



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

April 27, 2012

Chief, Water Programs Enforcement Branch
Water Management Program
US EPA Region 4
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
U.S. Department of Justice
Post Office Box 7611
Washington DC 20044-7611

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

Subject: Quarterly Report 26
Civil Action No. 3:08-cv-00608-CRS

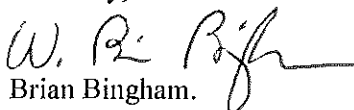
Attention Chief:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 29 of our Amended Consent Decree. This report is for the period January 1, 2012 – March 31, 2012. This report provides an overview of significant program elements, issues, and accomplishments pertaining to Consent Decree compliance activities. Included are sections on Project WIN activities related to: NMC, SORP, Discharge Abatement Plans, Public Outreach, Education, Notification and Participation, 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,


Brian Bingham.
Regulatory Services Director

Q26 Certification KDEP 1-30-12

cc: Greg Heitzman, PE

Paula Purifoy



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

Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #26



Reporting Period:

January 1, 2012 through March 31, 2012

Submitted To:

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

Submitted By:

Louisville and Jefferson County Metropolitan Sewer District

700 W. Liberty Street

Louisville, Kentucky 40203-1911

Submittal Date:

April 30, 2012

TABLE OF CONTENTS

INTRODUCTION.....	4
SECTION 1: Program Activities for Nine Minimum Controls.....	6
1.1 Nine Minimum Controls Program Background	6
1.2 NMC 2: Maximization of Storage in the Collection System.....	6
1.3 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)	6
SECTION 2: Program Activities for Sewer Overflow Response Protocol.....	16
2.1 SORP Program Background	16
2.2 Overflow Management and Field Documentation	16
2.3 Staff Training and Communication.....	17
SECTION 3: Program Activities for Discharge Abatement Plans.....	18
3.1 Integrated Overflow Abatement Plan (IOAP)	18
3.2 Sanitary Sewer Discharge Plan (SSDP)	18
3.2.1 Updated Sanitary Sewer Overflow Plan Implementation	18
3.2.2 Interim Sanitary Sewer Discharge Plan	18
3.2.3 Final Sanitary Sewer Discharge Plan	18
3.3 CSO Long Term Control Plan	19
3.3.1 Interim CSO Long Term Control Plan.....	19
3.3.2 Final CSO Long Term Control Plan	19
3.3.3 Green Program Update	19
3.4 Activity Progress Chart	19
SECTION 4: Program Activities for Public Outreach, Education, Notification and Participation.....	26
4.1 Public Notification Program	26
4.2 Public Education Programs	26
4.3 Public Outreach Programs	26
4.3.1 IOAP Project and Program Meetings	26
SECTION 5: Capacity Management Operations and Maintenance Report	28
5.1 Management Programs	28
5.2 Operations Programs	28

5.3 Comprehensive Performance Evaluations and Composite Correction Plans (CPE/CCP).....	28
5.3.1 Hite Creek Water Quality Treatment Center.....	29
5.3.2 Floyds Fork Water Quality Treatment Center	29
5.3.3 Derek R. Guthrie Water Quality Treatment Center.....	29
5.3.4 Cedar Creek Water Quality Treatment Center	29
5.3.5 Prospect Area Water Quality Treatment Center Updates.....	29
5.3.5.1 Timberlake Water Quality Treatment Center	30
5.3.5.2 Hunting Creek North Water Quality Treatment Center	30
5.3.5.3 Hunting Creek South Water Quality Treatment Center.....	30
5.3.5.4 Ken Carla Water Quality Treatment Center.....	30
5.3.5.5 Shadow Wood Water Quality Treatment Center	31
5.3.6 Jeffersontown Water Quality Treatment Center	31
5.3.7 Starview Water Quality Treatment Center	31
5.3.8 Berrytown Water Quality Treatment Center.....	31
5.3.9 Chenoweth Hills Water Quality Treatment Center.....	32
5.3.10 Other Water Quality Treatment Centers.....	32
5.4 CMOM Activity Schedule.....	32
SECTION 6: Project WIN Performance Overview	36
6.1 Rainfall.....	36
6.2 Collection System Unauthorized Discharges.....	36
6.2.1 Collection System Overflows to Waters of the United States (WUS)	36
6.2.2 Overflows to Ground (EXT)	37
6.2.3 Overflows to Interior (INT)	37
6.2.4 Dry Weather CSOs.....	37
6.3 CSO Reductions	38
6.4 SSO Reductions	38
6.5 Gravity Line Preventive Maintenance	38
6.6 Water Quality Treatment Center Bypasses	39
6.6.1 Bypass Events.....	39
6.6.2 Bypass Corrective Actions.....	39
6.6.3 Jeffersontown Water Quality Treatment Center	41
6.7 Phosphorus Monitoring at the Prospect WQTCs	44

ATTACHMENTS

APPENDIX A-1 DISCHARGE WORK ORDERS-DRY WEATHER CSOS

APPENDIX A-2 DISCHARGE WORK ORDERS-BYPASS

APPENDIX A-3 DISCHARGE WORK ORDERS-BLENDING

APPENDIX B-CSO FLOW MONITORING DATA

APPENDIX C-ACRONYMS

INTRODUCTION

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

This is the twenty-sixth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from January 1, 2012, through March 31, 2012. **The structure for this report is outlined as follows:**

Section 1: Program Activities for Nine Minimum Controls (NMC) - This section describes the data collected for NMC 2 – Maximization of Storage in the Collection System, and NMC 4 – Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC) that were active during the reporting period (January 1, 2012, through March 31, 2012).

Section 2: Program Activities for Sewer Overflow Response Protocol (SORP) - This section describes the training attendance records, overflow data, and overflow reconnaissance inspection routes related to SORP that were active during the reporting period (January 1, 2012, through March 31, 2012).

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 (January 1, 2012, through March 31, 2012), and the anticipated projects and activities that are scheduled to be performed during the next two reporting periods (April 1, 2012, through September 30, 2012), for continued compliance with the Amended Consent Decree.

Section 4: Program Activities for Public Outreach, Education, Notification and Participation - This section describes the activities related to public outreach that were active during the reporting period (January 1, 2012, through March 31, 2012).

Section 5: Capacity Management, Operations and Maintenance Report - The CMOM program activities and programmatic activities for WQTCs generating capital projects will be reported in a Gantt chart for the reporting period (January 1, 2012, through March 31, 2012), and include the schedule for activities planned for the next two reporting periods (April 1, 2012, through September 30, 2012), 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.msdprowin.org>. Highlights of the NMC program implementation over this reporting period are outlined below.

1.2 NMC 2: Maximization of Storage in the Collection System

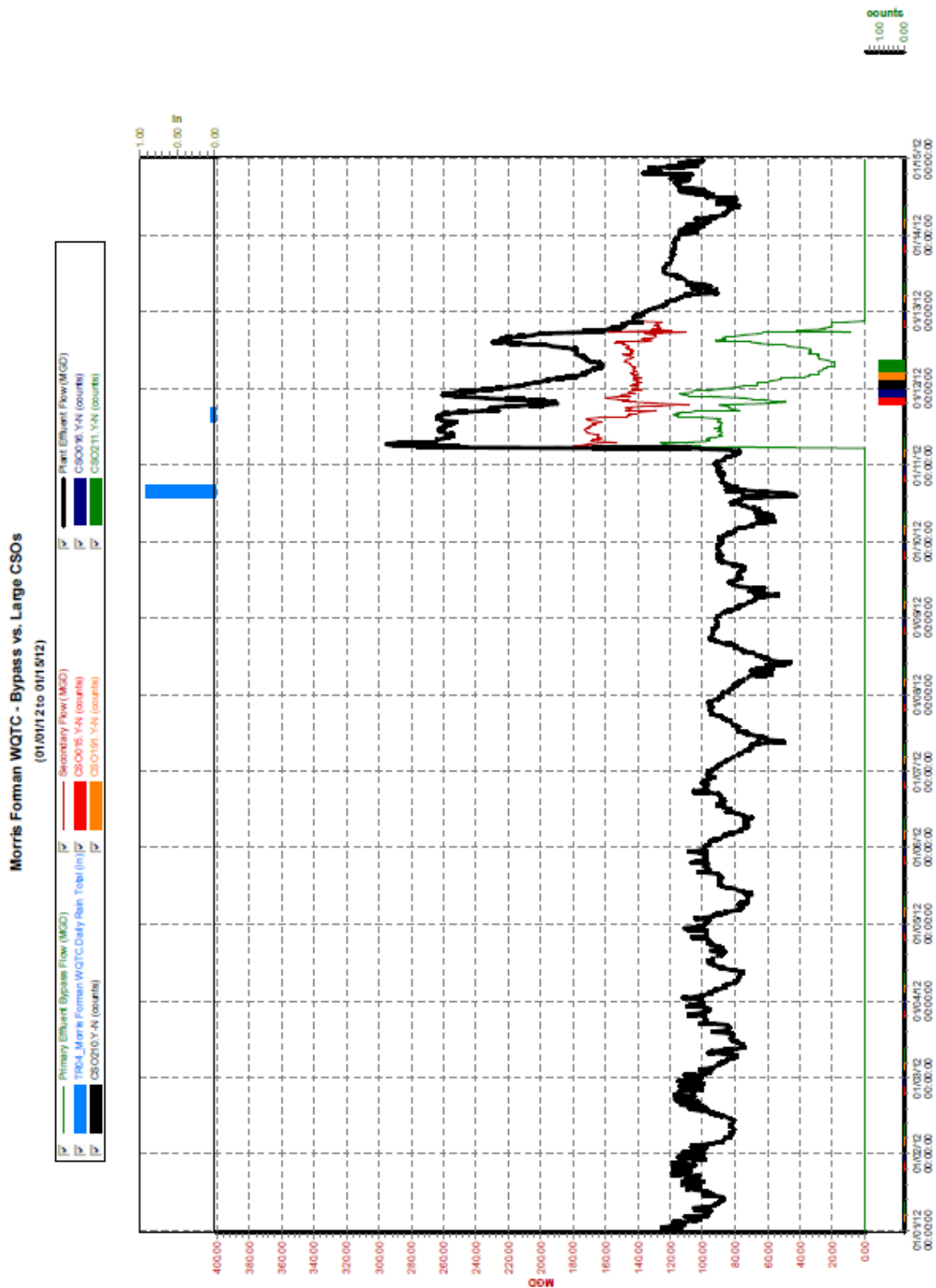
Continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 269.7 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See the figure at the end of this section for a detailed report.

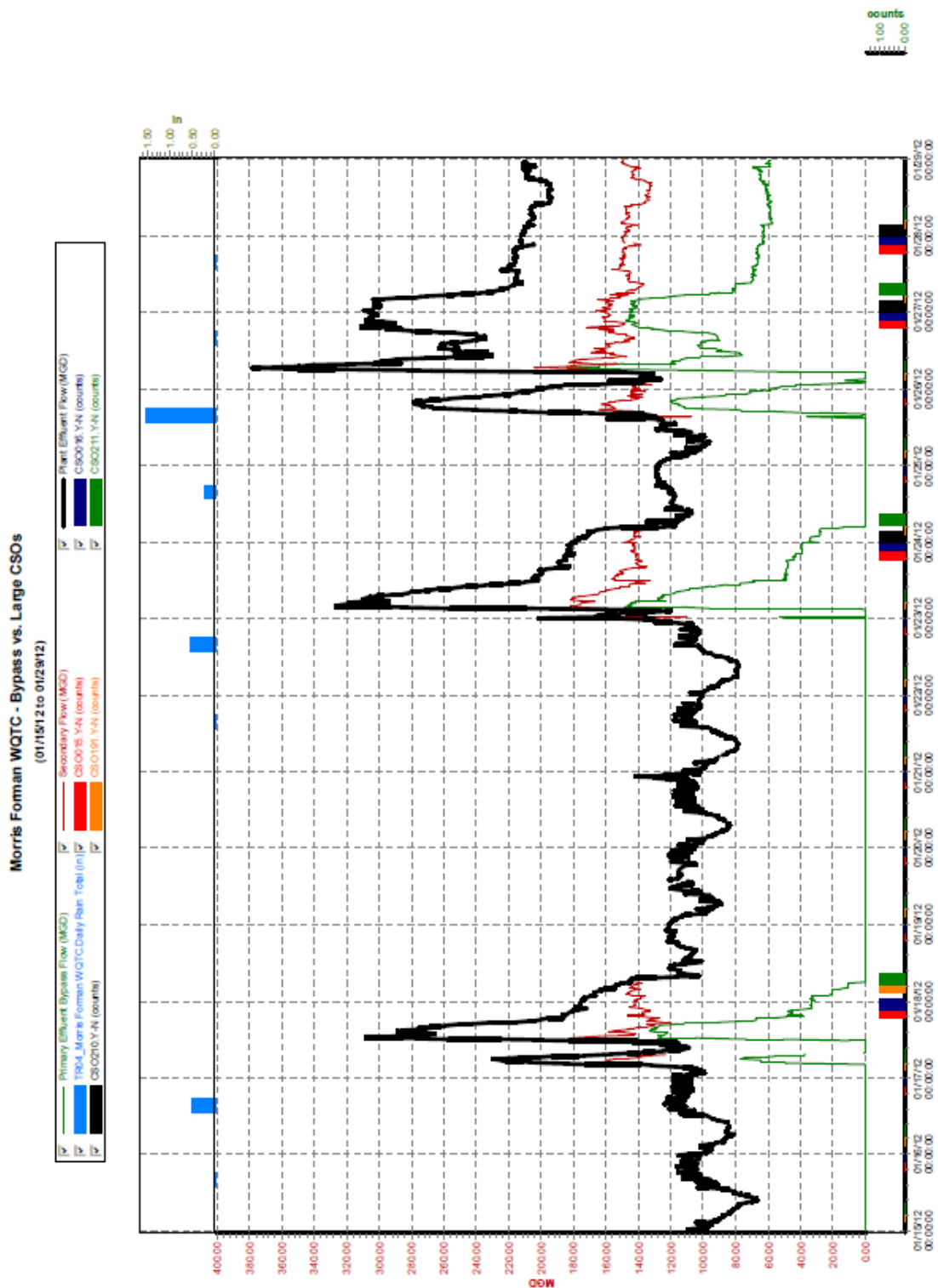
1.3 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)

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, secondary treatment flow, and 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.

As noted in the previous Quarterly Report 25, all four of the primary sedimentation basins required major preventive maintenance and associated repairs to assure continued reliable performance. These repairs include cleaning, normal “wear and tear” preventive maintenance, and repair of the bottom scrapers, which are a high-wear item. Three of the four basins were rehabilitated prior to this reporting period, and work started on the fourth. Work on the fourth basin was completed in January, 2012. With one sedimentation basin out of service, the peak flow capacity of the Morris Forman WQTC is 210 – 270 MGD, depending on sludge blanket depths. This is reflected in the reduced peak wet weather flows handled during January.

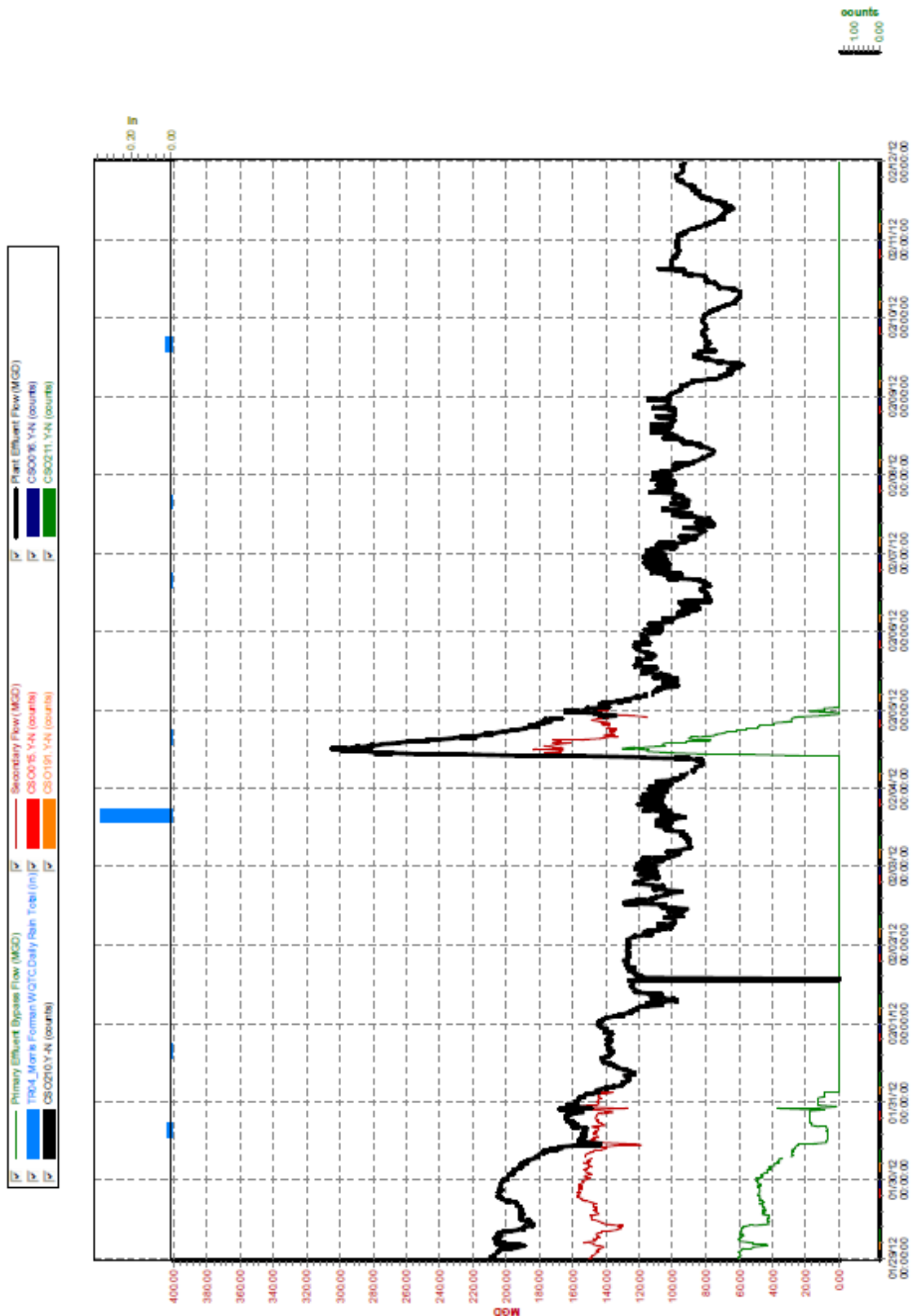
In October 2011, the Morris Forman staff also started a program of preventive maintenance and rehabilitation for the grit chambers in the West (old) Headworks. This work was completed in January 2012. Since these inspections were conducted concurrently with primary sedimentation basin outages no further impact on plant capacity occurred.

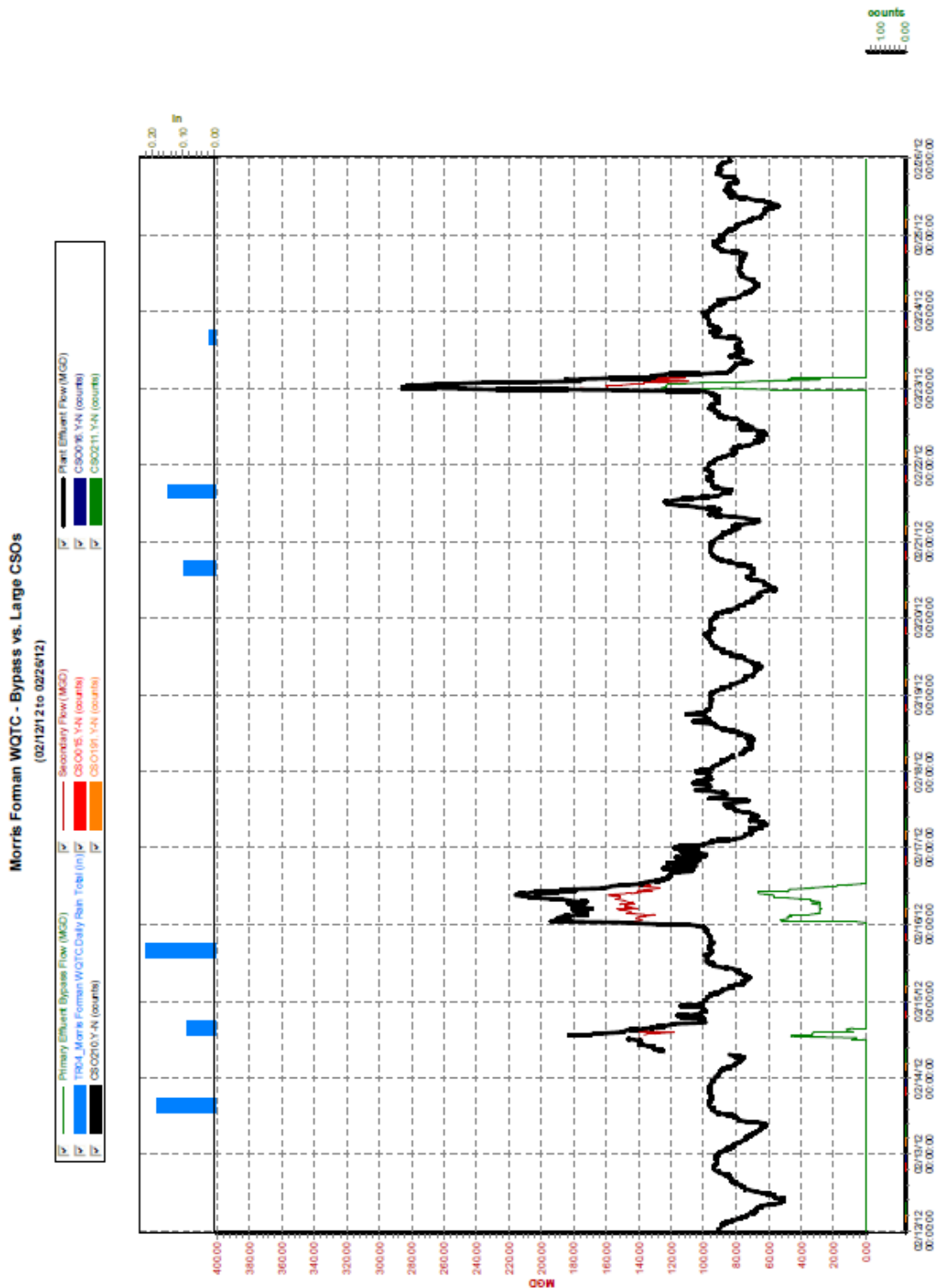


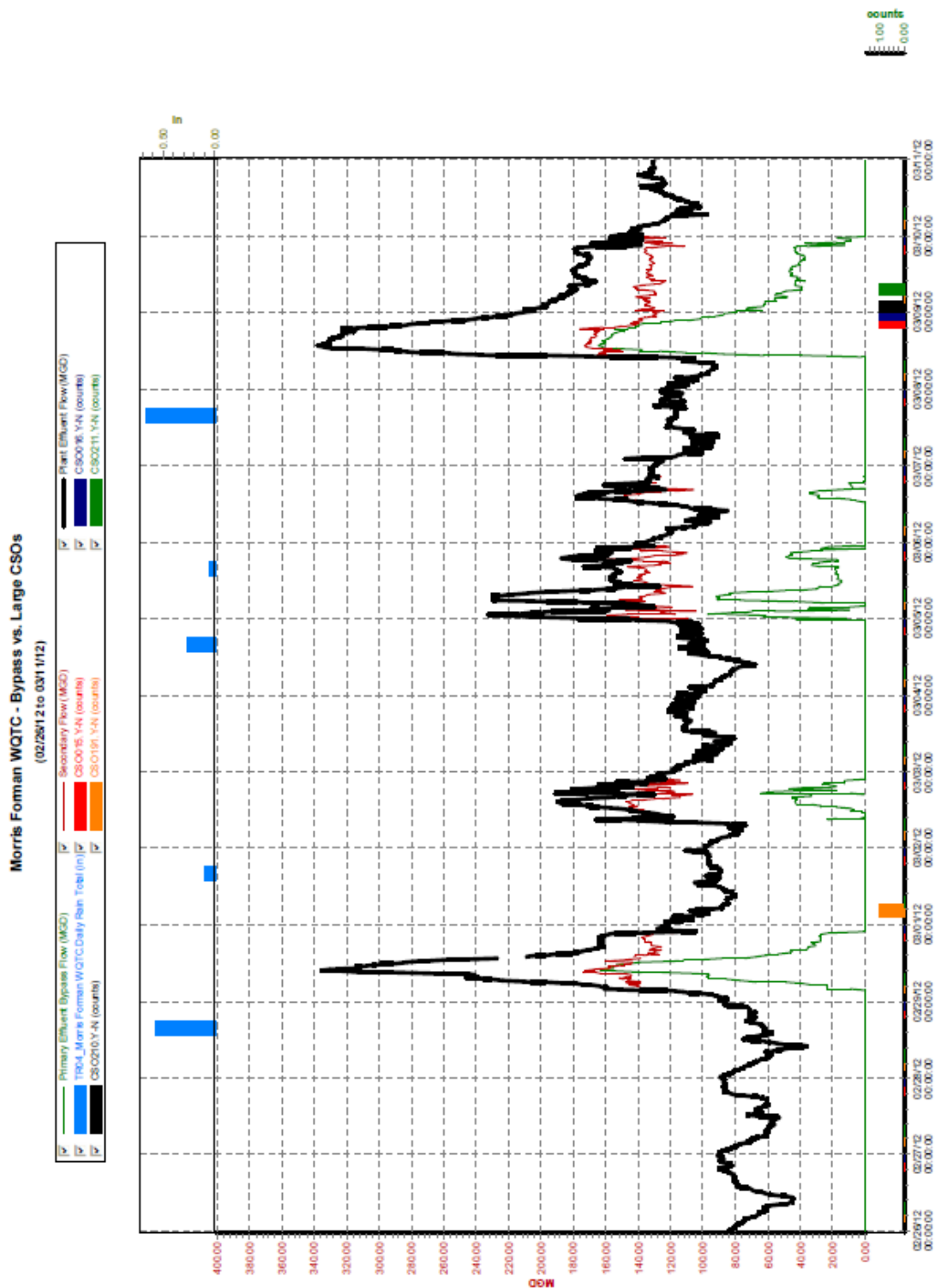


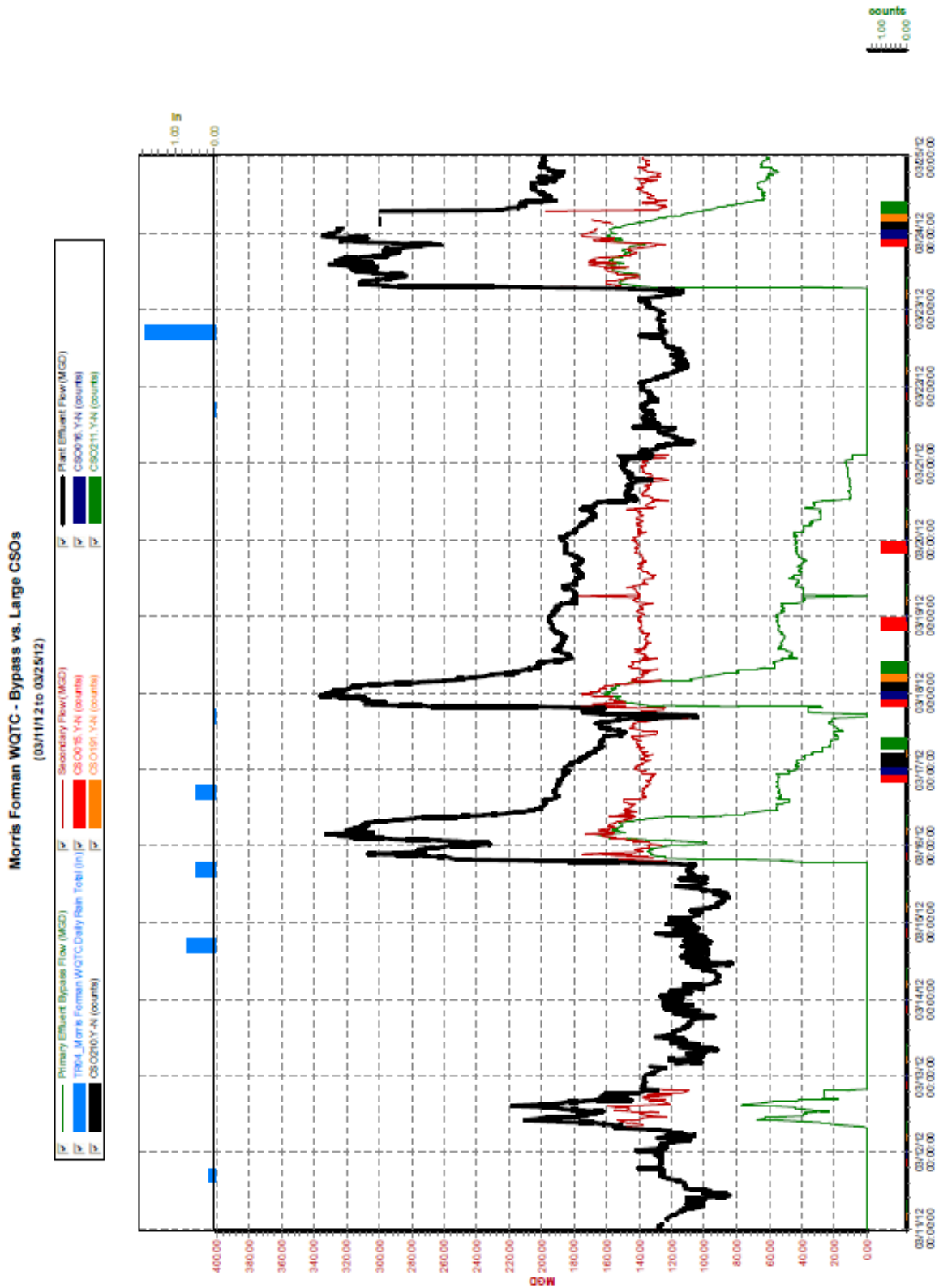
Morris Foman WQTC - Bypass vs. Large CSOs

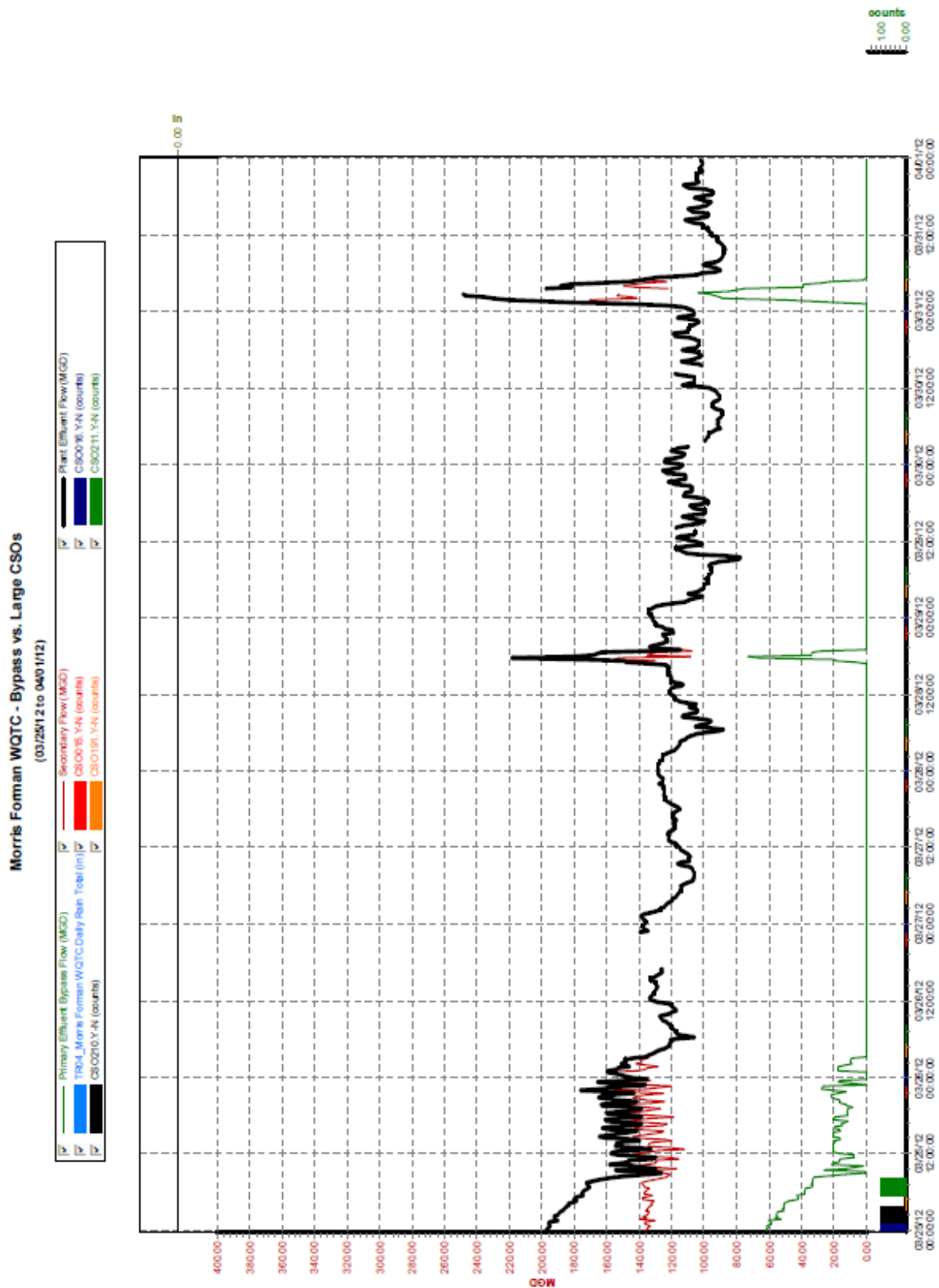
(01/28/12 to 02/12/12)











A work order was issued to a consultant and notice to proceed given for evaluation of the primary sedimentation basin sludge and scum pumping systems, and the East and West Headworks screening and grit removal systems. It is not anticipated that these evaluations will require any significant equipment down-time. If repair or replacement activities are recommended as a result of the evaluations they will be scheduled in accordance with plant maintenance priorities.

There were no KPDES permit violations at Morris Forman WQTC during January, February or March, 2012.

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

- Main Diversion Structure Flow Measurement – Continued to monitor measurement accuracy over several storms. This measurement is now considered accurate and reliable enough for operational purposes. The reported flow measurement location will, however, continue to be the flume at the Final Effluent Pump Station, in accordance with the KPDES permit. It is anticipated that Sluice Gate 1 will be incorporated into an automatic flow control system linked to the Southwestern Pump Station as part of the Paddy's Run Wet Weather Treatment Facility project currently scheduled for completion in 2014.
- Wet Weather Operational Plan - Continued training on the new SOPs, which will be fully put in place over the next few reporting periods. In addition, a draft report was created on the stress test that was performed on the secondary clarifiers to evaluate the impact of hydraulic loading, solids loading, and sludge blanket depth on secondary clarifier performance. MSD is reviewing the draft report and has started evaluating secondary process performance at higher flow rates (up to 180 MGD) to determine if the Morris Forman WQTC Capacity Calculator should be modified as a result of this testing.
- RTC System-Wide Optimization Project – Issued the draft final report for MSD review and comment in December, 2011. MSD review comments were received during this reporting period and the final report prepared. The final report will for this project will be issued during the next reporting period.

Real Time Control Operations Detailed Report



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

Period	
From :	01/01/2012
To :	03/31/2012

Event Number	Wet Weather Event			Rainfall			Wet Weather Storage Volume (MG)							High River Levels	Comments
	Start Date	End Date	Duration	Average* TRFD (in)	Max** TRFD (in)	Rain Gauge	SWPS SG Chamber	SWOR2	Brady Lake and Executive Inn Storage	Southern Outfall	Ohio River Interceptor	Sneads Branch	Total		
2012-002	01/11/2012 04:45	01/12/2012 21:10	40:25	0.94	1.09	TR13	14.9	0.0	2.8	4.5	4.8	0.6	27.6	no	SWOR2 manually controlled
2012-003	01/17/2012 03:00	01/18/2012 11:15	32:15	0.55	0.96	TR14	13.4	0.0	1.4	4.5	4.5	0.5	24.3	no	SWOR2 manually controlled
2012-004	01/22/2012 23:00	01/24/2012 09:40	34:40	0.64	0.76	TR05	13.9	0.0	2.2	4.2	3.8	0.7	24.8	no	SWOR2 manually controlled
2012-005	01/25/2012 15:35	01/30/2012 16:05	120:30	1.82	1.98	TR05	21.0	3.6	7.5	8.7	7.0	1.9	49.7	Yes	SWOR2 manually controlled; SWPS SG chamber manually controlled during the event due to high river levels; three consecutive storm cells with dewatering between events
2012-006	02/04/2012 08:30	02/05/2012 06:45	22:15	0.36	0.41	TR14	7.2	0.2	0.2	3.1	3.3	0.1	14.1	no	SWOR2 manually controlled; SWPS SG chamber manually controlled since previous storm event as high river level continues to recede to normal levels
2012-013	02/29/2012 02:05	02/29/2012 22:35	20:30	0.57	0.65	TR11	12.6	0.0	0.8	4.2	3.1	0.4	21.1	no	SWOR2 manually controlled
2012-016	03/08/2012 09:45	03/09/2012 21:50	36:05	0.74	0.90	TR15	12.7	0.0	2.2	4.4	3.6	0.5	23.4	Yes	SWOR2 manually controlled; SWPS SG chamber manually controlled during the event due to high river levels
2012-018	03/15/2012 16:40	03/17/2012 14:30	45:50	1.04	1.19	TR15	12.8	0.0	1.9	6.6	5.4	0.6	27.3	no	SWOR2 manually controlled; two consecutive storm cells with dewatering between events
2012-019	03/17/2012 16:10	03/20/2012 12:05	67:55	0.88	1.26	TR11	14.5	0.4	3.7	4.3	3.3	0.6	26.8	no	SWOR2 manually controlled
2012-020	03/23/2012 00:10	03/25/2012 16:50	64:40	1.38	1.75	TR04	9.2	0.2	0.6	10.5	8.0	2.1	30.6	no	SWOR2 manually controlled; SWPS manually controlled - overflowing multiple times to manage (lower) rapid water level increases in SWO; consecutive storm cells with dewatering between events.
TOTAL							132.2	4.4	23.3	55.0	46.8	8.0	269.7		

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

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

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.msdpowerwin.org.

The current approved SORP document is now dated February 21, 2012, and can be viewed on the MSD Project WIN website www.msdpowerwin.org. The following activities were performed during this reporting period.

2.2 Overflow Management and Field Documentation

- Monitored approximately 158 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 52 unauthorized discharges. Inspection routes were run during rain events as described in the following table:

Route Description	1/26/2012	2/29/2012	3/16/2012	3/17/2012	3/18/2012	3/23/2012	3/8/2012
Engineering Rain Event SSO Inspection Route	X			X		X	
RS Hikes Point SSO Inspection Route	X	X	X	X	X	X	X
RS Jeffersontown Siphon Inspection Route	X	X	X	X	X	X	X
RS Jeffersontown/Fern Creek SSO Inspection Route	X	X	X	X	X	X	X
RS Middle/Muddy Fork SSO Inspection Route	X	X	X	X	X	X	X

- Due to Capacity related issues, during this reporting period, MSD Metro Operations staff hauled 437,201 gallons of sewage. MSD also hauled due to other issues as indicated in the following table:

MSD Hauled Volumes In Gallons (January 1, 2012 - March 31, 2012)				
Problem	January	February	March	Grand Total
CAPACITY	196,700		240,501	437,201
MECHANICAL		12,500	8,400	20,900
STRUCTURAL			18,200	18,200
Grand Total	196,700	12,500	267,101	476,301

2.3 Staff Training and Communication

- Reviewed and updated the training documentation for the 2012 first quarter SORP training that included Preparing, Monitoring and Response.
- Commenced planning for the 2012 second quarter SORP training that will focus on Establishing Control Zones and Volume Estimation.
- Conducted the following SORP Quarterly training sessions which were attended by 256 employees.

Staff Training Participation - January 1, 2012 - March 31, 2012		
Division	Date	Number of Attendees
Morris Forman Staff	3/7/2012	14
Morris Forman Staff	3/7/2012	41
Metro Operations Staff	3/7/2012	21
Morris Forman Staff	3/8/2012	11
Metro Operations Staff	3/8/2012	33
Morris Forman Staff	3/8/2012	16
I&FP Staff	3/9/2012	20
Morris Forman	3/14/2012	6
Morris Forman	3/14/2012	12
Engineering/RS Staff	3/15/2012	31
I&FP Staff	3/16/2012	15
Engineering/RS Staff	3/28/2012	36
Total		256

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.

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

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.

- Prospect WQTC Elimination Projects Easement Status - A total of 49 easements have been identified which includes 17 easements in Norton Commons area; that are necessary to complete the entire suite of projects related to the plant eliminations.

- Acquired 24 of these easements. The remaining 25 easement plats; which included the 17 plats in Norton Commons are still being finalized (Plan is only 50%).

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.msdpwin.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.

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_Web.pdf

A series of workshops are scheduled for May 2012, to outline the incentives program to engineers, developers, contractors, and inspectors. This training will have examples of projects with the necessary calculations and design parameters.

3.4 Activity Progress Chart

A Gantt chart showing the progress of the above activities performed during this reporting period, or planned activities for the next two periods is located at the end of this section. The chart is formatted to follow the outline of the project schedule in the IOAP (Refer to IOAP, Volume 1 – Figure 6.3.1). Note that the schedule may show completion dates that are earlier than the dates contained in IOAP Volume 1 - Figure 6.3.1. These early completion dates represent targets for MSD's project management use, but do not represent a change in schedule commitments. The dates in the approved IOAP, SSDP, ISSDP, and LTCP remain the committed dates for completion of the suite of projects.

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2012 - 30 Sept 2012)														
ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date	2012								
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Long Term Control Plan		2004		30-Oct-14	31-Dec-20									
Green Demonstration Projects		1310		31-Dec-13	31-Dec-20									
GERMAN/PARIS TOWN GREEN STREET RAIN GARDEN (H11460)		549		31-Dec-11 A	31-Dec-11									
	ADDITIONAL RAIN GARDEN PROJECT	PARIS GERMAN TOWN - PLANNING	548	100%	31-Dec-11 A	31-Dec-11								
	ADDITIONAL RAIN GARDEN PROJECT	PARIS GERMAN TOWN- CD CERTIFY	0	100%	20-Dec-11 A	31-Dec-11								
	ADDITIONAL RAIN GARDEN PROJECT	PARIS GERMAN TOWN- CONSTRUCTION	94	100%	31-Dec-11 A	31-Dec-11								
GREEN INFRASTRUCTURE PROGRAM		1310		31-Dec-13	31-Dec-20									
	MULTIPLE	FY11 GREEN INFRASTRUCTURE PROJECTS - CONSTRUCTION	791	80%	30-Jul-12	31-Dec-20								
	MULTIPLE	FY13 GREEN INFRASTRUCTURE PROJECTS - CONSTRUCTION	549	0%	31-Dec-13	31-Dec-20								
GRAWEMAYER HALL PARKING LOT (H09444)		549		31-Dec-11 A	31-Dec-11									
	L_OR_MF_191_S_12_A_A	GI I-264 & GIBSON DRY WELL - CD CERTIFY	0	100%	20-Dec-11 A	31-Dec-11								
	L_OR_MF_191_S_12_A_A	GI I-264 & GIBSON DRY WELL - PLANNING	549	100%	31-Dec-11 A	31-Dec-11								
SPEED ART MUSEUM INF TRENCH (H09442)		549		31-Dec-11 A	31-Dec-11									
	L_OR_MF_189_S_12_A	GI I-264 OFF-RAMP DRY WELL - CD CERTIFY	0	100%	20-Dec-11 A	31-Dec-11								
	L_OR_MF_189_S_12_A	GI I-264 OFF-RAMP DRY WELL - PLANNING	549	100%	31-Dec-11 A	31-Dec-11								
EAST WASHINGTON AT ADAMS GREEN STREET (H09443)		549		31-Dec-11 A	31-Dec-11									
	L_OR_MF_019_S_12_A	GI I-264 ON-RAMP DRY WELL - CD CERTIFY	0	100%	19-Dec-11 A	31-Dec-11								
	L_OR_MF_019_S_12_A	GI I-264 ON-RAMP DRY WELL - PLANNING	549	100%	31-Dec-11 A	31-Dec-11								
3RD STREET AND CAMPBELL VENTURES (H09446)		549		31-Dec-11 A	31-Dec-11									
	L_OR_MF_191_S_12_A_B	GI JFK MONTESSORI AREA DRY WELL - CD CERTIFY	0	100%	31-Dec-11 A	31-Dec-11								
	L_OR_MF_191_S_12_A_B	GI JFK MONTESSORI AREA DRY WELL - PLANNING	549	100%	31-Dec-11 A	31-Dec-11								
WILSON CROSSING GREEN PARKING LOT (H09445)		549		31-Dec-11 A	31-Dec-11									
	L_OR_MF_191_S_12_A_C	GI RUSSELL LEE DRIVE DRY WELL - CD CERTIFY	0	100%	31-Dec-11 A	31-Dec-11								
	L_OR_MF_191_S_12_A_C	GI RUSSELL LEE DRIVE DRY WELL - PLANNING	549	100%	31-Dec-11 A	31-Dec-11								
BROWN FORMAN GREEN ROOF (H11044)		153		31-Dec-11 A	31-Dec-11									
	L_OR_MF_191_S_12_A_C	ADDITIONAL RAIN GARDEN - PLANNING	153	100%	31-Dec-11 A	31-Dec-11								
	L_OR_MF_191_S_12_A_C	ADDITIONAL RAIN GARDEN - CD CERTIFY	0	100%	31-Dec-11 A	31-Dec-11								
Gray Infrastructure Projects		2004		30-Oct-14	31-Dec-17									
ADAMS STREET STORAGE BASIN		1096		31-Dec-13	31-Dec-12									
	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - BID OPEN	0	0%	30-Jul-12*	31-Dec-12								
	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - DESIGN	547	10%	30-Jun-12	31-Dec-12								
	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - EASEMENT	90	0%	30-Jun-12	31-Dec-12								
	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - AD DATE	1	0%	01-Jul-12	31-Dec-12								
	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - AWARD	0	0%	15-Aug-12*	31-Dec-12								
	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - CONSTRUCTION	482	0%	31-Dec-13	31-Dec-12								
BEARGRASS CREEK PARALLEL INTERCEPTOR		729		03-Aug-14	31-Dec-17									
	L_SO_MF_097_M_13_A_A_8	BEARGRASS CREEK PARALLEL INTERCEPTOR - DESIGN	729	0%	03-Aug-14	31-Dec-17								
CAVALRY - CREEKSIDE STORAGE BASIN		719		23-Aug-14	31-Dec-17									
	L_SO_MF_097_M_09B_B_D_8	CALVARY/CREEKSIDE STORAGE BASIN - DESIGN	719	0%	23-Aug-14	31-Dec-17								
CSO 123 DOWNSPOUT DISCONNECTION		914		30-Dec-12	31-Dec-12									
	L_MI_MF_123_S_08_A_A_0	DOWNSPOUT DISCONNECT CSO 123 - DESIGN	914	30%	30-Dec-12	31-Dec-12								
CSO 058 SEWER SEPARATION		578		30-Jun-12	31-Dec-14									
	L_OR_MF_058_S_08_A_A_0	CSO 58 SEWER SEPARATION - DESIGN	578	5%	30-Jun-12	31-Dec-14								
	L_OR_MF_058_S_08_A_A_0	CSO 58 SEWER SEPARATION - EASEMENT	90	0%	30-Jun-12	31-Dec-14								
CSO 093 SEWER SEPARATION		412		30-Jul-12	31-Dec-15									
	L_SO_MF_093_S_08_A_A_0	CSO 93 SEWER SEPARATION - DESIGN	412	5%	30-Jul-12	31-Dec-15								
	L_SO_MF_093_S_08_A_A_0	CSO 93 SEWER SEPARATION - EASEMENT	273	5%	30-Jul-12	31-Dec-15								
1 of 6														
Date Date: 01-Apr-12														

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2012 - 30 Sept 2012)														
ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date	2012								
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
CSO 140 SEWER SEPARATION		551		31-Dec-12	31-Dec-15									
L_MI_MF_140_S_08_A_A_0	CSO 140 SEWER SEPARATION - DESIGN	551	30%	31-Dec-12	31-Dec-15									
L_MI_MF_140_S_08_A_A_0	CSO 140 SEWER SEPARATION - EASEMENT	426	30%	31-Dec-12	31-Dec-15									
CSO 160 SEWER SEPARATION		589		07-Feb-13	31-Dec-15									
L_OR_MF_160_S_08_A_A_0	CSO 160 SEWER SEPARATION - DESIGN	459	20%	30-Sep-12	31-Dec-15									
L_OR_MF_160_S_08_A_A_0	CSO 160 SEWER SEPARATION - EASEMENT	130	0%	07-Feb-13	31-Dec-15									
L_OR_MF_160_S_08_A_A_0	CSO 160 SEWER SEPARATION - AWARD	0	0%	30-Aug-12*	31-Dec-15									
CSO 206 SEWER SEPARATION		1644		30-Dec-13	30-Dec-13									
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - DESIGN	982	75%	15-Apr-12	30-Dec-13									
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - EASEMENT	257	50%	30-Jun-12	30-Dec-13									
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - AD DATE	1	0%	31-Jul-12	30-Dec-13									
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - BID OPEN	0	0%	15-Aug-12*	30-Dec-13									
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - CONSTRUCTION	1644	50%	30-Dec-13	30-Dec-13									
I-64 AND GRINSTEAD DRIVE STORAGE BASIN		1126		30-Oct-14	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - EASEMENT	254	10%	10-Jun-12	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - AD DATE	1	0%	10-Jun-12	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - BID OPEN	0	0%	10-Jul-12*	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - AWARD	0	0%	10-Sep-12*	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - CONSTRUCTION	773	0%	30-Oct-14	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - DESIGN 30% COMPLETE	182	100%	30-Mar-12 A	31-Dec-14									
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - DESIGN 100% COMPLETE	61	100%	01-Mar-12 A	31-Dec-14									
LOGAN STREET AND BRECKENRIDGE ST STORAGE BASIN		1640		31-Oct-13	31-Dec-17									
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - EASEMENT	364	10%	28-Sep-12	31-Dec-17									
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - DESIGN	941	100%	02-Dec-11 A	31-Dec-17									
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - AD DATE	0	0%		31-Dec-17									
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - DESIGN	854	5%	31-Oct-13	31-Dec-17									
NIGHTINGALE PUMP STATION REPLACEMENT		719		24-Feb-14	31-Dec-16									
L_SO_MF_018_S_03_A_A	NIGHTINGALE PUMP STATION REPLACEMENT - DESIGN	719	0%	24-Feb-14	31-Dec-16									
PADDY'S RUN WET WEATHER TREATMENT FACILITY		733		02-Feb-13	31-Dec-14									
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - DESIGN 90%	480	0%	02-Feb-13	31-Dec-14									
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - PRELIMINARY DESIGN MEMOS	388	100%	24-Feb-12 A	31-Dec-14									
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - DESIGN 30%	211	0%	09-May-12	31-Dec-14									
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - DESIGN 60%	336	100%	11-Sep-12	31-Dec-14									
STORY AVENUE AND MAIN STREET STORAGE BASIN		1085		31-Dec-13	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN- COMPLETE ALTERNATIVE STUDY	303	100%	30-Nov-11 A	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN- COMPLETE REPORT AND SELEC	30	100%	30-Jan-12 A	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN- DESIGN	121	0%	30-Apr-12	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN - EASEMENT	90	0%	30-Apr-12	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN - AD DATE	1	0%	08-May-12	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN - BID OPEN	0	0%	10-Jun-12*	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN - AWARD	0	0%	10-Aug-12*	31-Dec-13									
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN - CONSTRUCTION	487	0%	31-Dec-13	31-Dec-13									
Flood Pump Station Projects		893		30-May-13	30-Jun-13									
4TH STREET FLOOD PUMP STATION		515		30-Jun-12	31-Dec-12									
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - CONSTRUCTION	485	80%	31-May-12	31-Dec-12									
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - SUBST. COMPL	0	0%	30-Apr-12	31-Dec-12									
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - AS-BUILTS	0	0%	30-Jun-12	31-Dec-12									
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - CD CERTIFY	0	0%	30-Jun-12	31-Dec-12									

2 of 6

Date Date: 01-Apr-12

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2012 - 30 Sept 2012)														
ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date	2012								
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
27TH STREET FLOOD PUMP STATION		893		30-May-13	30-Jun-13									
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - DESIGN	495	70%	27-Apr-12	30-Jun-13									
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - AD DATE	1	100%	01-Jan-12 A	30-Jun-13									
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - BID OPEN	0	0%	31-Jul-12*	30-Jun-13									
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - AWARD	0	0%	09-Sep-12	30-Jun-13									
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - CONSTRUCTION	242	0%	30-May-13	30-Jun-13									
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - PROJECT MANAGEMENT	92	0%	30-Sep-12	30-Jun-13									
34TH STREET FLOOD PUMP STATION		487		15-Jun-12	31-Dec-12									
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION - CONSTRUCTION	456	95%	15-May-12	31-Dec-12									
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION - SUBST COMPL	0	0%	30-Apr-12	31-Dec-12									
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION -AS-BUILTS	0	0%	15-Jun-12	31-Dec-12									
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION - CD CERTIFY	0	0%	15-Jun-12	31-Dec-12									
SHAWNEE FLOOD PUMP STATION		893		30-May-13	30-Jun-13									
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - MEETINGS	178	0%	22-Dec-12	30-Jun-13									
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - DESIGN	516	85%	18-May-12	30-Jun-13									
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - AD DATE	1	0%	15-Jun-12	30-Jun-13									
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - BID OPEN	0	0%	15-Jul-12*	30-Jun-13									
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - AWARD	0	0%	15-Aug-12*	30-Jun-13									
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - CONSTRUCTION	271	0%	30-May-13	30-Jun-13									
Sanitary Sewer Discharge Plan		1629		15-Jan-14	31-Dec-24									
Floyds Fork Area		230		30-Dec-12	31-Dec-12									
EDEN CARE PS SSO INVESTIGATION		230		30-Dec-12	31-Dec-12									
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - AD DATE	1	0%	15-May-12	31-Dec-12									
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - BID OPEN	0	0%	15-Jun-12*	31-Dec-12									
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - AWARD	0	0%	15-Jul-12*	31-Dec-12									
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - CONSTRUCTION	190	0%	30-Dec-12*	31-Dec-12									
Jeffersontown Area		1403		15-Jan-14	31-Dec-15									
BILLTOWN ROAD PS & FM		845		06-Jul-12	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M. & INT - EASEMENTS	580	100%	15-Oct-11 A	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M., & INT - CONSTRUCTION	342	30%	06-Jun-12	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M. & INT - SUBST. COMPLETE	0	0%	08-May-12	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M., & INT - AS-BUILT PLANS	0	0%	06-Jul-12	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	BILLTOWN RD PS FM & INT - 90% DESIGN	533	100%	30-Nov-11 A	31-Dec-15									
CHENOWETH HILLS PS ELIMINATION		824		01-Oct-12	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	CHENOWETH RUN INTERCEPTOR SEC. 2 - DESIGN	824	95%	01-Oct-12	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	CHENOWETH RUN INTERCEPTOR SEC. 2 - EASEMENTS	429	0%	01-Sep-12	31-Dec-15									
CHENOWETH HILLS WQTC ELIMINATION & PS IMPROVEMENTS		1052		15-Jan-14	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - DESIGN	221	100%	07-Oct-11 A	31-Dec-15									
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - EASEM	152	0%	01-Jun-12	31-Dec-15									
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - AD DAT	1	0%	20-Jun-12	31-Dec-15									
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - BID OF	0	0%	24-Jul-12	31-Dec-15									
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - AWARD	0	0%	23-Aug-12	31-Dec-15									
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - CONST	489	0%	15-Jan-14	31-Dec-15									
JEFFERSON FORCE MAIN		854		01-Jan-13	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	GRAND AVE PS - DESIGN	854	30%	01-Jan-13	31-Dec-15									
JEFFERSONTOWN WQTC ELIMINATION		1004		30-Mar-13	31-Dec-15									
S_JT_JT_NB01_M_01_C_A	JEFFERSONTOWN TP ELIMINATION - DESIGN	763	50%	01-Aug-12	31-Dec-15									

3 of 6

Date Date: 01-Apr-12

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2012 - 30 Sept 2012)												
ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date	2012						
						Jan	Feb	Mar	Apr	May	Jun	Jul
S_JT_JT_NB01_M_01_C_A	JEFFERSONTOWN TPELIMINATION - EASEMENTS	364	0%	30-Mar-13	31-Dec-15							
KLONDIKE INTERCEPTOR												
S_JT_JT_NB01_M_01_C_A	KLONDIKE INTERCEPTOR - DESIGN	548	100%	01-Mar-12 A	31-Dec-15							
S_SD_MF_NB04_S_01_B_A	KLONDIKE INTERCEPTOR - EASEMENT	459	10%	03-Apr-13	31-Dec-15							
UPPER BILLTOWN ROAD INTERCEPTOR												
S_JT_JT_NB01_M_01_C_A	UPPER BILLTOWN ROAD INTERCEPTOR-DESIGN	915	60%	31-Dec-12	31-Dec-15							
Beargrass Creek Middle Fork Area												
ANCHOR ESTATES- VANNAH PS ELIMINATION												
S_MI_MF_NB06_M_01_A_A- 2	ANCHOR ESTATES ILS & PS ELIMINATION - CONSTRUCTION	91	100%	30-Oct-11 A	31-Dec-13							
S_MI_MF_NB06_M_01_A_A- 2	ANCHOR ESTATES ILS & PS ELIMINATION - CD CERTIFICATION	0	100%	15-Oct-11 A	31-Dec-13							
HURSTBOURNE I&I INVESTIGATION & REHABILITATION												
S_MI_MF_NB07_S_07_C	HURSTBOURNE I&I INVEST & REHAB - CONSTR	140	100%	27-Dec-11 A	31-Dec-11							
S_MI_MF_NB07_S_07_C	HURSTBOURNE I&I INVEST & REHAB - SUBST COMP	0	100%	27-Dec-11 A	31-Dec-11							
S_MI_MF_NB07_S_07_C	HURSTBOURNE I&I INVEST & REHAB - CD CERTIFY	0	100%	27-Dec-11 A	31-Dec-11							
UMF #1 - BUECHEL BASIN												
S_MISF_MF_NB01_M_01_C_A1	BUECHEL SURGE BASIN - AD DATE	1	100%	24-Oct-11 A	31-Dec-13							
S_MISF_MF_NB01_M_01_C_A1	BUECHEL SURGE BASIN - BID OPEN	0	100%	09-Nov-11 A	31-Dec-13							
S_MISF_MF_NB01_M_01_C_A1	BUECHEL SURGE BASIN - AWARD	0	100%	28-Nov-11 A	31-Dec-13							
S_MISF_MF_NB01_M_01_C_A1	BUECHEL SURGE BASIN - CONSTRUCTION	640	0%	31-Dec-13	31-Dec-13							
Pond Creek Area												
CHARLESWOOD INTERCEPTOR EXTENSION												
S_PO_WC_PC03_M_01_C	CHARLESWOOD SUBD. INT. #23 - AD DATE	0	100%	31-Jan-12 A	31-Dec-22							
S_PO_WC_PC03_M_01_C	CHARLESWOOD SUBD. INT. #23 - BID OPEN	0	100%	29-Feb-12 A	31-Dec-22							
S_PO_WC_PC03_M_01_C	CHARLESWOOD SUBD. INT. #23 - AWARD	0	100%	30-Mar-12 A	31-Dec-22							
S_PO_WC_PC03_M_01_C	CHARLESWOOD SUBD. INT. #23 - CONSTR.	269	0%	26-Apr-13	31-Dec-22							
GOVERNMENT CENTER PS ELIMINATION												
S_PO_WC_PC06_M_01_C	GOVERNMENT CENTER PS ELIMINATION - AS-BUILTS	0	100%	31-Dec-11 A	31-Dec-24							
LANTANA PS I/I INVESTIGATION & REHABILITATION												
S_PO_WC_PC05_M_07_C	LANTANA PUMP STATION WET WEATHER STORAGE - AWARD	0	100%	10-Oct-11 A	31-Dec-11							
S_PO_WC_PC05_M_07_C	LANTANA PUMP STATION WET WEATHER STORAGE - CONSTRUCTION	58	100%	29-Dec-11 A	31-Dec-11							
S_PO_WC_PC05_M_07_C	LANTANA PUMP STATION WET WEATHER STORAGE - SUBSTANTIALLY CO	0	100%	29-Dec-11 A	31-Dec-11							
S_PO_WC_PC05_M_07_C	LANTANA PUMP STATION WET WEATHER STORAGE - CD CERTIFICATION	0	100%	29-Dec-11 A	31-Dec-11							
Ohio River Force Main Area												
DERINGTON CT PS I/I INVESTIGATION & REHABILITATION												
S_OR_MF_NB03_S_07_C	DERINGTON CT PUMP STATION I&I INVESTIGATION - DESIGN	303	100%	01-Dec-11 A	31-Mar-12							
S_OR_MF_NB03_S_07_C	DERINGTON CT PUMP STATION I&I INVESTIGATION - AWARD	0	100%	15-Dec-11 A	31-Mar-12							
S_OR_MF_NB03_S_07_C	DERINGTON CT PUMP STATION I&I INVESTIGATION - CONSTRUCTION	107	100%	30-Mar-12 A	31-Mar-12							
HARROD'S CREEK INTERCEPTOR												
S_OR_MF_NB04_M_03_B_B	EPSC PLANS	184	100%	02-Jul-12	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - EASEMENT	367	50%	30-Jun-12	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - AD DATE	1	0%	01-Jul-12	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - BID OPENING	0	0%	15-Jul-12*	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - AWARD	0	0%	15-Aug-12*	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK FM&I PH. I - 100% DESIGN	428	10%	01-May-12	31-Dec-15							
HARROD'S CREEK INTERCEPTOR PHASE 2												
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PHASE II - DESIGN	700	90%	30-May-12	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PHASE II - EASEMENTS	401	50%	02-Nov-12	31-Dec-15							
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH II - UPDATE & FINALIZE PLANS	305	90%	30-Apr-12	31-Dec-15							

4 of 6

Date Date: 01-Apr-12

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2012 - 30 Sept 2012)														
ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date	2012								
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
HARRODS CRK INT PH II - CONSTRUCTION DOCUMENTS	S_OR_MF_NB04_M_03_B_B	335	90%	30-May-12	31-Dec-15									
	HUNTING CREEK NORTH	640		31-Mar-12 A	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	640	100%	31-Mar-12 A	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	380	100%	31-Dec-11 A	31-Dec-15									
	RIVER ROAD INTERCEPTOR	637		28-Mar-13	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	0	100%	20-Oct-11 A	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	0	100%	14-Nov-11 A	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	410	30%	28-Mar-13	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	214	100%	30-Jan-12 A	31-Dec-15									
	SHADOW WOOD	1281		01-Jan-14	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	1281	30%	01-Jan-14	31-Dec-15									
	TIMBERLAKE AND HUNTING CREEK SOUTH	640		31-Mar-12 A	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	640	100%	31-Mar-12 A	31-Dec-15									
	HARROD'S CREEK PUMP STATION	1067		01-Jun-13	31-Dec-15									
	S_OR_MF_NB04_M_03_B_B	HARRODS CREEK P.S. & F.M. - DESIGN	519	100%	01-Dec-11 A	31-Dec-15								
S_OR_MF_NB04_M_03_B_B	HARRODS CREEK P.S. & F.M. - EASEMENT	610	90%	01-Jun-13	31-Dec-15									
S_OR_MF_NB04_M_03_B_B	HC/PROSPECT AREA STUDY-FINAL DESIGN- 90% MILESTONE	46	100%	15-Nov-11 A	31-Dec-15									
S_OR_MF_NB04_M_03_B_B	HC/PROSPECT AREA STUDY-FINAL DESIGN- 100% MILESTONE	62	100%	16-Jan-12 A	31-Dec-15									
S_OR_MF_NB04_M_03_B_B	HC/PROSPECT AREA STUDY-RIVER ROAD INTERCEPTOR PLAN UPDATE	0	100%	12-Nov-11 A	31-Dec-15									
Mill Creek Area		911		30-May-12	31-Dec-21									
EAST ROCKFORD LANE PS RELOCATION		907		26-May-12	31-Dec-21									
S_MC_WC_NB02_S_03_C	EAST ROCKFORD LN PS RELOC 100% DESIGN	690	100%	22-Oct-11 A	31-Dec-21									
S_MC_WC_NB02_S_03_C	EAST ROCKFORD LANE PS RELOCATION - CONSTRUCTION	330	80%	25-Apr-12	31-Dec-21									
S_MC_WC_NB02_S_03_C	EAST ROCKFORD LANE PS RELOCATION - AS-BUILTS	0	0%	26-May-12	31-Dec-21									
S_MC_WC_NB02_S_03_C	EAST ROCKFORD LANE PS RELOCATION - CD CERTIFY	0	0%	26-May-12	31-Dec-21									
S_MC_WC_NB02_S_03_C	EAST ROCKFORD LANE PS RELOCATION - SUBST. COMPLETE	0	100%	30-Mar-12 A	31-Dec-21									
SHIVELY INTERCEPTOR		669		30-May-12	31-Dec-14									
S_MC_WC_NB01_M_01_A	SHIVELY INTERCEPTOR - CONSTRUCTION	669	90%	30-May-12	31-Dec-14									
S_MC_WC_NB01_M_01_A	SHIVELY INTERCEPTOR - SUBST. COMPLETE	0	100%	30-Jan-12 A	31-Dec-14									
S_MC_WC_NB01_M_01_A	SHIVELY INTERCEPTOR - AS-BUILTS	0	100%	29-Mar-12 A	31-Dec-14									
S_MC_WC_NB01_M_01_A	SHIVELY INTERCEPTOR - CD CERTIFY	0	0%	01-Apr-12*	31-Dec-14									
Small WWTP Area		91		13-Sep-12	31-Dec-12									
LAKE FOREST PS SSO INVESTIGATION		91		13-Sep-12	31-Dec-12									
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - AD DATE	1	0%	15-Jun-12	31-Dec-12									
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - BID OPEN	0	0%	15-Jul-12*	31-Dec-12									
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - AWARD	0	0%	01-Aug-12*	31-Dec-12									
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - CONSTRUCTION	43	0%	13-Sep-12	31-Dec-12									
Interim SSDP Projects (Derek R. Guthrie WQTC Project Schedules are Under Revision)		884		27-Sep-12	27-Nov-12									
DEREK R GUTHRIE WQTC 2 (H09563 DRGWQTC WET WEATHER EQUALIZATION)		404		30-Jul-12	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER EQUALIZATION BASIN-CONSTR	323	90%	10-May-12	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER EQUALIZATION BASIN-SUB COMP	228	100%	15-Apr-12	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER EQUALIZATION BASIN-AS BLTS	0	0%	15-Apr-12*	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER EQUALIZATION BASIN-CD CERTIFY	153	100%	30-Jul-12	31-Dec-11									
DEREK R GUTHRIE WQTC 3 (H09561 DRGWQTC WET WEATHER TREATMENT)		792		31-Jul-12	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER TREATMENT FACILITY- SUBSTANTIAL COMP	0	0%	15-Apr-12*	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER TREATMENT FACILITY- CONSTRUCTION	761	90%	30-Jun-12	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER TREATMENT FACILITY- SUB OPERATIONAL	228	90%	15-Apr-12	31-Dec-11									
DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER TREATMENT FACILITY- CD CERTIFY	0	0%	30-Jul-12*	31-Dec-11									

5 of 6

Date Date: 01-Apr-12

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2012 - 30 Sept 2012)													
ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date	2012							
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
	DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: WET WEATHER TREATMENT FACILITY- FINAL COMP	0	0%	31-Jul-12*								
	DEREK R GUTHRIE WQTC 4 (H06302 DRGWQTC WET WEATHER FLOW EQUALIZATION & TREATMENT)		824		30-Jul-12								
	DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: PUMPING PACKAGE - CONSTRUCT	782	90%	17-Jun-12								
	DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: PUMPING PACKAGE - CD CERTIFY	0	0%	30-Jul-12*								
	DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: PUMPING PACKAGE - FINAL COMPLETION	0	0%	17-Jun-12								
	DEREK R GUTHRIE WATER QUALITY TR	DRGWQTC: PUMPING PACKAGE - SUBST COMPLETE	0	100%	18-Feb-12 A								
	HIKE'S POINT INTERCEPTOR PHASE 1		849		26-Aug-12								
	HIKES LANE INTERCEPTOR /HIGHGATE	HIKES POINT INTERCEPTOR - CONSTRUCTION	579	100%	30-Nov-11 A								
	HIKES LANE INTERCEPTOR /HIGHGATE	HIKES POINT INTERCEPTOR - SUBST COMPLETE	0	0%	30-Jun-12*								
	HIKES LANE INTERCEPTOR /HIGHGATE	HIKES POINT INTERCEPTOR - AS-BUILTS	0	0%	30-Jun-12*								
	HIKES LANE INTERCEPTOR /HIGHGATE	HIKES POINT INTERCEPTOR - WARRANTY	0	0%	26-Aug-12								
	HIKES LANE INTERCEPTOR /HIGHGATE	HIKES POINT INTERCEPTOR - ATTEND PREBID PHASE 2	1	100%	01-Oct-11 A								
	HIKE'S POINT INCEPTOR PHASE 2		399		27-Sep-12								
	HIKES LANE INTERCEPTOR /HIGHGATE	HIKES POINT INTERCEPTOR PHASE II- CONSTRUCTION	399	30%	27-Sep-12								
	SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR		642		11-Jun-12								
	SOUTHEASTERN DIVERSION STRUCTU	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - CONSTR	612	95%	12-May-12								
	SOUTHEASTERN DIVERSION STRUCTU	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - AS-BUILT	0	0%	11-Jun-12								
	Other Projects		1431		01-Jul-13								
	CPE/CCP MODIFICATIONS TO WQTC		883		31-Dec-11 A								
	CPE/CCP MODIFICATIONS TO WQTC	CPE/CCP MODIFICATIONS TO WWTP - DESIGN	883	100%	31-Dec-11 A								
	CPE/CCP MODIFICATIONS TO WQTC	CPE/CCP MODIFICATIONS TO WWTP - CD CERTIFY	0	100%	19-Dec-11 A								
	I/I REDUCTION PROGRAM		732		01-Jul-13								
	MULTIPLE	FY12 I/I REDUCTION PROGRAM - CONSTRUCTION	549	50%	30-Dec-12								
	MULTIPLE	FY13 I/I REDUCTION PROGRAM - CONSTRUCTION	365	0%	01-Jul-13								

6 of 6

Date Date: 01-Apr-12

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

4.1 Public Notification Program

MSD produced and distributed a number of products aimed at notifying the community of the objectives of Project WIN and how to lessen the risks associated with coming into contact with sewage overflows.

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 Meeting, the MSD green project at the Mazzoli Federal Building, and the expansion at DRG WQTC.

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 a sewer overflow abatement project review and input public meeting on January 24, 2012. The meeting included formal presentations on these topics:
 - Proposed IOAP 2012 modification, including specific combined sewer overflow (CSO) and sanitary sewer overflow (SSO) project modifications;
 - I-64 and Grinstead Drive storage basin project update and request for public input;
 - Individual issues and/or concerns with DRG WQTC and Hite Creek Action Plans and other sewer overflow abatement projects currently in planning, design, construction and drainage.

- Scheduled IOAP meetings to discuss the proposed IOAP 2012 modification and select project updates. Meetings to be held across the community on the following dates and locations:
 - May 10, 2012 – NIA Center – 2900 West Broadway
 - May 15, 2012 – Jeffersontown Community Center – 10617 Taylorsville Road
 - May 17, 2012 – Harrods Creek Fire Department – 8905 US Hwy 42
- Scheduled a Wet Weather Team meeting to update Stakeholders on the IOAP progress, public input process, and the IOAP 2012 modification for May 8, 2012 at the MSD Main Office at 700 West Liberty Street.

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**.

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 continued working on the Facilities Plan Update, establishing the study area and projecting the flow and loads from the service area. During the next reporting period, the alternative analysis for both the collection and treatment systems will be created and MSD will begin scheduling public outreach meetings.

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

Construction of the Phase 2 Expansion of the Floyds Fork WQTC continued in this reporting period with excavation for the two new clarifiers and three sludge holding tanks underway. During the next reporting period, the new influent force main will be operational, along with the structures for the sludge holding tanks and secondary clarifiers. The expansion will provide an average daily design capacity of 5.25 MGD at the current site.

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 has continued working on the Facilities Plan Update, establishing the study area. During the next reporting period, the flow and loads will be finalized and the alternative analysis for both the collection and treatment systems will begin. MSD will begin scheduling public outreach meetings.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification

to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

5.3.8 Berrytown Water Quality Treatment Center

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

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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**.

Began the planning phase to install flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a constant feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical overdosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. During the next reporting period, draft design drawings and specifications will be created. It is anticipated that the project will be advertised for construction by June 30, 2012.

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 – Completed review of several alternatives to eliminate the plant. A final gravity solution alternative was selected as the elimination plan. MSD has final construction drawings for the gravity elimination of the plant. The plant flows will be diverted to the existing Washington Green Pump Station which will require expansion. The pump station expansion and plant elimination costs are not currently in the approved MSD budget. A developer is proposing to expand this pump station as part of a future development project. If the development occurs, MSD will review the current budget for funds to eliminate the plant. During the next reporting period, MSD will continue discussions with the developer to coordinate the plant elimination. MSD will also continue to monitor the structural condition of the plant and perform remedial activities as needed coordinating with the proposed elimination schedule.
- Silver Heights WQTC – Completed the review of several alternatives to eliminate the plant. A gravity solution alternative was selected and budget was allocated creating a capital project to eliminate the plant. During the next reporting period, MSD will continue preliminary design of the elimination project.

5.4 CMOM Activity Schedule

CMOM capital project milestones for the period of January 1, 2012, through March 31, 2012, as well as a look-ahead for the period of April 1, 2012, through September 30, 2012, are provided in the schedule below.

MSD CMOM FY12 Annual Commitments Schedule (01 January 2012 - 30 September 2012)

Date: 19-Apr-12

Activity ID	Activity Name	Start	Finish	2012									
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
CMOM FY ANNUAL REPORT COMMITMENTS FINAL		04-Oct-10A	16-May-13										
M-E-9 Infrastructure Rehabilitation		04-Oct-10A	14-Mar-13										
Lee Ann Way Pump Station Grinder Installation Project (F07069)		22-Sep-11 A	21-Sep-12										
A2060	Warranty Period	22-Sep-11 A	21-Sep-12										
Brandeis Viaduct #2 Pump & Controls Modifications Project (F04192)		01-May-11 A	01-May-12										
A1720	Warranty Period	01-May-11 A	01-May-12										
Shively Pump Station Grinder Replacement Project Planning (H10151)		21-Sep-11 A	21-Sep-12										
A2150	Warranty	21-Sep-11 A	21-Sep-12										
Fairmount Road Pump Station Expansion Project (E00303)		20-Jan-11 A	30-Apr-12										
A1880	Construction - Substantial Completion	20-Jan-11 A	28-Feb-12 A										
A1890	Construction - Final Completion	20-Jan-11 A	30-Apr-12										
Lake Forest Pump Station, Force Main & Interceptor (E05509)		04-Oct-10A	30-Apr-12										
A1830	Construction	04-Oct-10A	30-Apr-12										
Annual I/I Project (H09205)		01-Nov-11 A	01-Nov-12										
A2560	Construction	01-Nov-11 A	01-Nov-12										
St Matthews Interceptor I/I Rehabilitation Project (H12059)		01-Feb-12 A	31-Aug-12										
A2930	Construction	01-Feb-12 A	31-Aug-12										
Lea Ann Way Interceptor I/I Rehabilitation Project (H12064)		15-Feb-12 A	30-Sep-12										
A3010	Construction	15-Feb-12 A	30-Sep-12										
Lake Forest Sanitary Sewer Rehabilitation Project (H11303)		01-Nov-11 A	31-Dec-12										
A3150	Planning	01-Nov-11 A	02-Apr-12										
A3160	Ad	15-Apr-12*											
A3170	Bid Opening	15-May-12*											
A3180	Award	01-Jun-12*											
A3190	Construction	15-Jun-12*	31-Dec-12										
Camp Taylor SSR Phase I Project (H09407)		01-Aug-11 A	20-Sep-12										
A3690	Planning	01-Aug-11 A	31-Dec-11 A										
A3670	Construction	31-Mar-12*	20-Sep-12										
Lea Ann Way SSR Phase I Project (H09405)		01-Nov-11 A	31-Dec-12										
A3740	Planning	01-Nov-11 A	02-Apr-12										
A3700	Ad	31-Mar-12*											
A3710	Bid Opening	15-Apr-12*											
A3730	Award	15-May-12*											
A3720	Construction	15-Jun-12*	31-Dec-12										
Prospect Phase I Sanitary Sewer Rehabilitation Project (H11311)		02-Apr-12	31-Dec-12										
A3200	Planning	02-Apr-12*	30-Jul-12										
A3210	Ad	15-Apr-12*											
A3220	Bid Opening	15-May-12*											
A3230	Award	01-Jun-12*											
A3240	Construction	15-Jun-12*	31-Dec-12										
Prospect Phase II SSES (H11319)		01-Jul-11 A	31-Mar-12										
A3100	Planning	01-Jul-11 A	31-Mar-12										
Windham PS SSES (H11316)		01-Jul-11 A	31-Mar-12										
A3110	Planning	01-Jul-11 A	31-Mar-12										
Cedar Creek Phase II SSES (H11313)		01-Jul-11 A	30-Jun-12										
A3120	Planning	01-Jul-11 A	30-Jun-12										
Chenoweth Hills WQTC /Chenoweth Run PS SSES (H11318)		01-Jul-11 A	30-Jun-12										
A3130	Planning	01-Jul-11 A	30-Jun-12										

1 of 3

Date Date: 31-Mar-12

MSD CMOM FY12 Annual Commitments Schedule (01 January 2012 - 30 September 2012)				Date: 19-Apr-12								
Activity ID	Activity Name	Start	Finish	2012								
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Shively SSES (H11408)												
A3140	Planning	01-Jul-11 A	30-Jun-12									
Willow Ave Sewer Repair Project												
A3750	Construction	30-Apr-12	25-May-12									
Maple Road Sewer Rehabilitation Project (H09409)												
A3770	Design	01-Jan-12 A	15-Feb-12 A									
A3780	Ad	15-Feb-12 A	15-Feb-12 A									
A3790	Bid Open	01-Mar-12 A	01-Mar-12 A									
A3800	Award	15-Mar-12 A	15-Mar-12 A									
A3760	Construction	28-Mar-12 A	18-May-12									
Collins Lane Sewer Rehabilitation Project (H12106)												
A3870	Design	01-Feb-12 A	08-Apr-12									
A3880	Ad	08-Apr-12*										
A3890	Bid Open	25-Apr-12*										
A3900	Award	14-May-12*										
A3860	Construction	14-Jun-12*	11-Dec-12									
Lea Ann Way East - Stonybrook Rehabilitaion Project (C08433)												
A3920	Design	16-Jan-12 A	30-Jun-12									
A3930	Ad	15-Jul-12*										
A3940	Bid Open	15-Aug-12*										
A3910	Construction	15-Sep-12*	14-Mar-13									
A3950	Award	15-Sep-12*										
Lea Ann Way East - Fegenbush Rehabilitaion Project (C08433)												
A3970	Design	16-Jan-12 A	30-Jun-12									
A3980	Ad	01-Jul-12*										
A3990	Bid Open	01-Aug-12*										
A3980	Construction	01-Sep-12*	28-Feb-13									
A4000	Award	01-Sep-12*										
Lea Ann Way East - Fern Creek Rehabilitaion Project (C08433)												
A4170	Design	16-Jan-12 A	30-May-12									
A4180	Ad	15-Jun-12*										
A4190	Bid Open	15-Jul-12*										
A4160	Construction	15-Aug-12*	11-Feb-13									
A4200	Award	15-Aug-12*										
Lea Ann Way East - Picadilly Rehabilitaion Project (C08433)												
A4270	Design	16-Jan-12 A	30-Jun-12									
A4280	Ad	15-Jun-12*										
A4290	Bid Open	15-Jul-12*										
A4260	Construction	15-Aug-12*	11-Feb-13									
A4300	Award	15-Aug-12*										
Pump Station Operations Programs												
O-A-1 Routine Operating Programs												
A1340	Finalize Pump Station SOPs	01-Apr-11 A	30-Jun-12									
A1350	Establish Draft SOPs & Job Aides for Regional Pump Stations	22-Apr-11 A	30-Jun-12									
A1330	Submit Flood Operations & Maintenance Manual to USACE- Draft	01-Jun-11 A	31-Dec-11 A									
O-A-2 Emergency Operation Programs												
West Region Generator Phase V (H11078)												
A1930	Construction	30-Jul-11 A	31-Mar-12									

2 of 3

Date Date: 31-Mar-12

MSD CMOM FY12 Annual Commitments Schedule (01 January 2012 - 30 September 2012)

Date: 19-Apr-12

Activity ID	Activity Name	Start	Finish	2012									
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
	East Region Emergency Generator Phase V (H11438)		15-Aug-11 A	30-May-12									
	A1970	Construction	15-Aug-11 A	30-May-12									
	Central Region Emergency Generator Phase V (H11439)		17-Oct-11 A	30-Apr-12									
	A2010	Construction	17-Oct-11 A	30-Apr-12									
	Trinity Homes Emergency Generator (H11440)		04-Apr-12	30-Dec-12									
	A2030	Ad	04-Apr-12*										
	A2040	Award	30-May-12*										
	A2050	Construction	30-Jun-12*	30-Dec-12									
	Royster Basin Generator and Access Road Project (H09365)		01-Jan-12 A	30-Oct-12									
	A4310	Design	01-Jan-12 A	30-May-12									
	A4320	Ad	15-Jun-12*										
	A4350	Bid Open	15-Jul-12*										
	A4330	Award	01-Aug-12*										
	A4340	Construction	01-Aug-12*	30-Oct-12									
	Caven Emergency Generator (H11077)		04-Feb-11 A	02-Apr-12									
	A2190	Construction- Final Completion	04-Feb-11 A	02-Apr-12									
	CPE/CPE Treatment Plant Activities			01-Sep-11 A	16-May-13								
	Hunting Creek South Lagoon Elimination (H11462)			13-Nov-11 A	13-Nov-12								
	A2220	Warranty	13-Nov-11 A	13-Nov-12									
Timberlake Lagoon Elimination (H11431)			17-Nov-11 A	16-Nov-12									
A2230	Warranty	17-Nov-11 A	16-Nov-12										
SILVER HEIGHTS WQTC Elimination Project (H12022)			01-Sep-11 A	30-Jun-12									
A3390	Planning	01-Sep-11 A	30-Jun-12										
MFWQTC Secondary Clarifier Flow Meter Project (H12046)			03-Feb-12 A	16-May-13									
A3300	Ad	03-Feb-12 A											
A3310	Bid Opening	02-Mar-12 A											
A3330	Award	26-Mar-12 A											
A3320	Construction	16-Apr-12*	16-May-13										
MFWQTC Secondary Bypass Flume Replacement (H12047)			17-Jan-12 A	28-Oct-12									
A3290	Ad	17-Jan-12 A											
A3260	Bid Opening	24-Feb-12 A											
A3280	Award	26-Mar-12 A											
A3270	Construction	01-May-12*	28-Oct-12										
CMOM CPE/CCP FY11 - CL2 and SO2 Flow Pacing (H09360)			01-Oct-11 A	31-Dec-12									
A3440	Design	01-Oct-11 A	30-May-12										
A3400	Ad	15-Jun-12*											
A3410	Bid Opening	15-Jul-12*											
A3420	Construction	01-Aug-12*	31-Dec-12										
A3430	Award	01-Aug-12*											

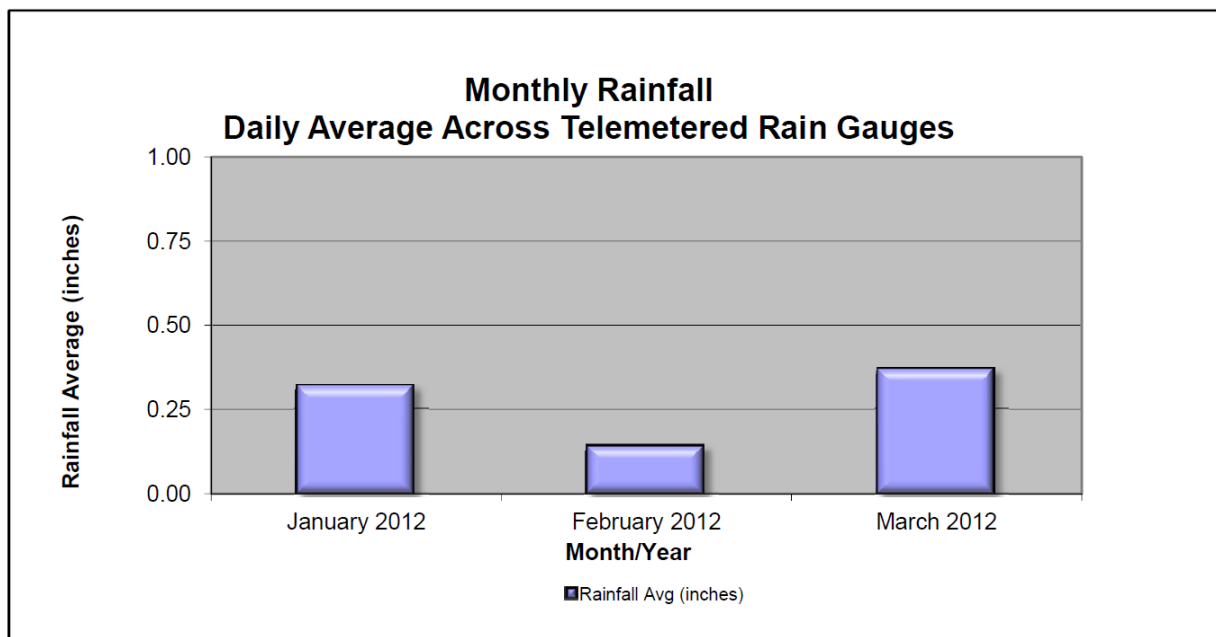
3 of 3

Date Date: 31-Mar-12

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 Gauges.



6.2 Collection System Unauthorized Discharges

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

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, 2011, through June 30, 2012, and are posted on the Project WIN website. During this quarter, 94 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	4	4
Bypass At WQTC	0	4	4
Lack of System Capacity	0	74	74
Mechanical Failure	2	0	2
Obstruction-Not Grease or Root	4	0	4
Pumped Overflow	0	3	3
Roots	1	0	1
Structural Failure	2	0	2
Total	9	85	94

6.2.2 Overflows to Ground (EXT)

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, 2011, through June 30, 2012.

6.2.3 Overflows to Interior (INT)

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, 2011, through June 30, 2012.

6.2.4 Dry Weather CSOs

Recorded information related to dry weather overflows from permitted combined sewer overflow outfalls. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. A detailed report of these overflows will be included in the Annual Report for the period of July 1, 2011, through June 30, 2012. 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 - January 1, 2012 - March 31, 2012					
CSO	Type of Discharge	Date/Time	Problem	Cause	Volume (Gal)
CSO020	Dry Weather Discharge	3/17/12 3:02 PM	Mechanical	MECHANICAL FAILURE OF THE HYDROSTATIC LEVEL INDICATOR.	1,987,908
CSO022	Dry Weather Discharge	3/14/12 11:37 AM	Structural	STRUCTURAL FAILURE-1/2 INCH HOLE IN THE METAL DAM (WIER)	280
CSO097	Dry Weather Discharge	1/30/12 12:35 PM	Mechanical	LACK OF CAPACITY IN THE BGI AFTER RAIN EVENT DUE TO UNKNOWN RESTRICTION, TO BE DETERMINED.	1,905
CSO148	Dry Weather Discharge	2/13/12 11:16 AM	Obstruction	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	1,250
CSO148	Dry Weather Discharge	3/7/12 2:05 PM	Obstruction	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	15

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.

- CSO086 - Located at 1429 Payne Street was closed February 16, 2012. MSD crews closed the CSO by bricking up the outfall. This CSO was tributary to Beargrass Creek.

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.

The following projects that impacted SSOs were completed during this reporting period:

- Shively Interceptor - Completed February 27, 2012 - Eliminated the following SSOs: MSD0049-PS; 06915-W and MSD0050-PS
- East Rockford Lane PS Relocation Project - Completed March 30, 2012 - Eliminated the following SSO: 04699-W
- Derington Court PS I/I Investigation & Rehabilitation - Completed March 30, 2012 - Eliminated the following SSOs: MSD0095-PS; 20154-W; 20155

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, 2011, through March 31, 2012. The first table includes data and targets. The second table includes unplanned maintenance and other maintenance activities that are performed in response to inspection.

Rolling Quarterly GLPM Performance With Targets						
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total	Target/ qtr
Combined Sewer Area						
Catch Basins Cleaned CSO Area - PM	6,660	8,165	7,570	8,479	30,874	4,460
CSO Inspections	1,347	1,339	1,339	1,334	5,359	1,272
Sanitary Sewer Area						
Catch Basins Cleaned SSO Area - PM	53	3,386	847	2,181	6,467	1,144
County Wide						
Sewer Main Inspections MSD Crews (LF)	133,370	281,495	202,842	228,679	846,386	198,000
Sewer Main Inspections Contractor (LF)	198,521	189,165	216,282	101,456	705,424	198,000
Total Inspections (LF)	533,505	331,891	419,124	330,135	1,614,655	396,000

Rolling Quarterly GLPM Performance					
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total
Combined Sewer Area					
Catch Basins Cleaned CSO Area - UM	368	462	168	206	1,204
CSO Debris Removal WO	135	122	103	129	489
Chemical Root Treatment CSO Area (LF)	1,479	0	961	1,887	4,327
Root Cutting CSO Area (LF)	3,887	83,868	41,348	41,279	170,382
Flushing and Cleaning of Sewer Mains CSO Area (LF)	16,207	32,060	15,388	12,920	76,575
Sanitary Sewer Area					
Catch Basins Cleaned SSO Area - UM	129	80	115	51	375
Chemical Root Treatment SSO Area (LF)	7,916	0	120,630	114,326	242,872
Root Cutting SSO Area (LF)	46,212	28,300	43,603	37,836	155,951
Flushing and Cleaning of Sewer Mains SSO Area (LF)	69,790	32,056	34,710	23,981	160,537

6.6 Water Quality Treatment Center Bypasses

6.6.1 Bypass Events

Included in **Appendix A-2** is a report that lists the details of the 4 bypasses that occurred at water quality treatment centers (WQTC) during this reporting period. Bypasses were reported for the following WQTCs:

Bypass Events - January 1, 2012 - March 31, 2012			
Type of Bypass	Date	ID	Facility Name
Wet Weather	2/5/12	MSD0289	CEDAR CREEK
Wet Weather	3/18/12	MSD0209	BERRYTOWN
Wet Weather	3/18/12	MSD0209	BERRYTOWN
Wet Weather	3/23/12	MSD0228	MCNEELY LAKE

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 between January 1, 2012, and March 31, 2012.

Bypass Analysis – January 1, 2012, to March 31, 2012	
Bypass Description	Bypass Corrective Actions
Capacity	
<ul style="list-style-type: none"> - <u>Berrytown WQTC (Hansen Discharge WO: 1447794)</u>: Bypass (capacity) was reported at this WQTC on March 18, 2012. Increased plant flow caused a clarifier overflow. Plant flows were more than four times the design flow during the rain event on March 18, 2012. 	<ul style="list-style-type: none"> - MSD reinforced the clarifier walls where overflows occurred. - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
<ul style="list-style-type: none"> - <u>Berrytown WQTC (Hansen Discharge WO: 1447800)</u>: Bypass (capacity) was reported at this WQTC on March 18, 2012. Increased plant flow caused an overflow at the aeration basin. Plant flows were more than five times the design flow during the rain event on March 18, 2012. 	<ul style="list-style-type: none"> - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
External Power failures (LGE Related-PWR)	
<ul style="list-style-type: none"> - <u>McNeely Lake WQTC (Hansen Discharge WO: 1456189)</u>: Bypass (Power Failure) was reported at this WQTC on March 23, 2012. A power failure caused flow to bypass the influent pump station during the rain event of March 23, 2012. 	<ul style="list-style-type: none"> - MSD installed a temporary generator to restore service to the WQTC on March 23, 2012.
Facility Failure (Mechanical -MCH, Electrical -ELE, Structural-SRT)	
<ul style="list-style-type: none"> - <u>Cedar Creek WQTC (Hansen Discharge WO: 1421441)</u>: Bypass (electrical) was reported at this WQTC on February 5, 2012, when a UV channel gate failed to close in automatic control. 	<ul style="list-style-type: none"> - UV equipment vendor repaired a faulty control board to prevent the channel gate from being opened without UV lights powered up. Action was completed on February 6, 2012.
Human Error (OPN)	
<ul style="list-style-type: none"> - No bypasses of this category occurred during the reporting period. 	<ul style="list-style-type: none"> - N/A

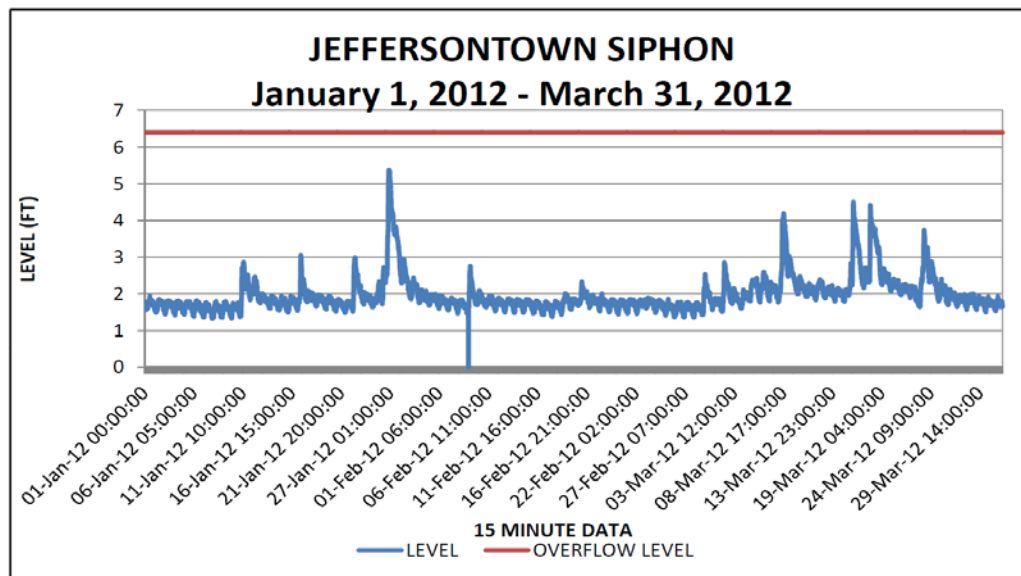
Utility Damage	
- No bypasses of this category occurred during the reporting period.	- N/A

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.

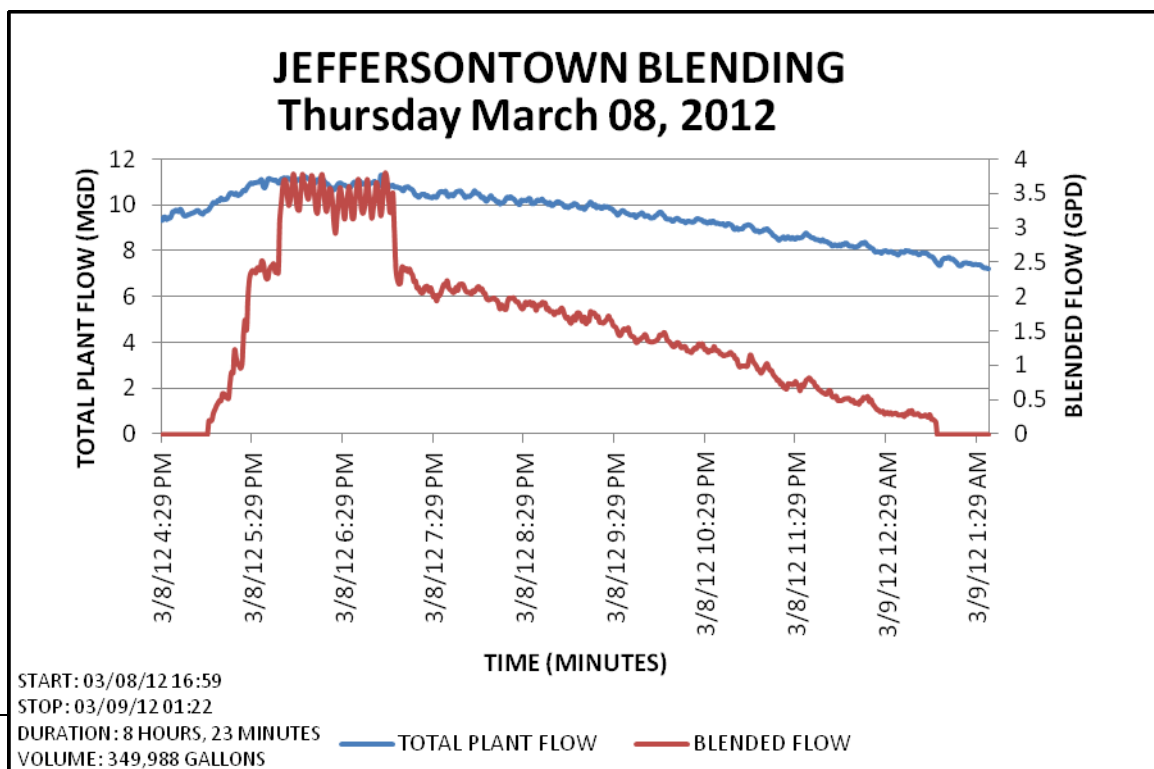
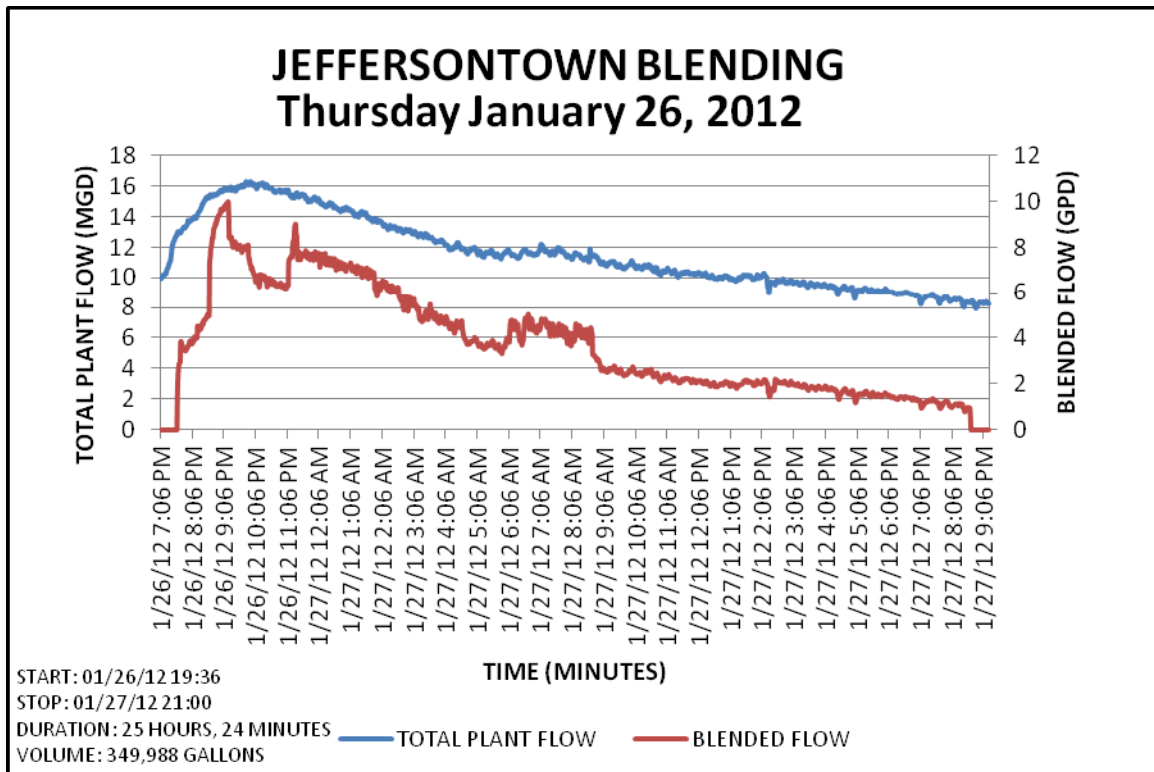
The following activities occurred at the Jeffersontown WQTC during the reporting period:

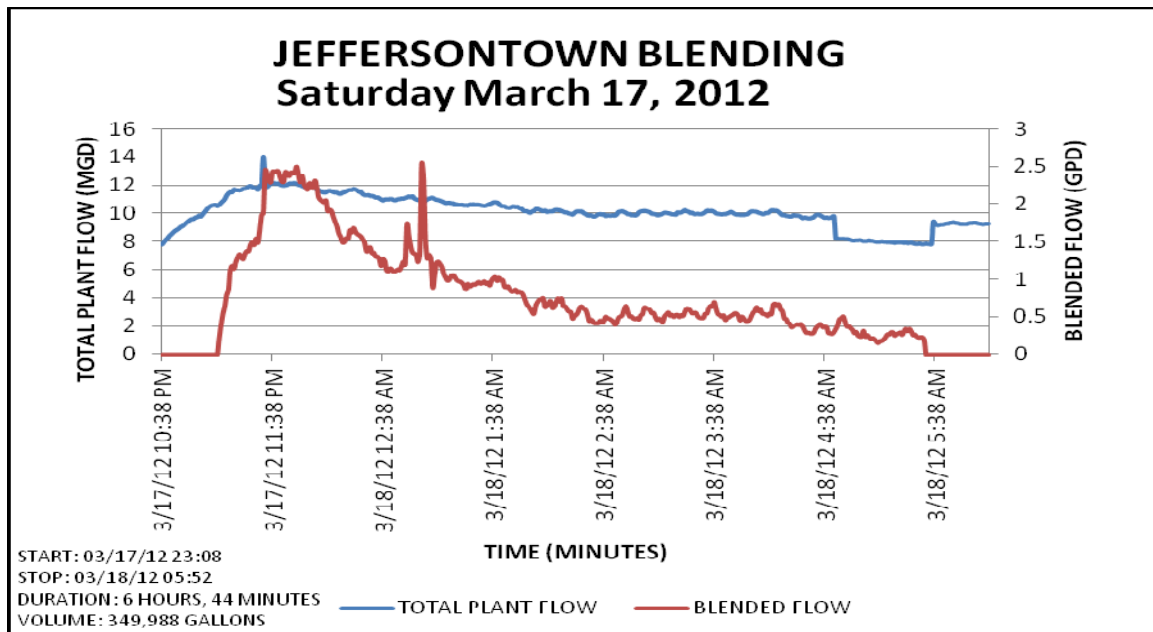
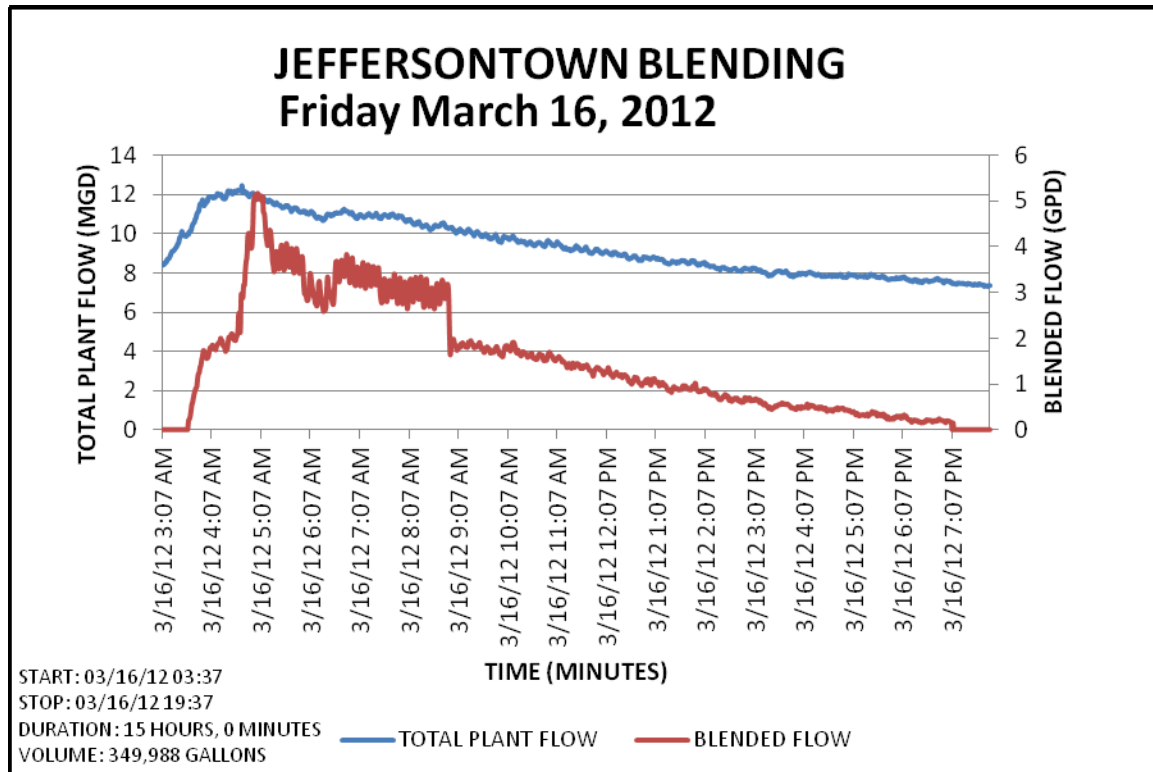
- Conducted seven inspection routes as described in **Section 2.2 - Overflow Management and Field Documentation**.



- Inspections did not identify any overflows at the Jeffersontown Siphon during the reporting period.
- Overflows were identified at manhole 28173 and manhole 28145 January 26, 2012 as a result of inspections of manholes within 2,000 feet of the Jeffersontown head works.
- Four blending events occurred at the Jeffersontown WQTC during this quarter. Included in **Appendix A-3** is a report that lists the details from the blending events. The following charts show plant flow at the Jeffersontown WQTC when blending began. The data for

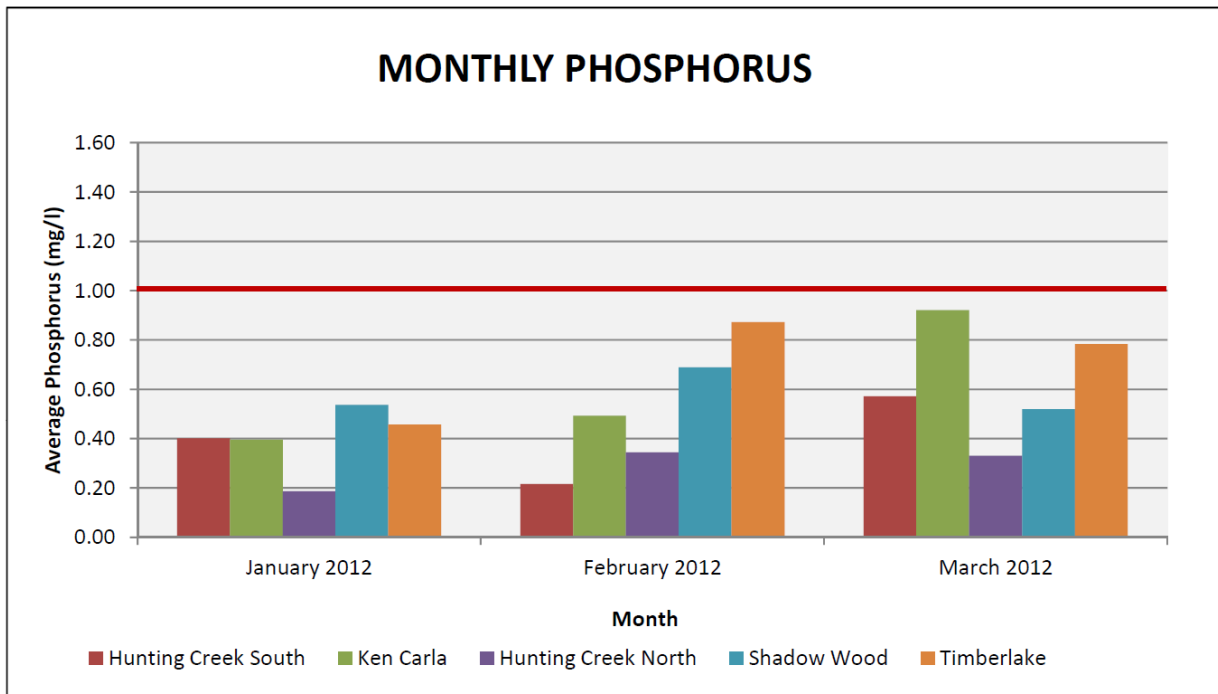
each event indicates that MSD met the protocols outlined in Jeffersontown Wastewater Treatment Plant Process Control Program for the quarterly reporting period.





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

JANUARY 1, 2012 THROUGH MARCH 31, 2012

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	147 BUCHANAN ST	03/17/12 3:02: PM	03/17/12 03:47 PM	1,987,908 GAL	Sewer Manhole	CSO020	STREAM	OHIO RIVER	MECHNACIAL FALIURE OF THE HYDROSTATIC LEVEL INDICATOR. THAT SHUT THE STATION DOWN	MECHANICAL FAILURE	1447741	PIPE DISCHARGE SUBMERGED - NO CLEANUP	SWITCHED LEVEL INDICATOR SYSTEMS. #2 SYSTEM IS THE PRIMARY SYSTEM UNTIL REPAIRS ARE COMPLETED .
MORRIS FORMAN	KY0022411	342 W MAIN ST	03/14/12 11:37: AM	03/14/12 01:57 PM	280 GAL	Sewer Manhole	CSO022	STREAM	OHIO RIVER	STRUCTURAL FAILURE-1/2 INCH HOLE IN THE METAL DAM (WIER)	STRUCTURAL FAILURE	1446837	NO CLEAN UP OVERFLOW WENT STRIGHT TO OHIO RIVER	REPAIRED DAM- PLUGED & SEALED 1/2 INCH HOLE
MORRIS FORMAN	KY0022411	1174 CASTLEVALE DR	01/30/12 12:35: PM	01/30/12 02:42 PM	1,905 GAL	Sewer Manhole	CSO097	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF CAPACITY IN THE BGI AFTER RAIN EVENT DUE TO UNKNOWN RESTRICTION, TO BE DETERMINED.	MECHANICAL FAILURE	1417499	MSD PERSONNEL CLEANED AND SANITIZED THE AREA	FLOW DIVERTED TO THE UPPER DRY RUN INTERCEPTOR
MORRIS FORMAN	KY0022411	1169 EASTERN PKY	02/13/12 11:16: AM	02/13/12 11:25 AM	1,250 GAL	Sewer Manhole	CSO148	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	1424997	NO CLEAN UP OVERFLOW WENT STRIGHT TO BEARGRASS CREEK	WORK ORDER 1425089 - FLUSHED THE PIPE AND REMOVED DEBRIS
MORRIS FORMAN	KY0022411	1169 EASTERN PKY	03/07/12 2:05: PM	03/07/12 02:10 PM	15 GAL	Sewer Manhole	CSO148	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	1441470	NO CLEAN UP OVERFLOW WENT STRIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE

Appendix A-2 - Discharge Work Orders – Bypass

APPENDIX A-2

UNAUTHORIZED DISCHARGES

TO WATERS OF UNITED STATES

JANUARY 1, 2012 THROUGH MARCH 31, 2012

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	03/18/12 10:30: AM	03/18/12 06:00 PM	11,250 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	OVERFLOW AT CLARIFIER DUE TO INCREASED WET WEATHER FLOW	BYPASS AT WQTC	1447794	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AROUND THE CLARIFIER	HAULED WQTC UNTIL CLARIFIER WATER LEVELS RETURNED TO NORMAL
BERRYTOWN	KY0036501	1203 HEAFER RD	03/18/12 10:30: AM	03/18/12 10:35 AM	2,000 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	RAIN EVENT CAUSED HIGH PLANT FLOW	BYPASS AT WQTC	1447800	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AROUND THE PLANT	PLANT AIR TURNED OFF AND HAULING OCCURRED UNTIL FLOW RETURNED TO NORMAL LEVELS
MCNEELY LAKE	KY0029416	10300 ROD N REEL RD	03/23/12 4:00: PM	03/23/12 04:33 PM	825 GAL	Sewer Treatment Plant	MSD0228	STREAM	PENNSYLVANIA RUN	RAIN EVENT LEAD TO LG&E POWERFAIL CAUSING A PLANT BYPASS	BYPASS AT WQTC	1456189	MSD CLEANED & SANITIZED THE AREA.	PLANT PUT ON PORTABLE GENERATOR UNTIL LG&E POWER RESTORED.
CEDAR CREEK	KY0098540	8605 CEDAR CREEK RD	02/05/12 7:25: AM	02/05/12 07:30 AM	6,446 GAL	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	UV BANK LIGHTS NOT ON AND #2 UV CHANNEL GATE FAILED TO CLOSE.	BYPASS AT WQTC	1421441	PIPE DISCHARGE SUBMERGED	TURNED ON UV BANK AND CLOSED INFLUENT GATE

Appendix A-3 - Discharge Work Orders – Blending

APPENDIX A-3

UNAUTHORIZED DISCHARGES

TO WATERS OF UNITED STATES

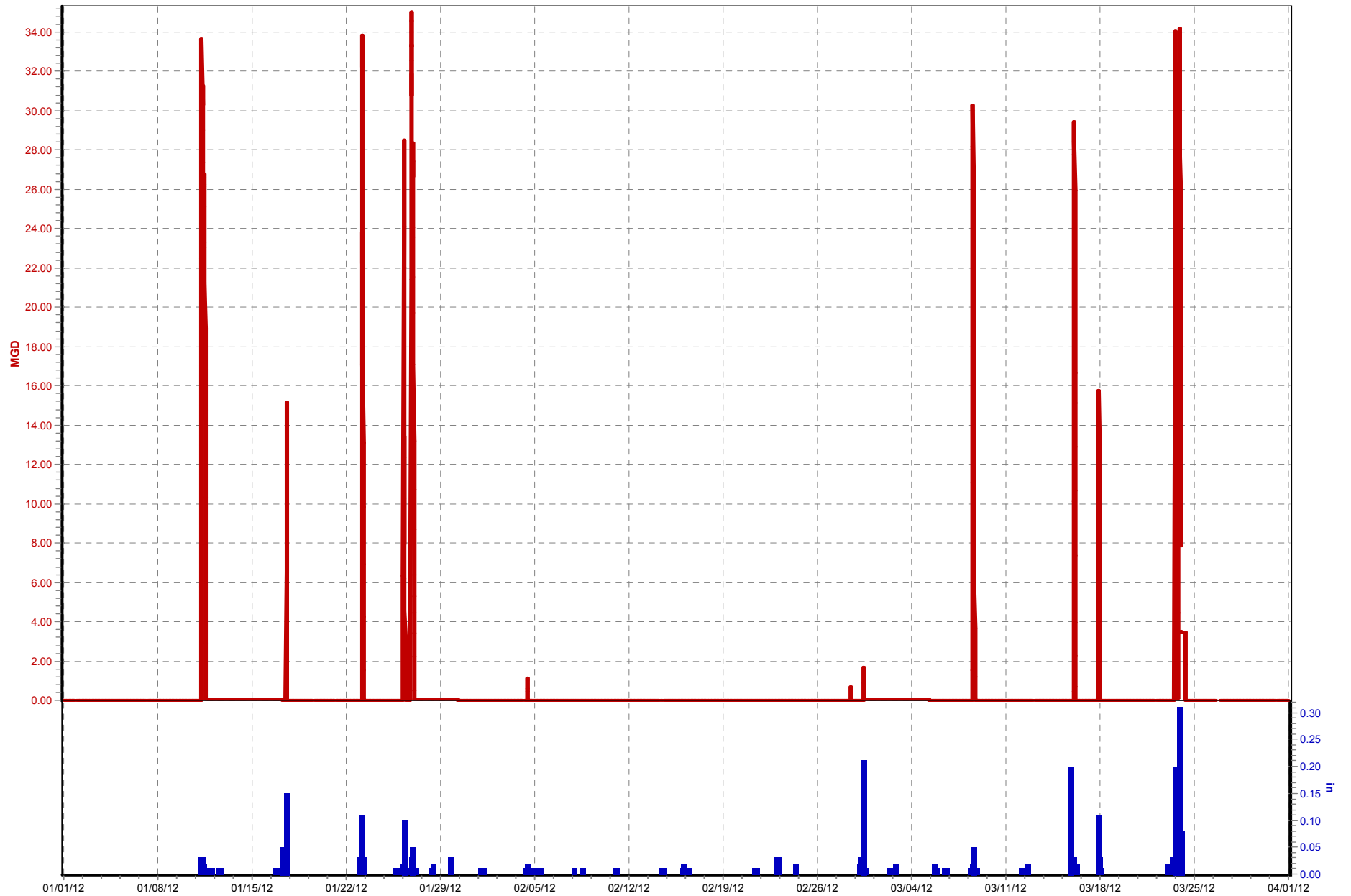
JANUARY 1, 2012 THROUGH MARCH 31, 2012

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	01/26/12 7:36: PM	01/27/12 09:00 PM	4,044,173 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1415841	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	03/08/12 4:59: PM	03/09/12 01:22 AM	559,144 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1441959	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION!
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	03/16/12 3:37: AM	03/16/12 07:37 PM	1,058,730 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1447316	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	03/17/12 11:08: PM	03/18/12 05:52 AM	238,197 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1447771	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION

Appendix B – CSO Flow Monitoring Data

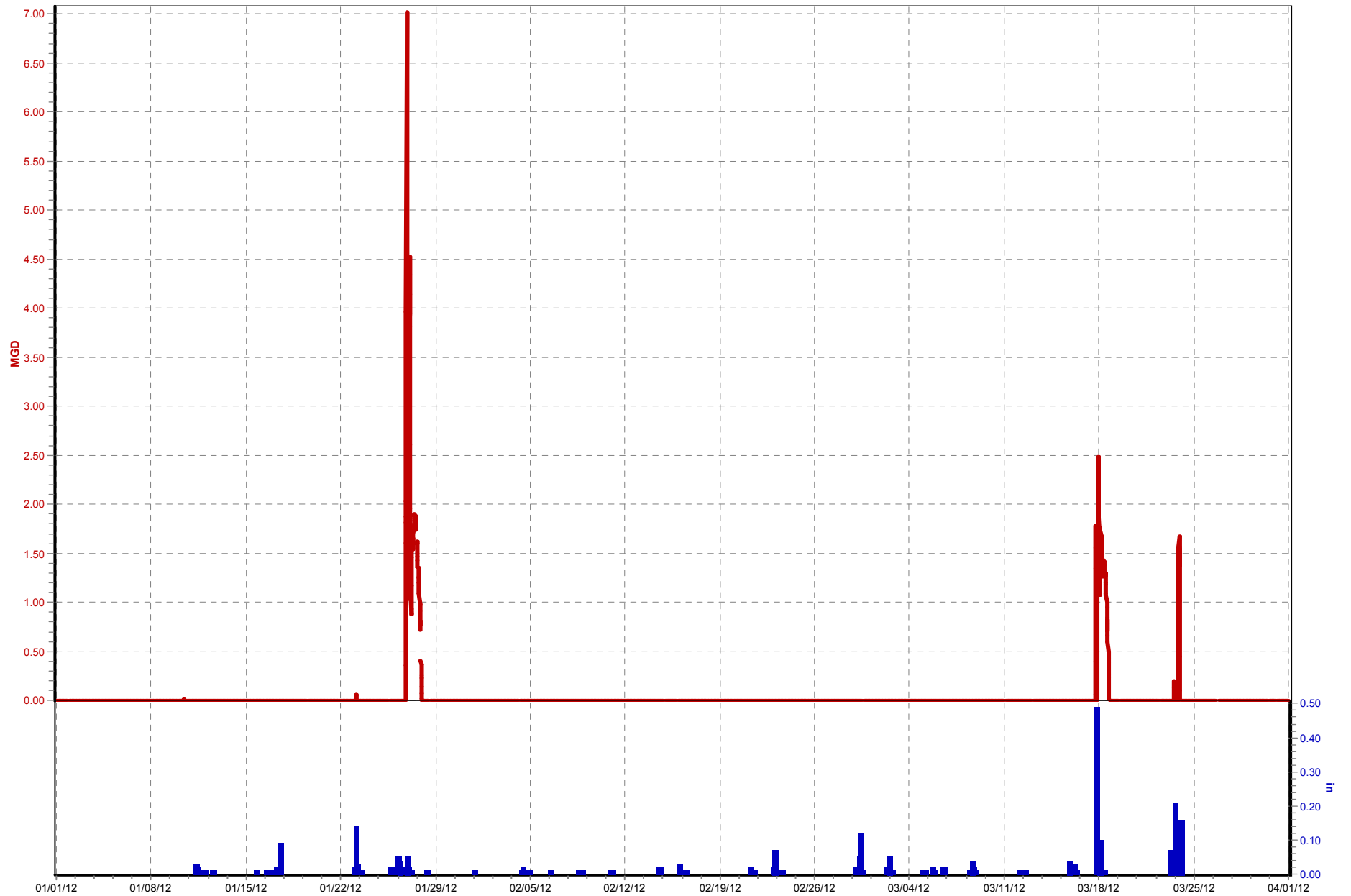
CSO016 (01/01/12 to 04/01/12)

☒ CSO016 Flow (MGD) ☒ TR04_Morris Forman WQTC.Rain (in)



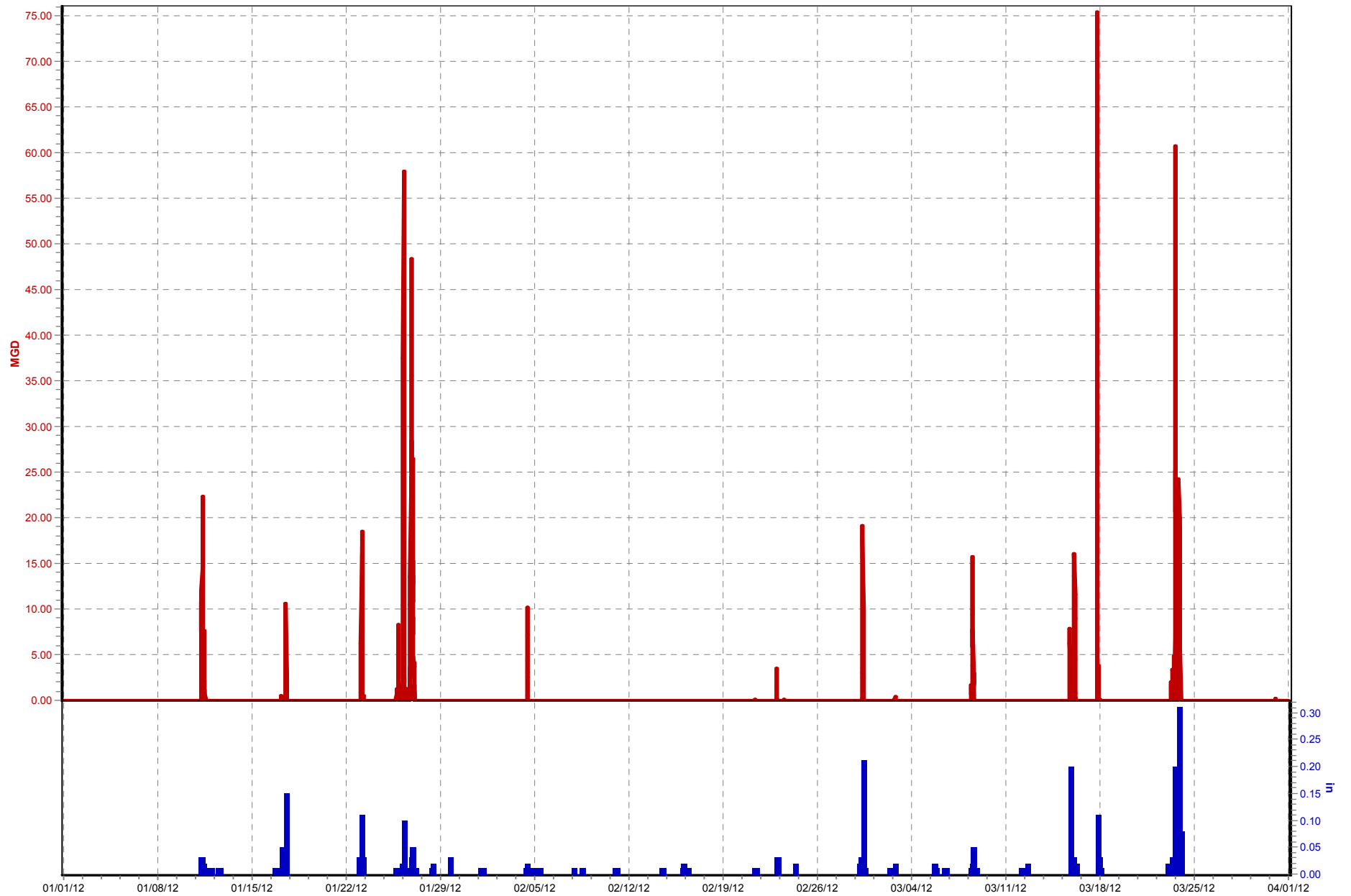
CSO018 (01/01/12 to 04/01/12)

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



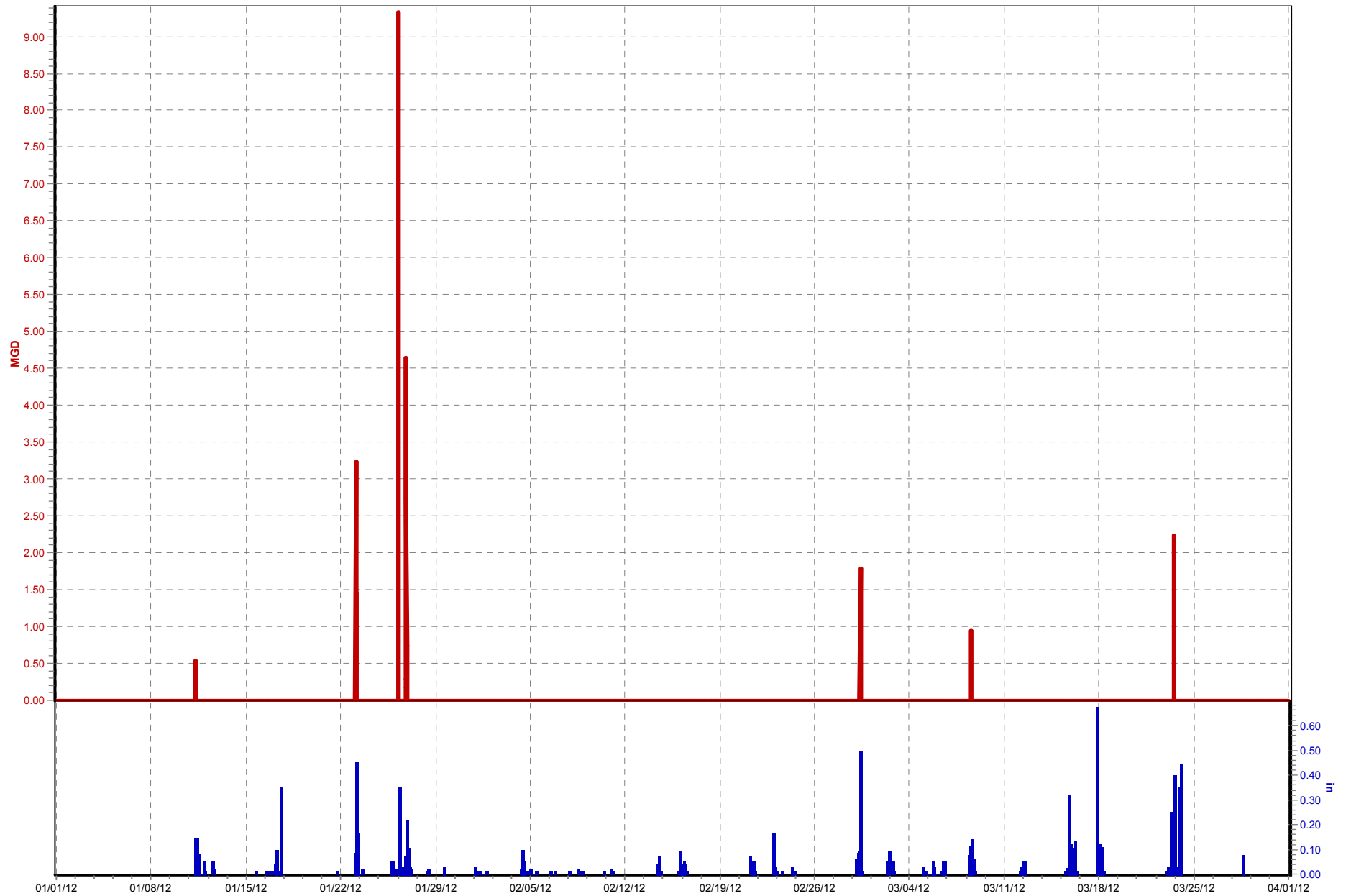
CSO019 (01/01/12 to 04/01/12)

☒ Flow 1 (MGD) ☒ TR04_Morris Forman WQTC.Rain (in)



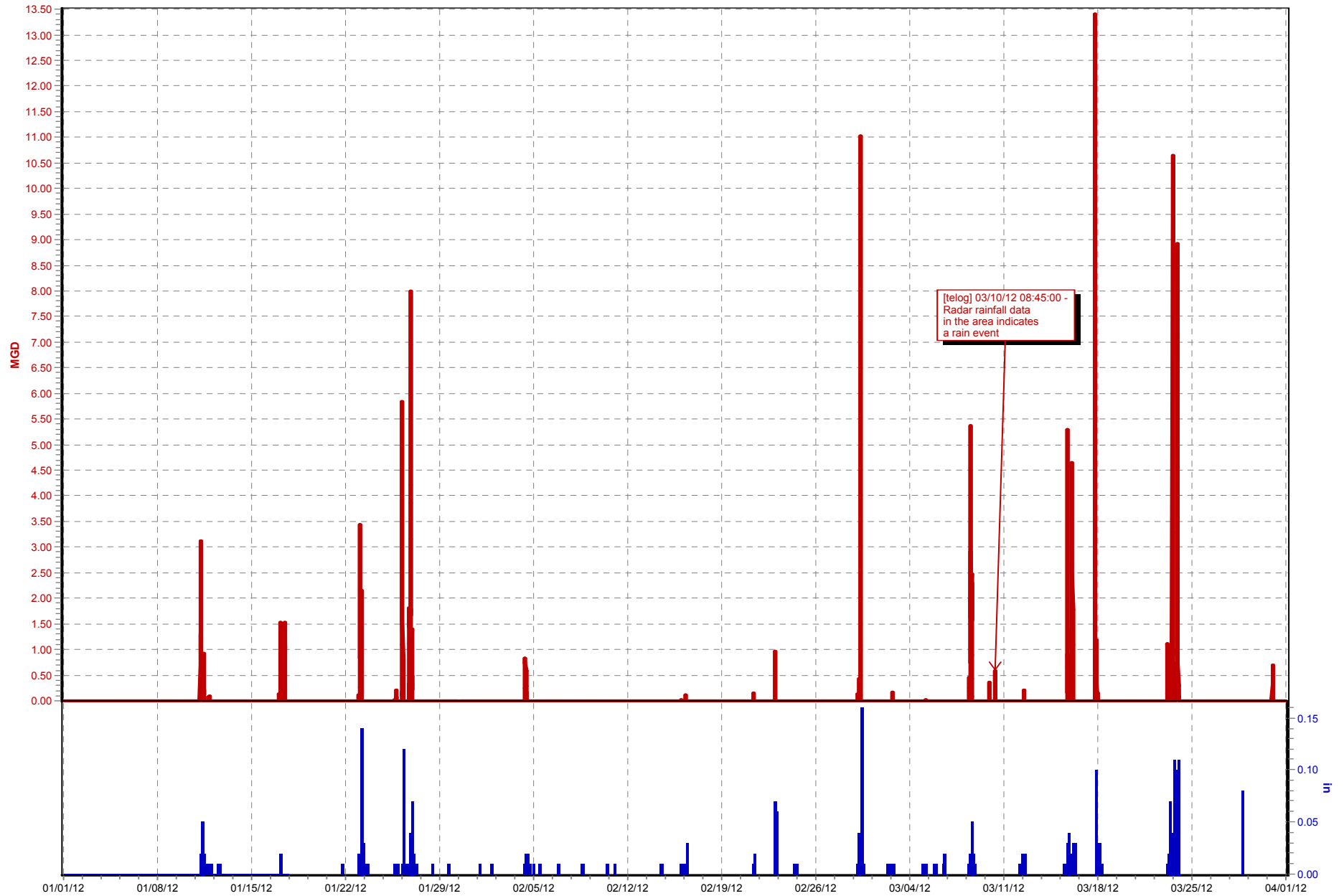
CSO029 (01/01/12 to 04/01/12)

☒ Flow 1 (MGD) ☒ CSO Rain Gauge Combo.CSO_Rain_Sum (in)



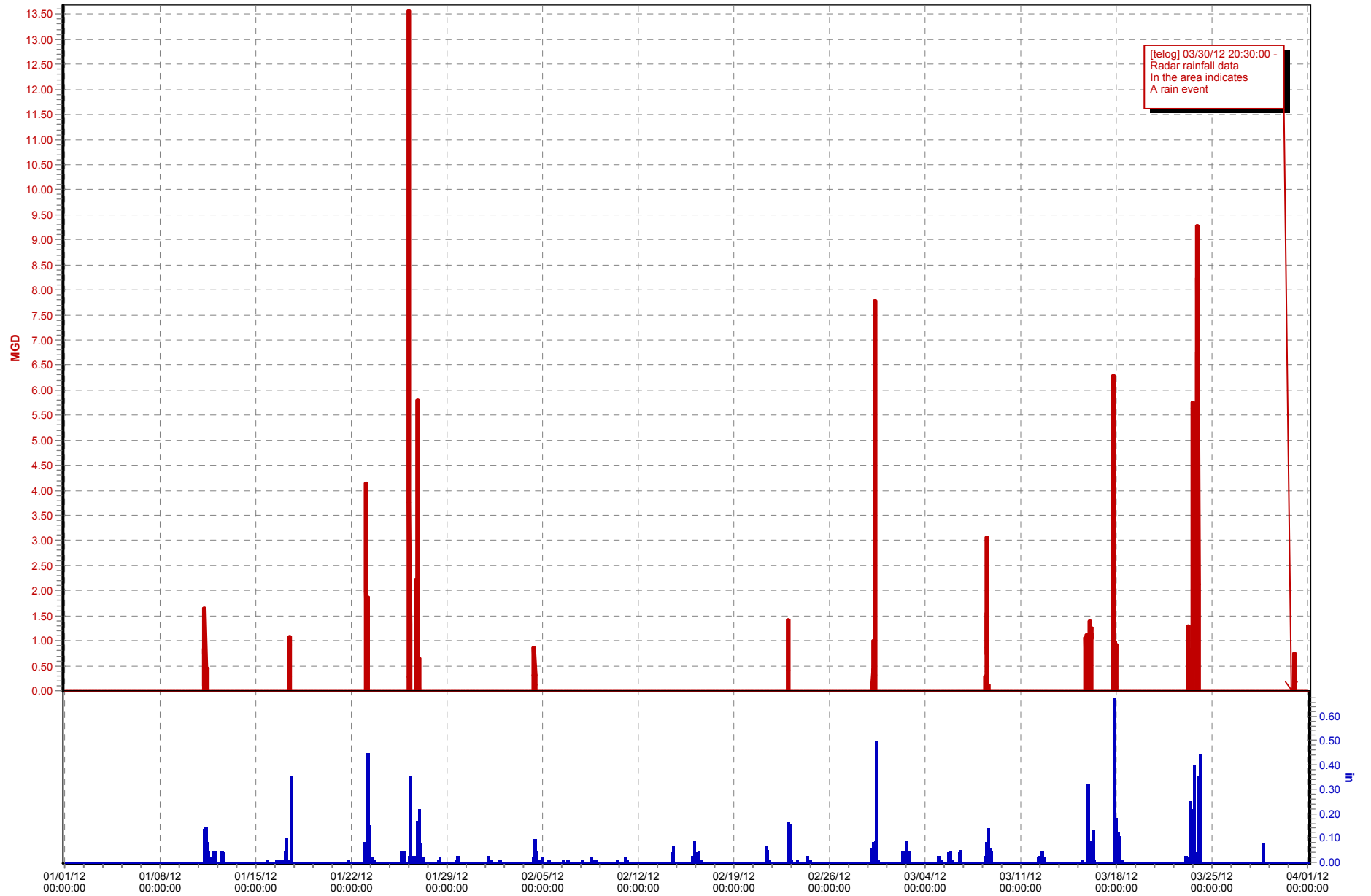
CSO050 (01/01/12 to 04/01/12)

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



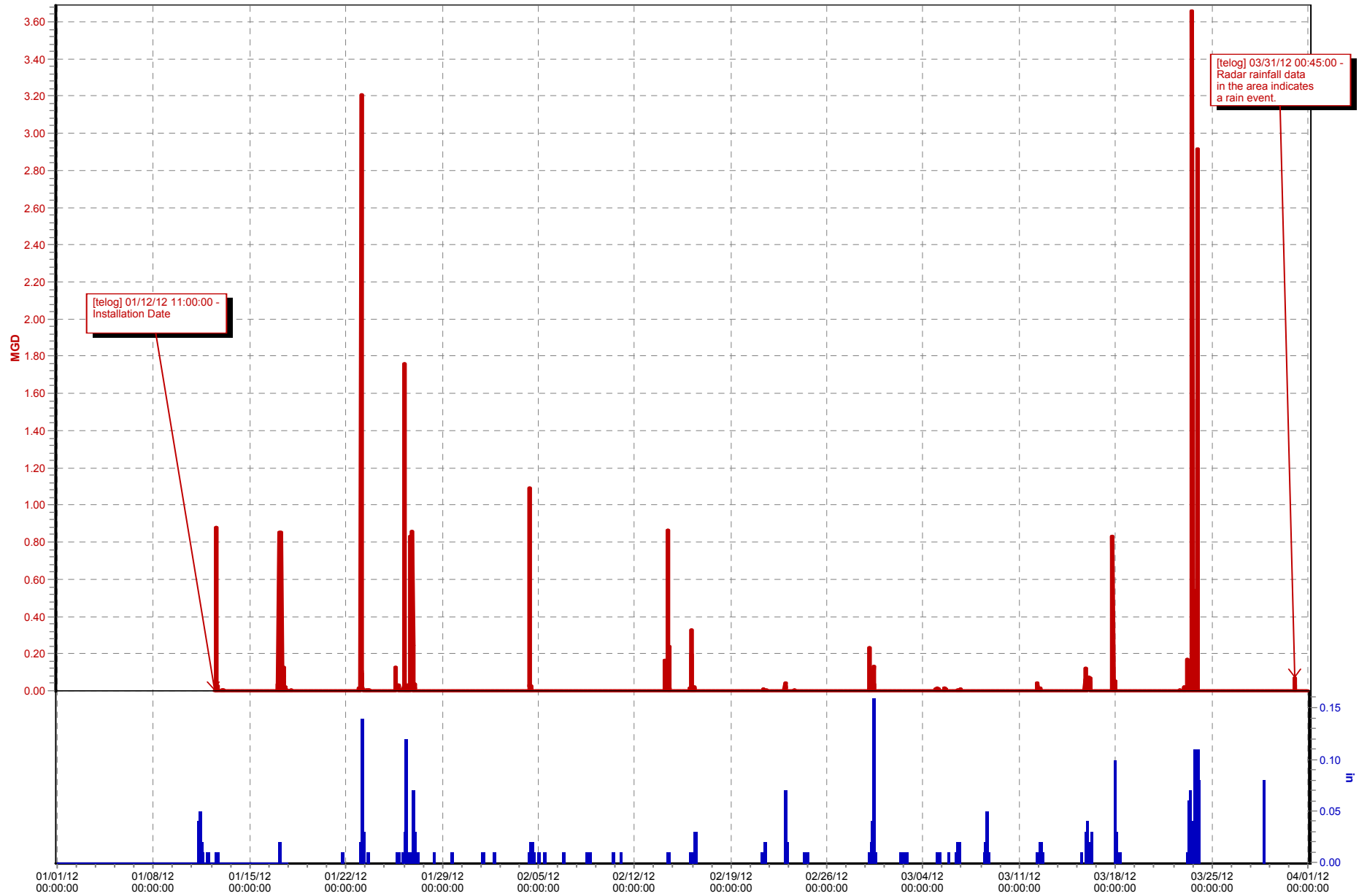
CSO053 (01/01/12 to 04/01/12)

☒ Flow 1 (MGD) ☒ CSO Rain Gauge Combo.CSO_Rain_Sum (in)



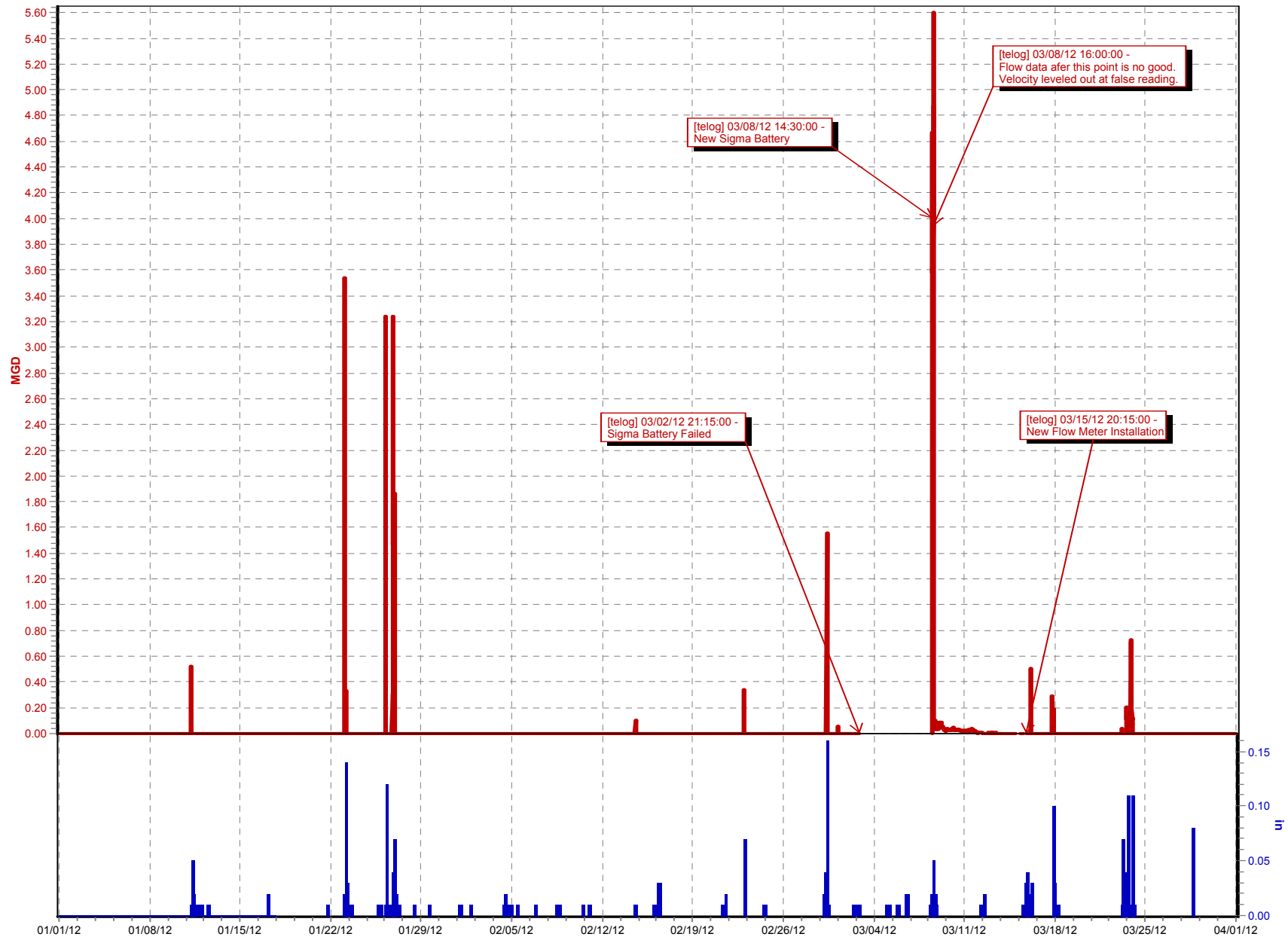
CSO054 (01/01/12 to 04/01/12)

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



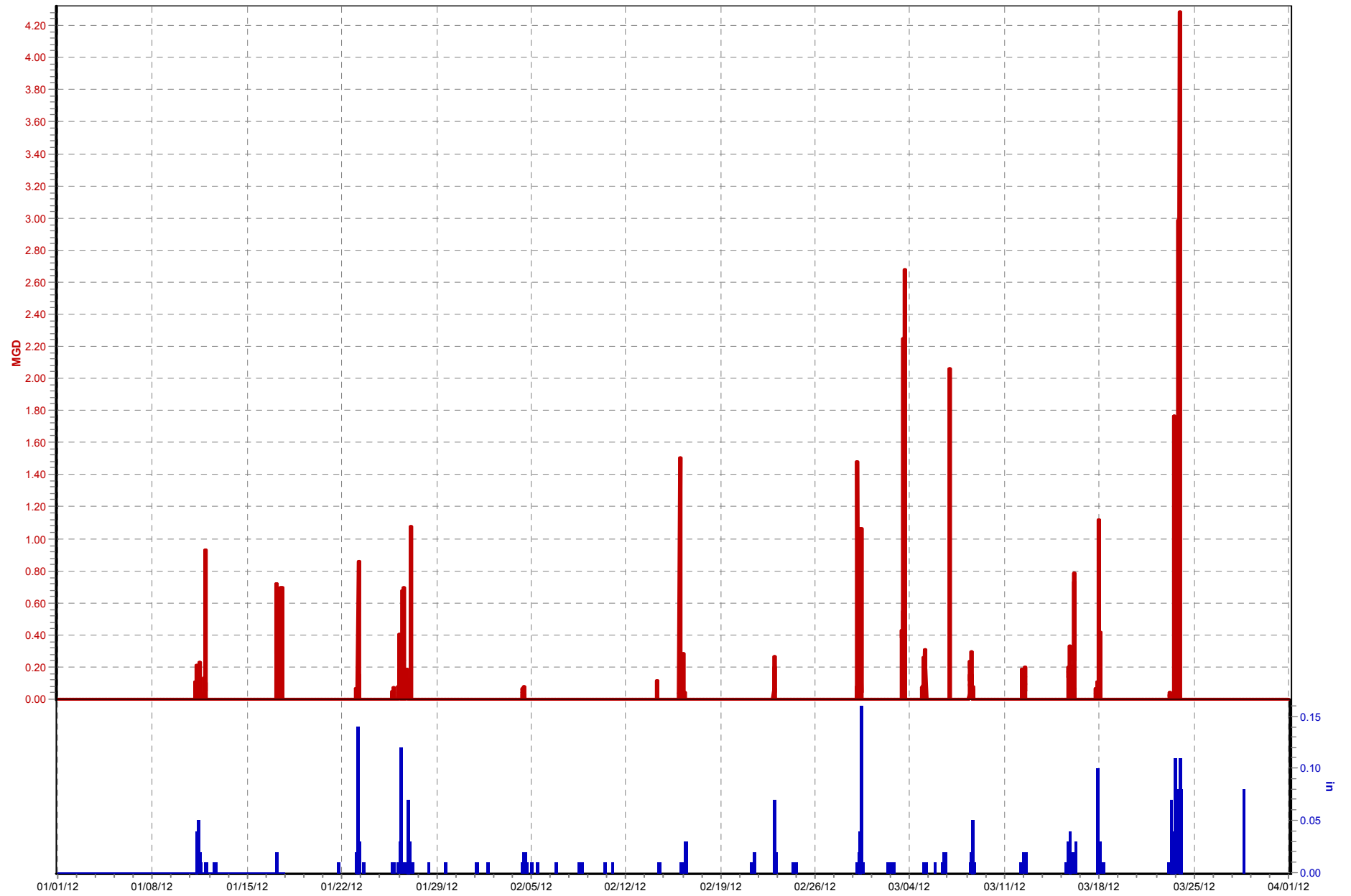
CSO055 (01/01/12 to 04/01/12)

☒ CSO055_Hist.Flow 1 (MGD)
 ☒ Flow (MGD)
 ☒ TR05_Beargrass PS.Rain (in)



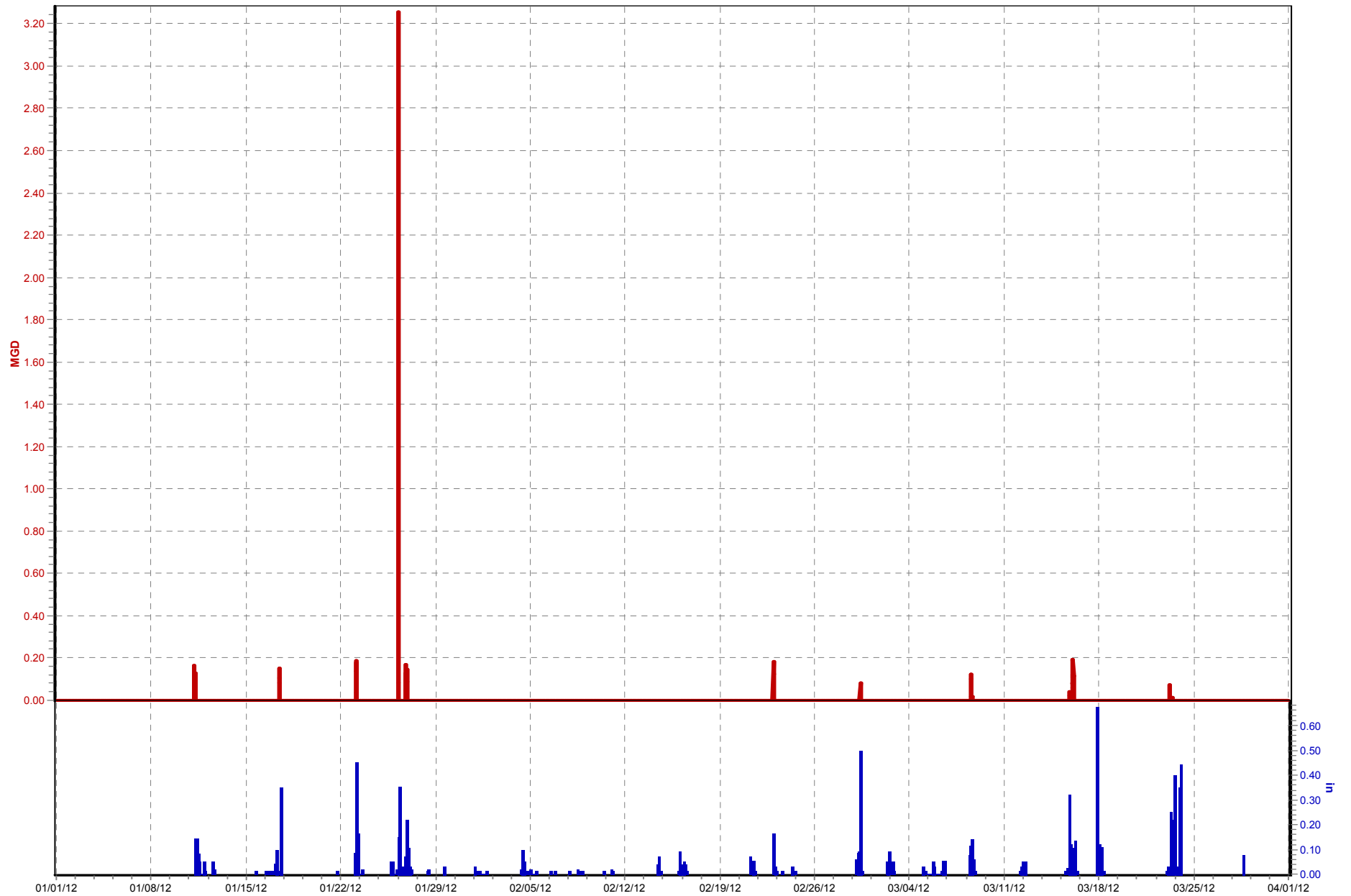
CSO058 (01/01/12 to 04/01/12)

☒ CSO058_Hist.Flow 1 (MGD) ☒ TR05_Beargrass PS.Rain (in)



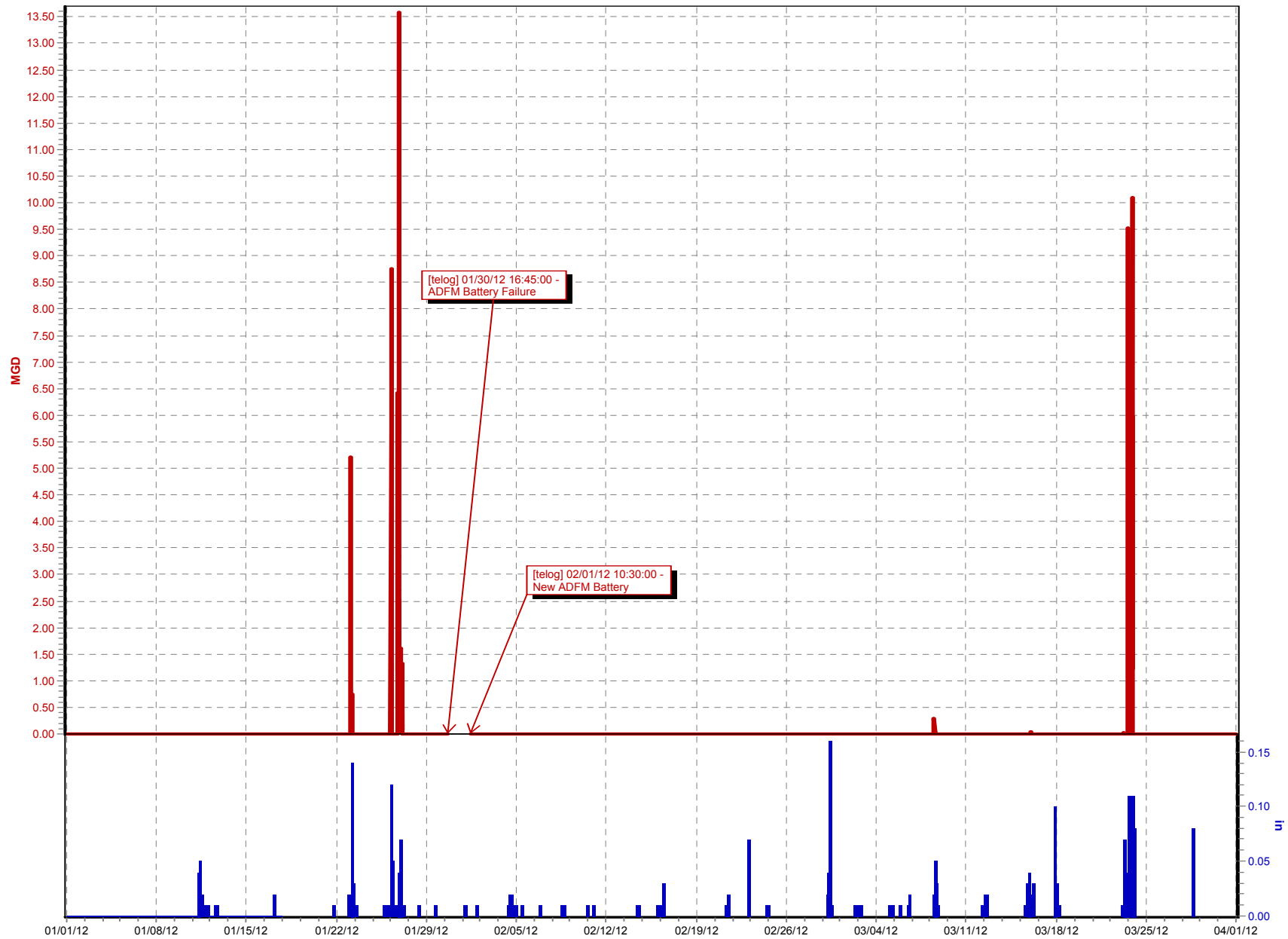
CSO084 (01/01/12 to 04/01/12)

☒ Flow 1 (MGD) ☒ CSO Rain Gauge Combo.CSO_Rain_Sum (in)



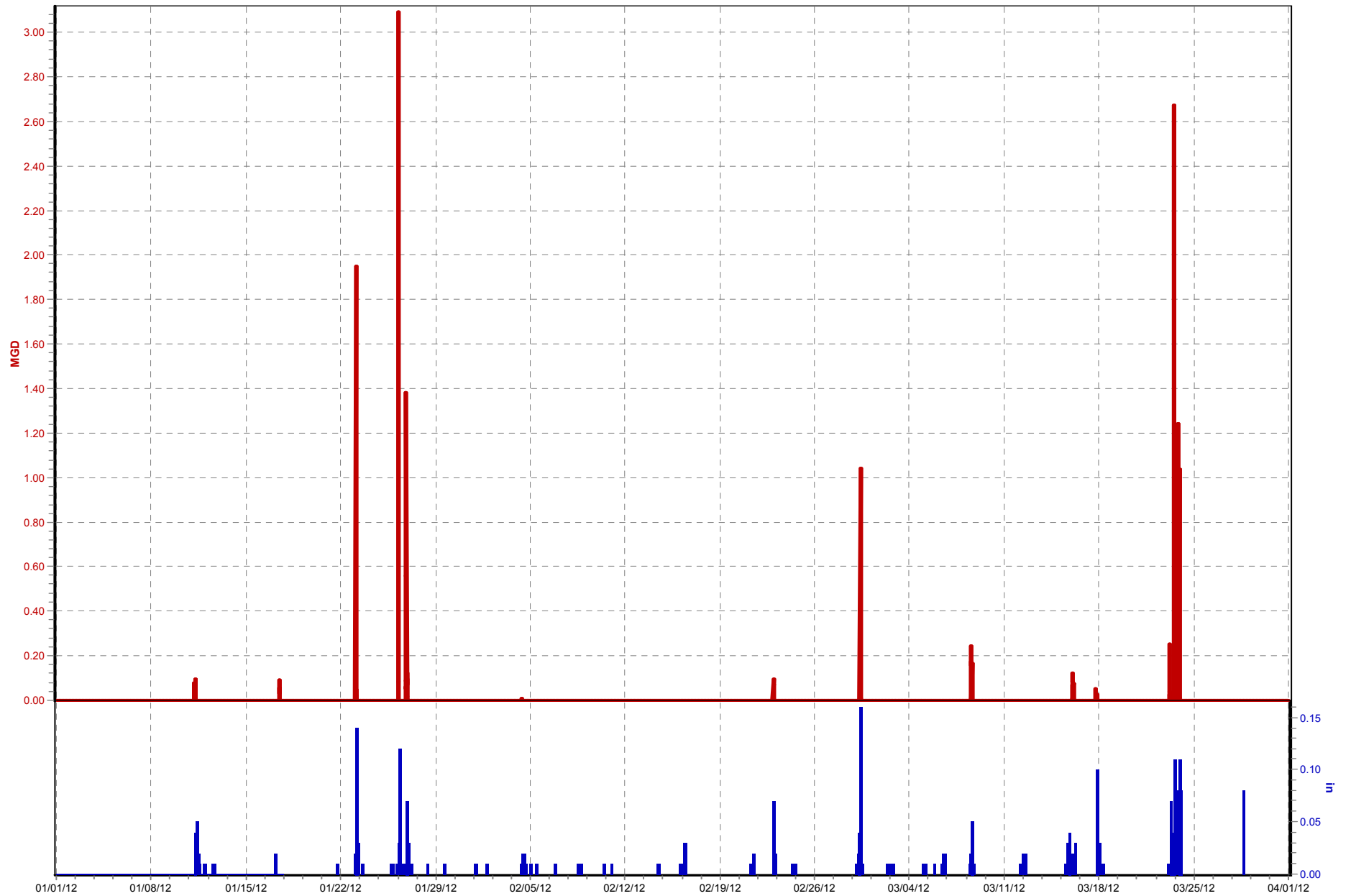
CSO088 (01/01/12 to 04/01/12)

☒ M1 Flow (MGD)
 ☒ TR05_Beargrass PS.Rain (in)
 ☐ M1 Voltage (V)



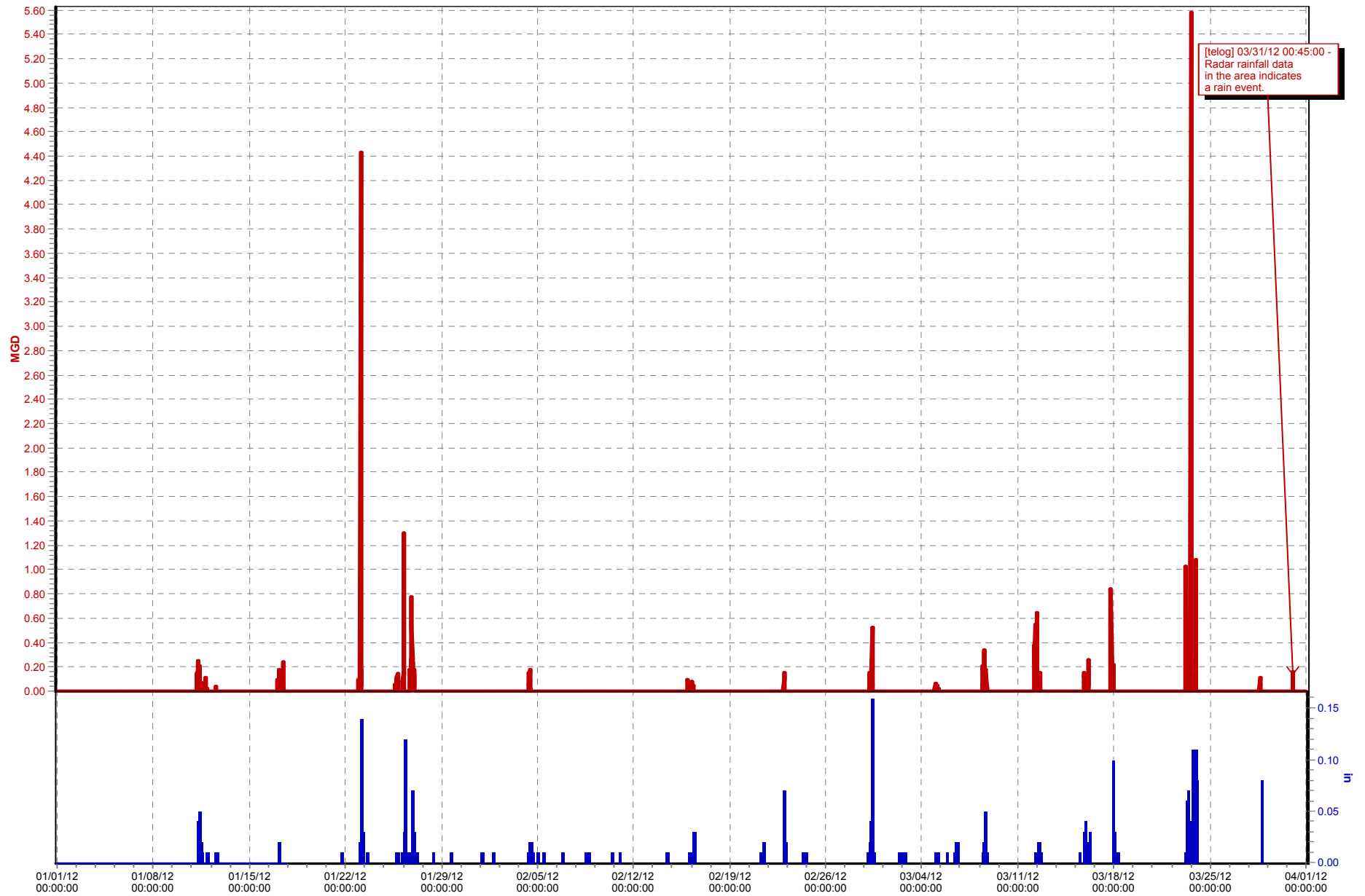
CSO091 (01/01/12 to 04/01/12)

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



CSO093 (01/01/12 to 04/01/12)

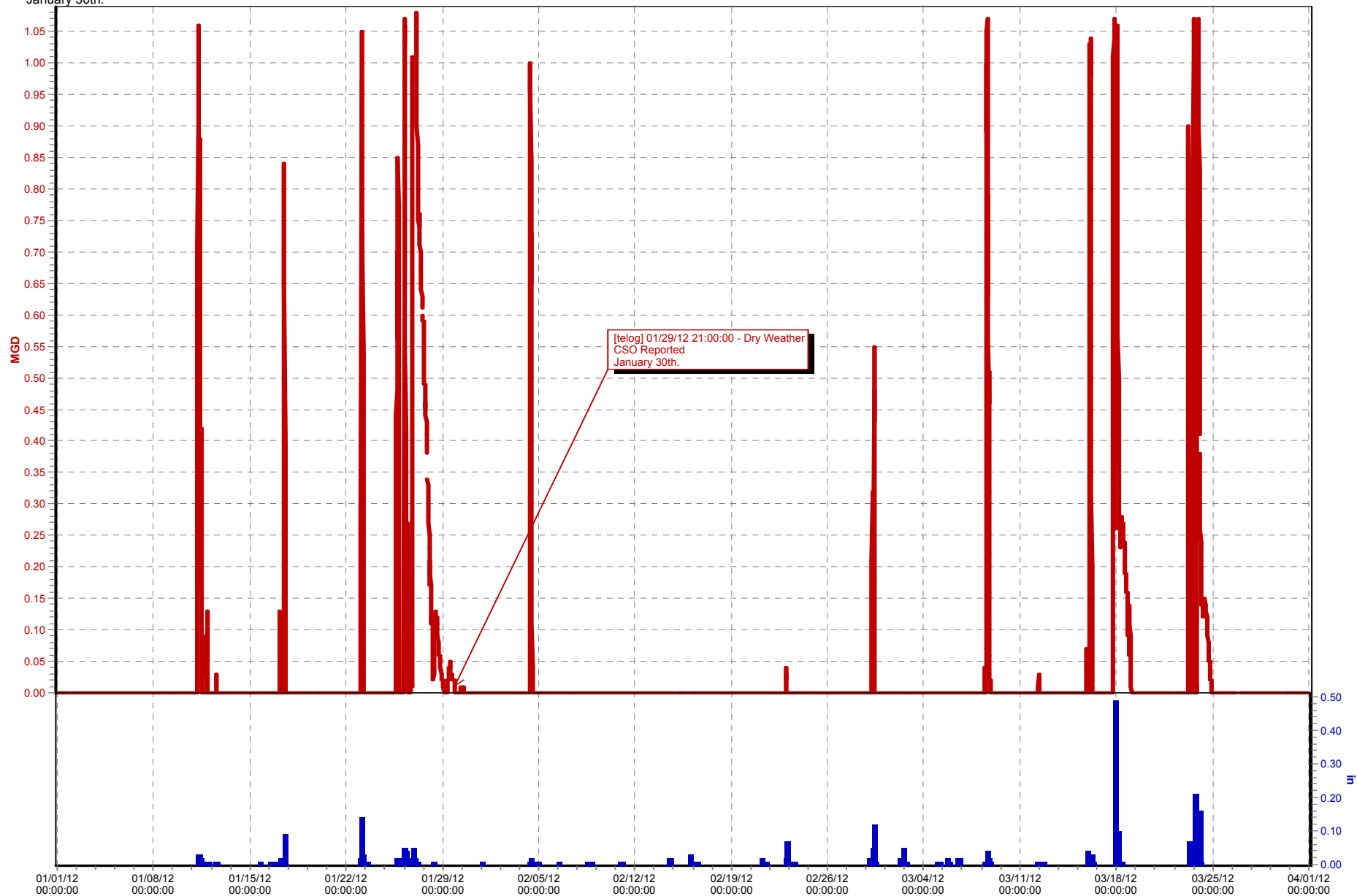
☒ Flow 1 (MGD) ☒ TR05_Beargrass PS.Rain (in)



CSO097 (01/01/12 to 04/01/12)

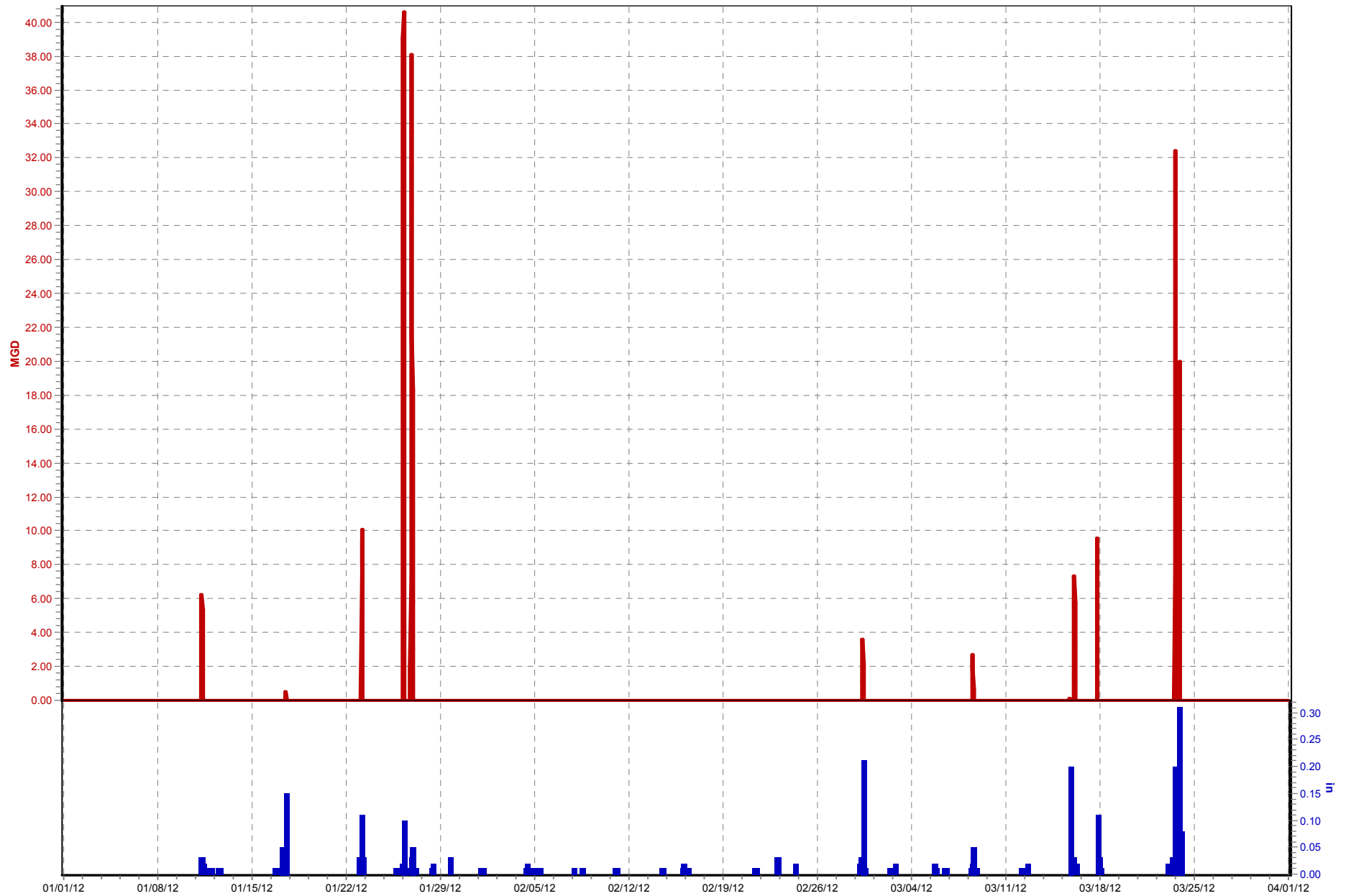
[telog] 01/29/12 13:24:00 - Dry Weather
CSO Reported
January 30th.

☒ C097_FLOW_MGD (MGD) ☒ TR12_Nightingale PS.Rain (in)



CSO105 (01/01/12 to 04/01/12)

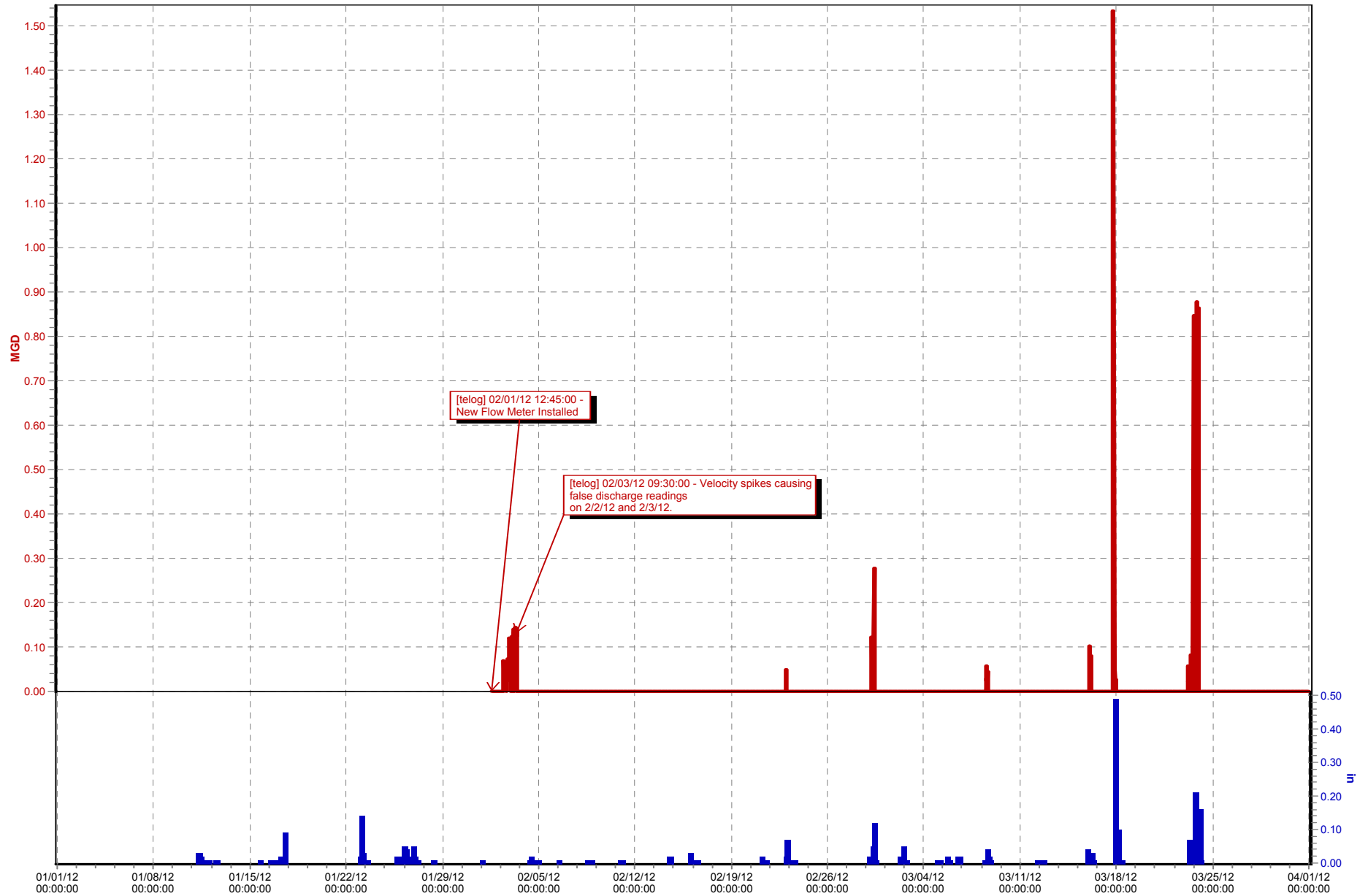
☒ Flow 1 (MGD) ☒ TR04_Morris Forman WQTC.Rain (in)



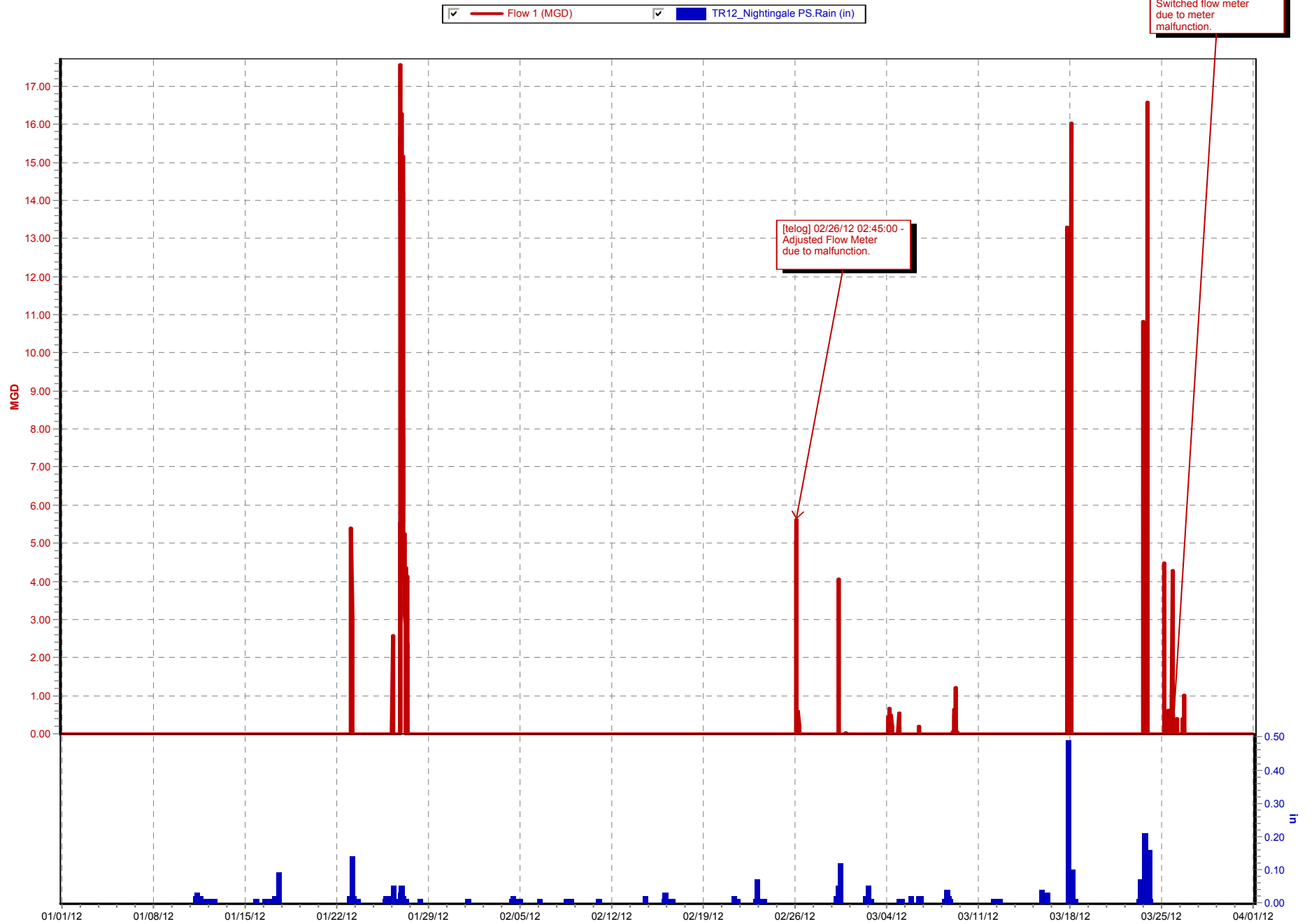
CSO106 (01/01/12 to 04/01/12)

[telog] 02/01/12 00:00:00 - Velocity spikes causing false discharge on 2/2/12 and 2/3/12

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

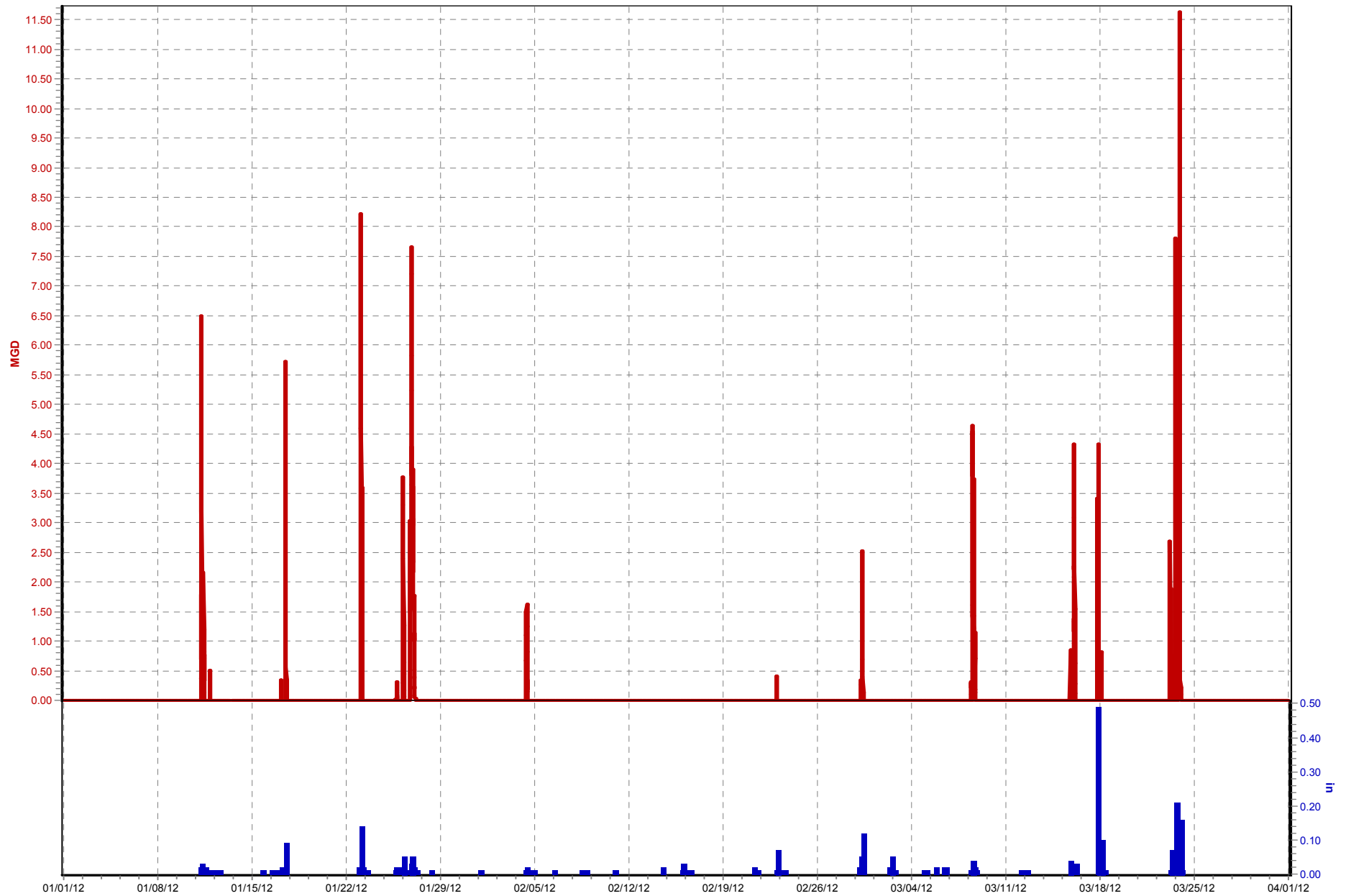


CSO108_CDS_OF_Hist (01/01/12 to 04/01/12)



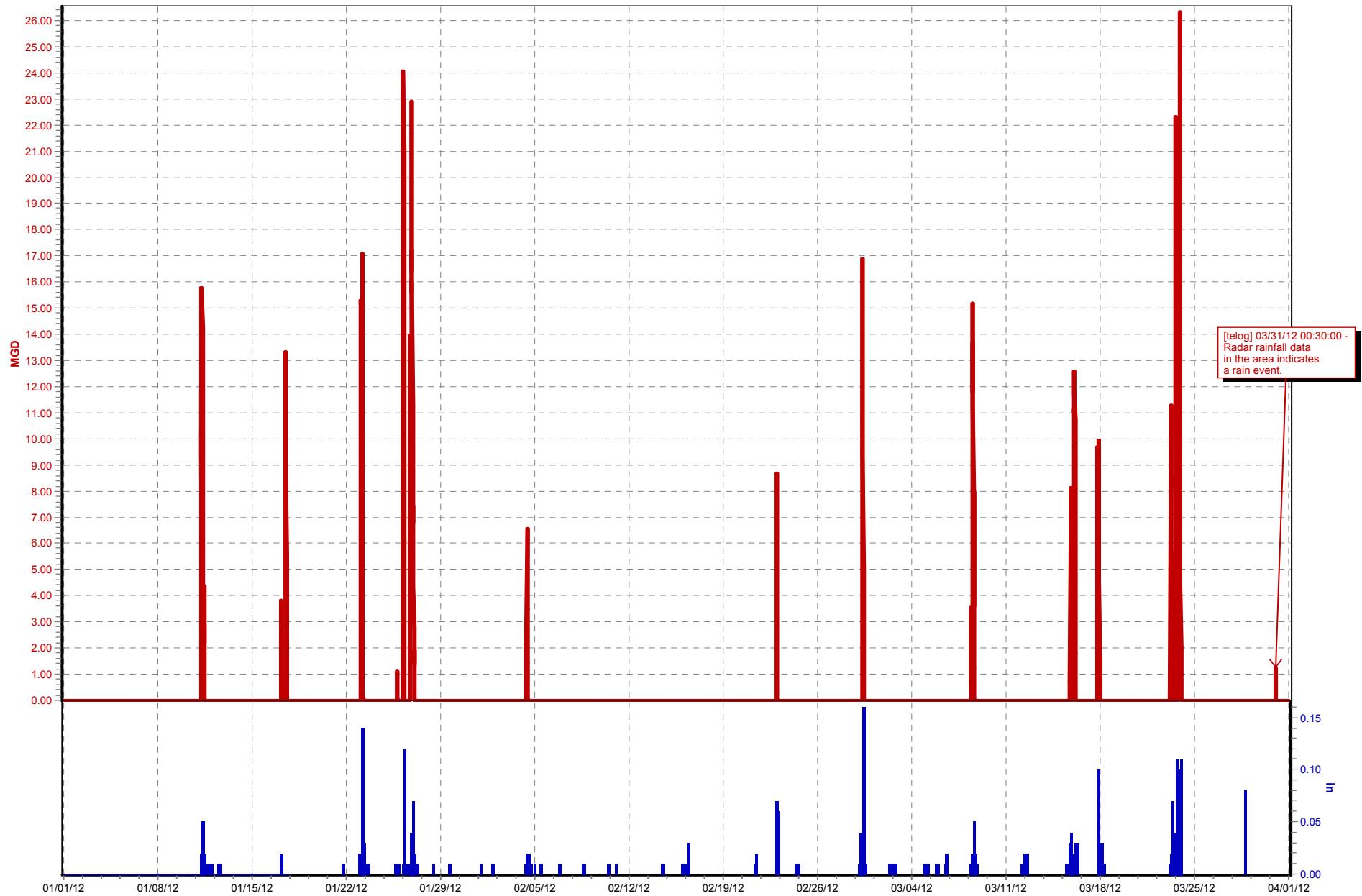
CSO110 (01/01/12 to 04/01/12)

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



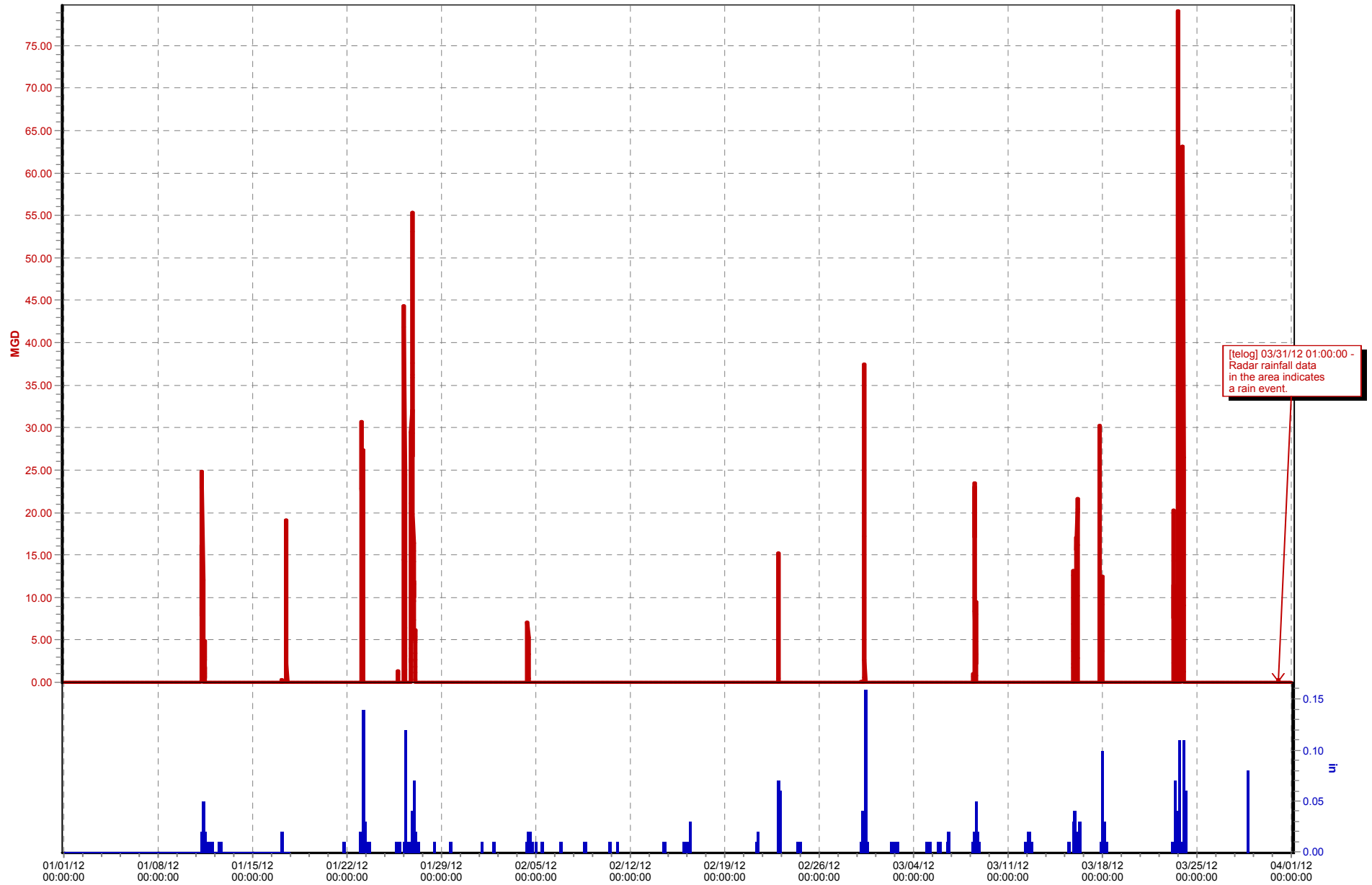
CSO117 (01/01/12 to 04/01/12)

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



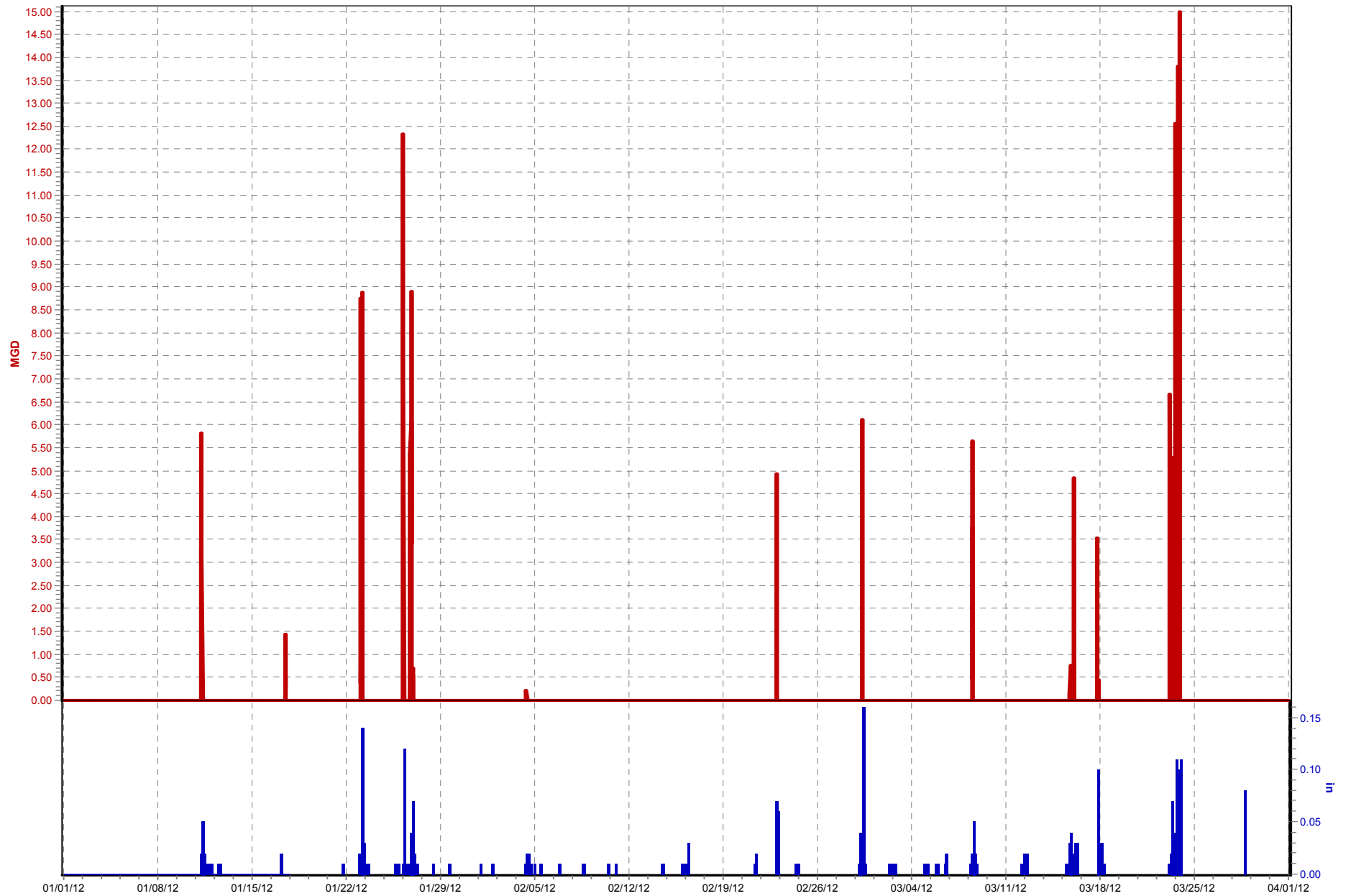
CSO118 (01/01/12 to 04/01/12)

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



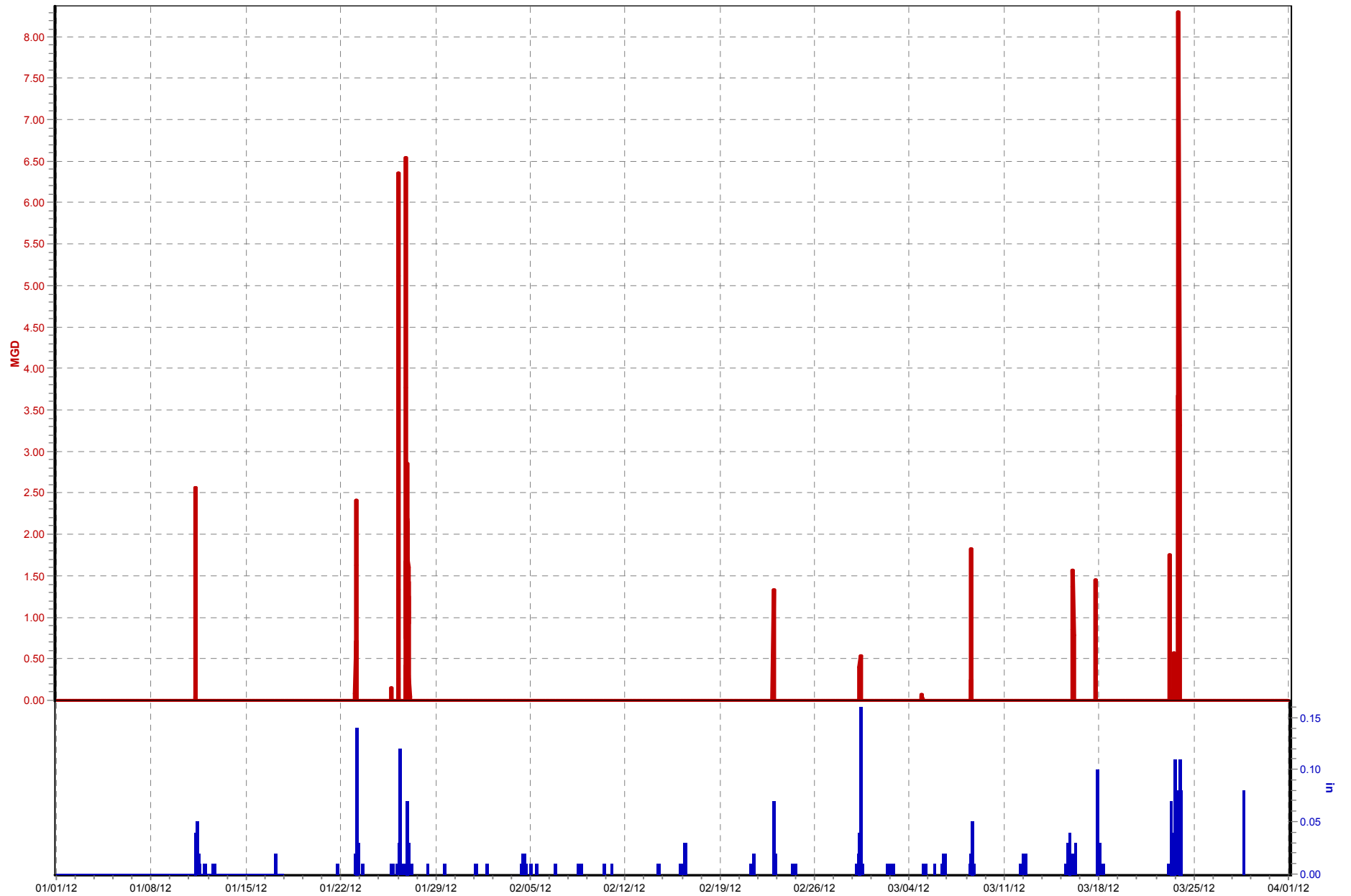
CSO120 (01/01/12 to 04/01/12)

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



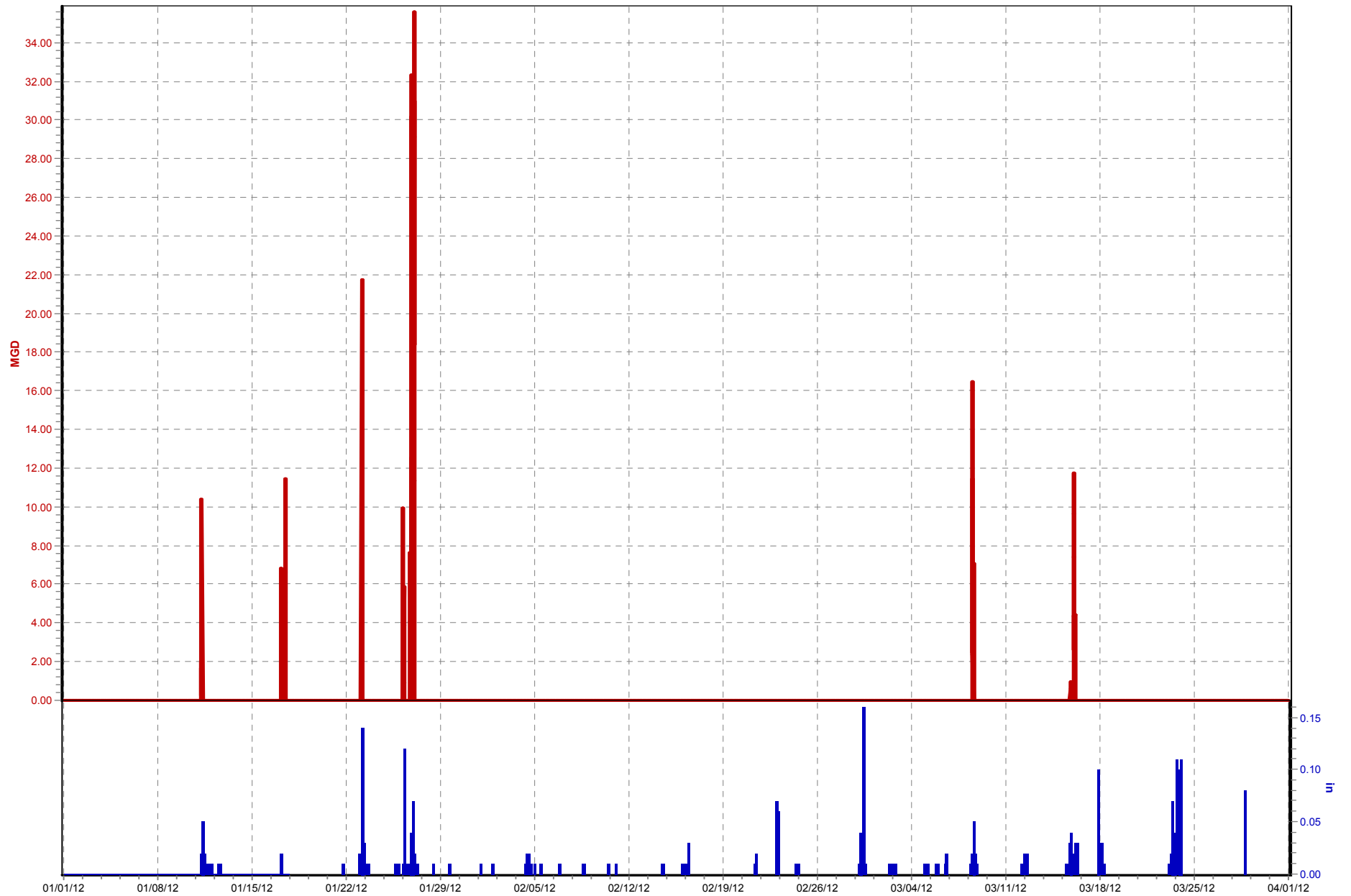
CSO121 (01/01/12 to 04/01/12)

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



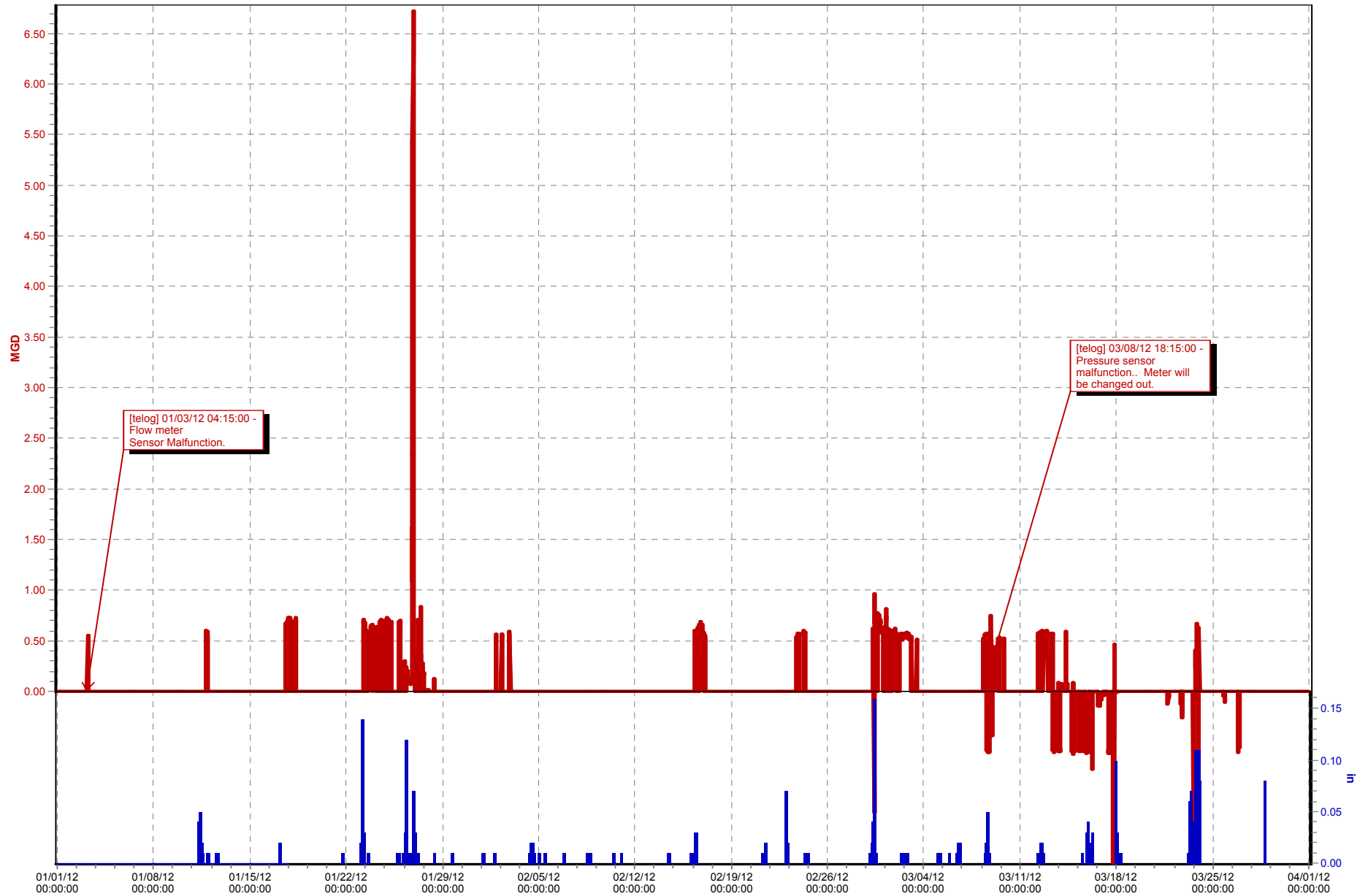
CSO125 (01/01/12 to 04/01/12)

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



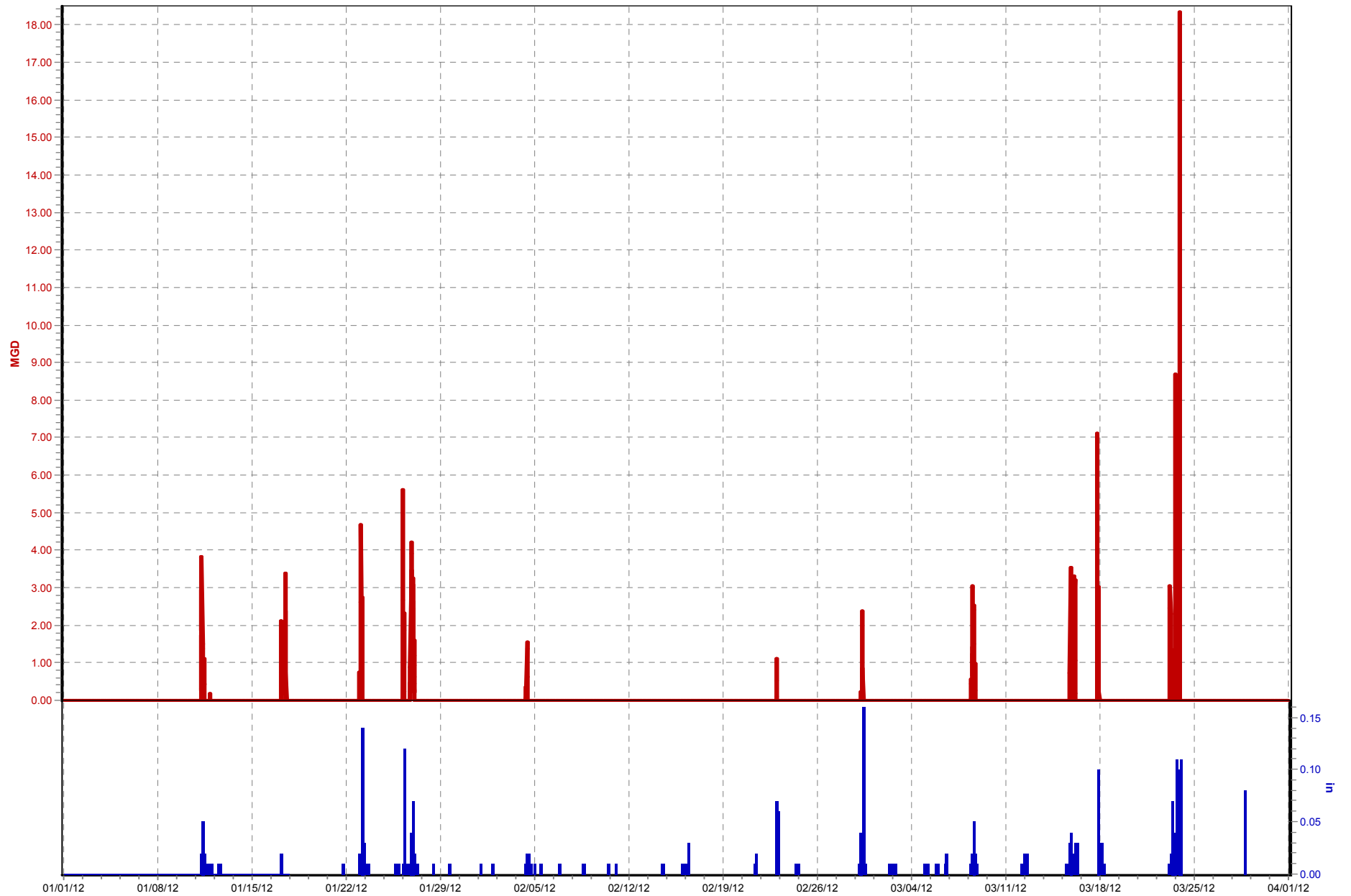
CSO126 (01/01/12 to 04/01/12)

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



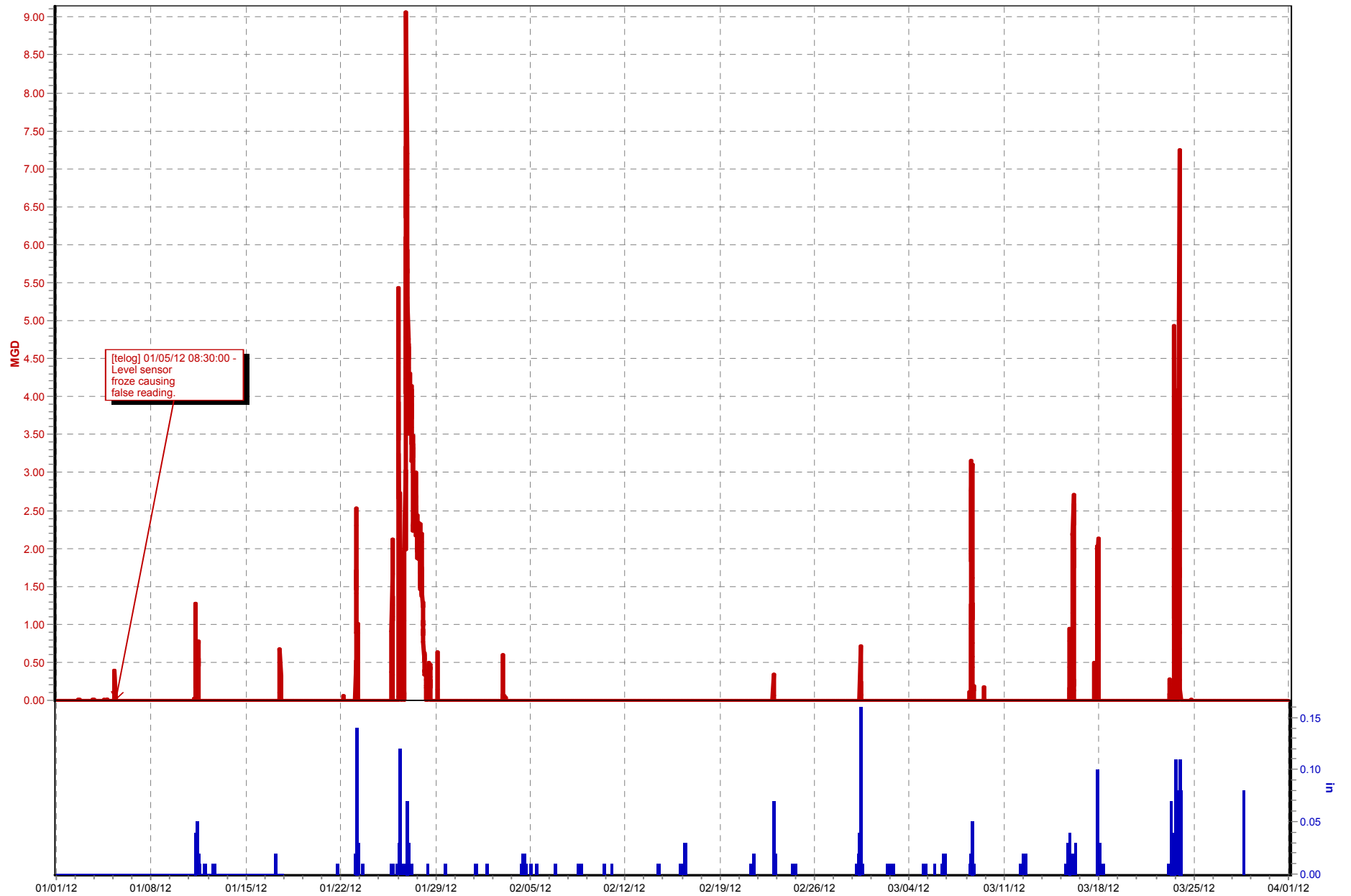
CSO127 (01/01/12 to 04/01/12)

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



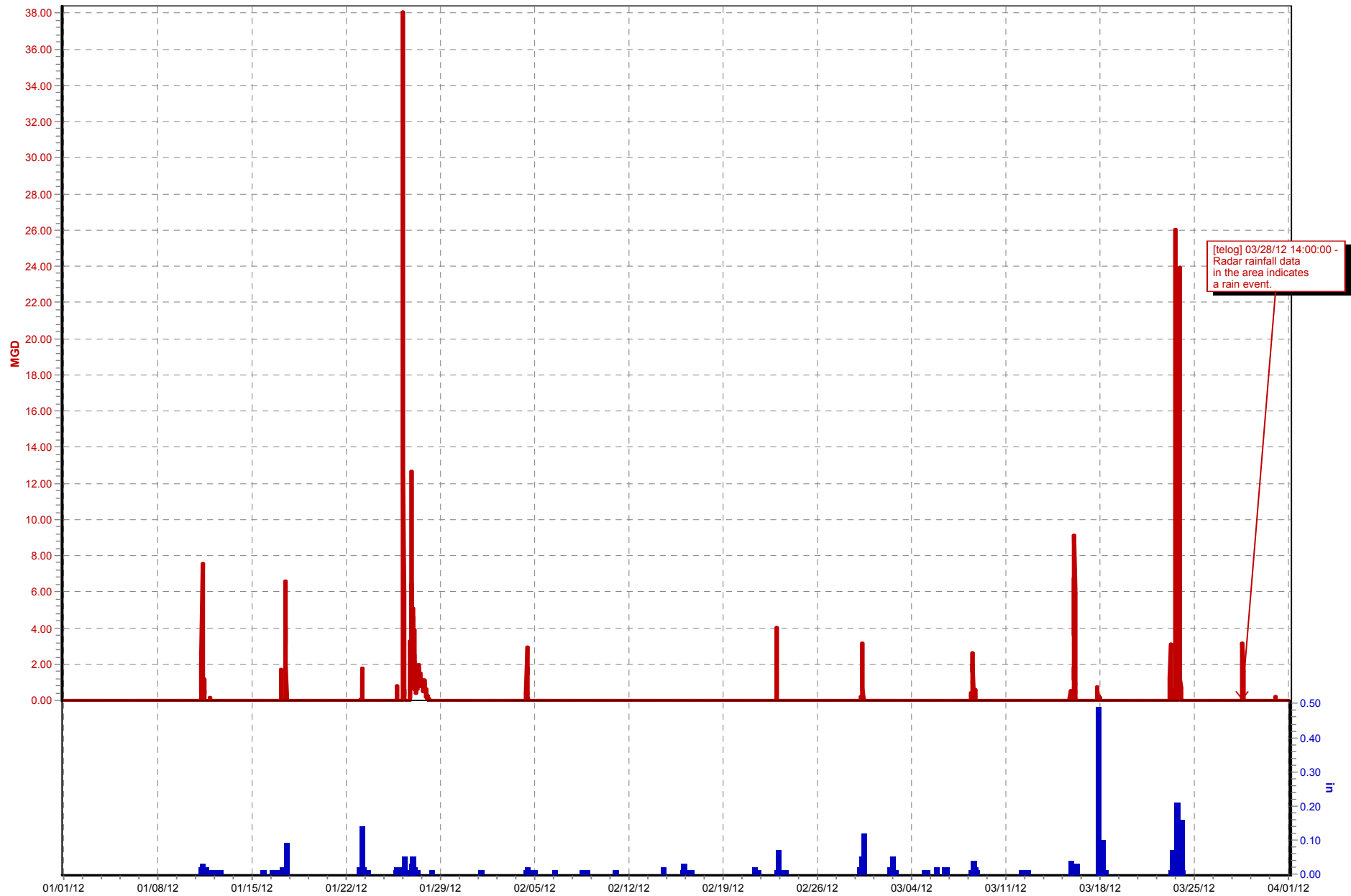
CSO130 (01/01/12 to 04/01/12)

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



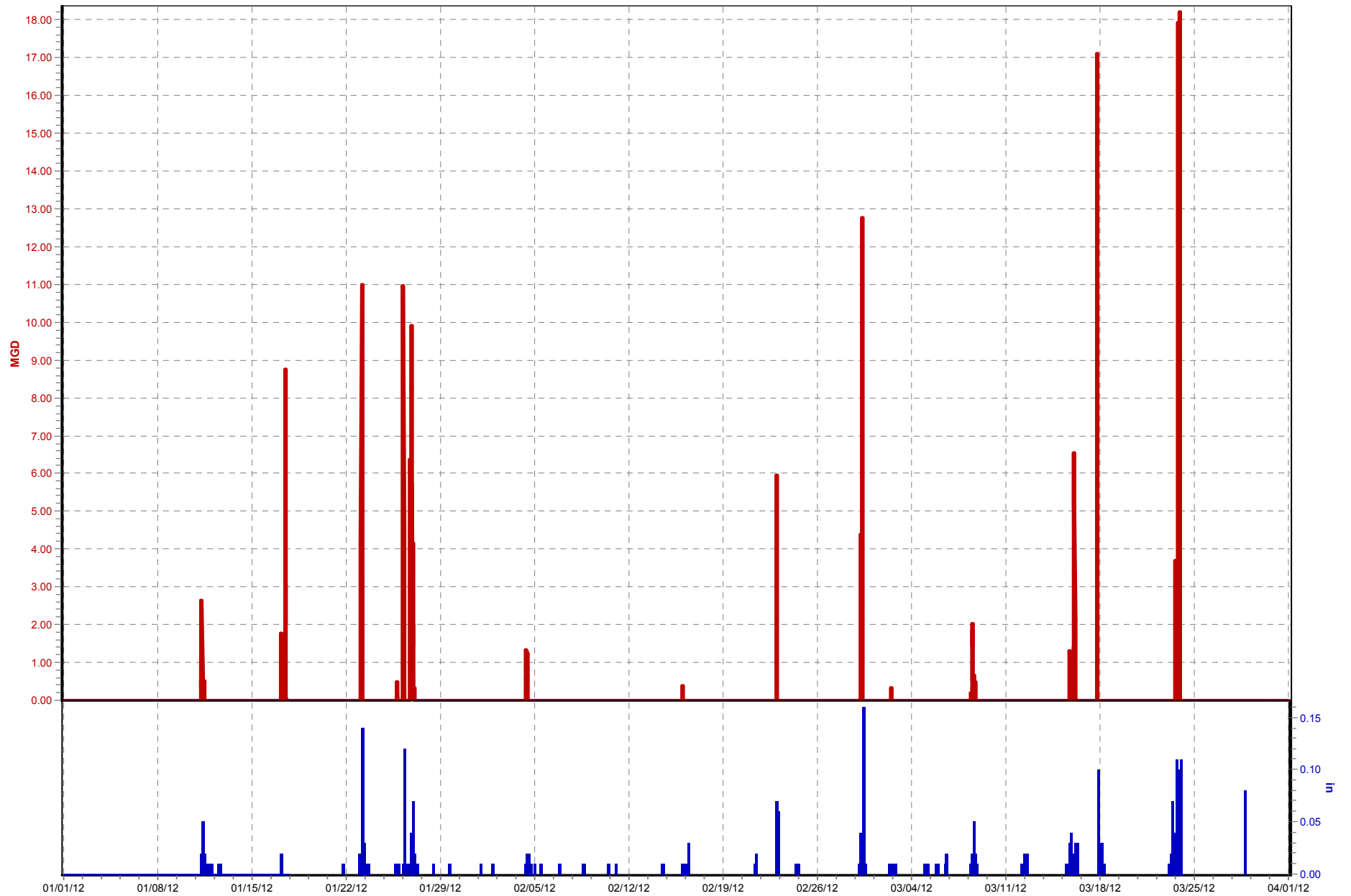
CSO132 (01/01/12 to 04/01/12)

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



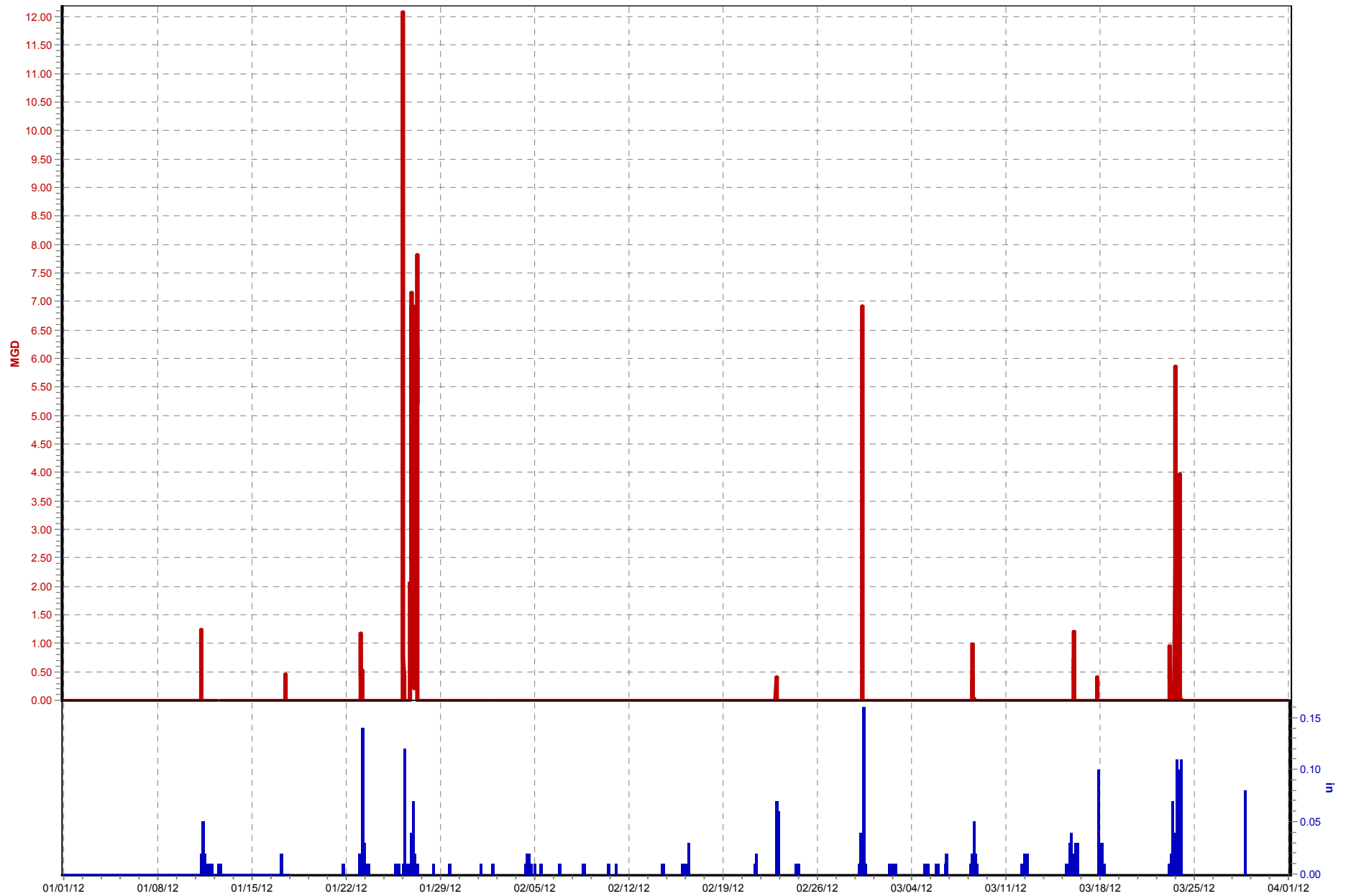
CSO137 (01/01/12 to 04/01/12)

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



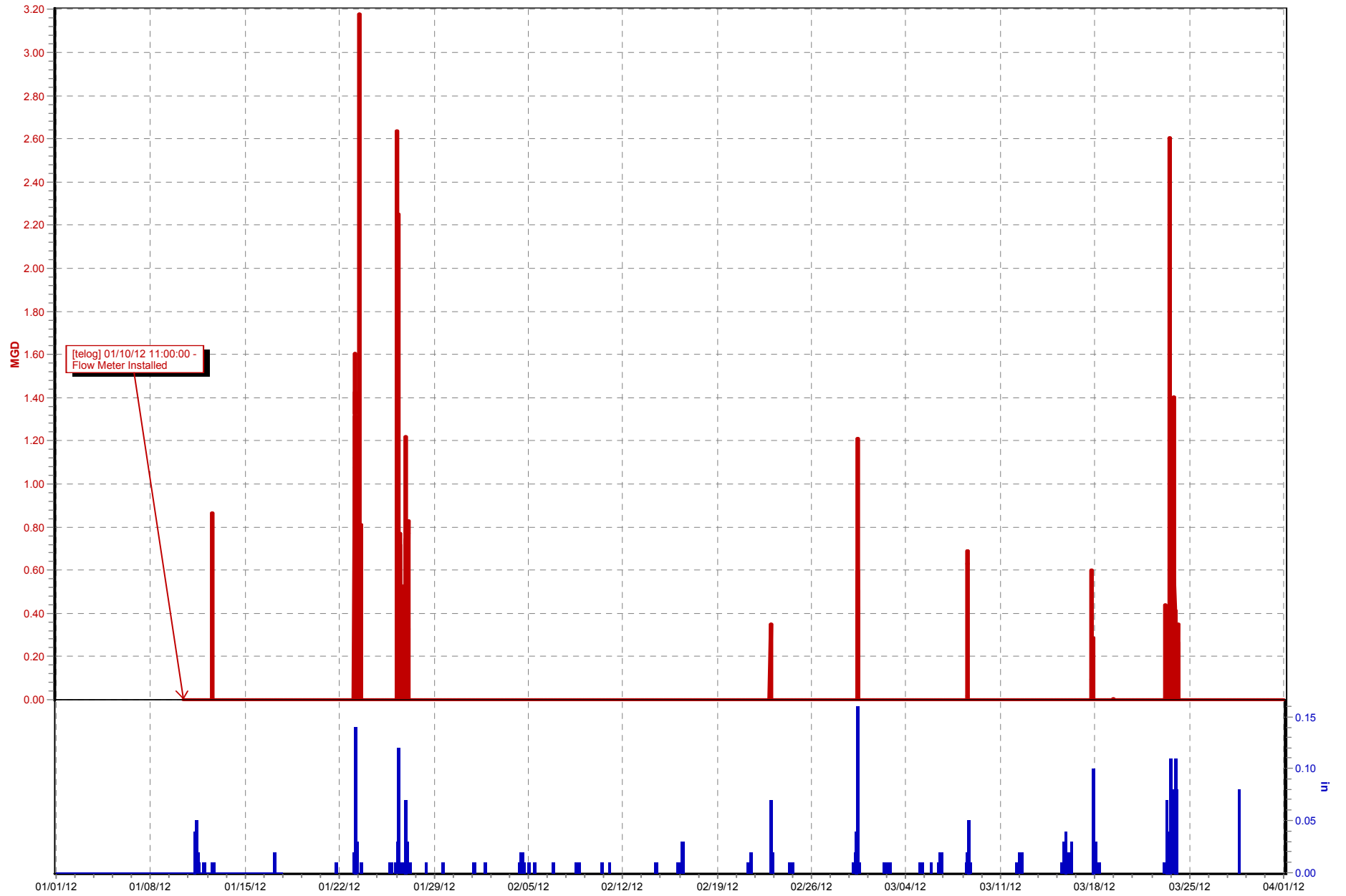
CSO140 (01/01/12 to 04/01/12)

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



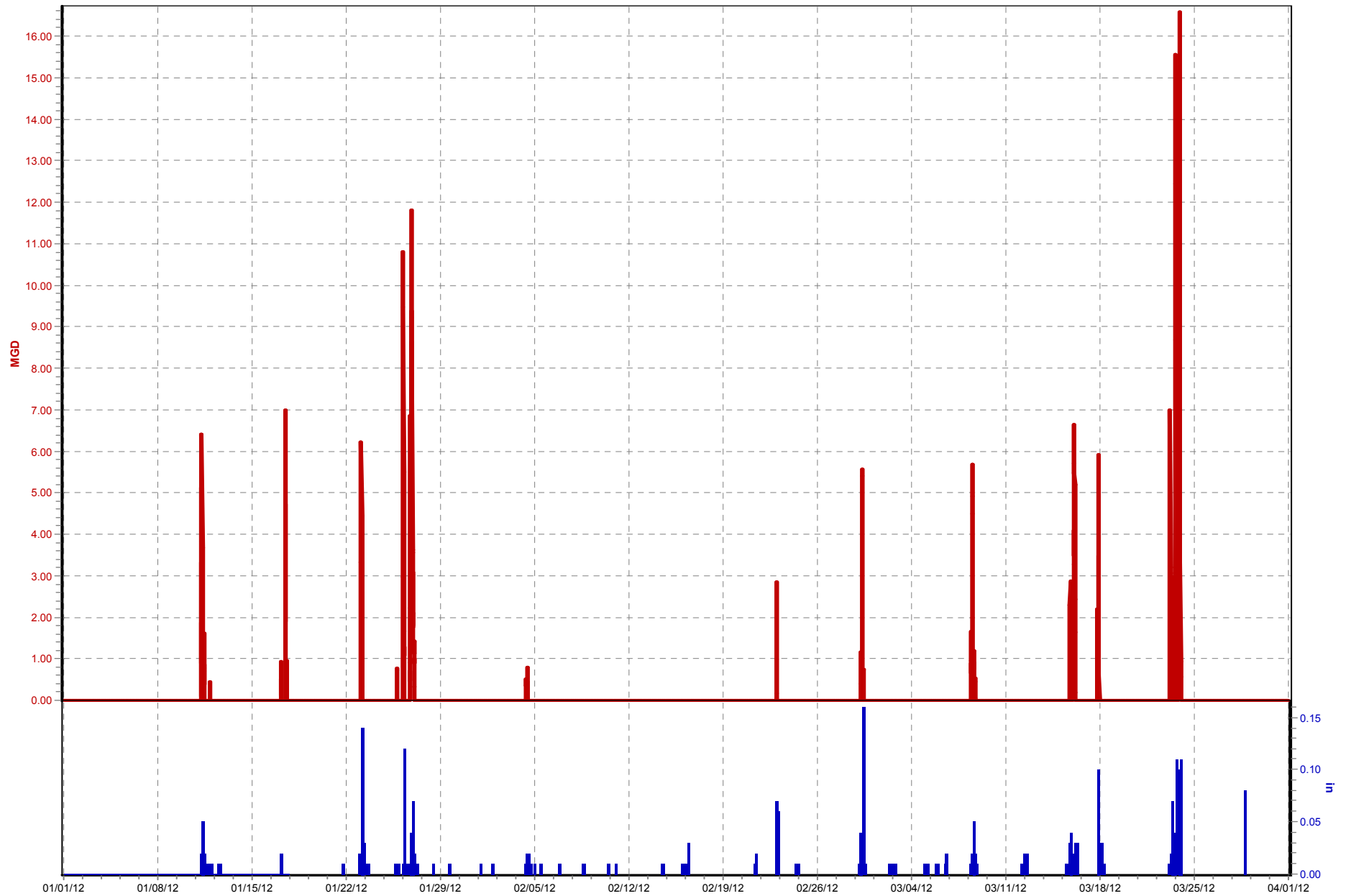
CSO141 (01/01/12 to 04/01/12)

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



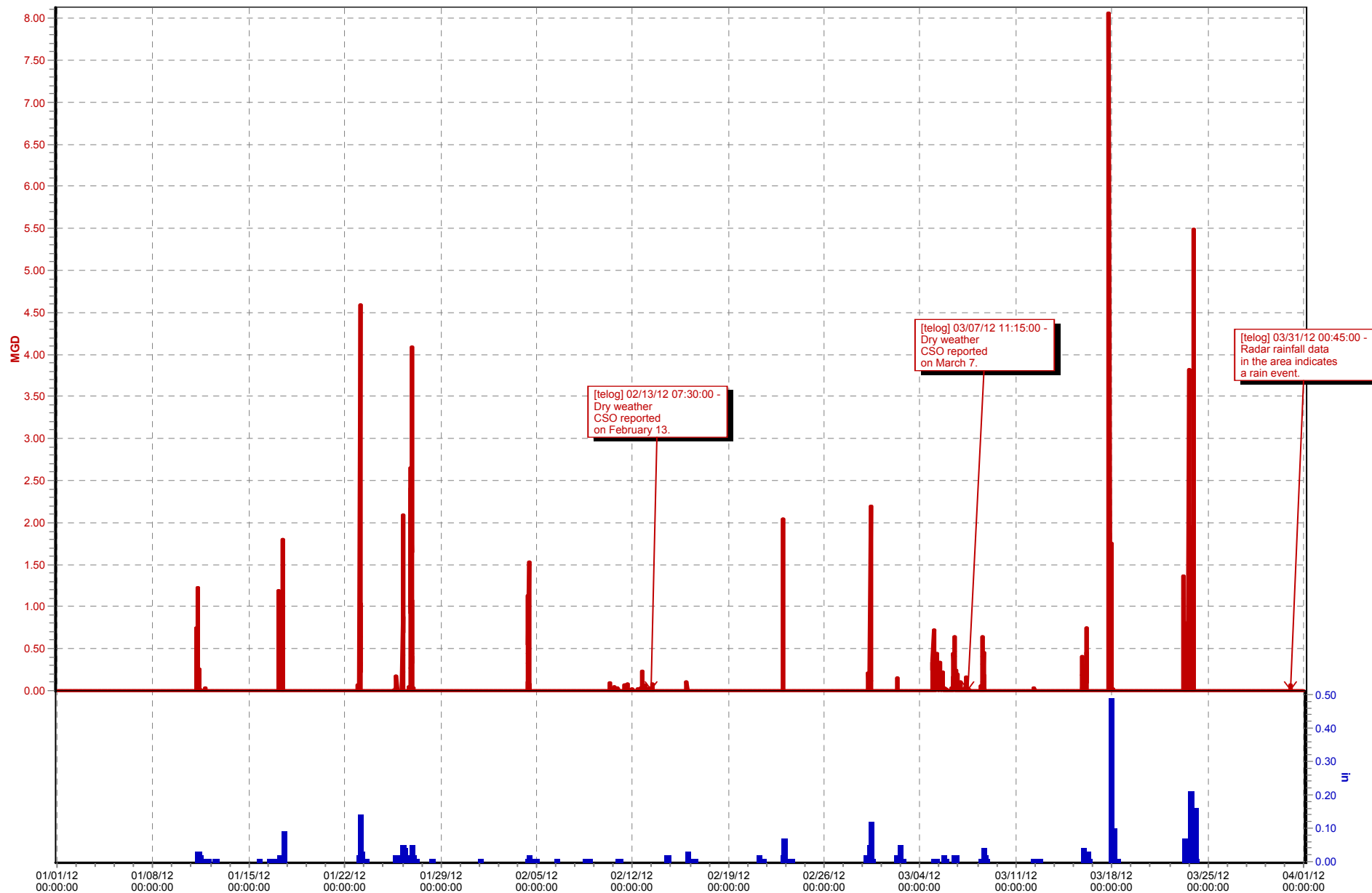
CSO146 (01/01/12 to 04/01/12)

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



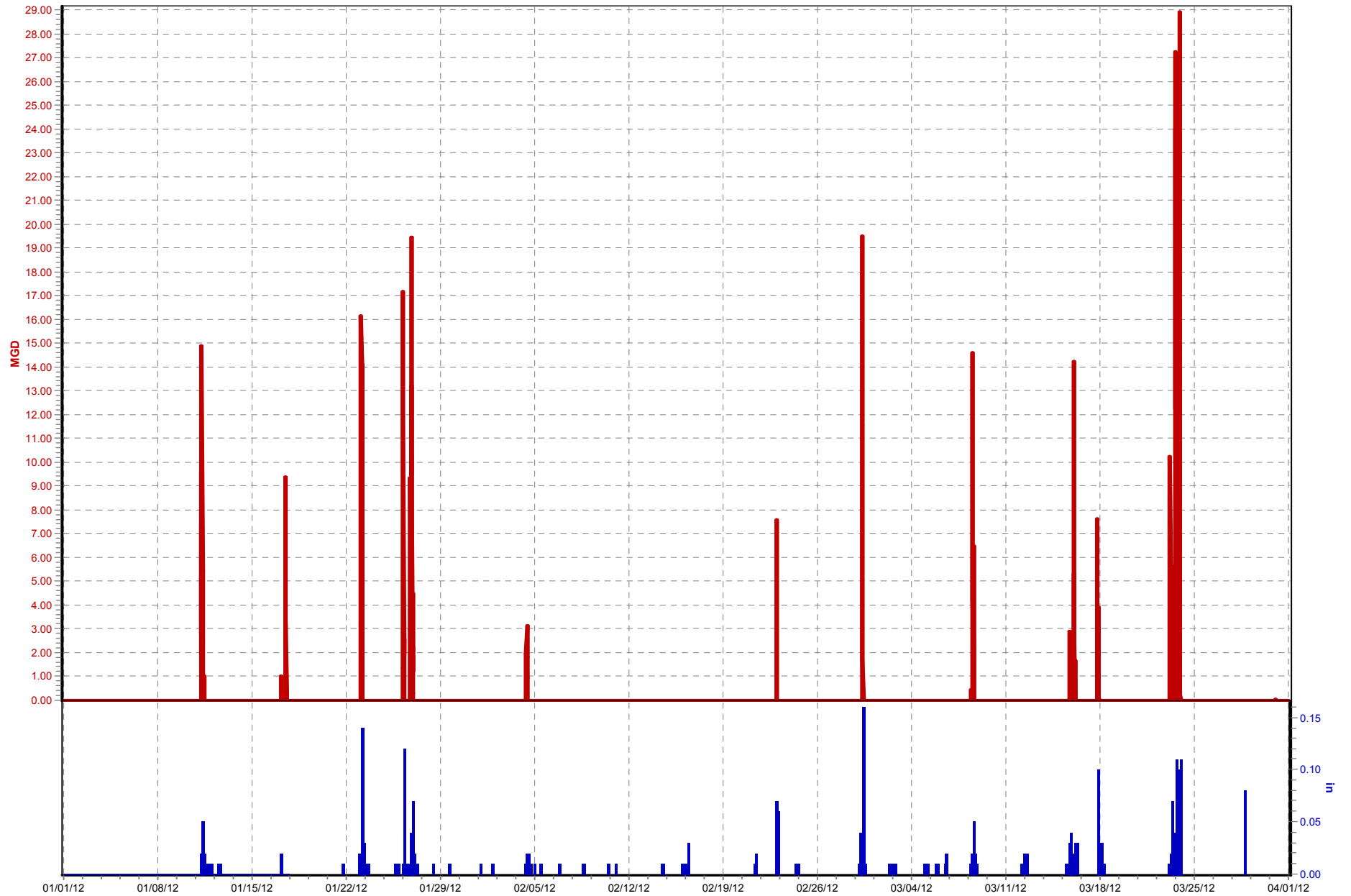
CSO148 (01/01/12 to 04/01/12)

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



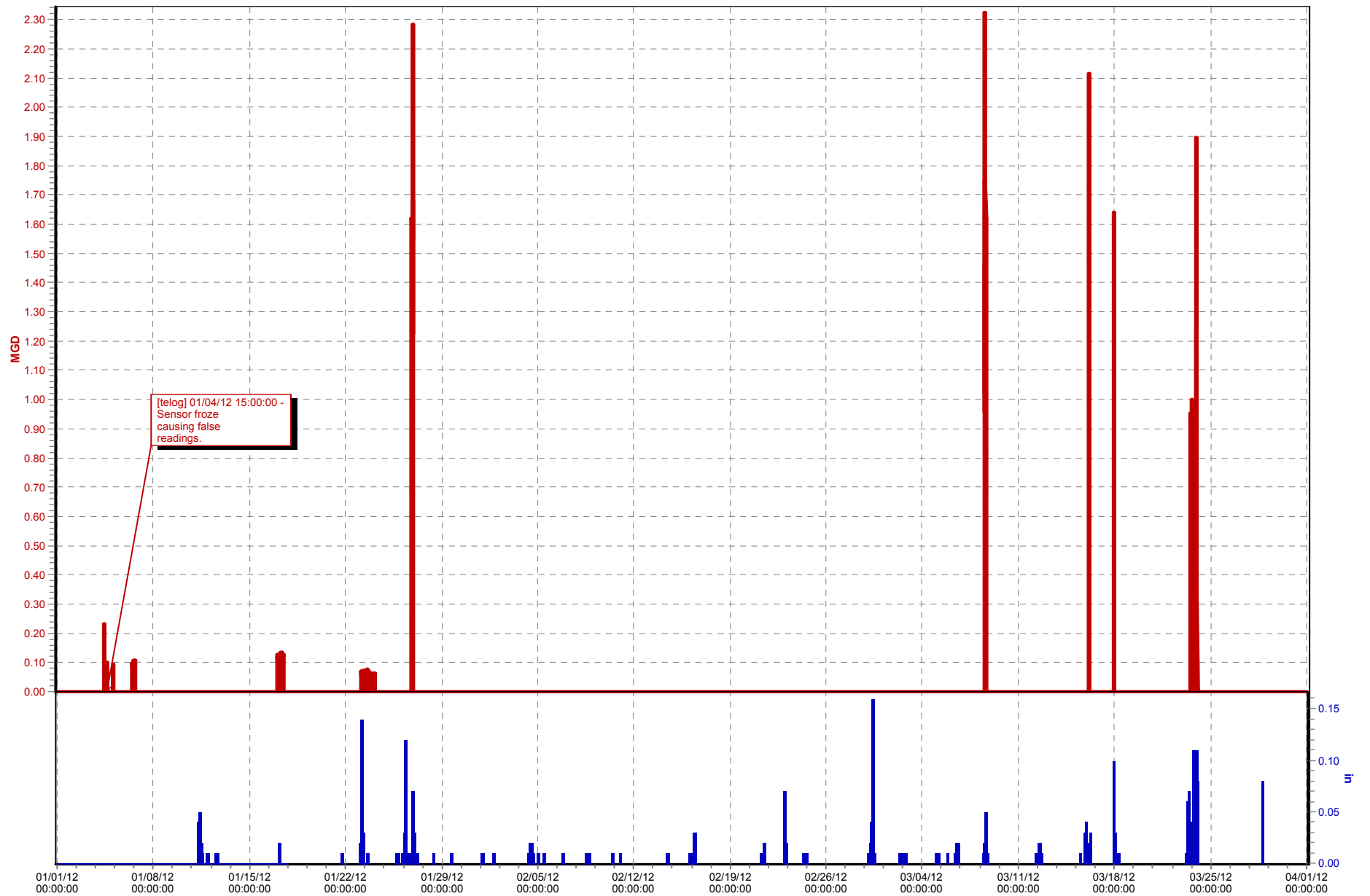
CSO149 (01/01/12 to 04/01/12)

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



CSO150 (01/01/12 to 04/01/12)

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



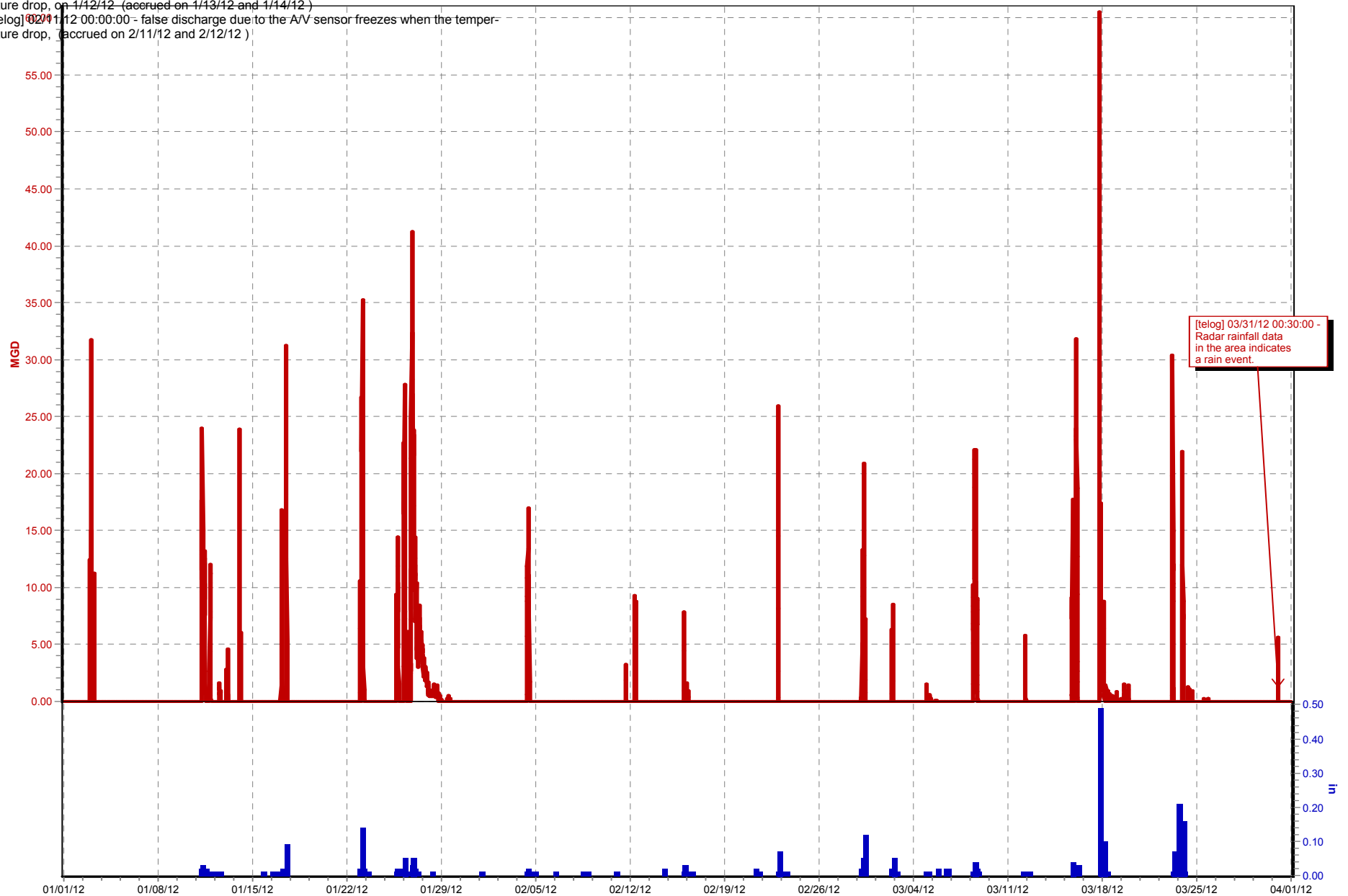
CSO151 (01/01/12 to 04/01/12)

[telog] 01/02/12 00:00:00 - false discharge due to the A/V sensor freezes when the temperature drop, accrued on 1/2/12 and 1/3/12

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

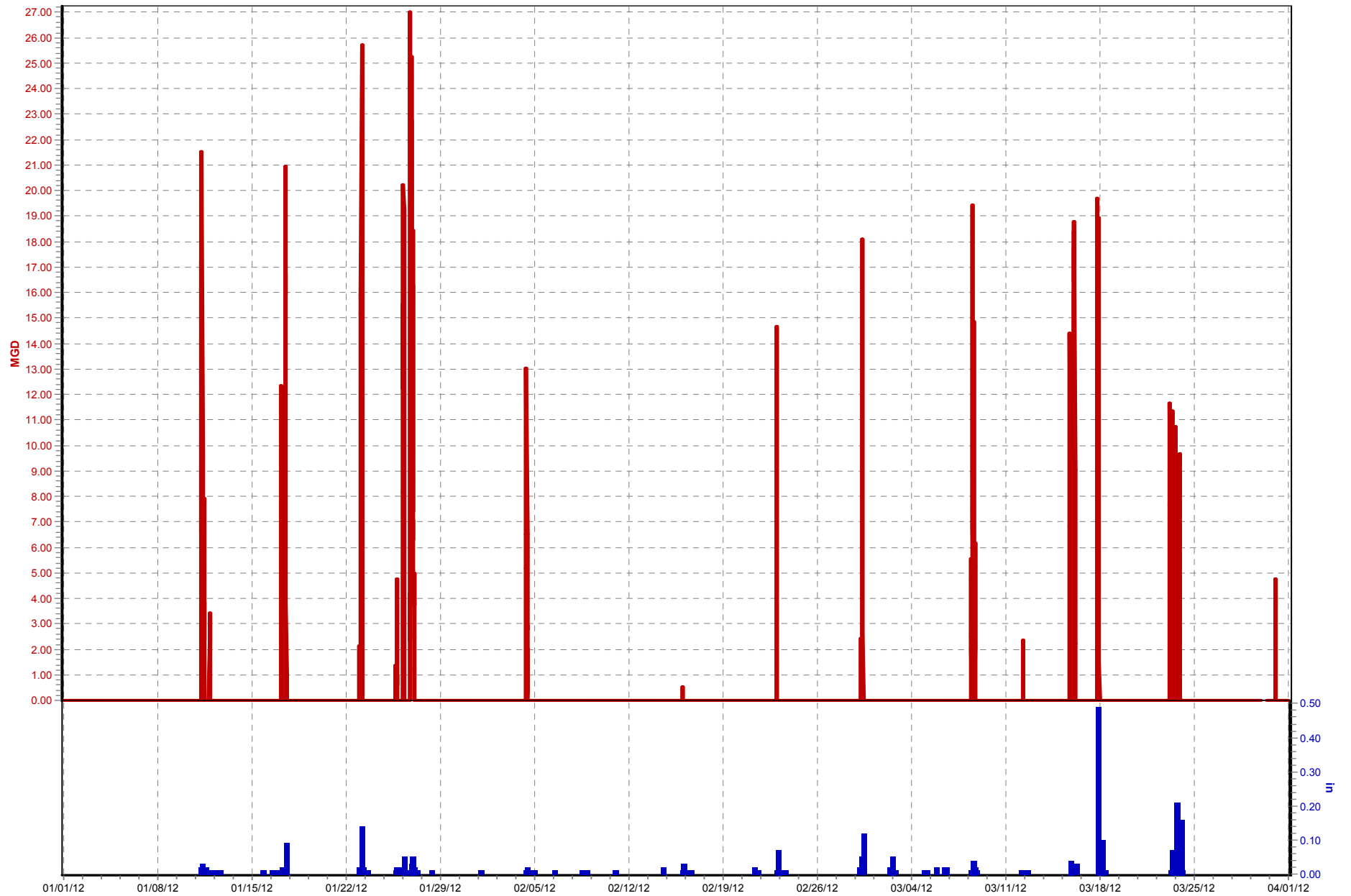
[telog] 01/12/12 00:00:00 - false discharge due to the A/V sensor freezes when the temperature drop, on 1/12/12 (accrued on 1/13/12 and 1/14/12)

[telog] 02/11/12 00:00:00 - false discharge due to the A/V sensor freezes when the temperature drop, (accrued on 2/11/12 and 2/12/12)



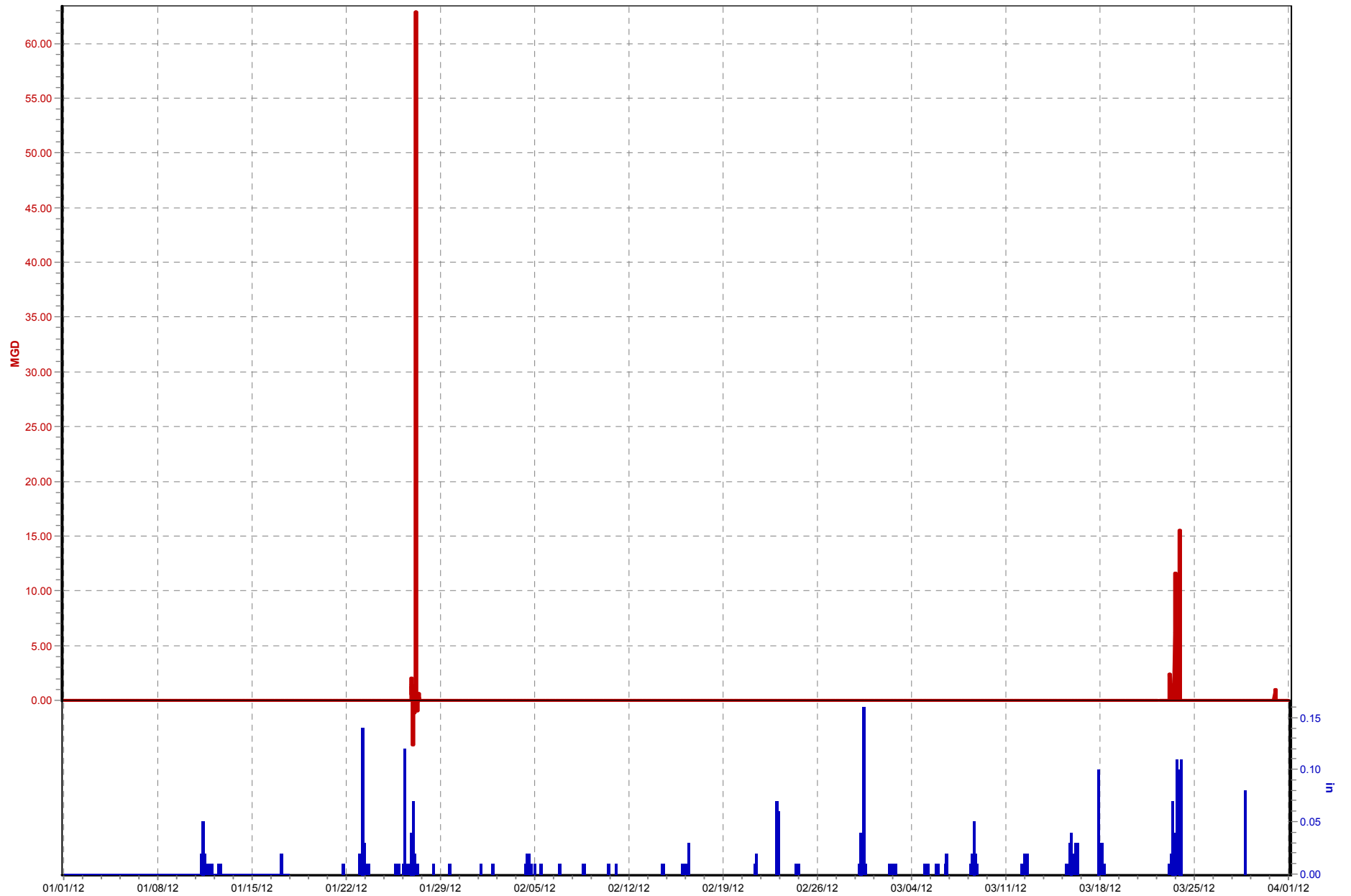
CSO152 (01/01/12 to 04/01/12)

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



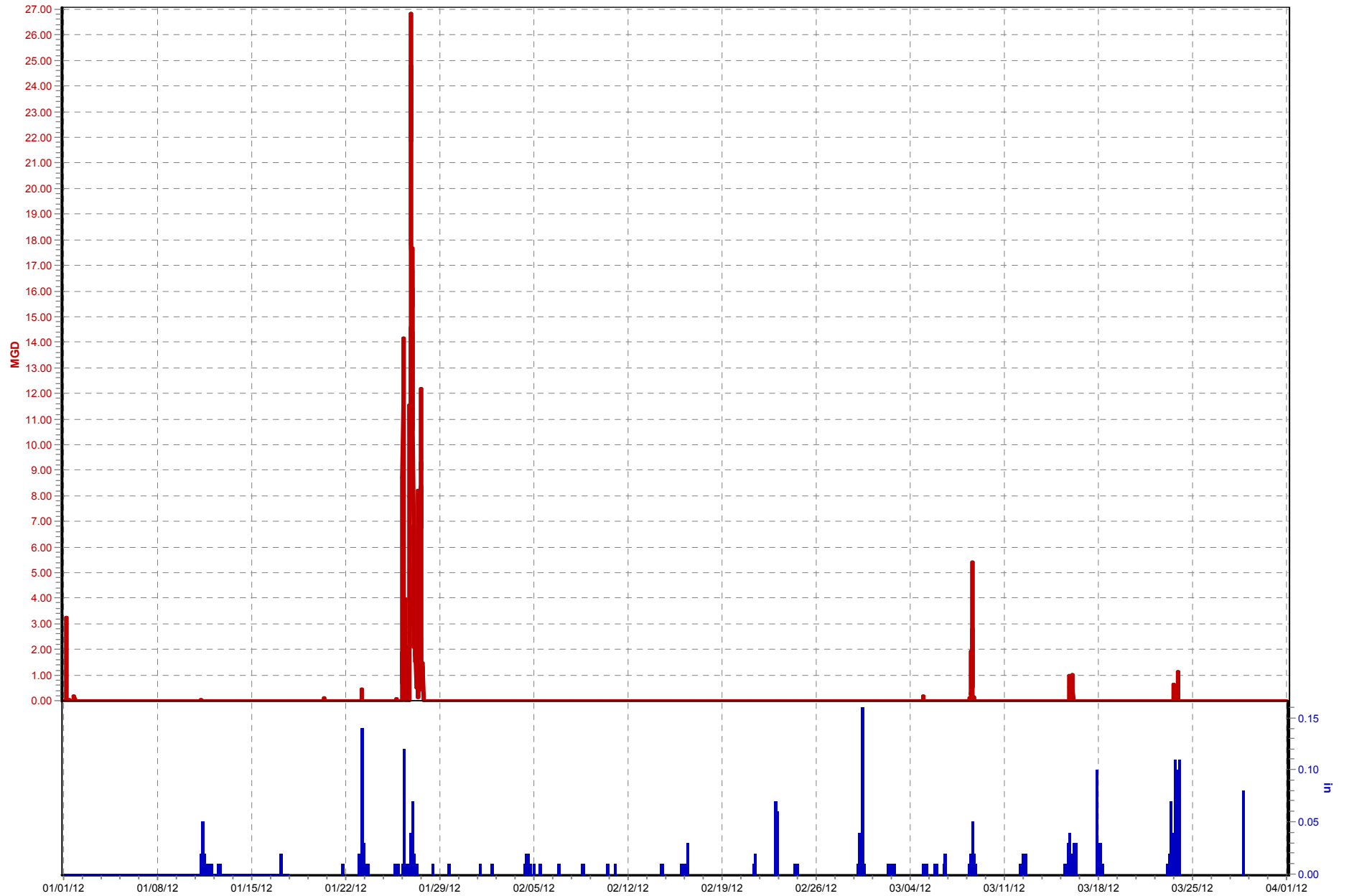
CSO153 (01/01/12 to 04/01/12)

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



CSO154 (01/01/12 to 04/01/12)

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



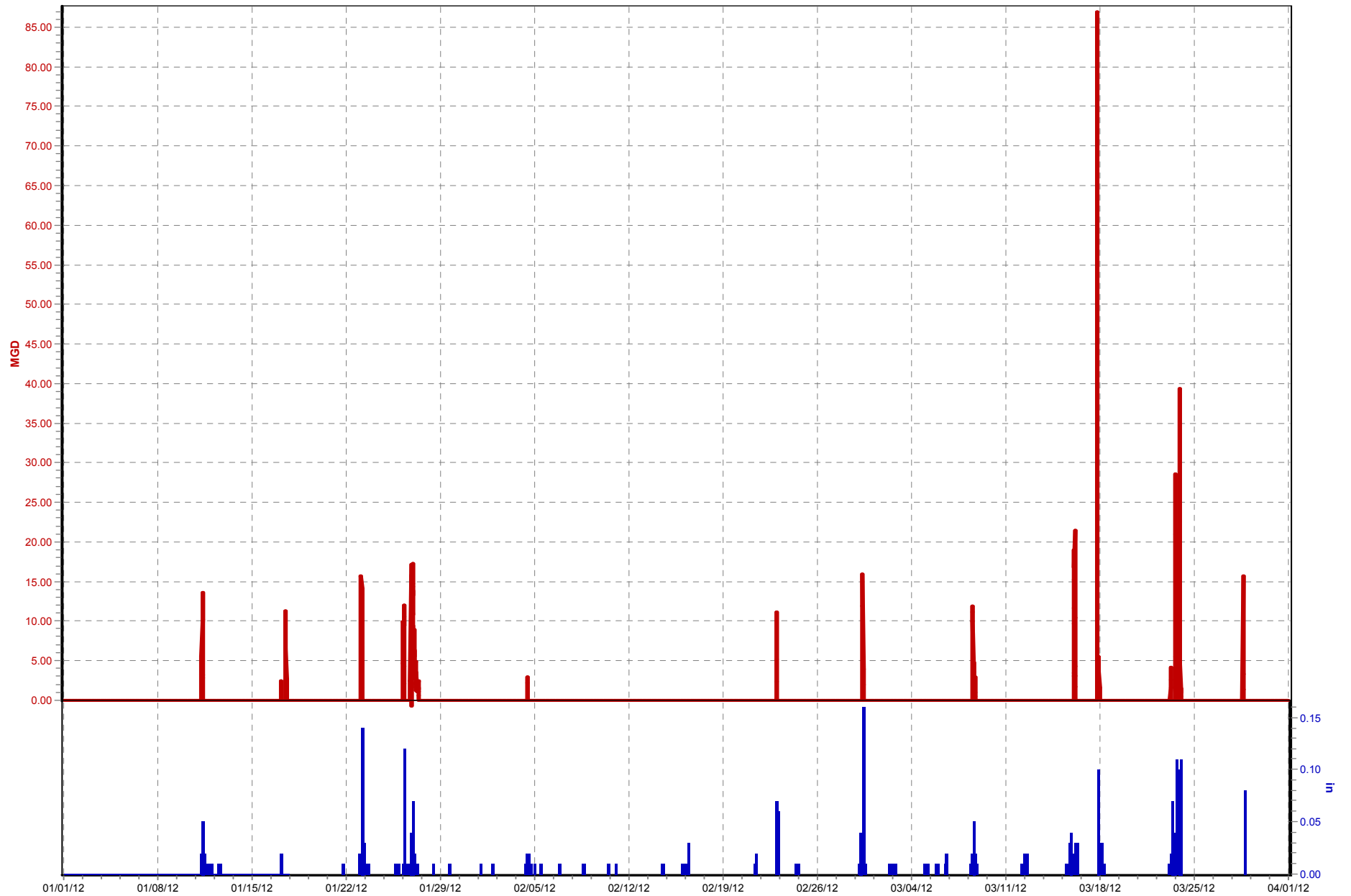
CSO155 (01/01/12 to 04/01/12)

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



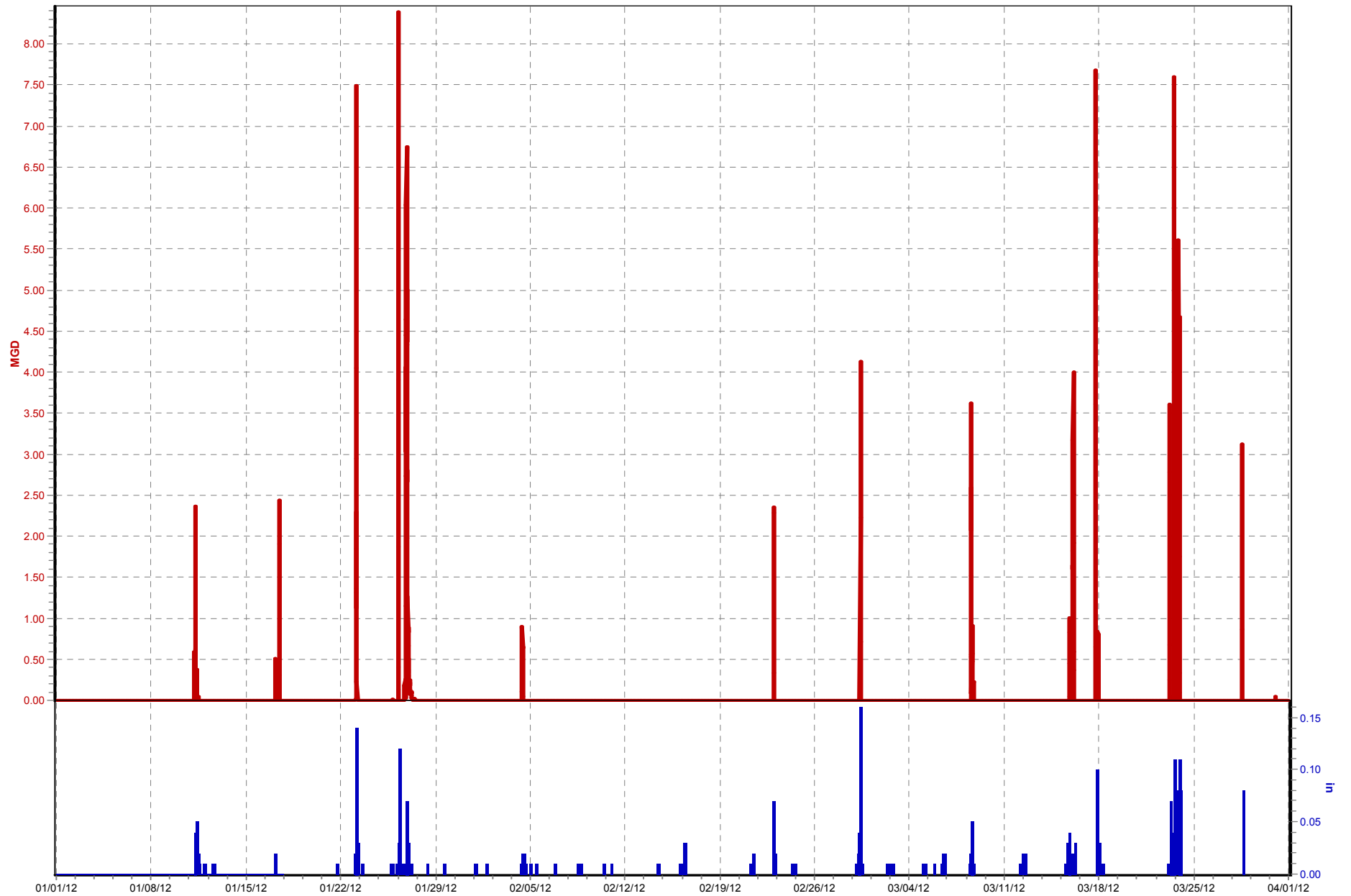
CSO166 (01/01/12 to 04/01/12)

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



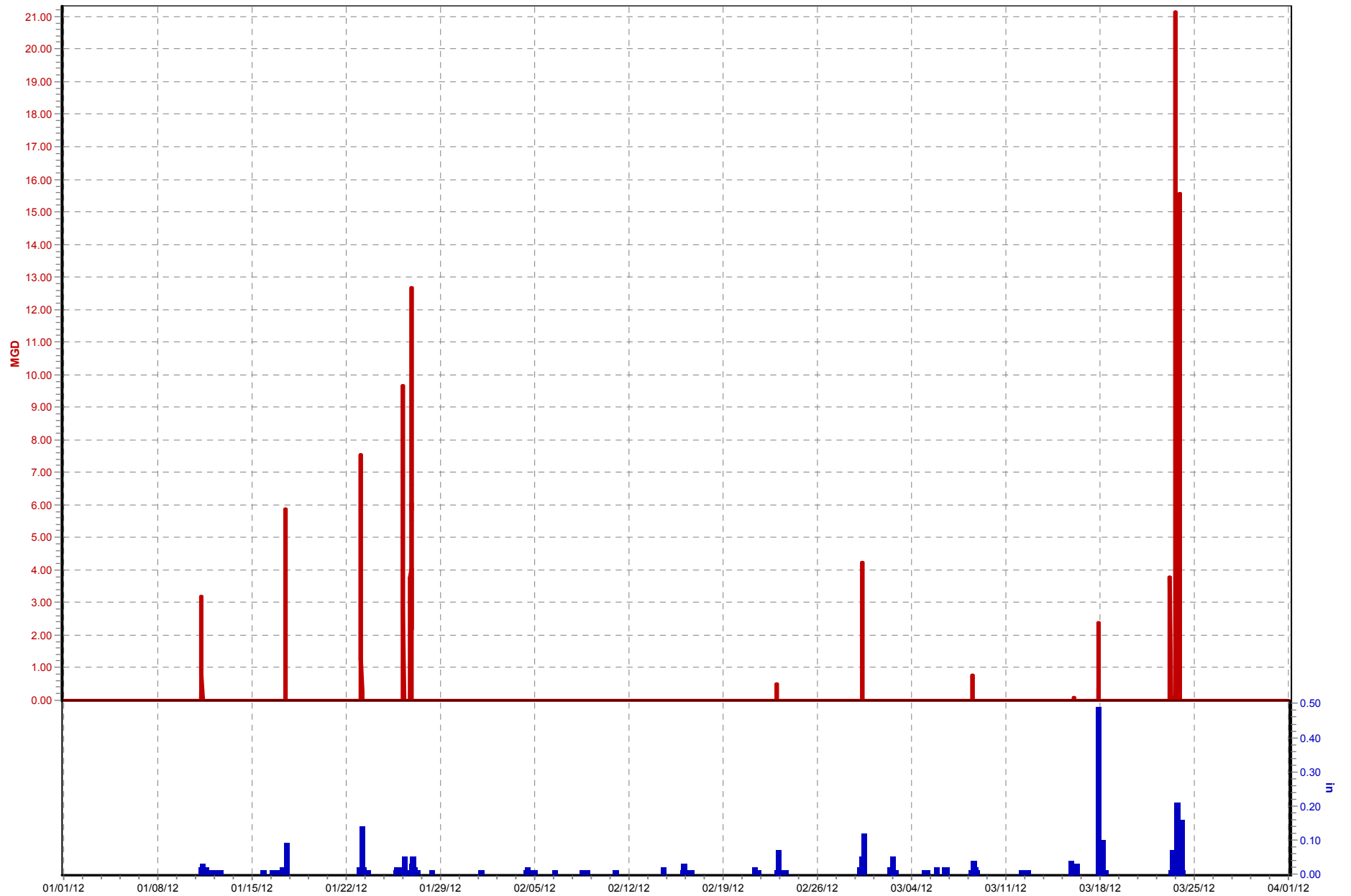
CSO167 (01/01/12 to 04/01/12)

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



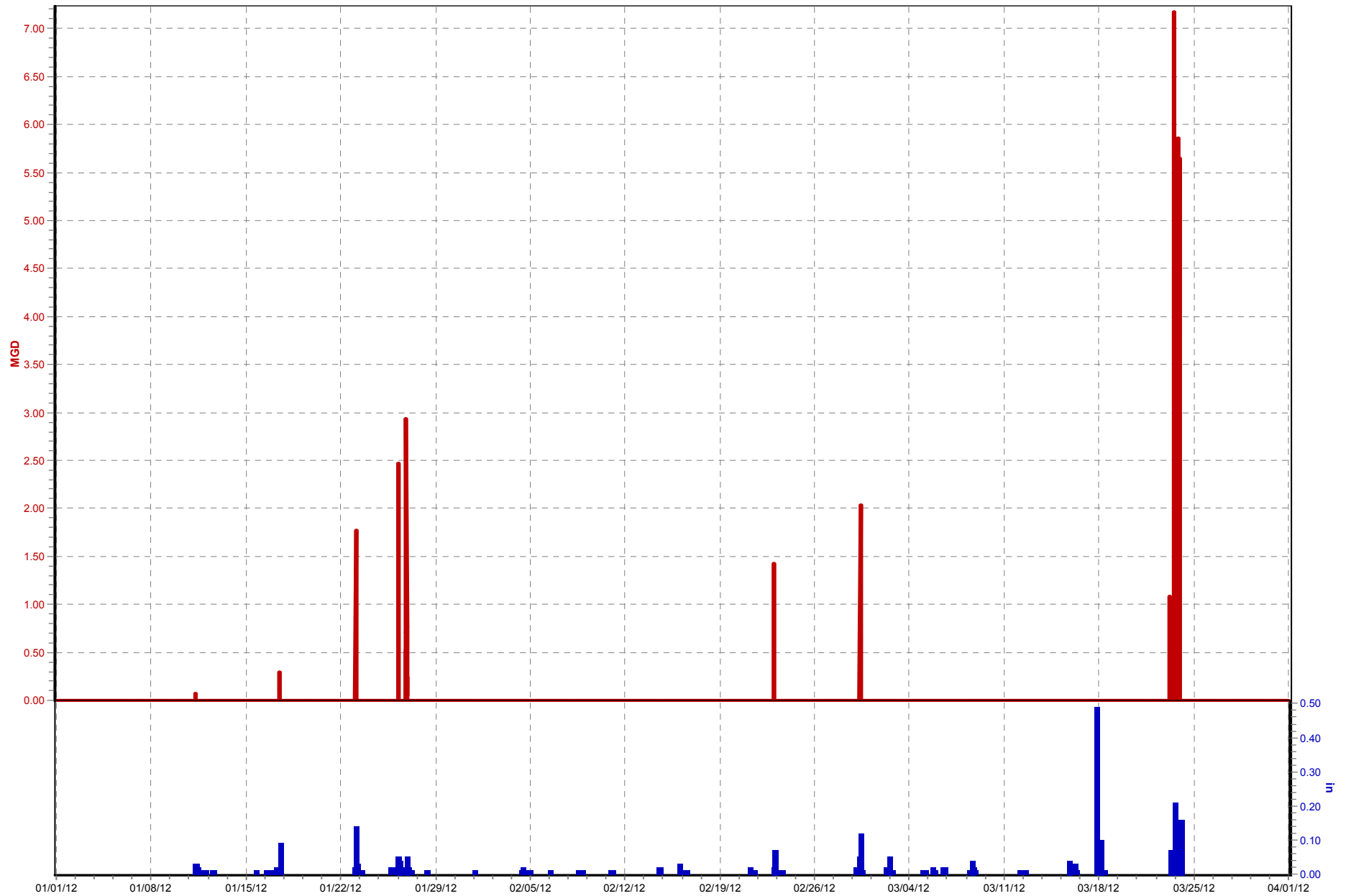
CSO174 (01/01/12 to 04/01/12)

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



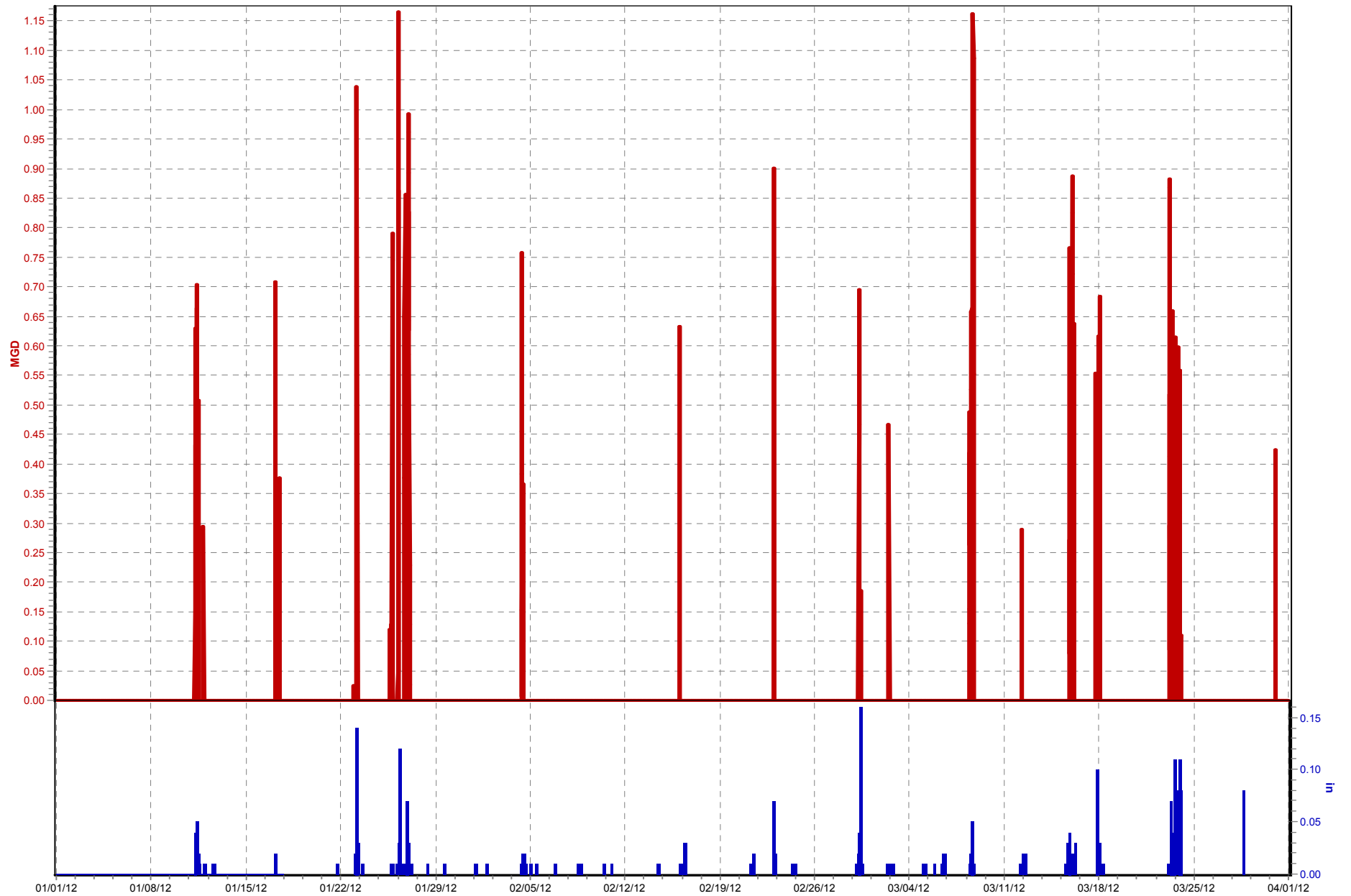
CSO180 (01/01/12 to 04/01/12)

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



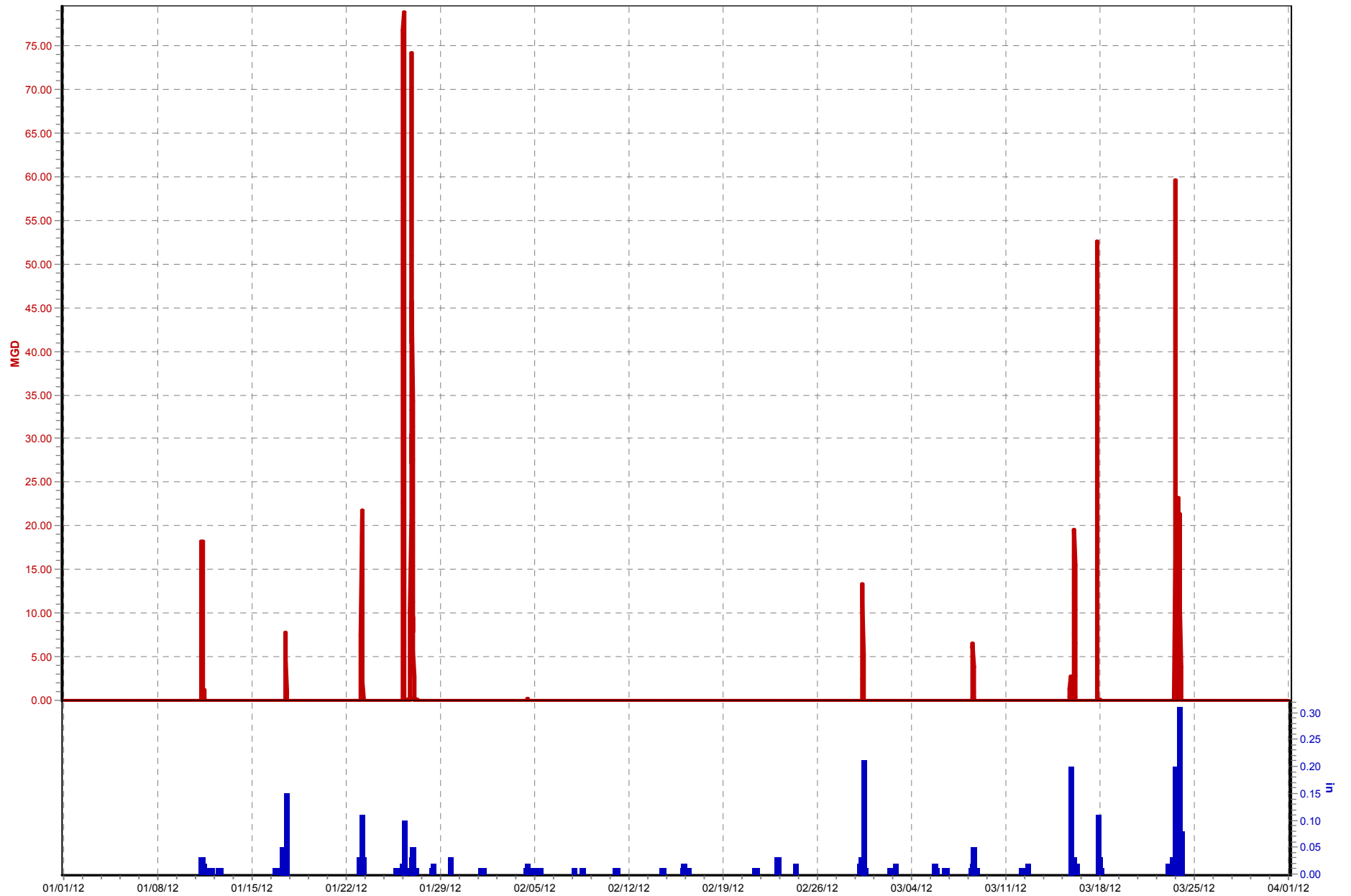
CSO182 (01/01/12 to 04/01/12)

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



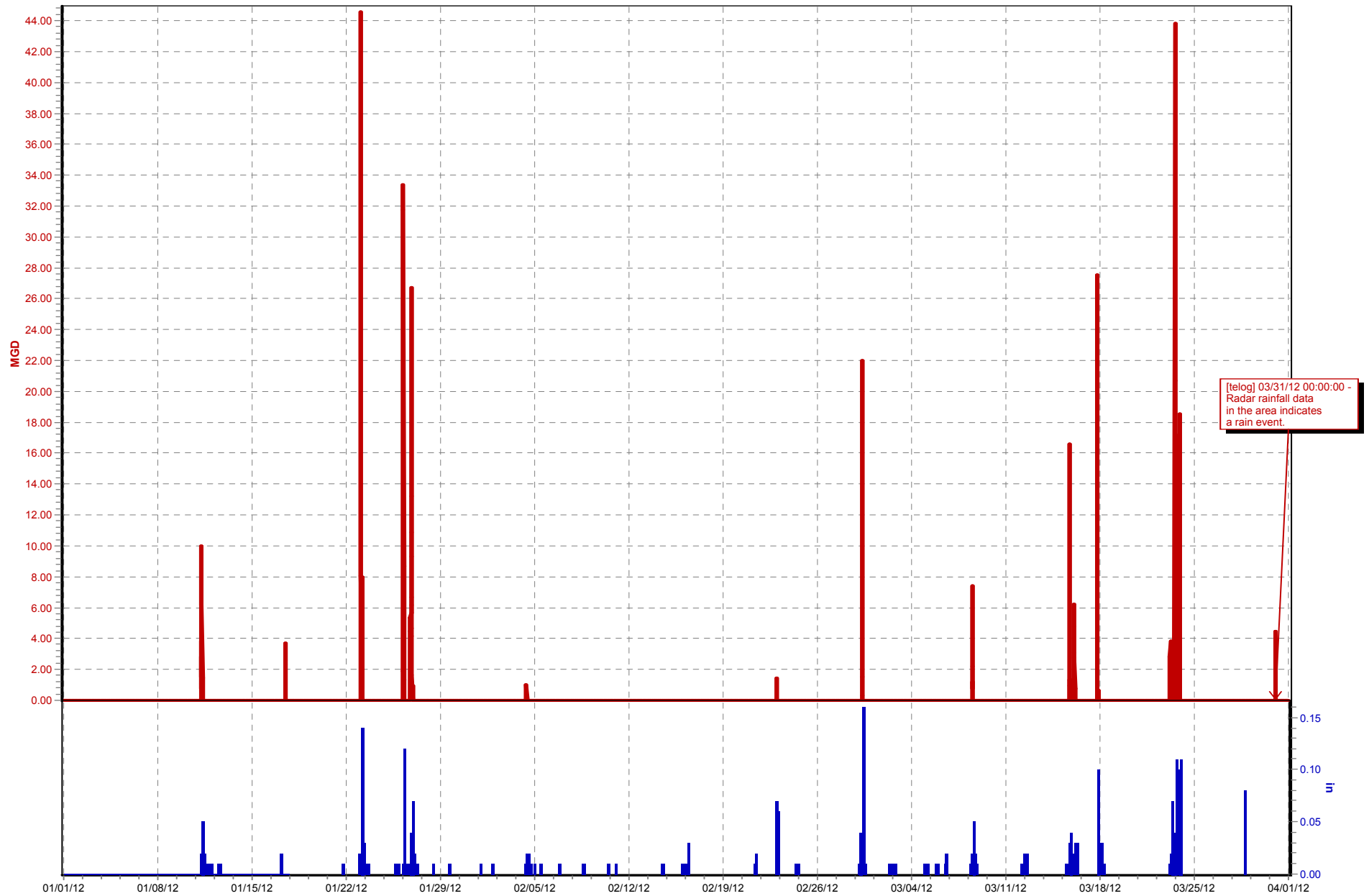
CSO189 (01/01/12 to 04/01/12)

☒ Flow 1 (MGD) ☒ TR04_Morris Forman WQTC.Rain (in)



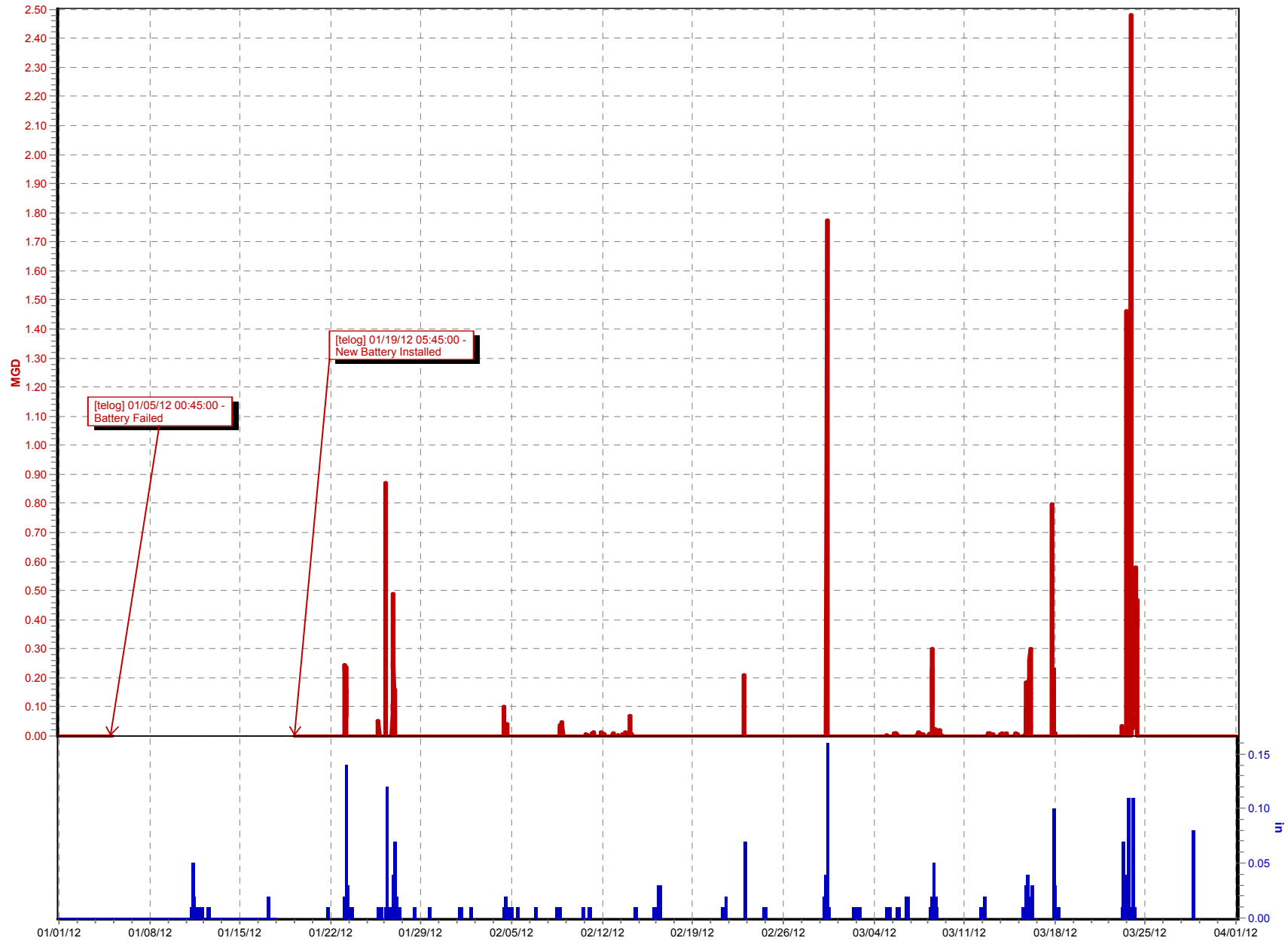
CSO190 (01/01/12 to 04/01/12)

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



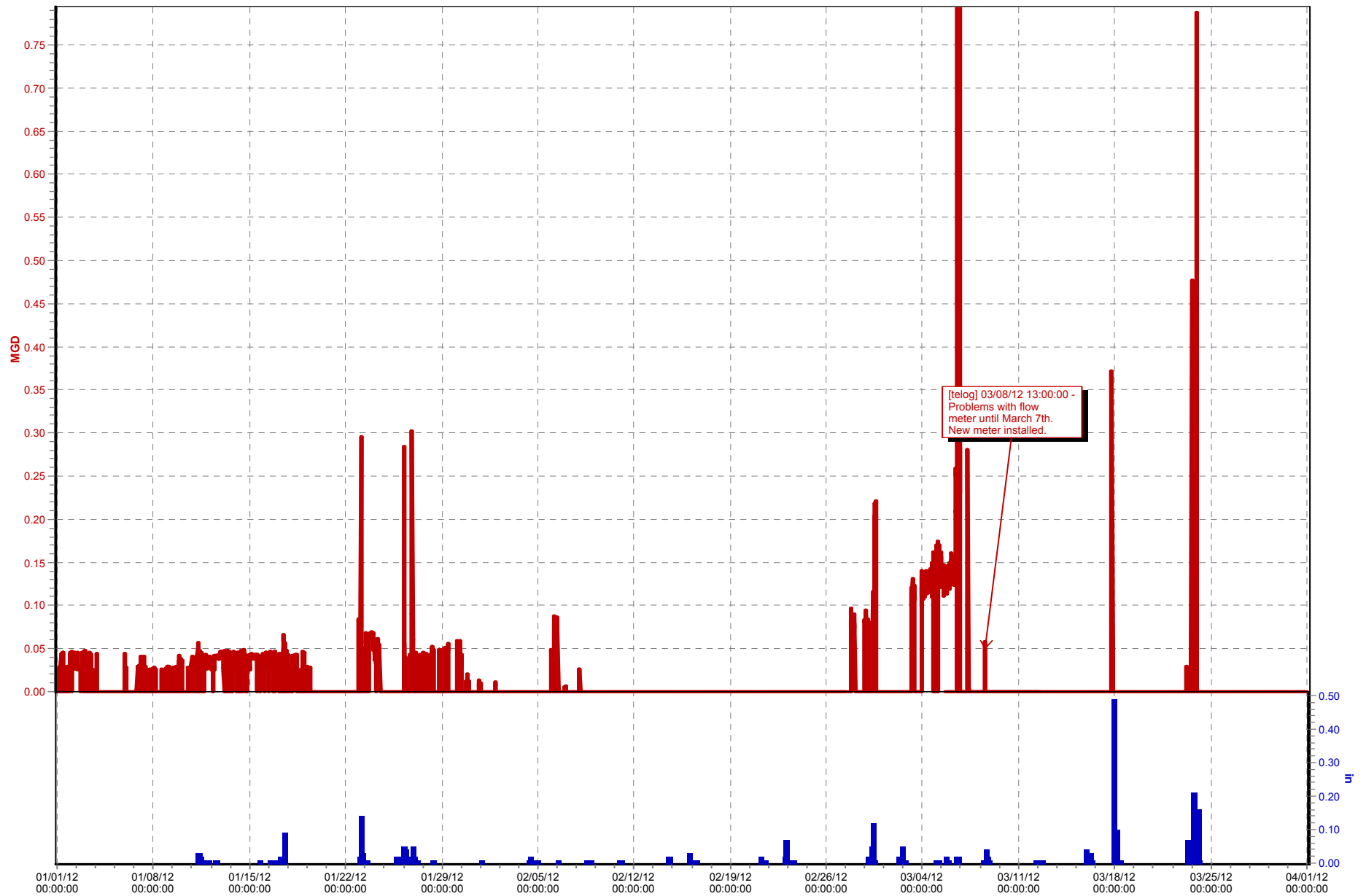
CSO195 (01/01/12 to 04/01/12)

☒ Flow (MGD)
 ☒ CSO195-Hist.Flow 1 (MGD)
 ☒ TR05_Beargrass PS.Rain (in)



CSO199 (01/01/12 to 04/01/12)

☒ Flow (MGD)
 ☒ CSO199_Hist.Flow 1 (MGD)
 ☒ TR12_Nightingale PS.Rain (in)



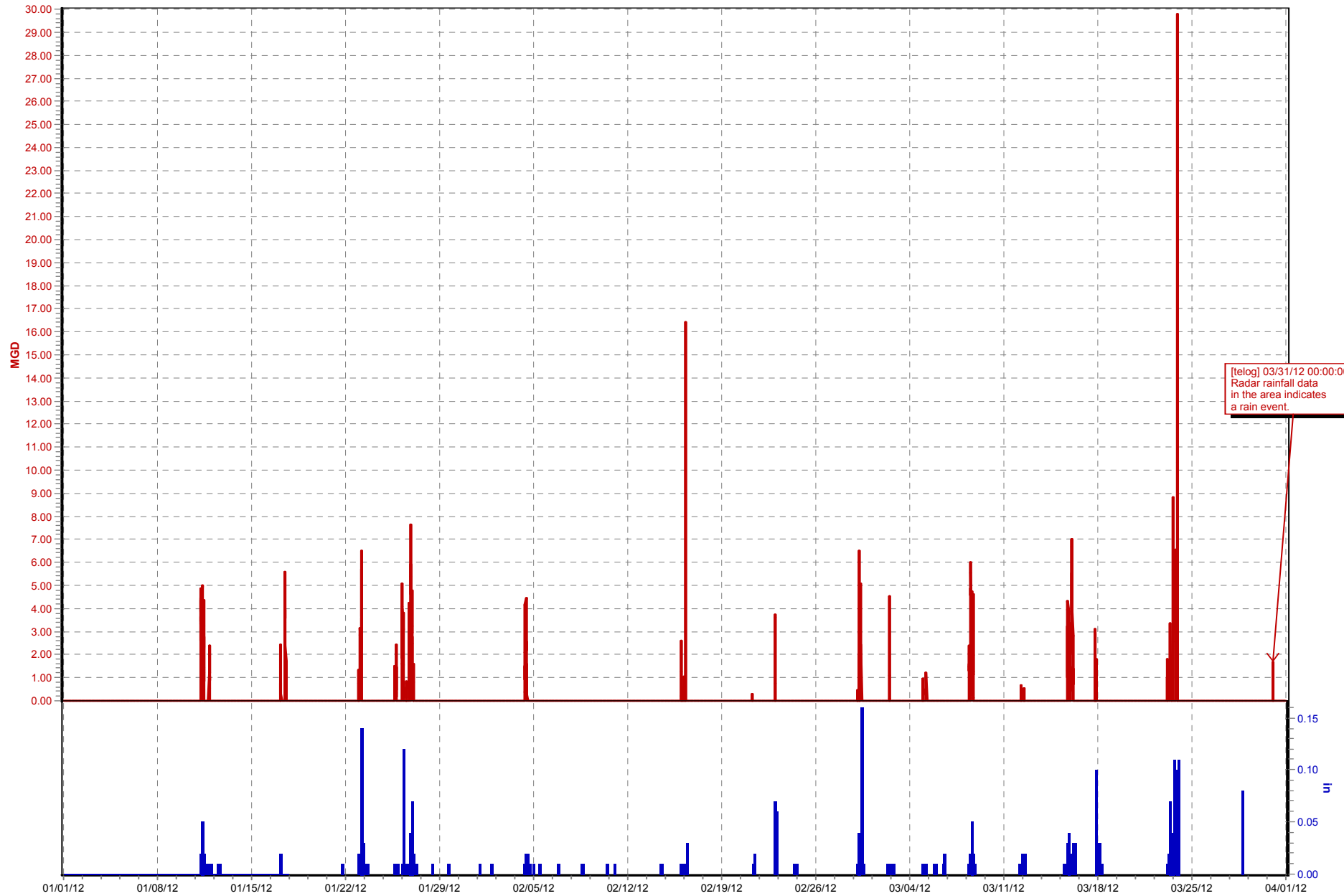
CSO200 (01/01/12 to 04/01/12)

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



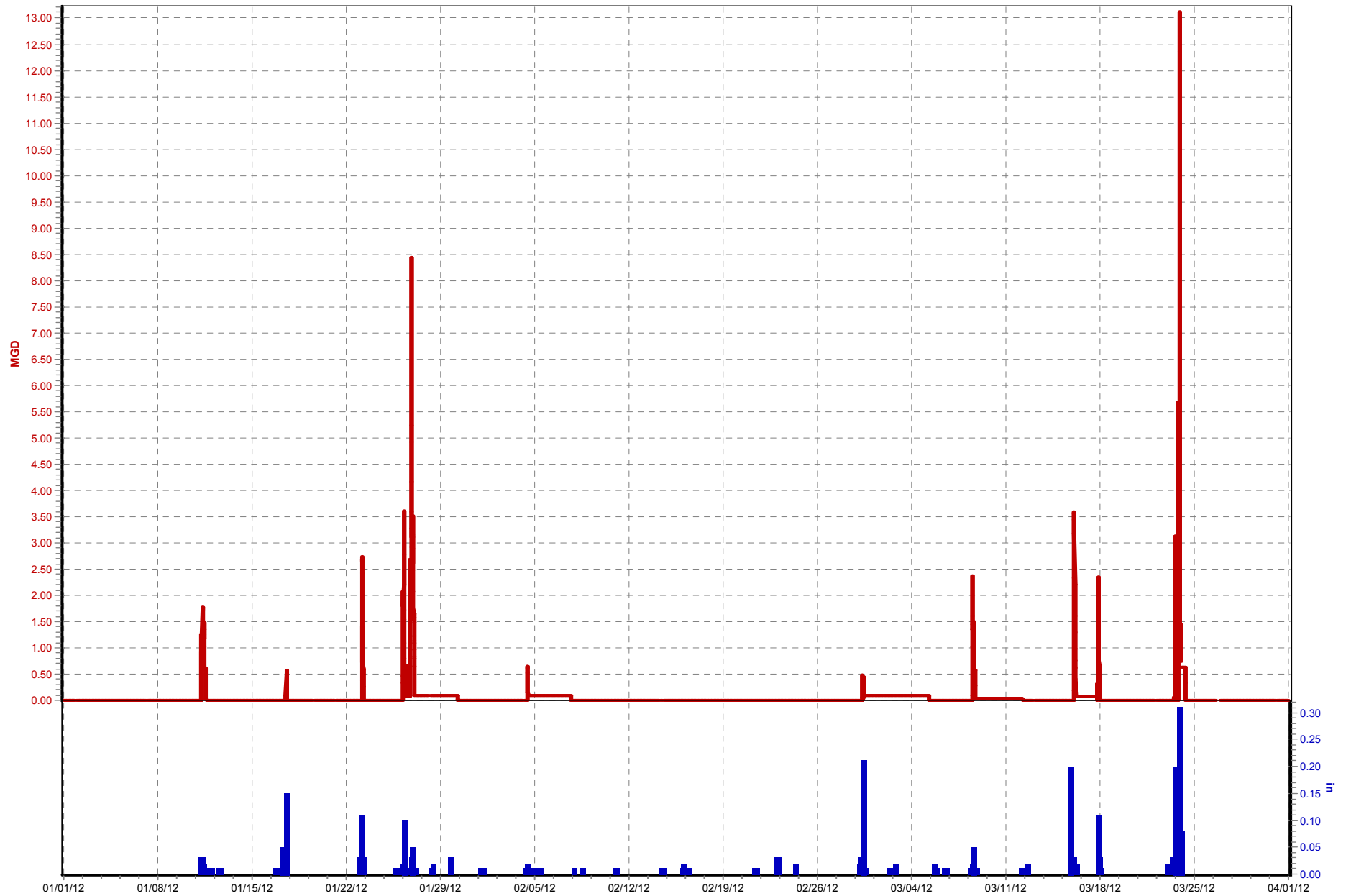
CSO206 (01/01/12 to 04/01/12)

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



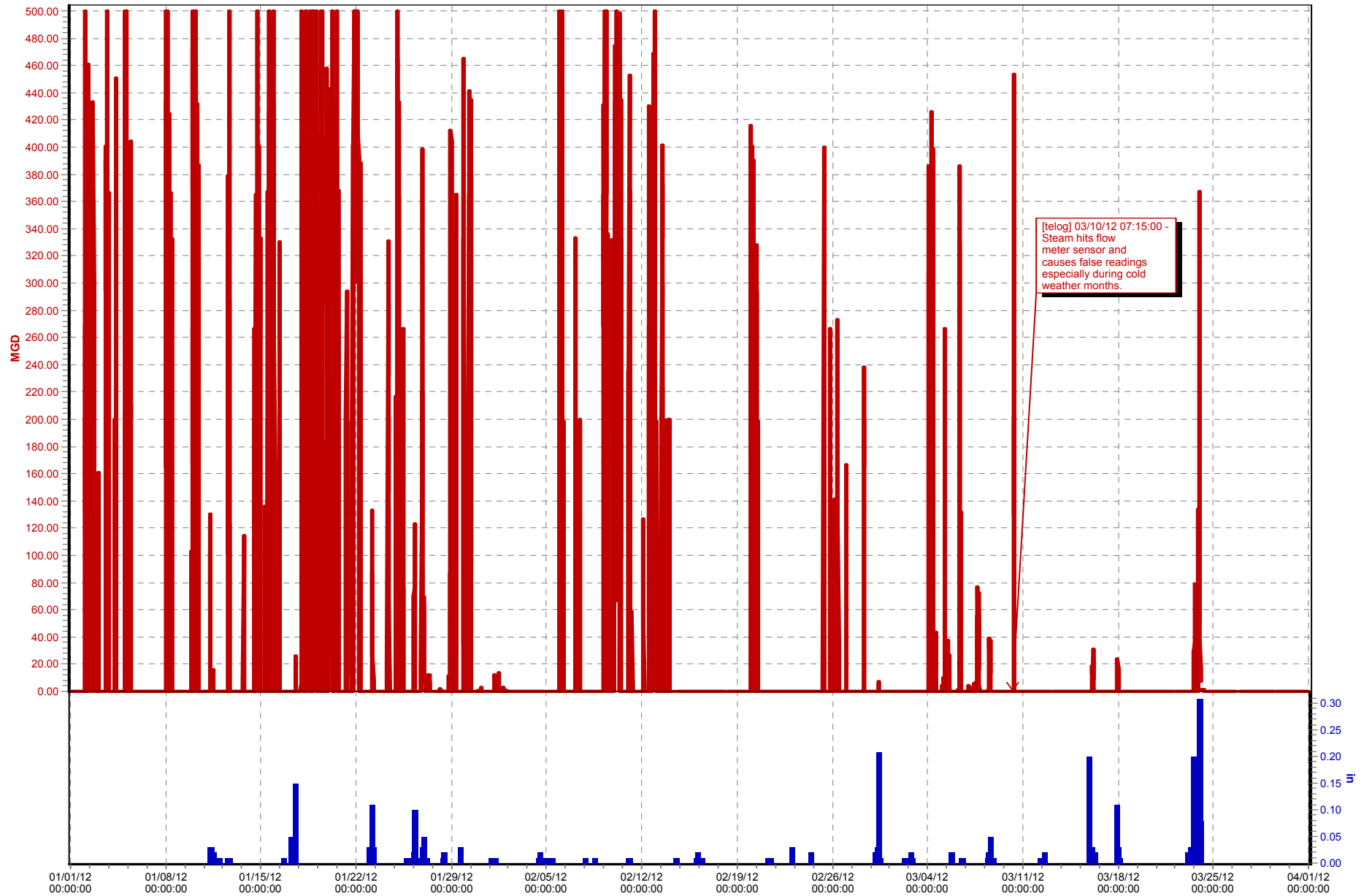
CSO210 (01/01/12 to 04/01/12)

☒ CSO210 Flow (MGD) ☒ TR04_Morris Forman WQTC.Rain (in)



CSO211 (01/01/12 to 04/01/12)

☒ 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