMC 6 FY11 - PLANNING	0%
NMC 7 FY10		
H093121000	NMC 7 FY10 - PLANNING	0%
NMC 7 FY11		
H093221000	NMC 7 FY11 - PLANNING	0%
NMC 8 FY10		
H093131000	NMC 8 FY10 - PLANNING	0%
NMC 8 FY11		
H093231000	NMC 8 FY11 - PLANNING	0%
NMC 9 FY10		
H093141000	NMC 9 FY10 - PLANNING	0%
NMC 9 FY11		
H093241000	NMC 9 FY11 - PLANNING	0%
NMC AAOV FY10		
H093151000	NMC AAOV FY10 - PLANNING	0%
NMC AAOV FY11		
H093251000	NMC AAOV FY11 - PLANNING	0%
NORTH HUNTING CREEK PS & FM		
A095582000	NORTH HUNTING CREEK PS & FM - DESIGN	0%
A095582901	NORTH HUNTING CREEK PS & FM - 10% SUBMITTAL	0%
A095582902	NORTH HUNTING CREEK PS & FM - 30% SUBMITTAL	0%
A095582903	NORTH HUNTING CREEK PS & FM - 60% SUBMITTAL	0%
A095582904	NORTH HUNTING CREEK PS & FM - 90% SUBMITTAL	0%
A095582906	NORTH HUNTING CREEK PS & FM - GEOTECH INVESTIGA...	0%



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
NORTHERN DITCH INT PHASE 2		
A092262901	NORTHERN DITCH INT PHASE 2 - EXTRA WORK ALREADY ...	0%
A092262902	NORTHERN DITCH INT PHASE 2 - EXTRA WORK TO BE CO...	0%
A092262903	NORTHERN DITCH INT PHASE 2 - DESIGN SERVICES DURI...	0%
A092264000	NORTHERN DITCH INT PHASE 2 - AD DATE	100%
A092264050	NORTHERN DITCH INT PHASE 2 - BID OPEN	100%
A092264500	NORTHERN DITCH INT PHASE 2 - AWARD	100%
A092266000	NORTHERN DITCH INT PHASE 2 - CONSTRUCTION	0%
NORTHERN DITCH INT PHASE 3		
A095003000	NORTHERN DITCH INT PHASE 3 - EASEMENT	100%
A095004000	NORTHERN DITCH INT PHASE 3 - AD DATE	0%
A095004050	NORTHERN DITCH INT PHASE 3 - BID OPEN	0%
A095004500	NORTHERN DITCH INT PHASE 3 - AWARD	0%
NORTHERN DITCH INTERCEPTOR (NR-1A)		
C850171000	NORTHERN DITCH INTERCEPTOR (NR-1A) - PLANNING	100%
C850172000	NORTHERN DITCH INTERCEPTOR (NR-1A) - REDESIGN	100%
C850172010	NORTHERN DITCH INTERCEPTOR (NR-1A) - 60% SURVEY	100%
C850172020	NORTHERN DITCH INTERCEPTOR (NR-1A) - 30% DESIGN	100%
C850172030	NORTHERN DITCH INT (NR-1A) - 50% & PRELIM REPORT	100%
C850172040	NORTHERN DITCH INT (NR-1A) - 90% SURVEY	100%
C850172050	NORTHERN DITCH INT (NR-1A) - GEOTECH EXPLORATION	100%
C850172060	NORTHERN DITCH INT (NR-1A) - 80% & ESMT PLATS	100%
C850172070	NORTHERN DITCH INT (NR-1A)- 95% DESIGN	100%
C850172080	NORTHERN DITCH INT (NR-1A) - 100% DESIGN	100%
C850172090	NORTHERN DITCH INTERC. (NR-1A) - EASEMENT PLATS*	100%
C850172901	NORTHERN DITCH INTERCEPTOR (NR-1A) - 60% SURVEY	100%
C850172902	NORTHERN DITCH INTERCEPTOR (NR-1A) - 30% DESIGN	100%
C850172903	NORTHERN DITCH INT (NR-1A) - 50% & PRELIM REPORT	100%
C850172904	NORTHERN DITCH INT (NR-1A) - 90% SURVEY	100%
C850172905	NORTHERN DITCH INT (NR-1A) - GEOTECH EXPLORATION	100%
C850172906	NORTHERN DITCH INT (NR-1A) 0 80% & ESMT PLATS	100%
C850172907	NORTHERN DITCH INT (NR-1A) - 95% DESIGN	100%
C850172908	NORTHERN DITCH INT (NR-1A) - 100% DESIGN	100%
C850172909	NORTHERN DITCH INT (NR-1A) - 10% DESIGN	100%
C850172910	NORTHERN DITCH INT (NR-1A) - DRILLING/ESA/W'LAND	100%
C850172911	NORTHERN DITCH INT (NR-1A) - ECO/GEOTECH TESTING	100%
C850172912	NO DITCH INT (NR-1A)-25% SURVEY/GWATER/BIOLOGIC	100%
C850172913	NO DITCH INT (NR-1A)-30% DESIGN/FINAL GEOTECH	100%
C850172914	NO DITCH INT (NR-1A)-50% SURVEY/ND ESMT PLATS	100%
C850172915	NO DITCH INT (NR-1A)-75% SURVEY	100%
C850172916	NO DITCH INT (NR-1A)-TRIB ESM'T PLATS/60% DESIGN	100%
C850172917	NO DITCH INT (NR-1A)-100% SURVEY	100%
C850172918	NO DITCH INT (NR-1A)-90% DESIGN	100%
C850172919	NO DITCH INT (NR-1A)-100% DESIGN	100%
C850172920	NO DITCH FLOW CONTROL STRUCTURE-90% PLANS	100%
C850172921	NO DITCH FLOW CONTROL STRUCTURE-100% PLANS	100%
C850172922	NO DITCH INT (NR-1A)-PARTITION PLANS INTO 3 PROJ	100%



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

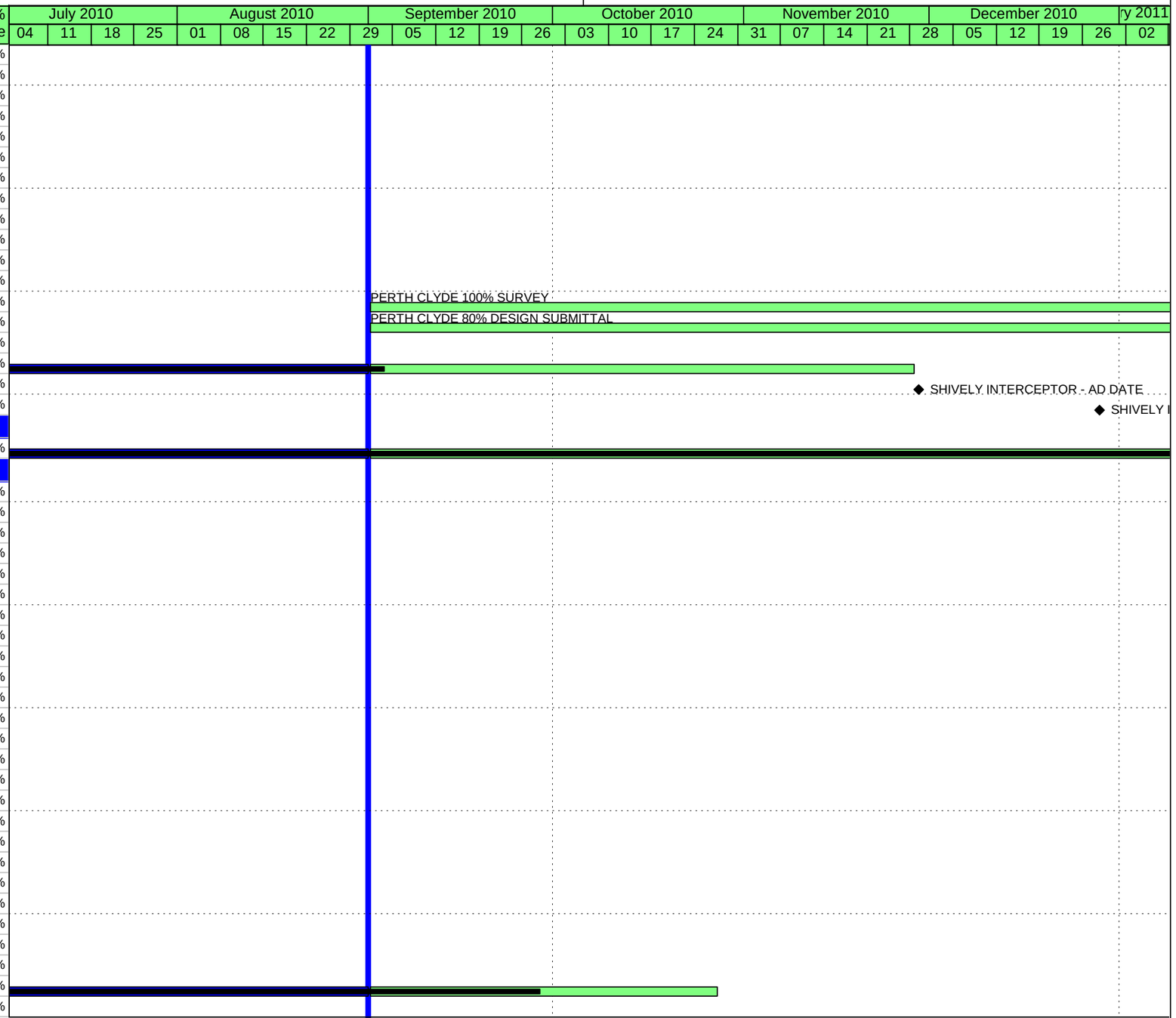
Activity ID	Activity Name	Physical % Complete
C850172923	NO DITCH INT (NR-1A)-ADD DIVERSION STR TO PLANS	100%
C850172924	NO DITCH INT (NR-1A)-BIDDING SERVICES	100%
C850172925	NO DITCH INT (NR-1A)-DSDC	0%
C850173000	NORTHERN DITCH INTERCEPTOR (NR-1A) - EASEMENTS *	100%
C850173050	NORTHERN DITCH INT (NR-1A) - EASMENTS - 2	100%
C850174000	NORTHERN DITCH INTERCEPTOR (NR-1A) - AD DATE	100%
C850174050	NORTHERN DITCH INTERCEPTOR (NR-1A) - BID OPEN	100%
C850174500	NORTHERN DITCH INTERCEPTOR (NR-1A) - AWARD	100%
C850176000	NORTHERN DITCH INTERCEPTOR (NR-1A) - CONSTR.	75%
C850176900	NORTHERN DITCH INTERCEPTOR (NR-1A) - SUBST.COMP	0%
ORI ICA		
H094001000	OHIO RIVER INTERCEPTOR ICA - PLANNING	100%
PADDY'S RUN WW TREATMENT FACILITY		
H091241000	PADDY'S RUN WW TREATMENT FACILITY - PLANNING	100%
H091242000	PADDY'S RUN WW TREATMENT FACILITY - DESIGN	0%
H091243000	PADDY'S RUN WW TREATMENT FACILITY - EASEMENT	0%
PARKVIEW ESTATES I&I INVESTIGATION		
H091981200	PARKVIEW ESTATES I&I INVESTIGATION - SSES	10%
H091982000	PARKVIEW ESTATES I&I INVESTIGATION - DESIGN	5%
H091983000	PARKVIEW ESTATES I&I INVESTIGATION - EASEMENT	0%
PROSPECT SSES		
H093911000	PROSPECT SSES - PLANNING	100%
H093911220	PROSPECT SSES REPORT	0%
H093912000	PROSPECT SSES REPORT - DESIGN	0%
H093912901	PROSPECT HUNTING CREEK SSES PROJECT WORK PLAN	100%
H093912902	PROSPECT HUNTING CREEK SSES MONTHLY MTG&MGMT	50%
H093912903	PROSPECT HUNTING CREEK SSES INITIAL FIELD REVIEW	100%
H093912904	PROSPECT HUNTING CREEK SSES SMOKE TESTING	95%
H093912905	PROSPECT HUNTING CREEK SSES CCTV DATA ANALYSIS	25%
H093912906	PROSPECT HUNTING CREEK SSES MANHOLE INSPECTION	70%
H093912907	PROSPECT HUNTING CREEK SSES PRIVATE PROP INSP	55%
H093912908	PROSPECT HUNTING CREEK SSES DEFECT ID & MAP	0%
H093912909	PROSPECT HUNTING CREEK SSES PUBLIC NOTIFICATION	0%
H093912910	PROSPECT HUNTING CREEK SSES MANHOLE REHAB EVAL	5%
H093912911	PROSPECT HUNTING CREEK SSES DRAFT REPORT	0%
H093912912	PROSPECT HUNTING CREEK SSES FINAL REPORT	0%
H093912913	PROSPECT HUNTING CREEK SSES PROJECT BOOK	0%
RAINTREE & MARIAN COURT PUMP STATION ELIMINATION		
H091801200	RAINTREE & MARIAN CT PUMP STATION ELIMINATION - SS...	100%
H091802000	RAINTREE & MARIAN CT PUMP STATION ELIMINATION - DE...	100%
RIDING RIDGE PUMP STATION IMPROVEMENT		
H091751200	RIDING RIDGE PUMP STATION IMP - SSES PLANNING	75%
RIVER ROAD INTERCEPTOR		
D942102000	RIVER ROAD INTERCEPTOR - DESIGN	95%
D942102005	PRELIMINARY FIELD WALK-THRU	100%
D942102901	50% SURVEY COMPLETE	100%

Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
D942102902	30% PLANS SUBMITTAL	100%
D942102903	50% PLANS UTILITY SUBMITTAL	100%
D942102904	80% PLANS SUBMITTAL	100%
D942102906	90% DESIGN	100%
D942102907	100% DESIGN	0%
D942103000	RIVER RD INT - EASEMENT	0%
D942104000	RIVER ROAD INTERCEPTOR - AD DATE	0%
D942104050	RIVER ROAD INTERCEPTOR - BID OPENING	0%
D942104500	RIVER ROAD INTERCEPTOR - AWARD	0%
D942106000	RIVER ROAD INTERCEPTOR - CONSTRUCTION	0%
ROSE FARM PARK		
H101951000	ROSE FARM PARK - PLANNING	0%
H101956000	ROSE FARM PARK - CONSTRUCTION	0%
RUNNING FOX PUMP STATION ELIMINATION		
H091782000	RUNNING FOX PUMP STATION ELIMINATION - DESIGN	100%
H091783000	RUNNING FOX PUMP STATION ELIMINATION - EASEMENTS	100%
H091784000	RUNNING FOX PUMP STATION ELIMINATION - AD DATE	100%
H091784050	RUNNING FOX PUMP STATION ELIMINATION - BID OPEN	100%
H091784500	RUNNING FOX PUMP STATION ELIMINATION - AWARD	100%
H091786000	RUNNING FOX PUMP STATION ELIMINATION - CONSTRUC...	100%
H091786900	RUNNING FOX PUMP STATION ELIMINATION - SUBSTANTI...	100%
H091786950	RUNNING FOX PUMP STATION ELIMINATION - AS-BUILTS	100%
H091788050	RUNNING FOX PUMP STATION ELIMINATION - CD CERTIFI...	100%
SEP - CHEROKEE PARK STREAM RESTORATION PROJECT		
H101402000	SEP CHEROKEE PARK STREAM RESTORATION - PLANNING	100%
H101402901	SEP CHEROKEE PK STREAM RESTOR PERMITTING	0%
H101402902	SEP CHEROKEE PK STREAM RESTOR 80% SUBMITTAL	0%
H101402903	SEP CHEROKEE PK STREAM RESTOR 95% SUBMITTAL	0%
H101402904	SEP STREAM RESTOR FINAL SUBMIT/BID ASSISTANCE	0%
H101404000	SEP CHEROKEE PARK STREAM RESTORATION - AD DATE	0%
H101404050	SEP CHEROKEE PARK STREAM RESTORATION - BID OPEN	0%
H101404500	SEP CHEROKEE PARK STREAM RESTORATION - AWARD	0%
H101406000	SEP CHEROKEE PARK STREAM RESTORATION - CONSTR...	0%
H101408050	CHEROKEE PK STREAM RESTOR - SEP COMPLETION REP...	0%
SEP - POND CREEK TRAIL STREAM RESTORATION PROJECT		
H101412000	SEP - PC TRAIL STREAM RESTORATION-DESIGN	100%
H101412901	PERMIT/CONCEPTUAL STREAM RESTORE DESIGN	100%
H101412902	SEP - PC STREAM RESTORATION - 80% DESIGN	100%
H101412903	SEP - PC STREAM RESTORATION -95% DESIGN	100%
H101412904	SEP - PC STREAM RESTORATION -100% DESIGN	100%
H101412905	SEP-PC STREAM RESTOR -CONSTRUC OVERSIGHT	0%
SHAWNEE FLOOD PUMP STATION		
H091362000	SHAWNEE FPS DWO ELIMINATION - DESIGN	0%
SHIVELY INTERCEPTOR		
B062082000	SHIVELY INTERCEPTOR - DESIGN	100%
B062082001	SHIVELY INTERCEPTOR - NTP	100%

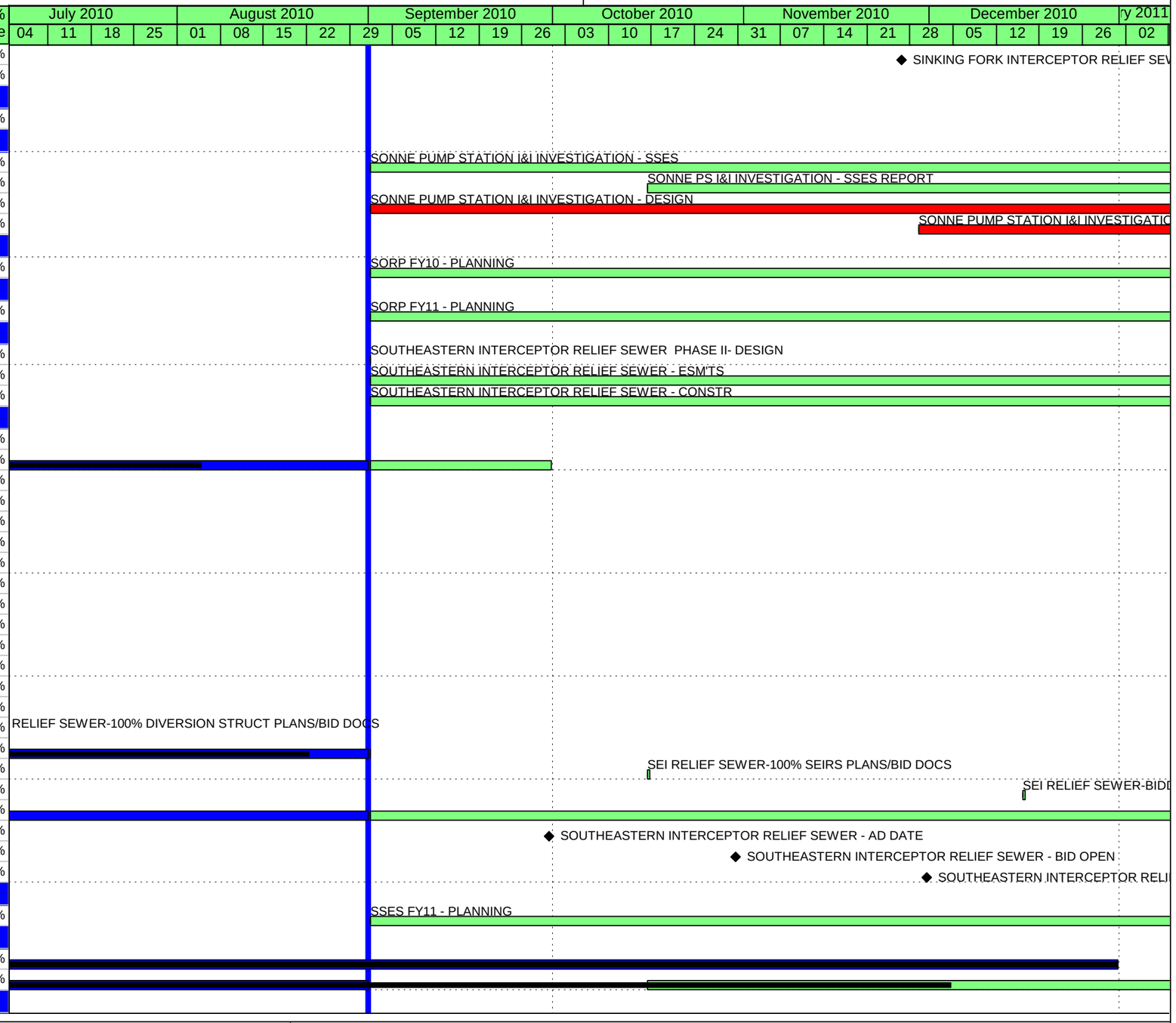
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
B062082901	SHIVELY INT - PRELIM ENG 100%	100%
B062082902	SHIVELY INT - SURVEY 20%	100%
B062082903	SHIVELY INT - DESIGN 30%	100%
B062082904	SHIVELY INT - SURVEY 50%	100%
B062082905	SHIVELY INT - FINAL DESIGN 50%	100%
B062082906	SHIVELY INT - SURVEY 80%	100%
B062082907	SHIVELY INT - FINAL DESIGN 80%	100%
B062082908	SHIVELY INT - SURVEY 100%	100%
B062082909	SHIVELY INT - FINAL DESIGN 100%	100%
B062082910	PERTH CLYDE 50% SURVEY	100%
B062082911	PERTH CLYDE PREL ENG PLANS/REPORT	100%
B062082912	PERTH CLYDE 50% DESIGN SUBMITTAL	100%
B062082913	PERTH CLYDE 100% SURVEY	0%
B062082914	PERTH CLYDE 80% DESIGN SUBMITTAL	0%
B062082916	SHIVELY-VAC, EXCAV, GROUNDWATER WELLS	100%
B062083000	SHIVELY INTERCEPTOR - EASEMENT	80%
B062084000	SHIVELY INTERCEPTOR - AD DATE	0%
B062084050	SHIVELY INTERCEPTOR - BID OPEN	0%
SHIVELY PUMP STATION CHANNEL GRINDER REPLACEMENT PROJECT		
H101512000	SHIVELY PS CHANNEL GRINDER REPLACEMENT - DESIGN	95%
SINKING FORK INTERCEPTOR RELIEF SEWER		
H083571000	SINKING FORK INTERCEPTOR RELIEF SEWER - PLANNING	100%
H083572000	SINKING FORK INTERCEPTOR RELIEF SEWER - DESIGN	100%
H083572001	SINKING FORK INTERCEPTOR RELIEF SEWER - NTP PREL	100%
H083572002	SINKING FORK INTERCEPTOR RELIEF SEWER- NTP FINAL	100%
H083572901	SINKING FORK INT RELIEF SEWER- 50% PRELIM DESIGN	100%
H083572902	SINKING FORK INT RELIEF SEWER-100% PRELIM DESIGN	100%
H083572903	BWV - PLAN & BASEMENT REVISIONS	100%
H083572904	BWV - ROCK CORES	100%
H083572905	BWV - 80% PLAN SUBMITTAL	100%
H083572906	BWV - 100% PLAN SUBMITTAL	100%
H083572907	BWV - CONTRACT DOCS	100%
H083572908	BWV - MYLARS	100%
H083572909	SINKING FORK INT RS - EASEMENT APPRAISAL	100%
H083572910	SINKING FORK INT RS - 50% PLAN SUBMITTAL	100%
H083572911	SINKING FORK INT RS - 80% PLAN SUBMITTAL	100%
H083572912	SINKING FORK INT RS - 100% PLAN SUBMITTAL	100%
H083572913	SINKING FORK INT RS - CONTRACT DOCS	100%
H083572914	SINKING FORK INT RS - MYLARS	100%
H083572915	SURVEYING MILESTONES - SURVEYING	100%
H083572916	SURVEYING MILESTONES - EASEMENTS PLATS	100%
H083573000	SINKING FORK INTERCEPTOR RELIEF SEWER - ESM'TS	100%
H083574000	SINKING FORK INTERCEPTOR RELIEF SEWER - AD DATE	100%
H083574050	SINKING FORK INTERCEPTOR RELIEF SEWER - BID OPEN	100%
H083574500	SINKING FORK INTERCEPTOR RELIEF SEWER - AWARD	100%
H083576000	SINKING FORK INTERCEPTOR RELIEF SEWER - CONSTR	95%
H083576900	SINKING FORK INTERCEPTOR RELIEF SEWER-SUBST COMP	100%



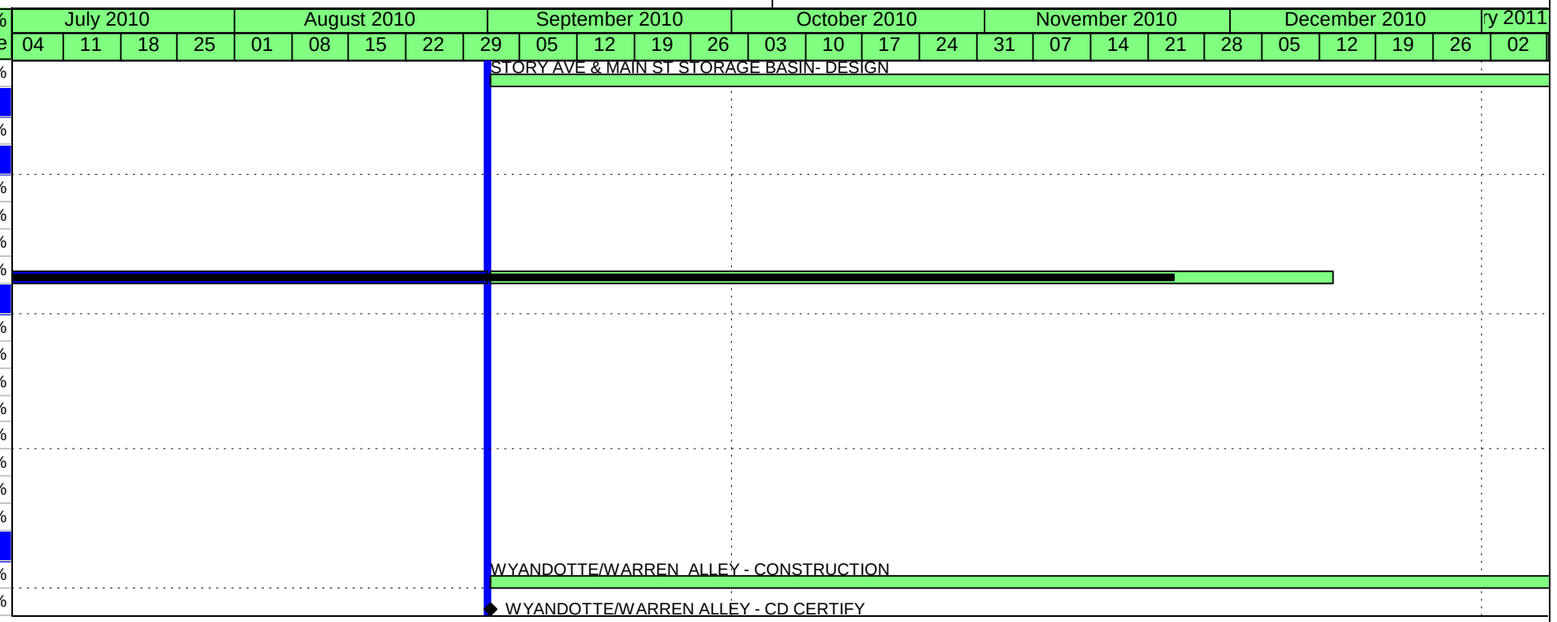
Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H083576950	SINKING FORK INTERCEPTOR RELIEF SEWER - AS-BUILT	0%
H083578050	SINKING FORK INTERCEPTOR RELIEF SEWER-CD CERTIFY	100%
SNEADS BRANCH ICA		
H094021000	SNEADS BRANCH ICA - PLANNING	100%
SONNE PUMP STATION I&I INVESTIGATION		
H091871200	SONNE PUMP STATION I&I INVESTIGATION - SSES	0%
H091871220	SONNE PS I&I INVESTIGATION - SSES REPORT	0%
H091872000	SONNE PUMP STATION I&I INVESTIGATION - DESIGN	0%
H091873000	SONNE PUMP STATION I&I INVESTIGATION - EASEMENT	0%
SORP FY10		
H093781000	SORP FY10 - PLANNING	0%
SORP FY11		
H093791000	SORP FY11 - PLANNING	0%
SOUTHEASTERN INTERCEPTOR RELIEF PHASE II		
H110222000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER PHASE II...	0%
H110223000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - ESM'TS	0%
H110226000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - CONSTR	0%
SOUTHEASTERN INTERCEPTOR RELIEF SEWER PHASE 1		
H083581000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - PLANNI...	100%
H083582000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - DESIGN	90%
H083582001	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - NTP	100%
H083582901	SEI RELIEF SEWER - PD - SUBMIT 10% DRAFT RPT	100%
H083582902	SEI RELIEF SEWER - PD - PHASE 1 5% DRAFT REPORT	100%
H083582903	SEI RELIEF SEWER - PD - FINAL REPORT	100%
H083582904	SEI RELIEF SEWER - 10% DESIGN	100%
H083582905	SEI RELIEF SEWER-SURVEY &DRAFT PLATS	100%
H083582906	SEI RELIEF SEWER-30%DIVERSION STRUCTURE PLANS	100%
H083582907	SEI RELIEF SEWER-30% SEIRS PLANS/REPORTS	100%
H083582908	SEI RELIEF SEWER-SUBSURFACE INVEST. REPORT	100%
H083582909	SEI RELIEF SEWER-60% DIVERSION STRUC PLANS/BID DO...	100%
H083582910	SEI RELIEF SEWER-90% DIVERSION STRUCT PLANS/BID D...	100%
H083582911	SEI RELIEF SEWER-60% SEIRS PLANS/FNL PLANS/BID DOCS	100%
H083582912	SEI RELIEF SEWER-100% DIVERSION STRUCT PLANS/BID ...	100%
H083582913	SEI RELIEF SEWER-90% SEIRS PLANS/BID DOCS/PERMITS	95%
H083582914	SEI RELIEF SEWER-100% SEIRS PLANS/BID DOCS	0%
H083582915	SEI RELIEF SEWER-BIDDING ASSISTANCE	0%
H083583000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - ESM'TS	35%
H083584000	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - AD DATE	0%
H083584050	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - BID OPEN	0%
H083584500	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - AWARD	0%
SSES FY11		
H093831000	SSES FY11 - PLANNING	0%
STARVIEW SSES		
H094031000	STARVIEW SSES - PLANNING	100%
H094031220	STARVIEW SSES REPORT	60%
STORY AVENUE & MAIN STREET STORAGE BASIN		



Remaining Level of Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work | % Complete

Activity ID	Activity Name	Physical % Complete
H091272000	STORY AVE & MAIN ST STORAGE BASIN- DESIGN	0%
UDRT SSES		
H094041000	UDRT SSES - PLANNING	100%
WEST REGION EMERGENCY GENERATOR PHASE III		
H100844000	WEST REGION EMERG GENERATORS PH3 - AD DATE	100%
H100844050	WEST REGION EMERG GENERATORS PH3 - BID OPEN	100%
H100844500	WEST REGION EMERG GENERATORS PH3 - AWARD	100%
H100846000	WEST REGION EMERG GENERATORS PH3-CONST	95%
WOODLAND HILLS PUMP STATION DIVERSION		
H091692000	WOODLAND HILLS PUMP STATION DIVERSION - DESIGN	100%
H091693000	WOODLAND HILLS PUMP STATION DIVERSION - EASEMENT	100%
H091694000	WOODLAND HILLS PUMP STATION DIVERSION - AD DATE	100%
H091694050	WOODLAND HILLS PUMP STATION DIVERSION - BID OPEN	100%
H091694500	WOODLAND HILLS PUMP STATION DIVERSION - AWARD	100%
H091696000	WOODLAND HILLS PUMP STATION DIVERSION - CONSTRU...	100%
H091696900	WOODLAND HILLS PUMP STATION DIVERSION - SUBSTAN...	100%
H091698050	WOODLAND HILLS PUMP STATION DIVERSION - CD CERTI...	100%
WYANDOTTE/WARREN AVE ALLEY DIP		
C101846000	WYANDOTTE/WARREN ALLEY - CONSTRUCTION	0%
C101848050	WYANDOTTE/WARREN ALLEY - CD CERTIFY	0%



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
% Complete

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

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	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
SPL Sewer Treatment Plant	MSD0202	5500 HITT RD		HITE CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120760	08/13/10 08:40 PM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	08/13/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	08/13/10 08:53 PM	

Spot Inspections:

Discharge Amount:	45,000 GAL
Cause:	LG&E POWER FAIL
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE OBSERVED ON THE GROUND
Repair:	GENERATOR PROVIDING POWER UNTIL NORMAL POWER RESTORED

Notifications:

08/13/10 10:55 PM	DISPUB	temporary signs posted in area
08/13/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	Region
KY0029416	MSD0228	MCNEELY LAKE	PENNSYLVANIA RUN	WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0228	10300 ROD N REEL RD		PENNSYLVANIA RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1111772	07/22/10 03:45 PM	MARKS JR	MILLS	REPAIRED - ISSUE RESOLVED	07/23/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	07/22/10 06:45 PM	

Spot Inspections:

Discharge Amount:	90 GAL
Cause:	STRUCTURE FAILURE OF PERMITTED DISCHARGE PIPE
Clean Up:	NO CLEAN UP REQUIRED DISCHARGE IS FULLY TREATED WATER
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED TREATED EFFLUENT WATER IS ON THE GROUND
Repair:	CONTRACTOR MADE REPAIRS TO THE PIPE

Notifications:

07/22/10 04:53 PM	DISPUB	public notified by temporary signs posted
07/22/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/22/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120818	08/14/10 06:29 PM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHAGE - WATERS	08/14/10 10:45 PM	

Spot Inspections:

Peak Plant Flow when Blending:	14,592,000 GPD
Total Plant Flow when Blending:	4,426,000 GAL
Discharge Amount:	275,497 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:	THIS LOCATION IS SCHEDULED FOR ELIMINATION BY DECEMBER 2015

Notifications:

08/14/10 07:34 PM	DISPUB	Permanent signs posted in area http://www.msdlouky.org/projectwin/
08/14/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/14/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1116564	07/31/10 07:30 AM	MARKS JR	KESSEL	DOCUMENTED	06/03/06	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/31/10 09:25 AM	

Spot Inspections:

Discharge Amount:	2,875 GAL
Cause:	LACK OF SYSTEM CAPACITY
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE ON GROUND OBSERVED
Repair:	STATION IS BEING HAULED TO PREVENT FURTHER DISCHARGE WO#1117007

Notifications:

07/31/10 09:55 AM	DISPUB	temporary signs posted to warn public
07/31/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/31/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	41639	8608 CODINGTON CT		FERN CREEK	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1107732	07/13/10 09:52 PM	KIMBROUGH	KIMBROUGH	REPAIRED - ISSUE RESOLVED	07/13/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHAGE - WATERS	07/13/10 11:26 PM	MAIN

Spot Inspections:

Discharge Amount:	60 GAL
Cause:	OBSTRUCTION IN MAIN SEWER
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
Impact:	THE MANHOLE WAS DISCHARGING AT THE TIME OF THE INSPECTION
Repair:	WORK ORDER 1110431 - FLUSHED MAIN SEWER AND REMOVED OBSTRUCTION; REFERRED TO TVI

Notifications:

07/13/10 09:52 PM	DISPUB	ADVISED THE CUSTOMER ON SITE
07/13/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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 BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1107358	07/13/10 08:36 AM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/13/10 02:41 PM	

Spot Inspections:

Discharge Amount:	217,722 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NO CLEAN UP REQUIRED, PIPE DISCHARGES UNDERWATER DIRECTLY TO STREAM
Control Zone:	NO CONTROL ZONE SET UP, PERMANENT SIGNS POSTED AT OUTFALL
Impact:	NO VISUAL IMPACT OBSERVED.
Repair:	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP

Notifications:

07/13/10 08:59 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
07/13/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/13/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1110530	07/20/10 06:30 AM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/20/10 08:23 AM	

Spot Inspections:

Discharge Amount:	7,463 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-PIPE SUBMERGED
Control Zone:	NONE NEEDED, DISCHARGE IS ON MSD PROPERTY
Impact:	NO IMPACT OBSERVED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

07/20/10 07:53 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS AROUND PROPERTY WHERE DISCHARGE OCCURED
07/20/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/20/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120824	08/14/10 05:44 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	08/14/10 05:45 PM	

Spot Inspections:

Discharge Amount:	9 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	CLEAN UP NOT REQUIRED, DISCHARGE PIPE SUBMERGED
Control Zone:	NONE NEEDED - PIPE DISCHARGES DIRECTLY TO STREAM WITH NO PUBLIC ACCESS
Impact:	NO IMPACT OBSERVED, PIPE DISCHARGES DIRECTLY TO STREAM AND IS SUBMERGED.
Repair:	THIS LOCATION IS INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

08/14/10 10:04 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
08/14/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/14/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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
SMN Sewer Main	11777A	973 SWAN ST		SOUTH FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1102059	07/01/10 01:29 PM	BRIGHT	BRIGHT	REPAIRED - ISSUE RESOLVED	07/01/10	STRUCTURAL FAILURE	UNAUTHORIZED DISCHAGE - WATERS	07/01/10 02:28 PM	MAIN

Spot Inspections:

Discharge Amount:	57 GAL
Cause:	WHILE TRYING TO GO UNDER SUSPENDED PIPE HANGING OVER IMPROVED CHANNEL MSD PERSONNEL BUSTED PIPE
Clean Up:	NO CLEAN UP PERFORMED-PIPE DISCHARGING DIRECTLY OVER IMPROVED CHANNEL OF BEARGRASS CREEK.
Control Zone:	NO CONTROL ZONE WAS SET UP. PIPE DISCHARGING DIRECTLY INTO STREAM AND NO PUBLIC ACCESS AVAILABLE.
Impact:	SEWAGE/WATER DISCHARGING FROM EXPOSED MAINSEWER PIPE SUSPENDED UNDER BRIDGE.
Repair:	INSTALLED A FORCE MAIN REPAIR BAND

Notifications:

07/01/10 01:56 PM	DISPUB	NO NOTIFICATION NEEDED. THERE IS NO PUBLIC ACCESS TO IMPROVED CHANNEL.
07/01/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	16649	1726 FRASER DR		SOUTH FORK BEARGRASS CREEK	DITCH

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1107268	07/13/10 07:15 AM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/13/10 07:45 AM	

Spot Inspections:

Discharge Amount:	1,260 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED- DUE TO THE MAGNITUDE OF THE STORM
Control Zone:	NONE NEEDED-DISCHARGE SUBMERGED. PERMANENT SIGNS ARE PLACED AROUND DISCHARGE AREA
Impact:	VERY LIGHT IMPACT OBSERVED AROUND DISCHARGE AREA
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

07/13/10 08:10 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID CONTACT WITH DISCHARGED CONTENT
07/13/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/13/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1115125	07/27/10 04:45 PM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/30/10 07:28 AM	

Spot Inspections:

Discharge Amount:	3,750 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	DISCLN WO# 1115498
Control Zone:	DOOR HANGERS AND TEMPORARY SIGNS WERE PLACED AROUND DISCHARGE RESIDENTIAL AREA
Impact:	LIGHT DISCHARGE. NONE OBSERVED WITH MAGNITUDE OF RAIN EVENT
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

07/27/10 05:27 PM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS, TEMP SIGNS, AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
07/27/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/27/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1116748	07/31/10 05:00 AM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/31/10 01:45 PM	

Spot Inspections:

Discharge Amount:	1,465 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED DUE TO MAGNITUDE OF RAIN
Control Zone:	NONE NEEDED-PIPE SUBMERGED
Impact:	NO VISUAL IMPACT OBSERVED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

07/31/10 12:51 AM	DISPUB	PUBLIC NOTIFIED THROUGH DOOR HANGERS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
07/31/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/02/10 09:26 AM	DISNOT	Notification made through the supplemental email notification only. Initial Notification was not sent due to a system issue. No manual notification email was sent.

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120825	08/14/10 06:00 PM	GRIFFITH	GRIFFITH	DOCUMENTED	01/24/02	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	08/14/10 06:30 PM	

Spot Inspections:

Discharge Amount:	780 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NONE NEEDED-ADDITIONAL RAIN WASHED AWAY DEBRIS BEFORE CLEAN UP COULD BE INITIATED.
Control Zone:	DOOR HANGERS, TEMP SIGNS, AND PERMANENT SIGNS ARE PLACED AROUND DISCHARGE AREA
Impact:	SOME PAPER PRODUCTS OBSERVED INITIALLY, ADDITIONAL RAIN EVENT WASHED AWAY DEBRIS
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

08/14/10 10:09 PM	DISPUB	PUBLIC NOTIFED THROUGH DOOR HANGERS AND PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
08/14/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/14/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	40872	2105 INDIAN HILLS TRL		MUDDY FORK BEARGRASS CREEK	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1107367	07/13/10 08:28 AM	ELDER	RHEINLAENDER JR	DOCUMENTED	12/15/07	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/13/10 11:10 AM	

Spot Inspections:

Discharge Amount:	32,000 GAL
Cause:	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA
Clean Up:	MSD CLEANED, SANITIZED & SPREAD LIME
Control Zone:	PLACED BARRICADES AROUND THE IMPACTED AREA & PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
Impact:	SEWAGE/WATER DISCHARGING FROM MANHOLE
Repair:	SITE FOUND DURING RAIN EVENT RECON- WILL BE MONITORED & EVALUATED FOR REPAIR.

Notifications:

07/13/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/13/10 08:28 AM	DISPUB	BARRICADES AND TEMPORARY SIGNS PLACED AROUND THE AREA
07/13/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	72571-X	4600 CHAMPIONS TRACE LN		SOUTH FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1107327	07/13/10 08:05 AM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	07/13/10 08:32 AM	

Spot Inspections:

Discharge Amount:	26,793 GAL
Cause:	LACK OF SYSTEM CAPACITY-HEAVY RAIN
Clean Up:	NO CLEAN UP REQUIRED, PIPE DISCHARGES UNDERWATER DIRECTLY TO STREAM
Control Zone:	NONE NEEDED-PIPE SUBMERGED
Impact:	NO IMPACT OBSERVED-PIPE SUBMERGED. MSD PROPERTY
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

07/13/10 08:20 AM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT
07/13/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/13/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120833	08/14/10 06:53 PM	GRIFFITH	GRIFFITH	DOCUMENTED	11/29/01	LACK OF SYSTEM CAPACITY	UNAUTHORIZED DISCHAGE - WATERS	08/14/10 06:54 PM	

Spot Inspections:

Discharge Amount:	1 GAL
Cause:	BASED ON A COMBINATION OF LEVEL AND VELOCITY TELEMETRY VALUES NO DISCHARGE OCCURRED
Clean Up:	BASED ON A COMBINATION OF LEVEL AND VELOCITY TELEMETRY VALUES NO DISCHARGE OCCURRED
Control Zone:	NONE NEEDED-BASED ON A COMBINATION OF LEVEL AND VELOCITY TELEMETRY VALUES NO DISCHARGE OCCURRED
Impact:	NONE OBSERVED-BASED ON A COMBINATION OF LEVEL AND VELOCITY TELEMETRY VALUES NO DISCHARGE OCCURRED
Repair:	THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN SUBMITTED ON DECEMBER 31, 2008

Notifications:

08/14/10 11:44 PM	DISPUB	PUBLIC NOTIFIED THROUGH PERMANENT SIGNS TO AVOID CONTACT WITH DISCHARGE CONTENT
08/14/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/14/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	CSO019	816 N 34TH ST		OHIO RIVER	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1105123	07/08/10 03:00 AM	THOMPSON	THOMPSON	REPAIRED - ISSUE RESOLVED	07/08/10	UTILITY DAMAGED MSD ASSET	UNAUTHORIZED DISCHAGE - WATERS	07/08/10 04:15 AM	

Spot Inspections:

Discharge Amount:	100,000 GAL
Cause:	LOUISVILLE WATER COMPANY WATER MAIN BREAK
Clean Up:	NONE REQUIRED
Control Zone:	PERMANENT SIGNS POSTED AT THE CSO OUTFALL
Impact:	NONE OBSERVED
Repair:	LOUISVILLE WATER COMPANY IS REPAIRING THE WATER MAIN, OVERFLOW NO LONGER OCCURRING.

Notifications:

07/08/10 11:00 AM	DISPUB	UPDATED MSD WEBSITE TO MAKE THE PUBLIC AWARE OF THE OVERFLOW AND PERMANENT SIGNS ARE INSTALLED AT THE CSO OUTFALL
07/08/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	CSO153	1201 LEXINGTON RD		SOUTH FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1119741	08/11/10 10:58 AM	BRIGHT	BRIGHT	REPAIRED - ISSUE RESOLVED	08/23/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHAGE - WATERS	08/11/10 12:19 PM	

Spot Inspections:

Discharge Amount:	405 GAL
Cause:	OBSTRUCTION IN SIPHON
Clean Up:	PIPE DISCHARGES DIRECTLY INTO BEARGRASS CREEK
Control Zone:	PERMANENT SIGNS ALREADY IN PLACE THROUGHOUT THE IMPROVED CHANNEL
Impact:	SEWAGE/WATER DISCHARGING FROM OVERFLOW FLAPGATE
Repair:	MSD PERSONNEL FLUSHED THE SIPHON TO RELIEVE OBSTRUCTION

Notifications:

08/11/10 11:23 AM	DISPUB	TEMPORARY SIGNS PLACED NEAR ENTRANCE TO CREEK
08/11/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1123103	08/23/10 08:58 AM	BRIGHT	BRIGHT	REPAIRED - ISSUE RESOLVED	08/23/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHAGE - WATERS	08/23/10 09:17 AM	

Spot Inspections:

Discharge Amount:	95 GAL
Cause:	OBSTRUCTION IN SIPHON
Clean Up:	PIPE DISCHARGES DIRECTLY INTO BEARGRASS CREEK
Control Zone:	PERMANENT SIGNS ALREADY IN PLACE THROUGHOUT THE IMPROVED CHANNEL
Impact:	SEWAGE/WATER DISCHARGING FROM OVERFLOW FLAPGATE
Repair:	MSD PERSONNEL FLUSHED THE SIPHON TO RELIEVE OBSTRUCTION

Notifications:

08/23/10 09:06 AM	DISPUB	TEMPORARY SIGNS PLACED NEAR ENTRANCE TO CREEK
08/23/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	MSD0123-PS	6600 SEMINARY WOODS PL	WEST GOOSE CREEK	GOOSE CREEK	DITCH

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1136112	09/19/10 12:05 PM	MARKS JR	KAISER	DOCUMENTED	09/28/02	ELECTRICAL PROBLEMS AT MSD	UNAUTHORIZED DISCHAGE - WATERS	09/19/10 12:31 PM	

Spot Inspections:

Discharge Amount:	1,200 GAL
Cause:	ELECTRICAL PROBLEMS WITH #3 PUMP
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE OBSRVED IN CREEK
Repair:	MSD IS HAULING STATION UNTILL REPAIRS ARE COMPLETE

Notifications:

09/19/10 01:26 PM	DISNOT	
09/19/10 01:26 PM	DISPUB	public warned with signs and msd web site
09/19/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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
SPL Sewer Treatment Plant	MSD0278	4522 ALGONQUIN PKY		OHIO RIVER	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1115253	07/27/10 05:25 PM	THOMASSON	THOMASSON	REPAIRED - ISSUE RESOLVED	07/28/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	07/28/10 01:41 AM	

Spot Inspections:

Discharge Amount:	21,700,000 GAL
Cause:	BATTERY C WAS TAKEN DOWN MONDAY MORNING INTO CLOSED LOOP DUE TO BACTERIA KILL.
Clean Up:	NO CLEANUP REQUIRED, PIPE DISCHARGES DIRECTLY TO RIVER.
Control Zone:	NO CONTROL ZONE SET UP AT PLANT. PERMANENT SIGN POSTED AT OUTFALL OF PLANT.
Impact:	NO IMPACT OBSERVED. PIPE DISCHARGES DIRECTLY TO RIVER.
Repair:	TANK #4 IS IN FINAL STAGES OF REPAIR. BATTERY C IS BEING SEEDED AT THIS TIME. AWAITING LABORATORY RESULTS FOR FURTHER INFORMATION.

Notifications:

07/28/10 12:00 AM	DISPUB	Permanent discharge sign is posted at the outfall of Morris Forman. No other public notification.
07/28/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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
SMH Sewer Manhole	106692	8400 ARBOR MEADOW WAY		PENNSYLVANIA RUN	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1107556	07/13/10 12:45 PM	MARINO	MARINO	REPAIRED - ISSUE RESOLVED	07/13/10	OBSTRUCTION-NOT GREASE / ROOTS	UNAUTHORIZED DISCHAGE - WATERS	07/13/10 12:56 PM	MAIN

Spot Inspections:

Discharge Amount:	50 GAL
Cause:	OBSTRUCTION IN MAIN SEWER
Clean Up:	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA
Control Zone:	PLACED TEMPORARY SIGNS AROUND IMPACTED AREA
Impact:	SEWAGE COMING FROM MANHOLE IN SIDEWALK
Repair:	WORK ORDER 1107547 - FLUSHED AND REMOVED THE DEBRIS FROM SEWER

Notifications:

07/13/10 12:45 PM	DISPUB	ADVISED CUSTOMER ON SITE
07/14/10 09:19 AM	DISNOT	Manual email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1116789	08/02/10 01:48 AM	ELDER	LANGFORD	REPAIRED - ISSUE RESOLVED	08/02/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	08/02/10 01:54 AM	

Spot Inspections:

Discharge Amount:	7,398 GAL
Cause:	UV LAMPS DID NOT COME ON IN AUTO
Clean Up:	FLOW DIRECTLY DISCHARGES TO CREEK, NO CLEANUP POSSIBLE
Control Zone:	PERMENANT SIGNS ALONG CREEK
Impact:	NO IMPACT OBSERVED
Repair:	CLOSED GATE TO STOP BYPASS

Notifications:

08/02/10 03:30 AM	DISPUB	Permanent signs & http://www.msdlouky.org/projectwin/
08/02/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	Region
KY0102784	MSD0294	FLOYDS FORK	FLOYDS FORK	CENT

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMN Sewer Main	53994A-V	900 JOHNSON RD		BRUSH RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1131144	09/09/10 02:49 PM	MARKS JR	BROOKS	REPAIRED - ISSUE RESOLVED	09/09/10	STRUCTURAL FAILURE	UNAUTHORIZED DISCHAGE - WATERS	09/09/10 06:00 PM	

Spot Inspections:

Discharge Amount:	1,000 GAL
Cause:	STRUCTURAL FAILURE
Clean Up:	MSD PERSONELL CLEANED AND SANITIZED AREA
Control Zone:	TAPE AND TEMPORARY SIGNS POSTED
Impact:	SEWAGE ON THE GROUND
Repair:	CONTRACTOR MADE REPAIRS AND HAULED STATION UNTILL REPAIRS COMPLETE

Notifications:

09/09/10 06:42 PM	DISPUB	MSD PLACED TAPE AND TEMPORARY SIGNS TO WARN THE PUBLIC
09/09/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	Region
KY0042226	MSD0403	CHENOWETH RUN	CHENOWETH RUN	CENT

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMN Sewer Main	80351C-AG	14307 WAKEFIELD PL		CHENOWETH RUN	CATCH BASIN

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1119740	08/11/10 09:18 AM	SINGLETON	WRIGHT	REPAIRED - ISSUE RESOLVED	08/11/10	STRUCTURAL FAILURE	UNAUTHORIZED DISCHAGE - WATERS	08/11/10 02:00 PM	

Spot Inspections:

Discharge Amount:	1,410 GAL
Cause:	FORCE MAIN BREAK
Clean Up:	NO DEBRIS TO CLEAN UP
Control Zone:	TEMPORARY SIGNS PLACED AROUND THE AREA
Impact:	NO DEBRIS OBSERVED
Repair:	MSD HAULED STATION UNTIL CONTRACTOR COMPLETES REPAIRS

Notifications:

08/11/10 11:16 AM	DISPUB	TEMPORARY SIGNS PLACED AROUND THE AREA
08/11/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/11/10 01:00 AM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	Region
KY0042226 (Cont'd)	MSD0403	CHENOWETH RUN	CHENOWETH RUN	CENT

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMN Sewer Main	MSD1171-PS	613 WOODLAKE DR		CHENOWETH RUN	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1114671	07/26/10 09:45 AM	ELDER	SCROGGIN	REPAIRED - ISSUE RESOLVED	07/26/10	STRUCTURAL FAILURE	UNAUTHORIZED DISCHAGE - WATERS	07/26/10 10:15 AM	

Spot Inspections:

Discharge Amount:	150 GAL
Cause:	STRUCTURE FAILURE STILL TO BE EXCAVATED
Clean Up:	B&H WAS CALLED TO HAUL SEWAGE B&H IS ON SITE HAULING. B&H WAS REQUESTED TO VACTOR / CLEAN THE CREEK.
Control Zone:	PLACED TEMPORARY SIGNS AROUND THE IMPACTED AREA
Impact:	DISCOLORATION OF STREAM
Repair:	B&H WAS CALLED TO HAUL SEWAGE & CHEROKEE WAS CALLED FOR EXCAVATION. B&H IS ON SITE HAULING. B&H WAS REQUESTED TO VACTOR / CLEAN THE CREEK.

Notifications:

07/26/10 01:23 PM	DISPUB	PERMANENT SIGNS POSTED IN AREA SUPLIMENTED BY TEMPORARY SIGNS
07/26/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/26/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 19
Total Work Orders Printed: 26

Appendix B-2 - Discharge Work Orders – BYPASS

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	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
SPL Sewer Treatment Plant	MSD0202	5500 HITT RD		HITE CREEK	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120760	08/13/10 08:40 PM	MARKS JR	DUNN JR	REPAIRED - ISSUE RESOLVED	08/13/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	08/13/10 08:53 PM	

Spot Inspections:

Discharge Amount:	45,000 GAL
Cause:	LG&E POWER FAIL
Clean Up:	MSD CLEANED & SANITIZED THE AREA
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	SEWAGE OBSERVED ON THE GROUND
Repair:	GENERATOR PROVIDING POWER UNTIL NORMAL POWER RESTORED

Notifications:

08/13/10 10:55 PM	DISPUB	temporary signs posted in area
08/13/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

KPDES #	Facility ID	Water Quality Treatement Center	Receiving Stream of Treatment Center	Region
KY0029416	MSD0228	MCNEELY LAKE	PENNSYLVANIA RUN	WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SPL Sewer Treatment Plant	MSD0228	10300 ROD N REEL RD		PENNSYLVANIA RUN	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1111772	07/22/10 03:45 PM	MARKS JR	MILLS	REPAIRED - ISSUE RESOLVED	07/23/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	07/22/10 06:45 PM	

Spot Inspections:

Discharge Amount:	90 GAL
Cause:	STRUCTURE FAILURE OF PERMITTED DISCHARGE PIPE
Clean Up:	NO CLEAN UP REQUIRED DISCHARGE IS FULLY TREATED WATER
Control Zone:	TEMPORARY SIGNS POSTED
Impact:	NO IMPACT OBSERVED TREATED EFFLUENT WATER IS ON THE GROUND
Repair:	CONTRACTOR MADE REPAIRS TO THE PIPE

Notifications:

07/22/10 04:53 PM	DISPUB	public notified by temporary signs posted
07/22/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
07/22/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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
SPL Sewer Treatment Plant	MSD0278	4522 ALGONQUIN PKY		OHIO RIVER	STREAM

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1115253	07/27/10 05:25 PM	THOMASSON	THOMASSON	REPAIRED - ISSUE RESOLVED	07/28/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	07/28/10 01:41 AM	

Spot Inspections:

Discharge Amount:	21,700,000 GAL
Cause:	BATTERY C WAS TAKEN DOWN MONDAY MORNING INTO CLOSED LOOP DUE TO BACTERIA KILL.
Clean Up:	NO CLEANUP REQUIRED, PIPE DISCHARGES DIRECTLY TO RIVER.
Control Zone:	NO CONTROL ZONE SET UP AT PLANT. PERMANENT SIGN POSTED AT OUTFALL OF PLANT.
Impact:	NO IMPACT OBSERVED. PIPE DISCHARGES DIRECTLY TO RIVER.
Repair:	TANK #4 IS IN FINAL STAGES OF REPAIR. BATTERY C IS BEING SEEDED AT THIS TIME. AWAITING LABORATORY RESULTS FOR FURTHER INFORMATION.

Notifications:

07/28/10 12:00 AM	DISPUB	Permanent discharge sign is posted at the outfall of Morris Forman. No other public notification.
07/28/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

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

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	GROUND

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISDW: DRY WEATHER DISCHARGE	1116789	08/02/10 01:48 AM	ELDER	LANGFORD	REPAIRED - ISSUE RESOLVED	08/02/10	BYPASS AT WQTC	UNAUTHORIZED DISCHAGE - WATERS	08/02/10 01:54 AM	

Spot Inspections:

Discharge Amount:	7,398 GAL
Cause:	UV LAMPS DID NOT COME ON IN AUTO
Clean Up:	FLOW DIRECTLY DISCHARGES TO CREEK, NO CLEANUP POSSIBLE
Control Zone:	PERMENANT SIGNS ALONG CREEK
Impact:	NO IMPACT OBSERVED
Repair:	CLOSED GATE TO STOP BYPASS

Notifications:

08/02/10 03:30 AM	DISPUB	Permanent signs & http://www.msdlouky.org/projectwin/
08/02/10 01:00 AM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 4
Total Work Orders Printed: 4

Appendix B-3 - Discharge Work Orders – BLENDING

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

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

Activity Code / Description	WO #	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
DISREV: RAIN EVENT DISCHARGE	1120818	08/14/10 06:29 PM	ELDER	WRIGHT	DOCUMENTED	01/14/07	BLENDING AT JTOWN WQTC	UNAUTHORIZED DISCHAGE - WATERS	08/14/10 10:45 PM	

Spot Inspections:

Peak Plant Flow when Blending:	14,592,000 GPD
Total Plant Flow when Blending:	4,426,000 GAL
Discharge Amount:	275,497 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:	THIS LOCATION IS SCHEDULED FOR ELIMINATION BY DECEMBER 2015

Notifications:

08/14/10 07:34 PM	DISPUB	Permanent signs posted in area http://www.msdlouky.org/projectwin/
08/14/10 01:00 PM	DISNOT	Email notification of unauthorized discharge sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov
08/14/10 01:00 PM	DISSNO	Supplemental Email notification of unauthorized discharge has been sent to ireland.sean@epa.gov, eppc.ert@ky.gov and LisaA.Jeffries@ky.gov

Total Facilities Printed: 1
Total Work Orders Printed: 1

Appendix C – Annual Average Overflow Volume

CSO Model Simulation Summary

Model Simulation	AAOV (MG/YR)	Number of OF (# OF/YR)	Rainfall	Model	Boundary Condition	RTC Rules	MFWTP Repsentation	Notes:
January 2009 Existing	**3,298**	**2,348**	2001	InfoWorks ver.9.5	Modeled inflow from SSS models (Existing condition) using 2001 data	RTC Phase I & II rules developed by BPR CSO	Modeled with max. flow of 325 MGD	CSO108 modification includes the CDS unit
October 2008 Existing	**4,092**	**2,314**	2001	InfoWorks ver.8.0	Modeled inflow from SSS models (Existing condition) using 2001 data	RTC Phase I rules developed by BPR CSO	Modeled with max. flow of 325 MGD	
June 2008 Existing	3,581	2,289	2001	InfoWorks ver.8.0	Modeled inflow from SSS models (including Big4) using 2001 data	RTC Phase I rules developed by BPR CSO	Modeled with max. flow of 325 MGD	
***June 2008 AAOV**	**2,838**	**2,236**	2001	InfoWorks ver.8.0	Modeled inflow from SSS models (including Big4) using 2001 data	RTC Phase I & II Rules developed by BPR CSO	RTC Rules controll flow to the plant. Peak 350MD and Sustainable at 325 MGD	
May 2008 AAOV	3,055	2,231	2001	InfoWorks ver.8.0	Modeled inflow from SSS models (including Big4) using 2001 data	RTC Phase I & II Rules developed by BPR CSO	RTC Rules controll flow to the plant. Peak 350MD and Sustainable at 325 MGD	
****2007 XP-SWMM**	2,970	2,445	Synthetic	XP-SWMM ver 10	Inflow generated using Runoff in CSO model	Simplified Rule at Sneads Branch	Modeled with Max. Capacity of 350MGD	
2003 XP-SWMM	3,478	2,304	Synthetic	XP-SWMM ver 8	Inflow generated using Runoff in CSO model	Simplified Rule at Sneads Branch	Modeled with Max. Capacity of 350MGD	
Synthetic W/ RTC	2,555	2,183	Synthetic	InfoWorks ver.8.0	Modeled finlow from SSS models except on ORFM.	Preliminary RTC Phase I & II Rules provided by BPR CSO	Preliminary RTC Rules allowed peak flow rate greater than 350MD to the plant	
Synthetic W/O RTC	3,649	2,174	Synthetic	InfoWorks ver.8.0	Modeled finlow from SSS models except on ORFM.	Simplifed Rules at MFWTP & Wheeler Basin	Modeled with max. flow of 325 MGD	

* June2008 AAOV is recommended for LTCP. The June 2008 simulation incorporate the headloss coefficient adjustments at CSOs 015,016,019,022,104,105,117,146,149,179,191, & 210
** 2007 XP-SWMM data was used to develop and size the prelimilnary LTCP alternatives.

Pinte Date:11/1/2010

Louisville MSD
Existing Condition AAOV

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

PRINT DATE: 11/1/2010

Louisville MSD
Existing Condition AAOV

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

PRINT DATE: 11/1/2010

Louisville MSD
Existing Condition AAOV

CSO	CSO NAME	RECEIVING STREAM	Drainage Area (Acres)	October 2008 IWCS (ver8.0)		January 2009 IWCS (ver 9.5)		Change in AAOV (MG/YR) Jan-Oct
				AAOV (MG/YR)	OF Incidents (# OF/YR)	AAOV (MG/YR)	OF Incidents (# OF/YR)	
193	CRD S 6th & KENTUCKY	OR	22.7	0.04	5	0.04	5	0.00
194	CRD S OAK W OF 4th	OR	**Eliminated**					
195	CRD S 4th & OAK	OR	7.3	2.19	55	2.19	55	0.00
196	CRD S 3rd & OAK	OR	2.2	0.24	19	0.13	11	-0.11
197	CRD S 3rd S OF OAK	OR	4.5	4.17	53	3.02	47	-1.15
198	CRD S 3rd & ORMSBY	OR	4.4	0.00	5	0.00	2	0.00
199	CRD S 3rd N OF MAGNOLIA	OR	8.6	0.46	45	0.46	45	0.00
200	CRD S 3rd & MAGNOLIA	OR	10.3	4.91	65	4.91	65	0.00
201	CRD S 5th & KENTUCKY	OR	8.3	0.00	0	0.00	0	0.00
202	CRD S ORMSBY W OF 3rd	OR	5.3	0.09	13	0.09	13	0.00
203	CRD S 4th & ORMSBY	OR	14.2	0.00	0	0.00	0	0.00
204	CRD S FIFTH & BRECKINRIDGE	OR	**Eliminated**					
206	CHEROKEE PARK @ SPRING DR	MF BGC	464.6	8.64	39	19.91	52	11.27
207	2nd & JEFFERSON	OR	2.3	0.05	2	0.04	1	-0.02
208	12th & JEFFERSON	OR	11.2	0.33	11	0.33	11	0.00
209	CHEROKEE PK @ PARK BD RD	MF BGC	**Eliminated**					
210	45th STREET-GREENWOOD	OR	166.7	503.73	52	197.29	51	-306.44
211	MAIN DIVERSION STRUCTURE	OR	3,554.9	465.55	29	377.61	29	-87.94
SBR	**CSOs 142,174,180,182,183,184,185,186,187,188,205**			12.15	9	12.14	9	-0.01
			Total	**4,092**	**2,314**	**3,298**	**2,348**	
			Total AAOV Difference (MG/YR)	**613.82**		**-793.02**		
			Total AAOV Difference (Percentage)	**15%**		**-19%**		

Details of Individual SBR CSOs

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

PRINT DATE: 11/1/2010

Appendix D – CSO Flow Monitoring Data

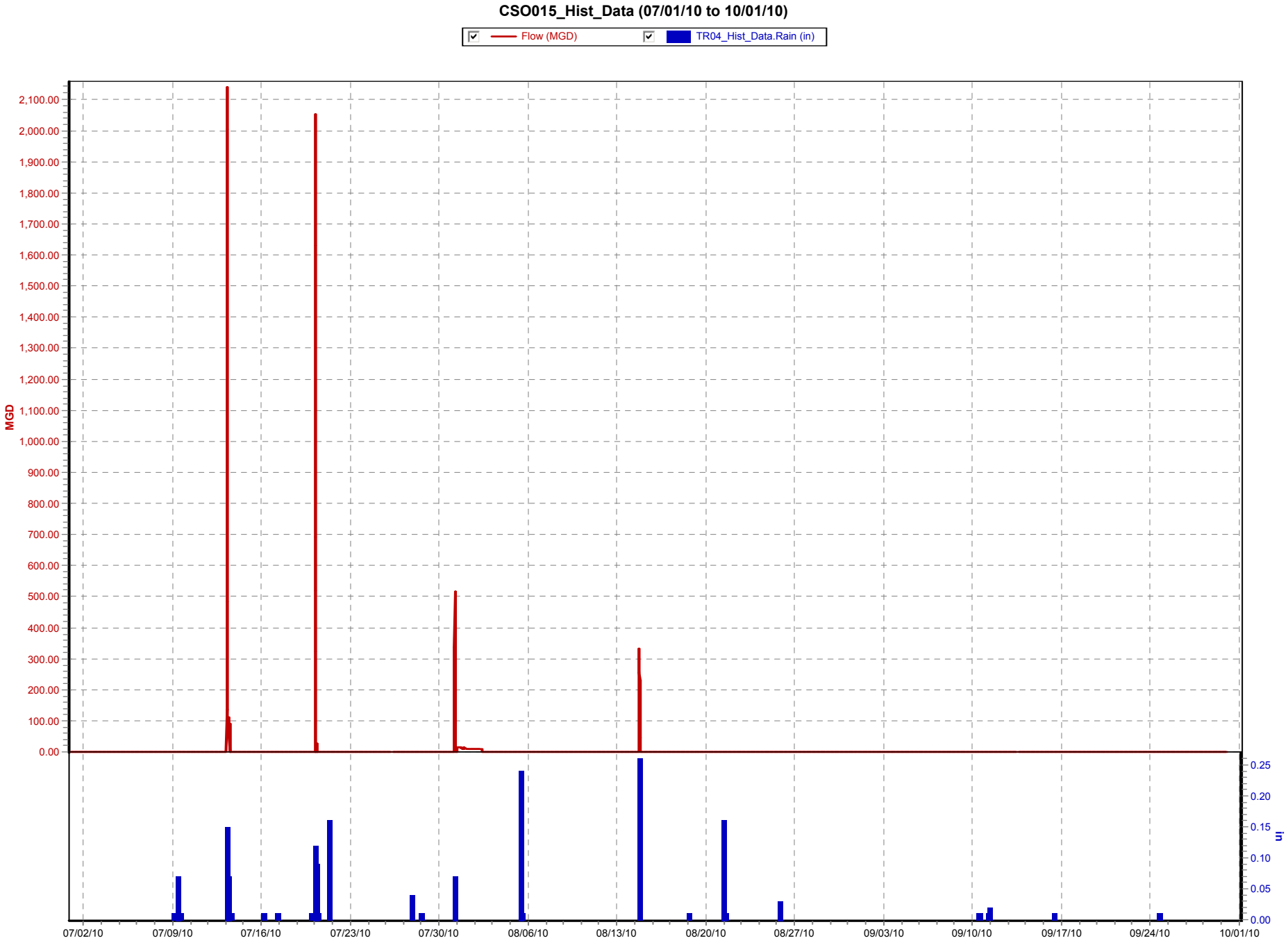
Missing Data for 7/1/2010 to 9/30/2010

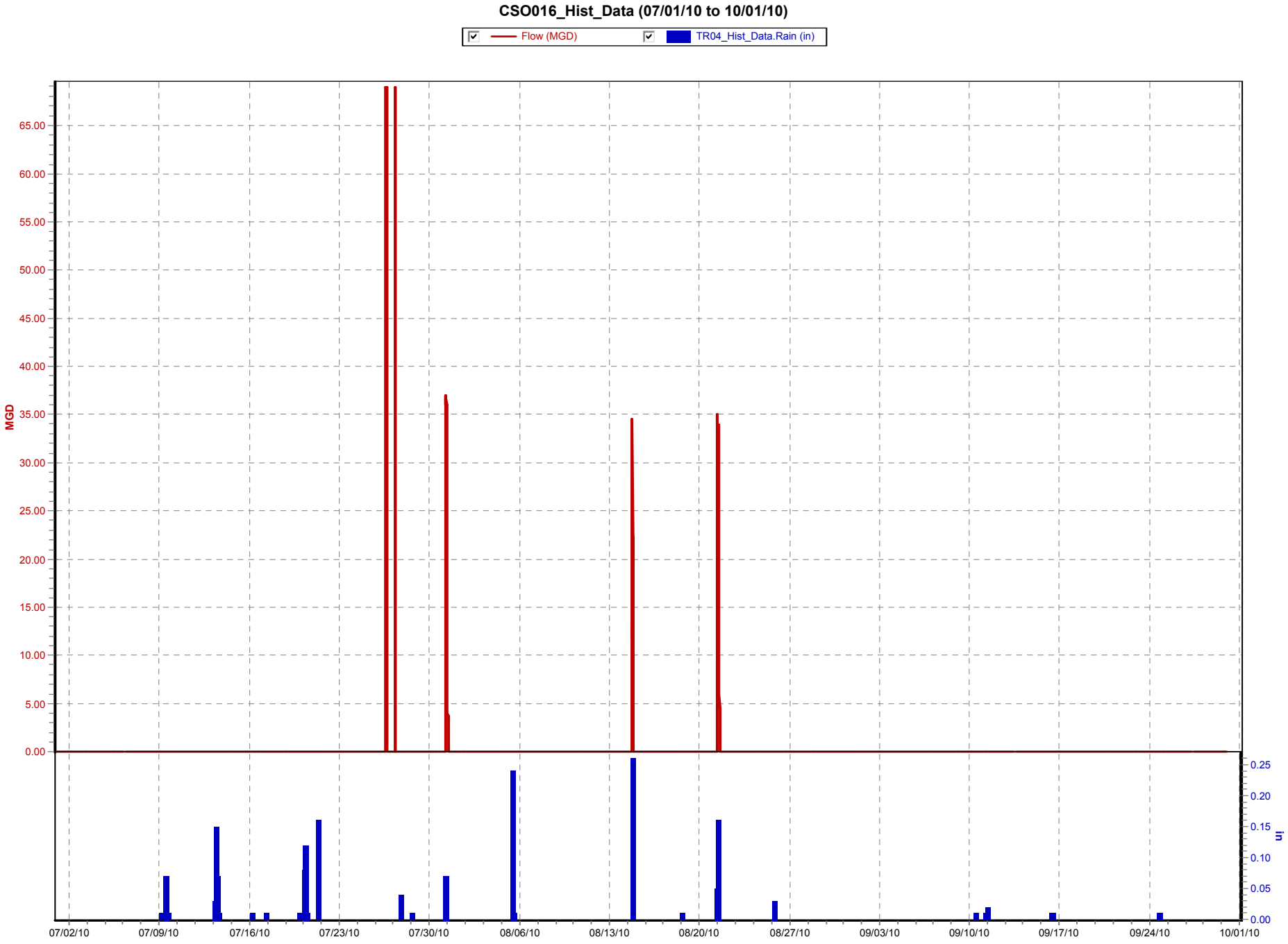
CSO019- Flow meter battery failure between 07/03 and 07/10, as well as between 08/26 and 9/01

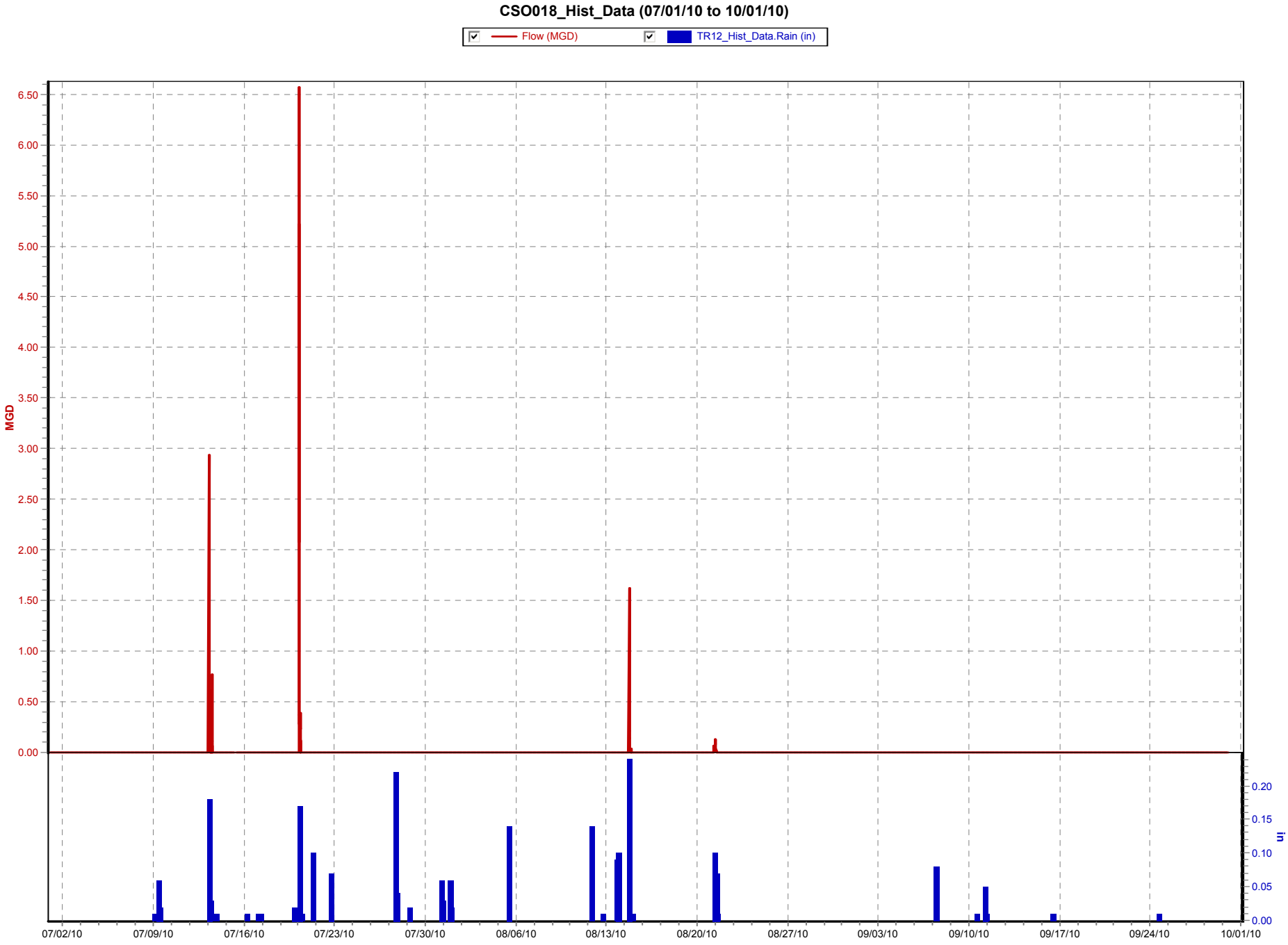
CSO127 – Flow meter battery failure between 08/01 and 08/04

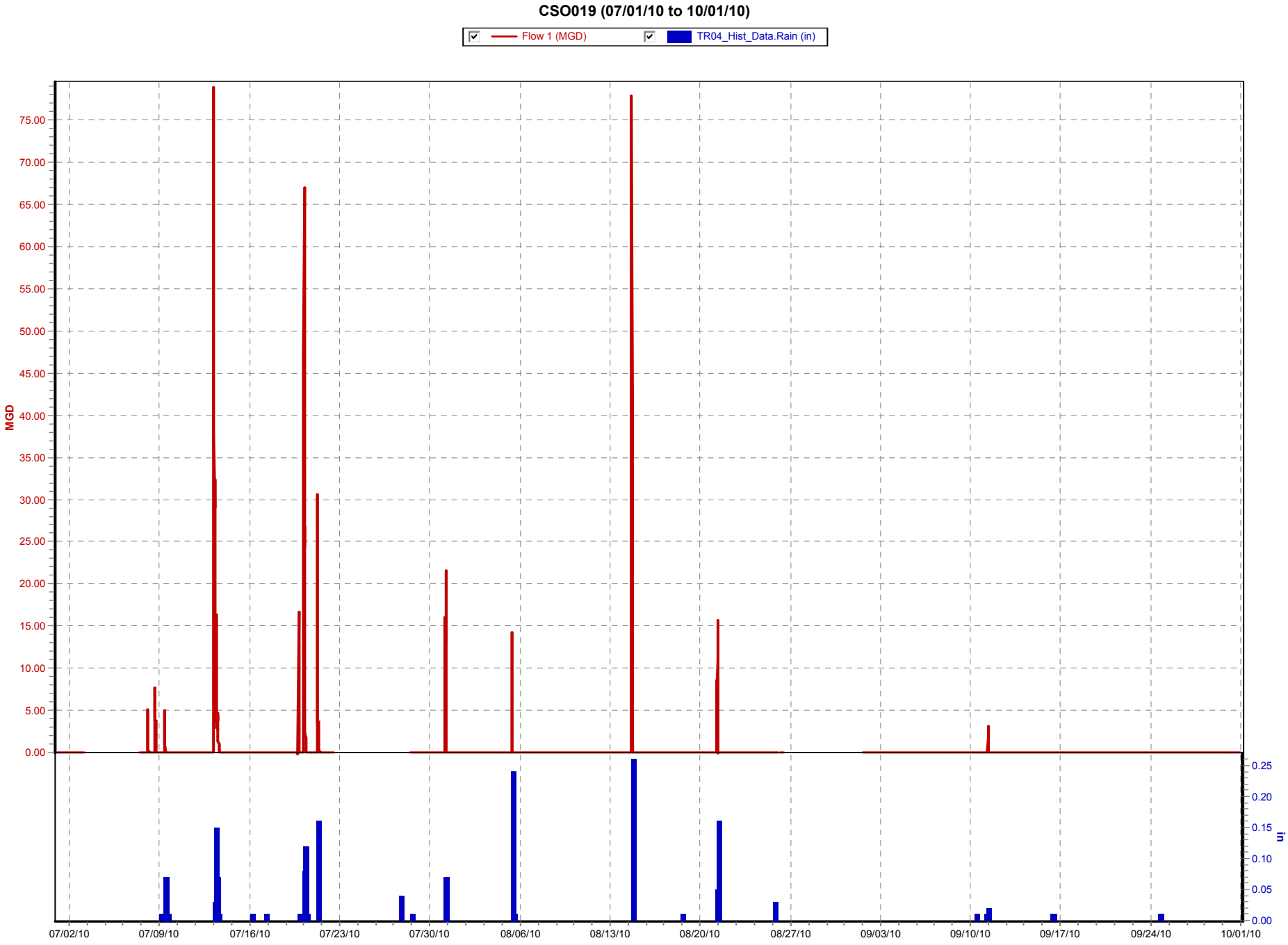
CSO132 - Flow meter battery failure between 09/09 and 09/10

CSO153 – Multiple flow meter battery failures between 08/02 and 08/16


CSO015_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR04_Hist_Data.Rain (in)
MGD
2,100.00
2,000.00
1,900.00
1,800.00
1,700.00
1,600.00
1,500.00
1,400.00
1,300.00
1,200.00
1,100.00
1,000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
in
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO016_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR04_Hist_Data.Rain (in)
MGD
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO018_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR12_Hist_Data.Rain (in)
MGD
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
in
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO019 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR04_Hist_Data.Rain (in)
MGD
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
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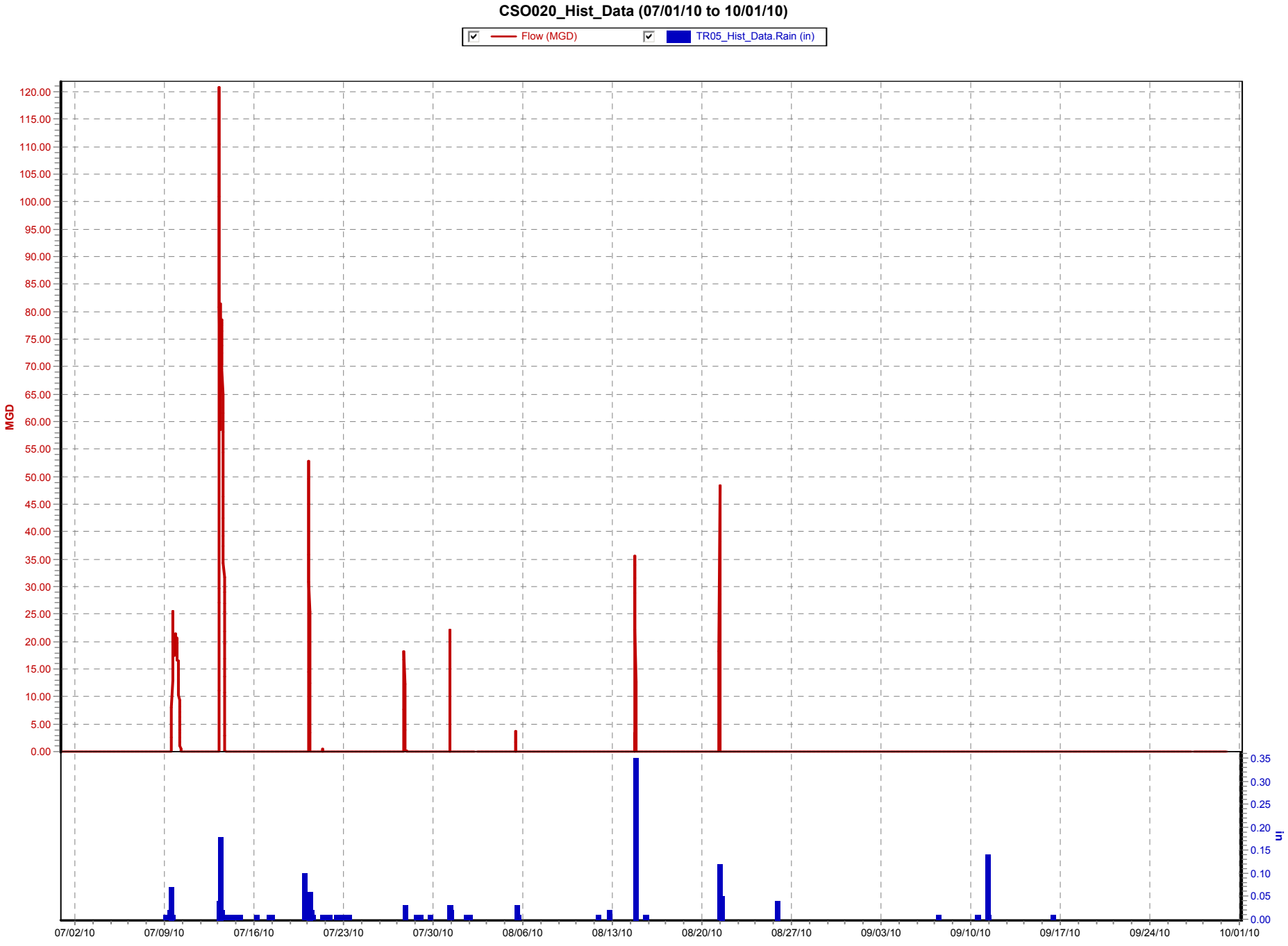
09/10/10
09/17/10
09/24/10
10/01/10


CSO020_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
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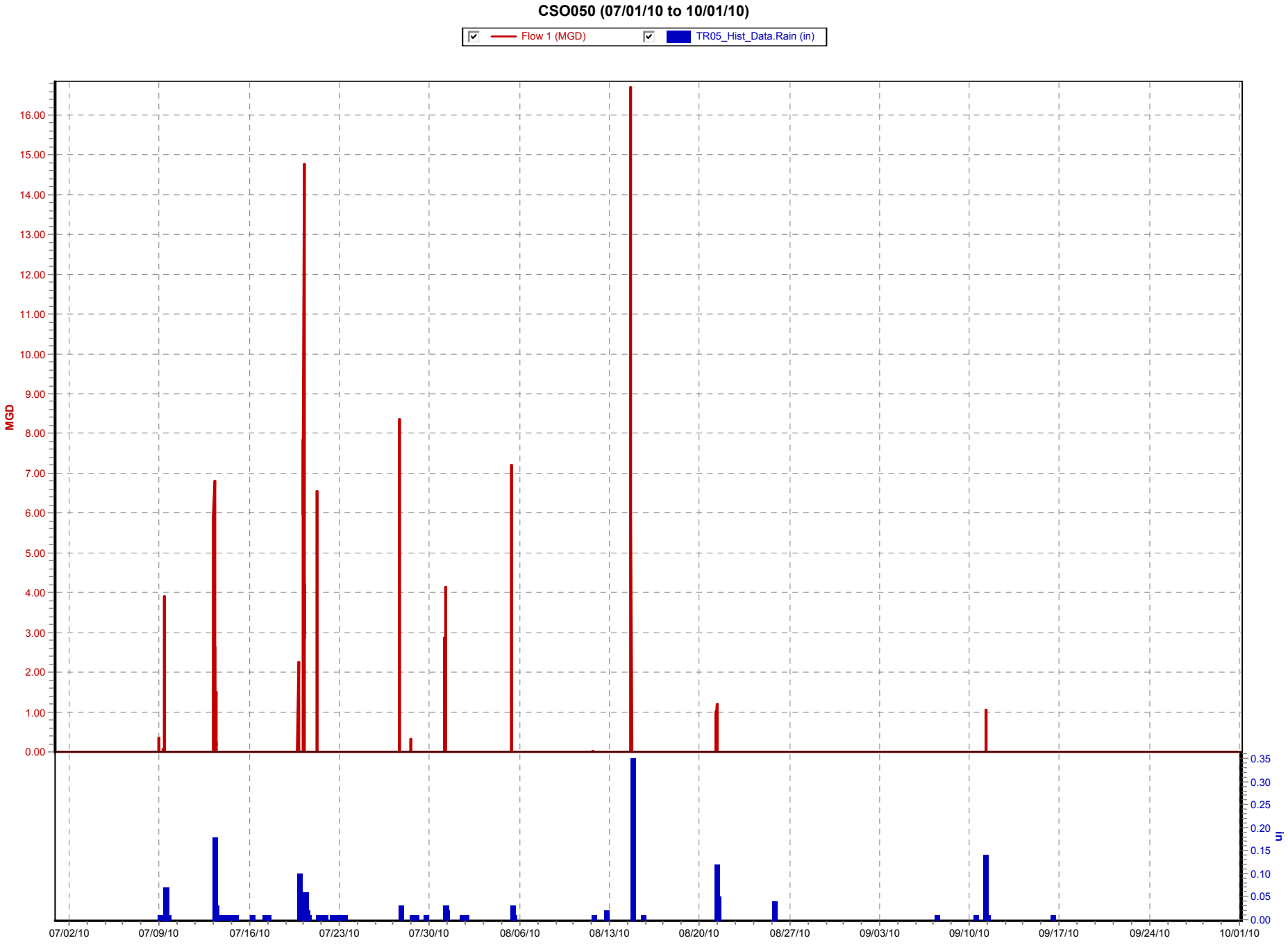
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO050 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
in
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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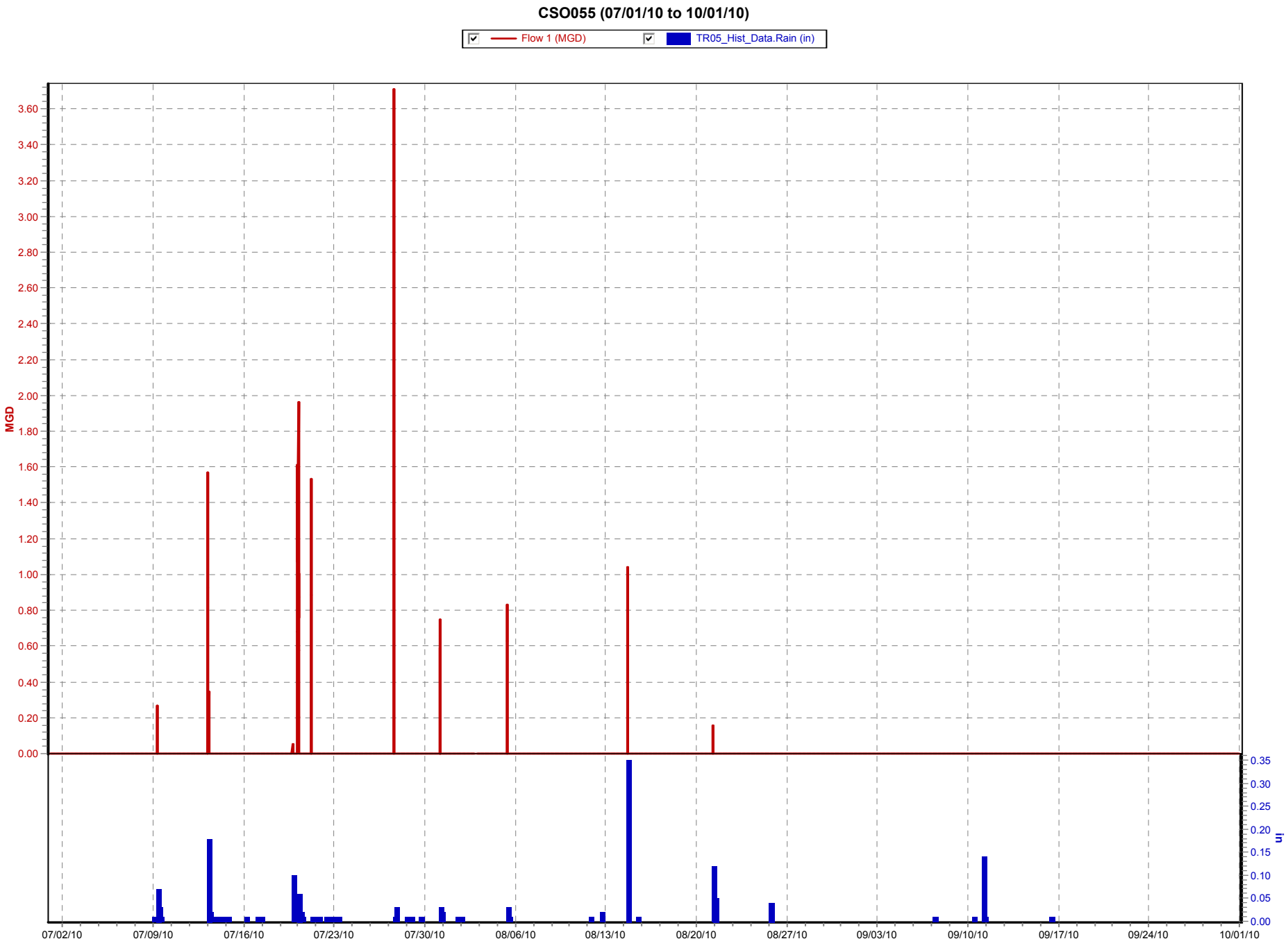
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO055 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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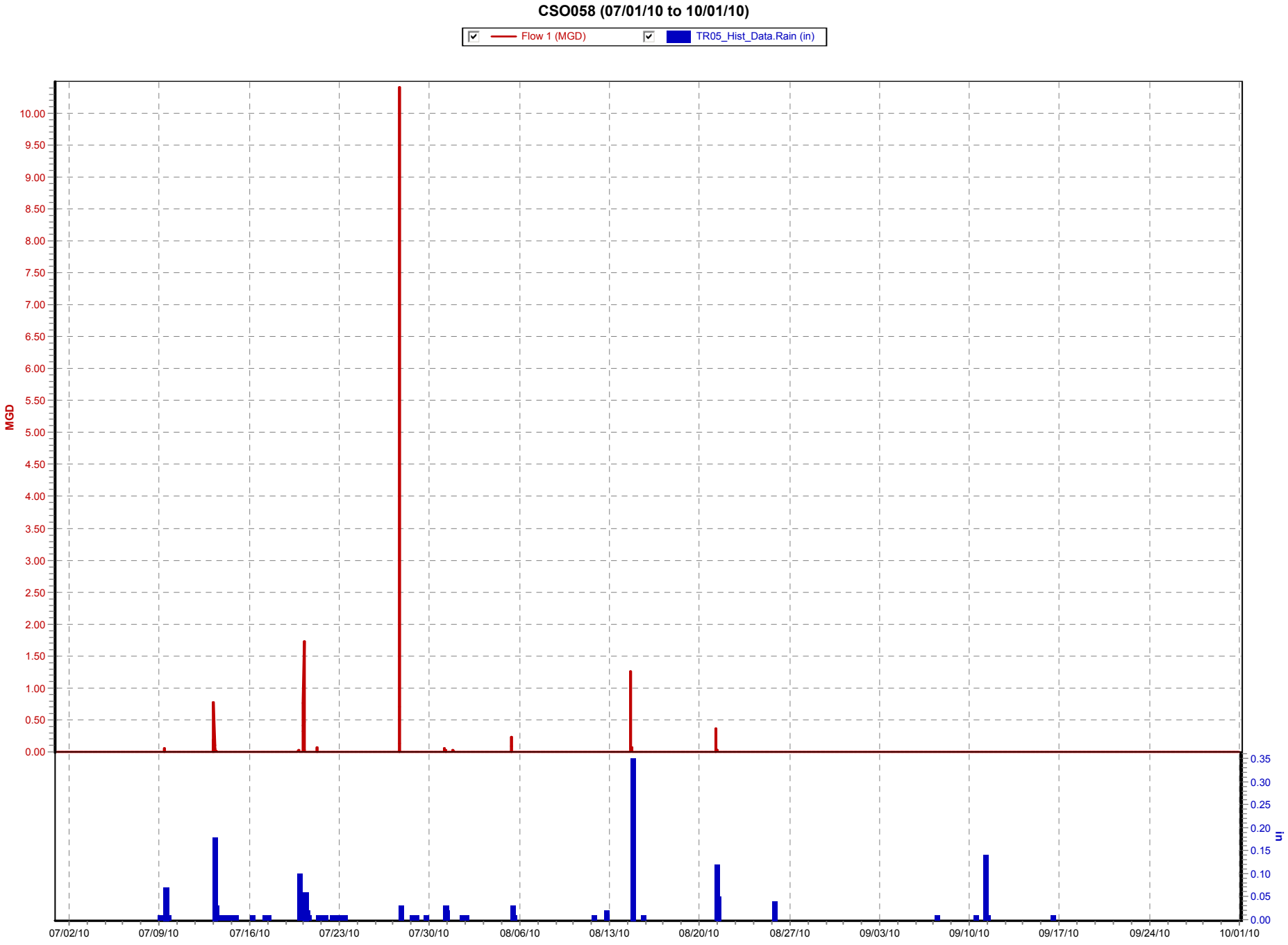
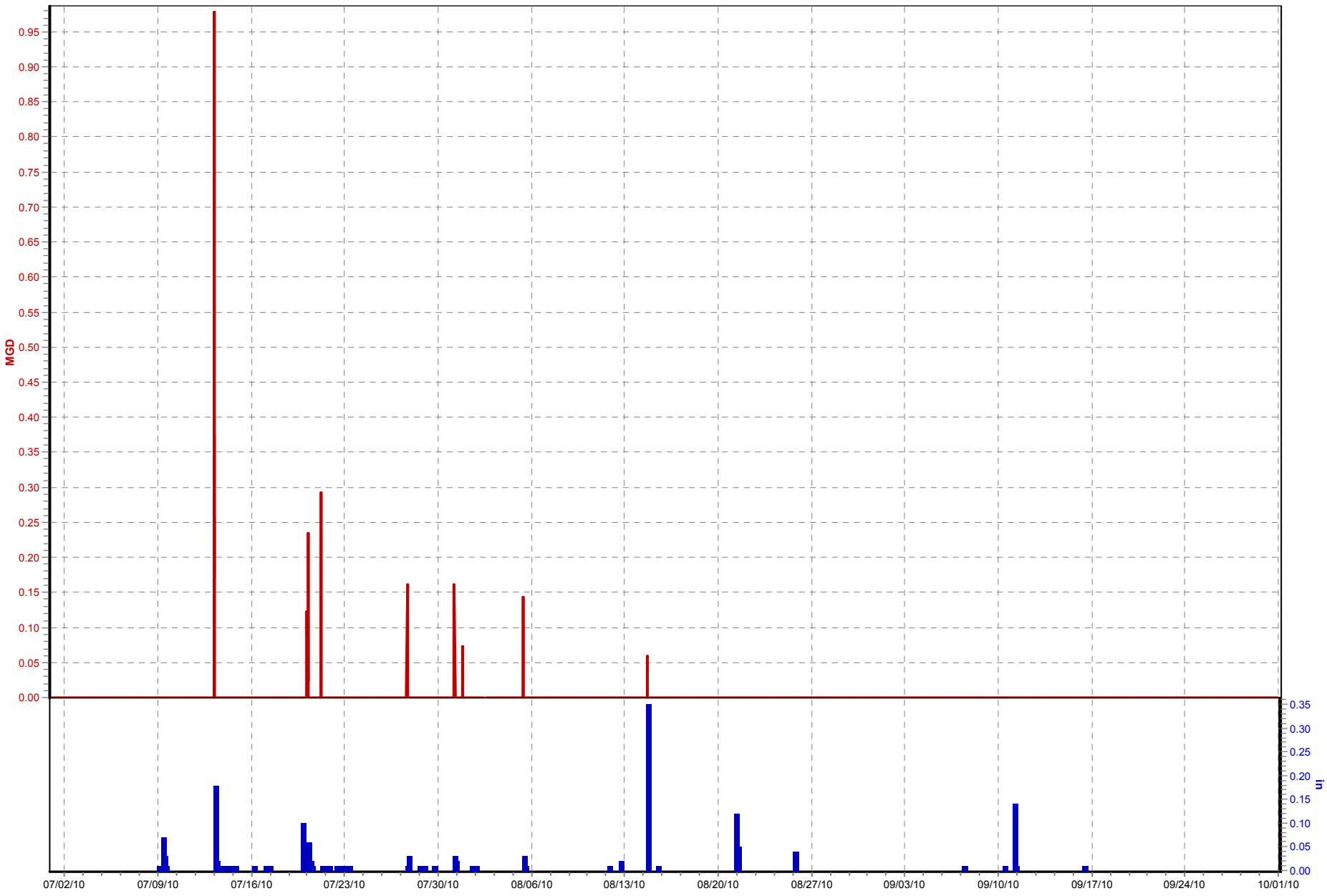
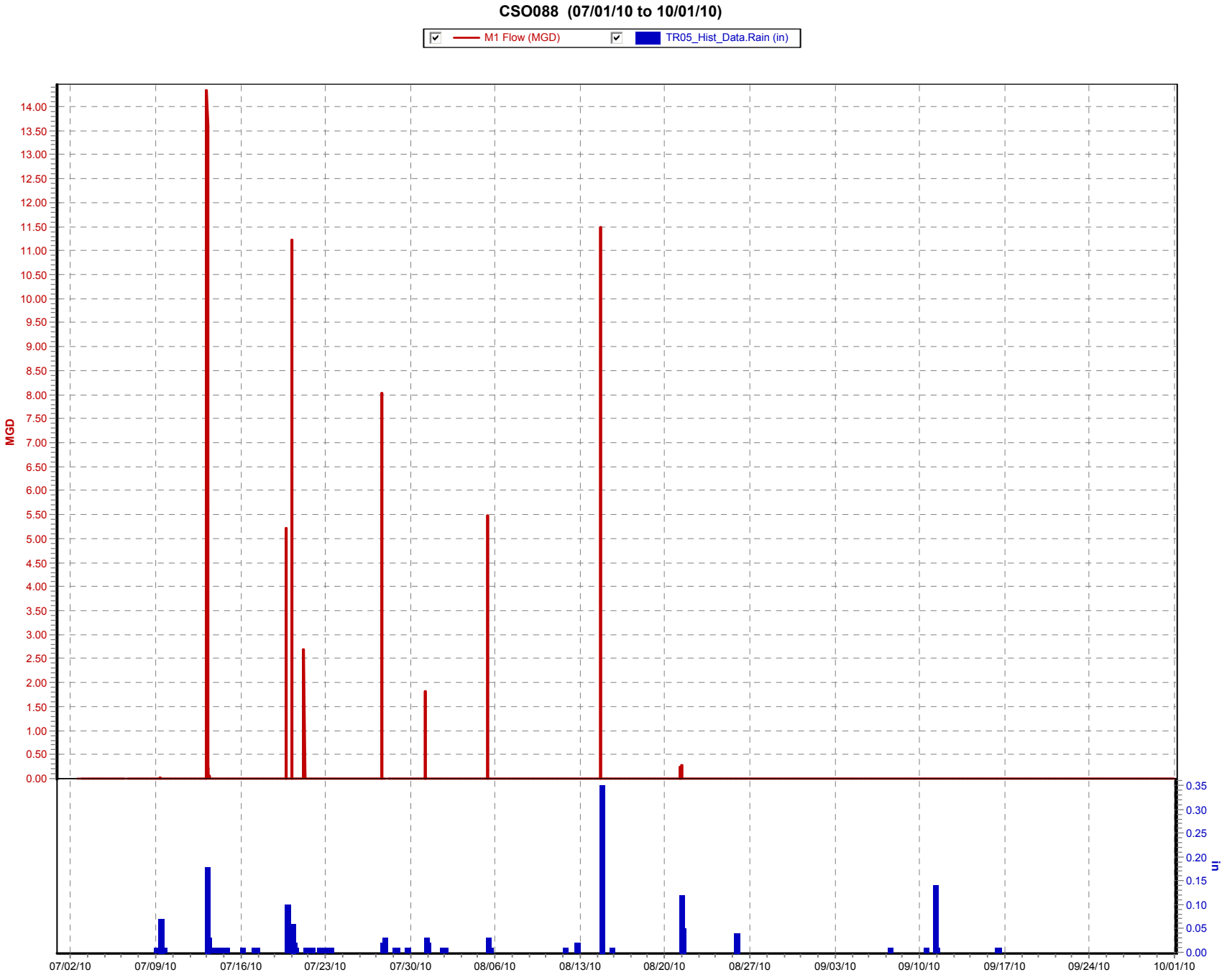
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO058 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

CSO084 (07/01/10 to 10/01/10)




CSO088 (07/01/10 to 10/01/10)
M1 Flow (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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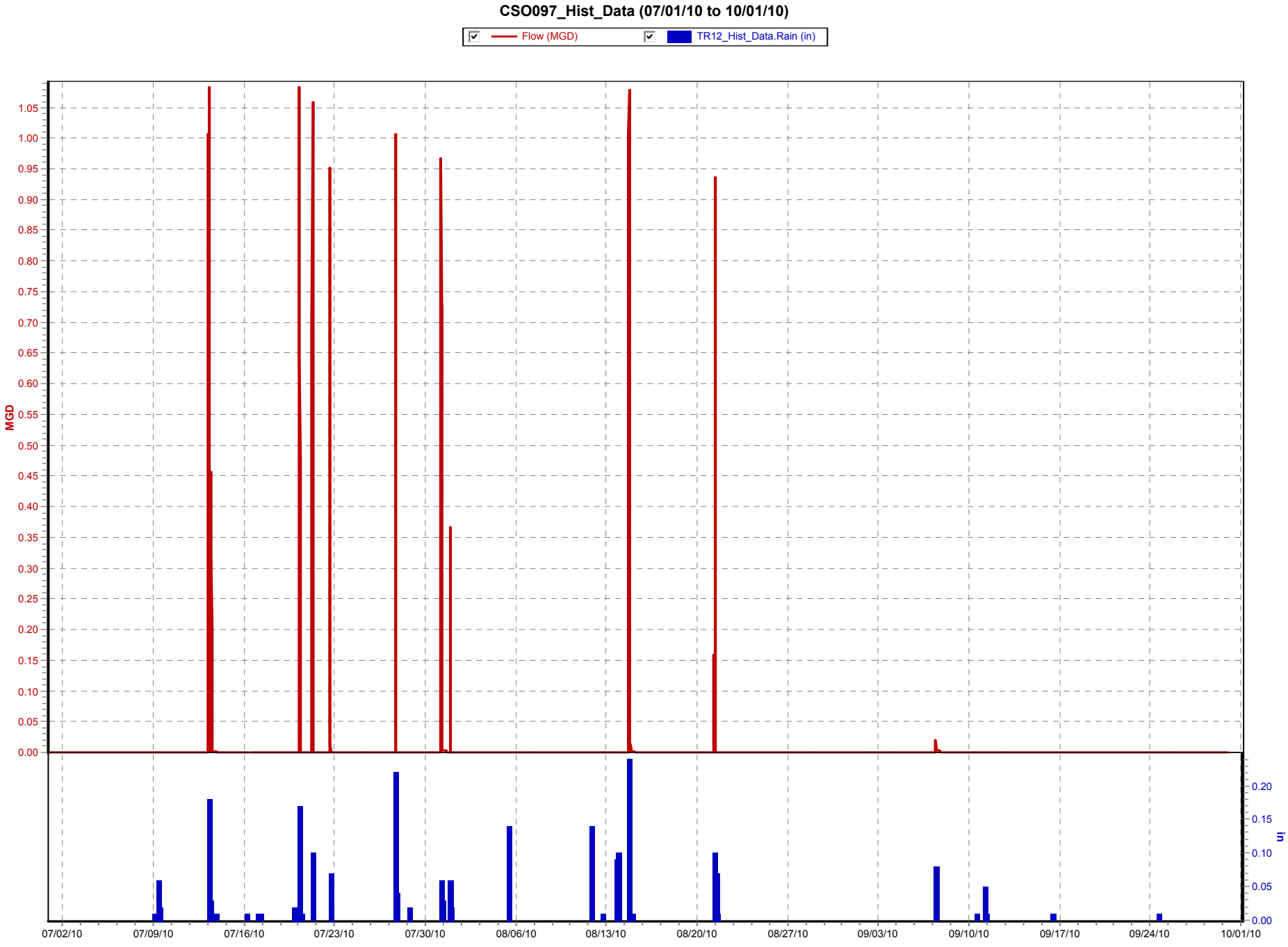
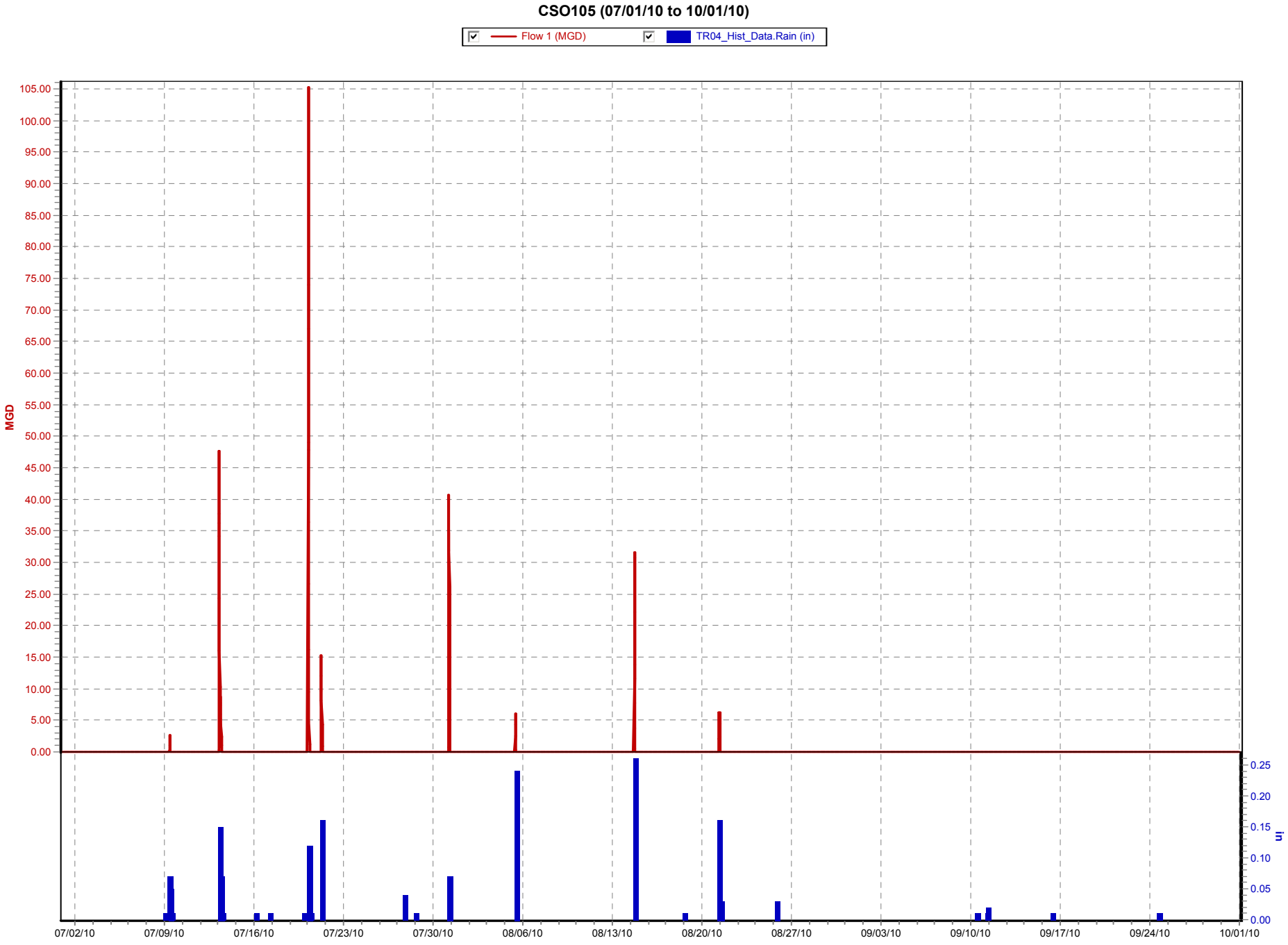
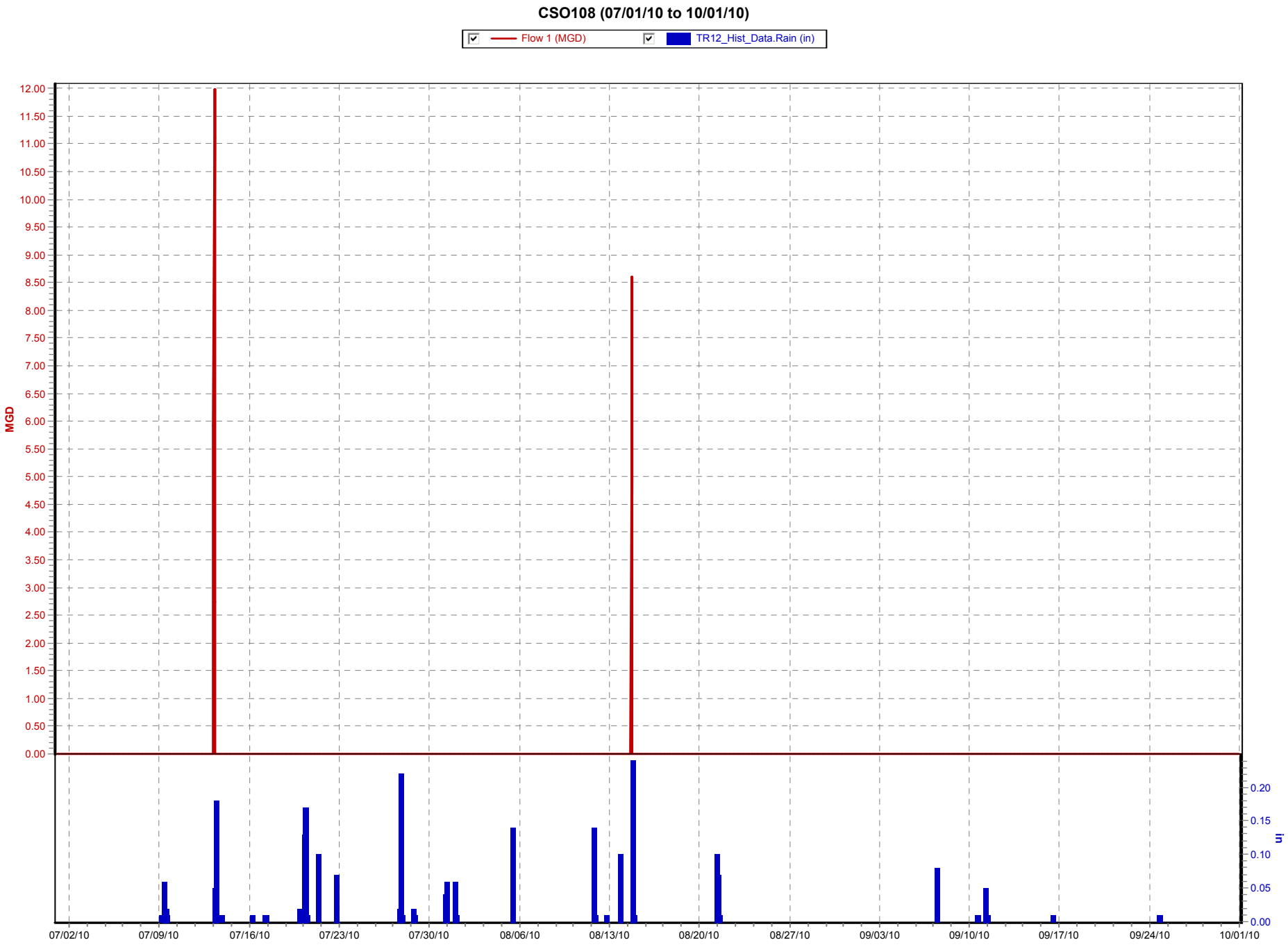
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO097_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR12_Hist_Data.Rain (in)
MGD
in
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO105 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR04_Hist_Data.Rain (in)
MGD
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO108 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR12_Hist_Data.Rain (in)
MGD
in
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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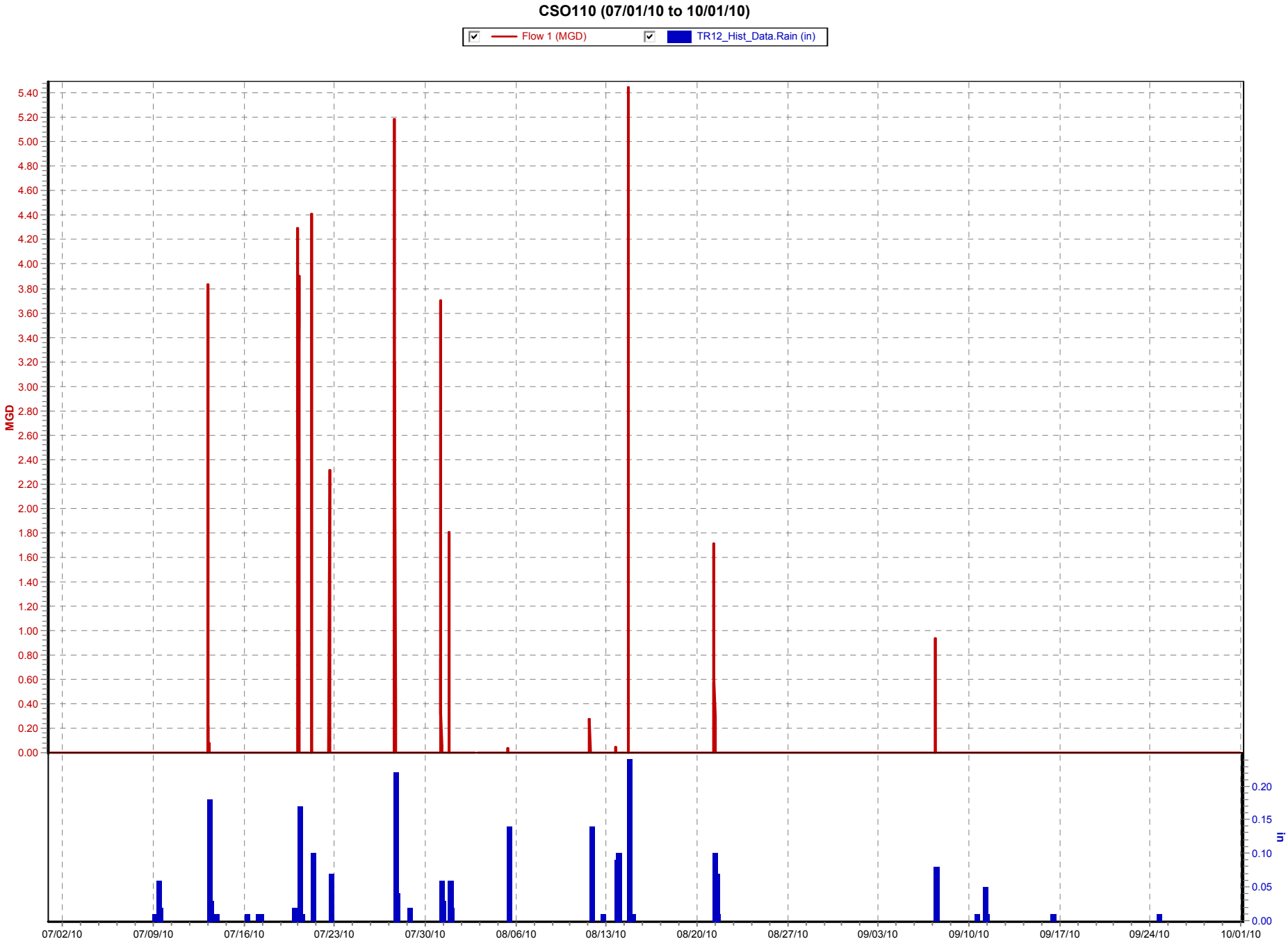
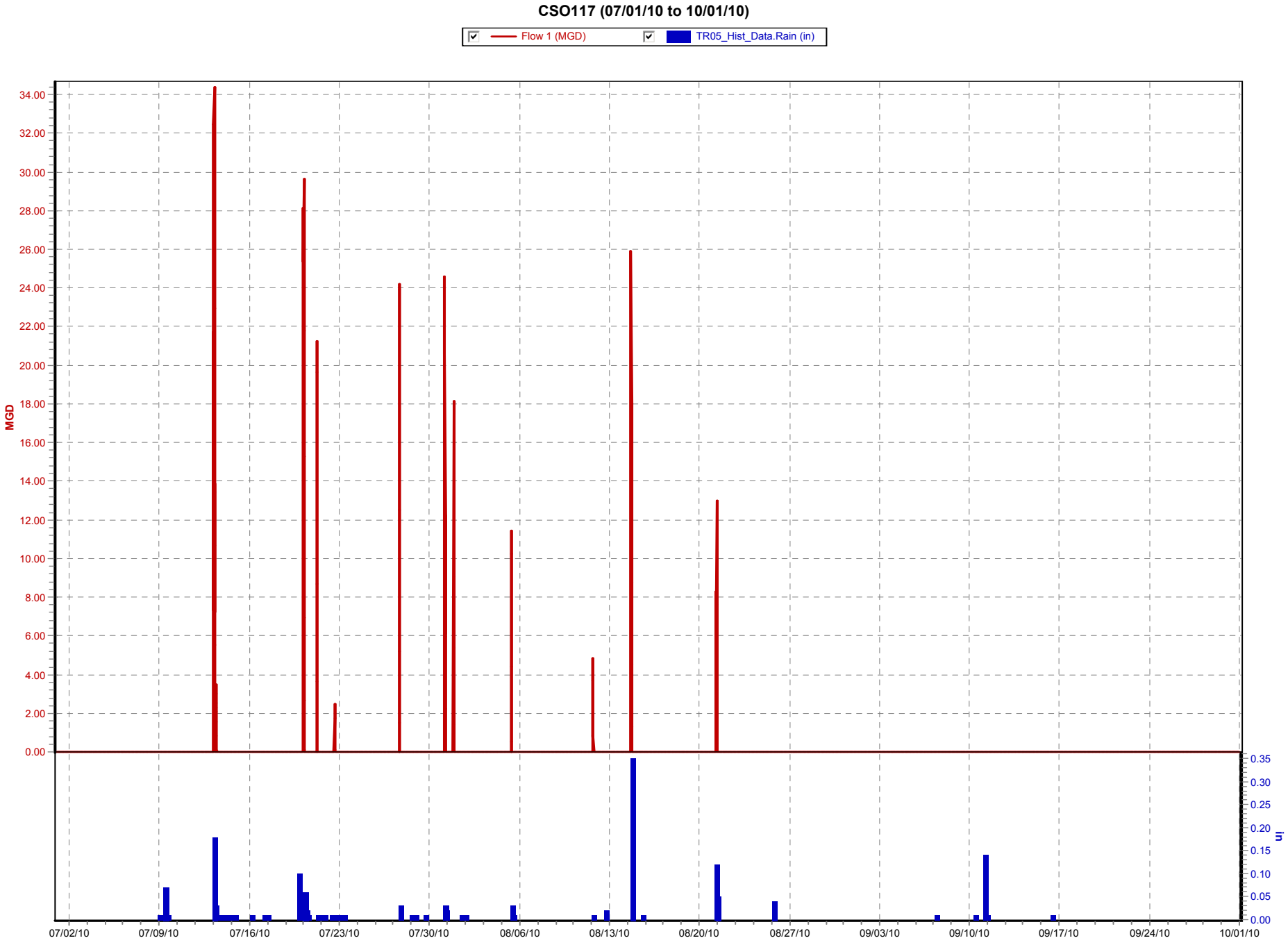
09/10/10
09/17/10
09/24/10
10/01/10


CSO110 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR12_Hist_Data.Rain (in)
MGD
in
5.40
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO117 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
in
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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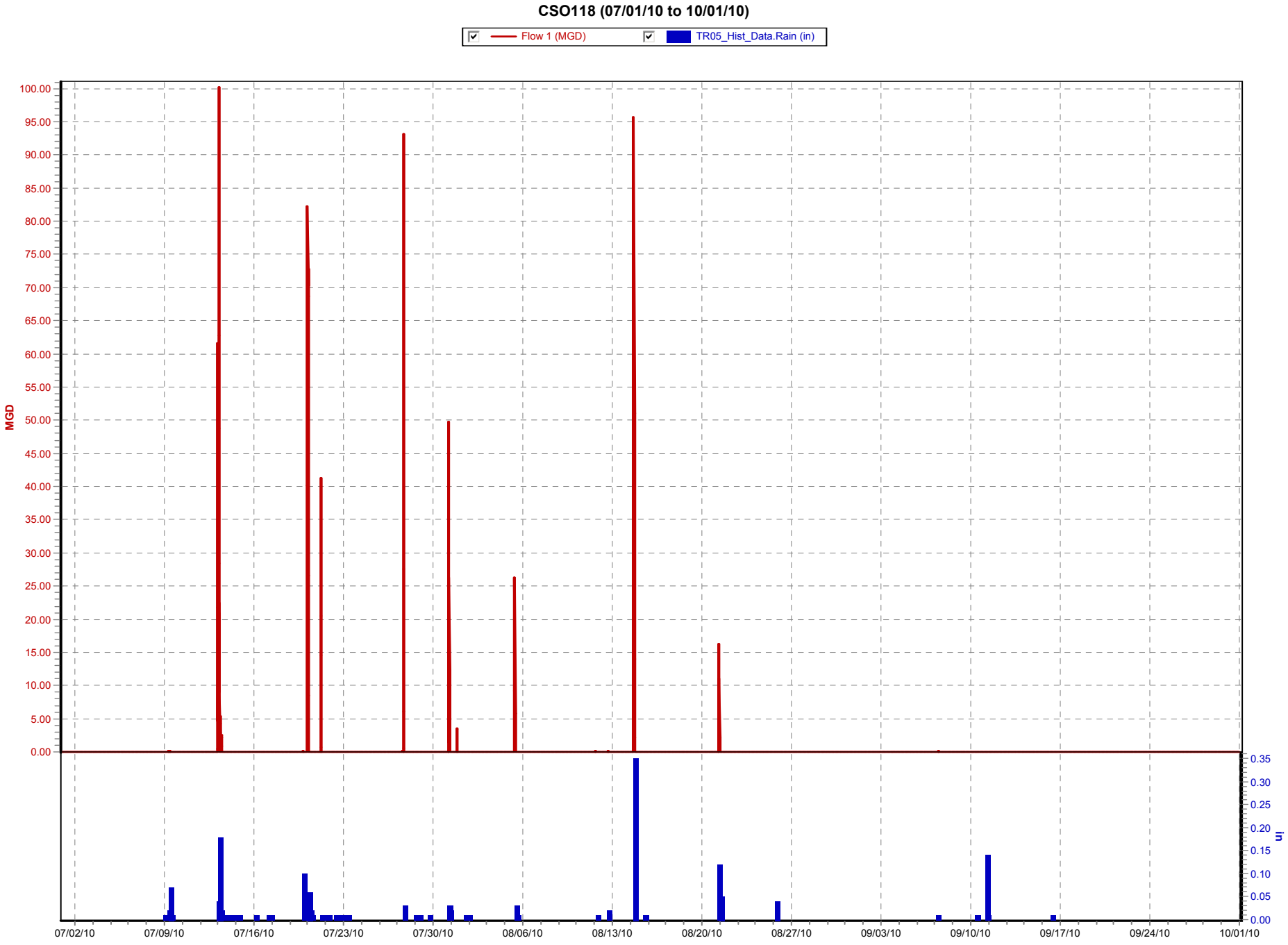
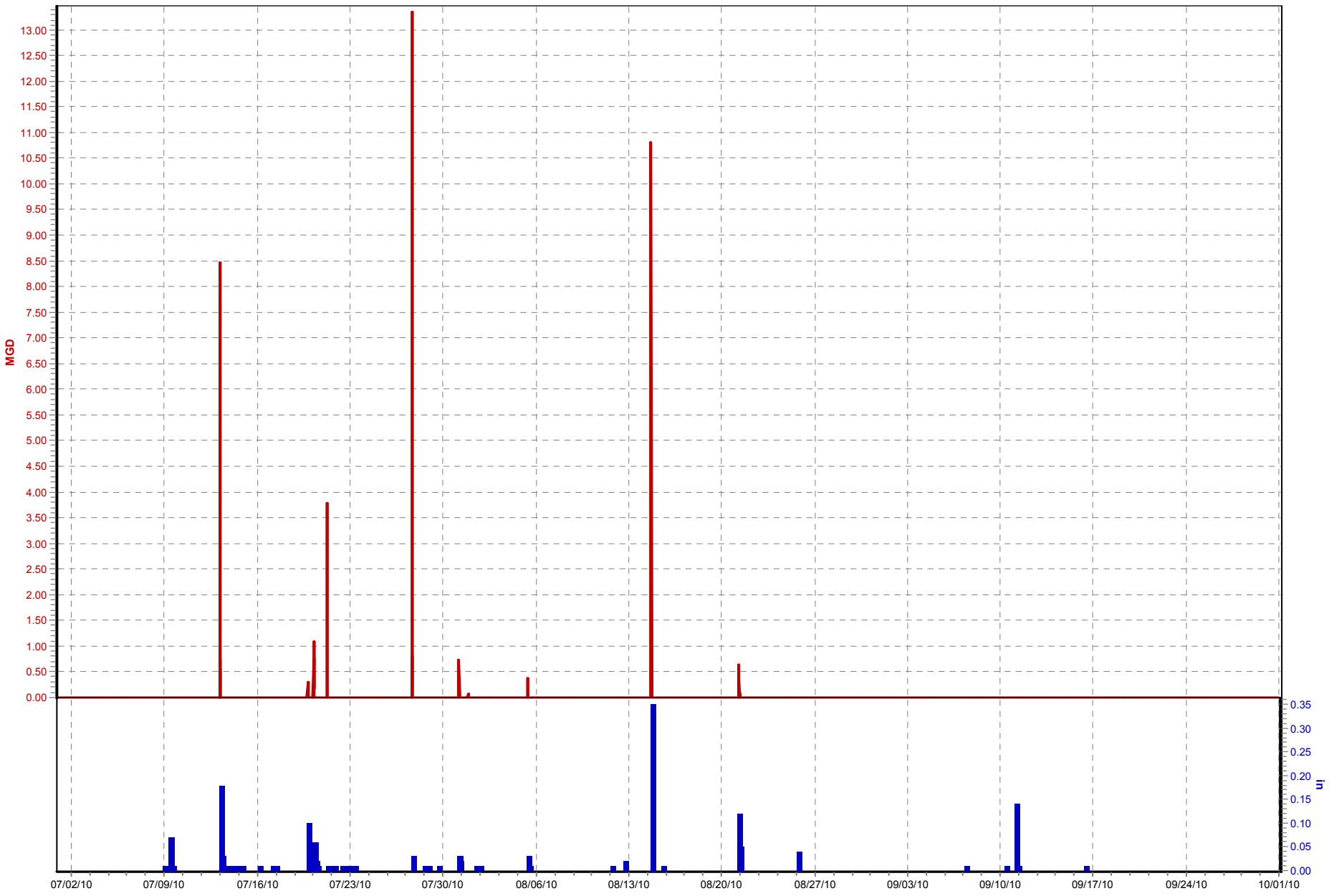
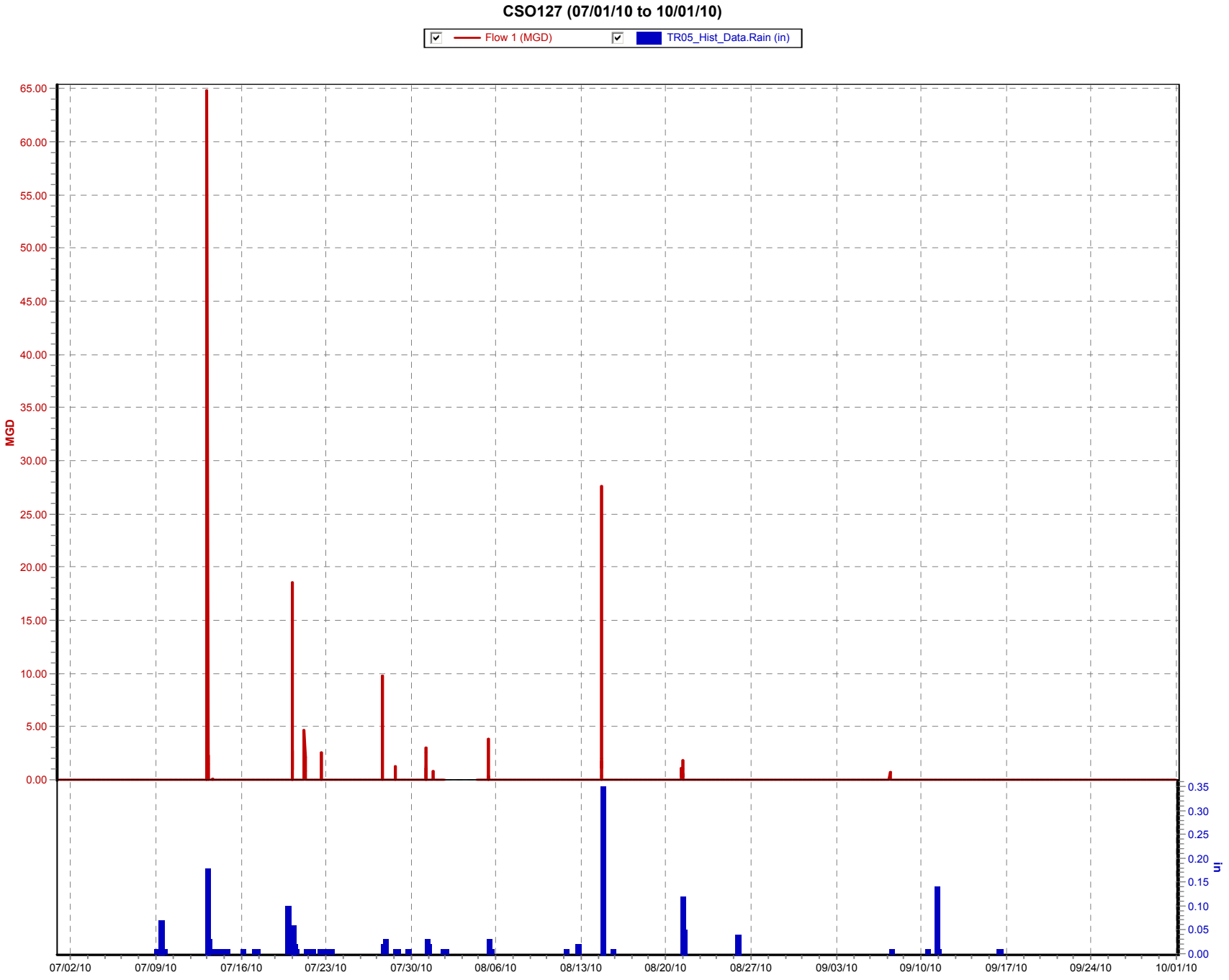
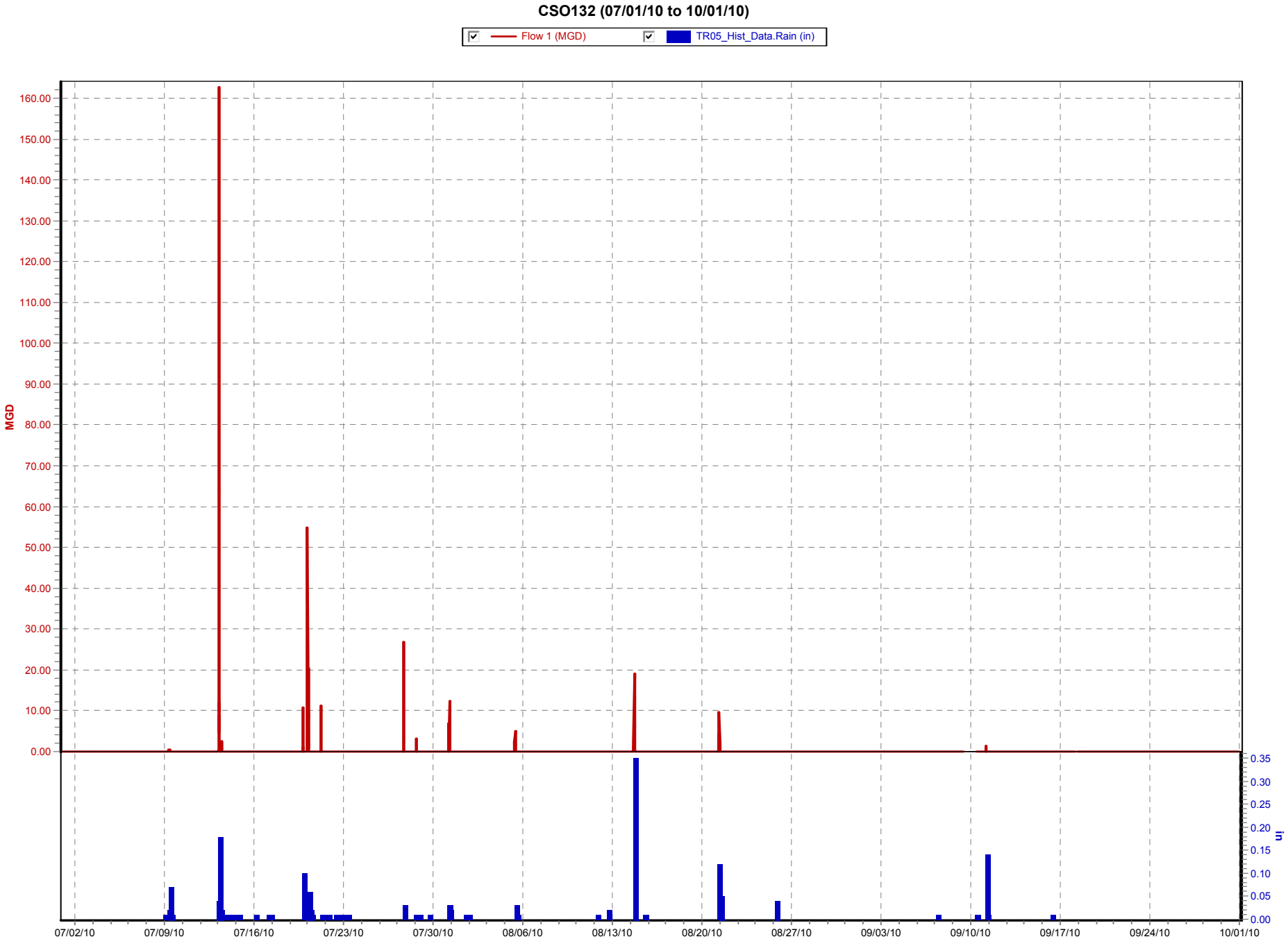
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

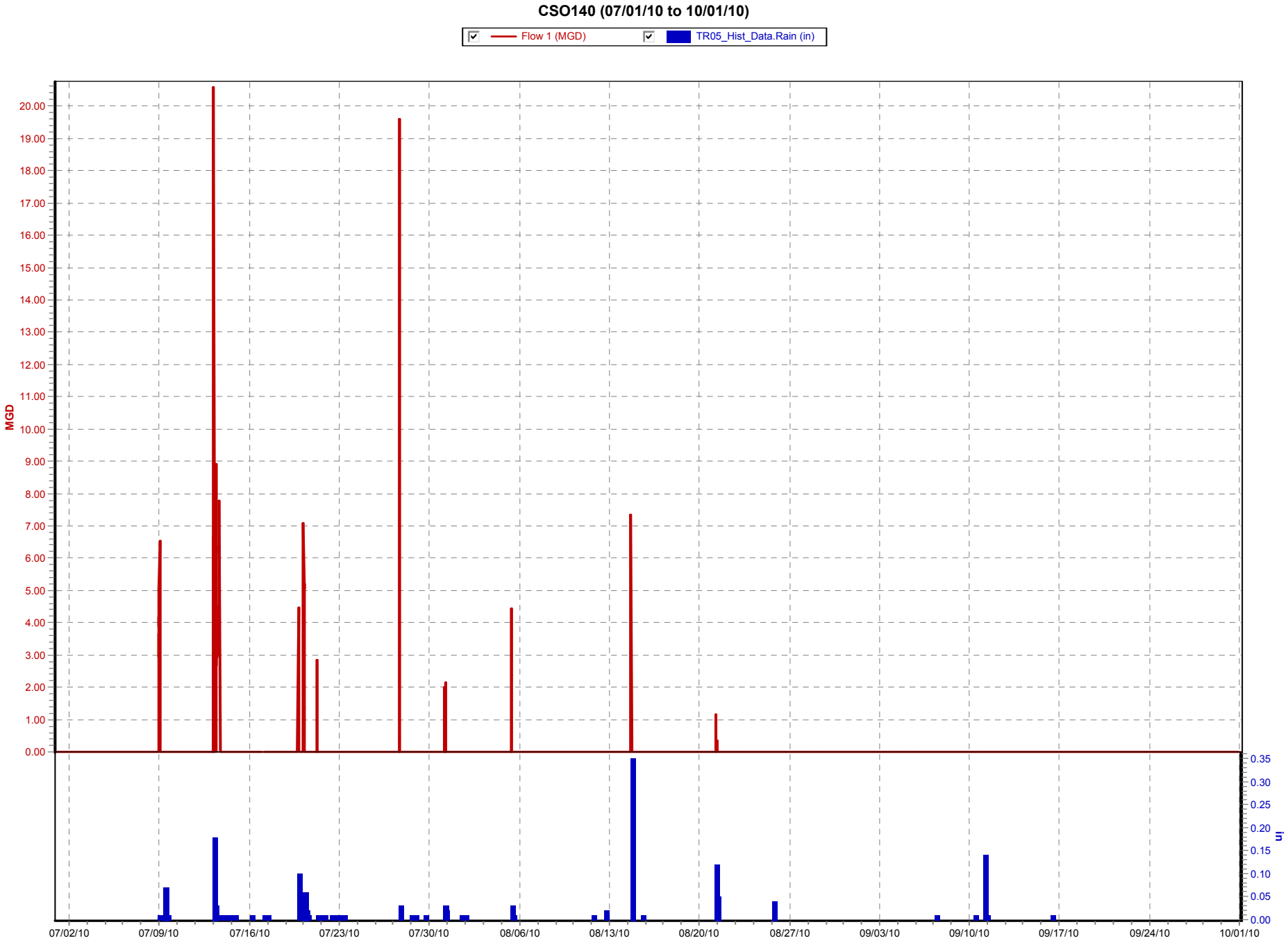

CSO118 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

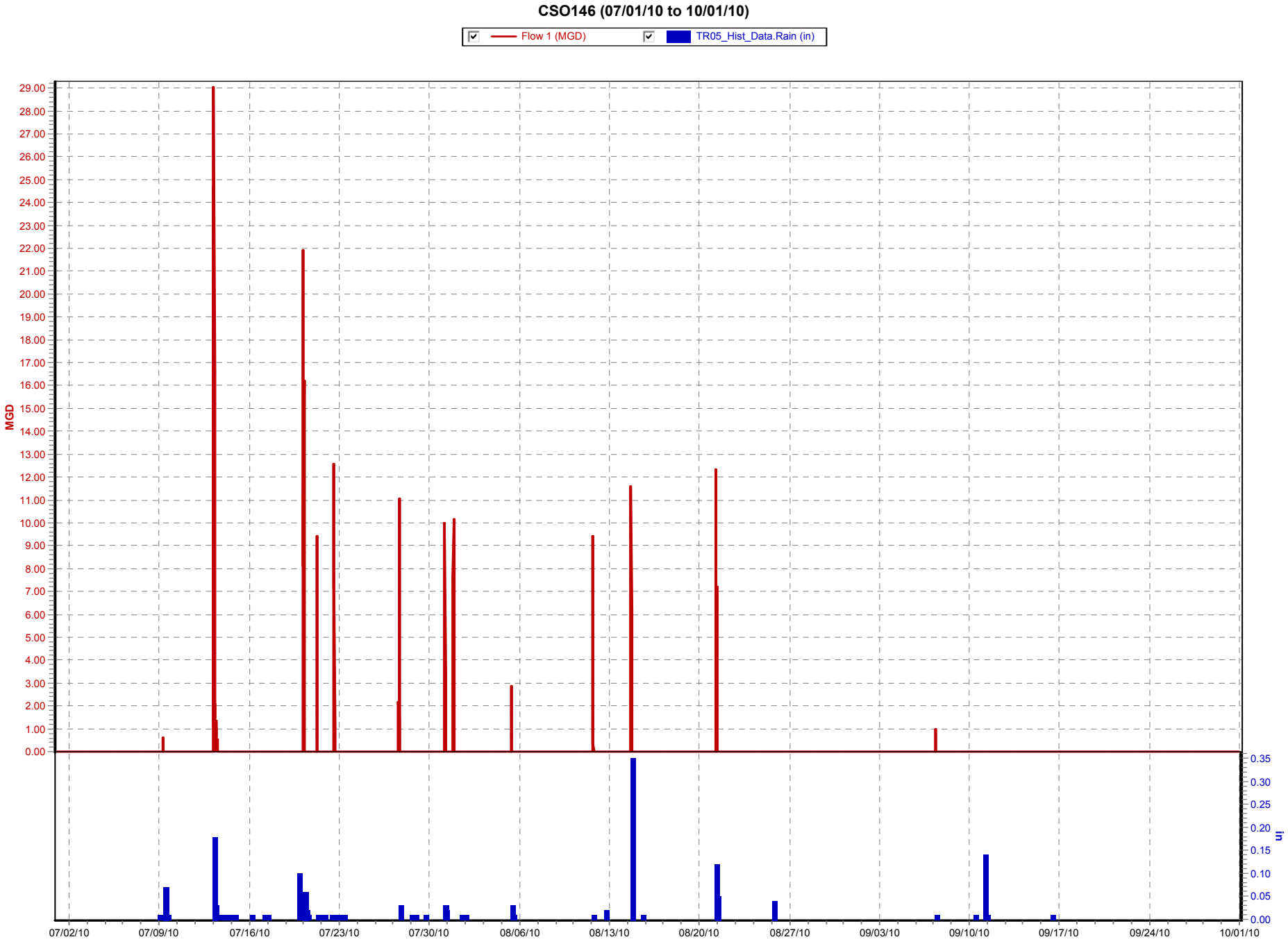
CSO121 (07/01/10 to 10/01/10)

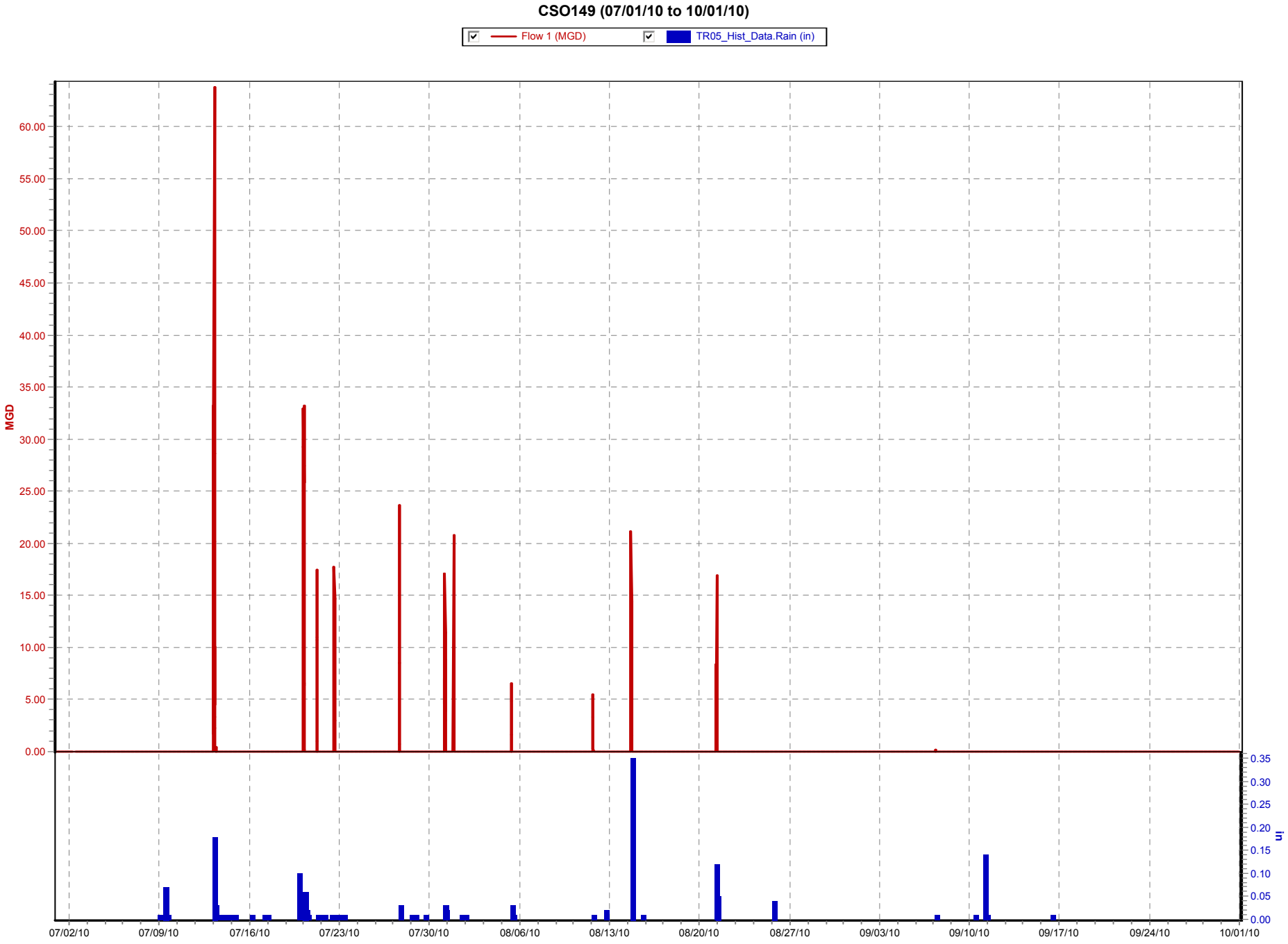


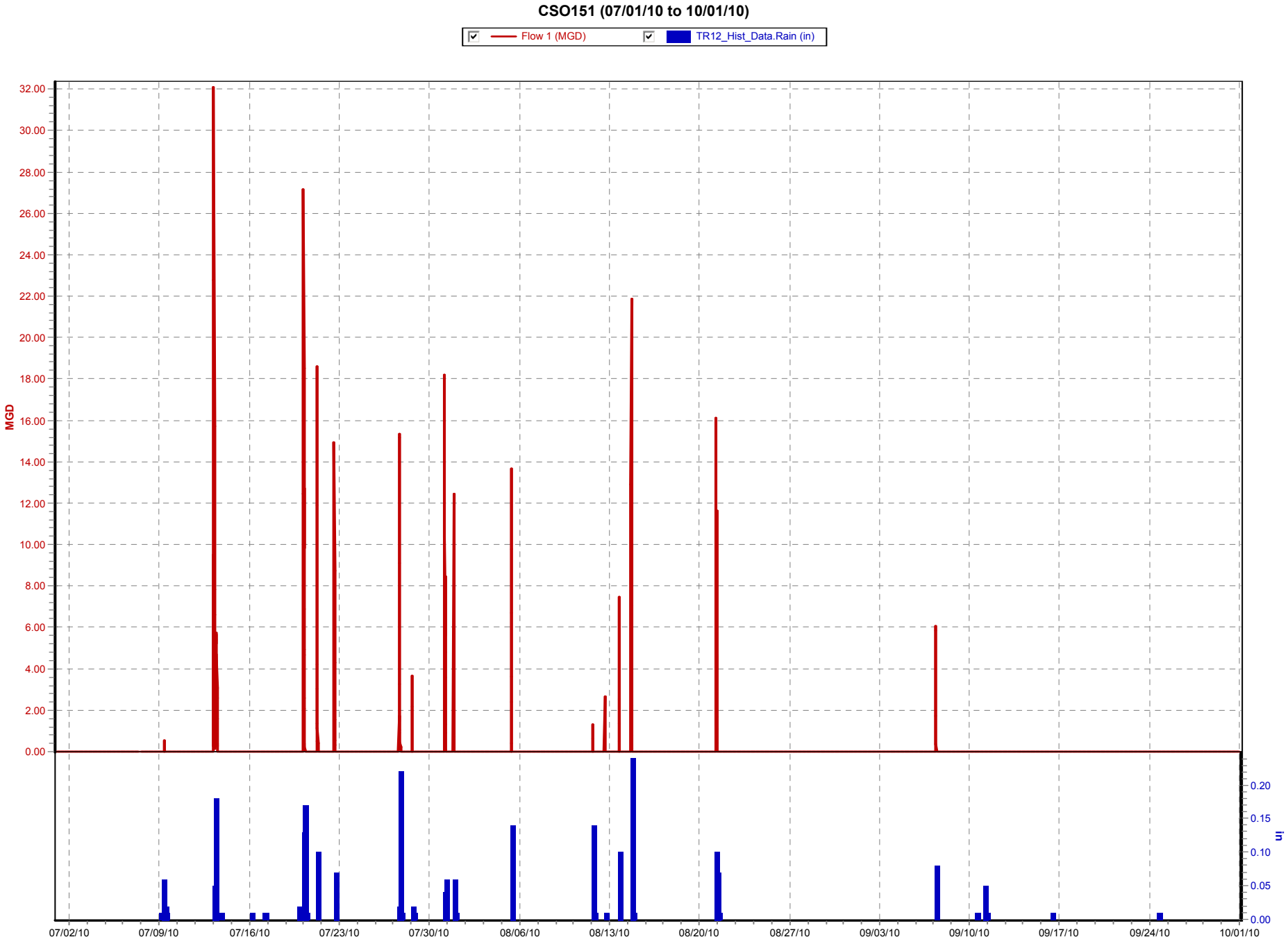

CSO127 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO132 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
in
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO140 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
in
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO146 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
29.00
28.00
27.00
26.00
25.00
24.00
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO149 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO151 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR12_Hist_Data.Rain (in)
MGD
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
in
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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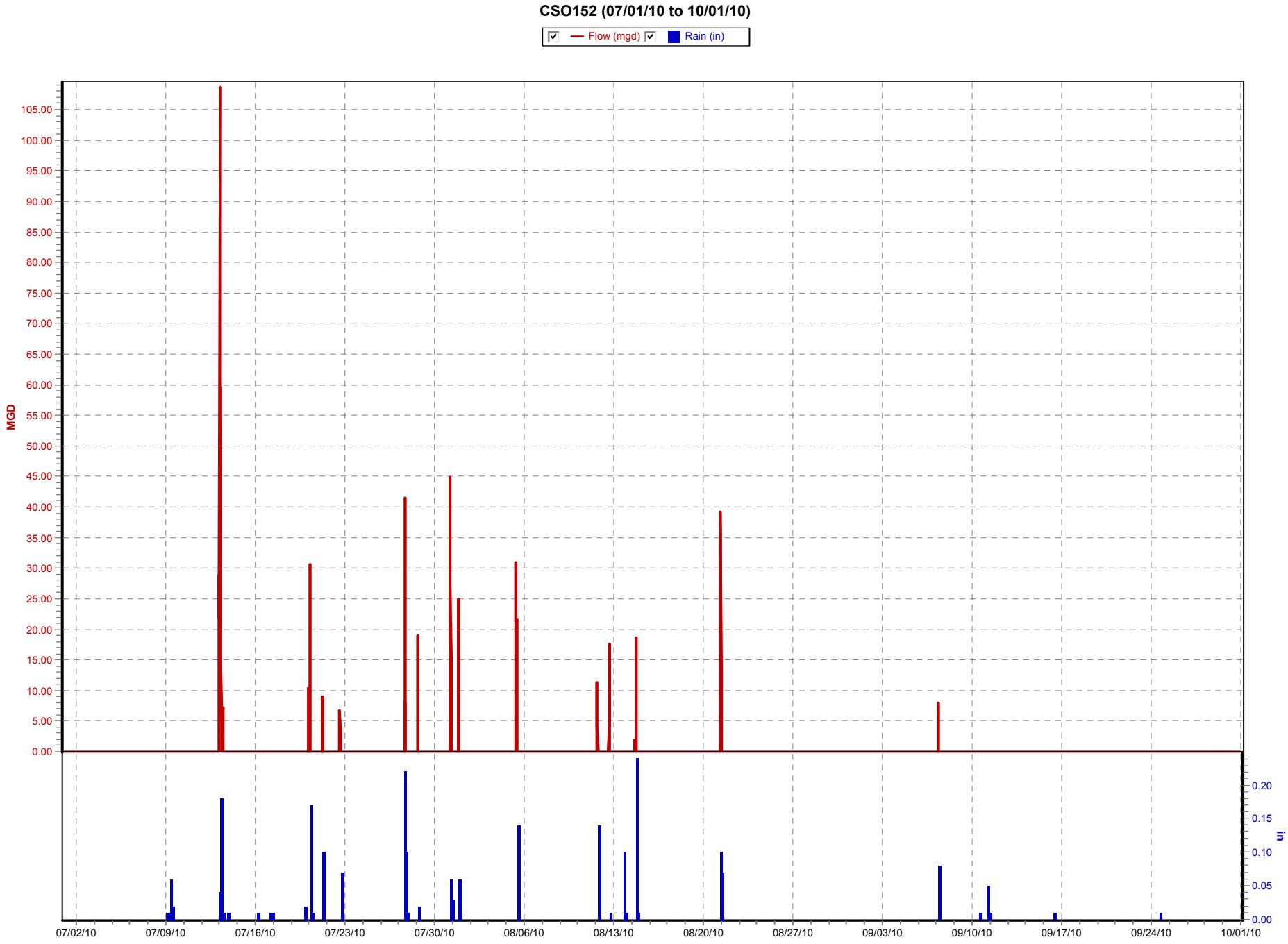
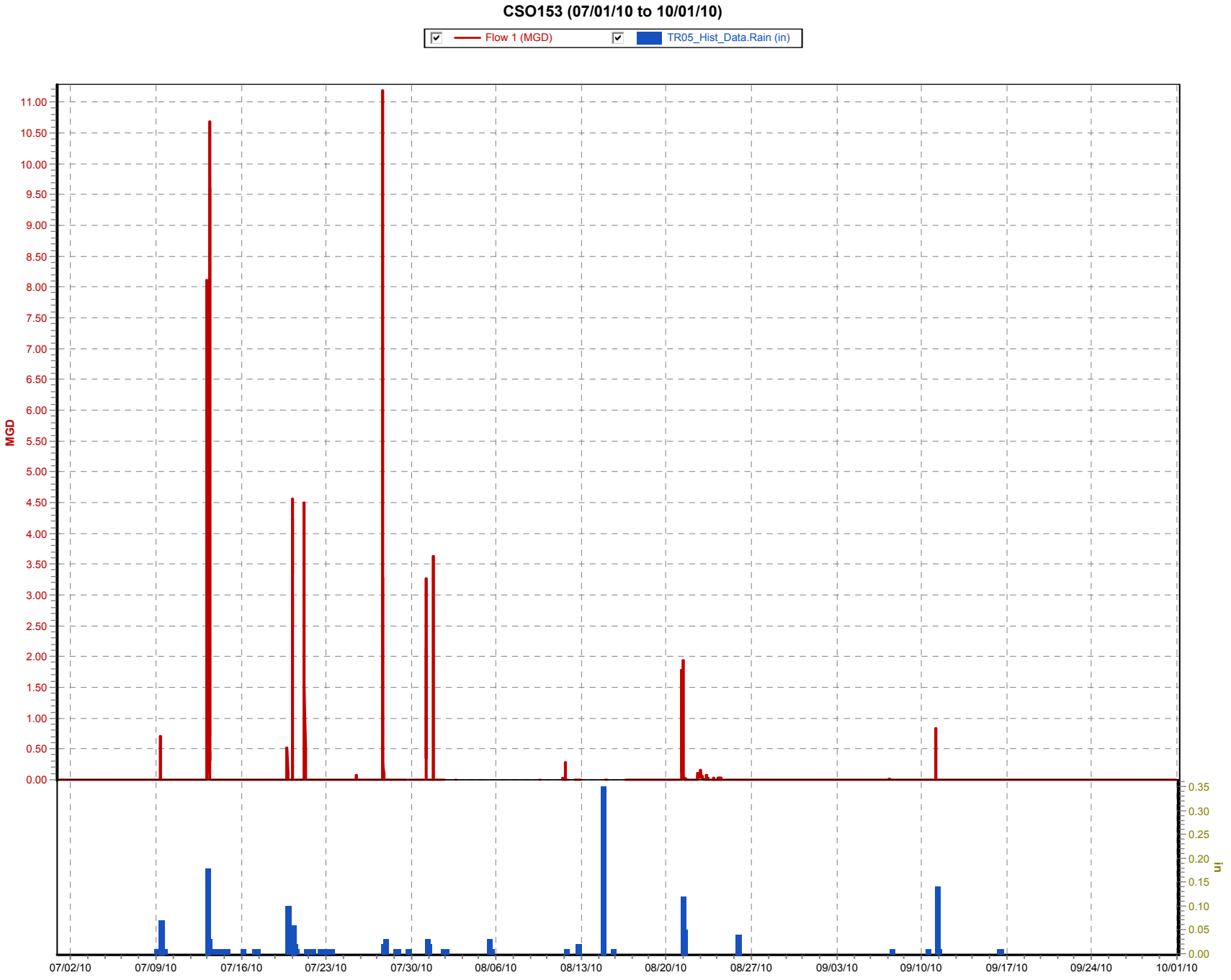
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO152 (07/01/10 to 10/01/10)
Flow (mgd)
Rain (in)
MGD
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.20
0.15
0.10
0.05
0.00
in
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO153 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
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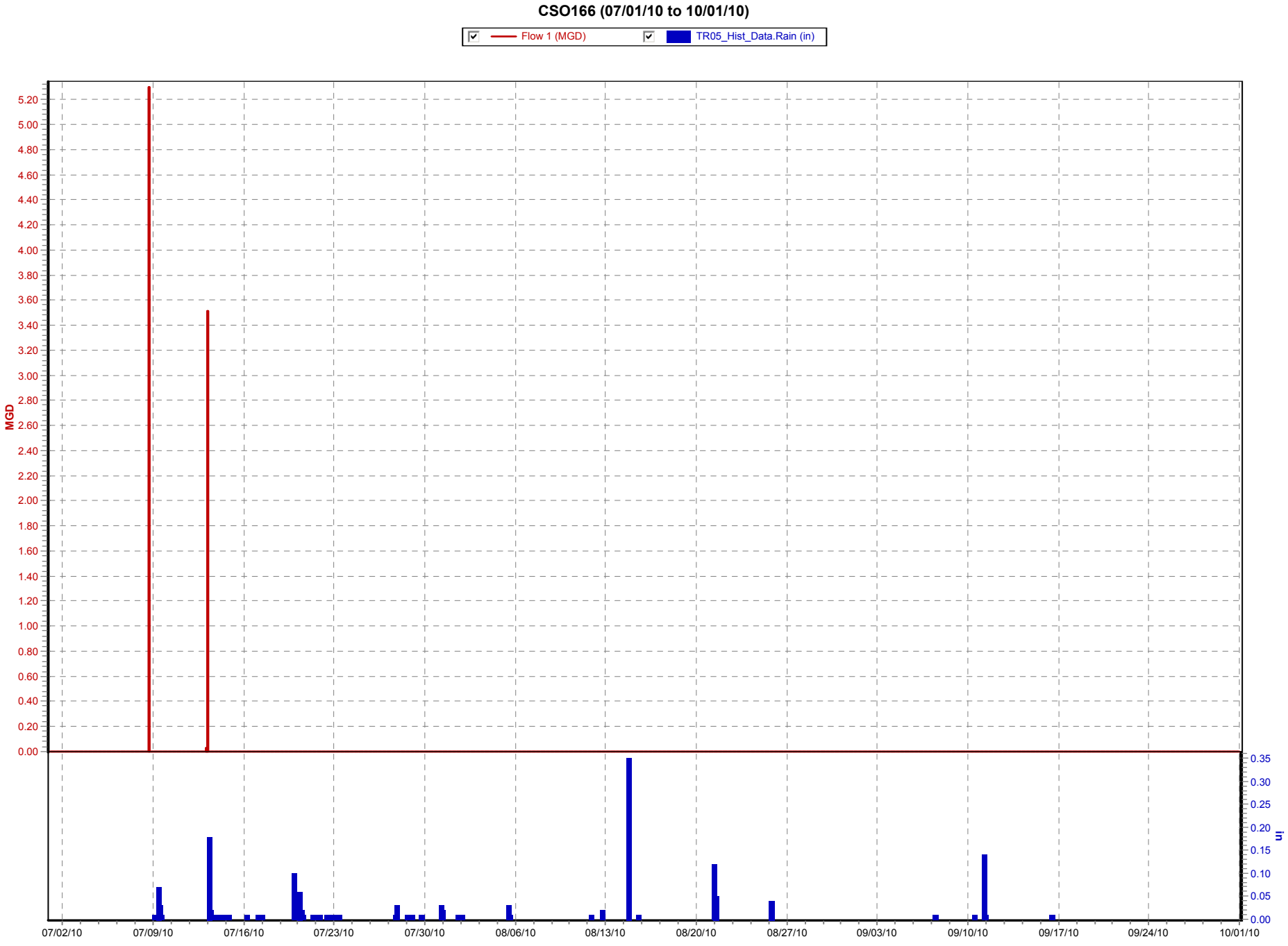
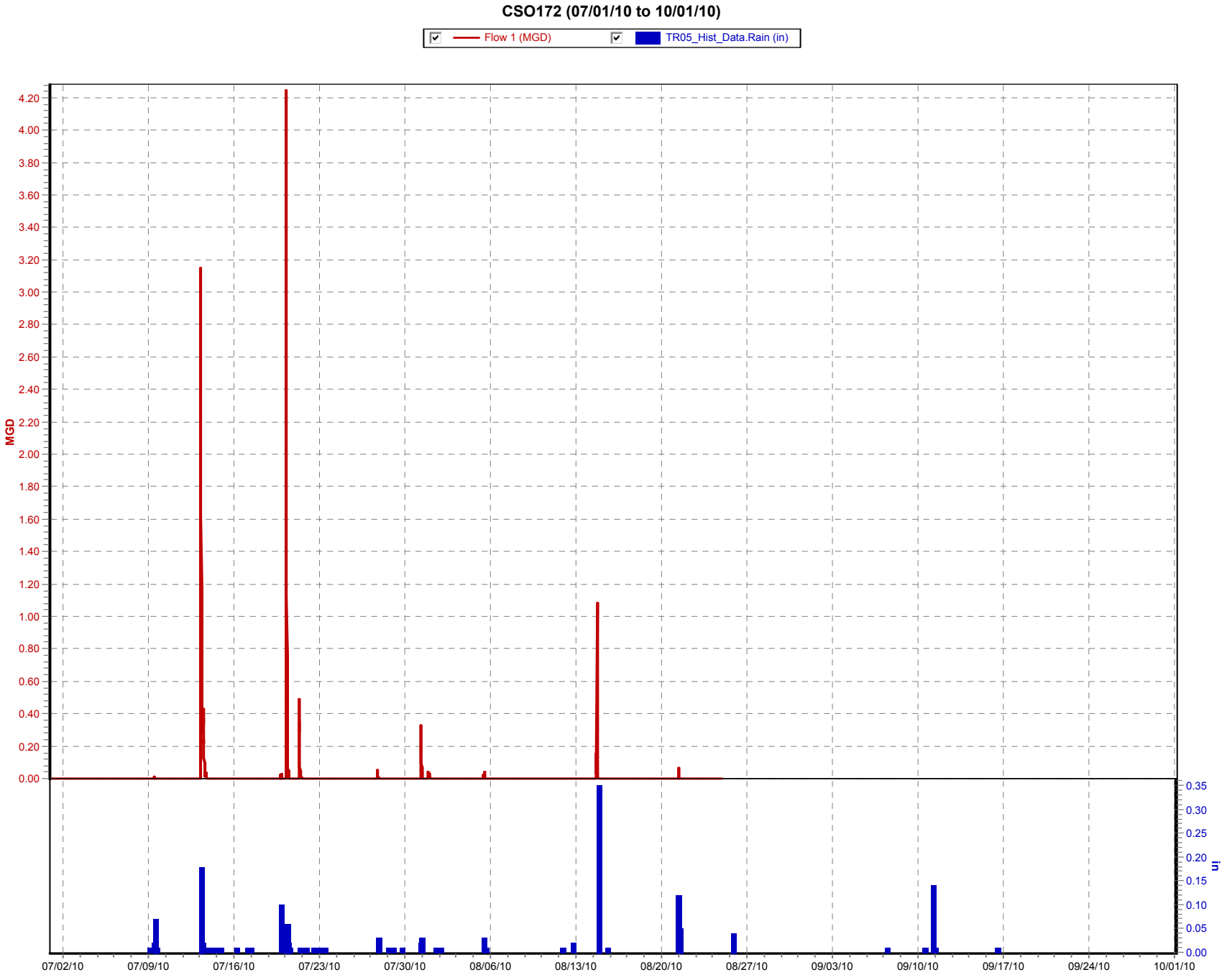
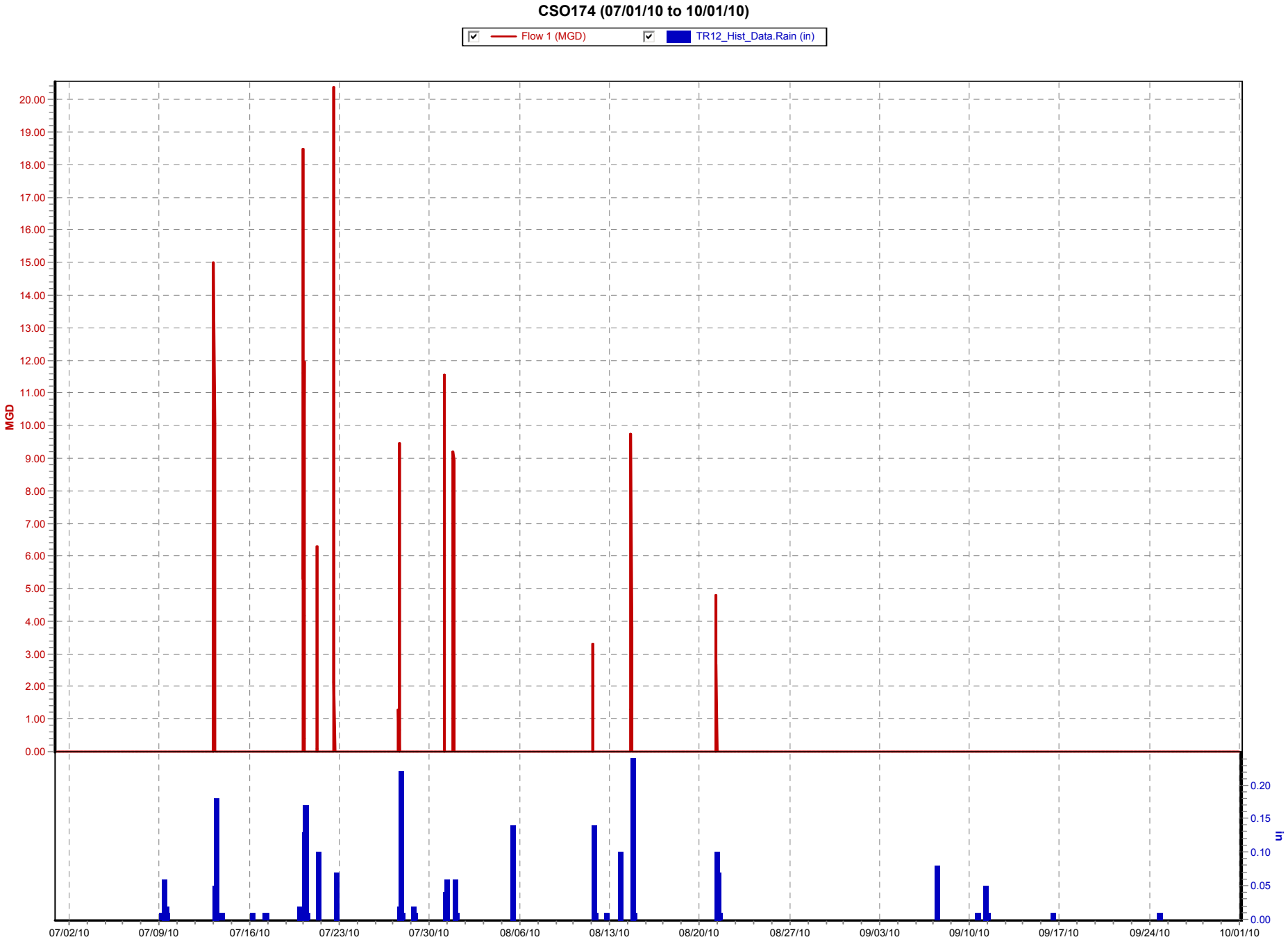
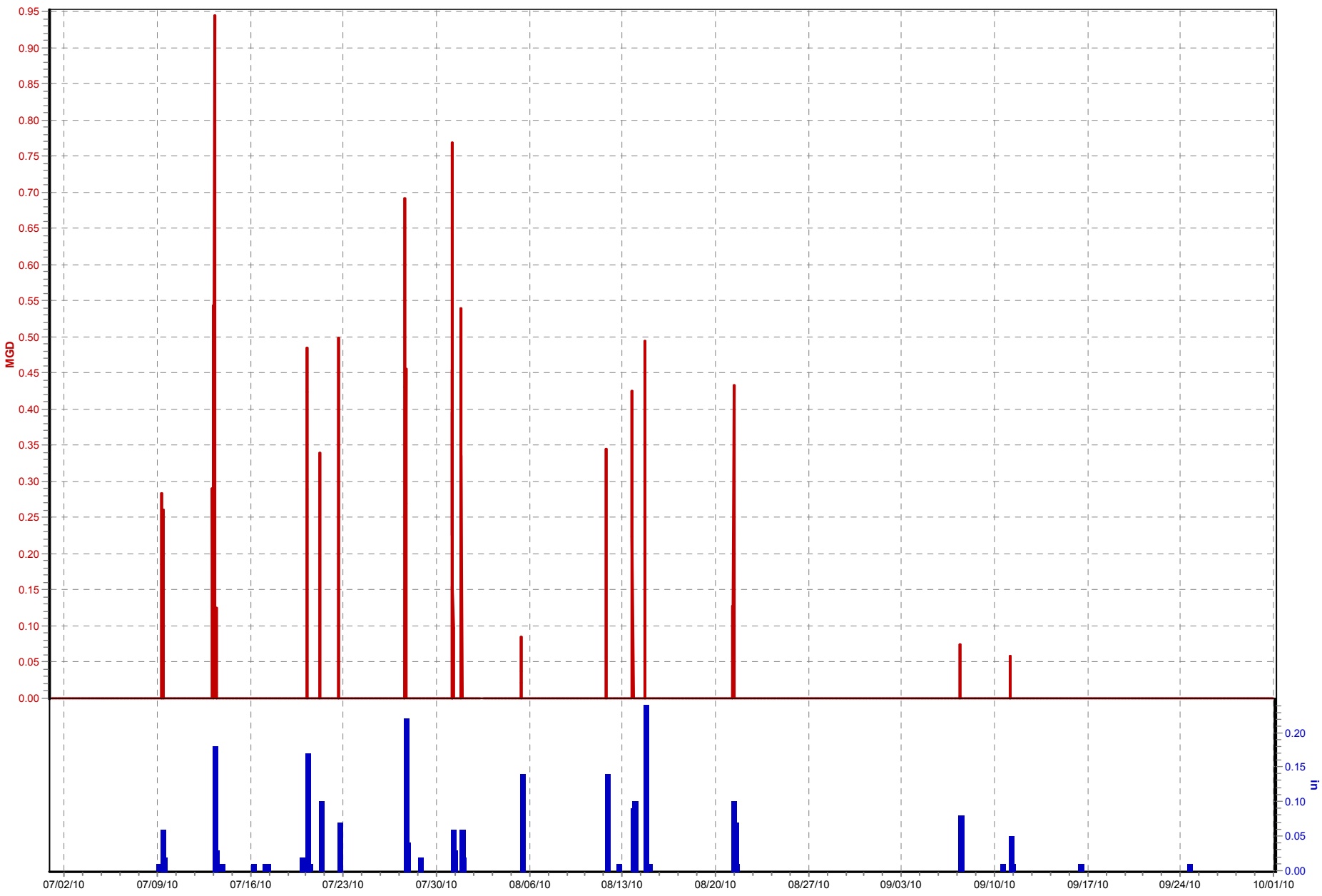
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

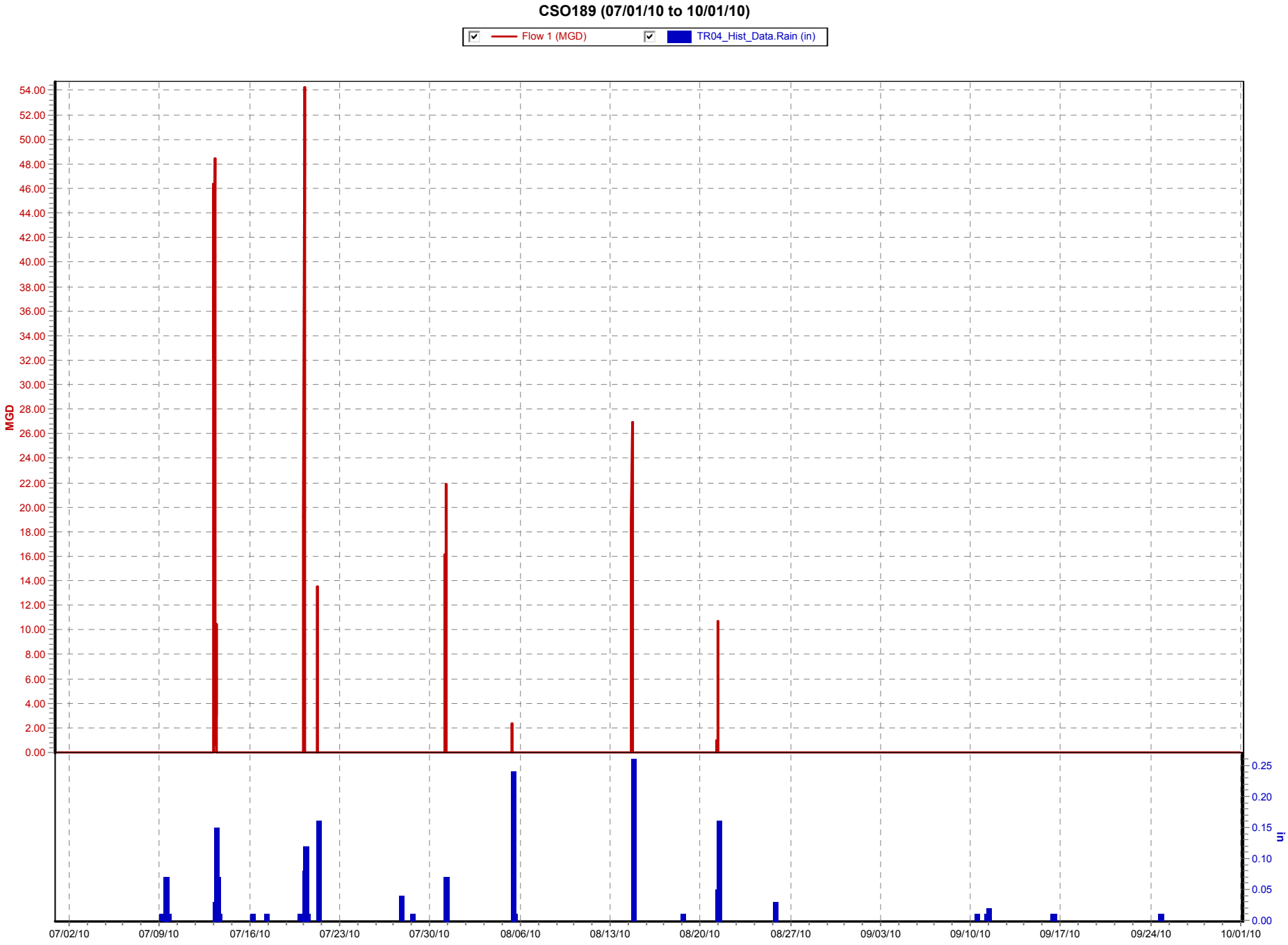

CSO166 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

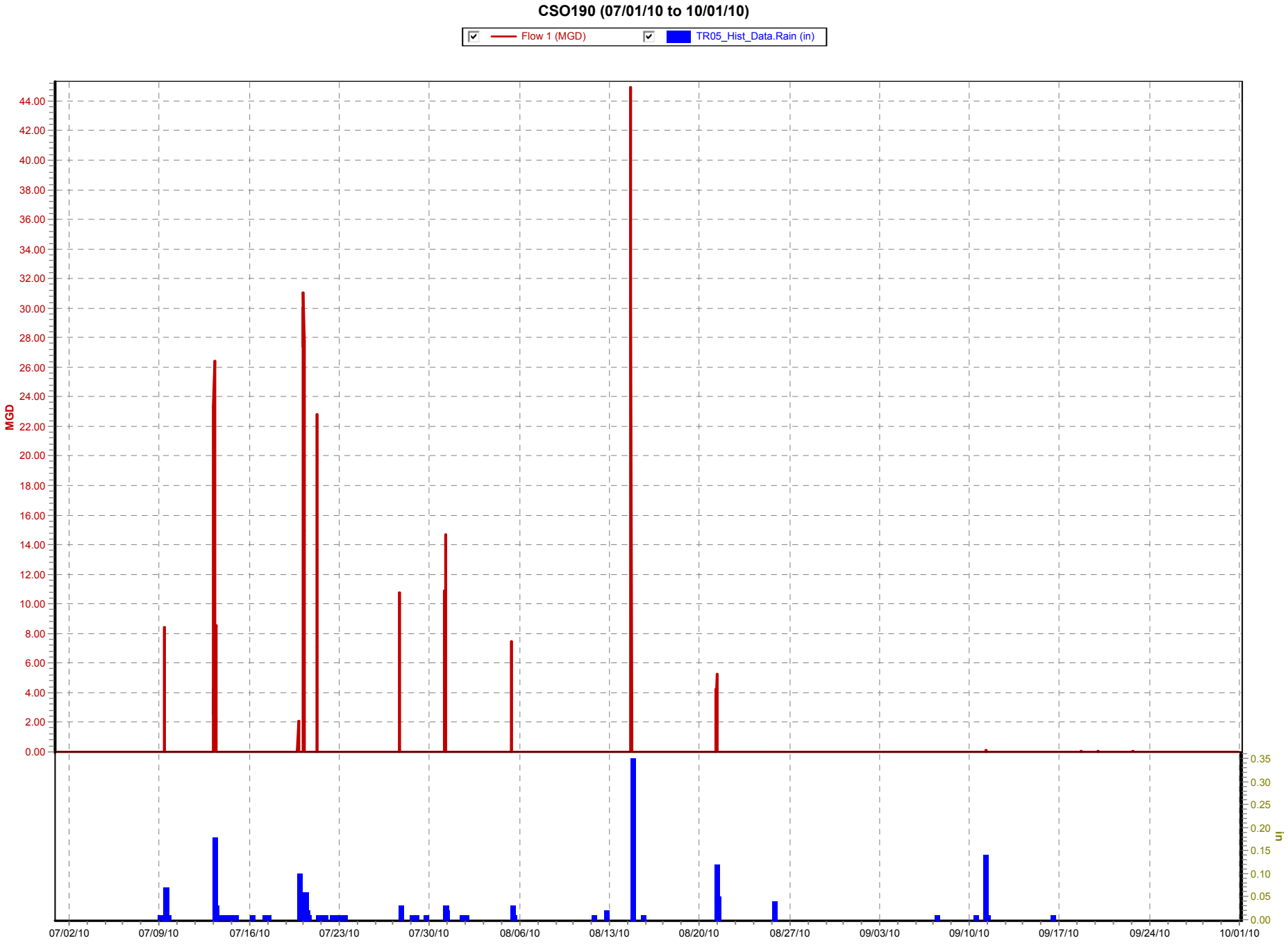

CSO172 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

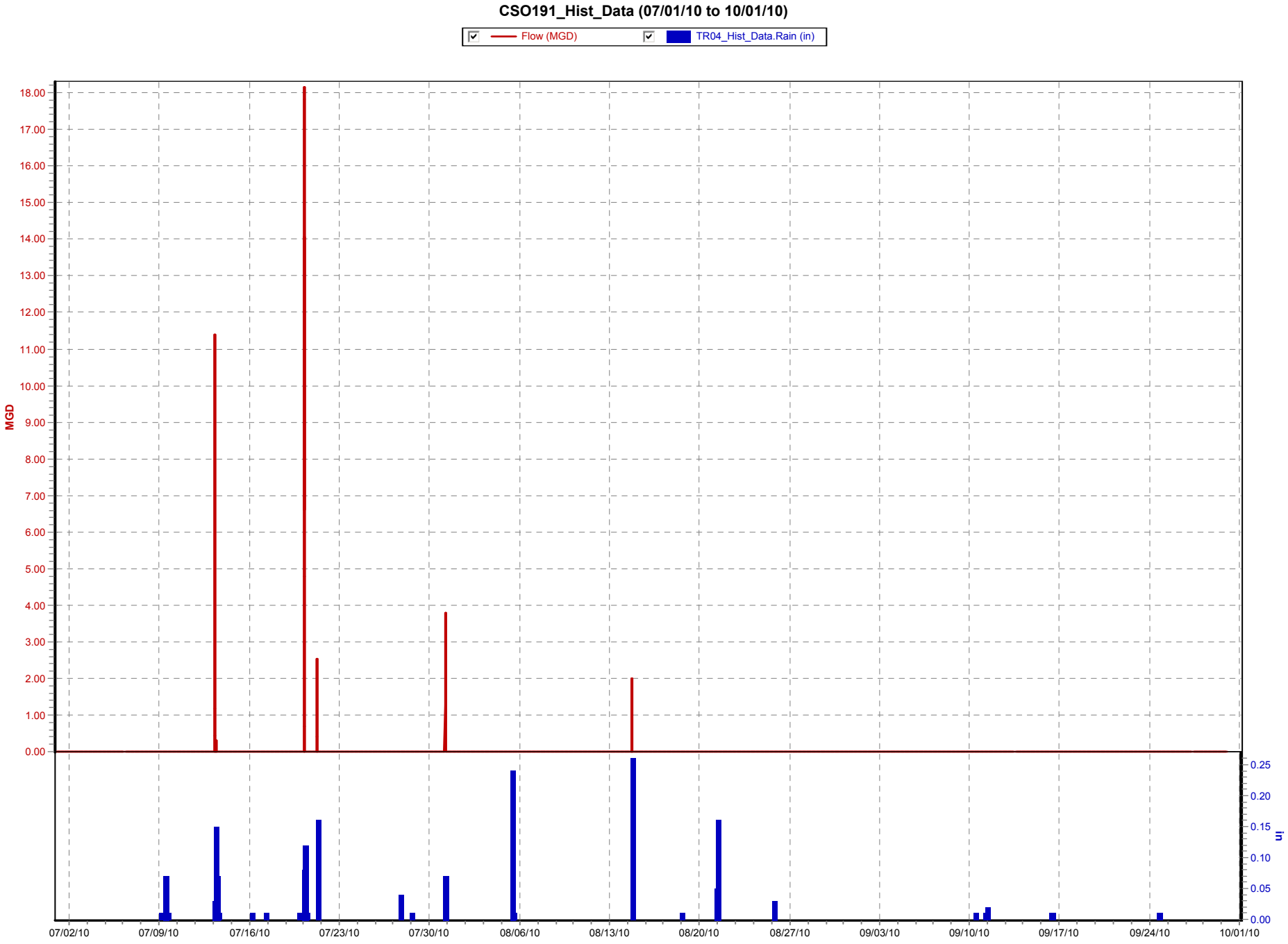

CSO174 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR12_Hist_Data.Rain (in)
MGD
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.20
0.15
0.10
0.05
0.00
in
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

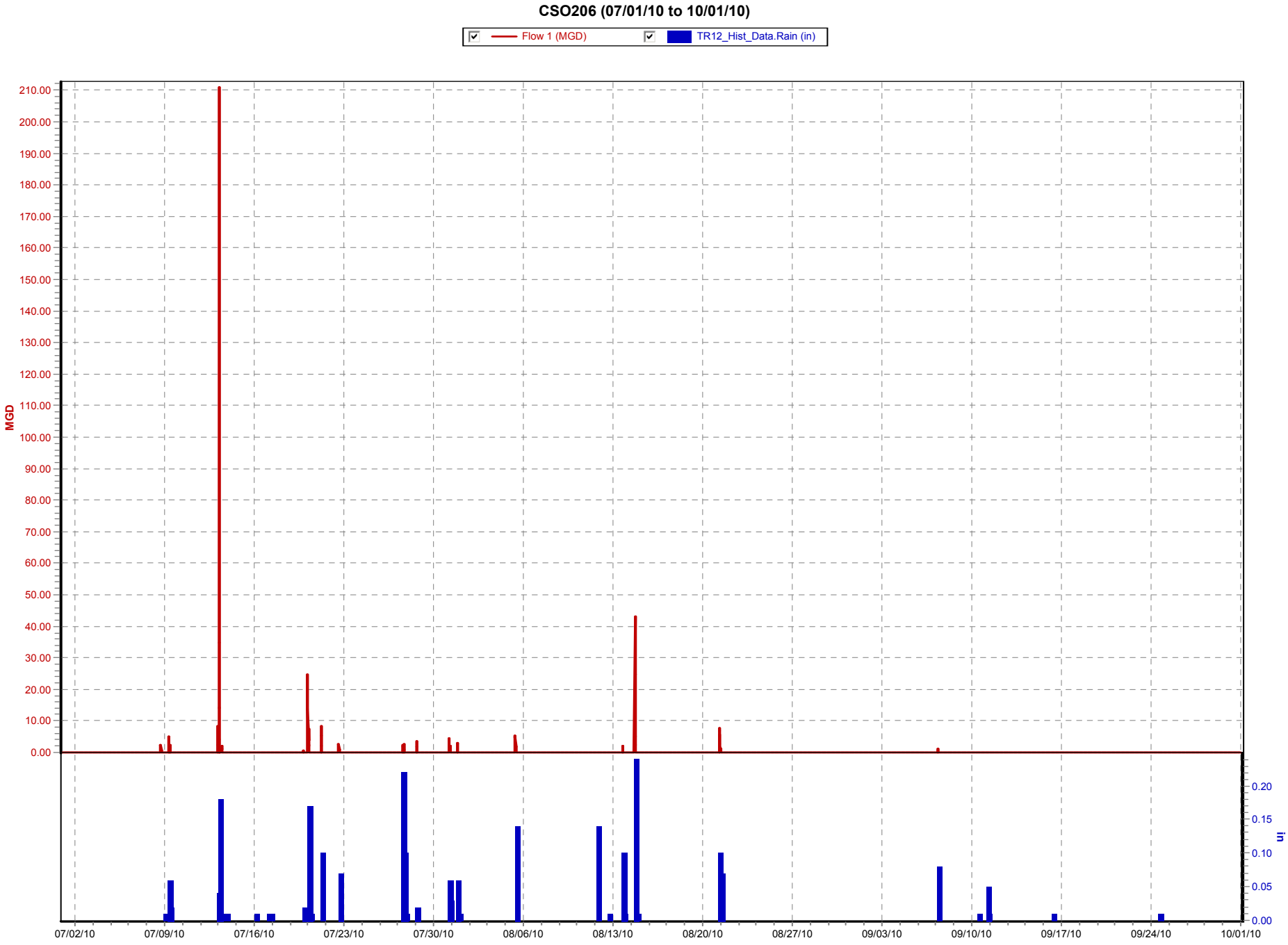
CSO182 (07/01/10 to 10/01/10)

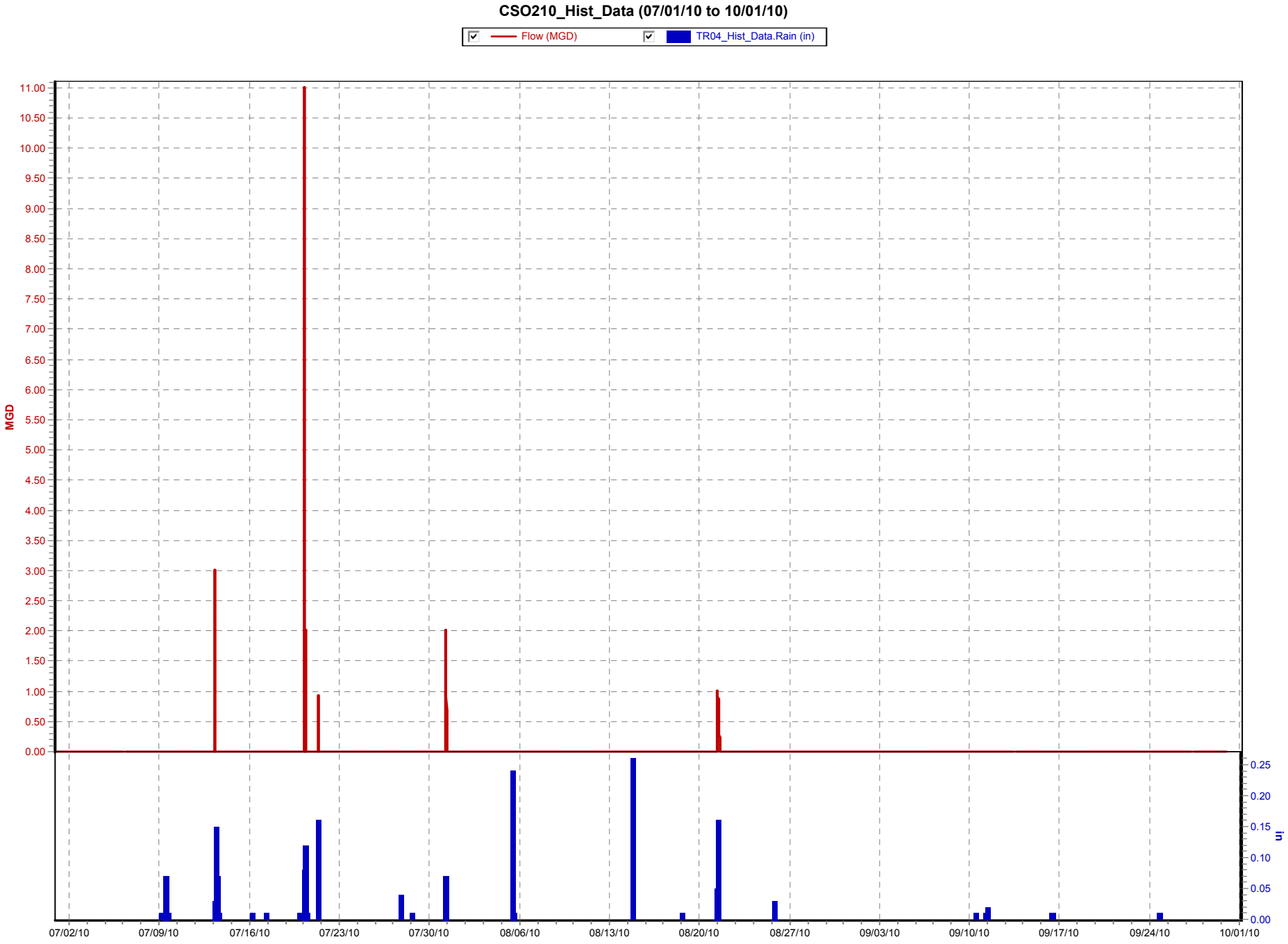


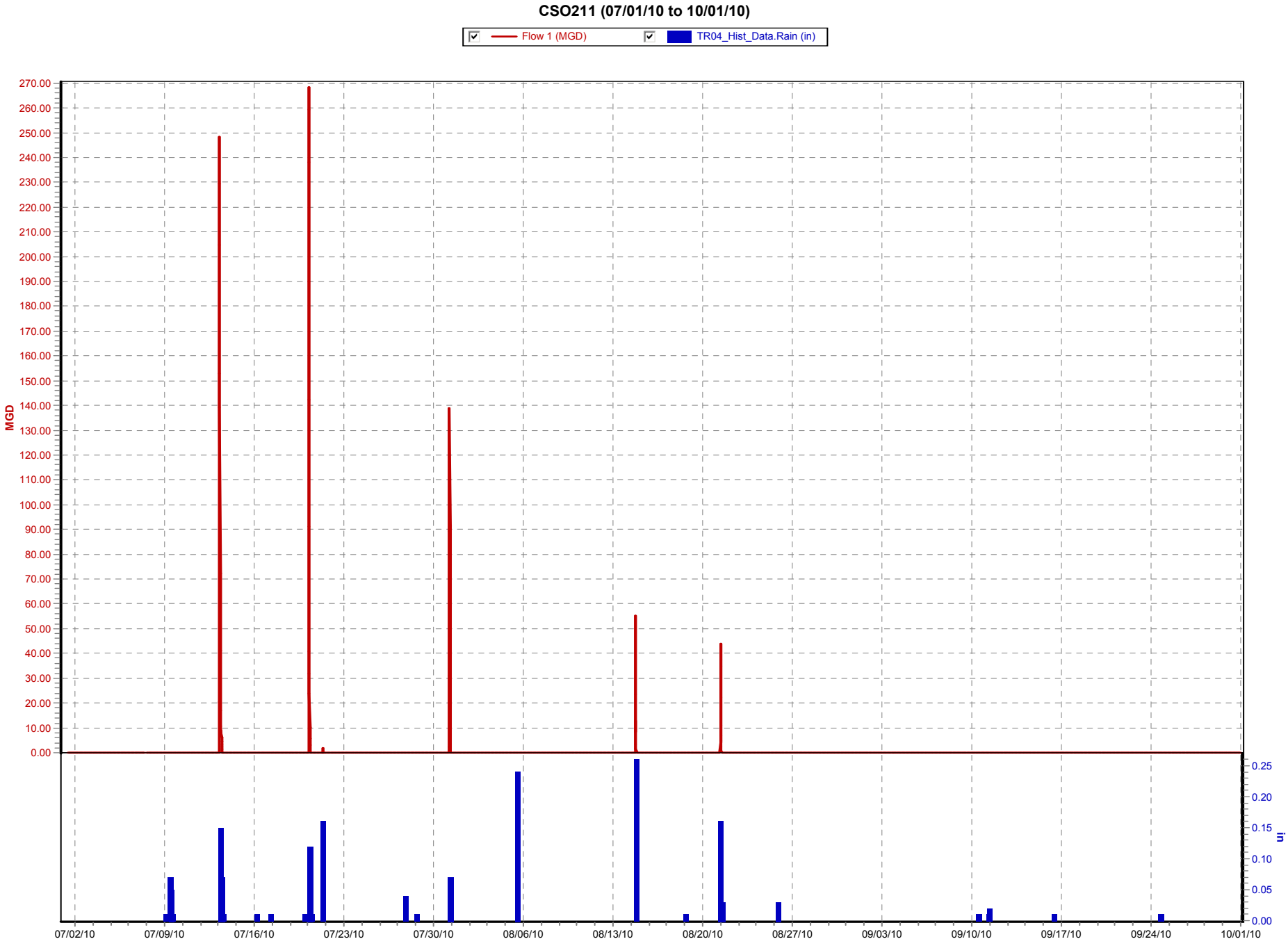

CSO189 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR04_Hist_Data.Rain (in)
MGD
in
54.00
52.00
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO190 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR05_Hist_Data.Rain (in)
MGD
in
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO191_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR04_Hist_Data.Rain (in)
MGD
in
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO206 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR12_Hist_Data.Rain (in)
MGD
210.00
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
in
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO210_Hist_Data (07/01/10 to 10/01/10)
Flow (MGD)
TR04_Hist_Data.Rain (in)
MGD
in
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10


CSO211 (07/01/10 to 10/01/10)
Flow 1 (MGD)
TR04_Hist_Data.Rain (in)
MGD
270.00
260.00
250.00
240.00
230.00
220.00
210.00
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
in
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

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 System
IOAP	Integrated Overflow Abatement Plan
ISSDP	Interim Sanitary Sewer Discharge Plan
IT	Information Technology
IWD	Industrial Waste Department
JCPS	Jefferson County Public Schools
KDEP	Kentucky Department of Environmental Protection
KPDES	Kentucky Pollutant Discharge Elimination System
KY	Kentucky
LE	Lateral Extension
LID	Low Impact Development
LIMS	Laboratory Information Management System
LTC	Long Term Control
LTCP	Long Term Control Plan
LOJIC	Louisville and Jefferson County Information Consortium
MDS	Main Diversion Structure

Appendix E - Acronyms for Project WIN Quarterly Report

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

Appendix E - Acronyms for Project WIN Quarterly Report

WW	Wet Weather
WWT	Wet Weather Team

Appendix F – RTC Report

Louisville/Jefferson County
Metropolitan Sewer District

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

Period	
From :	7/1/10
To :	9/30/10

Event Number	Wet Weather Event			Rainfall			Wet Weather Storage Volume (MG)							High River Levels
	Start Date	End Date	Duration	Average* TRFD (in)	Max** TRFD (in)	Max** Rain Gauge	SWPS SG Chamber	SWOR2	Brady Lake and Executive Inn Storage	Southern Outfall	Ohio River Interceptor	Sneads Branch	Total	
2010-048	7/8/10 16:00	7/9/10 21:40	29:40	0.799	1.710	TR15	0.90	7.70	0.40	1.70	2.85	1.30	14.85	No
2010-049	7/13/10 4:10	7/14/10 10:05	29:55	1.641	2.500	TR13	12.60	13.75	0.20	0.00	0.00	0.65	27.20	No
2010-052	7/19/10 19:25	7/21/10 6:05	34:40	1.133	1.320	TR12	13.85	8.95	4.70	3.75	3.35	0.95	35.55	No
2010-053	7/21/10 6:05	7/22/10 15:05	33:00	0.294	0.480	TR14	10.00	11.15	1.40	3.70	3.35	0.00	29.60	No
2010-054	7/22/10 15:05	7/23/10 10:30	19:25	0.029	0.150	TR12	2.25	0.30	0.40	2.95	0.95	0.00	6.85	No
2010-055	7/27/10 15:05	7/28/10 12:50	21:45	0.216	0.920	TR12	5.55	2.65	0.10	1.65	2.60	0.00	12.55	No
2010-056	7/28/10 12:50	7/30/10 8:45	43:55	0.383	0.960	TR15	11.50	0.00	0.10	0.00	0.00	0.00	11.60	No
2010-057	7/31/10 2:20	8/1/10 7:55	29:35	0.756	1.690	TR11	18.65	8.70	3.65	5.70	6.30	0.00	43.00	No
2010-058	8/5/10 9:35	8/5/10 19:45	10:10	0.249	0.340	TR04	5.75	3.20	0.95	1.00	1.35	0.00	12.25	No
2010-059	8/11/10 13:15	8/12/10 2:45	13:30	0.104	0.410	TR11	7.60	6.10	0.25	0.65	1.45	0.00	16.05	No
2010-060	8/12/10 15:30	8/12/10 23:50	8:20	0.011	0.040	TR13	4.90	0.85	0.00	0.00	0.00	0.00	5.75	No
2010-061	8/13/10 18:30	8/14/10 4:05	9:35	0.186	0.810	TR15	0.00	2.50	1.80	0.00	0.00	0.00	4.30	No
2010-062	8/14/10 16:50	8/15/10 15:05	22:15	1.150	1.750	TR14	12.65	9.85	4.95	0.00	0.00	0.10	27.55	No
2010-064	8/21/10 7:15	8/22/10 1:00	17:45	0.691	1.040	TR14	14.40	4.75	2.30	3.70	3.95	0.00	29.10	No
Total							**120.60**	**80.45**	**21.20**	**24.80**	**26.15**	**3.00**	**276.20**	

*Average Total Rainfall Depth Based on Rain Gauge TR04, TR05, TR11, TR12, TR13, TR14 and TR15
**Maximum Total Rainfall Depth Measurement and its Location during the Wet Weather Event

Appendix G – Phosphorus Data

Ken Carla Wastewater Treatment Plant KY0022497
Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
7/1/2010	EPA 200.7	Total Phosphorous via ICP	1.96	mg/l	MSD
7/15/2010	EPA 200.7	Total Phosphorous via ICP	0.365	mg/l	MSD
7/23/2010	EPA 200.7	Total Phosphorous via ICP	0.419	mg/l	MSD
7/28/2010	EPA 200.7	Total Phosphorous via ICP	0.958	mg/l	MSD
		Monthly Average	**0.93**	mg/l	
8/2/2010	EPA 200.7	Total Phosphorous via ICP	0.388	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	**0.39**	mg/l	
9/2/2010	EPA 200.7	Total Phosphorous via ICP	0.066	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	**0.07**	mg/l	

Shadow Wood Wastewater Treatment Plant KY0031810
Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
7/1/2010	EPA 200.7	Total Phosphorous via ICP	0.556	mg/l	MSD
7/8/2010	EPA 200.7	Total Phosphorous via ICP	0.525	mg/l	MSD
7/15/2010	EPA 200.7	Total Phosphorous via ICP	2.22	mg/l	MSD
7/22/2010	EPA 200.7	Total Phosphorous via ICP	0.637	mg/l	MSD
7/28/2010	EPA 200.7	Total Phosphorous via ICP	0.368	mg/l	MSD
		Monthly Average	**0.86**	mg/l	
8/2/2010	EPA 200.7	Total Phosphorous via ICP	1.33	mg/l	MSD
8/9/2010	EPA 200.7	Total Phosphorous via ICP	0.82	mg/l	MSD
8/18/2010	EPA 200.7	Total Phosphorous via ICP	0.729	mg/l	MSD
8/23/2010	EPA 200.7	Total Phosphorous via ICP	0.835	mg/l	MSD
		Monthly Average	**0.93**	mg/l	
9/2/2010	EPA 200.7	Total Phosphorous via ICP	0.687	mg/l	MSD
9/8/2010	EPA 200.7	Total Phosphorous via ICP	0.873	mg/l	MSD
9/15/2010	EPA 200.7	Total Phosphorous via ICP	1.03	mg/l	MSD
9/21/2010	EPA 200.7	Total Phosphorous via ICP	0.506	mg/l	MSD
9/22/2010	EPA 200.7	Total Phosphorous via ICP	0.502	mg/l	MSD
9/29/2010	EPA 200.7	Total Phosphorous via ICP	0.374	mg/l	MSD
		Monthly Average	**0.66**	mg/l	

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

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
7/1/2010	EPA 200.7	Total Phosphorous via ICP	0.82	mg/l	MSD
7/8/2010	EPA 200.7	Total Phosphorous via ICP	0.44	mg/l	MSD
7/15/2010	EPA 200.7	Total Phosphorous via ICP	0.944	mg/l	MSD
7/22/2010	EPA 200.7	Total Phosphorous via ICP	0.398	mg/l	MSD
7/28/2010	EPA 200.7	Total Phosphorous via ICP	0.364	mg/l	MSD
		Monthly Average	**0.59**	mg/l	
8/2/2010	EPA 200.7	Total Phosphorous via ICP	0.466	mg/l	MSD
8/9/2010	EPA 200.7	Total Phosphorous via ICP	0.431	mg/l	MSD
8/18/2010	EPA 200.7	Total Phosphorous via ICP	0.438	mg/l	MSD
8/23/2010	EPA 200.7	Total Phosphorous via ICP	0.417	mg/l	MSD
		Monthly Average	**0.44**	mg/l	
9/2/2010	EPA 200.7	Total Phosphorous via ICP	0.229	mg/l	MSD
9/8/2010	EPA 200.7	Total Phosphorous via ICP	0.356	mg/l	MSD
9/15/2010	EPA 200.7	Total Phosphorous via ICP	0.491	mg/l	MSD
9/22/2010	EPA 200.7	Total Phosphorous via ICP	0.529	mg/l	MSD
9/29/2010	EPA 200.7	Total Phosphorous via ICP	0.602	mg/l	MSD
		Monthly Average	**0.44**	mg/l	

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

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
7/1/2010	EPA 200.7	Total Phosphorous via ICP	0.247	mg/l	MSD
7/8/2010	EPA 200.7	Total Phosphorous via ICP	0.588	mg/l	MSD
7/15/2010	EPA 200.7	Total Phosphorous via ICP	0.19	mg/l	MSD
7/22/2010	EPA 200.7	Total Phosphorous via ICP	0.171	mg/l	MSD
7/28/2010	EPA 200.7	Total Phosphorous via ICP	0.65	mg/l	MSD
		Monthly Average	**0.37**	mg/l	
8/2/2010	EPA 200.7	Total Phosphorous via ICP	0.127	mg/l	MSD
8/9/2010	EPA 200.7	Total Phosphorous via ICP	0.211	mg/l	MSD
8/18/2010	EPA 200.7	Total Phosphorous via ICP	0.246	mg/l	MSD
8/23/2010	EPA 200.7	Total Phosphorous via ICP	0.203	mg/l	MSD
		Monthly Average	**0.20**	mg/l	
9/2/2010	EPA 200.7	Total Phosphorous via ICP	0.404	mg/l	MSD
9/8/2010	EPA 200.7	Total Phosphorous via ICP	0.345	mg/l	MSD
9/15/2010	EPA 200.7	Total Phosphorous via ICP	0.147	mg/l	MSD
9/22/2010	EPA 200.7	Total Phosphorous via ICP	0.307	mg/l	MSD
9/29/2010	EPA 200.7	Total Phosphorous via ICP	0.134	mg/l	MSD
		Monthly Average	**0.27**	mg/l	

** MSD personnel lost the Total Phosphorus sample.

Timberlake Wastewater Treatment Plant KY0043087
Quarterly Effluent Total Phosphorus Results

SAMPLE DATE	TEST METHOD	PARAMETER	RESULT	UNIT	LABORATORY
7/1/2010	EPA 200.7	Total Phosphorous via ICP	0.389	mg/l	MSD
7/8/2010	EPA 200.7	Total Phosphorous via ICP	0.522	mg/l	MSD
7/15/2010	EPA 200.7	Total Phosphorous via ICP	0.385	mg/l	MSD
7/22/2010	EPA 200.7	Total Phosphorous via ICP	0.5	mg/l	MSD
7/29/2010	EPA 200.7	Total Phosphorous via ICP	0.463	mg/l	MSD
		Monthly Average	**0.45**	mg/l	
8/2/2010	EPA 200.7	Total Phosphorous via ICP	0.555	mg/l	MSD
8/9/2010	EPA 200.7	Total Phosphorous via ICP	0.591	mg/l	MSD
8/18/2010	EPA 200.7	Total Phosphorous via ICP	0.466	mg/l	MSD
8/23/2010	EPA 200.7	Total Phosphorous via ICP	0.535	mg/l	MSD
		Monthly Average	**0.54**	mg/l	
9/2/2010	EPA 200.7	Total Phosphorous via ICP	0.391	mg/l	MSD
9/8/2010	EPA 200.7	Total Phosphorous via ICP	0.568	mg/l	MSD
9/15/2010	EPA 200.7	Total Phosphorous via ICP	0.458	mg/l	MSD
9/22/2010	EPA 200.7	Total Phosphorous via ICP	0.542	mg/l	MSD
9/29/2010	EPA 200.7	Total Phosphorous via ICP	0.407	mg/l	MSD
		Monthly Average	**0.47**	mg/l	