Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #29

Reporting Period:

October 1, 2012 through December 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:

January 30, 2013

MSD
Metropolitan Sewer District

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January 30, 2013

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Department of Environmental Protection
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Frankfort, KY 40601

Subject: Quarterly Report 29
Civil Action No. 3:08-cv-00608-CRS

Attention Chief:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 29 of our Amended Consent Decree. This report is for the period October 1, 2012 – December 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,

W. Brian Bingham

Brian Bingham.
Regulatory Services Director

cc: Greg Heitzman, PE Paula Purifoy

TABLE OF CONTENTS

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-ninth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from October 1, 2012, through December 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 (October 1, 2012, through December 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 (October 1, 2012, through December 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, and the anticipated projects and activities that are scheduled for continued compliance with the Amended Consent Decree.

Section 4: Program Activities for Public Outreach, Education, Notification and Participation - This section describes the activities related to public outreach that were active during the reporting period (October 1, 2012, through December 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 (October 1, 2012, through December 31, 2012), and include the schedule for activities planned for the next two reporting periods (January 1, 2013, through June 30, 2013), 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.msdprojectwin.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

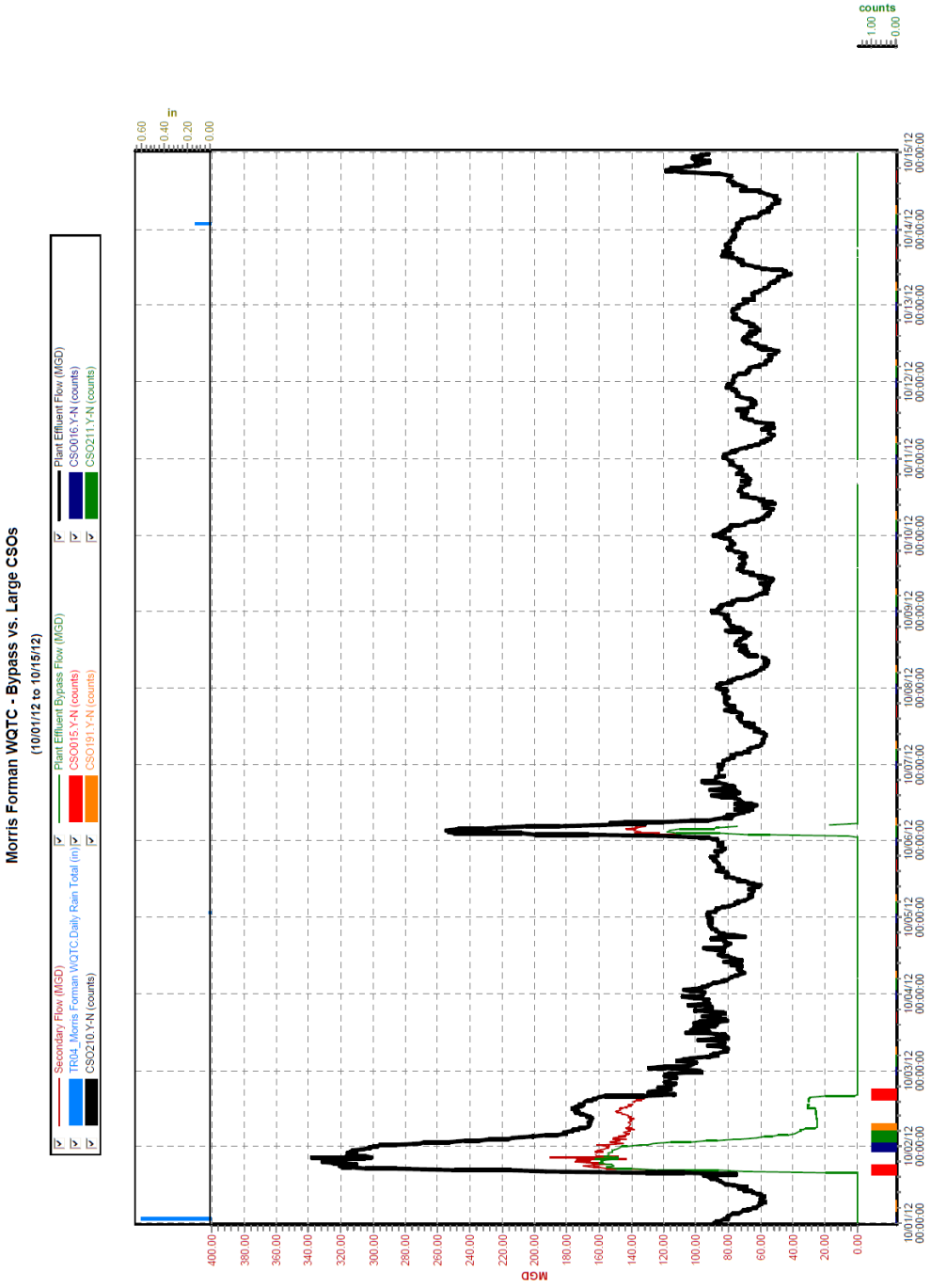
Continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 221.5 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See the figure at the end of this section for a detailed report.

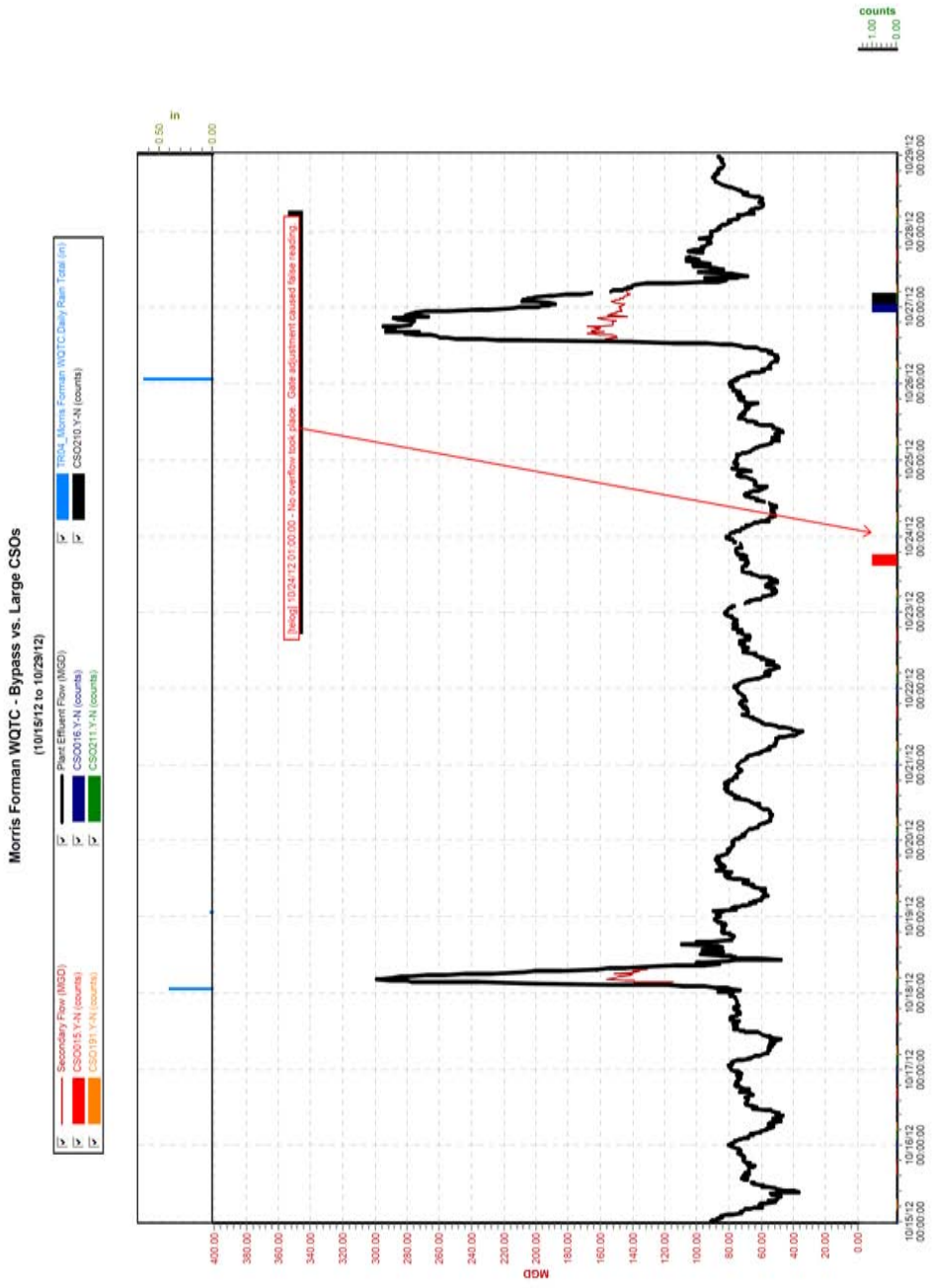
1.3 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)

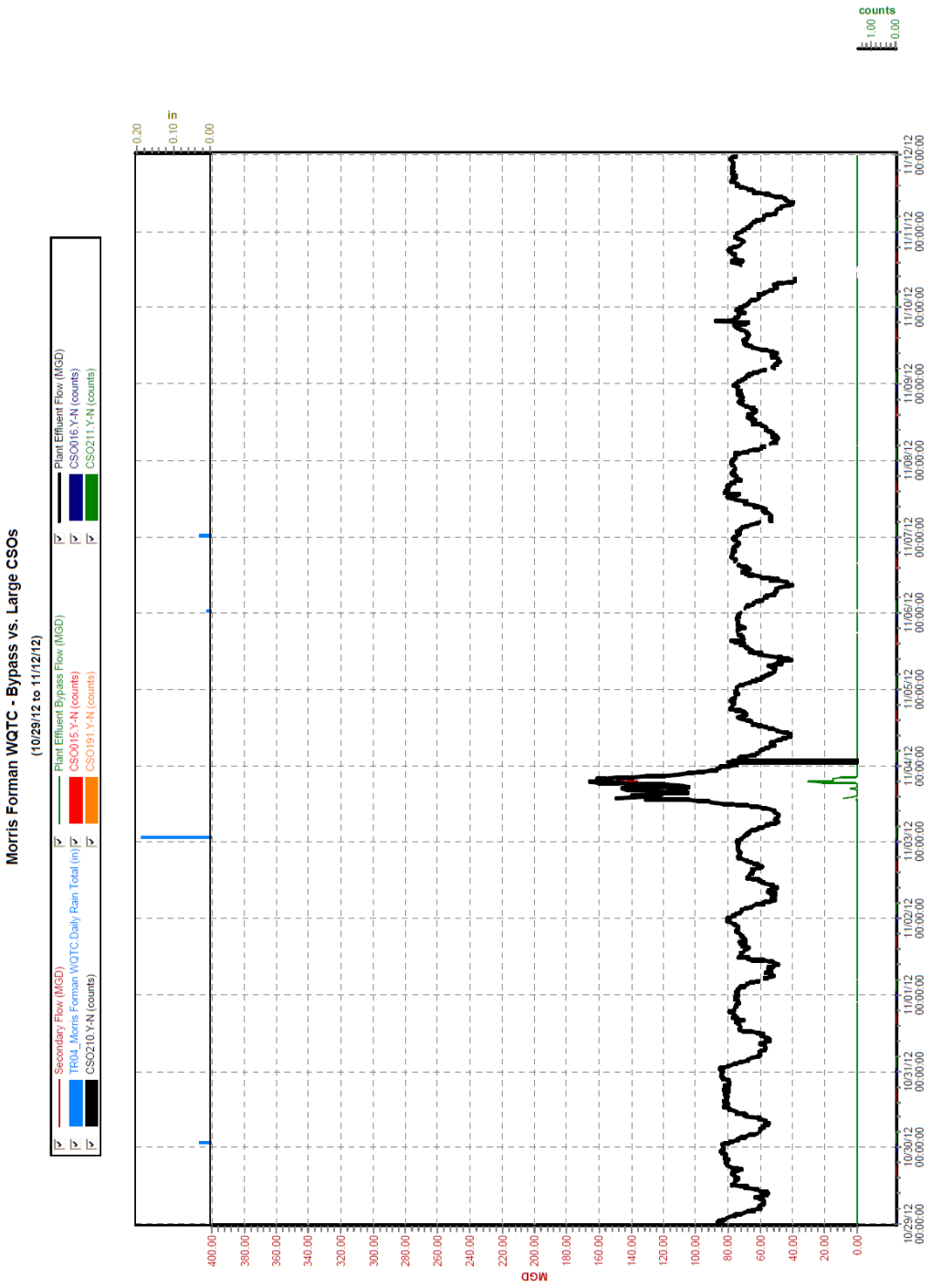
The following charts illustrate performance in maximizing flow to the Morris Forman WQTC. The top of the chart shows rainfall inches per day. The middle part of the chart shows Morris Forman WQTC effluent flow, secondary treatment flow, and secondary bypass flow. The bottom of the chart shows days with 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.

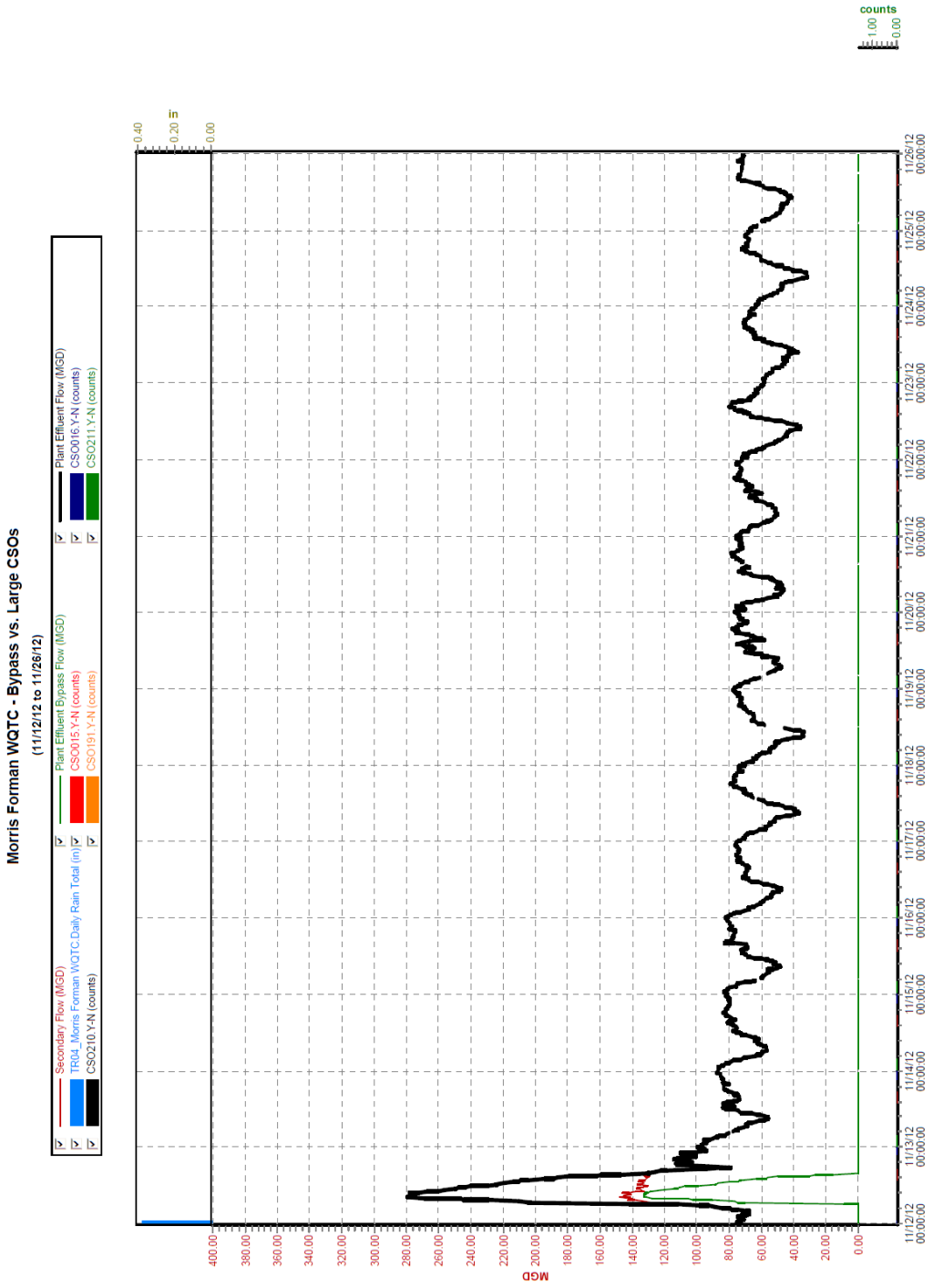
Sporadic, short-term problems with bar screens and grit chambers in the East Headworks occurred, but the resulting in reductions in the capacity of the East Headworks did not impact CSOs during the reporting period. In the West Headworks a brief problem in the grit channels also impacted overall capacity for two days, but did not impact CSOs over the reporting period. Primary sedimentation basin No. 2 was out of service from November 27 through the end of the year to repair the sludge screw auger and a leaking sludge pump discharge line. This reduction in primary sedimentation capacity was the reason peak flows in December were limited to approximately 260 MGD. In addition, Battery C of the activated sludge system was down for most of December to repair the air distribution piping in the mixed liquor channel and repair the isolation and check valves on both of the RAS pumps. The loss of 20% of the secondary treatment capacity limited flow through secondary to approximately 120 MGD during this time period.

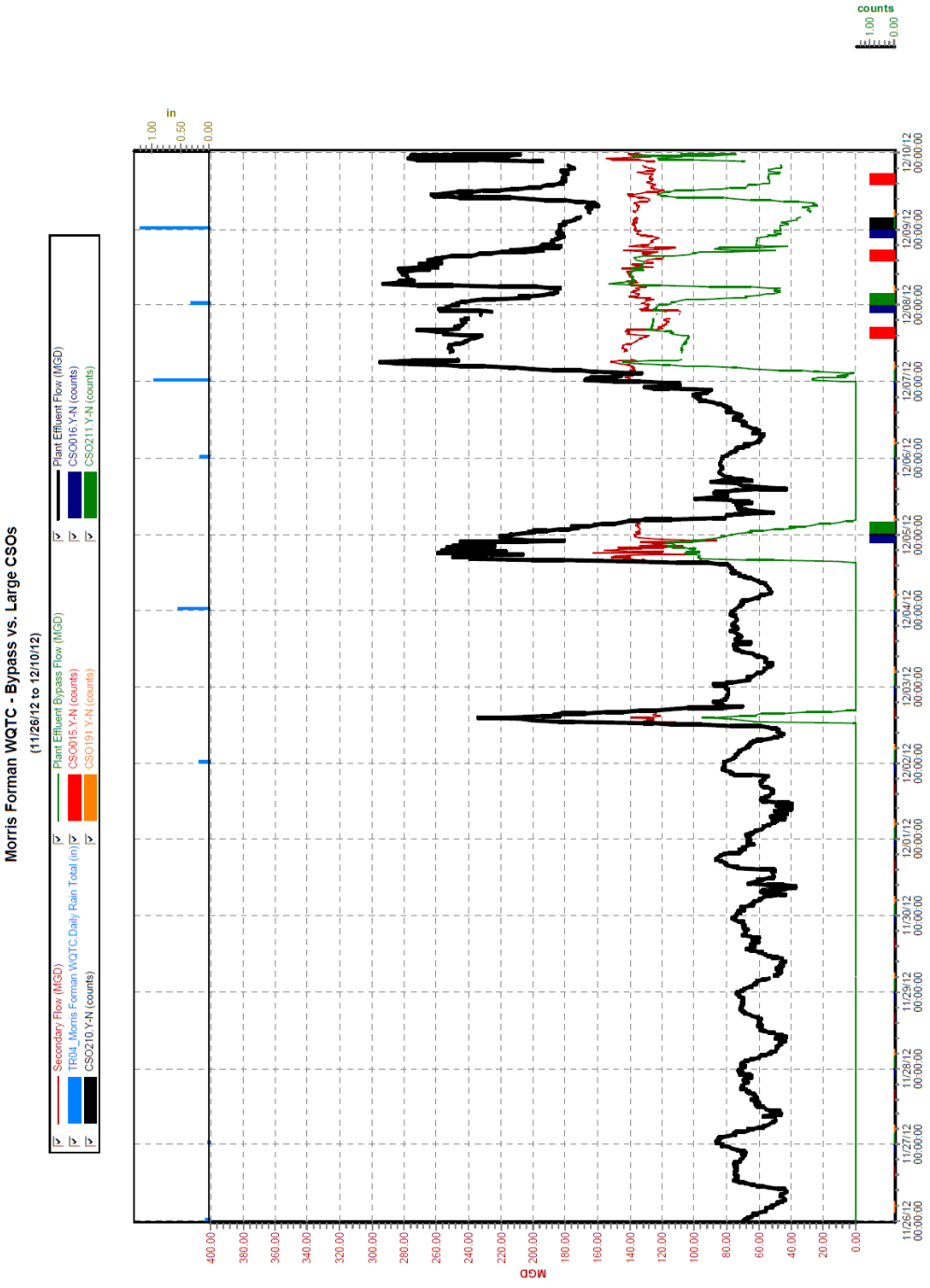
The on-going evaluation of headworks performance and reliability continued for the West Headworks bar screens, West Headworks grit channels, and the East Headworks bar screens. A preliminary engineering report recommending upgrades to improve headworks performance and reliability is expected during the next reporting period.

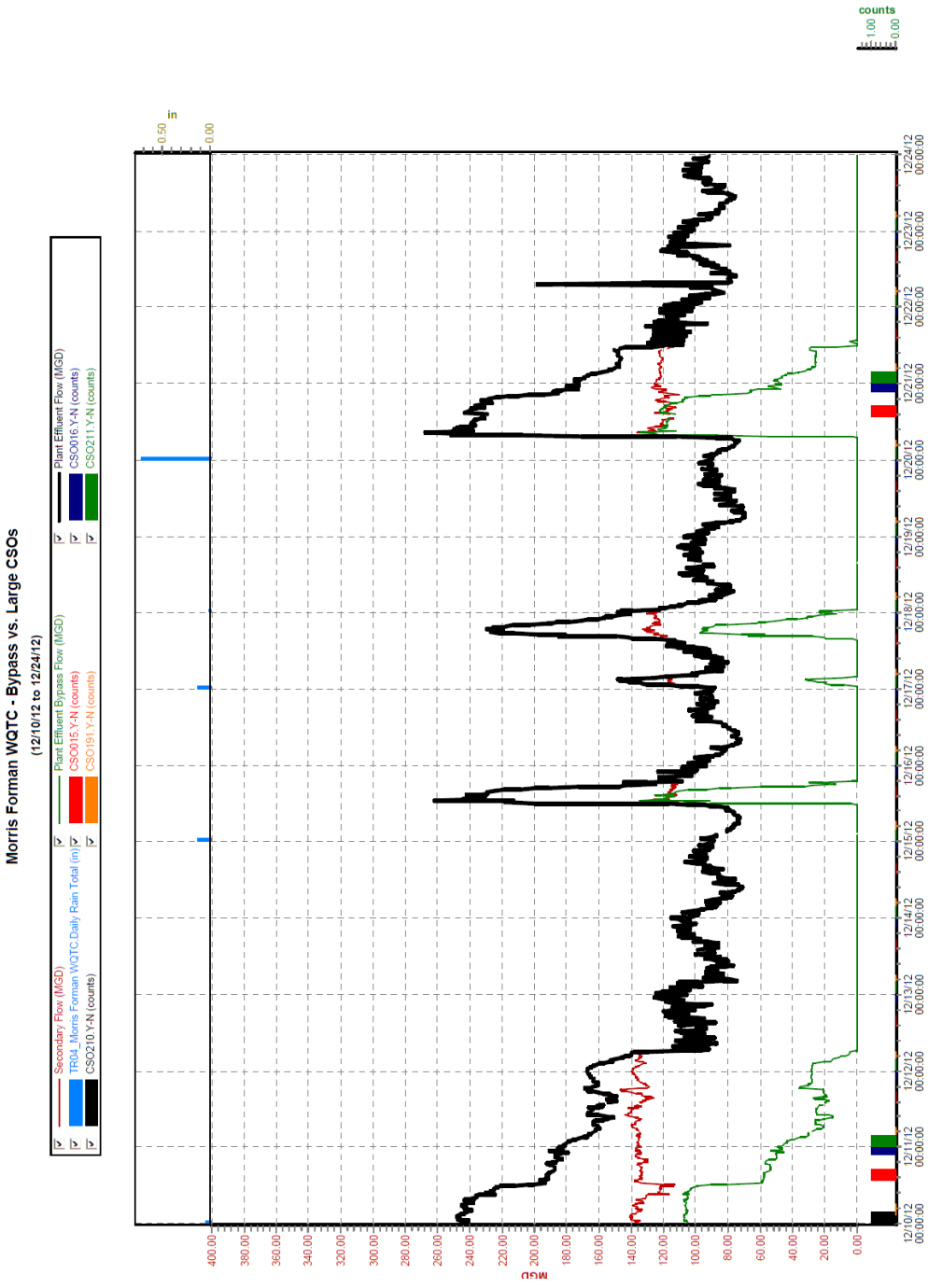


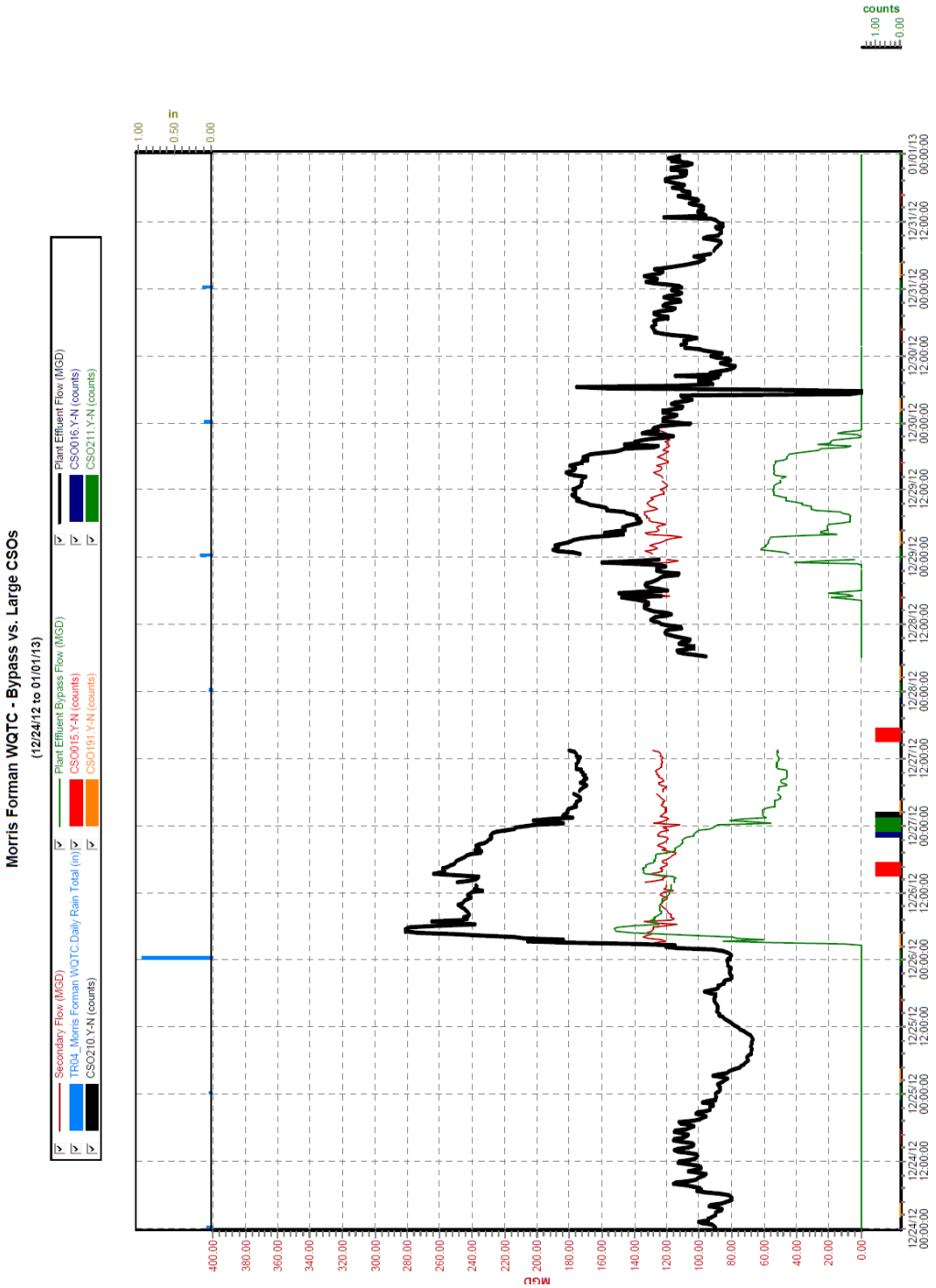

Morris Forman WQTC - Bypass vs. Large CSOs
(10/15/12 to 10/29/12)
Secondary Flow (MGD)
CSO015 Y-N (counts)
CSO191 Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Y-N (counts)
CSO211 Y-N (counts)
TRG4_Morris Forman WQTC Daily Rain Total (in)
CSO210 Y-N (counts)
counts
in
MGD
Begin 10/24/12 01:00:00 - No overflow took place. Gate adjustment caused false reading


Morris Forman WQTC - Bypass vs. Large CSOs
(10/29/12 to 11/12/12)
Secondary Flow (MGD)
TR04_Morris Forman WQTC.Daily Rain Total (in)
CSO210.Y-N (counts)
Plant Effluent Bypass Flow (MGD)
CSO015.Y-N (counts)
CSO191.Y-N (counts)
Plant Effluent Flow (MGD)
CSO016.Y-N (counts)
CSO211.Y-N (counts)
counts
MGD
in


Morris Forman WQTC - Bypass vs. Large CSOs
(11/12/12 to 11/26/12)
Secondary Flow (MGD)
TR04_Morris Forman WQTC.Daily Rain Total (in)
CSO210.Y-N (counts)
Plant Effluent Bypass Flow (MGD)
CSO015.Y-N (counts)
CSO191.Y-N (counts)
Plant Effluent Flow (MGD)
CSO016.Y-N (counts)
CSO211.Y-N (counts)
counts
MGD
in


Morris Forman WQTC - Bypass vs. Large CSOs
(11/26/12 to 12/10/12)
Secondary Flow (MGD)
TR04_Morris Forman WQTC.Daily Rain Total (in)
CSO210 Y-N (counts)
Plant Effluent Bypass Flow (MGD)
CSO015 Y-N (counts)
CSO191 Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Y-N (counts)
CSO211 Y-N (counts)
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(12/10/12 to 12/24/12)
Secondary Flow (MGD)
TR04_Morris Forman WQTC.Daily Rain Total (in)
CSO210.Y-N (counts)
Plant Effluent Bypass Flow (MGD)
CSO015.Y-N (counts)
CSO191.Y-N (counts)
Plant Effluent Flow (MGD)
CSO016.Y-N (counts)
CSO211.Y-N (counts)
in
counts
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(12/24/12 to 01/01/13)
Secondary Flow (MGD)
TR04_Morris Forman WQTC Daily Rain Total (in)
CSO210.Y-N (counts)
Plant Effluent Bypass Flow (MGD)
CSO015.Y-N (counts)
CSO191.Y-N (counts)
Plant Effluent Flow (MGD)
CSO016.Y-N (counts)
CSO211.Y-N (counts)
counts
in
MGD

There were no KPDES permit violations at Morris Forman WQTC during October, November, or December, 2012.

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

- Main Diversion Structure Flow Measurement – Continued to monitor measurement accuracy of the flow calculation under Sluice Gate 1. A revised "parking" elevation for Sluice Gate 1 was identified to improve flow measurement at low flows without compromising the ability to maximize capture of initial flow peaks. This revised elevation was not implemented at this time, pending completion of repairs to the secondary by-pass flume. 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 - Wet weather SOP training and revisions to the Morris Forman WQTC Capacity Calculator will be implemented after completion of the secondary clarifier flow meter replacement project.
- RTC System-Wide Optimization Project – Limited progress was made towards development of control algorithms for integrating the Northern Ditch Diversion into the RTC system, and changing control algorithms for the Southeast Diversion Structure. It is expected that full integration in an automated mode will be delayed until operations staff have completed a period of manual operation to validate the control assumptions. Active control of both these systems is required now that the new Southeast Diversion and The Highgate Springs Pump Station has been taken off line and the Southeast Interceptor Relief project is completed, both in accordance with the Interim Sanitary Sewer Discharge Plan.

Louisville/Jefferson County
Metropolitan Sewer District

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

Period	
From :	10/01/2012
To :	12/31/2012

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)	Max** Rain Gauge	SWPS SG Chamber	SWOR2	Brady Lake and Executive Inn Storage	Southern Outfall***	Ohio River Int. ***	Sneads Branch	Total		
2012-072	10/1/12 12:50	10/2/12 15:05	26:15	0.95	1.12	TR12	13.5	0.0	3.3	4.5	3.9	0.7	25.9	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization;
2012-074	10/18/12 0:00	10/18/12 14:05	14:05	0.32	0.40	TR04	4.1	0.0	0.5	2.4	2.4	0.1	9.4	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization; Higher intensity rainfall occurring in western edge of collection system;
2012-076	10/26/12 10:05	10/27/12 7:00	20:55	0.78	0.93	TR13	10.8	0.0	0.4	4.3	3.9	0.1	19.5	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization;
2012-080	11/12/12 2:30	11/14/12 9:45	55:15	0.52	0.73	TR15	1.9	0.0	1.3	2.0	4.4	0.1	9.7	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization; Higher intensity rainfall occurring in eastern reaches fo collection system; Brady Lake lower control gate dysfunctional during rainfall event.
2012-083	12/2/12 10:45	12/2/12 20:30	9:45	0.14	0.29	TR05	2.9	0.0	0.1	1.2	2.6	0.0	6.7	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
2012-084	12/4/12 14:30	12/5/12 5:00	14:30	0.57	0.84	TR15	9.2	0.0	1.2	4.4	4.7	0.2	19.7	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization; Higher intensity rainfall occurring in southeastern reaches fo collection system;
2012-085	12/6/12 16:05	12/12/12 6:10	134:05	3.45	4.24	TR11	19.4	0.0	14.3	15.4	13.8	2.3	65.2	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization; Extended period storm event involving multiple storm cells and dewatering between cells;
2012-086	12/15/12 10:45	12/15/12 19:45	9:00	0.16	0.20	TR13	2.8	0.0	0.1	2.1	3.1	0.0	8.0	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization;
2012-087	12/16/12 23:20	12/18/12 1:00	25:40	0.24	0.44	TR11	4.3	0.0	0.2	0.2	1.9	0.0	6.5	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization; Multiple storm cells with higher intensity rainfall occurring in southeastern region of collection system;
2012-088	12/20/12 6:15	12/21/12 11:35	29:20	0.71	0.80	TR05	14.4	0.0	1.9	4.8	4.2	0.6	25.9	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization;
2012-090 & 91	12/26/12 0:05	12/27/12 21:50	45:45	0.97	1.10	TR15	12.7	0.0	3.5	4.5	4.1	0.5	25.3	no	SWOR2 manually controlled with both gates in open position and minimal available storage utilization;
TOTAL							**95.9**	**0.0**	**26.7**	**45.7**	**48.7**	**4.6**	**221.5**		

* 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
*** MDS is always manually controlled by operator

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.msdprojectwin.org.

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

2.2 Overflow Management and Field Documentation

- Monitored approximately 157 sanitary sewer overflow (SSO) sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO. These routes are monitored during rain events depending on the magnitude and location of the storm. If an overflow is observed, a Discharge Work Order is created to document the event. During this quarter, Regulatory Services and Engineering staff documented 36 suspected or unauthorized discharges through route reconnaissance. Inspection routes were run during rain events as described in the following table:

Route Description	10/01/12	12/07/12	12/08/12	12/09/12	12/20/12	12/26/12
Engineering Rain Event SSO Inspection Route	X	X	X	X	X	X
RS Hikes Point SSO Inspection Route	X	X				X
RS Jeffersontown Siphon Inspection Route		X				
RS Jeffersontown/Fern Creek SSO Inspection Route		X				
RS Middle/Muddy Fork SSO Inspection Route	X	X				X

- Due to Capacity related issues, during this reporting period, MSD Metro Operations staff hauled 594,000 gallons of sewage. MSD also hauled due to other issues as indicated in the following table:

MSD Hauled Volumes In Gallons (October 1, 2012 - December 31, 2012)				
Problem	**October**	**November**	**December**	**Total**
CAPACITY	39,300	0	554,700	594,000
MECHANICAL	0	0	14,000	14,000
Total	**39,300**	**0**	**568,700**	**608,000**

2.3 Staff Training and Communication

- Reviewed and updated the training documentation for the 2012 fourth quarter SORP training that included Overflow Field Documentation and Reporting.
- Commenced planning for the 2013 first quarter SORP training that will focus on Resources and Preparing for Overflows.
- Conducted the following SORP Quarterly and Annual training sessions which were attended by 833 employees.

Staff Training Participation - October 1, 2012 - December 31, 2012			
Date	**Dept./Area2**	**Module(s)**	**Attendees**
11/28/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	19
11/29/12	Eng/RS Staff	Annual Overview & 4th Qrtr. Field SORP	40
12/05/12	I&FP Staff	Annual Overview & 4th Qrtr. Field SORP	17
12/06/12	Eng/RS Staff	Annual Overview & 4th Qrtr. Field SORP	49
12/14/12	I&FP Staff	Annual Overview & 4th Qrtr. Field SORP	15
12/20/12	Metro Operations Staff	Annual Overview & 4th Qrtr. Field SORP	18
11/05/12	Administrative Staff	Annual Overview	17
11/08/12	Administrative Staff	Annual Overview	31
11/09/12	Fleet & CMF Admin. Staff	Annual Overview	22
11/13/12	Administrative Staff	Annual Overview	32
11/14/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	11
11/14/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	34
11/14/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	11
11/15/12	I&FP Staff	Annual Overview & Clean-Up Protocol	61
11/16/12	Fleet & CMF Admin. Staff	Annual Overview	19
11/20/12	Administrative Staff	Annual Overview	45
11/26/12	MSD Board	Annual Overview	10
11/28/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	8
11/28/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	19
11/28/12	Morris Forman Operations & Maintenance Staff	Annual Overview & 4th Qrtr. Field SORP	12
11/29/12	Eng/RS Staff	Annual Overview & 4th Qrtr. Field SORP	40
12/03/12	I&FP Staff	Annual Overview & Clean-Up Protocol	47
12/05/12	I&FP Staff	Annual Overview & 4th Qrtr. Field SORP	19
12/06/12	I&FP Staff	Annual Overview & Clean-Up Protocol	42
12/06/12	Eng/RS Staff	Annual Overview & 4th Qrtr. Field SORP	49
12/12/12	I&FP Staff	Annual Overview & Clean-Up Protocol	59
12/13/12	Metro Operations Staff	Annual Overview & 4th Qrtr. Field SORP	32
12/13/12	Metro Operations Staff	Annual Overview & 4th Qrtr. Field SORP	16
12/14/12	I&FP Staff	Annual Overview & 4th Qrtr. Field SORP	21
12/20/12	Metro Operations Staff	Annual Overview & 4th Qrtr. Field SORP	18
Total:			**833**

SECTION 3: Program Activities for Discharge Abatement Plans

3.1 Integrated Overflow Abatement Plan (IOAP)

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

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

MSD submitted an IOAP modification request to EPA/KDEP on September 20, 2012 with partial approval granted via certified letter on October 25, 2012.

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.msdprojectwin.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 43 easements have been identified which includes 10 easements in Norton Commons area that are necessary to complete the entire suite of projects related to the plant eliminations. Final design alignments reduced the easement number from the previously reported 49.
- Acquired 25 of these easements. Sixteen easements are still in the design/negotiation phase. MSD will start condemnation of the remaining two easements due to property owners not willing to negotiate.

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.msdprojectwin.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_Weba.pdf

The green program incentives are being reviewed to reflect the values of green projects in CSO areas or regions based on the latest modeling results. The goal is to eventually tie incentives directly to overflow reductions in various CSO regions to promote green projects in the areas that provide the most value, and prioritize project opportunities to optimize available funding. Revised program literature and documentation will be developed in the upcoming quarter.

A green infrastructure tracking mechanism in the HANSEN system was utilized during the reporting period. HANSEN allows for scheduling of construction inspections, follow-up for

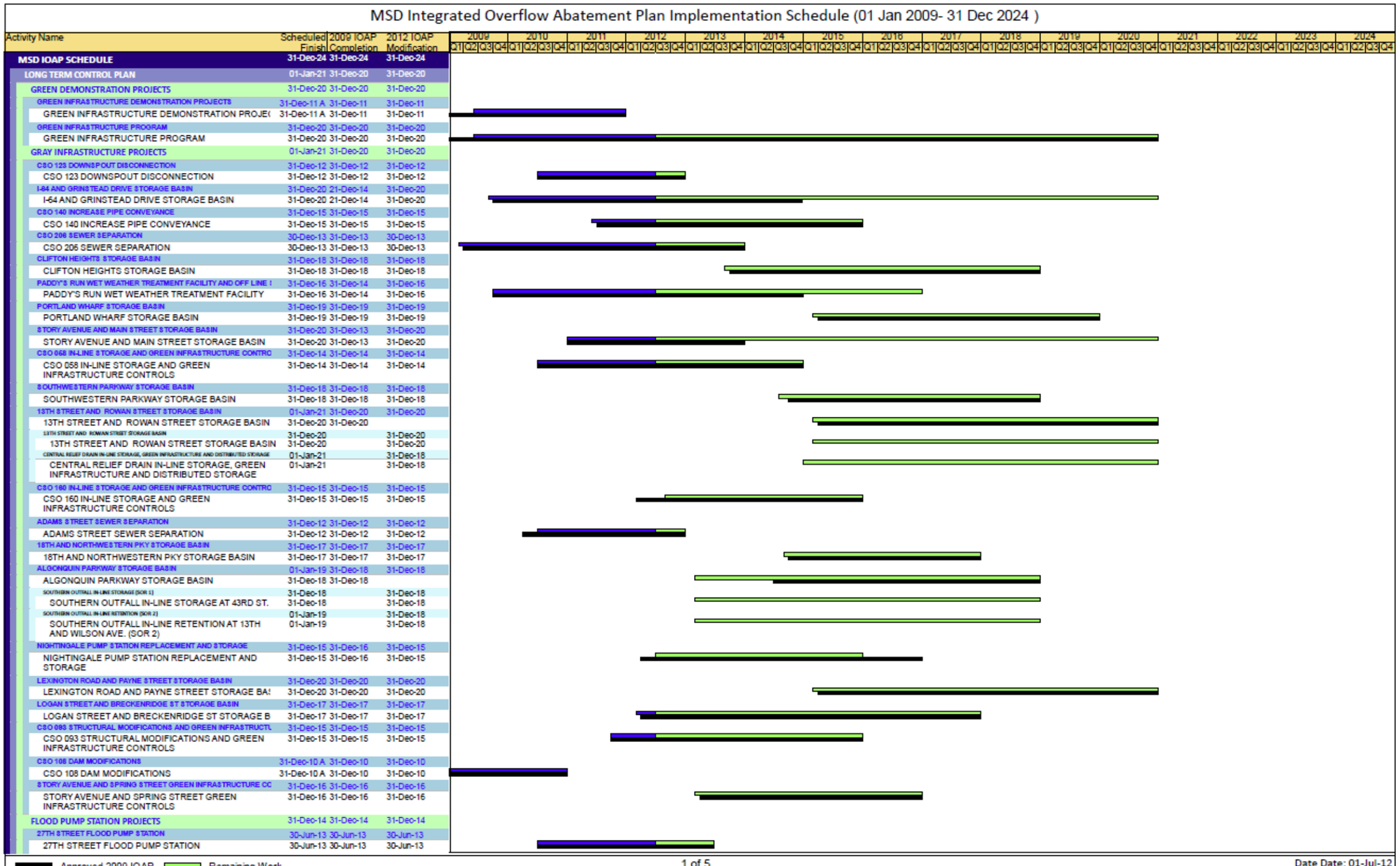
correction of issues, and on-going long term inspections as required by the MS4 permit. Training on this system was facilitated in August 2012.

3.4 Activity Progress Chart

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

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

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification
MSD IOAP SCHEDULE	31-Dec-24	31-Dec-24	31-Dec-24
LONG TERM CONTROL PLAN	01-Jan-21	31-Dec-20	31-Dec-20
GREEN DEMONSTRATION PROJECTS	31-Dec-20	31-Dec-20	31-Dec-20
GREEN INFRASTRUCTURE DEMONSTRATION PROJECTS	31-Dec-11 A	31-Dec-11	31-Dec-11
GREEN INFRASTRUCTURE DEMONSTRATION PROJE(	31-Dec-11 A	31-Dec-11	31-Dec-11
GREEN INFRASTRUCTURE PROGRAM	31-Dec-20	31-Dec-20	31-Dec-20
GREEN INFRASTRUCTURE PROGRAM	31-Dec-20	31-Dec-20	31-Dec-20
GRAY INFRASTRUCTURE PROJECTS	01-Jan-21	31-Dec-20	31-Dec-20
CSO 123 DOWNSPOUT DISCONNECTION	31-Dec-12	31-Dec-12	31-Dec-12
CSO 123 DOWNSPOUT DISCONNECTION	31-Dec-12	31-Dec-12	31-Dec-12
I-64 AND GRINSTEAD DRIVE STORAGE BASIN	31-Dec-20	21-Dec-14	31-Dec-20
I-64 AND GRINSTEAD DRIVE STORAGE BASIN	31-Dec-20	21-Dec-14	31-Dec-20
CSO 140 INCREASE PIPE CONVEYANCE	31-Dec-15	31-Dec-15	31-Dec-15
CSO 140 INCREASE PIPE CONVEYANCE	31-Dec-15	31-Dec-15	31-Dec-15
CSO 206 SEWER SEPARATION	30-Dec-13	31-Dec-13	30-Dec-13
CSO 206 SEWER SEPARATION	30-Dec-13	31-Dec-13	30-Dec-13
CLIFTON HEIGHTS STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18
CLIFTON HEIGHTS STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18
PADDY'S RUN WET WEATHER TREATMENT FACILITY AND OFF LINE S	31-Dec-16	31-Dec-14	31-Dec-16
PADDY'S RUN WET WEATHER TREATMENT FACILITY	31-Dec-16	31-Dec-14	31-Dec-16
PORTLAND WHARF STORAGE BASIN	31-Dec-19	31-Dec-19	31-Dec-19
PORTLAND WHARF STORAGE BASIN	31-Dec-19	31-Dec-19	31-Dec-19
STORY AVENUE AND MAIN STREET STORAGE BASIN	31-Dec-20	31-Dec-13	31-Dec-20
STORY AVENUE AND MAIN STREET STORAGE BASIN	31-Dec-20	31-Dec-13	31-Dec-20
CSO 058 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTRO	31-Dec-14	31-Dec-14	31-Dec-14
CSO 058 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-14	31-Dec-14	31-Dec-14
SOUTHWESTERN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18
SOUTHWESTERN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18
13TH STREET AND ROWAN STREET STORAGE BASIN	01-Jan-21	31-Dec-20	31-Dec-20
13TH STREET AND ROWAN STREET STORAGE BASIN	31-Dec-20	31-Dec-20	
13TH STREET AND ROWAN STREET STORAGE BASIN	31-Dec-20		31-Dec-20
13TH STREET AND ROWAN STREET STORAGE BASIN	31-Dec-20		31-Dec-20
CENTRAL RELIEF DRAIN IN-LINE STORAGE, GREEN INFRASTRUCTURE AND DISTRIBUTED STORAGE	01-Jan-21		31-Dec-18
CENTRAL RELIEF DRAIN IN-LINE STORAGE, GREEN INFRASTRUCTURE AND DISTRIBUTED STORAGE	01-Jan-21		31-Dec-18
CSO 160 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTRO	31-Dec-15	31-Dec-15	31-Dec-15
CSO 160 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15
ADAMS STREET SEWER SEPARATION	31-Dec-12	31-Dec-12	31-Dec-12
ADAMS STREET SEWER SEPARATION	31-Dec-12	31-Dec-12	31-Dec-12
18TH AND NORTHWESTERN PKY STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17
18TH AND NORTHWESTERN PKY STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17
ALGONQUIN PARKWAY STORAGE BASIN	01-Jan-19	31-Dec-18	31-Dec-18
ALGONQUIN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	
SOUTHERN OUTFALL IN-LINE STORAGE (SOR 1)	31-Dec-18		31-Dec-18
SOUTHERN OUTFALL IN-LINE STORAGE AT 43RD ST.	31-Dec-18		31-Dec-18
SOUTHERN OUTFALL IN-LINE RETENTION (SOR 2)	01-Jan-19		31-Dec-18
SOUTHERN OUTFALL IN-LINE RETENTION AT 13TH AND WILSON AVE. (SOR 2)	01-Jan-19		31-Dec-18
NIGHTINGALE PUMP STATION REPLACEMENT AND STORAGE	31-Dec-15	31-Dec-16	31-Dec-15
NIGHTINGALE PUMP STATION REPLACEMENT AND STORAGE	31-Dec-15	31-Dec-16	31-Dec-15
LEXINGTON ROAD AND PAYNE STREET STORAGE BASIN	31-Dec-20	31-Dec-20	31-Dec-20
LEXINGTON ROAD AND PAYNE STREET STORAGE BA!	31-Dec-20	31-Dec-20	31-Dec-20
LOGAN STREET AND BRECKENRIDGE ST STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17
LOGAN STREET AND BRECKENRIDGE ST STORAGE B	31-Dec-17	31-Dec-17	31-Dec-17
CSO 093 STRUCTURAL MODIFICATIONS AND GREEN INFRASTRUCTU	31-Dec-15	31-Dec-15	31-Dec-15
CSO 093 STRUCTURAL MODIFICATIONS AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15
CSO 108 DAM MODIFICATIONS	31-Dec-10 A	31-Dec-10	31-Dec-10
CSO 108 DAM MODIFICATIONS	31-Dec-10 A	31-Dec-10	31-Dec-10
STORY AVENUE AND SPRING STREET GREEN INFRASTRUCTURE CC	31-Dec-16	31-Dec-16	31-Dec-16
STORY AVENUE AND SPRING STREET GREEN INFRASTRUCTURE CONTROLS	31-Dec-16	31-Dec-16	31-Dec-16
FLOOD PUMP STATION PROJECTS	31-Dec-14	31-Dec-14	31-Dec-14
27TH STREET FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13
27TH STREET FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13



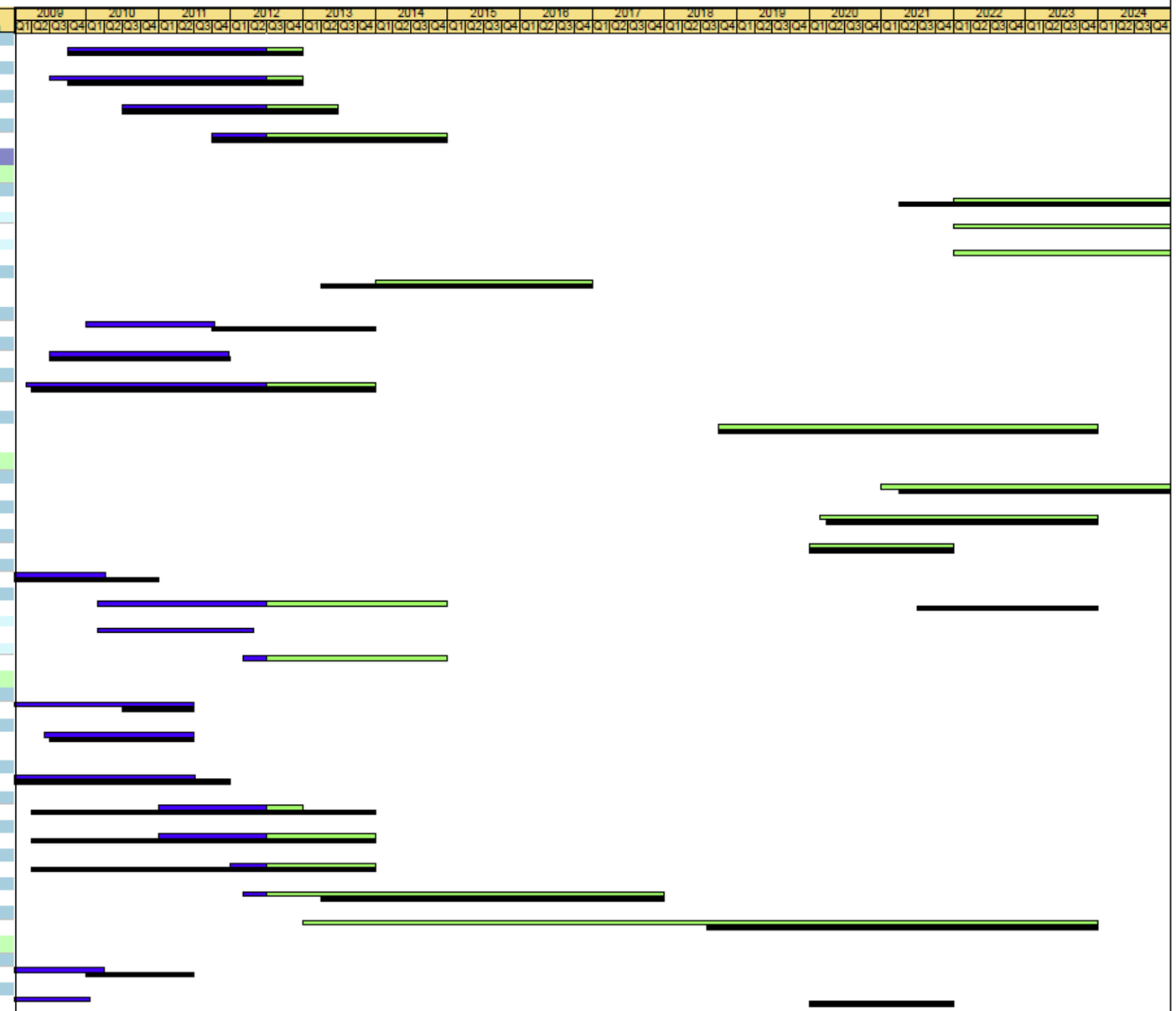
Approved 2009 IOAP
Remaining Work
Completed Work

1 of 5

Date Date: 01-Jul-12

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

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification
34TH STREET FLOOD PUMP STATION	31-Dec-12	31-Dec-12	31-Dec-12
34TH STREET FLOOD PUMP STATION	31-Dec-12	31-Dec-12	31-Dec-12
4TH STREET FLOOD PUMP STATION	31-Dec-12	31-Dec-12	31-Dec-12
4TH STREET FLOOD PUMP STATION	31-Dec-12	31-Dec-12	31-Dec-12
SHAWNEE FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13
SHAWNEE FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13
17TH STREET FLOOD PUMP STATION	31-Dec-14	31-Dec-14	31-Dec-14
17TH STREET FLOOD PUMP STATION	31-Dec-14	31-Dec-14	31-Dec-14
SANITARY SEWER DISCHARGE PLAN	31-Dec-24	31-Dec-24	31-Dec-24
BEARGRASS CREEK MIDDLE FORK AREA	31-Dec-24	31-Dec-24	31-Dec-24
GOOSE CREEK PUMP STATION	31-Dec-24	31-Dec-24	31-Dec-24
GOOSE CREEK PUMP STATION	31-Dec-24	31-Dec-24	
GOOSE CREEK PS PH1 - DEVONDALE PS WW STORAGE	31-Dec-24		31-Dec-24
GOOSE CREEK PS PH1 - DEVONDALE PS WW STOR/	31-Dec-24		31-Dec-24
GOOSE CRK PS PH2 - PS & WET WEATHER STORAGE	31-Dec-24		31-Dec-24
GOOSE CRK PS PH2 - PS & WET WEATHER STORAGE	31-Dec-24		31-Dec-24
ANCHOR ESTATES- ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS	31-Dec-16	31-Dec-16	31-Dec-16
ANCHOR ESTATES- ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS	31-Dec-16	31-Dec-16	31-Dec-16
ANCHOR ESTATES- VANNAH PS ELIMINATION	15-Oct-11 A	31-Dec-13	31-Dec-13
ANCHOR ESTATES- VANNAH PS ELIMINATION	15-Oct-11 A	31-Dec-13	31-Dec-13
HURSTBOURNE I&I INVESTIGATION & REHABILITATION	27-Dec-11 A	31-Dec-11	31-Dec-11
HURSTBOURNE I&I INVESTIGATION & REHABILITATION	27-Dec-11 A	31-Dec-11	31-Dec-11
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AN	31-Dec-13	31-Dec-13	31-Dec-13
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 1 - BUECHEL BASIN	31-Dec-13	31-Dec-13	31-Dec-13
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AN	31-Dec-23	31-Dec-23	31-Dec-23
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 2 PS & WET	31-Dec-23	31-Dec-23	31-Dec-23
CEDAR CREEK AREA	31-Dec-24	31-Dec-24	31-Dec-24
LITTLE CEDAR CREEK INTRECEPTOR IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24
LITTLE CEDAR CREEK INTRECEPTOR IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24
IDLEWOOD INLINE STORAGE	31-Dec-23	31-Dec-23	31-Dec-23
IDLEWOOD INLINE STORAGE	31-Dec-23	31-Dec-23	31-Dec-23
BARDSTOWN RD PS IMPROVEMENTS	31-Dec-21	31-Dec-21	31-Dec-21
BARDSTOWN RD PS IMPROVEMENTS	31-Dec-21	31-Dec-21	31-Dec-21
RUNNING FOX PS ELIMINATION	05-Apr-10 A	31-Dec-10	31-Dec-10
RUNNING FOX PS ELIMINATION	05-Apr-10 A	31-Dec-10	31-Dec-10
FAIRMOUNT RD PS IMPROVMENTS	01-Jan-15	31-Dec-23	31-Dec-23
FAIRMOUNT RD PS IMPROVMENTS	31-Dec-14	31-Dec-23	
FAIRMOUNT RD PS IMPROVEMENTS	24-Apr-12 A		31-Dec-23
FAIRMOUNT RD PS IMPROVEMENTS	24-Apr-12 A		31-Dec-23
FAIRMOUNT RD PS IMPROVEMENT PH 2	01-Jan-15		31-Dec-15
FAIRMOUNT STORAGE BASIN	01-Jan-15		31-Dec-15
COMBINED SEWER SYSTEM AREA	31-Dec-23	31-Dec-23	31-Dec-23
HAZELWOOD PS I&I INVESTIGATION & REHABILITATION	30-Jun-11 A	30-Jun-11	30-Jun-11
HAZELWOOD PS I&I INVESTIGATION & REHABILITATIO	30-Jun-11 A	30-Jun-11	30-Jun-11
SONNE PUMP STATION I&I INVESTIGATION & REHABILITATION	30-Jun-11 A	30-Jun-11	30-Jun-11
SONNE PUMP STATION I&I INVESTIGATION & REHABILITATION	30-Jun-11 A	30-Jun-11	30-Jun-11
CAMP TAYLOR SSES	08-Jul-11 A	31-Dec-11	31-Dec-13
CAMP TAYLOR SSES	08-Jul-11 A	31-Dec-11	31-Dec-13
CAMP TAYLOR SANITARY SEWER #1A	31-Dec-12	31-Dec-13	31-Dec-13
CAMP TAYLOR SANITARY SEWER #1A	31-Dec-12	31-Dec-13	31-Dec-13
CAMP TAYLOR SANITARY SEWER #1B	31-Dec-13	31-Dec-13	31-Dec-13
CAMP TAYLOR SANITARY SEWER #1B	31-Dec-13	31-Dec-13	31-Dec-13
CAMP TAYLOR SANITARY SEWER #2	31-Dec-13	31-Dec-13	31-Dec-13
CAMP TAYLOR SANITARY SEWER #2	31-Dec-13	31-Dec-13	31-Dec-13
CAMP TAYLOR #3- SEWER REHABILITATION	31-Dec-17	31-Dec-17	31-Dec-17
CAMP TAYLOR #3- SEWER REHABILITATION	31-Dec-17	31-Dec-17	31-Dec-17
CAMP TAYLOR #4-SEWER REHABILITATION & REPLACEMENT	31-Dec-23	31-Dec-23	31-Dec-23
CAMP TAYLOR #4-SEWER REHABILITATION & REPLACI	31-Dec-23	31-Dec-23	31-Dec-23
FLOYDS FORK AREA	01-Apr-10 A	31-Dec-21	01-Apr-10
WOODLAND HILL PS DIVERSION	01-Apr-10 A	30-Jun-11	01-Apr-10
WOODLAND HILL PS DIVERSION	01-Apr-10 A	30-Jun-11	01-Apr-10
ASHBURTON PS IMPROVEMENTS AND DIVERSION	22-Jan-10 A	31-Dec-21	22-Jan-10
ASHBURTON PS IMPROVEMENTS AND DIVERSION	22-Jan-10 A	31-Dec-21	22-Jan-10



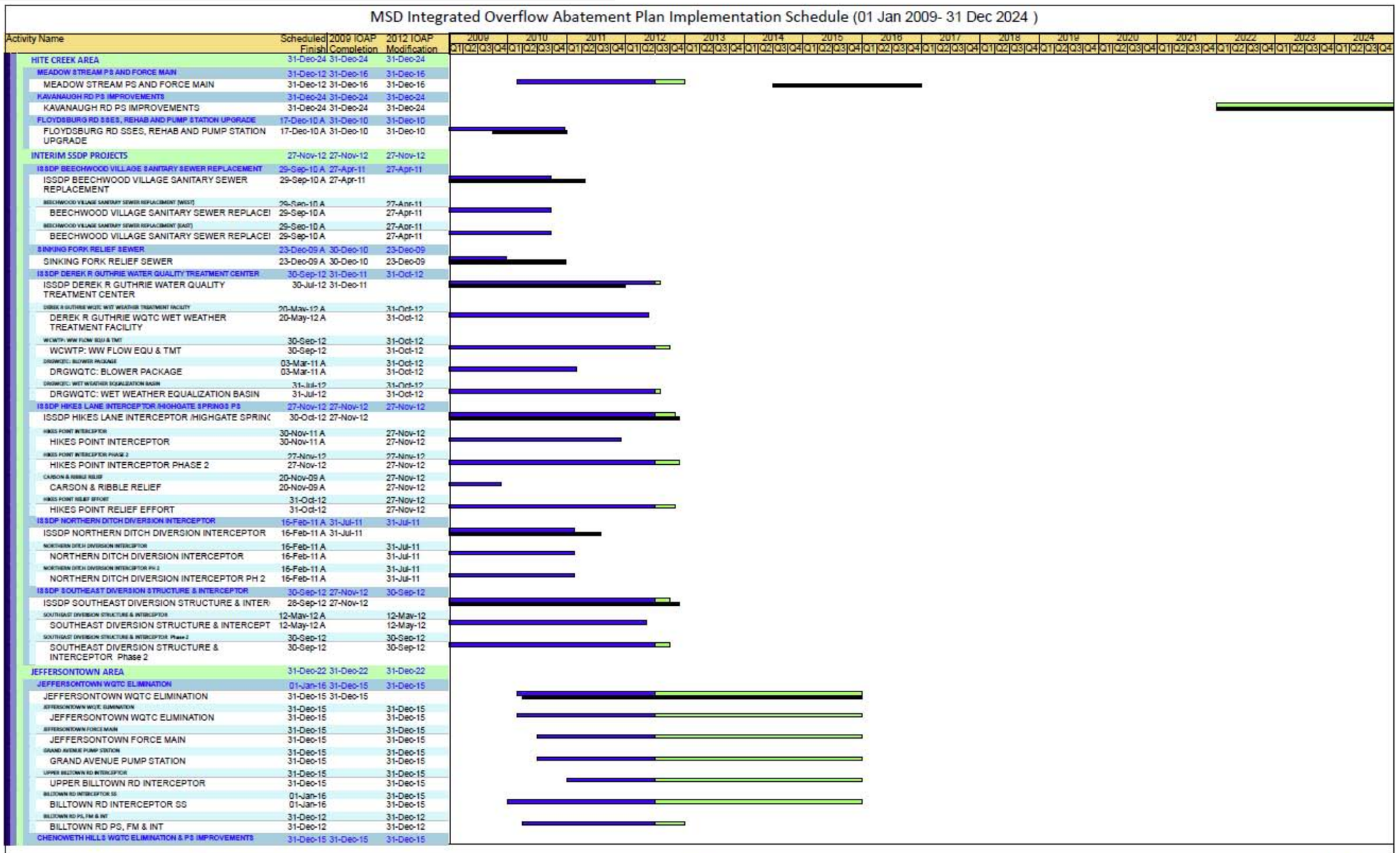
Approved 2009 IOAP
Remaining Work
Completed Work

2 of 5

Date Date: 01-Jul-12

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

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification
HITE CREEK AREA	31-Dec-24	31-Dec-24	31-Dec-24
MEADOW STREAM PS AND FORCE MAIN	31-Dec-12	31-Dec-16	31-Dec-16
MEADOW STREAM PS AND FORCE MAIN	31-Dec-12	31-Dec-16	31-Dec-16
KAVANAUGH RD PS IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24
KAVANAUGH RD PS IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24
FLOYDSBURG RD SSES, REHAB AND PUMP STATION UPGRADE	17-Dec-10 A	31-Dec-10	31-Dec-10
FLOYDSBURG RD SSES, REHAB AND PUMP STATION UPGRADE	17-Dec-10 A	31-Dec-10	31-Dec-10
INTERIM SSDP PROJECTS	27-Nov-12	27-Nov-12	27-Nov-12
ISSDP BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT	29-Sep-10 A	27-Apr-11	27-Apr-11
ISSDP BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT	29-Sep-10 A	27-Apr-11	
BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT [WEST]	29-Sep-10 A		27-Apr-11
BEECHWOOD VILLAGE SANITARY SEWER REPLACEI	29-Sep-10 A		27-Apr-11
BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT [EAST]	29-Sep-10 A		27-Apr-11
BEECHWOOD VILLAGE SANITARY SEWER REPLACEI	29-Sep-10 A		27-Apr-11
SINKING FORK RELIEF SEWER	23-Dec-09 A	30-Dec-10	23-Dec-09
SINKING FORK RELIEF SEWER	23-Dec-09 A	30-Dec-10	23-Dec-09
ISSDP DEREK R GUTHRIE WATER QUALITY TREATMENT CENTER	30-Sep-12	31-Dec-11	31-Oct-12
ISSDP DEREK R GUTHRIE WATER QUALITY TREATMENT CENTER	30-Jul-12	31-Dec-11	
DEREK R GUTHRIE WQTC WET WEATHER TREATMENT FACILITY	20-May-12 A		31-Oct-12
DEREK R GUTHRIE WQTC WET WEATHER TREATMENT FACILITY	20-May-12 A		31-Oct-12
WCWTP: WW FLOW EQU & TMT	30-Sep-12		31-Oct-12
WCWTP: WW FLOW EQU & TMT	30-Sep-12		31-Oct-12
DRGWQTC: BLOWER PACKAGE	03-Mar-11 A		31-Oct-12
DRGWQTC: BLOWER PACKAGE	03-Mar-11 A		31-Oct-12
DRGWQTC: WET WEATHER EQUALIZATION BASIN	31-Jul-12		31-Oct-12
DRGWQTC: WET WEATHER EQUALIZATION BASIN	31-Jul-12		31-Oct-12
ISSDP HIKES LANE INTERCEPTOR /HIGHGATE SPRINGS PS	27-Nov-12	27-Nov-12	27-Nov-12
ISSDP HIKES LANE INTERCEPTOR /HIGHGATE SPRINC	30-Oct-12	27-Nov-12	
HIKES POINT INTERCEPTOR	30-Nov-11 A		27-Nov-12
HIKES POINT INTERCEPTOR	30-Nov-11 A		27-Nov-12
HIKES POINT INTERCEPTOR PHASE 2	27-Nov-12		27-Nov-12
HIKES POINT INTERCEPTOR PHASE 2	27-Nov-12		27-Nov-12
CARSON & RIBBLE RELIEF	20-Nov-09 A		27-Nov-12
CARSON & RIBBLE RELIEF	20-Nov-09 A		27-Nov-12
HIKES POINT RELIEF EFFORT	31-Oct-12		27-Nov-12
HIKES POINT RELIEF EFFORT	31-Oct-12		27-Nov-12
ISSDP NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A	31-Jul-11	31-Jul-11
ISSDP NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A	31-Jul-11	
NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A		31-Jul-11
NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A		31-Jul-11
NORTHERN DITCH DIVERSION INTERCEPTOR PH 2	16-Feb-11 A		31-Jul-11
NORTHERN DITCH DIVERSION INTERCEPTOR PH 2	16-Feb-11 A		31-Jul-11
ISSDP SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR	30-Sep-12	27-Nov-12	30-Sep-12
ISSDP SOUTHEAST DIVERSION STRUCTURE & INTER	28-Sep-12	27-Nov-12	
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR	12-May-12 A		12-May-12
SOUTHEAST DIVERSION STRUCTURE & INTERCEPT	12-May-12 A		12-May-12
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR Phase 2	30-Sep-12		30-Sep-12
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR Phase 2	30-Sep-12		30-Sep-12
JEFFERSONTOWN AREA	31-Dec-22	31-Dec-22	31-Dec-22
JEFFERSONTOWN WQTC ELIMINATION	01-Jan-16	31-Dec-15	31-Dec-15
JEFFERSONTOWN WQTC ELIMINATION	31-Dec-15	31-Dec-15	
JEFFERSONTOWN WQTC ELIMINATION	31-Dec-15		31-Dec-15
JEFFERSONTOWN WQTC ELIMINATION	31-Dec-15		31-Dec-15
JEFFERSONTOWN FORCE MAIN	31-Dec-15		31-Dec-15
JEFFERSONTOWN FORCE MAIN	31-Dec-15		31-Dec-15
GRAND AVENUE PUMP STATION	31-Dec-15		31-Dec-15
GRAND AVENUE PUMP STATION	31-Dec-15		31-Dec-15
UPPER BILLTOWN RD INTERCEPTOR	31-Dec-15		31-Dec-15
UPPER BILLTOWN RD INTERCEPTOR	31-Dec-15		31-Dec-15
BILLTOWN RD INTERCEPTOR SS	01-Jan-16		31-Dec-15
BILLTOWN RD INTERCEPTOR SS	01-Jan-16		31-Dec-15
BILLTOWN RD PS, FM & INT	31-Dec-12		31-Dec-12
BILLTOWN RD PS, FM & INT	31-Dec-12		31-Dec-12
CHENOWETH HILLS WQTC ELIMINATION & PS IMPROVEMENTS	31-Dec-15	31-Dec-15	31-Dec-15



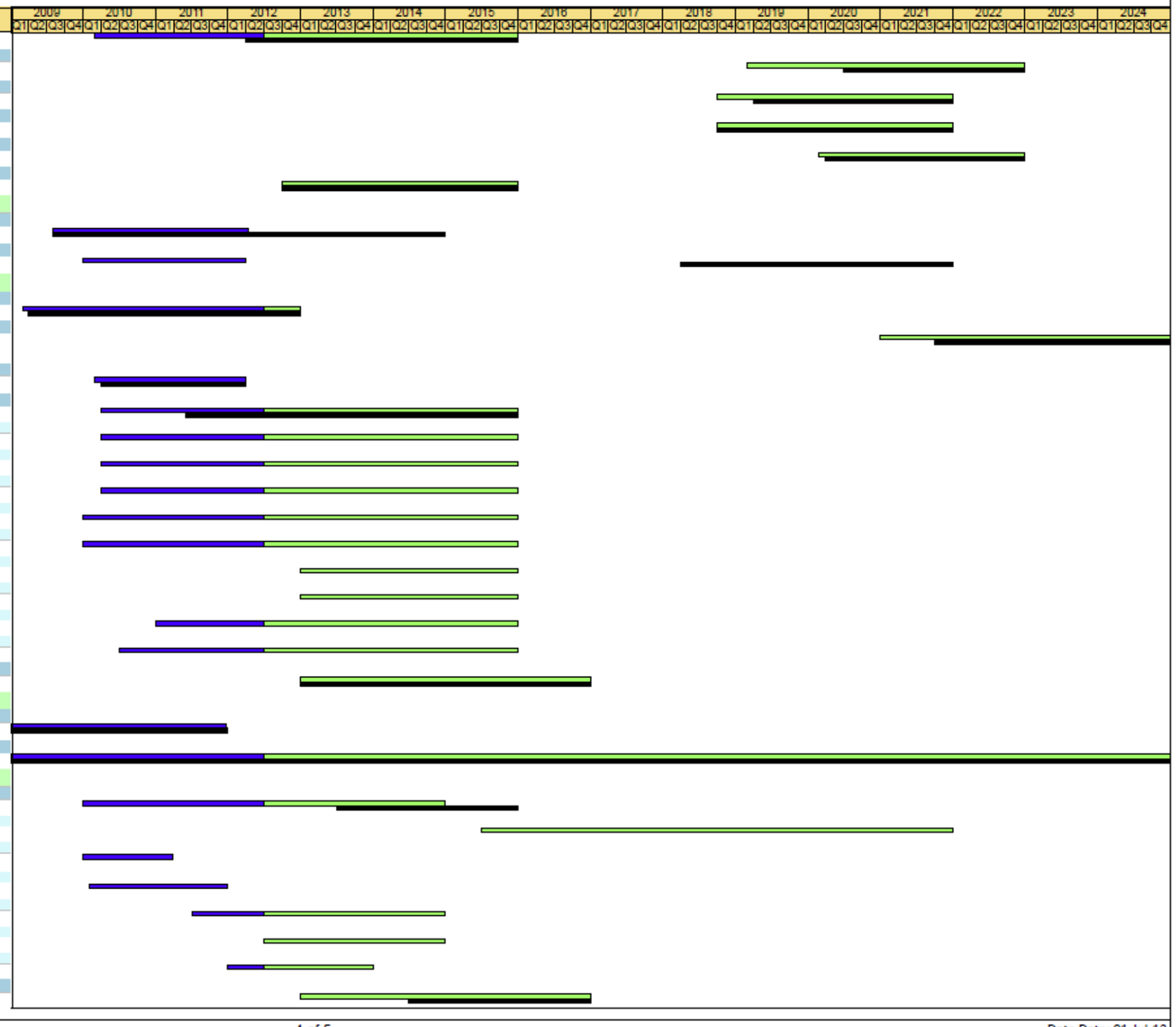
Approved 2009 IOAP
Remaining Work
Completed Work

3 of 5

Date Date: 01-Jul-12

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

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



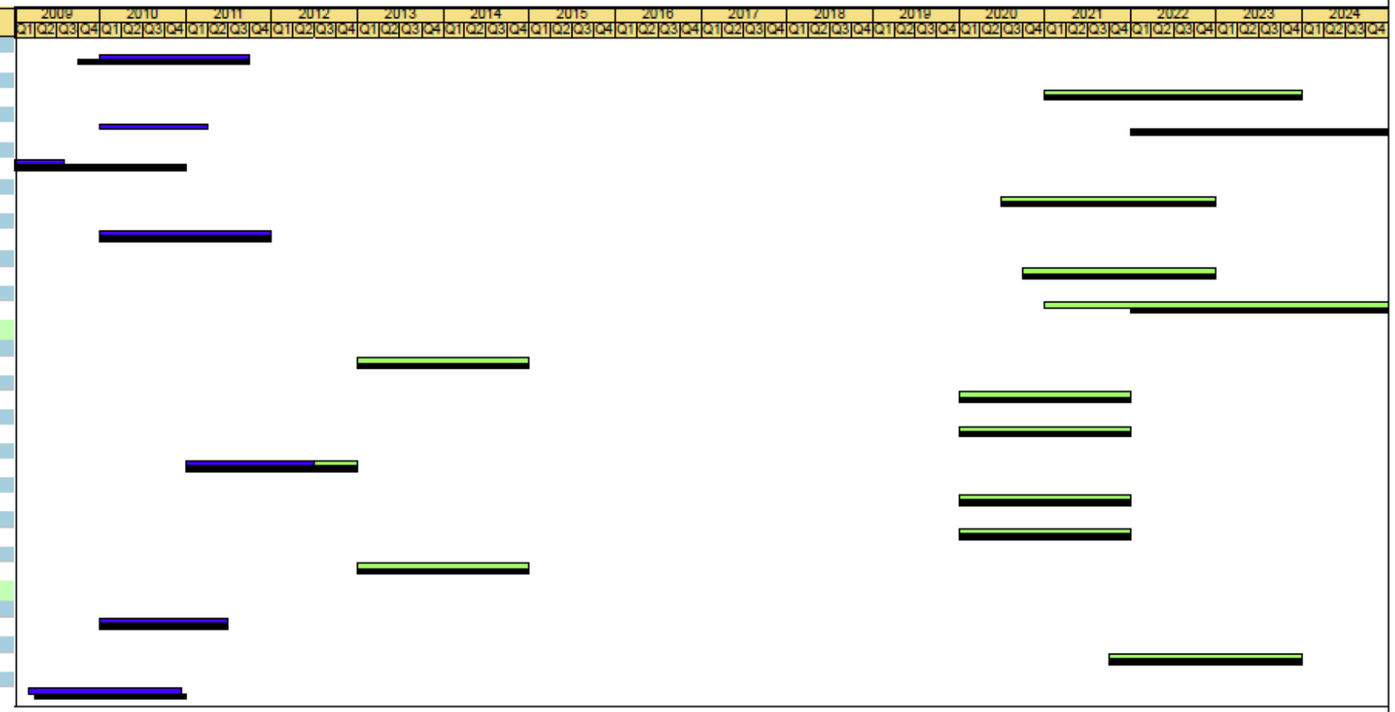
Approved 2009 IOAP Remaining Work
Completed Work

4 of 5

Date Date: 01-Jul-12

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

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification
EDSEL PS I/I INVESTIGATION & REHABILITATION	27-Sep-11 A	30-Sep-11	30-Sep-11
EDSEL PS I/I INVESTIGATION & REHABILITATION	27-Sep-11 A	30-Sep-11	30-Sep-11
CINDERELLA PS ELIMINATION	31-Dec-23	31-Dec-23	31-Dec-23
CINDERELLA PS ELIMINATION	31-Dec-23	31-Dec-23	31-Dec-23
GOVERNMENT CENTER PS ELIMINATION	01-Apr-11 A	31-Dec-24	31-Dec-24
GOVERNMENT CENTER PS ELIMINATION	01-Apr-11 A	31-Dec-24	31-Dec-24
AVANTI PS ELIMINATION	28-Jul-09 A	31-Dec-10	31-Dec-10
AVANTI PS ELIMINATION	28-Jul-09 A	31-Dec-10	31-Dec-10
CHARLESWOOD INTERCEPTOR EXTENSION	31-Dec-22	31-Dec-22	31-Dec-22
CHARLESWOOD INTERCEPTOR EXTENSION	31-Dec-22	31-Dec-22	31-Dec-22
LANTANA PS I/I INVESTIGATION & REHABILITATION	29-Dec-11 A	31-Dec-11	29-Dec-11
LANTANA PS I/I INVESTIGATION & REHABILITATION	29-Dec-11 A	31-Dec-11	29-Dec-11
LEVEN PS ELIMINATION	31-Dec-22	31-Dec-22	31-Dec-22
LEVEN PS ELIMINATION	31-Dec-22	31-Dec-22	31-Dec-22
CAVEN AVENUE WW STORAGE	31-Dec-24	31-Dec-24	31-Dec-24
CAVEN AVENUE PS ELIMINATION	31-Dec-24	31-Dec-24	31-Dec-24
SMALL WWTP AREA	31-Dec-21	31-Dec-21	31-Dec-21
RIDING RIDGE PS IMPROVEMENTS	31-Dec-14	31-Dec-14	31-Dec-14
RIDING RIDGE PS IMPROVEMENTS	31-Dec-14	31-Dec-14	31-Dec-14
LUCAS LN PS INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
LUCAS LN PS INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
ST. RENE RD PS INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
ST. RENE RD PS INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
LAKE FOREST PS IMPROVEMENTS	31-Dec-12	31-Dec-12	31-Dec-12
LAKE FOREST PS IMPROVEMENTS	31-Dec-12	31-Dec-12	31-Dec-12
GUNPOWDER PS INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
GUNPOWDER PS INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
FOX HARBOR INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
FOX HARBOR INLINE STORAGE	31-Dec-21	31-Dec-21	31-Dec-21
FAIRWAY VIEW PS IMPROVEMENTS	31-Dec-14	31-Dec-14	31-Dec-14
FAIRWAY VIEW PS IMPROVEMENTS	31-Dec-14	31-Dec-14	31-Dec-14
SOUTHEASTERN DIVERSION AREA	31-Dec-23	31-Dec-23	31-Dec-23
PARKVIEW ESTATES I/I INVESTIGATION & REHABILITATION	28-Jun-11 A	30-Jun-11	30-Jun-11
PARKVIEW ESTATES I/I INVESTIGATION & REHABILITA	28-Jun-11 A	30-Jun-11	30-Jun-11
SUTHERLAND INTERCEPTOR	31-Dec-23	31-Dec-23	31-Dec-23
SUTHERLAND INTERCEPTOR	31-Dec-23	31-Dec-23	31-Dec-23
BEARGRASS INTERCEPTOR REHABILITATION PH 2	14-Dec-10 A	31-Dec-10	31-Dec-10
BEARGRASS INTERCEPTOR REHABILITATION PH 2	14-Dec-10 A	31-Dec-10	31-Dec-10



Approved 2009 IOAP
Remaining Work
Completed Work

5 of 5

Date Date: 01-Jul-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 Meetings (with presentations on the IOAP revisions, Camp Taylor Sewer Rehabilitation and Replacement, and the CSO130 Green Infrastructure Project), a rain barrel installation video, and a video on the Paris/Germantown Rain Garden.

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 three IOAP meetings to discuss the proposed IOAP 2012 Modification and select project updates. The meetings were held on the following dates at the following venues.
  - November 8, 2012, Louisville Urban League, 1535 West Broadway
  - November 13, 2012, East Government Center, 200 Juneau Drive
  - November 15, 2012, Southwest Government Center, 7219 Dixie Highway
- Facilitated a Wet Weather Team meeting to update Stakeholders on the IOAP progress, public input process, and the IOAP 2012 modification on December 4, 2012, at the MSD Main Office at 700 West Liberty Street.
- Planned public meetings for January 2013, to discuss and receive comments on the proposed 2012 IOAP Modification.

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 put the Facilities Plan Update on hold pending determination if areas beyond the Jefferson County boundary will be included in the future service area. Once confirmed, the alternative analysis for both the collection and treatment systems will be finalized 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 the outer ring of the Oxidation Ditch changed from the sludge holding tank to the fourth ring of the Oxidation Ditch along with the installation of the clarifier mechanisms on Clarifier No. 5 and the Return Activated Sludge Pump Station No. 2 tested. One of the two new ultraviolet disinfection modules were installed and placed in service. During the next reporting period, work should be completed so that the new influent flow meter, and Clarifiers No. 3 and 4 will be in service, preparing Clarifier No. 5 for testing along with continuing work on the second ultraviolet disinfection module. The expansion will provide an average daily design capacity of 7.5 MGD.

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

5.3.3 Derek R. Guthrie Water Quality Treatment Center

During this reporting period, MSD has continued working on the Facilities Plan Update, revisiting the flow and load projections based on recalibration of collection system models. System alternatives and treatment plant rerating were modified to account for the new data. The proposed facility plan update alternatives were reviewed by MSD staff. During the next reporting period, the alternative analysis will be finalized and public outreach meetings will be scheduled.

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**.

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

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**.

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

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**.

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

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**.

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

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**.

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

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**.

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

5.3.8 Berrytown Water Quality Treatment Center

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

The flow pacing equipment project was placed on hold so staff may collect operating data from the equipment installed at the Silver Heights and Chenoweth Hills WQTC sites. The data will be collected for six months to see if a reduction in operating costs was achieved by preventing chemical overdosing and regulating potable water use. During the next reporting period, staff will begin reviewing the chemical and potable water usage data collected from

previously installed flow pacing equipment at the Silver Heights and Chenoweth Hills WQTC. The data will be analyzed to determine if the flow pacing equipment and installation costs are economical based on the cost savings achieved.

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**.

Staff started to collect data from the flow pacing equipment installed 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. Data was collected to confirm chemical and potable water savings. During the next reporting period, staff will begin to review of the collected data to prioritize equipment installation at other sites. Six months of data will be collected from this site.

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**.

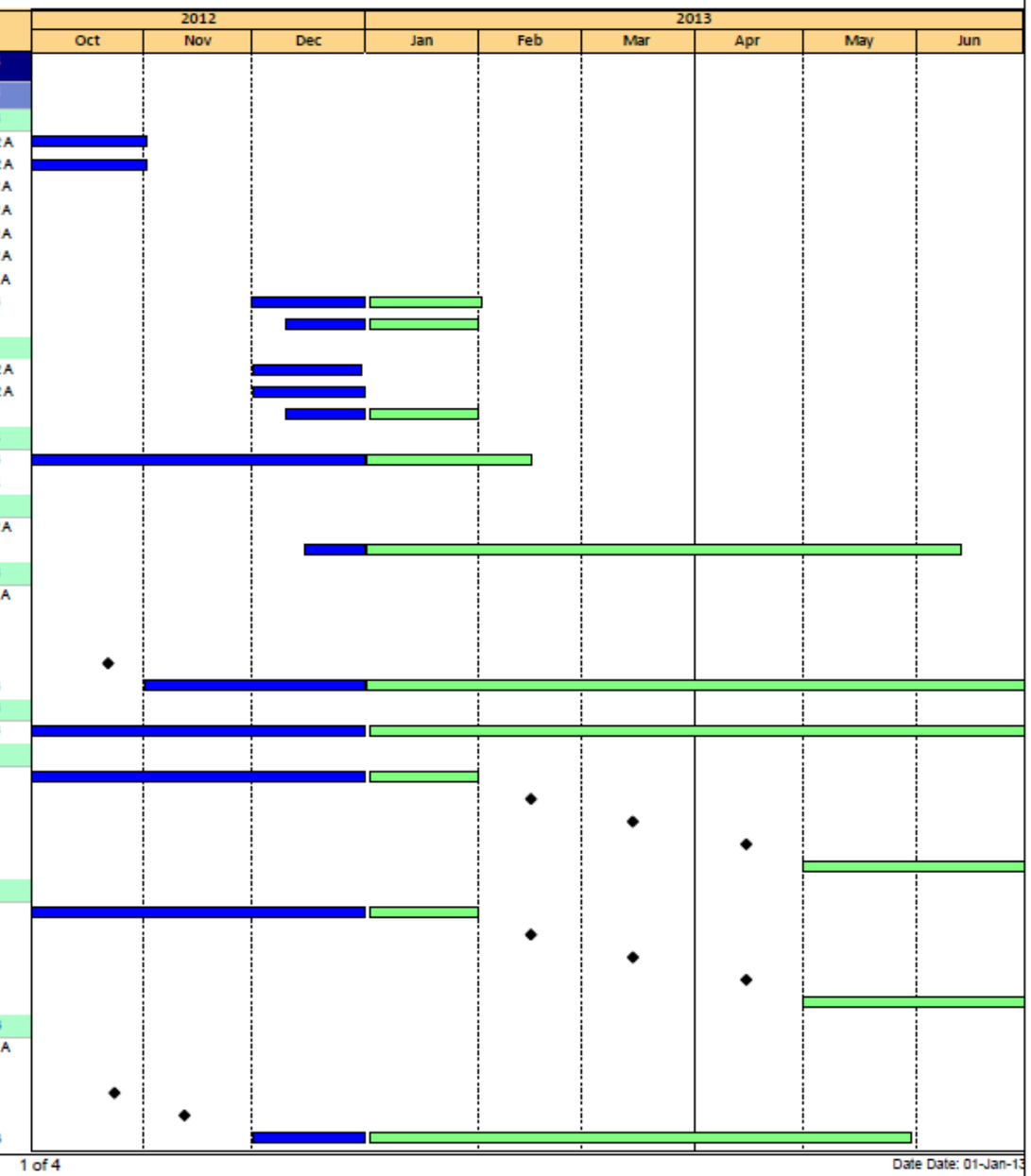
- McNeely Lake WQTC – MSD has final construction drawings for the gravity elimination of the plant. The plant flows will be diverted to the existing Washington Green Pump Station which will require expansion. The pump station expansion and plant elimination costs are not currently in the approved MSD budget. Discussions continue with a developer proposing to expand this pump station as part of a future development project. If the development does not occur, MSD will review the current budget for funds to eliminate the plant. During the next reporting period, MSD will continue discussions with the developer and continue to monitor the structural condition of the plant and perform remedial activities as needed coordinating with the proposed elimination schedule of December 31, 2014.
- Silver Heights WQTC – Continued design of the gravity solution alternative to eliminate the plant. The project scope was expanded to eliminate the Caven Avenue Pump Station. During the next reporting period, MSD will continue design of the elimination project. While subject to constraints of available budget, easement acquisition, and regulatory agency approval, MSD anticipates elimination will be completed by December 31, 2014.

5.4 CMOM Activity Schedule

CMOM capital project milestones for the period of July 1, 2012, through September 30, 2012, as well as a look-ahead for the period of October 1, 2012, through March 31, 2013, are provided in the schedule below.

MSD CMOM FY12 Annual Commitments Schedule (01 January 2013 - 30 June 2013) Date: 29-Jan-13

Activity ID	Activity Name	Physical % Complete	Start	Finish
CMOM FY ANNUAL REPORT COMMITMENTS FINAL			23-Mar-11 A	15-Feb-14
M-E-9 Infrastructure Rehabilitation			01-Jul-11 A	15-Feb-14
Annual I/I FY 12 Project (H09205)			15-Feb-12 A	01-Feb-13
A4540	Camp Taylor 5	100%	15-Feb-12 A	01-Nov-12 A
A4530	Camp Taylor 4	100%	04-Apr-12 A	01-Nov-12 A
A4550	Dolphin Rd	100%	01-Aug-12 A	31-Aug-12 A
A4560	Heller St	100%	01-Aug-12 A	01-Sep-12 A
A4580	Fegenbush Ln	100%	01-Aug-12 A	01-Sep-12 A
A4590	Jenlee	100%	01-Aug-12 A	01-Sep-12 A
A4600	Edgehill Rd	100%	01-Sep-12 A	01-Oct-12 A
A4660	JCTMS MH	80%	01-Dec-12 A	01-Feb-13
A4570	Macon Rd	40%	10-Dec-12 A	31-Jan-13
Annual I/I FY13 Project (H09206)			01-Dec-12 A	31-Jan-13
A4860	Muddy Fork MH	100%	01-Dec-12 A	31-Dec-12 A
A4870	Prospect MH	100%	01-Dec-12 A	31-Dec-12 A
A4880	Macon MH	0%	10-Dec-12 A	31-Jan-13
Lea Ann Way Interceptor I/I Rehabilitation Project (H12064)			15-Feb-12 A	15-Feb-14
A3010	Construction	90%	15-Feb-12 A	15-Feb-13
A3040	Warranty	0%	15-Feb-13*	15-Feb-14
Lea Ann Way East - Stonybrook Rehabilitation Project (C08433)			16-Jan-12 A	13-Jun-13
A3920	Design	100%	16-Jan-12 A	30-Sep-12 A
A3910	Construction	5%	15-Dec-12 A	13-Jun-13
Lake Forest Sanitary Sewer Rehabilitation Project (H11303)			16-Jan-12 A	30-Aug-13
A3350	Design	100%	16-Jan-12 A	30-Jun-12 A
A3160	Ad	100%	31-Aug-12 A	
A3170	Bid Open	100%	25-Sep-12 A	
A3180	Award	100%	22-Oct-12 A	
A3190	Construction	10%	01-Nov-12 A	30-Aug-13
Camp Taylor SSR Phase I Project (H09407)			21-Sep-12 A	21-Sep-13
A3680	Warranty	20%	21-Sep-12 A	21-Sep-13
Prospect Phase I Sanitary Sewer Rehabilitation Project (H11311)			02-Apr-12 A	26-Jan-14
A3360	Design	90%	02-Apr-12 A	31-Jan-13
A3210	Ad	0%	15-Feb-13*	
A3220	Bid Open	0%	15-Mar-13*	
A3230	Award	0%	15-Apr-13*	
A3240	Construction	0%	01-May-13*	26-Jan-14
Meadow Stream Sanitary Sewer Rehabilitation Project (H11305)			02-Apr-12 A	26-Jan-14
A4940	Design	90%	02-Apr-12 A	31-Jan-13
A4890	Ad	0%	15-Feb-13*	
A4900	Bid Open	0%	15-Mar-13*	
A4920	Award	0%	15-Apr-13*	
A4910	Construction	0%	01-May-13*	26-Jan-14
Lea Ann Way East - Fegenbush Rehabilitation Project (C08433)			16-Jan-12 A	30-May-13
A3970	Design	100%	16-Jan-12 A	30-Jun-12 A
A3980	Ad	100%	24-Sep-12 A	
A3990	Bid Open	100%	24-Oct-12 A	
A4000	Award	100%	12-Nov-12 A	
A3960	Construction	25%	01-Dec-12 A	30-May-13

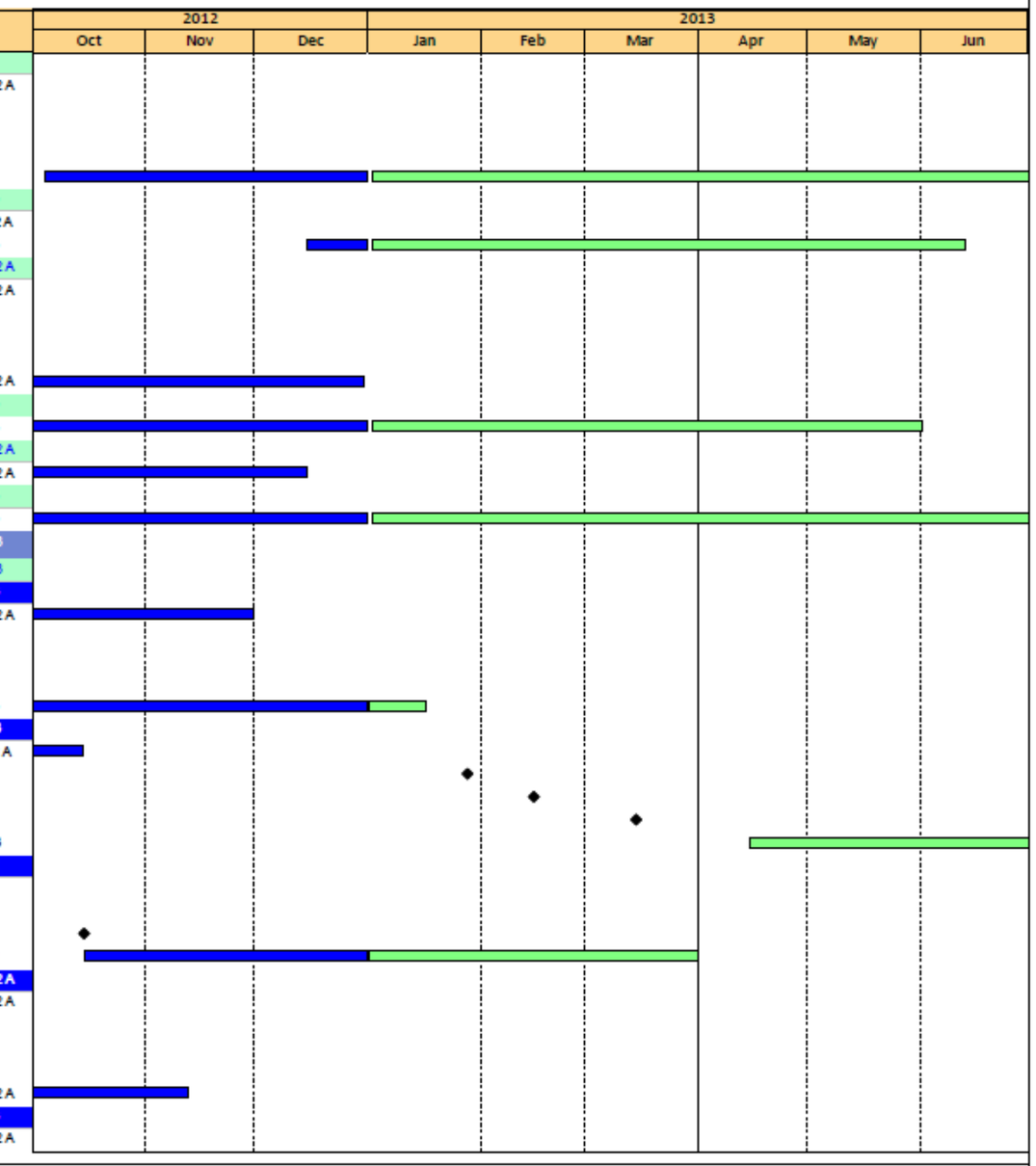


1 of 4 Date Date: 01-Jan-13

MSD CMOM FY12 Annual Commitments Schedule (01 January 2013 - 30 June 2013)

Date: 29-Jan-13

Activity ID	Activity Name	Physical % Complete	Start	Finish
Lea Ann Way East - Fern Creek Rehabilitation Project (C08433)			16-Jan-12 A	02-Jul-13
A4170	Design	100%	16-Jan-12 A	30-May-12 A
A4180	Ad	100%	30-Jul-12 A	
A4190	Bid Open	100%	30-Aug-12 A	
A4200	Award	100%	10-Sep-12 A	
A4160	Construction	30%	05-Oct-12 A	02-Jul-13
Lea Ann Way East - Picadilly Rehabilitation Project (C08433)			16-Jan-12 A	13-Jun-13
A4270	Design	100%	16-Jan-12 A	30-Sep-12 A
A4260	Construction	5%	15-Dec-12 A	13-Jun-13
4th and Oak CIPP Project (H09205)			01-Apr-12 A	31-Dec-12 A
A4360	Design	100%	01-Apr-12 A	01-May-12 A
A4370	Ad	100%	13-Jun-12 A	
A4380	Bid Open	100%	10-Jul-12 A	
A4390	Award	100%	01-Aug-12 A	
A4400	Construction	100%	01-Aug-12 A	31-Dec-12 A
FY13 ICA Project			01-Jun-12 A	01-Jun-13
A4410	Planning	75%	01-Jun-12 A	01-Jun-13
Cedar Creek Phase II SSES (H11313)			01-Jul-11 A	15-Dec-12 A
A3120	Planning	100%	01-Jul-11 A	15-Dec-12 A
Goose Creek PS SSES (H11407)			01-Oct-12 A	01-Oct-13
A4950	Planning	5%	01-Oct-12 A	01-Oct-13
Pump Station Operations Programs			23-Mar-11 A	28-Nov-13
O-A-2 Emergency Operation Programs			23-Mar-11 A	28-Nov-13
Trinity Homes Pump Station Emergency Generator & Access Road (H11440)			23-Mar-11 A	16-Jan-13
A2020	Design	100%	23-Mar-11 A	01-Dec-12 A
A2030	Ad	100%	24-Apr-12 A	
A2300	Bid Open	100%	08-May-12 A	
A2040	Award	100%	09-Aug-12 A	
A2050	Construction	99%	09-Aug-12 A	16-Jan-13
Trinity Homes Pump Station Roof Hatch (H11440)			25-Jul-12 A	15-Aug-13
A4610	Design	100%	25-Jul-12 A	15-Oct-12 A
A4620	Ad	0%	28-Jan-13*	
A4650	Bid Open	0%	15-Feb-13*	
A4630	Award	0%	15-Mar-13*	
A4640	Construction	0%	15-Apr-13*	15-Aug-13
Northern Ditch Diversion Structure Flow Meter Manhole Project (H13033)			05-Sep-12 A	01-Apr-13
A4680	Award	100%	05-Sep-12 A	
A4700	Bid Open	100%	21-Sep-12 A	
A4670	Ad	100%	15-Oct-12 A	
A4690	Construction	95%	15-Oct-12 A	01-Apr-13
34th Street FPS Gate Actuator Replacement Project (H09352)			01-Jan-12 A	13-Nov-12 A
A4800	Design	100%	01-Jan-12 A	30-May-12 A
A4760	Ad	100%	15-Jun-12 A	
A4790	Bid Open	100%	29-Jun-12 A	
A4770	Award	100%	26-Jul-12 A	
A4780	Construction	100%	26-Jul-12 A	13-Nov-12 A
Royster Basin Access Road Project (H09365)			26-Mar-12 A	16-Jan-13
A4310	Design	100%	26-Mar-12 A	30-May-12 A



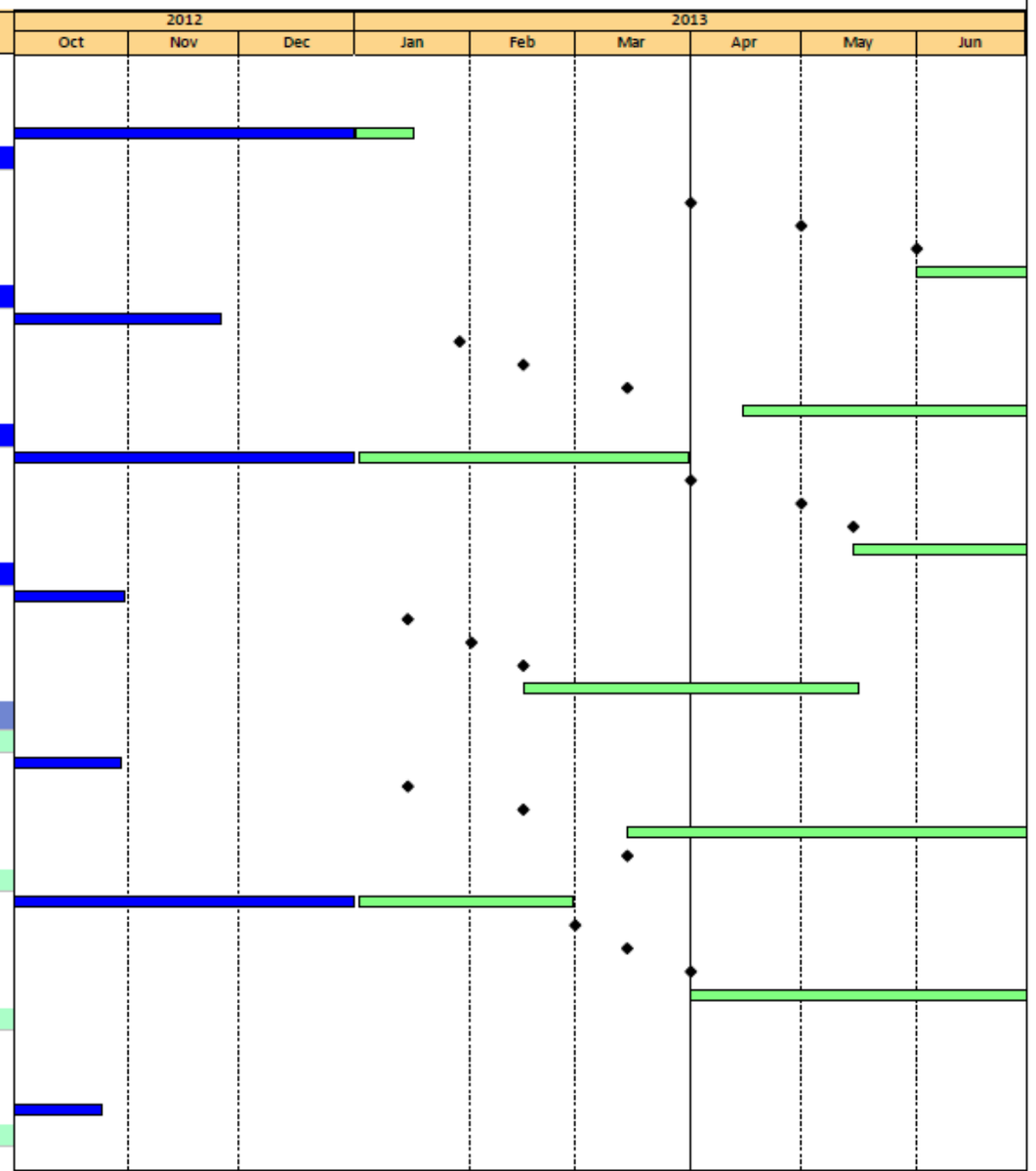
2 of 4

Date Date: 01-Jan-13

MSD CMOM FY12 Annual Commitments Schedule (01 January 2013 - 30 June 2013)

Date: 29-Jan-13

Activity ID	Activity Name	Physical % Complete	Start	Finish
A4320	Ad	100%	01-Aug-12 A	
A4350	Bid Open	100%	15-Aug-12 A	
A4330	Award	100%	18-Sep-12 A	
A4340	Construction	95%	18-Sep-12 A	16-Jan-13
Royster Basin Generator Project (H09365)			**26-Mar-12 A**	**28-Nov-13**
A4810	Design	100%	26-Mar-12 A	30-May-12 A
A4820	Ad	0%	01-Apr-13*	
A4850	Bid Open	0%	01-May-13*	
A4830	Award	0%	01-Jun-13*	
A4840	Construction	0%	01-Jun-13*	28-Nov-13
Prospect Point Pump Station Access Road (H13084)			**16-Jul-12 A**	**14-Jul-13**
A4420	Design	100%	16-Jul-12 A	26-Nov-12 A
A4430	Ad	0%	29-Jan-13*	
A4440	Bid Open	0%	15-Feb-13*	
A4450	Award	0%	15-Mar-13*	
A4460	Construction	0%	15-Apr-13*	14-Jul-13
Brandles FPS Ventilation Modifications (H09352)			**01-Jun-12 A**	**13-Aug-13**
A5010	Design	15%	01-Jun-12 A	31-Mar-13
A5040	Award	0%	01-Apr-13*	
A5030	Bid Open	0%	01-May-13*	
A5020	Ad	0%	15-May-13*	
A5050	Construction	0%	15-May-13*	13-Aug-13
Valley Village PS Header Piping Improvements Project (H09352)			**01-Jun-12 A**	**16-May-13**
A4960	Design	100%	01-Jun-12 A	31-Oct-12 A
A4970	Ad	0%	15-Jan-13*	
A4980	Bid Open	0%	01-Feb-13*	
A4990	Award	0%	15-Feb-13*	
A5000	Construction	0%	15-Feb-13*	16-May-13
CPE/CPE Treatment Plant Activities			**01-Mar-12 A**	**11-Sep-13**
CMOM CPE/CCP FY11 - CL2 and SO2 Flow Pacing (H09360)			**01-Jun-12 A**	**11-Sep-13**
A3440	Design	100%	01-Jun-12 A	30-Oct-12 A
A3400	Ad	0%	15-Jan-13*	
A3410	Bid Open	0%	15-Feb-13*	
A3420	Construction	0%	15-Mar-13*	11-Sep-13
A3430	Award	0%	15-Mar-13*	
Morris Forman WWTP Sampling Manholes (H09374)			**01-Sep-12 A**	**30-Jun-13**
A4750	Design	90%	01-Sep-12 A	28-Feb-13
A4710	Ad	0%	01-Mar-13*	
A4740	Bid Open	0%	15-Mar-13*	
A4720	Award	0%	01-Apr-13*	
A4730	Construction	0%	01-Apr-13*	30-Jun-13
Hillridge WTP Diversion Project (A13070)			**04-Jun-12 A**	**24-Oct-12 A**
A4490	Ad	100%	04-Jun-12 A	
A4500	Bid Open	100%	27-Jun-12 A	
A4510	Award	100%	15-Aug-12 A	
A4520	Construction	100%	15-Aug-12 A	24-Oct-12 A
Morris Forman Secondary Flume Replacement (H12047)			**01-Mar-12 A**	**11-Mar-13**
A3250	Design	100%	01-Mar-12 A	01-Jun-12 A



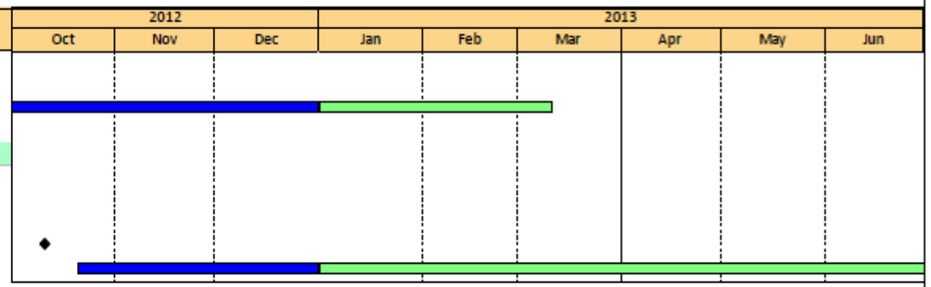
3 of 4

Date Date: 01-Jan-13

MSD CMOM FY12 Annual Commitments Schedule (01 January 2013 - 30 June 2013)

Date: 29-Jan-13

Activity ID	Activity Name	Physical % Complete	Start	Finish
A3290	Ad	100%	14-Jul-12 A	
A3260	Bid Open	100%	14-Aug-12 A	
A3270	Construction	75%	12-Sep-12 A	11-Mar-13
A3280	Award	100%	12-Sep-12 A	
Morris Forman Secondary Flow Meters (H12046)			01-Mar-12 A	18-Jul-13
A3340	Design	100%	01-Mar-12 A	07-Jul-12 A
A3300	Ad	100%	04-Aug-12 A	
A3310	Bid Open	100%	14-Sep-12 A	
A3330	Award	100%	11-Oct-12 A	
A3320	Construction	40%	21-Oct-12 A	18-Jul-13



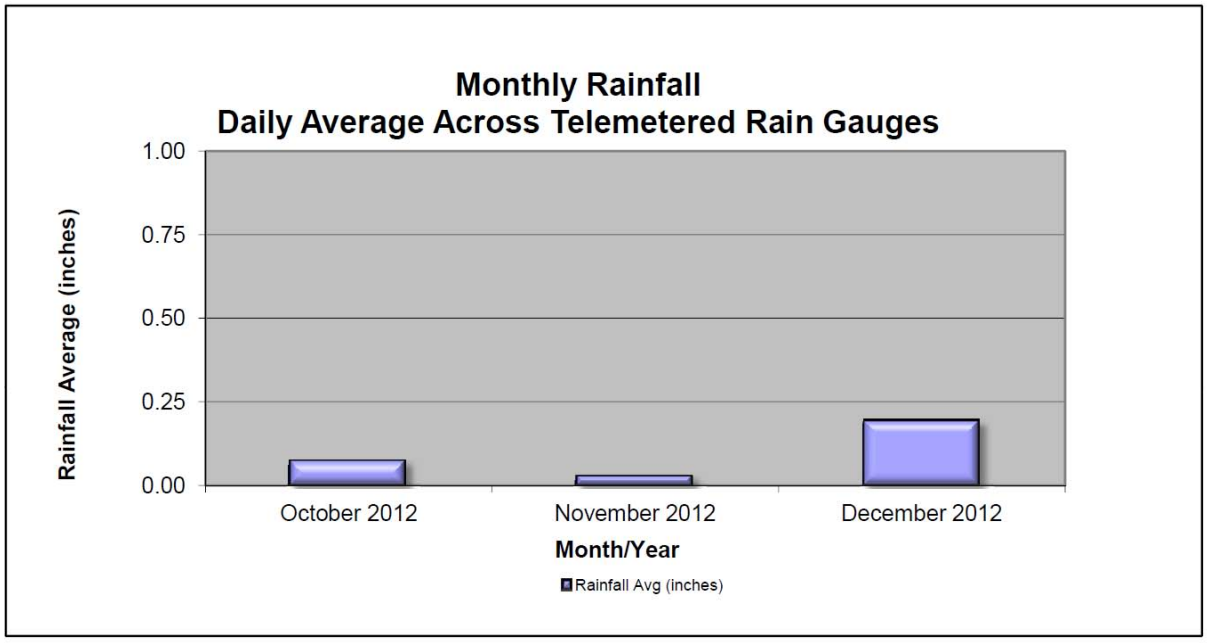
4 of 4

Date Date: 01-Jan-13

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, 2012, through June 30, 2013, and will be posted on the Project WIN website. During this quarter, 59 overflows to the Waters of the United States (WUS) have been reported.

Unauthorized Discharges (Waters of the United States)			
Problem	Dry Weather	Wet Weather	Total
Blending At Jtown WQTC	0	3	**3**
Bypass At WQTC	2	2	**4**
Grease Blockage	0	0	**0**
Lack of System Capacity	0	44	**44**
Mechanical Failure	1	0	**1**
Obstruction-Not Grease or Root	4	0	**4**
Power Outage (LG&E)	0	1	**1**
Roots	1	0	**1**
WQTC Upset	1	0	**1**
Total	**9**	**50**	**59**

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, 2012, through June 30, 2013.

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, 2012, through June 30, 2013.

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, 2012, through June 30, 2013. 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 - October 1, 2012 - December 31, 2012					
CSO	Type of Discharge	Date/Time	Problem	Cause	Volume (Gal)
CSO153	DISDW	10/12/12 8:15 AM	OBSTRUCTION-NOT GREASE OR ROOT	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	185 GAL
CSO153	DISDW	10/15/12 7:15 AM	OBSTRUCTION-NOT GREASE OR ROOT	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	495 GAL
CSO153	DISDW	12/19/12 9:05 AM	OBSTRUCTION-NOT GREASE OR ROOT	BLOCKAGE WAS LOCATED IN SIPHON IS009-SI	1,375 GAL

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.

- CSO172 Elimination – Completed December 12, 2012

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.

- Hikes Lane Interceptor & Highgate Springs PS – Completed November 27,2012 – Eliminated the following SSOs:

  17571, 18134, 18298, 18302, 18318-w, 18434, 18471, 18483, 18505, 18595, 49236, 49672, 49673, 49224, MSD0012-PS.

- Mellwood PS & FM – Completed December 31, 2012 – Eliminated the following SSOs:

  MSD0023-PS, 24472

- Meadowstream PS & FM – Completed December 31, 2012 – Eliminated the following SSOs:

  MSD1082-PS, 91087

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 October 1, 2012, through December 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.

Quarterly GLPM Performance With Targets							
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Total	Target/ qtr	% of Annual Target
Combined Sewer Area							
Catch Basins Cleaned CSO Area - PM	5,439	**5,327**			10,766	4,460	60%
CSO Inspections	918	**1,324**			2,242	1,272	44%
Sanitary Sewer Area							
Catch Basins Cleaned SSO Area - PM	86	**2,724**			2,810	1,144	61%
County Wide							
Sewer Main Inspections MSD Crews (LF)	167,171	**180,054**			347,225	198,000	44%
Sewer Main Inspections Contractor (LF)	0	**132,891**			132,891	198,000	17%
Total Inspections (LF)	167,171	**312,945**			480,116	396,000	30%

Rolling Quarterly GLPM Performance					
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Total
Combined Sewer Area					
Catch Basins Cleaned CSO Area - UM	206	375	308	**352**	1,241
CSO Debris Removal WO	129	121	101	**108**	459
Chemical Root Treatment CSO Area (LF)	1,887	0	0	**28,730**	30,617
Root Cutting CSO Area (LF)	41,279	36,496	2,920	**26,604**	107,298
Flushing and Cleaning of Sewer Mains CSO Area (LF)	12,920	10,190	11,319	**22,290**	56,719
Sanitary Sewer Area					
Catch Basins Cleaned SSO Area - UM	51	93	32	**83**	259
Chemical Root Treatment SSO Area (LF)	114,326	2,853	0	**64,436**	181,615
Root Cutting SSO Area (LF)	37,836	40,751	220	**39,535**	118,341
Flushing and Cleaning of Sewer Mains SSO Area (LF)	23,981	31,346	3,852	**53,487**	112,666

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

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 two bypasses that occurred at water quality treatment centers (WQTC) during this reporting period. Bypasses were reported for the following WQTCs:

Bypass Events - October 1, 2012 - December 31, 2012			
Type of Bypass	**Date**	**ID**	**Facility Name**
Wet Weather	10/2/12	MSD0294	FLOYDS FORK
Dry Weather	10/27/12	MSD0278	MORRIS FORMAN
Wet Weather	11/12/12	MSD0293	TIMBERLAKE
Dry Weather	12/11/12	MSD0255	JEFFERSONTOWN

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 October 1, 2012, and December 31, 2012.

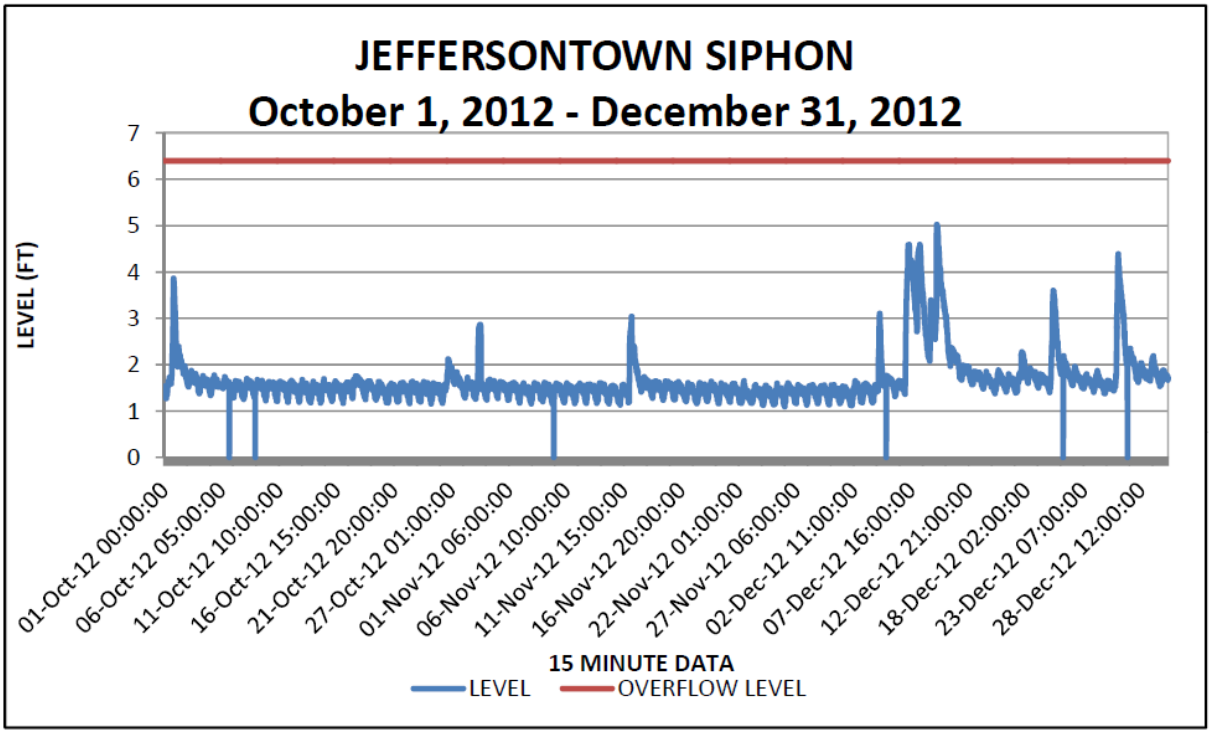
Bypass Analysis – July 1, 2012, to September 30, 2012	
Bypass Description	Bypass Corrective Actions
Capacity	
Floyds Fork WQTC (Hansen Discharge WO: 1591713): Bypass (Capacity) was reported at this WQTC on October 2, 2012. Flow discharged from the temporary mixed liquor pipe due to lack of system capacity Plant flows were nearly four times the design flow during the rain event on October 2, 2012.	- Will replace the temporary mixed liquor line as part of the plant expansion. - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
External Power failures (LGE Related-PWR)	
- No bypasses of this category occurred during the reporting period.	- N/A

Facility Failure (Mechanical -MCH, Electrical - ELE, Structural-SRT)	
Morris Forman WQTC (Hansen Discharge WO: 1582769): Bypass (Electrical) was reported at this WQTC on October 27, 2012. An electrical failure led to the wet well of the biotower pump station to overflow and spill to a catch basin connected to the river during dry weather.	- MSD restored pump station operation on October 27, 2012, and protected catch basins connected to the river with temporary collars. - MSD installed a permanent trench drain system between the biotower influent wet well and the catch basins to prevent future flows from reaching the Ohio River. Subsequently this system was tested by a similar failure, and a bypass occurred (in the next quarter). The point where flow bypassed the new trench was immediately corrected.
Timberlake WQTC (Hansen Discharge WO: 1591713): Bypass (Structural) was reported at this WQTC on November 12, 2012. A blocked sludge return line stopped flow to plant #2, causing a bypass during the rain event of November 12, 2012.	- Changed the programming and configuration of the pumps to prevent all four from running simultaneously in future rain events. - The Harrods Creek PS & FM Project (Budget ID D94206) will eliminate this WQTC. This project will be completed prior to December 31, 2015.
Jeffersontown WQTC (Hansen Discharge WO: 1610857): Bypass (Electrical Problem) was reported at this WQTC on December 11, 2012. The VFD for pump #3 in the secondary pump station failed, causing a bypass during dry weather.	- MSD reduced flow to the secondary pump station, increasing the flow to the #2 plant. - MSD is modifying the configuration of backup controls for the secondary pump station. Project will be complete prior to March 31, 2013. - The Jeffersontown Treatment Plant Elimination Project (Budget ID H07293) will eliminate this WQTC. This project will be completed prior to December 31, 2015.

Human Error (OPN)	
- No bypasses of this category occurred during the reporting period.	- N/A
Utility Damage	
- No bypasses of this category occurred during the reporting period.	- N/A

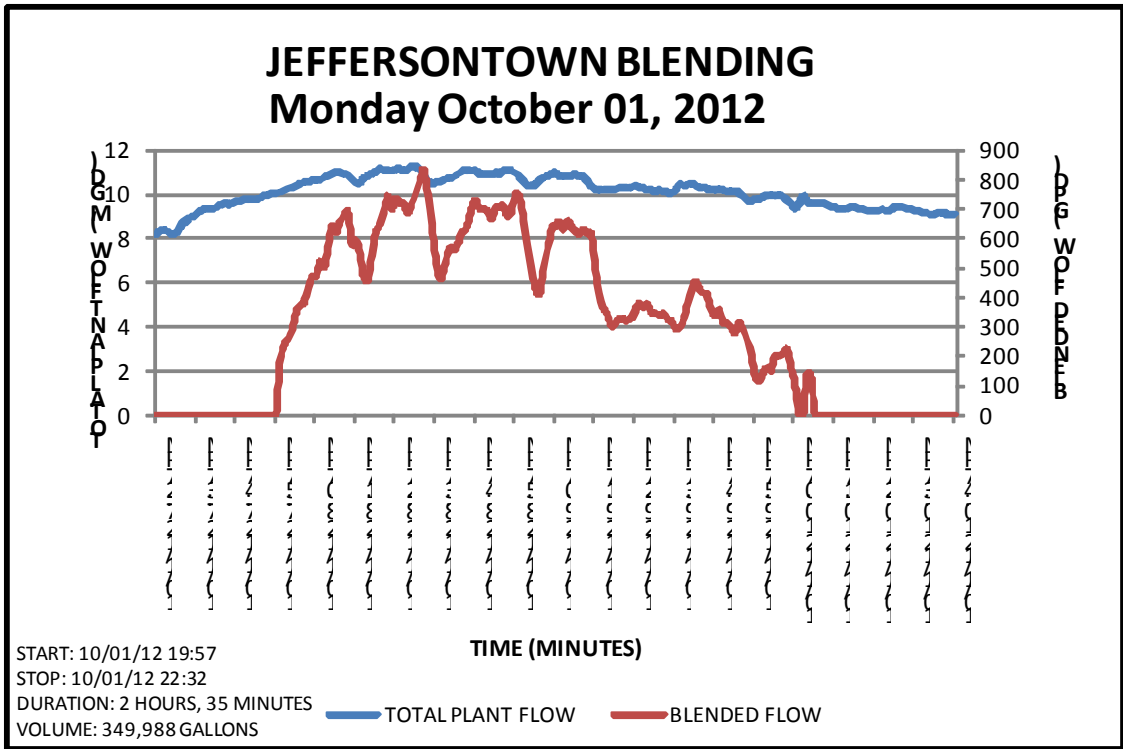
6.6.3 Jeffersontown Water Quality Treatment Center

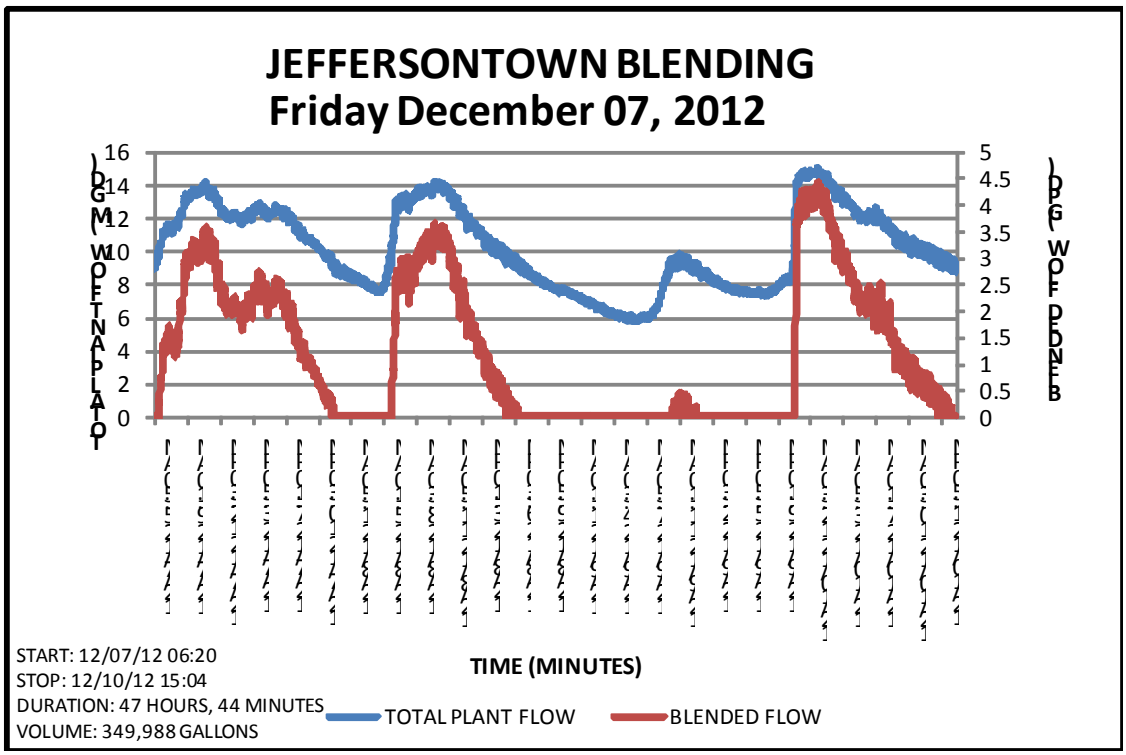
MSD submitted a Jeffersontown WQTC Process Control Plan on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this document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

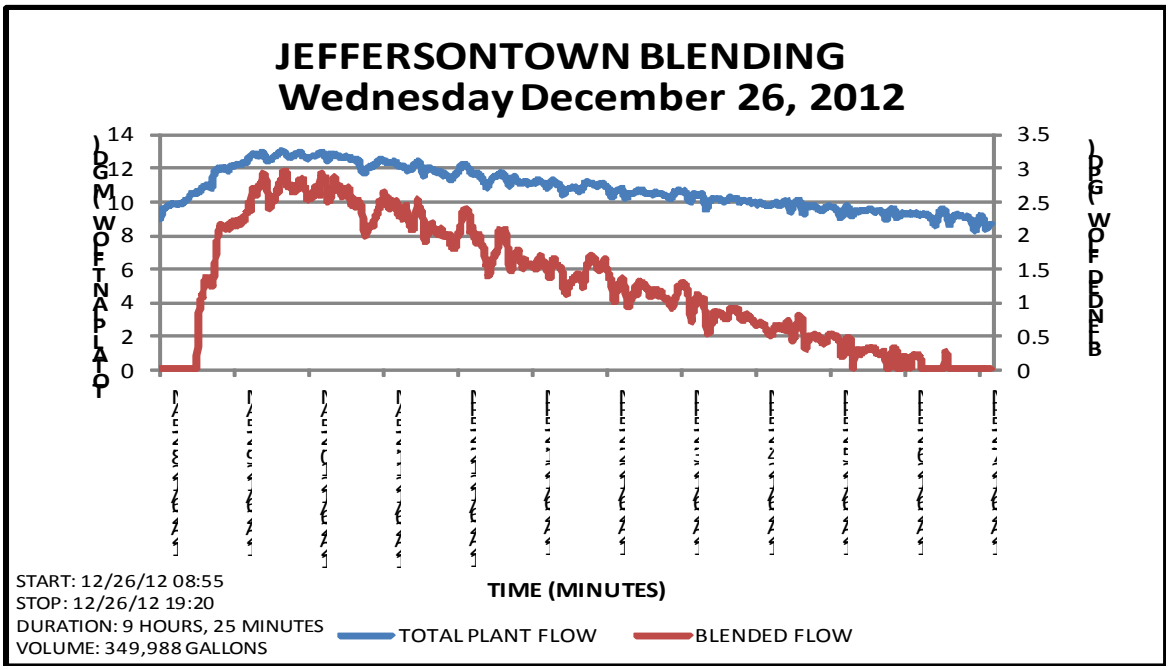


The following activities occurred at the Jeffersontown WQTC during the reporting period:

- Inspections were conducted upstream of the Jeffersontown WQTC Headworks December 7, 2012. One overflow was reported as a result of the inspection at manhole 28173 (not associated with the siphon).
- One bypass event occurred at the Jeffersontown WQTC during this quarter. Included in **Appendix A-3** is a report that lists the details from the bypass events.
- There were three blending events during the reporting period. Below are charts for each blending event that show total plant flow during the blending event.

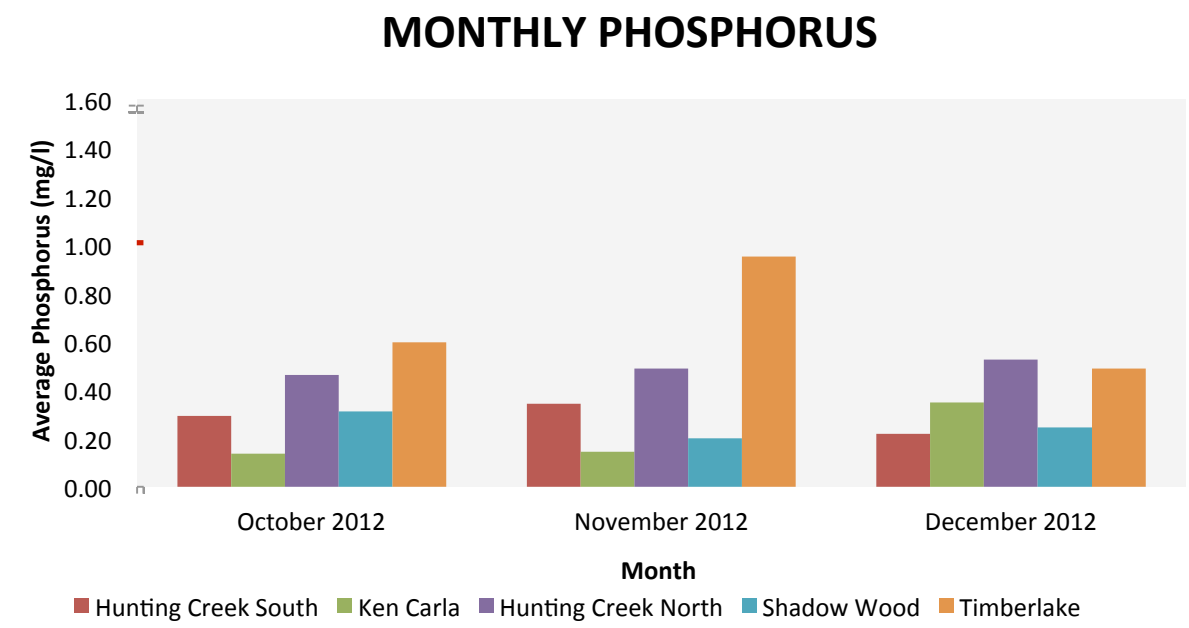

JEFFERSONTOWN BLENDING
Monday October 01, 2012
TIME (MINUTES)
START: 10/01/12 19:57
STOP: 10/01/12 22:32
DURATION: 2 HOURS, 35 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW


JEFFERSONTOWN BLENDING
Friday December 07, 2012
TIME (MINUTES)
START: 12/07/12 06:20
STOP: 12/10/12 15:04
DURATION: 47 HOURS, 44 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW



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
OCTOBER 1, 2012 THROUGH DECEMBER 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	1201 LEXINGTON RD	10/12/12 8:15: AM	10/12/12 8:52: AM	185 GAL	Sewer Manhole	CSO153	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	1571311	NO CLEAN UP OVERFLOW WENT STRAIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE
MORRIS FORMAN	KY0022411	1201 LEXINGTON RD	10/15/12 7:15: AM	10/15/12 8:54: AM	495 GAL	Sewer Manhole	CSO153	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	1572370	NO CLEAN UP OVERFLOW WENT STRAIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE
MORRIS FORMAN	KY0022411	1201 LEXINGTON RD	12/19/12 9:05: AM	12/19/12 10:00: AM	1,375 GAL	Sewer Manhole	CSO153	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE WAS LOCATED IN SIPHON IS009-SI	OBSTRUCTION-NOT GREASE OR ROOT	1613108	NO CLEAN UP OVERFLOW WENT STRAIGHT 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
OCTOBER 1, 2012 THROUGH DECEMBER 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	12/11/12 2:04: AM	12/11/2012 2:51	14,011 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LOST THE VFD FOR PUMP #3	BYPASS AT WQTC	1610857	PIPE DISCHARGE SUBMERGED- NO CLEANUP	MSD IS EVALUATING THE SITUATION, TO INSTALL LOCAL CONTROL SWITCHES.
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	10/27/12 3:00: PM	10/27/2012 16:00	500 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	BIOTOWER PUMPS SHUT DOWN CAUSING THE WETWELL TO RISE AND DISCHARGE TO A DRAIN	BYPASS AT WQTC	1582769	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	PUMPS RESTARTED
TIMBERLAKE	KY0043087	5504 TIMBER RIDGE DR	11/12/12 11:25: AM	11/12/2012 11:35	1,000 GAL	Sewer Treatment Plant	MSD0293	GROUND	HARRODS CREEK	SLUDGE RETURN BLOCKED	BYPASS AT WQTC	1591713	NO DEBRIS	SHUT OFF FLOW TO PLANT UNTIL SLUDGE RETURN REPAIRED
FLOYDS FORK	KY0102784	1100 BLUE HERON RD	10/02/12 8:10: AM	10/2/2012 8:45	8,750 GAL	Sewer Treatment Plant	MSD0294	STREAM	FLOYDS FORK	DISCHARGING FROM THE TEMPORARY MIXED LIQUOR PIPE DUE TO LACK OF CAPACITY BECAUSE OF RAIN EVENT	BYPASS AT WQTC	1568051	MSD CLEANED & SANITZED THE AREA	STOPPED FLOW TO CENTER RING UNTIL CONTRACTOR FINISHES REPAIRS

Appendix A-3 - Discharge Work Orders – Blending

APPENDIX A-3
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
OCTOBER 1, 2012 THROUGH DECEMBER 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	10/01/12 7:57: PM	10/01/12 10:32 PM	62,687 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1567988	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	12/07/12 6:20: AM	12/10/12 03:04 PM	3,920,379 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	BLENDING AT JTOWN WQTC	1607820	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	12/11/12 2:04: AM	12/11/12 02:51 AM	14,011 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LOST THE VFD FOR PUMP #3	BYPASS AT WQTC	1610857	PIPE DISCHARGE SUBMERGED- NO CLEANUP	MSD IS EVALUATING THE SITUATION, TO INSTALL LOCAL CONTROL SWITCHES.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	12/26/12 8:55: AM	12/26/12 07:20 PM	592,914 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	BLENDING AT JTOWN WQTC	1616449	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.

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

APPENDIX A-4
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
OCTOBER 1, 2012 THROUGH DECEMBER 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
HITE CREEK	KY0022420	7508 MEADOW STREAM CT	11/18/12 1:07: PM	11/18/12 02:05 PM	1,500 GAL	Sewer Manhole	91089	STREAM	SOUTH FORK HARRODS CREEK	MAC HAD 2 PUMPS IN SERVICE AND IN AUTO RUNNING 50% (30 HZ). LOOKS LIKE THIS WONT OVERCOME THE HEAD. I PUT THE PUMPS IN HAND TO STOP THE BYPASS. BOB HO	MECHANICAL FAILURE	1598957	MSD CLEANED AND LIMED AREA	CONTRACTOR ADJUSTED VFD CONTROLS
GLENVIEW BLUFF	KY0044261	3714 GLEN BLUFF RD	10/10/12 2:15: PM	10/10/12 02:20 PM	50 GAL	Sewer Treatment Plant	MSD0207	DITCH	UNNAMED	SWIMMING POOL MIGHT HAVE BEEN DRAINED	WTP PROCESS UPSET	1571030	NO DEBRIS	DRAINED STATION AND RESEEDED
JEFFERSONTOWN	KY0025194	3258 RUCKRIEGEL PKY	12/07/12 11:12: AM	12/11/12 03:00 PM	64,500 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608032	DISCLN WO# 1609694	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	11401 GRAND AVE	12/10/12 12:12: AM	12/11/12 03:00 PM	52,500 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608569	DISCLN WO# 4076051	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	3200 RUCKRIEGEL PKY	12/07/12 11:24: AM	12/11/12 03:00 PM	64,500 GAL	Sewer Manhole	64505	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608037	DISCLN WO# 1610546	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	10/01/12 7:57: PM	10/01/12 10:32 PM	62,687 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1567988	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	12/07/12 6:20: AM	12/10/12 03:04 PM	3,920,379 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	BLENDING AT JTOWN WQTC	1607820	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	12/11/12 2:04: AM	12/11/12 02:51 AM	14,011 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LOST THE VFD FOR PUMP #3	BYPASS AT WQTC	1610857	PIPE DISCHARGE SUBMERGED- NO CLEANUP	MSD IS EVALUATING THE SITUATION, TO INSTALL LOCAL CONTROL SWITCHES.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	12/26/12 8:55: AM	12/26/12 07:20 PM	592,914 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	BLENDING AT JTOWN WQTC	1616449	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	10/01/12 8:30: PM	10/02/12 12:45 AM	6,375 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567981	CLEAN UP WORK ORDER HAS BEEN CREATED	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	12/07/12 8:30: AM	12/07/12 10:30 PM	42,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	RAIN EVENT - LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1607911	MSD TO CLEAN AND SANITIZE AFFECTED AREA	THIS LOCATION INCLUDING IN MSD'S IOAP
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	12/09/12 11:30: PM	12/10/12 09:30 AM	30,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608563	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	12/20/12 1:00: PM	12/20/12 07:00 PM	9,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1613734	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	10304 CAVEN AVE	12/26/12 9:00: AM	12/26/12 08:00 PM	33,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1616459	CREATED DISCLN WORK ORDER #1616620	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	6810 SANDSTONE BLVD	10/01/12 7:30: PM	10/01/12 09:20 PM	4,755 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567976	CREATED DISCLN WORK ORDER FOR CLEAN UP	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	6810 SANDSTONE BLVD	12/08/12 9:30: AM	12/08/12 01:30 PM	6,000 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	RAIN EVENT LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1608391	MSD PERSONNEL TO CLEAN AND SANITIZED AFFECTED AREA	LOCATION PART OF MSD IOAP
DEREK R. GUTHRIE	KY0078956	6810 SANDSTONE BLVD	12/10/12 12:10: AM	12/10/12 03:00 AM	8,500 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608564	CREATED DISCLN WO#1608566	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.□
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	10/01/12 7:50: PM	10/01/12 09:30 PM	4,500 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567982	CREATED DISCLN WORK ORDER FOR CLEAN UP	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/07/12 7:20: AM	12/07/12 09:45 PM	21,625 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	RAIN EVENT LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1608063	MSD TO CLEAN AND SANITIZE AFFECTED AREA	LOCATION PART OF MSD IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/08/12 8:00: AM	12/08/12 04:00 PM	12,000 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	RAIN EVENT LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1608321	MSD PERSONNEL TO CLEAN AND SANITIZED AFFECTED AREA	LOCATION PART OF MSD IOAP

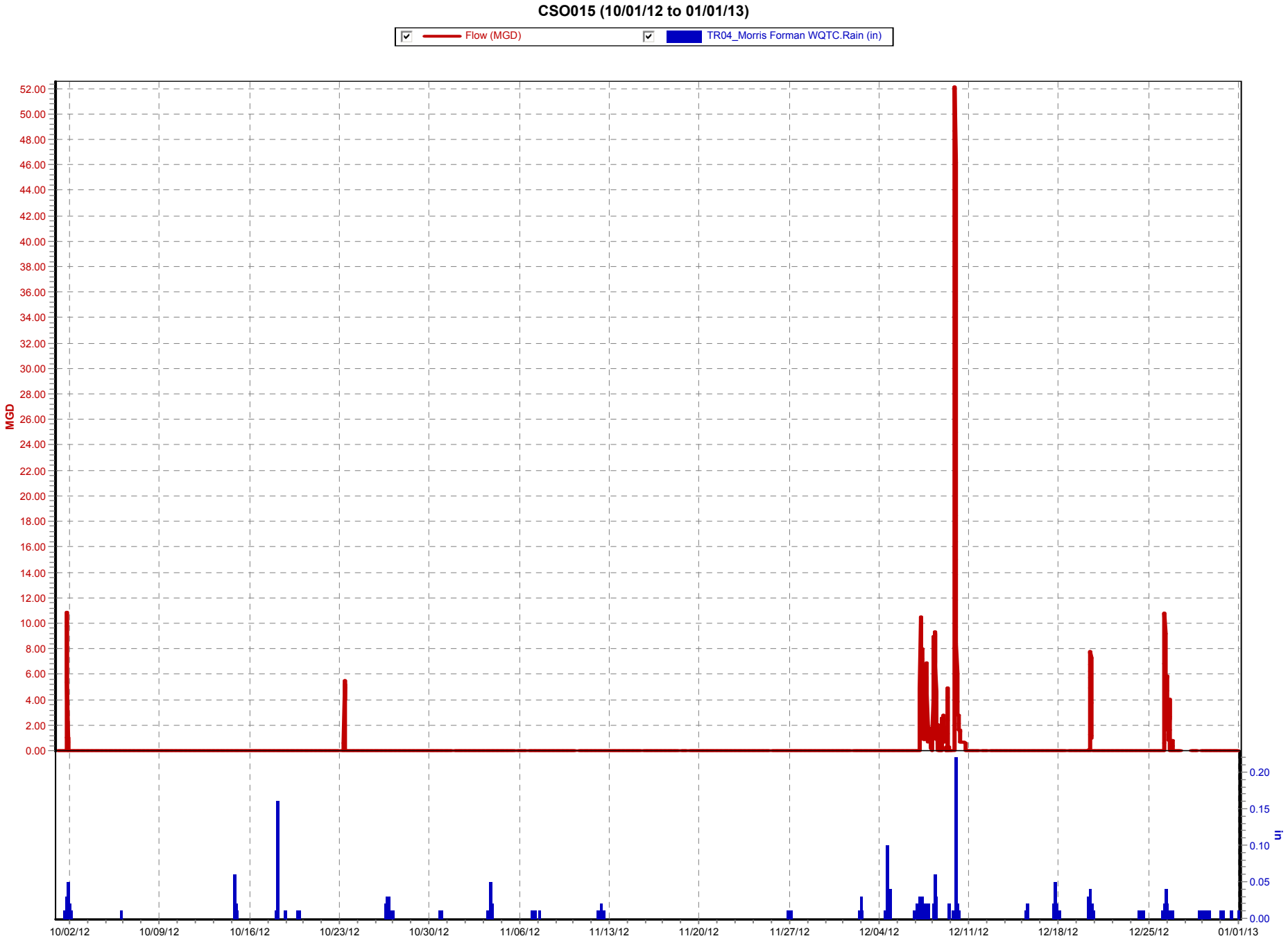
APPENDIX A-4
UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
OCTOBER 1, 2012 THROUGH DECEMBER 31, 2012

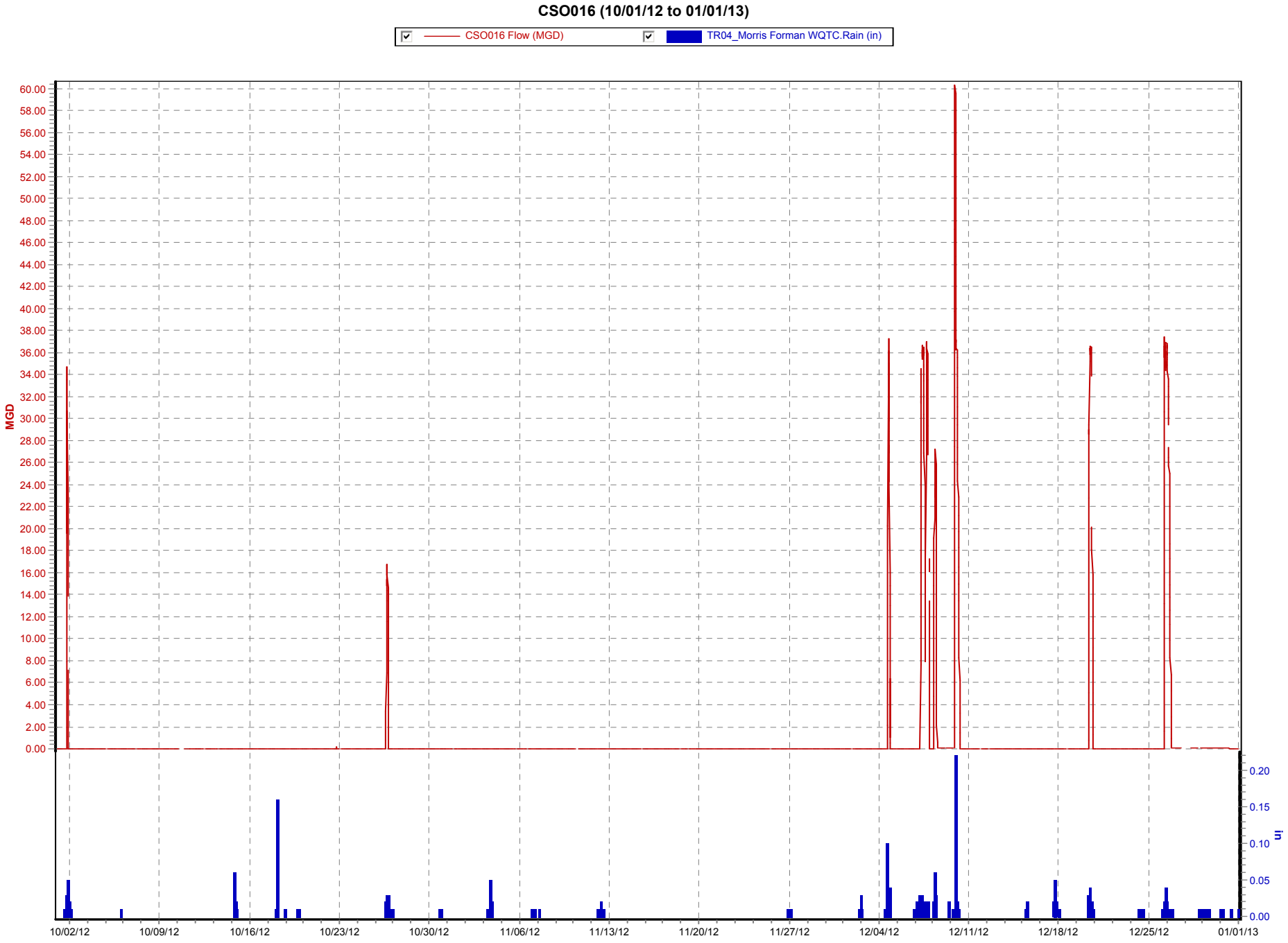
Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/10/12 12:20: AM	12/10/12 10:20 AM	20,000 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608572	MSD TO CLEAN AND SANITIZE AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.□
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/26/12 8:55: AM	12/26/12 01:45 PM	7,245 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1616445	CREATED DISCLN WORK ORDER #1616568	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	10/01/12 7:45: PM	10/01/12 09:30 PM	9,240 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567984	CREATED DISCLN WORK ORDER FOR CLEAN UP	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/07/12 7:20: AM	12/07/12 08:20 PM	19,500 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	RAIN EVENT - LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1608060	MSD TO CLEAN SANITIZE AFFECTED AREA	LOCATION PART OF MSD IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/08/12 8:00: AM	12/08/12 04:00 PM	15,000 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	RAIN EVENT LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1608314	MSD PERSONNEL TO CLEAN AND SANITIZE AFFECTED AREA UNDER WORKORDER#1608292	LOCATION PART OF MSD IOAP
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/10/12 12:03: AM	12/10/12 05:20 AM	12,500 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608570	CREATED DISCLN WO#1608589	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	KY0078956	6808 SANDSTONE BLVD	12/26/12 8:50: AM	12/26/12 01:45 PM	7,380 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	1616447	CREATED DISCLN WORK ORDER #1616570	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	KY0078956	8815 TRANQUIL VALLEY LN	12/06/12 2:45: PM	12/06/12 03:44 PM	50 GAL	Sewer Main	31900	GROUND	FERN CREEK	ROOTS IN THE MSD MAIN SEWER	ROOTS	1607768	MSD CLEANED THE IMPACTED AREA	WORK ORDERS 1607782, 1607779; FLUSHED AND ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	KY0078956	6109 RICHIEWAYNE DR	11/17/12 4:48: PM	11/17/12 05:54 PM	500 GAL	Sewer Manhole	57824	DITCH	SOUTHERN DITCH	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	1598915	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1598919,1598939,1599832, FLUSHED, ROOT CUT & TO REMOVED OBSTRUCTION & REPAIRED MANHOLE BY REPLACING BOLTS IN THE MANHOLE
DEREK R. GUTHRIE	KY0078956	6921 SHEPHERDSVILLE RD	12/07/12 9:00: AM	12/07/12 12:00 PM	180,000 GAL	Sewer Manhole	87309	STREAM	NORTHERN DITCH	RAIN EVENT - PUMP UNABLE TO KEEP UP WITH VOLUME OF STORM WATER	LACK OF SYSTEM CAPACITY	1607954	CONTRACTOR TO CLEAN AND SANITIZE AREA	REMOVING PLUGS; I&I REPAIRS BEING MADE TO LINE
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	12/09/12 11:50: PM	12/11/12 03:00 PM	21,600 GAL	Sewer Manhole	08717	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608648	DISCLN WO# 1608712	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	12/09/12 11:56: PM	12/10/12 10:01 AM	464,270 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608577	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED.	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1001 BRECKENRIDGE LN	12/26/12 9:20: AM	12/26/12 09:36 AM	901 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1616457	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	10/01/12 7:27: PM	10/05/12 07:21 AM	1,880 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567990	DISCLN WO# 1567993	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	12/08/12 9:30: AM	12/08/12 12:12 PM	900 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608401	NONE NEEDED. WILL CLEAN UP AFTER RAIN EVENT 12-10-12	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	12/09/12 11:10: PM	12/10/12 05:00 AM	21,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608622	DISCLN WO# 1608690	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	12/08/12 9:30: AM	12/08/12 11:53 AM	180 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608402	NONE NEEDED. WILL CLEAN UP AFTER RAIN EVENT 12-10-12	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4119 LEE AVE	12/09/12 11:11: PM	12/11/12 03:00 PM	1,500 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608639	DISCLN WO# 1608698	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3317 BROWNSBORO RD	12/09/12 10:25: PM	12/09/12 10:45 PM	32,000 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608575	DISCLN WO# 1610566	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1012 ALTA CIR	12/09/12 11:53: PM	12/11/12 03:00 PM	90,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608561	DISCLN WO# 1608720	LOCATION INCLUDED IN THE IOAP

APPENDIX A-4
UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
OCTOBER 1, 2012 THROUGH DECEMBER 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	1012 ALTA CIR	12/09/12 11:47: PM	12/11/12 03:00 PM	15,000 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608568	DISCLN WO# 1608723	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	8409 SABERDEE DR	12/10/12 12:00: AM	12/10/12 05:32 AM	1,660 GAL	Sewer Manhole	43472	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	1608584	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	1132 ROSTREVOR CIR	12/10/12 12:01: AM	12/11/12 03:00 PM	9,000 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608560	DISCLN WO# 1608718	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	10/01/12 6:15: PM	10/01/12 08:05 PM	12,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567997	DISCLN WO# 1567999	LOCATION IN THE IOAP
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	12/07/12 8:50: AM	12/08/12 02:50 PM	15,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1607915	NONE NEEDED. WILL CLEAN UP RAIN EVENT 12/10/12	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	1418 TREVILIAN WAY	12/09/12 12:09: AM	12/11/12 03:00 PM	6,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608652	DISCLN WO# 1608716	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	3726 FINCASTLE RD	12/09/12 11:51: PM	12/11/12 03:00 PM	2,400 GAL	Sewer Manhole	66349	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608645	DISCLN WO# 1608707	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	147 BUCHANAN ST	12/09/12 9:01: PM	12/09/12 09:51 PM	2,600,000 GAL	Sewer Manhole	CSO020	STREAM	OHIO RIVER	LG&E POWER OUTAGE	POWER OUTAGE (LG&E)	1608535	DISCHARGES DIRECTLY TO OHIO RIVER NO CLEANUP POSSIBLE□	REQUESTING STATION RESET REMOTE BUTTON BE PLACED ON SCADA SYSTEM
MORRIS FORMAN	KY0022411	1201 LEXINGTON RD	10/12/12 8:15: AM	10/12/12 08:52 AM	185 GAL	Sewer Manhole	CSO153	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	1571311	NO CLEAN UP OVERFLOW WENT STRAIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE
MORRIS FORMAN	KY0022411	1201 LEXINGTON RD	10/15/12 7:15: AM	10/15/12 08:54 AM	495 GAL	Sewer Manhole	CSO153	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	1572370	NO CLEAN UP OVERFLOW WENT STRAIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE
MORRIS FORMAN	KY0022411	1201 LEXINGTON RD	12/19/12 9:05: AM	12/19/12 10:00 AM	1,375 GAL	Sewer Manhole	CSO153	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE WAS LOCATED IN SIPHON IS009-SI	OBSTRUCTION-NOT GREASE OR ROOT	1613108	NO CLEAN UP OVERFLOW WENT STRAIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE
MORRIS FORMAN	KY0022411	4108 LEE AVE	10/01/12 7:25: PM	10/05/12 07:22 AM	180 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1567995	DISLCN WO# 1567996	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4108 LEE AVE	12/08/12 9:30: AM	12/08/12 11:54 AM	180 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608406	NONE NEEDED. WILL CLEAN UP AFTER RAIN EVENT 12-10-12	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	4108 LEE AVE	12/09/12 11:12: PM	12/11/12 03:00 PM	1,500 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	1608643	DISCLN WO# 1608701	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	KY0022411	7404 ARROWWOOD RD	10/01/12 11:34: PM	10/02/12 12:20 AM	1,380 GAL	Sewer Lift Station	MSD0040-PS	DITCH	GOOSE CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	1567994	CLEANED & LIMED THE AREA	THIS SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	KY0022411	806 PINE WAY	12/08/12 8:40: AM	12/08/12 09:30 AM	250 GAL	Sewer Lift Station	MSD0057-LS	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	1608370	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & OBSERVE FOR REPAIR
MORRIS FORMAN	KY0022411	4522 ALGONQUIN PKY	10/27/12 3:00: PM	10/27/12 04:00 PM	500 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	BIOTOWER PUMPS SHUT DOWN CAUSING THE WETWELL TO RISE AND DISCHARGE TO A DRAIN	BYPASS AT WQTC	1582769	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	PUMPS RESTARTED
TIMBERLAKE	KY0043087	5504 TIMBER RIDGE DR	11/12/12 11:25: AM	11/12/12 11:35 AM	1,000 GAL	Sewer Treatment Plant	MSD0293	GROUND	HARRODS CREEK	SLUDGE RETURN BLOCKED	BYPASS AT WQTC	1591713	NO DEBRIS	SHUT OFF FLOW TO PLANT UNTIL SLUDGE RETURN REPAIRED
FLOYDS FORK	KY0102784	1100 BLUE HERON RD	10/02/12 8:10: AM	10/02/12 08:45 AM	8,750 GAL	Sewer Treatment Plant	MSD0294	STREAM	FLOYDS FORK	DISCHARGING FROM THE TEMPORARY MIXED LIQUOR PIPE DUE TO LACK OF CAPACITY BECAUSE OF RAIN EVENT	BYPASS AT WQTC	1568051	MSD CLEANED & SANITZED THE AREA	STOPPED FLOW TO CENTER RING UNTIL CONTRACTOR FINISHES REPAIRS

Appendix B – CSO Flow Monitoring Data


CSO015 (10/01/12 to 01/01/13)
Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
52.00
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO016 (10/01/12 to 01/01/13)
CSO016 Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
60.00
58.00
56.00
54.00
52.00
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
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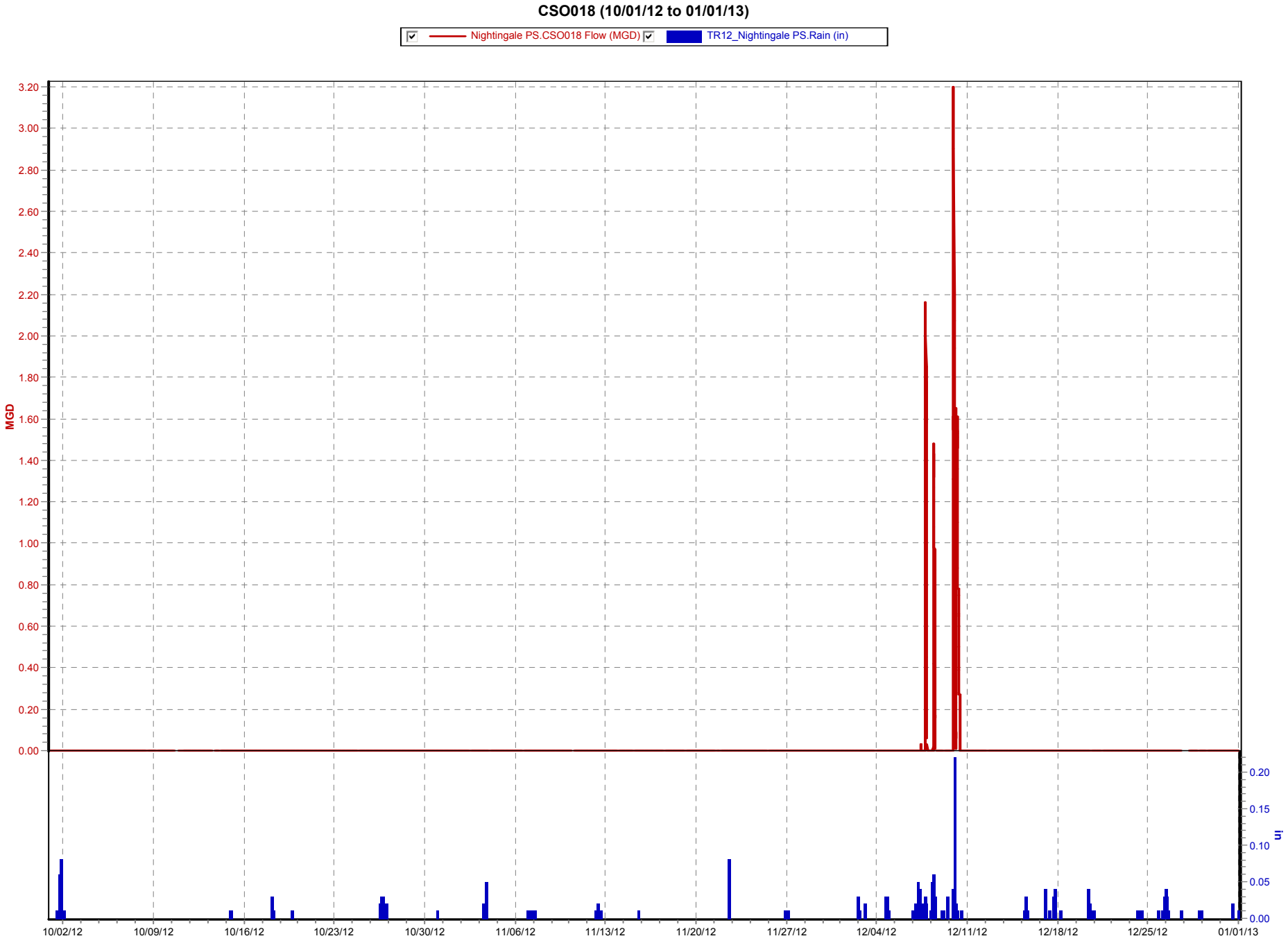
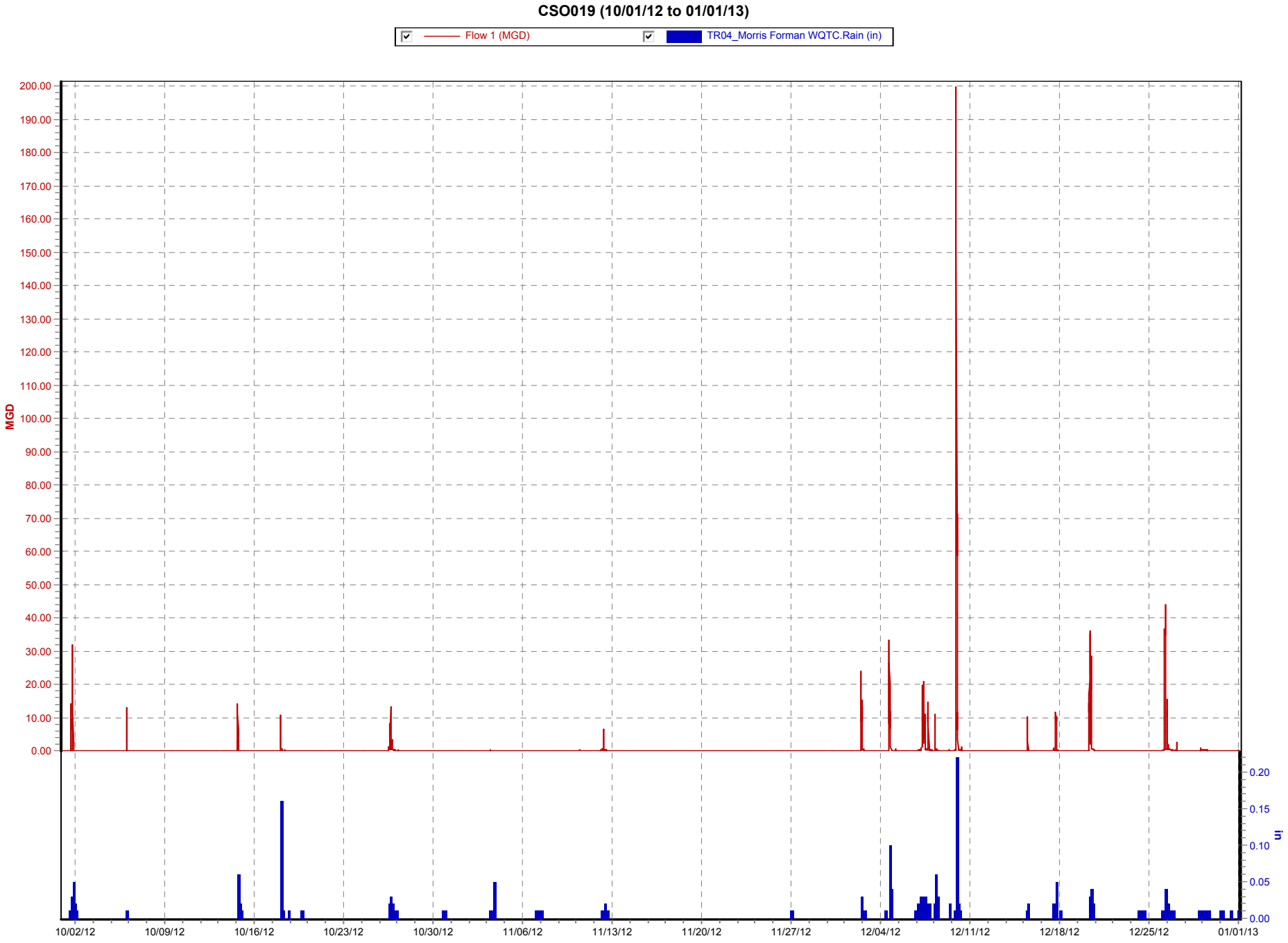
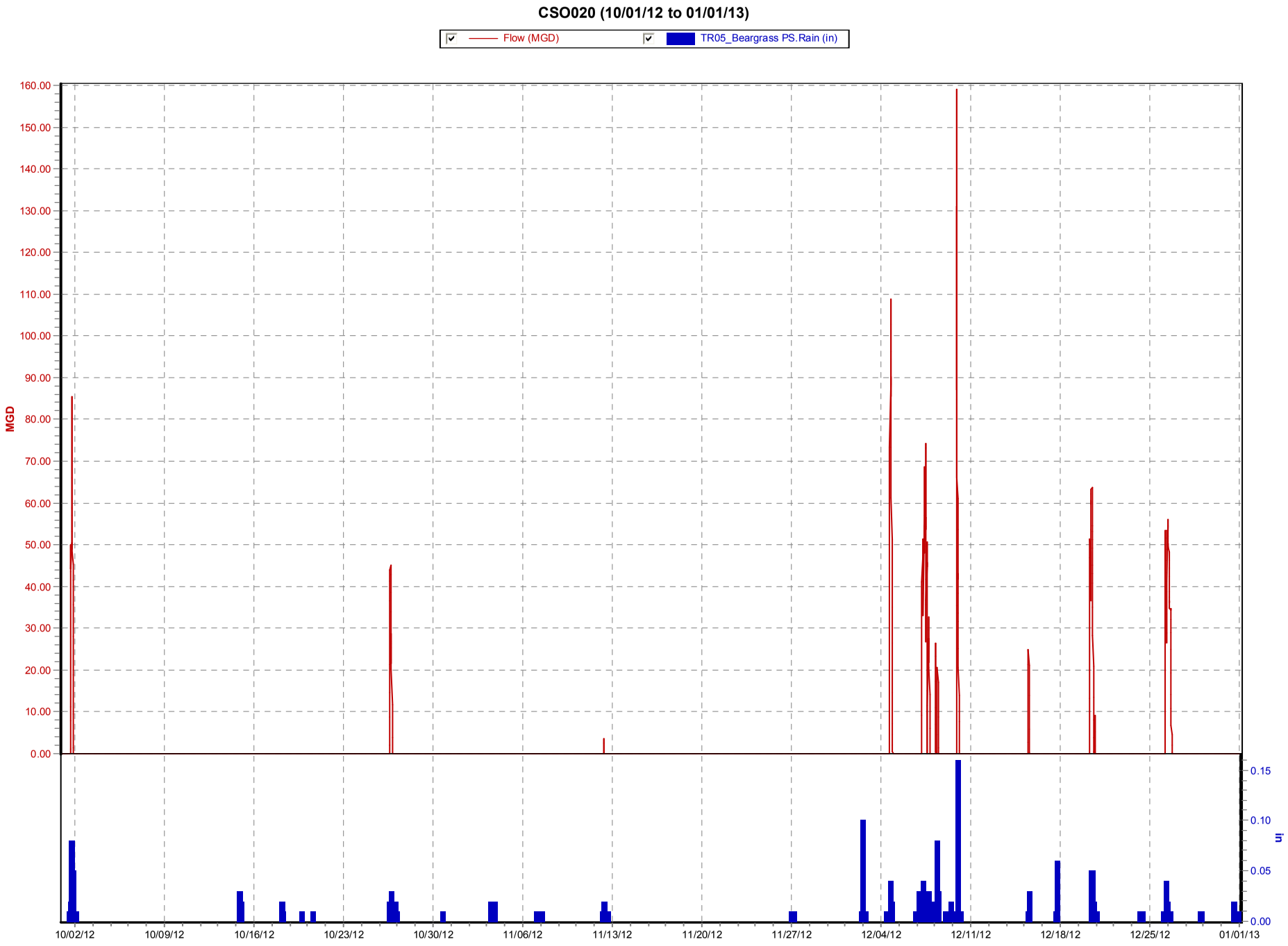
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO018 (10/01/12 to 01/01/13)
Nightingale PS.CSO018 Flow (MGD)
TR12_Nightingale PS.Rain (in)
MGD
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO019 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO020 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
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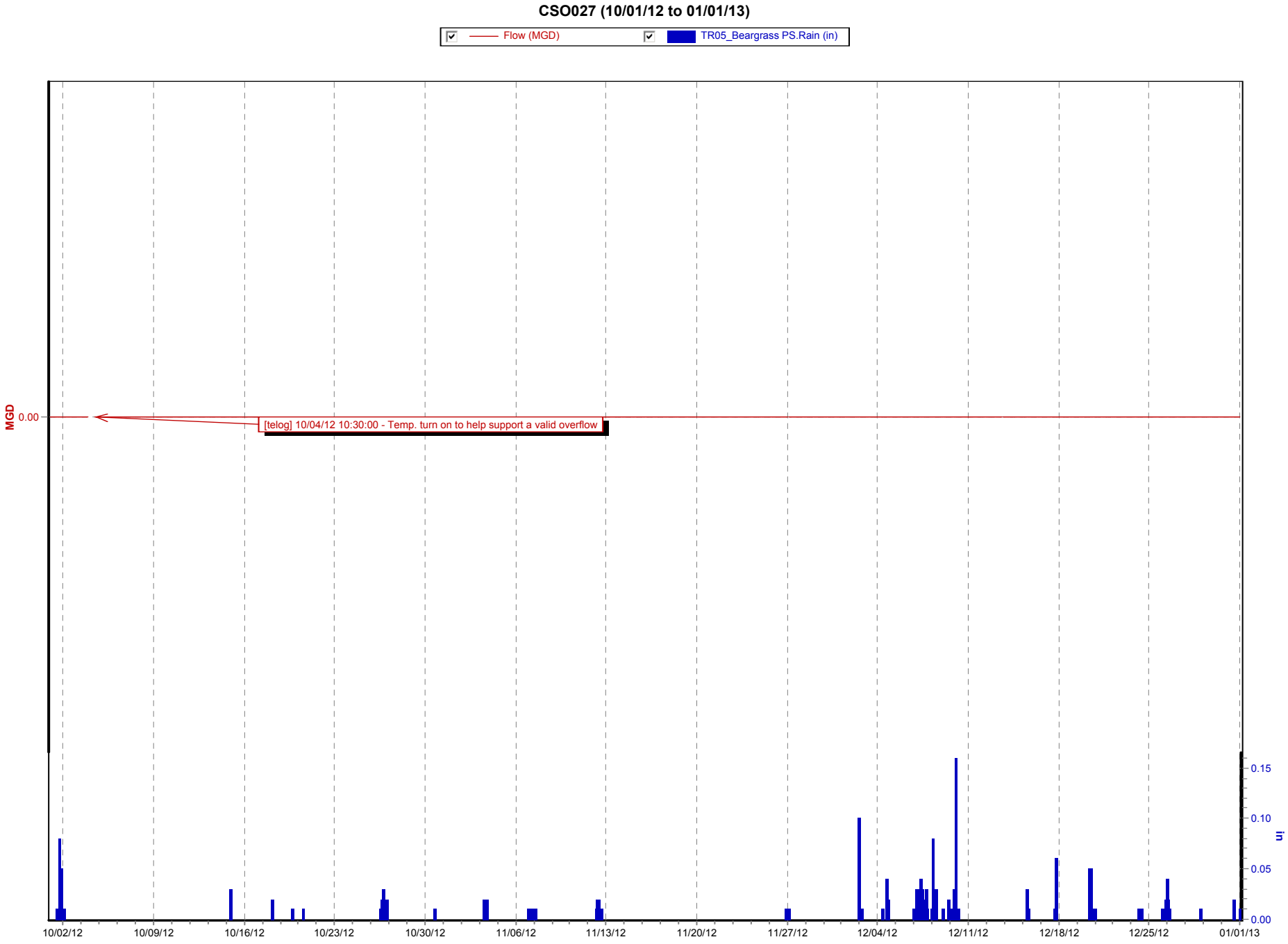
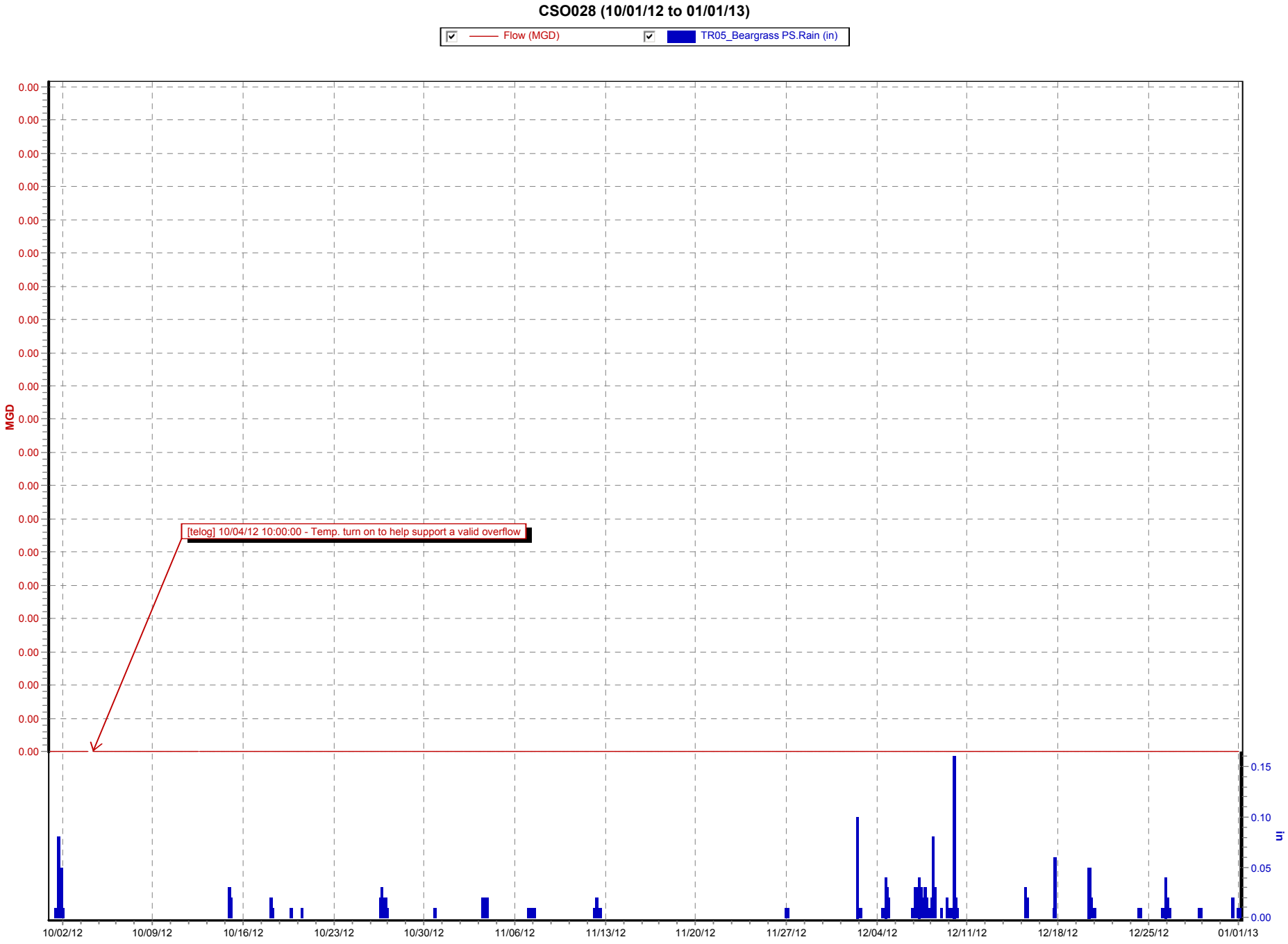
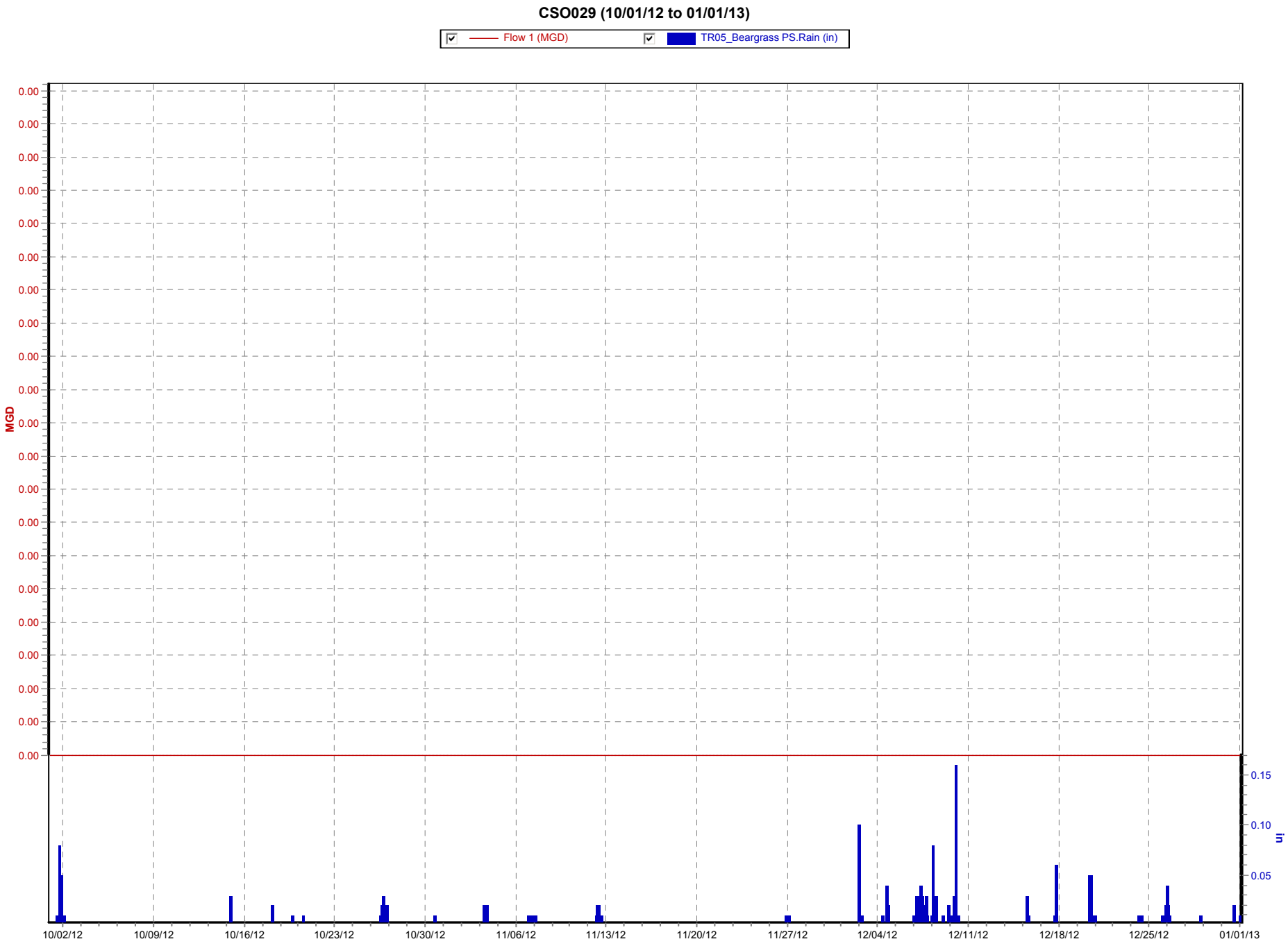
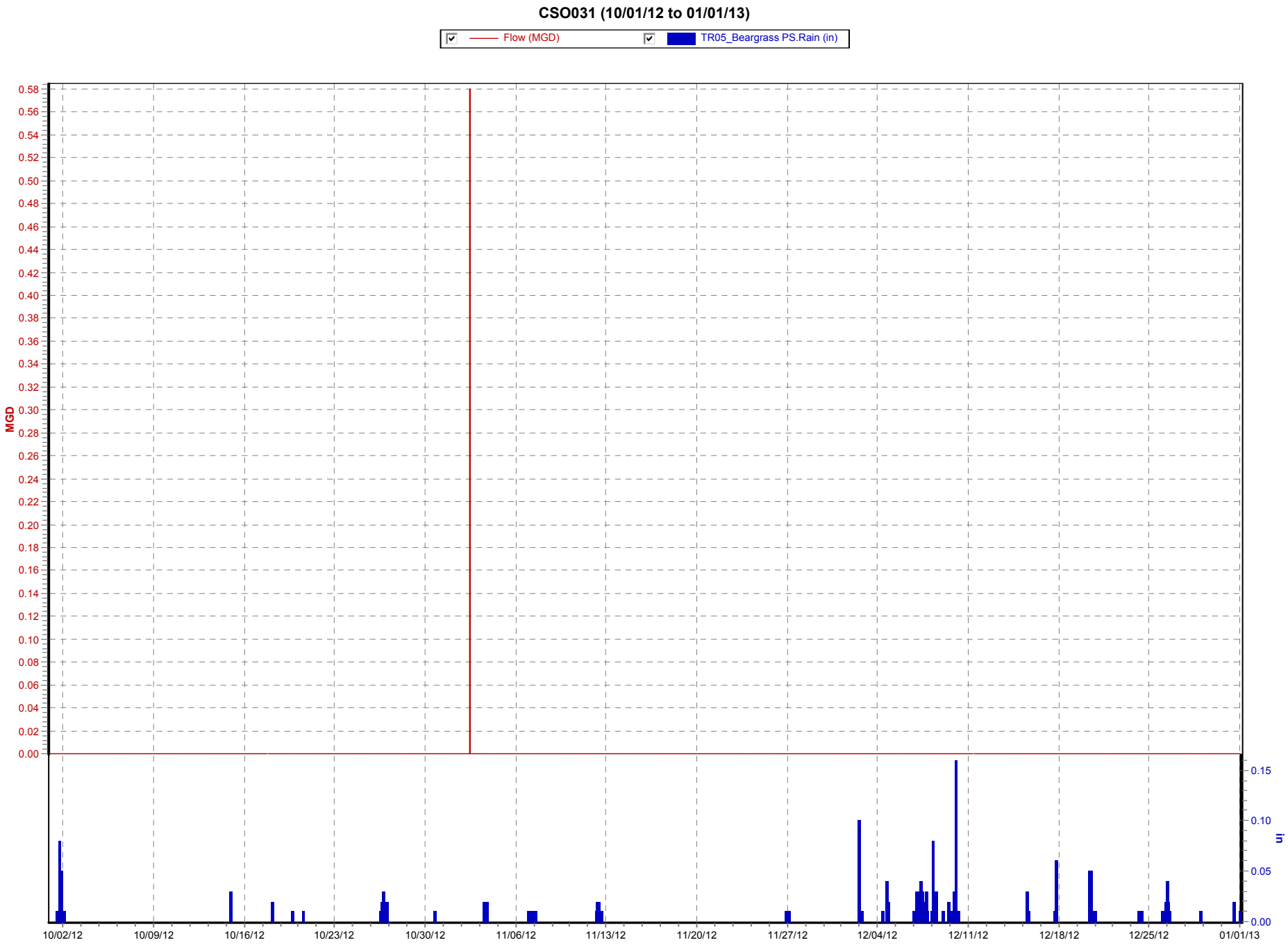
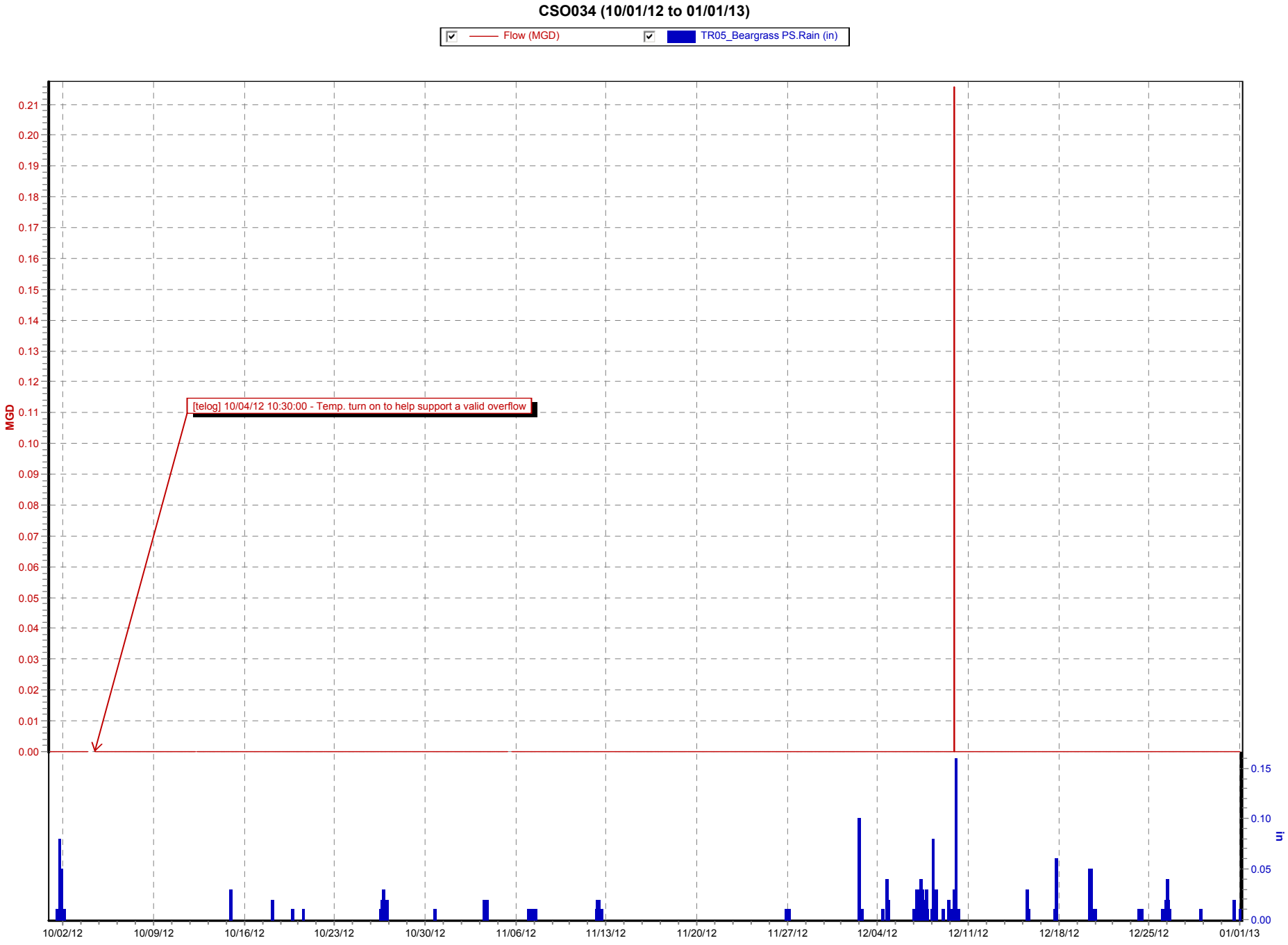
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

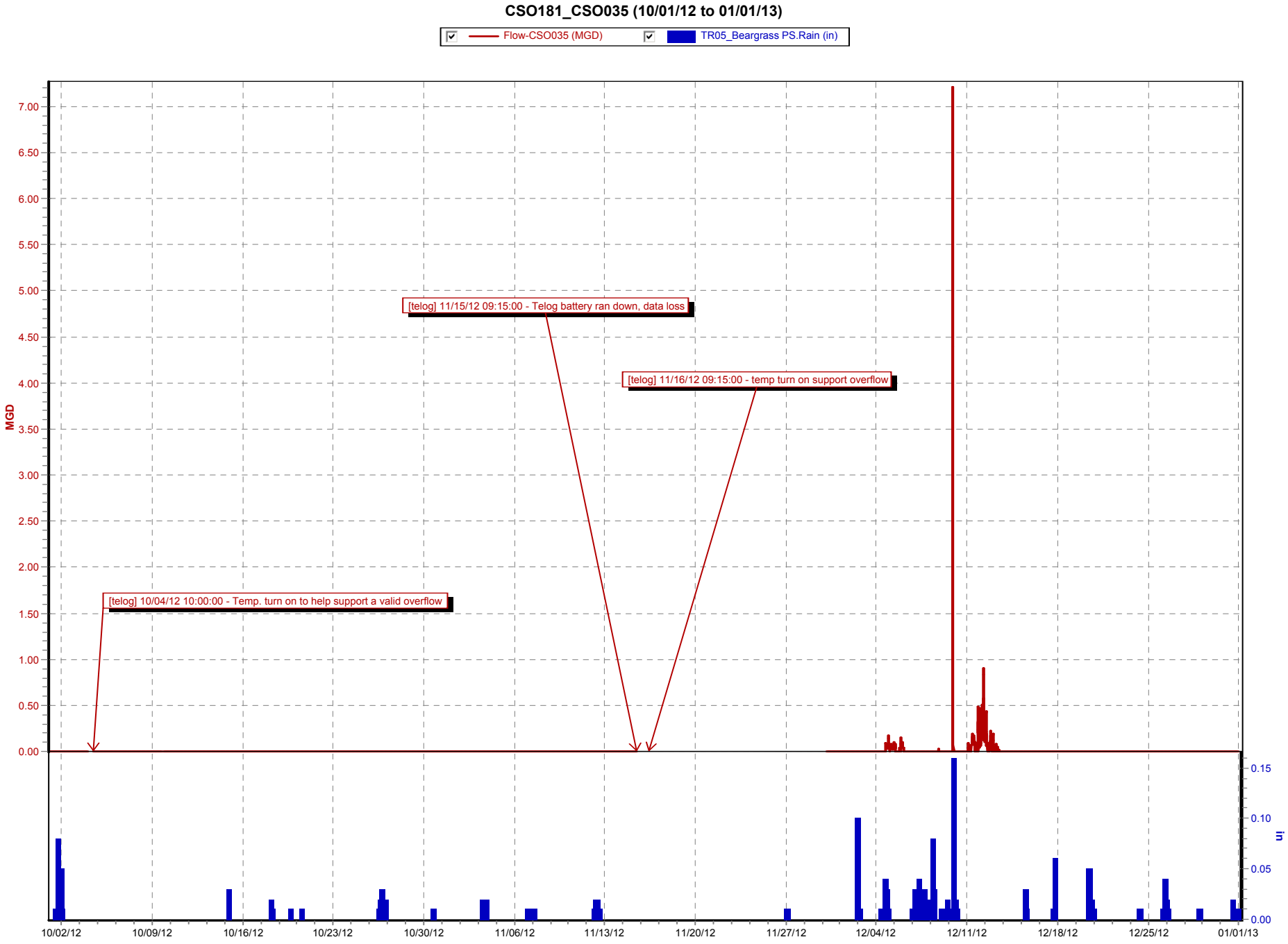

CSO027 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 10/04/12 10:30:00 - Temp. turn on to help support a valid overflow
in
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

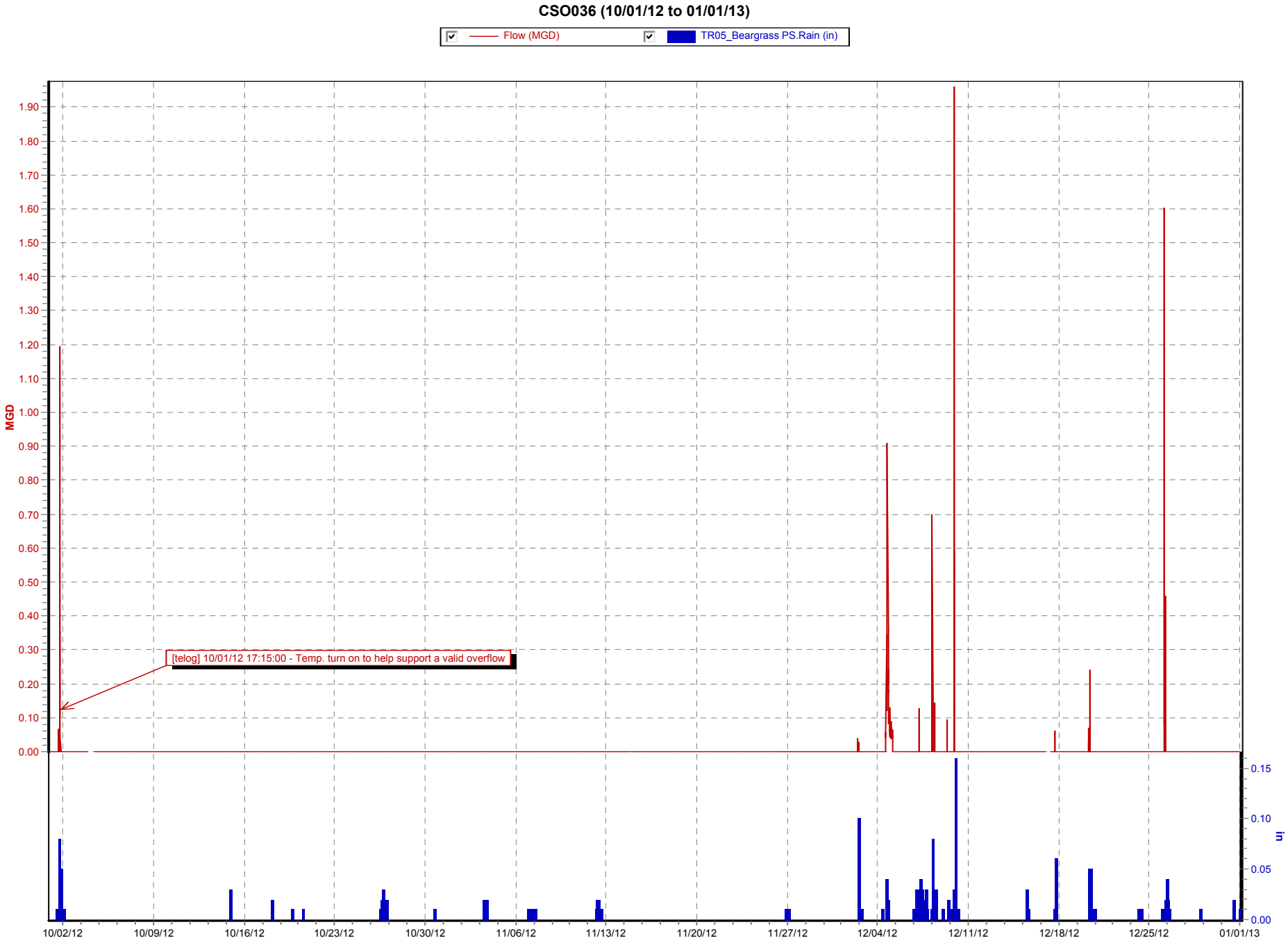

CSO028 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 10/04/12 10:00:00 - Temp. turn on to help support a valid overflow
in
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

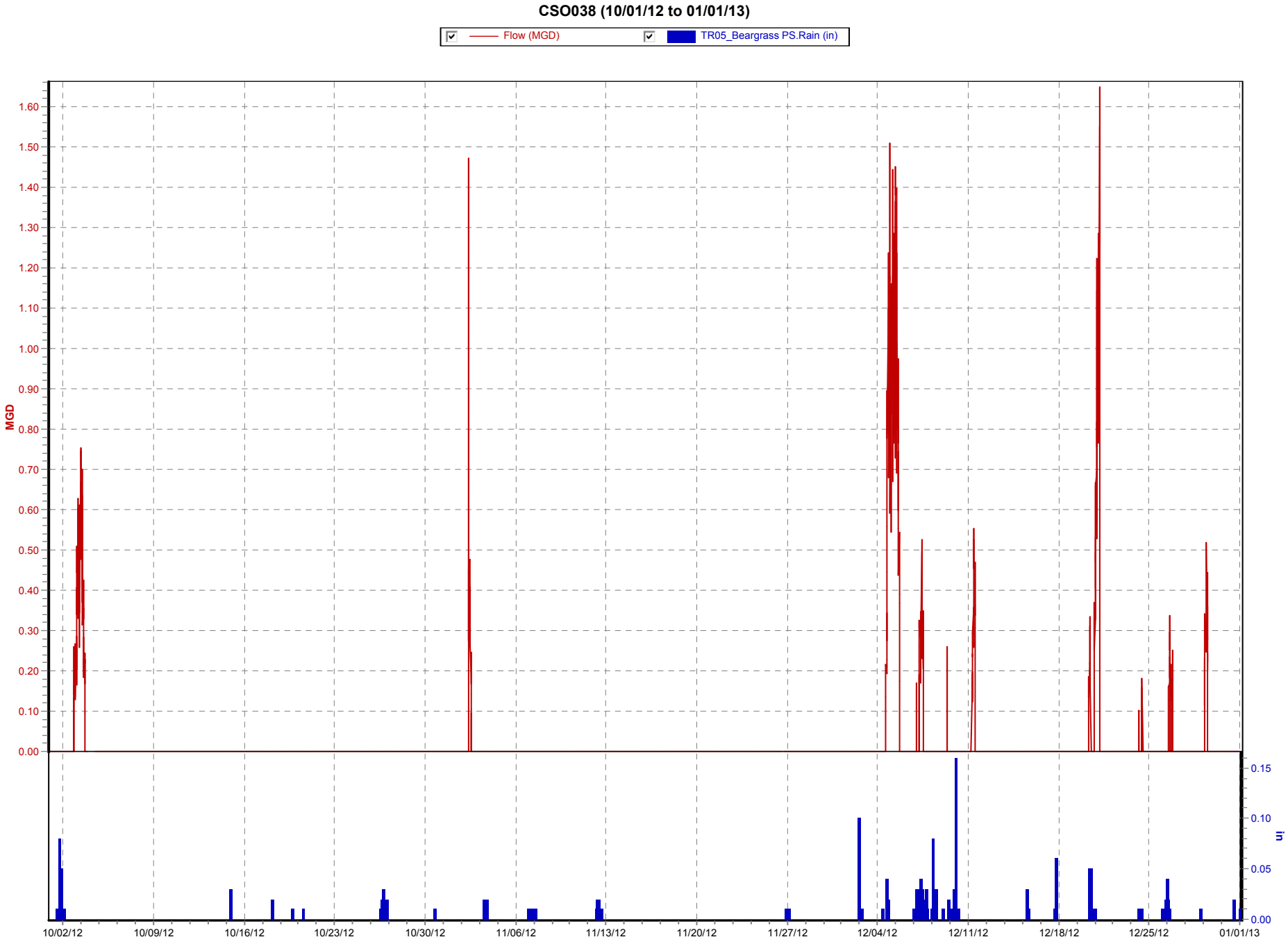

CSO029 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
in
0.15
0.10
0.05
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

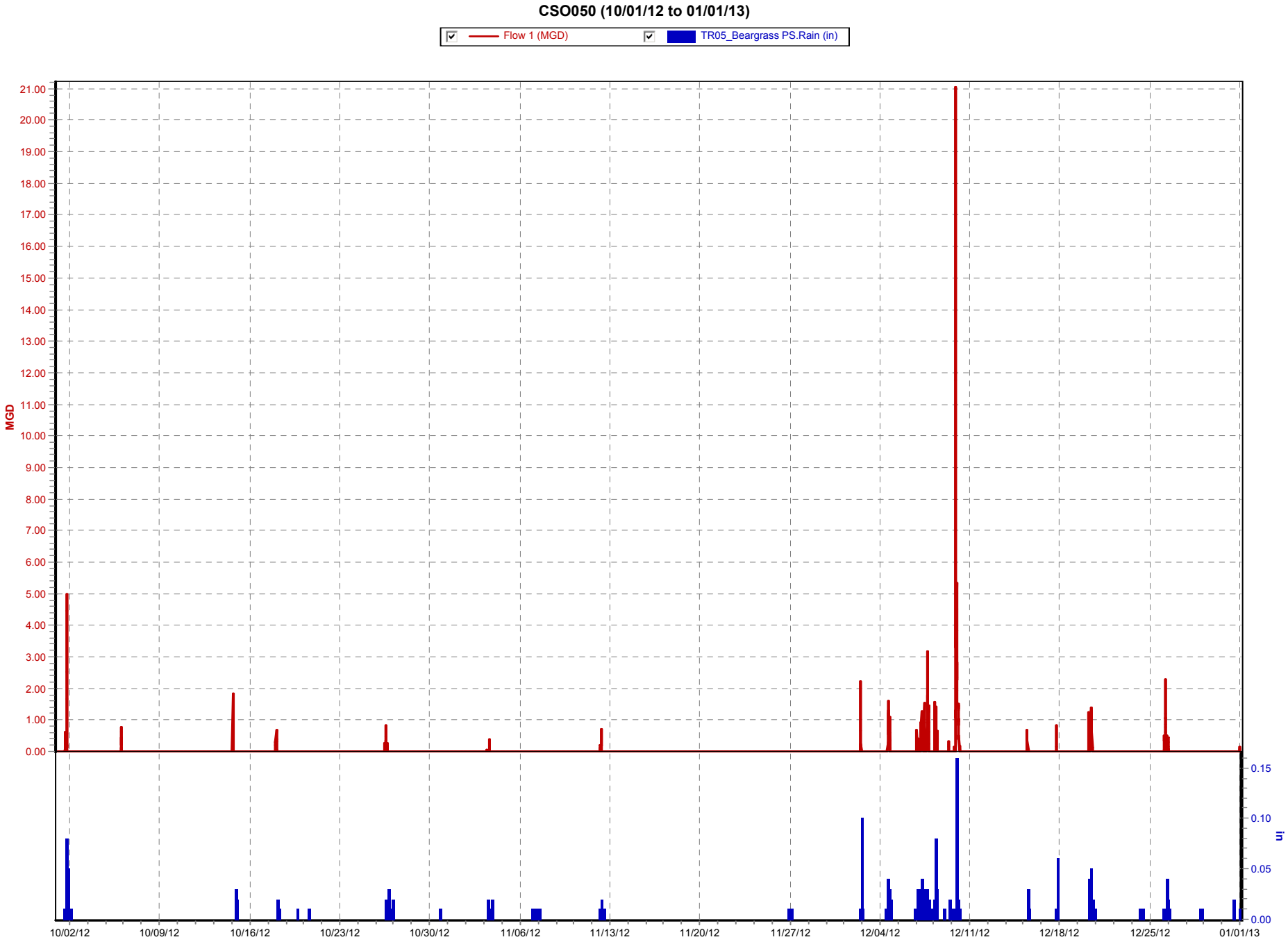

CSO031 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.58
0.56
0.54
0.52
0.50
0.48
0.46
0.44
0.42
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

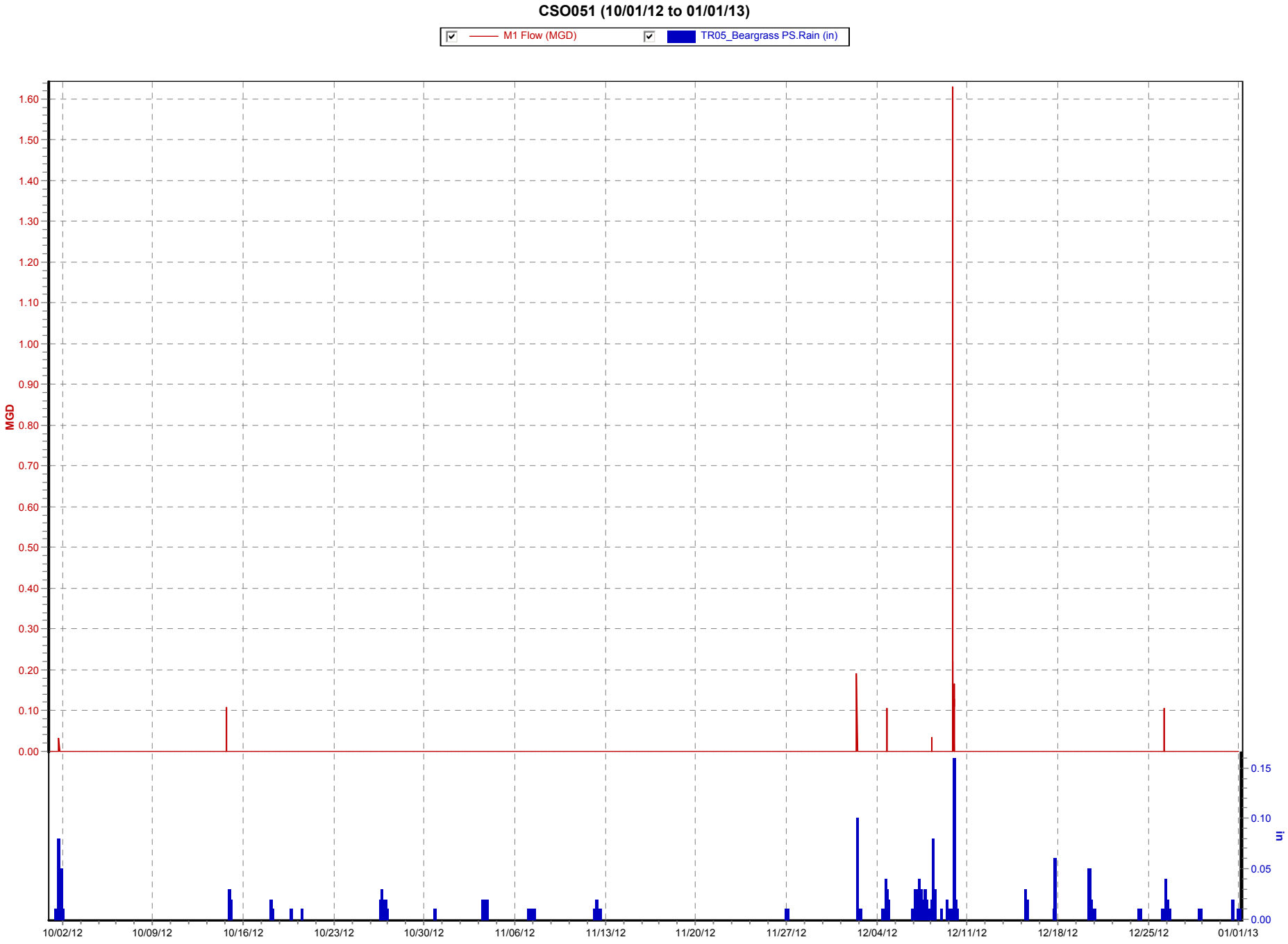

CSO034 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/04/12 10:30:00 - Temp. turn on to help support a valid overflow
0.21
0.20
0.19
0.18
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

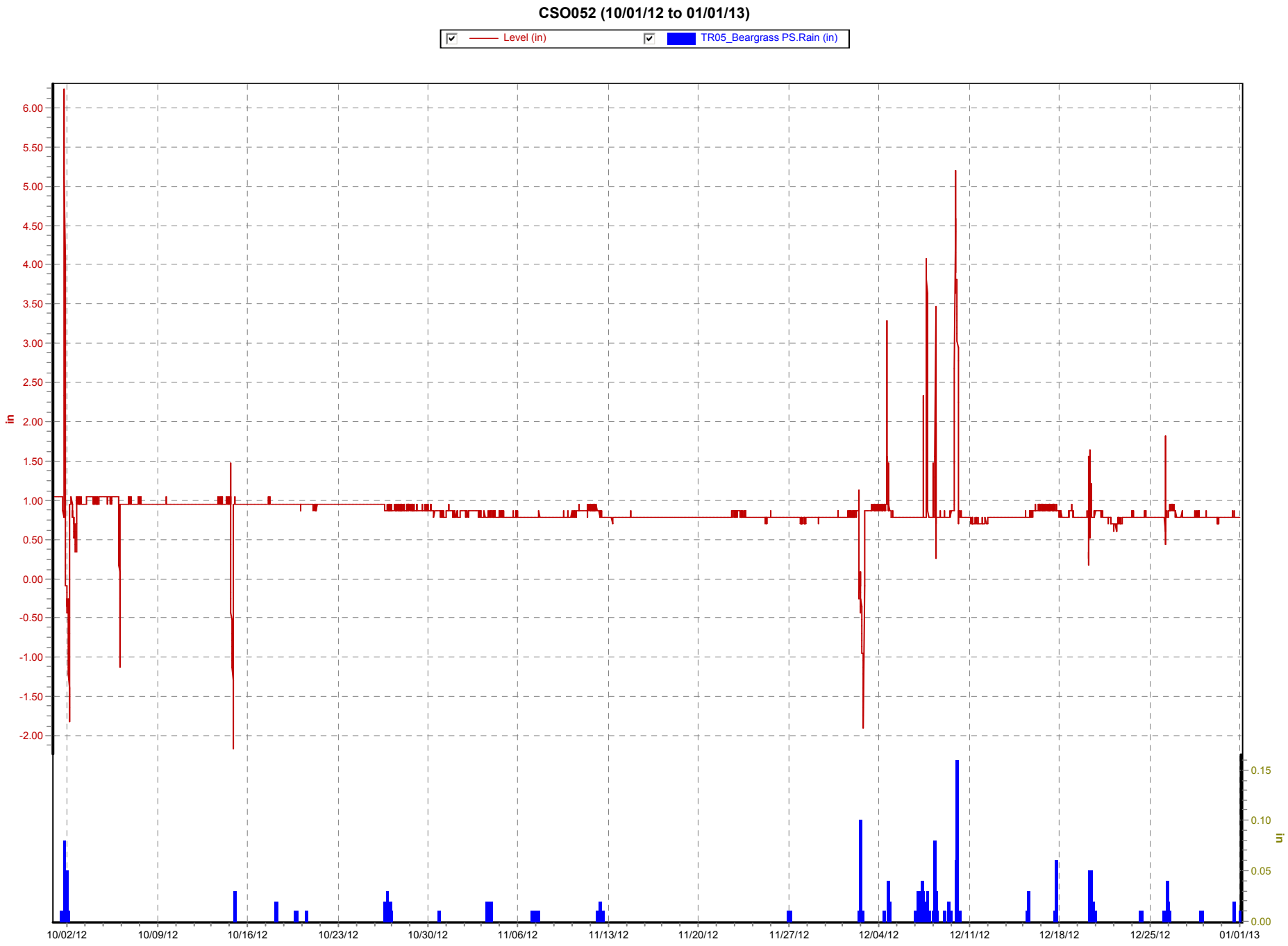

CSO181_CSO035 (10/01/12 to 01/01/13)
Flow-CSO035 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/04/12 10:00:00 - Temp. turn on to help support a valid overflow
[telog] 11/15/12 09:15:00 - Telog battery ran down, data loss
[telog] 11/16/12 09:15:00 - temp turn on support overflow
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

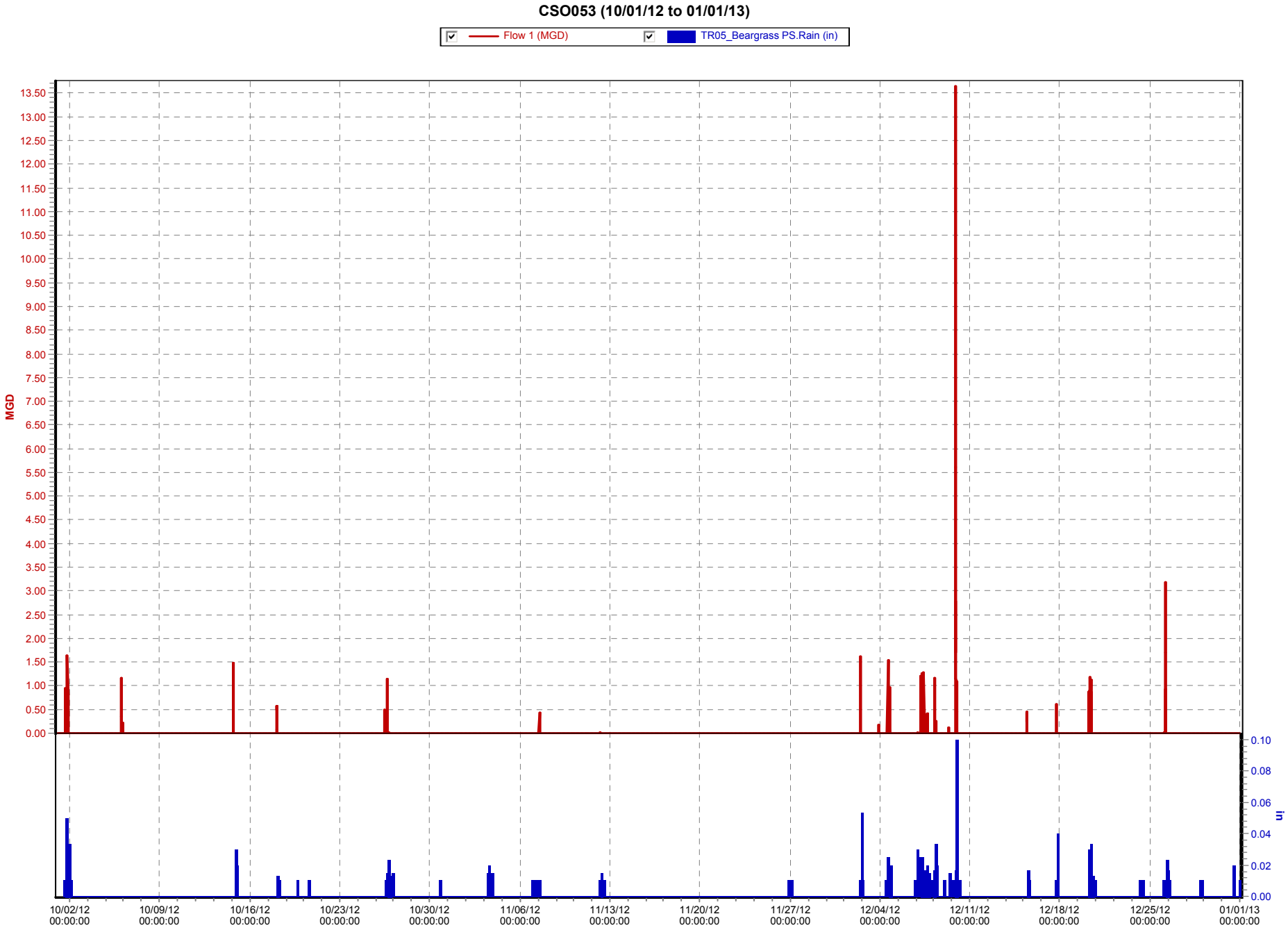

CSO036 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/01/12 17:15:00 - Temp. turn on to help support a valid overflow
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

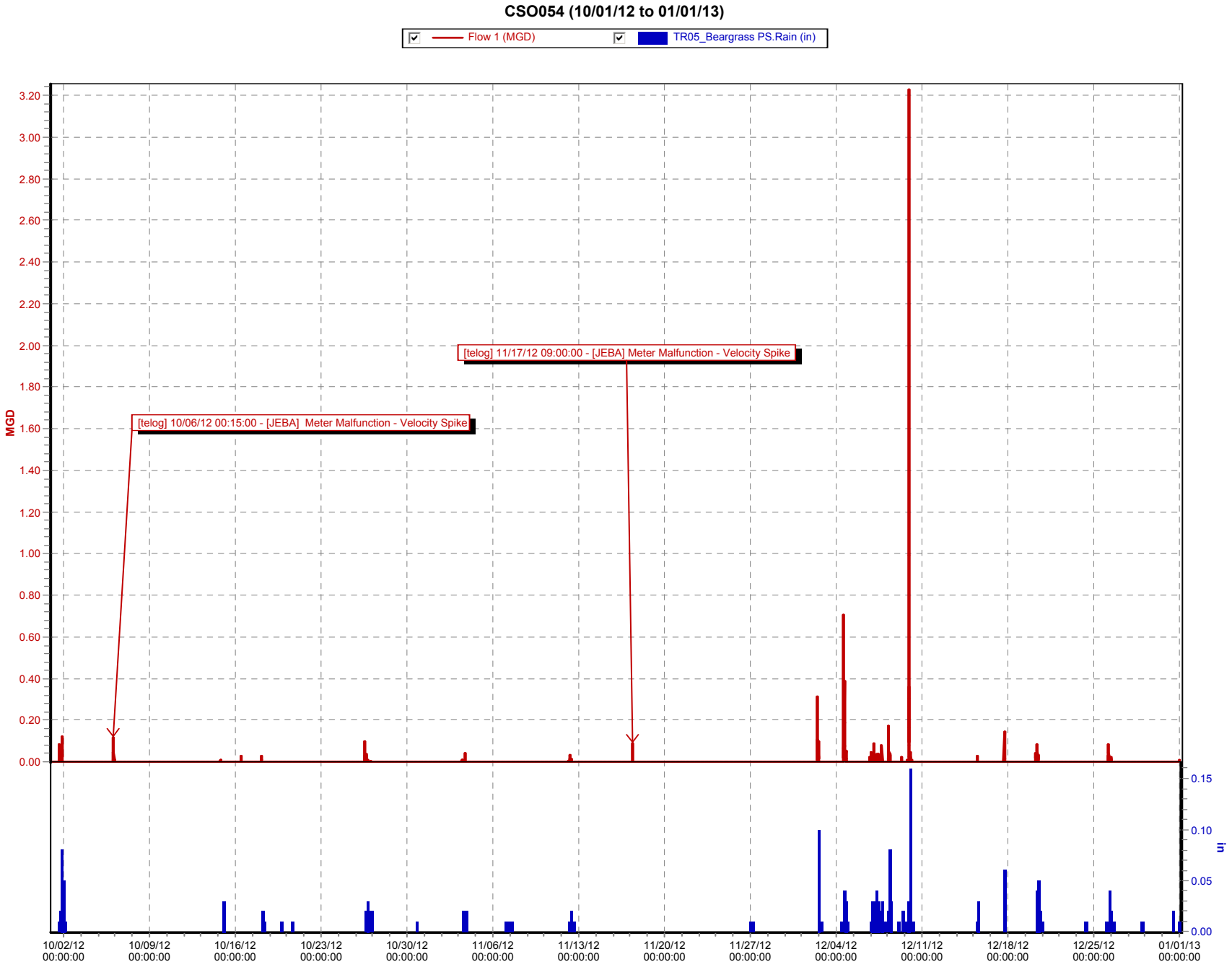

CSO038 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

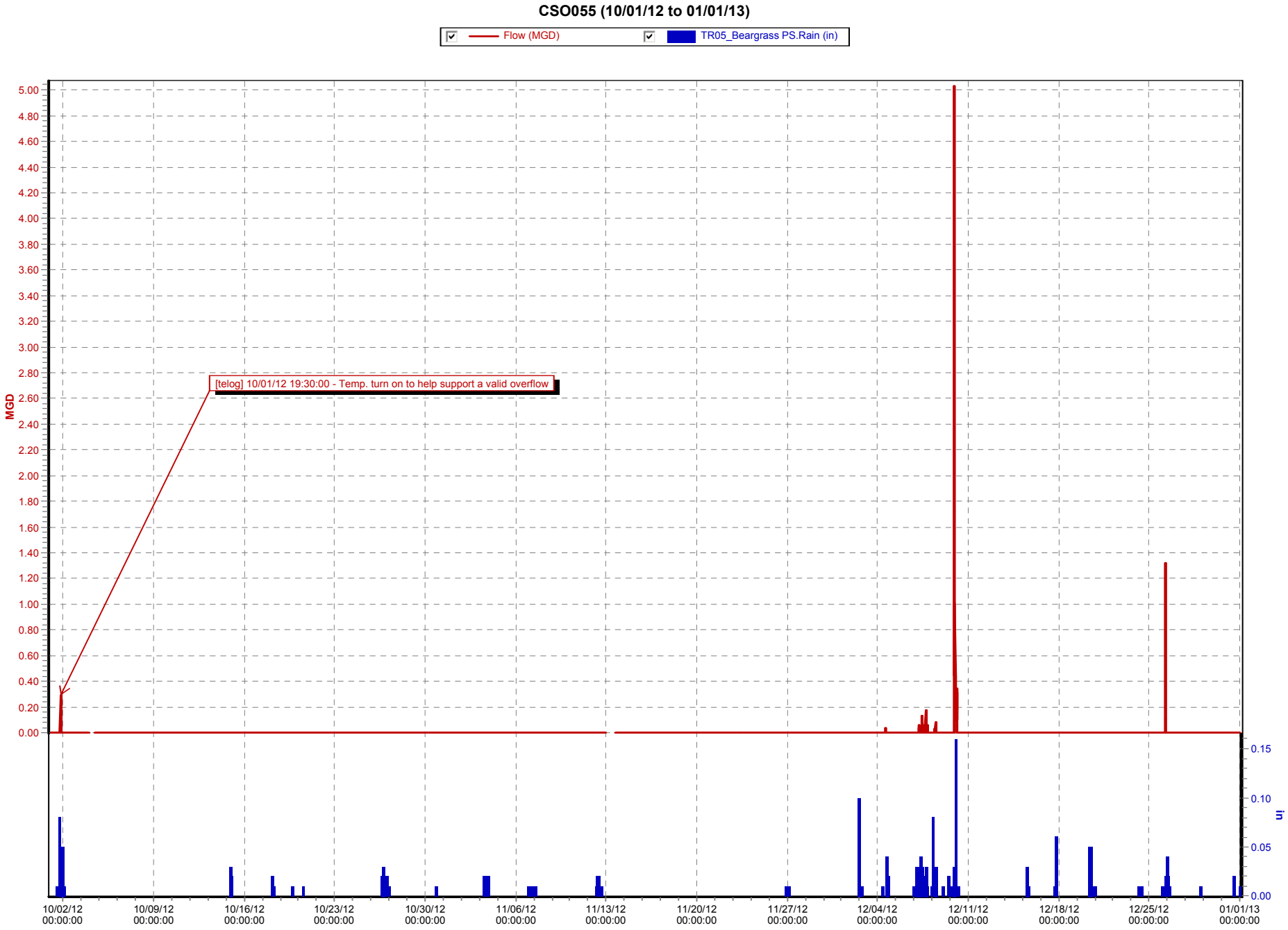

CSO050 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO051 (10/01/12 to 01/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO052 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO053 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.10
0.08
0.06
0.04
0.02
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00


CSO054 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/06/12 00:15:00 - [JEBA] Meter Malfunction - Velocity Spike
[telog] 11/17/12 09:00:00 - [JEBA] Meter Malfunction - Velocity Spike
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00


CSO055 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
[telog] 10/01/12 19:30:00 - Temp. turn on to help support a valid overflow
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
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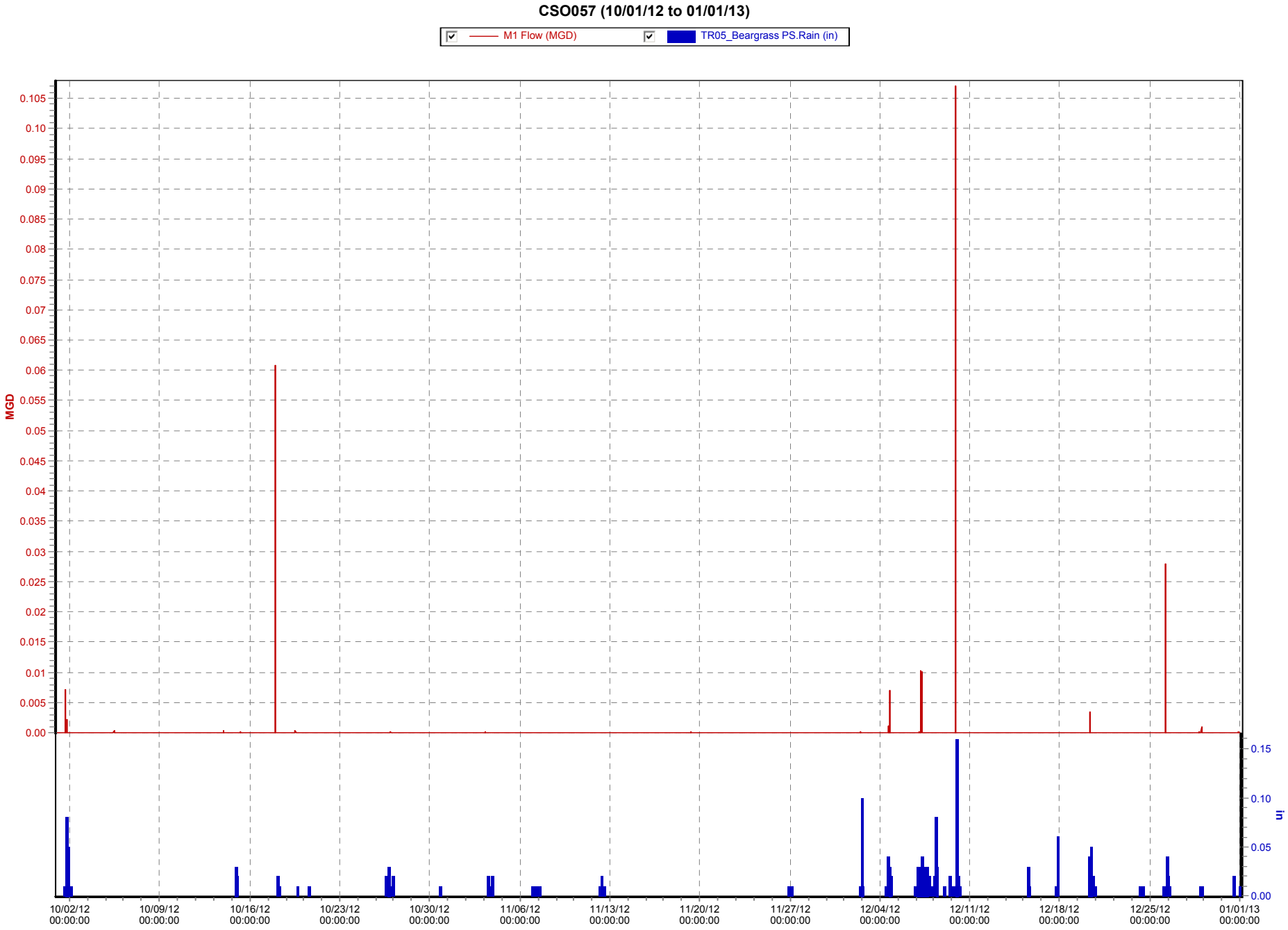
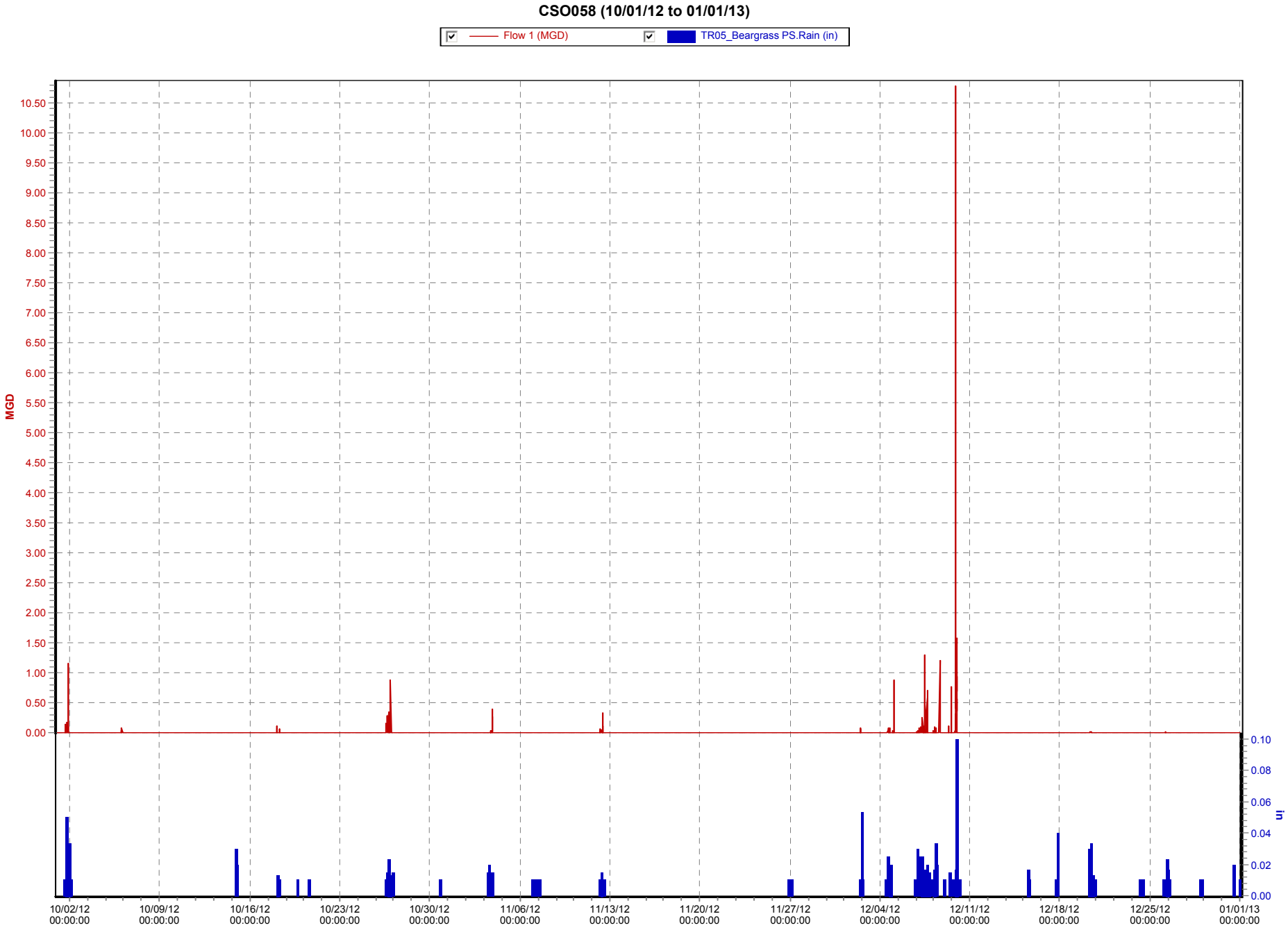
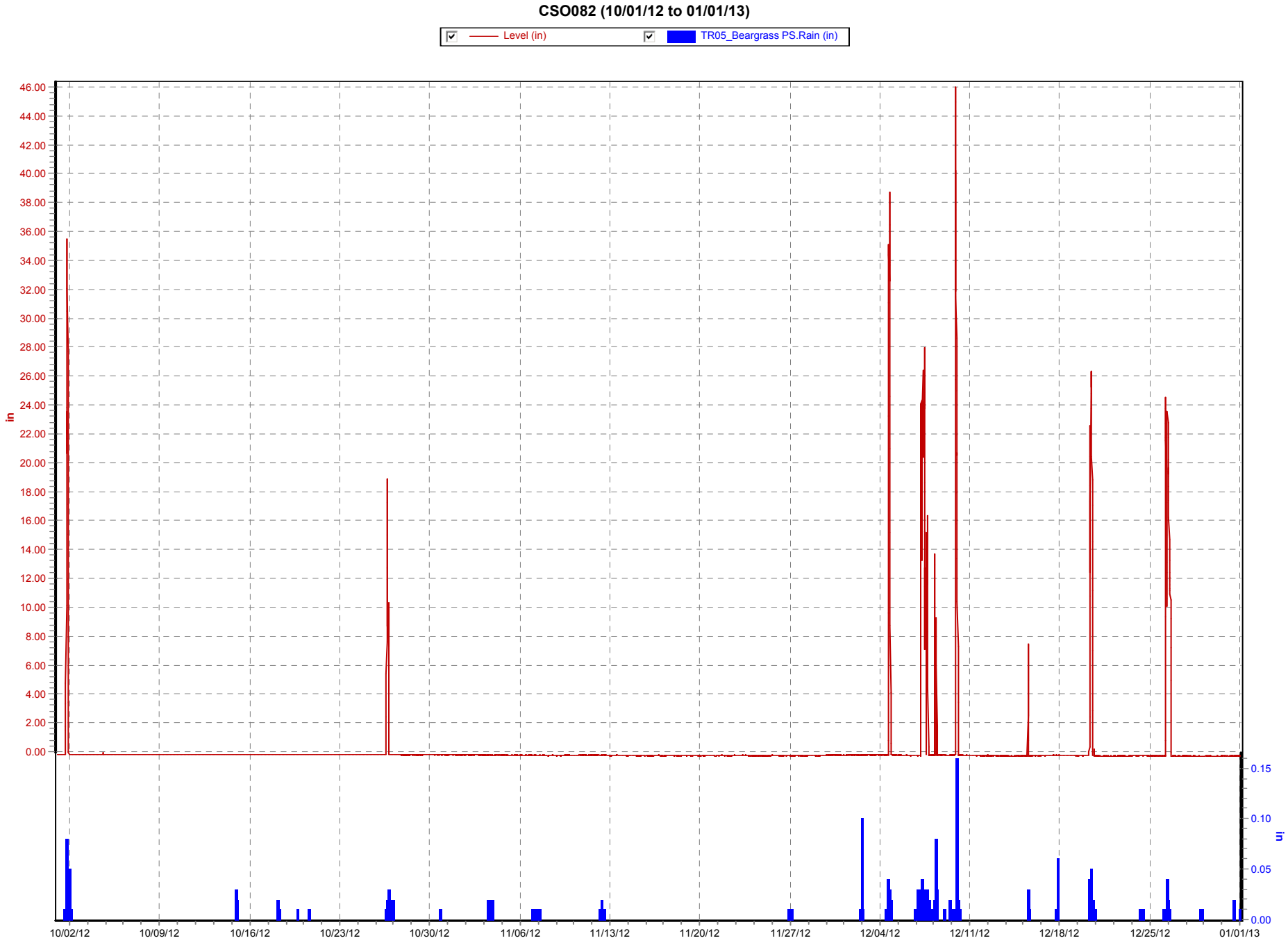
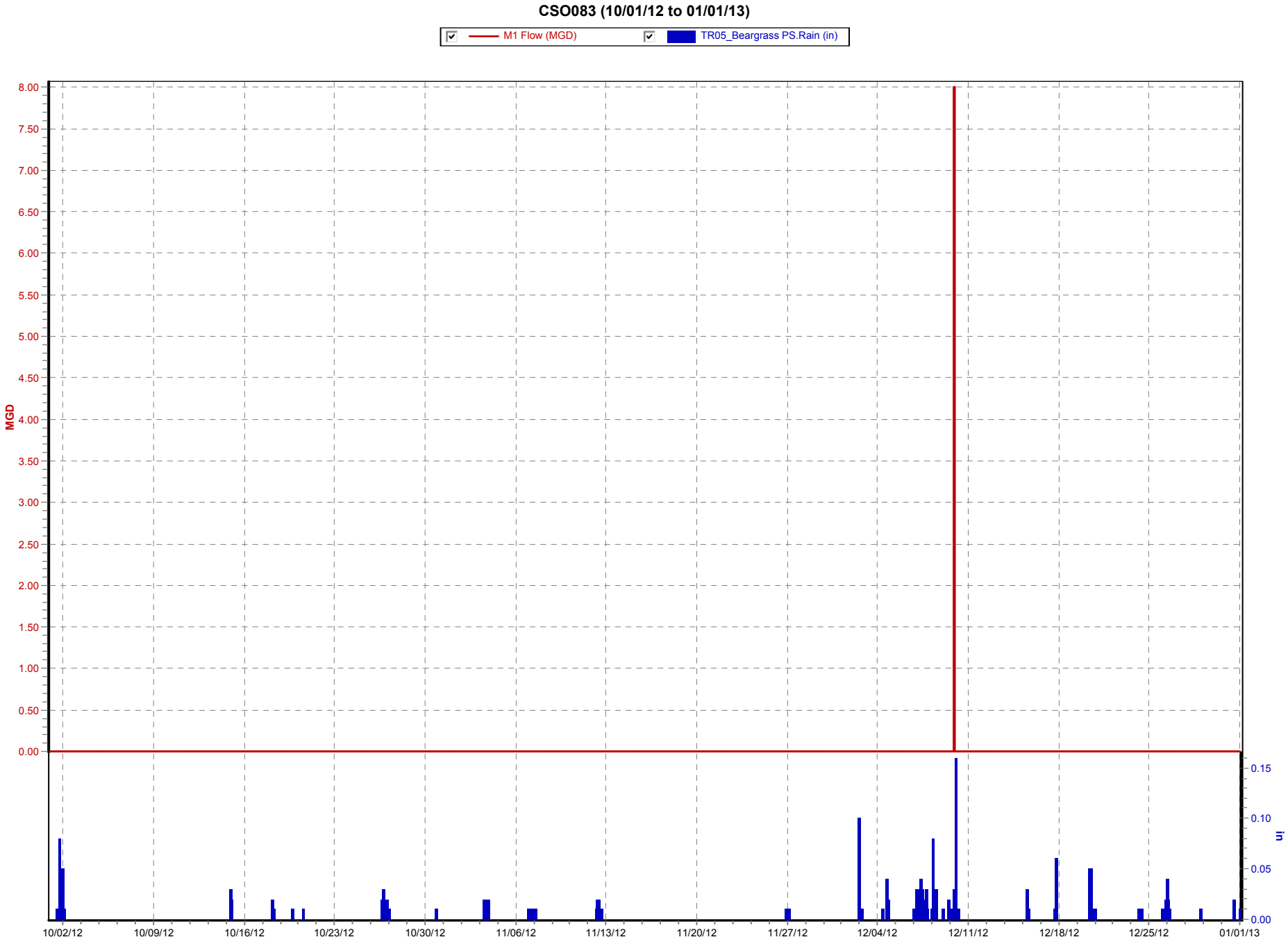
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00


CSO057 (10/01/12 to 01/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
0.105
0.10
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00


CSO058 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.10
0.08
0.06
0.04
0.02
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00


CSO082 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO083 (10/01/12 to 01/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
in
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
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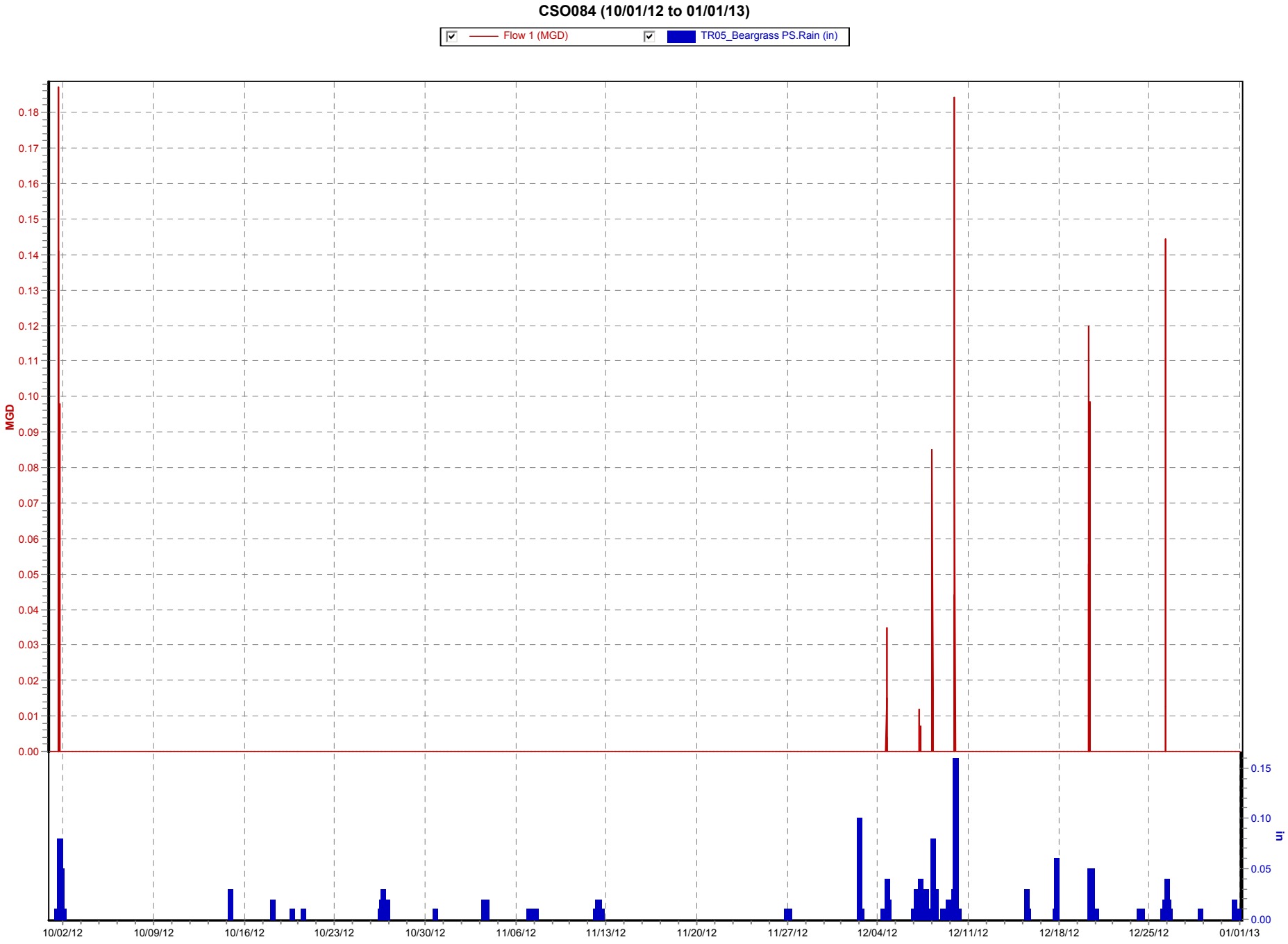
12/11/12
12/18/12
12/25/12
01/01/13


CSO084 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.18
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
in
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
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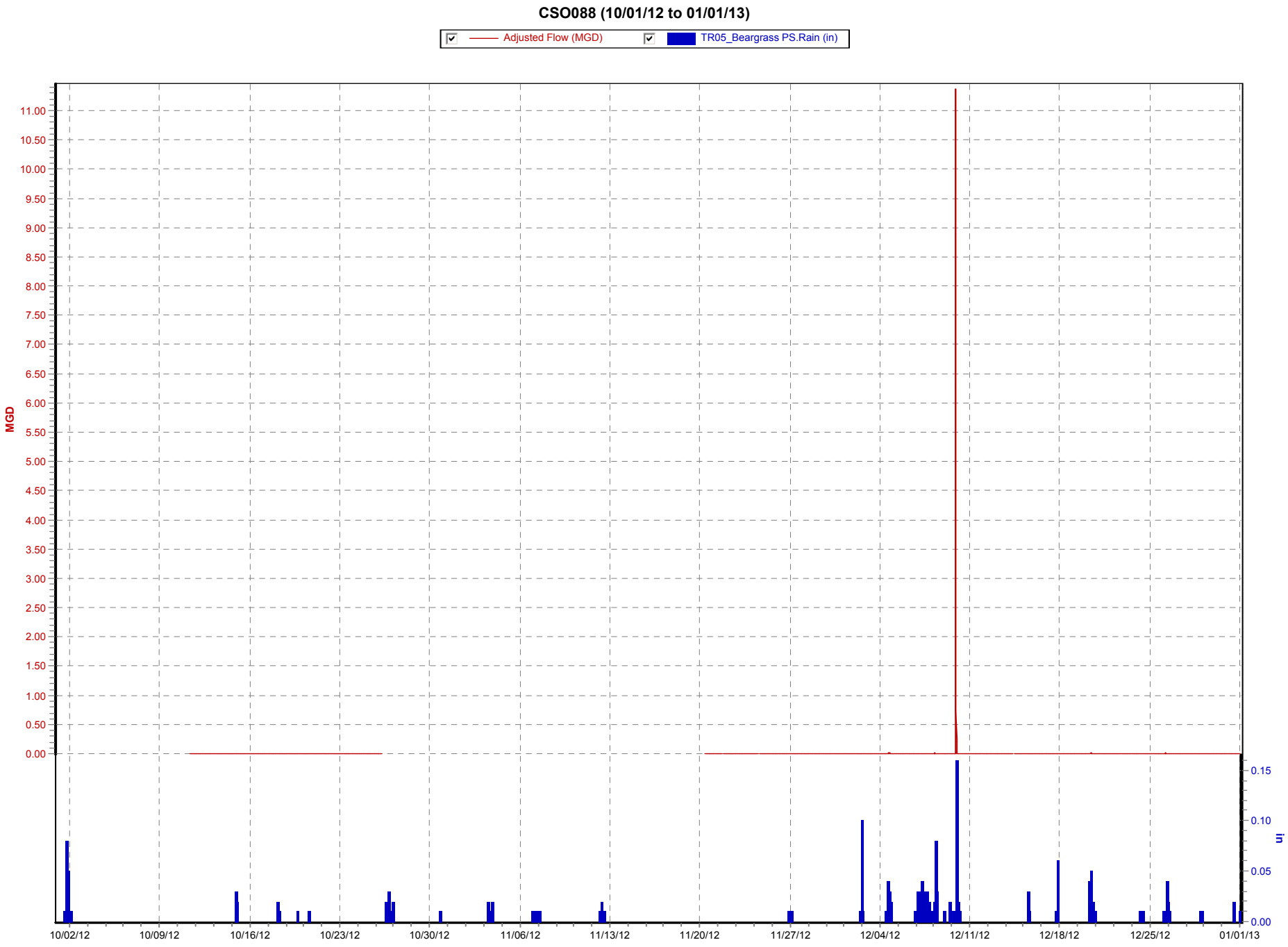
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO088 (10/01/12 to 01/01/13)
Adjusted Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
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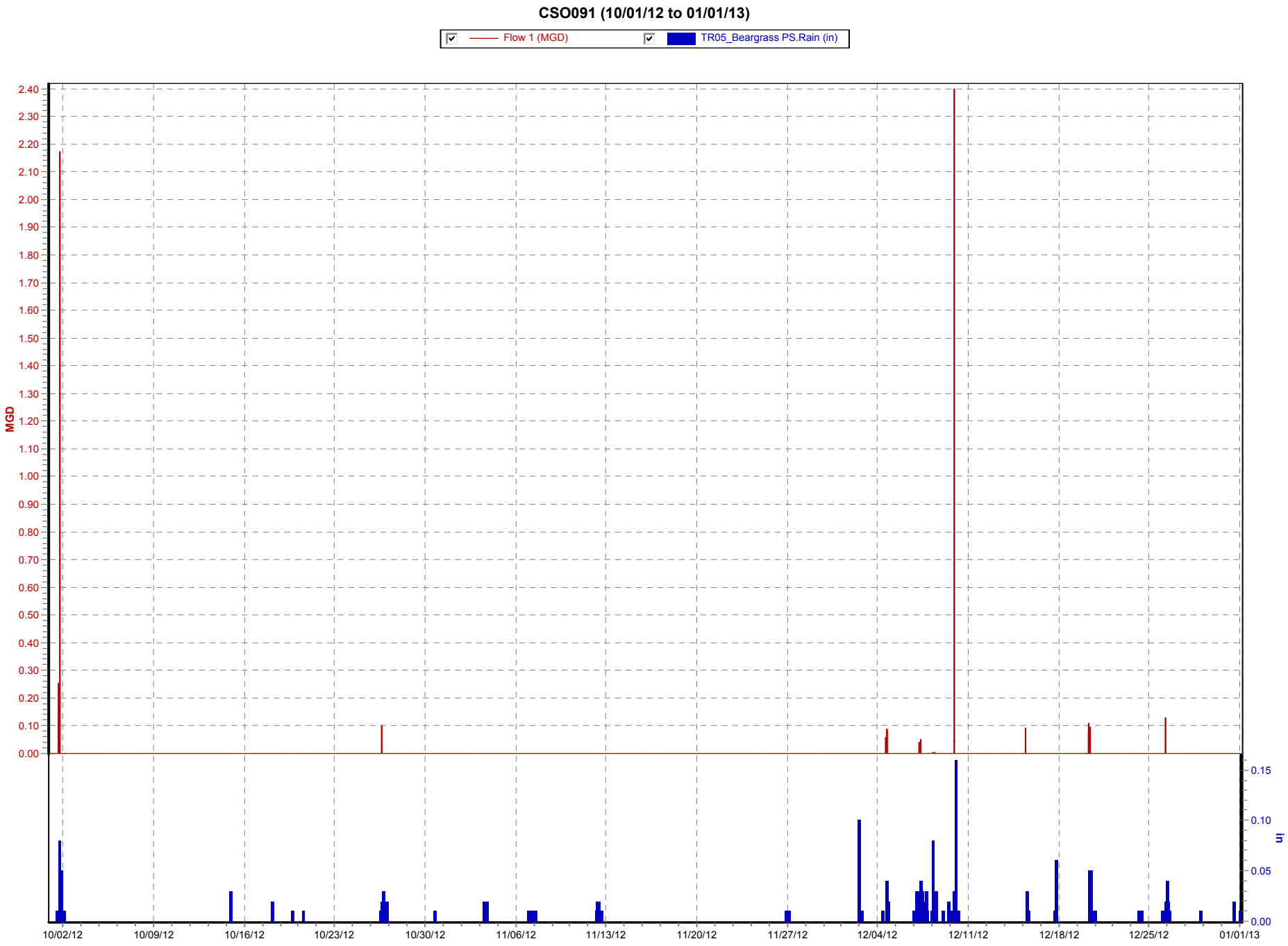
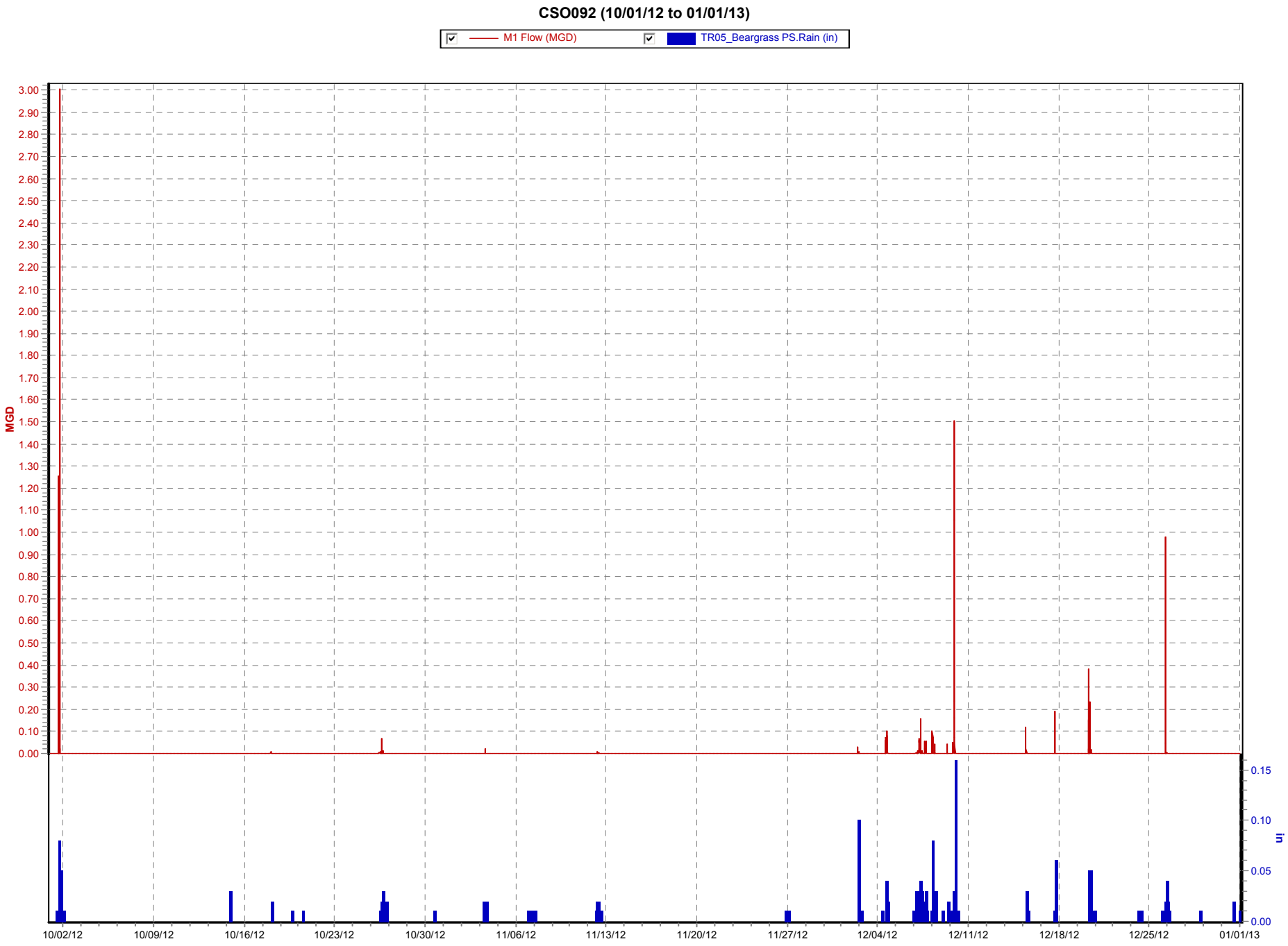
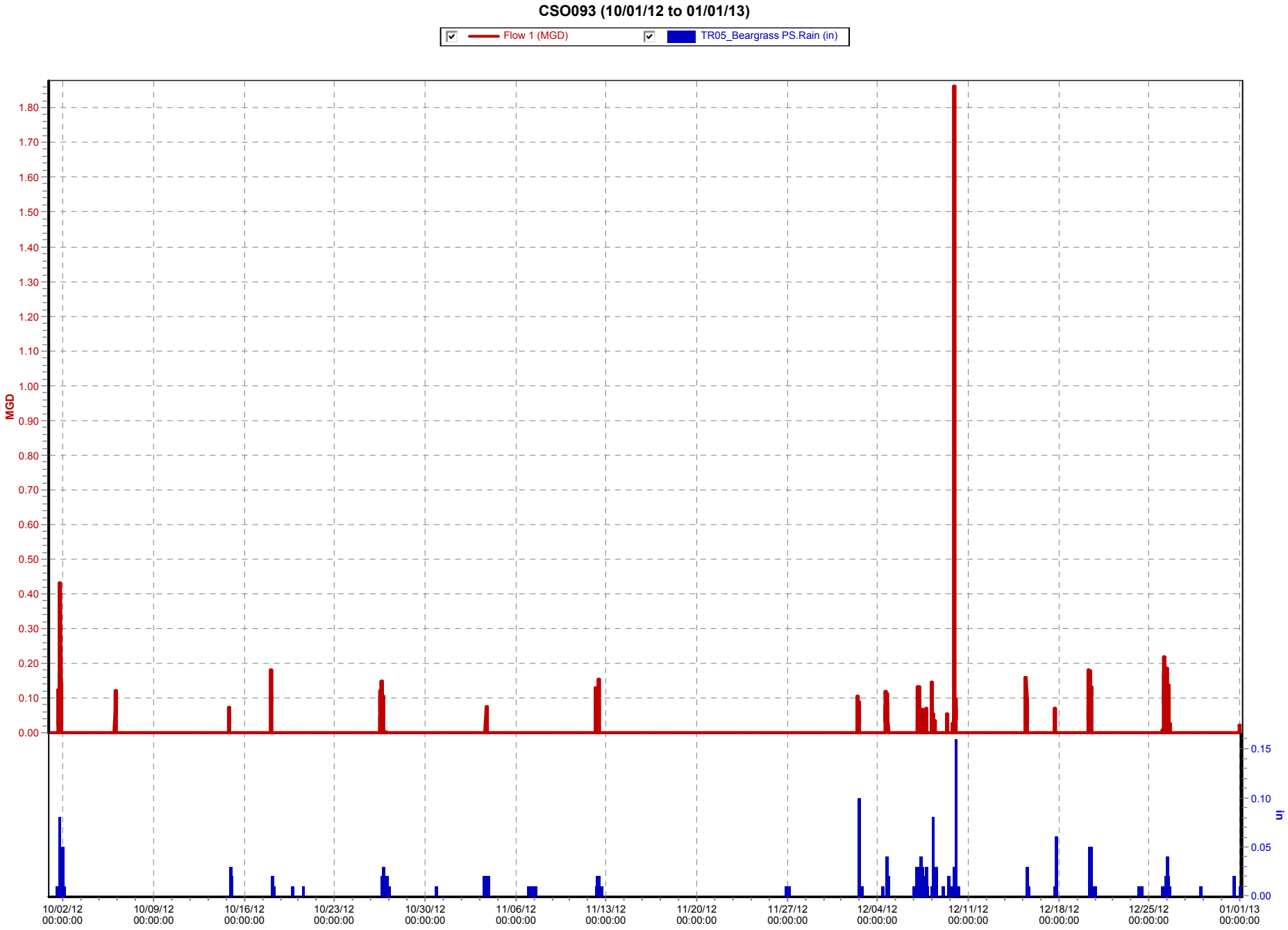
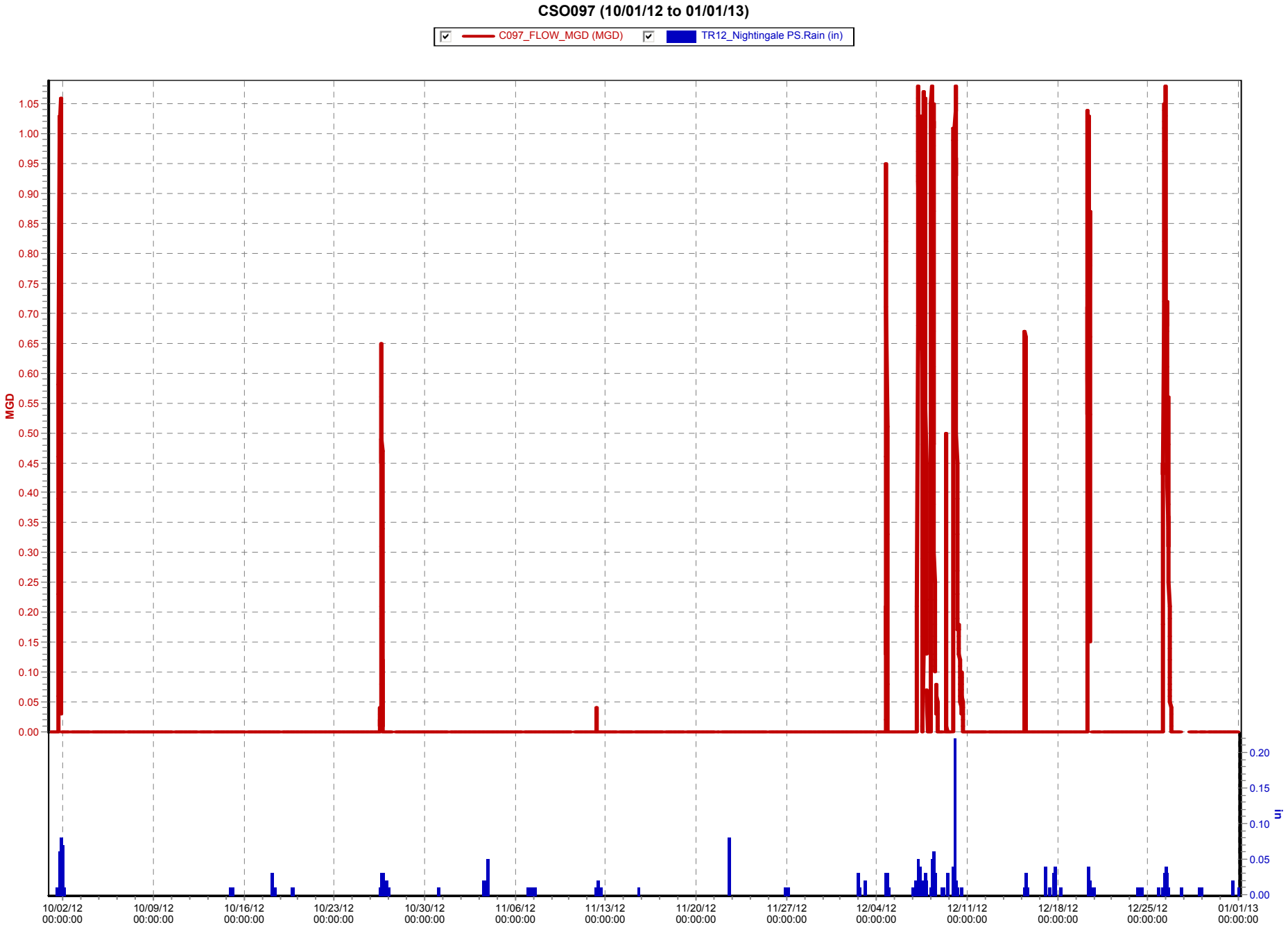
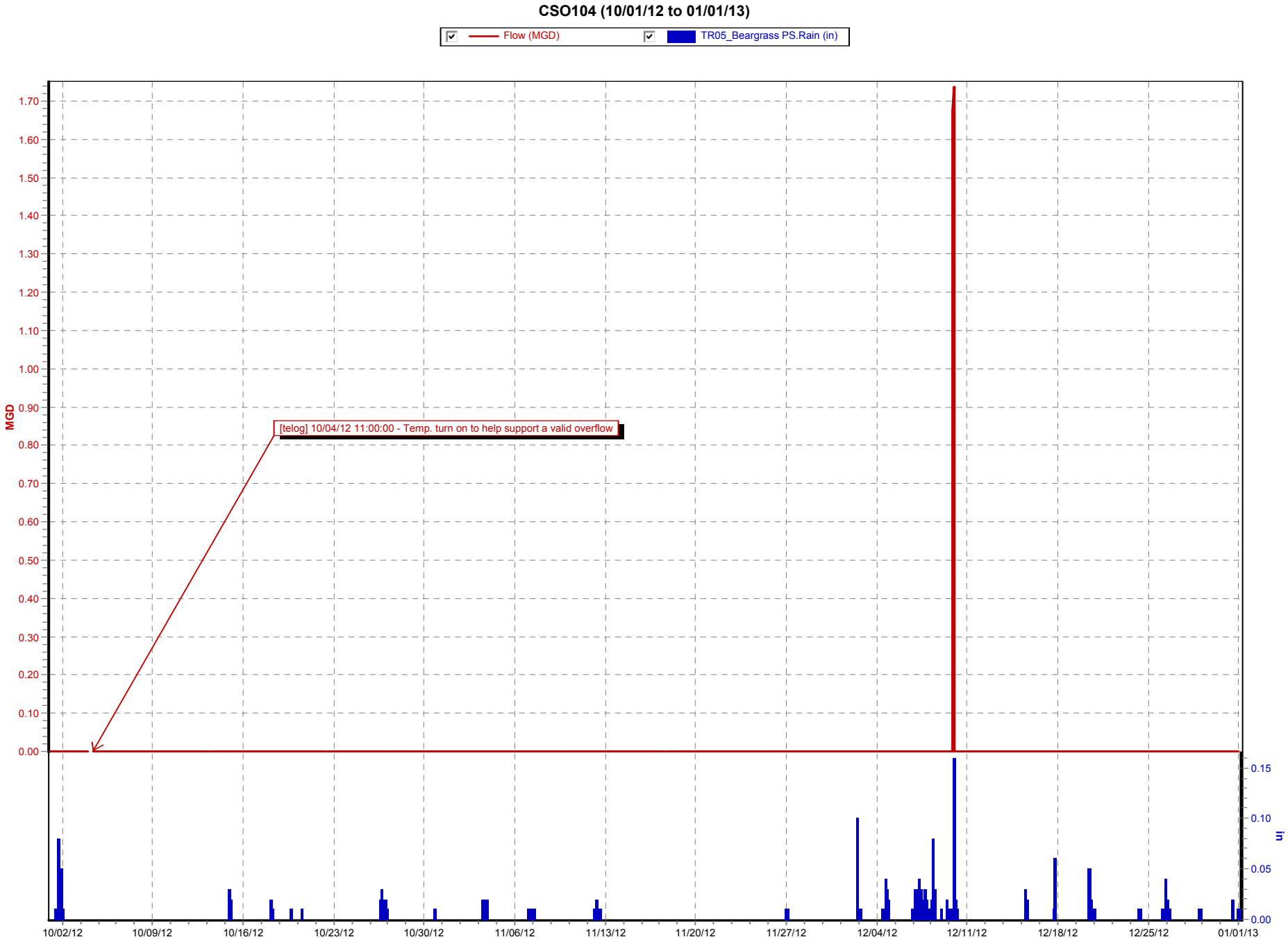
12/11/12
12/18/12
12/25/12
01/01/13

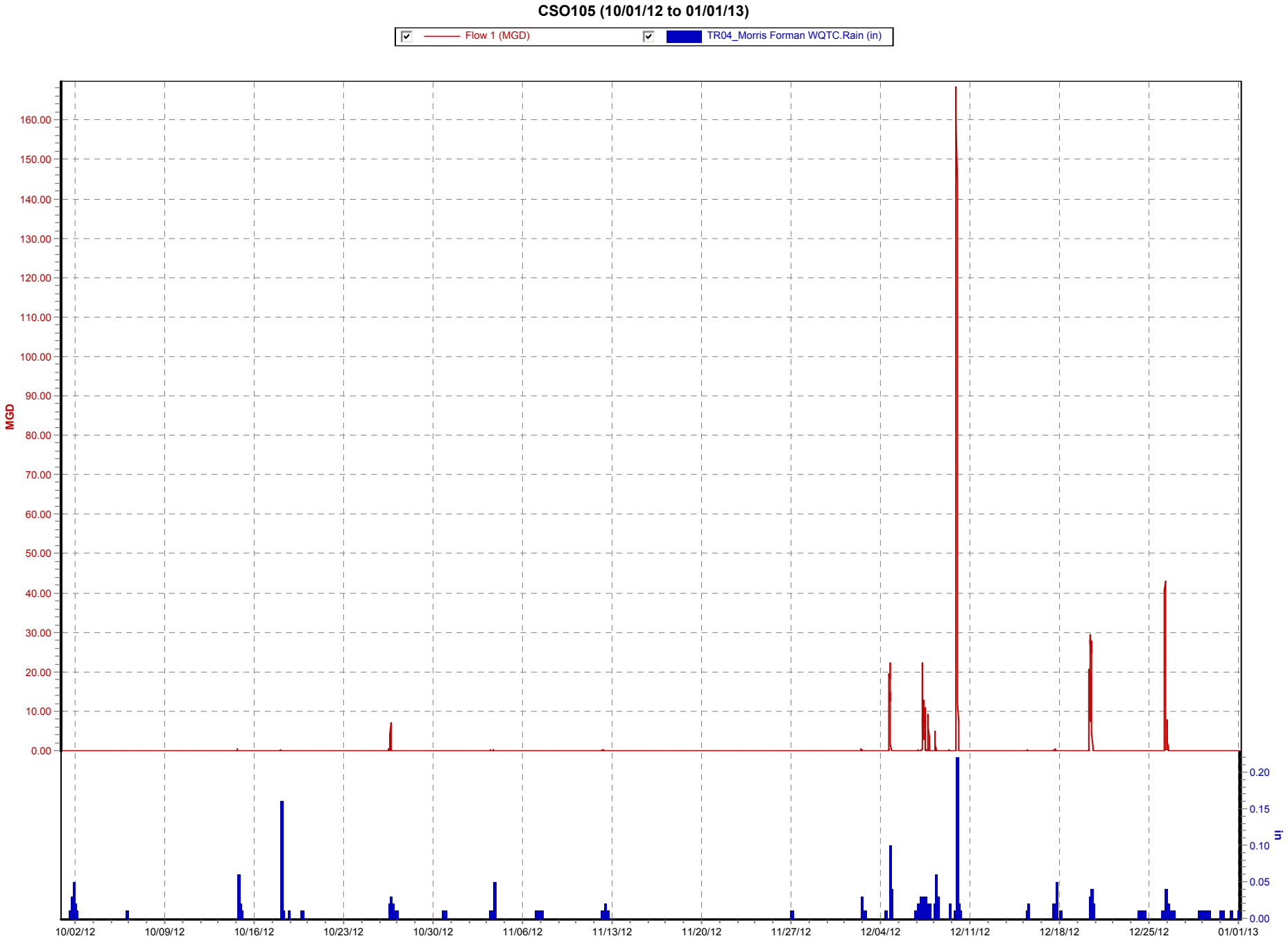

CSO091 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

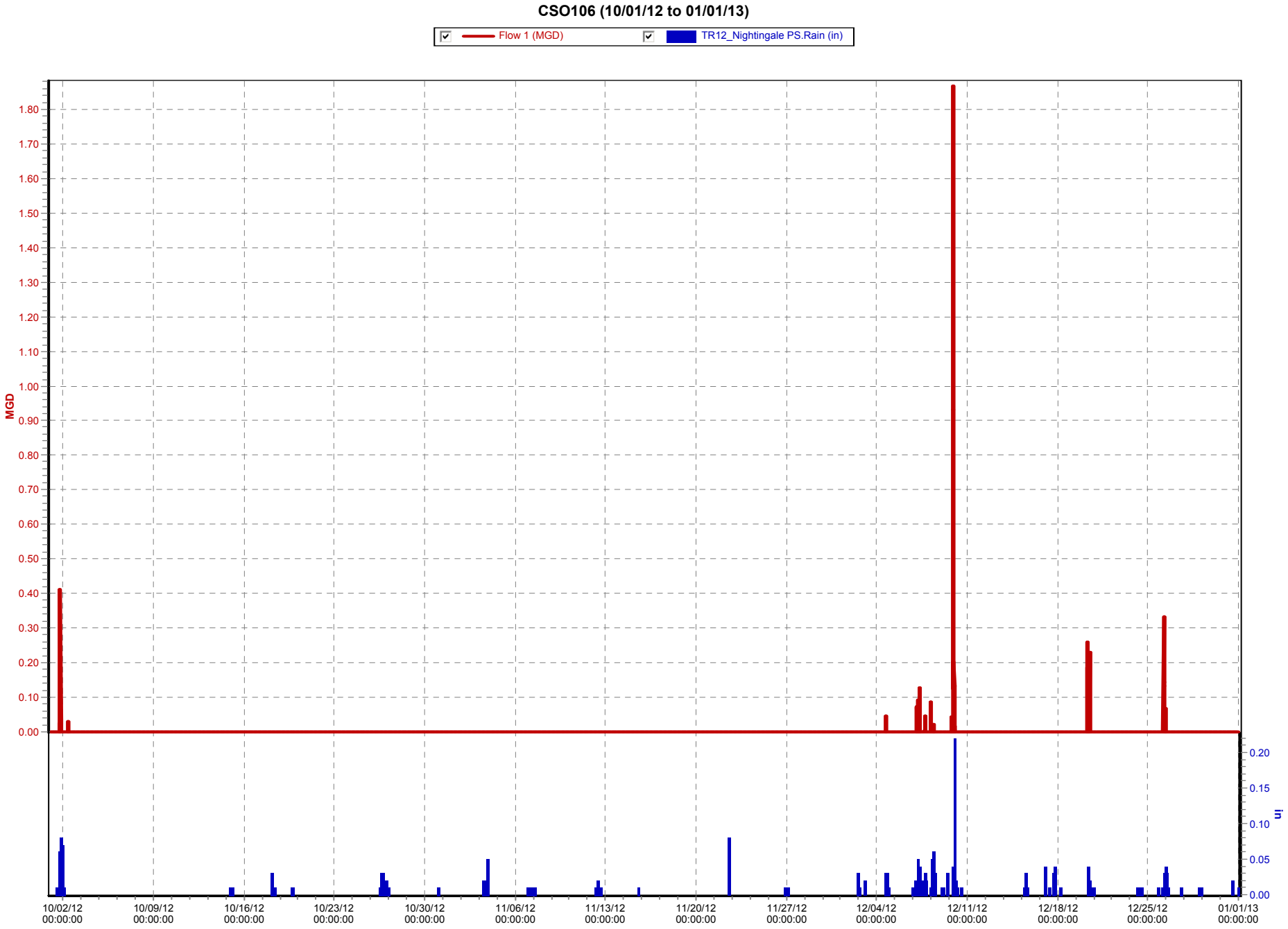

CSO092 (10/01/12 to 01/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
3.00
2.90
2.80
2.70
2.60
2.50
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

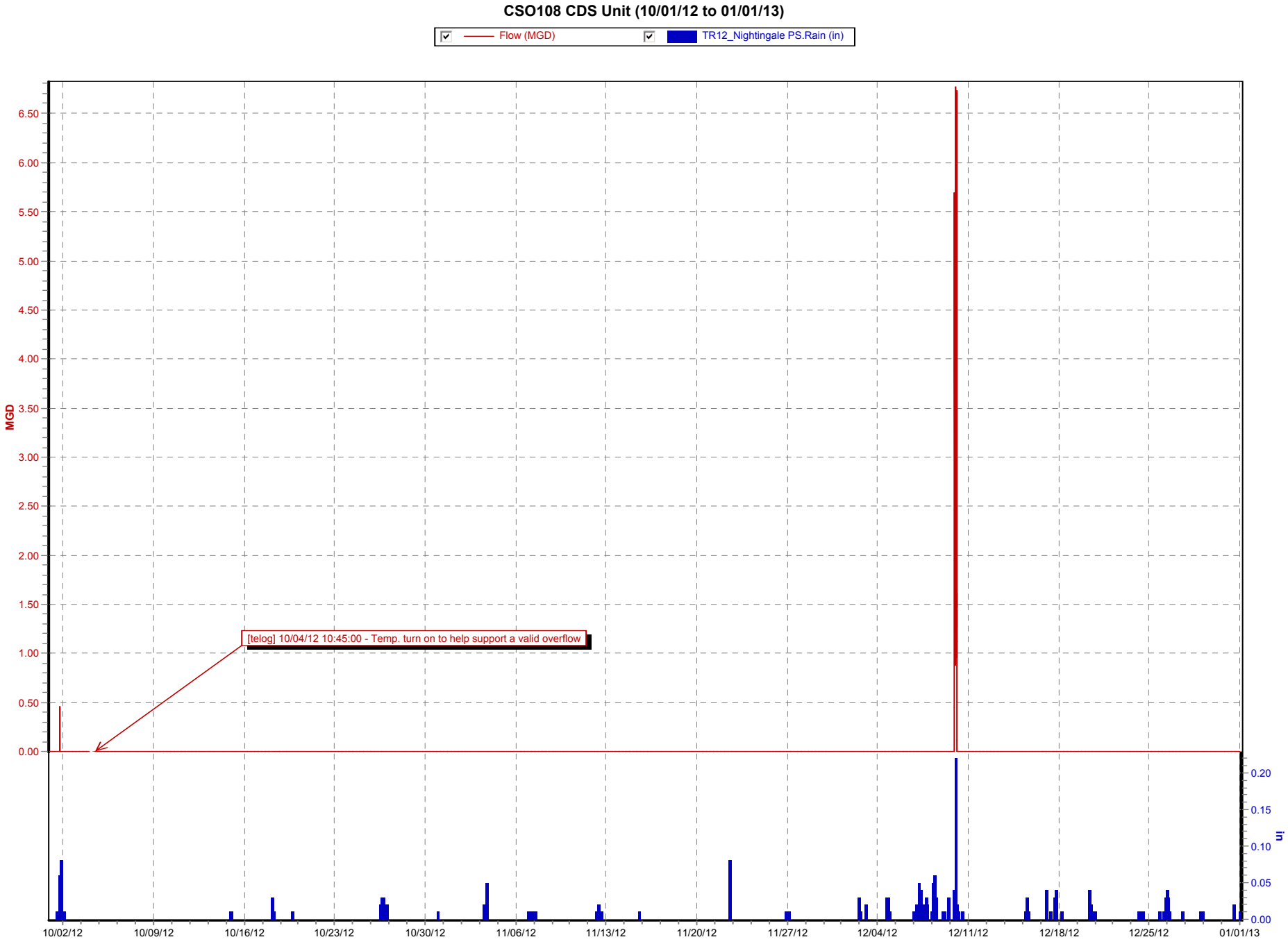

CSO093 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

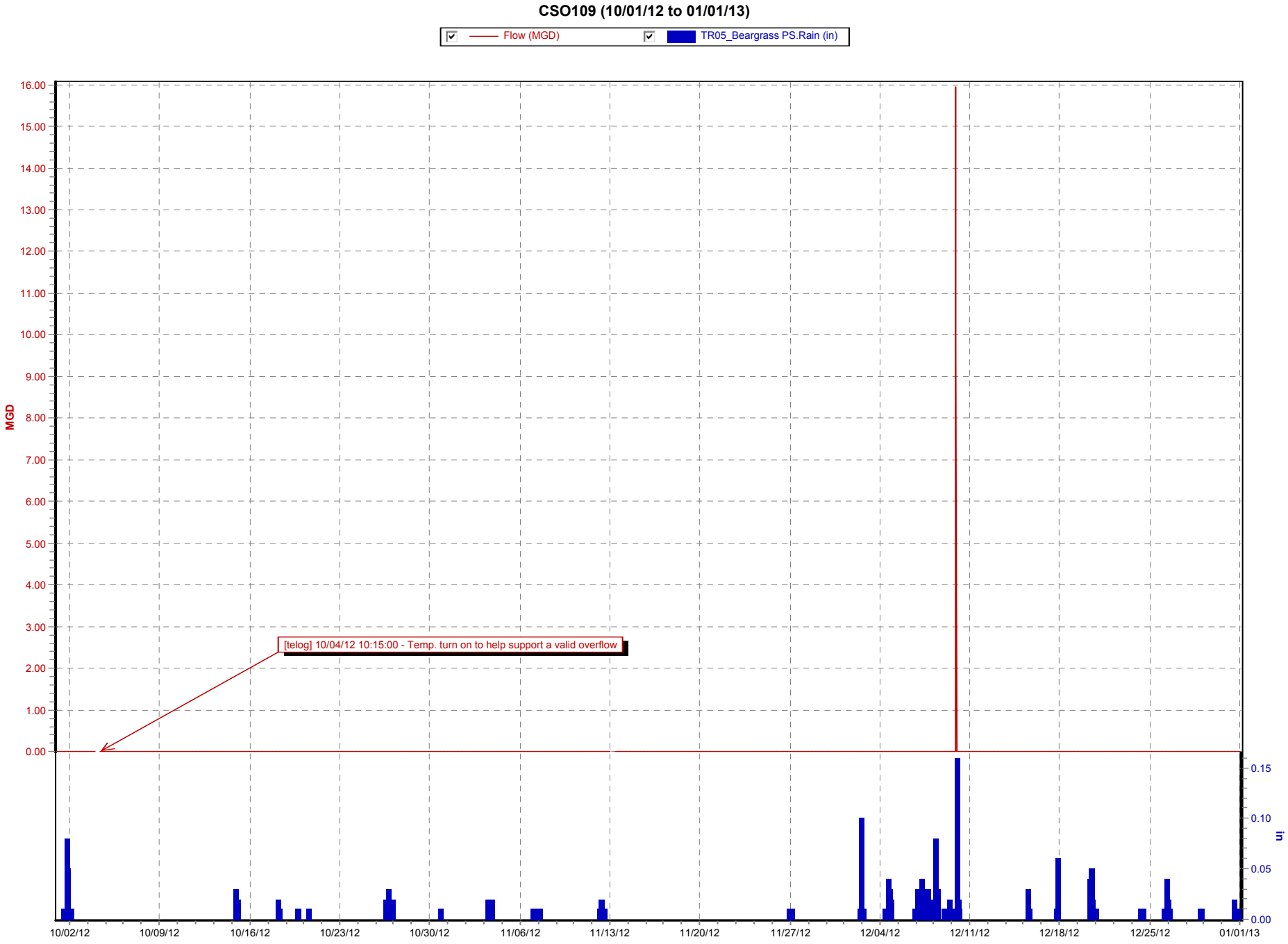

CSO097 (10/01/12 to 01/01/13)
C097_FLOW_MGD (MGD)
TR12_Nightingale PS.Rain (in)
MGD
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.20
0.15
0.10
0.05
0.00
in
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

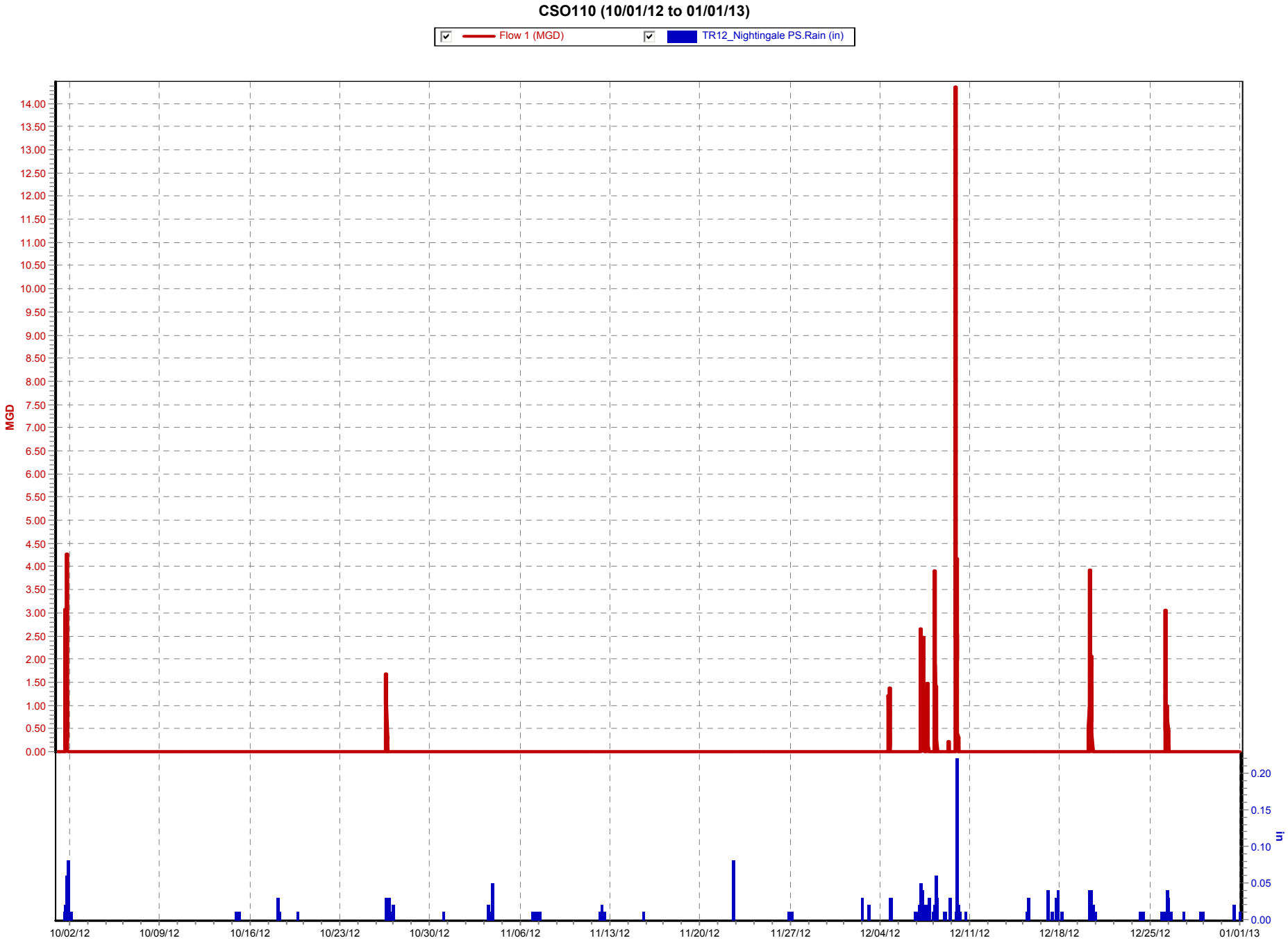

CSO104 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/04/12 11:00:00 - Temp. turn on to help support a valid overflow
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

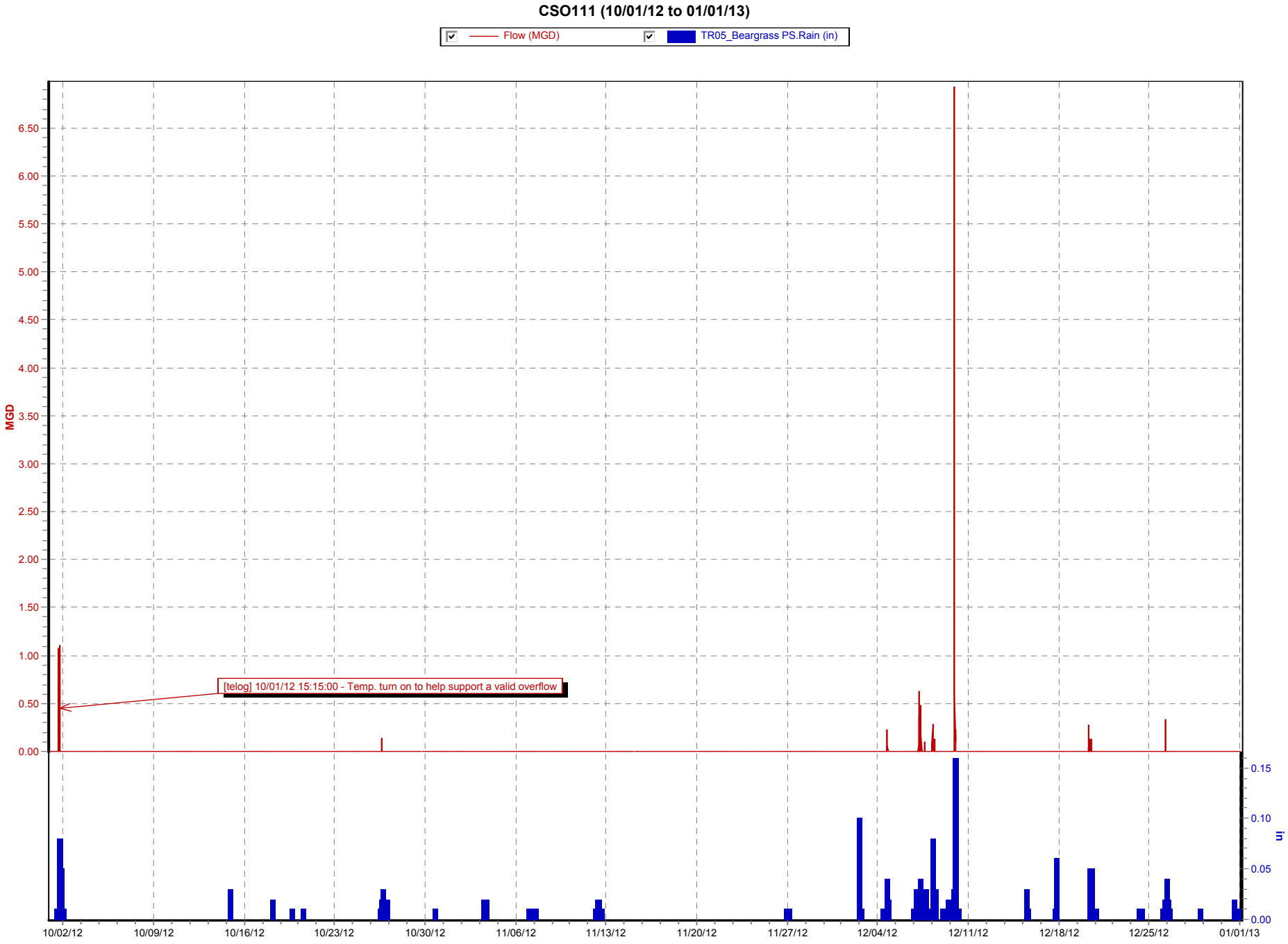

CSO105 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

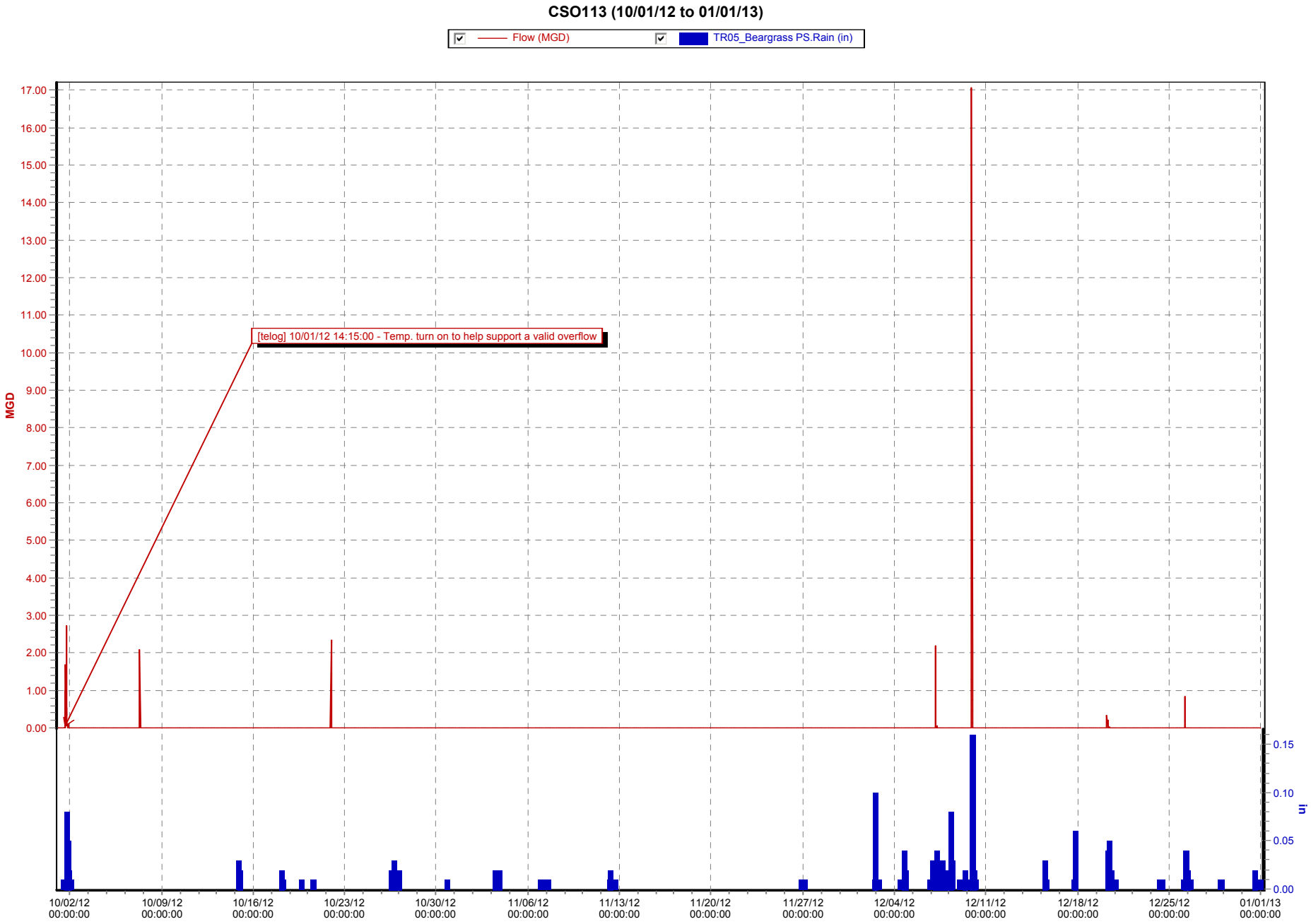

CSO106 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.20
0.15
0.10
0.05
0.00
in
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

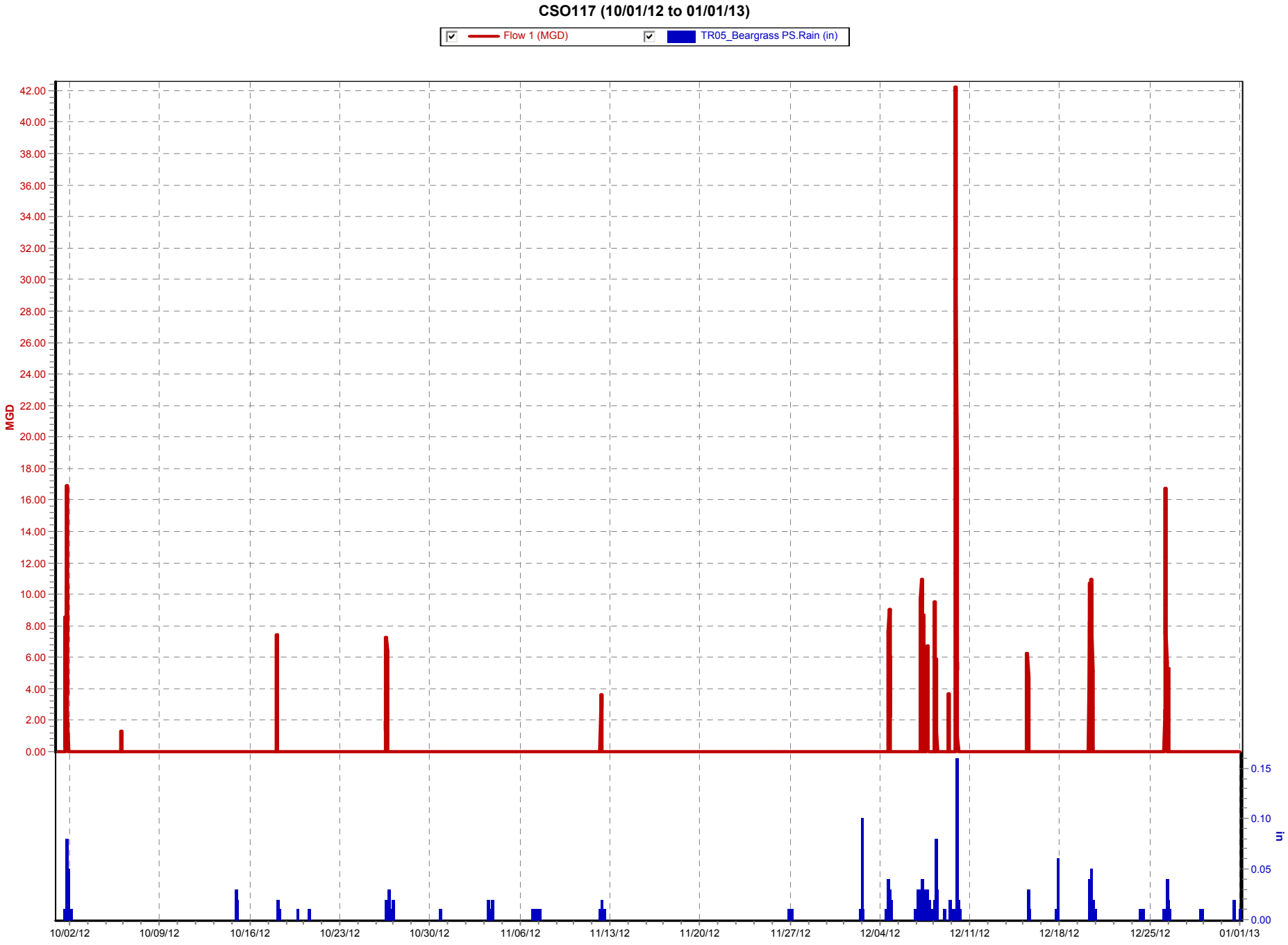

CSO108 CDS Unit (10/01/12 to 01/01/13)
Flow (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.20
0.15
0.10
0.05
0.00
[telog] 10/04/12 10:45:00 - Temp. turn on to help support a valid overflow
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

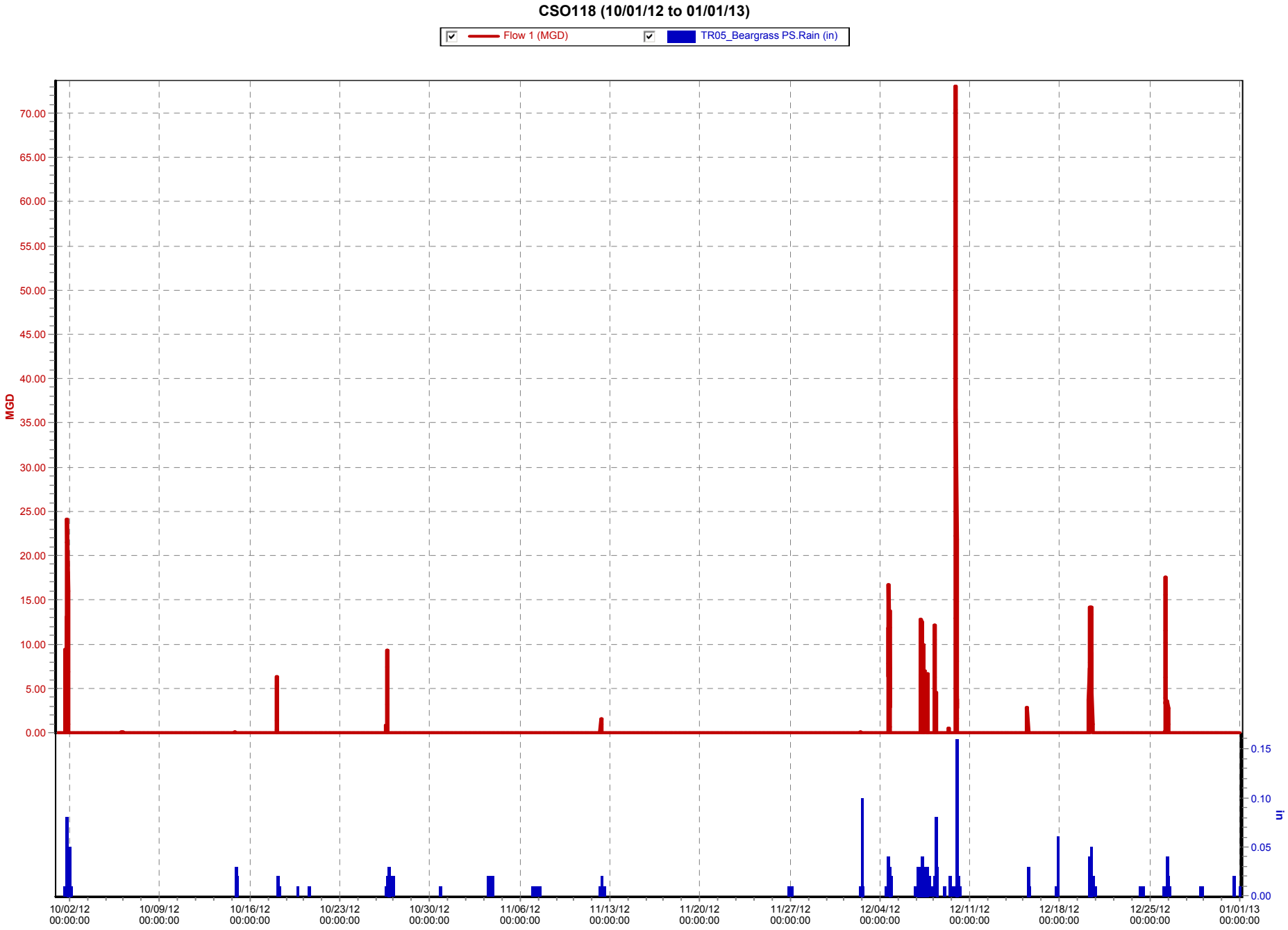

CSO109 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/04/12 10:15:00 - Temp. turn on to help support a valid overflow
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

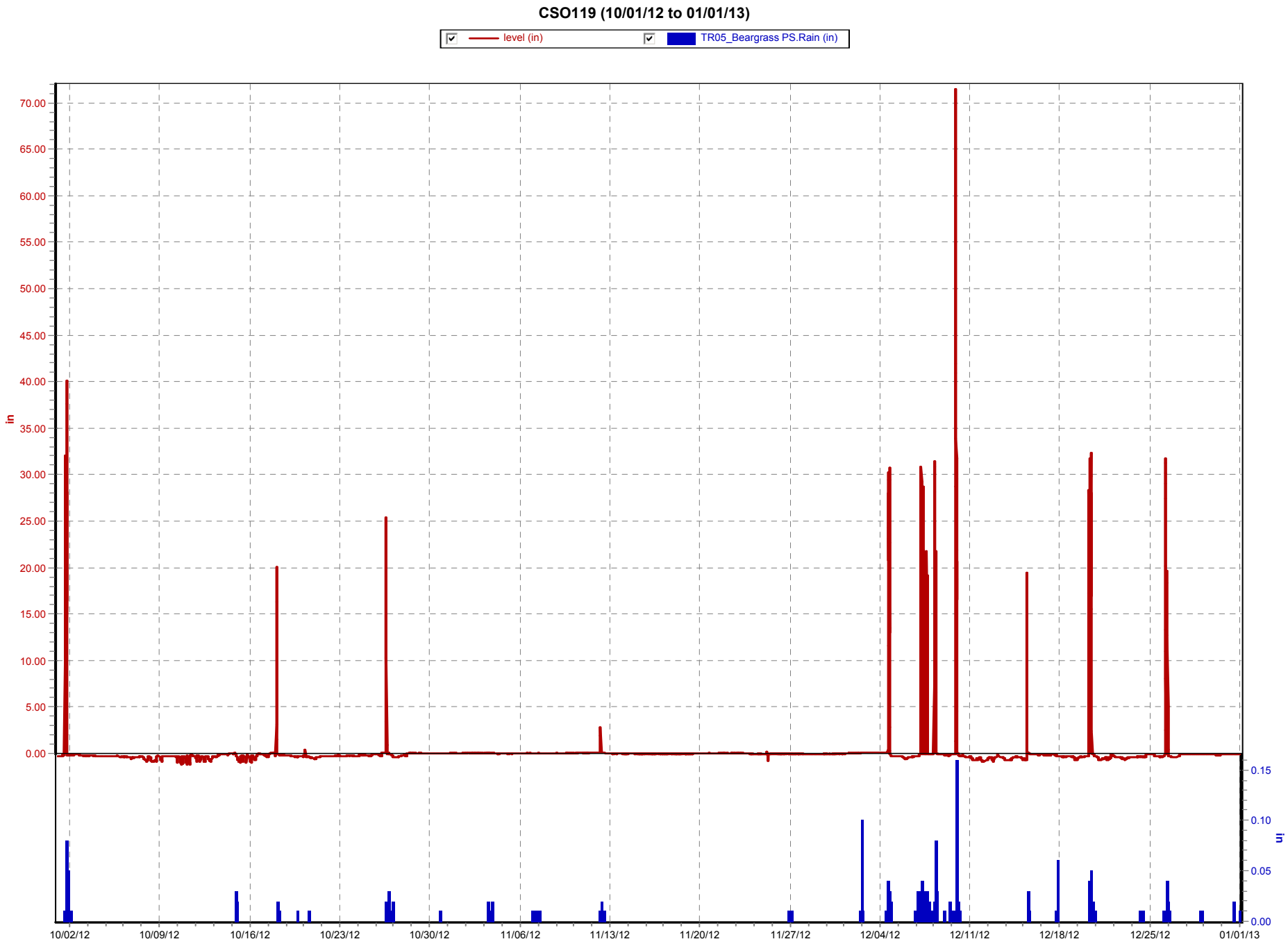

CSO110 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

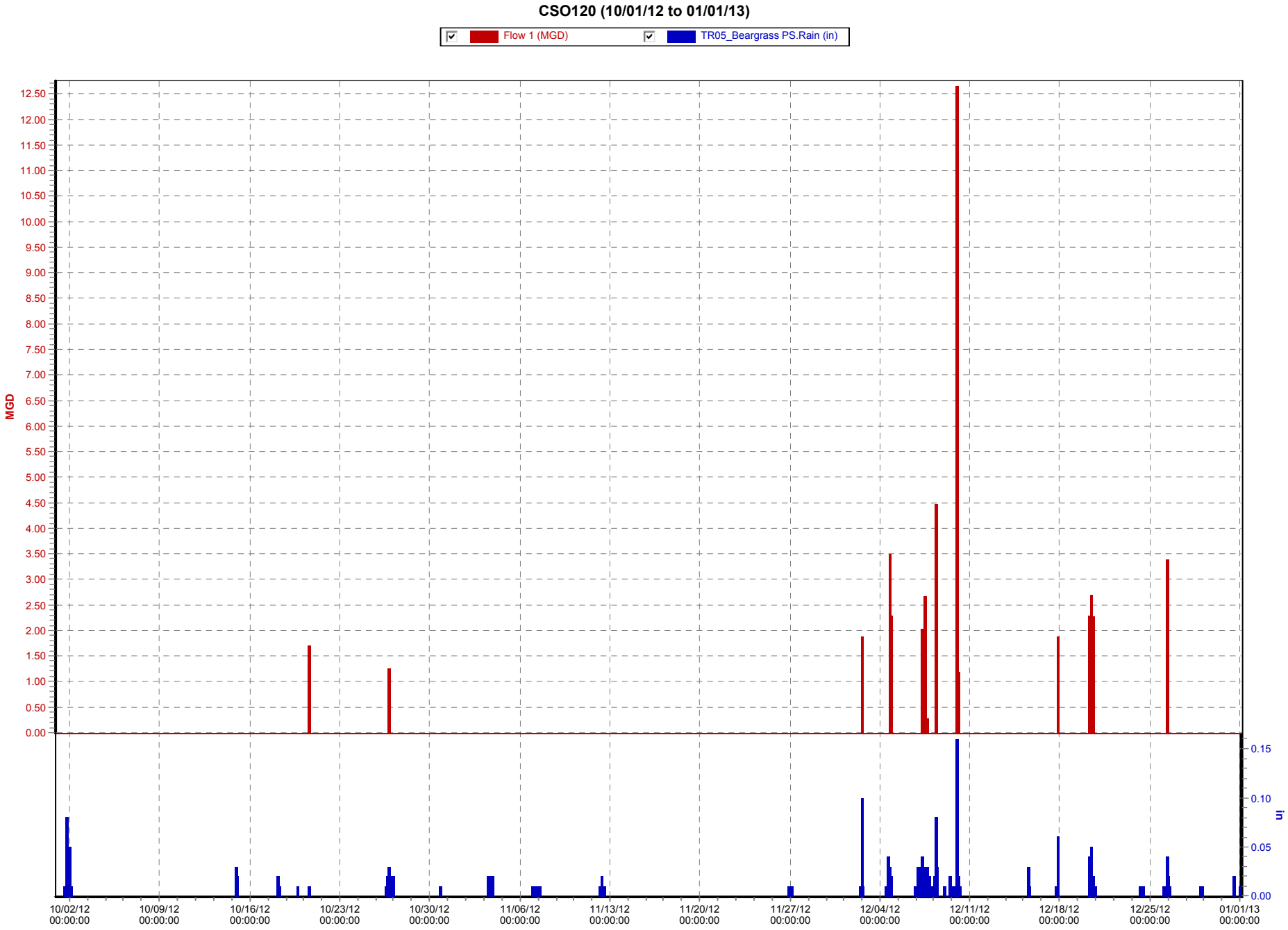

CSO111 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
[telog] 10/01/12 15:15:00 - Temp. turn on to help support a valid overflow
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

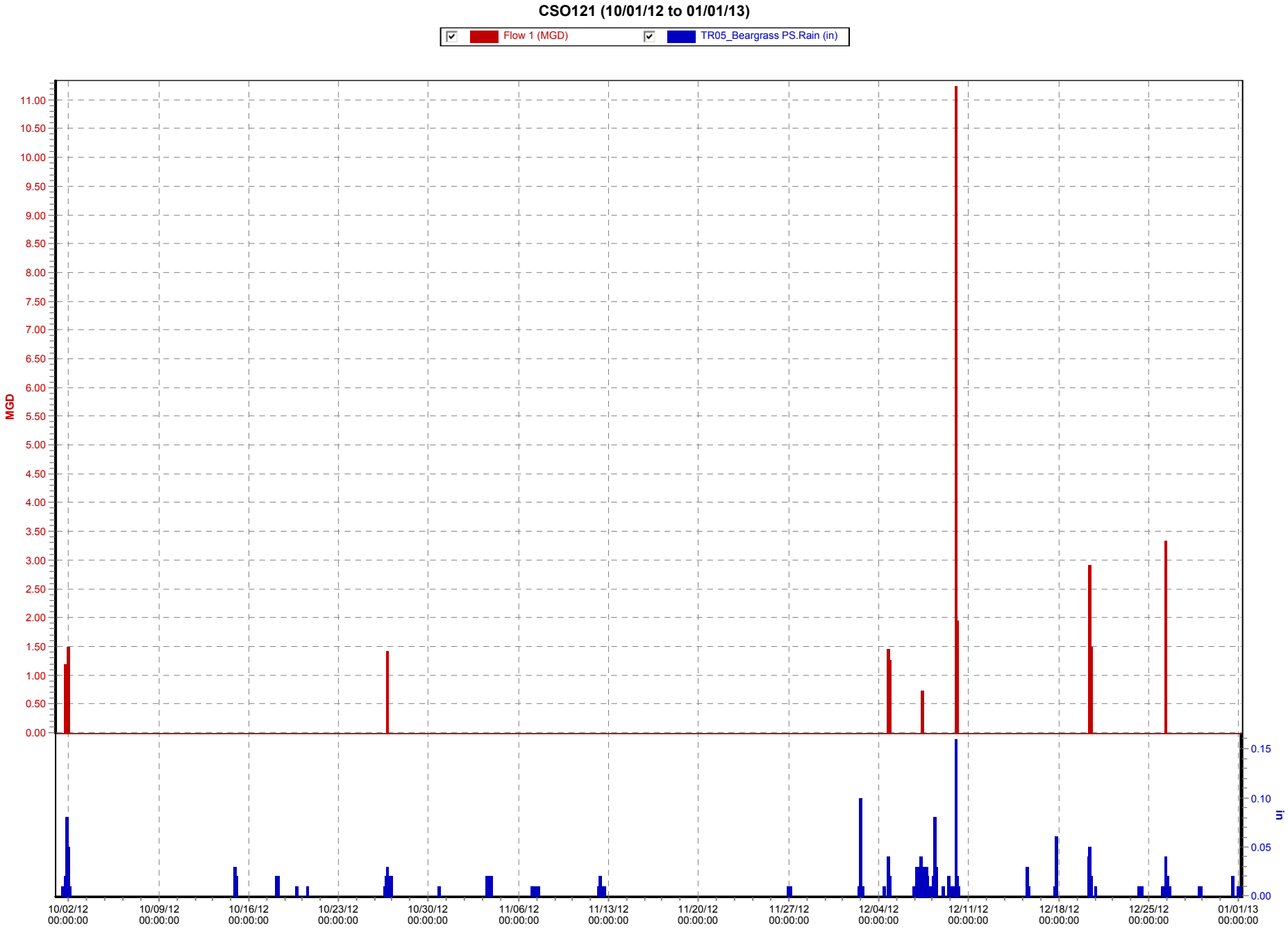

CSO113 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/01/12 14:15:00 - Temp. turn on to help support a valid overflow
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

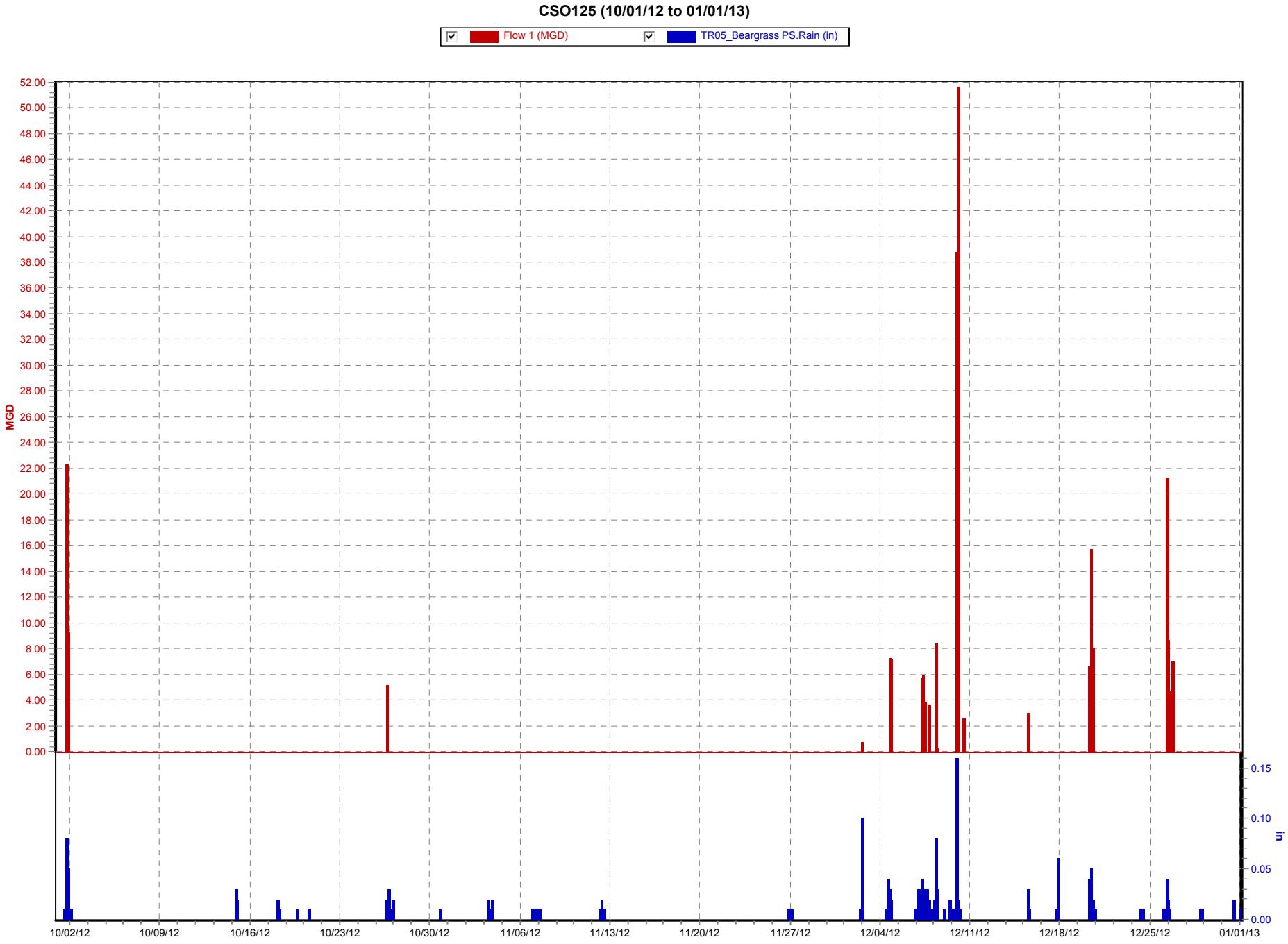

CSO117 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

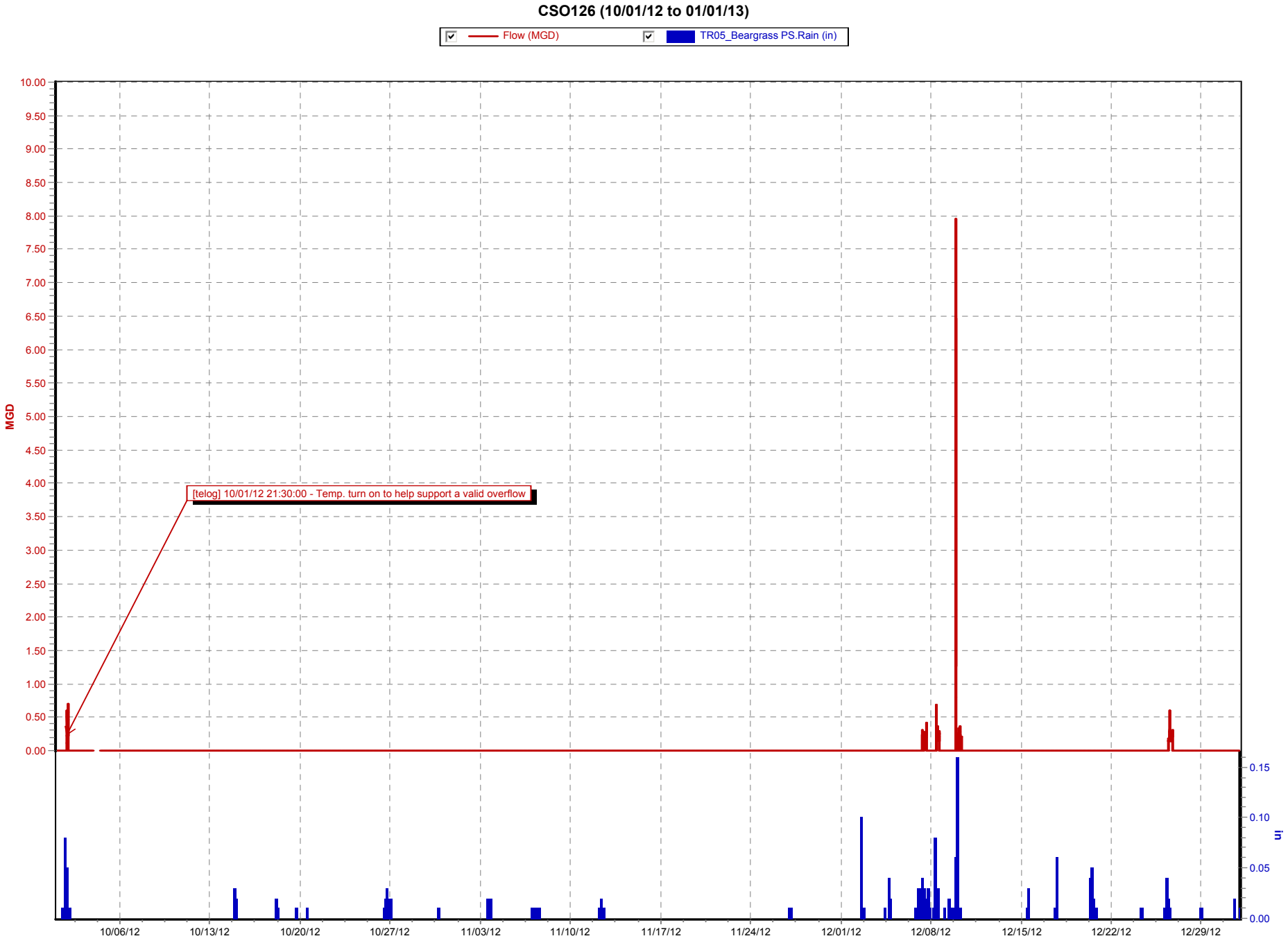

CSO118 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

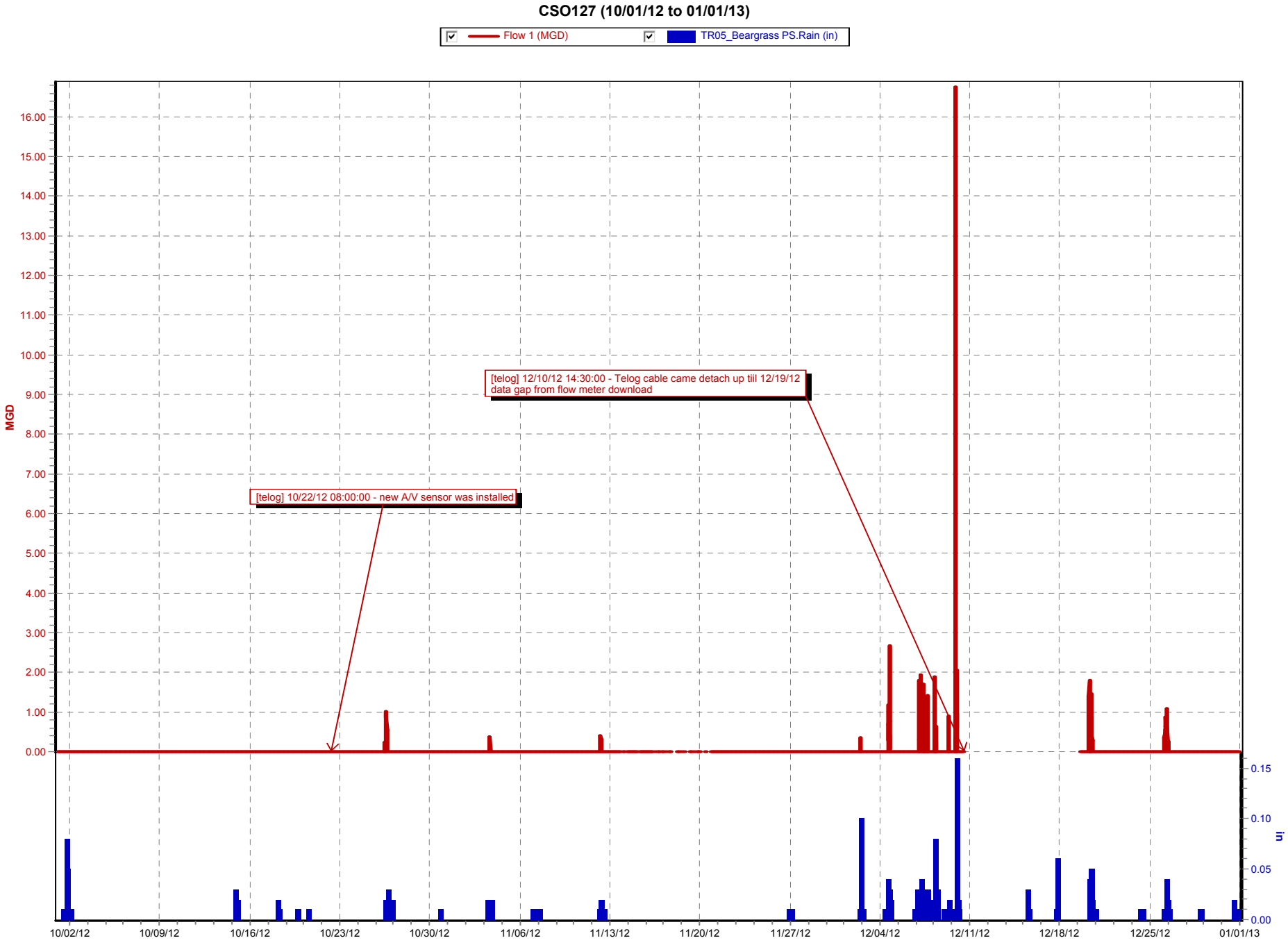

CSO119 (10/01/12 to 01/01/13)
level (in)
TR05_Beargrass PS.Rain (in)
in
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

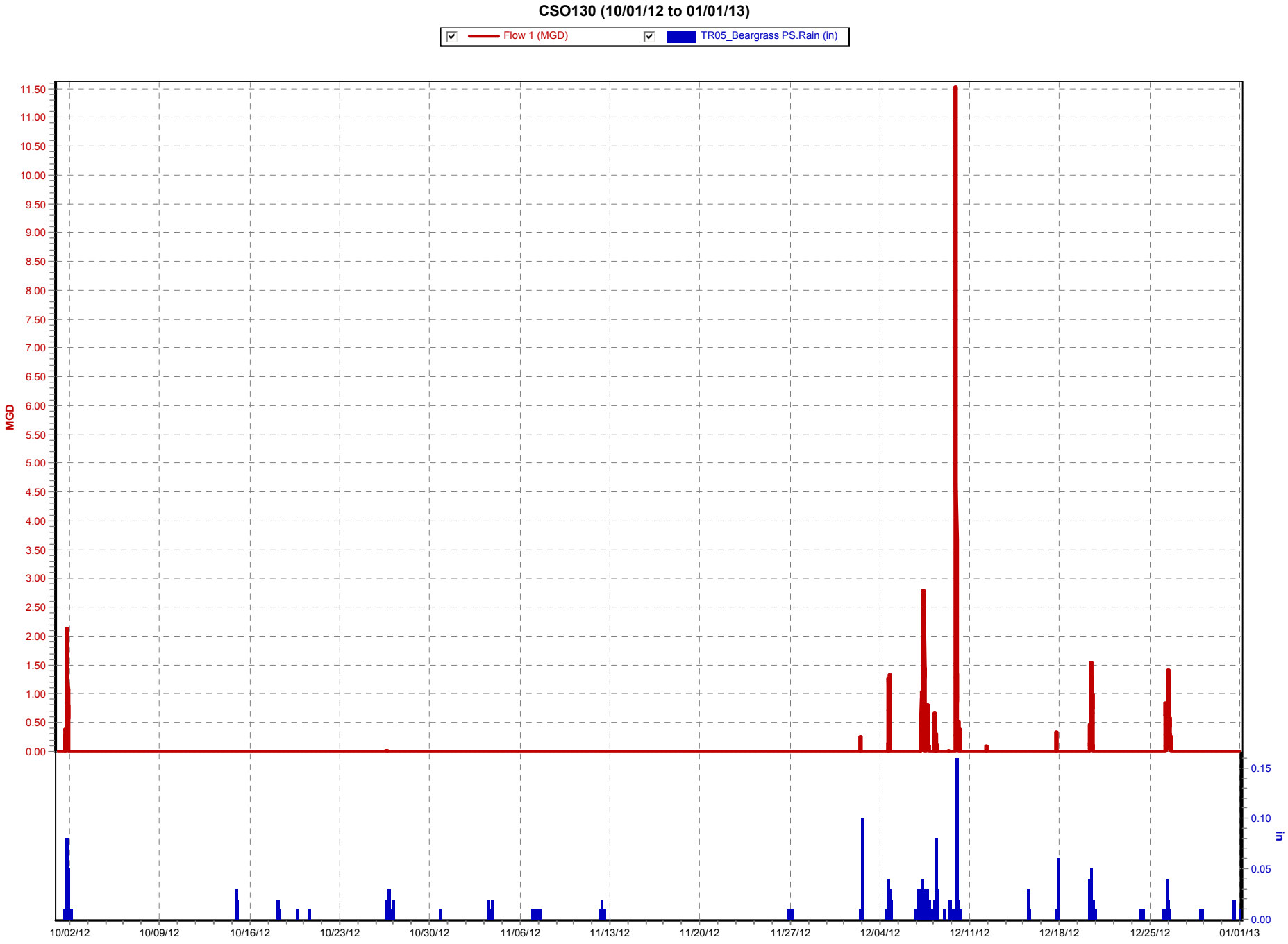

CSO120 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

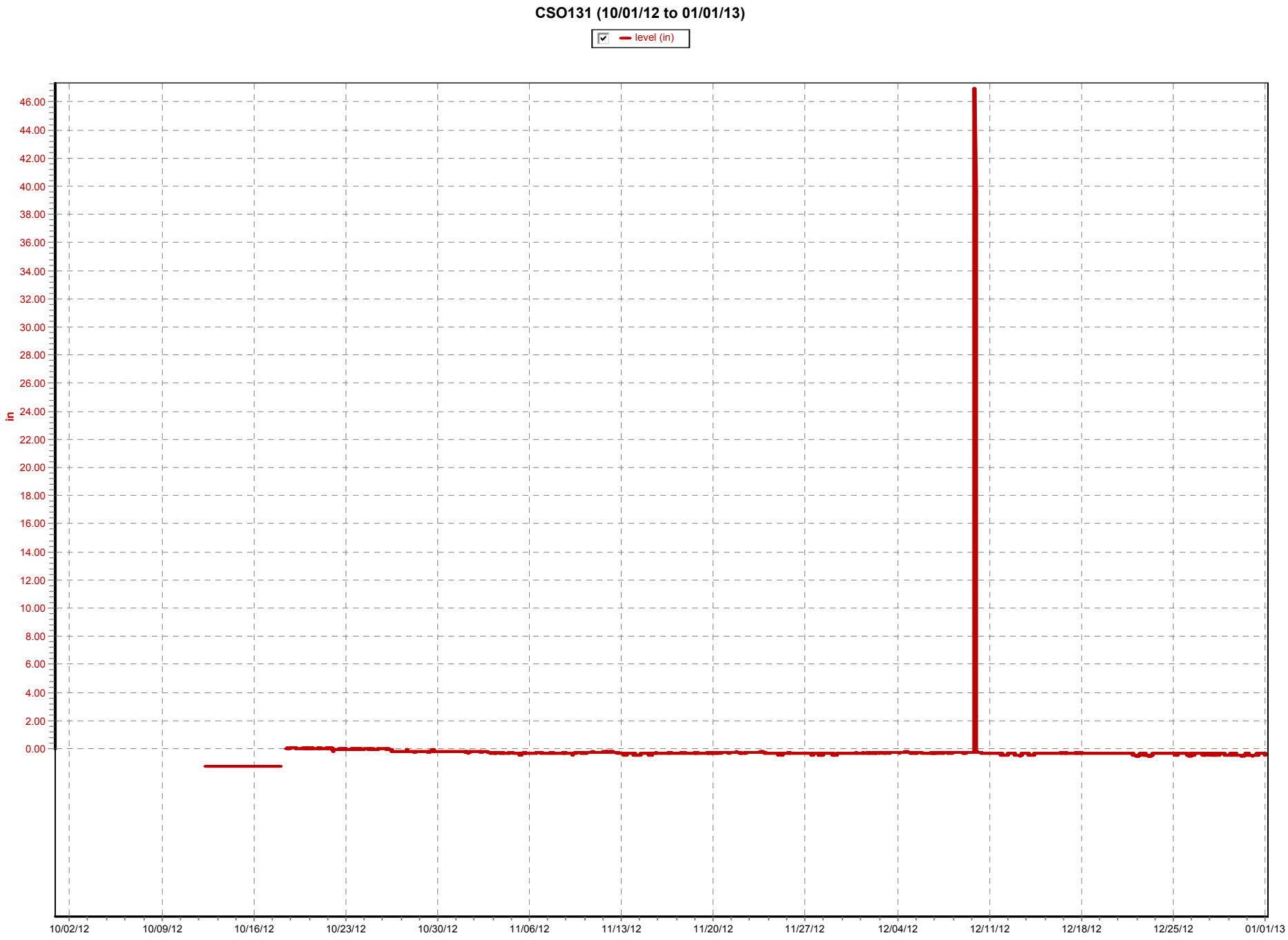

CSO121 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00


CSO125 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
52.00
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

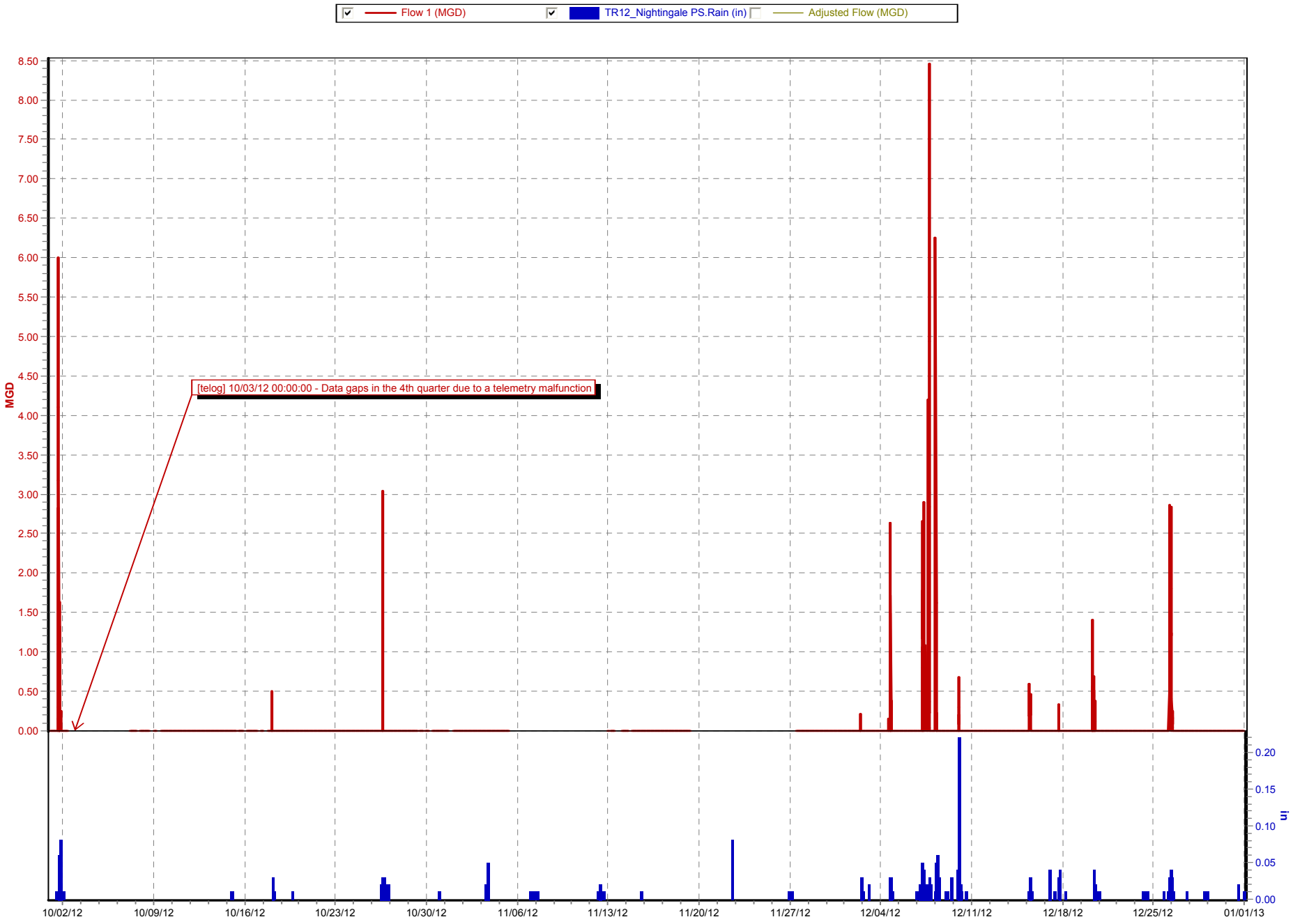

CSO126 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/01/12 21:30:00 - Temp. turn on to help support a valid overflow
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/06/12
10/13/12
10/20/12
10/27/12
11/03/12
11/10/12
11/17/12
11/24/12
12/01/12
12/08/12
12/15/12
12/22/12
12/29/12

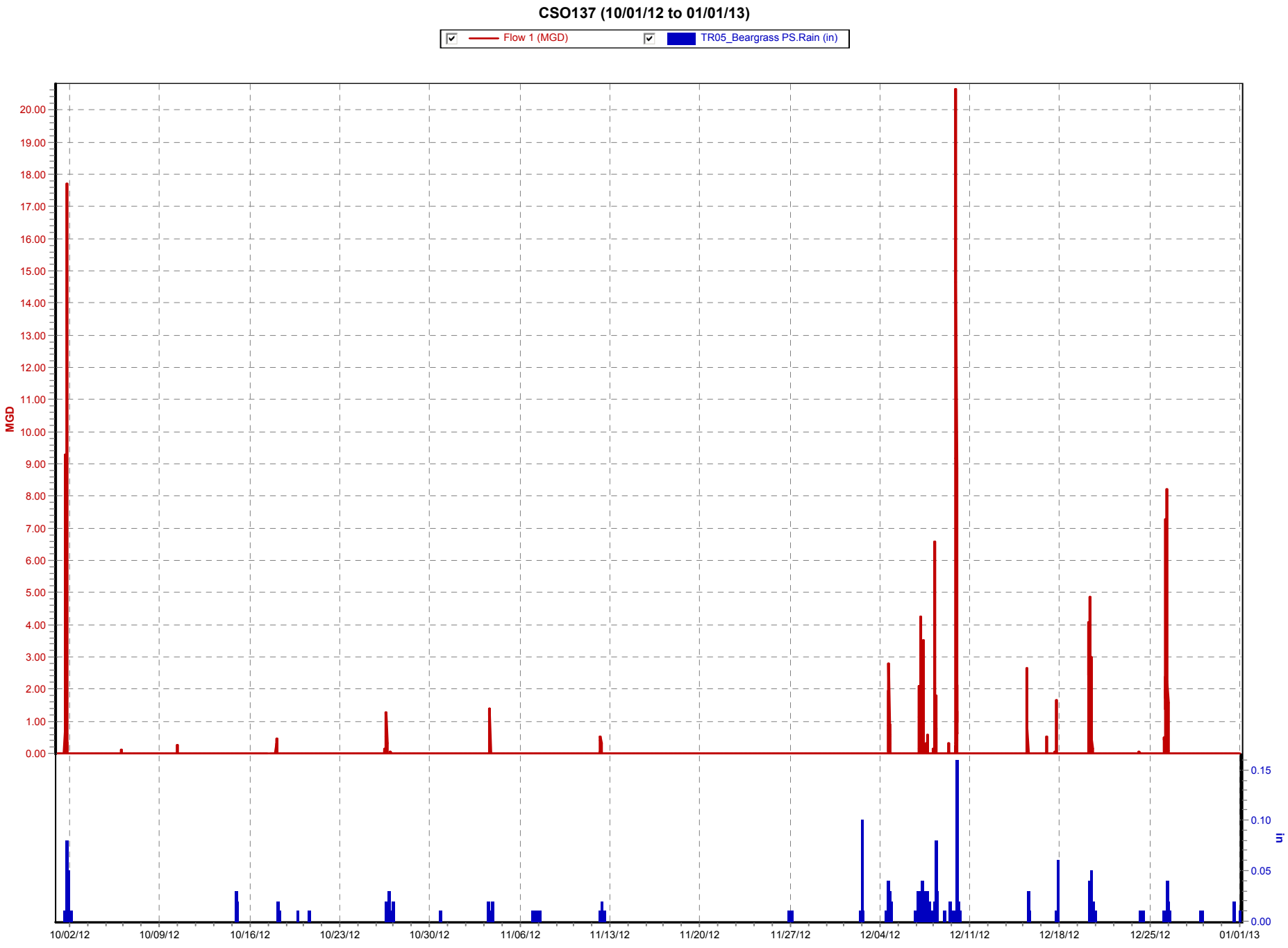

CSO127 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 12/10/12 14:30:00 - Telog cable came detach up tiil 12/19/12 data gap from flow meter download
[telog] 10/22/12 08:00:00 - new A/V sensor was installed
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

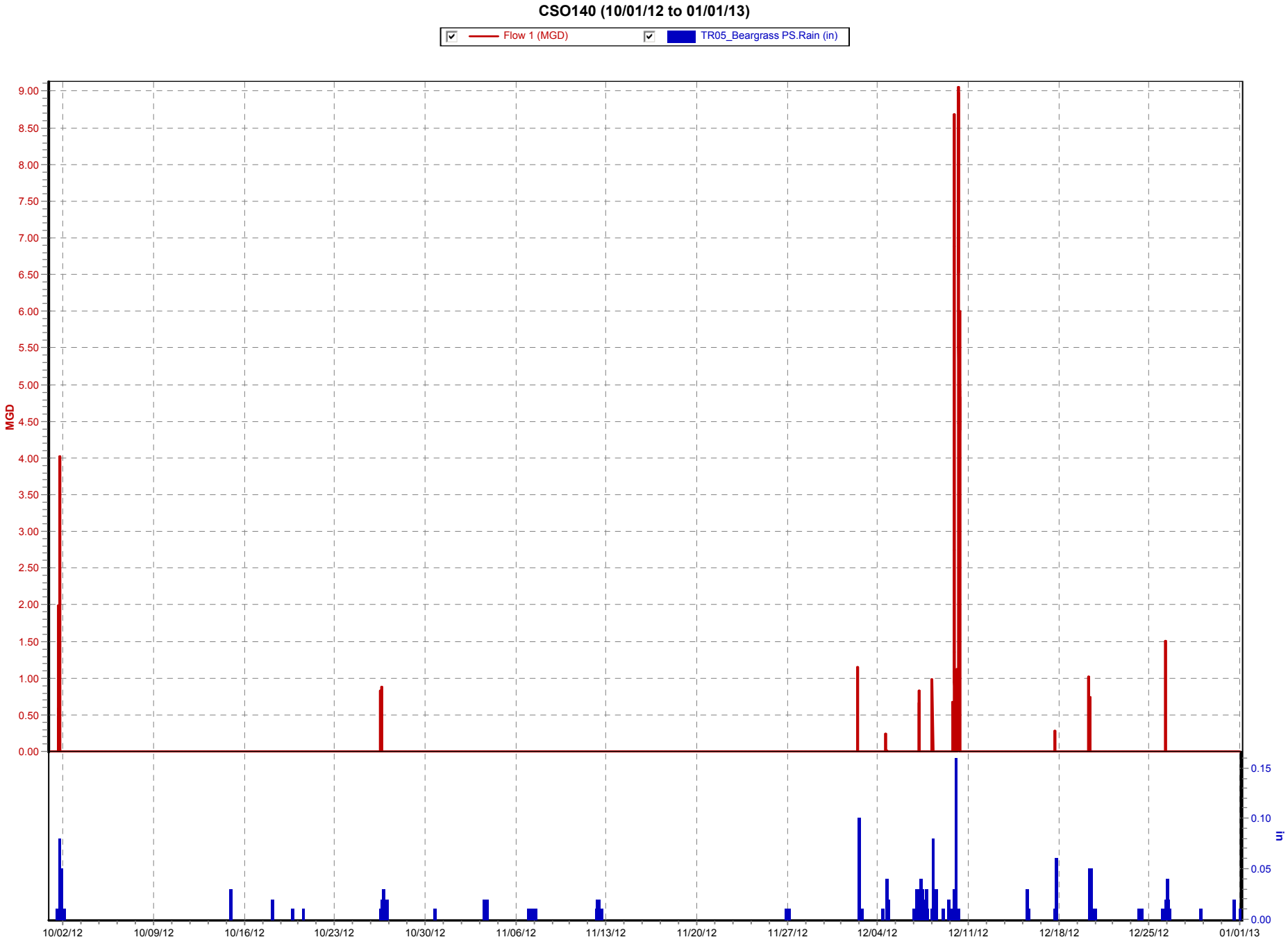

CSO130 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

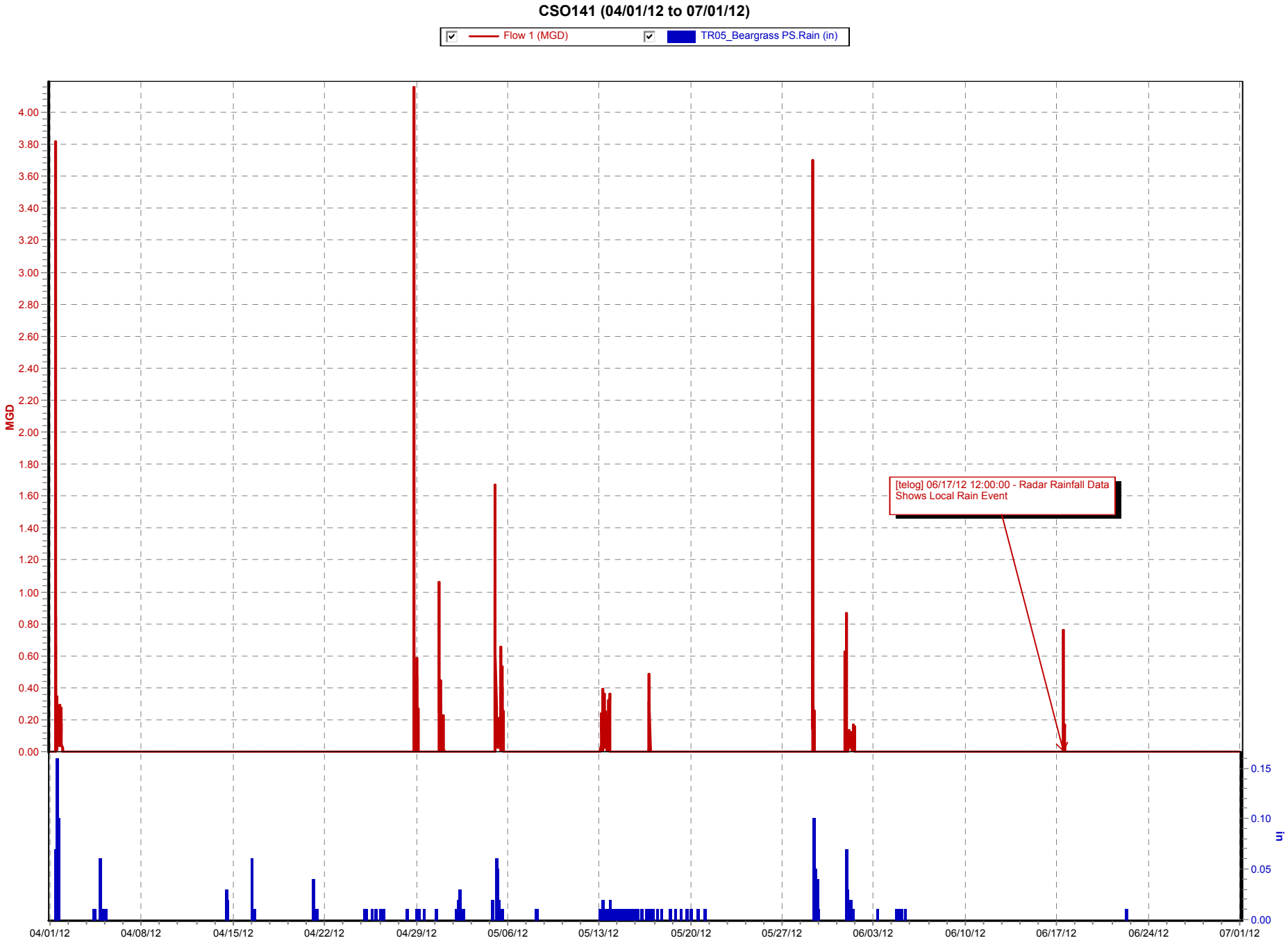

CSO131 (10/01/12 to 01/01/13)
level (in)
in
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

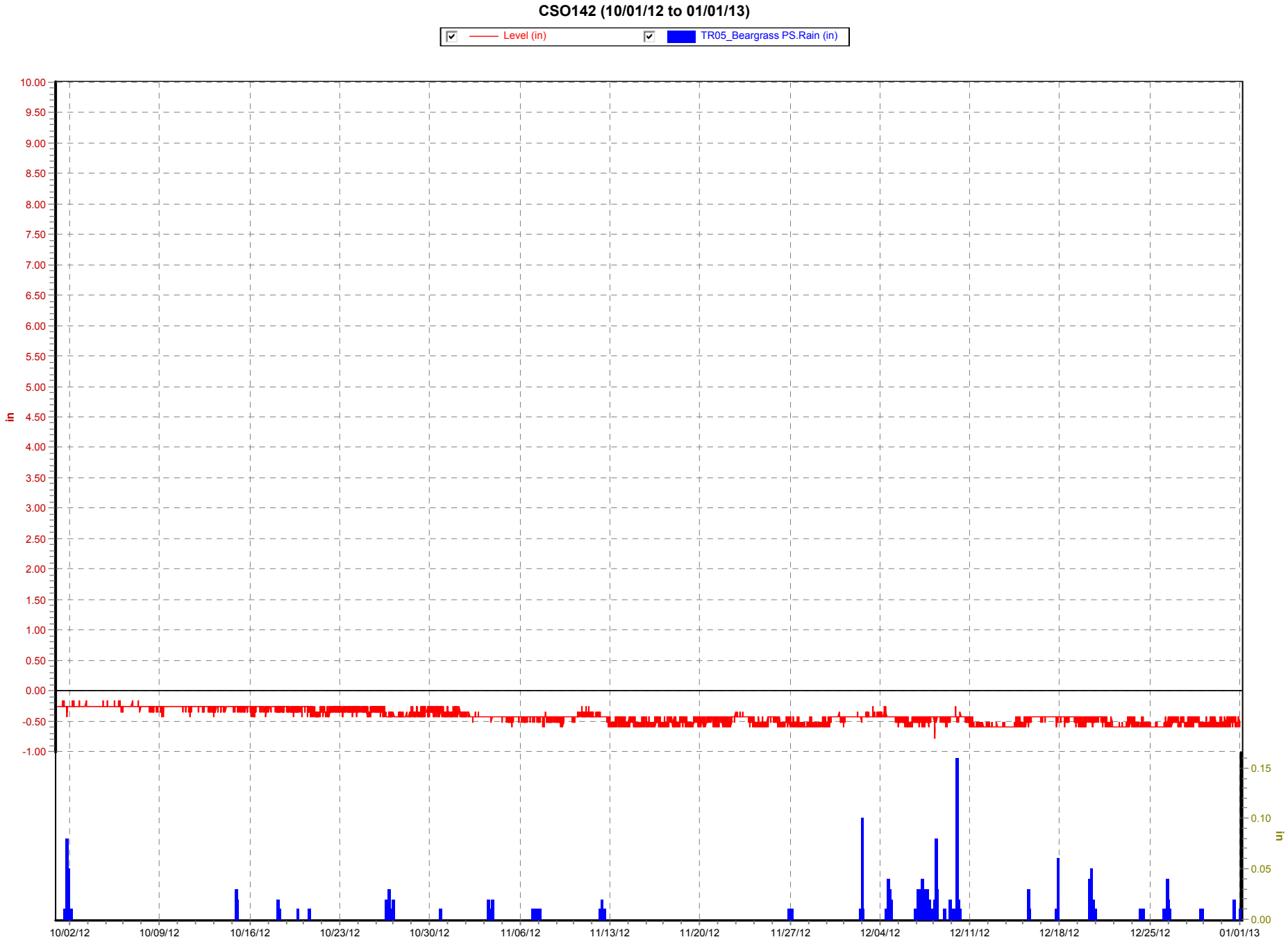
CSO132 (10/01/12 to 01/01/13)

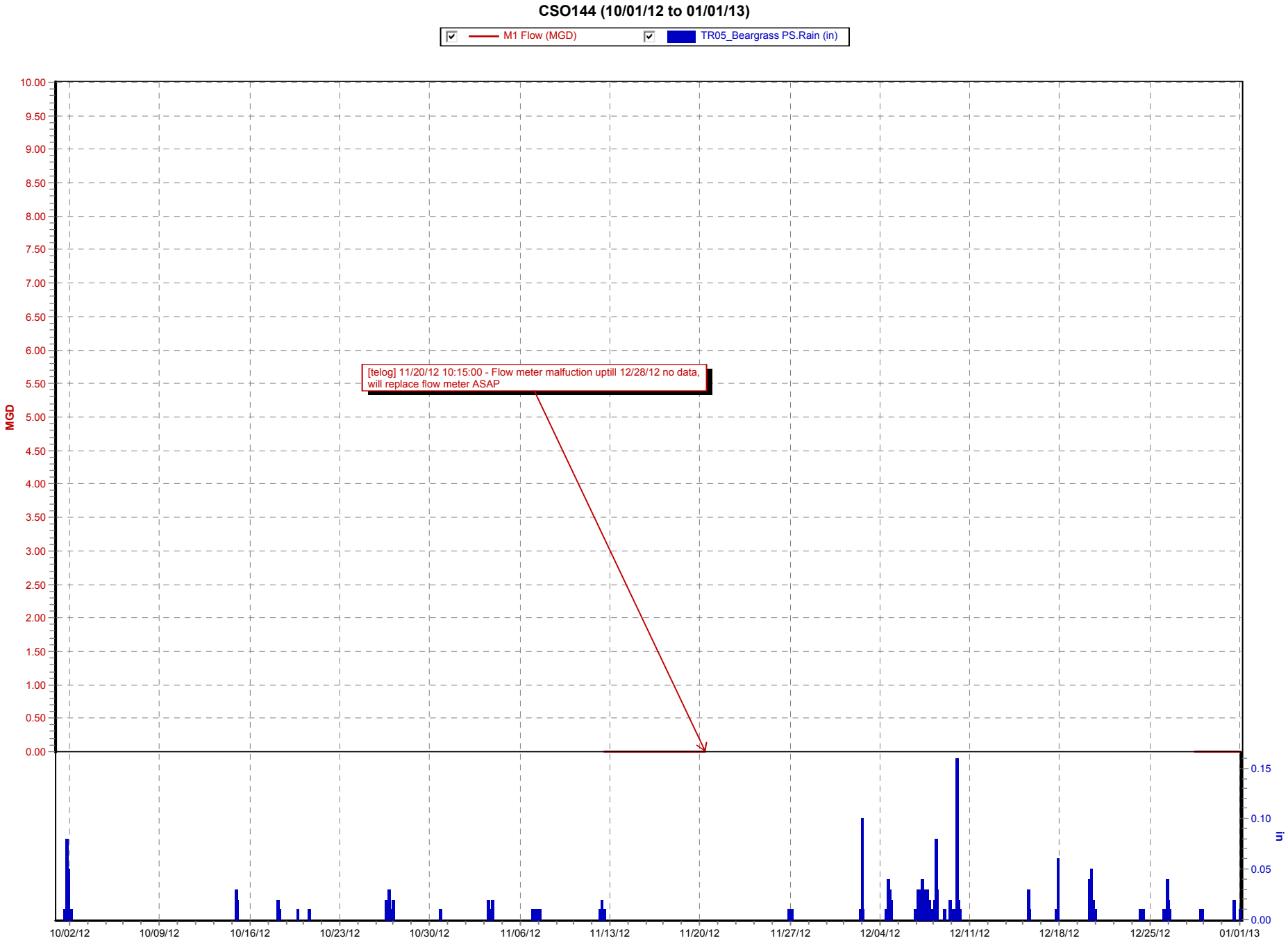


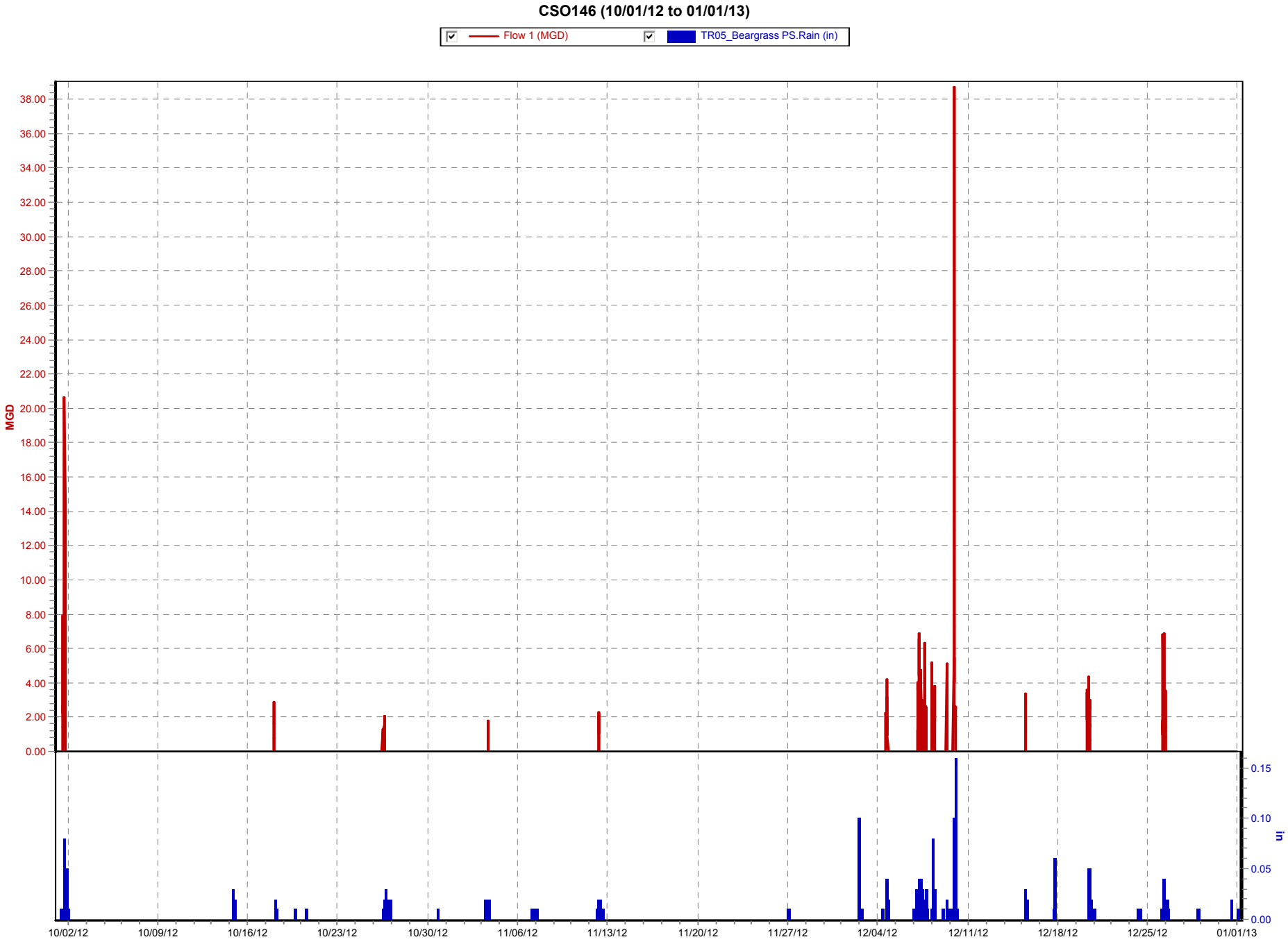

CSO137 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

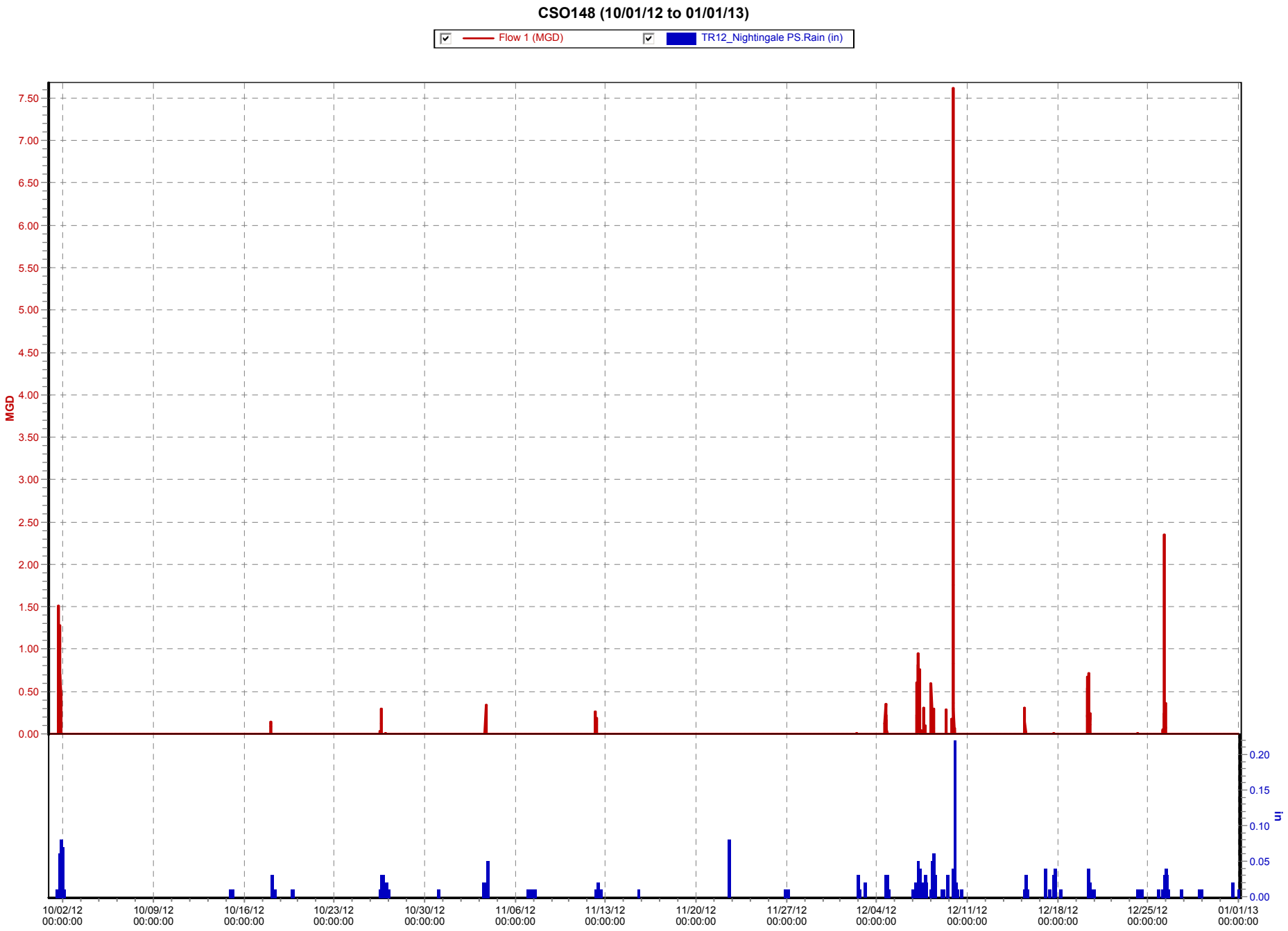

CSO140 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

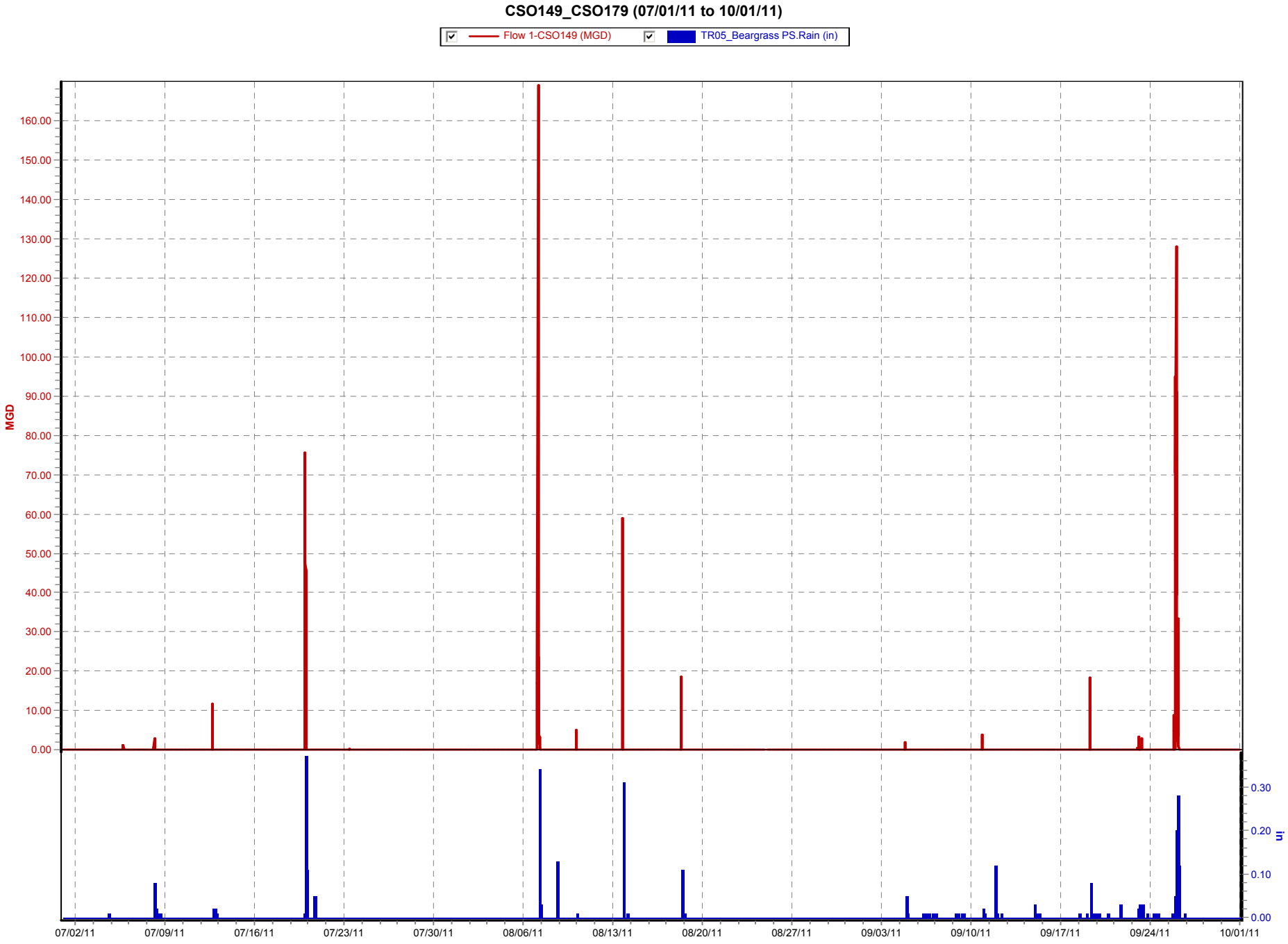

CSO141 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 12:00:00 - Radar Rainfall Data Shows Local Rain Event
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

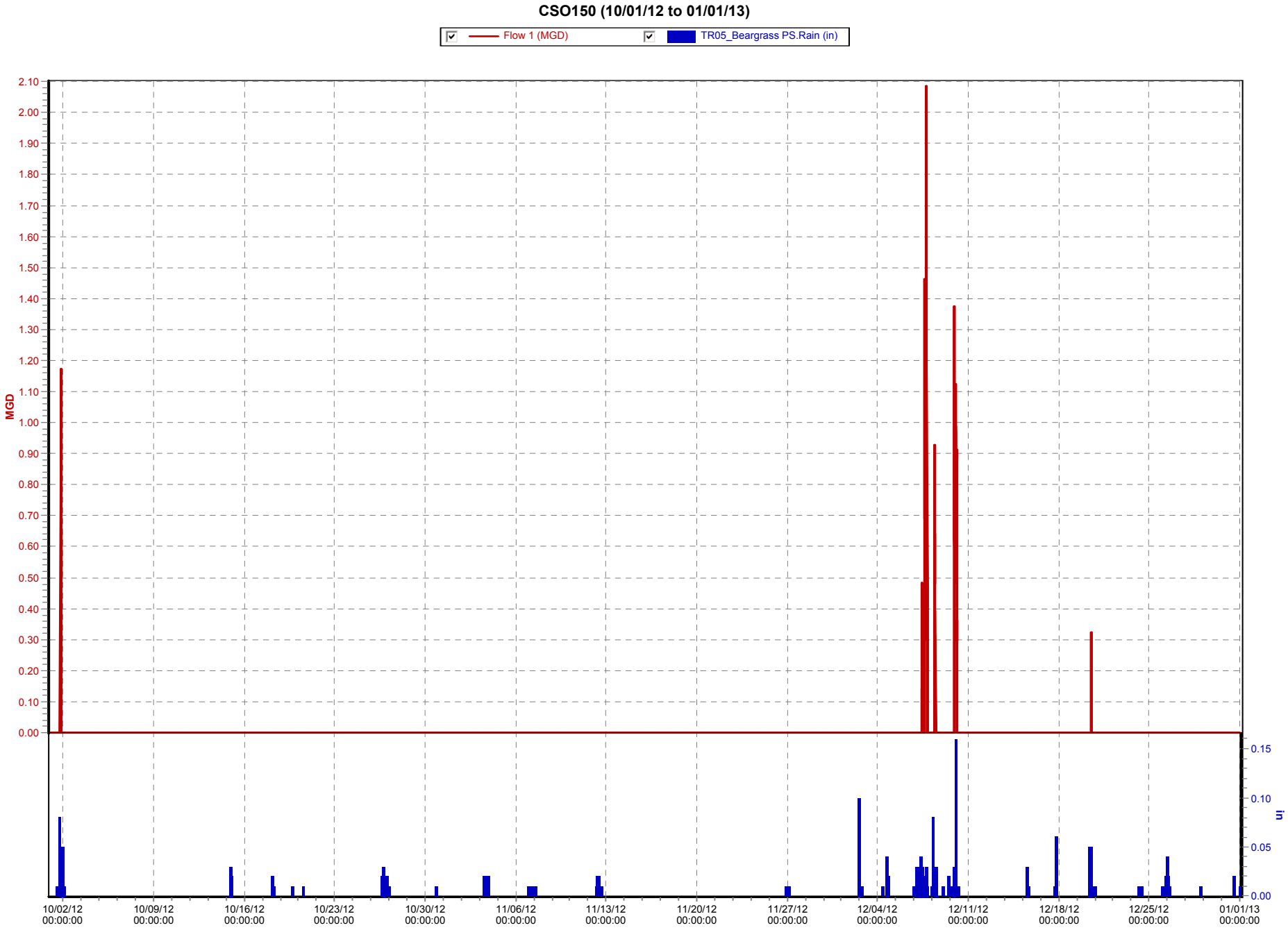

CSO142 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

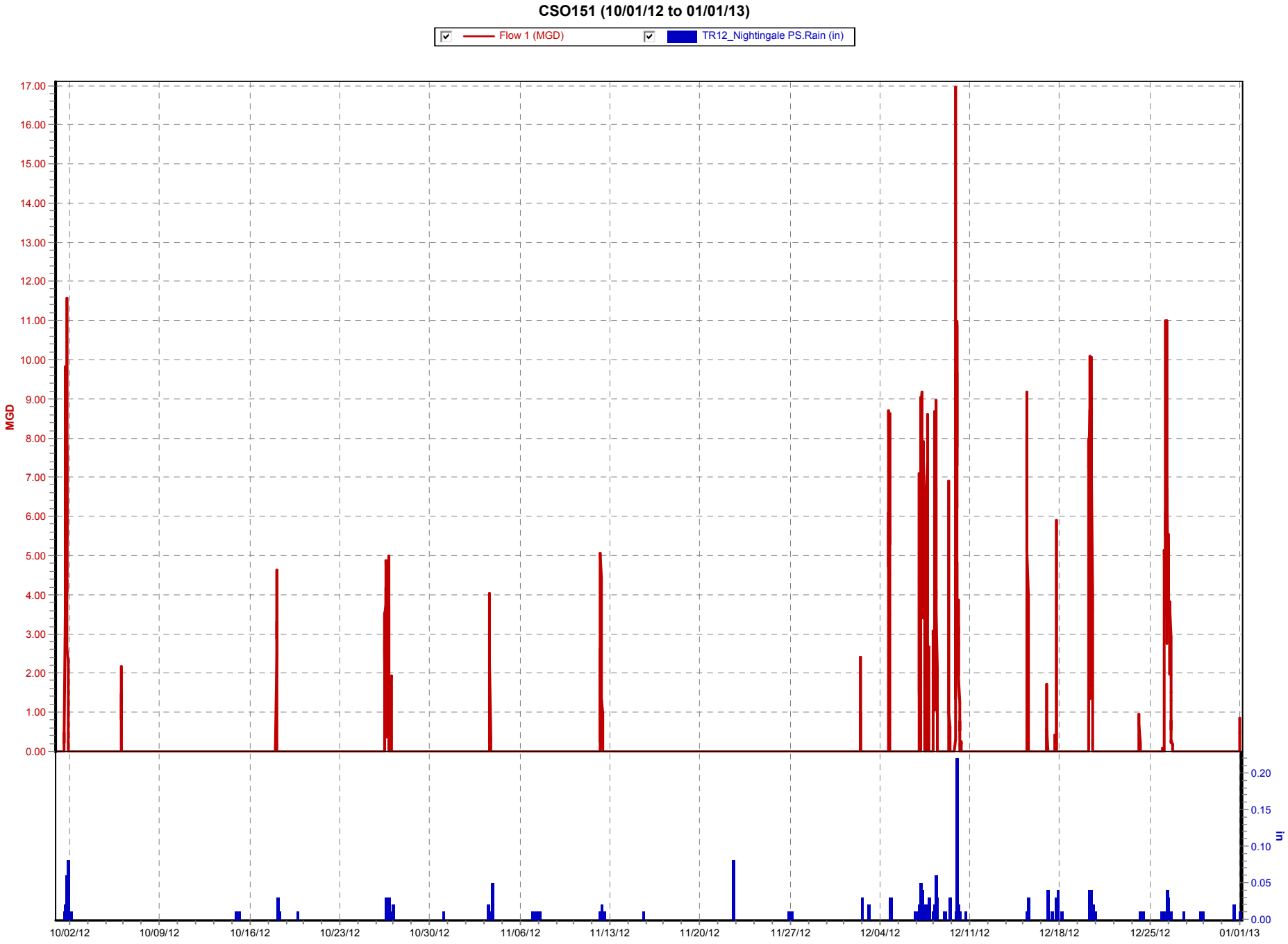

CSO144 (10/01/12 to 01/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 11/20/12 10:15:00 - Flow meter malfuction uptill 12/28/12 no data, will replace flow meter ASAP
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

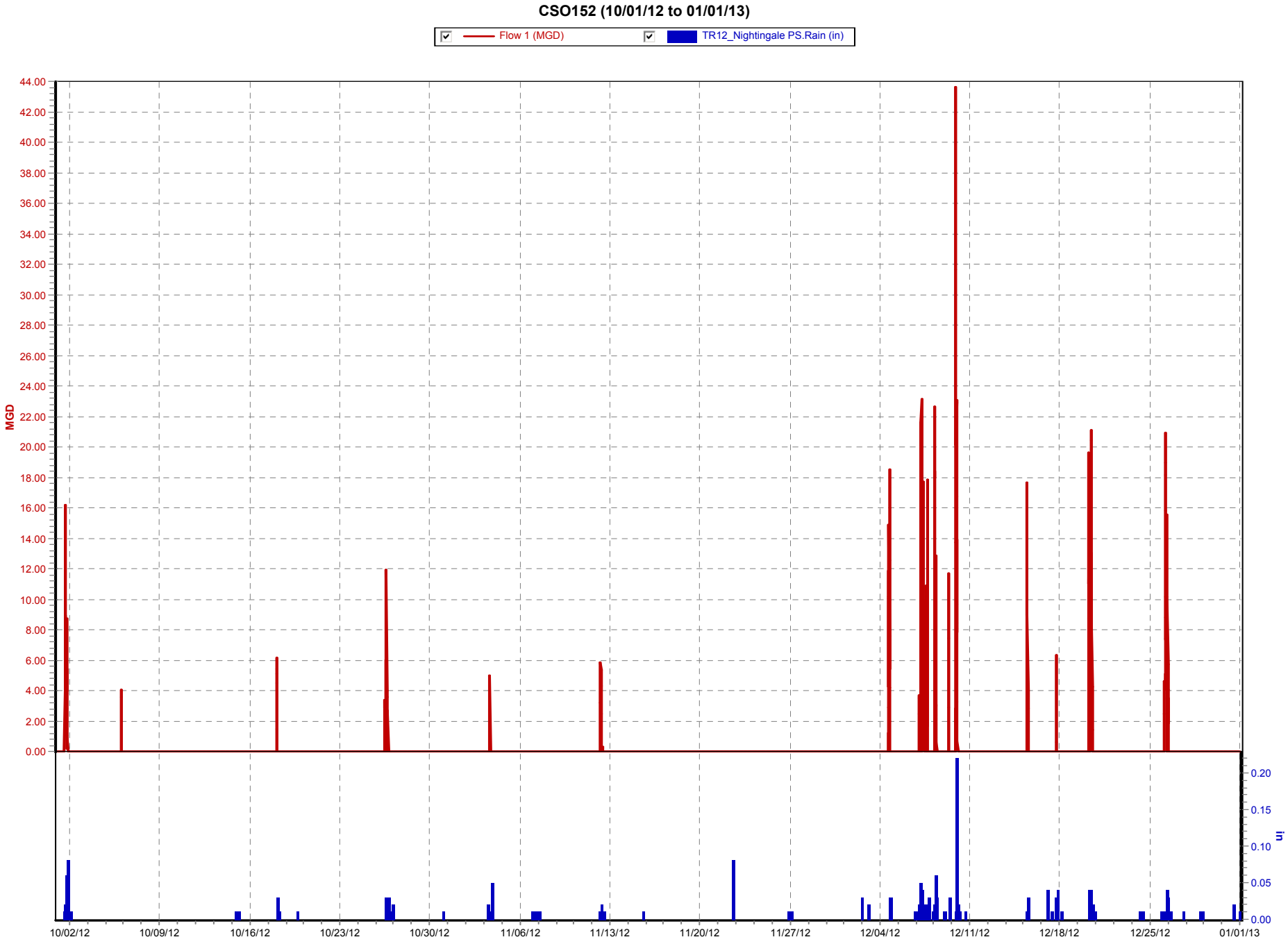

CSO146 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

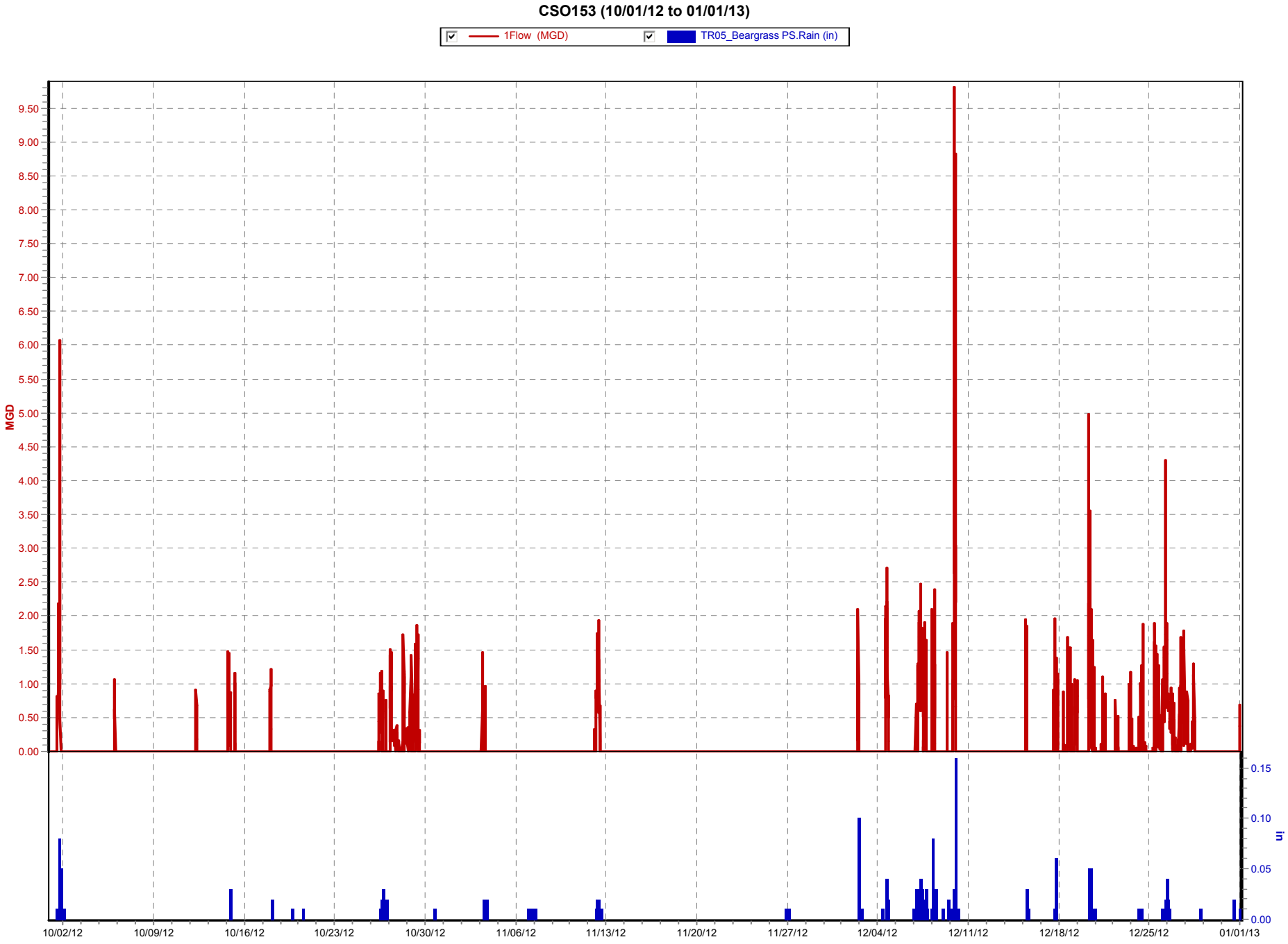

CSO148 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.20
0.15
0.10
0.05
0.00
in
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

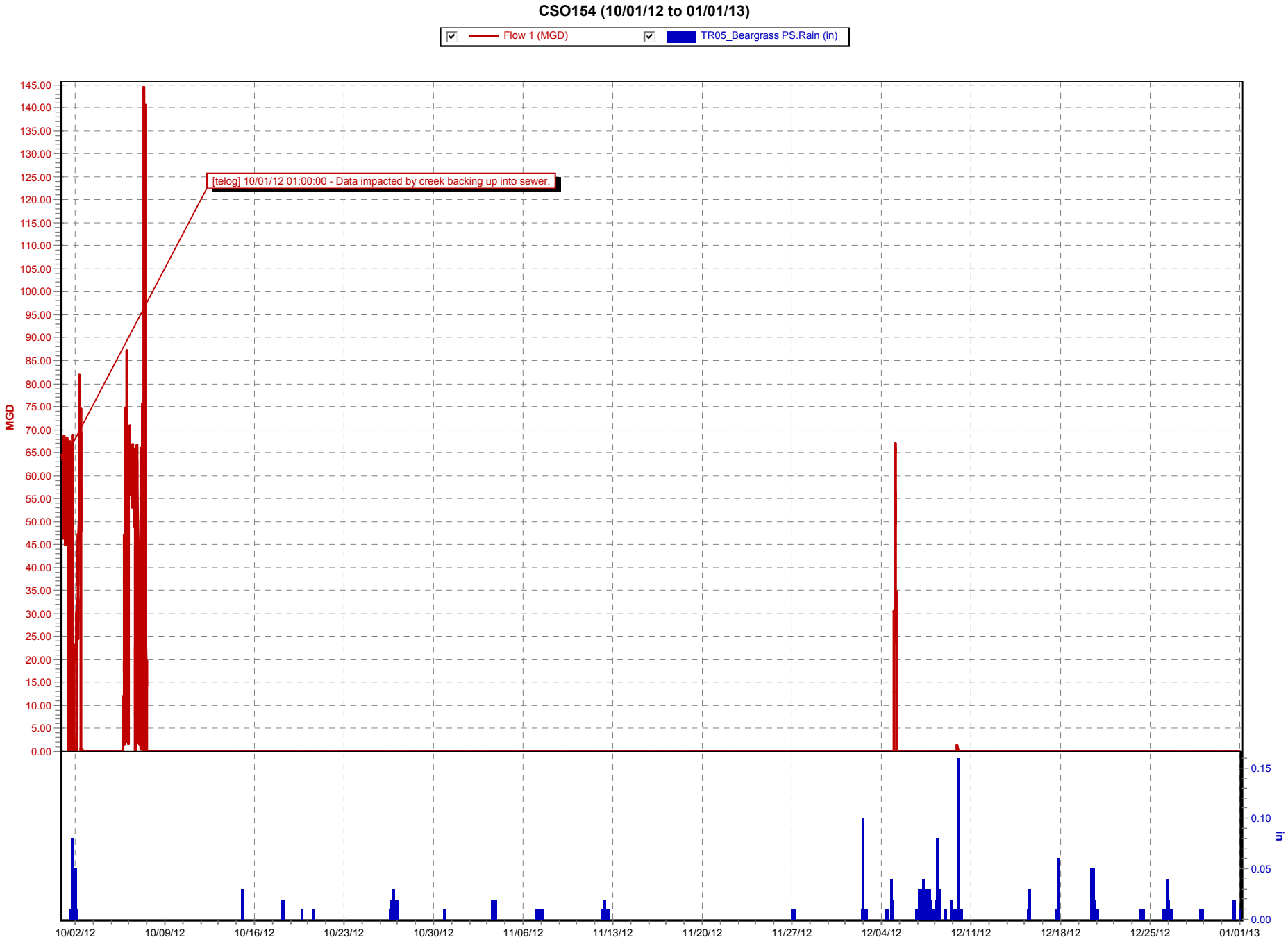

CSO149_CSO179 (07/01/11 to 10/01/11)
Flow 1-CSO149 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.30
0.20
0.10
0.00
in
07/02/11
07/09/11
07/16/11
07/23/11
07/30/11
08/06/11
08/13/11
08/20/11
08/27/11
09/03/11
09/10/11
09/17/11
09/24/11
10/01/11

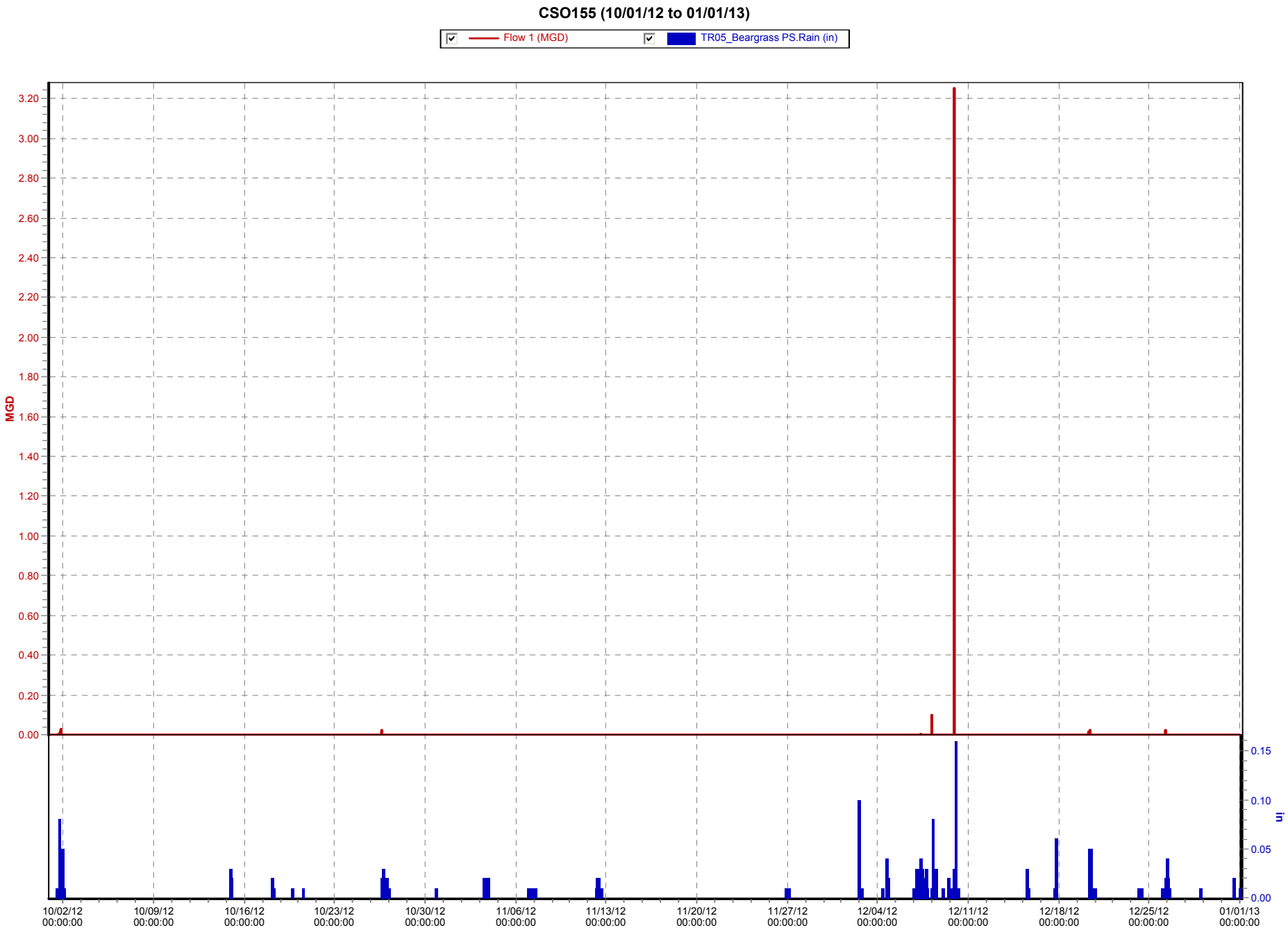

CSO150 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

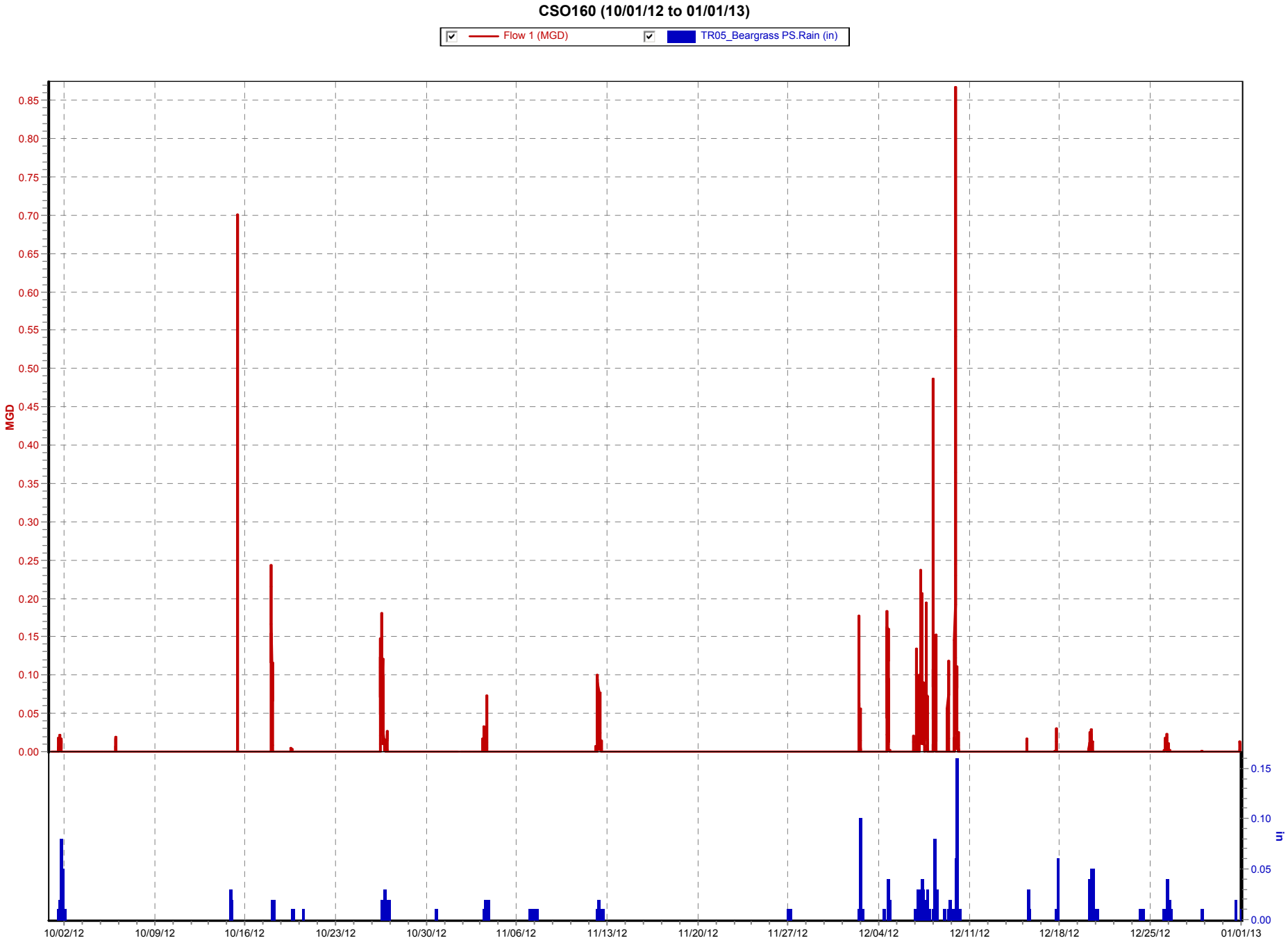

CSO151 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

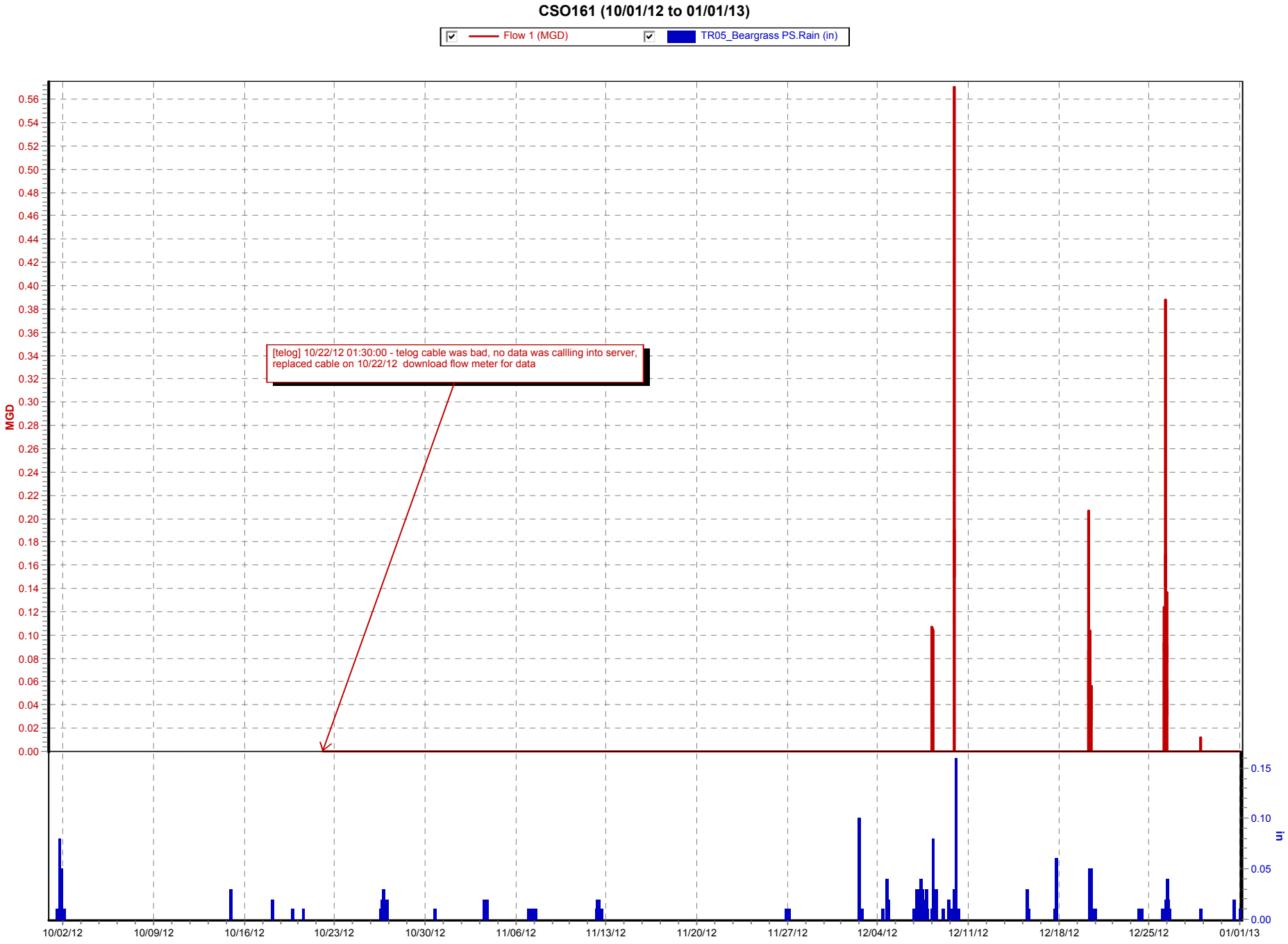

CSO152 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

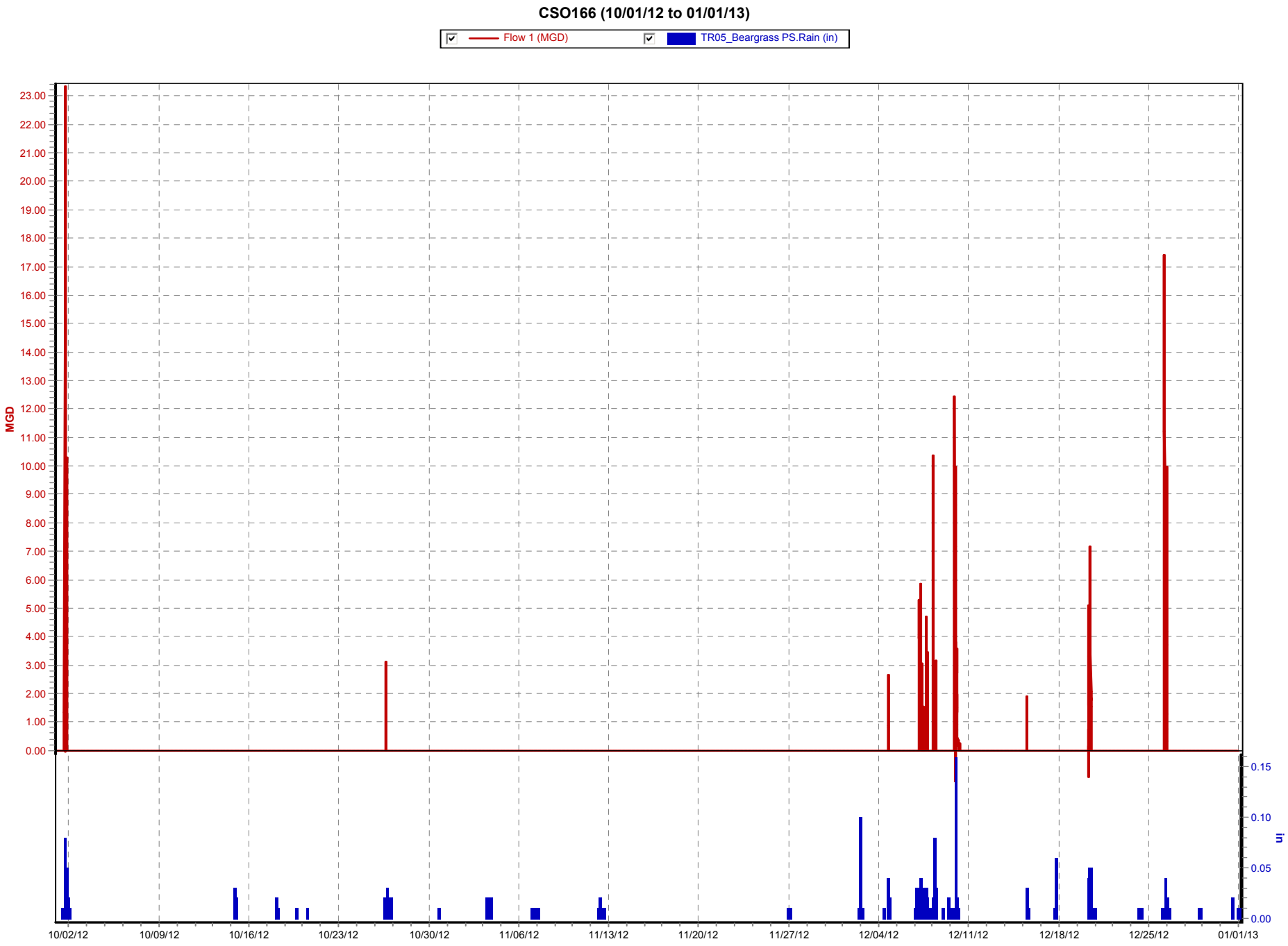

CSO153 (10/01/12 to 01/01/13)
1Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

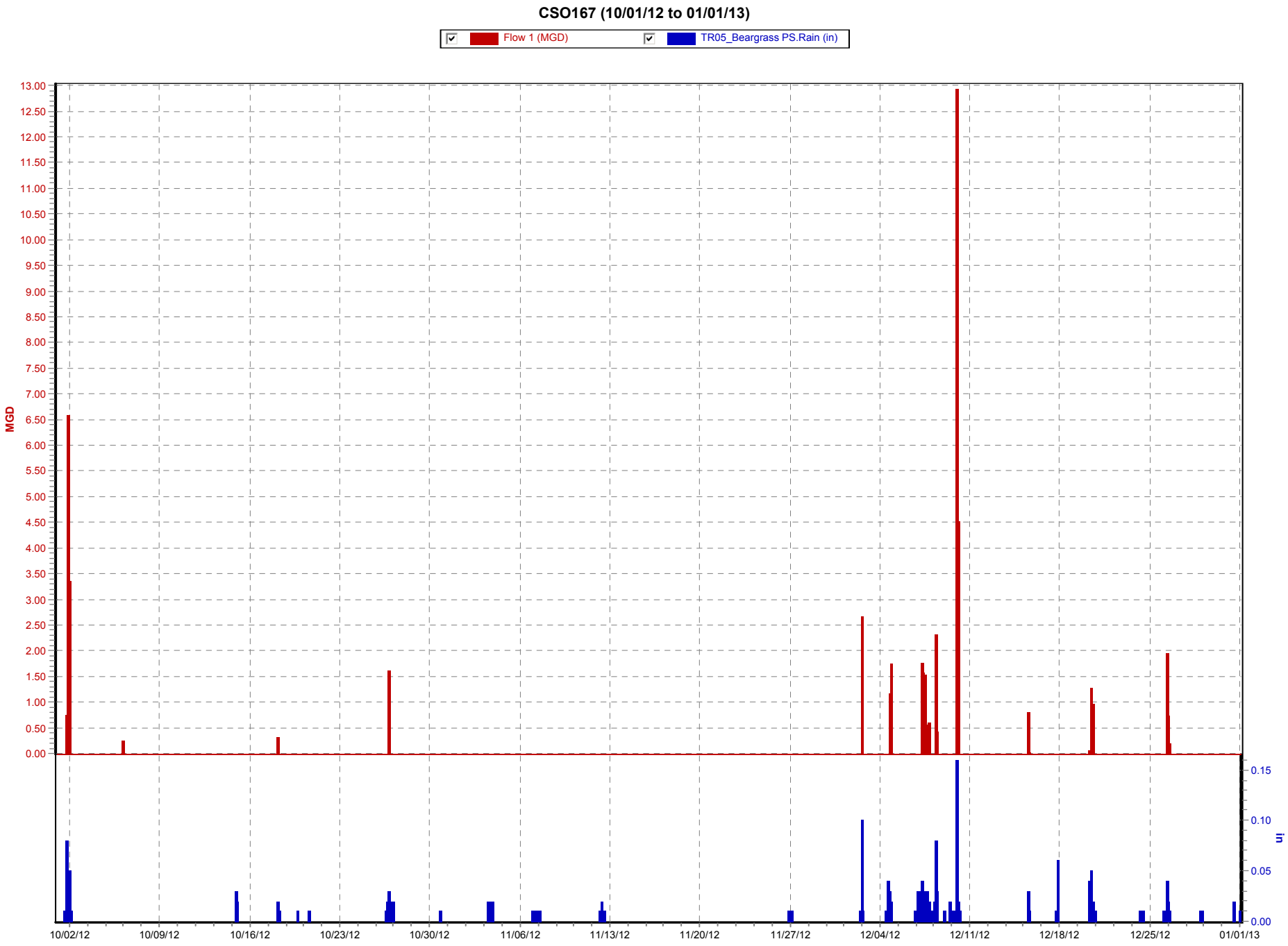

CSO154 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
[telog] 10/01/12 01:00:00 - Data impacted by creek backing up into sewer.
MGD
in
145.00
140.00
135.00
130.00
125.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

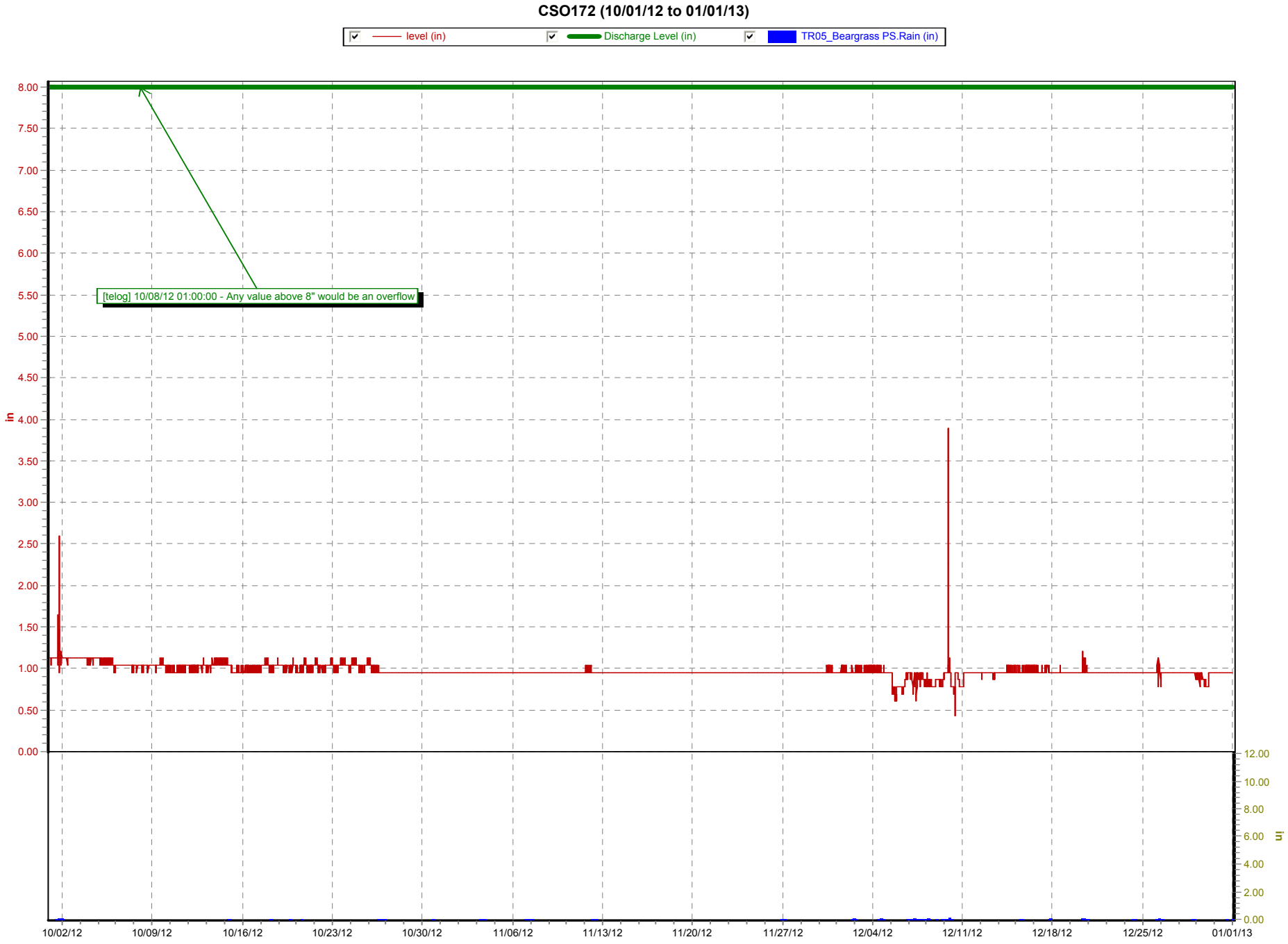

CSO155 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

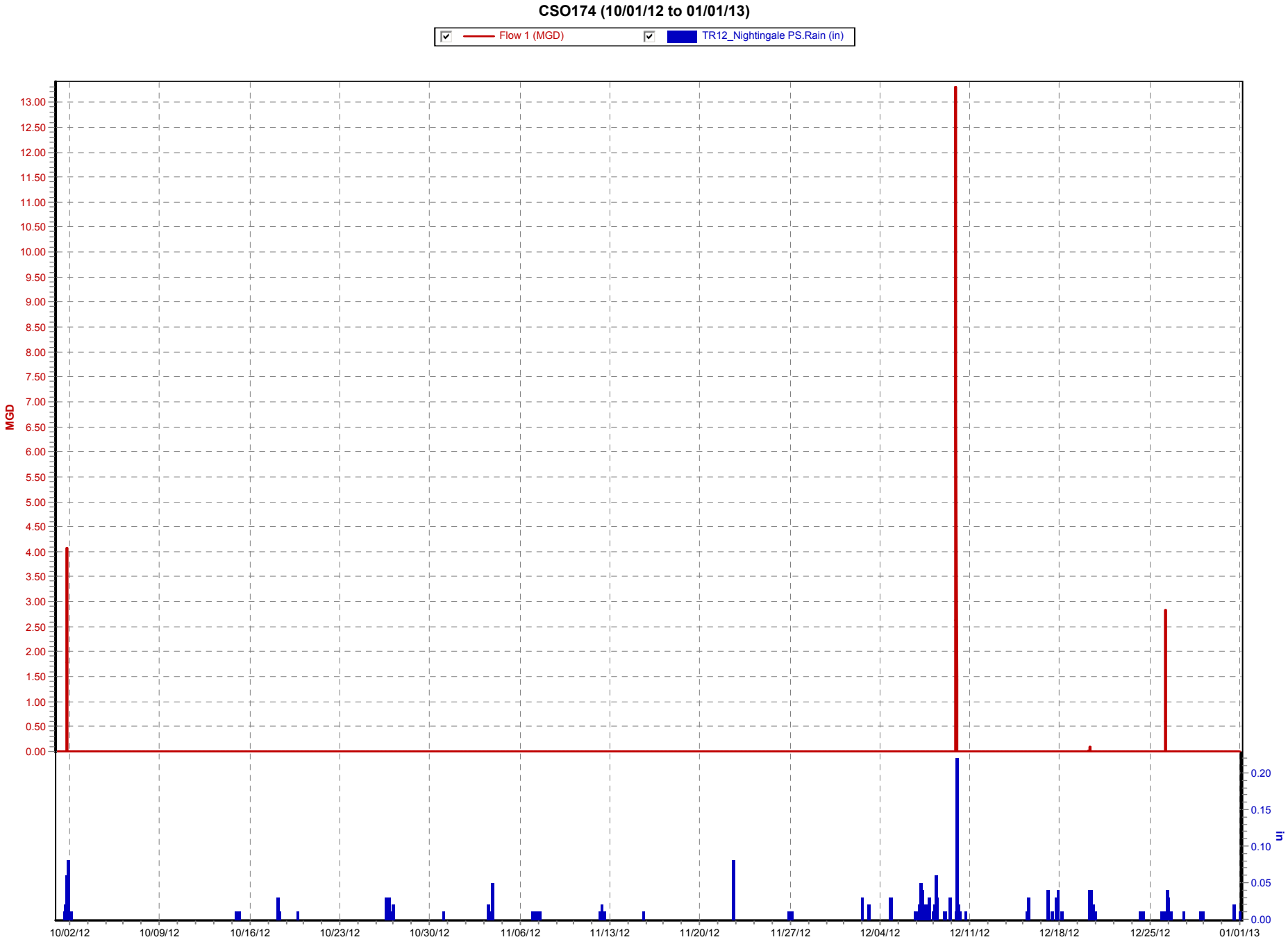

CSO160 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

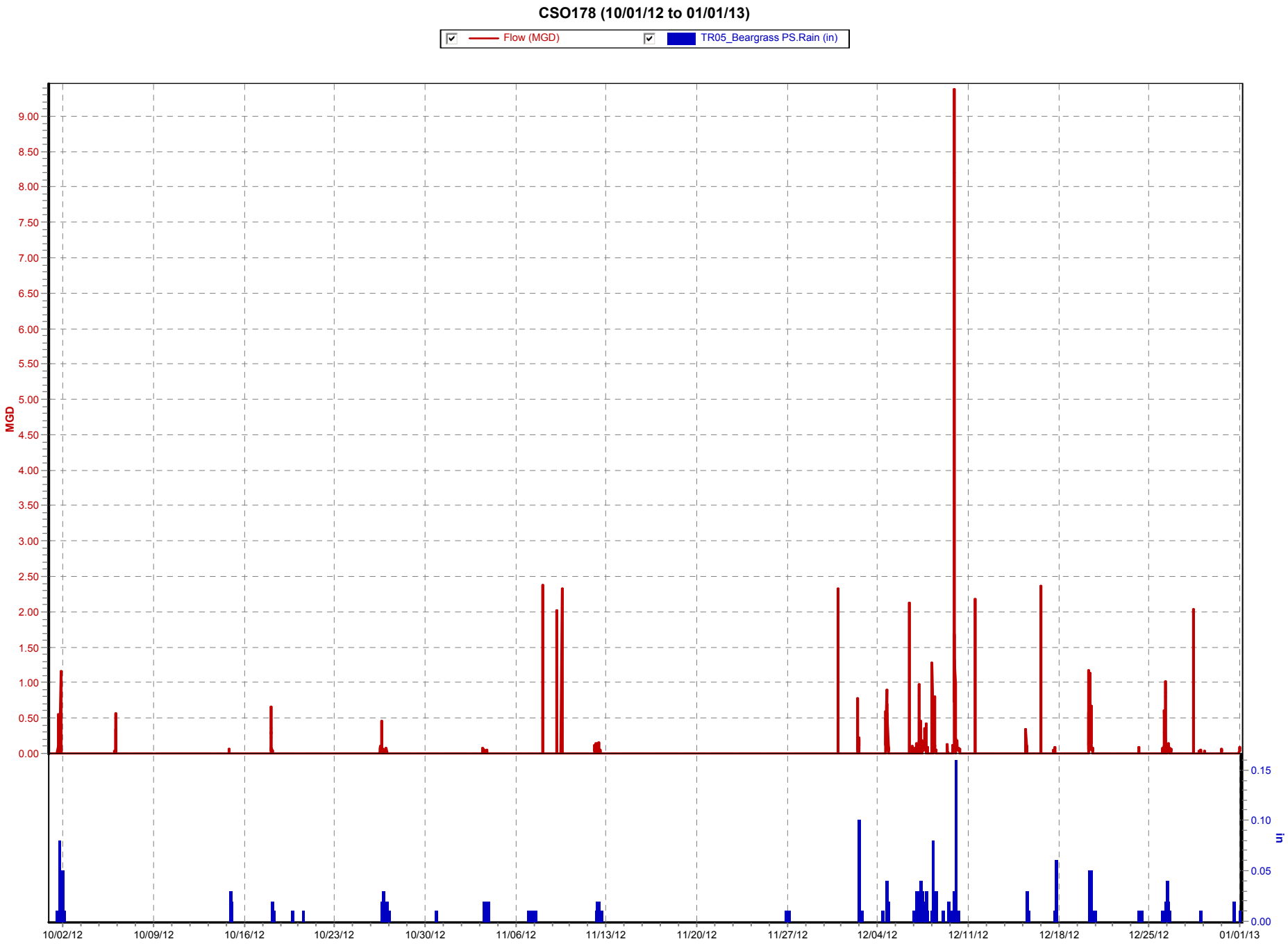

CSO161 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/22/12 01:30:00 - telog cable was bad, no data was callling into server, replaced cable on 10/22/12 download flow meter for data
0.56
0.54
0.52
0.50
0.48
0.46
0.44
0.42
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

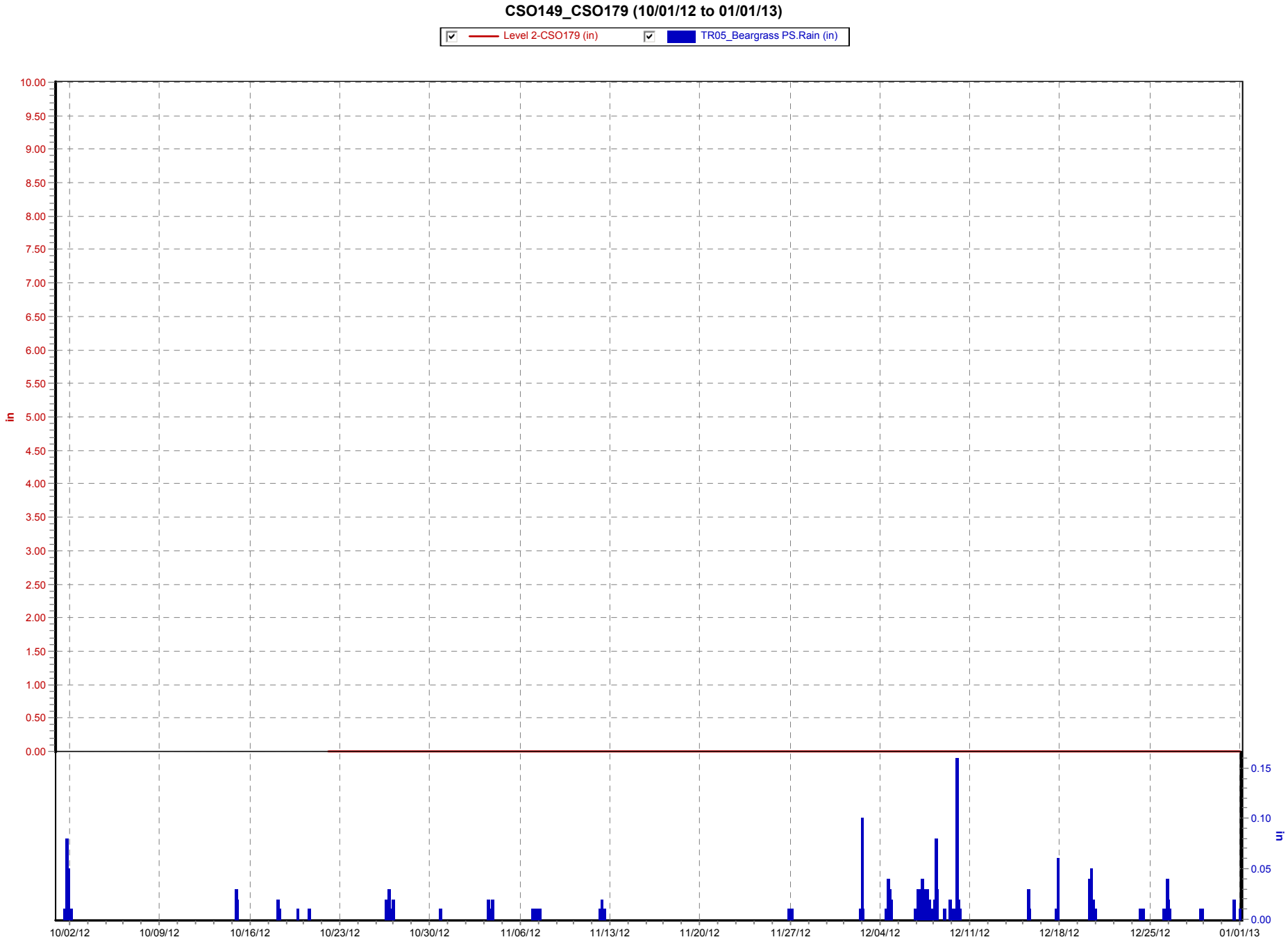

CSO166 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

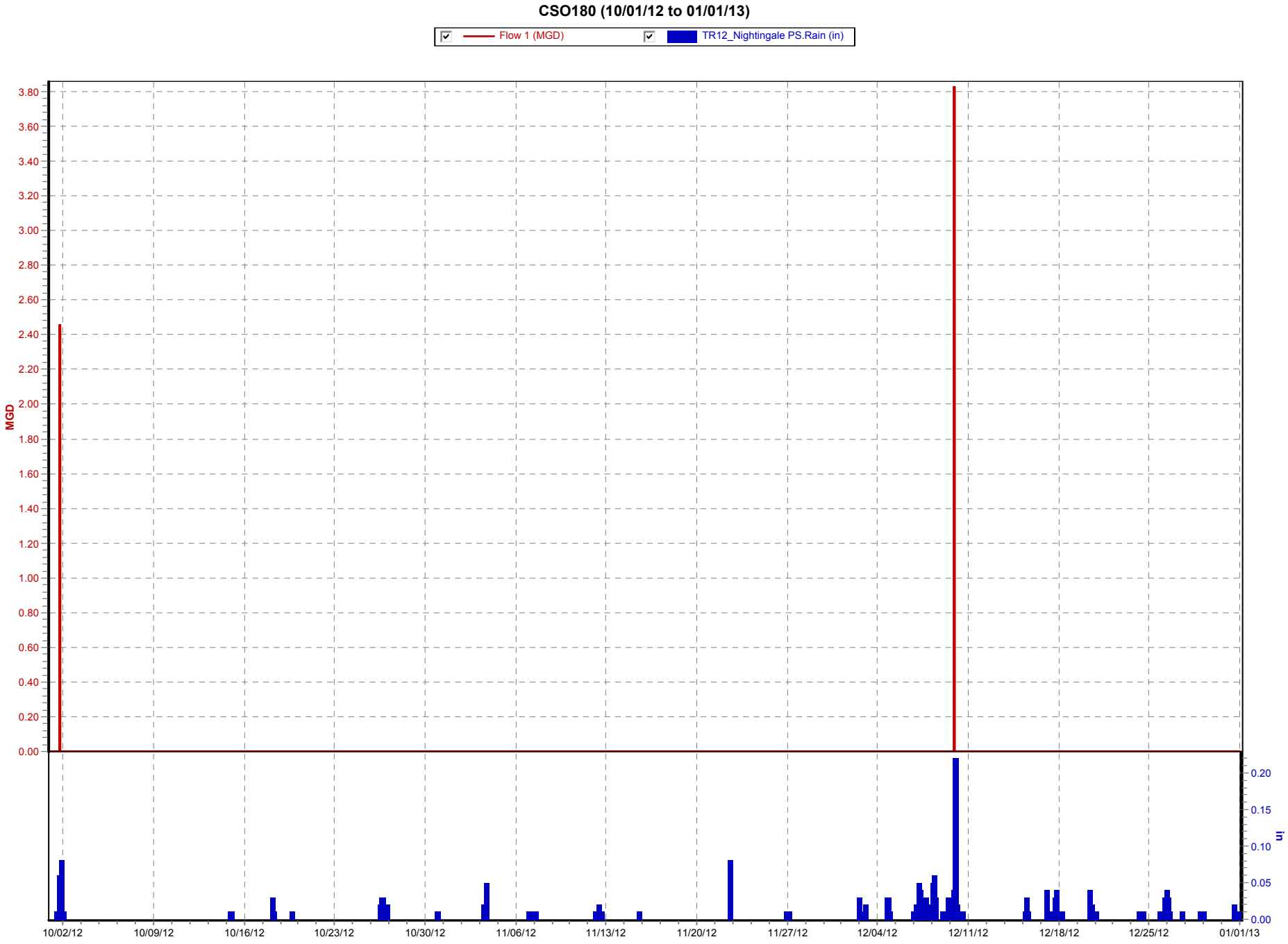

CSO167 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

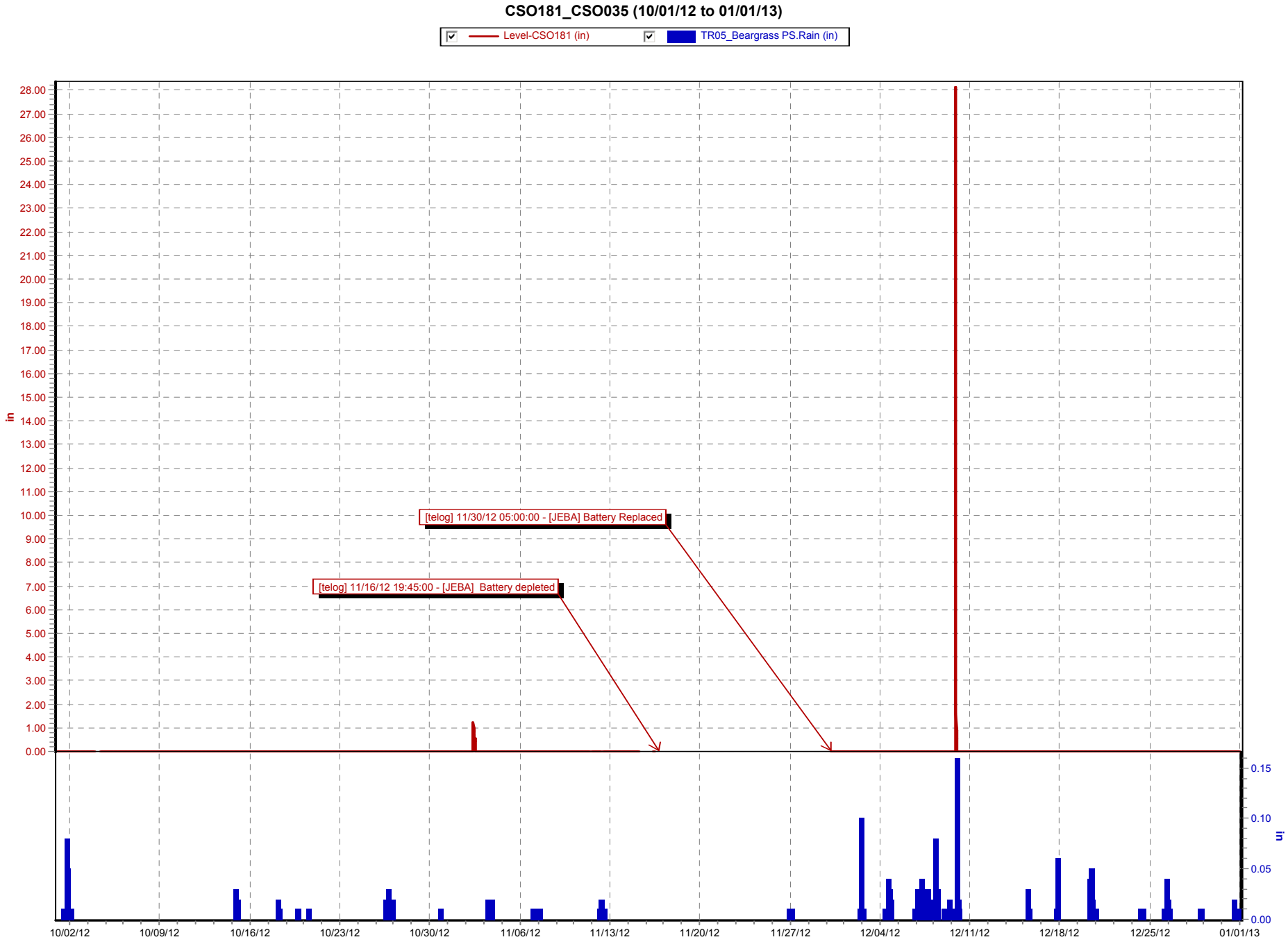

CSO172 (10/01/12 to 01/01/13)
level (in)
Discharge Level (in)
TR05_Beargrass PS.Rain (in)
[telog] 10/08/12 01:00:00 - Any value above 8" would be an overflow
in
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

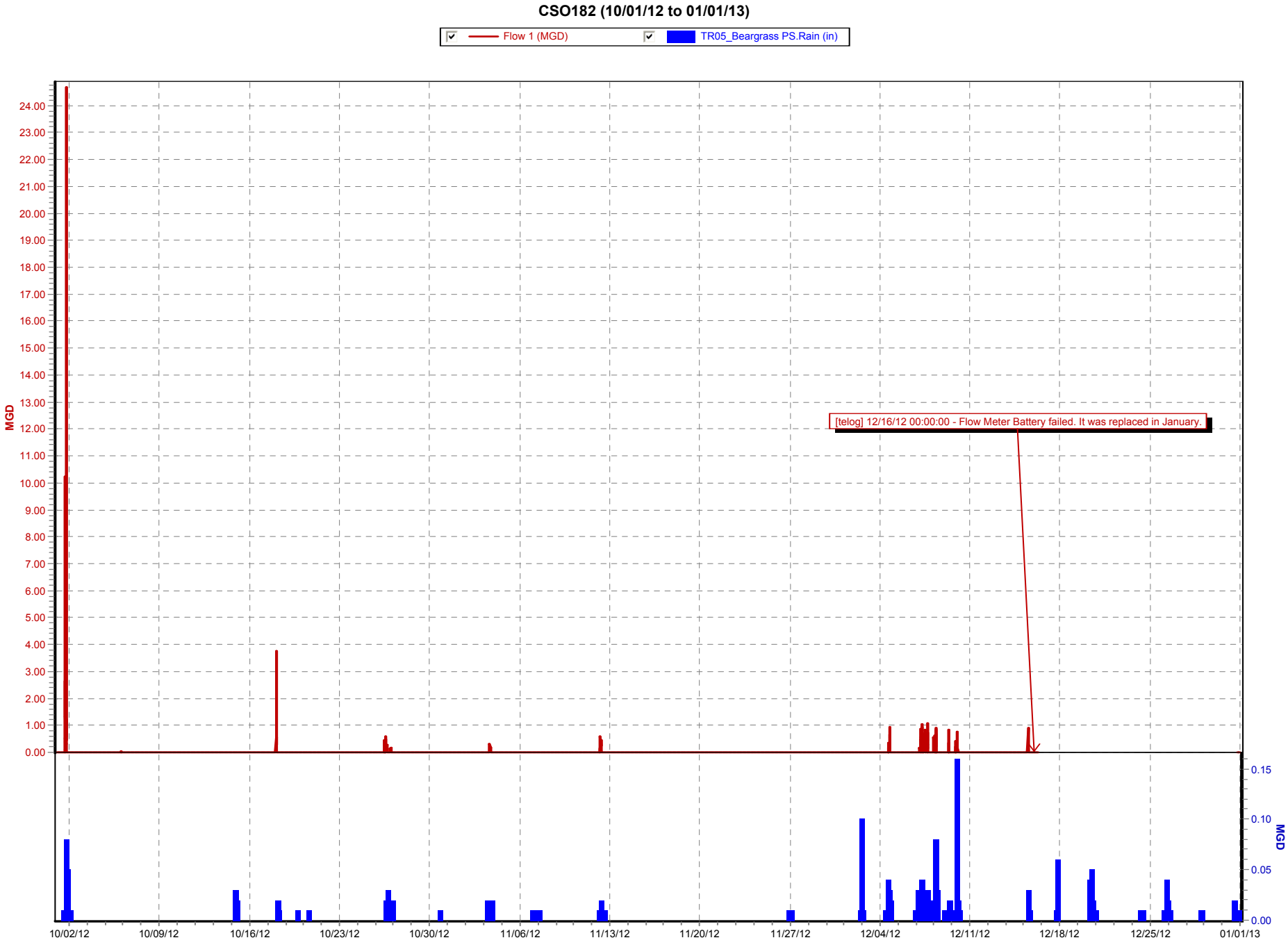

CSO174 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

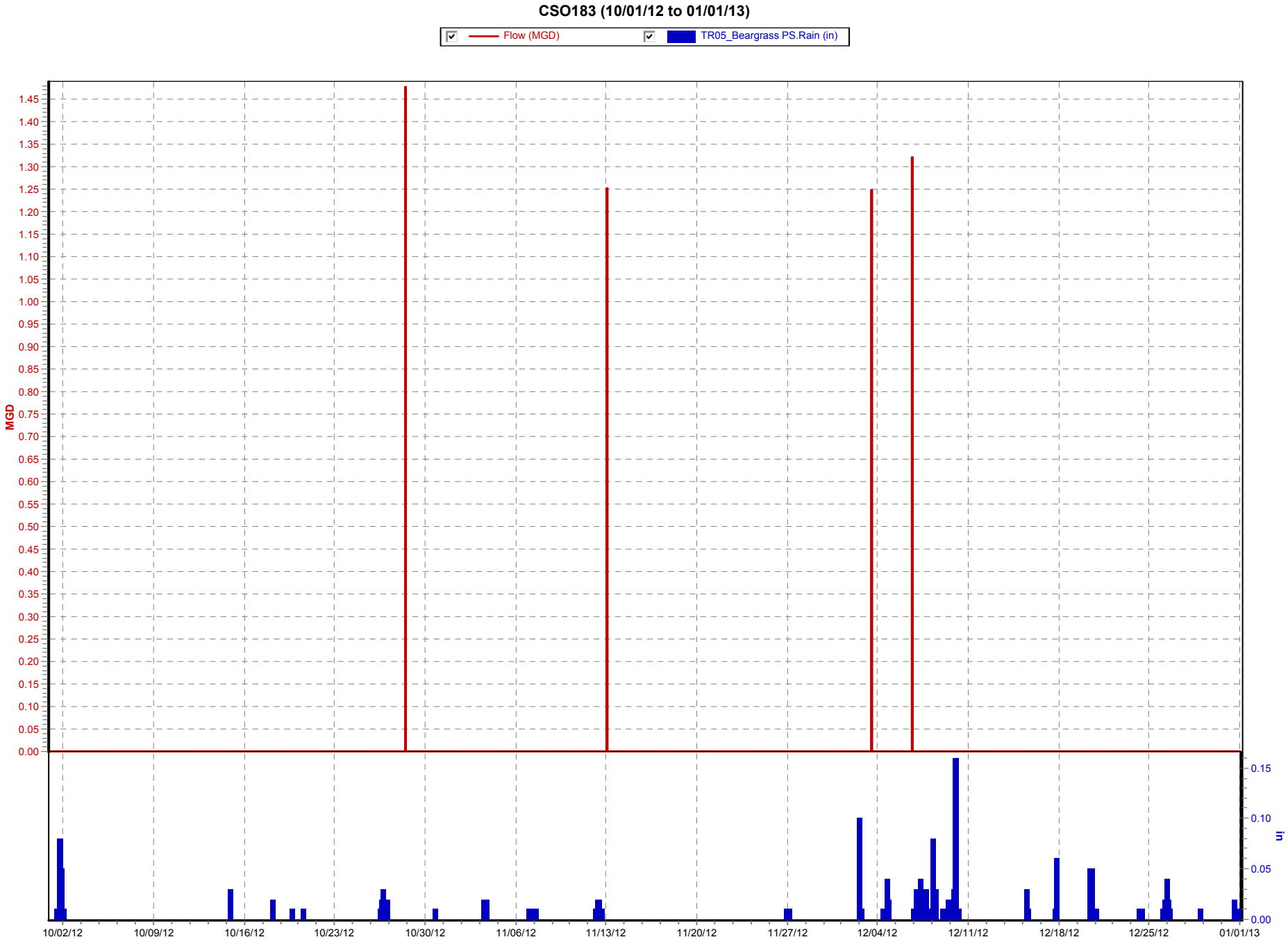

CSO178 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO149_CSO179 (10/01/12 to 01/01/13)
Level 2-CSO179 (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

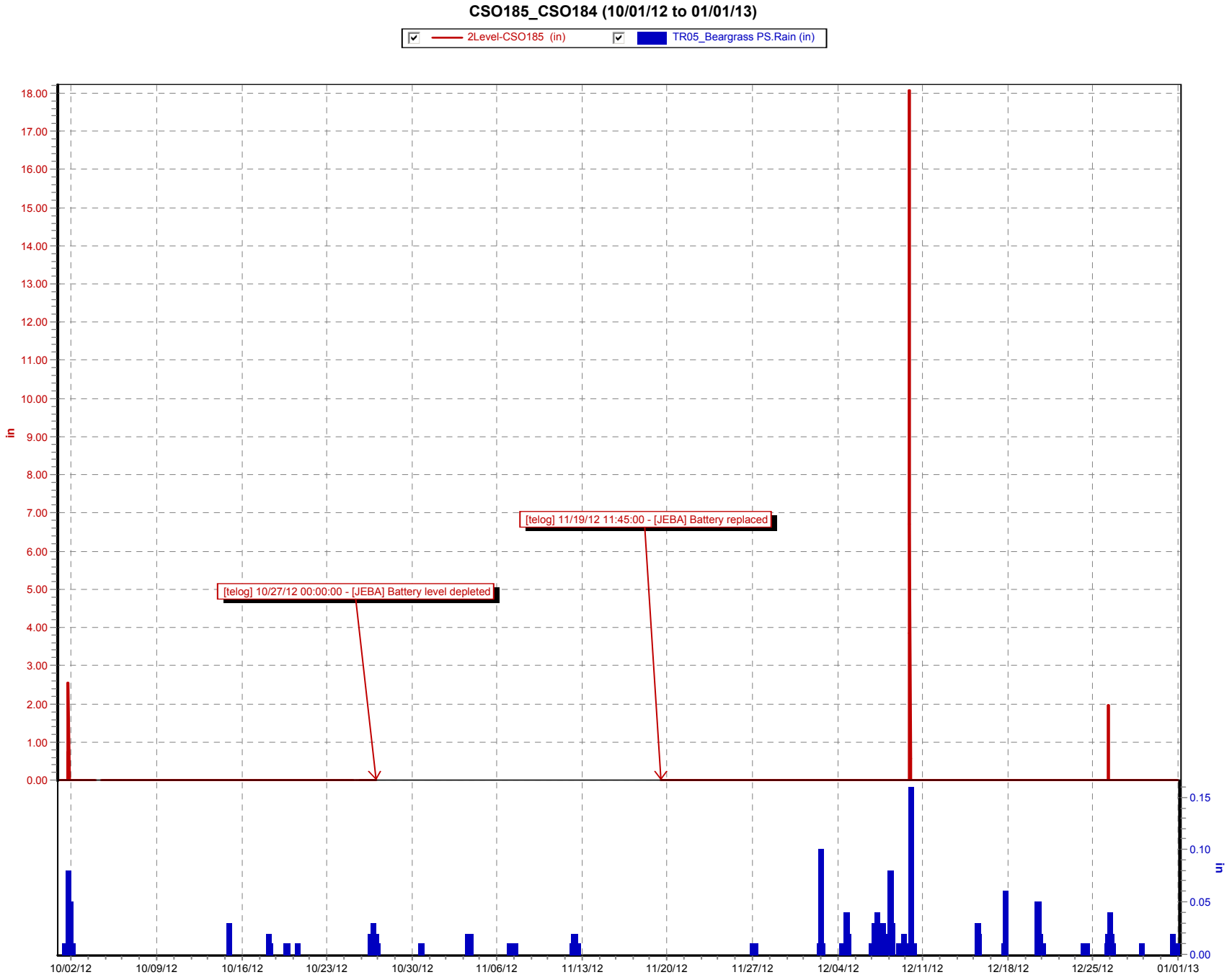

CSO180 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

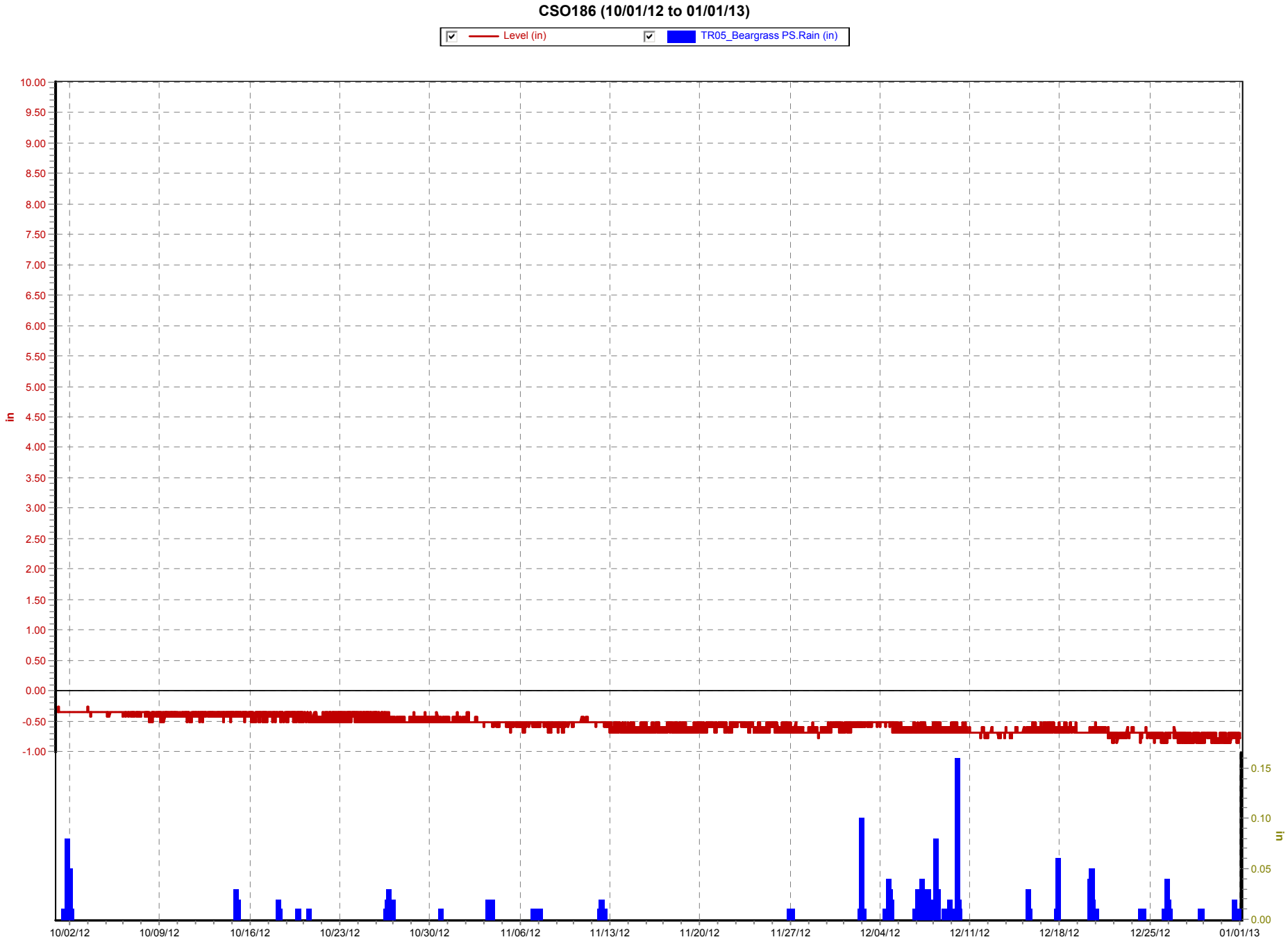

CSO181_CSO035 (10/01/12 to 01/01/13)
Level-CSO181 (in)
TR05_Beargrass PS.Rain (in)
in
28.00
27.00
26.00
25.00
24.00
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
[telog] 11/30/12 05:00:00 - [JEBA] Battery Replaced
[telog] 11/16/12 19:45:00 - [JEBA] Battery depleted
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

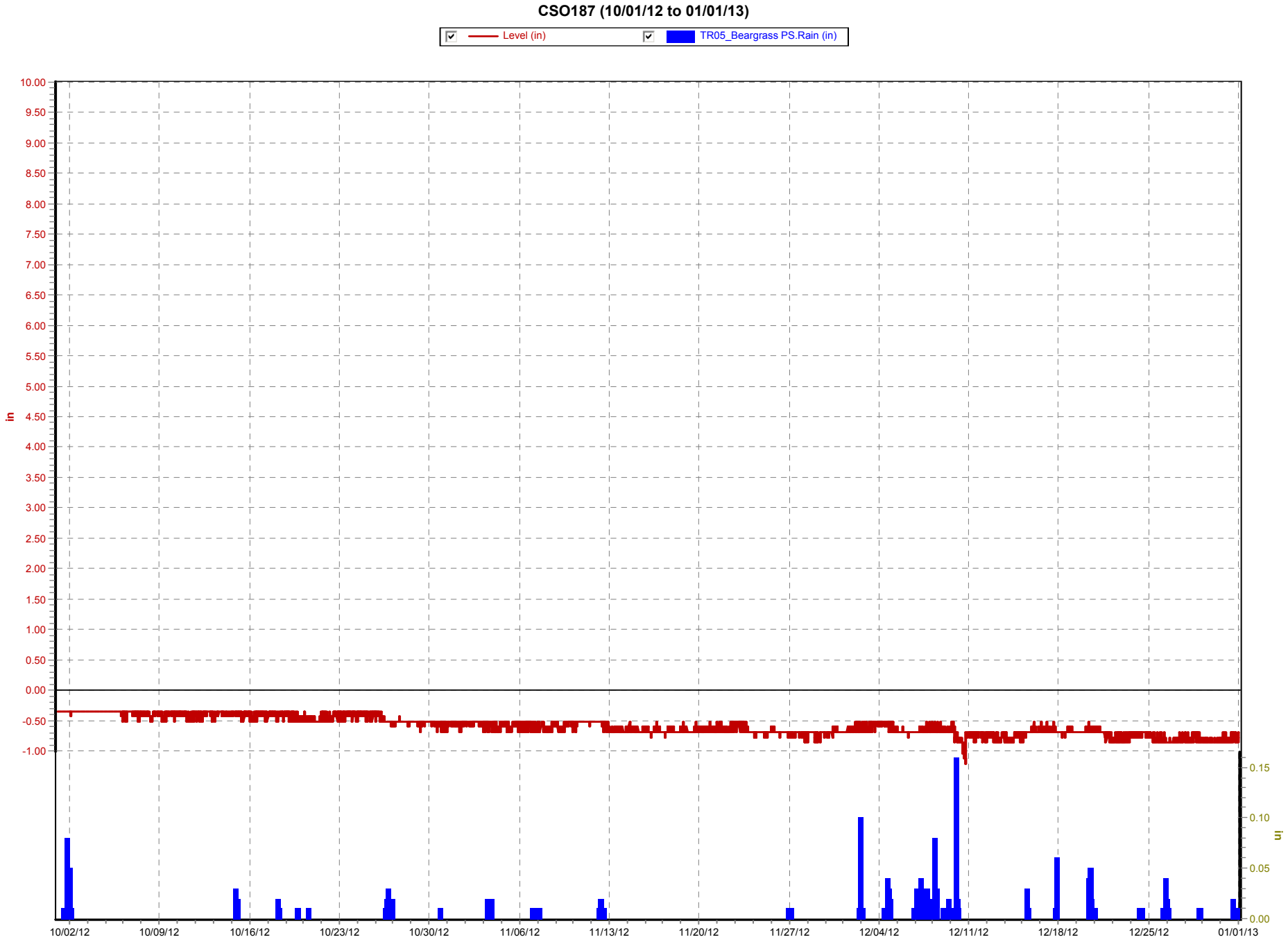

CSO182 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
[telog] 12/16/12 00:00:00 - Flow Meter Battery failed. It was replaced in January.
24.00
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
MGD
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

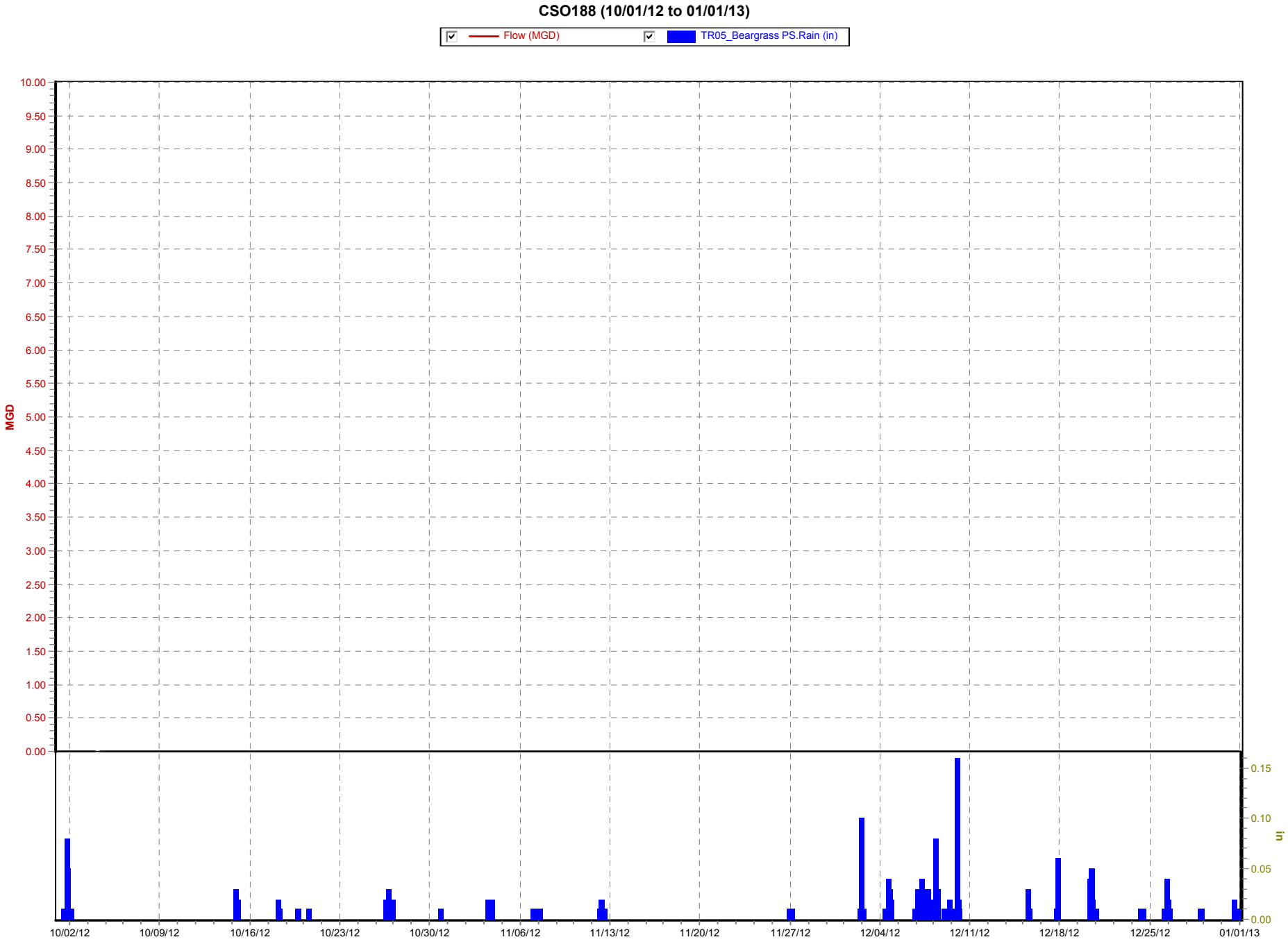

CSO183 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
1.45
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

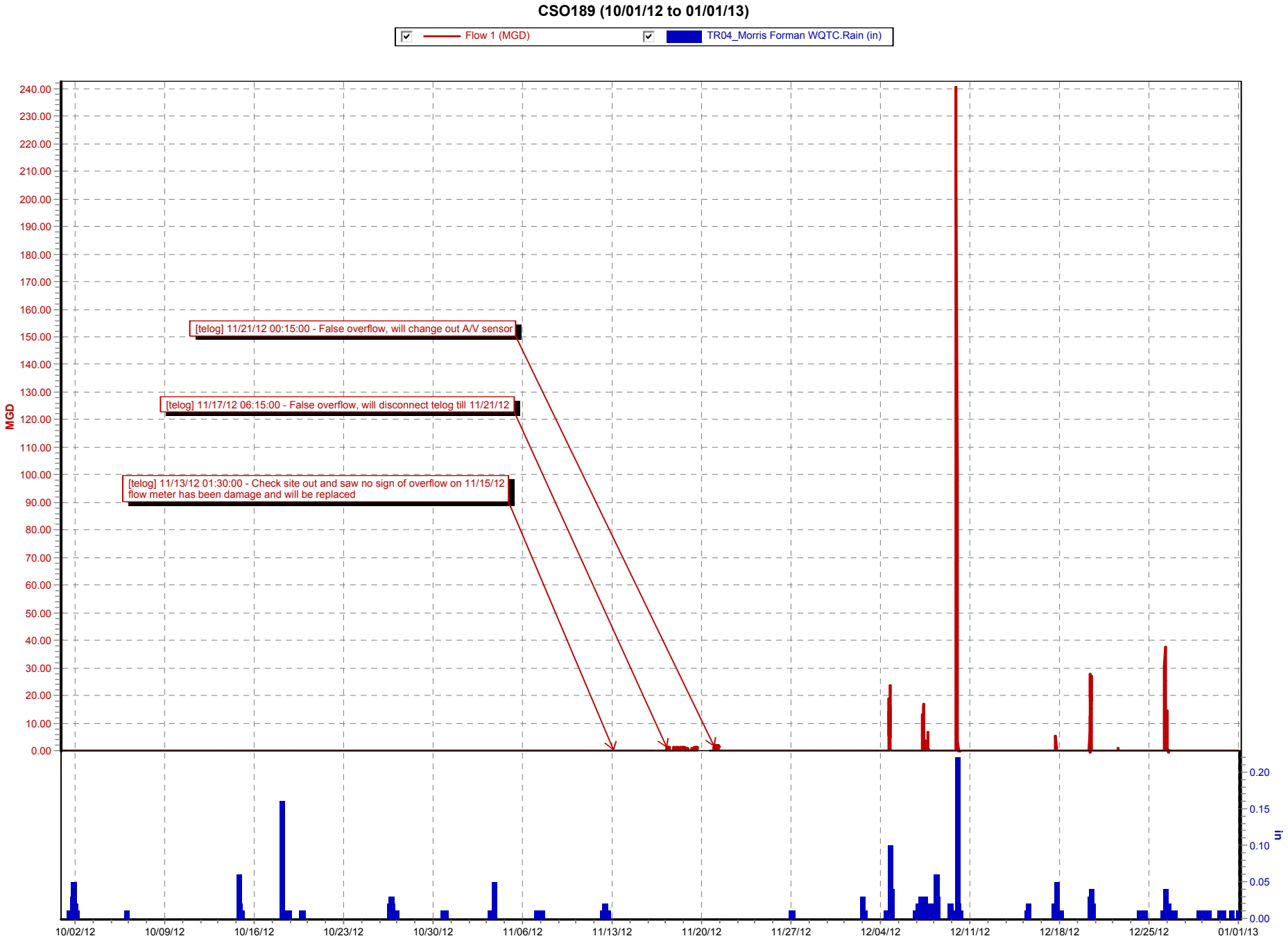

CSO185_CSO184 (10/01/12 to 01/01/13)
1Flow-CSO184 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
[telog] 10/27/12 00:15:00 - [JEBA] Battery level depleted
[telog] 11/19/12 11:45:00 - [JEBA] Battery replaced
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

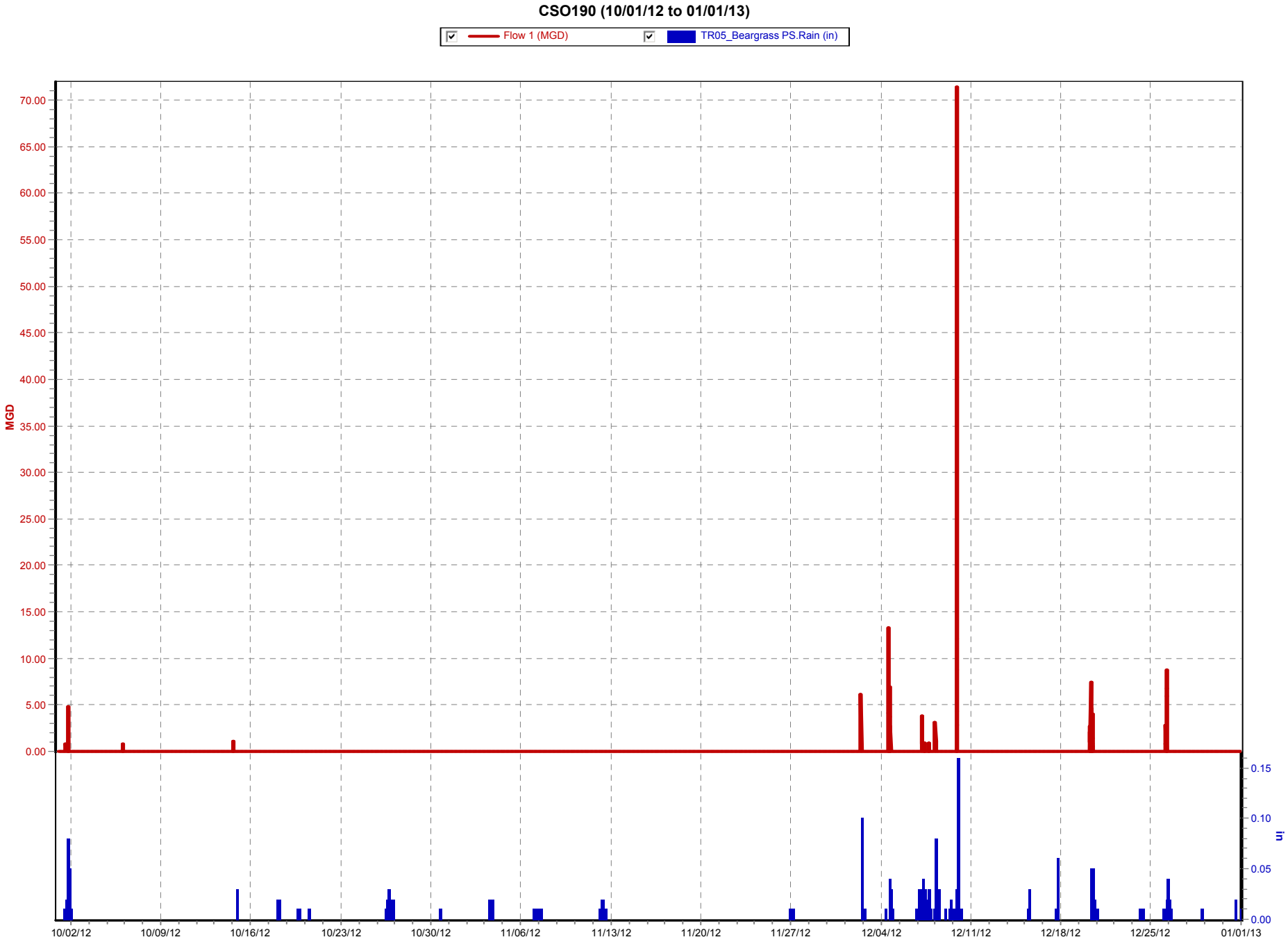

CSO185_CSO184 (10/01/12 to 01/01/13)
2Level-CSO185 (in)
TR05_Beargrass PS.Rain (in)
in
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
[telog] 11/19/12 11:45:00 - [JEBA] Battery replaced
[telog] 10/27/12 00:00:00 - [JEBA] Battery level depleted
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

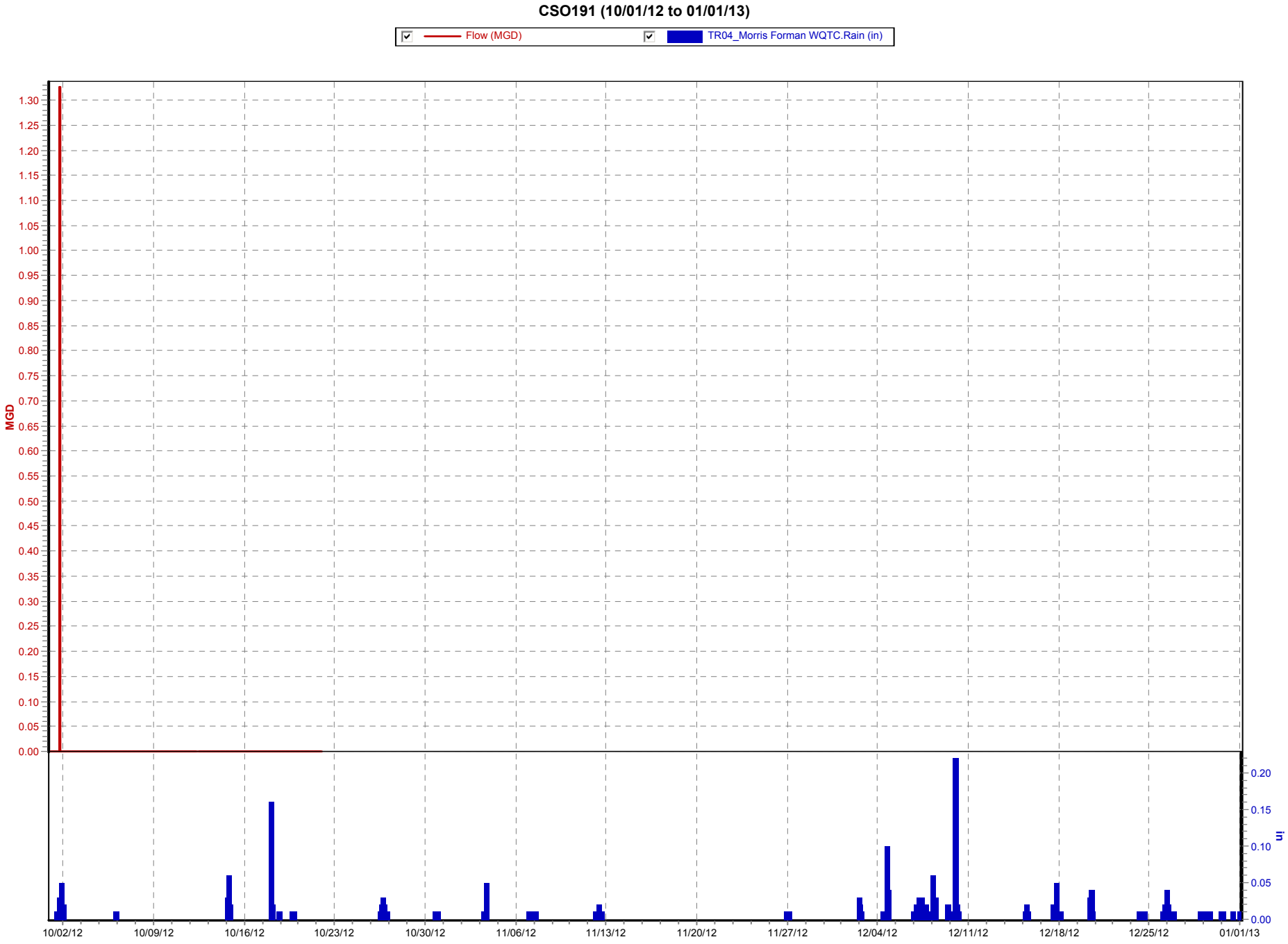

CSO186 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

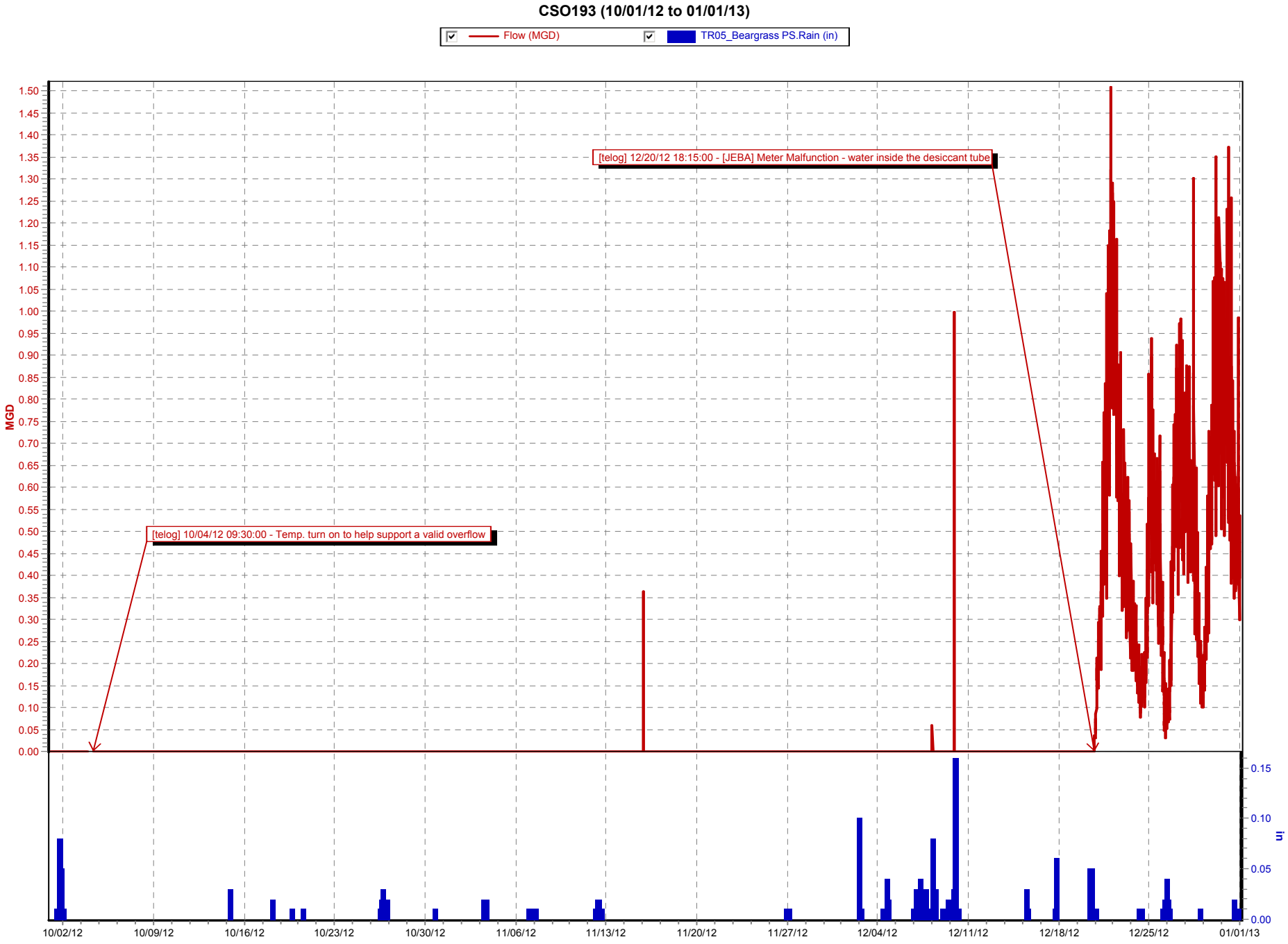

CSO187 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

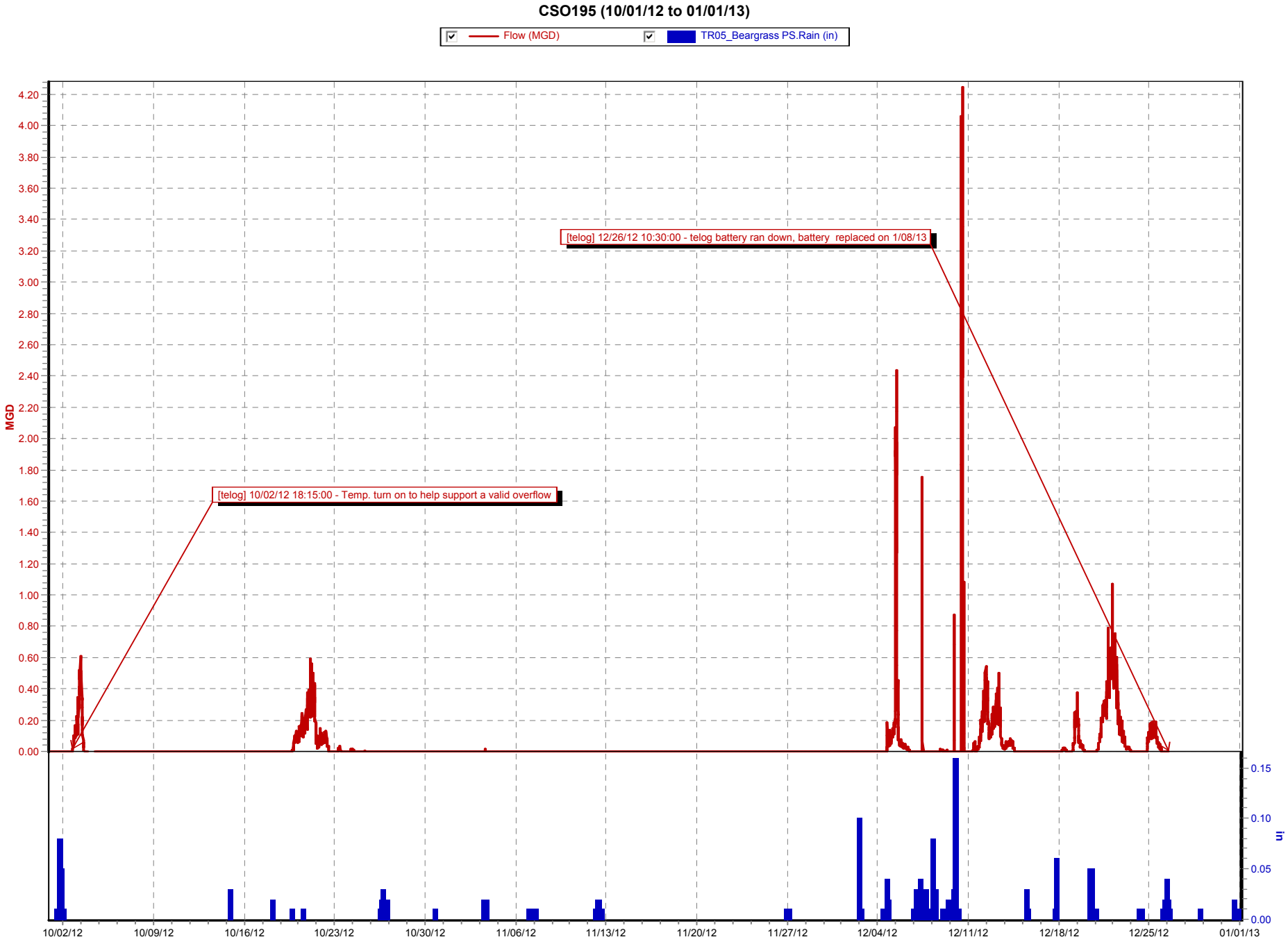

CSO188 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

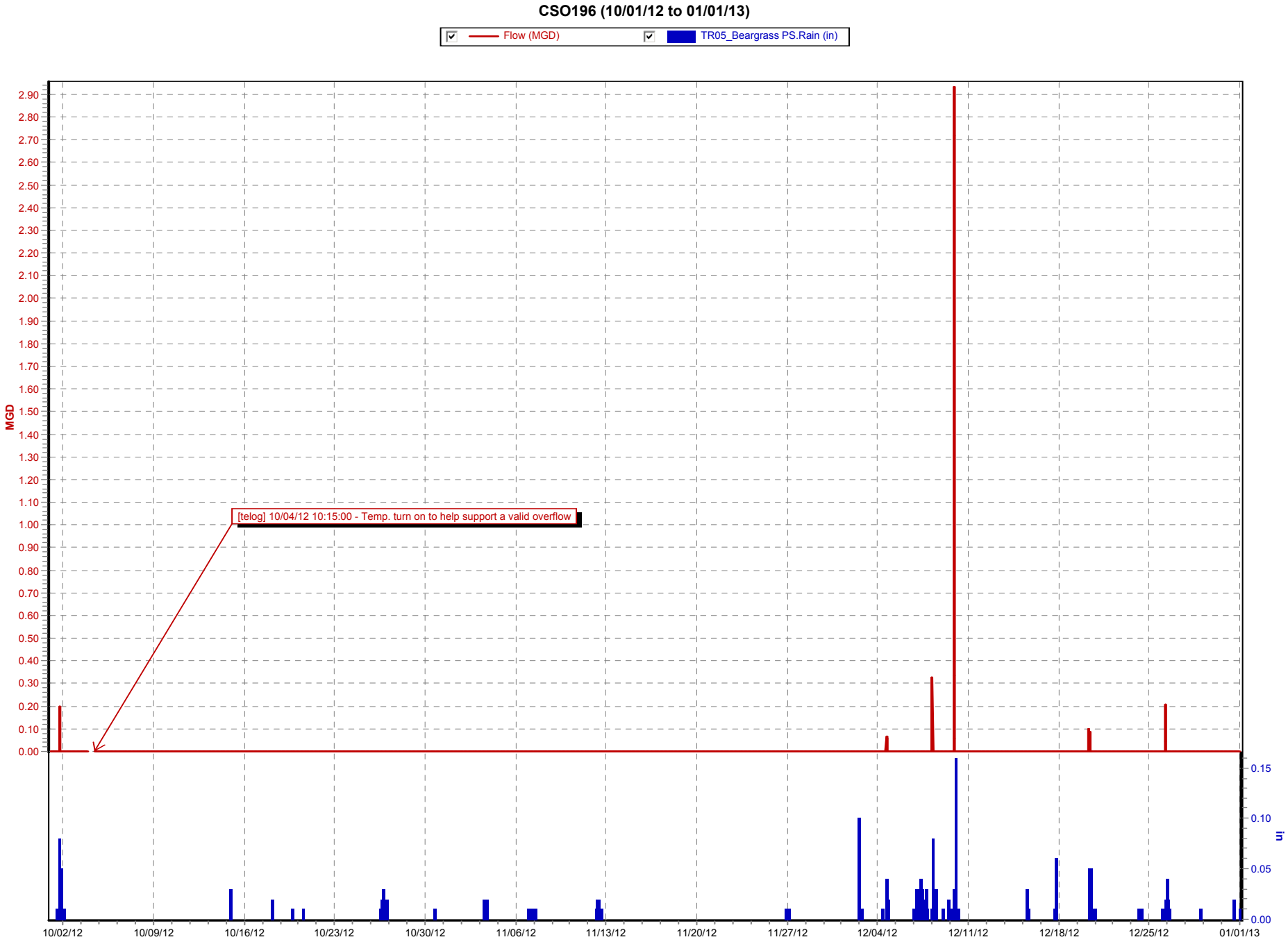

CSO189 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
[telog] 11/21/12 00:15:00 - False overflow, will change out A/V sensor
[telog] 11/17/12 06:15:00 - False overflow, will disconnect telog till 11/21/12
[telog] 11/13/12 01:30:00 - Check site out and saw no sign of overflow on 11/15/12 flow meter has been damage and will be replaced
240.00
230.00
220.00
210.00
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

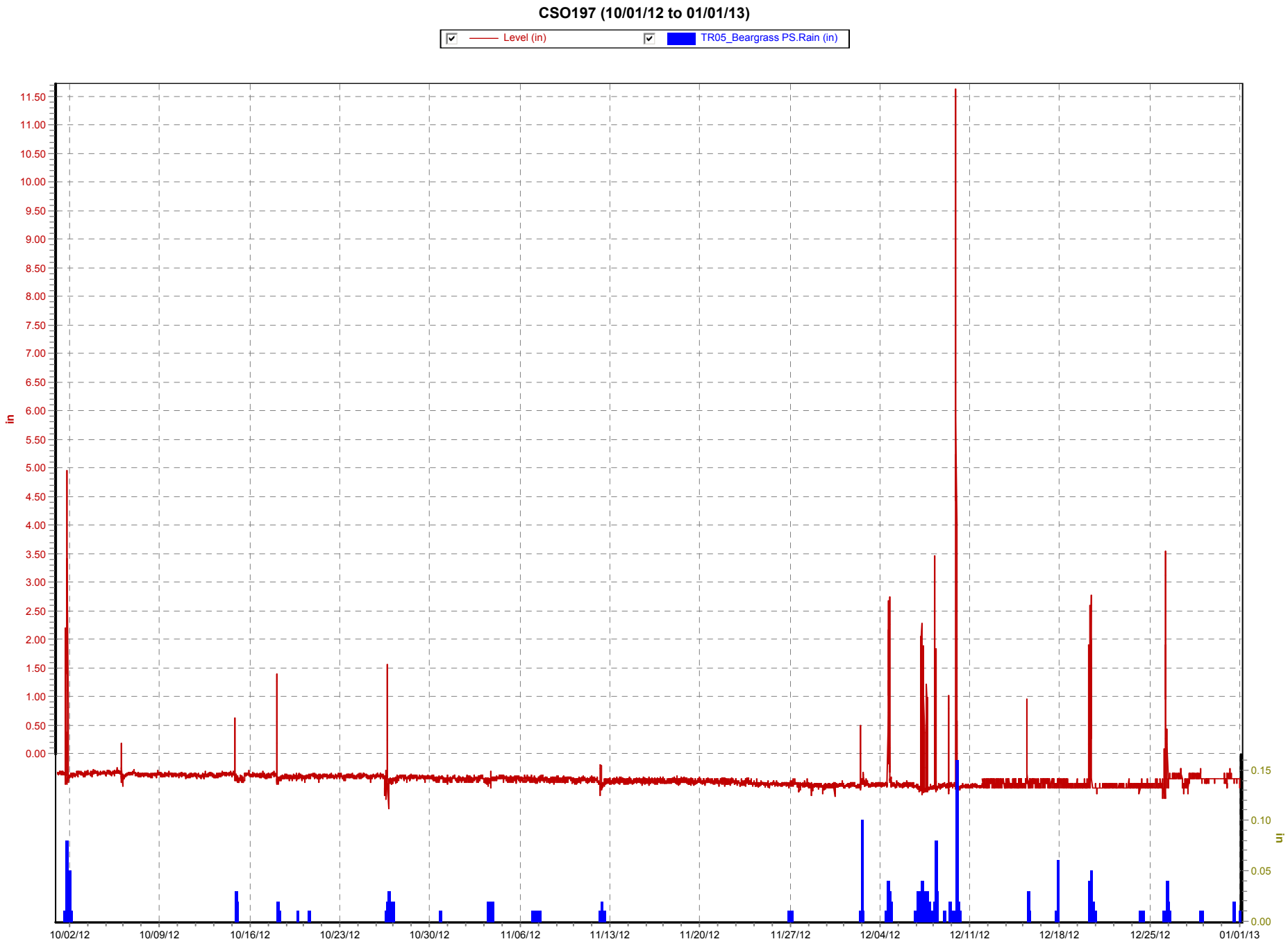

CSO190 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
in
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

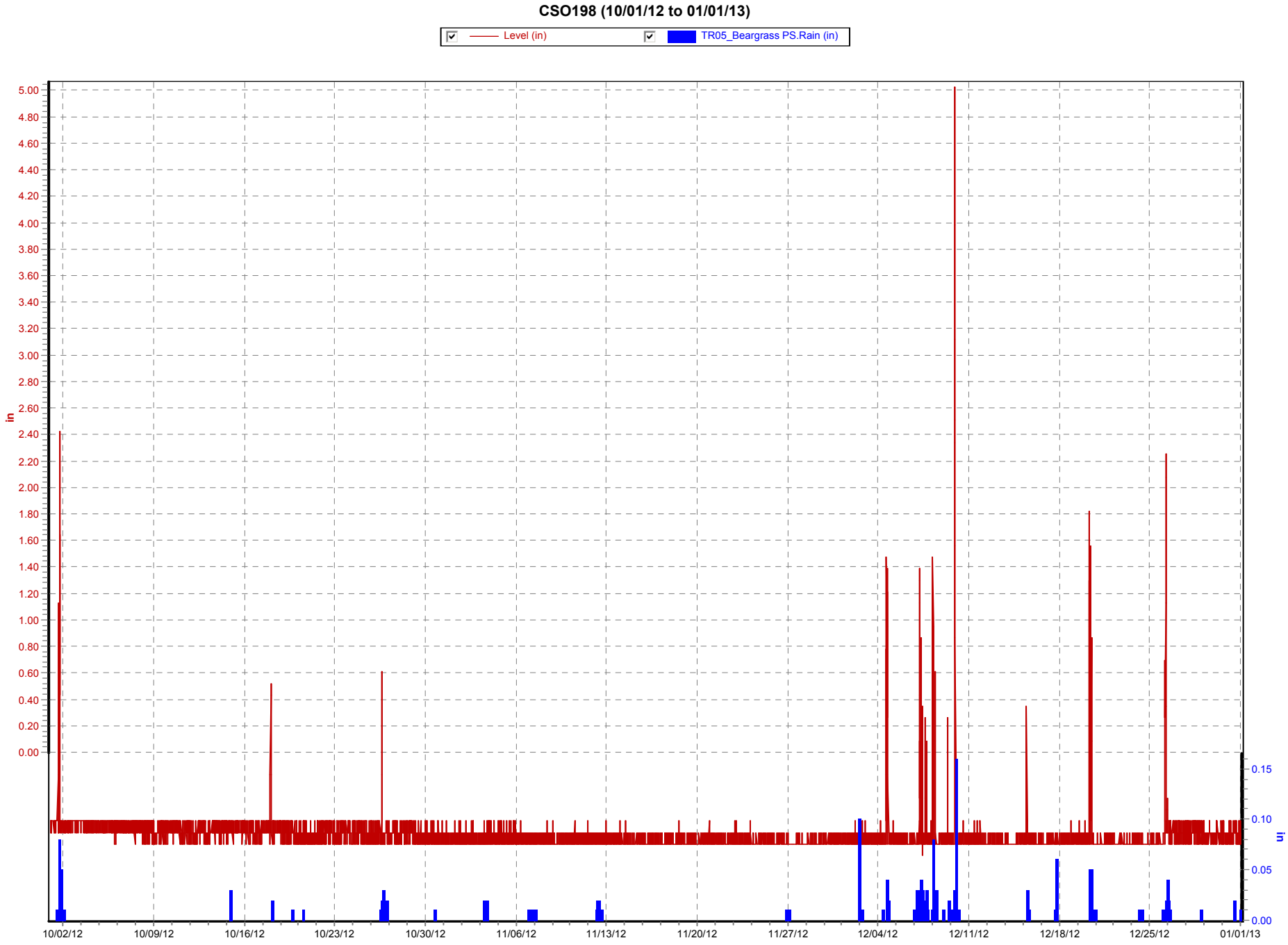

CSO191 (10/01/12 to 01/01/13)
Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

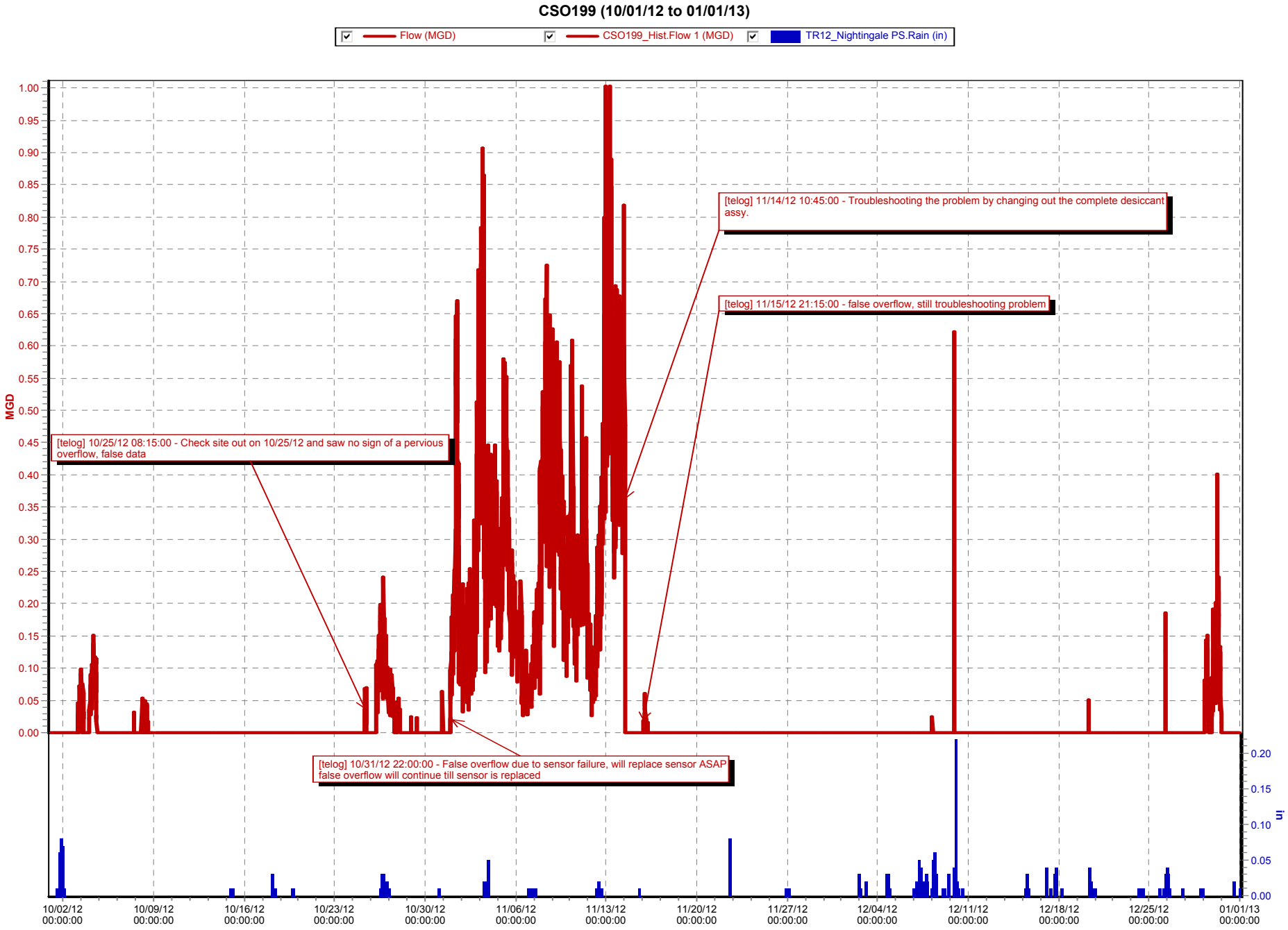

CSO193 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
[telog] 12/20/12 18:15:00 - [JEBA] Meter Malfunction - water inside the desiccant tube
[telog] 10/04/12 09:30:00 - Temp. turn on to help support a valid overflow
MGD
in
1.50
1.45
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

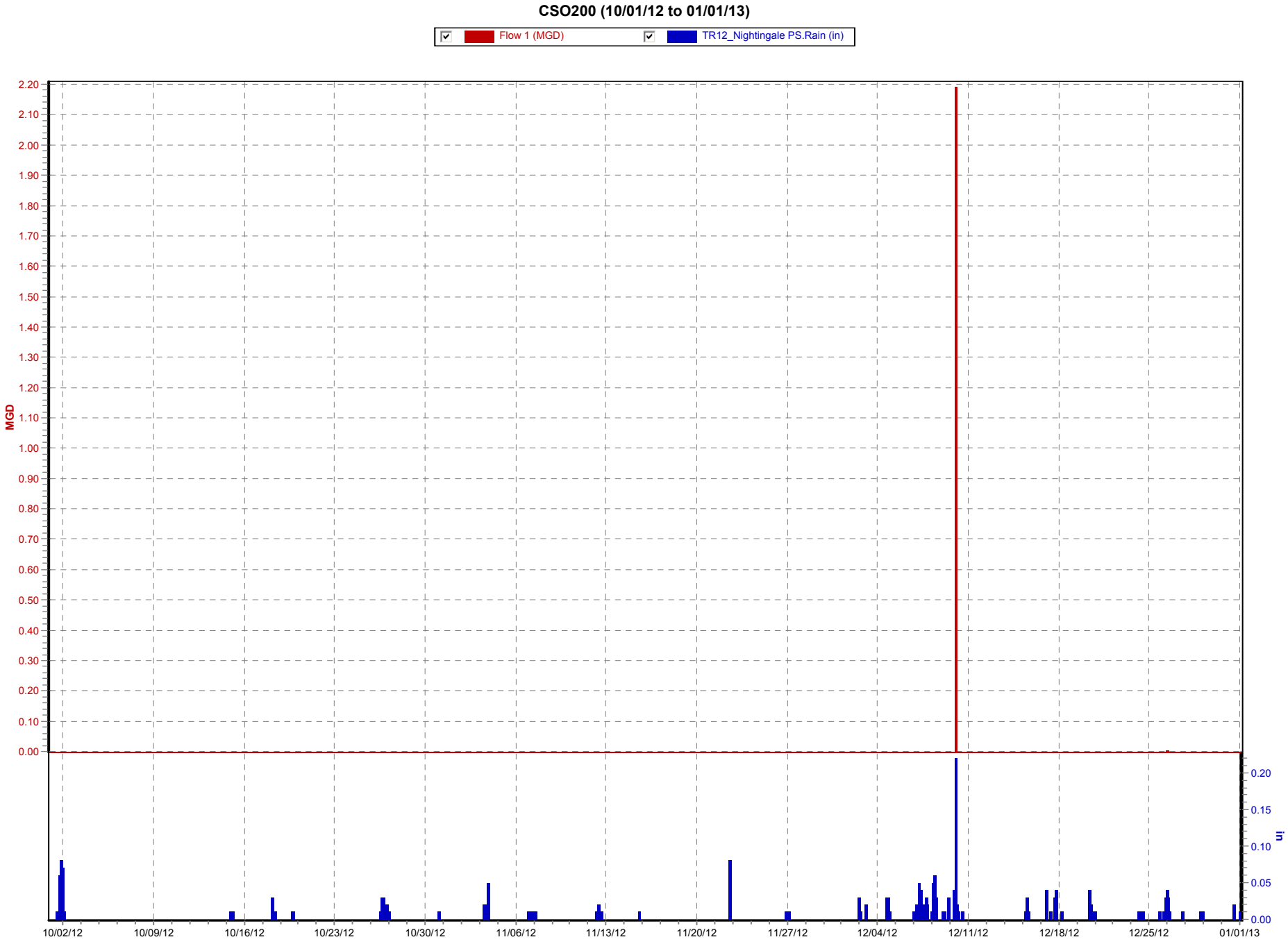

CSO195 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/02/12 18:15:00 - Temp. turn on to help support a valid overflow
[telog] 12/26/12 10:30:00 - telog battery ran down, battery replaced on 1/08/13
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

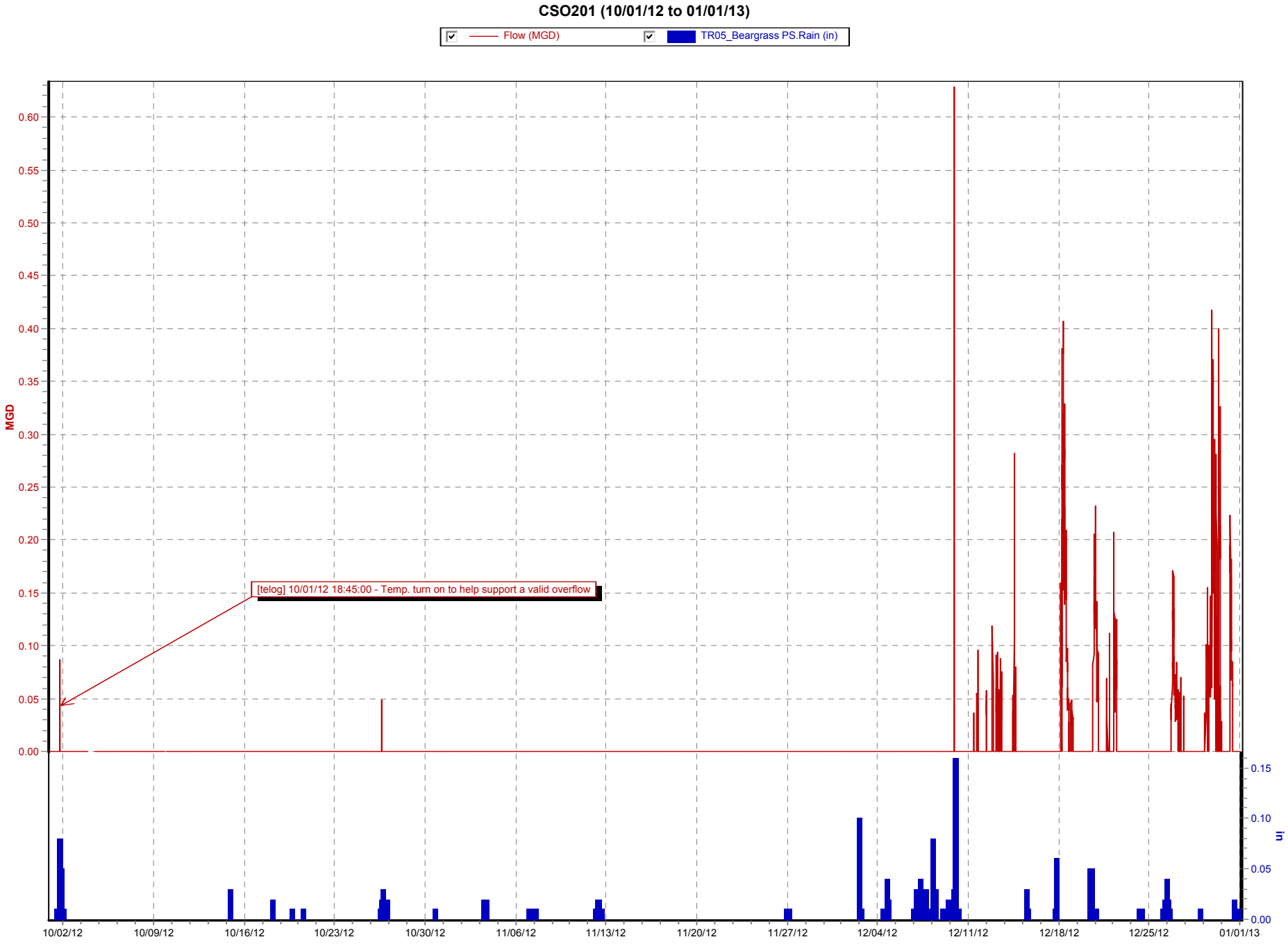

CSO196 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/04/12 10:15:00 - Temp. turn on to help support a valid overflow
2.90
2.80
2.70
2.60
2.50
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

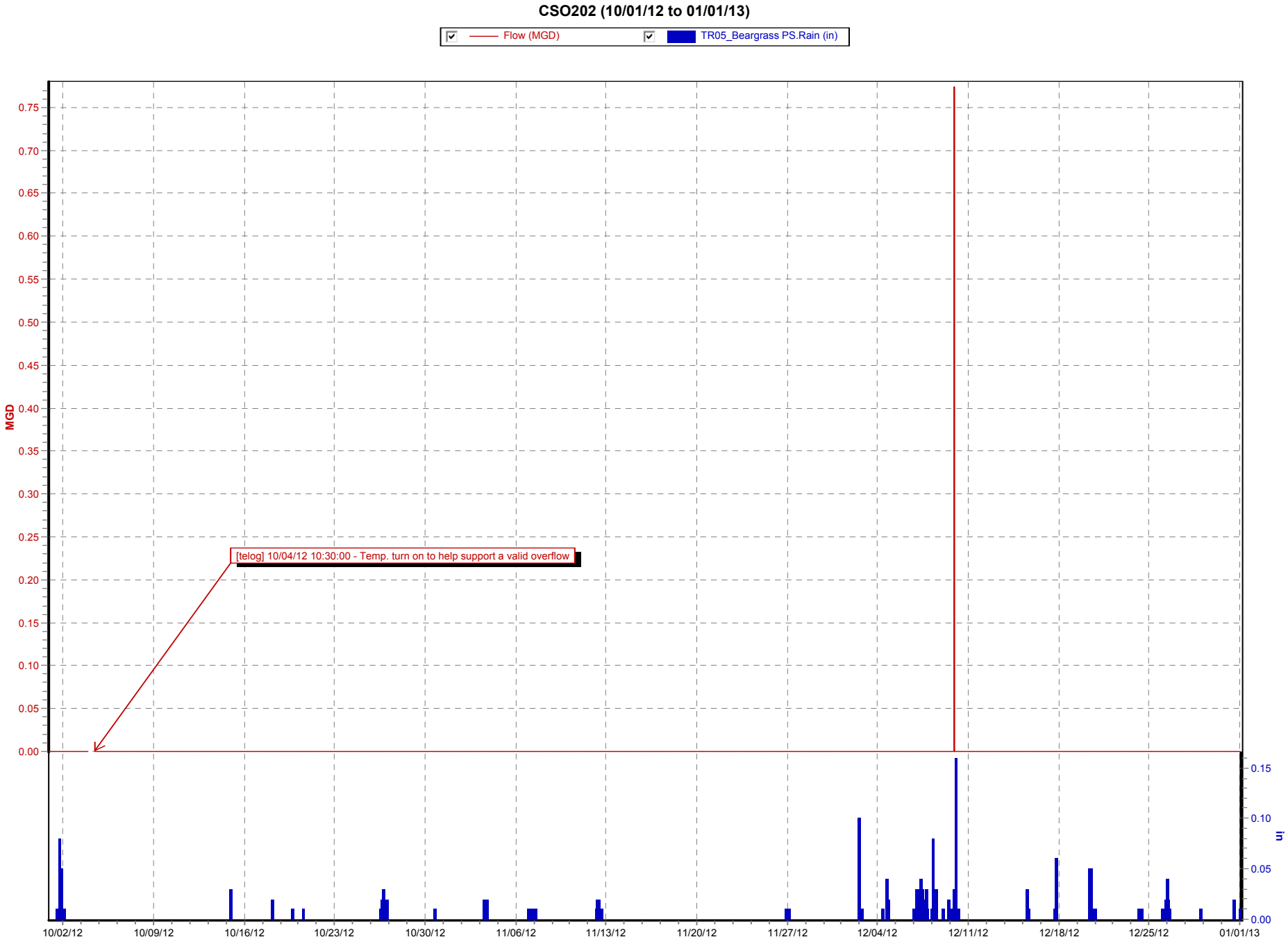

CSO197 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
in
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

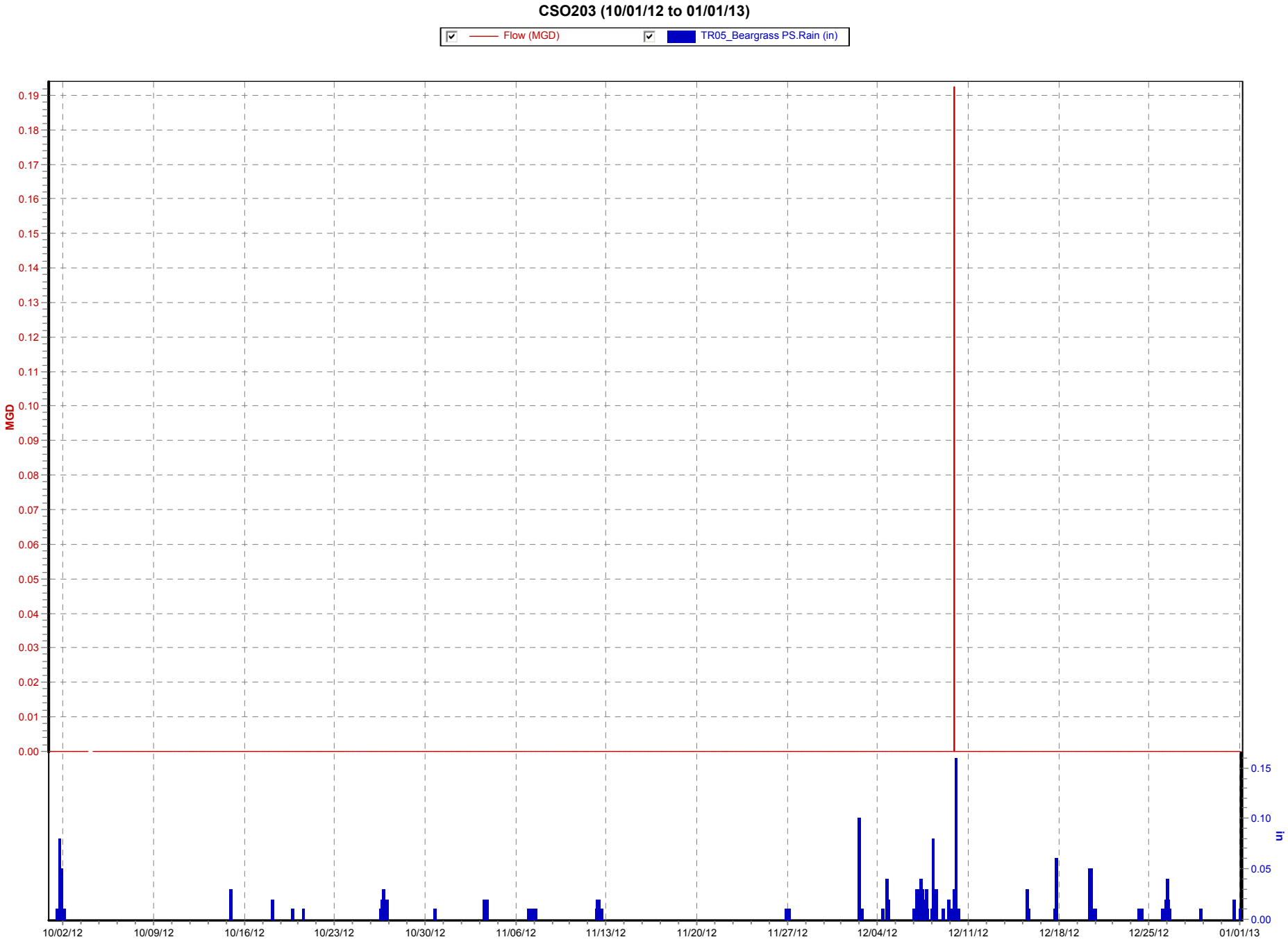

CSO198 (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
in
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

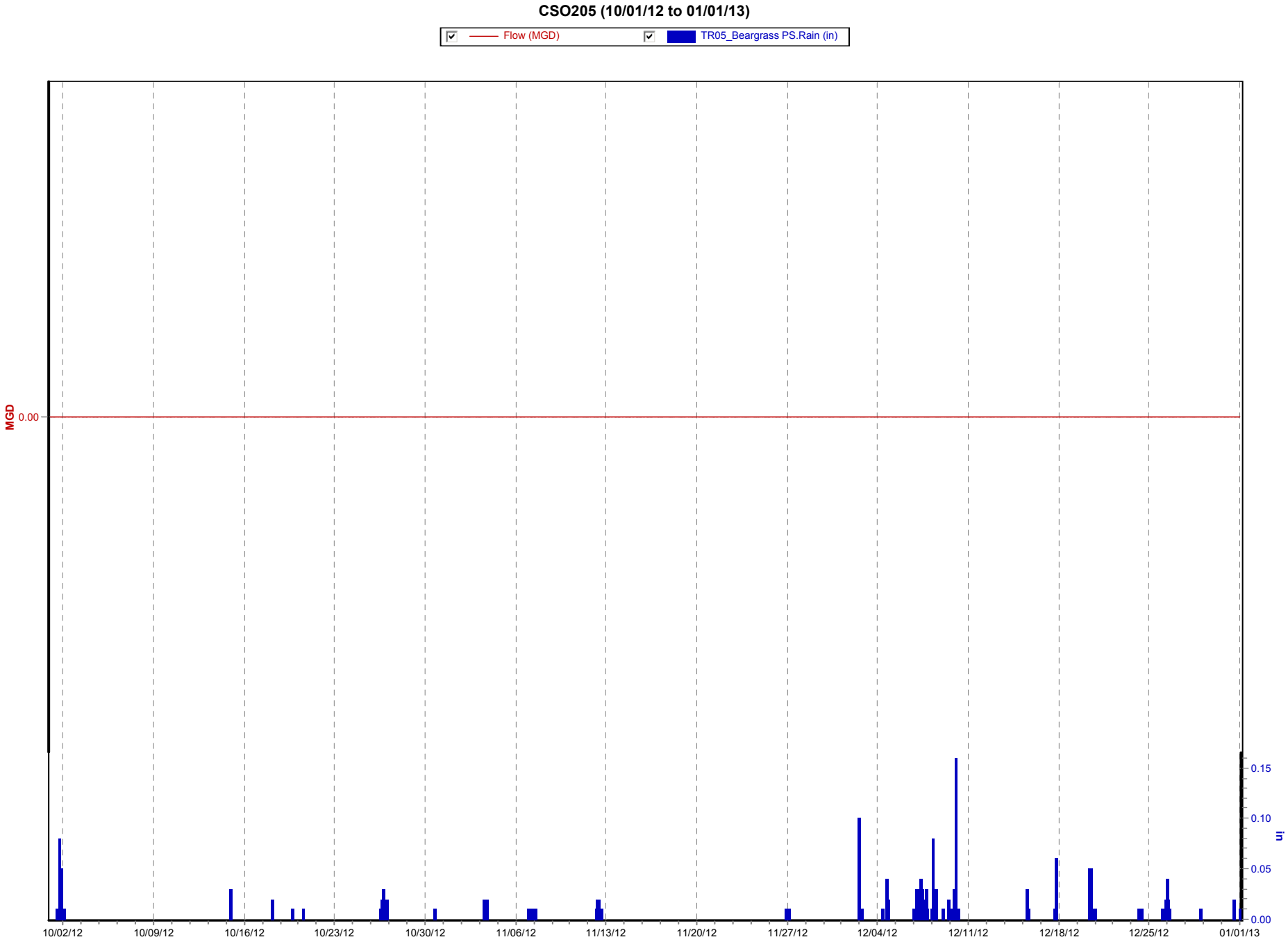

CSO199 (10/01/12 to 01/01/13)
Flow (MGD)
CSO199_Hist.Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
IN
[telog] 10/25/12 08:15:00 - Check site out on 10/25/12 and saw no sign of a pervious overflow, false data
[telog] 11/14/12 10:45:00 - Troubleshooting the problem by changing out the complete desiccant assy.
[telog] 11/15/12 21:15:00 - false overflow, still troubleshooting problem
[telog] 10/31/12 22:00:00 - False overflow due to sensor failure, will replace sensor ASAP false overflow will continue till sensor is replaced
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.20
0.15
0.10
0.05
0.00
10/02/12 00:00:00
10/09/12 00:00:00
10/16/12 00:00:00
10/23/12 00:00:00
10/30/12 00:00:00
11/06/12 00:00:00
11/13/12 00:00:00
11/20/12 00:00:00
11/27/12 00:00:00
12/04/12 00:00:00
12/11/12 00:00:00
12/18/12 00:00:00
12/25/12 00:00:00
01/01/13 00:00:00

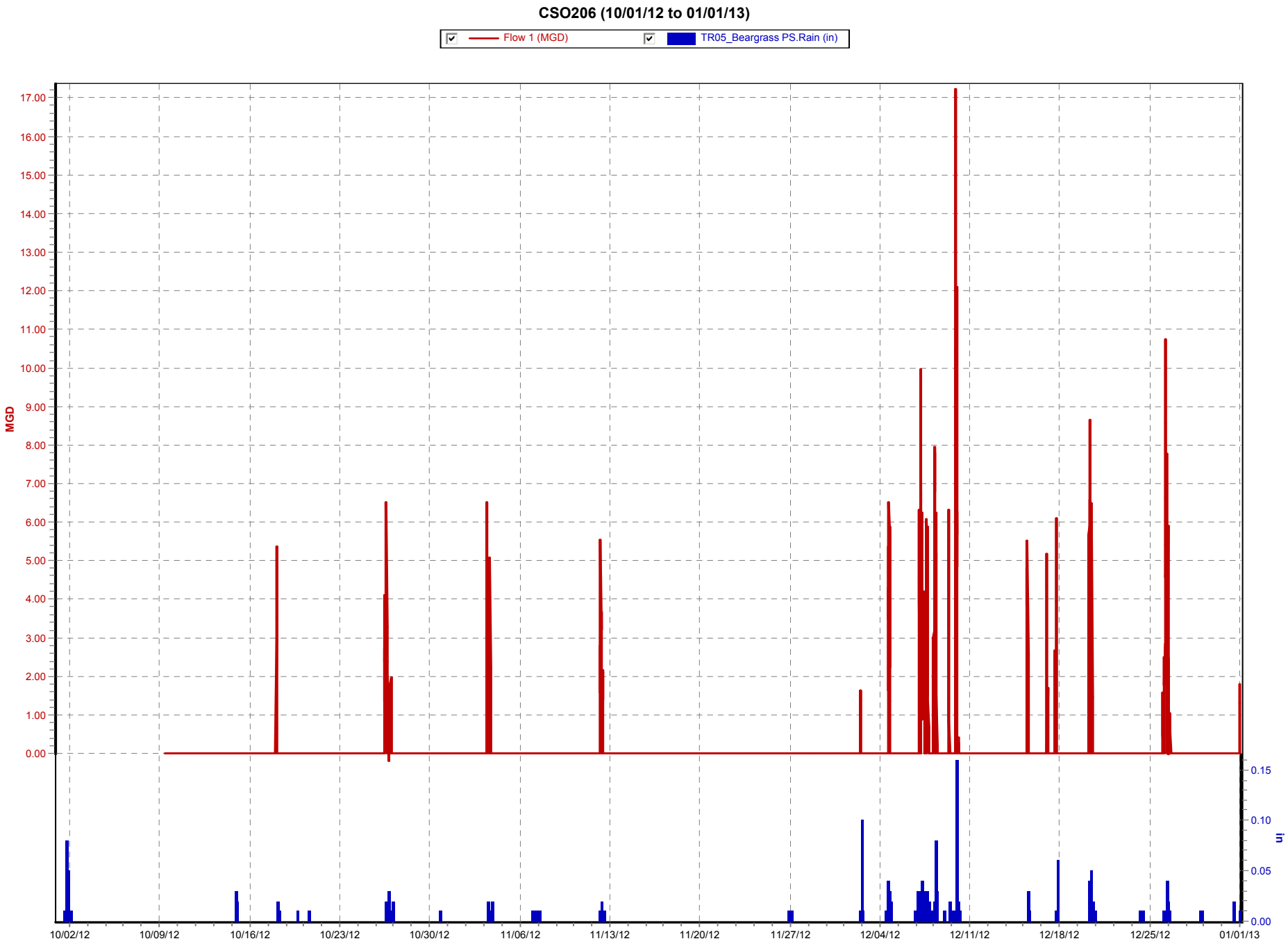

CSO200 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
in
0.20
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO201 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/01/12 18:45:00 - Temp. turn on to help support a valid overflow
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO202 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 10/04/12 10:30:00 - Temp. turn on to help support a valid overflow
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO203 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.19
0.18
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
in
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO205 (10/01/12 to 01/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
in
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13


CSO206 (10/01/12 to 01/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

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 Abetement 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