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July 30, 2014

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Subject: Quarterly Report 35
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 April 1, 2014 – June 30, 2014, pertaining to Consent Decree compliance activities. Included are sections on Project WIN activities related to: NMC, SORP, Discharge Abatement Plans, Public Outreach, Education, Notification and Participation, CMOM and Performance Overview.

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

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

Sincerely,

Angela Akridge, PE.
Regulatory Services Director

cc: Greg Heitzman, PE

Paula Purifoy

Steve Emly



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

Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #35



Reporting Period:

April 1, 2014 through June 30, 2014

Submitted To:

Kentucky Department of Environmental Protection
United States Environmental Protection Agency
United States Department of Justice

Submitted By:

Louisville and Jefferson County Metropolitan Sewer District
700 W. Liberty Street
Louisville, Kentucky 40203-1911

Submittal Date:

July 30, 2014

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APPENDIX A-3 DISCHARGE WORK ORDERS-BLENDING

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INTRODUCTION

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

Quarterly Reporting Period

This is the thirty-fifth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from April 1, 2014, through June 30, 2014. **The structure for this report is outlined as follows:**

Section 1: Program Activities for Nine Minimum Controls (NMC) - This section describes the data collected for NMC 2 – Maximization of Storage in the Collection System, and NMC 4 – Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC) that were active during the reporting period (April 1, 2014, through June 30, 2014).

Section 2: Program Activities for Sewer Overflow Response Protocol (SORP) - This section describes the training attendance records, overflow data, and overflow reconnaissance inspection routes related to SORP that were active during the reporting period (April 1, 2014, through June 30, 2014).

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

Section 4: Program Activities for Public Outreach, Education, Notification and Participation - This section describes the activities related to public outreach that were active during the reporting period (April 1, 2014, through June 30, 2014).

Section 5: Capacity Management, Operations and Maintenance Report - The CMOM program activities and programmatic activities for WQTCs generating capital projects will be reported in a Gantt chart for the reporting period (April 1, 2014, through June 30, 2014), and include the schedule for activities planned for the next two reporting periods (July 1, 2014, through December 31, 2014), are included in this section for continued compliance with the Amended Consent Decree.

Section 6: Performance Overview - This section provides an accounting of unauthorized discharge occurrences from the separate sanitary sewer and combined sewer 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.

Performance information on Jeffersontown WQTC blending events, bypasses at WQTCs, DMR information, and phosphorus monitoring at WQTCs is included in this section.

SECTION 1: Program Activities for Nine Minimum Controls

1.1 Nine Minimum Controls Program Background

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

1.2 NMC 2: Maximization of Storage in the Collection System

MSD has continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 351.7 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 the figure at the end of this section for a detailed report.

The gates at SWOR2 have been placed in manual control due to what was diagnosed as a failure of the gate level sensors that are integral to the integration of this site in the RTC schema. The sensors were replaced in the last quarter of 2013, but the problem could not be resolved at that time due to the gate-closed proximity switches also being diagnosed as defective. A description of corrective action progress is included in the Section 1.3 activities associated with Morris Forman performance.

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

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

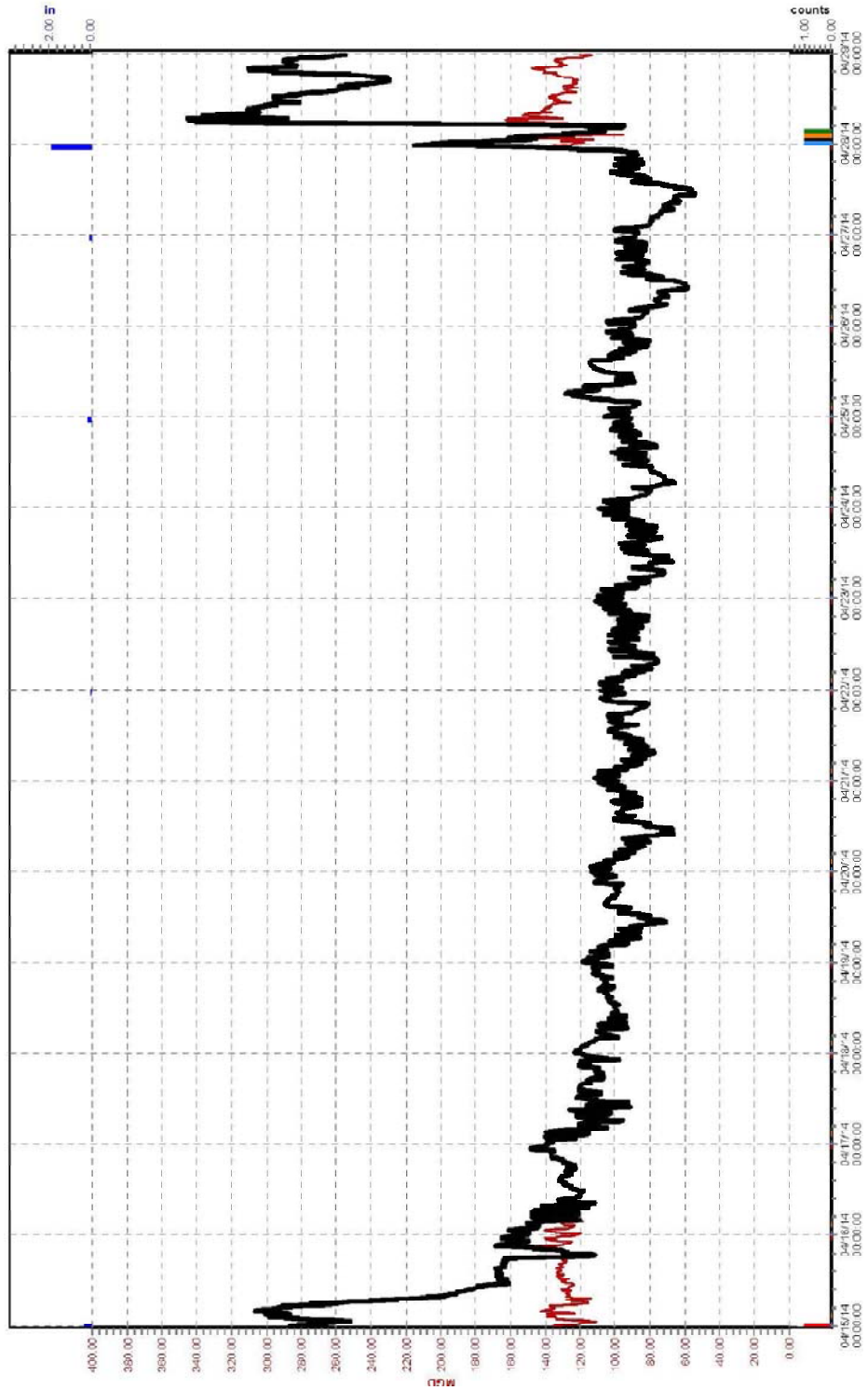
There were no extended outages in the Headworks or primary sedimentation basins that impacted plant capacity during this quarter. As a result of scheduled preventive maintenance activities and corrective maintenance requirements identified during the scheduled maintenance, two secondary clarifiers were out of service for most of the quarter. Plant staff

was able to maintain flows of 120 – 140 MGD through the secondary process during this period of reduced clarifier capacity.

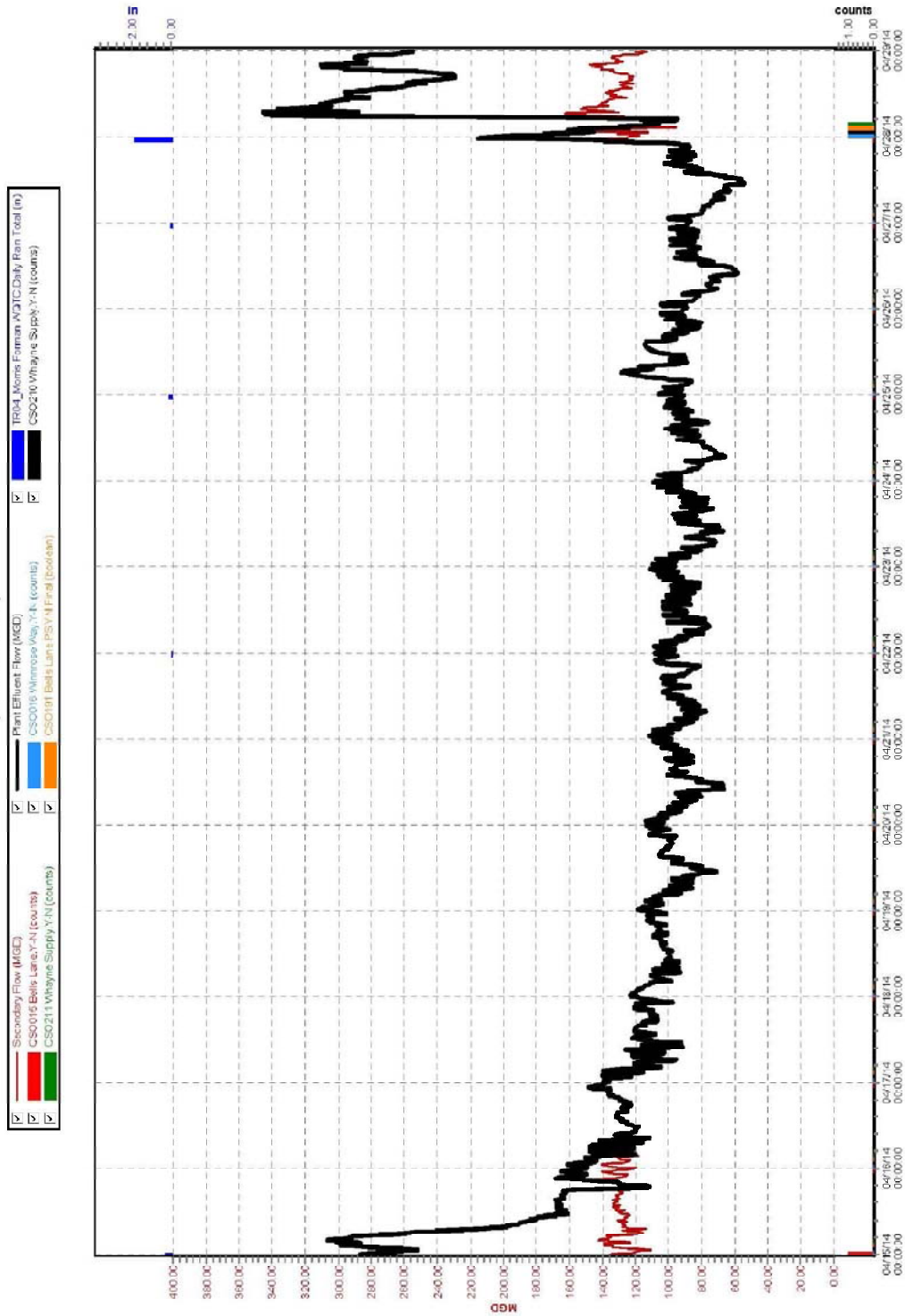
Design continued on upgrades to improve Headworks performance and reliability. The 60% design review documents were completed at the end of June. Design will continue on this project through the next reporting period.

Morris Forman WQTC - Bypass vs. Large CSOs

(04/15/14 to 06/28/14)

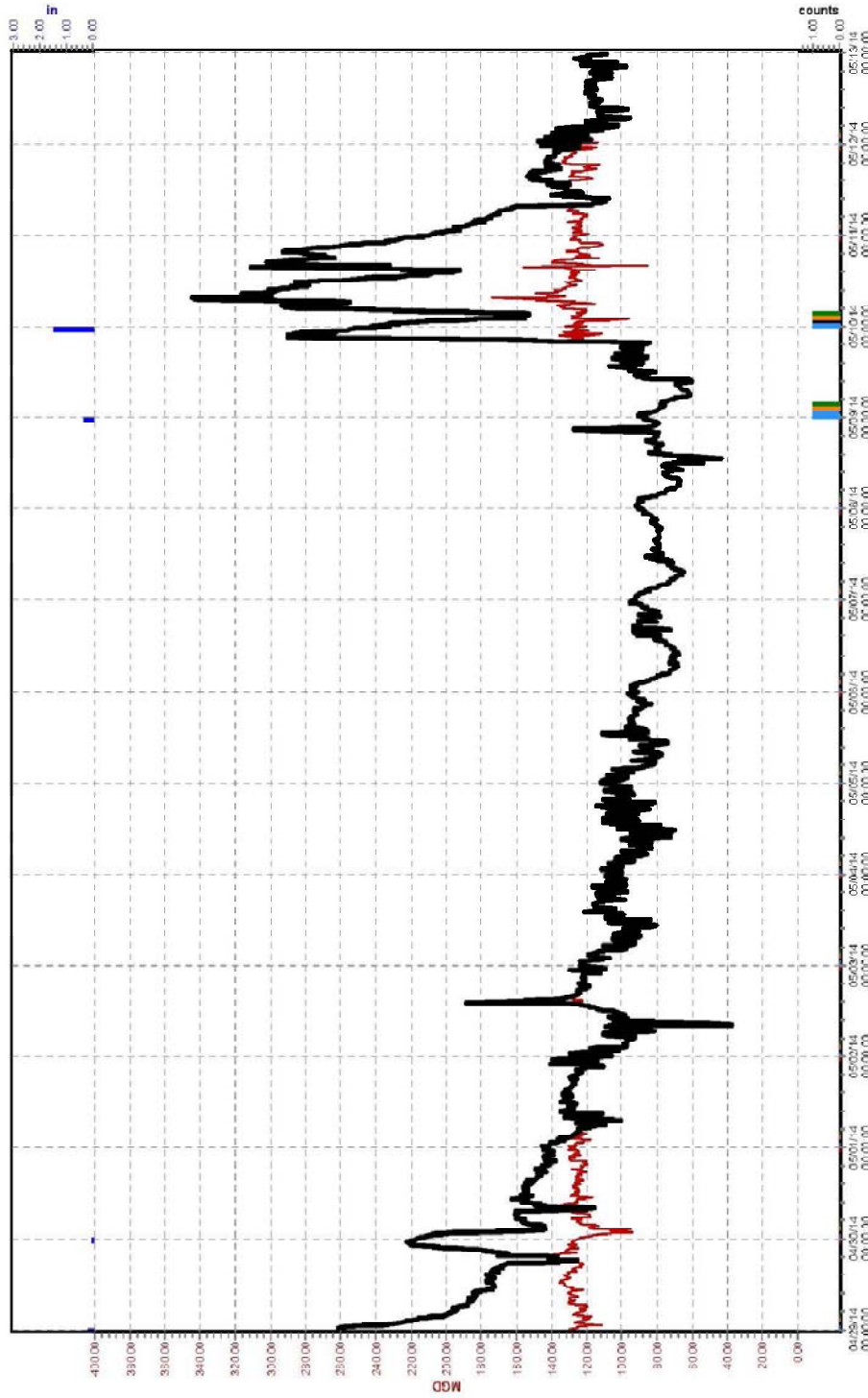


Morris Forman WQTC - Bypass vs. Large CSOs
(04/15/14 to 04/29/14)



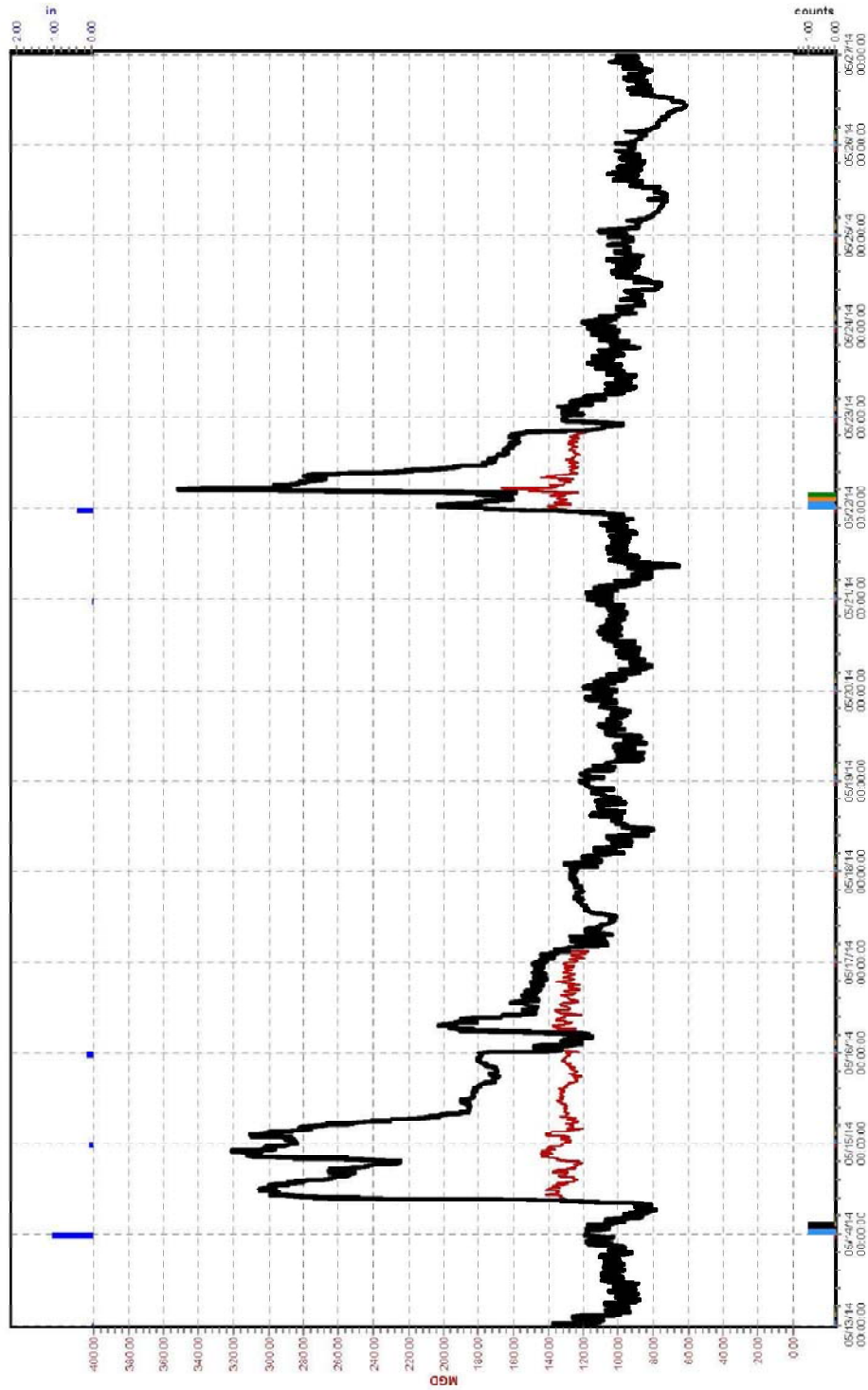
Morris Forman WQTC - Bypass vs. Large CSOs

(04/29/14 to 05/12/14)



Morris Forman WQTC - Bypass vs. Large CSOs
(05/13/14 to 09/27/14)

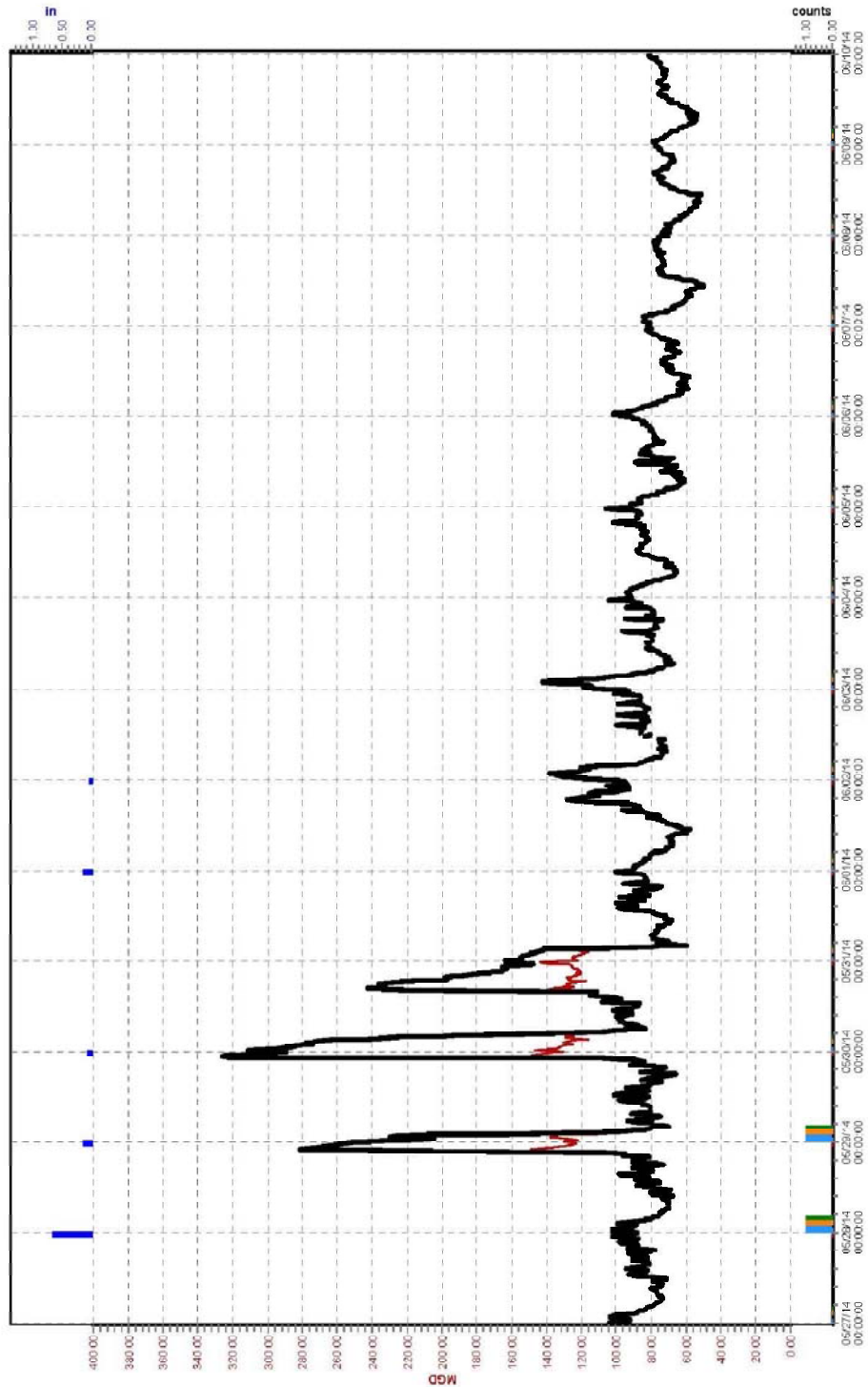
- Secondary Flow (MGD)
- CS0015 Balls Lane Y/N (counts)
- CS0211 Whayne Supply Y/N (counts)
- Plant Effluent Flow (MGD)
- CS0016 Whinclose Way Y/N (counts)
- CS0191 Balls Lane PS (H Final) (counts)
- TR04 Morris Forman WQTC Daily Rain Total (in)
- CS0210 Whayne Supply Y/N (counts)



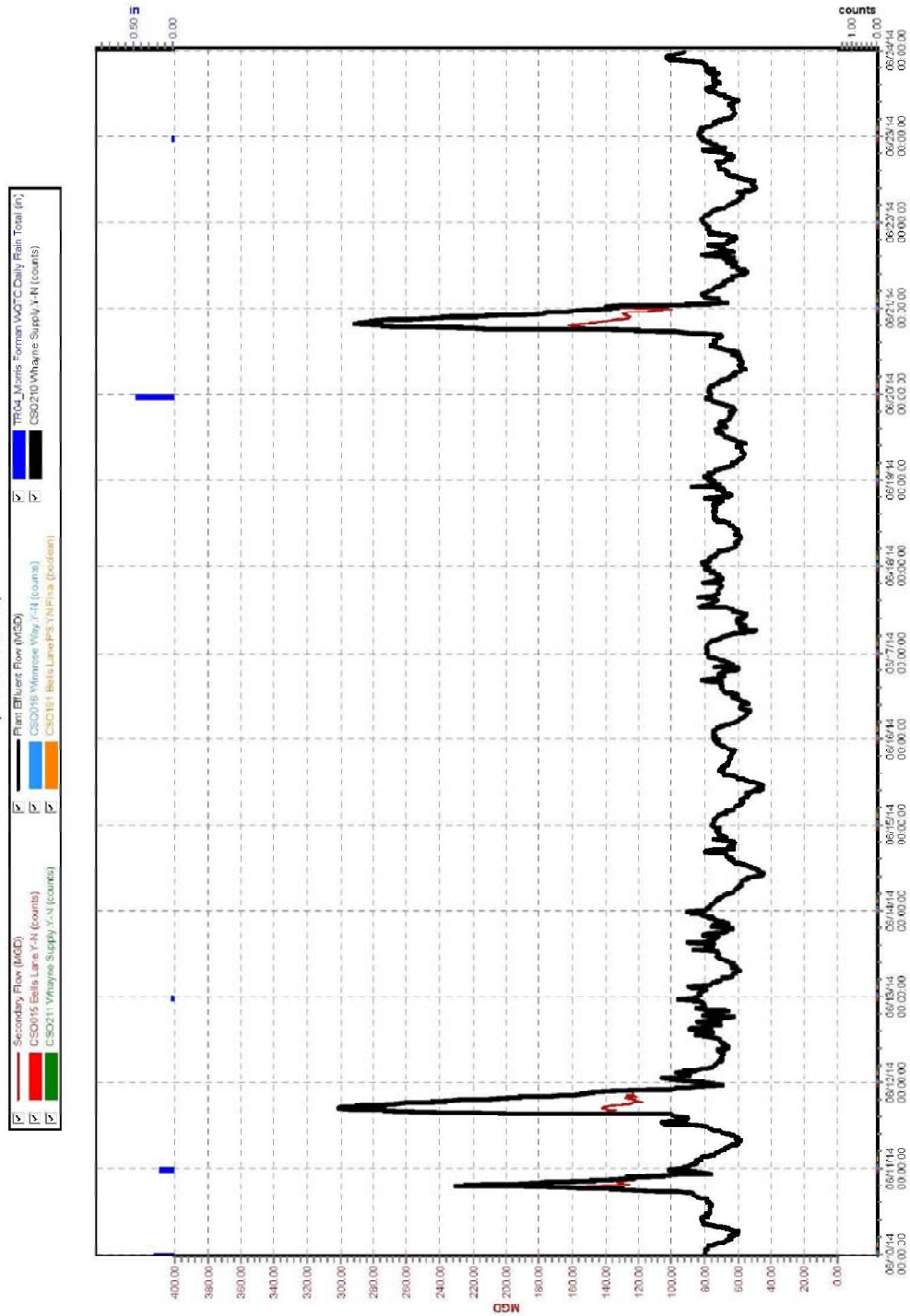
Morris Forman WQTC - Bypass vs. Large CSOs

(05/27/14 to 06/10/14)

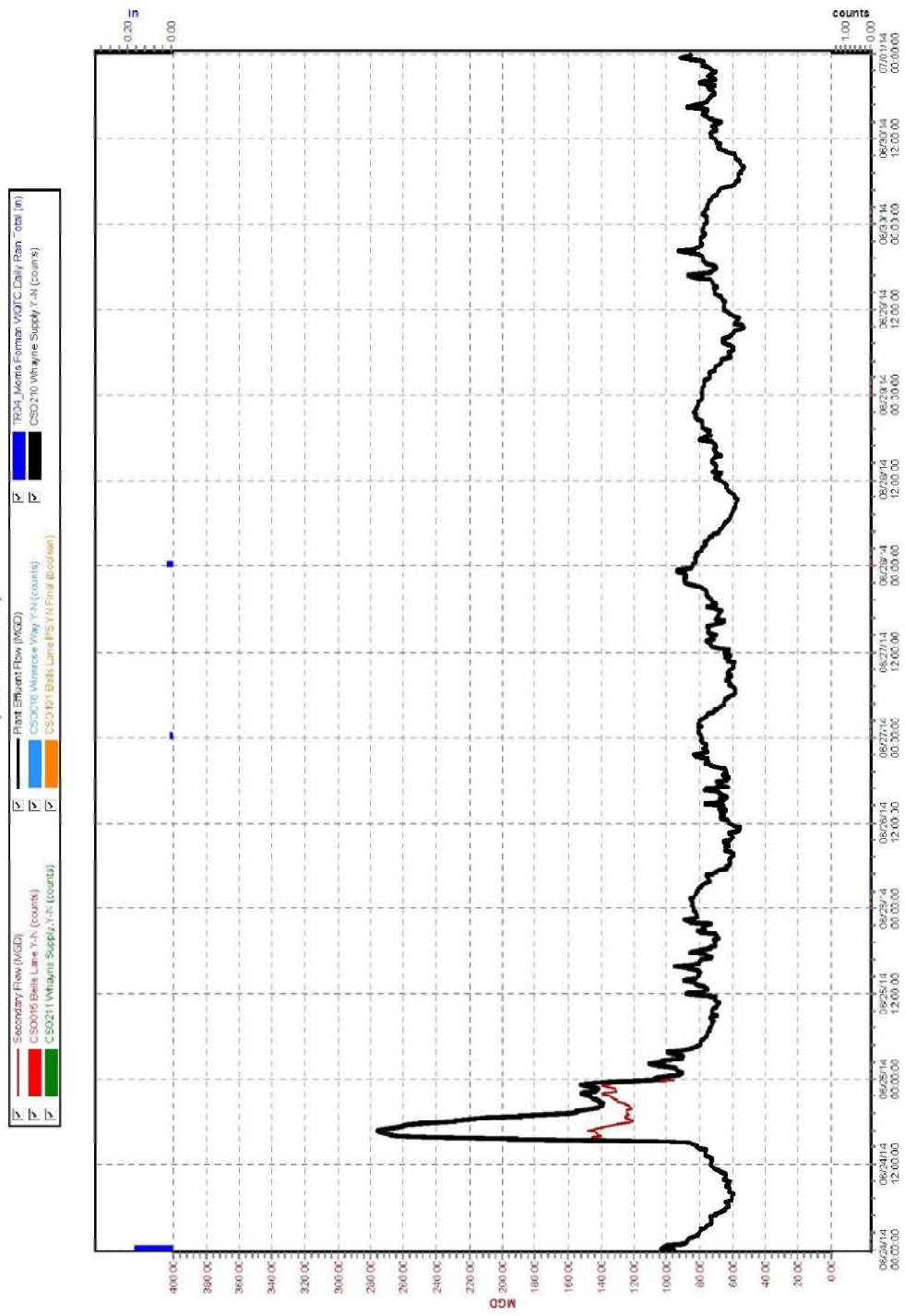
- Secondary Flow (MGD)
- CSO015 Belle Lane Y-N (counts)
- CSO211 Whayne Supply Y-N (counts)
- Plant Effluent Flow (MGD)
- CSO0315 Winmore Way Y-N (counts)
- CSO191 Belle Lane P3 Y-N Flow (booster)
- TRQA Morris Forman WQTC Daily Rain Total (in)
- CSO210 Whayne Supply Y-N (counts)



Morris Forman WQTC - Bypass vs. Large CSOs
 (06/13/14 to 06/24/14)



Morris Forman WQTC - Bypass vs. Large CSOs
(05/24/14 to 07/01/14)



There were no KPDES permit violations at Morris Forman WQTC during April, May or June 2014.

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

- Wet Weather Operational Plan – Wet Weather SOP training was completed during the previous reporting period with an operations consultant conducting “train the trainer” sessions for the MSD training department and Morris Forman WQTC process supervisors. Morris Forman WQTC is now implementing the Wet Weather SOPs.
- RTC Integration – Staff is working with the RTC consultant to review, revise and begin implementing the draft wet weather SOP for the system that also includes the Southeast Diversion Structure, Buechel Basin, Northern Ditch Diversion, and the Derek R Guthrie WQTC Wet Weather treatment facility. Full integration in an automated mode will not be achieved until the RTC software (CSOFT) is upgraded to the most current version and the hydraulic engine is converted to use MSD’s InfoWorks ICM hydraulic model. While this work is being done, the SOP is being implemented incrementally, starting with a period of manual operation to validate the control assumptions, followed by increasing levels of system automation as the automated controls for individual components are implemented, validated, and then incorporated into the overall RTC system. During the next reporting period, MSD will continue discussions with the software providers to develop a scope for the RTC software (CSOFT) and InfoWorks ICM hydraulic model integration. Staff will continue implementing revised SOPs for the Southeast Diversion Structure, Buechel Basin, Northern Ditch Diversion, and the Derek R Guthrie WQTC Wet Weather treatment facilities.
- RTC Performance Assessment – The main objective of the RTC Performance Assessment is to determine whether the available flow and storage capacities within the system are being utilized to their full potential. A draft technical memorandum providing recommendations for improvements designed to optimize the utilization and performance of the existing RTC system was developed. The recommended improvements have been reviewed and prioritized for implementation by MSD staff. During the next reporting period, MSD staff and the RTC consultant will continue to work to implement the hardware, software and set-point changes as applicable to each existing RTC.
- Headworks Replacement Project – Design efforts continued to ultimately replace the existing headworks to improve reliability and plant hydraulics. A 60% design submittal was submitted towards the end of the reporting period. During the next reporting period, MSD staff will review the 60% design submittal, with a review meeting scheduled in July 2014. Design will continue through the next reporting period.
- SWOR2 Modifications – Design was completed for the improvements to the gate actuators at the site. The project was advertised for construction on June 27, 2014. During the reporting period, the construction contract will be awarded and construction will begin.
- Ashland Avenue and Brady Lake Basins – During the reporting period, the gate stem

repairs were completed at the Brady Lake basin. A project was developed to clean the basins and repair erosion occurring in the basins. During the next reporting period, the project will be advertised for construction and it is anticipated that a construction contract for both basins will be awarded.

WET WEATHER STORAGE IN THE MORRIS FORMAN SEWER SYSTEM VIA REAL TIME CONTROL

Period	
From :	04/01/2014
To :	06/30/2014

Event Number	Wet Weather Event			Rainfall			CSO Saved Volume (MG)							High River Levels	Comments	
	Start Date	End Date	Duration	Average*	Max**		SWPS SG Chamber (14.5)	SWOR2 (7.5)	Brady Lake and Executive Inn Storage (13.4)	Southern Outfall (3.5)	Ashland (1.0)	Ohio River Interceptor (4.1)	Sneads Branch (2.5)			Total
				TRFD (in)	TRFD (in)	Rain Gauge										
2014-032	2014-04-03 05:30	2014-04-06 19:25	85:55:00	2.64	2.96	TR12	16.8	1.4	6.4	5.4	0.4	6.3	2.5	39.1	No	Very large storm cells heterogeneously distributed over the service area. SWOR2 was manually controlled with its gates in the open position and minimal available storage utilization. Brady Lake, Ashland were also manually operated. SWSG was partially in manual mode during the event.
2014-033&034	2014-04-07 06:20	2014-04-09 08:40	50:20:00	0.92	1.13	TR04	15.8	4.3	2.1	3.6	0.3	3.7	2.5	32.4	No	Large storm cells homogeneously distributed over the service area. SWOR2 was manually controlled with its gates in the open position and minimal available storage utilization. However, storage occurred at SWOR2 either due to backflow at SWSG or inflows greater than SWOR2 gate capacity. Brady Lake, Ashland and SWSG were also manually operated.
2014-035	2014-04-14 04:05	2014-04-15 18:25	38:20:00	0.96	1.01	TR12	17.9	0.4	2.7	6.7	0.0	6.0	0.7	34.2	No	Large storm cells homogeneously distributed over the service area. Back-to-back storm cells with dewatering in the storage sites between them. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. Ashland and Brady Lake were also manually operated.
2014-037&38	2014-04-27 20:00	2014-04-30 10:50	62:50:00	2.22	2.40	TR15	17.4	2.3	7.2	3.8	0.7	4.7	3.2	39.3	No	Very large storm cells homogeneously distributed over the service area. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. However, storage occurred at SWOR2 either due to backflow at SWSG or inflows greater than the SWOR2 gate's capacity. Ashland had a regulator malfunction during the event and Brady Lake was manually operated.
2014-039	2014-05-09 19:45	2014-05-11 16:05	44:20:00	1.75	2.01	TR12	16.8	0.6	5.1	10.1	0.7	6.9	3.4	43.5	No	Very large storm cells homogeneously distributed over the service area. Back-to-back storm cells with dewatering of storage sites between cells. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. Brady Lake was manually operated. SWSG was also partially manually operated during the storm event.
2014-040	2014-05-13 22:00	2014-05-16 00:40	50:40:00	1.35	2.09	TR15	19.7	0.0	4.5	8.1	0.6	6.3	0.8	40.0	No	Very large storm cells homogeneously distributed over the service area. Back-to-back storm cells with dewatering of storage sites between cells. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. Brady Lake was also manually operated at the beginning of the storm and changed to normal operating mode on May 14 th .
2014-042	2014-05-21 20:35	2014-05-22 20:45	24:10:00	0.75	1.17	TR13	16.4	0.0	2.9	3.7	0.3	4.5	0.8	28.5	No	Large storm cells heterogeneously distributed over the service area. Small amount of dewatering occurred, especially at MDS between two storm cells. SWOR2 was manually controlled with its gates in the open position and minimal utilization of the available storage. SWSG were also manually operated.
2014-044	2014-05-28 14:25	2014-05-29 05:25	15:00:00	0.67	3.96	TR04	1.3	0.4	0.1	5.2	0.1	5.6	0.1	12.7	No	Moderate storm cells heterogeneously distributed over the service area with high intensity, especially on the west side of the service area. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. SWSG operated in mode 70 (regulator malfunction or water level alarm). The right and left gates were completely open in this mode. Therefore, SWSG was not completely filled.
2014-045	2014-05-29 21:30	2014-05-31 03:40	30:10:00	0.93	2.16	TR11	23.7	1.9	1.3	7.6	0.9	7.3	N/A	42.6	No	Large storm cells heterogeneously distributed over the service area. Back-to-back storm cells with some dewatering in the storage sites between them. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. Sneads Branch had a regulator malfunction during the event and therefore data were invalid at this site. SWSG storage was not optimized due to the safety procedure (the gates were opened in case the water levels rose quickly within the site)
2014-049	2014-06-10 05:10	2014-06-11 23:40	42:30:00	0.46	0.63	TR13	5.8	0.0	1.6	3.2	0.3	3.0	0.4	14.1	No	Moderate storm cells heterogeneously distributed over the service area. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage.
2014-051	2014-06-20 16:35	2014-06-21 02:35	10:00:00	0.45	0.91	TR11	6.8	0.0	0.1	0.9	0.0	1.5	0.0	9.2	No	Moderate storm cells heterogeneously distributed over the service area. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage. Sneads Branch had a regulator malfunction.
2014-054	2014-06-24 14:05	2014-06-25 04:10	14:05:00	0.35	0.39	TR11	8.4	0.0	0.7	3.3	0.3	3.7	0.2	16.4	No	Moderate storm cells heterogeneously distributed over the service area. SWOR2 was manually controlled, with its gates in the open position and minimal utilization of the available storage.
TOTAL							166.5	11.2	34.5	61.4	4.4	59.3	14.5	351.7		

SECTION 2: Program Activities for Sewer Overflow Response Protocol

2.1 SORP Program Background

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

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

The current approved SORP document is now dated February 21, 2012, and can be viewed on the MSD Project WIN website www.msprojectwin.org. Updates to the SORP document were submitted in August 2012, with confirmation of approvals on October 25, 2012. These updates are posted on the Project WIN website. The following activities were performed during this reporting period.

2.2 Overflow Management and Field Documentation

- Monitored approximately 157 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 65 suspected or unauthorized discharges through route reconnaissance. Inspection routes were run during rain events as described in the following table:

Route Description	04/03/2014	04/07/2014	04/28/2014	05/09/2014	05/14/2014	05/21/2014	06/07/2014
ENGINEERING RAIN EVENT SSO INSPECTION ROUTE	X	X	X	X	X		
RS HIKES POINT RAIN EVENT SSO INSPECTION ROUTE	X	X	X	X	X	X	
RS JEFFERSONTOWN RAIN EVENT SSO INSPECTION ROUTE	X	X	X	X	X	X	
RS JEFFERSONTOWN/FERN CREEK RAIN EVENT SSO INSPECTION ROUTE	X	X	X	X	X	X	
RS MIDDLE/MUDDY FORK RAIN EVENT SSO INSPECTION ROUTE	X	X	X	X	X	X	X

- Due to Capacity related issues, during this reporting period, MSD Metro Operations staff hauled 713,813 gallons of sewage. MSD also hauled due to other issues as indicated in the following table:

MSD Hauled Volumes In Gallons (April 1, 2014 - June 30, 2014)				
Problem	April	May	June	Total
LACK OF SYSTEM CAPACITY	556,711	157,102	-	713,813
MECHANICAL FAILURE	-	5,200	-	5,200
OBSTRUCTION	-	5,000	-	5,000
Grand Total	556,711	167,302	-	724,013

2.3 Staff Training and Communication

- Reviewed and updated the training documentation for the 2014 first quarter SORP training that included Overflow Assessment, Establishing Control Zones, Mitigation and Documentation.
- Commenced planning for the 2014 third quarter SORP training that will focus on Public Notification and Overflow Cleanup.
- Conducted the following SORP Quarterly training sessions which were attended by 266 employees.

Staff Training Participation - April 1, 2014 - June 30, 2014				
Date	Dept./Area	Location	Module	Attendees
6/11/2014	Morris Forman Staff	MFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	12
6/11/2014	Morris Forman Staff	MFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	38
6/11/2014	Morris Forman Staff	MFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	12
6/12/2014	RMS/ENG Staff	CMF A & B	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	32
6/13/2014	I&FP Staff	CMF A	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	17
6/18/2014	Morris Forman Staff	MFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	2
6/18/2014	Morris Forman Staff	MFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	12
6/18/2014	Morris Forman Staff	MFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	8
6/19/2014	East OPS	FFWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	13
6/19/2014	RMS/ENG Staff	CMF A & B	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	54
6/20/2014	I&FP Staff	CMF A	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	17
6/25/2014	Central OPS	CCWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	28
6/25/2014	West OPS	DRGWQTC	Overflow Assessment, Establishing Control Zones, Mitigation and Documentation	21
Total				266

SECTION 3: Program Activities for Discharge Abatement Plans

3.1 Integrated Overflow Abatement Plan (IOAP)

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

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

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

3.2 Sanitary Sewer Discharge Plan (SSDP)

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

3.2.1 Updated Sanitary Sewer Overflow Plan Implementation

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

3.2.2 Interim Sanitary Sewer Discharge Plan

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

All projects required by the ISSDP have been completed and certified, with the exception of

the Derek R. Guthrie WQTC expansion. The Derek R. Guthrie WQTC was operational in accordance with information previously submitted. The project has achieved overflow reduction performance as planned and designed. No treatment capacity related sanitary sewer overflows have occurred with the exception of the discharges related to the bar screen failure previously reported in the February 20, 2013, DMR (January reporting period) for DRG WQTC, and one discharge related to a grit system problem that reduced plant capacity to 150 MGD for a short time. MSD is currently working with attorneys to finalize the certification.

3.2.3 Final Sanitary Sewer Discharge Plan

MSD submitted for approval a Final Sanitary Sewer Discharge Plan (SSDP) on December 19, 2008, as Volume 3 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010. A revised SSDP was included in the IOAP revision, submitted June 14, 2013, with a follow-up submittal scheduled during the next reporting period as described in Section 3.1.

- Prospect WQTC Elimination Projects Easement Status - A total of 54 easements have been identified.
- Acquired 53 of these Prospect easements to-date. Details on the easement progress and status:
 - River Road Interceptor - 18 Easements acquired – project complete.
 - River Road Interceptor Phase 1A - 2 Easements acquired – project under construction.
 - Hite Creek WQTC Pump Station - 2 Easements acquired – project under construction.
 - Hite Creek WQTC Interceptor and FM Phase 1 - 1 Easement acquired – project under construction.
 - Hite Creek WQTC Interceptor and FM Phase 2 - 3 Easements acquired – project under construction.
 - Hite Creek WQTC FM Phase 3A - 1 Easement acquired – project under construction.
 - Hite Creek WQTC FM Phase 3B - 22 Easements acquired – project under construction.
 - Shadow Wood WQTC Elimination - 1 Easement acquired, 1 Easement in process, Board approval July 28, 2014.
 - Hunting Creek North WQTC Elimination - 3 Easements acquired - project under construction.

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.msprojectwin.org.

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

3.3.2 Final CSO Long Term Control Plan

MSD submitted for approval the Final CSO LTCP on December 19, 2008, as Volume 2 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010. A revised LTCP was included in the IOAP revision, submitted June 14, 2013, with a follow-up submittal scheduled for the next reporting period, as described in Section 3.1.

3.3.3 Green Program Update

MSD continued program activities to provide incentives to private property owners to reduce the amount of impervious surface that drains to the combined sewer system. This program is outlined in the brochure at the following link:

http://www.msdlouky.org/pdfs/Green_Infrastructure_Incentives_Savings_Weba.pdf

The green program incentives are being applied to reflect the values of green projects in CSO areas or regions based on the latest modeling results. This change in application ties incentives directly to overflow reductions in various CSO regions to promote green projects in the areas that provide the most value. Project opportunities are now optimized to best use available funding.

MSD scheduled a rollout of the green infrastructure website for distribution of information on the programs, incentives, and value to customers for August 2014.

Qualified Post Construction Inspector (QPCI) training for property owners with green infrastructure has been developed and will continue to be administered in the next reporting period.

A Construction Field Day has been planned by MSD to highlight Industrial Programs, MS4 efforts, green infrastructure practices and tours, and erosion and sediment control. This event will take place in August 2014.

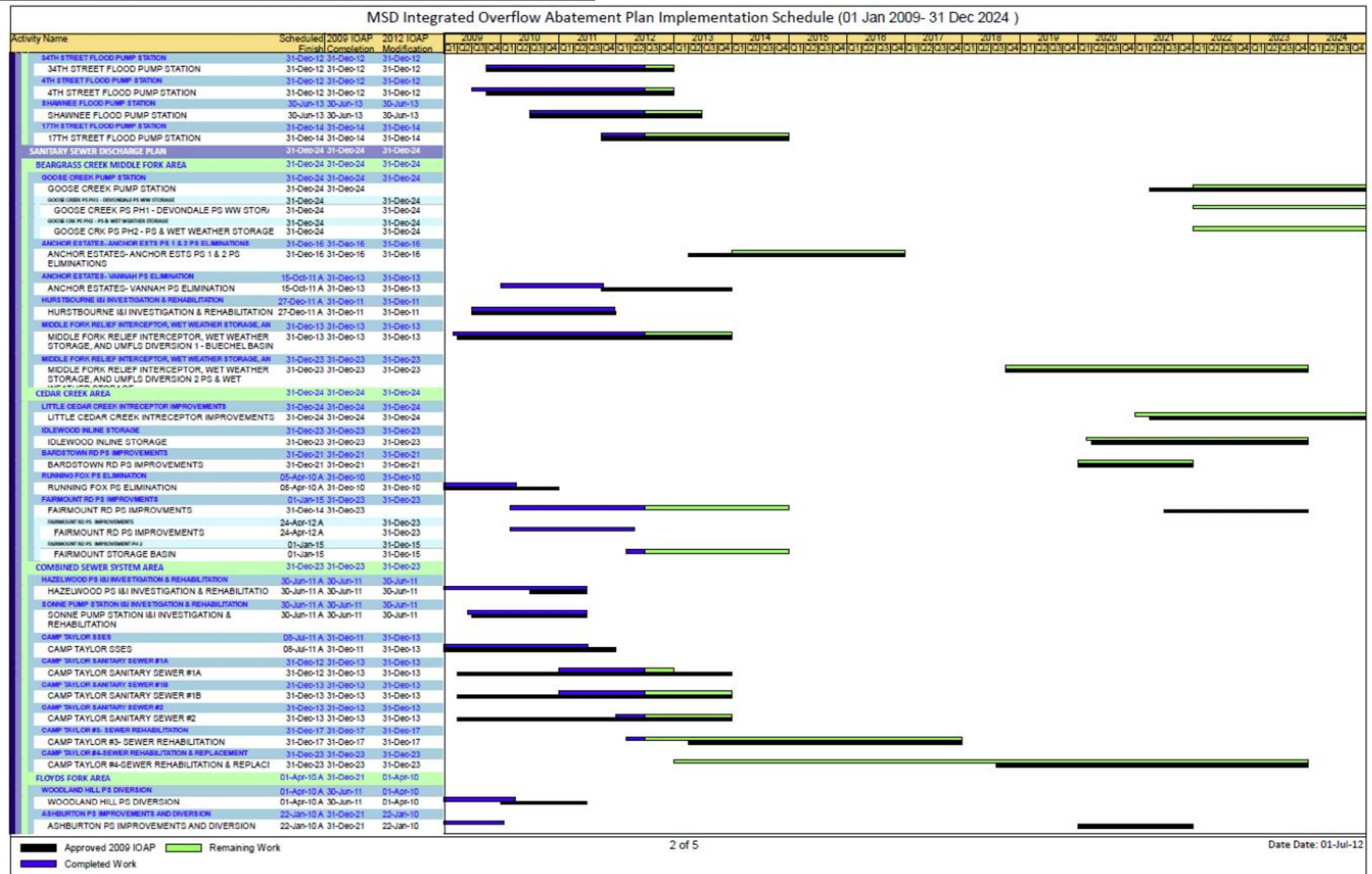
Continued coordination with the green and MS4 program is on-going to optimize resources and regulations to improve water quality.

3.4 Activity Progress Chart

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

				MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024)																																																															
Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification	2009				2010				2011				2012				2013				2014				2015				2016				2017				2018				2019				2020				2021				2022				2023				2024			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4												
MSD IOAP SCHEDULE	31-Dec-24	31-Dec-24	31-Dec-24																																																																
LONG TERM CONTROL PLAN	01-Jan-21	31-Dec-20	31-Dec-20																																																																
GREEN DEMONSTRATION PROJECTS	31-Dec-20	31-Dec-20	31-Dec-20																																																																
GREEN INFRASTRUCTURE DEMONSTRATION PROJECTS	31-Dec-11 A	31-Dec-11	31-Dec-11																																																																
GREEN INFRASTRUCTURE DEMONSTRATION PROJEC	31-Dec-11 A	31-Dec-11	31-Dec-11																																																																
GREEN INFRASTRUCTURE PROGRAM	31-Dec-20	31-Dec-20	31-Dec-20																																																																
GREEN INFRASTRUCTURE PROGRAM	31-Dec-20	31-Dec-20	31-Dec-20																																																																
GRAY INFRASTRUCTURE PROJECTS	01-Jan-21	31-Dec-20	31-Dec-20																																																																
CSO 123 DOWNSPOUT DISCONNECTION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
CSO 123 DOWNSPOUT DISCONNECTION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
I-64 AND GRINSTEAD DRIVE STORAGE BASIN	31-Dec-20	21-Dec-14	31-Dec-20																																																																
I-64 AND GRINSTEAD DRIVE STORAGE BASIN	31-Dec-20	21-Dec-14	31-Dec-20																																																																
CSO 140 INCREASE PIPE CONVEYANCE	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 140 INCREASE PIPE CONVEYANCE	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 206 SEWER SEPARATION	30-Dec-13	31-Dec-13	30-Dec-13																																																																
CSO 206 SEWER SEPARATION	30-Dec-13	31-Dec-13	30-Dec-13																																																																
CLIFTON HEIGHTS STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
CLIFTON HEIGHTS STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
PADDY'S RUN WET WEATHER TREATMENT FACILITY AND OFF LINE I	31-Dec-16	31-Dec-14	31-Dec-16																																																																
PADDY'S RUN WET WEATHER TREATMENT FACILITY	31-Dec-16	31-Dec-14	31-Dec-16																																																																
PORTLAND WHARF STORAGE BASIN	31-Dec-19	31-Dec-19	31-Dec-19																																																																
PORTLAND WHARF STORAGE BASIN	31-Dec-19	31-Dec-19	31-Dec-19																																																																
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CSO 068 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTR	31-Dec-14	31-Dec-14	31-Dec-14																																																																
CSO 058 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-14	31-Dec-14	31-Dec-14																																																																
SOUTHWESTERN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHWESTERN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
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13TH STREET AND ROWAN STREET STORAGE BASIN	31-Dec-20	31-Dec-20	31-Dec-20																																																																
CENTRAL RELIEF DRAIN IN-LINE STORAGE, GREEN INFRASTRUCTURE AND DISTRIBUTED STORAGE	01-Jan-21	31-Dec-18	31-Dec-18																																																																
CENTRAL RELIEF DRAIN IN-LINE STORAGE, GREEN INFRASTRUCTURE AND DISTRIBUTED STORAGE	01-Jan-21	31-Dec-18	31-Dec-18																																																																
CSO 160 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTR	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 160 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15																																																																
ADAMS STREET SEWER SEPARATION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
ADAMS STREET SEWER SEPARATION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
18TH AND NORTHWESTERN PKY STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17																																																																
18TH AND NORTHWESTERN PKY STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17																																																																
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ALGONQUIN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE STORAGE (SOR 1)	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE STORAGE AT 43RD ST.	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE RETENTION (SOR 2)	01-Jan-19	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE RETENTION AT 13TH AND WILSON AVE. (SOR 2)	01-Jan-19	31-Dec-18	31-Dec-18																																																																
NIGHTINGALE PUMP STATION REPLACEMENT AND STORAGE	31-Dec-15	31-Dec-16	31-Dec-15																																																																
NIGHTINGALE PUMP STATION REPLACEMENT AND STORAGE	31-Dec-15	31-Dec-16	31-Dec-15																																																																
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CSO 093 STRUCTURAL MODIFICATIONS AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 108 DAM MODIFICATIONS	31-Dec-10 A	31-Dec-10	31-Dec-10																																																																
CSO 108 DAM MODIFICATIONS	31-Dec-10 A	31-Dec-10	31-Dec-10																																																																
STORY AVENUE AND SPRING STREET GREEN INFRASTRUCTURE CC	31-Dec-16	31-Dec-16	31-Dec-16																																																																
STORY AVENUE AND SPRING STREET GREEN INFRASTRUCTURE CONTROLS	31-Dec-16	31-Dec-16	31-Dec-16																																																																
FLOOD PUMP STATION PROJECTS	31-Dec-14	31-Dec-14	31-Dec-14																																																																
27TH STREET FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13																																																																
27TH STREET FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13																																																																

Approved 2009 IOAP
 Remaining Work
 Completed Work



MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024)

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification	2009				2010				2011				2012				2013				2014				2015				2016				2017				2018				2019				2020				2021				2022				2023				2024			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4																
HITE CREEK AREA																																																																			
MEADOW 3 STREAM P S AND FORCE MAIN	31-Dec-12	31-Dec-16	31-Dec-16																																																																
MEADOW STREAM PS AND FORCE MAIN	31-Dec-12	31-Dec-16	31-Dec-16																																																																
KAVANAUGH RD PS IMPROVEMENTS																																																																			
KAVANAUGH RD PS IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24																																																																
FLOYDSBURG RD SSES, REHAB AND PUMP STATION UPGRADE	17-Dec-10 A	31-Dec-10	31-Dec-10																																																																
FLOYDSBURG RD SSES, REHAB AND PUMP STATION UPGRADE	17-Dec-10 A	31-Dec-10	31-Dec-10																																																																
INTERIM ISSDP PROJECTS																																																																			
ISSDP BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT																																																																			
ISSDP BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
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BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT (EAST)	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT (SOUTH)	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
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ISSDP DEREK R GUTHRIE WATER QUALITY TREATMENT CENTER	30-Jul-12	31-Dec-11	31-Dec-11																																																																
DEREK R GUTHRIE WQTC WET WEATHER TREATMENT FACILITY	20-May-12 A	31-Oct-12	31-Oct-12																																																																
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WCWTP: WW FLOW EQU & TMT	30-Sep-12	31-Oct-12	31-Oct-12																																																																
WCWTP: WW FLOW EQU & TMT	30-Sep-12	31-Oct-12	31-Oct-12																																																																
DRGWQTC: BLOWER PACKAGE	03-Mar-11 A	31-Oct-12	31-Oct-12																																																																
DRGWQTC: BLOWER PACKAGE	03-Mar-11 A	31-Oct-12	31-Oct-12																																																																
DRGWQTC: WET WEATHER EQUALIZATION BASIN	31-Jul-12	31-Oct-12	31-Oct-12																																																																
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ISSDP HIKES LANE INTERCEPTOR / HIGHGATE SPRINGS PS	30-Oct-12	27-Nov-12	27-Nov-12																																																																
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CARSON & RIBBLE RELIEF	20-Nov-09 A	27-Nov-12	27-Nov-12																																																																
CARSON & RIBBLE RELIEF	20-Nov-09 A	27-Nov-12	27-Nov-12																																																																
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ISSDP NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A	31-Jul-11	31-Jul-11																																																																
NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A	31-Jul-11	31-Jul-11																																																																
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NORTHERN DITCH DIVERSION INTERCEPTOR PH 2	16-Feb-11 A	31-Jul-11	31-Jul-11																																																																
ISSDP SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR																																																																			
ISSDP SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR	28-Sep-12	27-Nov-12	27-Nov-12																																																																
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR	12-May-12 A	12-May-12	12-May-12																																																																
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR	12-May-12 A	12-May-12	12-May-12																																																																
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR Phase 2	30-Sep-12	30-Sep-12	30-Sep-12																																																																
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR Phase 2	30-Sep-12	30-Sep-12	30-Sep-12																																																																
JEFFERSONTOWN AREA																																																																			
JEFFERSONTOWN WQTC ELIMINATION	01-Jan-16	31-Dec-15	31-Dec-15																																																																
JEFFERSONTOWN WQTC ELIMINATION	31-Dec-15	31-Dec-15	31-Dec-15																																																																
JEFFERSONTOWN WQTC ELIMINATION	31-Dec-15	31-Dec-15	31-Dec-15																																																																
JEFFERSONTOWN FORCE MAIN	31-Dec-15	31-Dec-15	31-Dec-15																																																																
JEFFERSONTOWN FORCE MAIN	31-Dec-15	31-Dec-15	31-Dec-15																																																																
GRAND AVENUE PUMP STATION	31-Dec-15	31-Dec-15	31-Dec-15																																																																
GRAND AVENUE PUMP STATION	31-Dec-15	31-Dec-15	31-Dec-15																																																																
UPPER BILTOWN RD INTERCEPTOR	31-Dec-15	31-Dec-15	31-Dec-15																																																																
UPPER BILTOWN RD INTERCEPTOR	31-Dec-15	31-Dec-15	31-Dec-15																																																																
BILTOWN RD INTERCEPTOR SS	01-Jan-16	31-Dec-15	31-Dec-15																																																																
BILTOWN RD INTERCEPTOR SS	01-Jan-16	31-Dec-15	31-Dec-15																																																																
BILTOWN RD PS, FM & INT	31-Dec-12	31-Dec-12	31-Dec-12																																																																
BILTOWN RD PS, FM & INT	31-Dec-12	31-Dec-12	31-Dec-12																																																																
CHENOWETH HILLS WQTC ELIMINATION & PS IMPROVEMENTS	31-Dec-15	31-Dec-15	31-Dec-15																																																																

Approved 2009 IOAP
 Remaining Work
 Completed Work

MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024)

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024																				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CHENOWETH HILLS WQTC ELIMINATION & PS ELIMINA	31-Dec-15	31-Dec-15	31-Dec-15																																				
DELL RD & CHARLANE PKWY INTERCEPTOR IMPROVEMENTS	31-Dec-22	31-Dec-22	31-Dec-22																																				
DELL RD & CHARLANE PKWY INTERCEPTOR IMPROVE	31-Dec-22	31-Dec-22	31-Dec-22																																				
RAINTREE & MARIAN CT PH1 - PS ELIMINATION	31-Dec-21	31-Dec-21	31-Dec-21																																				
RAINTREE & MARIAN CT PH1 - PS ELIMINATION	31-Dec-21	31-Dec-21	31-Dec-21																																				
RAINTREE & MARIAN CT PS ELIMINATION	31-Dec-21	31-Dec-21	31-Dec-21																																				
RAINTREE & MARIAN CT PS ELIMINATION	31-Dec-21	31-Dec-21	31-Dec-21																																				
MONTICELLO PS ELIMINATION	31-Dec-22	31-Dec-22	31-Dec-22																																				
MONTICELLO PS ELIMINATION	31-Dec-22	31-Dec-22	31-Dec-22																																				
KLONDIKE INTERCEPTOR	31-Dec-15	31-Dec-15	31-Dec-15																																				
KLONDIKE INTERCEPTOR	31-Dec-15	31-Dec-15	31-Dec-15																																				
MILL CREEK AREA	13-Apr-12 A	31-Dec-21	31-Dec-21																																				
SHIVELY INTERCEPTOR	13-Apr-12 A	31-Dec-14	31-Dec-14																																				
SHIVELY INTERCEPTOR	13-Apr-12 A	31-Dec-14	31-Dec-14																																				
EAST ROCKFORD LANE PS RELOCATION	30-Mar-12 A	31-Dec-21	31-Dec-21																																				
EAST ROCKFORD LANE PS RELOCATION	30-Mar-12 A	31-Dec-21	31-Dec-21																																				
OHIO RIVER FORCE MAIN AREA	31-Dec-24	31-Dec-24	31-Dec-24																																				
MELLWOOD SYS 1 - MELLWOOD PS & FORCE MAIN	31-Dec-12	31-Dec-12	31-Dec-12																																				
MELLWOOD SYS 1 - MELLWOOD PS & FORCE MAIN	31-Dec-12	31-Dec-12	31-Dec-12																																				
MELLWOOD SYS 2 - WINTON & MOCKINGBIRD PS ELIM & PIPE UPGF	31-Dec-24	31-Dec-24	31-Dec-24																																				
MELLWOOD SYS 2 - WINTON & MOCKINGBIRD PS ELIM & PIPE UPGRADES	31-Dec-24	31-Dec-24	31-Dec-24																																				
DERINGTON CT PS II INVESTIGATION & REHABILITATION	30-Mar-12 A	31-Mar-12	31-Mar-12																																				
DERINGTON CT PS II INVESTIGATION & REHABILITATI	30-Mar-12 A	31-Mar-12	31-Mar-12																																				
PROSPECT WQTC ELIMINATIONS	31-Dec-15	31-Dec-15	31-Dec-15																																				
PROSPECT WQTC ELIMINATIONS	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK PS & FM	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK PS & FM	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK INT	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK INT	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK INT PH 2	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK INT PH 2	31-Dec-15	31-Dec-15	31-Dec-15																																				
RIVER ROAD INT	31-Dec-15	31-Dec-15	31-Dec-15																																				
RIVER ROAD INT	31-Dec-15	31-Dec-15	31-Dec-15																																				
TIMBERLAKE & HUNTING CREEK S WQTC ELIM	31-Dec-15	31-Dec-15	31-Dec-15																																				
TIMBERLAKE & HUNTING CREEK S WQTC ELIM	31-Dec-15	31-Dec-15	31-Dec-15																																				
KEN CARLA WQTC ELIM	31-Dec-15	31-Dec-15	31-Dec-15																																				
KEN CARLA WQTC ELIM	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK INT PH 3	31-Dec-15	31-Dec-15	31-Dec-15																																				
HARRODS CREEK INT PH 3	31-Dec-15	31-Dec-15	31-Dec-15																																				
SHADOW WOOD WWTP ELIM	31-Dec-15	31-Dec-15	31-Dec-15																																				
SHADOW WOOD WWTP ELIM	31-Dec-15	31-Dec-15	31-Dec-15																																				
N HUNTING CREEK PS & FM	31-Dec-15	31-Dec-15	31-Dec-15																																				
N HUNTING CREEK PS & FM	31-Dec-15	31-Dec-15	31-Dec-15																																				
PROSPECT #3 - ORFM SYSTEM IMPROVEMENTS	31-Dec-16	31-Dec-16	31-Dec-16																																				
PROSPECT #3 - ORFM SYSTEM IMPROVEMENTS	31-Dec-16	31-Dec-16	31-Dec-16																																				
OTHER PROJECTS	30-Dec-24	31-Dec-24	30-Dec-24																																				
CPE/CCP MODIFICATIONS TO WQTC	19-Dec-11 A	31-Dec-11	31-Dec-11																																				
CPE/CCP MODIFICATIONS TO WQTC	19-Dec-11 A	31-Dec-11	31-Dec-11																																				
II REDUCTION PROGRAM	30-Dec-24	31-Dec-24	30-Dec-24																																				
II REDUCTION PROGRAM	30-Dec-24	31-Dec-24	30-Dec-24																																				
POND CREEK AREA	31-Dec-24	31-Dec-24	31-Dec-24																																				
LEE ANN WAY PUMP STATION IMPROVEMENTS	31-Dec-21	31-Dec-15	31-Dec-15																																				
LEE ANN WAY PUMP STATION IMPROVEMENTS	31-Dec-21	31-Dec-15	31-Dec-15																																				
LEE ANN WAY SANITARY SEWER II REHAB	31-Dec-21	31-Dec-15	31-Dec-15																																				
LEE ANN WAY SANITARY SEWER II REHAB	31-Dec-21	31-Dec-15	31-Dec-15																																				
LEE ANN WAY PS SYSTEM GGES	30-Mar-11 A	31-Dec-15	31-Dec-15																																				
LEE ANN WAY PS SYSTEM GGES	30-Mar-11 A	31-Dec-15	31-Dec-15																																				
LEE ANN WAY PH 2 ICA	31-Dec-11 A	31-Dec-15	31-Dec-15																																				
LEE ANN WAY PH 2 ICA	31-Dec-11 A	31-Dec-15	31-Dec-15																																				
LEE ANN WAY SSR PH 1	31-Dec-14	31-Dec-15	31-Dec-15																																				
LEE ANN WAY SSR PH 1	31-Dec-14	31-Dec-15	31-Dec-15																																				
LEE ANN WAY SSR PH 2	01-Jan-15	31-Dec-15	31-Dec-15																																				
LEE ANN WAY SSR PH 2	01-Jan-15	31-Dec-15	31-Dec-15																																				
LEE ANN WAY INTERCEPTOR II REHAB	31-Dec-13	31-Dec-15	31-Dec-15																																				
LEE ANN WAY INTERCEPTOR II REHAB	31-Dec-13	31-Dec-15	31-Dec-15																																				
OUTER LOOP & CAVEN AREA PIPE UPGRADES	31-Dec-16	31-Dec-16	31-Dec-24																																				
OUTER LOOP & CAVEN AREA PIPE UPGRADES	31-Dec-16	31-Dec-16	31-Dec-24																																				

Approved 2009 IOAP
 Remaining Work
 Completed Work

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

4.1 Public Notification Program

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

4.2 Public Education Programs

MSD has developed a public education program aimed at disseminating information to the public on MSD's primary business functions with emphasis on wastewater, 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.

During the reporting period, MetroTV aired programs detailing the IOAP Public Input Meetings (with presentations on the IOAP revisions), and a rain barrel installation video.

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, storm water and flood protection, with an emphasis on Project WIN Program elements.

4.3.1 IOAP Project and Program Meetings

MSD facilitates meetings for the Wet Weather Team (WWT), and the public to review regulatory commitments, update progress on projects and initiatives, and to gather public input on efforts. During the reporting period, MSD facilitated and planned for the following meetings:

- Facilitated an IOAP public meeting on June 17, 2014, at the Holy Family Resource Center (3934 Poplar Level Road) to provide an overview of the IOAP and discuss the Camp Taylor Sewer Rehabilitation and Nightingale Pump Station Projects.
- Facilitated a Wet Weather Team Stakeholder meeting on June 24, 2014, at the Metropolitan Sewer District (700 West Liberty Street) to provide updates on MSD's Strategic Business Plan and reorganization, IOAP implementation progress, 20-year Comprehensive Facility Plan, IOAP Mid-point Peer Review opportunity, overflow abatement project performance, and MSD's public outreach strategy.
- Planned future public meetings to discuss project planning efforts and the status of the approved 2012 IOAP Modification. The next public meeting will be in September 2014 and focus on the I-64 and Grinstead project.

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.msdprojectwin.org.

The primary objectives of CMOM are as follows:

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

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

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

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

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

5.1 Management Programs

M-E-9 Infrastructure Rehabilitation

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

M-E-10 System Capacity Assurance Program

Included in the goals of the CMOM Self-Assessment Report, The System Capacity Assurance Plan (SCAP) is the basis for applying capacity decision criteria to support watershed community values. It provides a programmatic approach for confirming available capacity within MSD's sanitary sewer system, creating capacity credits through system improvement and rehabilitation, identifying hydraulic constrictions, and proposing capacity improvements that support interim and long-term performance objectives. SCAP revisions, including credit and balance projections and discussion of approach for multi-family residential unit populations were discussed with EPA and KDEP and submitted electronically for review on July 21, 2014. Pending regulatory review and additional comments, the SCAP revisions will be submitted for approval in the next quarterly reporting period. A current copy of the SCAP Credit Balance is included as **Appendix D**.

5.2 Operations Programs

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

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

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

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

5.3 Comprehensive Performance Evaluations and Composite Correction Plans (CPE/CCP)

Per requirements of MSD's 2009 Amended Consent Decree, MSD implemented a Comprehensive Performance Evaluation (CPE) and Composite Correction Plan (CCP) program for the District's water quality treatment centers (WQTCs). Although the IOAP CPE assessments defined specific WQTC improvements to be completed by December 31, 2011, MSD will continue to implement CPE/CCP activities as part of the District's CMOM Program. This section will list such activities per WQTC as they occur each reporting period and will be outlined below.

5.3.1 Hite Creek Water Quality Treatment Center

During this reporting period, MSD has been reviewing the final draft version of the Facilities Plan Update. During the next reporting period, MSD will be arranging for a public hearing and preparing to submit the Facilities Plan Update to the Kentucky Division of Water for review and approval.

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

5.3.2 Floyds Fork Water Quality Treatment Center

During this reporting period, the Floyds Fork WQTC expansion was in full operation, able to accept the additional flow from upstream customers. MSD and the Contractor were in negotiations regarding punch list items that had not been completed. During the next reporting period, MSD is meeting with the Contractor to determine steps to reach final completion. The expansion project provides an average daily design capacity of 6.5 MGD.

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

5.3.3 Derek R. Guthrie Water Quality Treatment Center

During this reporting period, MSD continued working on the Facilities Plan Update with the alternative analysis finalized and exhibits revised along with preparing an internal review of the document. During the next reporting period, the draft document will be reviewed by MSD staff and project schedule will be updated.

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

5.3.4 Cedar Creek Water Quality Treatment Center

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

5.3.5 Prospect Area Water Quality Treatment Center Updates

Submitted the elimination plan for the five WQTCs serving Prospect (Timberlake, Hunting Creek North, Hunting Creek South, Ken Carla, and Shadow Wood), 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 – Program Activities for Discharge Abatement Plans** for an update on the design and construction of the projects that make up the elimination plan for the Prospect Area WQTCs.

5.3.5.1 Timberlake Water Quality Treatment Center

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

5.3.5.2 Hunting Creek North Water Quality Treatment Center

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

5.3.5.3 Hunting Creek South Water Quality Treatment Center

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

5.3.5.4 Ken Carla Water Quality Treatment Center

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

5.3.5.5 Shadow Wood Water Quality Treatment Center

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

5.3.6 Jeffersontown Water Quality Treatment Center

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

5.3.7 Starview Water Quality Treatment Center

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

5.3.8 Berrytown Water Quality Treatment Center

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

5.3.9 Chenoweth Hills Water Quality Treatment Center

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

5.3.10 Other Water Quality Treatment Centers

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

- McNeely Lake WQTC – The McNeely Lake Sanitary Sewer and Force Main project is currently in construction phase and is scheduled for completion in January 2015. This gravity portion is approximately 75% of the total length of gravity line required to eliminate the McNeely Lake WQTC. A private developer is responsible for extending the remaining gravity sewer through a future residential development to within 600 feet of the McNeely Lake WQTC. MSD has begun the design process of the interceptor that will serve to eliminate the McNeely Lake WQTC and the Brookbend Way PS. During the next reporting period, MSD will continue the design of the interceptor. MSD anticipates eliminating McNeely Lake WQTC by December 31, 2015, but is dependent on the private developer portion being completed.
- Silver Heights WQTC – Construction is in progress. The Silver Heights WQTC was taken off-line June 12, 2014. The Contractor is in the process of decommissioning the WQTC site and is scheduled to be complete by the end of August 2014.
- Bancroft WQTC – The scope of this project has been modified from storage at Devondale PS to eliminating the Devondale PS as part of the IOAP and conveying flow to a 0.33 MGD Pump Station and a 0.25 MG Storage Basin at Bancroft WQTC. Design of this project is complete. During the next reporting period, it is anticipated that the project will be advertised for construction with construction beginning early 2015. The Bancroft WQTC and Devondale Pump Station are scheduled to be off-line by December 31, 2015.
- Glenview Bluff – Construction is in progress. During the next reporting period, it is anticipated that construction will continue and the Glenview Bluff WQTC will be off-line by December 31, 2014, prior to the December 31, 2015 regulatory deadline.

5.4 CMOM Activity Schedule

CMOM capital project milestones for the period of April 1, 2014, through June 30, 2014, as

well as a look-ahead for the period of July 1, 2014, through December 31, 2014, are provided in the schedule below.

MSD CMOM FY14 Annual Commitments Schedule (01 July 2014 - 31 December 2014)					2014								
Activity ID	Activity Name	Physical % Complete	Start	Finish	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CMOM FY ANNUAL REPORT COMMITMENTS FINAL													
M-E-9 Infrastructure Rehabilitation													
Annual (1) FY 12 Project (H09205)													
A5080	Warranty	100%	01-Mar-13 A	01-Mar-14 A									
Annual (1) FY13 Project (H09206)													
A5090	Contract Administration	99%	19-Nov-12 A	30-Jul-14									
A5100	Warranty	0%	30-Jul-14*	30-Jul-15									
Lee Ann Way Interceptor (1) Rehabilitation Project (H12064)													
A3040	Warranty	100%	04-Jun-13 A	04-Jun-14 A									
Lee Ann Way East - Storybrook Rehabilitation Project (C08433)													
A4020	Warranty	75%	01-Nov-13 A	01-Nov-14									
Lake Forest Sanitary Sewer Rehabilitation Project (H11303)													
A3370	Warranty	75%	31-Aug-13 A	31-Aug-14									
Prospect Phase I Sanitary Sewer Rehabilitation Project (H11311)													
A3240	Construction	75%	20-Sep-13 A	20-Sep-14									
Meadow Stream Sanitary Sewer Rehabilitation Project (H11305)													
A4910	Construction	70%	21-Oct-13 A	21-Oct-14									
Lee Ann Way East - Fegenbush Rehabilitation Project (C08433)													
A4010	Warranty	0%	30-Jul-14*	30-Jul-15									
Lee Ann Way East - Fern Creek Rehabilitation Project (C08433)													
A5590	Warranty	0%	30-Jul-14*	30-Jul-15									
Caven Avenue Rehab Project (H11304)													
A5290	Construction	95%	03-Sep-13 A	31-Aug-14									
Beargrass Interceptor Rehab Project (H09207)													
A5370	Ad	0%	30-Aug-14*										
A5380	Bid Open	0%	30-Sep-14*										
A5390	Award	0%	31-Oct-14*										
A5400	Construction	0%	31-Oct-14*	30-Jun-15									
Berrytown Rehab Project (H11299)													
A5500	Construction	20%	15-Mar-14 A	30-Aug-14									
Starview Rehab Project (H11312)													
A5550	Construction	20%	15-Mar-14 A	30-Aug-14									
Camp Taylor Area 3 Rehab Project (H09218)													
A5450	Construction	60%	01-Dec-13 A	31-Dec-14									
Annual (1) FY14 Project (H14184)													
A5730	Construction	30%	28-Jan-14 A	01-Dec-14									
A5740	Berrytown	20%	28-Jan-14 A	30-Aug-14									
A6140	Camp Taylor Tophats 4&5	90%	28-Jan-14 A	30-Aug-14									
A6150	Hilridge	50%	28-Jan-14 A	30-Dec-14									
A6160	Rosa Terrace	75%	28-Jan-14 A	30-Aug-14									
A6170	Starview	20%	28-Jan-14 A	30-Aug-14									
A6180	Goose Creek	20%	28-Jan-14 A	30-Dec-14									
A6190	LAW Quad3 Whispering Hills	30%	28-Jan-14 A	30-Dec-14									
FY13 ICA Project													
A4410	Planning	99%	01-Jun-12 A	31-Jul-14									
Goose Creek PS SSES (H11407)													
A4950	Planning	95%	01-Apr-13 A	31-Oct-14									
Nightingale PS SSES (H11313)													
			15-Jul-13 A	31-Aug-14									

MSD CMOM FY14 Annual Commitments Schedule (01 July 2014 - 31 December 2014)					2014								
Activity ID	Activity Name	Physical % Complete	Start	Finish	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A5110	Planning	80%	15-Jul-13 A	31-Aug-14									
Pump Station Operations Programs													
O-A-2 Emergency Operation Programs													
Trinity Homes Pump Station Emergency Generator & Access Road (H11440)													
A2310	Warranty	100%	16-Jan-13 A	16-Jan-14 A									
Trinity Homes Pump Station Roof Hatch (H13164)													
A5560	Warranty	70%	28-Aug-13 A	28-Aug-14									
Northern Dilah Diversion Structure Flow Meter Manhole Project (H10833)													
A5120	Warranty	100%	16-Apr-13 A	16-Apr-14 A									
Roycter Basin Access Road Project (H12183)													
A5200	Warranty	100%	16-Jan-13 A	16-Jan-14 A									
Roycter Basin Generator Project (H12183)													
A4820	Ad	100%	17-Jan-14 A										
A4860	Bid Open	100%	04-Feb-14 A										
A4830	Award	100%	09-Jun-14 A										
A4840	Construction	15%	23-Jun-14 A	30-Sep-14									
St. Matthews #4 Pump Station Modification Project (H14211)													
A5800	Ad	100%	08-Jan-14 A										
A5830	Bid Open	100%	21-Feb-14 A										
A5810	Award	100%	29-May-14 A										
A5820	Construction	30%	29-May-14 A	29-Aug-14									
Gunpowder Pump Station FM Modification Project (H14211)													
A6040	Design	100%	01-Sep-13 A	31-Mar-14 A									
A6060	Ad	0%	15-Aug-14*										
A6060	Bid Open	0%	15-Sep-14*										
A6070	Award	0%	01-Oct-14*										
A6080	Construction	0%	01-Oct-14*	30-May-15									
Prospect Point Pump Station Access Road (H13084)													
A5140	Warranty	100%	16-Apr-13 A	16-Apr-14 A									
Brandies FPS Ventilation Modifications (H08562)													
A6050	Construction	100%	26-Nov-13 A	15-May-14 A									
Valley Village PS Header Piping Improvements Project (H08562)													
A5060	Warranty	75%	03-Jul-13 A	01-Jul-14									
4th Street FPS Gate and Switch Gear Replacement Project (F12086)													
A5160	Design	70%	04-Jan-13 A	31-Oct-14									
A5160	Ad	0%	30-Nov-14*										
Shannon Run PS Elimination Project (B13132)													
A5300	Warranty	80%	01-Jun-13 A	01-Jul-14									
CPE/CPE Treatment Plant Activities													
Morris Forman WWTP Sampling Manholes (H14207)													
A4720	Award	100%	15-Jan-14 A										
A4730	Construction	100%	15-Jan-14 A	15-Jun-14 A									
MFWQTP Rubberdown Sampling Manholes (H09374)													
A6090	Design	100%	02-Sep-13 A	01-May-14 A									
A5100	Ad	0%	15-Aug-14*										
A5130	Bid Open	0%	15-Sep-14*										
A5110	Award	0%	01-Oct-14*										
A5120	Construction	0%	01-Oct-14*	31-Dec-14									

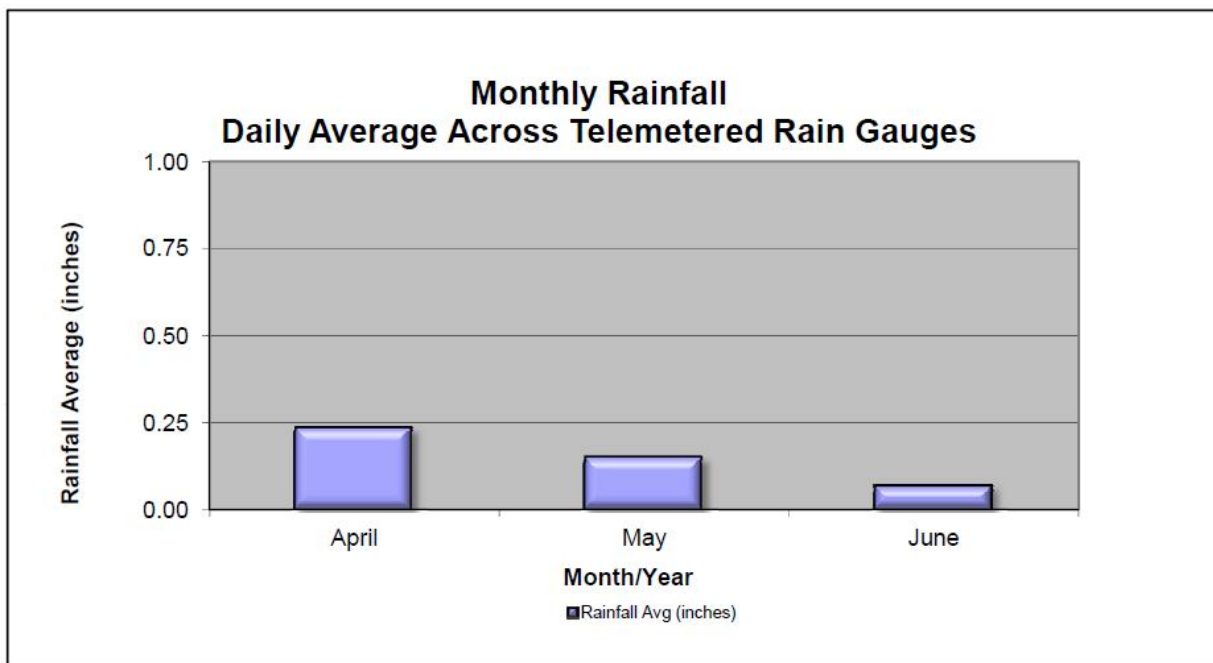
MSD CMOM FY14 Annual Commitments Schedule (01 July 2014 - 31 December 2014)					2014							Date: 21-Jul-14	
Activity ID	Activity Name	Physical % Complete	Start	Finish	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					Berrytown Tank Rehabilitation (H09374)								
A5350	Design	100%	01-Mar-13 A	30-May-14 A	█								
A5330	Construction	100%	02-Jun-14 A	23-Jun-14 A			█						

SECTION 6: Project WIN Performance Overview

6.1 Rainfall

The number and the volume of wet weather overflows are directly related to the amount of rain that has fallen during the reporting period. The following graph shows the Jefferson County average rainfall amounts for the last quarter. Data was pulled from MSD’s Rain Gauge Network.

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



6.2 Collection System Unauthorized Discharges

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

MSD recorded information related to overflows reaching Waters of the United States (WUS) for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. Details of these overflows will be included in the Annual Report for the period of July 1, 2013, through June 30, 2014, and will be posted on the Project WIN website. During this quarter, 139 overflows to the Waters of the United States (WUS) have been reported.

Unauthorized Discharges (Waters of the United States)			
Problem	Dry Weather	Wet Weather	Total
Blending At Jtown WQTC	0	3	3
Bypass At WQTC	3	6	9
Grease Blockage	4	0	4
Lack of System Capacity	0	107	107
Mechanical Failure	0	1	1
Obstruction-Not Grease / Roots	1	3	4
Pumped Overflow	0	1	1
Roots	1	1	2
Structural Failure	1	2	3
Utility Damaged MSD Asset	5	0	5
Total	15	124	139

6.2.2 Overflows to Ground (EXT)

MSD recorded information related to overflows to the ground that did not reach Waters of the United States for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows will be included in the Annual Report for the period of July 1, 2013, through June 30, 2014.

6.2.3 Overflows to Interior (INT)

MSD recorded information related to overflows to building interiors for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows, that are the result of an issue in the main line, will be included in the Annual Report for the period of July 1, 2013, through June 30, 2014.

6.2.4 Dry Weather CSOs

MSD recorded information related to dry weather overflows from permitted combined sewer overflow outfalls. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. A detailed report of these overflows will be included in the Annual Report for the period of July 1, 2013, through June 30, 2014. The table below summarizes dry weather CSOs that occurred during the quarter. **Appendix A-1** includes details on the dry weather overflows that occurred in the quarter.

Dry Weather CSO - April 1, 2014 - June 30, 2014					
CSO	Type of Discharge	Date/Time	Problem	Cause	Volume (GAL)
CSO118	DISDW	6/5/14 10:00 PM	UTILITY DAMAGED MSD ASSET	WATER MAIN BREAK	2,000
CSO137	DISDW	4/24/14 1:30 PM	UTILITY DAMAGED MSD ASSET	WATER MAIN BREAK	4,222,000
CSO141	DISDW	6/5/14 4:15 PM	UTILITY DAMAGED MSD ASSET	WATER MAIN BREAK	5,000
CSO151	DISDW	4/24/14 1:00 PM	UTILITY DAMAGED MSD ASSET	WATER MAIN BREAK	2,472,069

6.3 CSO Reductions

Included in **Appendix B** is the CSO data for this quarter. 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 CSO reduction projects were completed during the reporting period.

6.4 SSO Reductions

Estimation of SSO volume is not available in the same manner as it is for the CSO locations. The SSO volume reductions are estimates based on actual observations or from flow monitoring information.

- Mud Creek/Silver Heights Interceptor #20 – Completed June 24, 2014 – Eliminated the following SSOs: 61667, 61687, 61683, MSD0258A-LS.

6.5 Gravity Line Preventive Maintenance

Each quarter, data and statistics relating to the cleaning, inspection, and maintenance of sewer assets performed under the Gravity Line Preventive Maintenance (GLPM) are reported. The following data was compiled for the period of April 1, 2014, through June 30, 2014. The first table includes data and targets. The second table includes unplanned maintenance and other maintenance activities that are performed in response to inspection.

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

Rolling Quarterly GLPM Performance With Targets							
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Total	Target/ qtr	% of Annual Target
Combined Sewer Area							
Catch Basins Cleaned CSO Area - PM	4,861	6,581	3,953	3,327	18,722	4,460	19%
CSO Inspections	1,348	1,391	1,316	1,293	5,348	1,272	25%
Sanitary Sewer Area							
Catch Basins Cleaned SSO Area - PM	1,587	386	1,519	796	4,288	1,144	17%
County Wide							
Sewer Main Inspections MSD Crews (LF)	294,960	243,515	322,297	353,379	1,214,150	198,000	45%
Sewer Main Inspections Contractor (LF)	183,976	538,432	327,271	95,460	1,145,139	198,000	12%
Total Inspections (LF)	478,936	781,947	649,568	448,839	2,359,289	396,000	28%

Rolling Quarterly GLPM Performance					
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Total
Combined Sewer Area					
Catch Basins Cleaned CSO Area - UM	291	202	191	341	1,025
CSO Debris Removal WO	152	123	90	175	540
Chemical Root Treatment CSO Area (LF)	0	282	0	0	282
Root Cutting CSO Area (LF)	3,293	7,457	28,878	6,420	46,048
Flushing and Cleaning of Sewer Mains CSO Area (LF)	11,282	8,146	11,442	3,999	34,869
Sanitary Sewer Area					
Catch Basins Cleaned SSO Area - UM	96	120	79	796	1,091
Chemical Root Treatment SSO Area (LF)	0	0	0	407	407
Root Cutting SSO Area (LF)	14,517	17,796	23,325	23,721	79,359
Flushing and Cleaning of Sewer Mains SSO Area (LF)	23,146	30,245	16,004	37,728	107,123

6.6 Water Quality Treatment Center Bypasses

6.6.1 Bypass Events

The table below summarizes the bypasses that occurred in the reporting period.

Bypass Events - April 1, 2014 - June 30, 2014			
Type of Bypass	Date	ID	Facility Name
RAIN EVENT DISCHARGE	04/04/14	MSD0209	BERRYTOWN
RAIN EVENT DISCHARGE	04/04/14	MSD0209	BERRYTOWN
RAIN EVENT DISCHARGE	04/04/14	MSD0209	BERRYTOWN
RAIN EVENT DISCHARGE	04/04/14	MSD0209	BERRYTOWN
RAIN EVENT DISCHARGE	05/15/14	MSD0209	BERRYTOWN
DRY WEATHER DISCHARGE	06/16/14	MSD0228	MCNEELY LAKE
RAIN EVENT DISCHARGE	04/04/14	MSD0247	STARVIEW
DRY WEATHER DISCHARGE	05/06/14	MSD0263	CHENOWETH HILLS
DRY WEATHER DISCHARGE	06/16/14	MSD0263	CHENOWETH HILLS

6.6.2 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 April 1, 2014, through June 30, 2014.

Bypass Summary - April 1, 2014 to June 30, 2014					
DATE	WQTC	WORK ORDER	FAILURE CODE	BYPASS DESCRIPTION	FAILURE RESOLUTION
Capacity (CAP)					
April 4, 2014	BERRYTOWN	2141361, 2141357	CAP	The #1 treatment plant experienced two bypasses when a heavy rain event caused elevated water levels in plant clarifier weirs. Both bypassed flows received preliminary and secondary treatment. Because of the elevated levels in the tanks, water flowed out of cuts for air piping in walls between aeration tank and clarifiers. Air to aeration tank was shut off prior to bypasses. Approximately 41,750 and 62,625 gallons overflowed. This plant is designed for 0.075 MGD. The approximate total plant flow for April 4 cannot be calculated due to flow being too high for the sensor to read. Maximum flow capacity for the flow meter is 0.430 MGD.	If operational needs for resources allow, in the event of heavy rain, MSD will haul water from the plant. Plant is to be eliminated in 2015.
April 4, 2014	BERRYTOWN	2141490	CAP	The #1 treatment plant experienced a bypass when a heavy rain event caused elevated water levels in plant aeration tanks. The bypassed flow received preliminary treatment. Because of the elevated levels in the tanks, water flowed out of aeration tank. Air to aeration tank was shut off prior to bypass. Approximately 445 gallons overflowed. This plant is designed for 0.075 MGD. The approximate total plant flow for April 4 cannot be calculated due to flow being too high for the sensor to read. Maximum flow capacity for the flow meter is 0.430 MGD.	If operational needs for resources allow, in the event of heavy rain, MSD will haul water from the plant. Plant is to be eliminated in 2015.

Bypass Summary - April 1, 2014 to June 30, 2014					
DATE	WQTC	WORK ORDER FAILURE CODE	BYPASS DESCRIPTION	FAILURE RESOLUTION	
Capacity					
April 4, 2014	BERRYTOWN	2141473	CAP	The treatment plant experienced a bypass when a heavy rain event caused elevated water levels in the influent pump station. The bypassed flow received no treatment. Because of the elevated levels in the pump station, water flowed out of pump station. Approximately 190,000 gallons overflowed. This plant is designed for 0.075 MGD. The approximate total plant flow for April 4 cannot be calculated due to flow being too high for the sensor to read. Maximum flow capacity for the influent pump station is 1.1 MG.	If operational needs for resources allow, in the event of heavy rain, MSD will haul water from the plant. Plant is to be eliminated in 2015.
May 15, 2014	BERRYTOWN	2161788	CAP	The #2 treatment plant experienced a bypass when a heavy rain event caused elevated water levels in plant clarifier weirs. The bypassed flow received preliminary and secondary treatment. Because of the elevated levels in the clarifiers, water flowed out of a hole in the side of the clarifier above the normal water level. Air to aeration tank was shut off prior to bypass. Approximately 2,350 gallons overflowed. This plant is designed for 0.075 MGD. The approximate total plant flow for May 15 was 0.162 MGD. Maximum flow capacity for the flow meter is 0.430 MGD.	If operational needs for resources allow, in the event of heavy rain, MSD will haul water from the plant. Plant is to be eliminated in 2015.
Human Error (OPN)					
May 6, 2014	CHENOWETH HILLS	2158488	OPN	Contractors were drilling test holes to check the depth of the rock and drilled into the effluent force main from Chenoweth Hills WQTC. A portion of the effluent did not reach the permitted discharge outfall at this WQTC. Approximately 5,250 gallons of fully treated wastewater entered waters of the U.S at a location other than the permitted outfall.	Contractors repaired the pipe May 7, 2014. A vendor complaint form was sent to contractor with a requirement to attend Quarterly SORP Training and reinforce appropriate response and reporting procedures. This plant is to be eliminated by December 31, 2015.

Bypass Summary - April 1, 2014 to June 30, 2014					
DATE	WQTC	WORK ORDER FAILURE CODE	BYPASS DESCRIPTION	FAILURE RESOLUTION	
Human Error (OPN)					
June 16, 2014	MCNEELY LAKE	2091866	OPN	MSD Operator found CL2 & SO2 tank valves were not opened after tanks were changed. Tank valve issue was found at 7:10 am and valves were opened immediately. We had a pre effluent CL2 residual at 7:35 am. Wastewater received full preliminary and secondary treatment, but did not received disinfection. Approximately 1,359 gallons of treated sewage reached the waters of the U.S.	MSD is investigating the nature of the operator error associated with this bypass event, and pending results of the investigation, may intensify training efforts with personnel involved. This plant is anticipated to be eliminated by December 31, 2014.
June 16, 2014	CHENOWETH HILLS	2107913	OPN	SO2 tanks were found to be empty at 8:17am and new tanks were installed immediately. The treatment plant had a pre effluent CL2 residual of 2.0 and <0.010 total residual chlorine at 8:40 am. Wastewater received full preliminary, secondary and disinfection treatment, but did not receive dechlorination. Approximately 2,174 gallons of treated sewage, without dechlorination, reached the waters of the U.S.	MSD is investigating the nature of the operator error associated with this bypass event, and pending results of the investigation, may intensify training efforts with personnel involved. This plant is anticipated to be eliminated by December 31, 2014.
Facility Failure (Mechanical - MCH, Electrical - ELE, Structural - SRT)					
April 4, 2014	STARVIEW	2141531	STR	On April 4, 2014, due to elevated flows in the effluent, the pipe between the clarifiers and the chlorine contact tank was found leaking. Wastewater received preliminary and secondary treatment. Approximately 300 gallons reached waters of the U.S. Total flow for April 4, 2014 cannot be calculated due to the flow being too high for the sensor to read flow. Maximum flow capacity for the flow meter is 0.438 MGD.	The piping between the clarifiers and the chlorine contact tank was repaired on July 28, 2014. This plant is to be eliminated by December 31, 2015.

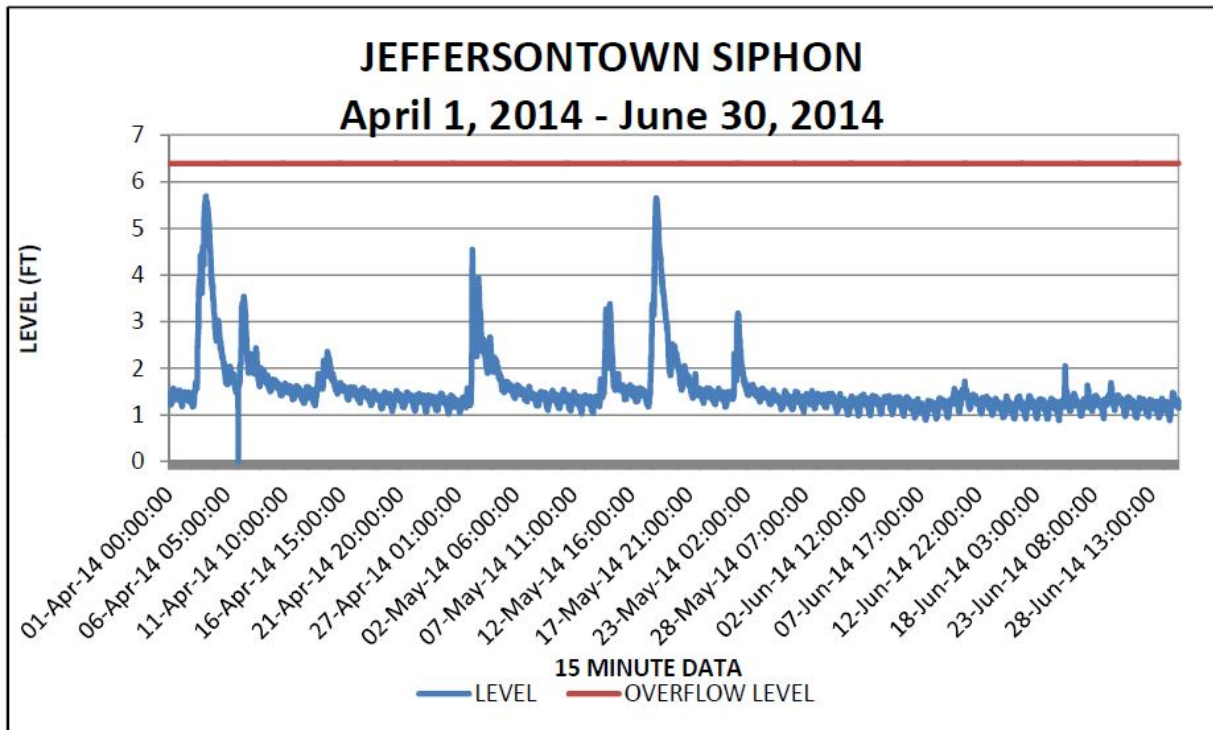
Bypass Summary - April 1, 2014 to June 30, 2014						
DATE	WQTC	WORK ORDER	FAILURE CODE	BYPASS DESCRIPTION	FAILURE RESOLUTION	
External Power failures (LGE Related-PWR)						
N/A	N/A	N/A	N/A	No bypasses of this category occurred during the reporting period.	N/A	
Utility Damage						
N/A	N/A	N/A	N/A	No bypasses of this category occurred during the reporting period.	N/A	

6.6.3 Jeffersontown Water Quality Treatment Center

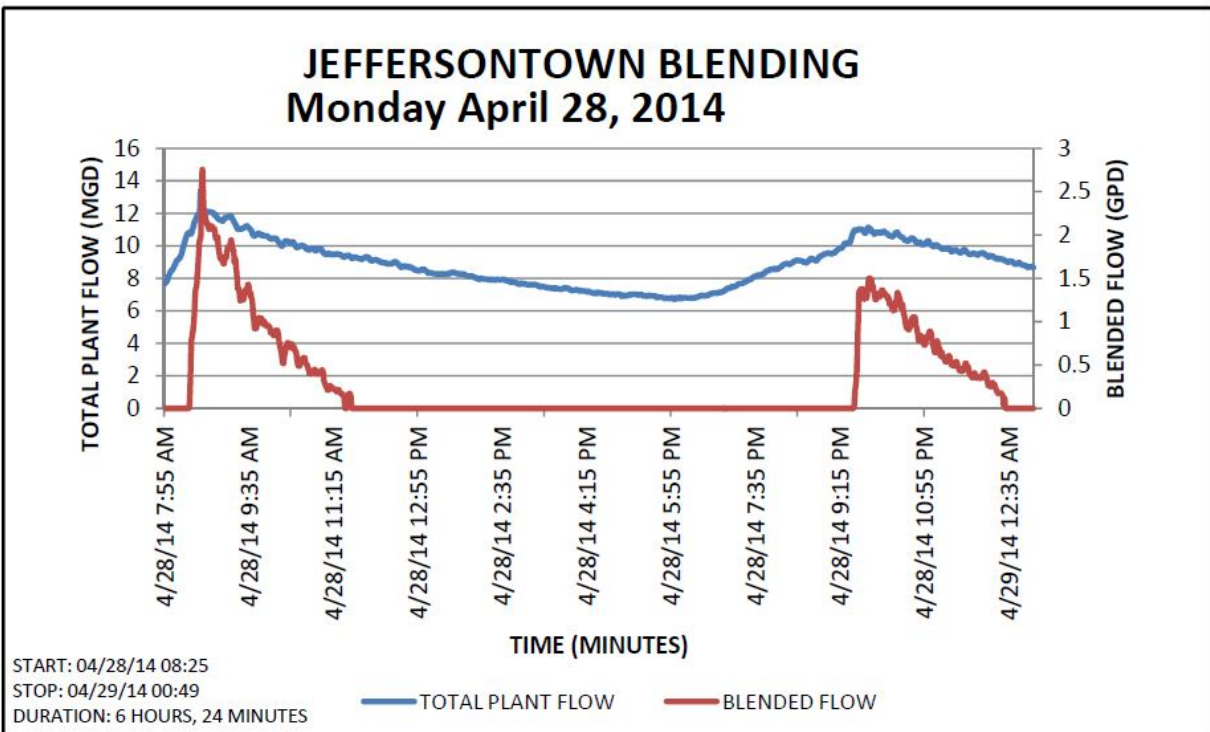
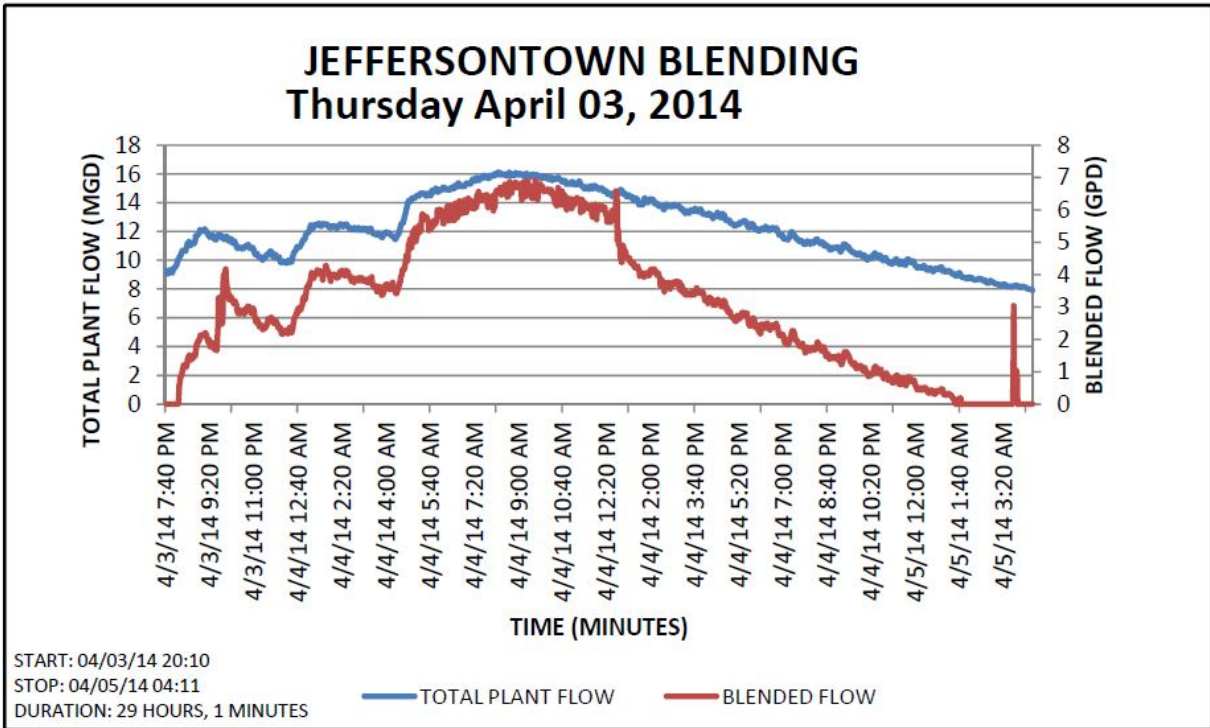
MSD submitted a Jeffersontown WQTC Process Control Plan on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this document 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.

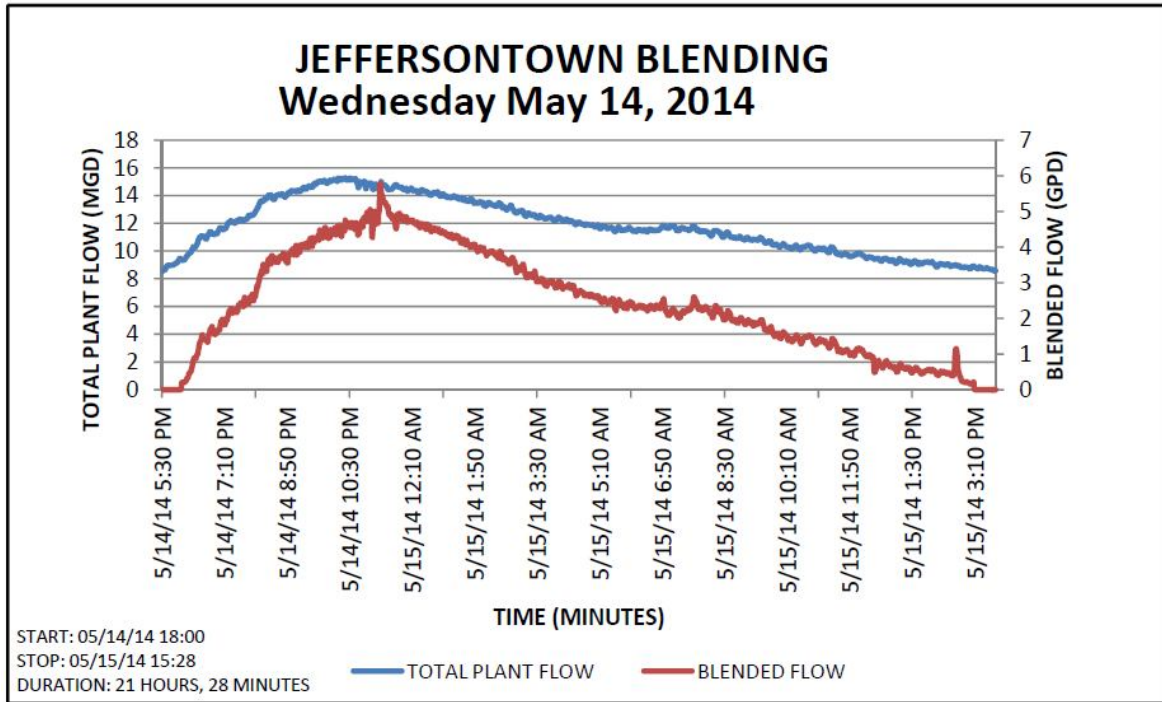
The following activities occurred at the Jeffersontown WQTC during the reporting period:

- Inspections were conducted upstream of the Jeffersontown WQTC Headworks six times (Three in April and three in May). Refer to Section 2 for SSO Route information. One overflow was reported May 14, 2014, at manhole 28173 upstream of the Jeffersontown Siphon.



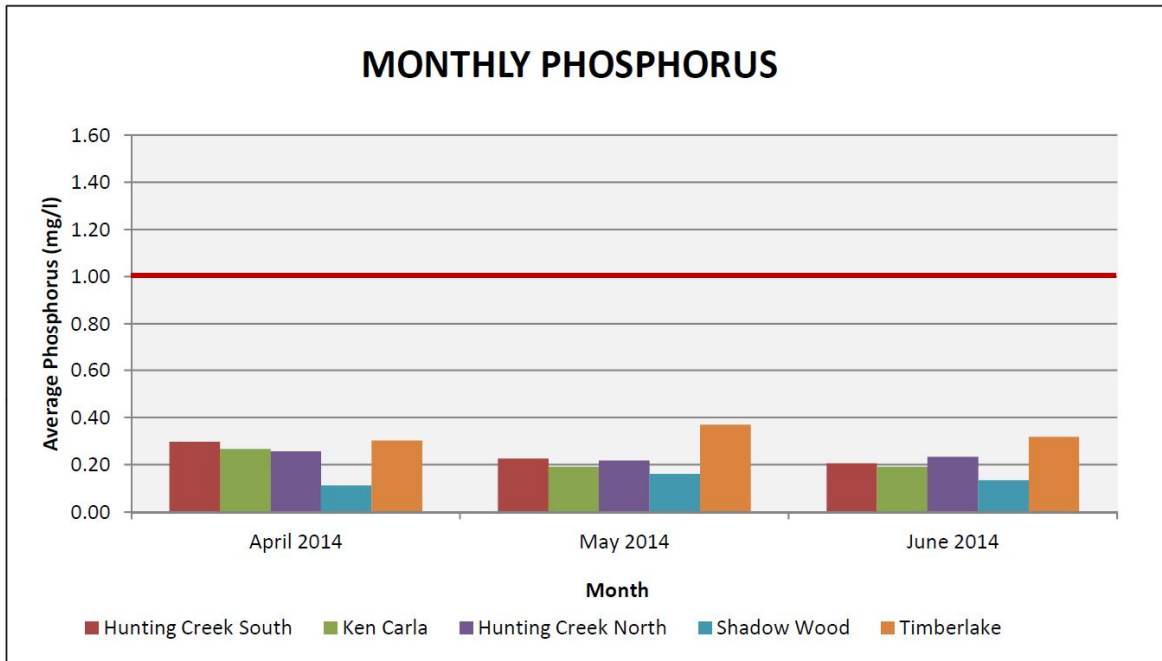
- There were three blending events during the reporting period. Below are charts for each blending event that show total plant flow during the blending event.





6.7 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. The following chart displays monthly average phosphorus results for the Prospect WQTCs.





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



**APPENDIX A-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
APRIL 1, 2014 THROUGH JUNE 30, 2014**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	914 E BROADWAY	6/5/14 10:00 PM	06/05/14 11:15 PM	2,000	Sewer Manhole	CSO118	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-WATER MAIN BREAK	UTILITY DAMAGED MSD ASSET	2177176	NONE NEEDED DUE TO FRESH WATER MAIN BREAK	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1258 ROYAL AVE	4/24/14 1:30 PM	04/24/14 04:00 PM	4,222,000	Sewer Manhole	CSO137	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-LOUISVILLE WATER MAIN BREAK ON BAXTER AVE AND EASTERN PARKWAY	UTILITY DAMAGED MSD ASSET	2150497	NO CLEAN-UP NEEDED DUE TO THE MAGNITUDE OF CLEAN WATER FROM MAIN BREAK	WATER MAIN REPAIRED
MORRIS FORMAN	KY0022411	361 BAXTER AVE	6/5/14 4:15 PM	06/05/14 04:45 PM	5,000	Sewer Manhole	CSO141	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-WATER MAIN BREAK	UTILITY DAMAGED MSD ASSET	2177174	NONE NEEDED DUE TO FRESH WATER MAIN BREAK	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1316 CASTLEWOOD DELL	4/24/14 1:00 PM	04/25/14 02:30 AM	2,472,069	Sewer Manhole	CSO151	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-LOUISVILLE WATER COMPANY WATER MAIN BREAK	UTILITY DAMAGED MSD ASSET	2150470	NO DISCLN NEEDED DUE TO MAGNITUDE OF EVENT	LOCATION IS INCLUDED IN THE IOAP

Appendix A-2 - Discharge Work Orders – Bypass

**APPENDIX A-2
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
APRIL 1, 2014 THROUGH JUNE 30, 2014**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 2:55: AM	04/04/14 04:45 PM	62250	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141357	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 2:55: AM	04/03/14 04:45 PM	41750	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141361	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 9:20: AM	04/04/14 10:00 PM	190000	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141473	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 9:20: AM	04/04/14 04:45 PM	465	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141490	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	05/15/14 8:40: AM	05/15/14 04:30 PM	2350	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	HOLES IN CLARIFIER	BYPASS AT WQTC	2161788	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MCNEELY LAKE	KY0029416	10300 ROD N REEL RD	06/16/14 7:10: AM	06/16/14 07:40 AM	1359	Sewer Treatment Plant	MSD0228	STREAM	PENNSYLVANIA RUN	CL2 & SO2 TANKS NOT ON.	BYPASS AT WQTC	2181192	PIPE DSICHARGE SUBMERGED- NO CLEANUP	TURNED TANKS ON.
STARVIEW	KY0031712	423 BERMUDA WAY	04/04/14 10:00: AM	04/04/14 06:10 PM	300	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141531	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
CHENOWETH HILLS	KY0029459	4305 ST RENE CT	05/06/14 6:20: PM	05/07/14 10:45 AM	5250	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	MSD contractor drilled through treatment center effluent force main.	BYPASS AT WQTC	2158488	Clean up of the impacted area will occur once repairs are completed.	MSD Contractor is installing band clamp to repair effluent force main.
CHENOWETH HILLS	KY0029459	4305 ST RENE CT	06/16/14 8:17: AM	06/16/14 08:40 AM	2174	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	SO2 TANKS EMPTY.	BYPASS AT WQTC	2181384	PIPE DISCHARGE SUBMERGED- NO CLEANUP	CHANGED SO2 TANKS

Appendix A-3 - Discharge Work Orders – Blending

**APPENDIX A-3
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
APRIL 1, 2014 THROUGH JUNE 30, 2014**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	04/03/14 8:10: PM	04/05/14 04:11 AM	4306999	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	2141311	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS ARE UNDER WAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	04/28/14 8:25: AM	04/29/14 12:49 AM	226760	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	2153031	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	05/14/14 6:00: PM	05/15/14 03:28 PM	2261866	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	2161671	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION



Appendix A-4 - Discharge Work Orders – Waters of the United States



APPENDIX A-4
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
APRIL 1, 2014 THROUGH JUNE 30, 2014

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	804 N ARBOR DR	04/04/14 3:45: AM	04/04/14 10:00 PM	82125	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141396	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	804 N ARBOR DR	05/15/14 3:10: AM	05/15/14 01:53 PM	22505	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2161690	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	806 PINE WAY	04/03/14 7:15: PM	04/03/14 05:38 PM	33575	Sewer Manhole	0057-W	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141310	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	804 N ARBOR DR	04/04/14 3:45: AM	04/04/14 10:00 PM	54750	Sewer Manhole	00746	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141400	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	804 N ARBOR DR	05/15/14 3:10: AM	05/15/14 01:53 PM	16075	Sewer Manhole	00746	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2161692	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	KY0022420	10709 SEVENOAKS DR	04/28/14 9:14: AM	04/28/14 09:15 AM	25	Sewer Node	01083A-AG	GROUND	HITE CREEK	FORCE MAIN BREAK	STRUCTURAL FAILURE	2153091	MSD CLEANED & SANITIZED THE AREA	CONTRACTOR IS REPAIRING THE LINE
MORRIS FORMAN	KY0022411	7900 SHELBYVILLE RD	04/04/14 10:25: AM	04/05/14 08:19 AM	1900	Sewer Manhole	02935	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141591	DISCLN WO# 2142142	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	3721 DIXIE HWY	04/21/14 9:15: AM	04/21/14 10:40 AM	10	Sewer Main	06940B-AG	GROUND	UPPER MILL CREEK	FORCE MAIN BREAK	STRUCTURAL FAILURE	2148362	MSD CLEANED & SANITIZED THE AREA	CHEROKEE CONSTRUCTION REPAIRED THE FORCE MAIN
MORRIS FORMAN	KY0022411	4315 PRUITT CT	04/04/14 8:56: AM	04/05/14 02:56 PM	22000	Sewer Manhole	08426	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141556	DISCLN WO# 2142204	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4313 PRUITT CT	04/04/14 8:55: AM	04/05/14 02:56 PM	7500	Sewer Manhole	08427	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141554	DISCLN WO# 2142203	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	04/04/14 7:09: AM	04/04/14 01:55 PM	21000	Sewer Manhole	08717	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141575	DISCLN WO# 2142037	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	04/03/14 2:51: PM	04/05/14 06:27 PM	11883310	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141165	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	04/07/14 1:26: PM	04/08/14 02:20 AM	1548371	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142913	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	LOCATIOLN INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	05/14/14 10:38: PM	05/15/14 03:20 AM	115530	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2161723	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	LOACTION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	05/21/14 10:26: PM	05/21/14 10:39 PM	1143	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2164545	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	04/28/14 7:23: AM	04/28/14 11:05 PM	500	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153209	DISCLN WO# 2153563	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	7713 WESTPORT RD	04/04/14 7:04: AM	04/05/14 10:05 AM	67500	Sewer Manhole	105936	GROUND	GOOSE CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141656	DISCLN WO# 2142082	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	7713 WESTPORT RD	04/04/14 8:50: AM	04/06/14 08:40 AM	114000	Sewer Manhole	105936	GROUND	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141502	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	KY0022420	7302 FLOYDSBURG RD	04/04/14 12:20: AM	04/05/14 07:30 AM	28250	Sewer Manhole	108958	CATCH BASIN	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141372	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR

**APPENDIX A-4
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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	4119 LEE AVE	04/28/14 7:24: AM	04/28/14 11:10 PM	500	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153210	DISCLN WO# 2153569	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	04/28/14 7:29: AM	04/28/14 11:14 PM	2700	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153216	DISCLN WO# 2153585	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1913 CHARBDIN PL	04/04/14 6:09: AM	04/04/14 07:40 PM	32000	Sewer Manhole	16455	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141486	DISCLN WO# 2142079	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1726 FRASER DR	04/03/14 8:34: PM	04/06/14 03:20 PM	38500	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141358	DISCLN WO# 2142357	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1726 FRASER DR	04/07/14 1:05: PM	04/08/14 01:30 PM	16500	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142914	DISCLN WO# 2143592	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	6619 STRAWBERRY LN	05/03/14 9:05: PM	05/03/14 10:27 PM	200	Sewer Service Line	176120	GROUND	NORTHERN DITCH	OBSTRUCTION OF GREASE IN MAIN SEWER	GREASE BLOCKAGE	2157286	MSD PERSONNEL CLEANED THE IMPACTED AREA	WORK ORDER 2157534; 2157552; ROOT CUT THE MAIN SEWER TO OPEN
MORRIS FORMAN	KY0022411	3302 TROUT CREEK DR	04/04/14 6:01: AM	04/05/14 11:16 AM	26500	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141579	DISCLN WO# 2142212	LOCATION INCLUDED IN THE IOAP
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 9:20: AM	04/04/14 10:00 PM	195000	Sewer Manhole	24012	DITCH	CHENOWETH RUN,UPPER	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141479	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	3925 MANNER DALE DR	04/04/14 10:35: AM	04/04/14 11:30 AM	400	Sewer Manhole	25407	GROUND	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MSD MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	2141703	MSD CLEANED & SANITIZED THE IMPACTED AREA	WORK ORDER 2141738; FLUSHED THE LINE TO REMOVE THE OBSTRUCTION
DEREK R. GUTHRIE	KY0078956	6102 COOPER CHAPEL RD	04/03/14 9:20: AM	04/04/14 06:00 PM	52000	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141547	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	KY0078956	6102 COOPER CHAPEL RD	05/14/14 8:35: PM	05/15/14 05:10 AM	12875	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	LACK OF CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2161681	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	KY0078956	9317 LANTANA DR	04/04/14 8:50: AM	04/04/14 05:45 PM	26750	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141533	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	3317 BROWNSBORO RD	04/04/14 2:47: AM	04/06/14 08:30 AM	36000	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141360	NO DISCLN NEEDED DUE TO OVERLAP IN DISCHARGE REPORTING	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3317 BROWNSBORO RD	04/04/14 6:40: AM	04/06/14 08:30 AM	63000	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141460	DISCLN WO# 2142169	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1013 ALTA CIR	04/03/14 6:45: PM	04/05/14 07:50 AM	76500	Sewer Manhole	27007	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141299	DISCLN WO# 2142151	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1013 ALTA CIR	04/07/14 2:37: PM	04/07/14 07:15 PM	11500	Sewer Manhole	27007	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142915	DISCLN WO# 2143010	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	04/03/14 9:30: PM	04/04/14 02:30 PM	25500	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141327	msd to clean and sanitize affected area	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	04/28/14 9:40: PM	04/29/14 01:00 AM	5000	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153499	CREATED DISCLN WORK ORDER	A SOLUTION IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	05/14/14 8:20: PM	05/15/14 06:40 AM	15500	Sewer Manhole	27116	STREAM	MUD CREEK	RAIN EVENT LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	2161683	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	4818 PARTRIDGE RUN	06/21/14 7:10: PM	06/21/14 07:40 PM	10	Sewer Main	27923	GROUND	POND CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	2183507	MSD PERSONNEL CLEANED THE IMPACTED AREA	WORK ORDER 2183503: FLUSHED AND ROOT CUT THE MAIN TO RELIEVE THE DISCHARGE
JEFFERSONTOWN	KY0025194	3258 RUCKRIEGEL PKY	04/04/14 9:29: AM	04/06/14 08:15 AM	65000	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141489	DISCLN WO# 2142275	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3258 RUCKRIEGEL PKY	05/14/14 11:00: PM	05/15/14 10:30 AM	2200	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2161705	DISCLN WO# 2161970	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3506 CHARLANE PKY	04/04/14 10:45: AM	04/06/14 08:20 AM	19500	Sewer Manhole	28250	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141643	DISCLN WO# 2142277	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3506 CHARLANE PKY	05/14/14 10:57: PM	05/15/14 11:00 AM	750	Sewer Manhole	28250	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2161698	DISCLN WO# 2161963	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	9707 WILLOWWOOD WAY	04/04/14 10:40: AM	04/06/14 08:26 AM	27000	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141651	DISCLN WO# 2142281	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3620 CHARLANE PKY	04/04/14 11:15: AM	04/06/14 08:22 AM	22000	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141648	DISCLN WO# 2142280	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3620 CHARLANE PKY	05/14/14 10:55: PM	05/15/14 11:10 AM	750	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2161700	DISCLN WO# 2161969	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	2901 LIVINGSTON AVE	04/04/14 11:44: AM	04/06/14 08:40 AM	24000	Sewer Manhole	28395	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141657	DISCLN WO# 2142283	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3406 CHARLANE PKY	04/04/14 11:25: AM	04/04/14 07:08 PM	24500	Sewer Manhole	28451	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141653	DISCLN WO# 2142282	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	11401 GRAND AVE	04/04/14 8:55: PM	04/06/14 08:30 AM	73000	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141359	DISCLN WO# 2142274	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	6810 SANDSTONE BLVD	04/03/14 8:00: PM	04/04/14 05:00 PM	30825	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141323	msd to clean and sanitize affected area	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	8111 SHELBYVILLE RD	04/04/14 5:22: AM	04/05/14 08:33 AM	26000	Sewer Manhole	30376	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141640	DISCLN WO# 2142146	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	04/03/14 8:00: PM	04/04/14 09:20 PM	37500	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141322	msd to clean and sanitize affected area	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	04/03/14 8:20: PM	04/04/14 09:20 PM	7500	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141320	msd to clean and sanitize affected area	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	6924 SANDSTONE BLVD	04/04/14 8:10: AM	04/04/14 11:00 AM	5250	Sewer Manhole	31083	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141389	msd to clean and sanitize affected	A SOLUTION FOR THIS IS INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	2711 GRASSLAND DR	04/04/14 12:02: PM	04/06/14 08:42 AM	32000	Sewer Manhole	31733	DITCH	BEATTY BROOK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141677	DISCLN WO# 2142284	LOCATION INCLUDED IN THE IOAP
FLOYDS FORK	KY0102784	815 TUCKER STATION RD	04/04/14 10:00: AM	04/04/14 11:45 AM	2625	Sewer Manhole	33003	STREAM	POPE LICK	lack of system capacity	LACK OF SYSTEM CAPACITY	2141538	msd to clean and sanitize affected area	area included in ioap
MORRIS FORMAN	KY0022411	3540 FINCASTLE RD	04/04/14 12:43: AM	04/05/14 11:46 AM	16500	Sewer Service Line	34093540	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141569	DISCLN WO# 2142211	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	3540 FINCASTLE RD	04/07/14 2:49: PM	04/07/14 09:15 PM	600	Sewer Service Line	34093540	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142923	DISCLN WO# 2143114	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3542 FINCASTLE RD	04/03/14 4:10: PM	04/06/14 05:52 PM	39500	Sewer Service Line	34093542	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141298	DISCLN WO# 2142355	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3542 FINCASTLE RD	04/07/14 2:48: PM	04/07/14 09:14 PM	8400	Sewer Service Line	34093542	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142922	DISCLN WO# 2143096	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3530 FINCASTLE RD	04/04/14 12:39: AM	04/05/14 11:50 AM	32500	Sewer Manhole	36763	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141560	DISCLN WO# 2142208	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3530 FINCASTLE RD	04/07/14 2:45: PM	04/07/14 09:10 PM	15000	Sewer Manhole	36763	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142918	DISCLN WO# 2143022	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1227 LEXINGTON RD	04/22/14 1:15: PM	04/22/14 07:05 PM	16200	Sewer Manhole	37476	STREAM	SOUTH FORK BEARGRASS CREEK	GREASE BLOCKAGE	GREASE BLOCKAGE	2149262	DISCLN WO# 2149355	MSD IS SURVEYING THE AREA
MORRIS FORMAN	KY0022411	1227 LEXINGTON RD	04/23/14 9:00: AM	04/23/14 03:42 PM	300	Sewer Manhole	37476	STREAM	SOUTH FORK BEARGRASS CREEK	GREASE IN THE MSD MAIN SEWER	GREASE BLOCKAGE	2149917	MSD CLEANED & SANITIZED THE IMPACTED AREA	WORK ORDERS 2150055; 2150059; ROOT CUT AND FLUSHED THE MAIN SEWER
MORRIS FORMAN	KY0022411	5 RIO VISTA DR	05/03/14 7:00: PM	05/10/14 09:15 PM	3375	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2160122	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	2 RIO VISTA DR	05/10/14 7:00: PM	05/10/14 09:15 PM	3375	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2160123	MSD CLEANED & SANITIAED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	300 MOCKINGBIRD VALLEY RD	04/04/14 6:40: AM	04/06/14 08:30 AM	10000	Sewer Manhole	41374	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141458	NO DISCLN NEEDED DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	8409 SABERDEE DR	05/10/14 5:19: PM	05/10/14 07:30 PM	3275	Sewer Manhole	43472	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2160116	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	8409 SABERDEE DR	05/15/14 7:30: AM	05/15/14 01:00 PM	1650	Sewer Manhole	43472	DITCH	GOOSE CREEK	rainevent caused lack of system capacity	LACK OF SYSTEM CAPACITY	2161736	msd cleaned & sanitized the area	site found during rain event recon- will monitor & evaluate for repair
MORRIS FORMAN	KY0022411	1635 BELMAR DR	04/04/14 7:18: AM	04/04/14 01:50 PM	17500	Sewer Manhole	44396	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141582	DISCLN WO# 2142043	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1635 BELMAR DR	04/07/14 2:32: PM	04/07/14 05:05 PM	6000	Sewer Manhole	44396	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142921	DISCLN WO# 2143050	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1011 ALTA CIR	04/03/14 6:45: PM	04/06/14 08:05 AM	33500	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141300	DISCLN WO# 2142270	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1011 ALTA CIR	04/07/14 7:20: PM	04/08/14 05:46 AM	110000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142916	DISCLN WO# 2143016	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1011 ALTA CIR	05/10/14 3:59: PM	05/11/14 11:00 AM	1000	Sewer Manhole	45796	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2160130	DISCLN WO# 2160271	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1132 ROSTREVOR CIR	04/03/14 6:30: PM	04/06/14 08:10 AM	100000	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141303	DISCLN WO# 2142273	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1132 ROSTREVOR CIR	04/07/14 2:33: PM	04/07/14 05:42 AM	52000	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142917	DISCLN WO# 2143020	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	1132 ROSTREVOR CIR	04/28/14 8:57: AM	04/28/14 10:00 PM	10800	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153103	DISCLN WO# 2153549	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4801 CASSIA CT	04/04/14 11:51: AM	04/05/14 09:12 AM	27500	Sewer Manhole	46623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141675	DISCLN WO# 2142140	LOCATION INCLUDED IN THE IOAP
SHADOW WOOD	KY0031810	5489 FOREST LAKE DR	05/22/14 9:40: AM	05/22/14 10:42 AM	620	Sewer Manhole	47148	GROUND	HARRODS CREEK	ROCK FROM CONSTRUCTION FOUND IN SEWER OBSTRUCTING FLOW	OBSTRUCTION-NOT GREASE / ROOTS	2164659	MSD CLEANED AND SANITIZED THE AREA	CONTRACTOR REMOVED ROCKS FROM SEWER
MORRIS FORMAN	KY0022411	201 BULLITT LN	04/03/14 7:25: PM	04/05/14 08:10 AM	78500	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141306	DISCLN WO# 2142145	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	202 OXMOOR LN	04/03/14 7:25: PM	04/04/14 06:26 PM	19700	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141305	DISCLN WO# 2142092	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	202 OXMOOR LN	04/07/14 3:12: PM	04/08/14 06:00 AM	8500	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2143125	DISCLN WO# 2143129	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	202 OXMOOR LN	05/14/14 11:14: PM	05/15/14 06:48 AM	675	Sewer Manhole	47583	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2161710	DISCLN WO# 2161974	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	8021 CHRISTIAN CT	04/04/14 7:43: AM	04/05/14 08:27 AM	13000	Sewer Manhole	47593	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141449	DISCLN WO# 2142148	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3305 INDIAN CREEK CT	04/04/14 1:25: AM	04/05/14 11:19 AM	19000	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141566	DISCLN WO# 2142210	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3305 INDIAN CREEK CT	04/07/14 7:28: PM	04/07/14 10:05 PM	600	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142920	DISCLN WO# 2143033	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	2011 TERRIL LN	04/04/14 6:31: AM	04/05/14 11:17 AM	32000	Sewer Manhole	51180	GROUND	BROOKLAWN TRIBUTARY	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141552	DISCLN WO# 2142201	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	04/03/14 1:30: PM	04/04/14 02:11 PM	19000	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141297	DISCLN WO# 2142031	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	04/28/14 7:58: AM	04/28/14 11:40 PM	1500	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153212	DISCLN WO# 2153573	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1701 NORTHWESTERN PKY	06/18/14 12:31: PM	06/18/14 02:00 PM	30	Sewer Manhole	52508	STREAM	OHIO RIVER	UTILITY DAMAGED MSD ASSET CAUSING SEWAGE WATER TO ESCAPED	UTILITY DAMAGED MSD ASSET	2182608	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THE PUMP WAS SHUT DOWN, AND 3 INCH PIPING WAS EXTENDED INTO THE DOWNSTREAM MANHOLE
DEREK R. GUTHRIE	KY0078956	9718 TITAN DR	04/04/14 7:30: AM	04/04/14 03:00 PM	45000	Sewer Manhole	61667	GROUND	MUD CREEK	lack of system capacity	LACK OF SYSTEM CAPACITY	2141545	msd to clean and sanitize affected area	area included in ioap
CEDAR CREEK	KY0098540	9517 PLUMWOOD RD	04/04/14 8:05: AM	04/04/14 12:30 PM	6625	Sewer Manhole	63094	STREAM	CEDAR CREEK	lack of system capacity	LACK OF SYSTEM CAPACITY	2141529	msd to clean and sanitize affected area	area included in msd's ioap
CEDAR CREEK	KY0098540	9300 HAYES AVE	04/04/14 8:05: AM	04/04/14 12:25 PM	6620	Sewer Manhole	63095	STREAM	CEDAR CREEK	lack of system capacity	LACK OF SYSTEM CAPACITY	2141525	msd to clean and sanitize affected area	area included in msd's ioap
MORRIS FORMAN	KY0022411	424 MAC BRAE RD	05/06/14 3:10: PM	05/06/14 06:45 PM	25	Sewer Service Line	64309	GROUND	NORTHERN DITCH	GREASE & DEBRIS OBSTRUCTION IN MAIN SEWER	GREASE BLOCKAGE	2158279	MSD PERSONNEL CLEANED THE IMPACTED AREA	WORK ORDER 2158294; FLUSHED TO REMOVE GREASE AND DEBRIS FROM THE MAIN
MORRIS FORMAN	KY0022411	1910 CHARBDIN PL	04/04/14 6:05: AM	04/05/14 08:37 AM	14500	Sewer Manhole	65606	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141453	DISCLN WO# 2142149	LOCATION INCLUDED IN THE IOAP

**APPENDIX A-4
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
APRIL 1, 2014 THROUGH JUNE 30, 2014**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	1804 ROUND RIDGE RD	04/04/14 5:59: AM	04/06/14 08:31 AM	11000	Sewer Manhole	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141456	NO DISCLN NEEDED DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4640 BARBOUR LN	04/04/14 10:00: AM	04/05/14 07:30 AM	129000	Sewer Manhole	65633	STREAM	LITTLE GOOSE CREEK	LACK OF CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141587	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	04/04/14 7:10: AM	04/04/14 01:54 PM	20000	Sewer Manhole	66349	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141572	DISCLN WO# 2142033	LOCATION INCLUDED IN THE IOAP
HUNTING CREEK NORTH	KY0029106	6701 GUNPOWDER LN	04/05/14 9:55: AM	04/05/14 02:30 PM	5500	Sewer Main	66761D-AG	GROUND	HARRODS CREEK	structural failure of forcemain	STRUCTURAL FAILURE	2142163	msd cleaned and sanitized area	hauling station until contractor makes repairs . REPAIRS COMPLETED
MORRIS FORMAN	KY0022411	1700 SULGRAVE RD	04/04/14 1:00: PM	04/04/14 09:10 PM	15700	Sewer Manhole	72289	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142083	DISCLN WO# 2142084	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	200 OXMOOR LN	06/07/14 1:32: PM	06/07/14 02:45 PM	1000	Sewer Manhole	73006	GROUND	MIDDLE FORK BEARGRASS CREEK	ROOT OBSTRUCTION IN MAIN SEWER	ROOTS	2178613	MSD PERSONNEL CLEANED THE IMPACTED AREA	WORK ORDERS 2178637; 2178619; FLUSHED, ROOT CUT TO OPEN THE LINE; DILUTED THE CREEK AND ADDED LIME TO THE BANK OF THE CREEK IN THE DISCHARGED AREA
MORRIS FORMAN	KY0022411	7913 SHELBYVILLE RD	04/04/14 4:51: AM	04/05/14 08:37 AM	17500	Sewer Manhole	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141451	DISCLN WO# 2142138	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	2140 INDIAN HILLS TRL	04/03/14 9:22: PM	04/06/14 08:00 AM	636000	Sewer Manhole	89641	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141318	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	37 ARROWHEAD RD	04/04/14 6:27: AM	04/04/14 08:10 PM	22500	Sewer Manhole	89791	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141457	DISCLN WO# 2142091	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	2420 SENECA VALLEY RD	04/04/14 9:28: PM	04/04/14 09:05 PM	300	Sewer Service Line	93336	GROUND	MIDDLE FORK BEARGRASS CREEK	ROOT OBSTRUCTION IN MAIN SEWER	ROOTS	2142093	MSD PERSONNEL CLEANED THE IMPACTED AREA	WORK ORDERS 2142221; 2147151; FLUSHED, ROOT CUT TO REMOVE THE ROOTS
MORRIS FORMAN	KY0022411	3536 FINCASTLE RD	04/04/14 12:40: AM	04/05/14 11:51 AM	29000	Sewer Manhole	99259	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141564	DISCLN WO# 2142209	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3536 FINCASTLE RD	04/07/14 2:46: PM	04/07/14 09:11 PM	600	Sewer Manhole	99259	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2142919	DISCLN WO# 2143028	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3305 BENT CREEK CT	04/04/14 6:10: AM	04/05/14 11:21 AM	19000	Sewer Service Line	BU05074039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141585	DISCLN WO# 2142213	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	914 E BROADWAY	06/05/14 10:00: PM	06/05/14 11:15 PM	2000	Sewer Manhole	CSO118	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-WATER MAIN BREAK	UTILITY DAMAGED MSD ASSET	2177176	NONE NEEDED DUE TO FRESH WATER MAIN BREAK	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1258 ROYAL AVE	04/24/14 1:30: PM	04/24/14 04:00 PM	4222000	Sewer Manhole	CSO137	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-LOUISVILLE WATER MAIN BREAK ON BAXTER AVE AND EASTERN PARKWAY	UTILITY DAMAGED MSD ASSET	2150497	NO CLEAN-UP NEEDED DUE TO THE MAGNITUDE OF CLEAN WATER FROM MAIN BREAK	WATER MAIN REPAIRED
MORRIS FORMAN	KY0022411	361 BAXTER AVE	06/05/14 4:15: PM	06/05/14 04:45 PM	5000	Sewer Manhole	CSO141	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-WATER MAIN BREAK	UTILITY DAMAGED MSD ASSET	2177174	NONE NEEDED DUE TO FRESH WATER MAIN BREAK	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1316 CASTLEWOOD DELL	04/24/14 1:00: PM	04/25/14 02:30 AM	2472069	Sewer Manhole	CSO151	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-LOUISVILLE WATER COMPANY WATER MAIN BREAK	UTILITY DAMAGED MSD ASSET	2150470	NO DISCLN NEEDED DUE TO MAGNITUDE OF EVENT	LOCATION IS INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4108 LEE AVE	04/04/14 7:29: AM	04/04/14 01:47 PM	7500	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2141589	DISCLN WO# 2142048	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4108 LEE AVE	04/28/14 7:20: AM	04/28/14 11:12 PM	200	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	2153214	DISCLN WO# 2153579	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	7404 ARROWWOOD RD	04/04/14 12:30: AM	04/04/14 09:30 PM	30000	Sewer Lift Station	MSD0040-PS	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141377	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	7404 ARROWWOOD RD	05/30/14 12:00: AM	05/30/14 12:25 AM	625	Sewer Lift Station	MSD0040-PS	DITCH	GOOSE CREEK	pumps air locked during rain event.	MECHANICAL FAILURE	2168884	no clean up required . only clear sewage observed .	pumps cleared and put back in servcie
MORRIS FORMAN	KY0022411	806 PINE WAY	05/14/14 8:05: PM	05/15/14 01:49 PM	26600	Sewer Lift Station	MSD0057-LS	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2161677	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1812 N ENGLISH STATION RD	04/04/14 9:00: AM	04/04/14 04:15 PM	10875	Sewer Lift Station	MSD0073-LS	GROUND	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141467	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	2120 INDIAN HILLS TRL	04/04/14 9:30: AM	04/06/14 08:00 AM	1270	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141562	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	2120 INDIAN HILLS TRL	05/10/14 6:35: PM	05/10/14 09:15 PM	24000	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2160121	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 2:55: AM	04/04/14 04:45 PM	62250	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141357	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 2:55: AM	04/03/14 04:45 PM	41750	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141361	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 9:20: AM	04/04/14 10:00 PM	190000	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141473	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	04/04/14 9:20: AM	04/04/14 04:45 PM	465	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141490	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	KY0036501	1203 HEAFER RD	05/15/14 8:40: AM	05/15/14 04:30 PM	2350	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	HOLES IN CLARIFIER	BYPASS AT WQTC	2161788	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MCNEELY LAKE	KY0029416	10300 ROD N REEL RD	06/16/14 7:10: AM	06/16/14 07:40 AM	1359	Sewer Treatment Plant	MSD0228	STREAM	PENNSYLVANIA RUN	CL2 & SO2 TANKS NOT ON.	BYPASS AT WQTC	2181192	PIPE DSICHARGE SUBMERGED- NO CLEANUP	TURNED TANKS ON.
STARVIEW	KY0031712	423 BERMUDA WAY	04/04/14 10:00: AM	04/04/14 06:10 PM	300	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	2141531	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	04/03/14 8:10: PM	04/05/14 04:11 AM	4306999	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDED AT JTOWN WQTC	2141311	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS ARE UNDER WAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	04/28/14 8:25: AM	04/29/14 12:49 AM	226760	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDED AT JTOWN WQTC	2153031	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	05/14/14 6:00: PM	05/15/14 03:28 PM	2261866	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDED AT JTOWN WQTC	2161671	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
CHENOWETH HILLS	KY0029459	4305 ST RENE CT	05/06/14 6:20: PM	05/07/14 10:45 AM	5250	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	MSD contractor drilled through treatment center effluent force main.	BYPASS AT WQTC	2158488	Clean up of the impacted area will occur once repairs are completed.	MSD Contractor is installing band clamp to repair effluent force main.
CHENOWETH HILLS	KY0029459	4305 ST RENE CT	06/16/14 8:17: AM	06/16/14 08:40 AM	2174	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	SO2 TANKS EMPTY.	BYPASS AT WQTC	2181384	PIPE DISCHARGE SUBMERGED- NO CLEANUP	CHANGED SO2 TANKS
DEREK R. GUTHRIE	KY0078956	5006 LEA ANN WAY	04/04/14 6:30: AM	04/04/14 05:30 PM	1650000	Sewer Lift Station	MSD1010-PS	STREAM	NORTHERN DITCH	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	PUMPED OVERFLOW	2141553	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR

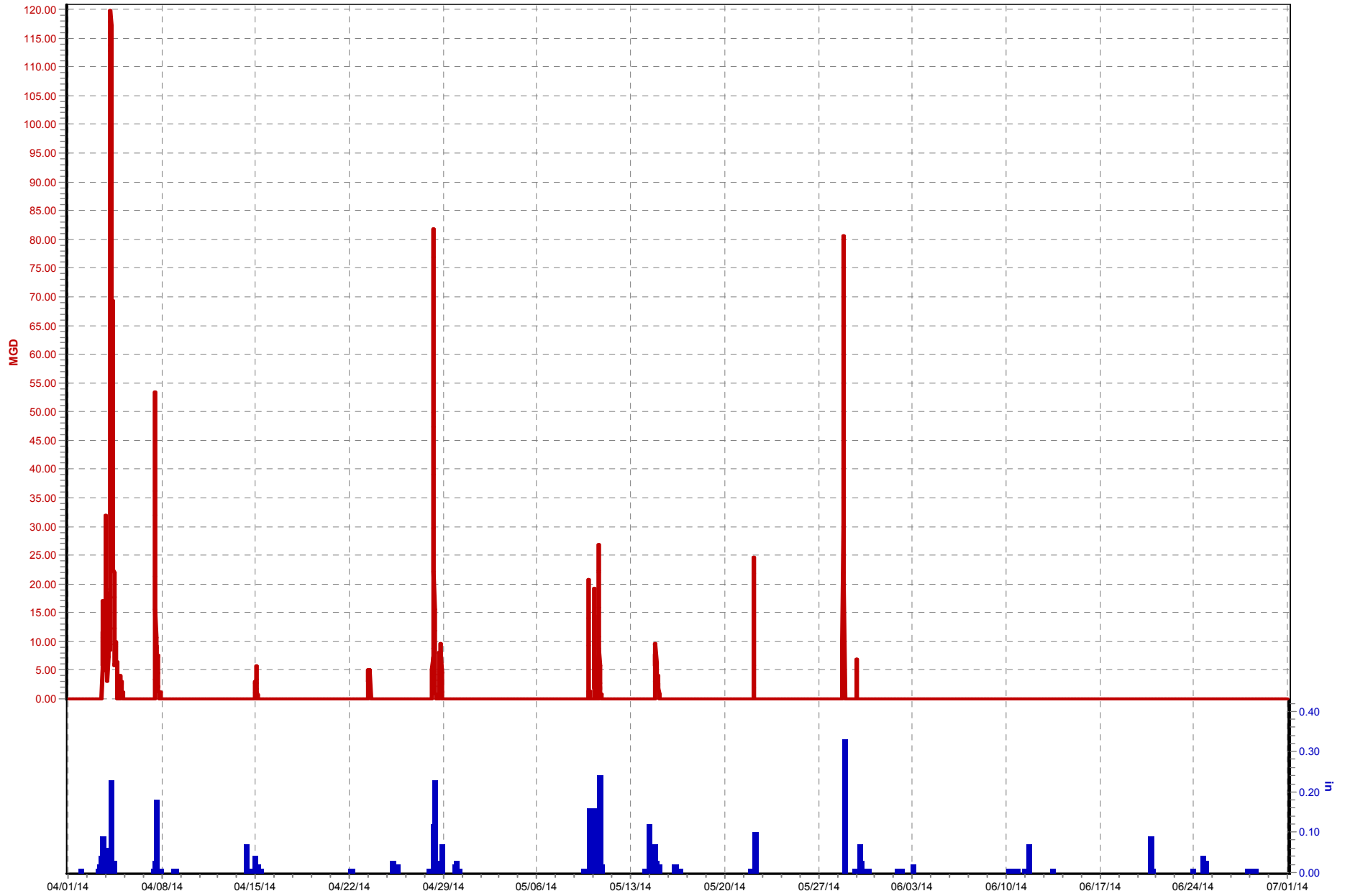
**APPENDIX A-4
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
APRIL 1, 2014 THROUGH JUNE 30, 2014**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	KY0078956	9114 CINDERELLA LN	04/04/14 9:30: AM	04/04/14 07:15 PM	58500	Sewer Lift Station	MSD1013-PS	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141522	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	8410 SAUREL DR	04/04/14 4:30: AM	04/03/14 07:45 PM	73120	Sewer Lift Station	MSD1024-PS	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141390	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK SOUTH	KY0029114	6210 DEEP CREEK CT	05/10/14 4:14: PM	05/10/14 06:01 PM	1060	Sewer Lift Station	MSD1063-PS	DITCH	HARRODS CREEK	LACK OF CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2160115	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK SOUTH	KY0029114	8619 WESTOVER DR	04/04/14 8:20: AM	04/04/14 01:17 PM	5850	Sewer Lift Station	MSD1064-PS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2141571	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	KY0078956	4005 KIRBY LN	05/14/14 9:40: PM	05/15/14 09:00 AM	24500	Sewer Lift Station	MSD1203-PS	STREAM	FERN CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	2161688	no clean up required	monitor location during rain events
DEREK R. GUTHRIE	KY0078956	5602 OAKRIDGE PL	04/04/14 6:45: PM	04/04/14 07:50 PM	35	Sewer Service Line	PD24870089	GROUND	COOPER CHAPEL BRANCH	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE / ROOTS	2142100	NO CLEANUP PERFORMED - PIPE DISCHARGING INTO STREAM	WORK ORDER 2142599; FLUSHED THE MAIN SEWER TO REMOVE BLOCKAGE.

Appendix B – CSO Flow Monitoring Data

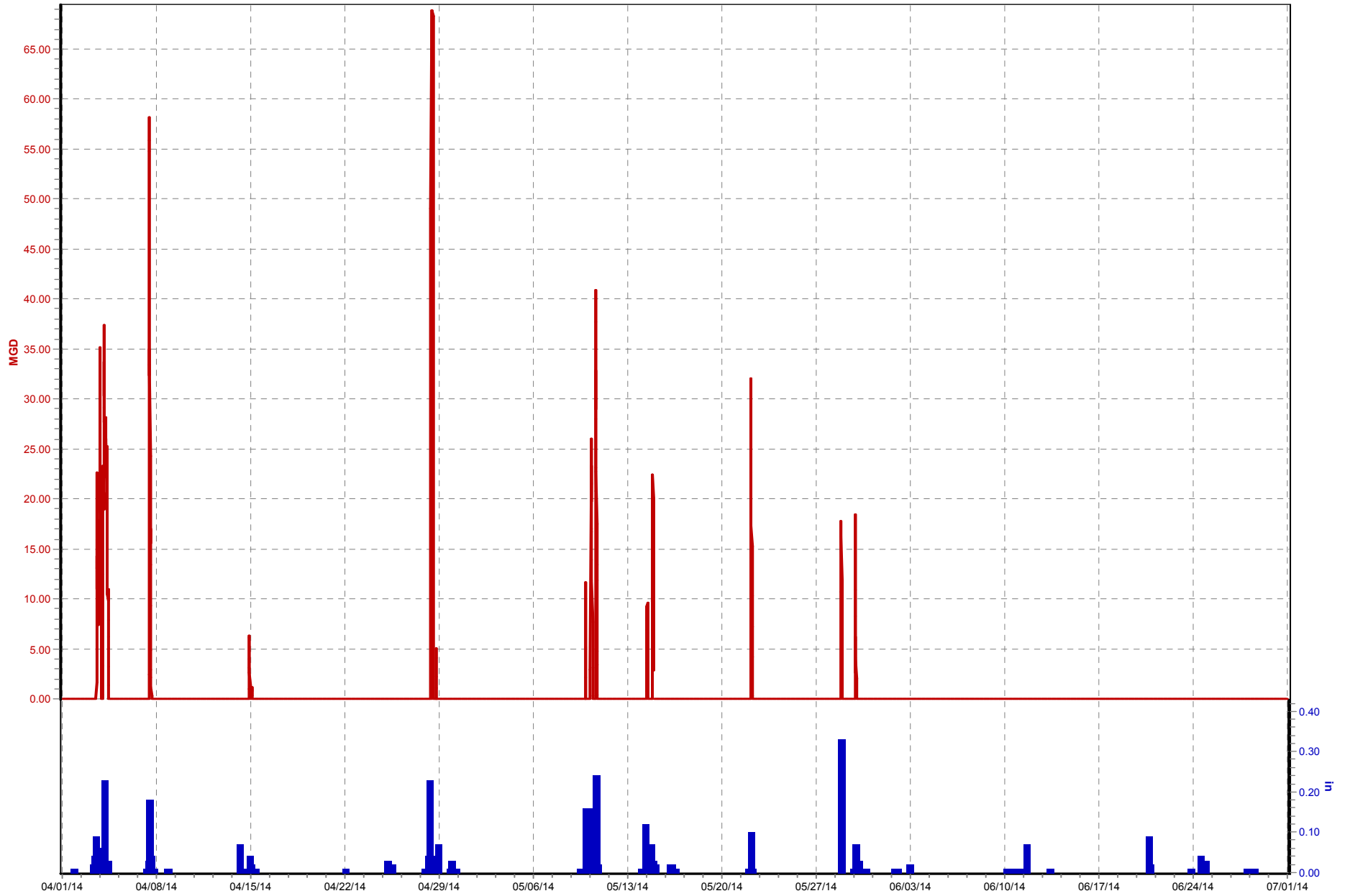
CSO015 Bells Lane (04/01/14 to 07/01/14)

Raw Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



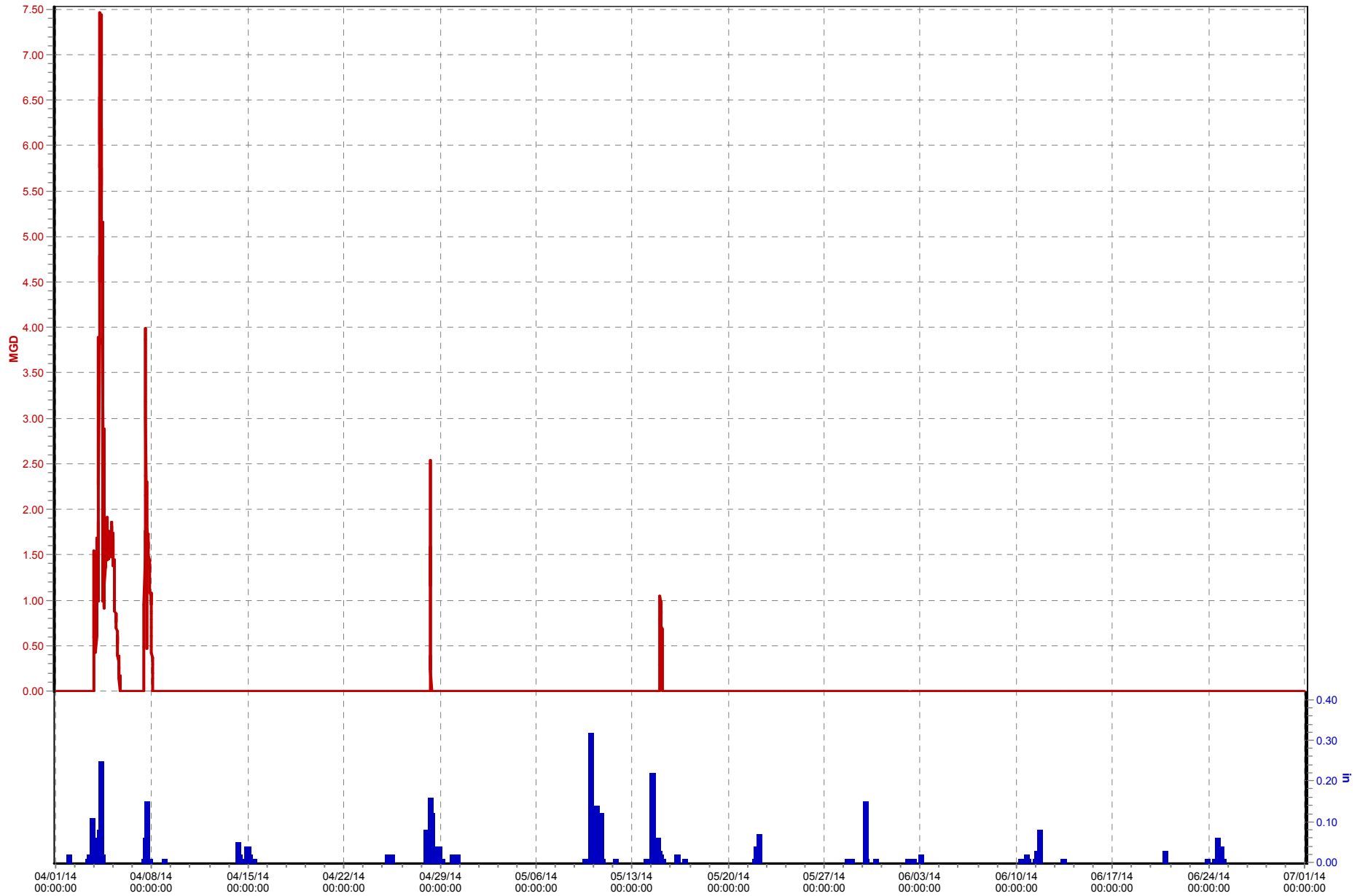
CSO016 Winnrose Way (04/01/14 to 07/01/14)

Raw Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



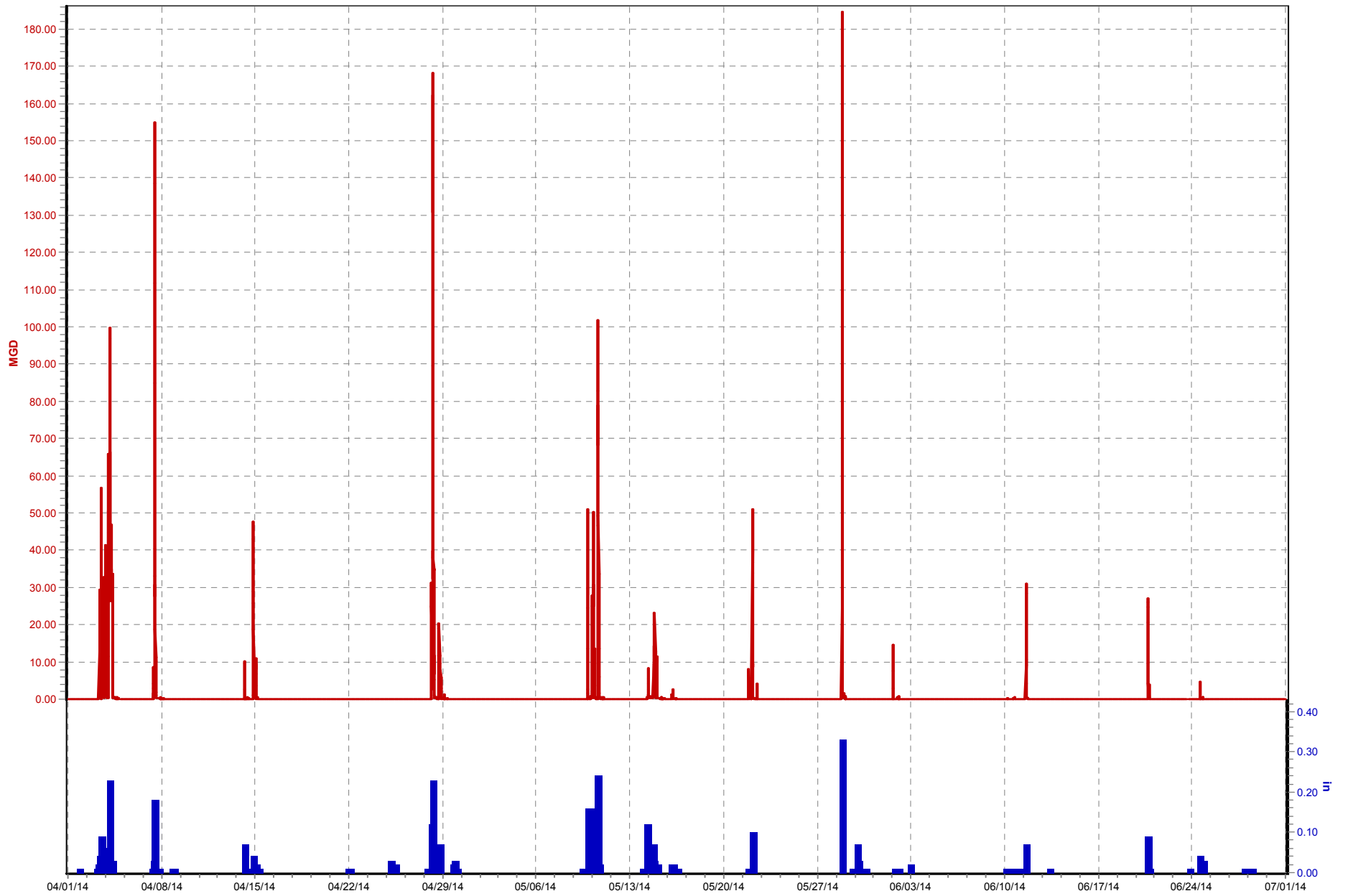
CSO018 Nightingale Rd (04/01/14 to 07/01/14)

Nightingale PS.CSO018 Flow (MGD) TR12_Nightingale PS.Rain (in)



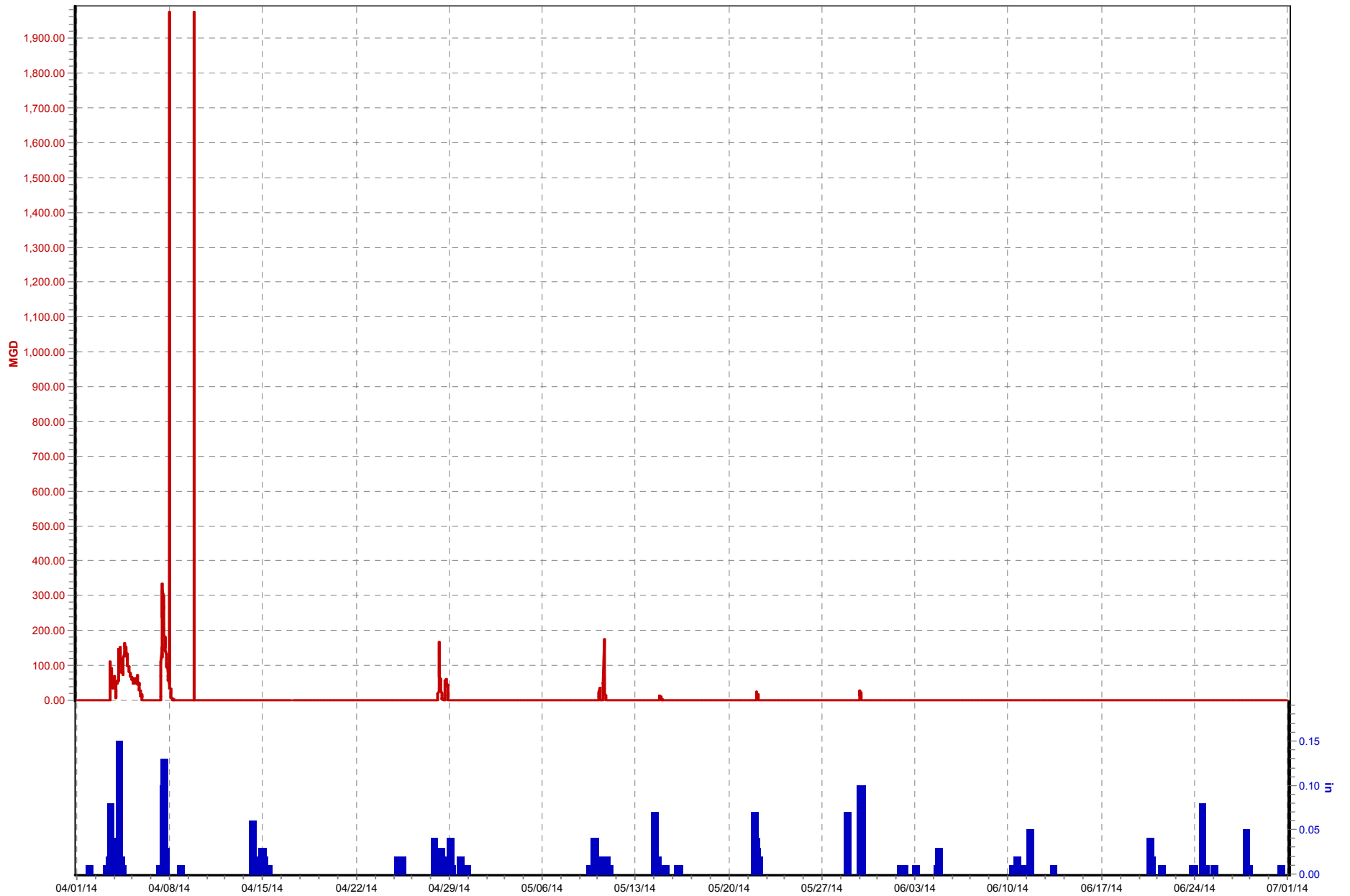
CSO019 34th and Rudd (04/01/14 to 07/01/14)

Final Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



CSO020 Buchanan St by Stark PS (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO027 7th and Broadway (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



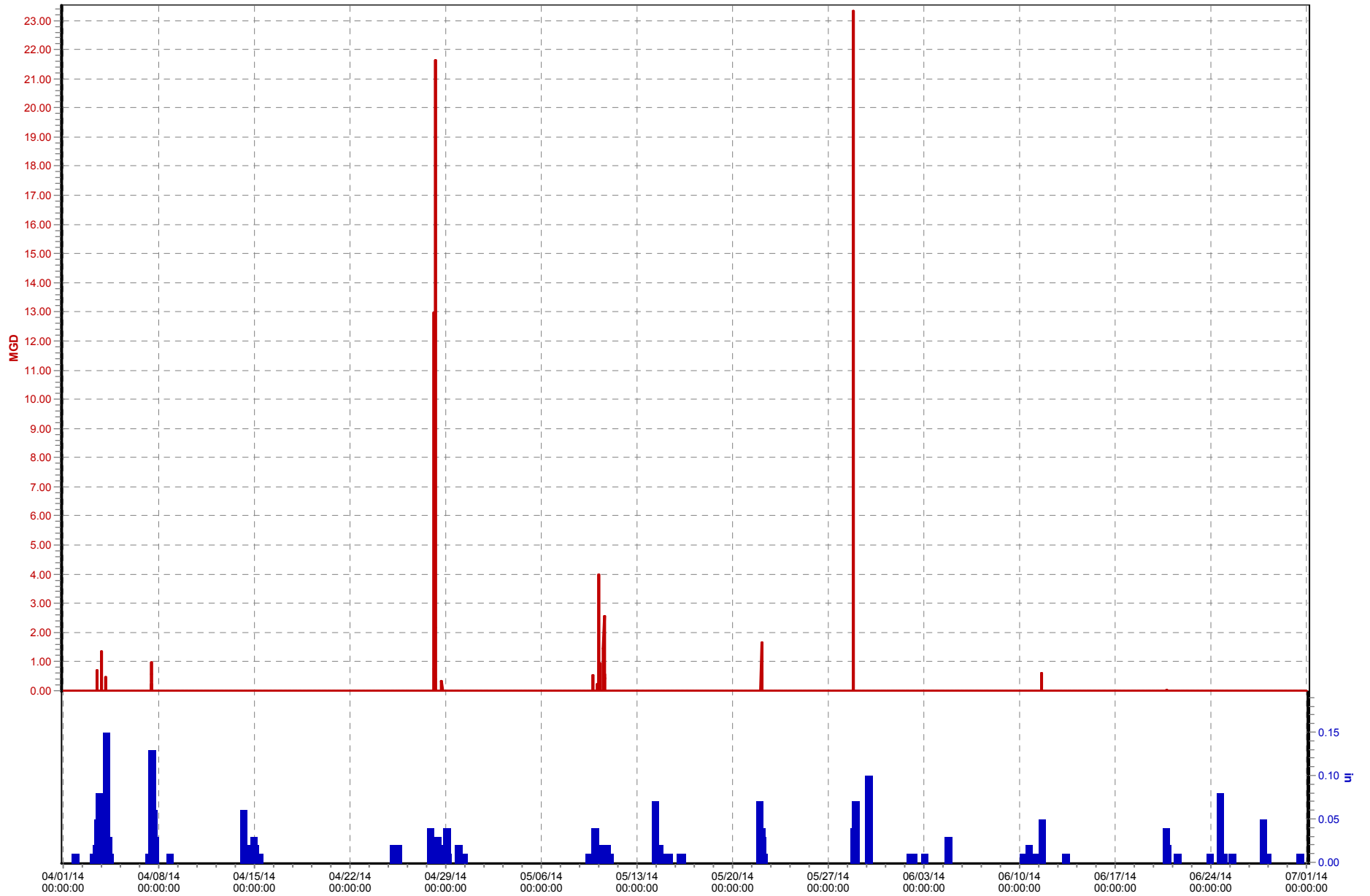
CSO028_6th and York St (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



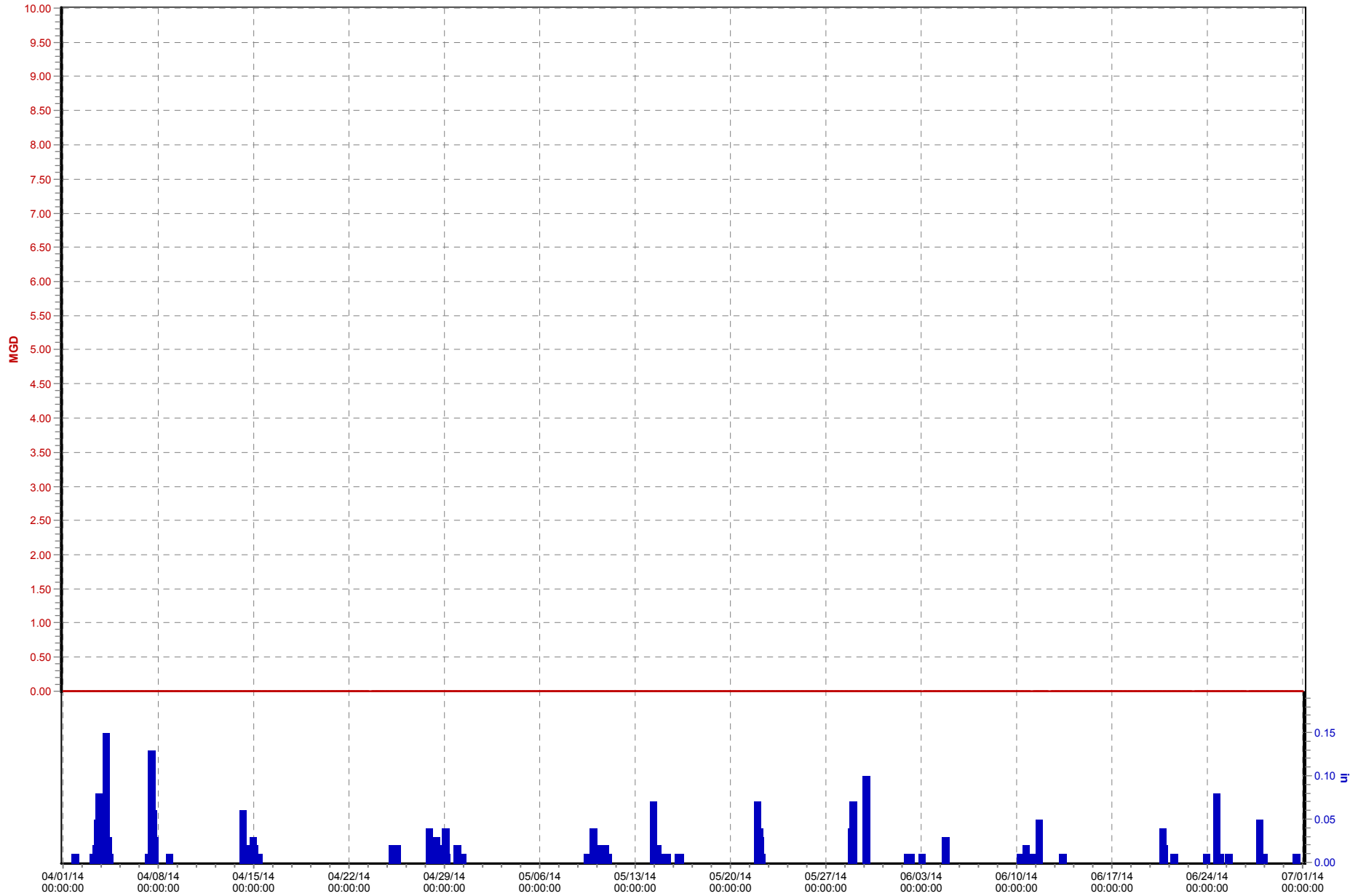
CSO029 Overflow (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



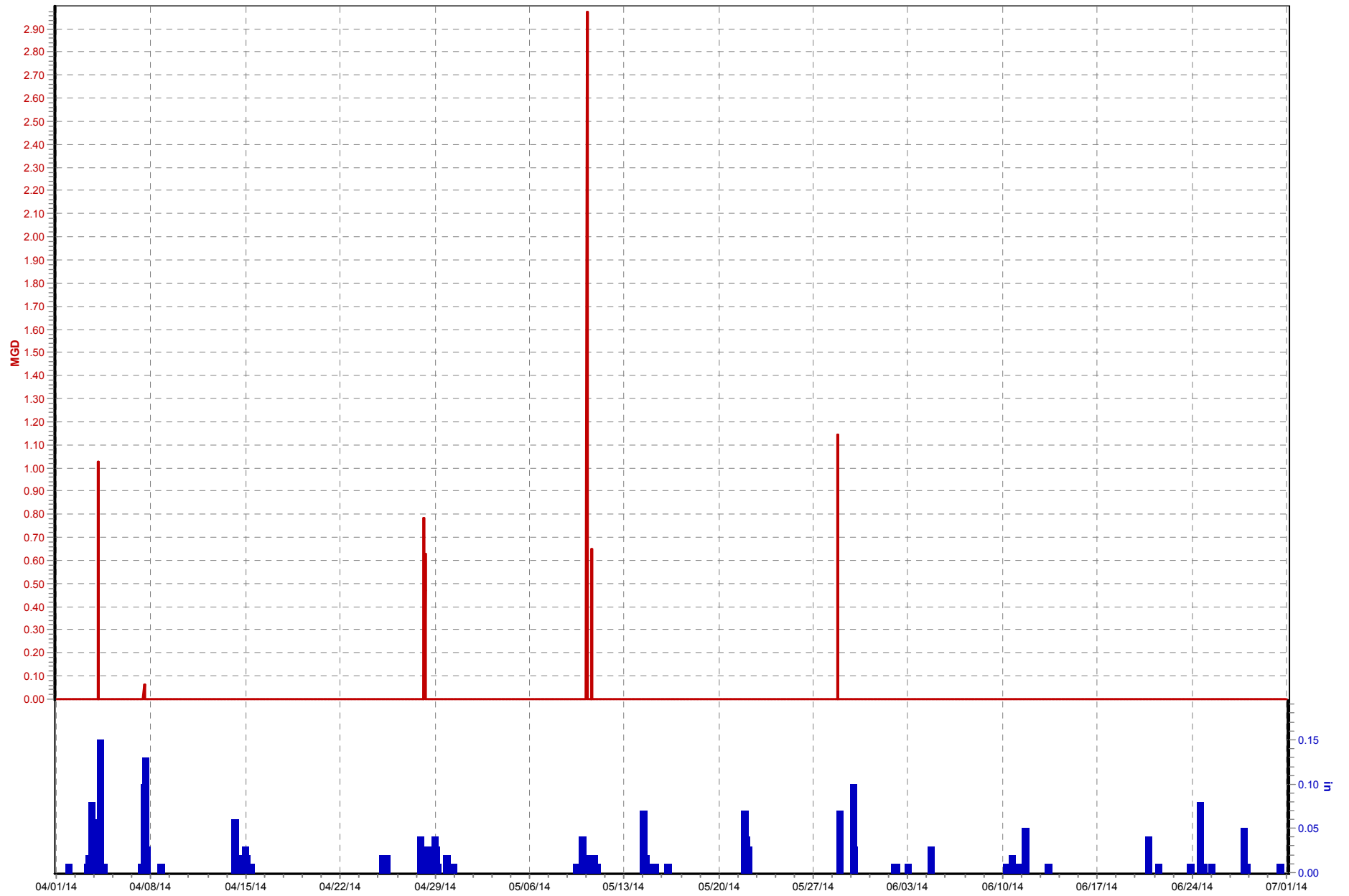
CSO031 (04/01/14 to 07/01/14)

Raw Flow (MGD) Gap Flow (MGD) TR05_Beargrass PS.Rain (in)



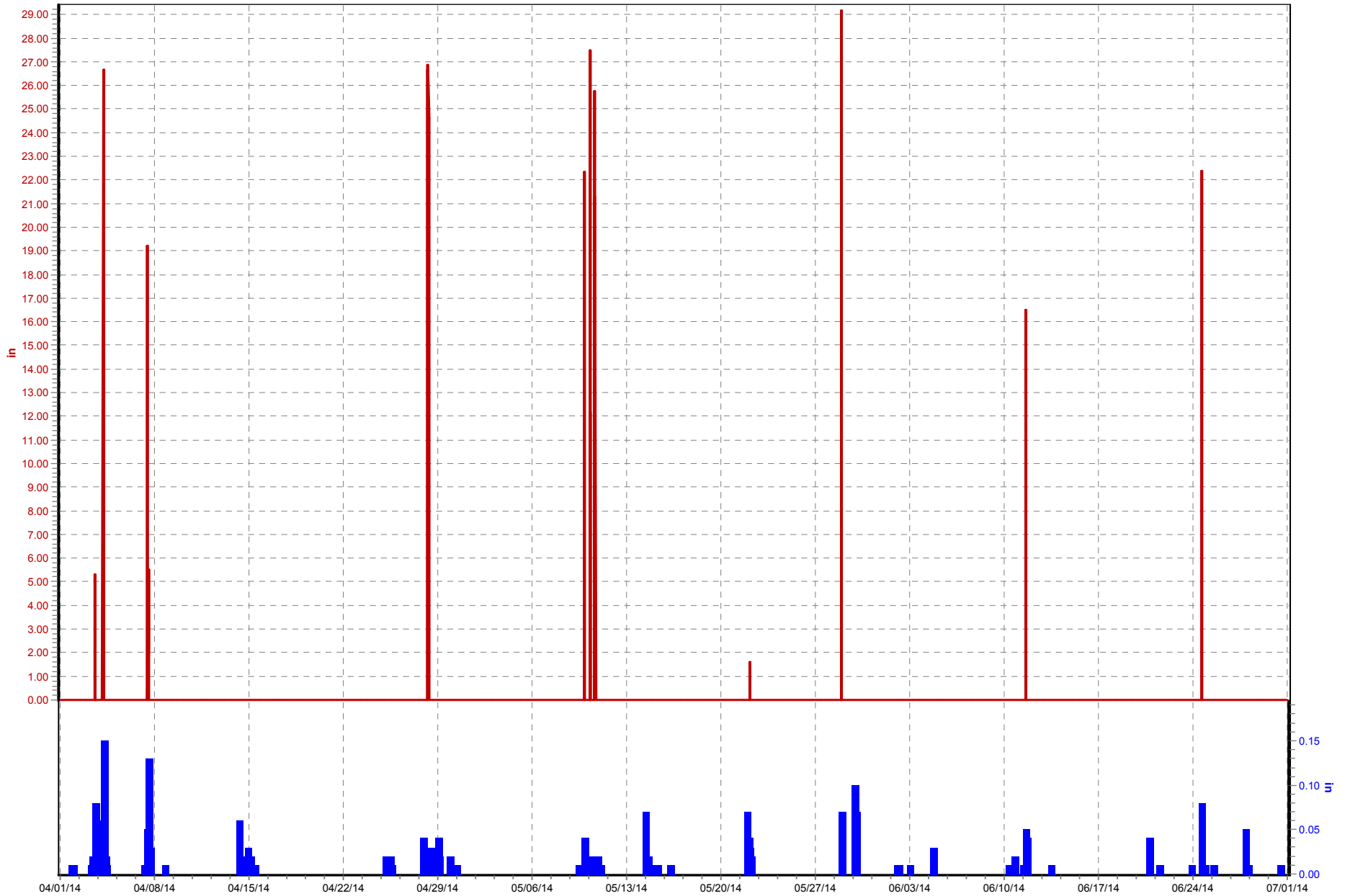
CSO034 4th and York (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



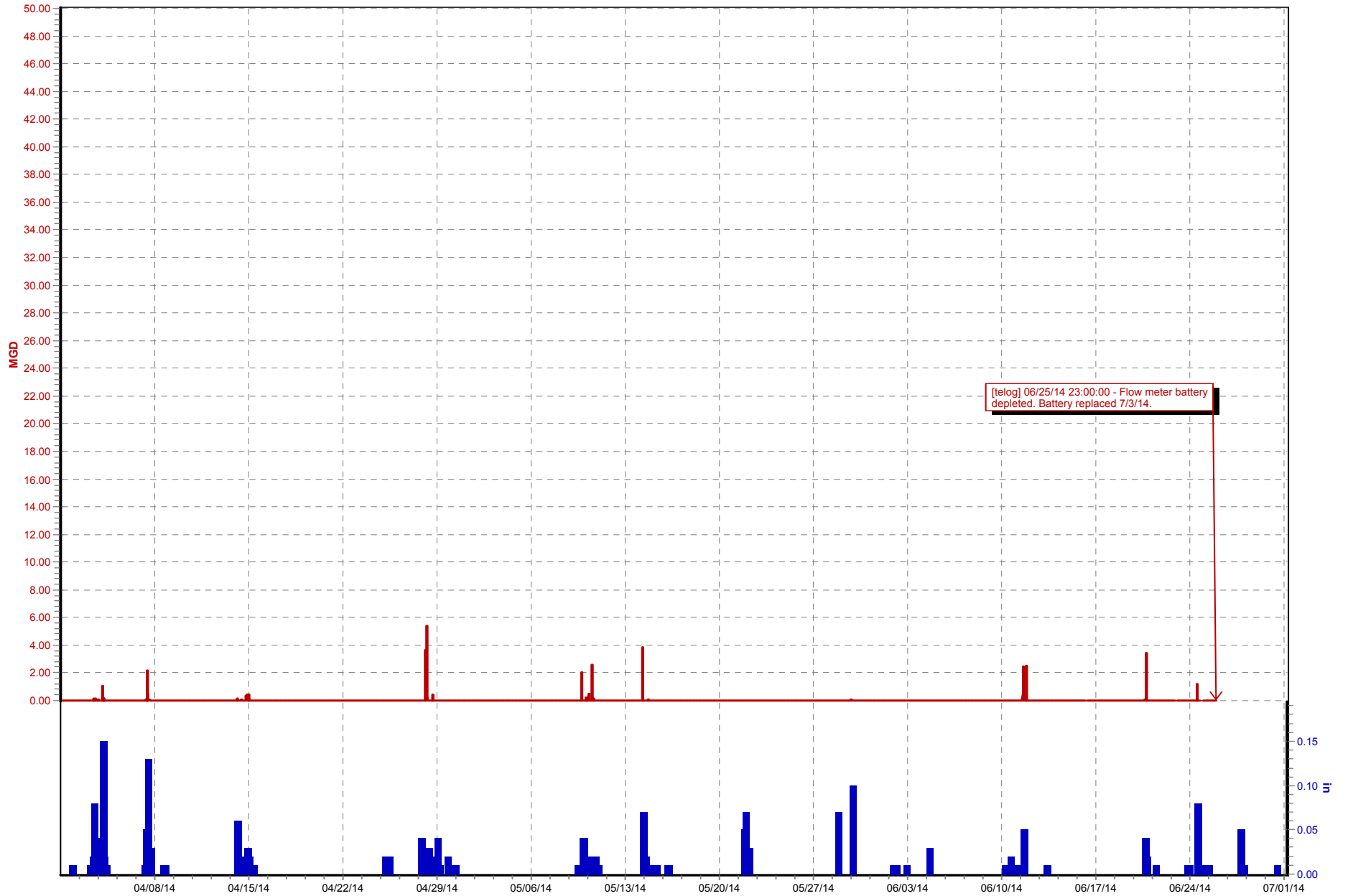
CSO035_Upstream of Dam (04/01/14 to 07/01/14)

CSO 035 Overflow Level (in) CSO035_2nd Broadway.Overflow Level (in) TR05_Beargrass PS.Rain (in)



CSO036 3rd and Broadway (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



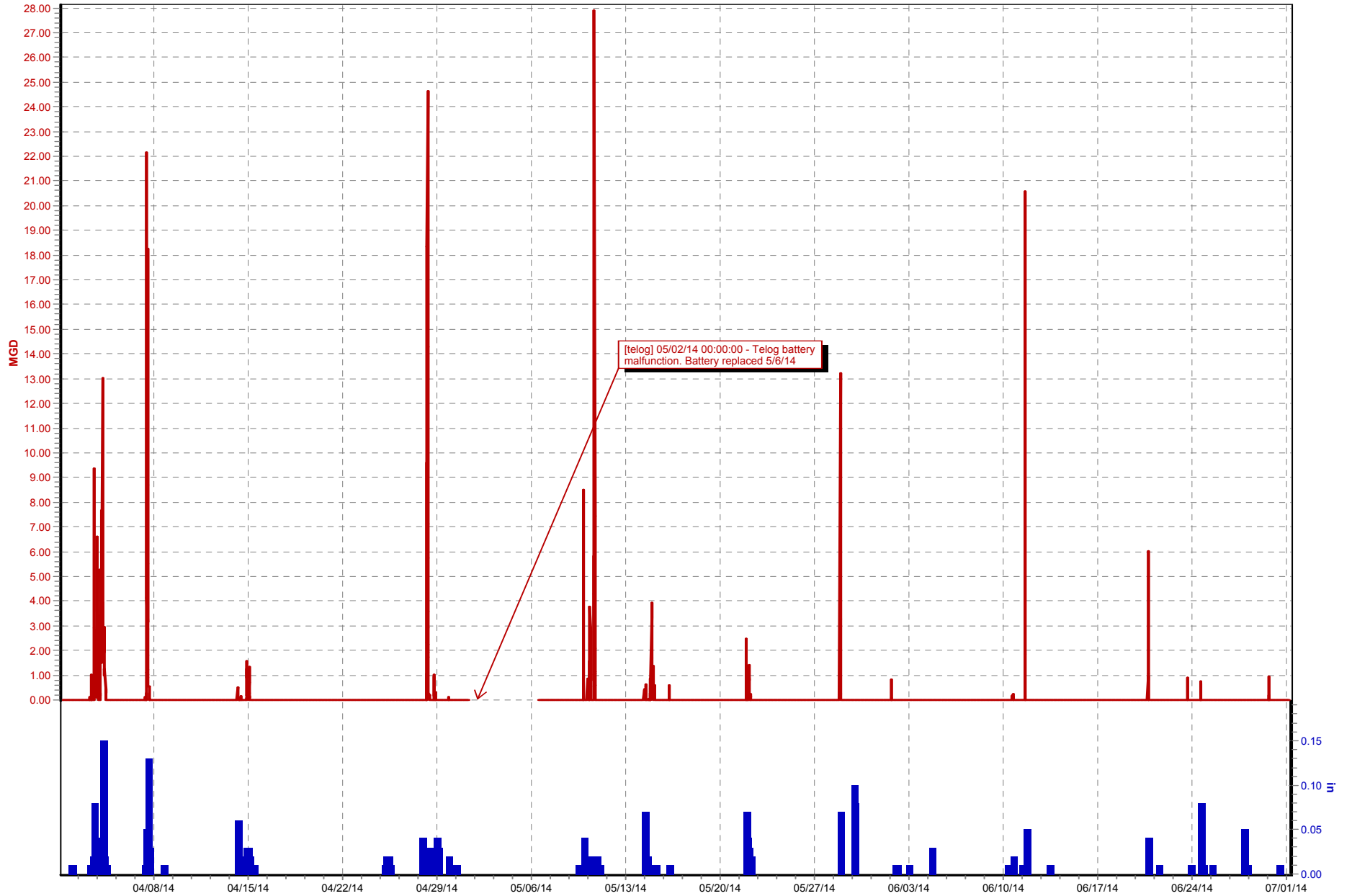
CSO038 5th and Broadway (04/01/14 to 07/01/14)

Raw Flow (MGD) Final Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO050 12th and Rowan (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



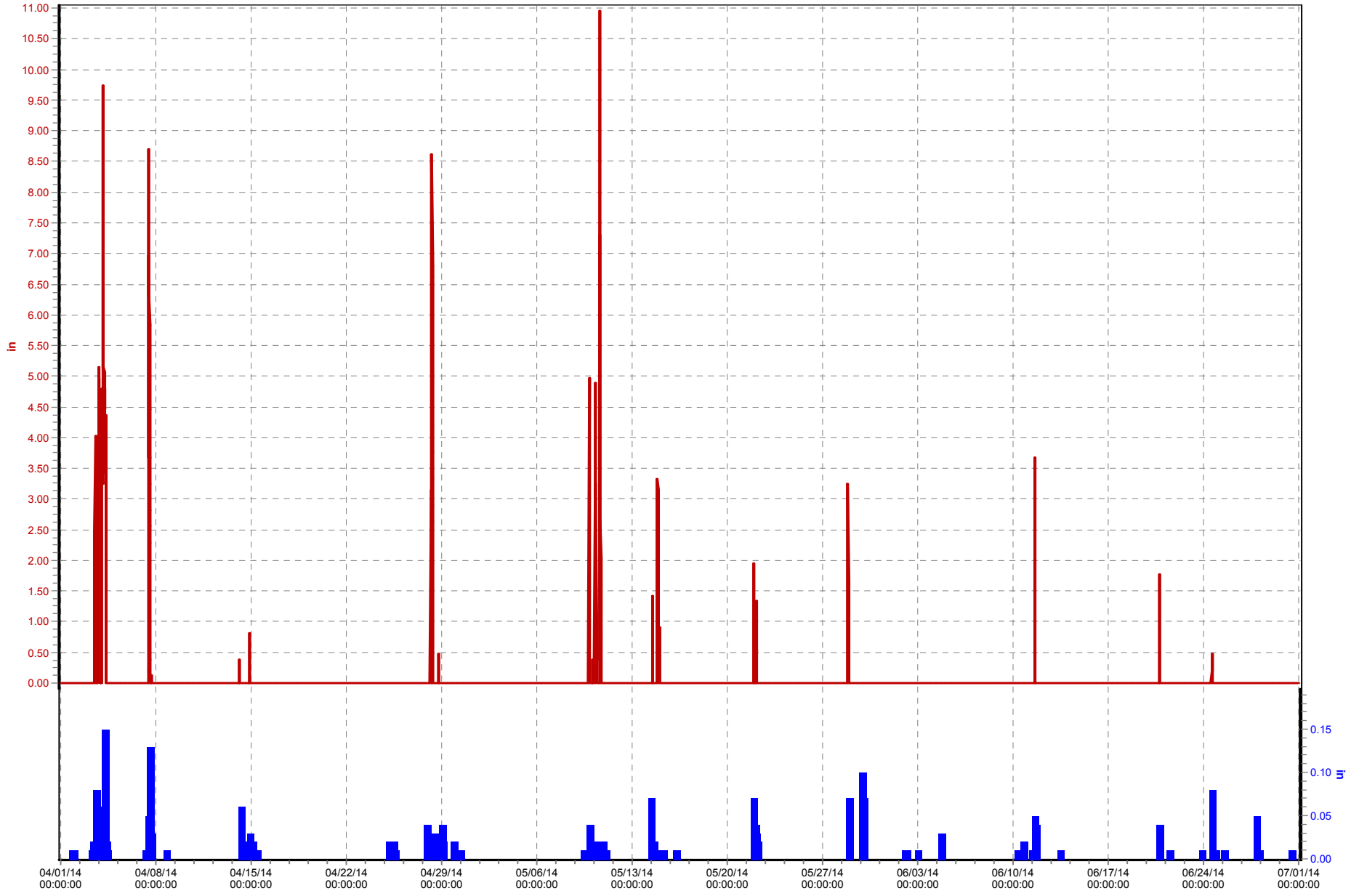
CSO051 11th St and Main St (04/01/14 to 07/01/14)

M1 Flow (MGD) TR05_Beargrass PS.Rain (in)



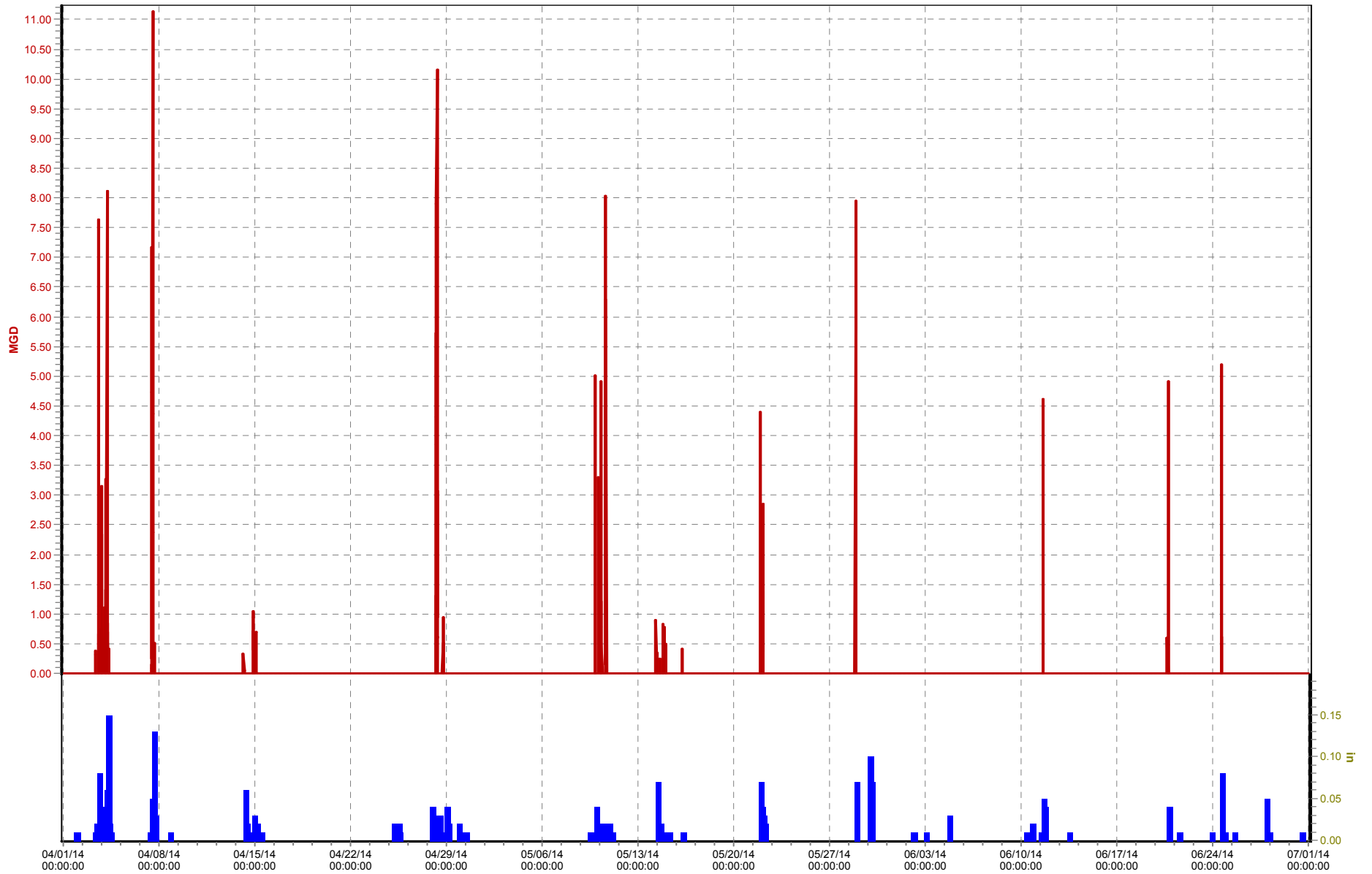
CSO052 10th St (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



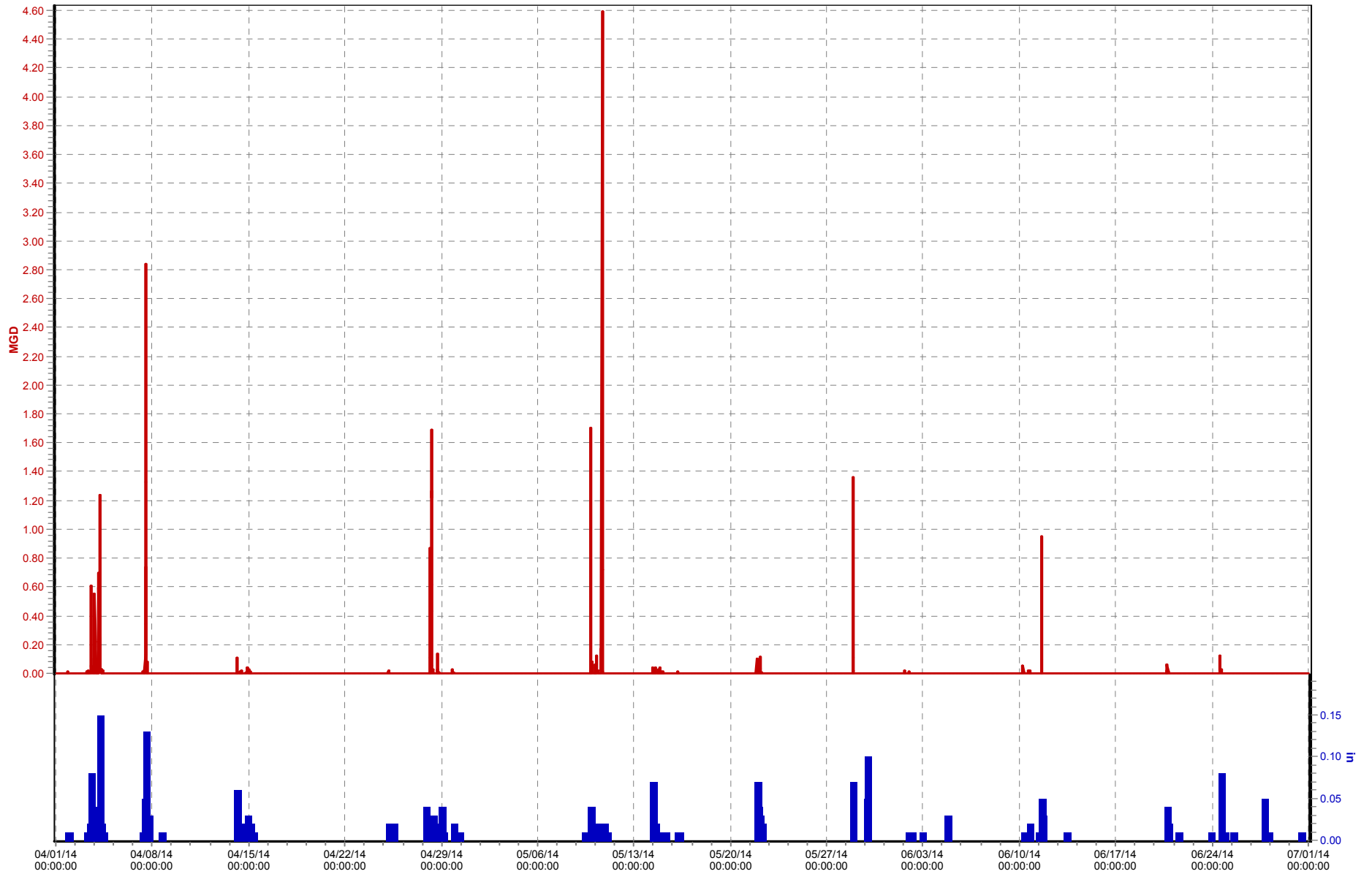
CSO053 7th and Main St (04/01/14 to 07/01/14)

Final Flow (MGD) Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



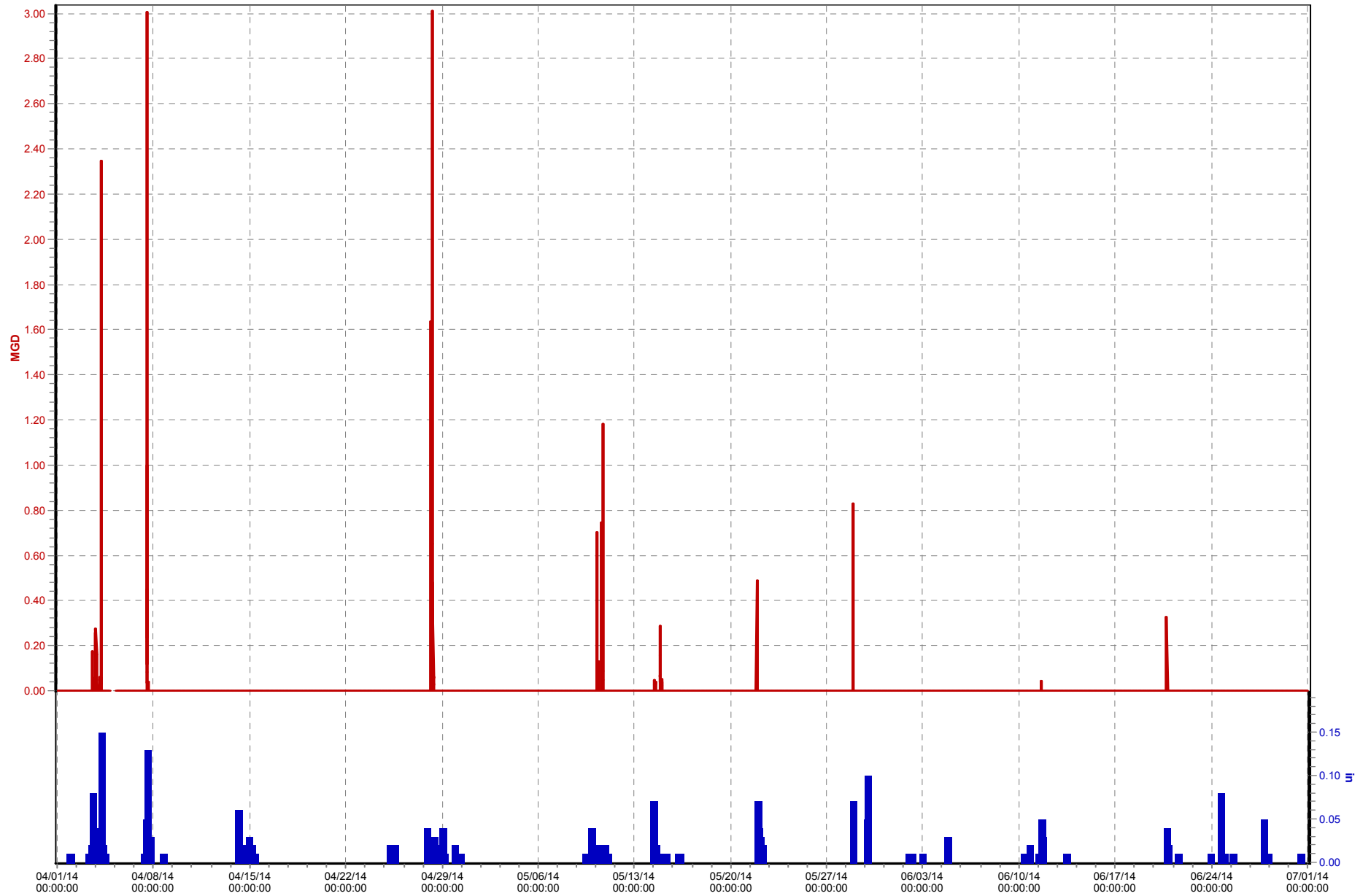
CSO054 7th St (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



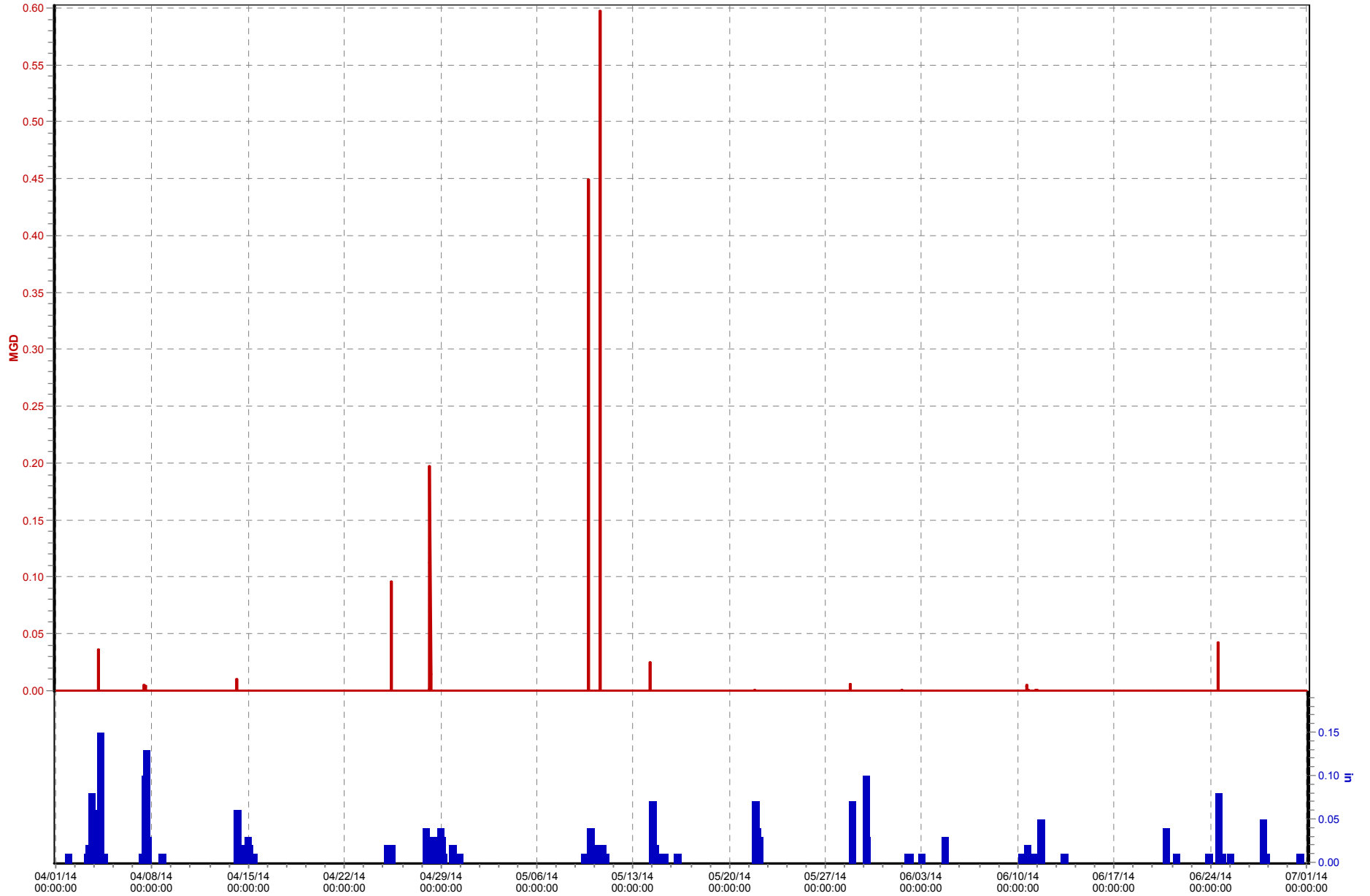
CSO55 6th St (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



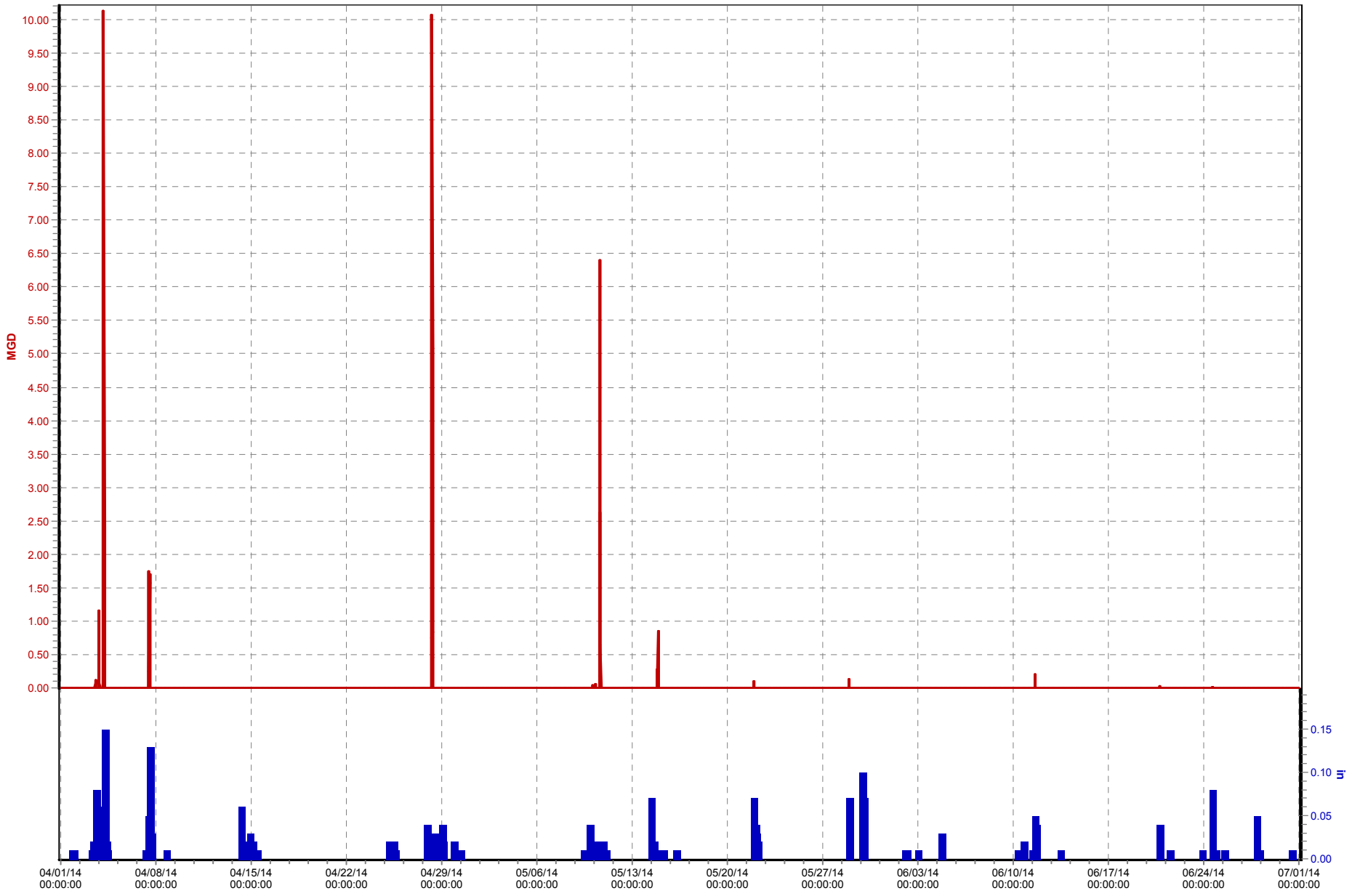
CSO057 1st and Main (04/01/14 to 07/01/14)

M1 Flow (MGD) TR05_Beargrass PS.Rain (in)



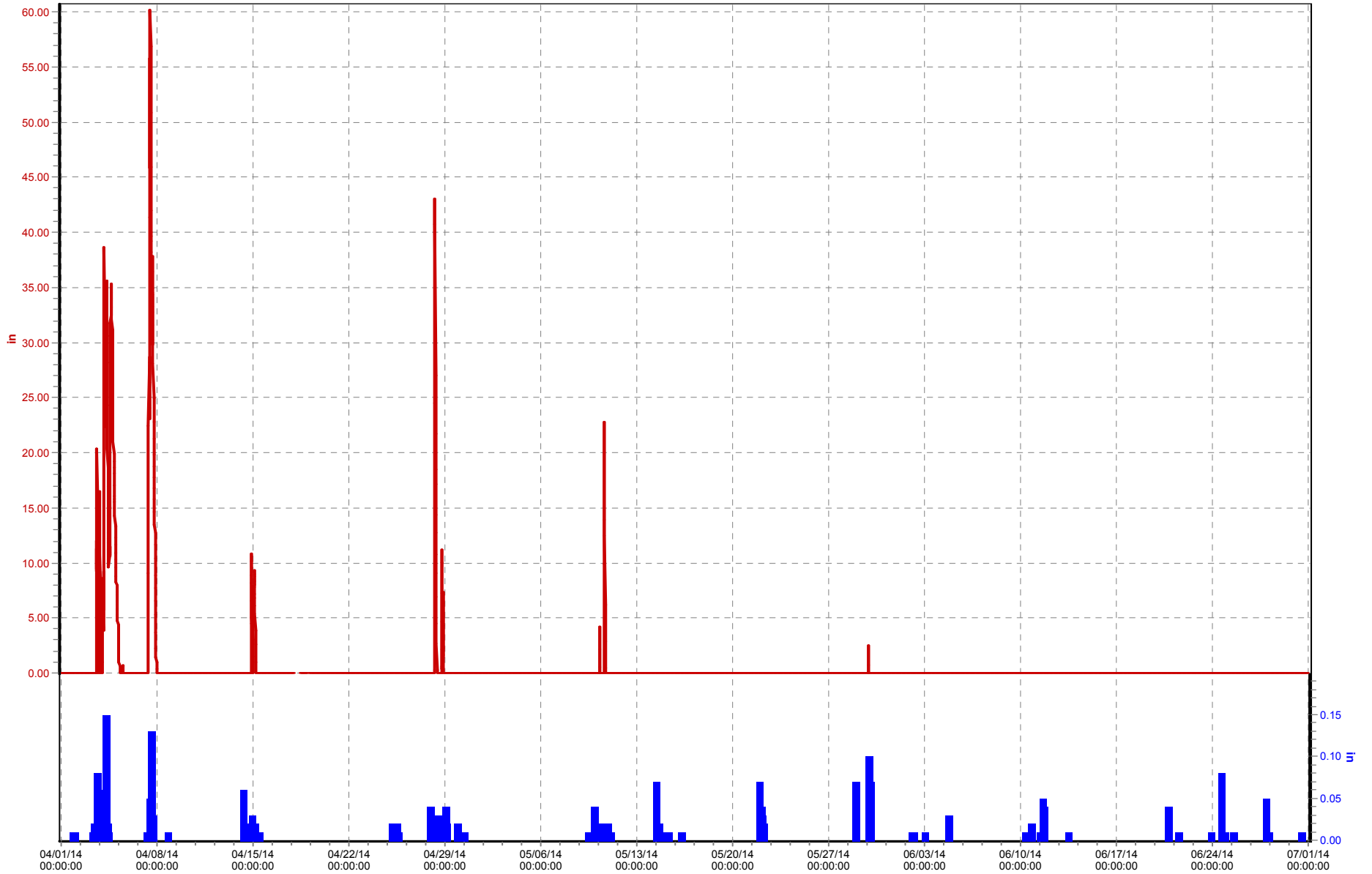
CSO058 at Preston and Main (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



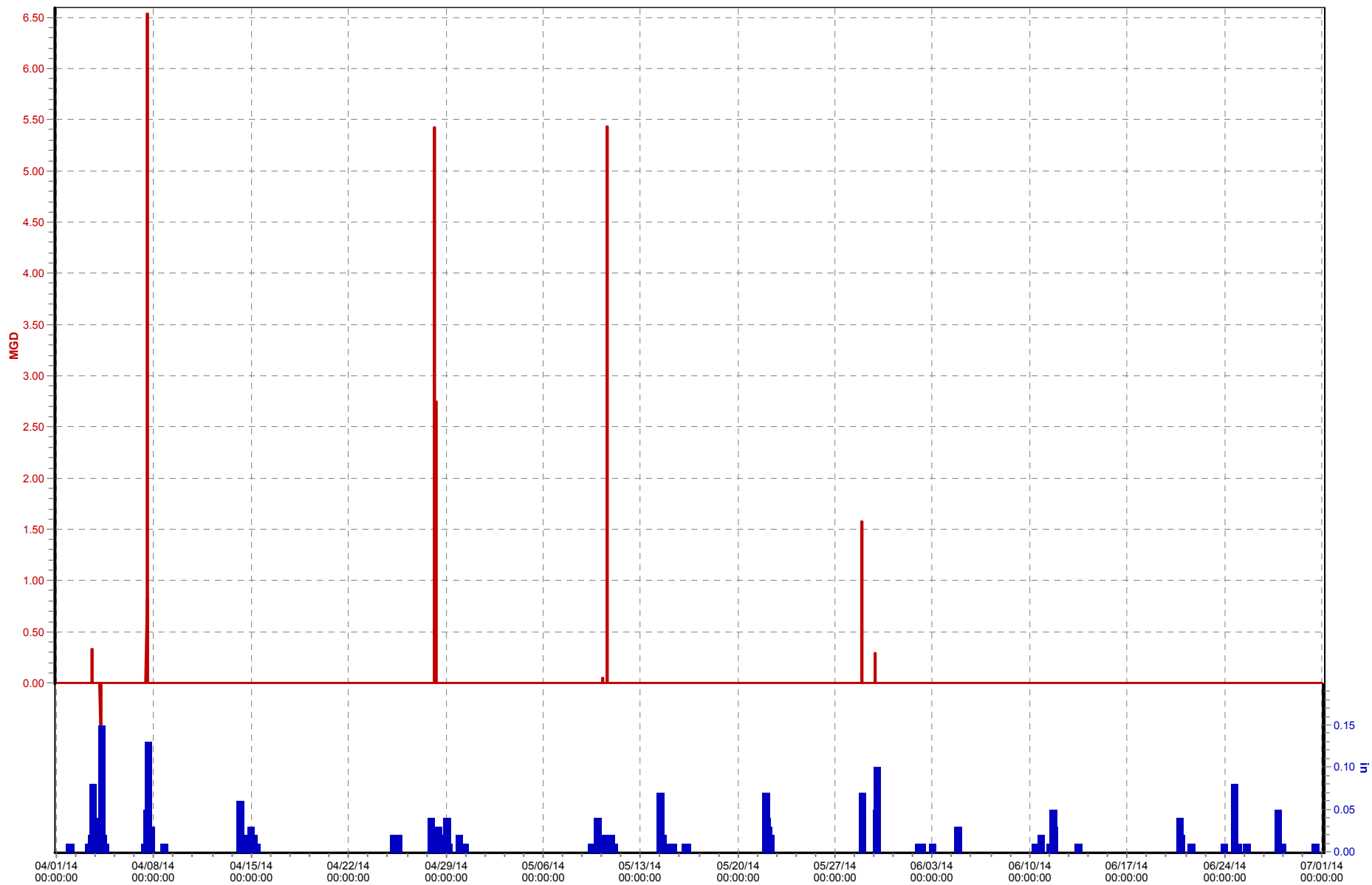
CSO082 Lex Rd (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



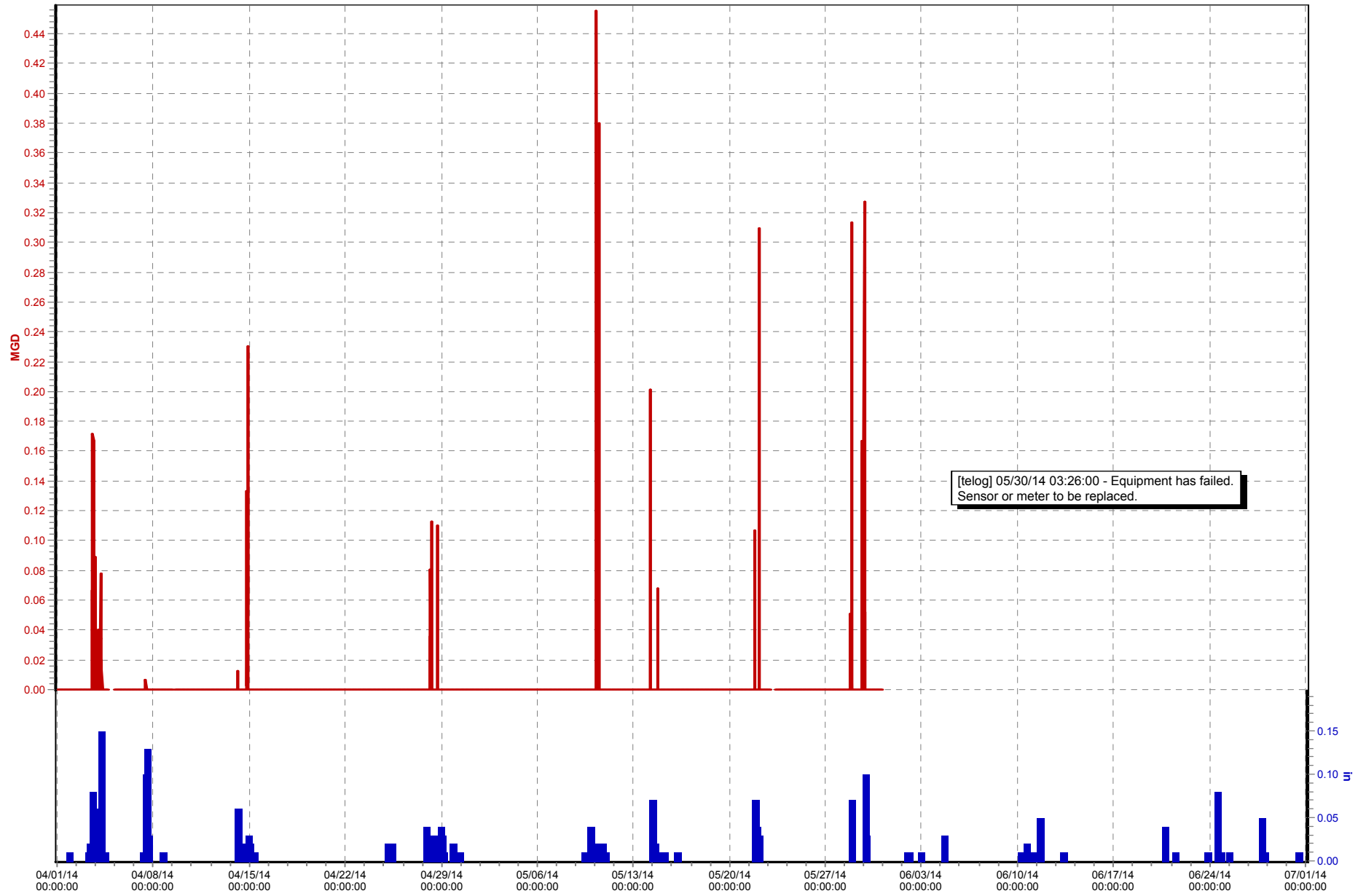
CSO083 E Broadway (04/01/14 to 07/01/14)

M1 Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO084 Brent St and BGC (04/01/14 to 07/01/14)

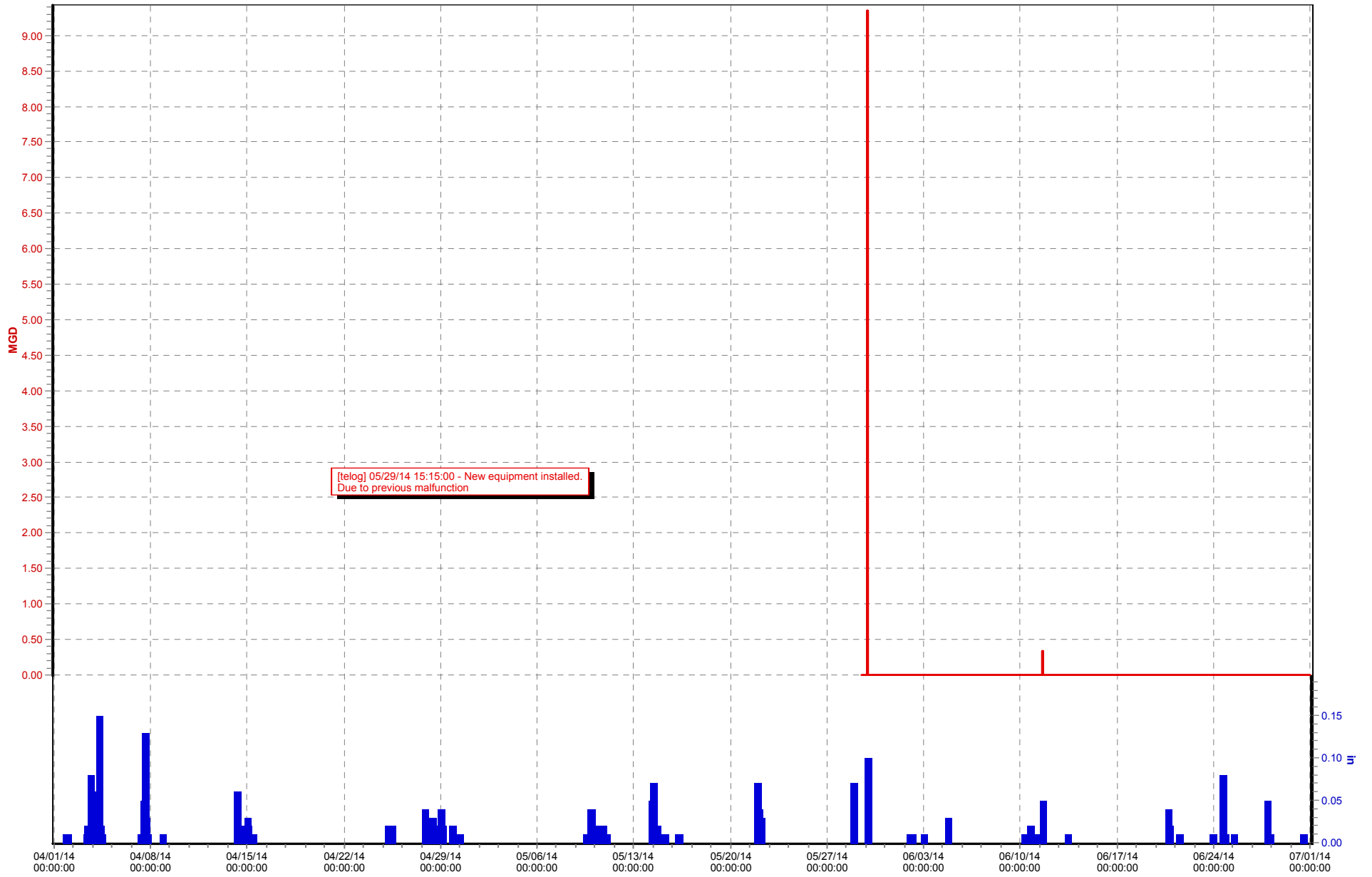
Final Flow (MGD) TR05_Beargrass PS.Rain (in)



[telog] 05/30/14 03:26:00 - Equipment has failed. Sensor or meter to be replaced.

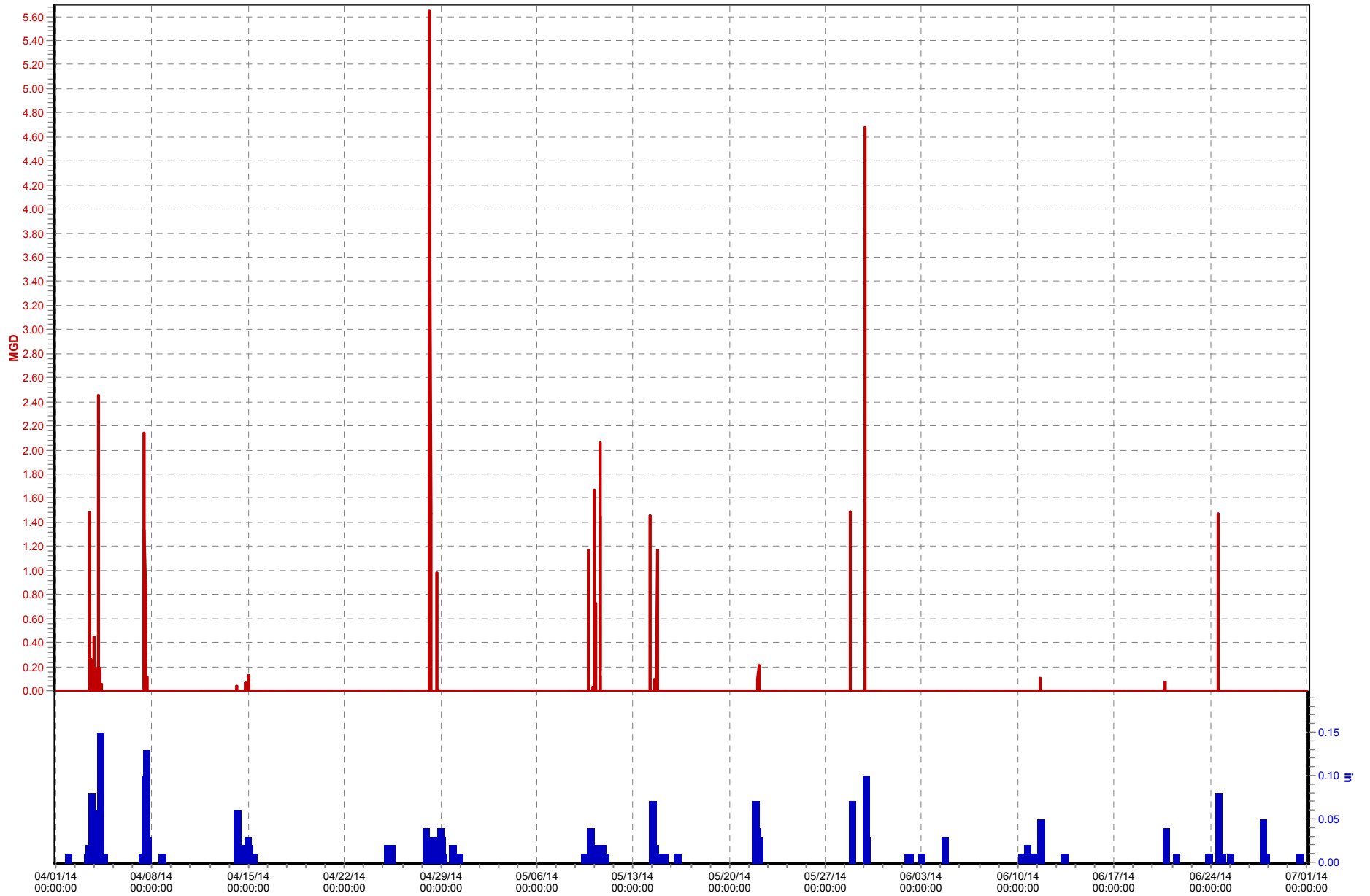
FM1162_CS088 Brownsboro BGC (04/01/14 to 07/01/14)

TR05_Beargrass PS.Rain (in) Final Flow (MGD)



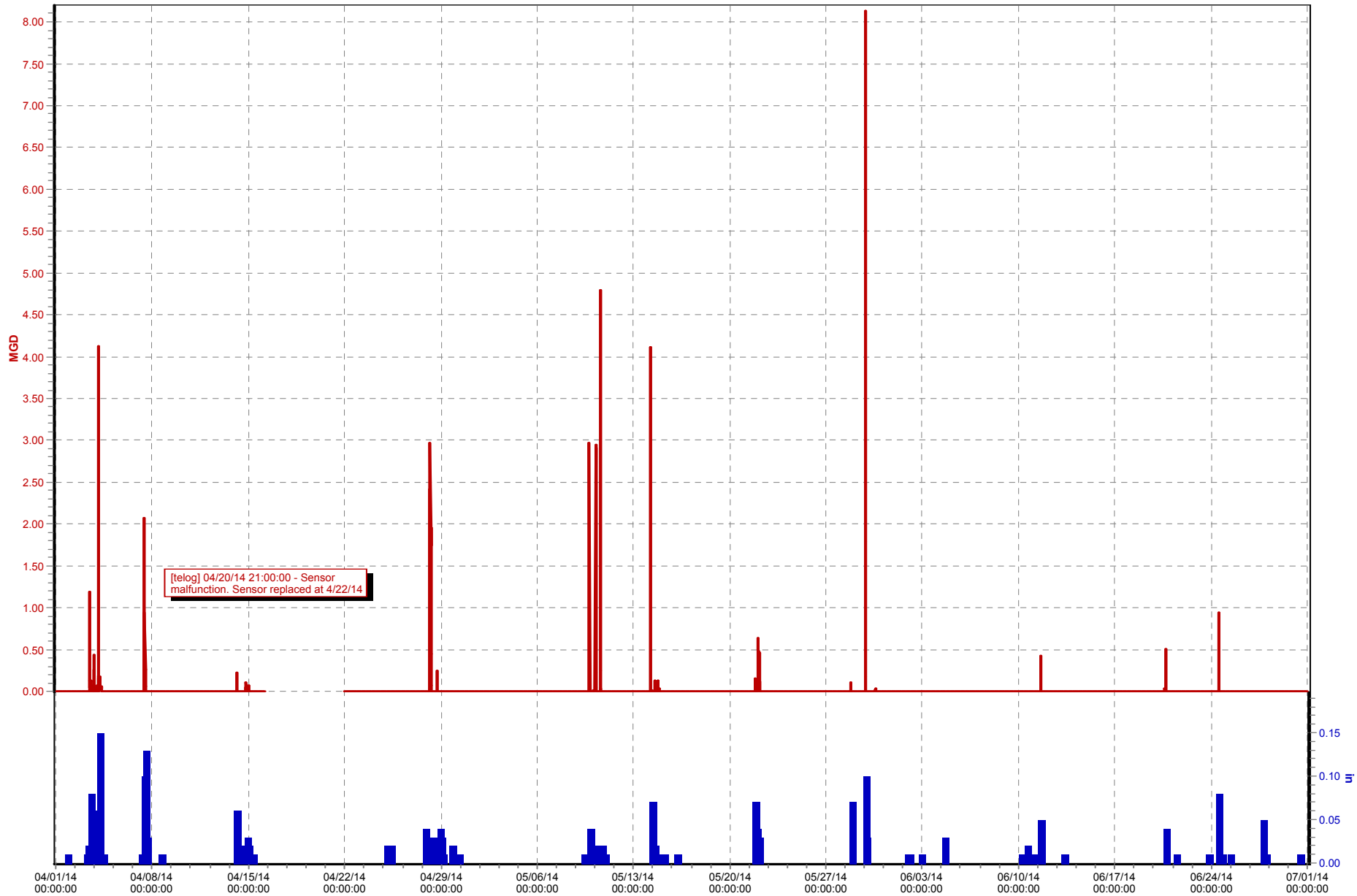
CSO091 Schiller Ave (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



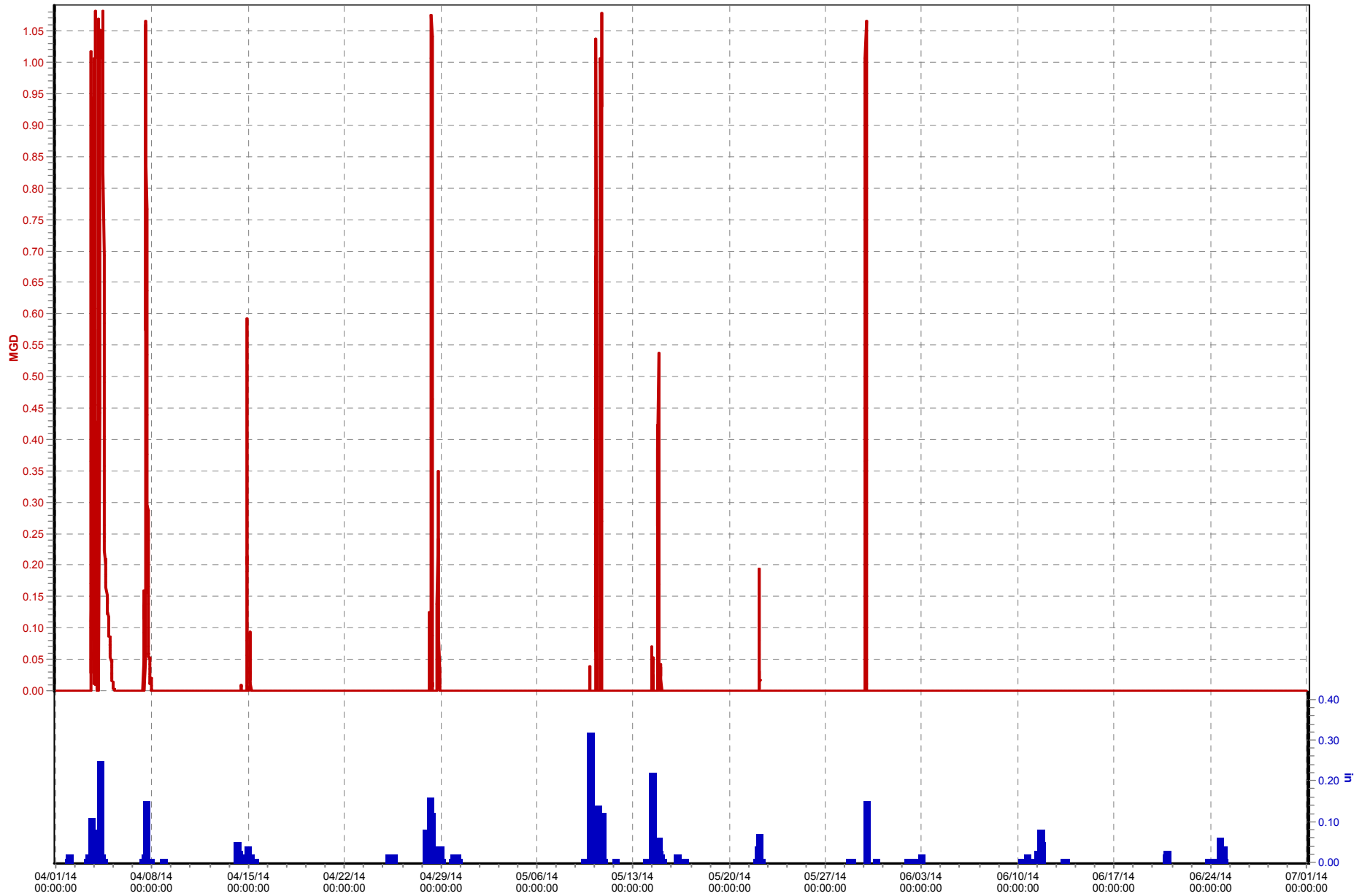
CSO092 Schiller Ave (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO097 Castlevale Dr (04/01/14 to 07/01/14)

C097_FLOW_MGD (MGD) TR12_Nightingale PS.Rain (in)



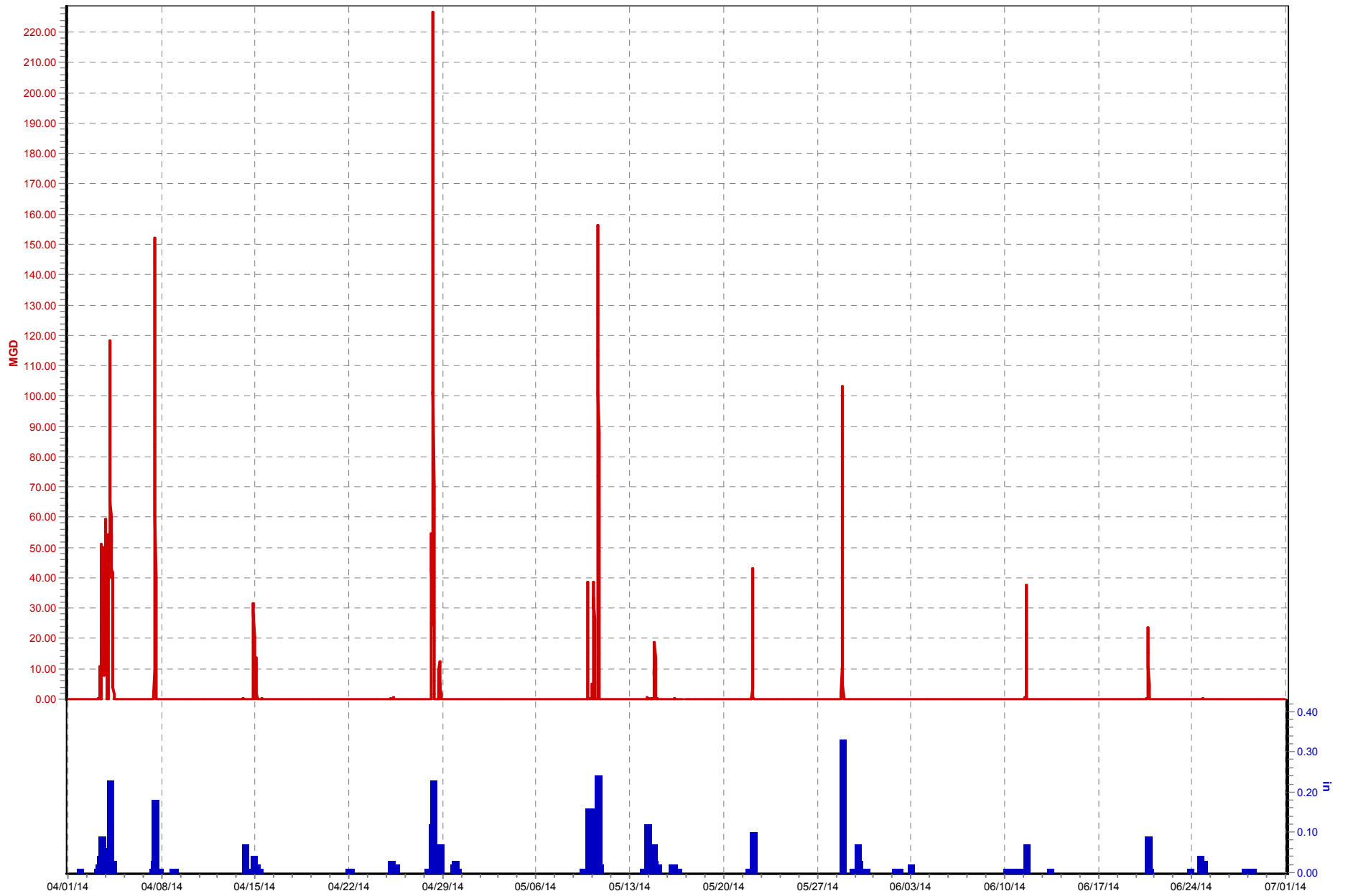
CSO104 SWest Pkwy and Broadway (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



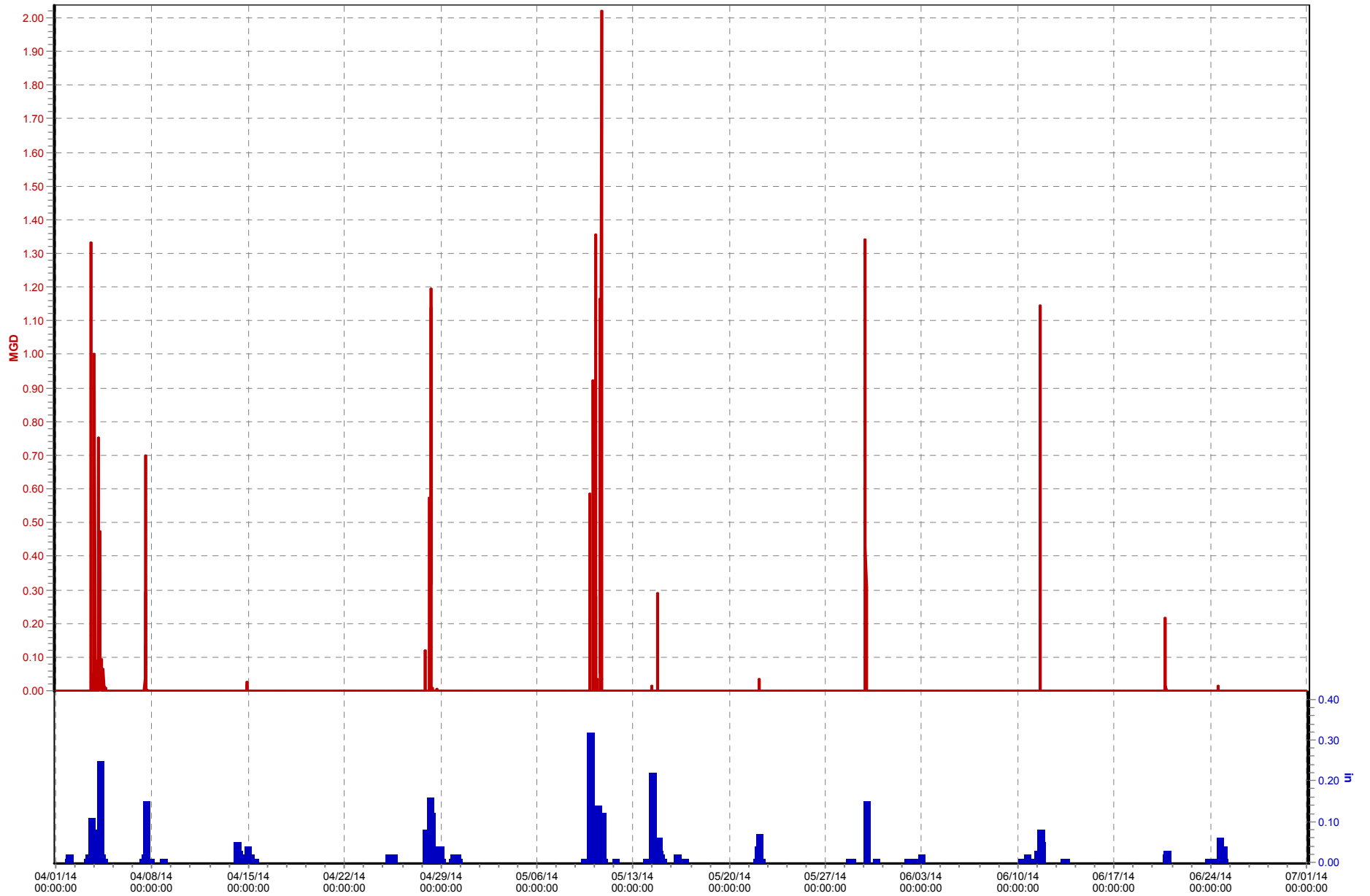
CSO105 Broadway and SWest Pkwy (04/01/14 to 07/01/14)

Final Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



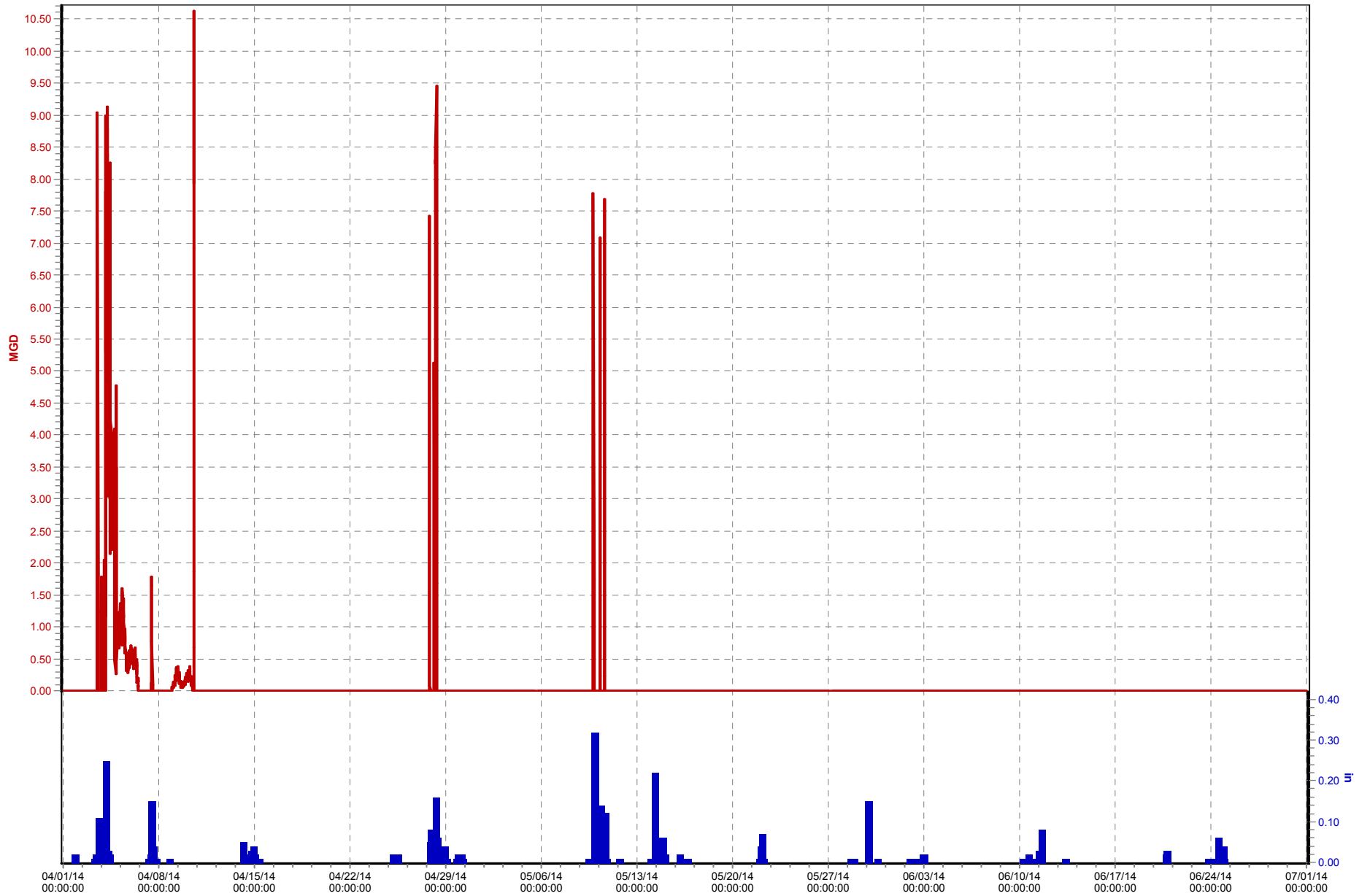
CSO106 Castlevale Dr (04/01/14 to 07/01/14)

Raw Flow (MGD) TR12_Nightingale PS.Rain (in)



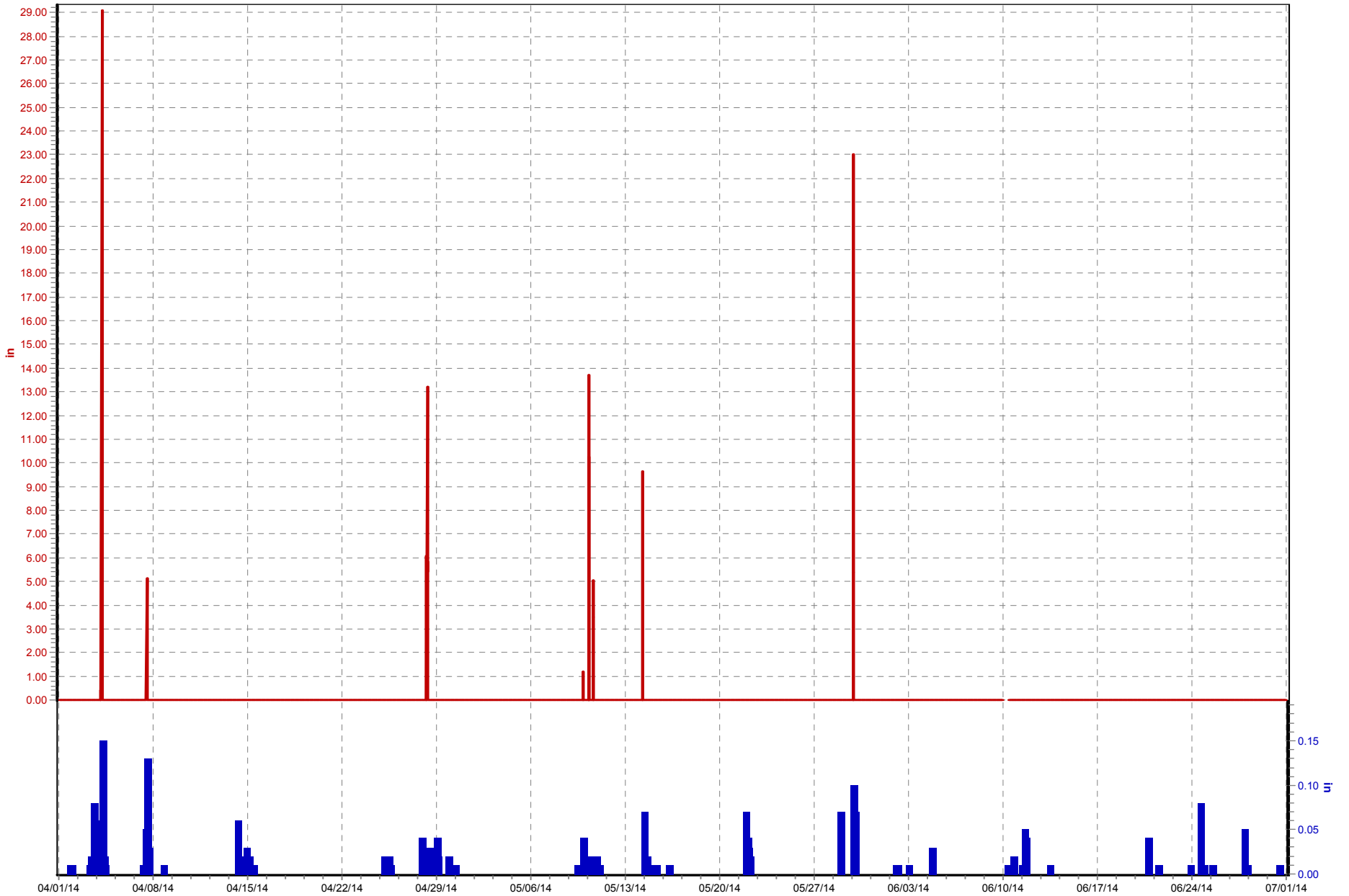
CSO108 CDS Unit (04/01/14 to 07/01/14)

Raw Flow (MGD) TR12_Nightingale PS.Rain (in)



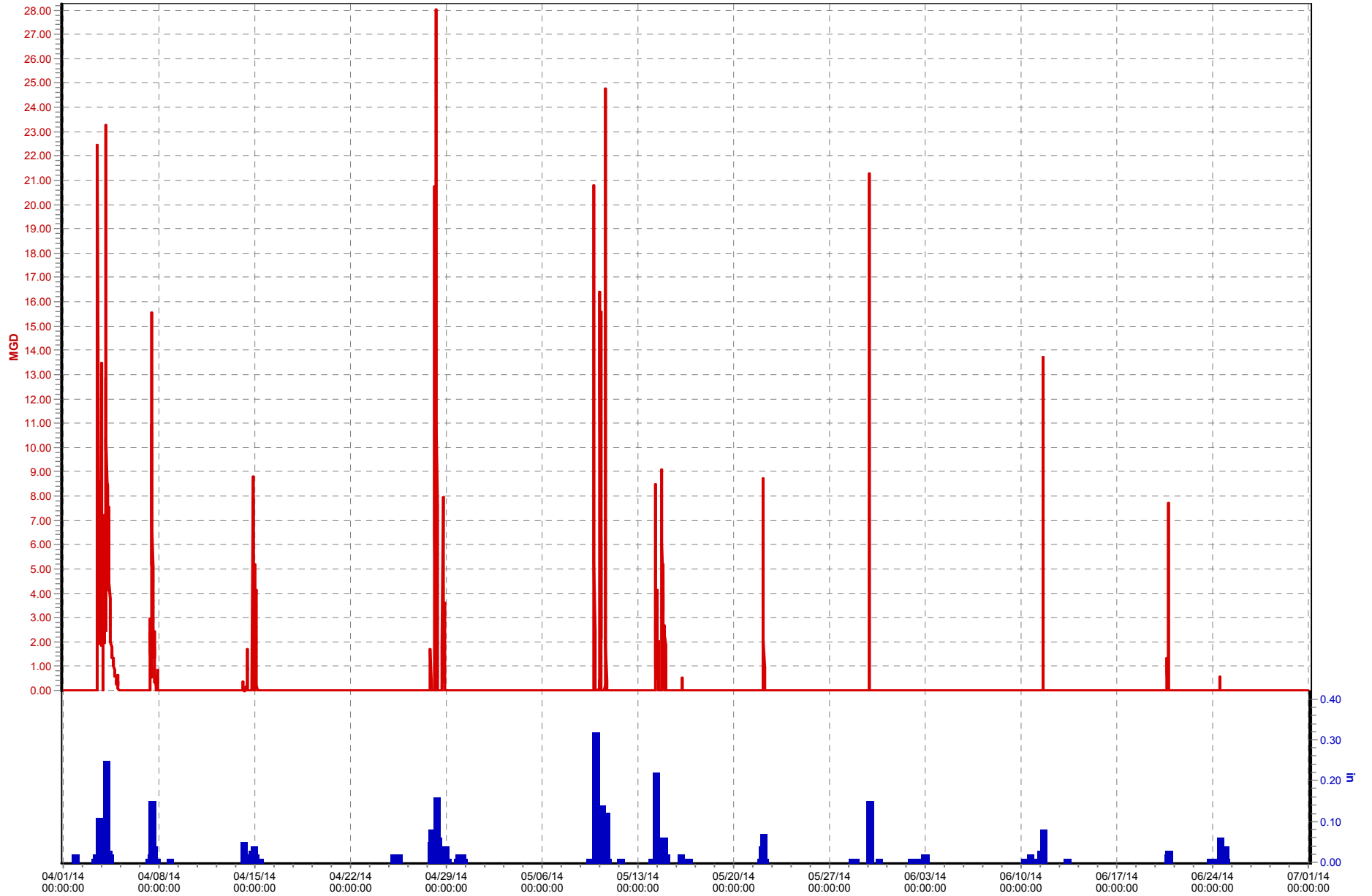
CSO109 Newburg Rd (04/01/14 to 07/01/14)

Potential Overflow (in) TR05_Beargrass PS.Rain (in)



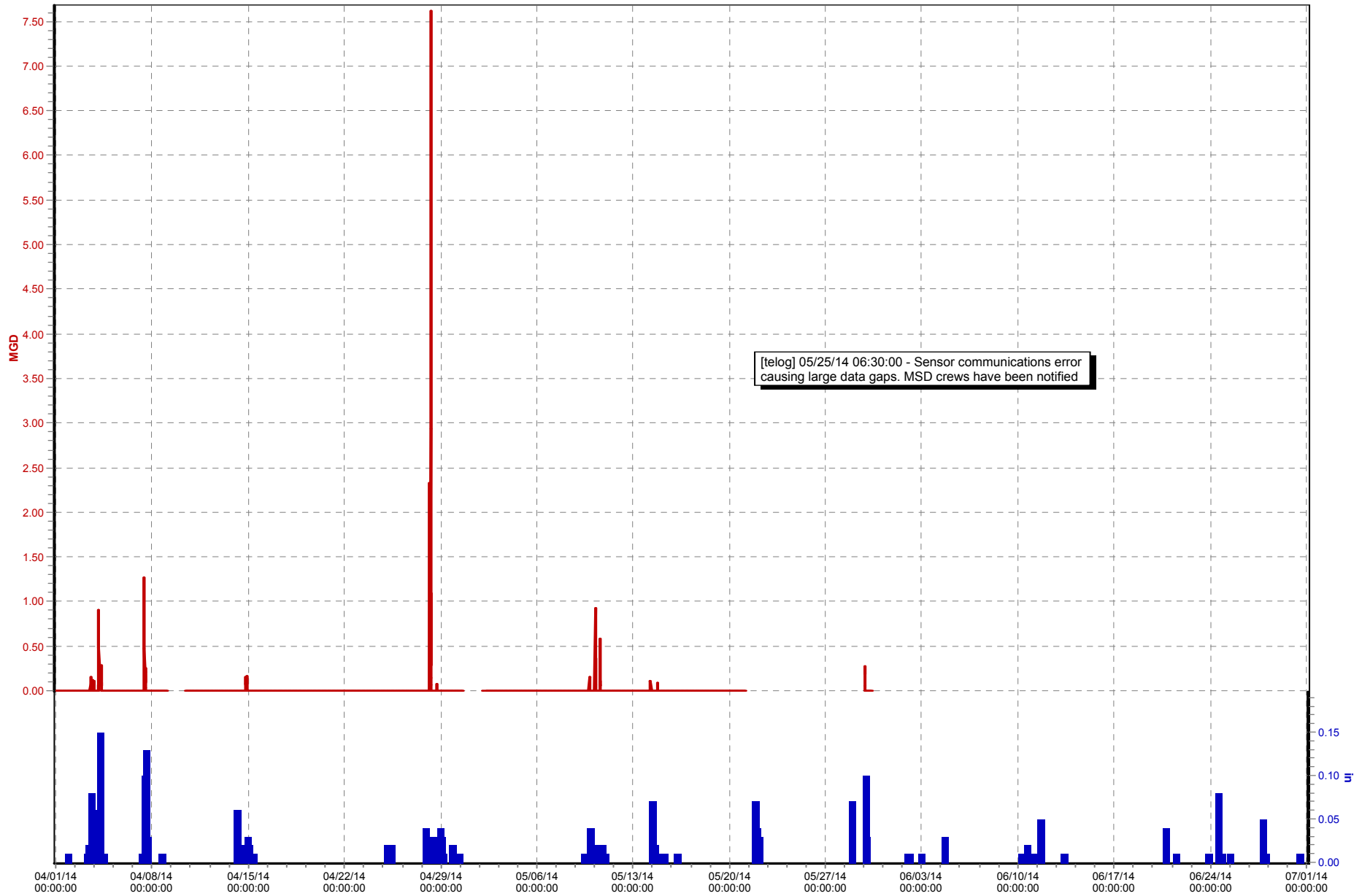
CSO110 (04/01/14 to 07/01/14)

CSO Flow MGD (MGD) TR12_Nightingale PS.Rain (in)



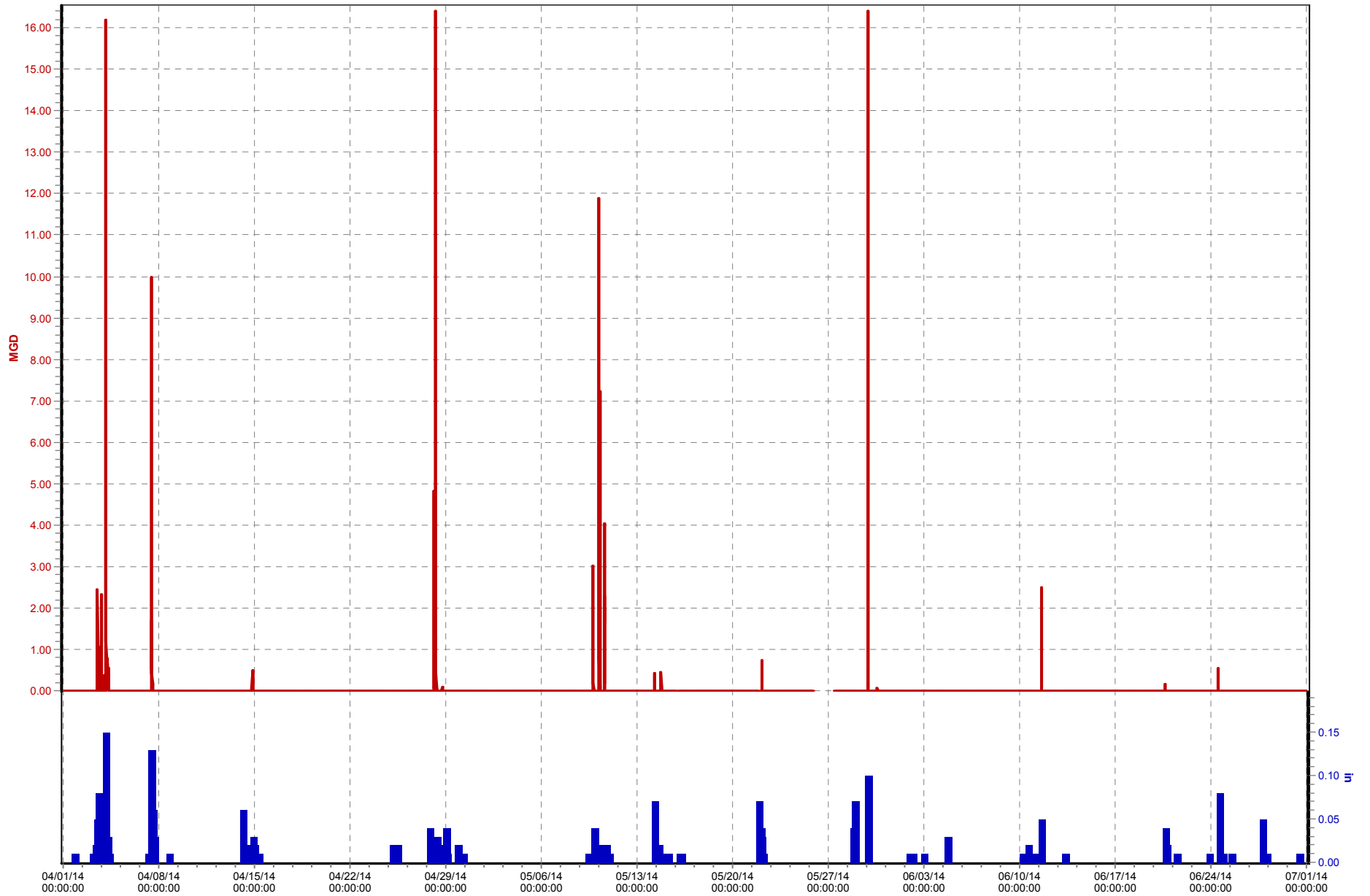
CSO111 Eastern Pkwy and BGC (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



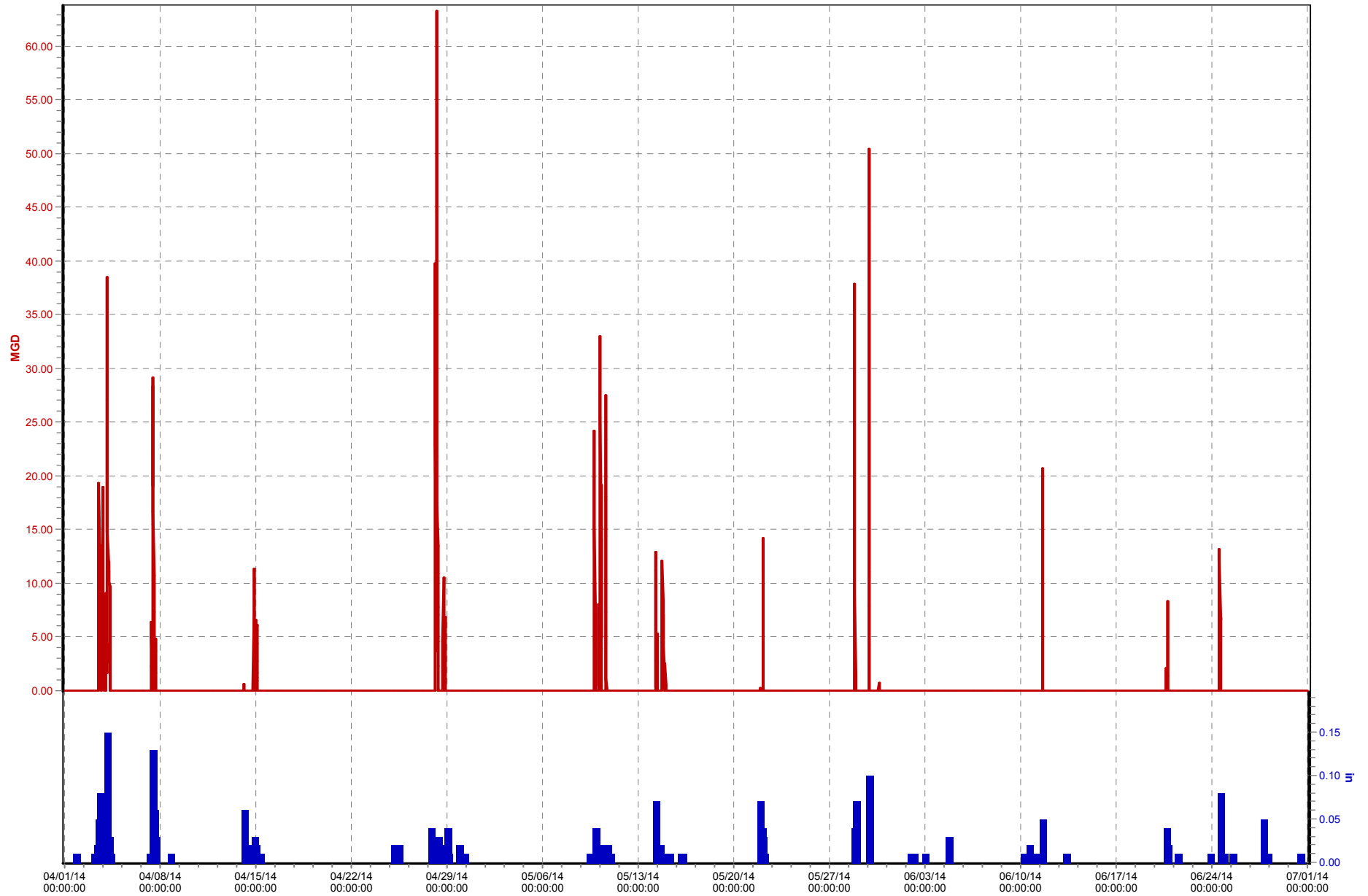
CSO113 (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



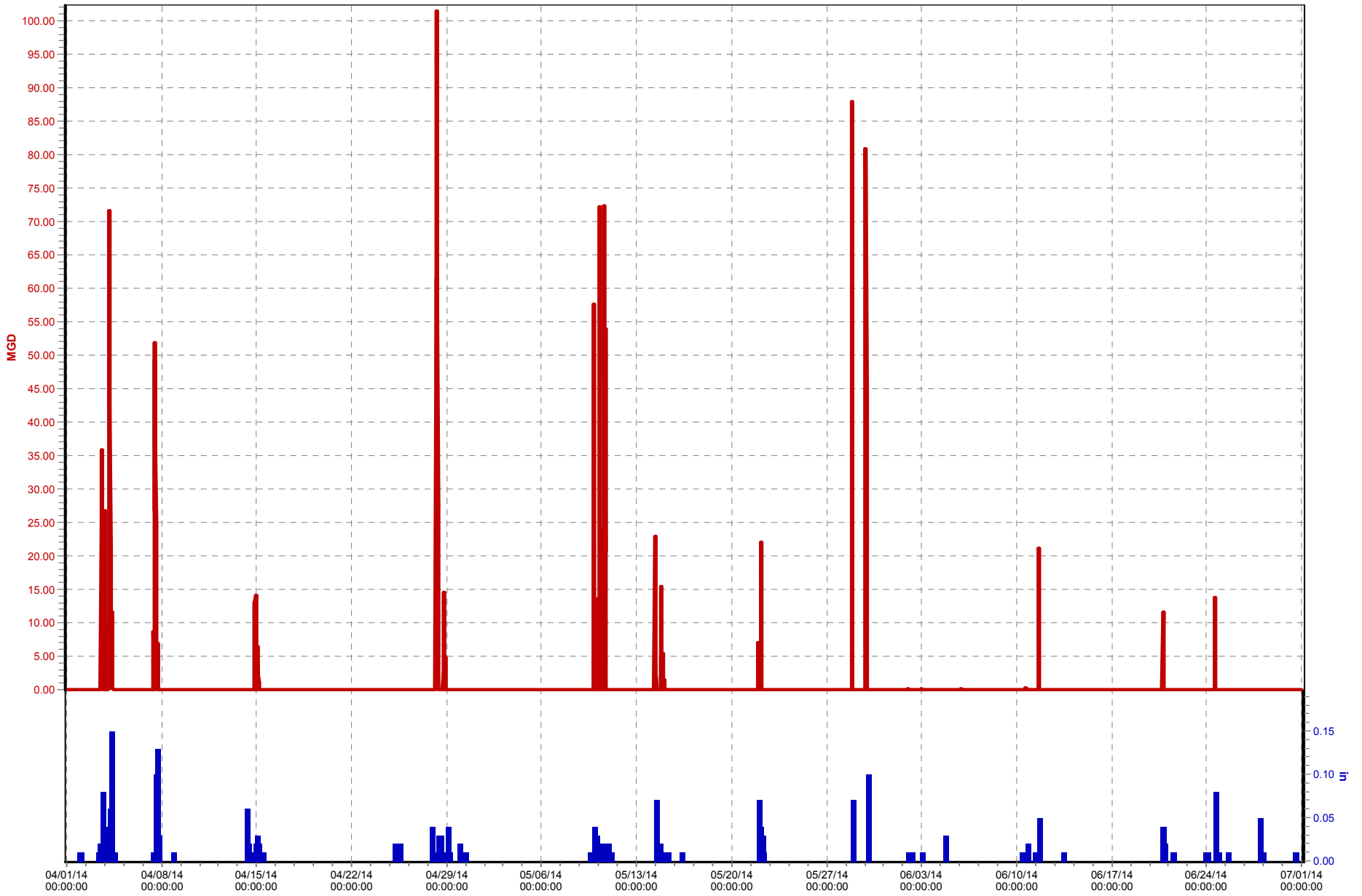
CSO117 Dry Sewer and BGC Logan (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



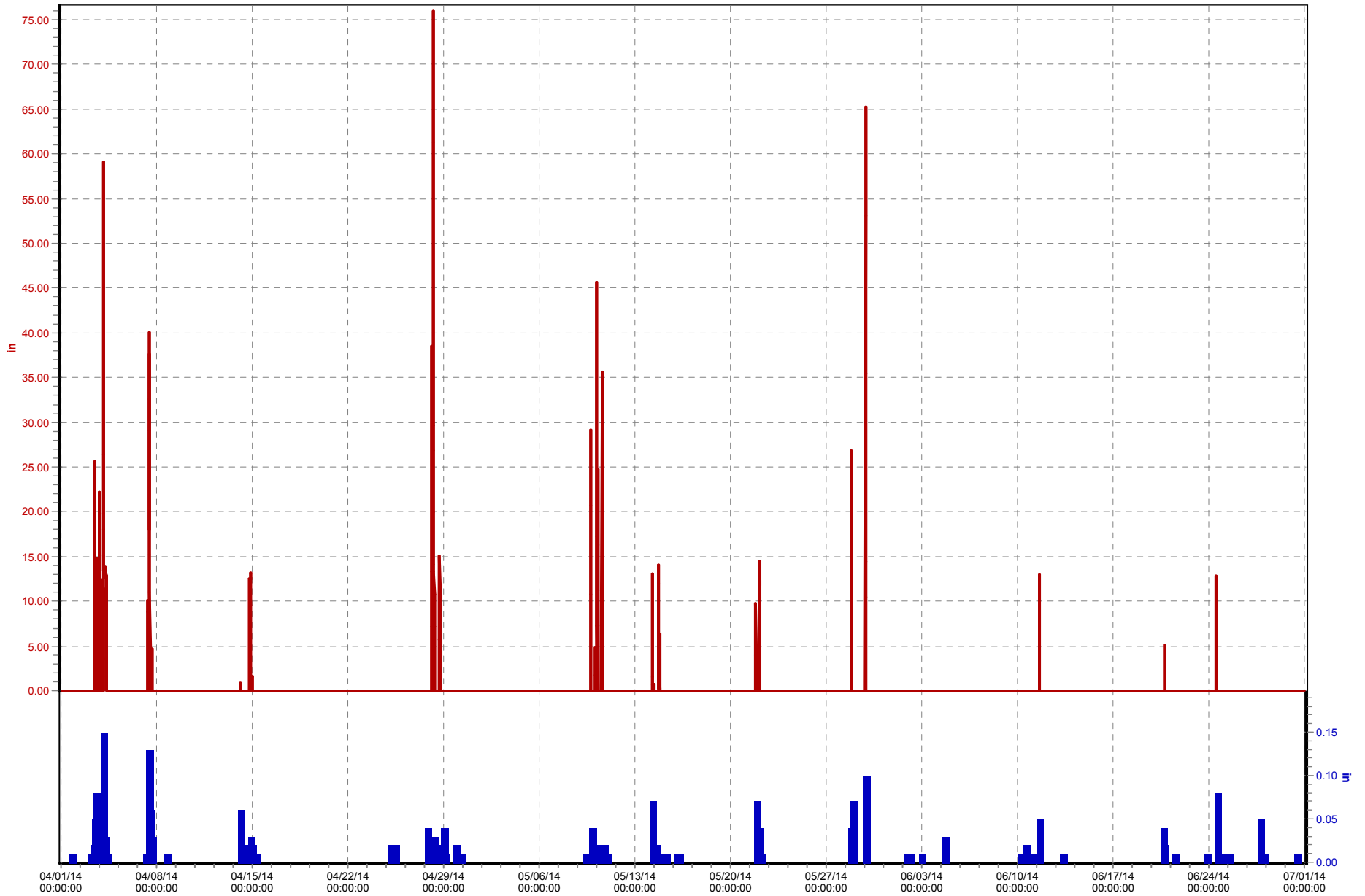
CSO118 Broadway and BGC (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



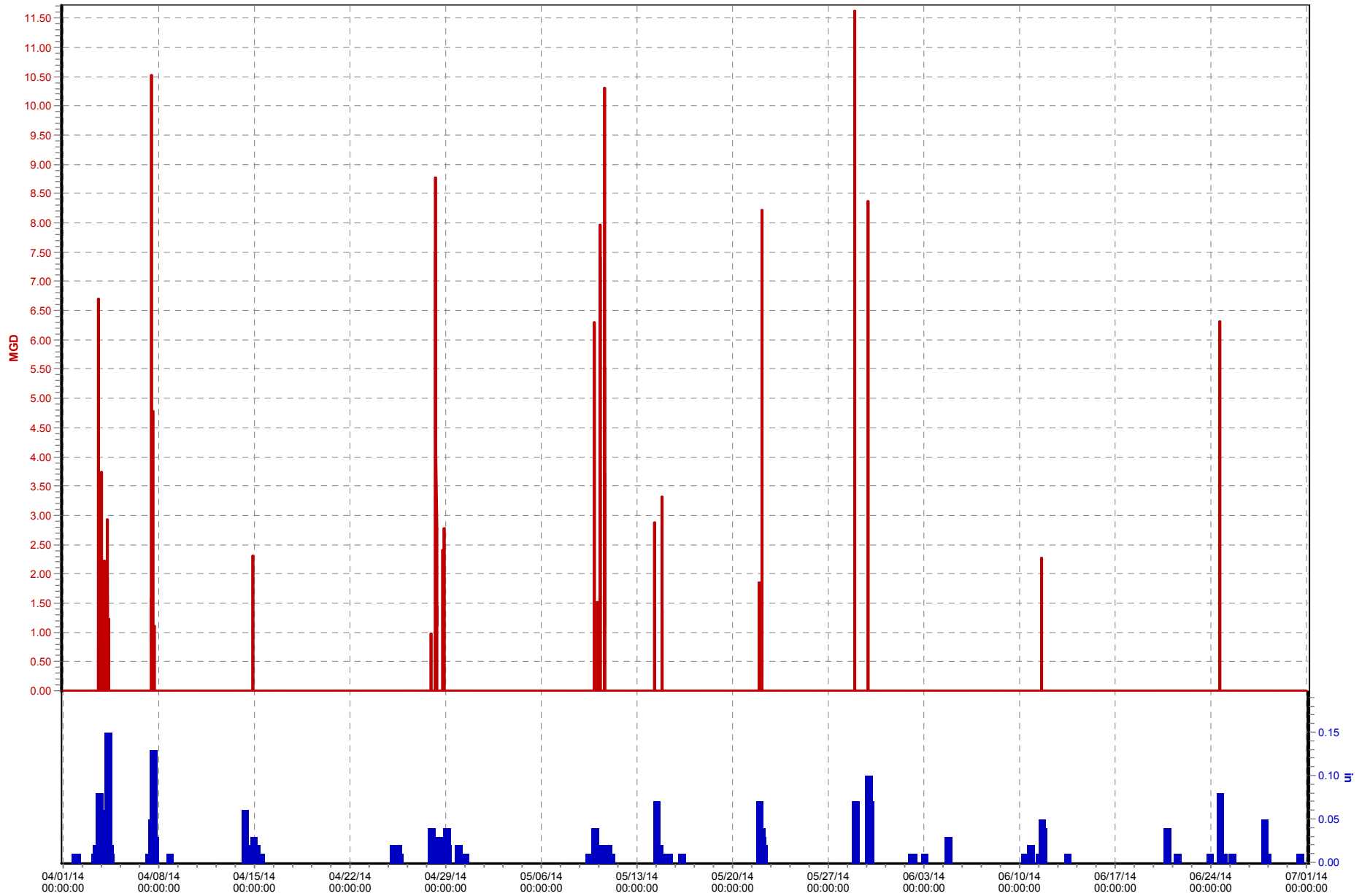
CSO119 (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



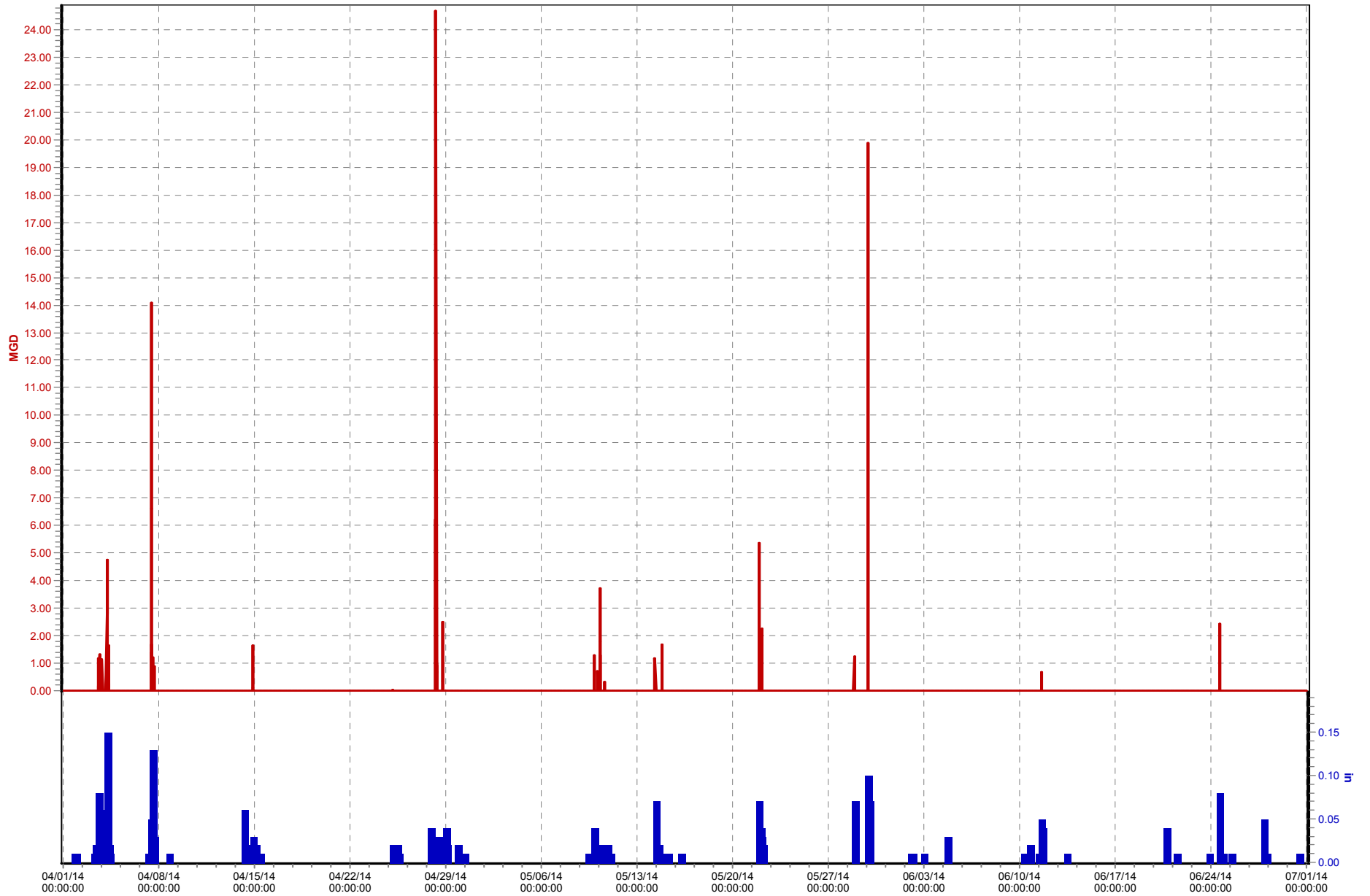
CSO120 Hamilton Ave (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



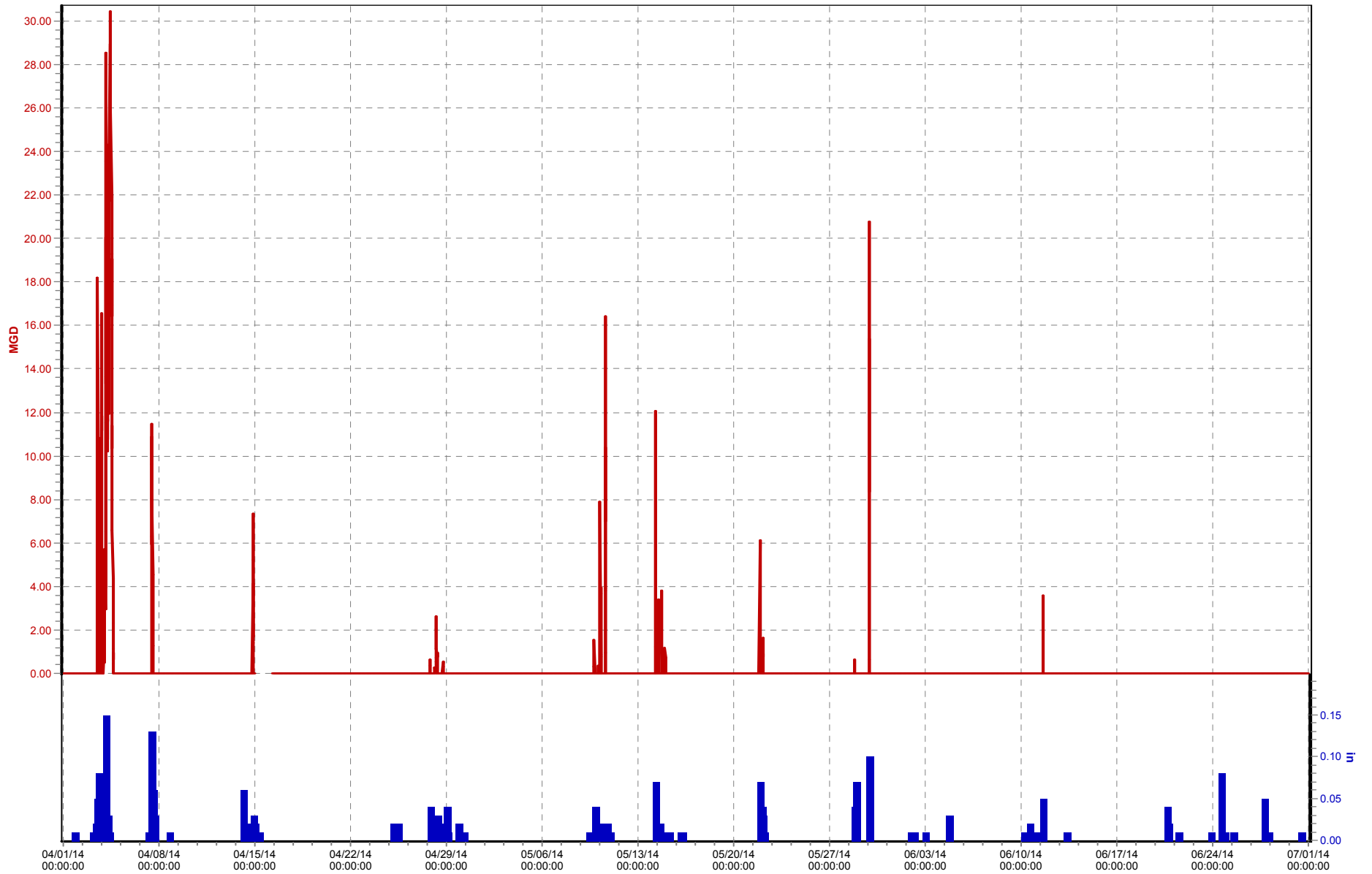
CSO121 Baxter and BGC (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO125_Grinstead Dr I64W Ramp (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



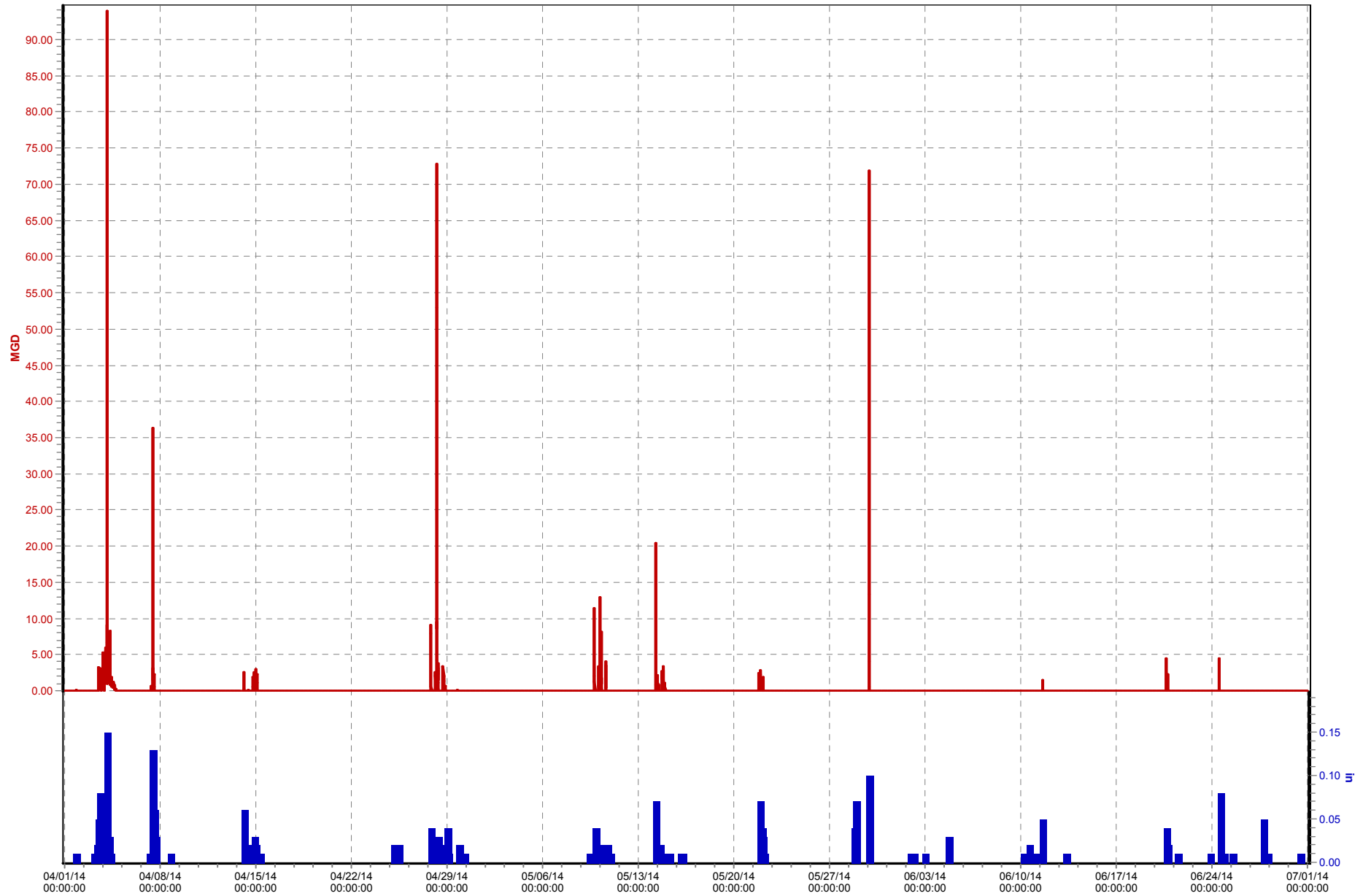
CSO126_Saunders (04/01/14 to 07/01/14)

Flow (MGD) Gap Flow (MGD) TR05_Beargrass PS.Rain (in)



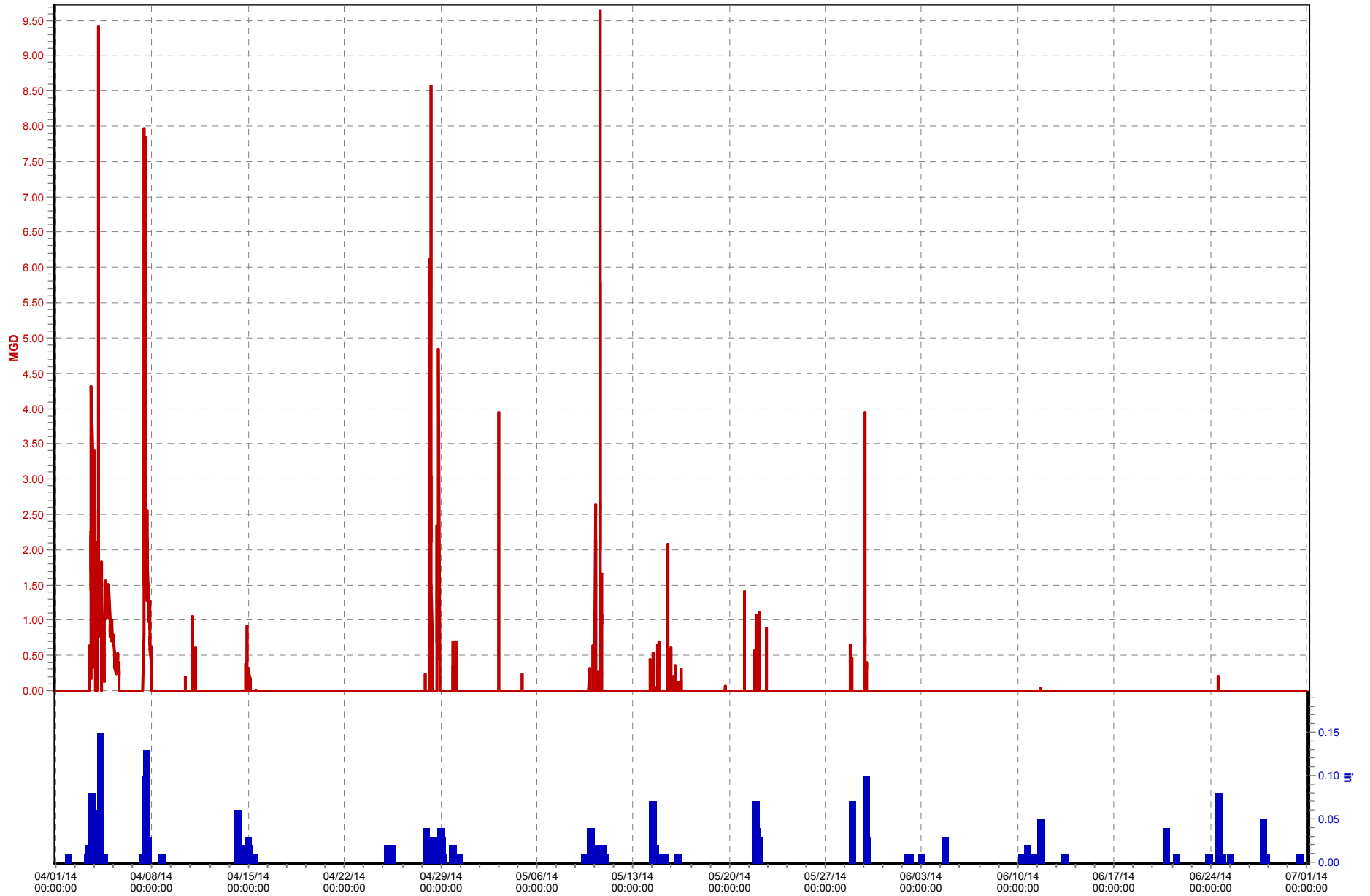
CSO127_Etley and Lexington (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



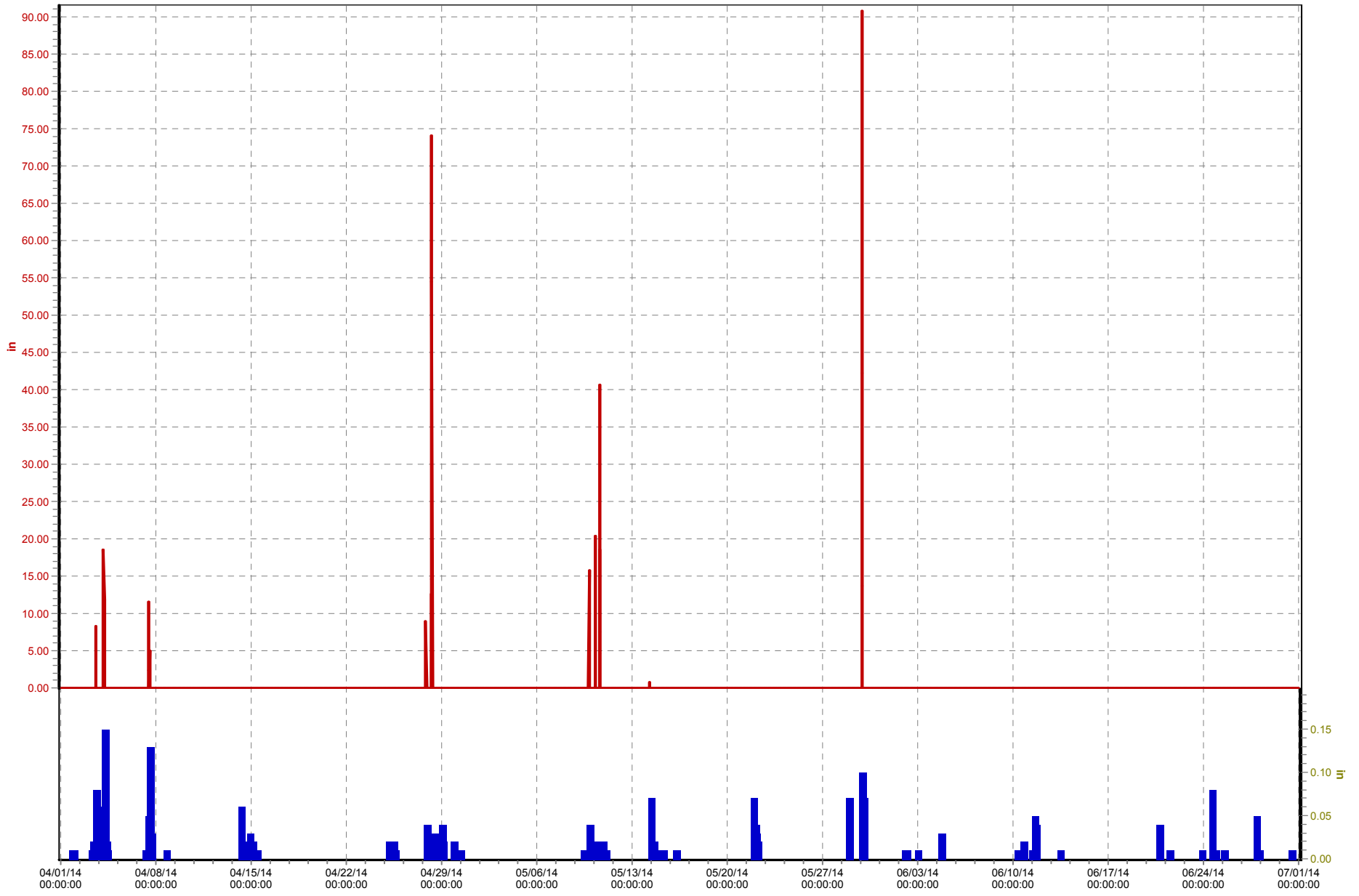
CSO130 Webster St n Story Ave (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



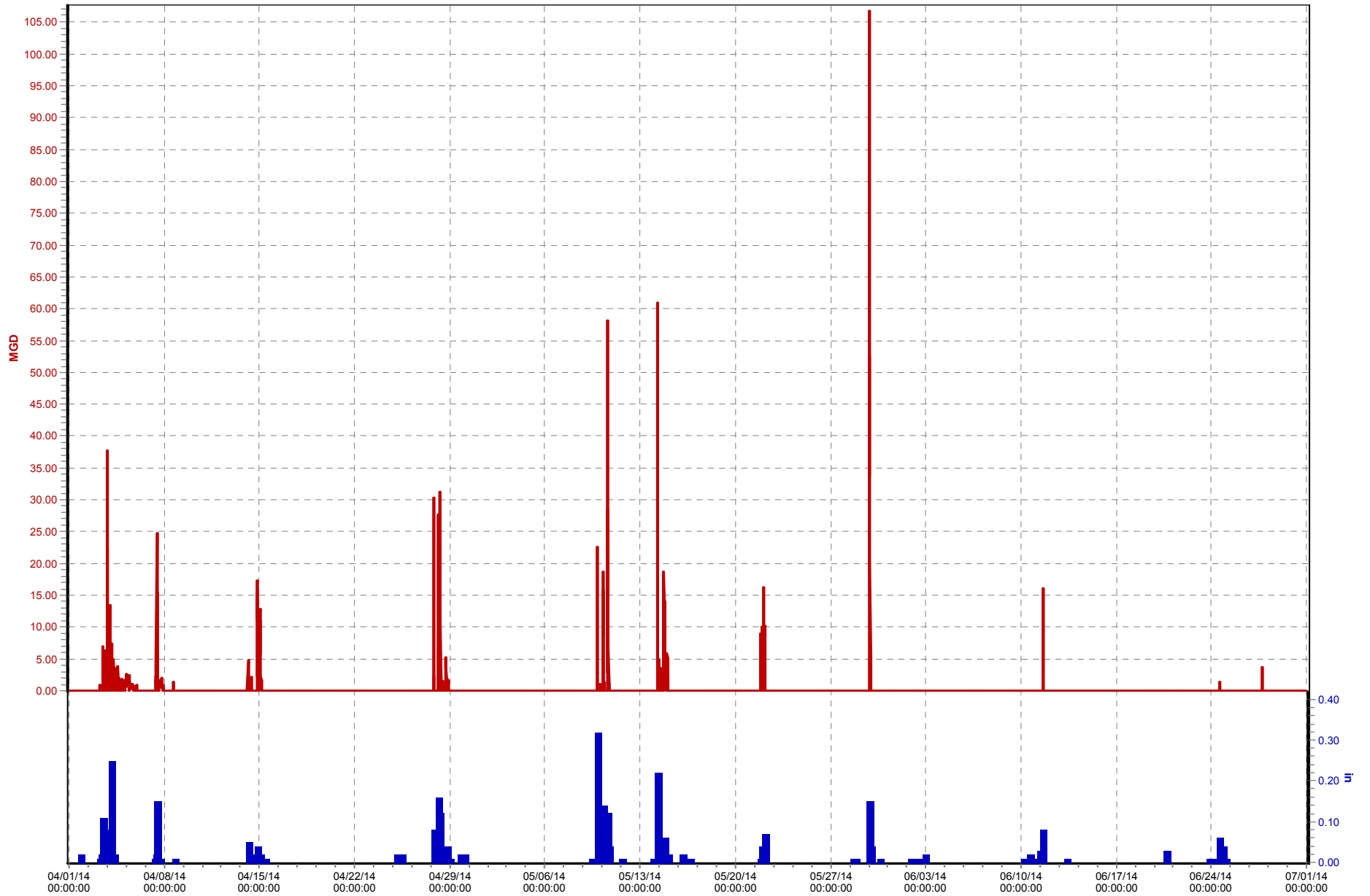
CSO131 Frankfort Ave (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



CSO132 Brownsboro Rd (04/01/14 to 07/01/14)

Raw Flow (MGD) TR12_Nightingale PS.Rain (in)



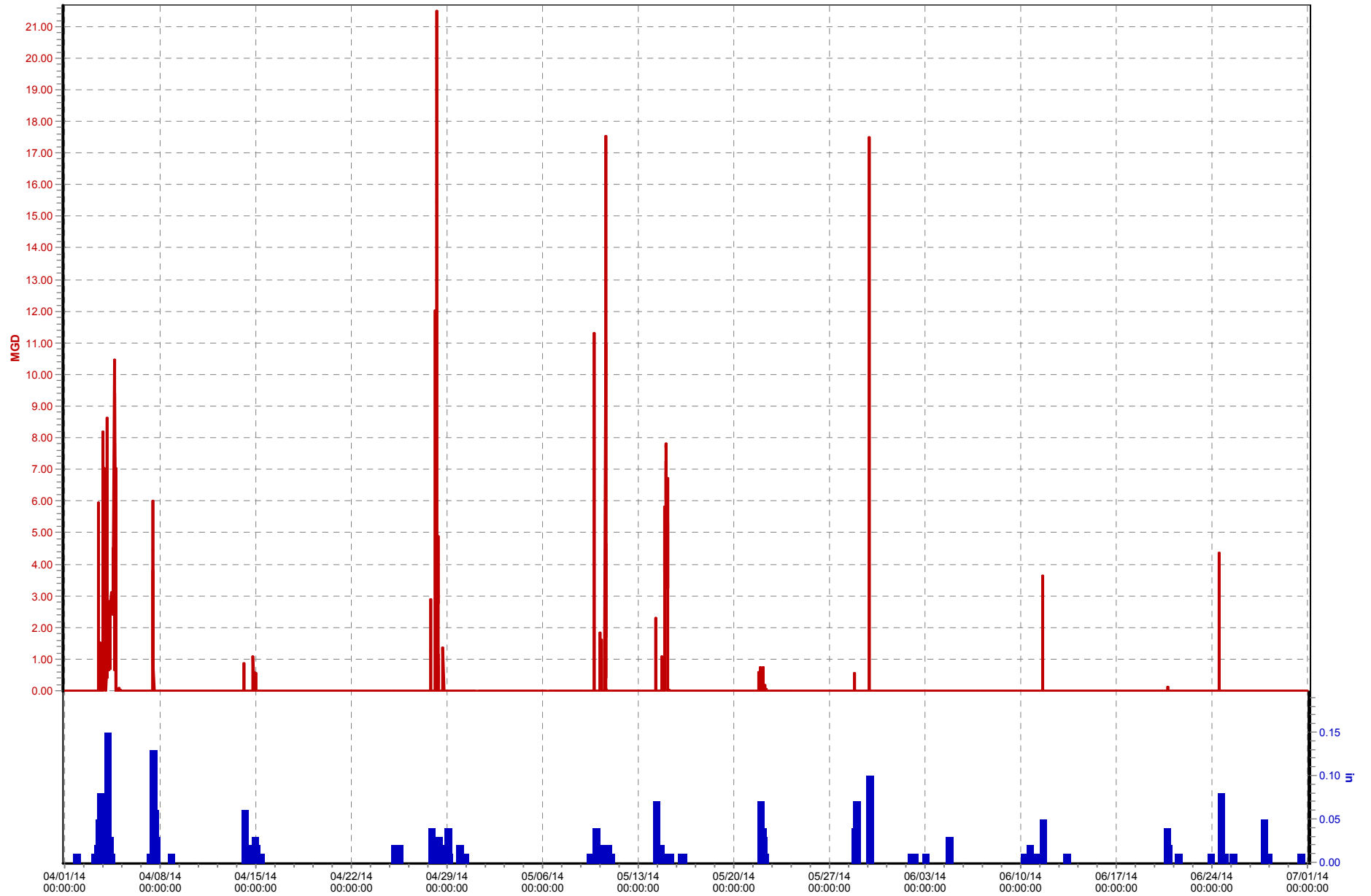
CSO137 Cavalry Cemetery (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



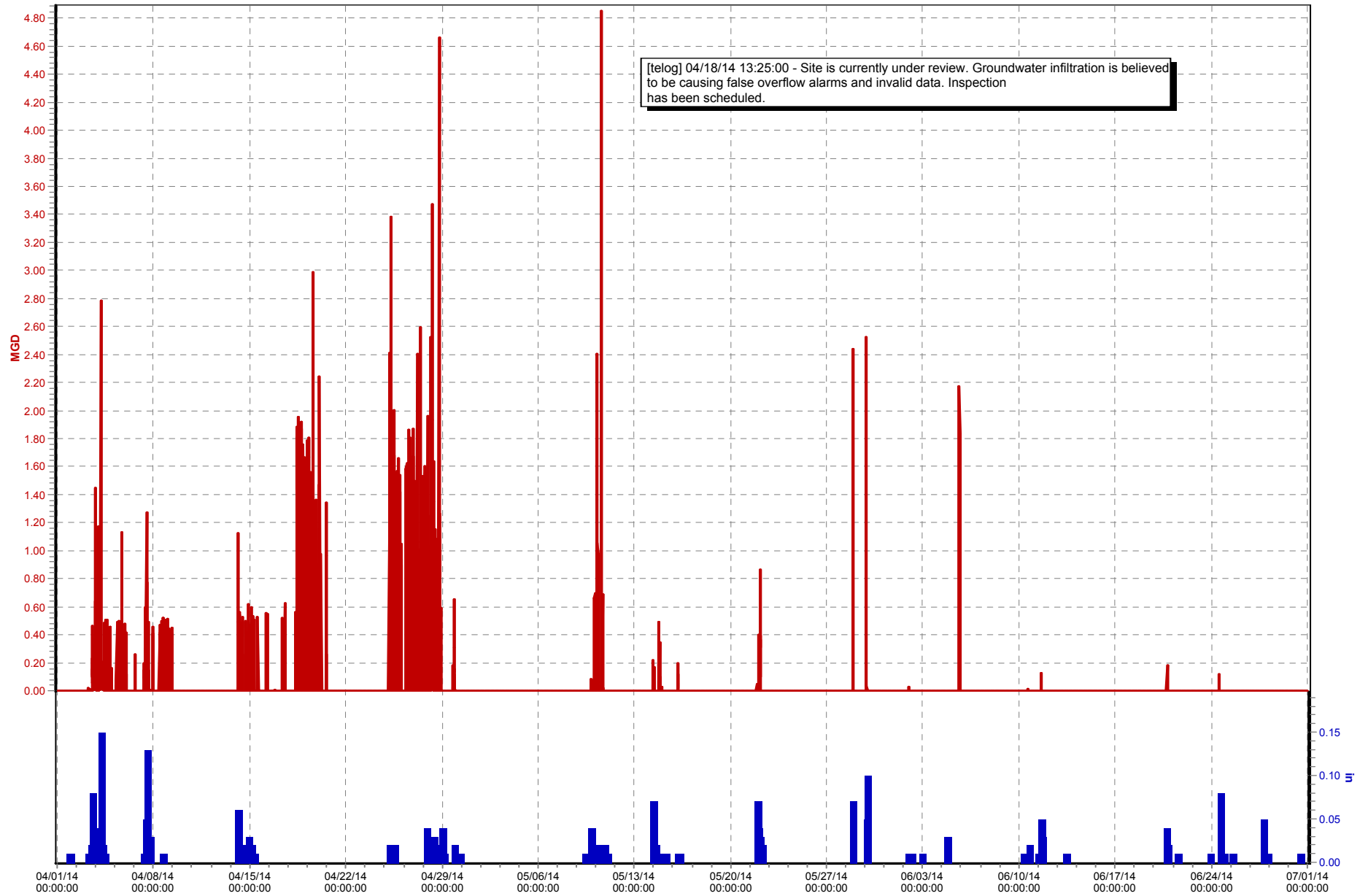
CSO140 Locust St_Lobdell Alley (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



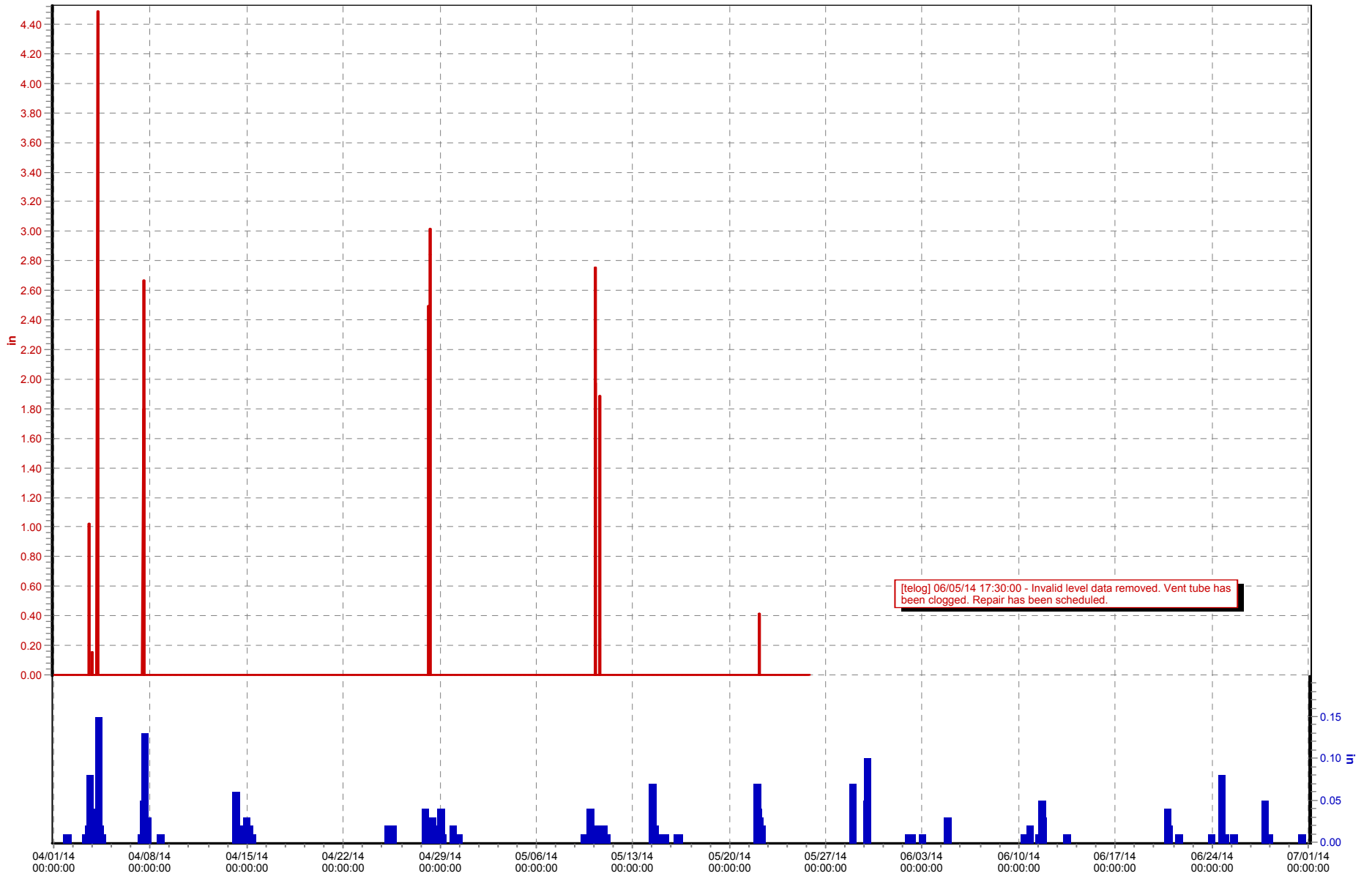
CSO141 Baxter_SF BGC (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



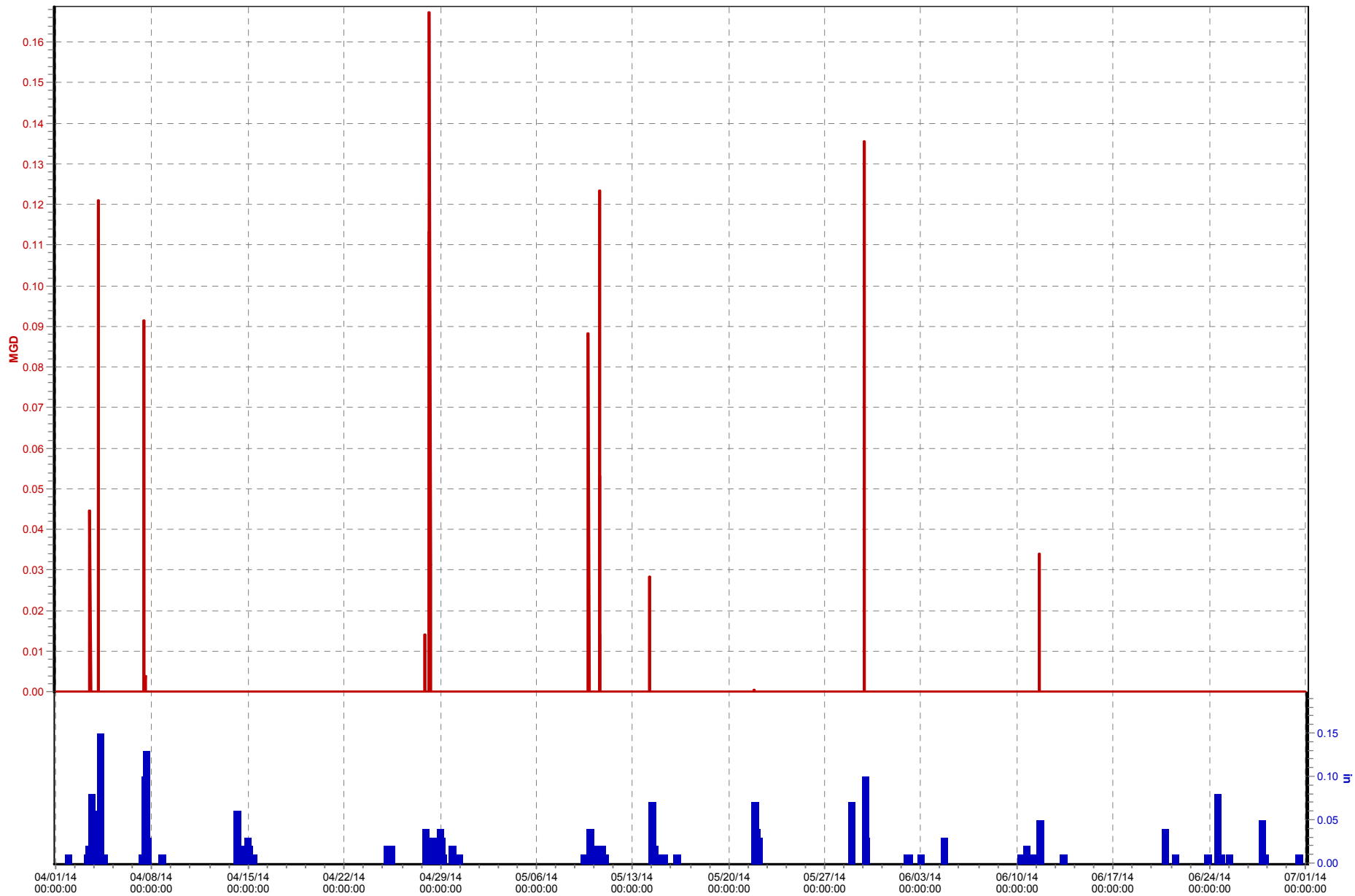
CSO142 (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



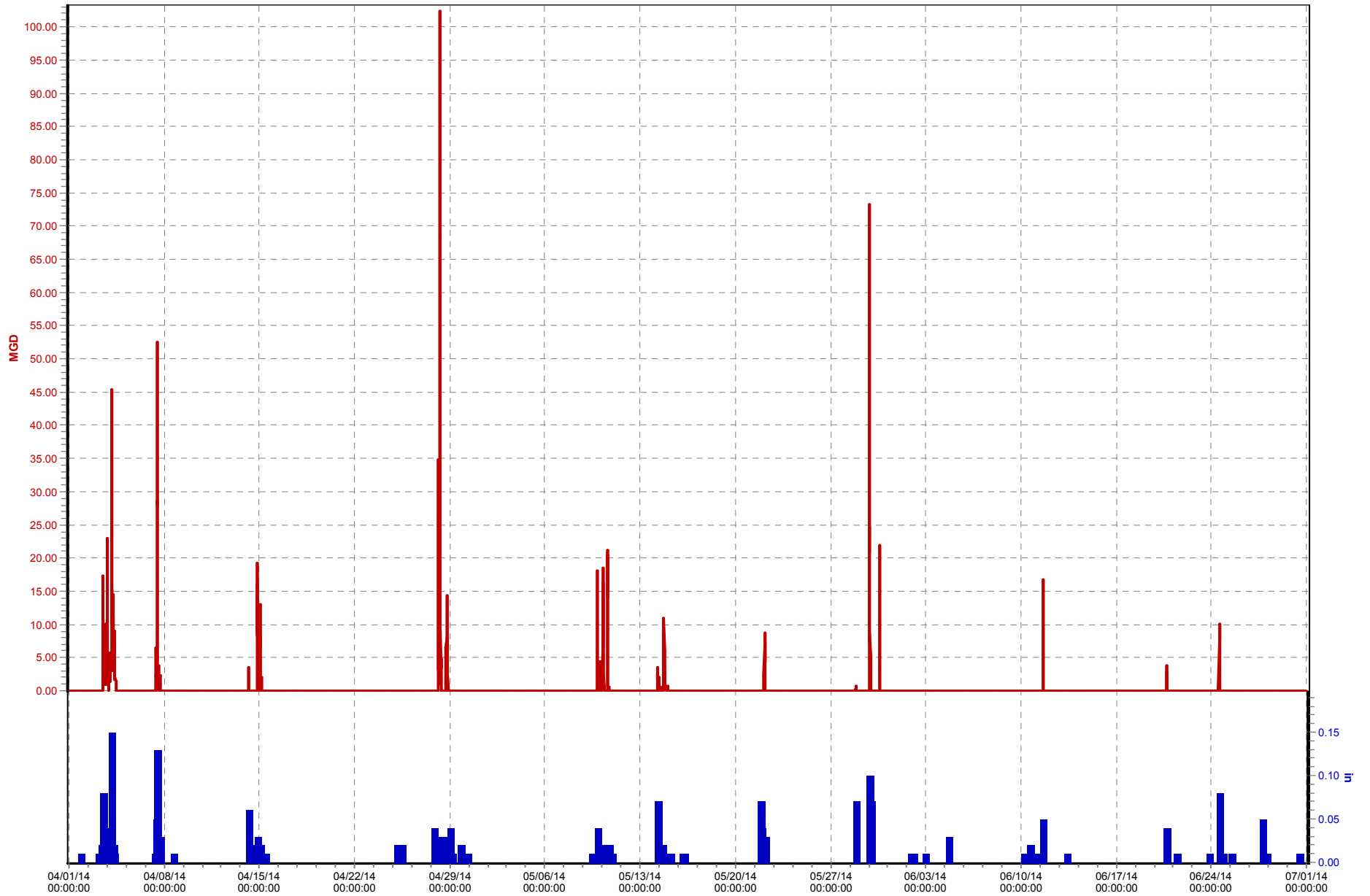
CSO14 Brauner Way (04/01/14 to 07/01/14)

M1 Flow (MGD) TR05_Beargrass PS.Rain (in)



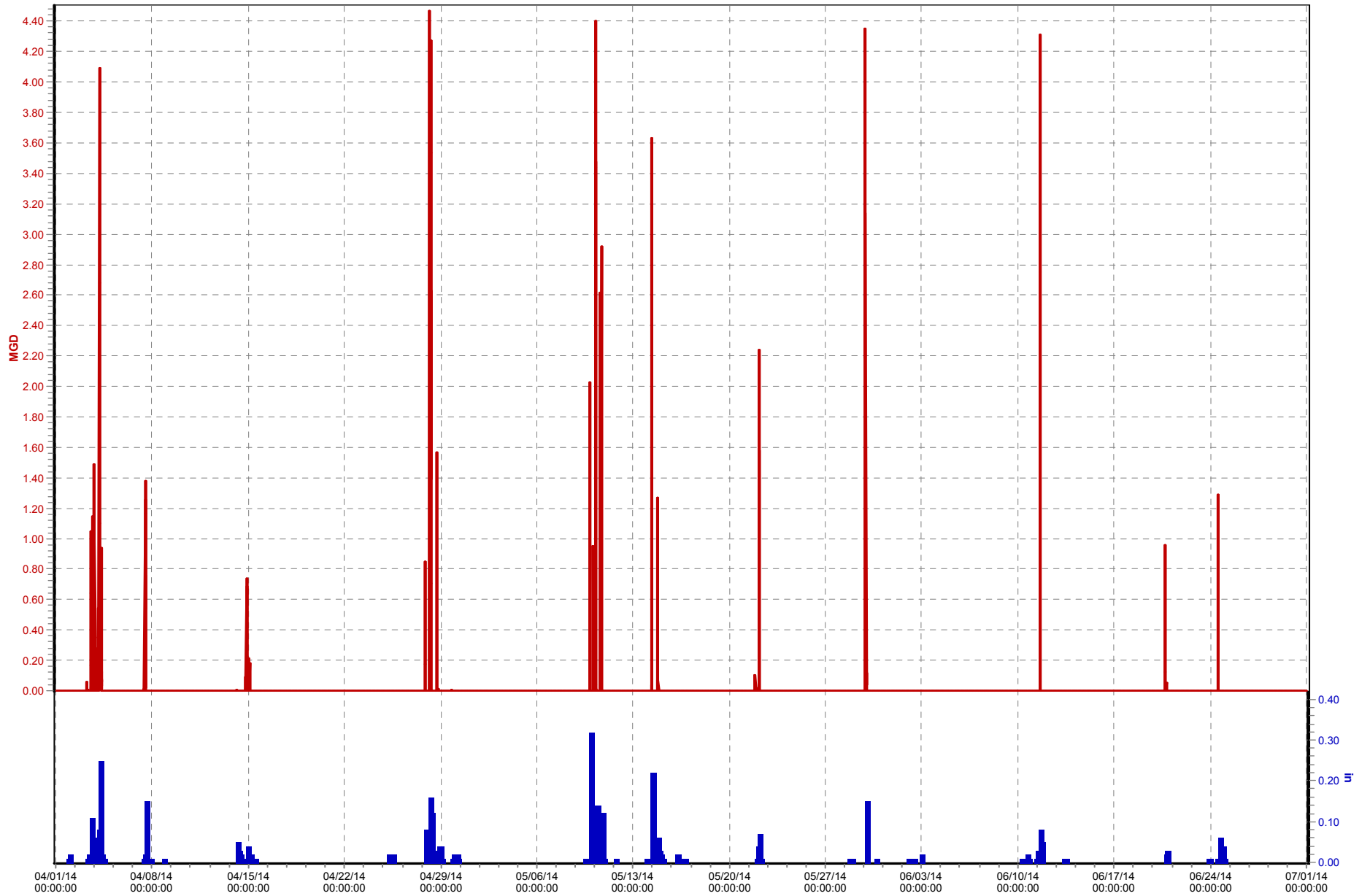
CSO146 Swan St (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



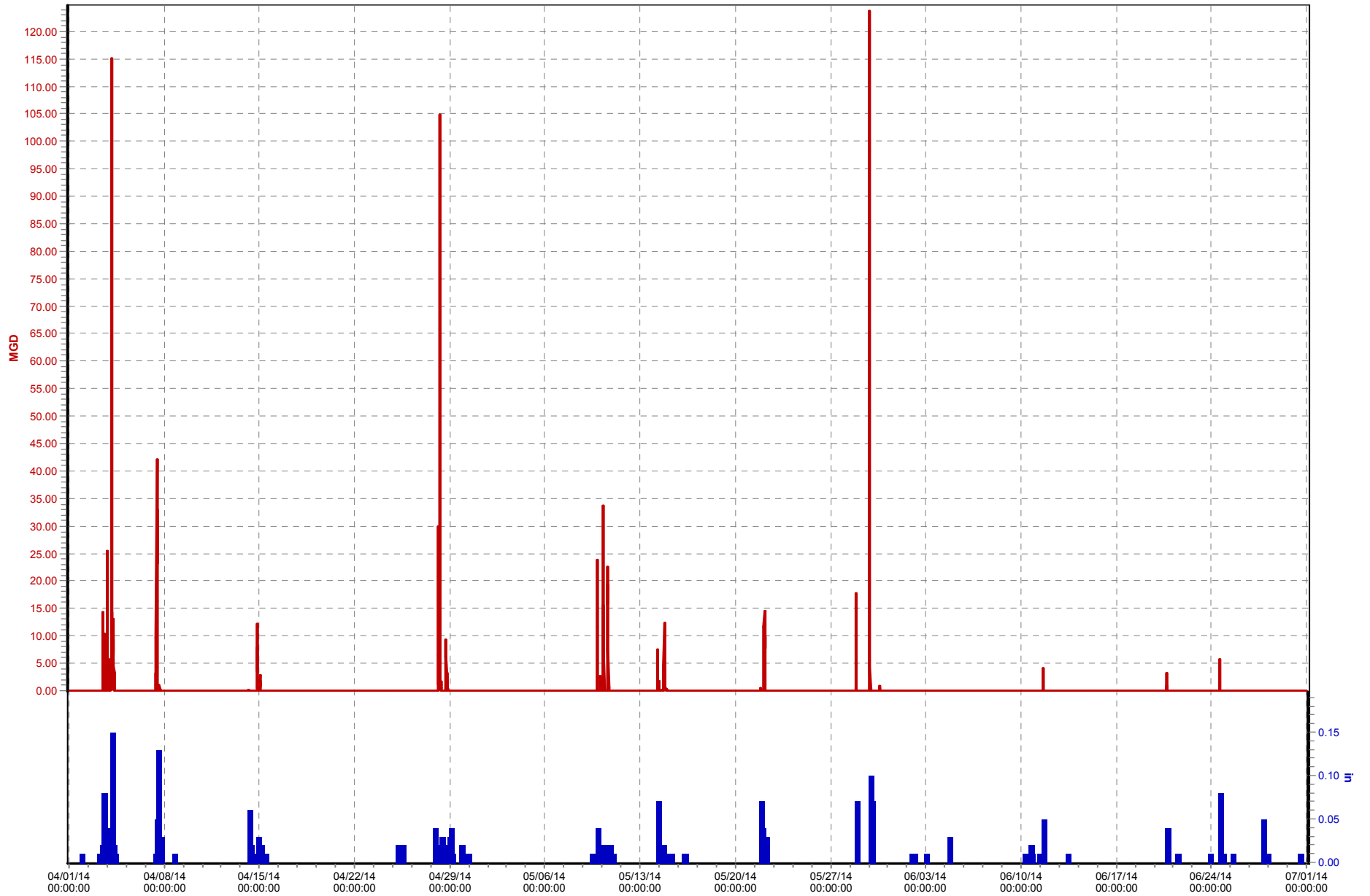
CSO148 Eastern Pkwy (04/01/14 to 07/01/14)

Flow 1 (MGD) TR12_Nightingale PS.Rain (in)



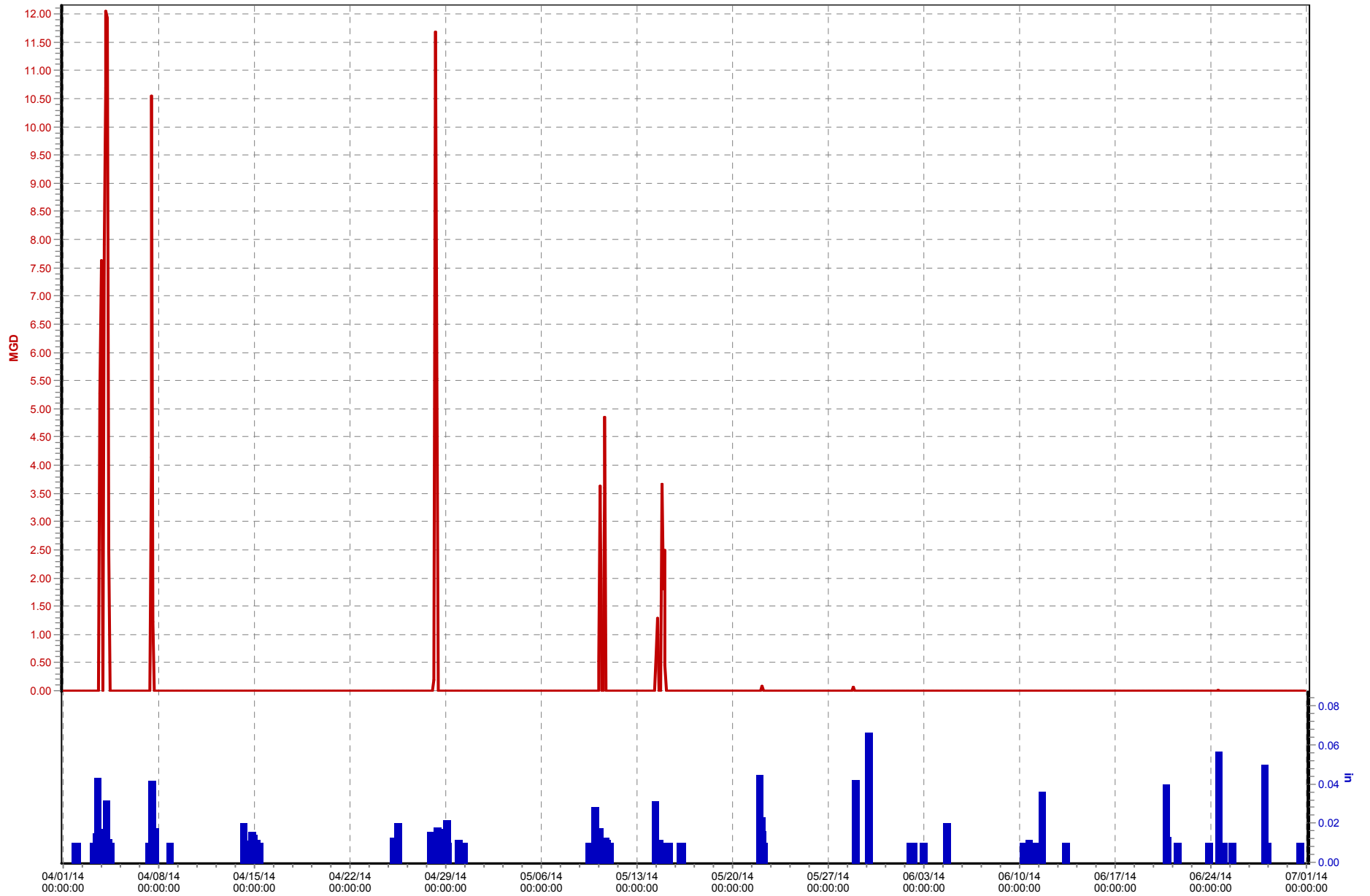
CSO149 KY St_St Paul Ct (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



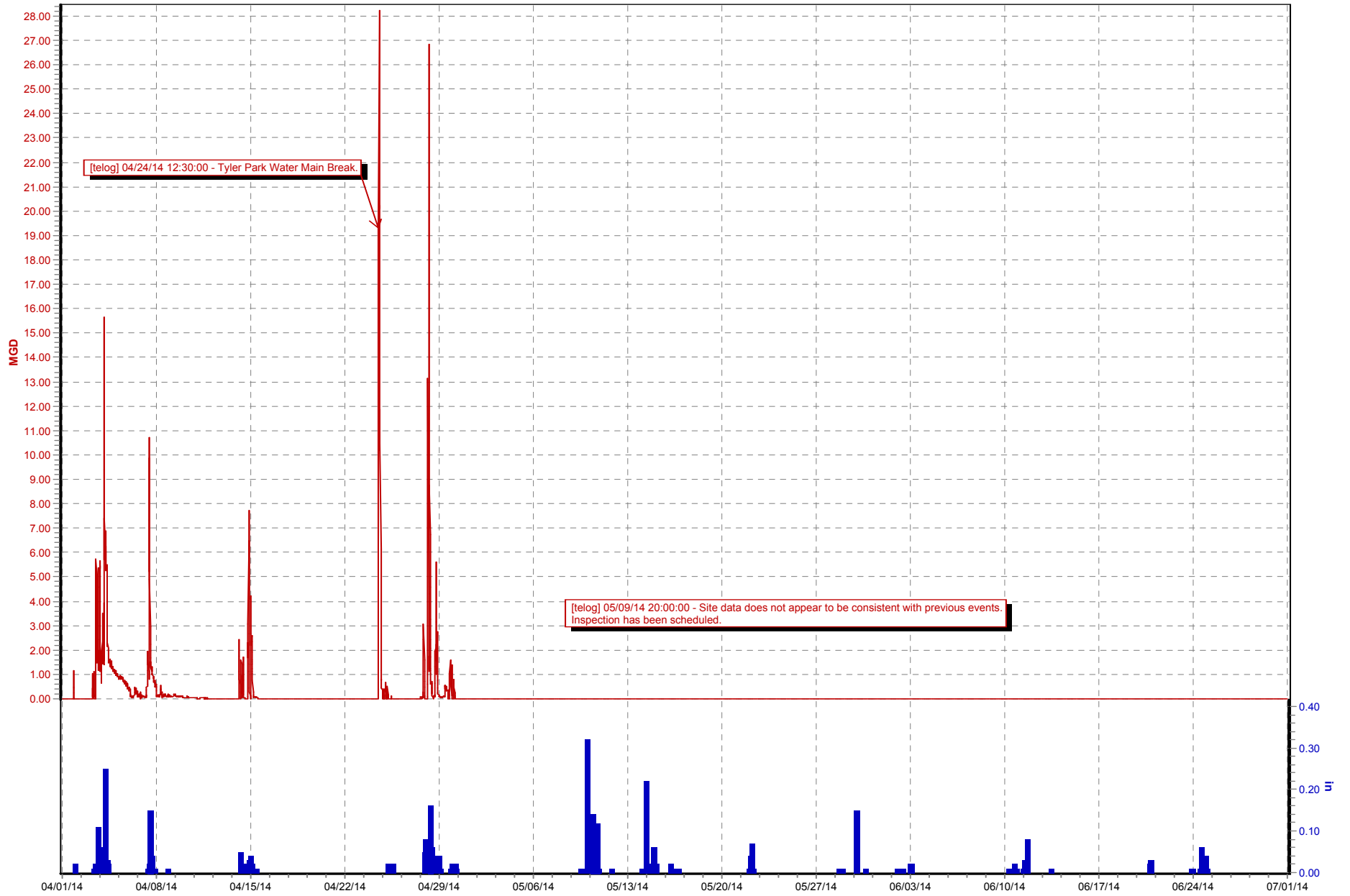
CSO150 8th St_Wash St (04/01/14 to 07/01/14)

Flow 1 (MGD) TR05_Beargrass PS.Rain (in)



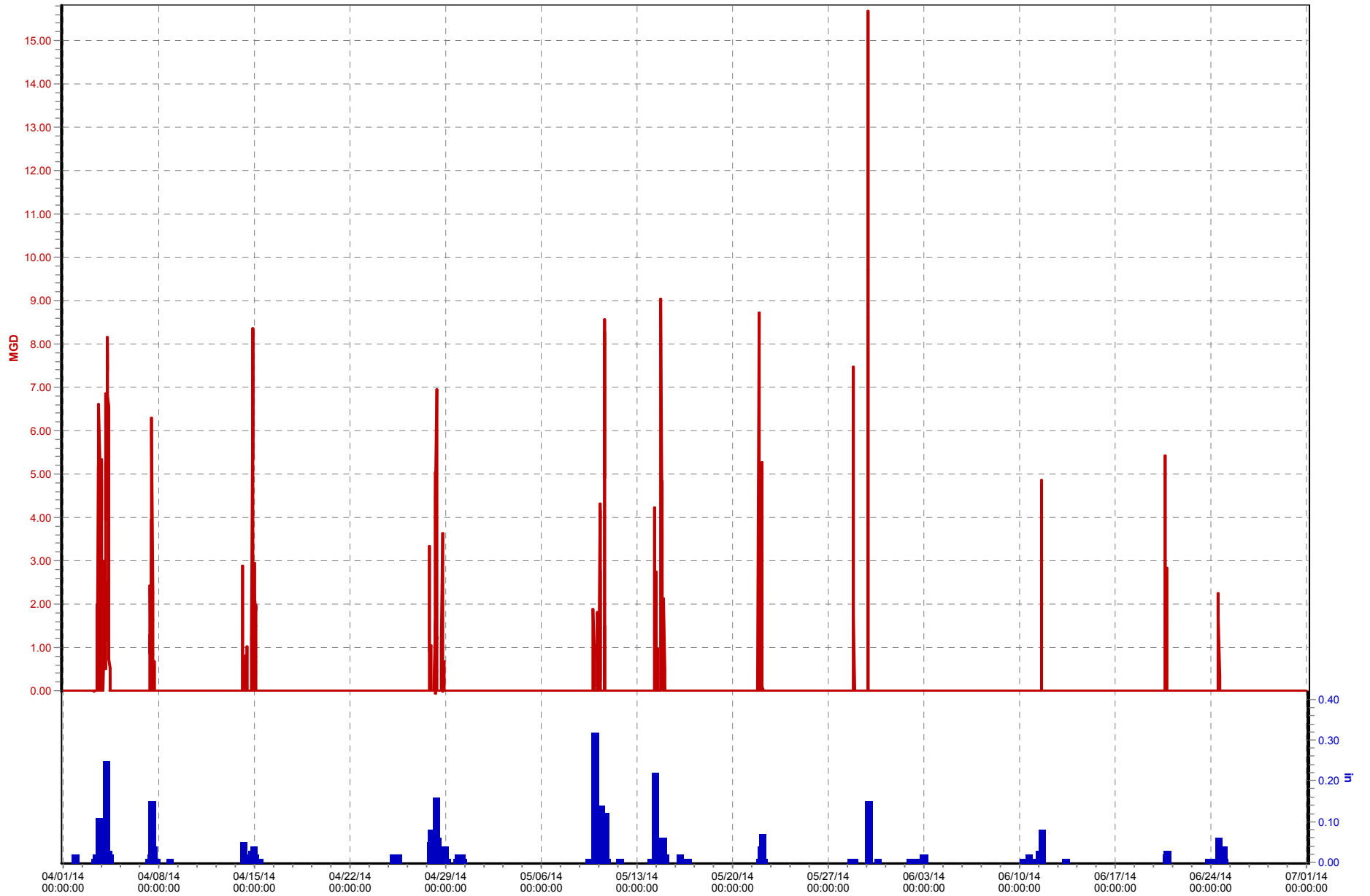
CSO151 Overflow (04/01/14 to 07/01/14)

CSO Flow MGD (MGD) TR12_Nightingale PS.Rain (in)



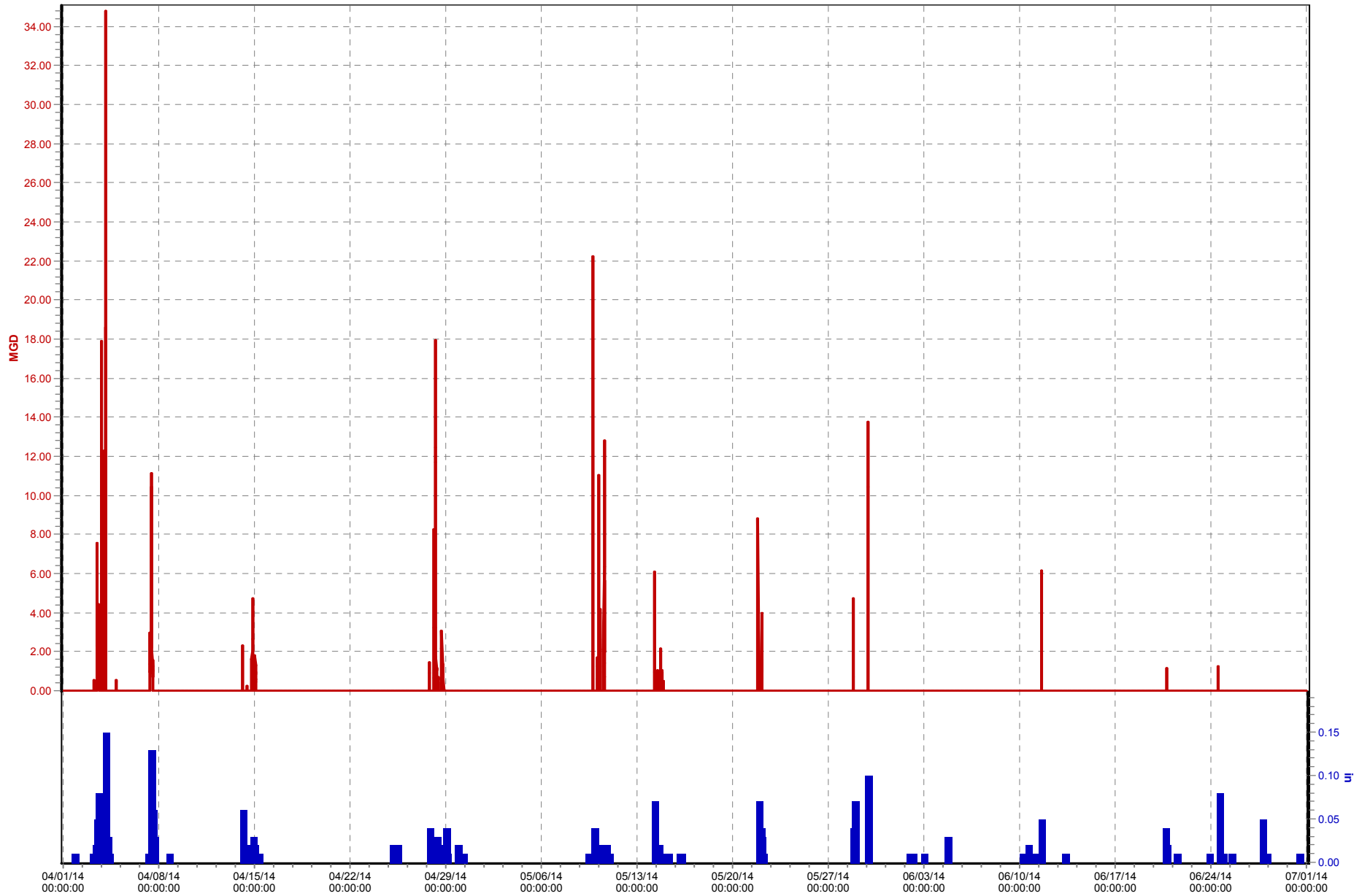
CSO152 (04/01/14 to 07/01/14)

CSO Flow MGD (MGD) TR12_Nightingale PS.Rain (in)



CSO153 Lex Rd (04/01/14 to 07/01/14)

1Flow (MGD) TR05_Beargrass PS.Rain (in)



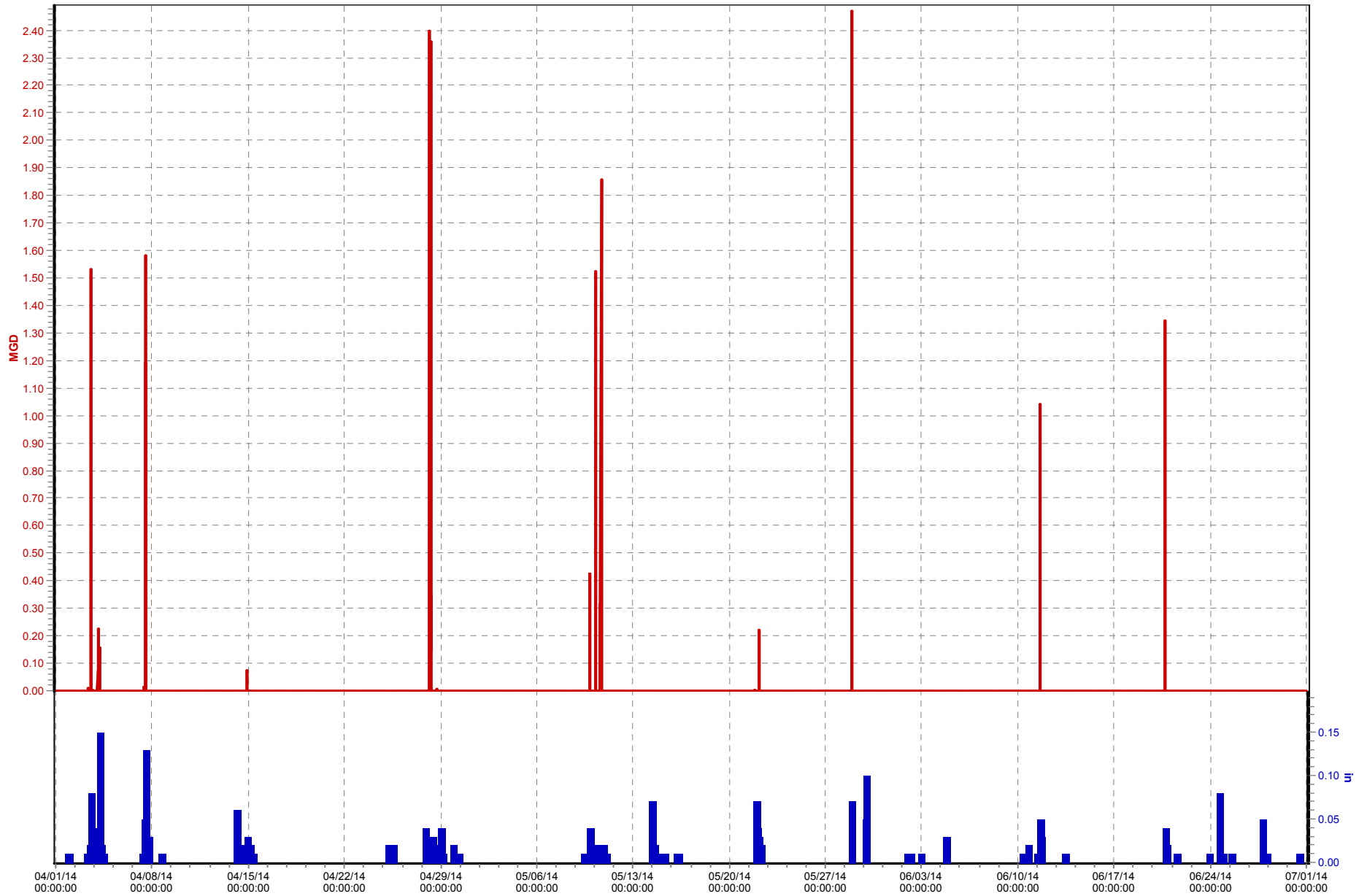
CSO154 Mellwood Ave (04/01/14 to 07/01/14)

Flow 1 (MGD) TR05_Beargrass PS.Rain (in)



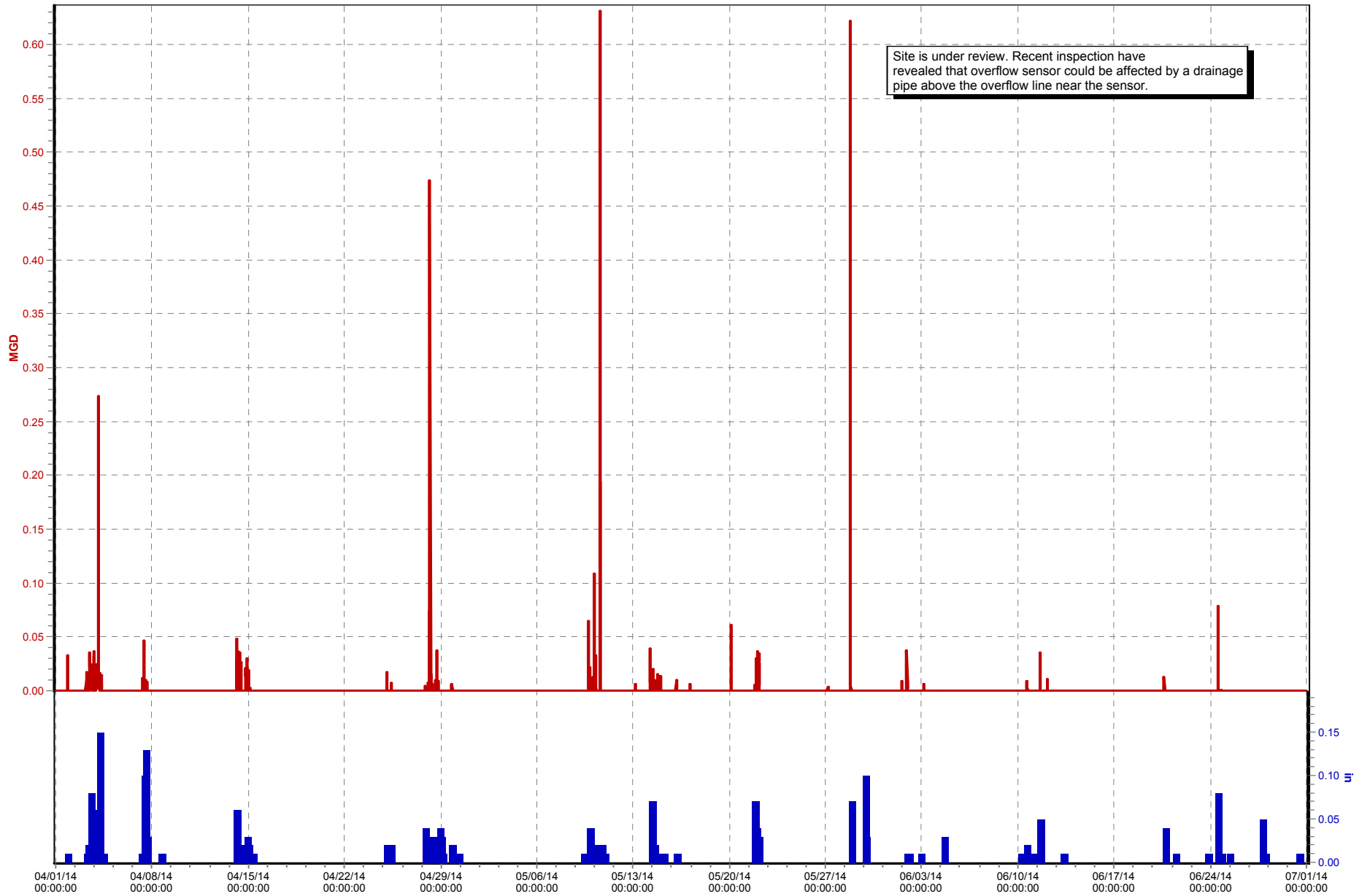
CSO155 Rowan St (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



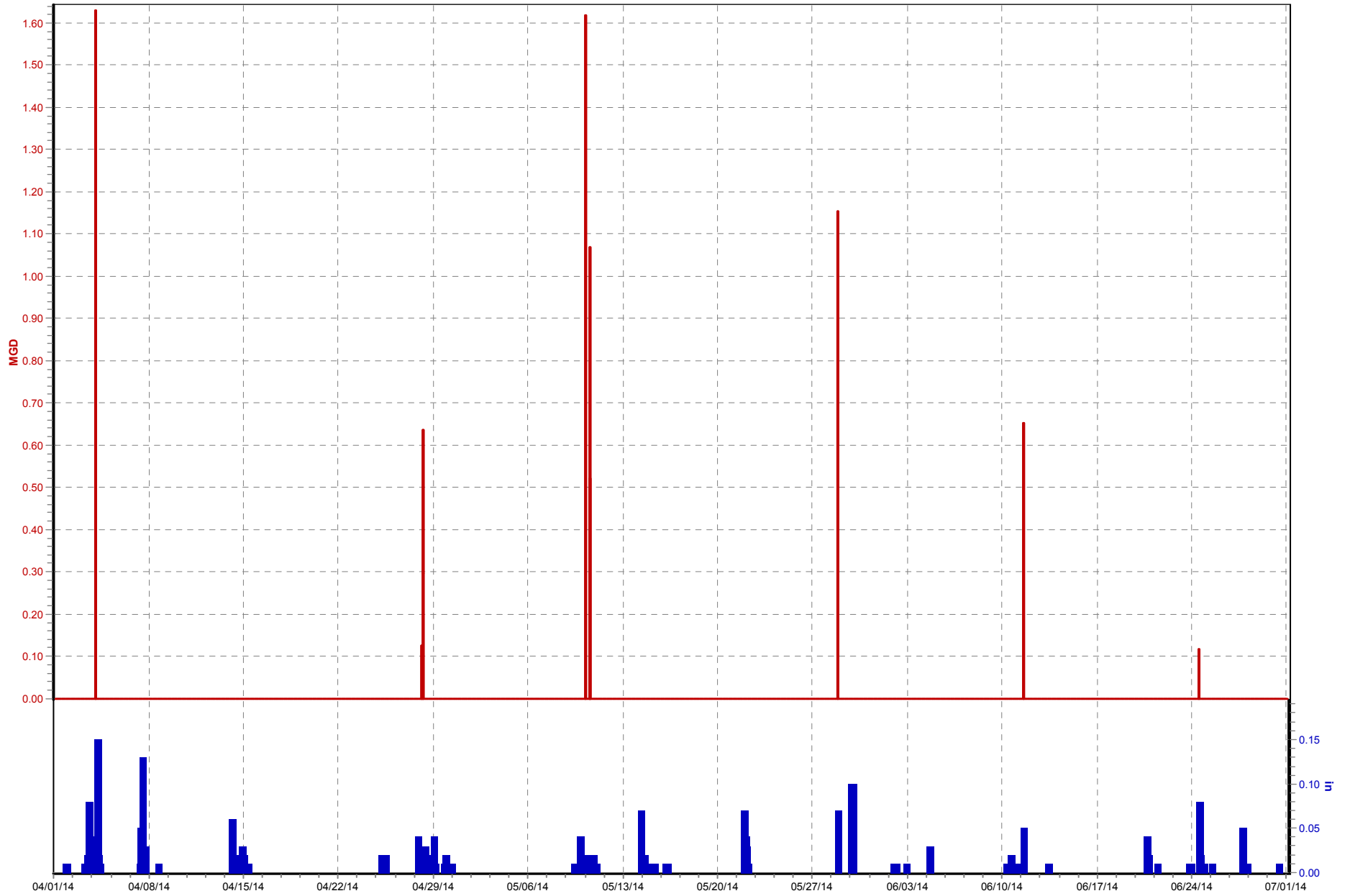
CSO160 1st St (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



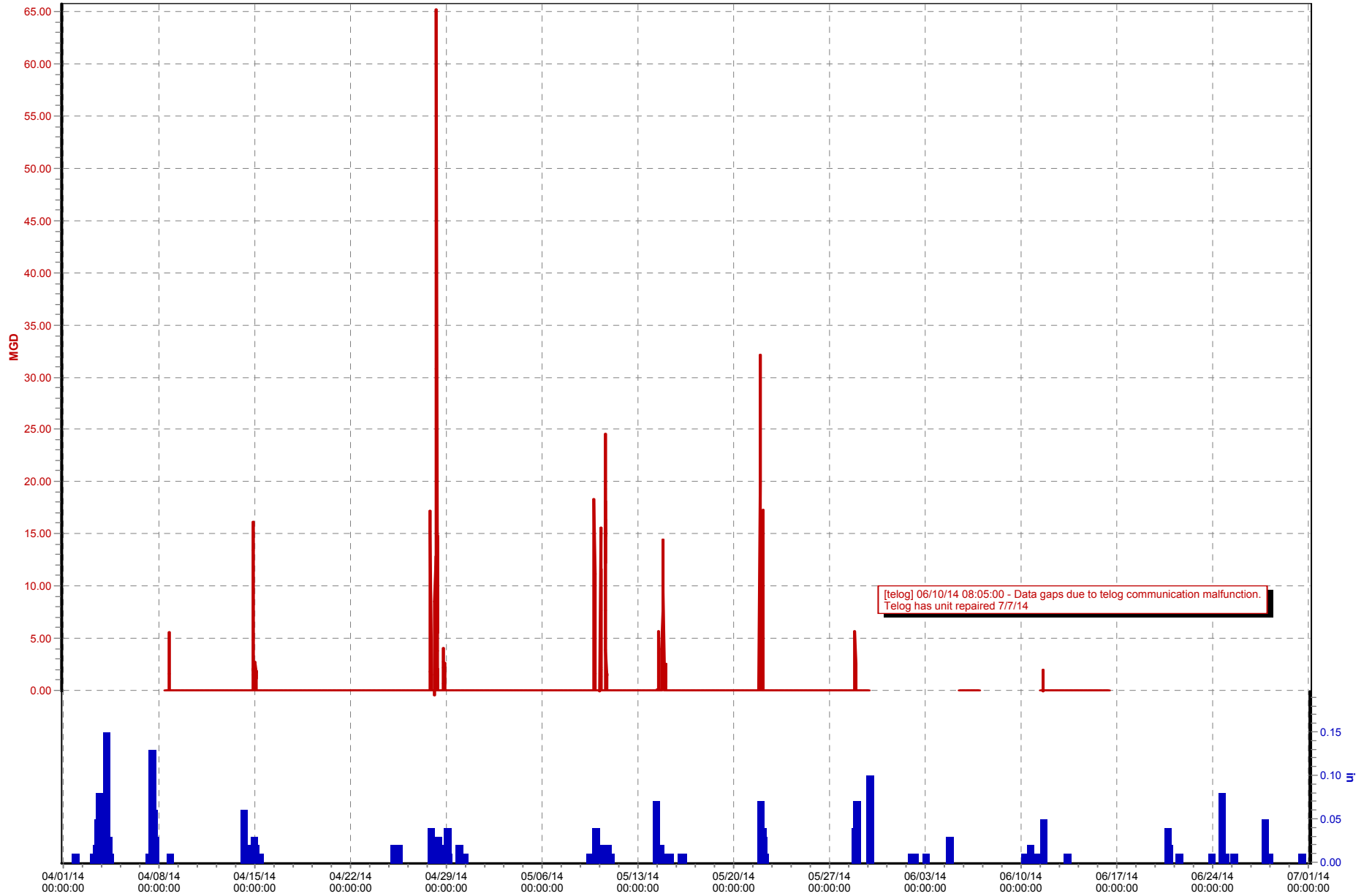
CSO161 1st and Market St (04/01/14 to 07/01/14)

Flow 1 (MGD) TR05_Beargrass PS.Rain (in)



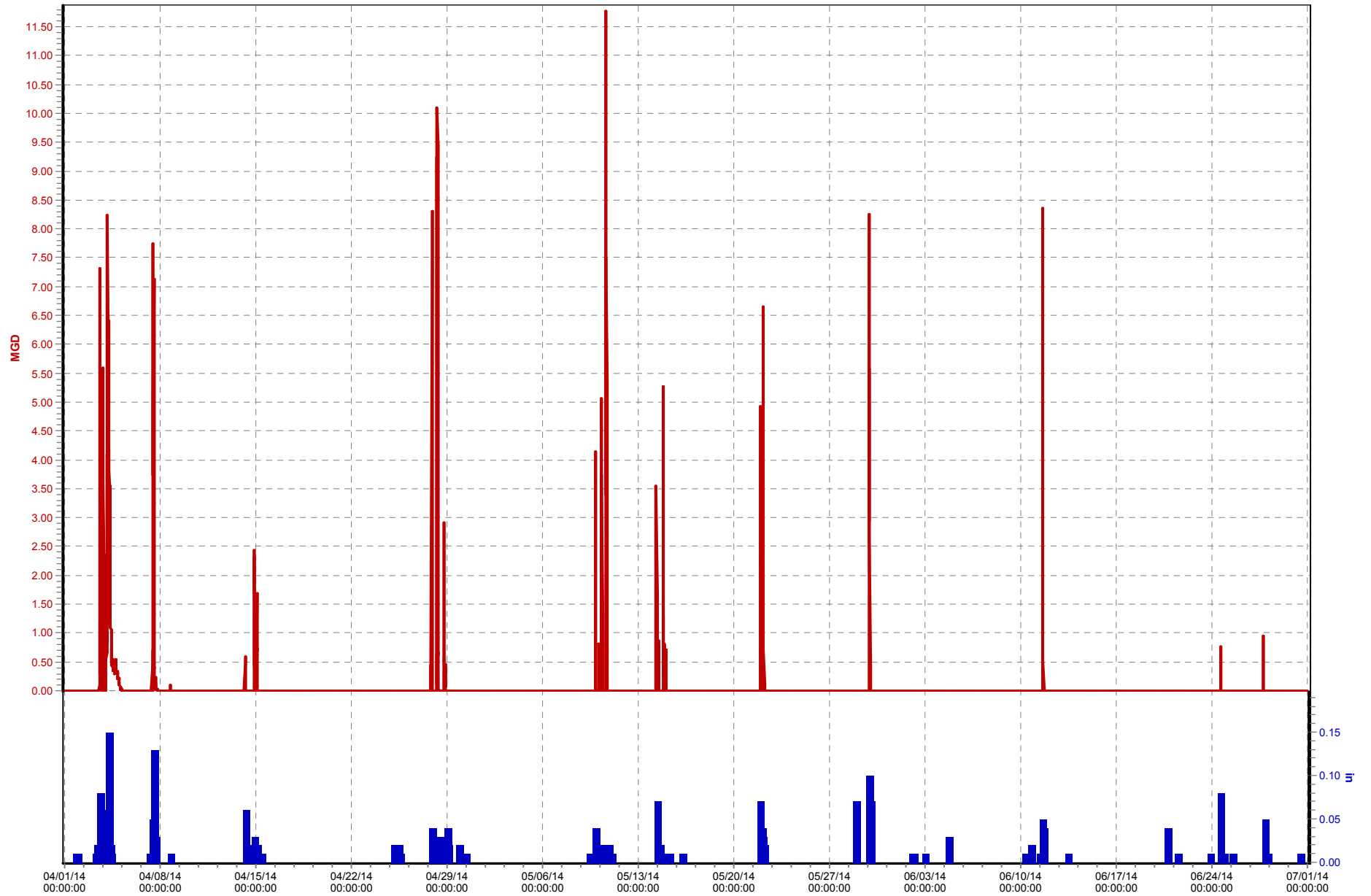
CSO166 Lex Rd (04/01/14 to 07/01/14)

Flow 1 (MGD) TR05_Beargrass PS.Rain (in)



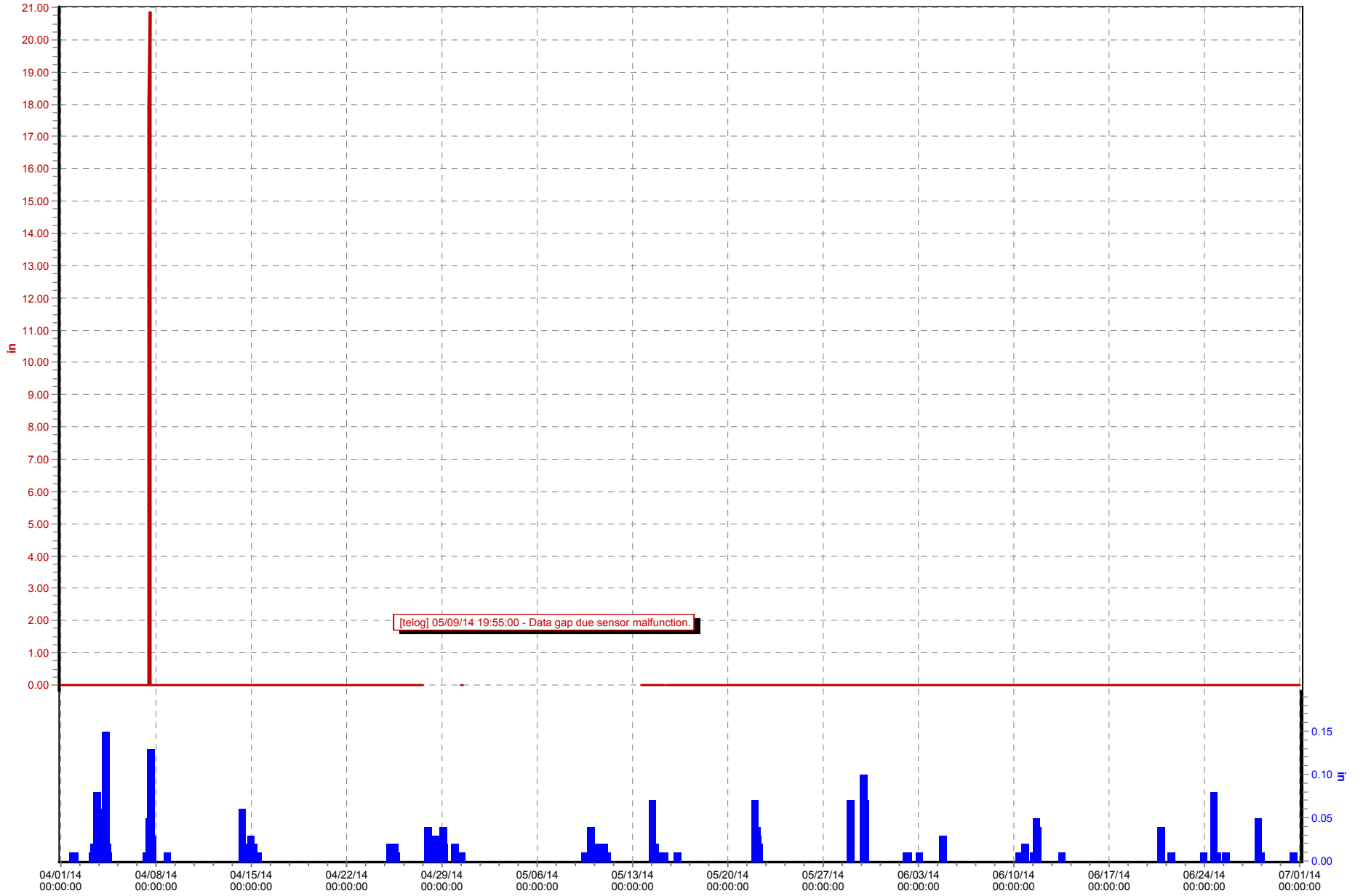
CSO167 Brownsboro Rd (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO172 River Road (04/01/14 to 07/01/14)

Discharge Level (in) TR05_Beargrass PS.Rain (in)



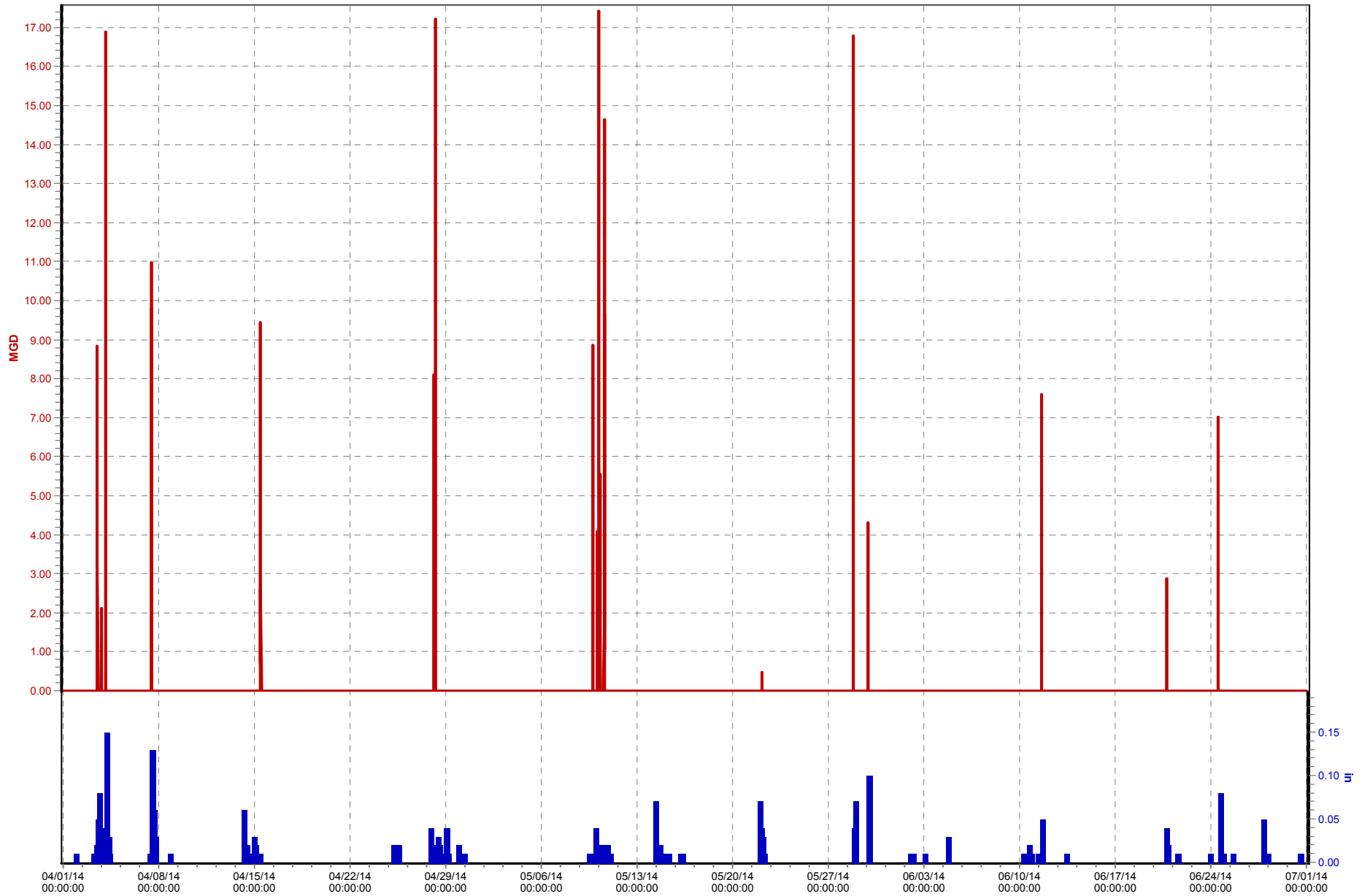
CSO174 Goss_Boyle Ave (04/01/14 to 07/01/14)

Flow 1 (MGD) TR12_Nightingale PS.Rain (in)



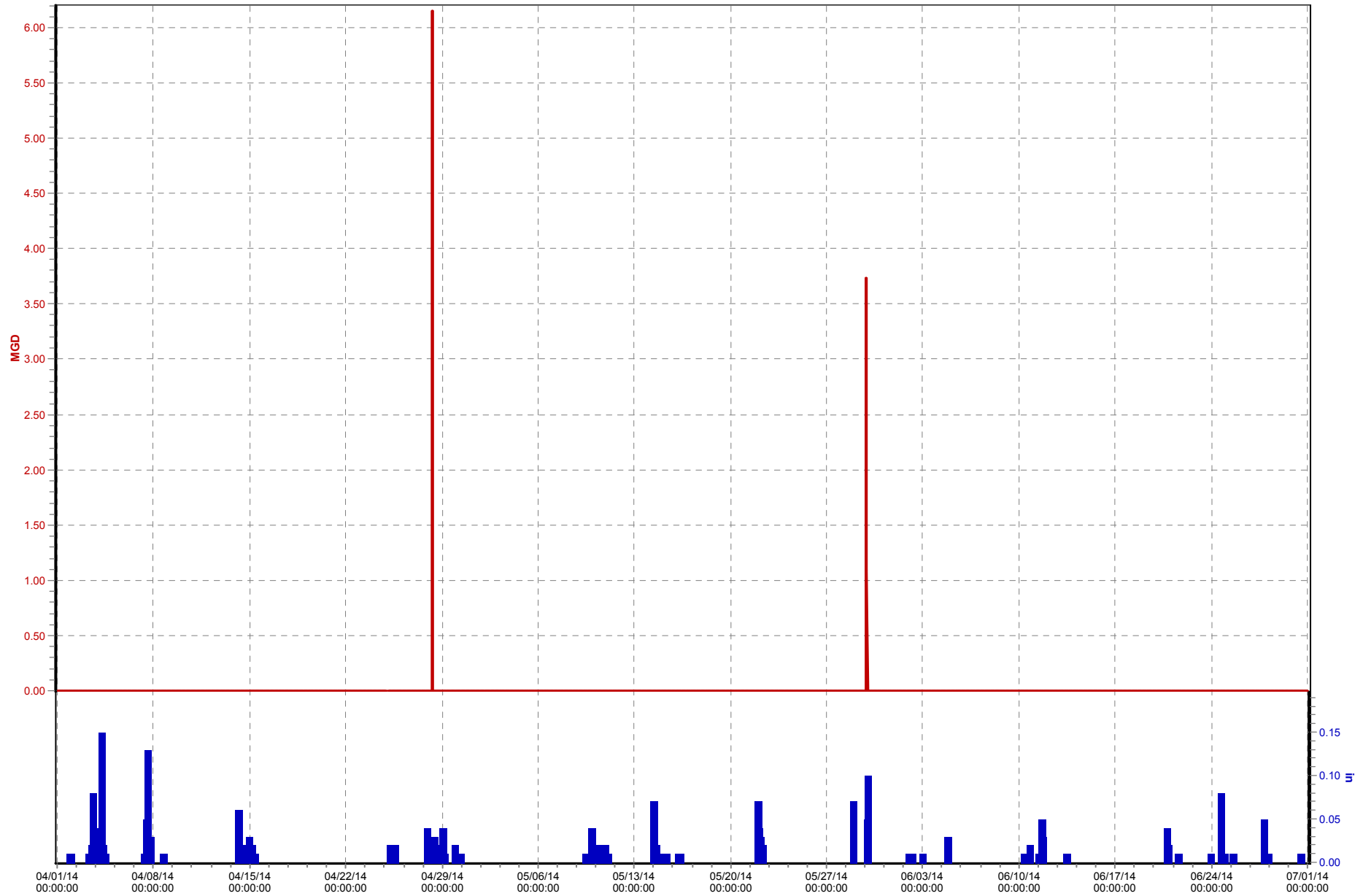
CSO178_CSO Upstream (04/01/14 to 07/01/14)

Estimated Level (in) TR05_Beargrass PS.Rain (in)



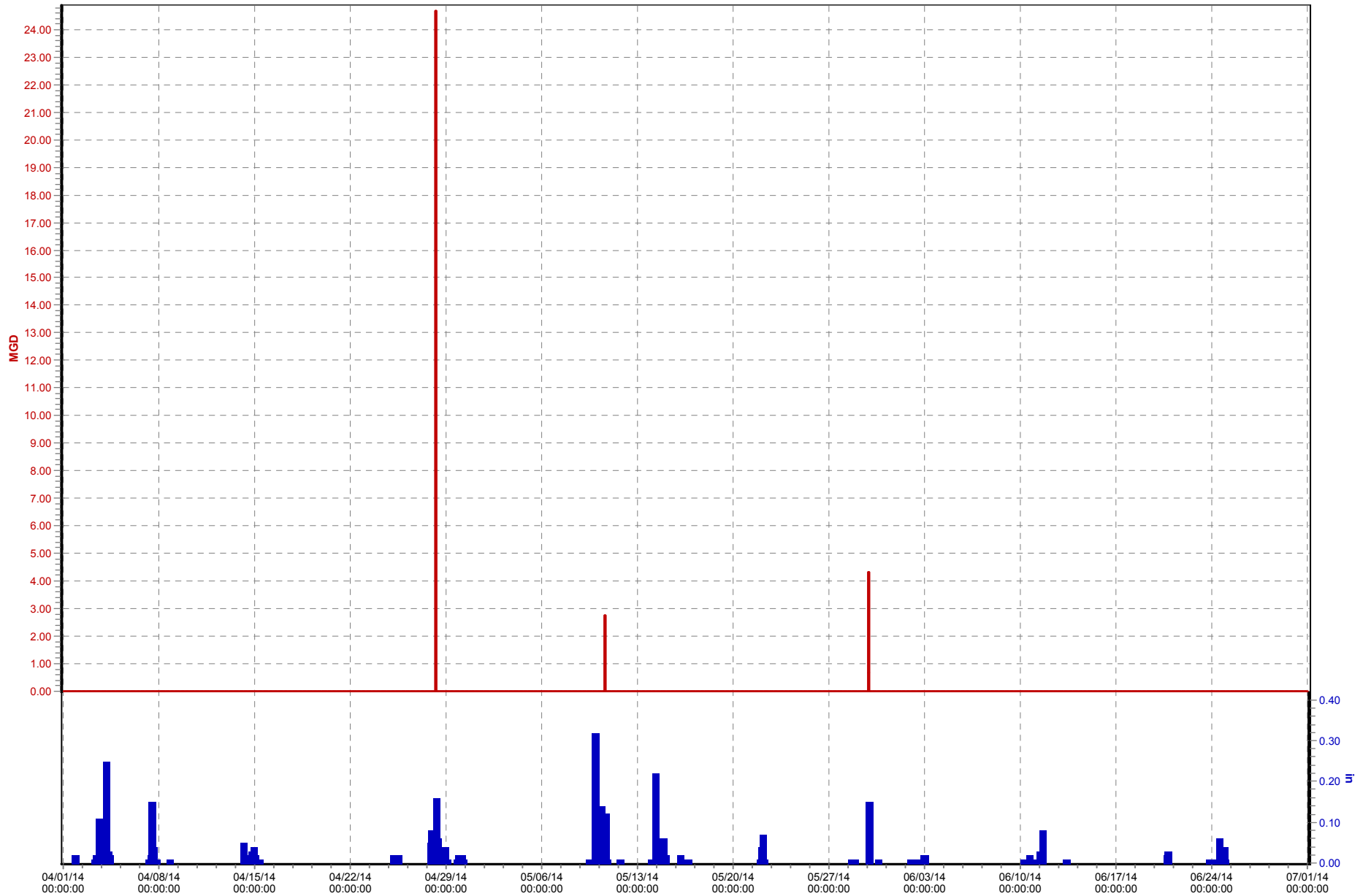
CSO179 (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



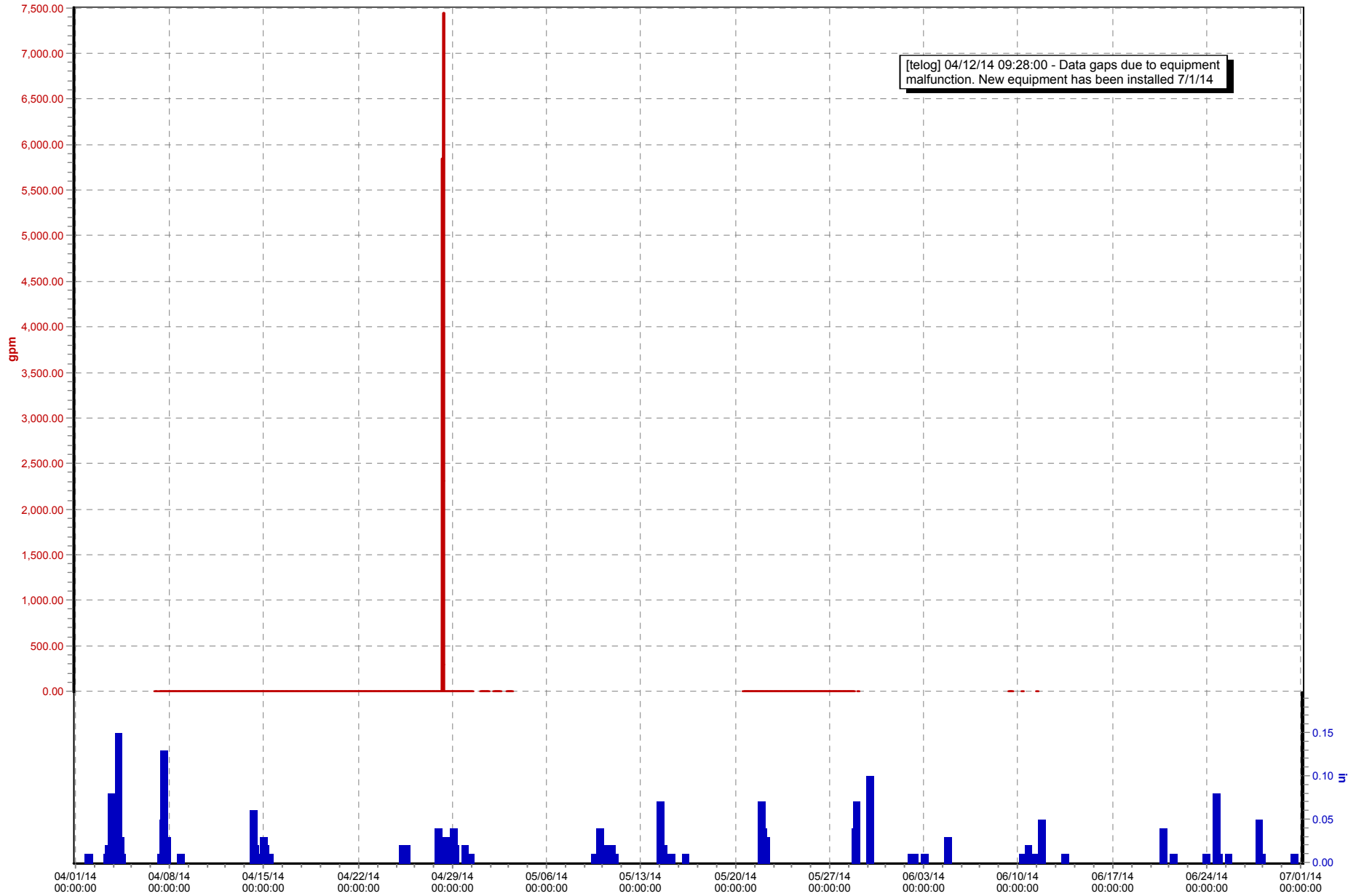
CSO180 at 636 E Ormsby Ave (04/01/14 to 07/01/14)

Flow 1 (MGD) TR12_Nightingale PS.Rain (in)



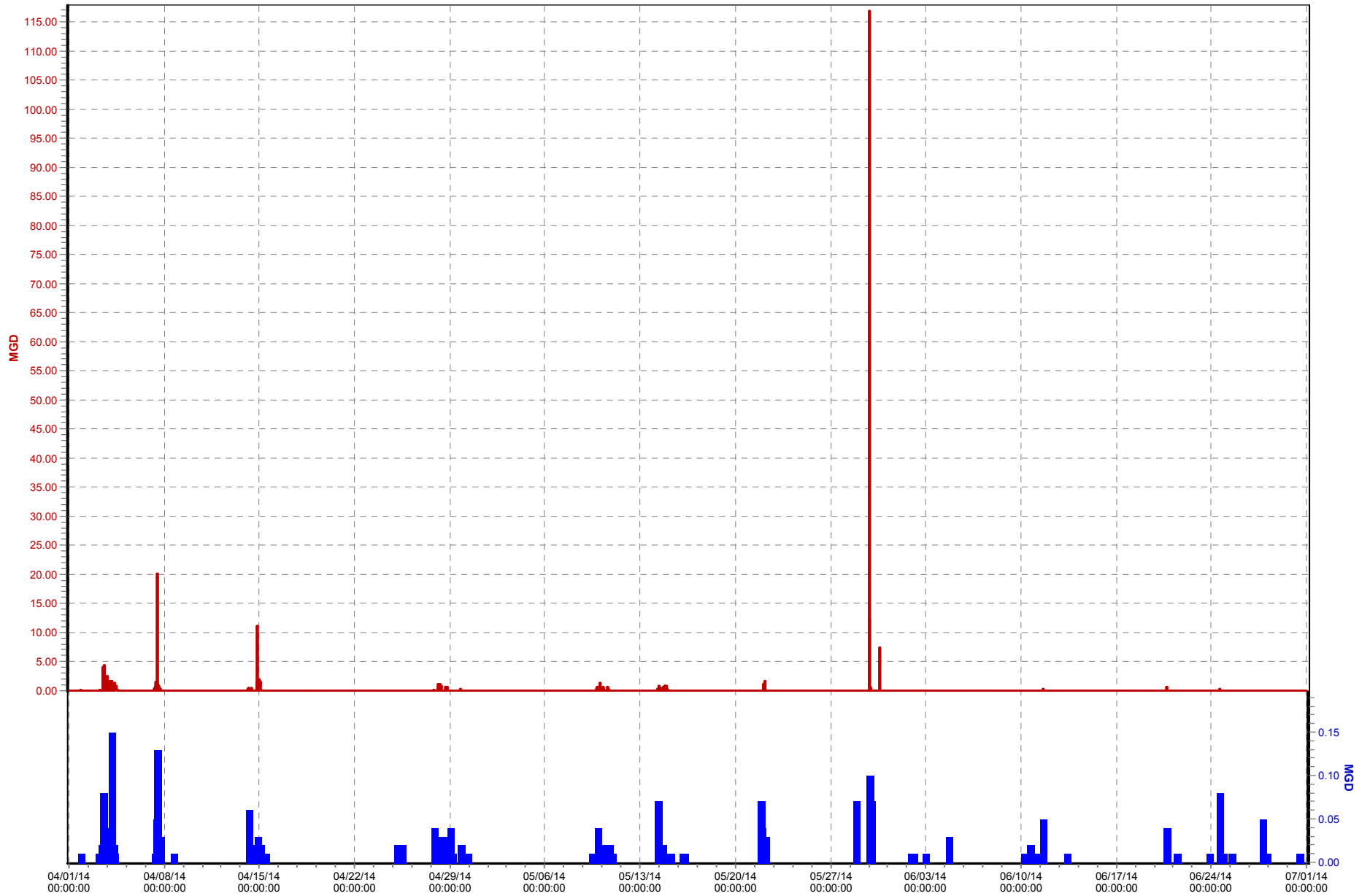
CSO181 (04/01/14 to 07/01/14)

Raw Flow (gpm) TR05_Beargrass PS.Rain (in)



CSO182 (04/01/14 to 07/01/14)

Flow 1 (MGD) TR05_Beargrass PS.Rain (in)



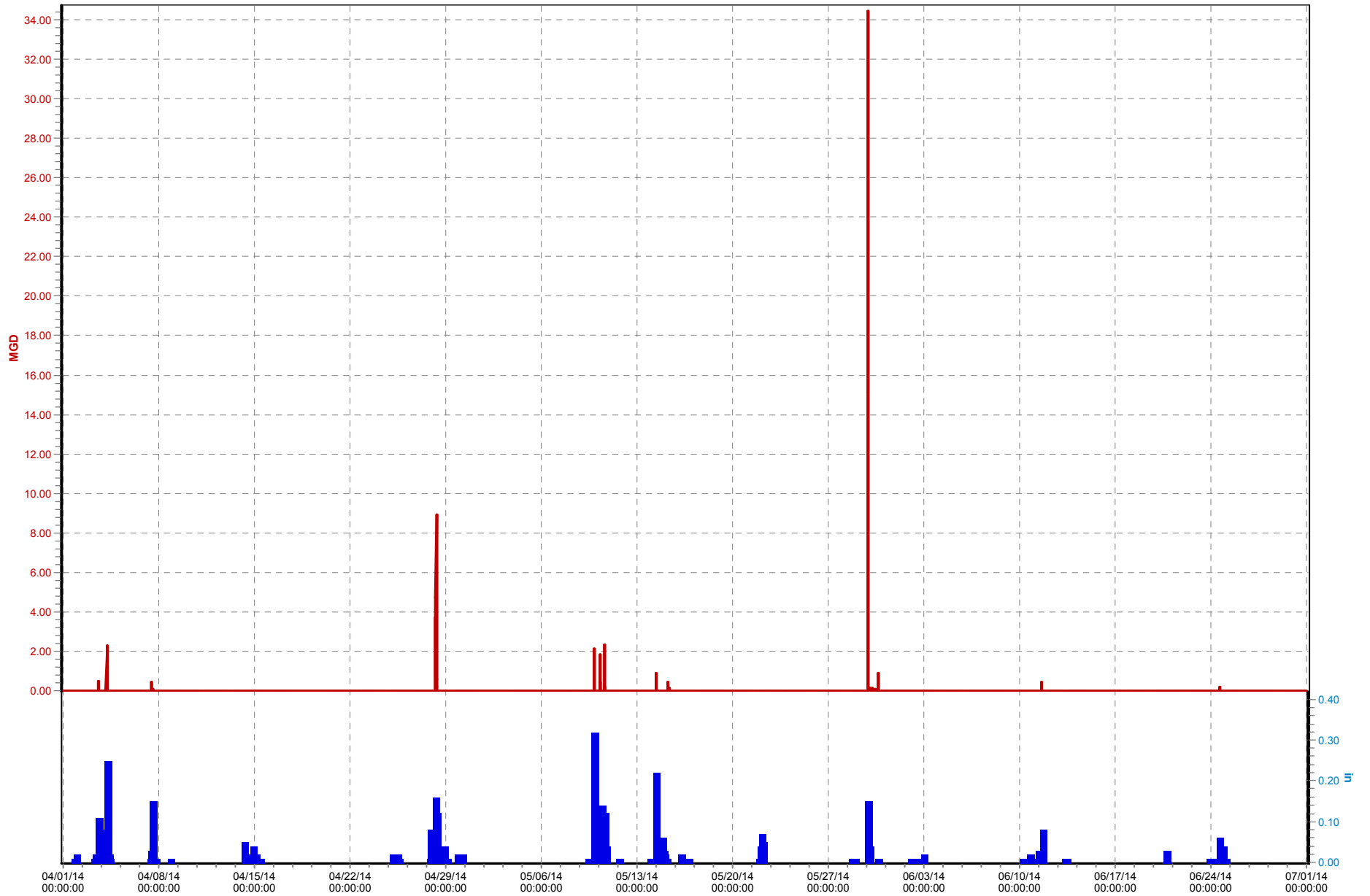
CSO183 (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



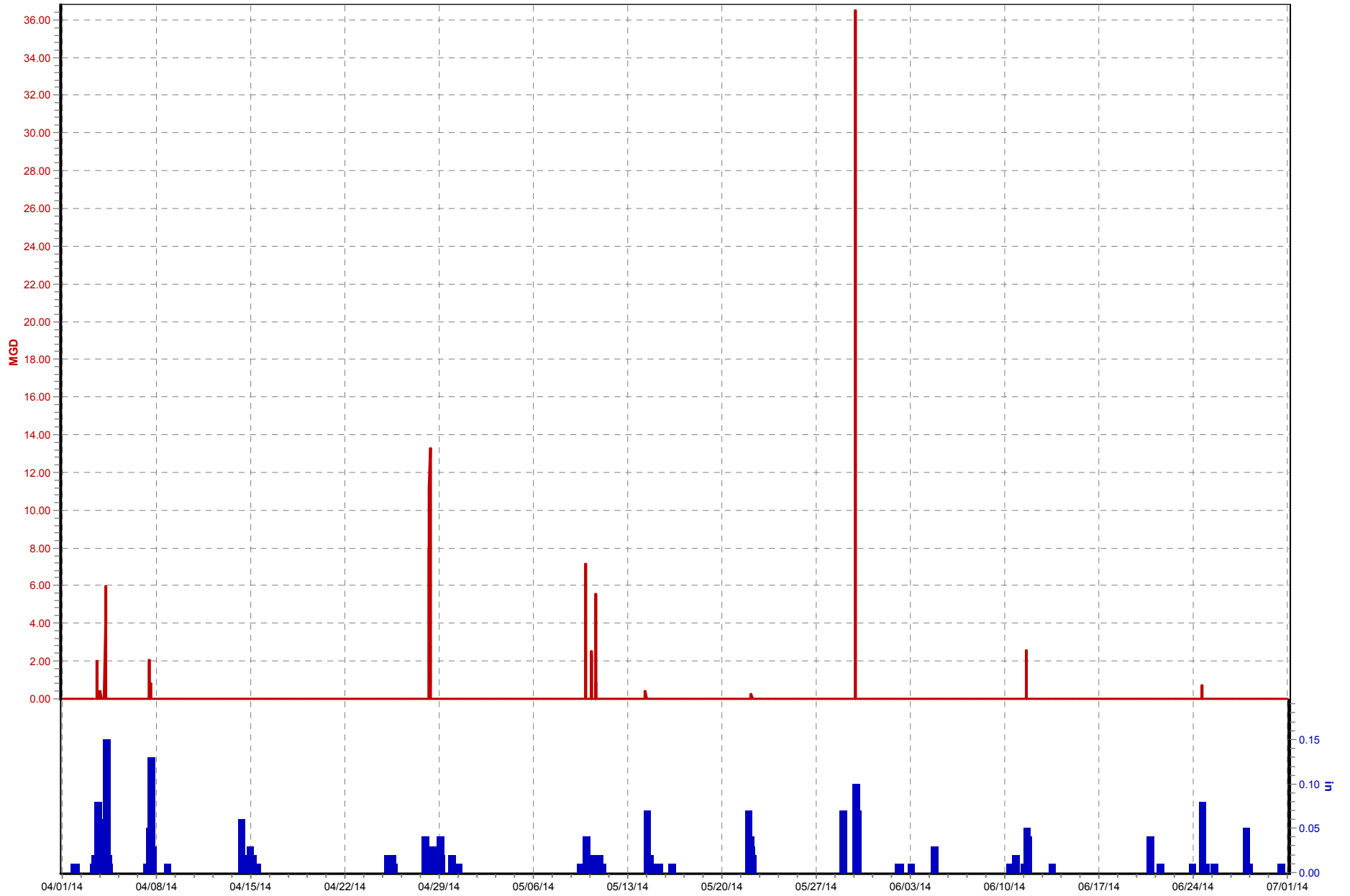
CSO184 (04/01/14 to 07/01/14)

Raw CSO184 Flow (MGD) TR12_Nightingale PS.Rain (in)



CSO185 (04/01/14 to 07/01/14)

— Calc CSO185 Flow (MGD) TR05_Beargrass PS.Rain (in)



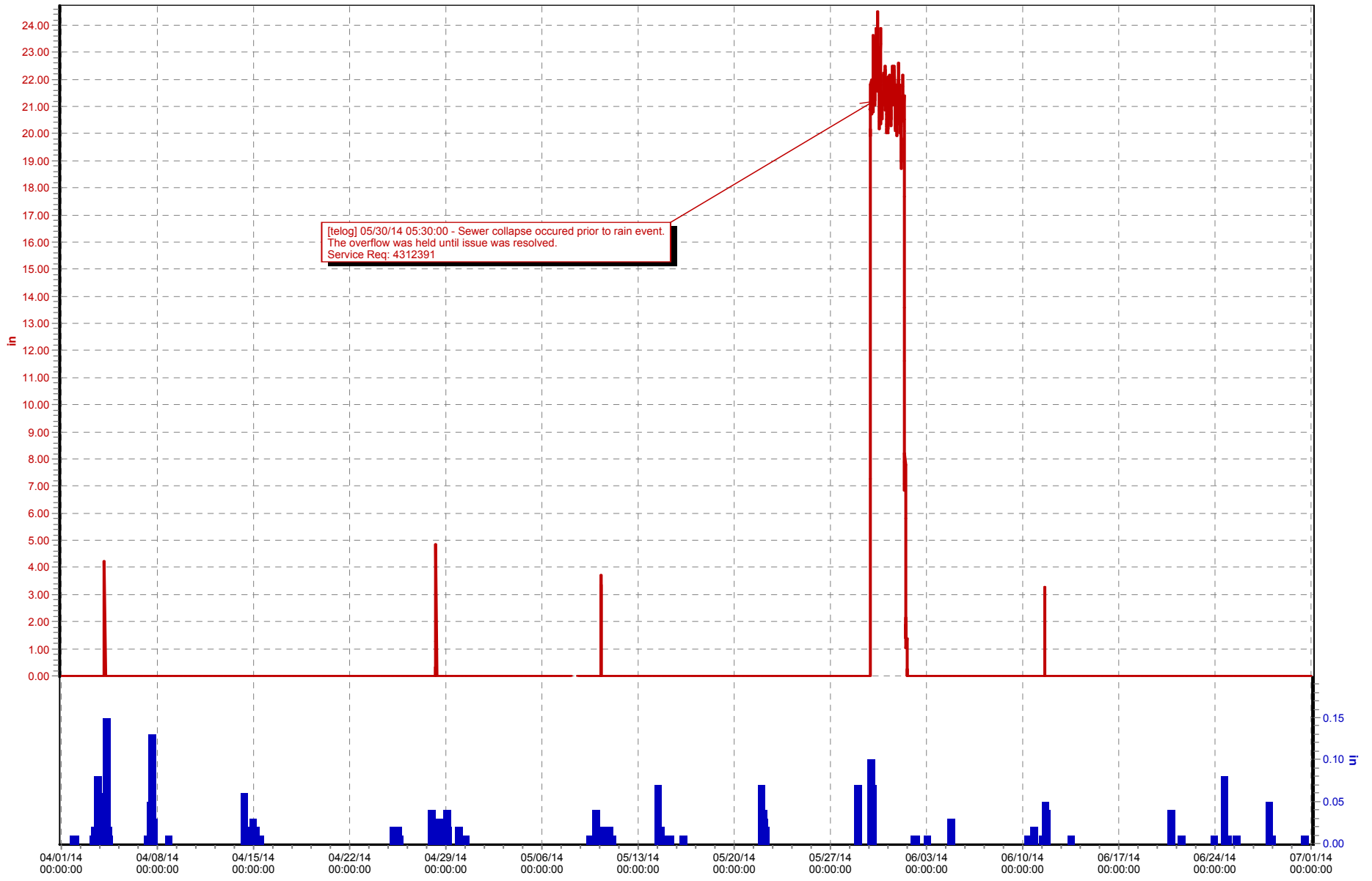
CSO186 (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



CSO187 at 1260 S Shelby St (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



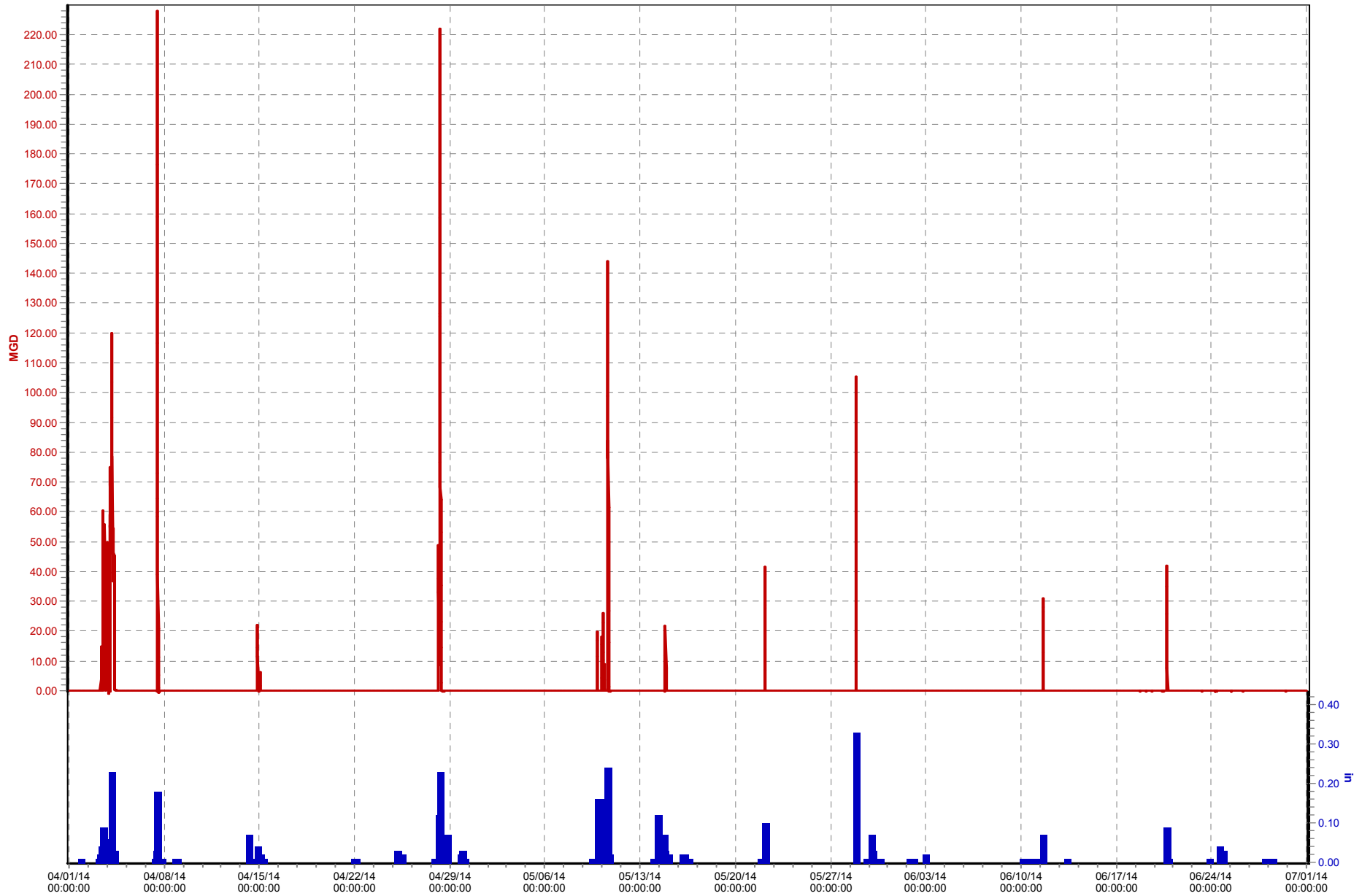
CSO188 at 1245 S Clay St (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



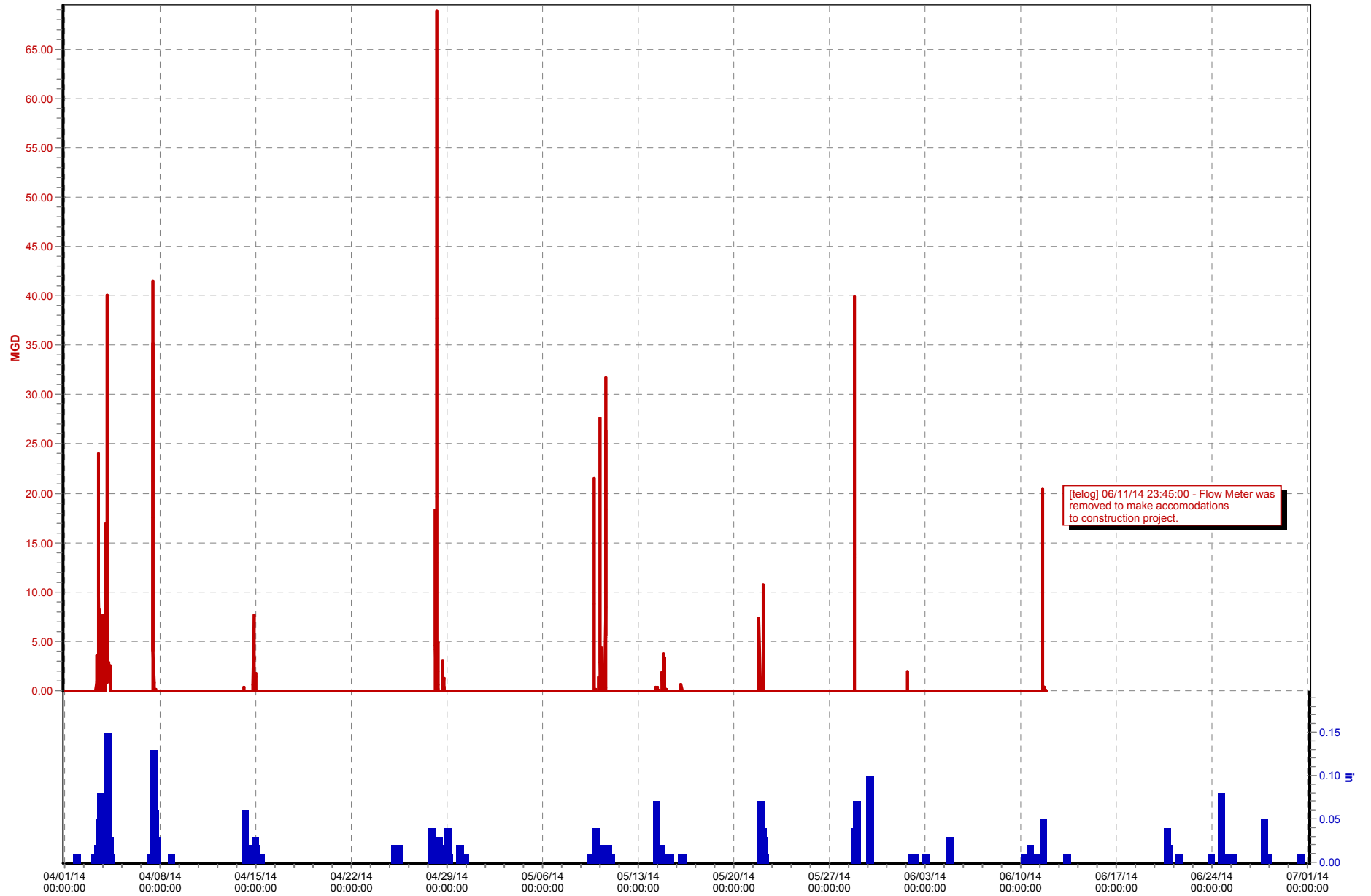
CSO189 Shawnee PK PS (04/01/14 to 07/01/14)

Raw Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



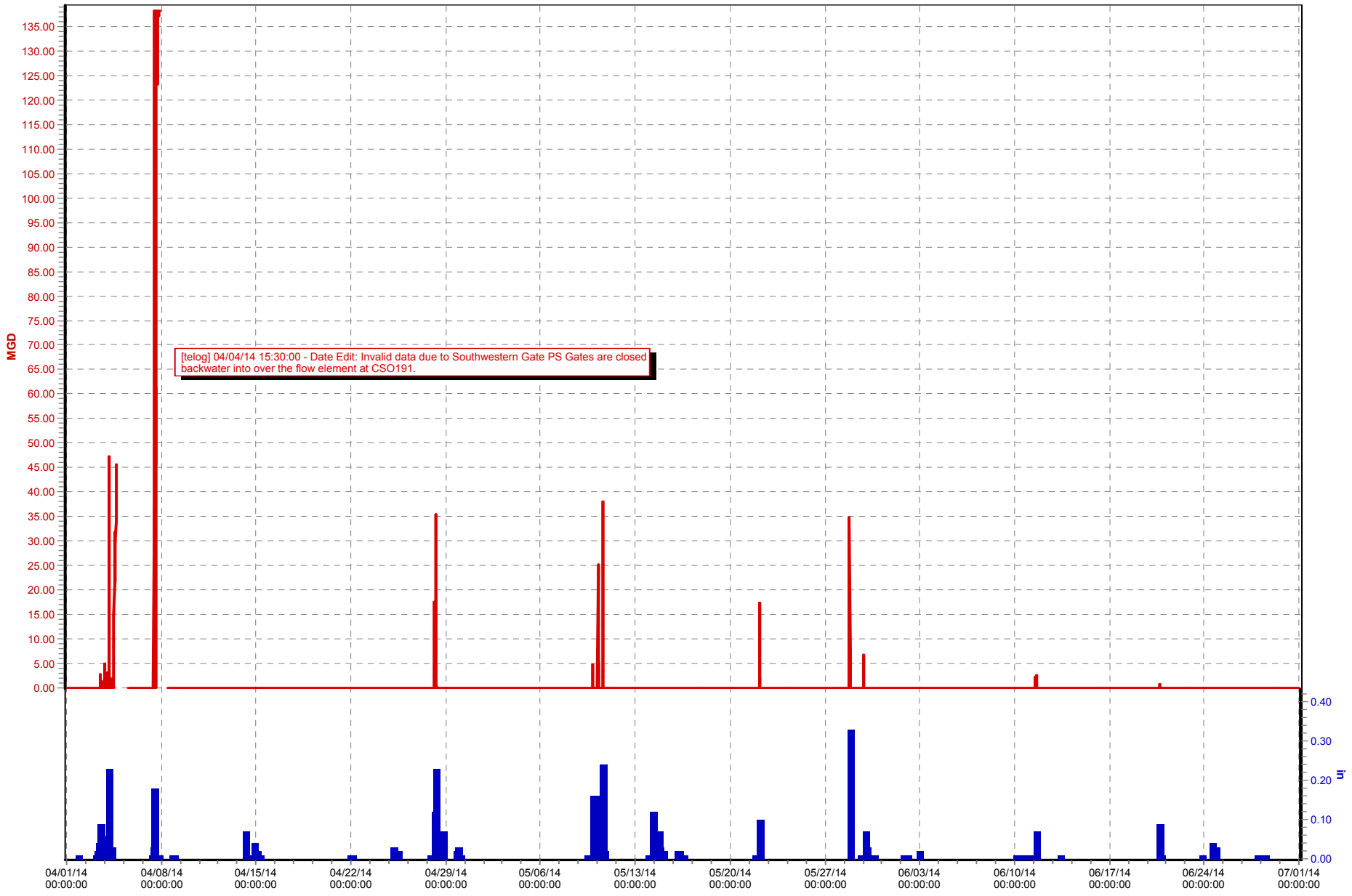
CSO190 NWest Pkwy (04/01/14 to 07/01/14)

Flow 1 (MGD) TR05_Beargrass PS.Rain (in)



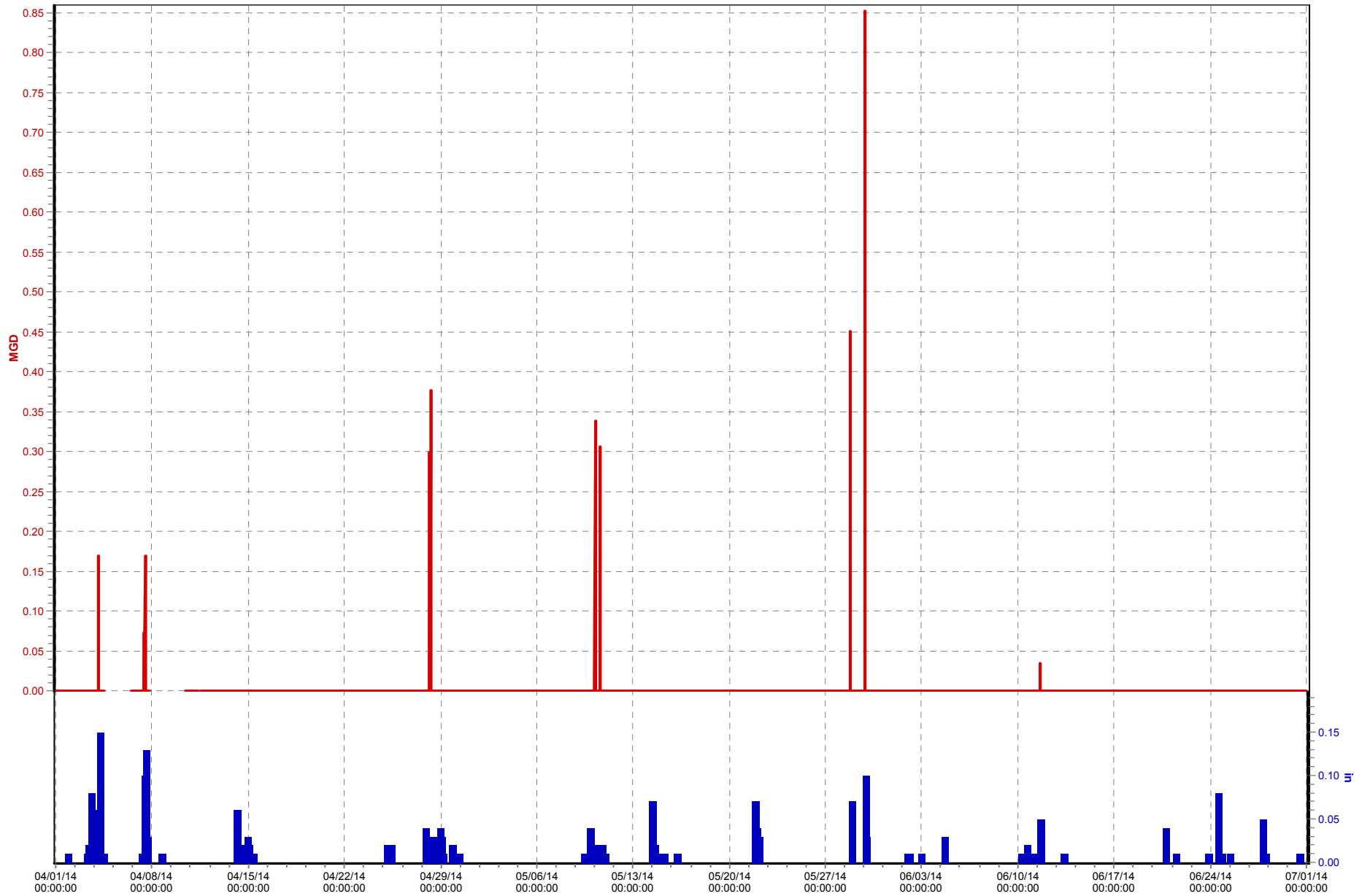
CSO191 Bells Lane PS (04/01/14 to 07/01/14)

Final Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



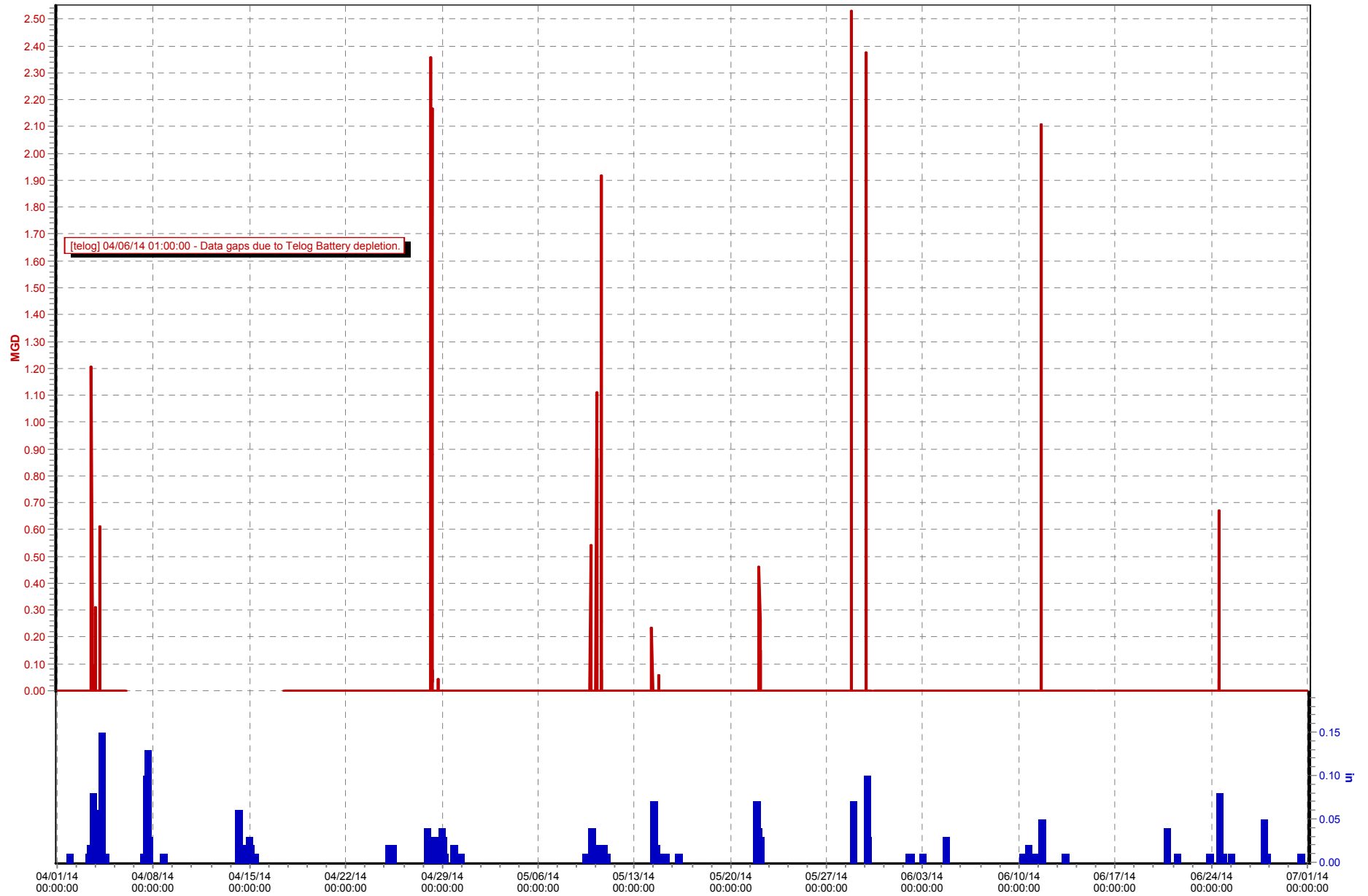
CSO193 6th and KY (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO196 Overflow (04/01/14 to 07/01/14)

Final CSO Flow (MGD) TR05_Beargrass PS.Rain (in)



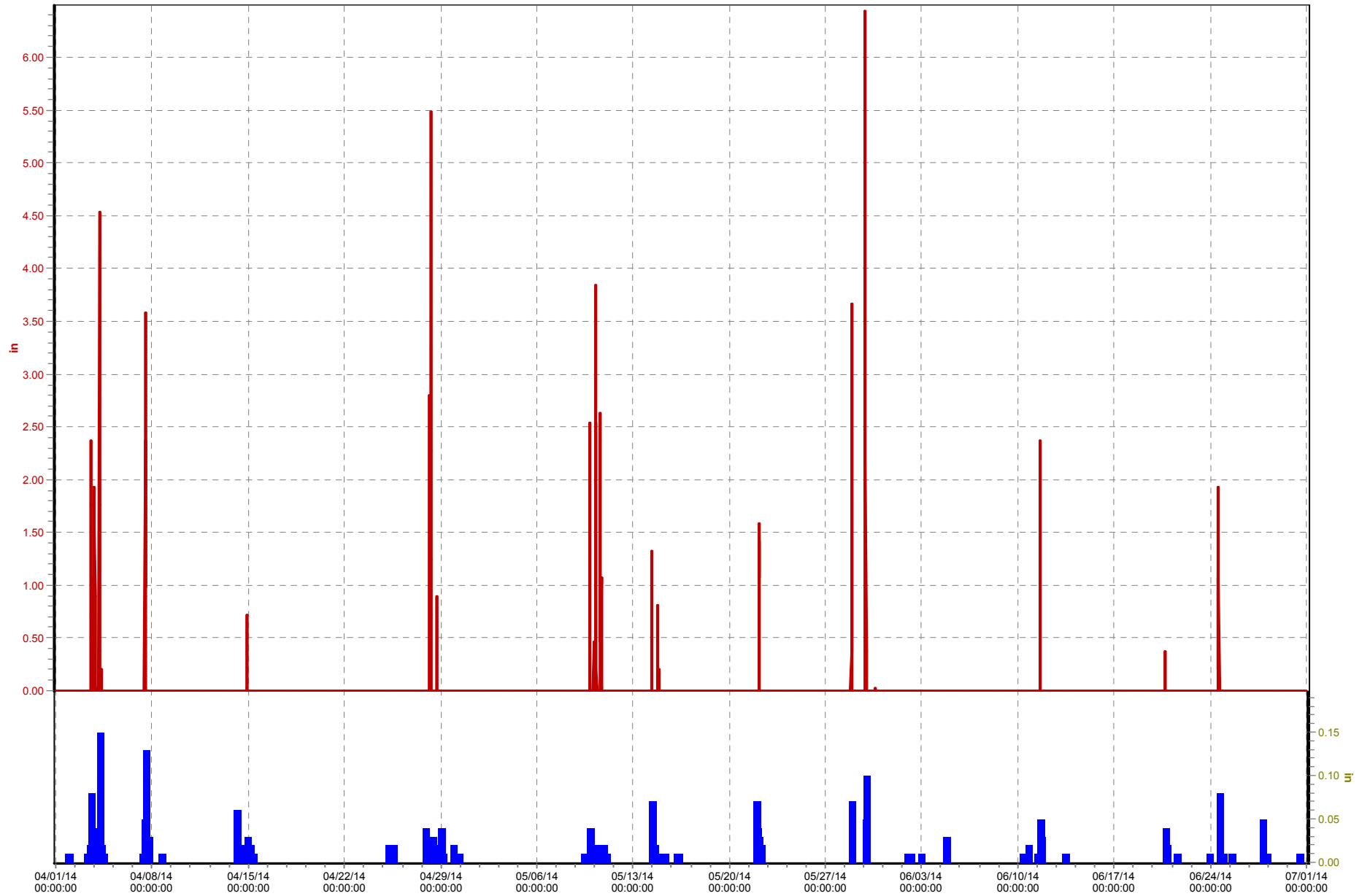
CSO197 S 3rd St (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



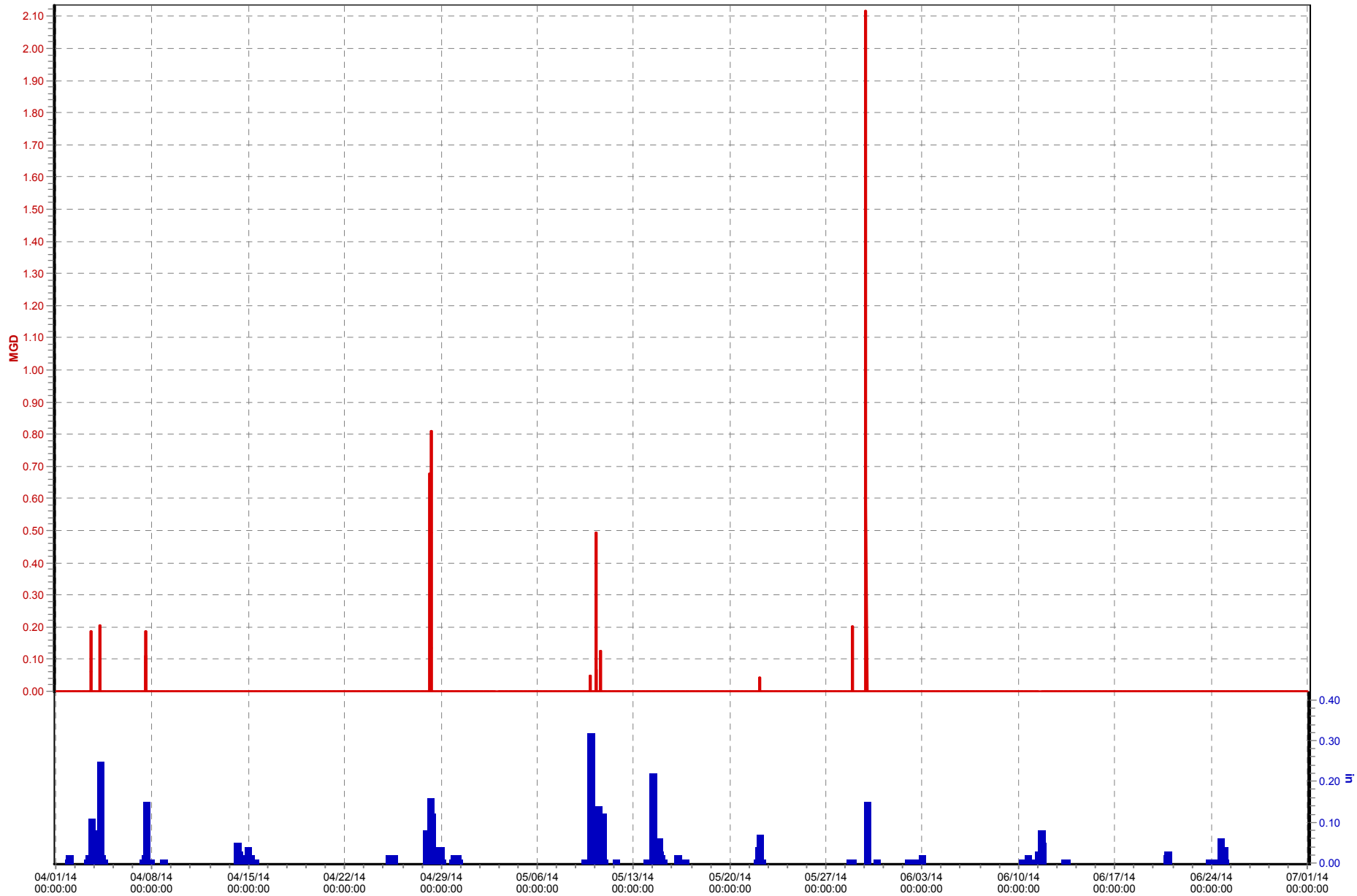
CSO198 S 3rd St (04/01/14 to 07/01/14)

Overflow Level (in) TR05_Beargrass PS.Rain (in)



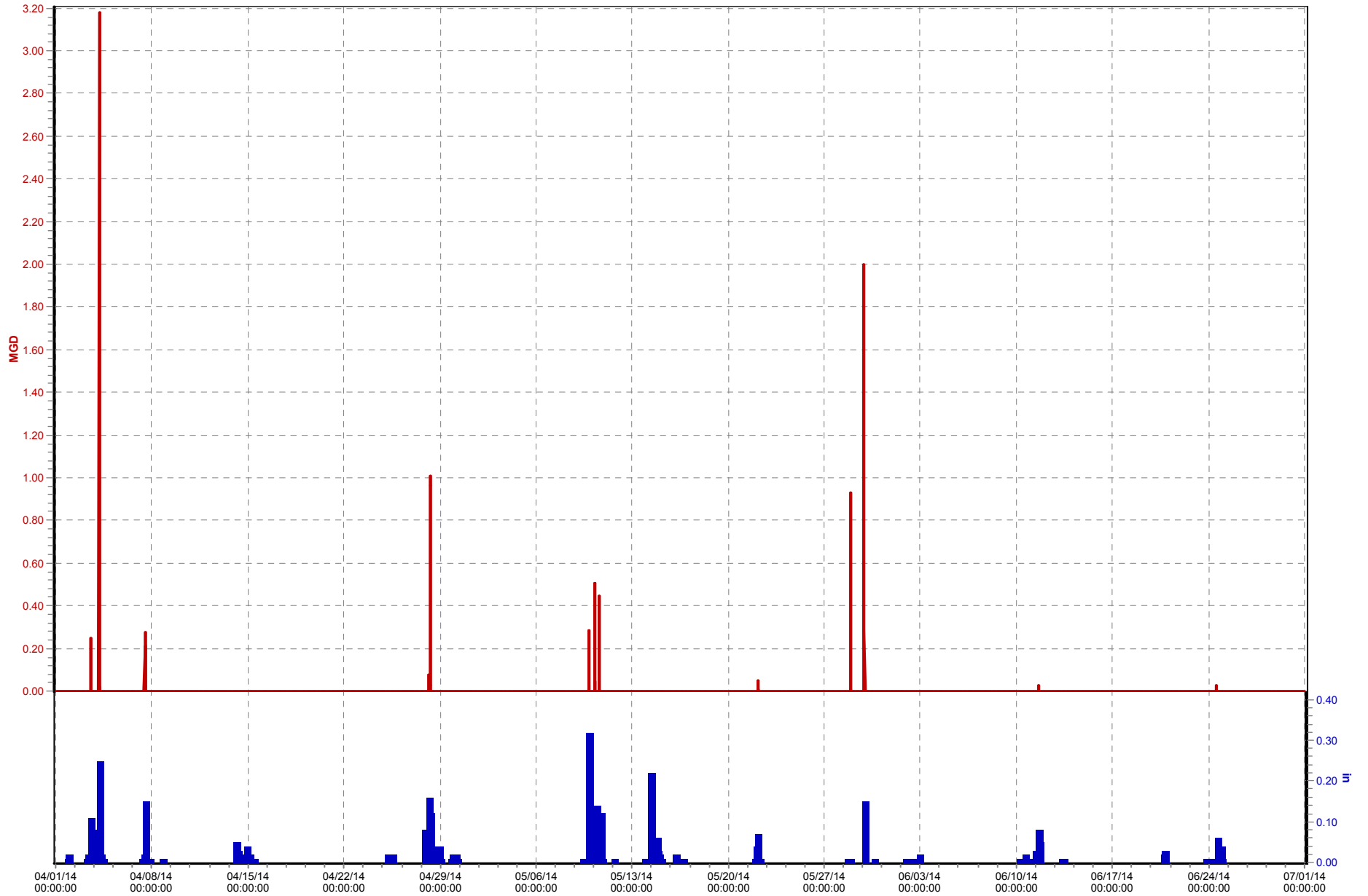
CSO199 S 3rd St (04/01/14 to 07/01/14)

Final Flow (MGD) TR12_Nightingale PS.Rain (in)



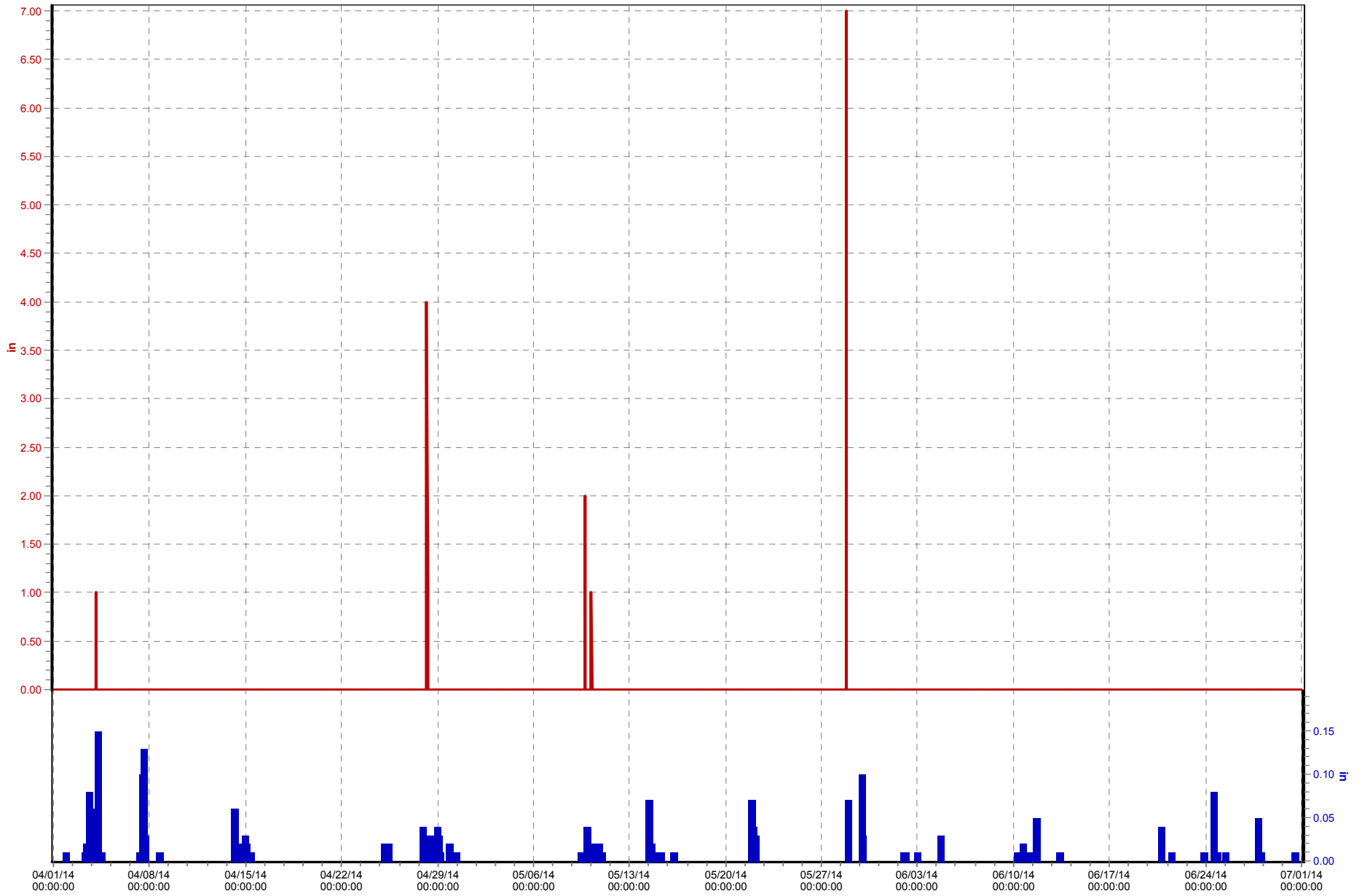
CSO200 S 3rd St (04/01/14 to 07/01/14)

Raw Flow (MGD) TR12_Nightingale PS.Rain (in)



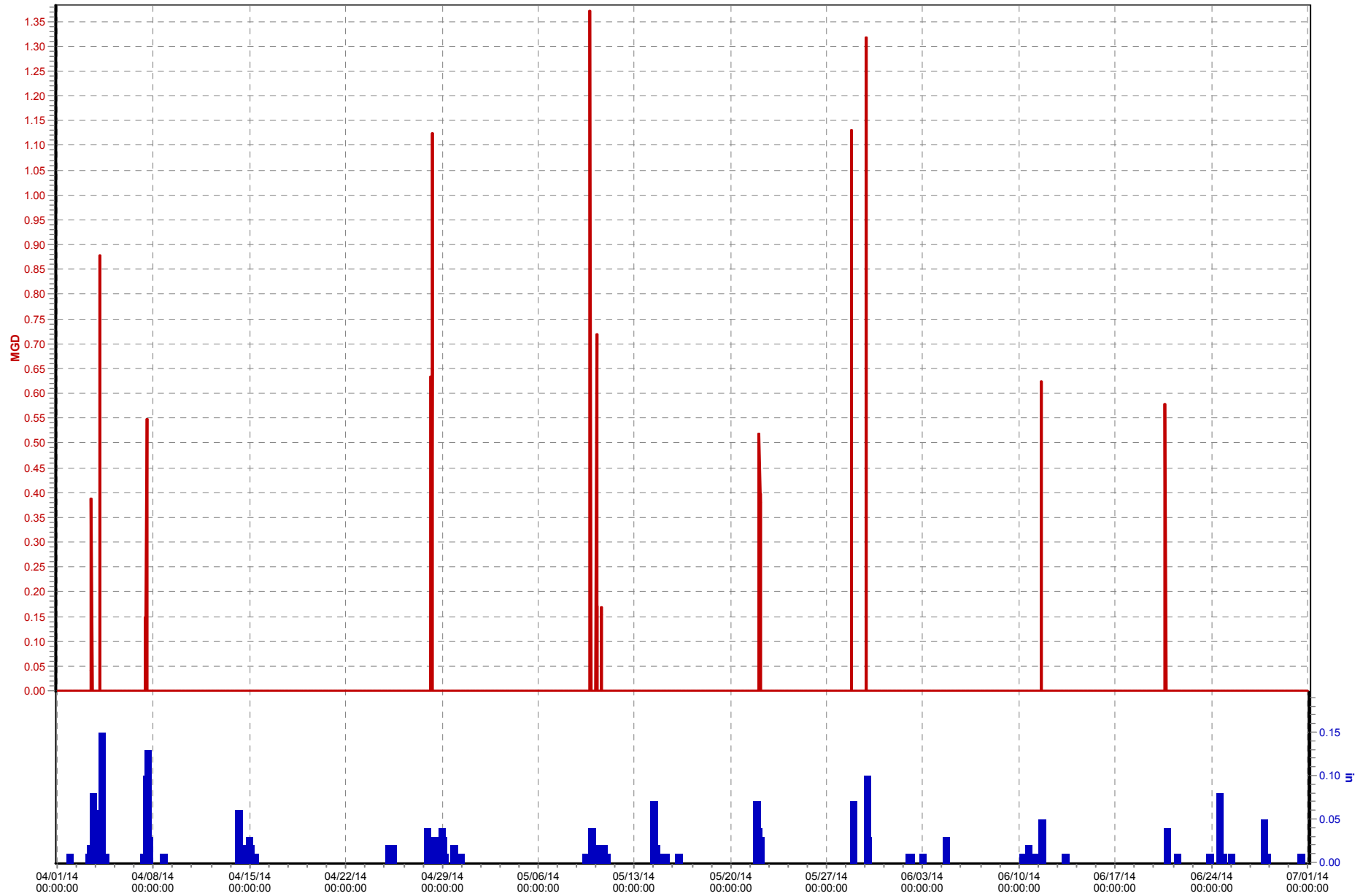
CSO201 Upstream of Dam (04/01/14 to 07/01/14)

Estimated CSO Level (in) TR05_Beargrass PS.Rain (in)



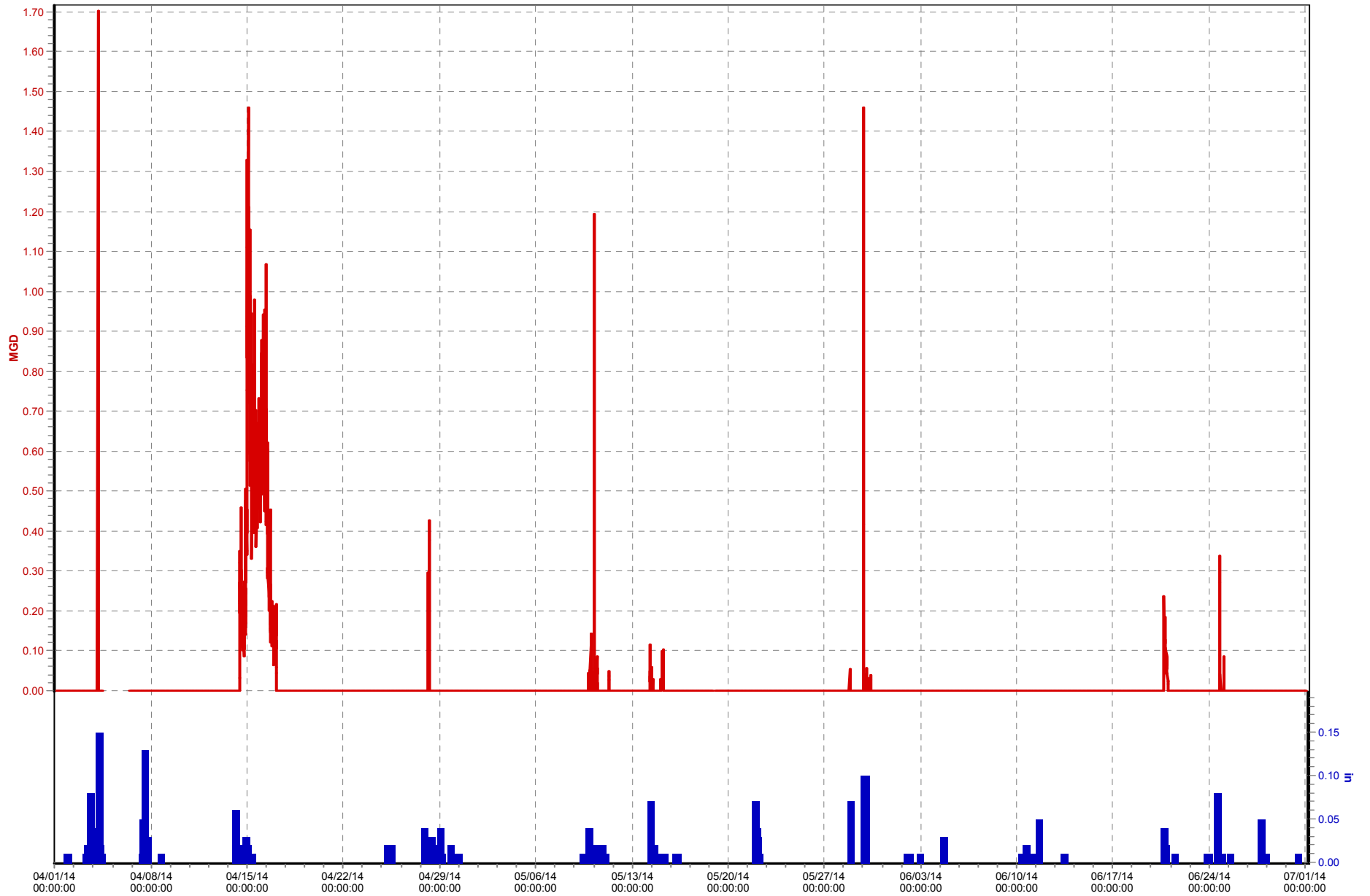
CSO202 (04/01/14 to 07/01/14)

Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO203 S 4th St (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



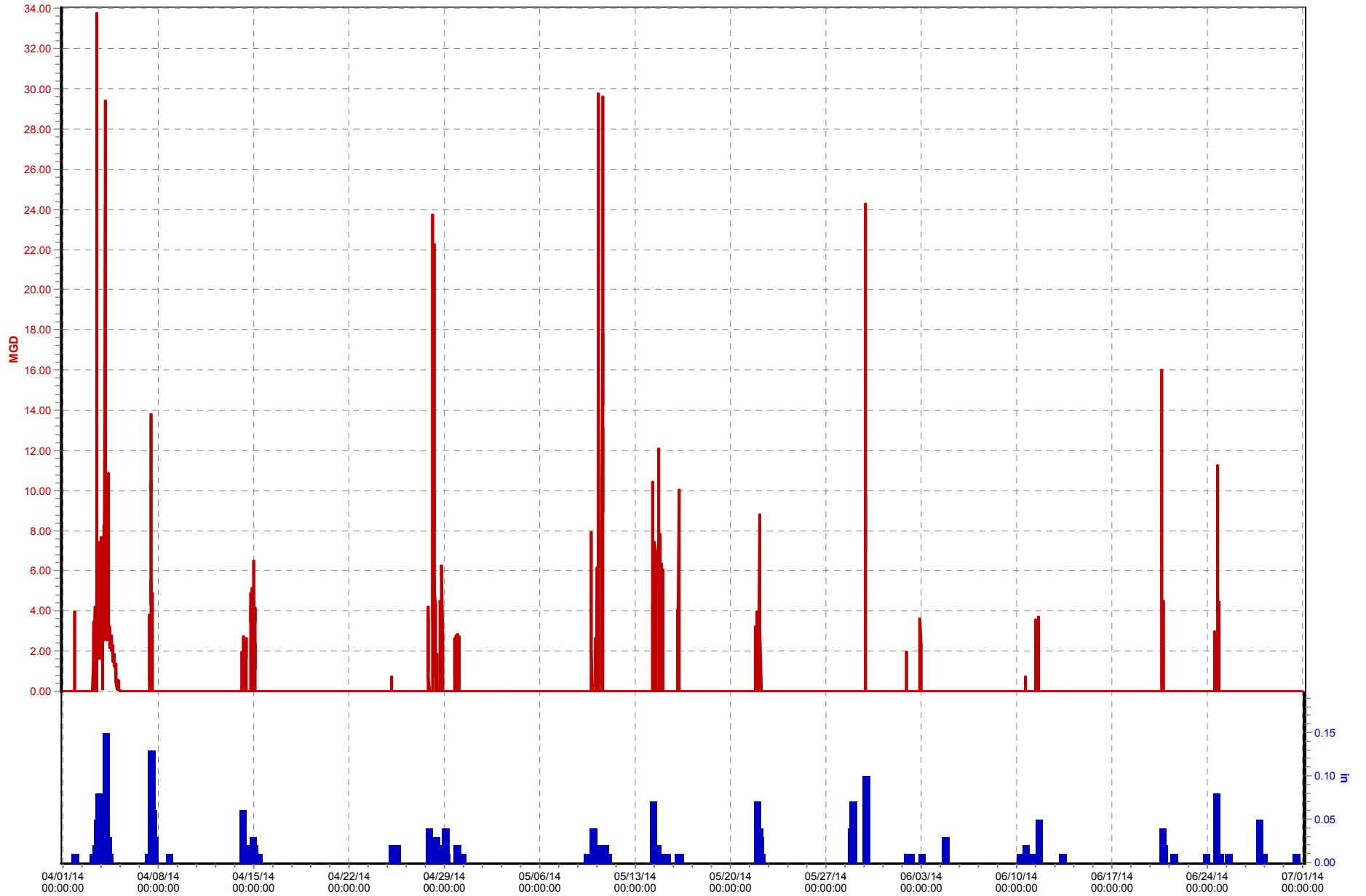
CSO205 Morgan St (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



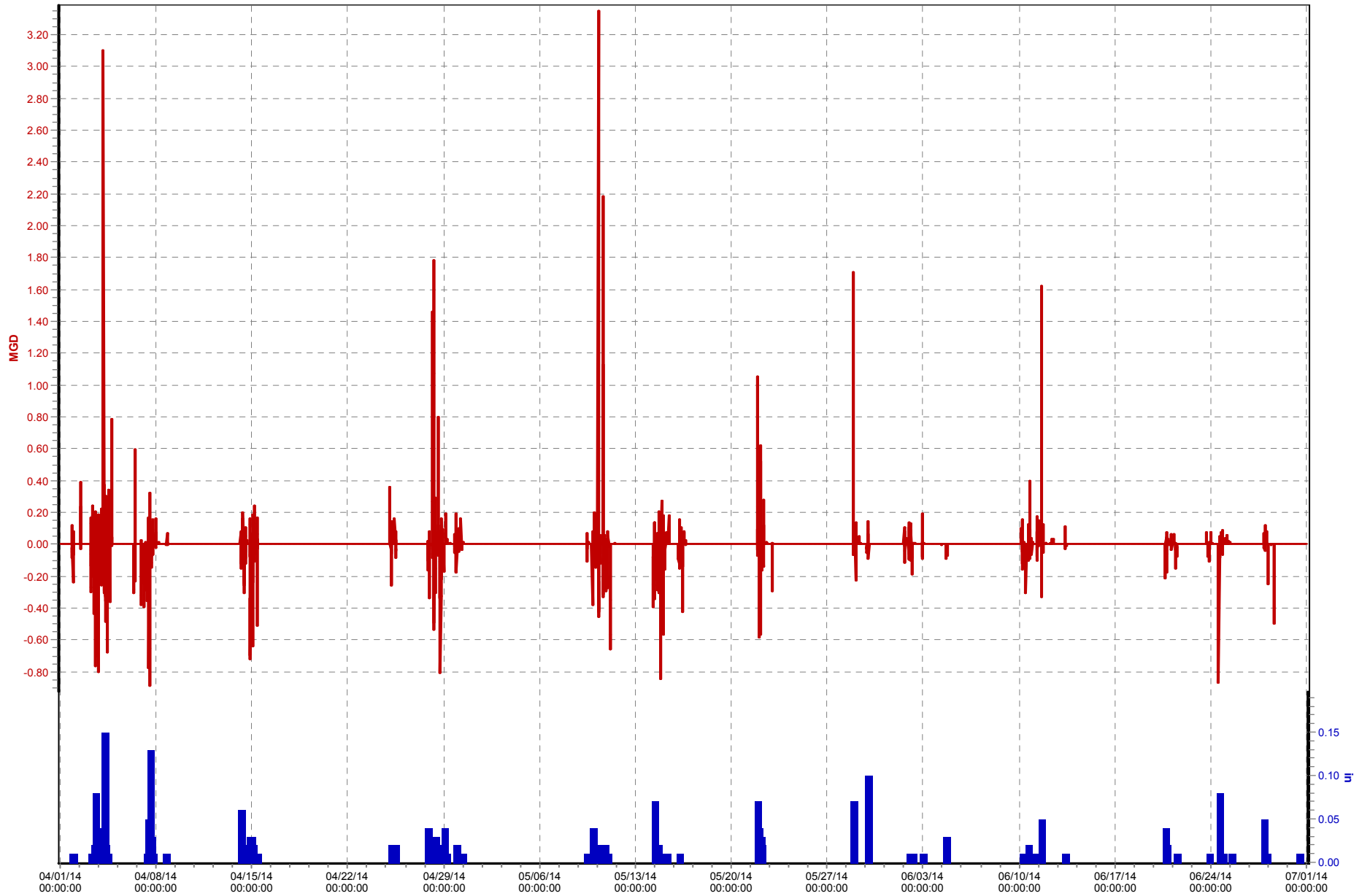
CSO206 Cherokee Park_String St (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



CSO207 W Jefferson St_2nd St (04/01/14 to 07/01/14)

Raw Flow (MGD) TR05_Beargrass PS.Rain (in)



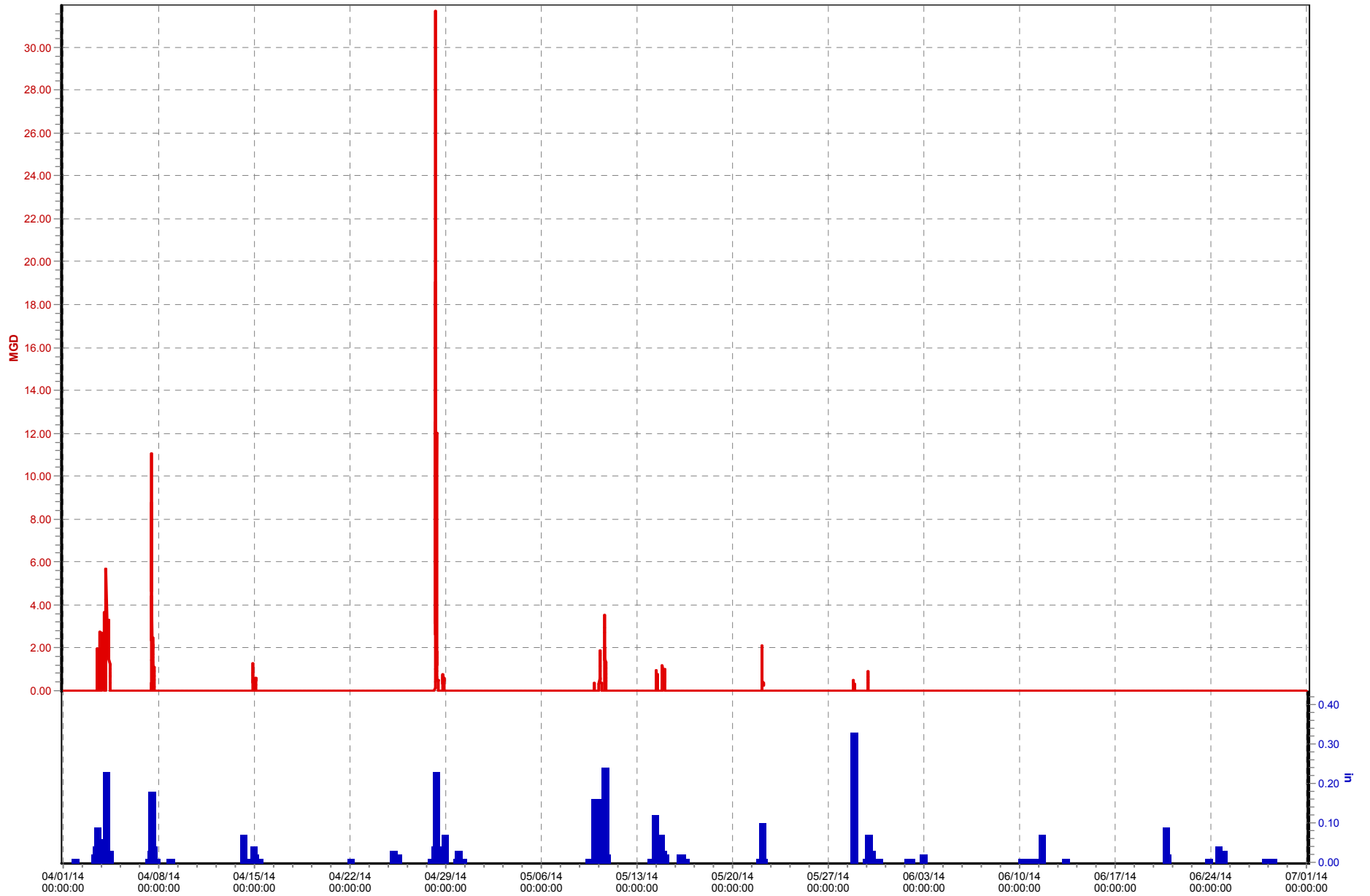
CSO208 W Jefferson St_12th St (04/01/14 to 07/01/14)

Final Flow (MGD) TR05_Beargrass PS.Rain (in)



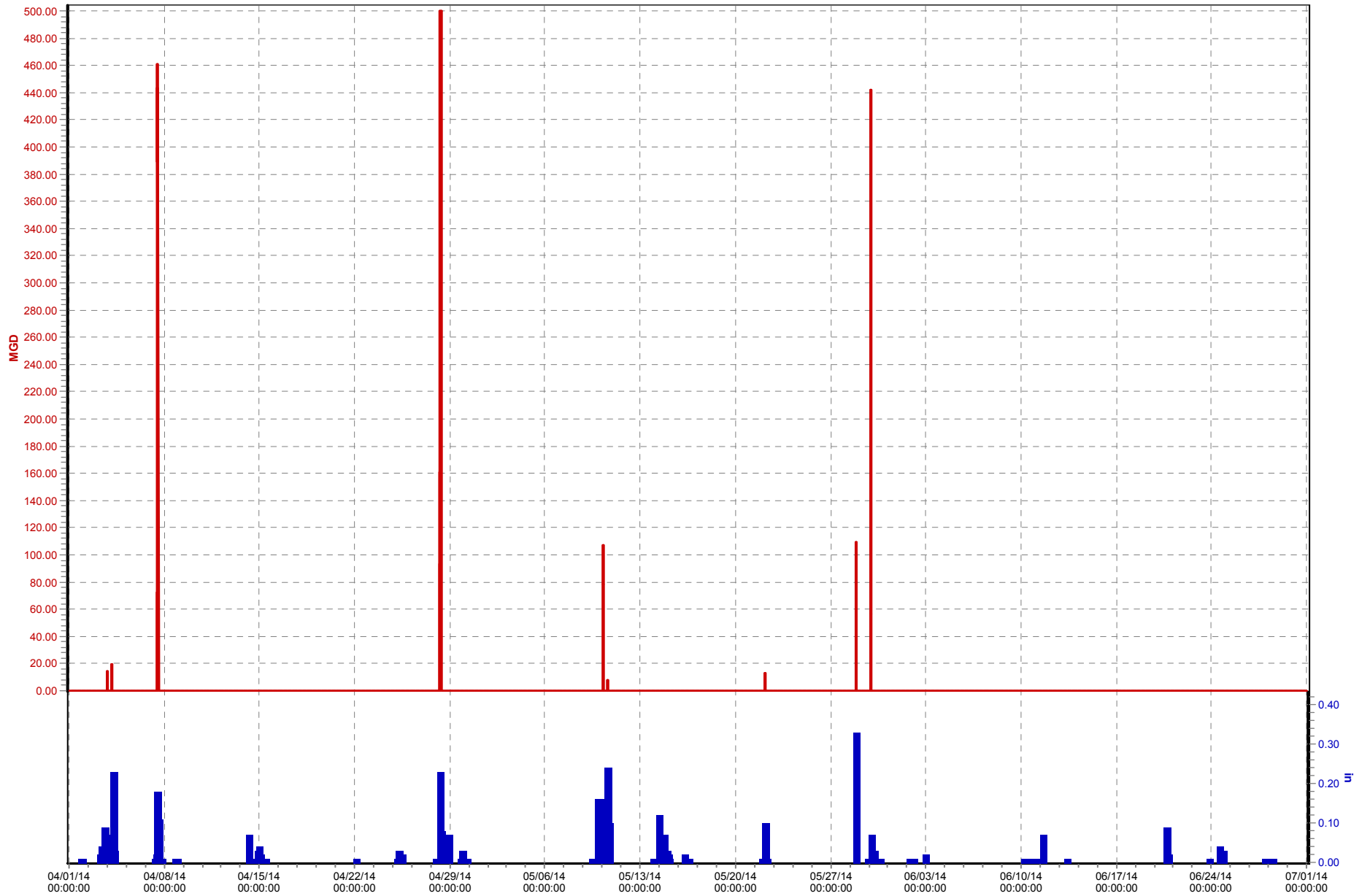
CSO210 Wayne Supply (04/01/14 to 07/01/14)

Final Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



CSO211 Wayne Supply (04/01/14 to 07/01/14)

Final Flow (MGD) TR04_Morris Forman WQTC.Rain (in)



Appendix C – Acronyms

Appendix C - Acronyms for Project WIN Quarterly Report

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

Appendix C - Acronyms for Project WIN Quarterly Report

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

Appendix D – SCAP Balance



Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
CCREEK						
235533	CEDAR CK IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	6,521	6,521
236380	FAIRMOUNT ROAD MH REHAB	SCAPCREDIT		6/5/09	10,734	17,255
362688	CCRK IFP ACTIVITY NOV08-MAY12	SCAPCREDIT		5/1/12	2,161	19,416
362689	CCRK IFP ACTIVITY JUN12-AUG12	SCAPCREDIT		8/31/12	2,047	21,463
320989	LITTLE CEDAR CREEK I/I REHABIL	SCAPCREDIT		9/27/12	652,907	674,370
263934	ST JAMES CROSSINGS	LAT EXT	9,000	11/30/12	-19,575	654,795
196927	SONIC SPRINGS	LAT EXT	3,600	12/5/12	-7,830	646,965
14SC1000	FY13 IFP ACTIVITY FIRST HALF - CEDAR CREEK	SCAPCREDIT		12/31/13	2,048	649,013
FFORK						
235557	FLOYDSFRK IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	14,540	14,540
362638	FY09 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/08	1	14,541
362647	FY09 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/09	4	14,545
362651	FY10 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/09	524	15,069
230379	SHAKES RUN SECTION 4	LAT EXT	3,770	1/5/10	-8,200	6,869
362655	FY10 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/10	81	6,950
362661	FY11 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/10	14,155	21,105
362669	FY11 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/11	22,707	43,812
242480	CLAIBOURNE CROSSINGS PHASE 2	LAT EXT	0	10/17/11	0	43,812
359320	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	4,000	47,812
362674	FY12 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/11	2	47,814
362678	FY12 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/12	331	48,145
332823	SINGLE FAMILY HOME	LAT EXT	400	7/13/12	-870	47,275
315945	BROOKFIELD SEC 3	LAT EXT	12,800	10/26/12	-27,840	19,435



Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
361689	LAKE FOREST REHAB PH1	SCAPCREDIT		12/18/12	174,769	194,204
362683	FY13 IFP ACTIVITY FIRST HALF - FFORK	SCAPCREDIT		12/31/12	3	194,207
331397	BROOKFIELD SEC 2A	LAT EXT	14,400	5/8/13	-31,320	162,887
HCREEK						
235561	HITE CK IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	6,404	6,404
362641	FY09 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/08	2	6,406
362648	FY09 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/09	8	6,414
362652	FY10 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/09	8	6,422
362657	FY10 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/10	329	6,751
295322	FLOYDSBURG RD I/I INVEST/REHAB	SCAPCREDIT		12/17/10	28,437	35,188
320906	FLOYDSBURG ROAD I/I REHABILITA	SCAPCREDIT		12/17/10	28,437	63,625
362662	FY11 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/10	3	63,628
362670	FY11 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/11	5	63,633
246638	CHAPMAN COURT S/S	LAT EXT	800	9/28/11	-1,740	61,893
362675	FY12 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/11	332	62,225
362679	FY12 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/12	5,002	67,227
290181	CAMDEN WOOD APARTMENTS	LAT EXT	12,400	8/31/12	-26,970	40,257
304536	MAGNOLIA SPRINGS EAST PRIV P/S	LAT EXT	9,500	12/1/12	-20,663	19,595
335610	ROCK SPRINGS FARM SEC 4B	LAT EXT	6,400	12/7/12	-13,920	5,675
362684	FY13 IFP ACTIVITY FIRST HALF - HCREEK	SCAPCREDIT		12/31/12	3	5,678
JTOWN						
235563	J-TOWN IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	6,203	6,203
359323	CALENDAR 2008 SUMP PUMP CREDIT	SCAPCREDIT		12/31/08	4,000	10,203
254871	LAKESIDE BAPT CHURCH PRIV PS	LAT EXT	2,500	8/10/10	-5,438	4,766

Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
340213	JEFFERSONTOWN ENG REHAB	SCAPCREDIT		8/11/11	997,448	1,002,214
359324	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	4,000	1,006,214
337261	SINGLE FAMILY 2909 PELHAM CT	LAT EXT	400	5/28/13	-870	1,005,344
13LE1010	SWOPE HR & TRAINING BLDG	LAT EXT	400	6/28/13	-870	1,004,474
13LE1092	BALE EQUIPMENT	LAT EXT	450	10/25/13	-979	1,003,495
14SC1002	FY13 IFP ACTIVITY FIRST HALF - JEFFERSONTC	SCAPCREDIT		12/31/13	3,458	1,006,953
13LE1098	UNIPAK	LAT EXT	720	2/27/14	-1,566	1,005,387
13LE1067	PARK COMMUNITY	LAT EXT	2,220	12/31/14	-4,829	1,000,558
MCREEK						
359380	CALENDAR 2005 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/05	12,000	12,000
359381	CALENDAR 2007 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/07	24,000	36,000
235568	MILL CK IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	51,530	87,530
359382	CALENDAR 2008 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/08	16,000	103,530
362642	FY09 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/08	93	103,623
362649	FY09 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/09	1,507	105,130
236614	DEVEROES	LAT EXT	960	9/9/09	-2,088	103,042
362653	FY10 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/09	25,272	128,314
359383	CALENDAR 2009 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/09	32,000	160,314
253586	KINGSFORD RETAIL CENTER	LAT EXT	480	1/6/10	-1,044	159,270
238421	6840 DIXIE HWY OUTLOT	LAT EXT	2,100	4/28/10	-4,568	154,703
362658	FY10 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/10	6,213	160,916
259408	FAMILY DOLLAR 5105 DIXIE	LAT EXT	1,200	7/2/10	-2,610	158,306
264294	SAINT PETER THE APOSTLE CATHOL	LAT EXT	2,000	7/23/10	-4,350	153,956
276215	FAMILY DOLLAR - KRISTIN WAY	LAT EXT	400	10/12/10	-870	153,086
362664	FY11 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/10	22,740	175,826



Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
359384	CALENDAR 2010 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/10	4,000	179,826
359325	CALENDAR 2010 SUMP PUMP CREDIT	SCAPCREDIT		12/31/10	8,000	187,826
320916	SONNE AVE PS REHABILITATION -	SCAPCREDIT		6/30/11	120,800	308,626
362671	FY11 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/11	11,615	320,241
299399	FAMILY DOLLAR - GREENWOOD RD	LAT EXT	800	10/4/11	-1,740	318,501
309018	PRP PERFORMING ARTS ADDITION	LAT EXT	1,134	11/9/11	-2,466	316,034
359385	CALENDAR 2011 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/11	12,000	328,034
362676	FY12 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/11	3,245	331,279
359326	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	12,000	343,279
318096	CRACKER BARREL OLD COUNTRY	LAT EXT	6,000	1/19/12	-13,050	330,229
262545	DIXIE MANOR SHOPPING CENTER	LAT EXT	965	5/21/12	-2,099	328,130
300374	FORT KNOX FEDERAL CREDIT UNION	LAT EXT	400	6/26/12	-870	327,260
362680	FY12 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/12	2,807	330,067
361693	FY12 MILL CREEK REHAB	SCAPCREDIT		6/30/12	81,675	411,742
231800	PIONEER MOBILE HOME PARK	LAT EXT	11,200	7/24/12	-24,360	387,382
237457	WAVERLY HILLS	LAT EXT	400	9/18/12	-870	386,512
341883	NHK SPRING PRECISION	LAT EXT	17,800	10/19/12	-38,715	347,797
334997	BEECHLAND BAPTIST CHURCH	LAT EXT	2,715	12/5/12	-5,905	341,892
359327	CALENDAR 2012 SUMP PUMP CREDIT	SCAPCREDIT		12/31/12	148,000	489,892
362685	FY13 IFP ACTIVITY FIRST HALF - MCREEK	SCAPCREDIT		12/31/12	3,458	493,350
359386	CALENDAR 2012 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/12	4,000	497,350
343763	SOUTHEAST CHRISTIAN CHURCH SW	LAT EXT	6,000	1/18/13	-13,050	484,300
224875	ASHBY GREEN APARTMENT HOMES	LAT EXT	36,400	3/20/13	-79,170	405,130
265944	RIVERPORT PHASE 4A - MICHELIN	LAT EXT	400	6/6/13	-870	404,260
314887	DAYTON FREIGHT	LAT EXT	1,200	9/10/13	-2,610	401,650
13LE1014	LOUISVILLE FREE PUBLIC LIBRARY SOUTHWEST	LAT EXT	8,200	9/26/13	-17,835	383,815



Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
357140	FAMILY DOLLAR CANE RUN ROAD	LAT EXT	832	10/3/13	-1,810	382,005
13LE1171	SINGLE FAMILY HOME 3700 ROMANIA DR	LAT EXT	400	1/29/14	-870	381,135
MFORK						
359400	CALENDAR 2007 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/07	84,000	84,000
359328	CALENDAR 2007 SUMP PUMP CREDIT	SCAPCREDIT		12/31/07	20,000	104,000
235566	MID FORK IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	43,779	147,779
359329	CALENDAR 2008 SUMP PUMP CREDIT	SCAPCREDIT		12/31/08	8,000	155,779
236517	ANCHOR ESTATES MH REHAB	SCAPCREDIT		1/16/09	15,552	171,331
217235	SINKING FORK ICA PHASE I REHAB	SCAPCREDIT		3/30/09	437,967	609,298
235376	MIDDLE FORK INT REHAB PH1	SCAPCREDIT		5/15/09	487,744	1,097,042
179246	SHADY GLEN OF LYNDON PERSONAL	LAT EXT	-500	5/26/09	1,088	1,098,130
250572	1316 WITAWANGA AVE	LAT EXT	400	11/4/09	-870	1,097,260
359331	CALENDAR 2009 SUMP PUMP CREDIT	SCAPCREDIT		12/31/09	24,000	1,121,260
359401	CALENDAR 2009 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/09	4,000	1,125,260
197432	ALMOST HOME KENNELS - ALL PET	LAT EXT	3,700	3/16/10	-8,048	1,117,212
260064	OXMOOR GOLF FRONT 9	LAT EXT	400	4/15/10	-870	1,116,342
260065	OXMOOR GOLF BACK 9	LAT EXT	400	4/15/10	-870	1,115,472
229834	THE BROOK HOS- DUPONT ADDITION	LAT EXT	1,763	4/27/10	-3,835	1,111,637
265723	Z-XPRESS CAR WASH	LAT EXT	5,449	7/2/10	-11,852	1,099,786
255793	HERR LANE APARTMENTS - 4 PLEX	LAT EXT	1,200	7/14/10	-2,610	1,097,176
255792	HERR LANE APARTMENTS - 8 PLEX	LAT EXT	2,400	7/14/10	-5,220	1,091,956
274303	FARM CREDIT SERVICES	LAT EXT	525	9/9/10	-1,142	1,090,814
278015	METROPOLITAN UROLOGY	LAT EXT	400	12/15/10	-870	1,089,944
359402	CALENDAR 2010 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/10	8,000	1,097,944
359333	CALENDAR 2010 SUMP PUMP CREDIT	SCAPCREDIT		12/31/10	12,000	1,109,944

Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>ATYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
285637	SHELBYHURST OFFICE BUILDING 1	LAT EXT	6,600	1/20/11	-14,355	1,095,589
313465	DORSEY POINTE/CODOMINIUMS 8-13	LAT EXT	2,400	1/27/11	-5,220	1,090,369
291263	BROWNS LANE BUILDING	LAT EXT	400	4/14/11	-870	1,089,499
293400	FOUR PLEX APARTMENTS	LAT EXT	1,200	6/14/11	-2,610	1,086,889
330019	FY11 ANCHOR ESTATES REHAB	SCAPCREDIT		8/11/11	1,359	1,088,248
310046	EL NAPEL - MCMAHAN CENTER	LAT EXT	3,100	10/31/11	-6,743	1,081,506
314591	CHOCOLATE MARTINI BAR/REST	LAT EXT	3,275	11/29/11	-7,123	1,074,382
320983	HURSTBOURNE I/I INVESTIGATION	SCAPCREDIT		12/27/11	1,408,279	2,482,661
359335	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	16,000	2,498,661
321228	SINGLE FAMILY UNIT	LAT EXT	400	2/15/12	-870	2,497,791
321647	SINGLE FAMILY	LAT EXT	400	3/27/12	-870	2,496,921
328074	SINGLE FAMILY-703 FOUNTAIN AVE	LAT EXT	400	6/22/12	-870	2,496,051
193195	CEDAR LAKE LODGE WASHBURN	LAT EXT	1,900	8/20/12	-4,133	2,491,919
320923	ST MATTHEWS I/I REHABILITATION	SCAPCREDIT		8/23/12	20,841	2,512,760
337796	CHAMPPS	LAT EXT	635	9/5/12	-1,381	2,511,379
347126	ADVANCE PRODUCTION SYSTEMS	LAT EXT	400	12/28/12	-870	2,510,509
359336	CALENDAR 2012 SUMP PUMP CREDIT	SCAPCREDIT		12/31/12	92,000	2,602,509
339367	BAPTIST RADIATION ONCOLOGY	LAT EXT	1,500	1/4/13	-3,263	2,599,246
340778	PANDA RESTAURANT	LAT EXT	1,725	1/16/13	-3,752	2,595,494
349044	BLAIRWOOD POOL ADDITION	LAT EXT	400	1/29/13	-870	2,594,624
328659	SINGLE FAMILY HOME - 6911 AMBR	LAT EXT	400	2/4/13	-870	2,593,754
352805	POOL HOUSE 9213 REIGATE COURT	LAT EXT	200	2/20/13	-435	2,593,319
14LE1001	MIRANDA LAGRANGE RD	LAT EXT	400	3/19/13	-870	2,592,449
350246	SINGLE FAMILY - 218 BLISS AVE	LAT EXT	400	3/20/13	-870	2,591,579
349974	SINGLE FAMILY 205 N WATTERSON	LAT EXT	400	3/26/13	-870	2,590,709
342433	SHELBYHURST 700 OFFICE BLDG	LAT EXT	7,500	4/15/13	-16,313	2,574,397

Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
350340	JARED THE GALLERY OF JEWELRY	LAT EXT	770	4/16/13	-1,675	2,572,722
13LE1009	Single familv 11716 Wetherbv Ave	LAT EXT	400	6/7/13	-870	2,571,852
13SC1000	FY14 STARVIEW REHABILITATION	SCAPCREDIT		6/30/13	14,183	2,586,035
13LE1001	Single Family 835 Fountain Ave	LAT EXT	400	8/28/13	-870	2,585,165
355162	PROPOSED RESTAURANT	LAT EXT	7,540	9/10/13	-16,400	2,568,766
13LE1045	SINGLE FAMILY 8325 WHIPPS MILL RD	LAT EXT	400	9/30/13	-870	2,567,896
319292	WATERMARK ON HURSTBOURNE	LAT EXT	71,600	10/22/13	-155,730	2,412,166
331542	DENTAL/MEDICAL OFFICE BLDG	LAT EXT	400	10/28/13	-870	2,411,296
13LE1128	SINGLE FAMILY HOME 1327 ETAWAH AVE	LAT EXT	400	11/5/13	-870	2,410,426
13LE1144	SINGLE FAMILY 1329 ETAWAH AVE	LAT EXT	400	11/5/13	-870	2,409,556
13LE1165	SINGLE FAMILY 8504 LORE LANE	LAT EXT	400	11/25/13	-870	2,408,686
13LE1146	CITY OF ST MATTHEWS COMMUNITY CTR PARI	LAT EXT	1,500	11/26/13	-3,263	2,405,423
13LE1099	NICKLIES - ST MATTHEWS	LAT EXT	1,920	12/11/13	-4,176	2,401,247
353963	DORSEY COMMONS TRACTS 1.2.3	LAT EXT	4,335	12/18/13	-9,429	2,391,819
14SC1003	FY13 IFP ACTIVITY FIRST HALF - MIDDLE FORK	SCAPCREDIT		12/31/13	3,230	2,395,049
352026	MCPAHAN PLAZA PHASE II BLDG B	LAT EXT	766	12/31/13	-1,666	2,393,382
13LE1117	THE VININGS	LAT EXT	850	4/10/14	-1,849	2,391,534
14LE1128	WALDORF SCHOOL OF LOUISVILLE	LAT EXT	400	6/30/14	-870	2,390,664
NDITCH						
359404	CALENDAR 2007 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/07	28,000	28,000
235569	N.DITCH IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	11,147	39,147
236363	NORTHERN DITCH INT REHAB PH1	SCAPCREDIT		11/25/08	108,760	147,907
359339	CALENDAR 2009 SUMP PUMP CREDIT	SCAPCREDIT		12/31/09	4,000	151,907
234678	THE LIGHTHOUSE PROMISE COMPLEX	LAT EXT	2,825	3/5/10	-6,144	145,763
284728	SUBWAY - NEW CUT RD	LAT EXT	1,314	12/21/10	-2,858	142,905

Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
359340	CALENDAR 2010 SUMP PUMP CREDIT	SCAPCREDIT		12/31/10	4,000	146,905
320908	PARKVIEW ESTATES REHABILITATIO	SCAPCREDIT		6/28/11	36	146,941
312810	WILLOW PLACE APT COMMUNITY CEN	LAT EXT	400	11/11/11	-870	146,071
359341	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	24,000	170,071
359405	CALENDAR 2011 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/11	12,000	182,071
315723	JCPS EARLY CHILDHOOD DEVELOP	LAT EXT	6,000	1/26/12	-13,050	169,021
312057	DOLLAR GENERAL - MEDALLION CT	LAT EXT	400	3/21/12	-870	168,151
312659	KROGER L-350 FUEL STATION	LAT EXT	400	8/20/12	-870	167,281
359343	CALENDAR 2012 SUMP PUMP CREDIT	SCAPCREDIT		12/31/12	24,000	191,281
13LE1147	CARLON ROOFING	LAT EXT	992	12/5/13	-2,158	189,123
13LE1126	JENNINGS CROSSING TRACT 3	LAT EXT	2,100	12/12/13	-4,568	184,556
14SC1004	FY13 IFP ACTIVITY FIRST HALF - NORTHERN DI	SCAPCREDIT		12/31/13	329	184,885
ORFM						
359433	CALENDAR 2007 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/07	56,000	56,000
359344	CALENDAR 2007 SUMP PUMP CREDIT	SCAPCREDIT		12/31/07	4,000	60,000
235572	ORFM IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	19,826	79,826
362643	FY09 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/08	2	79,828
362650	FY09 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/09	3,836	83,664
362654	FY10 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/09	7,322	90,986
263548	SINGLE FAMILY CONNECTION	LAT EXT	400	5/18/10	-870	90,116
213488	NORTHEAST CHRISTIAN CHURCH	LAT EXT	10,000	6/28/10	-21,750	68,366
362660	FY10 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/10	6,630	74,996
362665	FY11 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/10	165	75,161
362672	FY11 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/11	4,124	79,285
280837	SPRINGHURST TOWNE CTR LOT C	LAT EXT	400	9/20/11	-870	78,415

Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
320920	SHADOW WOOD I/I REHABILITATION	SCAPCREDIT		9/30/11	14,279	92,694
311412	SPRINGHURST CHEVROLET	LAT EXT	855	10/14/11	-1,860	90,834
359345	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	16,000	106,834
359434	CALENDAR 2011 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/11	16,000	122,834
362677	FY12 IFP ACTIVITY FIRST HALF	SCAPCREDIT		12/31/11	7,258	130,092
320921	DERINGTON COURT I/I REHABILITA	SCAPCREDIT		3/1/12	56,208	186,300
187028	GLENVIEW PARK SUBD SECTION 1	LAT EXT	4,400	3/5/12	-9,570	176,730
213450	GLENVIEW PARK SUB. SEC 2	LAT EXT	5,600	3/5/12	-12,180	164,550
322455	FIRST LADY NAILS	LAT EXT	400	3/12/12	-870	163,680
362681	FY12 IFP ACTIVITY SECOND HALF	SCAPCREDIT		6/30/12	18,220	181,900
292239	SPRINGHURST RESTAURANT/ RETAIL	LAT EXT	3,440	7/5/12	-7,482	174,418
323821	TIRE DISCOUNTERS WESTPORT RD	LAT EXT	400	12/11/12	-870	173,548
363238	FY13 PROSPECT MANHOLE REHAB	SCAPCREDIT		12/18/12	72,703	246,251
341319	RAISING CANES RETAIL CENTER	LAT EXT	1,225	12/18/12	-2,664	243,587
359346	CALENDAR 2012 SUMP PUMP CREDIT	SCAPCREDIT		12/31/12	24,000	267,587
363235	FY13 MUDDY FORK MH REHAB	SCAPCREDIT		12/31/12	41,653	309,240
362686	FY13 IFP ACTIVITY FIRST HALF - ORFM	SCAPCREDIT		12/31/12	1,148	310,388
360262	SINGLE FAMILY 3419 HILLVALE RD	LAT EXT	400	5/13/13	-870	309,518
343729	RETAIL & RESTAURANT	LAT EXT	3,500	6/21/13	-7,613	301,906
334154	GLENVIEW PARK SUBD SEC 4	LAT EXT	3,600	11/7/13	-7,830	294,076
352634	BAUER PROPERTY	LAT EXT	2,920	11/21/13	-6,351	287,725
13LE1024	Overlook at Beech Spring Farm Sec 4	LAT EXT	5,600	12/31/13	-12,180	275,545
199896	SPRINGDALE OFFICE BUILDING	LAT EXT	4,210	3/11/14	-9,157	266,388
225863	SPRING FARM LAKES SEC 1	LAT EXT	4,800	5/16/14	-10,440	255,948

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Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
235574	POND CRK IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	71,782	71,782
359347	CALENDAR 2008 SUMP PUMP CREDIT	SCAPCREDIT		12/31/08	4,000	75,782
359438	CALENDAR 2008 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/08	4,000	79,782
359439	CALENDAR 2009 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/09	12,000	91,782
359348	CALENDAR 2009 SUMP PUMP CREDIT	SCAPCREDIT		12/31/09	4,000	95,782
192513	BANNON CROSSINGS SECTION 3A-1	LAT EXT	800	2/17/10	-1,740	94,042
261115	EMERGENCY RESTORATION	LAT EXT	400	4/27/10	-870	93,172
276977	DADISMAN BUILDERS-POPLAR TREE	LAT EXT	400	10/13/10	-870	92,302
266833	THORNTONS @ PRESTON HWY	LAT EXT	400	12/1/10	-870	91,432
280751	NOTTINGTON HILLS SEC 1	LAT EXT	4,400	12/29/10	-9,570	81,862
359350	CALENDAR 2010 SUMP PUMP CREDIT	SCAPCREDIT		12/31/10	12,000	93,862
187739	GLENGARRY INDUSTRIAL PARK	LAT EXT	4,300	1/13/11	-9,353	84,510
277777	TIRE DISCOUNTERS - BOERSTE WAY	LAT EXT	2,960	3/21/11	-6,438	78,072
304408	UPS SUPPLY CHAIN SOLUTIONS #7	LAT EXT	2,250	9/14/11	-4,894	73,178
320918	EDSEL I/I REHABILITATION - FY1	SCAPCREDIT		9/27/11	106,700	179,878
313444	PLANET FITNESS - JEFF BLVD	LAT EXT	1,600	11/4/11	-3,480	176,398
312391	LONGHORN STEAKHOUSE RESTAURANT	LAT EXT	4,840	11/29/11	-10,527	165,871
320919	LANTANA I/I REHABILITATION - F	SCAPCREDIT		12/29/11	5,000	170,871
359351	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	20,000	190,871
310845	ZAXBY'S RESTAURANT	LAT EXT	3,750	2/28/12	-8,156	182,715
255044	ISA-RECYCLING CENTER	LAT EXT	400	3/13/12	-870	181,845
312814	MILLER TRANSPORTATION	LAT EXT	1,800	3/19/12	-3,915	177,930
324554	NORTONS TEMPORARY OFFICE	LAT EXT	900	4/16/12	-1,958	175,972
234102	ETHOS AT VALLEY FARM SR LIVING	LAT EXT	7,050	6/19/12	-15,334	160,638
322367	SHEPHERDS CARE MEMORY HOME	LAT EXT	2,000	6/21/12	-4,350	156,288
307332	LOUISVILLE INDUSTRIAL BLDG B	LAT EXT	2,520	8/6/12	-5,481	150,807

Capacity Credit Balance Sheet per Credit Basin

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279860	BANNON CROSSINGS SEC 3B-2	LAT EXT	9,600	8/10/12	-20,880	129,927
312053	DOLLAR GENERAL - CLEARWATER FA	LAT EXT	400	8/13/12	-870	129,057
343455	SINGLE FAMILY 1812 GREYLING DR	LAT EXT	400	10/12/12	-870	128,187
243109	OVERBROOK APARTMENTS	LAT EXT	41,200	11/9/12	-89,610	38,577
284215	HURSTBOURNE POINTE APTS	LAT EXT	9,600	12/27/12	-20,880	17,697
359354	CALENDAR 2012 SUMP PUMP CREDIT	SCAPCREDIT		12/31/12	56,000	73,697
329624	COPART	LAT EXT	400	2/20/13	-870	72,827
346082	ZAXBYS	LAT EXT	2,065	5/2/13	-4,491	68,336
320924	LEA ANN WAY INTERCEPTOR I&I RE	SCAPCREDIT		6/30/13	1,017,423	1,085,759
335385	HARRISON LOW PRESSURE S/S	LAT EXT	1,600	7/2/13	-3,480	1,082,279
320940	4 RESIDENCE SFU 7821 MANSCLICK	LAT EXT	400	8/16/13	-870	1,081,409
361336	RENAISSANCE SOUTH BUSINESS	LAT EXT	540	9/6/13	-1,175	1,080,234
324886	PNC BANK	LAT EXT	400	9/6/13	-870	1,079,364
13LE1083	SINGLE FAMILY HOME 5402 (H) E MANSCLICK RE	LAT EXT	400	9/26/13	-870	1,078,494
353125	PEGASUS TRANSPORTATION	LAT EXT	250	12/9/13	-544	1,077,951
341439	PRESTON GARDENS APTS	LAT EXT	22,200	12/10/13	-48,285	1,029,666
308206	APPLEGATE FARMS	LAT EXT	57,200	12/10/13	-124,410	905,256
14SC1005	FY13 IFP ACTIVITY FIRST HALF - POND CREEK	SCAPCREDIT		12/31/13	21,344	926,600
13LE1179	TIMBERBEND SUBDIVISION SEC 5B	LAT EXT	6,400	2/14/14	-13,920	912,680
13LE1035	RENAISSANCE SOUTH BUSINESS PARK TRACT	LAT EXT	5,415	4/10/14	-11,778	900,902
348014	ASHTON PARK TOWN HOMES	LAT EXT	9,000	4/24/14	-19,575	881,327
280180	LOUISVILLE INDUSTRIAL CTR F	LAT EXT	2,480	5/16/14	-5,394	875,933
14LE1085	Williams Properties - Self Storage Facility	LAT EXT	400	5/28/14	-870	875,063
13LE1034	6300 GEIL LANE WAREHOUSE	LAT EXT	720	6/9/14	-1,566	873,497

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Capacity Credit Balance Sheet per Credit Basin

<u>APNO</u>	<u>APNAME</u>	<u>APTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
359355	CALENDAR 2007 SUMP PUMP CREDIT	SCAPCREDIT		12/31/07	8,000	8,000
359440	CALENDAR 2007 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/07	128,000	136,000
235575	SE DIV IFP WORK AUG05-NOV08	SCAPCREDIT		11/1/08	71,472	207,472
236214	GOLDSMITH BUECHB ICA PHI REHAB	SCAPCREDIT		12/22/08	314,808	522,280
236296	BEARGRASS INT REHAB PH1 SEDIV	SCAPCREDIT		12/22/08	122,688	644,968
359441	CALENDAR 2008 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/08	16,000	660,968
359356	CALENDAR 2008 SUMP PUMP CREDIT	SCAPCREDIT		12/31/08	4,000	664,968
229854	TINY HANDS DAYCARE	LAT EXT	1,225	10/20/09	-2,664	662,304
359357	CALENDAR 2009 SUMP PUMP CREDIT	SCAPCREDIT		12/31/09	12,000	674,304
359443	CALENDAR 2009 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/09	8,000	682,304
235291	SULLIVAN COLLEGE OF TECHNOLOGY	LAT EXT	900	2/11/10	-1,958	680,346
238328	LOUISVILLE COLLEGIATE SPORTS	LAT EXT	400	3/1/10	-870	679,476
241759	FRISCHS BIG BOY RESTAURANT	LAT EXT	2,400	3/5/10	-5,220	674,256
257275	LOUISVILLE JUNIOR ACADEMY	LAT EXT	520	4/16/10	-1,131	673,125
320993	BEARGRASS CREEK PHASE II - FY1	SCAPCREDIT		12/14/10	10,368	683,493
359358	CALENDAR 2010 SUMP PUMP CREDIT	SCAPCREDIT		12/31/10	4,000	687,493
359444	CALENDAR 2010 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/10	24,000	711,493
286513	GARDINER POINT RESIDENCE HALL	LAT EXT	10,800	2/16/11	-23,490	688,003
276378	TIRE DISCOUNTERS - BARDSTOWN	LAT EXT	1,500	5/6/11	-3,263	684,741
287888	BEVERAGE WAREHOUSE	LAT EXT	1,180	5/30/11	-2,567	682,174
296295	KEN TOWERY -3800 S HURSTBOURNE	LAT EXT	400	7/1/11	-870	681,304
359445	CALENDAR 2011 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/11	8,000	689,304
359359	CALENDAR 2011 SUMP PUMP CREDIT	SCAPCREDIT		12/31/11	64,000	753,304
307018	HOOK PROPERTY FAMILY DOLLAR	LAT EXT	400	8/10/12	-870	752,434
359361	CALENDAR 2012 SUMP PUMP CREDIT	SCAPCREDIT		12/31/12	68,000	820,434
359446	CALENDAR 2012 DOWNSPOUT CREDIT	SCAPCREDIT		12/31/12	4,000	824,434

<u>APNO</u>	<u>APNAME</u>	<u>APTTYPE</u>	<u>FLOW</u>	<u>Release Date</u>	<u>Approved Credit Required/ Flow Reduction</u>	<u>Running Total</u>
187741	BROOKSTONE SENIOR APARTMENTS	LAT EXT	16,800	3/11/13	-36,540	787,894
232601	RAINTREE/MARIAN CT P/S ELIM	LAT EXT	105,800	6/14/13	-230,115	557,779
330437	COLLEGIATE ATHLETIC FIELD	LAT EXT	800	11/26/13	-1,740	556,039
14SC1006	FY13 IFP ACTIVITY FIRST HALF - SE DIVERSION	SCAPCREDIT		12/31/13	20,623	576,662

Appendix E – CSO Storm Frequency Data

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO183	3/29/14 10:00 AM	3/29/14 8:30 PM	0.44	10,071	1.09	9,240	1.42	0.51	6 hr	CloudBurst
CSO184	2/17/14 4:30 PM	2/17/14 4:30 PM	0.00	4,809	0.41	11,730	1.05	0.25	3 hr	CloudBurst
CSO184	3/29/14 7:00 AM	3/29/14 7:00 AM	0.00	1,745	1.09	1,601	0.78	0.51	6 hr	CloudBurst
CSO185	2/2/14 6:30 AM	2/2/14 7:45 PM	0.55	51,994	0.2	259,969	0.26	0.10	6 hr	CloudBurst
CSO185	2/17/14 4:30 PM	2/17/14 4:30 PM	0.00	29,204	0.41	71,229	1.05	0.25	3 hr	CloudBurst
CSO185	2/21/14 5:30 AM	2/22/14 5:45 AM	1.01	365,913	0.28	1,306,833	1.40	0.15	6 hr	CloudBurst
CSO185	3/29/14 7:00 AM	3/29/14 7:00 AM	0.00	11,287	1.09	10,355	0.78	0.51	6 hr	CloudBurst
CSO018	1/11/14 3:15 AM	1/11/14 3:30 AM	0.01	3,836	1.21	3,170	1.58	0.66	6 hr	CloudBurst
CSO018	2/4/14 10:30 PM	2/5/14 2:45 PM	0.68	1,126,036	0.58	1,941,441	1.03	0.27	6 hr	CloudBurst
CSO108	2/4/14 11:15 PM	2/5/14 3:00 AM	0.16	235,118	0.57	412,487	1.05	0.27	6 hr	CloudBurst
CSO108	2/17/14 4:30 PM	2/17/14 4:45 PM	0.01	89,035	0.57	156,202	1.20	0.37	1 hr	CloudBurst
CSO015	1/5/14 7:00 PM	1/5/14 9:00 PM	0.08	551,695	0.48	1,149,365	0.75	0.24	3 hr	CloudBurst
CSO015	1/11/14 2:00 AM	1/11/14 7:15 AM	0.22	1,799,373	0.85	2,116,910	1.35	0.45	6 hr	CloudBurst
CSO015	2/2/14 4:45 AM	2/2/14 4:45 AM	0.00	9,621	0.62	15,518	0.17	0.23	24 hr	CloudBurst
CSO015	2/4/14 8:45 PM	2/5/14 2:15 PM	0.73	4,285,297	0.67	6,395,965	1.29	0.33	6 hr	CloudBurst
CSO015	2/17/14 4:45 PM	2/18/14 1:00 AM	0.34	1,463,329	0.62	2,360,207	0.89	0.38	3 hr	CloudBurst
CSO015	2/18/14 6:30 PM	2/18/14 7:15 PM	0.03	46,443	1.56	29,771	0.89	0.38	3 hr	CloudBurst
CSO015	3/2/14 11:45 AM	3/2/14 12:30 PM	0.03	222,738	0.51	436,741	0.28	0.19	24 hr	CloudBurst
CSO015	3/29/14 8:00 AM	3/29/14 2:00 PM	0.25	943,500	0.89	1,060,112	1.22	0.41	12 hr	CloudBurst
CSO191	1/11/14 12:15 AM	1/11/14 4:00 AM	0.16	139,611	0.85	164,249	1.27	0.45	6 hr	CloudBurst
CSO191	2/4/14 8:45 PM	2/4/14 11:45 PM	0.13	318,981	0.67	476,092	1.27	0.33	6 hr	CloudBurst
CSO191	2/17/14 4:00 PM	2/17/14 5:00 PM	0.04	226,793	0.62	365,795	0.86	0.38	3 hr	CloudBurst
CSO191	3/29/14 6:30 AM	3/29/14 6:45 AM	0.01	22,847	0.89	25,671	0.70	0.41	12 hr	CloudBurst
CSO182	1/5/14 3:15 PM	1/5/14 8:15 PM	0.21	73,541	0.5	147,081	0.73	0.25	3 hr	Atlas14
CSO182	1/11/14 12:30 AM	1/11/14 5:45 AM	0.22	39,410	1.04	37,894	1.55	0.56	6 hr	CloudBurst
CSO182	1/13/14 2:30 PM	1/13/14 3:45 PM	0.05	28,206	0.18	156,700	1.18	0.09	6 hr	CloudBurst
CSO182	2/2/14 4:00 AM	2/2/14 7:45 AM	0.16	54,561	0.2	272,805	0.20	0.10	6 hr	CloudBurst
CSO182	2/4/14 6:45 PM	2/5/14 4:00 AM	0.39	78,099	0.51	153,135	0.96	0.25	6 hr	CloudBurst
CSO182	2/14/14 4:30 PM	2/14/14 6:45 PM	0.09	68,451	0.54	126,761	0.56	0.29	6 hr	CloudBurst
CSO182	2/17/14 3:00 PM	2/17/14 6:45 PM	0.16	92,726	0.4	231,816	1.01	0.25	3 hr	Atlas14
CSO182	2/20/14 8:30 PM	2/20/14 11:45 PM	0.14	17,111	0.23	74,394	1.24	0.13	6 hr	CloudBurst
CSO182	3/2/14 9:45 AM	3/2/14 11:45 AM	0.08	83,082	0.65	127,819	0.33	0.25	24 hr	CloudBurst
CSO182	3/12/14 7:30 AM	3/12/14 7:30 AM	0.00	655	0.11	5,957	0.09	0.05	1 hr	CloudBurst
CSO182	3/28/14 4:15 AM	3/28/14 5:00 AM	0.03	21,131	0.26	81,274	0.31	0.12	1 hr	CloudBurst
CSO182	3/29/14 5:15 AM	3/29/14 1:15 PM	0.33	76,372	0.88	86,786	1.17	0.43	6 hr	CloudBurst
CSO205	2/4/14 11:00 PM	2/4/14 11:00 PM	0.00	198	0.51	389	0.91	0.25	6 hr	CloudBurst
CSO205	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	205	0.4	512	0.92	0.25	3 hr	Atlas14
CSO205	3/29/14 8:30 AM	3/29/14 8:30 AM	0.00	815	0.88	926	0.87	0.43	6 hr	CloudBurst
CSO110	1/5/14 3:30 PM	1/5/14 8:45 PM	0.22	632,690	0.51	1,240,569	0.76	0.25	6 hr	CloudBurst
CSO110	1/11/14 12:45 AM	1/11/14 6:45 AM	0.25	1,329,519	1.08	1,231,037	1.60	0.59	6 hr	CloudBurst
CSO110	1/13/14 3:00 PM	1/13/14 4:30 PM	0.06	117,110	0.2	585,549	1.24	0.09	12 hr	CloudBurst
CSO110	2/2/14 5:15 AM	2/2/14 8:15 AM	0.13	221,297	0.43	514,644	0.18	0.16	24 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO110	2/4/14 7:30 PM	2/5/14 6:15 AM	0.45	1,908,862	0.54	3,534,930	0.97	0.26	6 hr	CloudBurst
CSO110	2/14/14 5:15 PM	2/14/14 7:30 PM	0.09	225,691	0.52	434,021	0.55	0.28	6 hr	CloudBurst
CSO110	2/17/14 3:45 PM	2/17/14 7:45 PM	0.17	772,636	0.43	1,796,828	1.01	0.26	3 hr	CloudBurst
CSO110	2/20/14 11:15 PM	2/21/14 12:30 AM	0.05	126,312	0.24	526,301	1.25	0.13	6 hr	CloudBurst
CSO110	3/2/14 10:15 AM	3/2/14 12:30 PM	0.09	352,006	0.66	533,343	0.34	0.25	24 hr	CloudBurst
CSO110	3/29/14 7:15 AM	3/29/14 2:00 PM	0.28	1,161,170	1	1,161,170	1.29	0.48	6 hr	CloudBurst
CSO111	1/5/14 5:45 PM	1/6/14 5:00 AM	0.47	2,058,999	0.51	4,037,253	0.78	0.25	6 hr	CloudBurst
CSO111	1/11/14 12:45 AM	1/11/14 5:15 AM	0.19	329,961	1.08	305,520	1.60	0.59	6 hr	CloudBurst
CSO111	2/2/14 5:15 AM	2/2/14 5:30 AM	0.01	6,768	0.43	15,739	0.13	0.16	24 hr	CloudBurst
CSO111	2/4/14 8:00 PM	2/5/14 1:00 AM	0.21	844,019	0.54	1,562,998	0.96	0.26	6 hr	CloudBurst
CSO111	2/17/14 4:15 PM	2/17/14 5:45 PM	0.06	141,211	0.43	328,398	1.01	0.26	3 hr	CloudBurst
CSO111	2/20/14 11:15 PM	2/20/14 11:15 PM	0.00	1,167	0.24	4,861	1.24	0.13	6 hr	CloudBurst
CSO111	3/2/14 10:30 AM	3/2/14 11:30 AM	0.04	42,740	0.66	64,757	0.34	0.25	24 hr	CloudBurst
CSO111	3/29/14 7:00 AM	3/29/14 9:00 AM	0.08	12,780	1	12,780	0.96	0.48	6 hr	CloudBurst
CSO097	1/11/14 12:45 AM	1/11/14 6:30 AM	0.24	89,539	1.08	82,907	1.61	0.59	6 hr	CloudBurst
CSO097	1/13/14 3:00 PM	1/13/14 4:15 PM	0.05	1,780	0.21	8,477	1.25	0.10	12 hr	CloudBurst
CSO097	2/17/14 4:00 PM	2/17/14 7:30 PM	0.15	54,638	0.39	140,098	0.84	0.23	3 hr	CloudBurst
CSO097	2/20/14 11:15 PM	2/21/14 12:15 AM	0.04	317	0.24	1,323	1.08	0.13	6 hr	CloudBurst
CSO097	3/13/14 5:30 AM	3/13/14 7:30 AM	0.08	70,444	0.01	7,044,396	0.08	0.01	6 hr	CloudBurst
CSO097	3/29/14 7:00 AM	3/29/14 12:30 PM	0.23	36,549	1.21	30,205	1.42	0.56	6 hr	CloudBurst
CSO106	1/11/14 12:15 AM	1/11/14 5:00 AM	0.20	7,107	1.08	6,580	1.60	0.59	6 hr	CloudBurst
CSO106	2/4/14 7:45 PM	2/5/14 3:00 AM	0.30	9,292	0.48	19,359	0.88	0.23	6 hr	CloudBurst
CSO106	2/17/14 4:00 PM	2/17/14 5:15 PM	0.05	14,155	0.39	36,295	0.82	0.23	3 hr	CloudBurst
CSO106	2/20/14 10:45 PM	2/20/14 10:45 PM	0.00	906	0.24	3,774	1.04	0.13	6 hr	CloudBurst
CSO106	3/2/14 10:15 AM	3/2/14 10:30 AM	0.01	1,529	0.64	2,389	0.24	0.24	24 hr	CloudBurst
CSO106	3/29/14 6:45 AM	3/29/14 8:30 AM	0.07	5,146	1.21	4,253	1.07	0.56	6 hr	CloudBurst
CSO137	1/5/14 3:15 PM	1/5/14 7:15 PM	0.17	17,934	0.51	35,165	0.71	0.26	6 hr	CloudBurst
CSO137	1/11/14 12:30 AM	1/11/14 5:30 AM	0.21	304,378	1.08	281,831	1.61	0.59	6 hr	CloudBurst
CSO137	2/2/14 4:15 AM	2/2/14 5:45 AM	0.06	24,704	0.16	154,399	0.12	0.09	6 hr	CloudBurst
CSO137	2/4/14 7:15 PM	2/5/14 1:15 AM	0.25	493,975	0.48	1,029,115	0.88	0.23	6 hr	CloudBurst
CSO137	2/14/14 5:15 PM	2/14/14 6:00 PM	0.03	5,913	0.39	15,161	0.36	0.21	6 hr	CloudBurst
CSO137	2/17/14 4:30 PM	2/18/14 10:00 AM	0.73	695,295	0.39	1,782,808	0.84	0.23	3 hr	CloudBurst
CSO137	2/20/14 11:15 PM	2/20/14 11:30 PM	0.01	9,531	0.24	39,711	1.08	0.13	6 hr	CloudBurst
CSO137	3/2/14 9:45 AM	3/2/14 11:30 AM	0.07	125,982	0.64	196,848	0.33	0.24	24 hr	CloudBurst
CSO137	3/28/14 4:45 AM	3/28/14 5:00 AM	0.01	21,771	0.24	90,713	0.28	0.12	6 hr	CloudBurst
CSO137	3/29/14 7:00 AM	3/29/14 12:30 PM	0.23	239,140	1.21	197,636	1.42	0.56	6 hr	CloudBurst
CSO148	1/5/14 2:45 PM	1/5/14 6:45 PM	0.17	16,408	0.51	32,173	0.69	0.26	6 hr	CloudBurst
CSO148	1/11/14 12:15 AM	1/11/14 5:15 AM	0.21	101,490	1.08	93,972	1.60	0.59	6 hr	CloudBurst
CSO148	1/13/14 2:45 PM	1/13/14 2:45 PM	0.00	206	0.21	982	1.21	0.10	12 hr	CloudBurst
CSO148	2/2/14 3:00 AM	2/2/14 7:15 AM	0.18	17,404	0.16	108,774	0.15	0.09	6 hr	CloudBurst
CSO148	2/4/14 6:45 PM	2/5/14 12:45 AM	0.25	126,087	0.48	262,682	0.88	0.23	6 hr	CloudBurst
CSO148	2/14/14 4:45 PM	2/14/14 6:30 PM	0.07	9,709	0.39	24,894	0.40	0.21	6 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO148	2/17/14 3:00 PM	2/17/14 6:00 PM	0.13	122,990	0.39	315,358	0.84	0.23	3 hr	CloudBurst
CSO148	2/20/14 11:00 PM	2/20/14 11:15 PM	0.01	2,290	0.24	9,541	1.07	0.13	6 hr	CloudBurst
CSO148	3/2/14 9:30 AM	3/2/14 11:30 AM	0.08	39,233	0.64	61,302	0.33	0.24	24 hr	CloudBurst
CSO148	3/28/14 4:15 AM	3/28/14 4:45 AM	0.02	21,725	0.24	90,523	0.28	0.12	6 hr	CloudBurst
CSO148	3/29/14 5:00 AM	3/29/14 12:15 PM	0.30	67,610	1.21	55,876	1.39	0.56	6 hr	CloudBurst
CSO016	1/11/14 1:15 AM	1/11/14 6:00 AM	0.20	1,491,657	0.97	1,537,791	1.44	0.52	6 hr	CloudBurst
CSO016	2/2/14 6:00 AM	2/2/14 6:45 AM	0.03	4,708	0.62	7,593	0.24	0.24	24 hr	CloudBurst
CSO016	2/4/14 8:30 PM	2/5/14 7:30 AM	0.46	15,849,921	0.62	25,564,389	1.24	0.30	6 hr	CloudBurst
CSO016	2/17/14 4:30 PM	2/17/14 8:45 PM	0.18	3,519,418	0.57	6,174,417	0.84	0.34	3 hr	CloudBurst
CSO016	3/2/14 11:30 AM	3/2/14 1:00 PM	0.06	312,082	0.49	636,901	0.28	0.18	24 hr	CloudBurst
CSO016	3/29/14 7:30 AM	3/29/14 2:30 PM	0.29	1,918,145	0.96	1,998,067	1.30	0.45	6 hr	CloudBurst
CSO210	1/5/14 5:30 PM	1/5/14 7:15 PM	0.07	21,319	0.46	46,345	0.62	0.23	3 hr	Atlas14
CSO210	1/11/14 1:00 AM	1/11/14 6:30 AM	0.23	482,723	0.97	497,652	1.44	0.52	6 hr	CloudBurst
CSO210	2/2/14 5:45 AM	2/2/14 7:15 AM	0.06	27,534	0.62	44,409	0.25	0.24	24 hr	CloudBurst
CSO210	2/4/14 8:00 PM	2/4/14 8:45 PM	0.03	56,181	0.62	90,614	1.00	0.30	6 hr	CloudBurst
CSO210	2/17/14 4:15 PM	2/17/14 8:45 PM	0.19	274,001	0.57	480,704	0.84	0.34	3 hr	CloudBurst
CSO210	3/2/14 11:15 AM	3/2/14 1:15 PM	0.08	29,603	0.49	60,414	0.28	0.18	24 hr	CloudBurst
CSO210	3/29/14 7:15 AM	3/29/14 2:45 PM	0.31	264,515	0.96	275,536	1.30	0.45	6 hr	CloudBurst
CSO210	3/31/14 11:15 PM	3/31/14 11:45 PM	0.02	1,875	0.01	187,500	1.31	0.01	6 hr	CloudBurst
CSO211	2/4/14 9:00 PM	2/5/14 7:30 AM	0.44	223,958,362	0.62	361,223,164	1.24	0.30	6 hr	CloudBurst
CSO211	2/17/14 4:15 PM	2/17/14 7:45 PM	0.15	12,384,748	0.57	21,727,628	0.84	0.34	3 hr	CloudBurst
CSO211	3/29/14 7:30 AM	3/29/14 10:30 AM	0.13	3,584,334	0.96	3,733,681	1.10	0.45	6 hr	CloudBurst
CSO196	1/11/14 12:15 AM	1/11/14 2:30 AM	0.09	3,507	0.95	3,691	1.14	0.52	6 hr	CloudBurst
CSO196	2/4/14 8:00 PM	2/4/14 8:00 PM	0.00	3,460	0.51	6,785	0.79	0.25	6 hr	CloudBurst
CSO196	2/17/14 4:15 PM	2/17/14 4:45 PM	0.02	28,726	0.4	71,816	0.95	0.24	3 hr	CloudBurst
CSO196	3/2/14 10:45 AM	3/2/14 10:45 AM	0.00	618	0.62	997	0.29	0.24	24 hr	CloudBurst
CSO196	3/12/14 8:15 AM	3/12/14 8:45 AM	0.02	3,496	0.09	38,843	0.07	0.04	1 hr	CloudBurst
CSO196	3/29/14 6:30 AM	3/29/14 7:00 AM	0.02	15,732	1.01	15,576	0.82	0.49	6 hr	CloudBurst
CSO199	1/11/14 12:15 AM	1/11/14 12:30 AM	0.01	1,239	0.95	1,304	0.79	0.52	6 hr	CloudBurst
CSO199	2/17/14 4:15 PM	2/17/14 4:30 PM	0.01	4,417	0.4	11,042	0.94	0.24	3 hr	CloudBurst
CSO199	3/3/14 9:00 AM	3/3/14 8:15 PM	0.47	4,325	0.62	6,976	0.63	0.24	24 hr	CloudBurst
CSO199	3/29/14 6:45 AM	3/29/14 6:45 AM	0.00	1,067	1.01	1,056	0.76	0.49	6 hr	CloudBurst
CSO200	1/11/14 12:00 AM	1/11/14 3:00 AM	0.13	1,717	0.95	1,807	1.27	0.52	6 hr	CloudBurst
CSO200	2/4/14 7:45 PM	2/4/14 11:15 PM	0.15	13,538	0.51	26,544	1.04	0.25	6 hr	CloudBurst
CSO200	2/17/14 4:00 PM	2/17/14 4:30 PM	0.02	5,424	0.4	13,561	0.94	0.24	3 hr	CloudBurst
CSO200	3/29/14 6:30 AM	3/29/14 6:45 AM	0.01	1,275	1.01	1,262	0.76	0.49	6 hr	CloudBurst
CSO202	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	3,790	0.4	9,475	0.91	0.24	3 hr	CloudBurst
CSO202	3/29/14 6:45 AM	3/29/14 6:45 AM	0.00	3,692	1.01	3,656	0.76	0.49	6 hr	CloudBurst
CSO203	2/2/14 5:30 AM	2/2/14 8:00 AM	0.10	561	0.56	1,001	0.26	0.21	24 hr	CloudBurst
CSO203	2/3/14 8:30 AM	2/4/14 9:00 AM	1.02	57,292	0.56	102,308	0.56	0.21	24 hr	CloudBurst
CSO203	2/4/14 11:15 PM	2/4/14 11:15 PM	0.00	892	0.51	1,750	1.04	0.25	6 hr	CloudBurst
CSO203	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	2,663	0.4	6,657	0.91	0.24	3 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO146	1/5/14 3:15 PM	1/5/14 8:15 PM	0.21	415,330	0.48	865,270	0.69	0.24	6 hr	CloudBurst
CSO146	1/11/14 12:30 AM	1/11/14 6:00 AM	0.23	698,801	1.03	678,447	1.52	0.55	6 hr	CloudBurst
CSO146	1/13/14 3:00 PM	1/13/14 3:45 PM	0.03	54,832	0.2	274,160	1.18	0.09	12 hr	CloudBurst
CSO146	2/2/14 4:00 AM	2/2/14 7:45 AM	0.16	278,474	0.47	592,498	0.21	0.18	24 hr	CloudBurst
CSO146	2/4/14 7:00 PM	2/5/14 3:00 AM	0.33	1,489,385	0.51	2,920,363	0.98	0.25	6 hr	CloudBurst
CSO146	2/14/14 4:45 PM	2/14/14 7:00 PM	0.09	162,743	0.5	325,487	0.53	0.27	6 hr	CloudBurst
CSO146	2/17/14 3:30 PM	2/17/14 7:00 PM	0.15	1,014,771	0.56	1,812,090	1.12	0.34	3 hr	CloudBurst
CSO146	2/20/14 8:45 PM	2/21/14 12:00 AM	0.14	165,236	0.18	917,980	1.30	0.10	6 hr	CloudBurst
CSO146	3/2/14 9:45 AM	3/2/14 12:00 PM	0.09	337,072	0.62	543,664	0.34	0.24	24 hr	CloudBurst
CSO146	3/28/14 4:30 AM	3/28/14 5:15 AM	0.03	140,641	0.25	562,565	0.31	0.12	6 hr	CloudBurst
CSO146	3/29/14 6:30 AM	3/29/14 1:45 PM	0.30	1,093,177	1.05	1,041,121	1.35	0.49	12 hr	CloudBurst
CSO149	1/5/14 3:15 PM	1/5/14 6:15 PM	0.13	77,262	0.48	160,962	0.65	0.24	6 hr	CloudBurst
CSO149	1/11/14 12:15 AM	1/11/14 5:30 AM	0.22	1,719,195	1.03	1,669,121	1.51	0.55	6 hr	CloudBurst
CSO149	2/2/14 4:00 AM	2/2/14 5:45 AM	0.07	132,327	0.47	281,548	0.16	0.18	24 hr	CloudBurst
CSO149	2/4/14 7:00 PM	2/5/14 1:15 AM	0.26	1,999,625	0.51	3,920,832	0.98	0.25	6 hr	CloudBurst
CSO149	2/14/14 5:00 PM	2/14/14 6:15 PM	0.05	18,748	0.5	37,496	0.48	0.27	6 hr	CloudBurst
CSO149	2/17/14 4:15 PM	2/17/14 6:15 PM	0.08	862,153	0.56	1,539,559	1.12	0.34	3 hr	CloudBurst
CSO149	2/20/14 11:15 PM	2/20/14 11:30 PM	0.01	19,654	0.18	109,191	1.30	0.10	6 hr	CloudBurst
CSO149	3/2/14 9:45 AM	3/2/14 11:30 AM	0.07	387,778	0.62	625,449	0.34	0.24	24 hr	CloudBurst
CSO149	3/28/14 4:30 AM	3/28/14 5:15 AM	0.03	92,366	0.25	369,465	0.31	0.12	6 hr	CloudBurst
CSO149	3/29/14 6:15 AM	3/29/14 12:45 PM	0.27	1,020,590	1.05	971,990	1.32	0.49	12 hr	CloudBurst
CSO174	1/11/14 12:45 AM	1/11/14 3:30 AM	0.11	41,411	1.03	40,205	1.37	0.55	6 hr	CloudBurst
CSO174	2/4/14 8:15 PM	2/4/14 11:45 PM	0.15	173,366	0.51	339,933	0.97	0.25	6 hr	CloudBurst
CSO174	2/17/14 4:15 PM	2/17/14 5:00 PM	0.03	292,355	0.56	522,063	1.08	0.34	3 hr	CloudBurst
CSO174	3/2/14 11:00 AM	3/2/14 11:00 AM	0.00	60	0.62	97	0.33	0.24	24 hr	CloudBurst
CSO174	3/29/14 6:45 AM	3/29/14 7:30 AM	0.03	131,947	1.05	125,664	0.87	0.49	12 hr	CloudBurst
CSO180	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	9,246	0.56	16,511	1.04	0.34	3 hr	CloudBurst
CSO091	1/11/14 12:15 AM	1/11/14 4:00 AM	0.16	9,749	0.99	9,847	1.39	0.54	6 hr	CloudBurst
CSO091	2/2/14 4:45 AM	2/2/14 4:45 AM	0.00	1,223	0.2	6,115	0.12	0.10	6 hr	CloudBurst
CSO091	2/4/14 7:30 PM	2/4/14 11:15 PM	0.16	9,754	0.51	19,126	0.93	0.24	6 hr	CloudBurst
CSO091	2/17/14 4:00 PM	2/17/14 4:30 PM	0.02	23,507	0.51	46,093	1.02	0.31	3 hr	CloudBurst
CSO091	3/2/14 10:15 AM	3/2/14 10:30 AM	0.01	555	0.61	909	0.22	0.23	24 hr	CloudBurst
CSO091	3/28/14 4:15 AM	3/28/14 4:15 AM	0.00	241	0.26	926	0.24	0.12	12 hr	CloudBurst
CSO091	3/29/14 6:00 AM	3/29/14 7:15 AM	0.05	34,846	1	34,846	0.79	0.46	12 hr	CloudBurst
CSO092	1/5/14 2:30 PM	1/5/14 6:45 PM	0.18	1,004	0.48	2,091	0.67	0.24	6 hr	CloudBurst
CSO092	1/11/14 12:00 AM	1/11/14 5:00 AM	0.21	10,504	0.99	10,610	1.47	0.54	6 hr	CloudBurst
CSO092	2/2/14 2:45 AM	2/2/14 5:15 AM	0.10	309	0.2	1,546	0.15	0.10	6 hr	CloudBurst
CSO092	2/4/14 6:15 PM	2/5/14 1:45 AM	0.31	31,702	0.51	62,161	0.96	0.24	6 hr	CloudBurst
CSO092	2/14/14 5:00 PM	2/14/14 5:00 PM	0.00	2	0.5	4	0.34	0.27	6 hr	CloudBurst
CSO092	2/17/14 3:15 PM	2/17/14 5:15 PM	0.08	14,387	0.51	28,209	1.05	0.31	3 hr	CloudBurst
CSO092	3/2/14 9:15 AM	3/2/14 11:00 AM	0.07	8,544	0.61	14,007	0.30	0.23	24 hr	CloudBurst
CSO092	3/12/14 7:00 AM	3/12/14 7:15 AM	0.01	197	0.08	2,467	0.07	0.04	1 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO092	3/28/14 4:15 AM	3/28/14 5:00 AM	0.03	2,634	0.26	10,131	0.31	0.12	12 hr	CloudBurst
CSO092	3/29/14 6:00 AM	3/29/14 12:00 PM	0.25	18,191	1	18,191	1.20	0.46	12 hr	CloudBurst
CSO113	1/11/14 12:45 AM	1/11/14 4:15 AM	0.15	36,069	0.99	36,433	1.41	0.54	6 hr	CloudBurst
CSO113	2/4/14 8:00 PM	2/4/14 11:45 PM	0.16	31,284	0.51	61,342	0.94	0.24	6 hr	CloudBurst
CSO113	2/17/14 4:15 PM	2/17/14 5:45 PM	0.06	56,646	0.51	111,071	1.06	0.31	3 hr	CloudBurst
CSO113	3/2/14 10:00 AM	3/2/14 11:15 AM	0.05	13,686	0.61	22,436	0.31	0.23	24 hr	CloudBurst
CSO113	3/28/14 4:45 AM	3/28/14 5:00 AM	0.01	7,373	0.26	28,358	0.31	0.12	12 hr	CloudBurst
CSO113	3/29/14 6:30 AM	3/29/14 1:00 PM	0.27	78,307	1	78,307	1.29	0.46	12 hr	CloudBurst
CSO152	1/5/14 3:15 PM	1/5/14 8:30 PM	0.22	304,001	0.48	633,336	0.70	0.24	6 hr	CloudBurst
CSO152	1/11/14 12:30 AM	1/11/14 6:00 AM	0.23	1,163,470	0.99	1,175,223	1.48	0.54	6 hr	CloudBurst
CSO152	1/13/14 3:00 PM	1/13/14 4:15 PM	0.05	31,342	0.2	156,708	1.14	0.09	12 hr	CloudBurst
CSO152	2/2/14 4:15 AM	2/2/14 8:00 AM	0.16	243,360	0.2	1,216,798	0.20	0.10	6 hr	CloudBurst
CSO152	2/4/14 7:00 PM	2/5/14 3:30 AM	0.35	1,760,292	0.51	3,451,553	0.96	0.24	6 hr	CloudBurst
CSO152	2/14/14 4:45 PM	2/14/14 7:00 PM	0.09	153,557	0.5	307,113	0.52	0.27	6 hr	CloudBurst
CSO152	2/17/14 3:15 PM	2/17/14 7:00 PM	0.16	235,425	0.51	461,618	1.07	0.31	3 hr	CloudBurst
CSO152	2/20/14 8:45 PM	2/21/14 12:15 AM	0.15	60,437	0.2	302,186	1.27	0.11	6 hr	CloudBurst
CSO152	3/2/14 9:45 AM	3/2/14 12:00 PM	0.09	310,004	0.61	508,203	0.32	0.23	24 hr	CloudBurst
CSO152	3/12/14 7:45 AM	3/12/14 7:45 AM	0.00	6,060	0.08	75,753	0.07	0.04	1 hr	CloudBurst
CSO152	3/28/14 4:45 AM	3/28/14 5:30 AM	0.03	107,808	0.26	414,646	0.31	0.12	12 hr	CloudBurst
CSO152	3/29/14 6:45 AM	3/29/14 1:45 PM	0.29	353,871	1	353,871	1.31	0.46	12 hr	CloudBurst
CSO151	1/2/14 4:00 AM	1/2/14 11:30 AM	0.31	4,110	0.25	16,439	0.80	0.13	3 hr	CloudBurst
CSO151	1/5/14 3:00 PM	1/5/14 9:45 PM	0.28	327,378	0.44	744,040	0.69	0.22	6 hr	CloudBurst
CSO151	1/11/14 12:30 AM	1/11/14 7:45 PM	0.80	423,293	1	423,293	1.45	0.54	6 hr	CloudBurst
CSO151	1/13/14 2:30 PM	1/13/14 9:00 PM	0.27	126,474	0.2	632,370	1.21	0.09	12 hr	CloudBurst
CSO151	2/2/14 3:15 AM	2/2/14 8:45 AM	0.23	115,034	0.16	718,964	0.16	0.09	6 hr	CloudBurst
CSO151	2/4/14 6:45 PM	2/5/14 11:00 PM	1.18	548,536	0.46	1,192,469	0.85	0.23	6 hr	CloudBurst
CSO151	2/14/14 4:00 PM	2/14/14 10:00 PM	0.25	7,700,048	0.36	21,389,022	0.40	0.19	6 hr	CloudBurst
CSO151	2/17/14 2:45 PM	2/19/14 2:45 PM	2.00	22,370,341	0.35	63,915,260	0.77	0.22	3 hr	CloudBurst
CSO151	2/20/14 7:15 PM	2/21/14 1:00 AM	0.24	163,296	0.19	859,450	0.96	0.10	6 hr	CloudBurst
CSO151	3/2/14 9:45 AM	3/2/14 1:45 PM	0.17	324,162	0.58	558,901	0.30	0.22	24 hr	CloudBurst
CSO151	3/12/14 7:30 AM	3/12/14 8:00 AM	0.02	9,435	0.07	134,792	0.07	0.03	24 hr	CloudBurst
CSO151	3/19/14 9:00 AM	3/19/14 9:15 AM	0.01	1,568	0.17	9,221	0.25	0.13	1 hr	CloudBurst
CSO151	3/28/14 4:30 AM	3/28/14 6:00 AM	0.06	105,530	0.25	422,120	0.30	0.12	12 hr	CloudBurst
CSO151	3/29/14 5:15 AM	3/29/14 5:15 PM	0.50	919,477	1.07	859,325	1.37	0.50	12 hr	CloudBurst
CSO206	1/2/14 4:00 AM	1/2/14 10:45 AM	0.28	96,325	0.27	356,760	0.79	0.14	3 hr	CloudBurst
CSO206	1/5/14 3:00 PM	1/5/14 8:30 PM	0.23	745,983	0.53	1,407,514	0.76	0.27	6 hr	CloudBurst
CSO206	1/11/14 12:15 AM	1/11/14 6:15 AM	0.25	1,455,197	1.08	1,347,405	1.63	0.59	6 hr	CloudBurst
CSO206	1/13/14 2:30 PM	1/13/14 6:00 PM	0.15	348,656	0.24	1,452,734	1.34	0.11	12 hr	CloudBurst
CSO206	2/2/14 3:00 AM	2/2/14 8:30 AM	0.23	874,855	0.44	1,988,307	0.17	0.17	24 hr	CloudBurst
CSO206	2/3/14 11:30 AM	2/5/14 4:45 AM	1.72	2,710,443	0.94	2,883,450	0.94	0.12	12 hr	CloudBurst
CSO206	2/14/14 4:00 PM	2/14/14 7:30 PM	0.15	197,173	0.45	438,163	0.48	0.24	6 hr	CloudBurst
CSO206	2/17/14 2:45 PM	2/17/14 11:30 PM	0.36	328,369	0.52	631,479	1.02	0.32	3 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO206	2/20/14 8:00 PM	2/21/14 1:15 AM	0.22	161,169	0.22	732,588	1.25	0.12	6 hr	CloudBurst
CSO206	2/23/14 5:00 PM	2/23/14 5:30 PM	0.02	4,035	0.02	201,770	0.77	0.01	48 hr	CloudBurst
CSO206	3/2/14 9:30 AM	3/2/14 4:45 PM	0.30	219,534	0.63	348,467	0.34	0.24	24 hr	CloudBurst
CSO206	3/12/14 7:15 AM	3/12/14 7:45 AM	0.02	23,979	0.08	299,735	0.07	0.03	48 hr	CloudBurst
CSO206	3/19/14 1:15 PM	3/19/14 6:45 PM	0.23	560	0.21	2,668	0.34	0.16	1 hr	CloudBurst
CSO206	3/28/14 4:15 AM	3/28/14 5:15 AM	0.04	77,909	0.22	354,130	0.26	0.10	12 hr	CloudBurst
CSO206	3/29/14 5:15 AM	3/29/14 2:15 PM	0.38	590,250	1.31	450,573	1.57	0.61	12 hr	CloudBurst
CSO029	1/11/14 12:15 AM	1/11/14 12:15 AM	0.00	13,095	0.97	13,500	0.84	0.52	6 hr	CloudBurst
CSO029	2/4/14 8:15 PM	2/4/14 8:15 PM	0.00	541	0.47	1,151	0.74	0.24	6 hr	CloudBurst
CSO029	2/17/14 4:00 PM	2/17/14 4:15 PM	0.01	10,364	0.48	21,591	0.79	0.28	3 hr	CloudBurst
CSO029	3/29/14 6:30 AM	3/29/14 6:45 AM	0.01	22,125	0.84	26,339	0.66	0.39	6 hr	CloudBurst
CSO038	2/4/14 7:30 PM	2/5/14 3:30 AM	0.33	440,890	0.47	938,063	0.96	0.24	6 hr	CloudBurst
CSO038	2/17/14 8:30 PM	2/17/14 10:45 PM	0.09	40,070	0.48	83,479	0.90	0.28	3 hr	CloudBurst
CSO038	2/20/14 7:15 PM	2/20/14 10:30 PM	0.14	15,750	0.16	98,438	1.00	0.09	6 hr	CloudBurst
CSO193	2/4/14 9:30 PM	2/4/14 9:30 PM	0.00	498	0.47	1,060	0.83	0.24	6 hr	CloudBurst
CSO036	1/5/14 4:45 PM	1/5/14 4:45 PM	0.00	1,324	0.51	2,597	0.59	0.26	6 hr	CloudBurst
CSO036	1/11/14 12:15 AM	1/11/14 4:00 AM	0.16	37,890	1.01	37,515	1.43	0.55	6 hr	CloudBurst
CSO036	2/2/14 4:00 AM	2/2/14 5:15 AM	0.05	6,301	0.24	26,255	0.17	0.13	6 hr	CloudBurst
CSO036	2/4/14 7:00 PM	2/4/14 11:30 PM	0.19	38,488	0.5	76,975	1.00	0.25	6 hr	CloudBurst
CSO036	2/17/14 4:00 PM	2/17/14 4:45 PM	0.03	14,490	0.63	23,000	1.13	0.37	3 hr	CloudBurst
CSO036	2/21/14 6:45 AM	2/21/14 6:45 AM	0.00	33,092	0.18	183,842	1.38	0.10	6 hr	CloudBurst
CSO036	3/12/14 7:15 AM	3/12/14 7:15 AM	0.00	732	0.08	9,156	0.08	0.04	1 hr	CloudBurst
CSO036	3/28/14 4:30 AM	3/28/14 4:45 AM	0.01	5,002	0.26	19,237	0.31	0.12	12 hr	CloudBurst
CSO036	3/29/14 6:15 AM	3/29/14 8:30 AM	0.09	7,679	0.86	8,929	0.91	0.40	6 hr	CloudBurst
CSO181	2/4/14 6:45 PM	2/4/14 11:45 PM	0.21	56,849	0.5	113,698	1.00	0.25	6 hr	CloudBurst
CSO181	2/17/14 4:15 PM	2/17/14 4:30 PM	0.01	16,601	0.63	26,351	1.11	0.37	3 hr	CloudBurst
CSO181	2/21/14 12:30 AM	2/21/14 2:15 AM	0.07	4,549	0.18	25,272	1.38	0.10	6 hr	CloudBurst
CSO181	3/2/14 9:45 AM	3/2/14 10:45 AM	0.04	1,989	0.59	3,371	0.26	0.22	24 hr	CloudBurst
CSO181	3/29/14 6:45 AM	3/29/14 6:45 AM	0.00	1,234	0.86	1,435	0.64	0.40	6 hr	CloudBurst
CSO117	1/5/14 3:30 PM	1/5/14 8:00 PM	0.19	538,843	0.51	1,056,555	0.71	0.25	3 hr	Atlas14
CSO117	1/11/14 12:30 AM	1/11/14 6:15 AM	0.24	2,201,386	1.01	2,179,590	1.53	0.55	6 hr	CloudBurst
CSO117	2/2/14 4:30 AM	2/2/14 6:15 AM	0.07	282,476	0.23	1,228,155	0.18	0.12	6 hr	CloudBurst
CSO117	2/4/14 7:30 PM	2/5/14 2:15 AM	0.28	2,905,434	0.52	5,587,372	1.00	0.25	6 hr	CloudBurst
CSO117	2/14/14 5:15 PM	2/14/14 6:45 PM	0.06	155,389	0.53	293,186	0.54	0.28	6 hr	CloudBurst
CSO117	2/17/14 4:15 PM	2/17/14 7:00 PM	0.11	1,157,738	0.63	1,837,680	1.22	0.37	3 hr	CloudBurst
CSO117	2/20/14 11:30 PM	2/21/14 12:15 AM	0.03	82,741	0.18	459,674	1.40	0.10	6 hr	CloudBurst
CSO117	3/2/14 10:15 AM	3/2/14 12:15 PM	0.08	602,051	0.59	1,020,425	0.30	0.22	24 hr	CloudBurst
CSO117	3/28/14 4:45 AM	3/28/14 5:30 AM	0.03	146,762	0.25	587,046	0.30	0.12	6 hr	CloudBurst
CSO117	3/29/14 6:30 AM	3/29/14 1:30 PM	0.29	1,815,160	0.89	2,039,505	1.18	0.41	12 hr	CloudBurst
CSO083	2/17/14 4:00 PM	2/17/14 4:00 PM	0.00	17,873	0.55	32,496	0.95	0.33	3 hr	CloudBurst
CSO083	3/29/14 6:30 AM	3/29/14 6:30 AM	0.00	4,804	0.94	5,110	0.60	0.44	12 hr	CloudBurst
CSO084	1/11/14 12:30 AM	1/11/14 3:30 AM	0.13	10,509	0.95	11,062	1.26	0.52	6 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO084	2/4/14 8:00 PM	2/4/14 11:30 PM	0.15	20,151	0.51	39,513	0.95	0.26	6 hr	CloudBurst
CSO084	2/17/14 4:45 PM	2/17/14 4:45 PM	0.00	921	0.55	1,675	1.05	0.33	3 hr	CloudBurst
CSO084	3/2/14 10:45 AM	3/2/14 11:15 AM	0.02	6,317	0.57	11,083	0.28	0.22	24 hr	CloudBurst
CSO084	3/28/14 4:45 AM	3/28/14 4:45 AM	0.00	523	0.25	2,090	0.30	0.12	6 hr	CloudBurst
CSO084	3/29/14 6:30 AM	3/29/14 8:30 AM	0.08	2,387	0.94	2,540	0.93	0.44	12 hr	CloudBurst
CSO118	1/2/14 3:15 AM	1/2/14 10:15 AM	0.29	325	0.24	1,356	0.73	0.13	3 hr	Atlas14
CSO118	1/5/14 2:30 PM	1/5/14 7:30 PM	0.21	237,167	0.47	504,611	0.66	0.24	6 hr	CloudBurst
CSO118	1/10/14 11:45 PM	1/11/14 5:30 AM	0.24	2,196,586	0.95	2,312,196	1.43	0.52	6 hr	CloudBurst
CSO118	1/13/14 2:00 PM	1/13/14 5:30 PM	0.15	857	0.2	4,284	1.16	0.09	12 hr	CloudBurst
CSO118	1/21/14 1:00 PM	1/21/14 1:15 PM	0.01	103	0.15	685	0.17	0.07	12 hr	CloudBurst
CSO118	1/25/14 11:45 AM	1/25/14 1:30 PM	0.07	203	0.05	4,070	0.22	0.03	6 hr	CloudBurst
CSO118	2/2/14 2:45 AM	2/2/14 7:00 AM	0.18	220,890	0.21	1,051,857	0.20	0.11	6 hr	CloudBurst
CSO118	2/2/14 4:30 PM	2/2/14 4:45 PM	0.01	110	0.25	439	0.23	0.12	12 hr	CloudBurst
CSO118	2/3/14 9:45 AM	2/3/14 2:45 PM	0.21	1,145	0.25	4,581	0.46	0.12	12 hr	CloudBurst
CSO118	2/4/14 6:00 PM	2/5/14 3:15 AM	0.39	3,089,699	0.51	6,058,233	0.97	0.26	6 hr	CloudBurst
CSO118	2/14/14 3:45 PM	2/14/14 7:45 PM	0.17	5,392	0.5	10,785	0.52	0.27	6 hr	CloudBurst
CSO118	2/17/14 2:15 PM	2/17/14 6:30 PM	0.18	1,342,702	0.55	2,441,276	1.11	0.33	3 hr	CloudBurst
CSO118	2/20/14 7:00 PM	2/20/14 11:45 PM	0.20	60,219	0.17	354,231	1.27	0.09	6 hr	CloudBurst
CSO118	3/2/14 9:15 AM	3/2/14 6:45 PM	0.40	467,947	0.57	820,959	0.34	0.22	24 hr	CloudBurst
CSO118	3/3/14 1:30 PM	3/3/14 4:00 PM	0.10	603	0.57	1,057	0.58	0.22	24 hr	CloudBurst
CSO118	3/12/14 7:15 AM	3/12/14 7:30 AM	0.01	379	0.06	6,321	0.06	0.03	1 hr	CloudBurst
CSO118	3/16/14 5:30 PM	3/16/14 7:30 PM	0.08	247	0.08	3,093	0.15	0.05	3 hr	CloudBurst
CSO118	3/19/14 8:00 AM	3/19/14 8:30 AM	0.02	287	0.07	4,100	0.15	0.04	6 hr	CloudBurst
CSO118	3/28/14 4:30 AM	3/28/14 5:30 AM	0.04	159,573	0.25	638,291	0.30	0.12	6 hr	CloudBurst
CSO118	3/29/14 5:15 AM	3/29/14 1:15 PM	0.33	2,038,194	0.94	2,168,292	1.22	0.44	12 hr	CloudBurst
CSO127	1/5/14 3:00 PM	1/5/14 8:15 PM	0.22	131,450	0.47	279,680	0.70	0.24	6 hr	CloudBurst
CSO127	1/11/14 12:30 AM	1/11/14 5:45 AM	0.22	402,330	1.03	390,611	1.51	0.56	6 hr	CloudBurst
CSO127	1/13/14 3:00 PM	1/13/14 3:00 PM	0.00	75	0.23	328	1.19	0.11	12 hr	CloudBurst
CSO127	2/2/14 4:00 AM	2/2/14 7:45 AM	0.16	187,294	0.41	456,815	0.16	0.16	24 hr	CloudBurst
CSO127	2/4/14 7:00 PM	2/5/14 2:15 AM	0.30	706,147	0.46	1,535,102	0.87	0.22	6 hr	CloudBurst
CSO127	2/14/14 4:45 PM	2/14/14 6:45 PM	0.08	95,343	0.39	244,470	0.40	0.20	6 hr	CloudBurst
CSO127	2/17/14 4:15 PM	2/17/14 6:30 PM	0.09	87,064	0.44	197,873	0.88	0.27	3 hr	CloudBurst
CSO127	2/20/14 8:45 PM	2/21/14 12:00 AM	0.14	36,796	0.22	167,253	1.10	0.12	6 hr	CloudBurst
CSO127	3/2/14 10:00 AM	3/2/14 11:30 AM	0.06	133,575	0.59	226,399	0.31	0.22	24 hr	CloudBurst
CSO127	3/28/14 4:30 AM	3/28/14 5:00 AM	0.02	13,770	0.19	72,475	0.23	0.09	12 hr	CloudBurst
CSO127	3/29/14 5:30 AM	3/29/14 1:00 PM	0.31	386,316	1.44	268,275	1.64	0.67	12 hr	CloudBurst
CSO166	1/5/14 6:00 PM	1/5/14 6:15 PM	0.01	76,230	0.47	162,192	0.67	0.24	6 hr	CloudBurst
CSO166	1/11/14 12:45 AM	1/11/14 6:15 AM	0.23	2,734,042	1.03	2,654,409	1.51	0.56	6 hr	CloudBurst
CSO166	2/2/14 5:30 AM	2/2/14 5:45 AM	0.01	33,661	0.41	82,101	0.13	0.16	24 hr	CloudBurst
CSO166	2/4/14 8:00 PM	2/5/14 4:15 AM	0.34	3,084,410	0.46	6,705,240	0.87	0.22	6 hr	CloudBurst
CSO166	2/17/14 4:30 PM	2/17/14 7:00 PM	0.10	621,404	0.44	1,412,282	0.88	0.27	3 hr	CloudBurst
CSO166	2/20/14 11:30 PM	2/21/14 12:00 AM	0.02	60,624	0.22	275,561	1.10	0.12	6 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO166	3/2/14 10:15 AM	3/2/14 11:45 AM	0.06	184,135	0.59	312,094	0.31	0.22	24 hr	CloudBurst
CSO166	3/28/14 4:45 AM	3/28/14 5:15 AM	0.02	29,132	0.19	153,327	0.23	0.09	12 hr	CloudBurst
CSO166	3/29/14 7:15 AM	3/29/14 1:45 PM	0.27	1,249,139	1.44	867,458	1.67	0.67	12 hr	CloudBurst
CSO104	2/17/14 4:45 PM	2/17/14 4:45 PM	0.00	1,445	0.56	2,580	0.75	0.32	3 hr	CloudBurst
CSO105	1/11/14 12:00 AM	1/11/14 7:30 AM	0.31	6,258,047	0.91	6,876,975	1.40	0.49	6 hr	CloudBurst
CSO105	1/13/14 2:15 PM	1/13/14 6:15 PM	0.17	4,249	0.28	15,176	1.20	0.13	3 hr	Atlas14
CSO105	1/14/14 6:30 PM	1/14/14 6:45 PM	0.01	380	0.02	18,998	1.23	0.02	1 hr	CloudBurst
CSO105	1/21/14 3:30 AM	1/21/14 4:00 PM	0.52	2,665	0.15	17,763	0.20	0.07	12 hr	CloudBurst
CSO105	1/25/14 12:00 PM	1/25/14 4:00 PM	0.17	3,116	0.04	77,902	0.22	0.02	24 hr	CloudBurst
CSO105	2/2/14 2:30 AM	2/2/14 7:45 AM	0.22	369,160	0.58	636,483	0.25	0.22	24 hr	CloudBurst
CSO105	2/4/14 6:15 PM	2/5/14 8:00 AM	0.57	9,961,968	0.67	14,868,609	1.25	0.33	6 hr	CloudBurst
CSO105	2/14/14 3:45 PM	2/14/14 11:00 PM	0.30	4,600	0.23	19,999	0.29	0.13	6 hr	CloudBurst
CSO105	2/17/14 2:30 PM	2/17/14 9:15 PM	0.28	4,532,004	0.56	8,092,863	0.82	0.32	3 hr	CloudBurst
CSO105	2/20/14 8:15 PM	2/21/14 12:45 AM	0.19	146,764	0.24	611,516	1.06	0.13	3 hr	Atlas14
CSO105	3/2/14 9:30 AM	3/2/14 1:00 PM	0.15	815,232	0.47	1,734,537	0.28	0.18	24 hr	CloudBurst
CSO105	3/12/14 7:15 AM	3/12/14 11:45 AM	0.19	2,092	0.11	19,017	0.11	0.06	1 hr	CloudBurst
CSO105	3/16/14 5:30 PM	3/16/14 8:15 PM	0.11	1,499	0.04	37,470	0.17	0.03	3 hr	CloudBurst
CSO105	3/19/14 8:45 AM	3/19/14 8:45 AM	0.00	90	0.06	1,503	0.12	0.04	3 hr	CloudBurst
CSO105	3/27/14 11:15 PM	3/28/14 6:15 AM	0.29	299,875	0.26	1,153,364	0.35	0.14	6 hr	CloudBurst
CSO105	3/29/14 4:30 AM	3/29/14 2:15 PM	0.41	3,510,550	0.84	4,179,226	1.19	0.39	12 hr	CloudBurst
CSO189	1/5/14 6:00 PM	1/5/14 6:15 PM	0.01	8,615	0.47	18,330	0.58	0.23	6 hr	CloudBurst
CSO189	1/11/14 12:30 AM	1/11/14 5:45 AM	0.22	3,756,973	0.91	4,128,542	1.40	0.49	6 hr	CloudBurst
CSO189	2/2/14 5:45 AM	2/2/14 5:45 AM	0.00	30,117	0.58	51,926	0.21	0.22	24 hr	CloudBurst
CSO189	2/4/14 7:45 PM	2/5/14 2:15 AM	0.27	7,069,862	0.67	10,552,033	1.25	0.33	6 hr	CloudBurst
CSO189	2/17/14 4:15 PM	2/17/14 9:30 PM	0.22	2,986,569	0.56	5,333,160	0.82	0.32	3 hr	CloudBurst
CSO189	3/2/14 11:00 AM	3/2/14 12:00 PM	0.04	148,395	0.47	315,733	0.28	0.18	24 hr	CloudBurst
CSO189	3/28/14 4:45 AM	3/28/14 5:30 AM	0.03	283,018	0.26	1,088,533	0.35	0.14	6 hr	CloudBurst
CSO189	3/29/14 7:00 AM	3/29/14 9:45 AM	0.11	1,772,238	0.84	2,109,807	0.96	0.39	12 hr	CloudBurst
CSO208	1/2/14 3:45 AM	1/2/14 6:00 AM	0.09	1,018	0.2	5,089	0.66	0.09	6 hr	CloudBurst
CSO208	1/5/14 2:30 PM	1/5/14 6:45 PM	0.18	5,833	0.47	12,410	0.61	0.24	3 hr	CloudBurst
CSO208	1/10/14 11:45 PM	1/11/14 5:00 AM	0.22	8,322	0.84	9,908	1.30	0.45	6 hr	CloudBurst
CSO208	1/13/14 2:00 PM	1/13/14 5:15 PM	0.14	1,352	0.2	6,761	1.05	0.09	12 hr	CloudBurst
CSO208	1/14/14 6:15 PM	1/14/14 6:15 PM	0.00	41	0.02	2,066	1.07	0.02	1 hr	CloudBurst
CSO208	1/25/14 2:00 PM	1/25/14 2:00 PM	0.00	11	0.06	180	0.21	0.03	12 hr	CloudBurst
CSO208	2/2/14 2:30 AM	2/2/14 7:15 AM	0.20	5,148	0.25	20,592	0.24	0.13	6 hr	CloudBurst
CSO208	2/4/14 6:15 PM	2/5/14 1:00 AM	0.28	14,665	0.58	25,285	1.13	0.29	6 hr	CloudBurst
CSO208	2/14/14 3:30 PM	2/14/14 5:30 PM	0.08	10,809	0.28	38,602	0.26	0.15	6 hr	CloudBurst
CSO208	2/17/14 2:15 PM	2/17/14 5:45 PM	0.15	11,474	0.61	18,810	0.93	0.36	3 hr	CloudBurst
CSO208	2/20/14 8:15 PM	2/20/14 11:00 PM	0.11	1,195	0.19	6,289	1.11	0.10	6 hr	CloudBurst
CSO208	3/2/14 9:15 AM	3/2/14 11:15 AM	0.08	3,395	0.52	6,529	0.26	0.20	24 hr	CloudBurst
CSO208	3/12/14 7:00 AM	3/12/14 7:15 AM	0.01	1,746	0.08	21,822	0.07	0.04	1 hr	CloudBurst
CSO208	3/19/14 8:30 AM	3/19/14 8:45 AM	0.01	974	0.08	12,174	0.13	0.05	3 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO208	3/27/14 11:45 PM	3/28/14 5:00 AM	0.22	2,719	0.31	8,771	0.36	0.16	1 hr	CloudBurst
CSO208	3/29/14 5:00 AM	3/29/14 12:30 PM	0.31	7,835	0.75	10,447	1.05	0.35	12 hr	CloudBurst
CSO057	1/11/14 12:15 AM	1/11/14 12:15 AM	0.00	3	0.87	4	0.79	0.47	6 hr	CloudBurst
CSO057	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	2	0.71	2	1.06	0.42	3 hr	CloudBurst
CSO057	3/2/14 9:30 AM	3/2/14 9:30 AM	0.00	3	0.55	6	0.08	0.21	24 hr	CloudBurst
CSO057	3/29/14 6:15 AM	3/29/14 6:30 AM	0.01	341	1.15	296	0.91	0.56	3 hr	Atlas14
CSO160	1/2/14 3:00 AM	1/2/14 9:30 AM	0.27	715	0.23	3,108	0.71	0.11	3 hr	CloudBurst
CSO160	1/5/14 2:30 PM	1/5/14 9:45 PM	0.30	10,571	0.59	17,917	0.82	0.30	6 hr	CloudBurst
CSO160	1/10/14 11:45 PM	1/11/14 6:00 AM	0.26	8,539	0.87	9,815	1.47	0.47	6 hr	CloudBurst
CSO160	1/13/14 8:15 AM	1/13/14 5:15 PM	0.38	1,700	0.19	8,949	1.07	0.09	3 hr	CloudBurst
CSO160	1/14/14 6:15 PM	1/14/14 6:45 PM	0.02	114	0.01	11,422	1.08	0.01	6 hr	CloudBurst
CSO160	1/21/14 3:00 AM	1/21/14 2:30 PM	0.48	914	0.16	5,711	0.18	0.07	12 hr	CloudBurst
CSO160	1/25/14 12:15 PM	1/25/14 2:00 PM	0.07	270	0.06	4,501	0.24	0.03	12 hr	CloudBurst
CSO160	2/2/14 1:45 AM	2/2/14 8:15 AM	0.27	2,597	0.51	5,092	0.22	0.19	24 hr	CloudBurst
CSO160	2/2/14 4:45 PM	2/2/14 8:45 PM	0.17	149	0.51	292	0.32	0.19	24 hr	CloudBurst
CSO160	2/3/14 9:45 AM	2/3/14 3:00 PM	0.22	421	0.51	825	0.51	0.19	24 hr	CloudBurst
CSO160	2/4/14 6:30 PM	2/5/14 12:45 AM	0.26	6,064	0.53	11,441	1.04	0.26	6 hr	CloudBurst
CSO160	2/14/14 4:15 PM	2/14/14 6:00 PM	0.07	578	0.44	1,314	0.40	0.24	6 hr	CloudBurst
CSO160	2/17/14 2:15 PM	2/17/14 6:00 PM	0.16	1,871	0.71	2,635	1.21	0.42	3 hr	CloudBurst
CSO160	2/20/14 6:45 PM	2/21/14 12:30 AM	0.24	3,586	0.16	22,410	1.37	0.09	6 hr	CloudBurst
CSO160	3/2/14 9:15 AM	3/2/14 11:45 AM	0.10	1,138	0.55	2,069	0.27	0.21	24 hr	CloudBurst
CSO160	3/3/14 1:00 PM	3/3/14 2:45 PM	0.07	138	0.55	251	0.56	0.21	24 hr	CloudBurst
CSO160	3/12/14 7:00 AM	3/12/14 7:45 AM	0.03	569	0.08	7,111	0.08	0.04	1 hr	CloudBurst
CSO160	3/16/14 5:15 PM	3/16/14 7:15 PM	0.08	202	0.08	2,530	0.17	0.05	3 hr	CloudBurst
CSO160	3/19/14 8:00 AM	3/19/14 9:00 AM	0.04	380	0.07	5,431	0.17	0.05	3 hr	CloudBurst
CSO160	3/27/14 11:15 PM	3/28/14 5:30 AM	0.26	2,902	0.33	8,793	0.39	0.17	1 hr	CloudBurst
CSO160	3/29/14 5:00 AM	3/29/14 2:15 PM	0.39	7,350	1.15	6,391	1.54	0.56	3 hr	Atlas14
CSO161	2/17/14 3:45 PM	2/17/14 3:45 PM	0.00	428	0.71	603	0.73	0.42	3 hr	CloudBurst
CSO058	1/11/14 12:00 AM	1/11/14 12:00 AM	0.00	162	0.85	190	0.71	0.46	6 hr	CloudBurst
CSO058	2/17/14 4:00 PM	2/17/14 4:00 PM	0.00	668	0.72	928	1.05	0.42	3 hr	CloudBurst
CSO058	3/29/14 6:30 AM	3/29/14 6:30 AM	0.00	245	1.07	229	0.83	0.51	6 hr	CloudBurst
CSO120	1/10/14 11:45 PM	1/11/14 3:45 AM	0.17	132,714	0.81	163,844	1.21	0.44	6 hr	CloudBurst
CSO120	2/2/14 5:00 AM	2/2/14 5:00 AM	0.00	16,929	0.22	76,948	0.15	0.12	6 hr	CloudBurst
CSO120	2/4/14 7:30 PM	2/4/14 11:30 PM	0.17	336,700	0.51	660,195	0.96	0.25	6 hr	CloudBurst
CSO120	2/17/14 4:00 PM	2/17/14 4:45 PM	0.03	170,651	0.65	262,540	1.13	0.38	3 hr	CloudBurst
CSO120	2/20/14 11:00 PM	2/20/14 11:00 PM	0.00	3,479	0.17	20,465	1.36	0.09	6 hr	CloudBurst
CSO120	3/2/14 9:45 AM	3/2/14 11:00 AM	0.05	42,593	0.53	80,365	0.25	0.20	24 hr	CloudBurst
CSO120	3/28/14 4:30 AM	3/28/14 4:30 AM	0.00	24,355	0.32	76,109	0.34	0.17	1 hr	CloudBurst
CSO120	3/29/14 6:30 AM	3/29/14 8:45 AM	0.09	180,134	0.94	191,632	1.05	0.44	6 hr	CloudBurst
CSO121	1/11/14 12:15 AM	1/11/14 3:15 AM	0.13	124,981	0.81	154,298	1.16	0.44	6 hr	CloudBurst
CSO121	2/4/14 8:00 PM	2/4/14 11:45 PM	0.16	221,106	0.51	433,541	0.96	0.25	6 hr	CloudBurst
CSO121	2/14/14 4:00 PM	2/14/14 5:15 PM	0.05	1,662	0.49	3,392	0.36	0.26	6 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO121	2/17/14 4:00 PM	2/17/14 4:45 PM	0.03	53,927	0.65	82,965	1.13	0.38	3 hr	CloudBurst
CSO121	3/19/14 8:30 AM	3/19/14 8:30 AM	0.00	1,003	0.06	16,717	0.14	0.03	12 hr	CloudBurst
CSO121	3/28/14 4:30 AM	3/28/14 4:30 AM	0.00	3,566	0.32	11,144	0.34	0.17	1 hr	CloudBurst
CSO121	3/29/14 6:15 AM	3/29/14 8:15 AM	0.08	63,488	0.94	67,541	1.02	0.44	6 hr	CloudBurst
CSO141	1/5/14 3:00 PM	1/5/14 5:45 PM	0.11	1,027	0.49	2,097	0.62	0.25	3 hr	CloudBurst
CSO141	1/11/14 12:00 AM	1/11/14 3:15 PM	0.64	60,451	0.81	74,631	1.32	0.44	6 hr	CloudBurst
CSO141	1/13/14 2:15 PM	1/13/14 5:15 PM	0.13	10,938	0.21	52,087	1.02	0.10	12 hr	CloudBurst
CSO141	2/2/14 2:30 AM	2/2/14 8:45 AM	0.26	59,142	0.22	268,829	0.22	0.12	6 hr	CloudBurst
CSO141	2/4/14 6:45 PM	2/5/14 7:15 AM	0.52	75,423	0.51	147,887	0.98	0.25	6 hr	CloudBurst
CSO141	2/14/14 4:00 PM	2/14/14 5:45 PM	0.07	1,000	0.49	2,041	0.40	0.26	6 hr	CloudBurst
CSO141	2/17/14 2:45 PM	2/17/14 4:45 PM	0.08	5,173	0.65	7,958	1.13	0.38	3 hr	CloudBurst
CSO141	2/20/14 8:15 PM	2/20/14 8:15 PM	0.00	8	0.17	44	1.26	0.09	6 hr	CloudBurst
CSO141	3/12/14 7:15 AM	3/12/14 7:15 AM	0.00	176	0.1	1,761	0.09	0.05	1 hr	CloudBurst
CSO141	3/19/14 8:30 AM	3/19/14 8:30 AM	0.00	13	0.06	214	0.14	0.03	12 hr	CloudBurst
CSO141	3/28/14 1:15 AM	3/28/14 7:15 AM	0.25	14,650	0.32	45,781	0.37	0.17	1 hr	CloudBurst
CSO141	3/29/14 5:00 AM	3/29/14 12:15 PM	0.30	35,705	0.94	37,985	1.25	0.44	6 hr	CloudBurst
CSO153	1/5/14 2:45 PM	1/5/14 8:00 PM	0.22	162,650	0.49	331,938	0.67	0.25	3 hr	CloudBurst
CSO153	1/11/14 12:00 AM	1/11/14 5:15 AM	0.22	408,244	0.81	504,005	1.31	0.44	6 hr	CloudBurst
CSO153	2/2/14 4:00 AM	2/2/14 7:30 AM	0.15	87,703	0.22	398,650	0.21	0.12	6 hr	CloudBurst
CSO153	2/4/14 7:00 PM	2/5/14 12:45 AM	0.24	655,470	0.51	1,285,235	0.98	0.25	6 hr	CloudBurst
CSO153	2/14/14 5:00 PM	2/14/14 6:15 PM	0.05	33,589	0.49	68,549	0.44	0.26	6 hr	CloudBurst
CSO153	2/17/14 3:30 PM	2/17/14 7:15 PM	0.16	289,279	0.65	445,045	1.20	0.38	3 hr	CloudBurst
CSO153	2/20/14 11:00 PM	2/21/14 12:15 AM	0.05	62,042	0.17	364,956	1.38	0.09	6 hr	CloudBurst
CSO153	3/2/14 9:30 AM	3/2/14 11:15 AM	0.07	113,495	0.53	214,141	0.25	0.20	24 hr	CloudBurst
CSO153	3/12/14 7:15 AM	3/12/14 7:15 AM	0.00	11,550	0.1	115,498	0.09	0.05	1 hr	CloudBurst
CSO153	3/28/14 4:30 AM	3/28/14 4:45 AM	0.01	35,540	0.32	111,061	0.37	0.17	1 hr	CloudBurst
CSO153	3/29/14 6:15 AM	3/29/14 1:15 PM	0.29	460,057	0.94	489,422	1.30	0.44	6 hr	CloudBurst
CSO140	1/11/14 12:15 AM	1/11/14 3:15 AM	0.13	60,938	0.84	72,545	1.13	0.45	6 hr	CloudBurst
CSO140	2/4/14 7:45 PM	2/5/14 11:45 AM	0.67	285,701	0.5	571,402	0.94	0.25	6 hr	CloudBurst
CSO140	2/17/14 4:00 PM	2/17/14 4:30 PM	0.02	81,222	0.57	142,494	1.04	0.35	3 hr	CloudBurst
CSO140	3/12/14 7:15 AM	3/12/14 7:15 AM	0.00	334	0.07	4,774	0.06	0.03	1 hr	CloudBurst
CSO140	3/29/14 6:15 AM	3/29/14 6:45 AM	0.02	78,699	1.03	76,407	0.77	0.48	12 hr	CloudBurst
CSO144	2/17/14 4:00 PM	2/17/14 4:00 PM	0.00	110	0.52	212	0.90	0.32	3 hr	CloudBurst
CSO125	1/11/14 12:45 AM	1/11/14 5:30 AM	0.20	817,626	1.07	764,137	1.53	0.59	6 hr	CloudBurst
CSO125	2/2/14 5:30 AM	2/2/14 5:30 AM	0.00	5,423	0.37	14,656	0.12	0.14	24 hr	CloudBurst
CSO125	2/4/14 8:00 PM	2/5/14 1:45 AM	0.24	1,180,808	0.4	2,952,020	0.76	0.20	6 hr	CloudBurst
CSO125	2/17/14 4:30 PM	2/17/14 6:15 PM	0.07	387,309	0.38	1,019,233	0.78	0.23	3 hr	CloudBurst
CSO125	2/20/14 11:30 PM	2/20/14 11:30 PM	0.00	30,022	0.2	150,111	0.99	0.11	6 hr	CloudBurst
CSO125	3/2/14 10:15 AM	3/2/14 11:30 AM	0.05	139,032	0.53	262,324	0.29	0.20	24 hr	CloudBurst
CSO125	3/28/14 4:45 AM	3/28/14 5:00 AM	0.01	67,696	0.27	250,727	0.32	0.14	1 hr	CloudBurst
CSO125	3/29/14 7:00 AM	3/29/14 12:30 PM	0.23	588,963	1.23	478,832	1.48	0.57	6 hr	CloudBurst
CSO126	2/4/14 11:30 PM	2/5/14 12:30 AM	0.04	33,976	0.4	84,940	0.76	0.20	6 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO126	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	4,818	0.38	12,678	0.69	0.23	3 hr	CloudBurst
CSO050	1/5/14 2:45 PM	1/5/14 7:00 PM	0.18	40,494	0.52	77,874	0.66	0.27	3 hr	CloudBurst
CSO050	1/11/14 12:00 AM	1/11/14 5:15 AM	0.22	186,265	0.77	241,903	1.29	0.41	6 hr	CloudBurst
CSO050	1/13/14 2:30 PM	1/13/14 5:15 PM	0.11	3,931	0.22	17,868	1.00	0.10	12 hr	CloudBurst
CSO050	1/14/14 6:30 PM	1/14/14 6:30 PM	0.00	312	0.03	10,399	1.03	0.03	1 hr	CloudBurst
CSO050	2/2/14 3:00 AM	2/2/14 7:15 AM	0.18	30,258	0.52	58,188	0.22	0.20	24 hr	CloudBurst
CSO050	2/4/14 6:45 PM	2/5/14 1:15 AM	0.27	215,590	0.62	347,726	1.13	0.30	6 hr	CloudBurst
CSO050	2/14/14 4:15 PM	2/14/14 5:30 PM	0.05	4,447	0.28	15,883	0.26	0.15	6 hr	CloudBurst
CSO050	2/17/14 3:30 PM	2/17/14 6:15 PM	0.11	125,992	0.52	242,291	0.85	0.30	3 hr	CloudBurst
CSO050	3/2/14 9:30 AM	3/2/14 11:30 AM	0.08	46,345	0.45	102,989	0.22	0.17	24 hr	CloudBurst
CSO050	3/12/14 7:15 AM	3/12/14 7:30 AM	0.01	12,993	0.1	129,932	0.08	0.04	1 hr	CloudBurst
CSO050	3/19/14 8:45 AM	3/19/14 8:45 AM	0.00	874	0.07	12,485	0.14	0.04	6 hr	CloudBurst
CSO050	3/27/14 9:45 AM	3/27/14 9:45 AM	0.00	503	0.03	16,760	0.06	0.02	6 hr	CloudBurst
CSO050	3/28/14 4:00 AM	3/28/14 5:00 AM	0.04	33,200	0.34	97,647	0.40	0.18	6 hr	CloudBurst
CSO050	3/29/14 5:15 AM	3/29/14 1:00 PM	0.32	142,055	0.82	173,238	1.19	0.38	12 hr	CloudBurst
CSO051	1/11/14 12:30 AM	1/11/14 10:45 PM	0.93	892	0.77	1,158	1.30	0.41	6 hr	CloudBurst
CSO051	2/17/14 4:00 PM	2/17/14 4:00 PM	0.00	5,503	0.52	10,583	0.71	0.30	3 hr	CloudBurst
CSO051	2/20/14 10:45 PM	2/20/14 10:45 PM	0.00	84	0.18	466	1.00	0.09	6 hr	CloudBurst
CSO051	3/29/14 6:30 AM	3/29/14 6:30 AM	0.00	63	0.82	77	0.66	0.38	12 hr	CloudBurst
CSO155	1/10/14 11:45 PM	1/11/14 12:00 AM	0.01	1,888	0.77	2,452	0.64	0.41	6 hr	CloudBurst
CSO155	2/4/14 9:30 PM	2/4/14 11:00 PM	0.06	346	0.62	559	1.09	0.30	6 hr	CloudBurst
CSO155	2/17/14 2:30 PM	2/17/14 4:30 PM	0.08	23,470	0.52	45,134	0.77	0.30	3 hr	CloudBurst
CSO155	2/20/14 10:45 PM	2/20/14 11:00 PM	0.01	1,610	0.18	8,944	1.02	0.09	6 hr	CloudBurst
CSO155	3/28/14 4:00 AM	3/28/14 4:00 AM	0.00	15	0.34	44	0.33	0.18	6 hr	CloudBurst
CSO155	3/29/14 6:15 AM	3/29/14 6:30 AM	0.01	160	0.82	195	0.66	0.38	12 hr	CloudBurst
CSO190	1/5/14 2:45 PM	1/6/14 2:30 AM	0.49	59,732	0.52	114,870	0.71	0.27	3 hr	CloudBurst
CSO190	1/11/14 12:15 AM	1/11/14 7:45 AM	0.31	535,487	0.77	695,437	1.30	0.41	6 hr	CloudBurst
CSO190	2/2/14 3:00 AM	2/2/14 11:30 PM	0.85	79,675	0.52	153,221	0.44	0.20	24 hr	CloudBurst
CSO190	2/4/14 6:45 PM	2/5/14 1:45 AM	0.29	868,746	0.62	1,401,203	1.13	0.30	6 hr	CloudBurst
CSO190	2/17/14 3:30 PM	2/17/14 7:45 PM	0.18	541,914	0.52	1,042,143	0.85	0.30	3 hr	CloudBurst
CSO190	2/20/14 10:45 PM	2/21/14 12:00 AM	0.05	114,294	0.18	634,964	1.02	0.09	6 hr	CloudBurst
CSO190	3/2/14 10:30 AM	3/2/14 12:45 PM	0.09	37,414	0.45	83,142	0.22	0.17	24 hr	CloudBurst
CSO190	3/11/14 11:00 PM	3/12/14 7:30 AM	0.35	8,851	0.1	88,510	0.08	0.04	1 hr	CloudBurst
CSO190	3/28/14 4:15 AM	3/28/14 7:15 AM	0.13	55,703	0.34	163,833	0.40	0.18	6 hr	CloudBurst
CSO190	3/29/14 6:15 AM	3/29/14 10:45 PM	0.69	227,156	0.82	277,020	1.22	0.38	12 hr	CloudBurst
CSO053	1/5/14 3:00 PM	1/5/14 5:45 PM	0.11	7,497	0.48	15,618	0.59	0.25	3 hr	CloudBurst
CSO053	1/11/14 12:15 AM	1/11/14 4:00 AM	0.16	115,045	0.75	153,394	1.17	0.40	6 hr	CloudBurst
CSO053	2/2/14 3:00 AM	2/2/14 5:15 AM	0.09	18,028	0.21	85,847	0.16	0.11	6 hr	CloudBurst
CSO053	2/4/14 7:00 PM	2/4/14 11:45 PM	0.20	168,403	0.53	317,741	1.00	0.26	6 hr	CloudBurst
CSO053	2/17/14 4:15 PM	2/17/14 4:45 PM	0.02	90,564	0.49	184,824	0.80	0.28	3 hr	CloudBurst
CSO053	2/20/14 11:00 PM	2/20/14 11:15 PM	0.01	30,833	0.2	154,166	1.05	0.11	6 hr	CloudBurst
CSO053	3/2/14 9:45 AM	3/2/14 11:15 AM	0.06	30,358	0.45	67,463	0.22	0.17	24 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO053	3/12/14 7:30 AM	3/12/14 7:30 AM	0.00	884	0.1	8,840	0.10	0.05	1 hr	CloudBurst
CSO053	3/28/14 4:15 AM	3/28/14 4:45 AM	0.02	16,397	0.29	56,542	0.35	0.15	3 hr	Atlas14
CSO053	3/29/14 5:15 AM	3/29/14 8:30 AM	0.14	80,855	0.79	102,348	0.84	0.37	12 hr	CloudBurst
CSO054	1/5/14 2:30 PM	1/5/14 6:45 PM	0.18	3,356	0.48	6,991	0.61	0.25	3 hr	CloudBurst
CSO054	1/10/14 11:45 PM	1/11/14 5:45 AM	0.25	9,217	0.75	12,290	1.24	0.40	6 hr	CloudBurst
CSO054	1/13/14 2:00 PM	1/13/14 5:00 PM	0.13	1,135	0.2	5,674	0.96	0.09	12 hr	CloudBurst
CSO054	1/14/14 6:15 PM	1/14/14 6:15 PM	0.00	416	0.02	20,779	0.98	0.02	1 hr	CloudBurst
CSO054	2/2/14 2:30 AM	2/2/14 8:00 AM	0.23	4,403	0.21	20,966	0.22	0.11	6 hr	CloudBurst
CSO054	2/4/14 6:45 PM	2/5/14 12:15 AM	0.23	6,776	0.53	12,785	1.02	0.26	6 hr	CloudBurst
CSO054	2/14/14 3:45 PM	2/14/14 5:45 PM	0.08	1,435	0.32	4,486	0.30	0.17	6 hr	CloudBurst
CSO054	2/17/14 2:15 PM	2/17/14 5:15 PM	0.13	6,247	0.49	12,749	0.83	0.28	3 hr	CloudBurst
CSO054	2/20/14 10:30 PM	2/20/14 11:30 PM	0.04	788	0.2	3,940	1.06	0.11	6 hr	CloudBurst
CSO054	3/2/14 9:15 AM	3/2/14 12:00 PM	0.11	2,752	0.45	6,115	0.23	0.17	24 hr	CloudBurst
CSO054	3/12/14 7:00 AM	3/12/14 7:15 AM	0.01	910	0.1	9,099	0.10	0.05	1 hr	CloudBurst
CSO054	3/28/14 3:45 AM	3/28/14 5:45 AM	0.08	3,027	0.29	10,437	0.35	0.15	3 hr	Atlas14
CSO054	3/29/14 5:00 AM	3/29/14 12:15 PM	0.30	8,198	0.79	10,377	1.06	0.37	12 hr	CloudBurst
CSO055	1/11/14 12:15 AM	1/11/14 12:15 AM	0.00	372	0.75	497	0.69	0.40	6 hr	CloudBurst
CSO055	2/4/14 10:45 PM	2/4/14 11:30 PM	0.03	9,367	0.53	17,674	1.00	0.26	6 hr	CloudBurst
CSO055	2/17/14 4:15 PM	2/17/14 4:15 PM	0.00	3,071	0.49	6,268	0.76	0.28	3 hr	CloudBurst
CSO055	3/12/14 9:00 AM	3/12/14 9:00 AM	0.00	2,165	0.1	21,654	0.10	0.05	1 hr	CloudBurst
CSO055	3/29/14 6:30 AM	3/29/14 6:45 AM	0.01	4,162	0.79	5,268	0.67	0.37	12 hr	CloudBurst
CSO150	2/4/14 10:15 PM	2/4/14 11:15 PM	0.04	18,513	0.53	34,930	0.99	0.26	6 hr	CloudBurst
CSO150	2/17/14 3:45 PM	2/17/14 3:45 PM	0.00	1,915	0.49	3,909	0.57	0.28	3 hr	CloudBurst
CSO020	1/5/14 4:00 PM	1/5/14 10:45 PM	0.28	11,330,962	0.52	21,790,311	0.72	0.26	6 hr	CloudBurst
CSO020	1/11/14 12:45 AM	1/11/14 2:45 PM	0.58	18,362,822	0.79	23,244,078	1.32	0.43	6 hr	CloudBurst
CSO020	1/13/14 3:30 PM	1/13/14 7:30 PM	0.17	2,718,036	0.21	12,943,029	1.01	0.10	12 hr	CloudBurst
CSO020	2/2/14 4:45 AM	2/2/14 10:45 AM	0.25	8,353,218	0.48	17,402,537	0.21	0.18	24 hr	CloudBurst
CSO020	2/4/14 7:45 PM	2/7/14 1:30 AM	2.24	74,145,206	0.5	148,290,413	0.99	0.25	6 hr	CloudBurst
CSO020	2/14/14 5:30 PM	2/14/14 9:00 PM	0.15	2,871,280	0.48	5,981,833	0.52	0.25	6 hr	CloudBurst
CSO020	2/17/14 4:00 PM	2/19/14 4:30 PM	2.02	27,193,633	0.64	42,490,052	1.19	0.39	3 hr	CloudBurst
CSO020	2/20/14 8:45 PM	2/21/14 11:15 PM	1.10	13,133,438	0.17	77,255,517	1.36	0.09	6 hr	CloudBurst
CSO020	3/2/14 10:45 AM	3/2/14 12:30 PM	0.07	1,525,495	0.48	3,178,114	0.22	0.18	24 hr	CloudBurst
CSO020	3/28/14 3:30 AM	3/28/14 6:45 AM	0.14	86,746,436	0.31	279,827,212	0.37	0.16	6 hr	CloudBurst
CSO020	3/29/14 6:30 AM	3/29/14 4:00 PM	0.40	22,957,116	0.92	24,953,387	1.29	0.43	6 hr	CloudBurst
CSO088	1/11/14 12:15 AM	1/11/14 4:15 AM	0.17	22,510	0.8	28,137	1.22	0.43	6 hr	CloudBurst
CSO088	2/4/14 7:45 PM	2/5/14 12:30 AM	0.20	25,969	0.51	50,920	0.95	0.25	6 hr	CloudBurst
CSO088	2/17/14 4:00 PM	2/17/14 5:00 PM	0.04	120,998	0.55	219,996	1.04	0.33	3 hr	CloudBurst
CSO130	1/5/14 6:00 PM	1/5/14 9:00 PM	0.13	15,226	0.47	32,396	0.66	0.24	6 hr	CloudBurst
CSO130	1/11/14 1:15 AM	1/11/14 7:15 AM	0.25	210,718	0.8	263,398	1.28	0.43	6 hr	CloudBurst
CSO130	2/4/14 8:00 PM	2/5/14 9:30 AM	0.56	774,866	0.51	1,519,345	0.95	0.25	6 hr	CloudBurst
CSO130	2/17/14 4:15 PM	2/17/14 9:15 PM	0.21	359,401	0.55	653,456	1.08	0.33	3 hr	CloudBurst
CSO130	2/20/14 11:15 PM	2/21/14 1:15 AM	0.08	51,839	0.19	272,835	1.27	0.10	1 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO130	3/2/14 11:15 AM	3/2/14 12:00 PM	0.03	2,951	0.48	6,147	0.23	0.19	24 hr	CloudBurst
CSO130	3/29/14 6:30 AM	3/29/14 2:30 PM	0.33	278,038	0.98	283,713	1.31	0.46	6 hr	CloudBurst
CSO132	1/5/14 3:00 PM	1/5/14 8:30 PM	0.23	274,240	0.45	609,422	0.62	0.23	6 hr	CloudBurst
CSO132	1/11/14 12:15 AM	1/11/14 9:15 AM	0.38	397,406	0.91	436,710	1.37	0.50	6 hr	CloudBurst
CSO132	1/13/14 3:00 PM	1/13/14 5:45 PM	0.11	22,584	0.22	102,656	1.14	0.11	3 hr	CloudBurst
CSO132	2/2/14 4:15 AM	2/2/14 7:45 AM	0.15	111,738	0.43	259,855	0.18	0.16	24 hr	CloudBurst
CSO132	2/4/14 7:00 PM	2/5/14 10:30 AM	0.65	422,734	0.51	828,889	0.94	0.25	6 hr	CloudBurst
CSO132	2/14/14 5:00 PM	2/14/14 6:00 PM	0.04	14,623	0.46	31,789	0.39	0.24	6 hr	CloudBurst
CSO132	2/17/14 4:30 PM	2/17/14 7:15 PM	0.11	125,776	0.47	267,610	0.99	0.28	3 hr	CloudBurst
CSO132	2/20/14 8:45 PM	2/21/14 12:00 AM	0.14	86,383	0.21	411,349	1.20	0.11	6 hr	CloudBurst
CSO132	3/2/14 9:45 AM	3/2/14 11:45 AM	0.08	104,079	0.47	221,445	0.24	0.18	24 hr	CloudBurst
CSO132	3/12/14 7:30 AM	3/12/14 7:45 AM	0.01	4,497	0.09	49,965	0.08	0.04	12 hr	CloudBurst
CSO132	3/28/14 4:45 AM	3/28/14 5:15 AM	0.02	424,229	0.23	1,844,473	0.29	0.12	6 hr	CloudBurst
CSO132	3/29/14 6:30 AM	3/29/14 1:45 PM	0.30	1,144,354	1	1,144,354	1.29	0.47	6 hr	CloudBurst
CSO154	1/11/14 2:30 AM	1/11/14 3:30 AM	0.04	11,247	0.91	12,359	1.23	0.50	6 hr	CloudBurst
CSO154	2/4/14 8:15 PM	2/5/14 1:30 AM	0.22	133,832	0.51	262,416	0.94	0.25	6 hr	CloudBurst
CSO154	2/17/14 4:15 PM	2/17/14 5:00 PM	0.03	20,396	0.47	43,395	0.96	0.28	3 hr	CloudBurst
CSO154	3/29/14 6:45 AM	3/29/14 8:45 AM	0.08	25,290	1	25,290	1.03	0.47	6 hr	CloudBurst
CSO167	1/5/14 3:00 PM	1/5/14 7:45 PM	0.20	42,474	0.45	94,387	0.61	0.23	6 hr	CloudBurst
CSO167	1/11/14 12:15 AM	1/11/14 9:00 AM	0.36	401,825	0.91	441,565	1.37	0.50	6 hr	CloudBurst
CSO167	2/2/14 4:30 AM	2/2/14 5:30 AM	0.04	31,347	0.43	72,901	0.14	0.16	24 hr	CloudBurst
CSO167	2/4/14 7:00 PM	2/5/14 3:45 AM	0.36	559,443	0.51	1,096,947	0.94	0.25	6 hr	CloudBurst
CSO167	2/14/14 5:15 PM	2/14/14 6:00 PM	0.03	2,711	0.46	5,893	0.39	0.24	6 hr	CloudBurst
CSO167	2/17/14 4:00 PM	2/17/14 6:15 PM	0.09	289,273	0.47	615,474	0.99	0.28	3 hr	CloudBurst
CSO167	2/20/14 11:00 PM	2/20/14 11:45 PM	0.03	17,847	0.21	84,985	1.20	0.11	6 hr	CloudBurst
CSO167	3/2/14 9:45 AM	3/2/14 11:30 AM	0.07	78,240	0.47	166,468	0.23	0.18	24 hr	CloudBurst
CSO167	3/28/14 4:15 AM	3/28/14 5:00 AM	0.03	31,954	0.23	138,930	0.29	0.12	6 hr	CloudBurst
CSO167	3/29/14 6:15 AM	3/29/14 1:00 PM	0.28	335,799	1	335,799	1.27	0.47	6 hr	CloudBurst
CSO019	1/2/14 3:30 AM	1/2/14 12:45 PM	0.39	75,023	0.22	341,015	0.72	0.10	6 hr	CloudBurst
CSO019	1/5/14 2:45 PM	1/6/14 2:45 AM	0.50	1,681,757	0.46	3,655,993	0.68	0.22	6 hr	CloudBurst
CSO019	1/11/14 12:00 AM	1/11/14 4:15 PM	0.68	4,379,269	0.87	5,033,642	1.34	0.48	6 hr	CloudBurst
CSO019	1/13/14 2:30 PM	1/14/14 3:00 AM	0.52	184,928	0.25	739,712	1.13	0.12	6 hr	CloudBurst
CSO019	1/17/14 8:30 AM	1/17/14 8:30 AM	0.00	1,065	0.01	106,503	1.16	0.01	6 hr	CloudBurst
CSO019	1/25/14 2:30 PM	1/25/14 3:00 PM	0.02	8,868	0.05	177,364	0.23	0.02	48 hr	CloudBurst
CSO019	2/2/14 3:00 AM	2/2/14 9:45 PM	0.78	898,721	0.55	1,634,038	0.38	0.21	24 hr	CloudBurst
CSO019	2/3/14 7:15 AM	2/3/14 8:45 PM	0.56	84,351	0.55	153,366	0.55	0.21	24 hr	CloudBurst
CSO019	2/4/14 7:15 PM	2/5/14 8:30 PM	1.05	6,574,705	0.67	9,812,993	1.23	0.34	6 hr	CloudBurst
CSO019	2/14/14 4:00 PM	2/15/14 3:00 AM	0.46	63,336	0.2	316,679	0.25	0.11	3 hr	CloudBurst
CSO019	2/17/14 3:00 PM	2/18/14 1:30 AM	0.44	3,538,023	0.57	6,207,057	0.80	0.34	3 hr	CloudBurst
CSO019	2/20/14 7:30 PM	2/21/14 4:15 AM	0.36	338,797	0.26	1,303,067	1.07	0.14	6 hr	CloudBurst
CSO019	3/2/14 10:30 AM	3/2/14 4:15 PM	0.24	852,948	0.39	2,187,045	0.21	0.15	24 hr	CloudBurst
CSO019	3/12/14 7:15 AM	3/12/14 8:30 AM	0.05	32,704	0.1	327,038	0.10	0.05	1 hr	CloudBurst

CSO	Overflow Start Date-Time	Overflow End Date-Time	Overflow Duration (Days)	Total Volume (Gallons)	Overflow Event Rain Total (Inch)	Overflow Volume per Inch	Overflow Antecedent Rain	Storm Frequency (Years)	Period	Standard
CSO019	3/28/14 4:00 AM	3/28/14 7:15 AM	0.14	897,432	0.35	2,564,093	0.42	0.18	6 hr	CloudBurst
CSO019	3/29/14 6:15 AM	3/29/14 4:30 PM	0.43	2,976,723	0.75	3,968,964	1.17	0.35	12 hr	CloudBurst
CSO105	3/4/14 12:45 PM	3/4/14 4:30 PM	0.16	9,574	0.05	191,480	0.47	1.98	24 hr	CloudBurst
CSO092	3/4/14 1:00 PM	3/4/14 1:30 PM	0.02	2	0.08	25	0.62	1.63	24 hr	CloudBurst
CSO118	3/4/14 1:00 PM	3/4/14 2:00 PM	0.04	60	0.08	750	0.58	1.63	24 hr	CloudBurst