MSD
Metropolitan Sewer District

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Louisville Kentucky 40203-1911
502-540-6000
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July 30, 2012

Chief, Water Programs Enforcement Branch
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61 Forsyth Street SW
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U.S. Department of Justice
Post Office Box 7611
Washington DC 20044-7611

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

Subject: Quarterly Report 27
Civil Action No. 3:08-cv-00608-CRS

Attention Chief:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 29 of our Amended Consent Decree. This report is for the period April 1, 2012 – June 30, 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

Q26 Certification KDEP 1-30-12
cc: Greg C. Heitzman Paula Purifoy

Louisville and Jefferson County Wet Weather Consent Decree Quarterly Report #27

Reporting Period:

April 1, 2012 through June 30, 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:

July 30, 2012

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INTRODUCTION

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

This is the twenty-seventh Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from April 1, 2012, through June 30, 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 (April 1, 2012, through June 30, 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 (April 1, 2012, through June 30, 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 (April 1, 2012, through June 30, 2012), and the anticipated projects and activities that are scheduled to be performed during the next two reporting periods (July 1, 2012, through December 31, 2012), for continued compliance with the Amended Consent Decree.

Section 4: Program Activities for Public Outreach, Education, Notification and Participation - This section describes the activities related to public outreach that were active during the reporting period (April 1, 2012, through June 30, 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 (April 1, 2012, through June 30, 2012), and include the schedule for activities planned for the next two reporting periods (July 1, 2012, through December 31, 2012), are included in this section for continued compliance with the Amended Consent Decree.

Section 6: Performance Overview - This section provides an accounting of unauthorized discharge occurrences from the separate sanitary sewer and combined sewer system and the estimated volumes of each. A discussion of the probable reductions in both unauthorized discharge points and the discharges from MSD's Combined Sewer Overflow (CSO) locations, identified in the Morris Forman Water Quality Treatment Center (WQTC) Kentucky Pollutant Discharge Elimination System (KPDES) permit, that are expected to result from MSD's projects and activities during the reporting period are also contained in this section.

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

SECTION 1: Program Activities for Nine Minimum Controls

1.1 Nine Minimum Controls Program Background

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

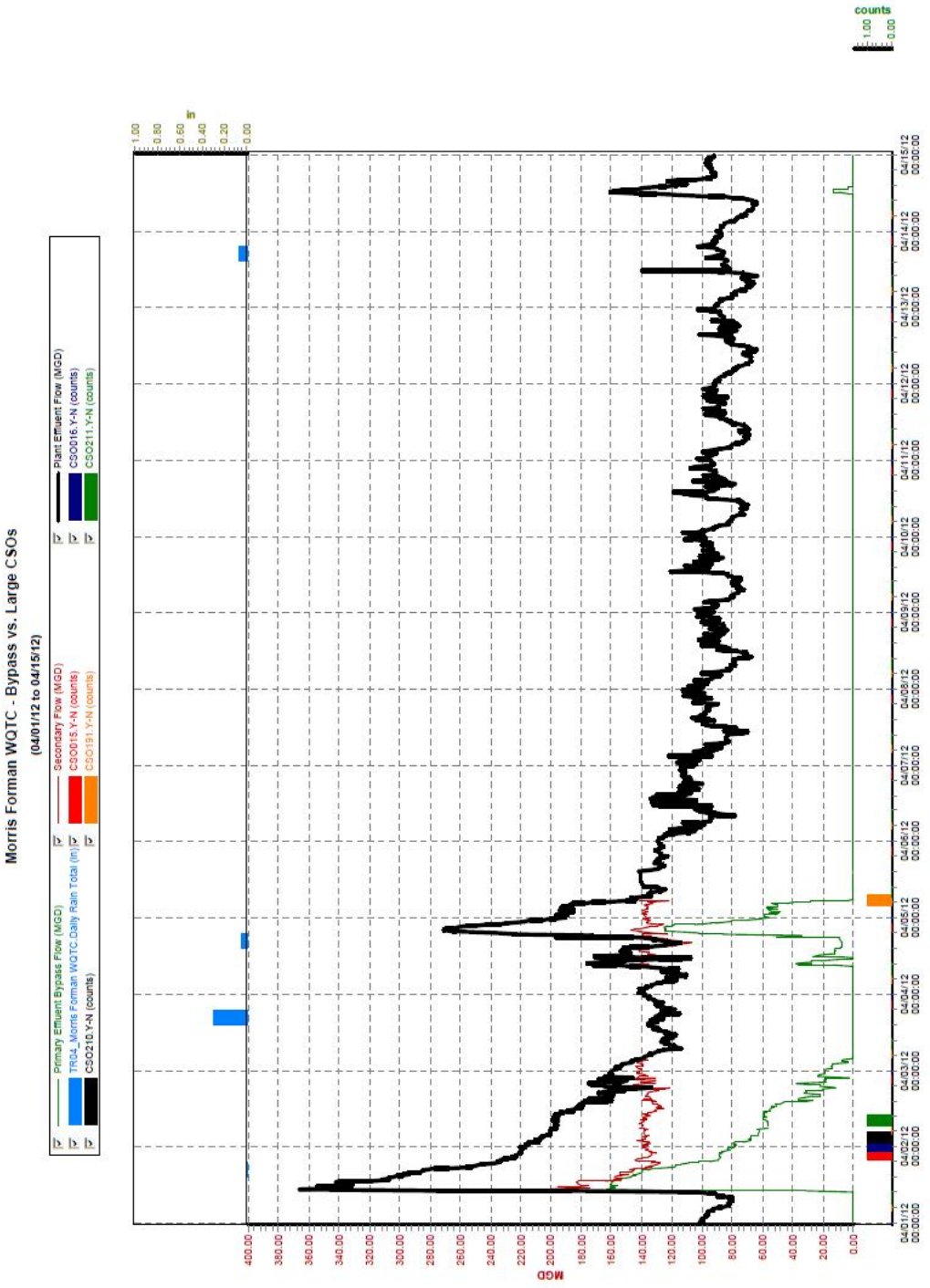
1.2 NMC 2: Maximization of Storage in the Collection System

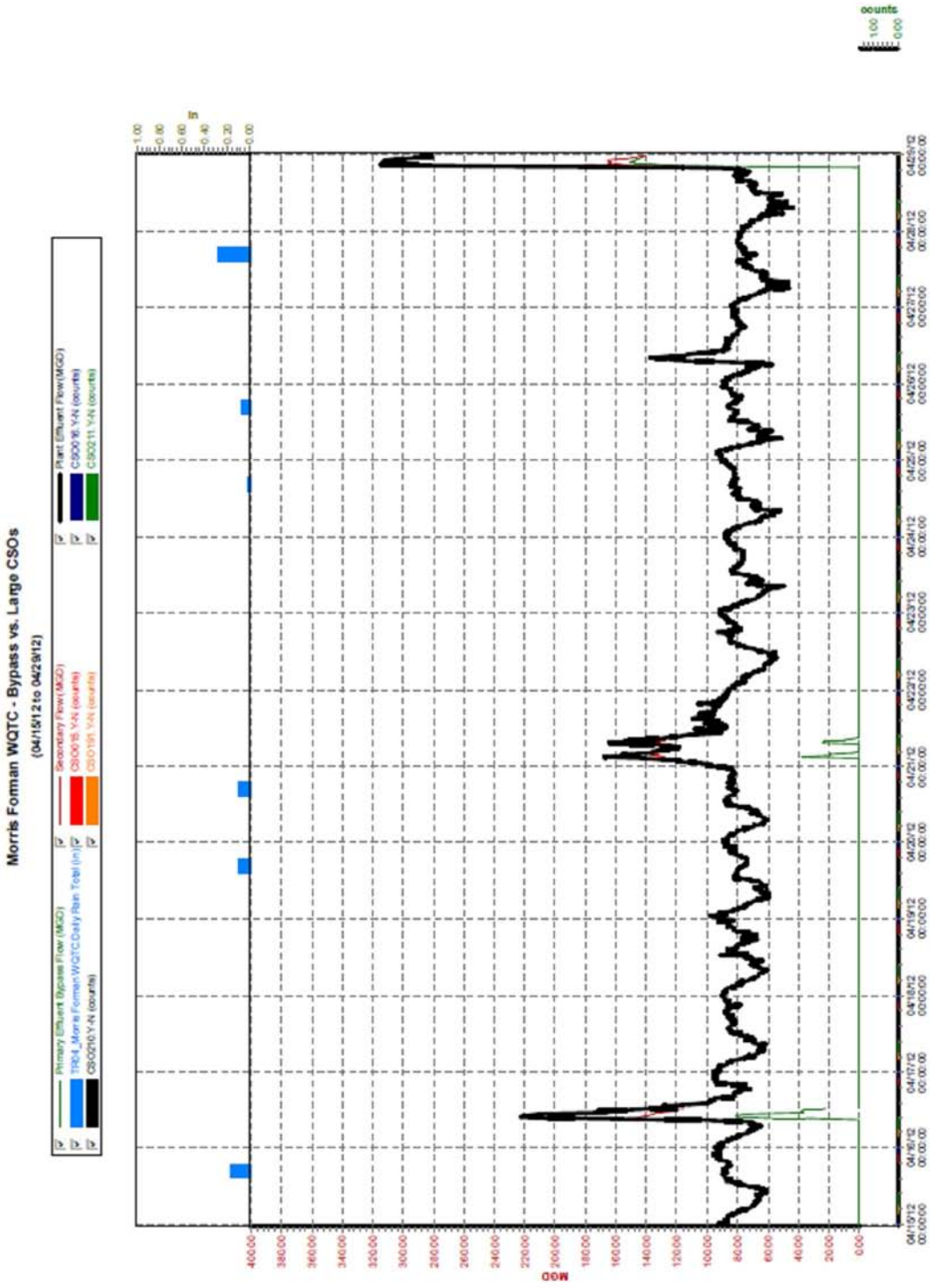
Continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 216.6 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See the figure at the end of this section for a detailed report.

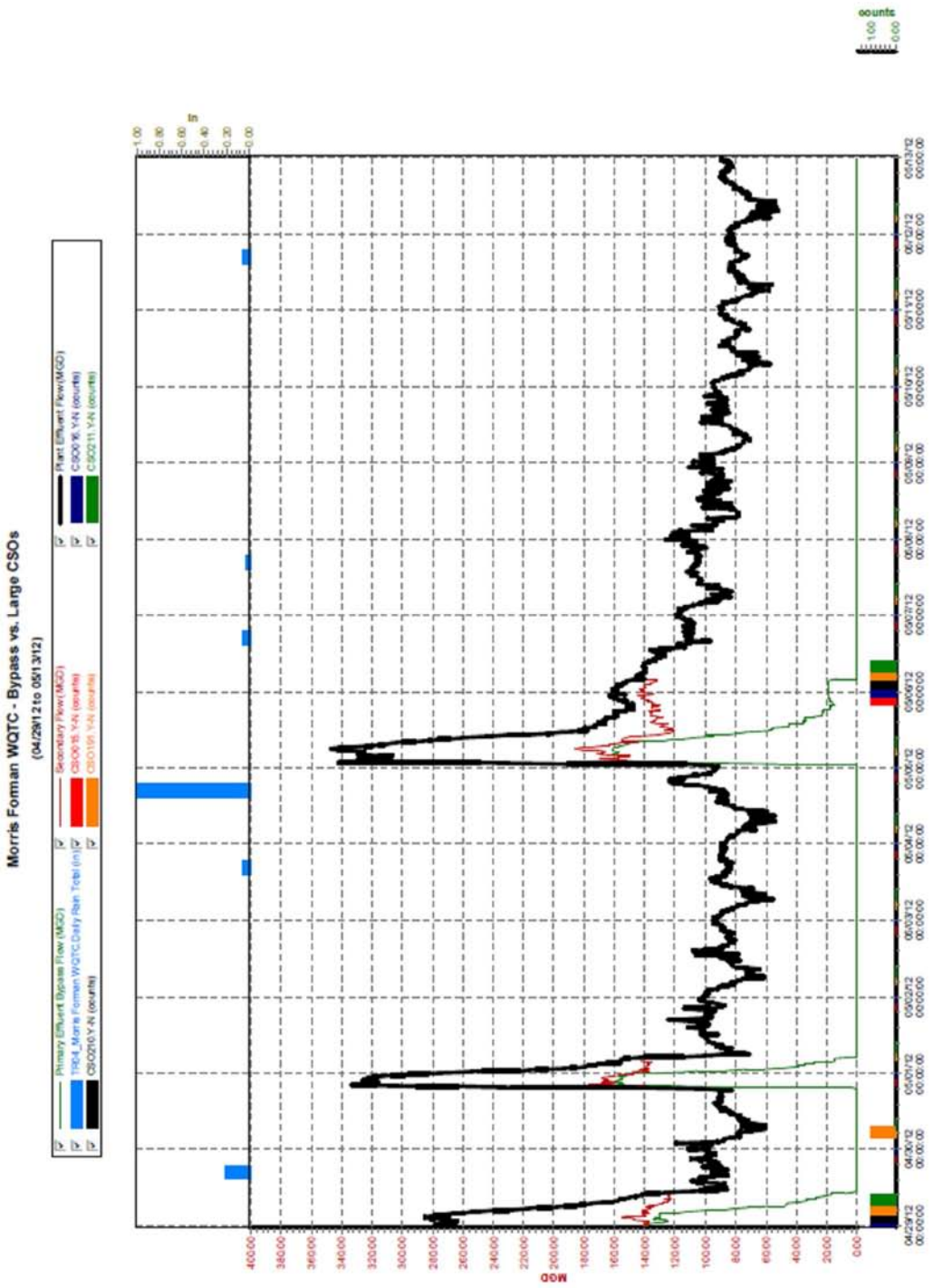
1.3 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)

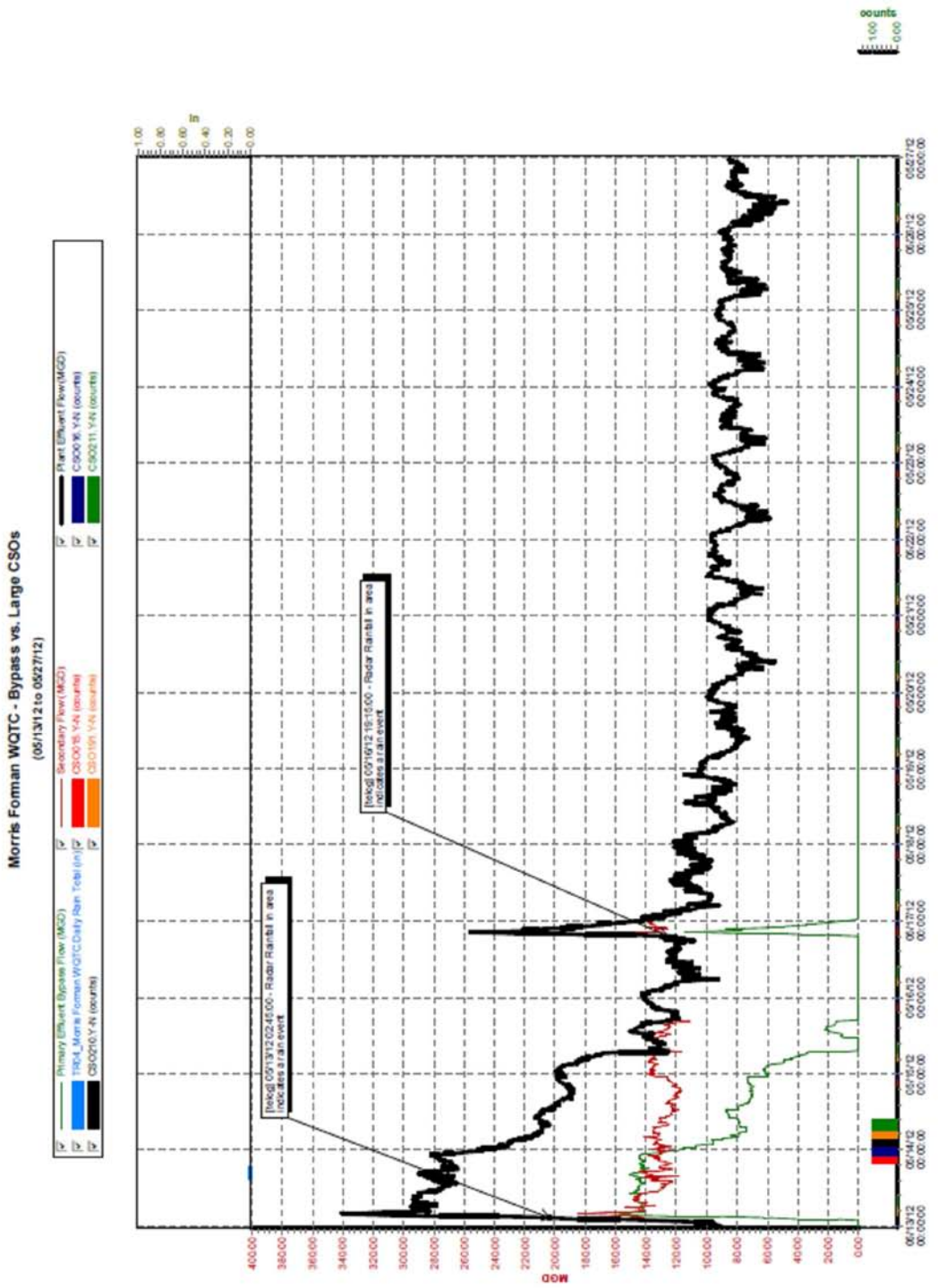
The following charts illustrate performance in maximizing flow to the Morris Forman WQTC. The top of the chart shows rainfall inches per day. The middle part of the chart shows Morris Forman WQTC effluent flow, secondary treatment flow, and secondary bypass flow. The bottom of the chart shows days with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

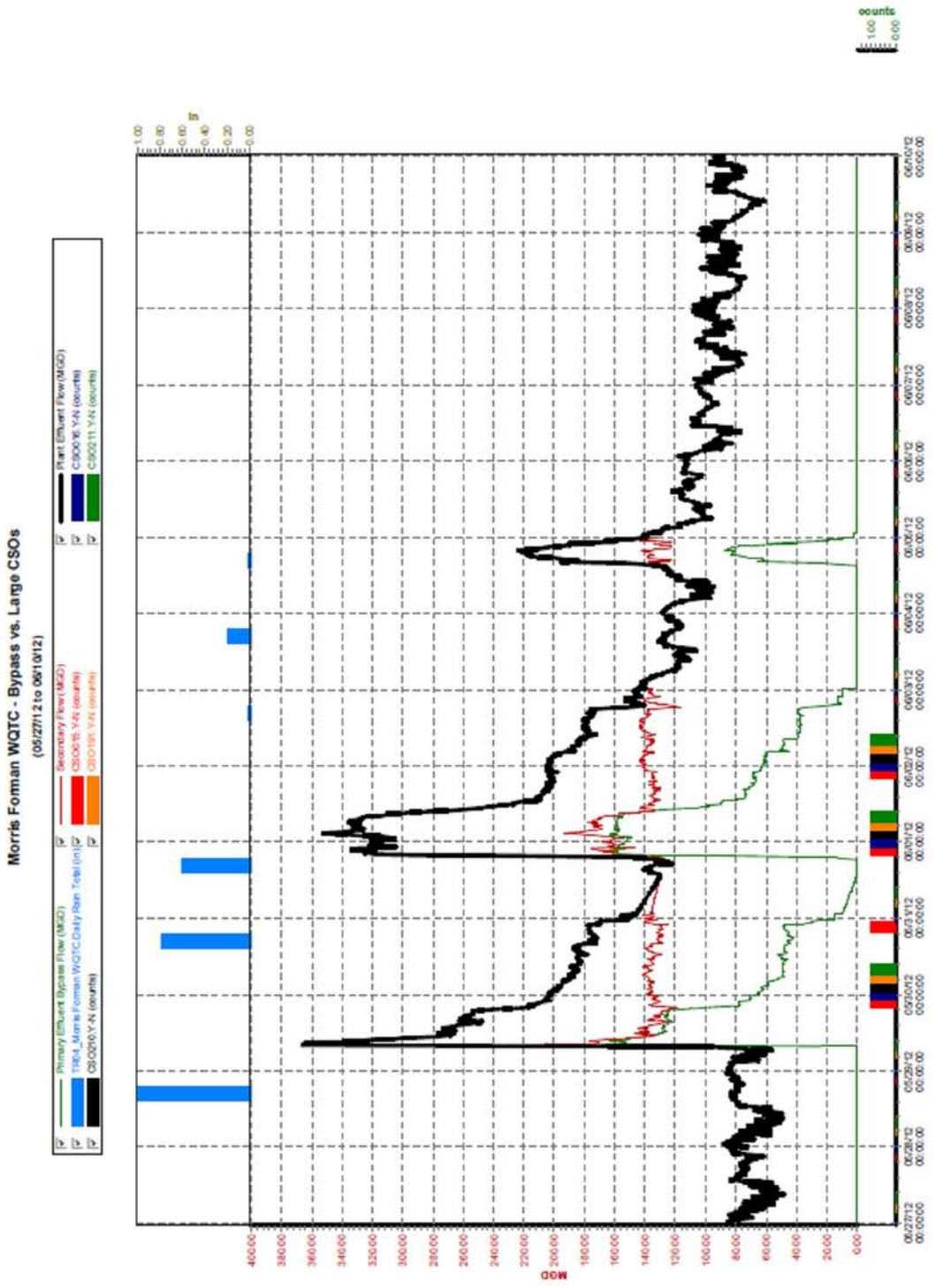
Primary sedimentation basin preventive maintenance reported on in previous quarterly report has been completed, and all sedimentation basins were in service for the entire quarter. Intermittent problems with bar screens in both the East and West Headworks occurred, resulting in short-term minor impacts on overall capacity. During most rain events the plant was able to process in excess of 300 MGD before localized CSOs occurred. The on-going evaluation of headworks performance and reliability is expected to recommend replacement of the West Headworks bar screens, and either rebuilding or replacement of the East Headworks bar screens to deal with these recurring maintenance issues.

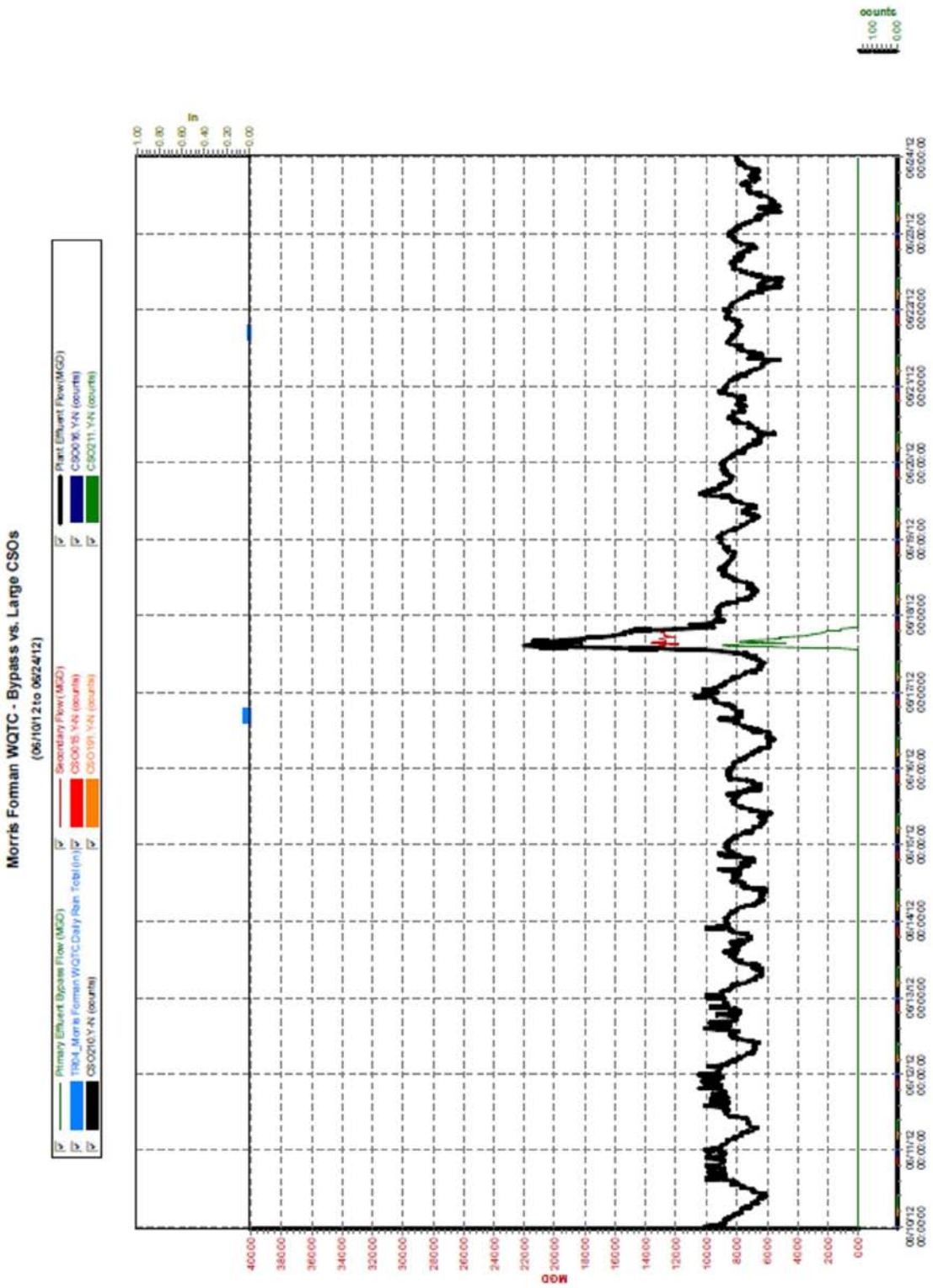

Morris Forman WQTC - Bypass vs. Large CSOs
(04/01/12 to 04/15/12)
Primary Effluent Bypass Flow (MGD)
Secondary Flow (MGD)
TRG4_Morris Forman WQTC.Daily Rain Total (in)
CSO210 Y-N (counts)
CSO015 Y-N (counts)
CSO181 Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Y-N (counts)
CSO211 Y-N (counts)
counts
in
MGD

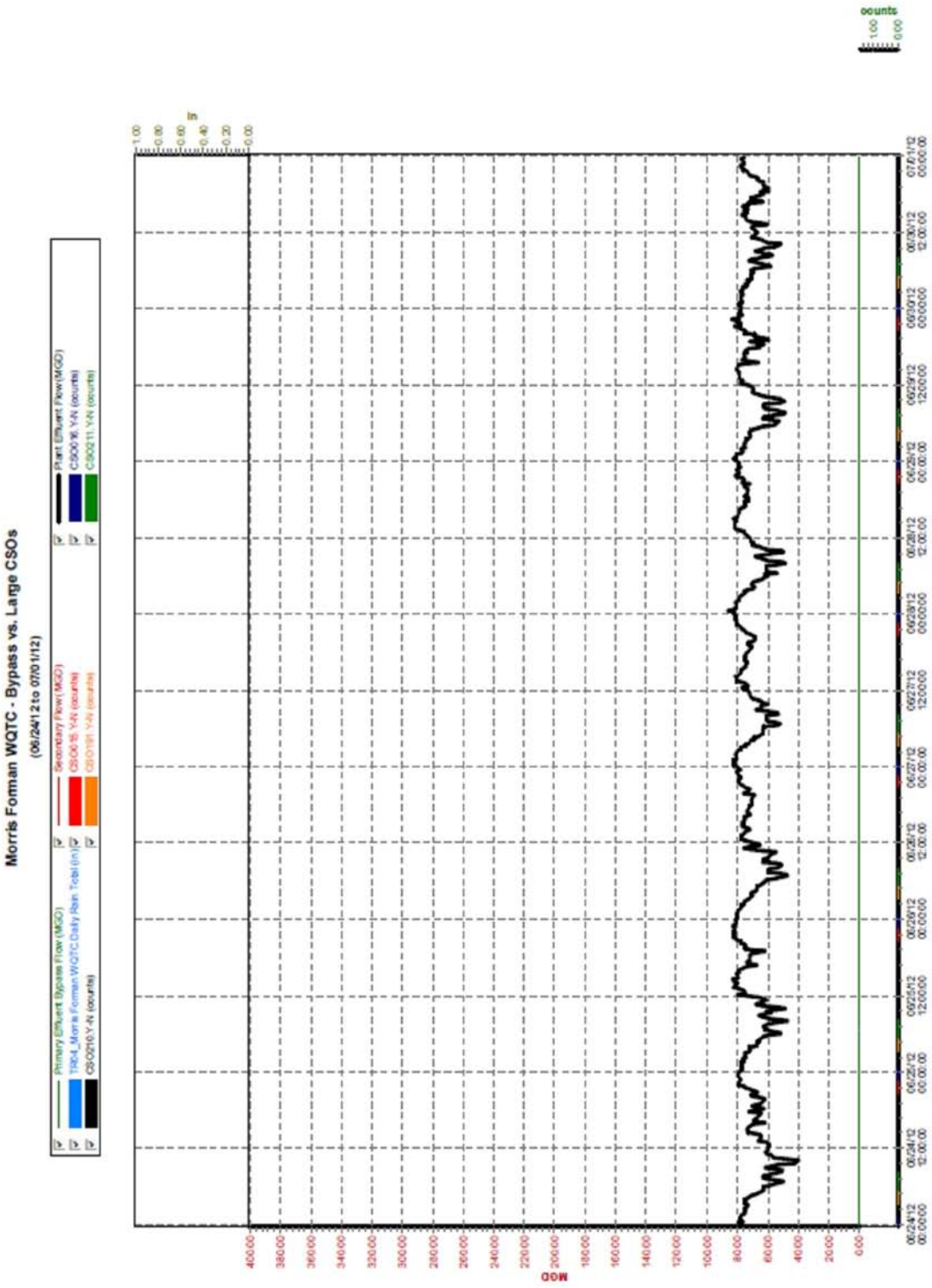

Morris Forman WQTC - Bypass vs. Large CSOs
(04/15/12 to 04/29/12)
Primary Effluent Bypass Flow (MGD)
Secondary Flow (MGD)
Plant Effluent Flow (MGD)
TRE4_Morris Forman WQTC Daily Rain Total (in)
CSO016 Y-N (counts)
CSO018 Y-N (counts)
CSO211 Y-N (counts)
CSO010 Y-N (counts)
in
counts
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(04/29/12 to 05/13/12)
Primary Effluent Bypass Flow (MGD)
TR14_Morris Forman WQTC Daily Rain Total (in)
CSO216 Y-N (counts)
Secondary Flow (MGD)
CSO135 Y-N (counts)
CSO155 Y-N (counts)
Plant Effluent Flow (MGD)
CSO236 Y-N (counts)
CSO211 Y-N (counts)
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(05/13/12 to 05/27/12)
Primary Effluent Bypass Flow (MGD)
TRG4_Morris Forman WQTC Daily Rain Total (in)
CSO210 Y-N (counts)
Secondary Flow (MGD)
CSO016 Y-N (counts)
CSO191 Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Y-N (counts)
CSO211 Y-N (counts)
[tekgl] 05/13/12 02:45:00 - Radar Rainfall in area indicates a rain event
[tekgl] 05/16/12 16:15:00 - Radar Rainfall in area indicates a rain event
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(05/27/12 to 06/10/12)
Primary Effluent Bypass Flow (MGD)
TR4_Morris Forman WQTC.Daily Rain Total (in)
CSO216 Y-N (counts)
Secondary Flow (MGD)
CSO015 Y-N (counts)
CSO191 Y-N (counts)
Plant Effluent Flow (MGD)
CSO036 Y-N (counts)
CSO211 Y-N (counts)
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(06/10/12 to 06/24/12)
Primary Effluent Bypass Flow (MGD)
TR04_Morris Forman WQTC Daily Rain Total (in)
CSO210 Y-N (counts)
Secondary Flow (MGD)
CSO015 Y-N (counts)
CSO109 Y-N (counts)
Plant Effluent Flow (MGD)
CSO036 Y-N (counts)
CSO211 Y-N (counts)
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(06/24/12 to 07/01/12)
Primary Effluent Bypass Flow (MGD)
1924_Morris Forman WQTC Daily Rain Total (in)
CSO216 Y-N (counts)
Secondary Flow (MGD)
CSO618 Y-N (counts)
CSO191 Y-N (counts)
Plant Effluent Flow (MGD)
CSO236 Y-N (counts)
CSO211 Y-N (counts)
counts
in
MGD

Work continued on an evaluation of the primary sedimentation basin sludge and scum pumping systems, and the East and West Headworks screening and grit removal systems. It is not anticipated that these evaluations will require any significant equipment down-time. If repair or replacement activities are recommended as a result of the evaluations they will be scheduled in accordance with plant maintenance priorities.

There were no KPDES permit violations at Morris Forman WQTC during April, May, or June, 2012.

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

- Main Diversion Structure Flow Measurement – Continued to monitor measurement accuracy over several storms and prepared a summary of flow measurement over the quarter indicating good accuracy during high flows (when it is most critical) but under-reporting flow during low flows. During the next reporting period a revised "parking" elevation for Sluice Gate 1 will be evaluated to see if a lower gate setting can improve flow measurement at low flows without compromising the ability to maximize capture of initial flow peaks. It is anticipated that Sluice Gate 1 will be incorporated into an automatic flow control system linked to the Southwestern Pump Station as part of the Paddy's Run Wet Weather Treatment Facility project currently scheduled for completion in 2014.
- Wet Weather Operational Plan - Continued training on the new SOPs, which are expected to be completed and fully implemented in the next reporting period. The stress test report evaluating the impact of hydraulic loading, solids loading, and sludge blanket depth on secondary clarifier performance was finalized. During the reporting period the Morris Forman WQTC Capacity Calculator will be modified to begin full-scale evaluation of using 160 MGD as the peak flow capacity of the secondary clarifiers as a result of this testing.
- RTC System-Wide Optimization Project – Issued final report in June. Some minor revisions will be made in the RTC design standards over the next reporting period. It is anticipated that the design standards will be a "living document" subject to periodic revisions as needed. Conducted MSD staff training on use of the CSOFT program used as the basis for the RTC optimization. Kicked off an RTC implementation effort to start integrating the Northern Ditch Diversion into the RTC system, and changing control algorithms for the Southeast Diversion Structure.

Real Time Control Operations Detailed Report

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

Period	
From :	04/01/2012
To :	06/30/2012

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 Interceptor	Sneads Branch	Total		
2012-023	04/01/2012 07:25	04/02/2012 17:40	34:15	1.40	1.83	TR15	13.1	0.6	4.2	4.2	4.2	1.3	27.5	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; ***
2012-030	04/28/2012 19:55	04/29/2012 18:00	22:05	0.67	1.03	TR15	14.3	0.0	2.2	4.5	3.9	1.3	26.2	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; ***
2012-031	04/30/2012 15:50	05/02/2012 18:50	51:00	0.57	0.97	TR05	11.5	0.0	1.1	3.8	2.9	0.5	19.7	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; ***
2012-032	05/04/2012 16:50	05/06/2012 13:25	44:35	1.45	2.11	TR14	16.3	0.0	4.6	4.8	3.8	1.3	30.8	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; ***
2012-034	05/12/2012 21:45	05/15/2012 21:40	71:55	2.24	2.67	TR14	18.3	0.0	8.0	4.3	4.1	2.2	36.9	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; ***
2012-038	05/29/2012 06:55	05/30/2012 23:05	40:10	2.64	3.58	TR12	14.6	0.0	8.8	4.7	4.2	1.6	33.9	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; Many sites manually controlled; ***
2012-039	05/31/2012 18:50	06/02/2012 18:00	47:10	1.43	1.64	TR11	15.0	0.0	6.5	6.6	5.5	1.6	35.2	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; Some dewatering occuring at MDS during rainfall event; ***
2012-043	06/17/2012 12:10	06/17/2012 23:15	11:05	0.16	0.44	TR15	4.9	0.0	0.4	0.1	1.1	0.0	6.4	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; ***
TOTAL							**108.0**	**0.6**	**35.7**	**32.9**	**29.7**	**9.8**	**216.6**		

* 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
*** A flow meter and level sensor were damaged during the period. The site was in manual mode to prevent flooding. Replacement equipment has been ordered.

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. The following activities were performed during this reporting period.

2.2 Overflow Management and Field Documentation

- Monitored approximately 158 sanitary sewer overflow (SSO) sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO. These routes are monitored during rain events depending on the magnitude and location of the storm. If an overflow is observed, a Discharge Work Order is created to document the event. During this quarter, Regulatory Services and Engineering staff documented 87 unauthorized discharges. Inspection routes were run during rain events as described in the following table:

Route Description	4/1/2012	5/5/2012	5/13/2012	5/29/2012
Engineering Rain Event SSO Inspection Route	X	X	X	X
RS Hikes Point SSO Inspection Route	X		X	X
RS Jeffersontown Siphon Inspection Route	X		X	X
RS Jeffersontown/Fern Creek SSO Inspection Route	X		X	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 719,802 gallons of sewage. MSD also hauled due to other issues as indicated in the following table:

MSD Hauled Volumes In Gallons (April 1, 2012 - June 30, 2012)				
Problem	**April**	**May**	**June**	**Total**
CAPACITY	76,000	582,802	61,000	719,802
ELECTRICAL			1,700	1,700
MECHANICAL	86,800	10,500		97,300
POWER		11,100		11,100
Total	**162,800**	**604,402**	**62,700**	**829,902**

2.3 Staff Training and Communication

- Reviewed and updated the training documentation for the 2012 second quarter SORP training that included Preparing, Monitoring and Response.
- Commenced planning for the 2012 third quarter SORP training that will focus on overflow cleanup.
- Conducted the following SORP Quarterly training sessions which were attended by 291 employees.

Staff Training Participation - April 1, 2012 - June 30, 2012		
Division	**Date**	**Number of Attendees**
I&FP Staff	6/1/2012	12
Morris Forman Staff	6/6/2012	22
Metro Operations Staff	6/6/2012	34
Morris Forman Staff	6/7/2012	6
Metro Operations Staff	6/7/2012	39
Morris Forman Staff	6/7/2012	21
Morris Forman Staff	6/8/2012	8
I&FP Staff	6/8/2012	20
Engineering/RS Staff	6/14/2012	33
Morris Forman Staff	6/27/2012	15
Morris Forman Staff	6/28/2012	8
Engineering/RS Staff	6/28/2012	53
Make-Up Session	7/1/2012	8
Make-Up Session	7/10/2012	12
Total		**291**

SECTION 3: Program Activities for Discharge Abatement Plans

3.1 Integrated Overflow Abatement Plan (IOAP)

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

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

3.2 Sanitary Sewer Discharge Plan (SSDP)

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

3.2.1 Updated Sanitary Sewer Overflow Plan Implementation

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

3.2.2 Interim Sanitary Sewer Discharge Plan

MSD submitted for approval an Interim Sanitary Sewer Discharge Plan (ISSDP) on September 30, 2007. Comments were received on January 8, 2008. MSD resubmitted the revised ISSDP on March 7, 2008, and received an approval letter for the ISSDP on July 24, 2008. The approved ISSDP document can be viewed on the MSD Project WIN website www.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 49 easements have been identified which includes 17 easements in Norton Commons area; that are necessary to complete the entire suite of projects related to the plant eliminations.

- Acquired 24 of these easements. Three additional easements are in negotiation.

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

Training sessions will be delivered in July and August 2012, outlining green infrastructure requirements going into effect on August 1, 2012, for new and redevelopment. These sessions will be held for internal staff, Developers, Engineers, and Contractors to outline requirements and review protocols.

A green infrastructure tracking mechanism in the HANSEN system was finalized in the reporting period. This mechanism will allow for scheduling of construction inspections and follow-up for correction of issues, and will establish the schedule for on-going long term inspections as required by the MS4 permit. During the next reporting period, training on this system for will be delivered, and the system will be utilized.

A listing of the MSD Board approved green infrastructure projects is included as **Appendix D - Green Project Performance**. This table shows the green projects that have been built by MSD, as well as the incentive projects. For each project, information on the impervious area captured, location, and calculations on the CSO peak flow reduction, and CSO volume reduction attributed to each individual project is provided. This table is based on a table top evaluation, and not modeling results. The performance of individual projects will be reviewed and adjusted based on the on-going work with EPA's Office of Research and Development. EPA ORD is working with MSD to determine the performance of various green controls, as well as the maintenance requirements and schedules associated with green BMPs. As more information is harvested and analyzed from these efforts, MSD will adjust the performance of controls and projects accordingly. A more elaborate modeled assessment of the green projects will be included in the Annual Report.

3.4 Activity Progress Chart

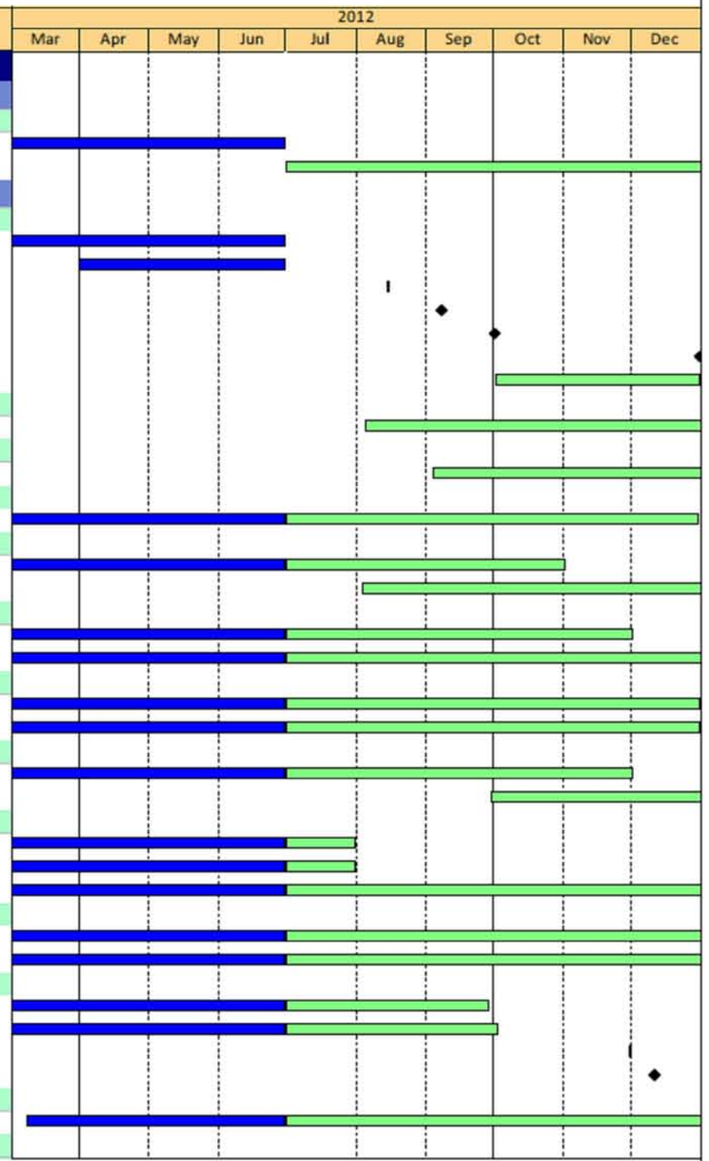
A Gantt chart showing the progress of the above activities performed during this reporting period, or planned activities for the next two periods is located at the end of this section. The chart is formatted to follow the outline of the project schedule in the IOAP (Refer to IOAP, Volume 1 – Figure 6.3.1).

Note that the schedule may show completion dates that are earlier than the dates contained in IOAP Volume 1 - Figure 6.3.1. These early completion dates represent targets for MSD's project management use, but do not represent a change in schedule commitments.

Also note that the schedule may show final completion dates that are later than the dates contained in IOAP Volume 1 – figure 6.3.1. This is because final completion of all work is typically not required for the project to meet its functional requirements for overflow elimination. For example, the DRG Wet Weather Treatment Facility has a completion date of December 31, 2011 in the ISSDP. This date was selected to enable the closure of the Southeast Diversion Structure constructed overflow. The amount of flow added to the DRG WQTC by closing the SED constructed overflow is a small fraction of the additional capacity being added by the overall DRG Wet Weather Treatment Facility project. In this case, MSD ensured that by December 31, 2011, facilities were completed to a point that the SED constructed overflow could be closed in accordance with the Amended Consent Decree without causing any treatment capacity related overflows in the system. This was accomplished, and the SED constructed overflow was eliminated before December 31, 2011. The schedule shows a completion date of October 31, 2012, for the DRG Wet Weather Treatment Facility which will provide adequate treatment capacity to accept the increased wet weather flows resulting from the elimination of pumped overflows in the Hikes Point area, scheduled to be taken off line by November 27, 2012. The dates in the approved IOAP, SSDP, ISSDP, and LTCP remain the committed dates for substantial completion of the suite of projects to a sufficient capacity to achieve the overflow reduction targets of the IOAP.

MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 March 2012 - 31 Dec 2012)

ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date
Long Term Control Plan		1880		23-Aug-14	31-Dec-20
Green Demonstration Projects		1310		31-Dec-13	31-Dec-20
GREEN INFRASTRUCTURE PROGRAM		1310		31-Dec-13	31-Dec-20
MULTIPLE	FY12 GREEN INFRASTRUCTURE PROJECTS - CONSTRUCTION	760	100%	30-Jun-12 A	31-Dec-20
MULTIPLE	FY13 GREEN INFRASTRUCTURE PROJECTS - CONSTRUCTION	549	0%	31-Dec-13	31-Dec-20
Gray Infrastructure Projects		1880		23-Aug-14	31-Dec-17
ADAMS STREET STORAGE BASIN		731		31-Dec-12	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - DESIGN	546	100%	30-Jun-12 A	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - EASEMENT	90	100%	30-Jun-12 A	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - AD DATE	1	0%	15-Aug-12	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - BID OPEN	0	0%	07-Sep-12*	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - AWARD	0	0%	01-Oct-12*	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - SUBSTANTIALLY COMPLETE	0	0%	31-Dec-12*	31-Dec-12
L_OR_MF_172_S_09B_B_A_0	ADAMS STREET STORAGE BASIN - CONSTRUCTION	91	0%	31-Dec-12	31-Dec-12
BEARGRASS CREEK PARALLEL INTERCEPTOR		729		03-Aug-14	31-Dec-17
L_SO_MF_097_M_13_A_A_8	BEARGRASS CREEK PARALLEL INTERCEPTOR - DESIGN	729	0%	03-Aug-14	31-Dec-17
CAVALRY - CREEKSIDE STORAGE BASIN		719		23-Aug-14	31-Dec-17
L_SO_MF_097_M_09B_B_D_8	CALVARY/CREEKSIDE STORAGE BASIN - DESIGN	719	0%	23-Aug-14	31-Dec-17
CSO 123 DOWNSPOUT DISCONNECTION		914		30-Dec-12	31-Dec-13
L_MI_MF_123_S_08_A_A_0	DOWNSPOUT DISCONNECT CSO 123 - DESIGN	914	30%	30-Dec-12	31-Dec-13
CSO 058 SEWER SEPARATION		943		30-Jun-13	31-Dec-14
L_OR_MF_058_S_08_A_A_0	CSO 58 SEWER SEPARATION - DESIGN	702	5%	01-Nov-12	31-Dec-14
L_OR_MF_058_S_08_A_A_0	CSO 58 SEWER SEPARATION - EASEMENT	331	0%	30-Jun-13	31-Dec-14
CSO 093 SEWER SEPARATION		777		30-Jul-13	31-Dec-15
L_SO_MF_093_S_08_A_A_0	CSO 93 SEWER SEPARATION - DESIGN	536	5%	01-Dec-12	31-Dec-15
L_SO_MF_093_S_08_A_A_0	CSO 93 SEWER SEPARATION - EASEMENT	638	5%	30-Jul-13	31-Dec-15
CSO 140 SEWER SEPARATION		551		31-Dec-12	31-Dec-15
L_MI_MF_140_S_08_A_A_0	CSO 140 SEWER SEPARATION - DESIGN	551	30%	31-Dec-12	31-Dec-15
L_MI_MF_140_S_08_A_A_0	CSO 140 SEWER SEPARATION - EASEMENT	426	30%	31-Dec-12	31-Dec-15
CSO 160 SEWER SEPARATION		703		01-Jun-13	31-Dec-15
L_OR_MF_160_S_08_A_A_0	CSO 160 SEWER SEPARATION - DESIGN	521	20%	01-Dec-12	31-Dec-15
L_OR_MF_160_S_08_A_A_0	CSO 160 SEWER SEPARATION - EASEMENT	244	0%	01-Jun-13	31-Dec-15
CSO 206 SEWER SEPARATION		1644		30-Dec-13	30-Dec-13
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - DESIGN	1089	90%	31-Jul-12	30-Dec-13
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - EASEMENT	288	90%	31-Jul-12	30-Dec-13
L_MI_MF_206_S_08_A_A_0	CSO 206 SEWER SEPARATION - CONSTRUCTION	1644	50%	30-Dec-13	30-Dec-13
I-64 AND GRINSTEAD DRIVE STORAGE BASIN		619		10-Jun-13	31-Dec-14
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - DESIGN 30% COMPLETE	459	75%	01-Jan-13	31-Dec-14
L_MI_MF_127_M_09B_B_A_8	I-64 & GRINSTEAD STORAGE BASIN - EASEMENT	619	20%	10-Jun-13	31-Dec-14
LOGAN STREET AND BRECKENRIDGE ST STORAGE BASIN		530		11-Dec-12	31-Dec-17
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - EASEMENT	364	10%	28-Sep-12	31-Dec-17
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - DESIGN	460	60%	02-Oct-12	31-Dec-17
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - AD DATE	1	0%	30-Nov-12	31-Dec-17
L_SO_MF_092_M_09B_B_D_8	LOGAN ST & BRECKENRIDGE ST STORAGE BASIN - BID OPEN	0	0%	11-Dec-12	31-Dec-17
NIGHTINGALE PUMP STATION REPLACEMENT		719		24-Feb-14	31-Dec-16
L_SO_MF_018_S_03_A_A	NIGHTINGALE PUMP STATION REPLACEMENT - DESIGN	719	5%	24-Feb-14	31-Dec-16
PADDY'S RUN WET WEATHER TREATMENT FACILITY		480		02-Feb-13	31-Dec-14



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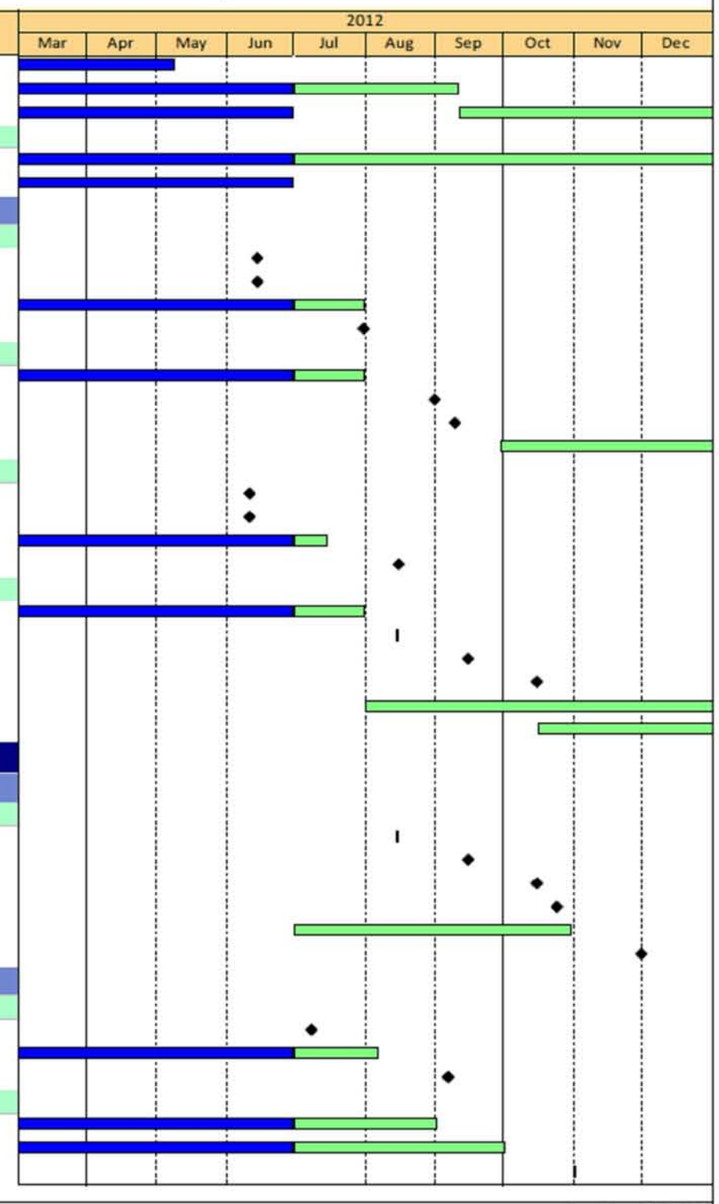
MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 March 2012 - 31 Dec 2012)

ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - DESIGN 30%	210	100%	09-May-12 A	31-Dec-14
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - DESIGN 60%	336	0%	11-Sep-12	31-Dec-14
L_OR_MF_015_M_13_B_B_8	PADDY'S RUN WW TREATMENT FACILITY - DESIGN 90%	480	0%	02-Feb-13	31-Dec-14
STORY AVENUE AND MAIN STREET STORAGE BASIN		532		15-Jun-13	31-Dec-13
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN- DESIGN	532	100%	15-Jun-13	31-Dec-13
L_OR_MF_020_S_09B_B_A_8	STORY AVE & MAIN ST STORAGE BASIN - EASEMENT	501	100%	15-Jun-13	31-Dec-13
Flood Pump Station Projects		893		30-May-13	30-Jun-13
4TH STREET FLOOD PUMP STATION		546		31-Jul-12	31-Dec-12
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - SUBST. COMPL	0	100%	15-Jun-12 A	31-Dec-12
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - CD CERTIFY	0	100%	15-Jun-12 A	31-Dec-12
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - CONSTRUCTION	546	99%	31-Jul-12	31-Dec-12
L_OR_MF_022_M_03_A_A	4TH ST FPS DWO ELIMINATION - AS-BUILTS	0	0%	31-Jul-12	31-Dec-12
27TH STREET FLOOD PUMP STATION		893		30-May-13	30-Jun-13
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - DESIGN	590	95%	31-Jul-12	30-Jun-13
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - BID OPEN	0	0%	31-Aug-12*	30-Jun-13
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - AWARD	0	0%	09-Sep-12	30-Jun-13
L_OR_MF_019_S_03_A_A	27TH ST FPS DWO ELIMINATION - CONSTRUCTION	242	0%	30-May-13	30-Jun-13
34TH STREET FLOOD PUMP STATION		548		15-Aug-12	31-Dec-12
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION - SUBST COMPL	0	100%	11-Jun-12 A	31-Dec-12
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION - CD CERTIFY	0	100%	11-Jun-12 A	31-Dec-12
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION - CONSTRUCTION	517	99%	15-Jul-12	31-Dec-12
L_OR_MF_019_S_03_A_B	34TH ST FPS DWO ELIMINATION -AS-BUILTS	0	0%	15-Aug-12	31-Dec-12
SHAWNEE FLOOD PUMP STATION		834		01-Apr-13	30-Jun-13
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - DESIGN	590	95%	31-Jul-12	30-Jun-13
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - AD DATE	1	0%	15-Aug-12	30-Jun-13
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - BID OPEN	0	0%	15-Sep-12*	30-Jun-13
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - AWARD	0	0%	15-Oct-12*	30-Jun-13
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - SITE VISITS, SURVEY, PERMITS	244	0%	01-Apr-13	30-Jun-13
L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION - CONSTRUCTION	168	0%	01-Apr-13	30-Jun-13
Sanitary Sewer Discharge Plan		1359		15-Jan-14	30-Dec-24
Floyds Fork Area		153		30-Nov-12	31-Dec-12
EDEN CARE PS SSO INVESTIGATION		153		30-Nov-12	31-Dec-12
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - AD DATE	1	0%	15-Aug-12	31-Dec-12
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - BID OPEN	0	0%	15-Sep-12*	31-Dec-12
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - AWARD	0	0%	15-Oct-12*	31-Dec-12
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - SUBSTANTIALLY COMPLETE	0	0%	24-Oct-12*	31-Dec-12
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - CONSTRUCTION	122	0%	30-Oct-12*	31-Dec-12
S_FF_FF_NB02_S_13_C	EDEN CARE PUMP STATION ILS - CD CERTIFICATION	0	0%	30-Nov-12	31-Dec-12
Jeffersontown Area		1295		15-Jan-14	31-Dec-15
BILLTOWN ROAD PS & FM		434		06-Sep-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M. & INT - SUBST. COMPLETE	0	0%	08-Jul-12*	31-Dec-15
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M., & INT - CONSTRUCTION	403	99%	06-Aug-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	BILLTOWN ROAD P.S.,F.M., & INT - AS-BUILT PLANS	0	0%	06-Sep-12	31-Dec-15
CHENOWETH HILLS PS ELIMINATION		855		01-Nov-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	CHENOWETH RUN INTERCEPTOR SEC. 2 - EASEMENTS	429	60%	01-Sep-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	CHENOWETH RUN INTERCEPTOR SEC. 2 - DESIGN	824	95%	01-Oct-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	CHENOWETH RUN INTERCEPTOR SEC. 2 - AD DATE	1	0%	01-Nov-12	31-Dec-15



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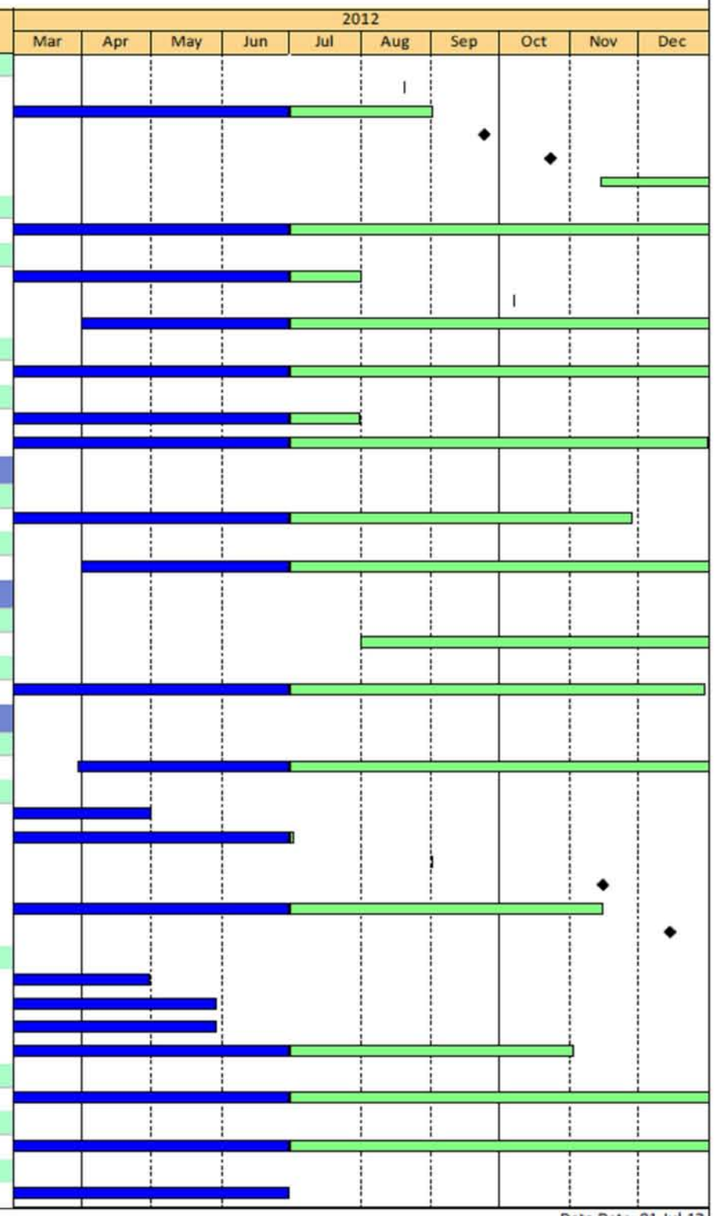
MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 March 2012 - 31 Dec 2012)

ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date
CHENOWETH HILLS WQTC ELIMINATION & PS IMPROVEMENTS		745		15-Jan-14	31-Dec-15
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - AD D/	1	0%	20-Aug-12	31-Dec-15
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - EASE	244	50%	01-Sep-12	31-Dec-15
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - BID C	0	0%	24-Sep-12	31-Dec-15
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - AWAF	0	0%	23-Oct-12	31-Dec-15
S_JT_JT_NB01A_M_03_C	CHEN HILLS WWTP ELIMINATION & PUMP STATION ELIMINATION - CONS	428	0%	15-Jan-14	31-Dec-15
JEFFERSON FORCE MAIN		854		01-Jan-13	31-Dec-15
S_JT_JT_NB01_M_01_C_A	GRAND AVE PS - DESIGN	854	30%	01-Jan-13	31-Dec-15
JEFFERSONTOWN WQTC ELIMINATION		1004		30-Mar-13	31-Dec-15
S_JT_JT_NB01_M_01_C_A	JEFFERSONTOWN TP ELIMINATION - DESIGN	763	50%	01-Aug-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	JEFFERSONTOWN TP ELIMINATION - AD DATE	1	0%	07-Oct-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	JEFFERSONTOWN TP ELIMINATION - EASEMENTS	364	50%	30-Mar-13	31-Dec-15
KLONDKE INTERCEPTOR		459		03-Apr-13	31-Dec-15
S_SD_MF_NB04_S_01_B_A	KLONDIKE INTERCEPTOR - EASEMENT	459	50%	03-Apr-13	31-Dec-15
UPPER BILLTOWN ROAD INTERCEPTOR		915		31-Dec-12	31-Dec-15
S_JT_JT_NB01_M_01_C_A	UPPER BILLTOWN ROAD INTERCEPTOR-DESIGN	762	99%	31-Jul-12	31-Dec-15
	UPPER BILLTOWN ROAD INTERCEPTOR- EASEMENT	580	50%	31-Dec-12	31-Dec-15
Beargrass Creek Middle Fork Area		528		07-May-13	31-Dec-13
HURSTBOURNE I&I INVESTIGATION & REHABILITATION		367		27-Nov-12	31-Dec-11
S_MI_MF_NB07_S_07_C	HURSTBOURNE I&I INVEST & REHAB - WARRANTY	367	60%	27-Nov-12	31-Dec-11
UMF #1 - BUECHEL BASIN		402		07-May-13	31-Dec-13
S_MISF_MF_NB01_M_01_C_A1	BUECHEL SURGE BASIN - CONSTRUCTION	402	10%	07-May-13	31-Dec-13
Pond Creek Area		485		26-Apr-13	31-Dec-22
CHARLESWOOD INTERCEPTOR EXTENSION		269		26-Apr-13	31-Dec-22
S_PO_WC_PC03_M_01_C	CHARLESWOOD SUBD. INT. #23 - CONSTR.	269	0%	26-Apr-13	31-Dec-22
LANTANA PS I/I INVESTIGATION & REHABILITATION		367		29-Dec-12	31-Dec-11
S_PO_WC_PC05_M_07_C	LANTANA PUMP STATION WET WEATHER STORAGE - WARRANTY	367	50%	29-Dec-12	31-Dec-11
Ohio River Force Main Area		1281		01-Jan-14	31-Dec-15
DERINGTON CT PS I/I INVESTIGATION & REHABILITATION		366		30-Mar-13	31-Mar-12
S_OR_MF_NB03_S_07_C	DERINGTON CT PUMP STATION I&I INVESTIGATION - WARRANTY	366	25%	30-Mar-13	31-Mar-12
HARROD'S CREEK INTERCEPTOR		655		15-Dec-12	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK FM&I PH. I - 100% DESIGN	427	100%	01-May-12 A	31-Dec-15
S_OR_MF_NB04_M_03_B_B	EPSC PLANS	184	100%	02-Jul-12	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - AD DATE	1	0%	01-Sep-12	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - BID OPENING	0	0%	15-Nov-12*	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - EASEMENT	505	60%	15-Nov-12	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH. I - AWARD	0	0%	15-Dec-12*	31-Dec-15
HARROD'S CREEK INTERCEPTOR PHASE 2		856		02-Nov-12	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH II - UPDATE & FINALIZE PLANS	304	100%	30-Apr-12 A	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PHASE II - DESIGN	699	100%	30-May-12 A	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PH II - CONSTRUCTION DOCUMENTS	334	100%	30-May-12 A	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CRK INT PHASE II - EASEMENTS	401	60%	02-Nov-12	31-Dec-15
RIVER ROAD INTERCEPTOR		410		28-Mar-13	31-Dec-15
S_OR_MF_NB04_M_03_B_B	RIVER ROAD INTERCEPTOR - CONSTRUCTION	410	30%	28-Mar-13	31-Dec-15
SHADOW WOOD		1281		01-Jan-14	31-Dec-15
S_OR_MF_NB04_M_03_B_B	SHADOW WOOD - DESIGN	1281	30%	01-Jan-14	31-Dec-15
HARROD'S CREEK PUMP STATION		273		30-Jun-12 A	31-Dec-15
S_OR_MF_NB04_M_03_B_B	HARRODS CREEK P.S. & F.M. - EASEMENT	273	100%	30-Jun-12 A	31-Dec-15



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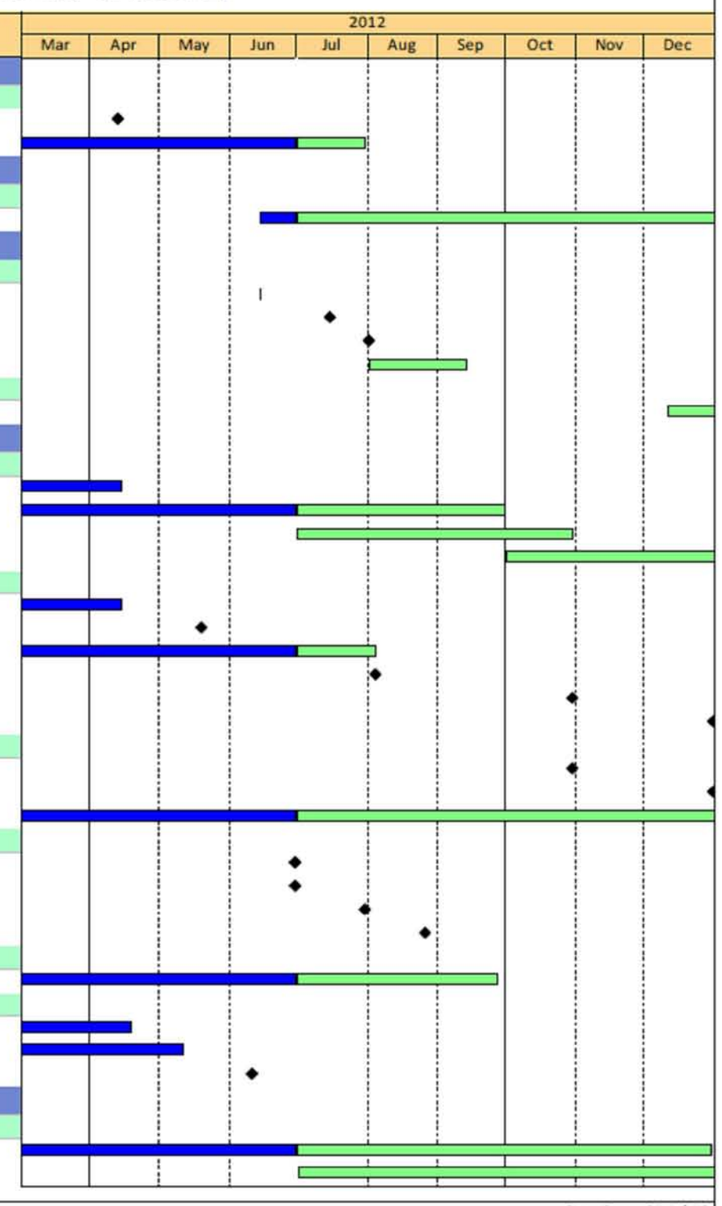
MSD Final Integrated Overflow Abatement Plan Implementation Schedule (01 March 2012 - 31 Dec 2012)

ACD Project Number	Activity Name	At Completion Duration	Physical % Complete	Finish	IOAP Finish Date
Mill Creek Area		730		30-Jul-12	31-Dec-14
SHIVELY INTERCEPTOR		730		30-Jul-12	31-Dec-14
S_MC_WC_NB01_M_01_A	SHIVELY INTERCEPTOR - CD CERTIFY	0	100%	13-Apr-12 A	31-Dec-14
S_MC_WC_NB01_M_01_A	SHIVELY INTERCEPTOR - CONSTRUCTION	730	99%	30-Jul-12	31-Dec-14
Combined Sewer System Area		366		15-Jun-13	31-Dec-13
CAMP TAYLOR #2- REPLACE SEWERS		366		15-Jun-13	31-Dec-13
S_SF_MF_30917_M_09_A	CAMP TAYLOR #2 REPLACE SEWERS - CONSTRUCTION	366	5%	15-Jun-13	31-Dec-13
Small WWTP Area		299		09-Apr-13	31-Dec-12
LAKE FOREST PS SSO INVESTIGATION		91		13-Sep-12	31-Dec-12
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - AD DATE	0	100%	15-Jun-12 A	31-Dec-12
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - BID OPEN	0	0%	15-Jul-12*	31-Dec-12
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - AWARD	0	0%	01-Aug-12*	31-Dec-12
S_FF_LF_NB01_S_13_C_A	LAKE FOREST PUMP STATION IMPROVEMENT - CONSTRUCTION	43	0%	13-Sep-12	31-Dec-12
RIDING RIDGE PS IMPROVEMENTS		119		09-Apr-13	
S_HC_HN_NB01_S_03_C_A	RIDING RIDGE PUMP STATION IMPROVEMENT - DESIGN	119	0%	09-Apr-13	
Interim SSDP Projects (Derek R. Guthrie WQTC Project Schedules are Under Revision)		1084		15-Apr-13	27-Nov-12
DEREK R GUTHRIE WQTC 2 (H09563 DRGWQTC WET WEATHER EQUALIZATION)		663		15-Apr-13	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER EQUALIZATION BASIN-SUB COMP	227	100%	15-Apr-12 A	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER EQUALIZATION BASIN-CONSTR	466	99%	30-Sep-12	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER EQUALIZATION BASIN-CD CERTIFY	122	0%	30-Oct-12	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER EQUALIZATION BASIN-AS BLTS	197	0%	15-Apr-13	31-Dec-11
DEREK R GUTHRIE WQTC 3 (H09561 DRGWQTC WET WEATHER TREATMENT)		944		31-Dec-12	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER TREATMENT FACILITY- SUB OPERATIONAL	227	100%	15-Apr-12 A	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER TREATMENT FACILITY- SUBSTANTIAL COMP	0	100%	20-May-12 A	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER TREATMENT FACILITY- CONSTRUCTION	796	90%	04-Aug-12	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER TREATMENT FACILITY- FINAL COMP	0	0%	04-Aug-12*	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER TREATMENT FACILITY- CD CERTIFY	0	0%	30-Oct-12*	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: WET WEATHER TREATMENT FACILITY- AS-BLTS	0	0%	31-Dec-12*	31-Dec-11
DEREK R GUTHRIE WQTC 4 (H06302 DRGWQTC WET WEATHER FLOW EQUALIZATION & TREATMENT)		980		01-Jan-13	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: PUMPING PACKAGE - CD CERTIFY	0	0%	30-Oct-12*	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: PUMPING PACKAGE - AS-BUILTS	0	0%	31-Dec-12*	31-Dec-11
DEREK R GUTHRIE WATER QUALIT'	DRGWQTC: PUMPING PACKAGE - CONSTRUCT	980	90%	01-Jan-13	31-Dec-11
HIKE'S POINT INTERCEPTOR PHASE 1		58		26-Aug-12	27-Nov-12
HIKES LANE INTERCEPTOR /HIGHG.	HIKES POINT INTERCEPTOR - SUBST COMPLETE	0	100%	30-Jun-12 A	27-Nov-12
HIKES LANE INTERCEPTOR /HIGHG.	HIKES POINT INTERCEPTOR - AS-BUILTS	0	100%	30-Jun-12 A	27-Nov-12
HIKES LANE INTERCEPTOR /HIGHG.	HIKES POINT INTERCEPTOR - CD CERTIFY	0	0%	30-Jul-12*	27-Nov-12
HIKES LANE INTERCEPTOR /HIGHG.	HIKES POINT INTERCEPTOR - WARRANTY	0	0%	26-Aug-12	27-Nov-12
HIKE'S POINT INCEPTOR PHASE 2		399		27-Sep-12	27-Nov-12
HIKES LANE INTERCEPTOR /HIGHG.	HIKES POINT INTERCEPTOR PHASE II- CONSTRUCTION	399	65%	27-Sep-12	27-Nov-12
SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR		641		11-Jun-12 A	12-May-12
SOUTHEASTERN DIVERSION STRUC	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - CD CERTIFY	588	100%	19-Apr-12 A	12-May-12
SOUTHEASTERN DIVERSION STRUC	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - CONSTR	611	100%	12-May-12 A	12-May-12
SOUTHEASTERN DIVERSION STRUC	SOUTHEASTERN INTERCEPTOR RELIEF SEWER - AS-BUILT	0	100%	11-Jun-12 A	12-May-12
Other Projects		732		01-Jul-13	30-Dec-24
I/I REDUCTION PROGRAM		732		01-Jul-13	30-Dec-24
MULTIPLE	FY12 I/I REDUCTION PROGRAM - CONSTRUCTION	549	60%	30-Dec-12	30-Dec-24
MULTIPLE	FY13 I/I REDUCTION PROGRAM - CONSTRUCTION	365	0%	01-Jul-13	30-Dec-24



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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, 18th and Northwestern Parkway Basin, Prospect WQTC eliminations, Jeffersontown WQTC elimination, Paddy's Run High Rate Treatment Project, and SOR1 and SOR2 projects), a rain barrel installation video, and a video on the Paris/Germantown Rain Garden.

On April 22, 2012, Project WIN released a new website with information on the Amended Consent Decree, notifications of meetings, information on "how you can help", and Project WIN initiatives. This new website can be viewed at www.msdprojectwin.org .

Published a two page flyer in the Courier Journal on April 22, 2012. One side of the flyer provided details on water quality after rain events and safety procedures. The other side outlined the new "Know Where it Goes" initiative that will provide information on pet waste pickup, proper disposal of grease, and catch basin/inlet connectivity to the creek. The intent of the initiative is to alert residents to their impact on the water quality of the creeks of Louisville Metro and Ohio River.

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 IOAP meetings to discuss the proposed IOAP 2012 modification and select project updates. Meetings were held across the community on the following dates and locations:
    - May 10, 2012 – NIA Center – 2900 West Broadway – Discussed IOAP Overview, 18th and Northwestern Parkway Basin, Paddy's Run Project, and SOR1 and SOR2 Projects.
    - May 15, 2012 – Jeffersontown Community Center – 10617 Taylorsville Road – Discussed IOAP Overview, Billtown Road Project, and the Jeffersontown WQTC Elimination Project.
    - May 17, 2012 – Harrods Creek Fire Department – 8905 US Hwy 42 – Discussed IOAP Overview, Paddy's Run Project, and the Prospect WQTC Elimination Plans.
- Facilitated a Wet Weather Team meeting to update Stakeholders on the IOAP progress, public input process, and the IOAP 2012 modification on May 8, 2012 at the MSD Main Office at 700 West Liberty Street.
- Planned meetings for early August to address IOAP changes, updates to the Camp Taylor Project, and for CSO 190 Green Projects (18th and Northwestern Parkway Basin Project).

SECTION 5: Capacity Management Operations and Maintenance Report

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

The primary objectives of CMOM are as follows:

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

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

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

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

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

5.1 Management Programs

M-E-9 Infrastructure Rehabilitation

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

5.2 Operations Programs

O-A-1 Pump Station Operations Programs (Routine Operating Programs)
Activity details are provided in the CMOM schedule provided as **Section 5.4 – CMOM Activity Schedule**.

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

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

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

Per requirements of MSD's 2009 Amended Consent Decree, MSD implemented a Comprehensive Performance Evaluation (CPE) and Composite Correction Plan (CCP)

program for the District's water quality treatment centers (WQTCs). Although the IOAP CPE assessments defined specific WQTC improvements to be completed by December 31, 2011, MSD will continue to implement CPE/CCP activities as part of the District's CMOM Program. This section will list such activities per WQTC as they occur each reporting period and will be outlined below.

5.3.1 Hite Creek Water Quality Treatment Center

During this reporting period, MSD has continued working on the Facilities Plan Update, establishing the study area and projecting the flow and loads from the service area. During the next reporting period, MSD will confirm the extent of the service area by determining 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 created and MSD will begin scheduling public outreach meetings.

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

5.3.2 Floyds Fork Water Quality Treatment Center

Construction of the Phase 2 Expansion of the Floyds Fork WQTC continued in this reporting period with completion of one new fabric tertiary filter, two of the three new clarifiers and three sludge holding tanks. During the next reporting period, the second tertiary filter will be completed, the new sludge loading station and waste activated sludge pump station will be on line and the new sludge holding tanks will be placed into service. Work will also begin on the third clarifier and installation of the new influent pumps. The expansion will provide an average daily design capacity of 7.5 MGD with the addition of the third clarifier at the current site.

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

5.3.3 Derek R. Guthrie Water Quality Treatment Center

During this reporting period, MSD has continued working on the Facilities Plan Update, finalizing the flow and load projections and drafting the alternative analysis for both the collection and treatment systems. 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**.

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

5.3.5.2 Hunting Creek North Water Quality Treatment Center

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

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

5.3.5.3 Hunting Creek South Water Quality Treatment Center

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

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

5.3.5.4 Ken Carla Water Quality Treatment Center

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

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

to ensure the process does not run out of chemicals. During the next reporting period, final design drawings and specifications will be created.

5.3.5.5 Shadow Wood Water Quality Treatment Center

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

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

Staff completed an in-house project to replace the influent flow splitter box.

5.3.6 Jeffersontown Water Quality Treatment Center

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

5.3.7 Starview Water Quality Treatment Center

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

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

5.3.8 Berrytown Water Quality Treatment Center

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

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

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**.

Completed the installation of flow pacing equipment to optimize the disinfection process at the plant. During the next reporting period, staff will began data collection to confirm chemical and potable water savings.

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. A developer is 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 reporting period, MSD continued discussions with the developer to coordinate the plant elimination. During the next reporting period, MSD will also 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 – Completed the review of several alternatives to eliminate the plant. A gravity solution alternative was selected and budget was allocated creating a capital project to eliminate the plant. During the next reporting period, MSD will begin design of the elimination project. Based on available budget, easement acquisition, and regulatory agency approval, MSD anticipates elimination will be completed by December 31, 2014

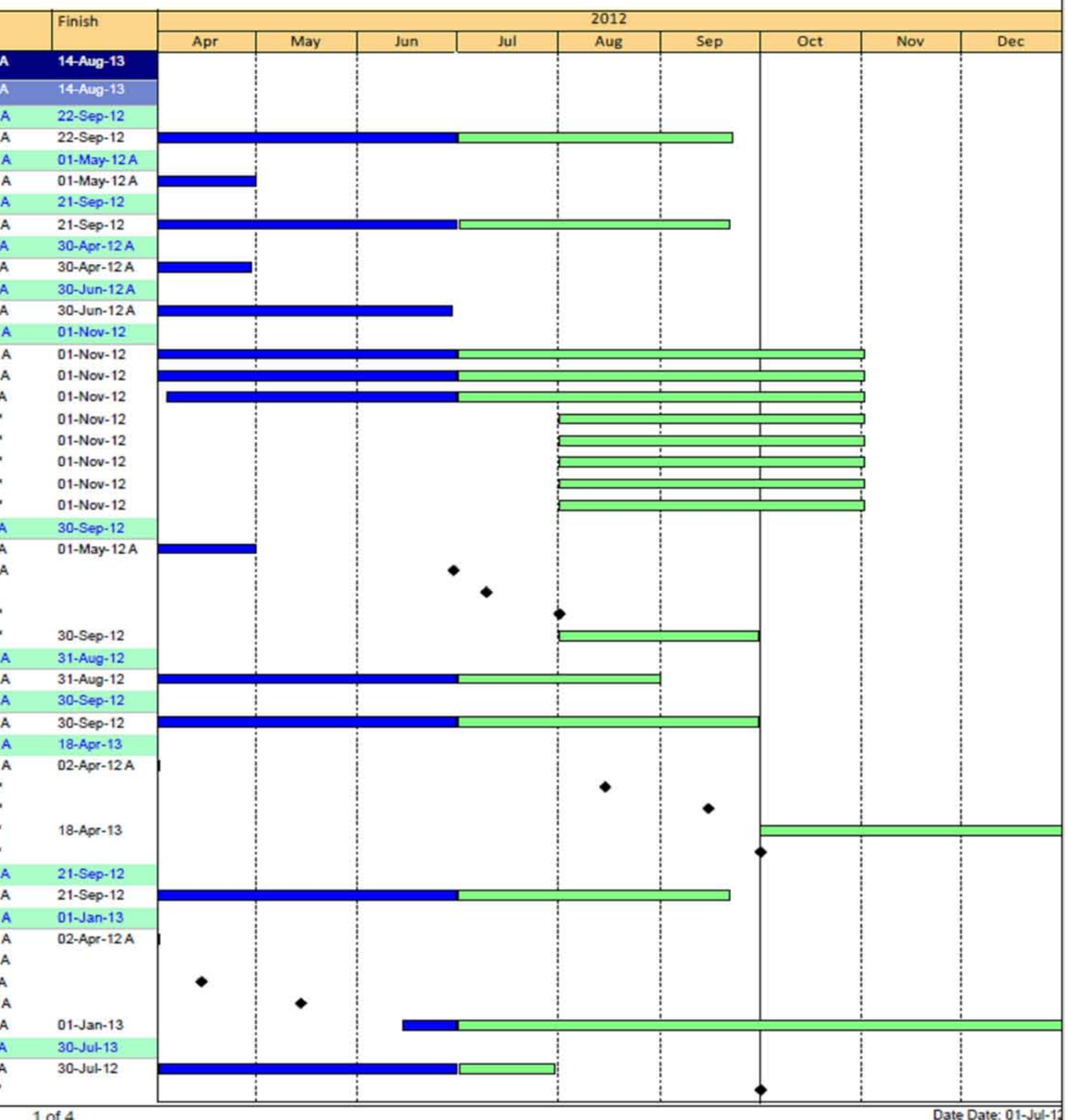
5.4 CMOM Activity Schedule

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

MSD CMOM FY12 Annual Commitments Schedule (01 April 2012 - 31 December 2012)

Date: 25-Jul-12

Activity ID	Activity Name	Start	Finish
CMOM FY ANNUAL REPORT COMMITMENTS FINAL		04-Oct-10 A	14-Aug-13
M-E-9 Infrastructure Rehabilitation		04-Oct-10 A	14-Aug-13
Lee Ann Way Pump Station Grinder Installation Project (F07069)		22-Sep-11 A	22-Sep-12
A2060	Warranty Period	22-Sep-11 A	22-Sep-12
Brandeis Viaduct #2 Pump & Controls Modifications Project (F04192)		01-May-11 A	01-May-12 A
A1720	Warranty Period	01-May-11 A	01-May-12 A
Shively Pump Station Grinder Replacement Project Planning (H10151)		21-Sep-11 A	21-Sep-12
A2150	Warranty	21-Sep-11 A	21-Sep-12
Fairmount Road Pump Station Expansion Project (E00303)		20-Jan-11 A	30-Apr-12 A
A1890	Construction - Final Completion	20-Jan-11 A	30-Apr-12 A
Lake Forest Pump Station, Force Main & Interceptor (E05509)		04-Oct-10 A	30-Jun-12 A
A1830	Construction	04-Oct-10 A	30-Jun-12 A
Annual I/I Project (H09205)		01-Nov-11 A	01-Nov-12
A2560	Construction	01-Nov-11 A	01-Nov-12
A4540	Camp Taylor 5 - Construction	15-Feb-12 A	01-Nov-12
A4530	Camp Taylor 4 - Construction	04-Apr-12 A	01-Nov-12
A4550	Dolphin Rd - Construction	01-Aug-12*	01-Nov-12
A4560	Heller St - Construction	01-Aug-12*	01-Nov-12
A4570	Macon Rd - Construction	01-Aug-12*	01-Nov-12
A4580	Fagenbush Ln - Construction	01-Aug-12*	01-Nov-12
A4590	Jenlee - Construction	01-Aug-12*	01-Nov-12
4th and Oak CIPP Project (H09205)		01-Apr-12 A	30-Sep-12
A4360	Design	01-Apr-12 A	01-May-12 A
A4370	Ad	30-Jun-12 A	
A4380	Bid Open	10-Jul-12*	
A4390	Award	01-Aug-12*	
A4400	Construction	01-Aug-12*	30-Sep-12
St Matthews Interceptor I/I Rehabilitation Project (H12059)		01-Feb-12 A	31-Aug-12
A2930	Construction	01-Feb-12 A	31-Aug-12
Lea Ann Way Interceptor I/I Rehabilitation Project (H12064)		15-Feb-12 A	30-Sep-12
A3010	Construction	15-Feb-12 A	30-Sep-12
Lake Forest Sanitary Sewer Rehabilitation Project (H11303)		01-Nov-11 A	18-Apr-13
A3150	Planning	01-Nov-11 A	02-Apr-12 A
A3160	Ad	15-Aug-12*	
A3170	Bid Opening	15-Sep-12*	
A3190	Construction	01-Oct-12*	18-Apr-13
A3180	Award	01-Oct-12*	
Camp Taylor SSR Phase I Project (H09407)		31-Mar-12 A	21-Sep-12
A3670	Construction	31-Mar-12 A	21-Sep-12
Lea Ann Way SSR Phase I Project (H09405)		01-Nov-11 A	01-Jan-13
A3740	Planning	01-Nov-11 A	02-Apr-12 A
A3700	Ad	31-Mar-12 A	
A3710	Bid Opening	15-Apr-12 A	
A3730	Award	15-May-12 A	
A3720	Construction	15-Jun-12 A	01-Jan-13
Prospect Phase I Sanitary Sewer Rehabilitation Project (H11311)		02-Apr-12 A	30-Jul-13
A3200	Planning	02-Apr-12 A	30-Jul-12
A3210	Ad	01-Oct-12*	



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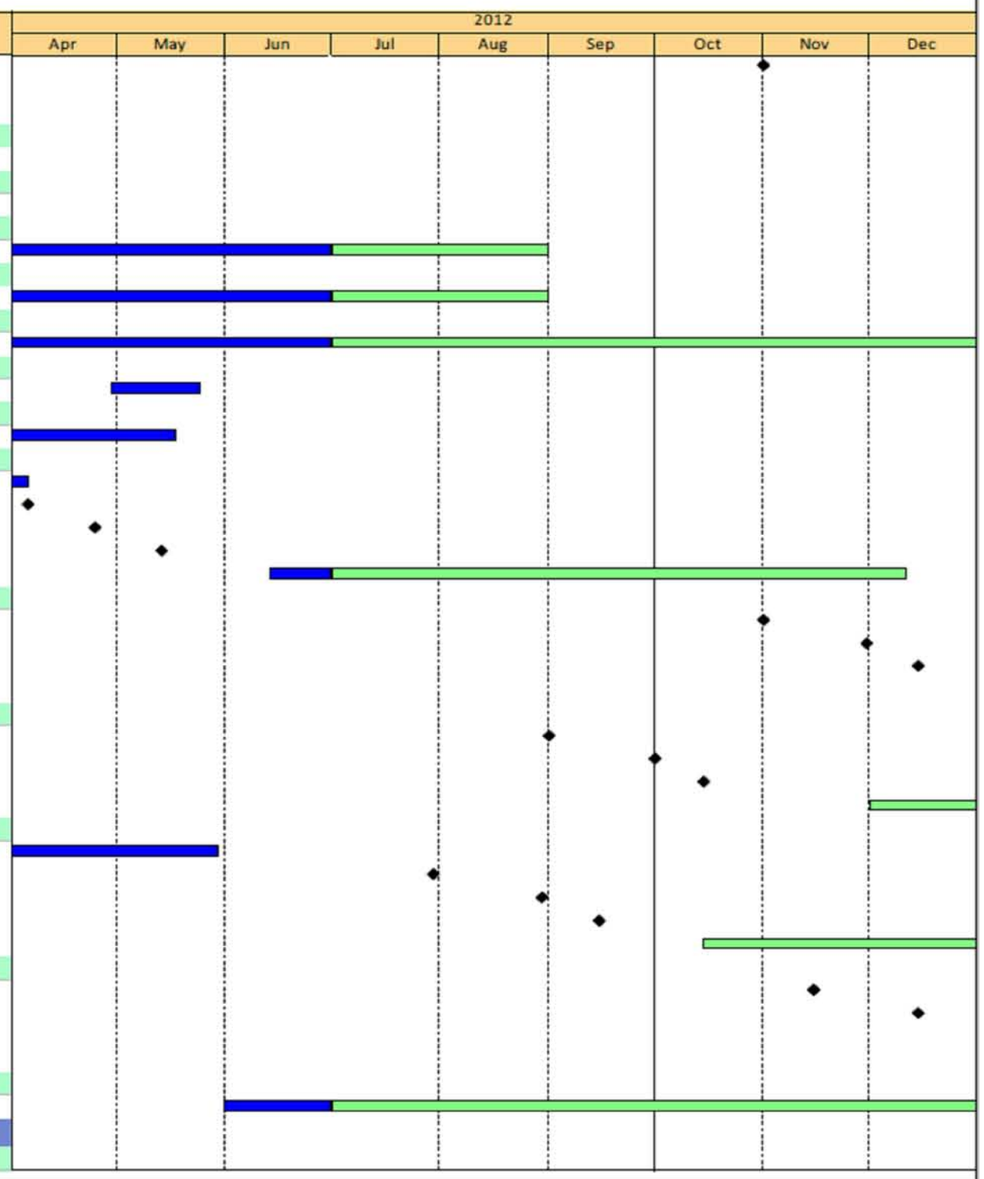
Date Date: 01-Jul-12

MSD CMOM FY12 Annual Commitments Schedule (01 April 2012 - 31 December 2012)

Date: 25-Jul-12

Activity ID	Activity Name	Start	Finish
A3220	Bid Opening	01-Nov-12*	
A3240	Construction	15-Jan-13*	30-Jul-13
A3230	Award	15-Jan-13*	
Prospect Phase II SSES (H11319)		01-Jul-11 A	31-Mar-12 A
A3100	Planning	01-Jul-11 A	31-Mar-12 A
Windham PS SSES (H11316)		01-Jul-11 A	31-Mar-12 A
A3110	Planning	01-Jul-11 A	31-Mar-12 A
Cedar Creek Phase II SSES (H11313)		01-Jul-11 A	31-Aug-12
A3120	Planning	01-Jul-11 A	31-Aug-12
Chenoweth Hills WQTC /Chenoweth Run PS SSES (H11318)		01-Jul-11 A	31-Aug-12
A3130	Planning	01-Jul-11 A	31-Aug-12
Shively SSES (H11408)		01-Jul-11 A	31-Dec-12
A3140	Planning	01-Jul-11 A	31-Dec-12
Willow Ave Sewer Repair Project		30-Apr-12 A	25-May-12 A
A3750	Construction	30-Apr-12 A	25-May-12 A
Maple Road Sewer Rehabilitation Project (H09409)		28-Mar-12 A	18-May-12 A
A3760	Construction	28-Mar-12 A	18-May-12 A
Collins Lane Sewer Rehabilitation Project (H12106)		01-Feb-12 A	11-Dec-12
A3870	Design	01-Feb-12 A	06-Apr-12 A
A3880	Ad	06-Apr-12 A	
A3890	Bid Open	25-Apr-12 A	
A3900	Award	14-May-12 A	
A3860	Construction	14-Jun-12 A	11-Dec-12
Lea Ann Way East - Stonybrook Rehabilitation Project (C08433)		01-Nov-12	13-Jul-13
A3930	Ad	01-Nov-12*	
A3940	Bid Open	30-Nov-12*	
A3950	Award	15-Dec-12*	
A3910	Construction	15-Jan-13*	13-Jul-13
Lea Ann Way East - Fegenbush Rehabilitation Project (C08433)		01-Sep-12	30-May-13
A3980	Ad	01-Sep-12*	
A3990	Bid Open	01-Oct-12*	
A4000	Award	15-Oct-12*	
A3960	Construction	01-Dec-12*	30-May-13
Lea Ann Way East - Fern Creek Rehabilitation Project (C08433)		16-Jan-12 A	13-Apr-13
A4170	Design	16-Jan-12 A	30-May-12 A
A4180	Ad	30-Jul-12*	
A4190	Bid Open	30-Aug-12*	
A4200	Award	15-Sep-12*	
A4160	Construction	15-Oct-12*	13-Apr-13
Lea Ann Way East - Picadilly Rehabilitation Project (C08433)		15-Nov-12	14-Aug-13
A4280	Ad	15-Nov-12*	
A4290	Bid Open	15-Dec-12*	
A4300	Award	15-Jan-13*	
A4260	Construction	15-Feb-13*	14-Aug-13
FY13 ICA Project		01-Jun-12 A	01-Jun-13
A4410	Planning	01-Jun-12 A	01-Jun-13
Pump Station Operations Programs		04-Feb-11 A	01-Mar-13
O-A-2 Emergency Operation Programs		04-Feb-11 A	01-Mar-13



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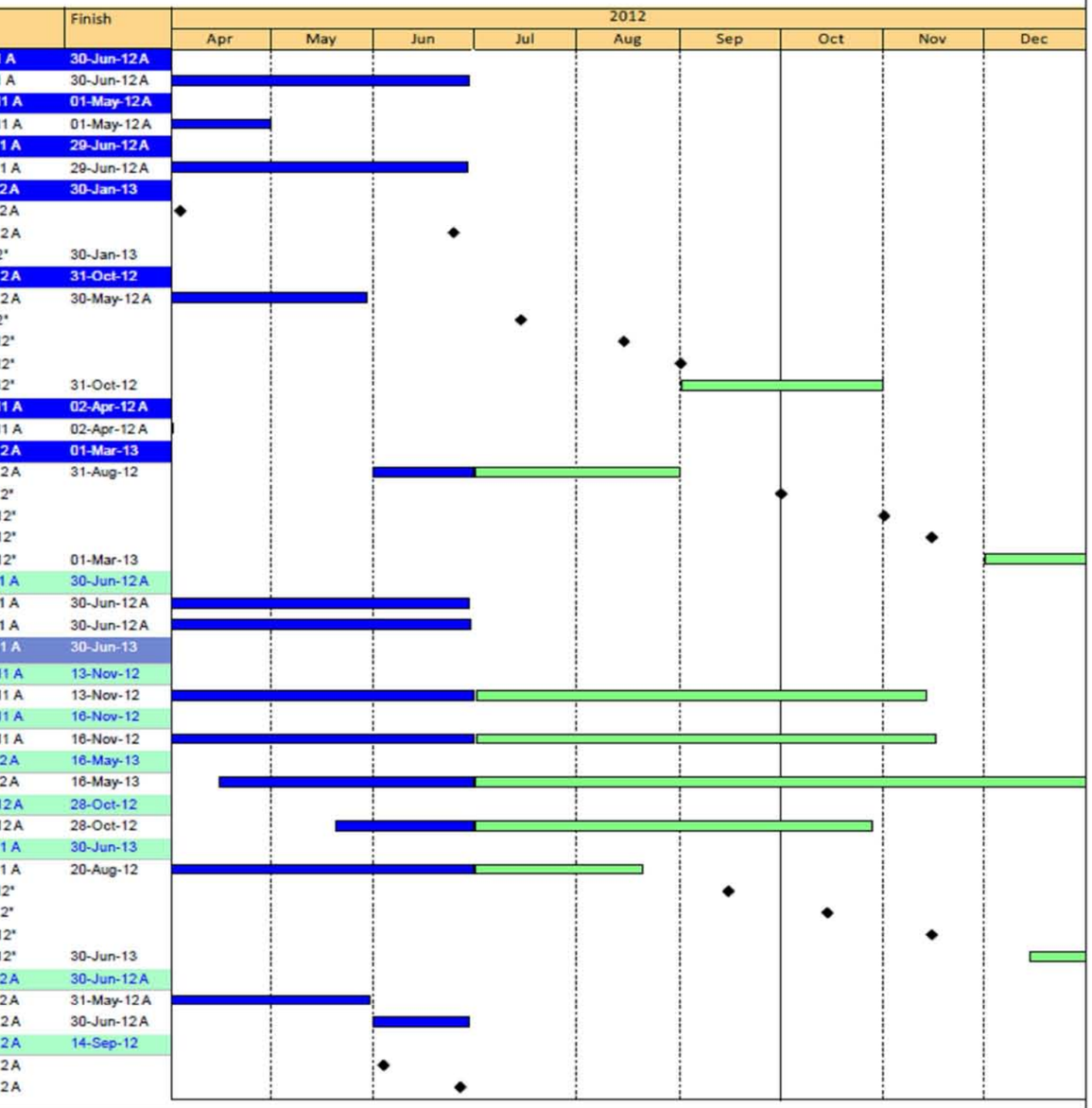
Date Date: 01-Jul-12

MSD CMOM FY12 Annual Commitments Schedule (01 April 2012 - 31 December 2012) Date: 25-Jul-12

Activity ID	Activity Name	Start	Finish
West Region Generator Phase V (H11078)		**30-Jul-11 A**	**30-Jun-12 A**
A1930	Construction	30-Jul-11 A	30-Jun-12 A
East Region Emergency Generator Phase V (H11438)		**15-Aug-11 A**	**01-May-12 A**
A1970	Construction	15-Aug-11 A	01-May-12 A
Central Region Emergency Generator Phase V (H11439)		**17-Oct-11 A**	**29-Jun-12 A**
A2010	Construction	17-Oct-11 A	29-Jun-12 A
Trinity Homes Emergency Generator (H11440)		**04-Apr-12 A**	**30-Jan-13**
A2030	Ad	04-Apr-12 A	
A2040	Award	25-Jun-12 A	
A2050	Construction	30-Jul-12*	30-Jan-13
Royster Basin Generator and Access Road Project (H09365)		**01-Jan-12 A**	**31-Oct-12**
A4310	Design	01-Jan-12 A	30-May-12 A
A4320	Ad	15-Jul-12*	
A4350	Bid Open	15-Aug-12*	
A4330	Award	01-Sep-12*	
A4340	Construction	01-Sep-12*	31-Oct-12
Caven Emergency Generator (H11077)		**04-Feb-11 A**	**02-Apr-12 A**
A2190	Construction- Final Completion	04-Feb-11 A	02-Apr-12 A
Prospect Point Pump Station Access Road		**01-Jun-12 A**	**01-Mar-13**
A4420	Design	01-Jun-12 A	31-Aug-12
A4430	Ad	01-Oct-12*	
A4440	Bid Open	01-Nov-12*	
A4450	Award	15-Nov-12*	
A4460	Construction	01-Dec-12*	01-Mar-13
O-A-1 Routine Operating Programs		**01-Apr-11 A**	**30-Jun-12 A**
A1340	Finalize Pump Station SOPs	01-Apr-11 A	30-Jun-12 A
A1350	Establish Draft SOPs & Job Aides for Regional Pump Stations	22-Apr-11 A	30-Jun-12 A
CPE/CPE Treatment Plant Activities		**01-Oct-11 A**	**30-Jun-13**
Hunting Creek South Lagoon Elimination (H11462)		**13-Nov-11 A**	**13-Nov-12**
A2220	Warrantly	13-Nov-11 A	13-Nov-12
Timberlake Lagoon Elimination (H11431)		**17-Nov-11 A**	**16-Nov-12**
A2230	Warranty	17-Nov-11 A	16-Nov-12
MFWQTC Secondary Clarifier Flow Meter Project (H12046)		**16-Apr-12 A**	**16-May-13**
A3320	Construction	16-Apr-12 A	16-May-13
MFWQTC Secondary Bypass Flume Replacement (H12047)		**21-May-12 A**	**28-Oct-12**
A3270	Construction	21-May-12 A	28-Oct-12
CMOM CPE/CCP FY11 - CL2 and SO2 Flow Pacing (H09360)		**01-Oct-11 A**	**30-Jun-13**
A3440	Design	01-Oct-11 A	20-Aug-12
A3400	Ad	15-Sep-12*	
A3410	Bid Opening	15-Oct-12*	
A3430	Award	15-Nov-12*	
A3420	Construction	15-Dec-12*	30-Jun-13
Shadow Wood WQTC Splitter Box Replacement		**01-Apr-12 A**	**30-Jun-12 A**
A4470	Design	01-Apr-12 A	31-May-12 A
A4480	Construction	01-Jun-12 A	30-Jun-12 A
Hillridge WTP Diversion Project (A13070)		**04-Jun-12 A**	**14-Sep-12**
A4490	Ad	04-Jun-12 A	
A4500	Bid Open	27-Jun-12 A	



3 of 4 Date Date: 01-Jul-12

MSD CMOM FY12 Annual Commitments Schedule (01 April 2012 - 31 December 2012)

Date: 25-Jul-12

Activity ID	Activity Name	Start	Finish
A4510	Award	15-Aug-12*	
A4520	Construction	15-Aug-12*	14-Sep-12

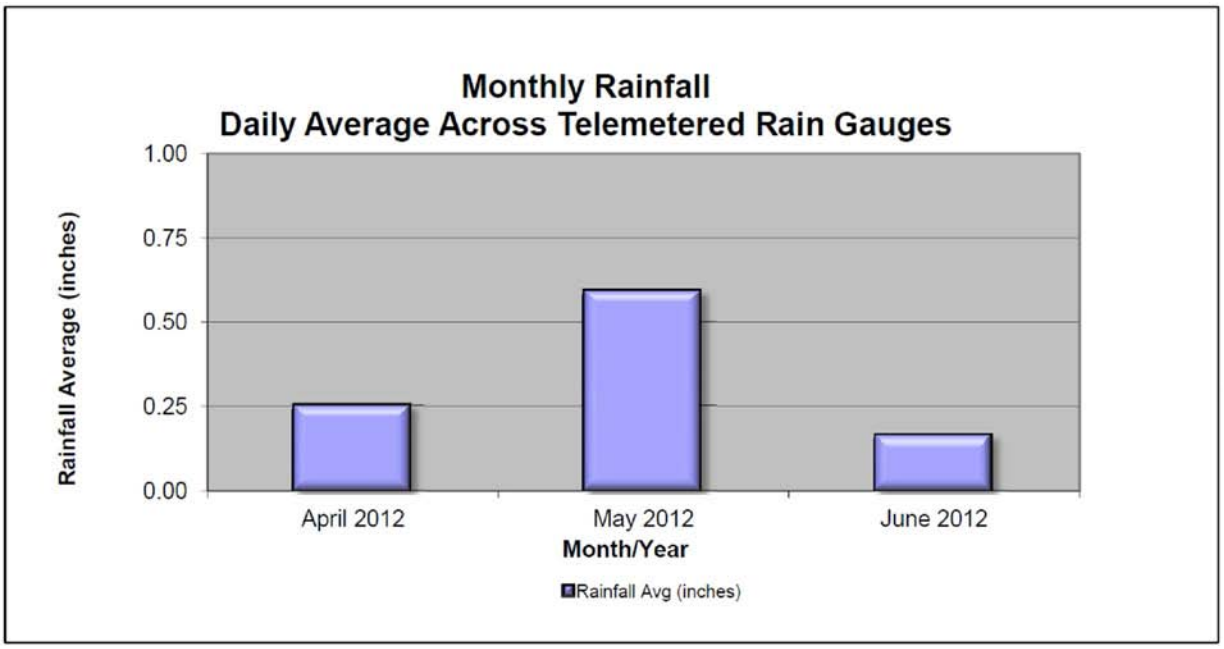
4 of 4

Date Date: 01-Jul-12

SECTION 6: Project WIN Performance Overview

6.1 Rainfall

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



6.2 Collection System Unauthorized Discharges

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

Recorded information related to overflows reaching Waters of the United States (WUS) for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. Details of these overflows will be included in the Annual Report for the period of July 1, 2011, through June 30, 2012, and are posted on the Project WIN website. During this quarter, 136 overflows to the Waters of the United States (WUS) have been reported.

Unauthorized Discharges (Waters of the United States)			
Problem	**Dry Weather**	**Wet Weather**	**Total**
Blending At Jtown WQTC	0	4	**4**
Bypass At WQTC	2	2	**4**
Electrical Problems At MSD	1	0	**1**
Lack of System Capacity	0	113	**113**
Mechanical Failure	1	2	**3**
Obstruction-Not Grease or Root	5	0	**5**
Power Outage (LG&E)	0	1	**1**
Pumped Overflow	0	5	**5**
Total	**9**	**127**	**136**

6.2.2 Overflows to Ground (EXT)

Recorded information related to overflows to the ground that did not reach waters of the United States for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows will be included in the Annual Report for the period of July 1, 2011, through June 30, 2012.

6.2.3 Overflows to Interior (INT)

Recorded information related to overflows to building interiors for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows, that are the result of an issue in the main line, will be included in the Annual Report for the period of July 1, 2011, through June 30, 2012.

6.2.4 Dry Weather CSOs

Recorded information related to dry weather overflows from permitted combined sewer overflow outfalls. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. A detailed report of these overflows will be included in the Annual Report for

Dry Weather CSO - April 1, 2012 - June 30, 2012					
CSO	**Type of Discharge**	**Date/Time**	**Problem**	**Cause**	**Volume (Gal)**
CSO020	Dry Weather Discharge	4/4/12 9:19 AM	Electrical	PUMP ONE WENT TO GROUND TRIPPING OUT SUBSTATION	2,225,000
CSO113	Dry Weather Discharge	6/8/12 9:09 AM	Obstruction	OBSTRUCTION IN MAIN SEWER	365
CSO200	Dry Weather Discharge	6/21/12 7:15 PM	Obstruction	GRIT AND DEBRIS BUILD UP IN LINE	1,560

the period of July 1, 2011, through June 30, 2012. The table above summarizes dry weather CSOs that occurred during the quarter. Appendix A-1 includes details on the dry weather overflows that occurred in the quarter.

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.

- CSO022, CSO023 - Completed gate automation at the 4th Street Flood Pump Station which will eliminate dry weather discharges when flood pump station is in service.
- CSO019 - Completed gate automation and installed a sump pump in the CSO outfall at the 34th Street Flood Pump Station which will eliminate dry weather discharges when flood pump station is in service.

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.

- There were no SSO reduction projects completed during the reporting period.

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 July 1, 2011, through June 30, 2012. The first table includes data and targets. The second table includes unplanned maintenance and other maintenance activities that are performed in response to inspection.

Rolling Quarterly GLPM Performance With Targets							
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Total	Target/ qtr	% of Annual Target
Combined Sewer Area							
Catch Basins Cleaned CSO Area - PM	8,165	7,570	8,479	6,261	30,475	4,460	35%
CSO Inspections	1,339	1,339	1,334	1,321	5,333	1,272	26%
Sanitary Sewer Area							
Catch Basins Cleaned SSO Area - PM	3,386	847	2,181	1,987	8,401	1,144	43%
County Wide							
Sewer Main Inspections MSD Crews (LF)	281,495	202,842	228,679	179,018	892,034	198,000	23%
Sewer Main Inspections Contractor (LF)	189,165	216,282	101,456	545,877	1,052,780	198,000	69%
Total Inspections (LF)	331,891	419,124	330,135	724,895	1,806,045	396,000	46%

Rolling Quarterly GLPM Performance					
	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Total
Combined Sewer Area					
Catch Basins Cleaned CSO Area - UM	462	168	206	375	1,211
CSO Debris Removal WO	122	103	129	121	475
Chemical Root Treatment CSO Area (LF)	0	961	1,887	0	2,848
Root Cutting CSO Area (LF)	83,868	41,348	41,279	36,496	202,991
Flushing and Cleaning of Sewer Mains CSO Area (LF)	32,060	15,388	12,920	10,190	70,558
Sanitary Sewer Area					
Catch Basins Cleaned SSO Area - UM	80	115	51	93	339
Chemical Root Treatment SSO Area (LF)	0	120,630	114,326	2,853	237,809
Root Cutting SSO Area (LF)	28,300	43,603	37,836	40,751	150,490
Flushing and Cleaning of Sewer Mains SSO Area (LF)	32,056	34,710	23,981	31,346	122,093

6.6 Water Quality Treatment Center Bypasses

6.6.1 Bypass Events

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

Bypass Events - April 1, 2012 - June 30, 2012			
Type of Bypass	Date	ID	Facility Name
Wet Weather	5/29/12	MSD0247	STARVIEW
Wet Weather	5/29/12	MSD0202	HITE CREEK
Dry Weather	6/2/12	MSD0403	CHENOWETH RUN
Dry Weather	6/25/12	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 April 1, 2012, and June 30, 2012.

Bypass Analysis – April 1, 2012, to June 30, 2012	
Bypass Description	Bypass Corrective Actions
Capacity	
- Hite Creek WQTC (Hansen Discharge WO: 1496224): Bypass (Capacity) was reported at this WQTC on May 29, 2012. Increased plant flow caused two gallons of foam to overflow the influent channel. Plant flows were more than three times the design flow during the rain event on May 29, 2012.	- MSD will install a defoaming application point upstream of this channel. - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
External Power failures (LGE Related-PWR)	
- Starview WQTC (Hansen Discharge WO: 1496181): Bypass (Power Failure) was reported at this WQTC on May 29, 2012. A power failure caused flow to bypass the influent pump station during the rain event of May 29, 2012.	- MSD review alternative power sources for this WQTC as resources allow.
- Jeffersontown WQTC (Hansen Discharge WO: 1508255): Bypass (Power Failure) was reported at this WQTC on June 25, 2012. A momentary power failure caused flow to bypass UV treatment prior to the backup power generator starting up during the rain event of June 25, 2012.	- MSD has alternative power generation installed at this WQTC. - WQTC to be eliminated prior to December 31, 2015.
Facility Failure (Mechanical -MCH, Electrical - ELE, Structural-SRT)	
- No bypasses of this category occurred during the reporting period.	- N/A
Human Error (OPN)	
- Chenoweth Run WQTC (Hansen Discharge WO: 1500585): Bypass (Human Error) was reported at this WQTC on June 2, 2012. A Contractor working on site inadvertently cut a water line to the WQTC, temporarily disrupting disinfection.	- MSD entered a vendor complaint form on the Contractor.

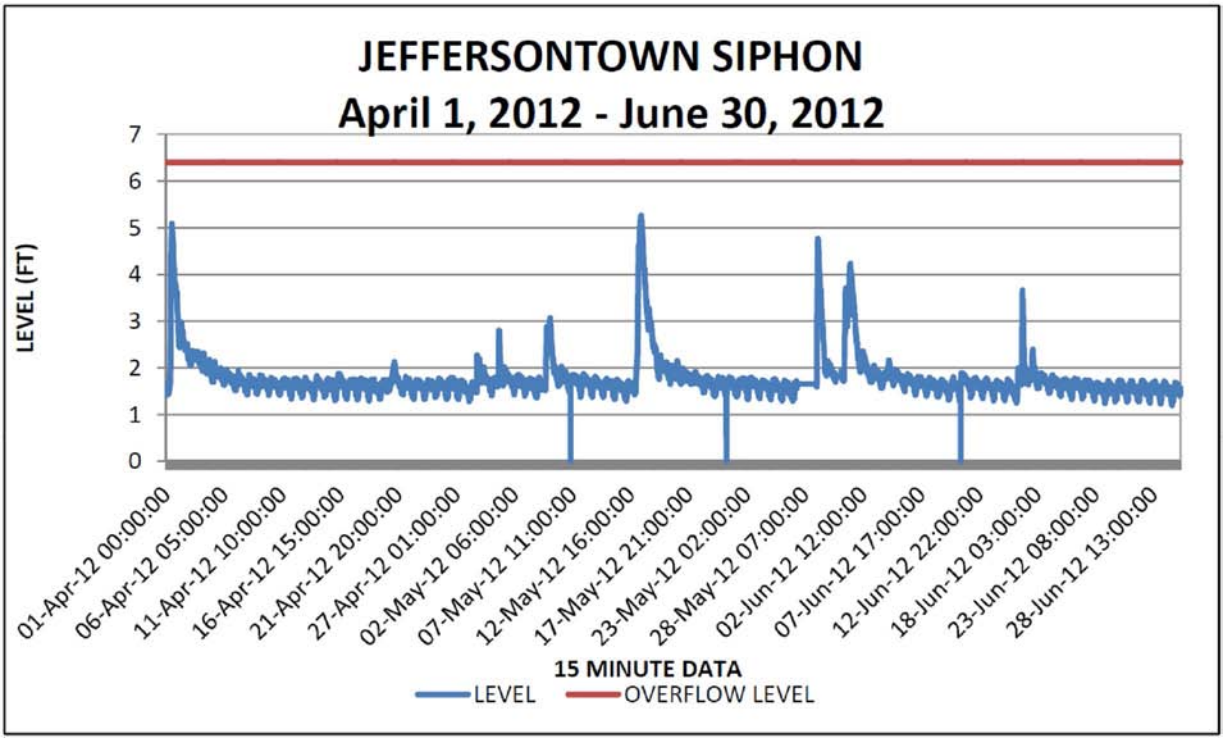
Utility Damage	
- No bypasses of this category occurred during the reporting period.	- N/A

6.6.3 Jeffersontown Water Quality Treatment Center

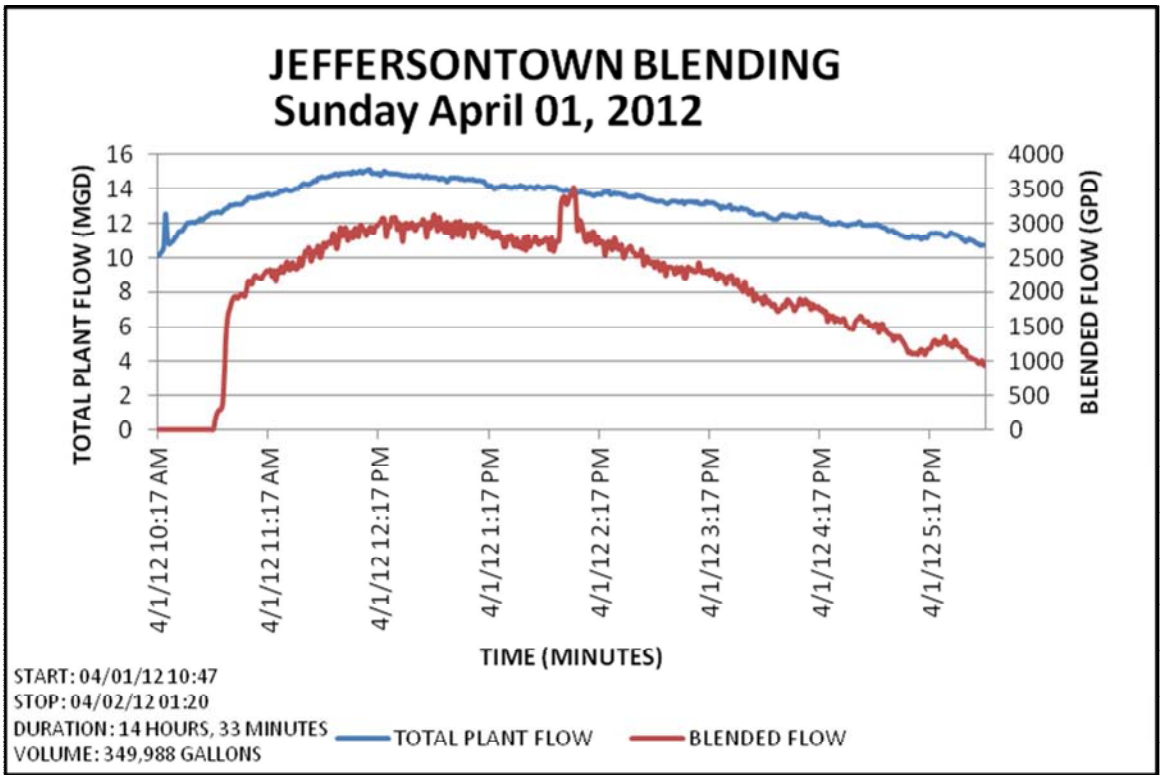
MSD submitted a Jeffersontown WQTC Process Control Plan on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this document from EPA on April 1, 2009, pending finalization of the Amended Consent Decree that was under consideration by the Federal Court at the time the Process Control Plan was submitted. The Process Control Plan was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

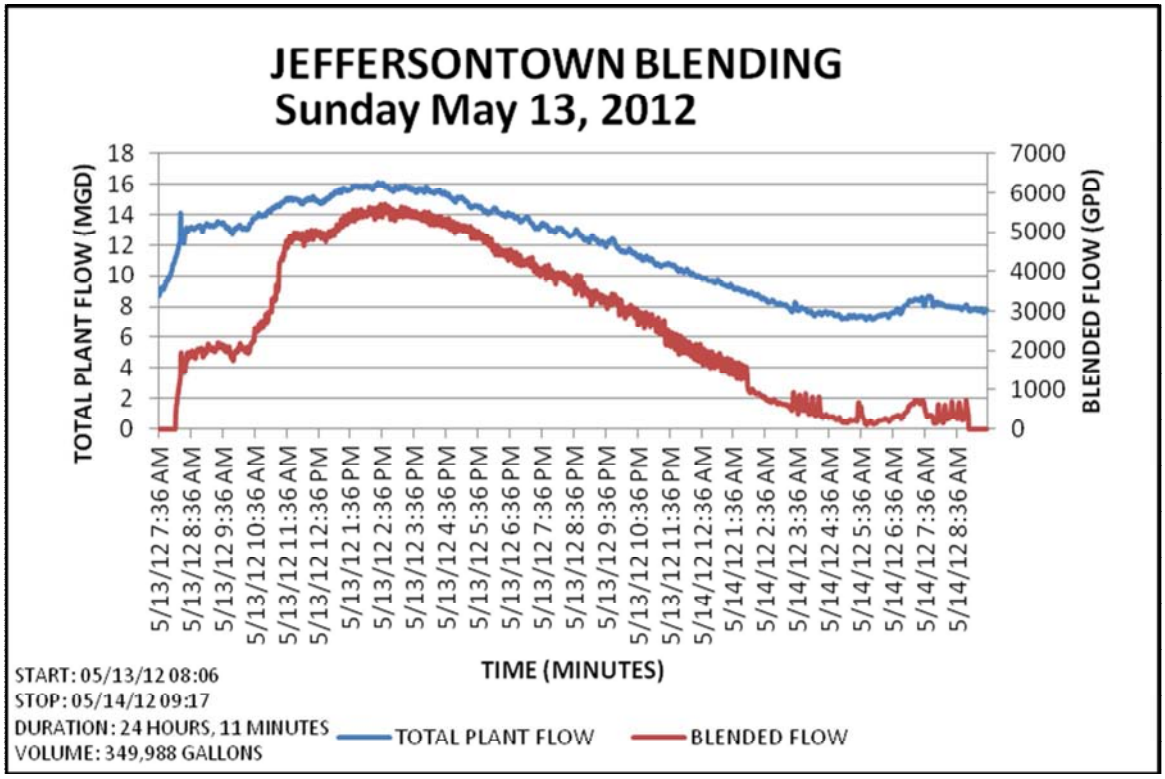
The following activities occurred at the Jeffersontown WQTC during the reporting period:

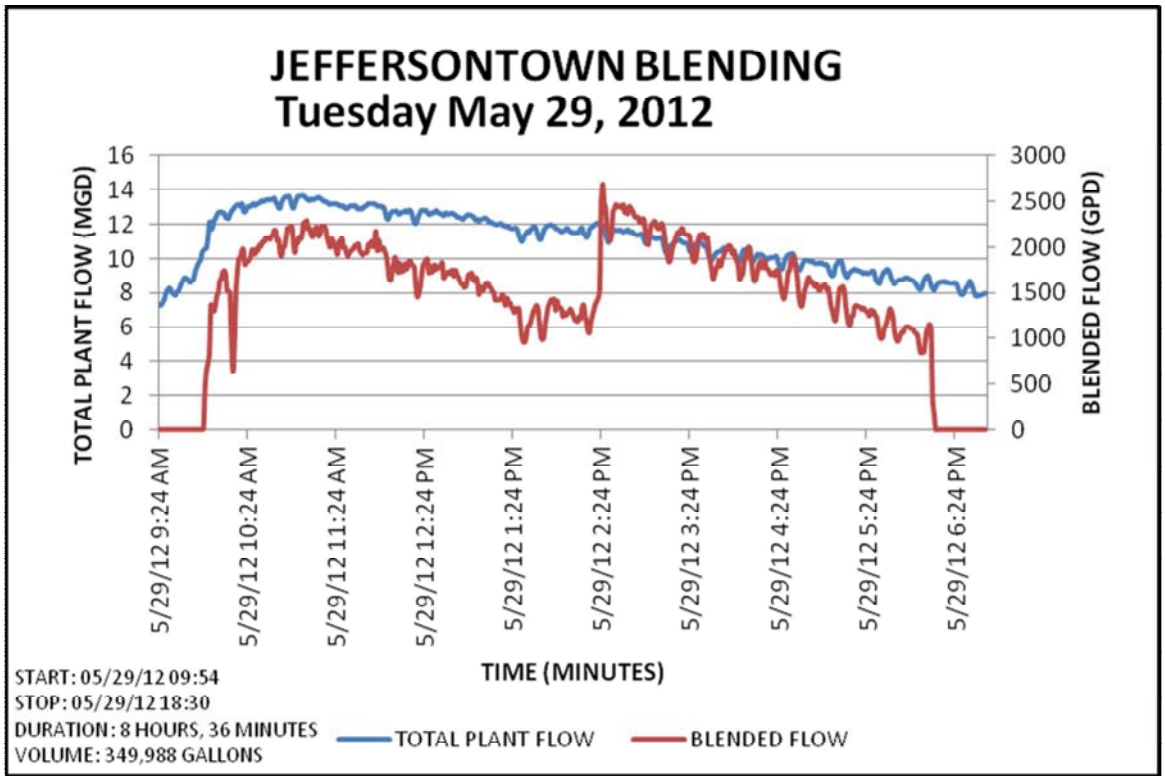
- Conducted three inspection routes as described in **Section 2.2 - Overflow Management and Field Documentation.**
- Inspections did not identify any overflows at the Jeffersontown Siphon during the reporting period.

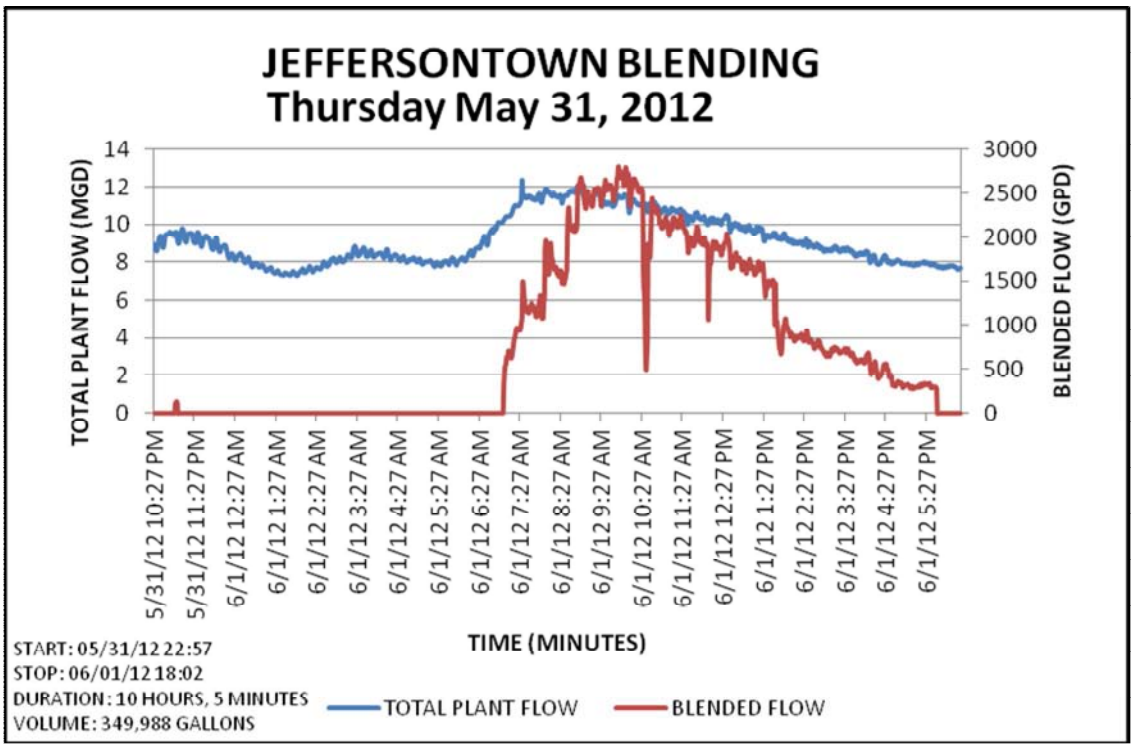


- Overflows were identified at manhole 28173 April 1, 2012, May 13, 2012 and May 29, 2012 as a result of inspections of manholes within 2,000 feet of the Jeffersontown head works.
- Four blending events occurred at the Jeffersontown WQTC during this quarter. Included in **Appendix A-3** is a report that lists the details from the blending events. The following charts show plant flow at the Jeffersontown WQTC when blending began. The data for each event indicates that MSD met the protocols outlined in Jeffersontown Wastewater Treatment Plant Process Control Program for the quarterly reporting period.



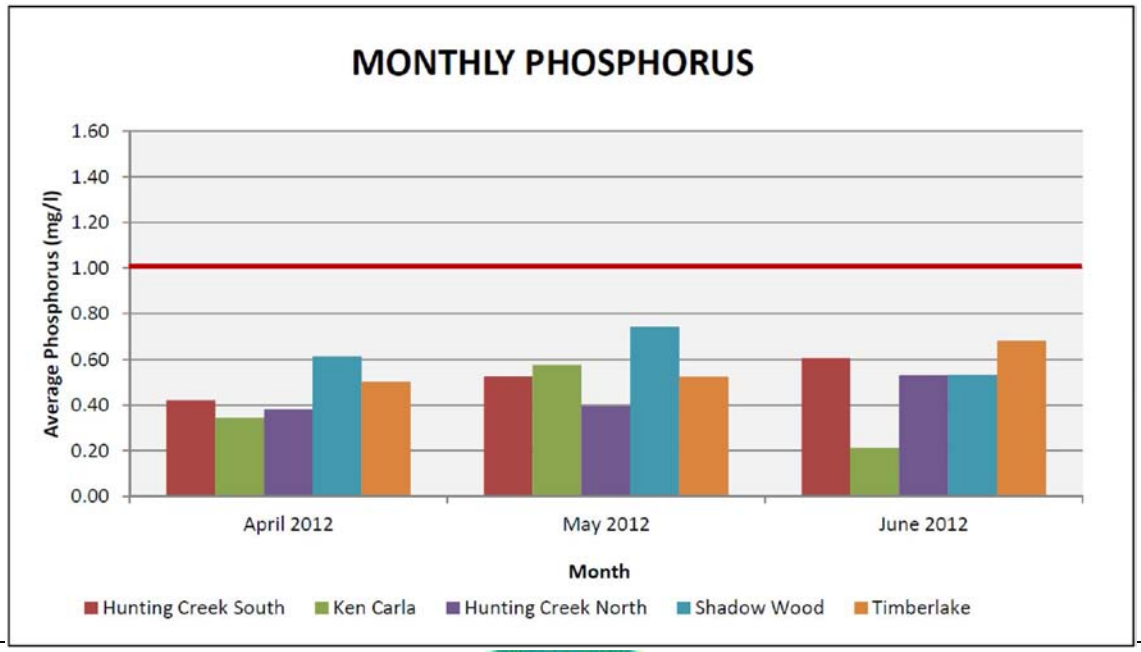

JEFFERSONTOWN BLENDING
Sunday May 13, 2012
TOTAL PLANT FLOW (MGD)
BLENDED FLOW (GPD)
TIME (MINUTES)
START: 05/13/12 08:06
STOP: 05/14/12 09:17
DURATION: 24 HOURS, 11 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW


JEFFERSONTOWN BLENDING
Tuesday May 29, 2012
TOTAL PLANT FLOW (MGD)
BLENDED FLOW (GPD)
TIME (MINUTES)
START: 05/29/12 09:54
STOP: 05/29/12 18:30
DURATION: 8 HOURS, 36 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
APRIL 1, 2012 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	KY0022411	147 BUCHANAN ST	04/04/12 9:19: AM	04/04/12 10:03 AM	2,225,000 GAL	Sewer Manhole	CSO020	STREAM	OHIO RIVER	PUMP ONE WENT TO GROUND TRIPPING OUT SUBSTATION	ELECTRICAL PROBLEMS AT MSD	1462563	NONE, OUTLET SUBMERGED IN THE OHIO RIVER.	ISOLATED PUMP ONE AND RESET STATION.
MORRIS FORMAN	KY0022411	1215 ELLISON AVE	06/08/12 9:09: AM	06/08/12 10:22 AM	365 GAL	Sewer Manhole	CSO113	STREAM	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	1502459	NO CLEAN UP PERFORMED- PIPE DISCHARGES DIRECTLY INTO STREAM	FLUSHED/VACTORED THE OBSTRUCTION/DEBRIS FROM SEWER
MORRIS FORMAN	KY0022411	1397 S 3RD ST	06/21/12 7:15: PM	06/22/12 08:15 AM	1,560 GAL	Sewer Manhole	CSO200	STREAM	OHIO RIVER	GRIT AND DEBRIS BUILD UP IN LINE	OBSTRUCTION-NOT GREASE OR ROOT	1507021	NO CLEAN UP PERFORMED - DISCHARGE INTO THE CENTRAL RELIEF DRAIN	WORK ORDER 1507059 - VACTOR DRAIN

Appendix A-2 - Discharge Work Orders – Bypass

APPENDIX A-2
UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
APRIL 1, 2012 THROUGH JUNE 30, 2012

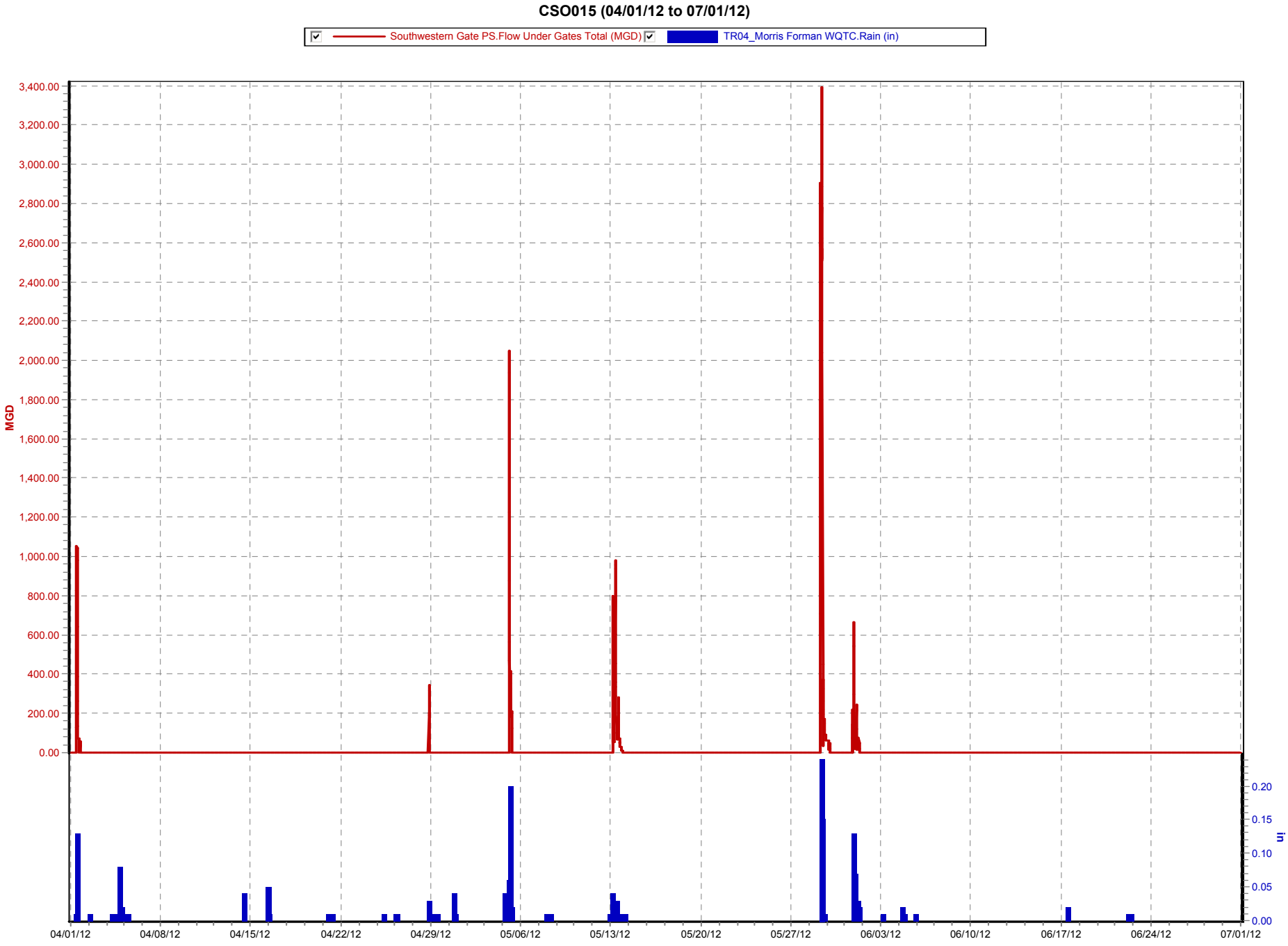
Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
HITE CREEK	KY0022420	5500 HITT RD	05/29/12 11:15: AM	05/29/12 11:20 AM	2 GAL	Sewer Treatment Plant	MSD0202	STREAM	HITE CREEK	RAIN EVENT CAUSED SUDDEN PLANT FLOW INCREASE	BYPASS AT WQTC	1496224	MSD CLEANED AND SANITIZED AREA	MSD MONITORED STATION TO PREVENT FURTHER OVERFLOW OF SCUM
STARVIEW	KY0031712	423 BERMUDA WAY	05/29/12 10:00: AM	05/29/12 10:15 AM	375 GAL	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	POWER OUTAGE DUE TO STORM EVENT	BYPASS AT WQTC	1496181	MSD CLEANED & SANITIZED THE AREA	HOOKED UP GENERATOR TO STOP OVERFLOW
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	06/25/12 12:58: AM	06/25/12 01:08 AM	10,633 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	POWER BLIP AT THE STATION	BYPASS AT WQTC	1508255	NO CLEAN UP SUBMERGED DISCHARGE PIPE	RESET AND PUT SYSTEMS ON LINE
CHENOWETH RUN	KY0042226	14000 BECKLEY TRCE	06/02/12 1:15: PM	06/02/12 02:30 PM	14,198 GAL	Sewer Treatment Plant	MSD0403	GROUND	CHENOWETH RUN	CONTRATOR CUT WATER LINE TO PLANT	BYPASS AT WQTC	1500585	NO CLEAN UP REQUIRED ONLY DECHLORINATION BYPASS AT PLANT	FEEDING POWDER CHLORINE TO DISINFECT UNTILL REPAIRS ARE MADE. NO DECHLORINATION.

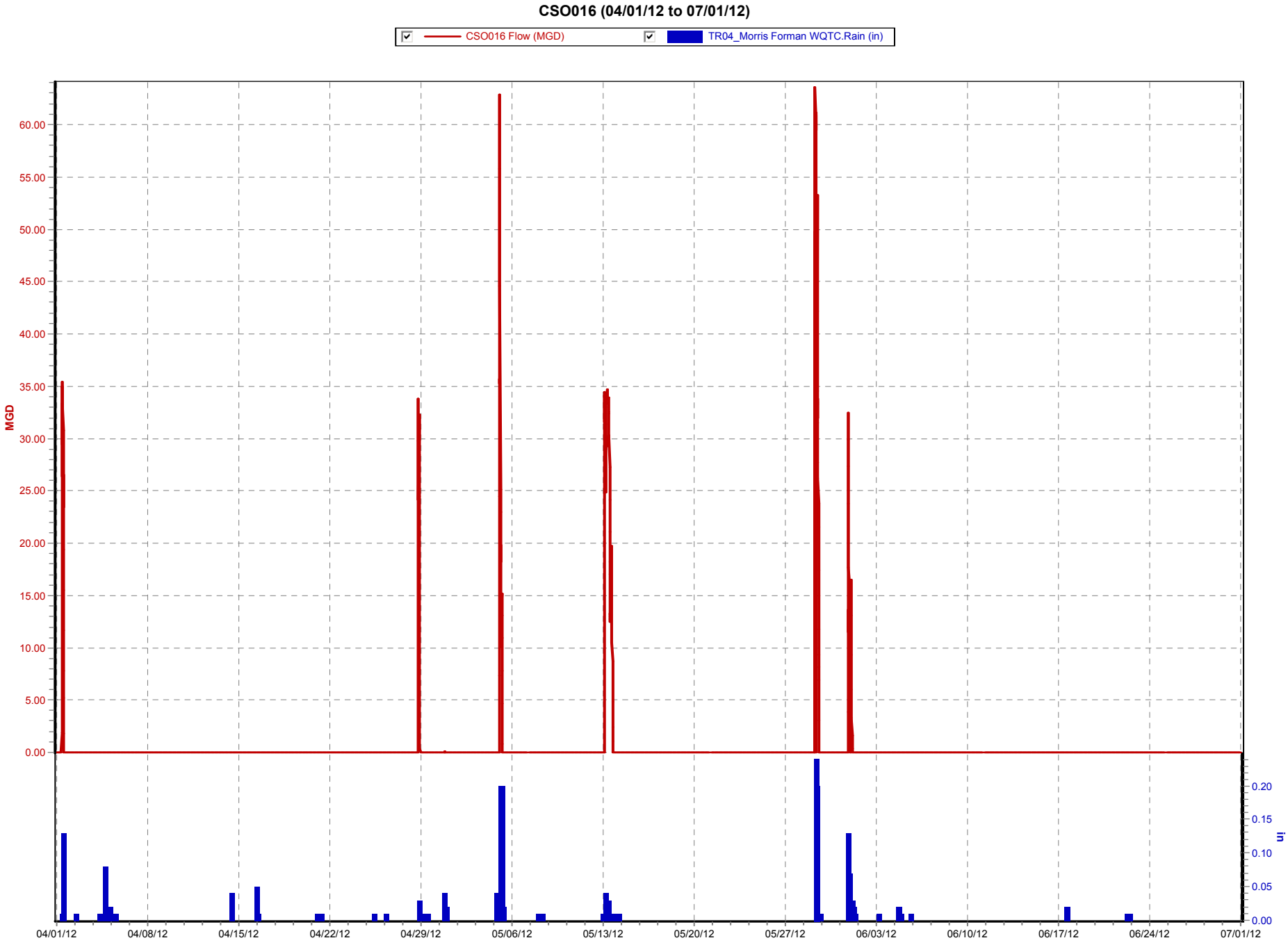
Appendix A-3 - Discharge Work Orders – Blending

APPENDIX A-3
UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
APRIL 1, 2012 THROUGH JUNE 30, 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	04/01/12 10:47: AM	04/02/12 01:20 AM	1,345,076 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1460013	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	05/13/12 8:06: AM	05/14/12 09:17 AM	4,152,668 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1487852	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	05/29/12 9:54: AM	05/29/12 06:30 PM	839,349 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	1496094	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	KY0025194	10725 OLD TAYLORSVILLE RD	05/31/12 10:57: PM	06/01/12 06:02 PM	899,028 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	1498717	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.

Appendix B – CSO Flow Monitoring Data


CSO015 (04/01/12 to 07/01/12)
Southwestern Gate PS.Flow Under Gates Total (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
3,400.00
3,200.00
3,000.00
2,800.00
2,600.00
2,400.00
2,200.00
2,000.00
1,800.00
1,600.00
1,400.00
1,200.00
1,000.00
800.00
600.00
400.00
200.00
0.00
0.20
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


CSO016 (04/01/12 to 07/01/12)
CSO016 Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.20
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
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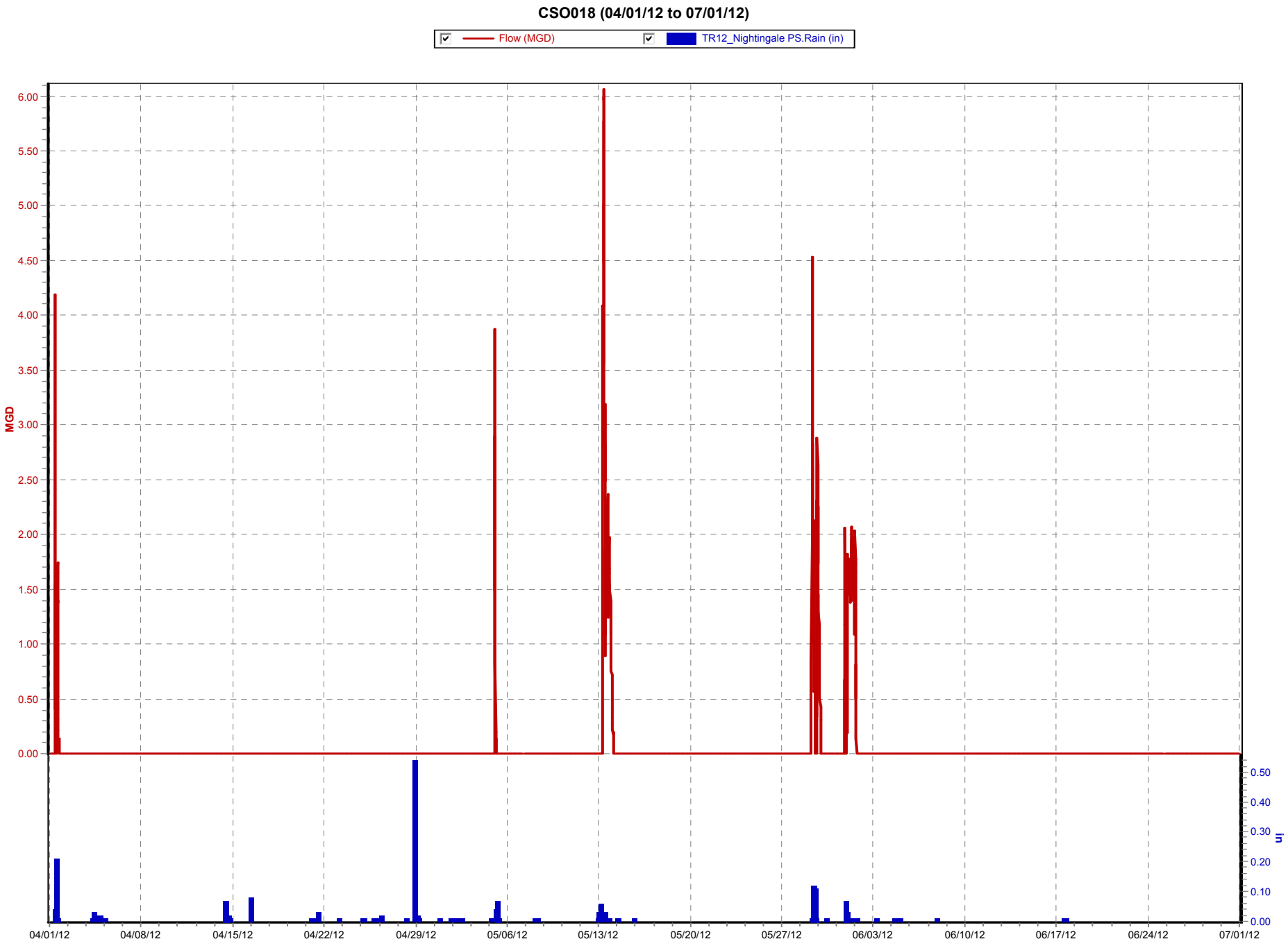
06/10/12
06/17/12
06/24/12
07/01/12


CSO018 (04/01/12 to 07/01/12)
Flow (MGD)
TR12_Nightingale PS.Rain (in)
MGD
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
0.40
0.30
0.20
0.10
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
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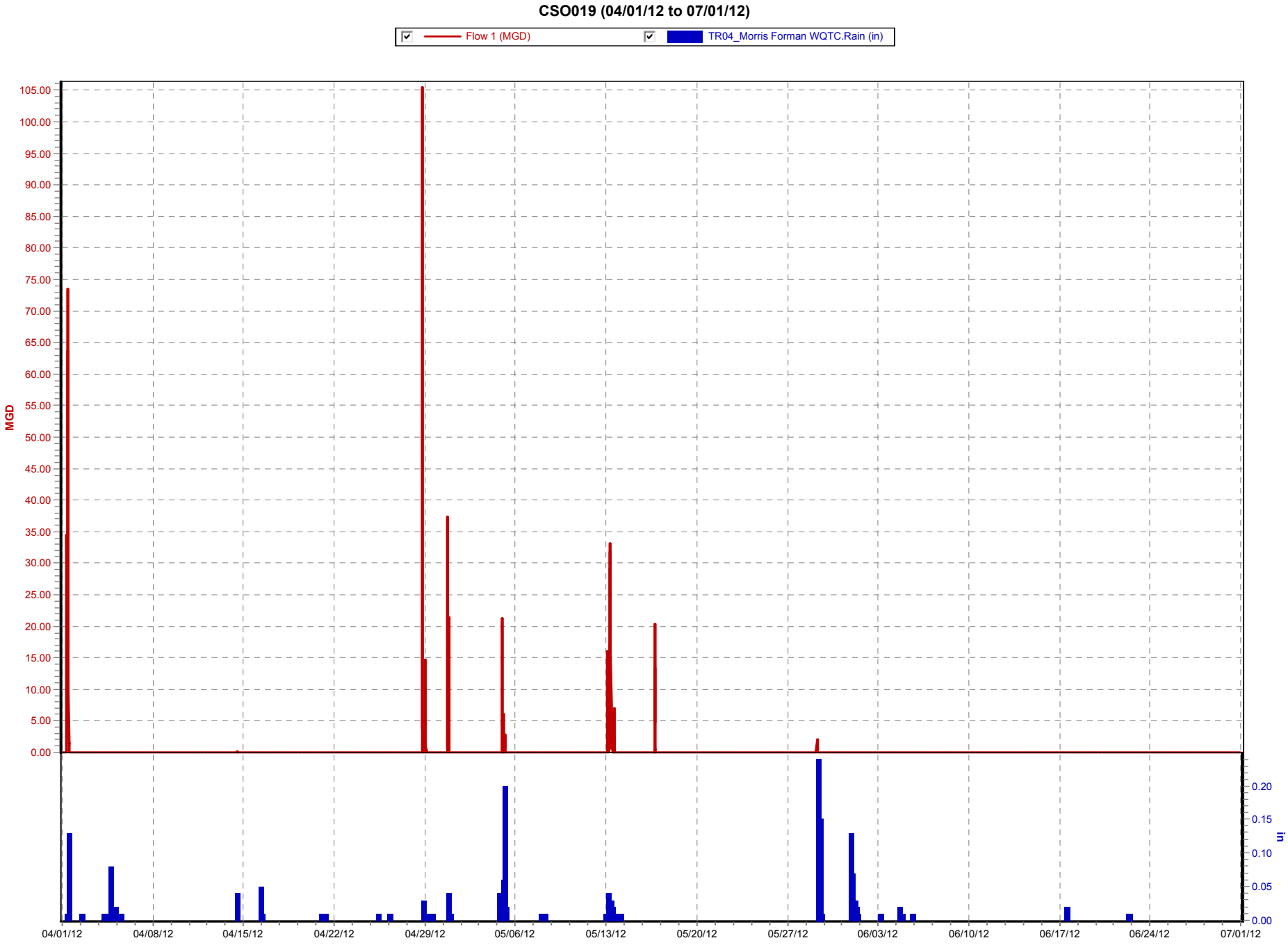
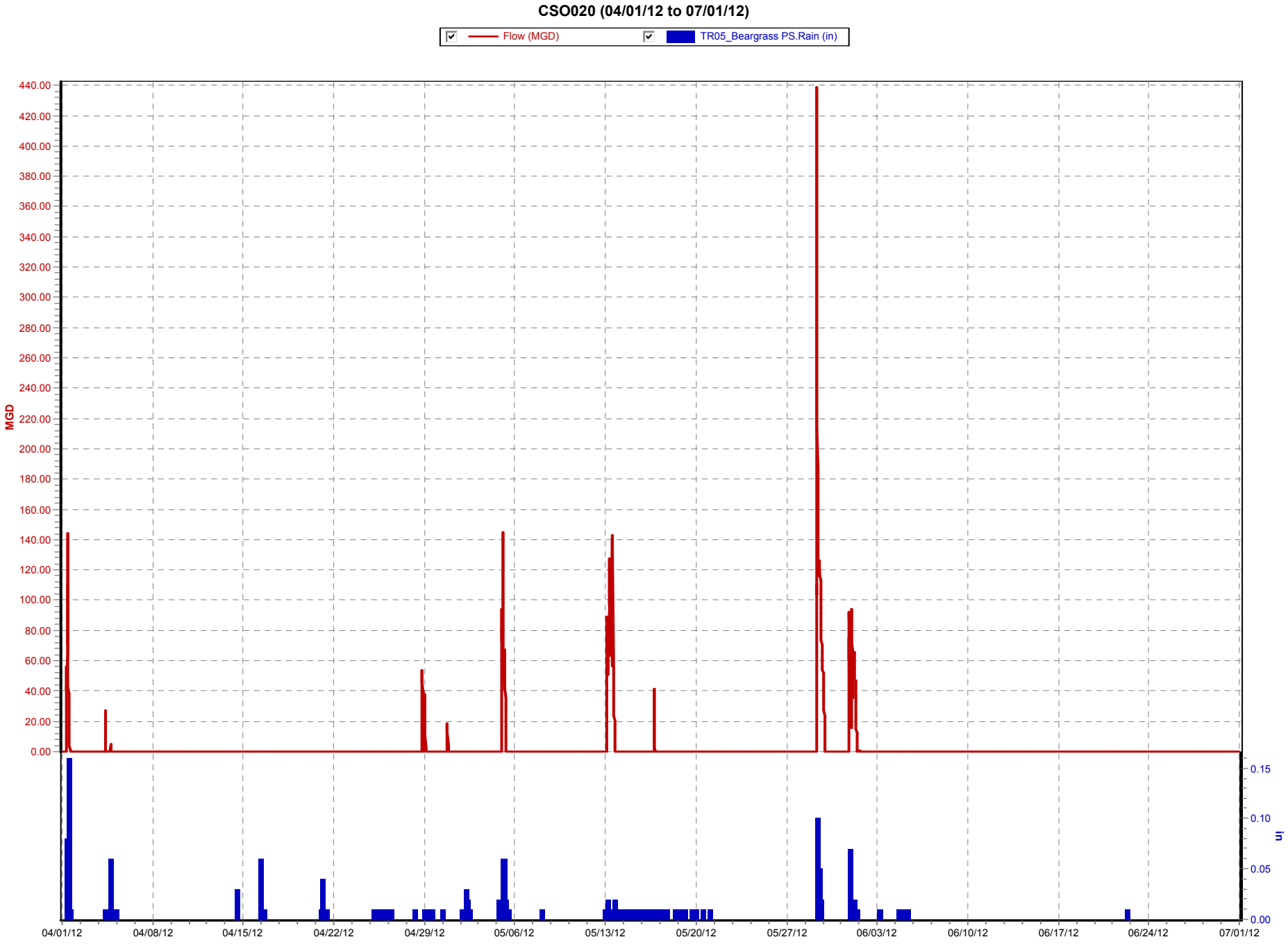
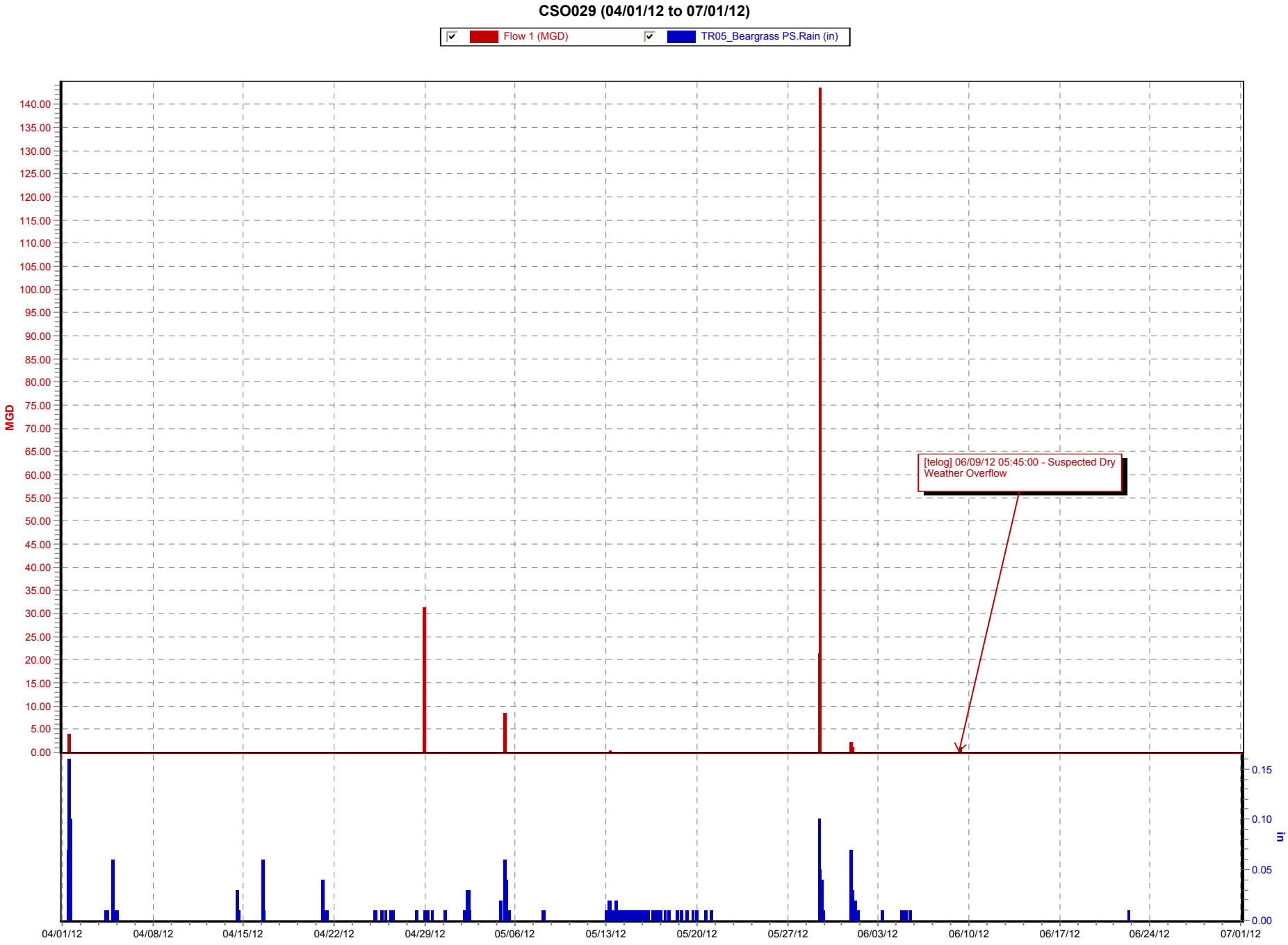
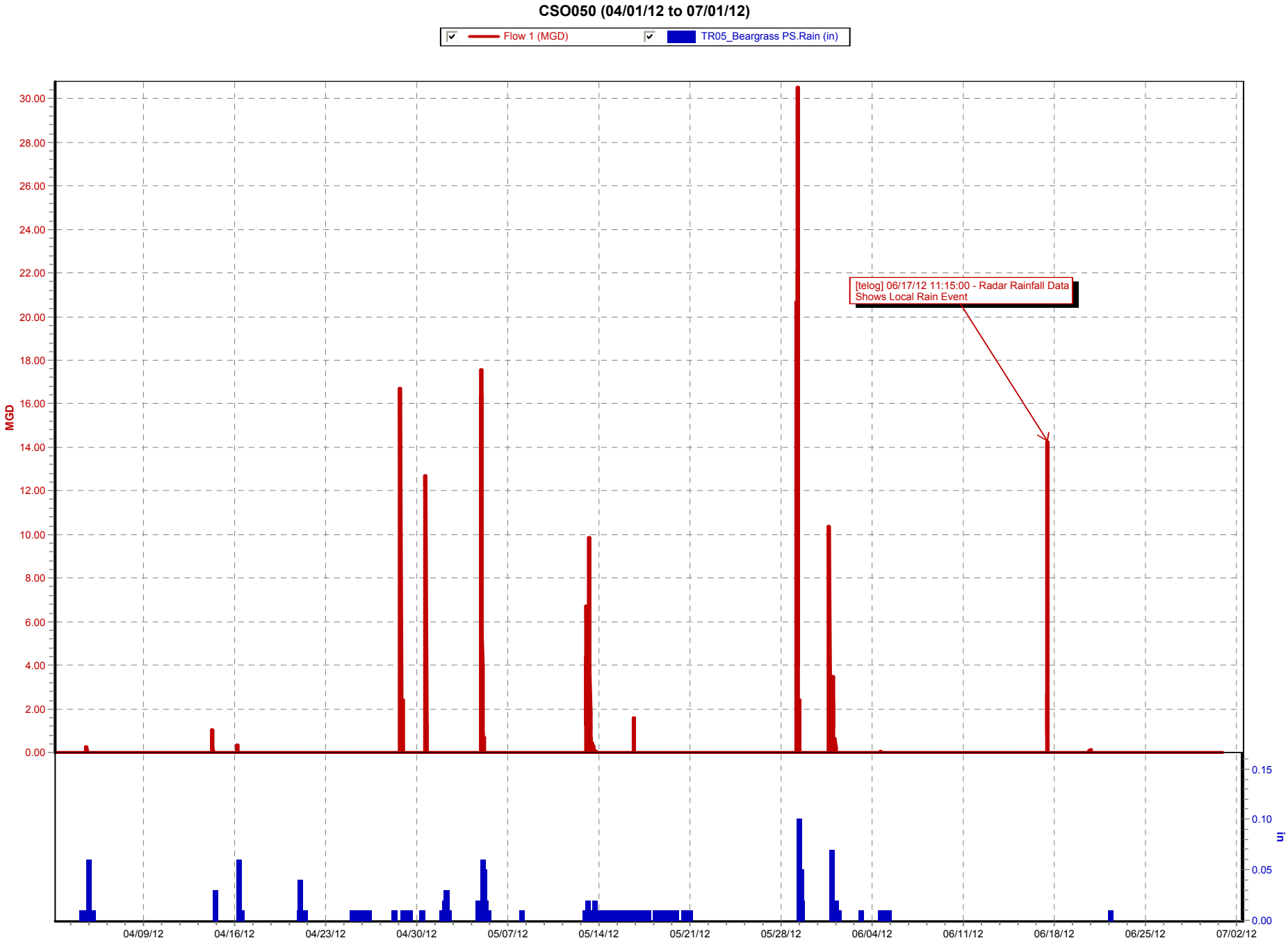
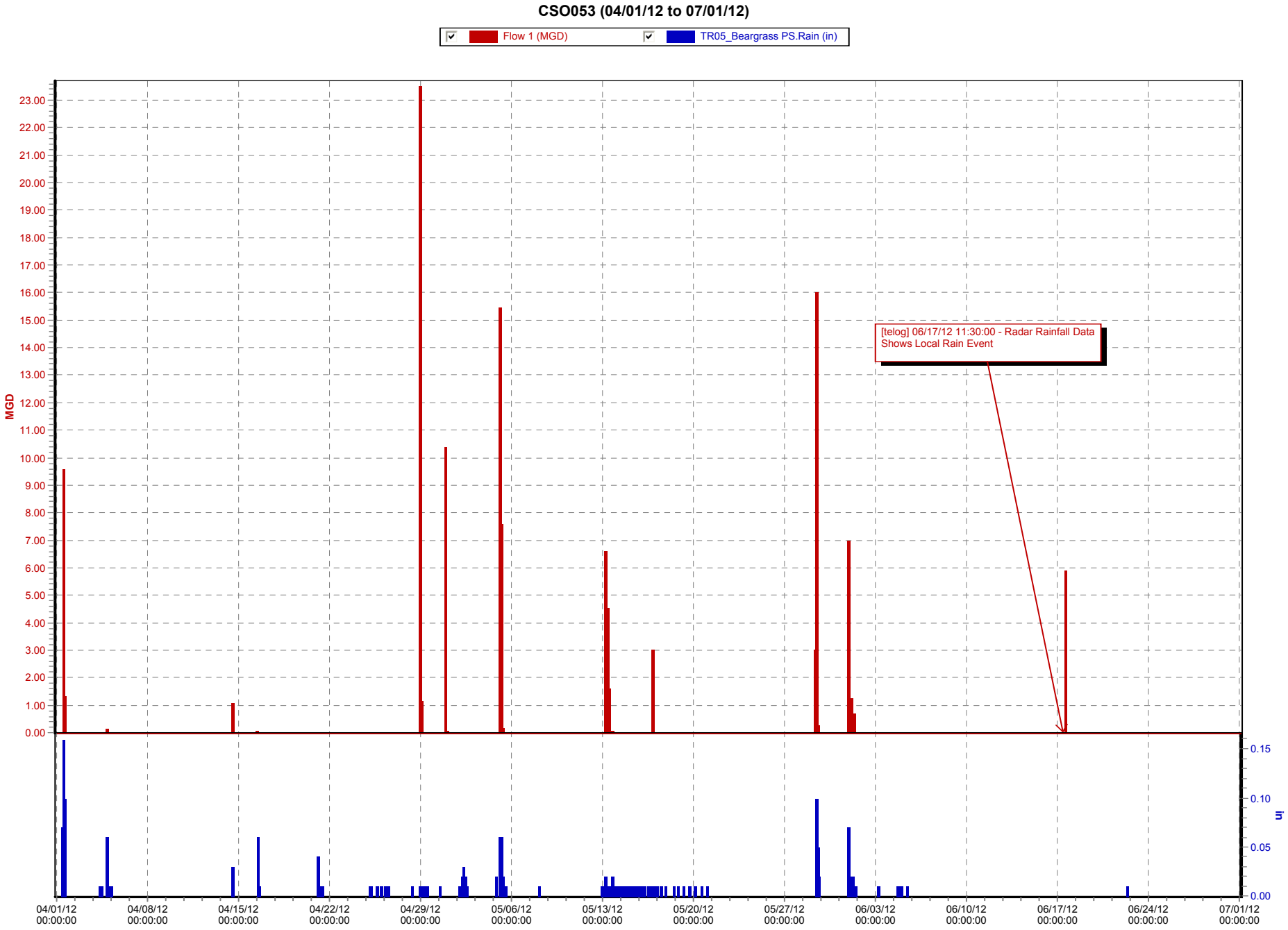
06/10/12
06/17/12
06/24/12
07/01/12

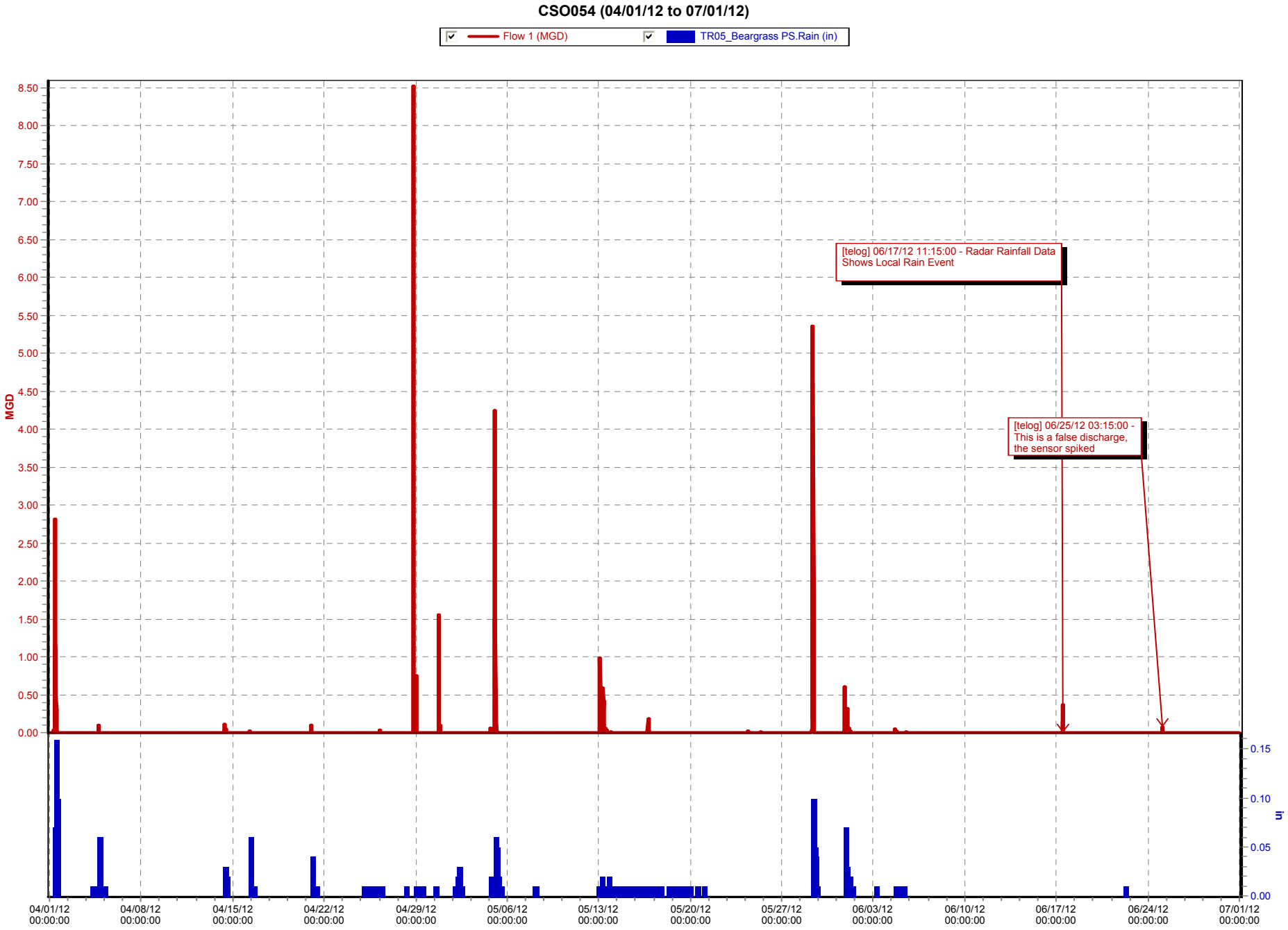

CSO019 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.20
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

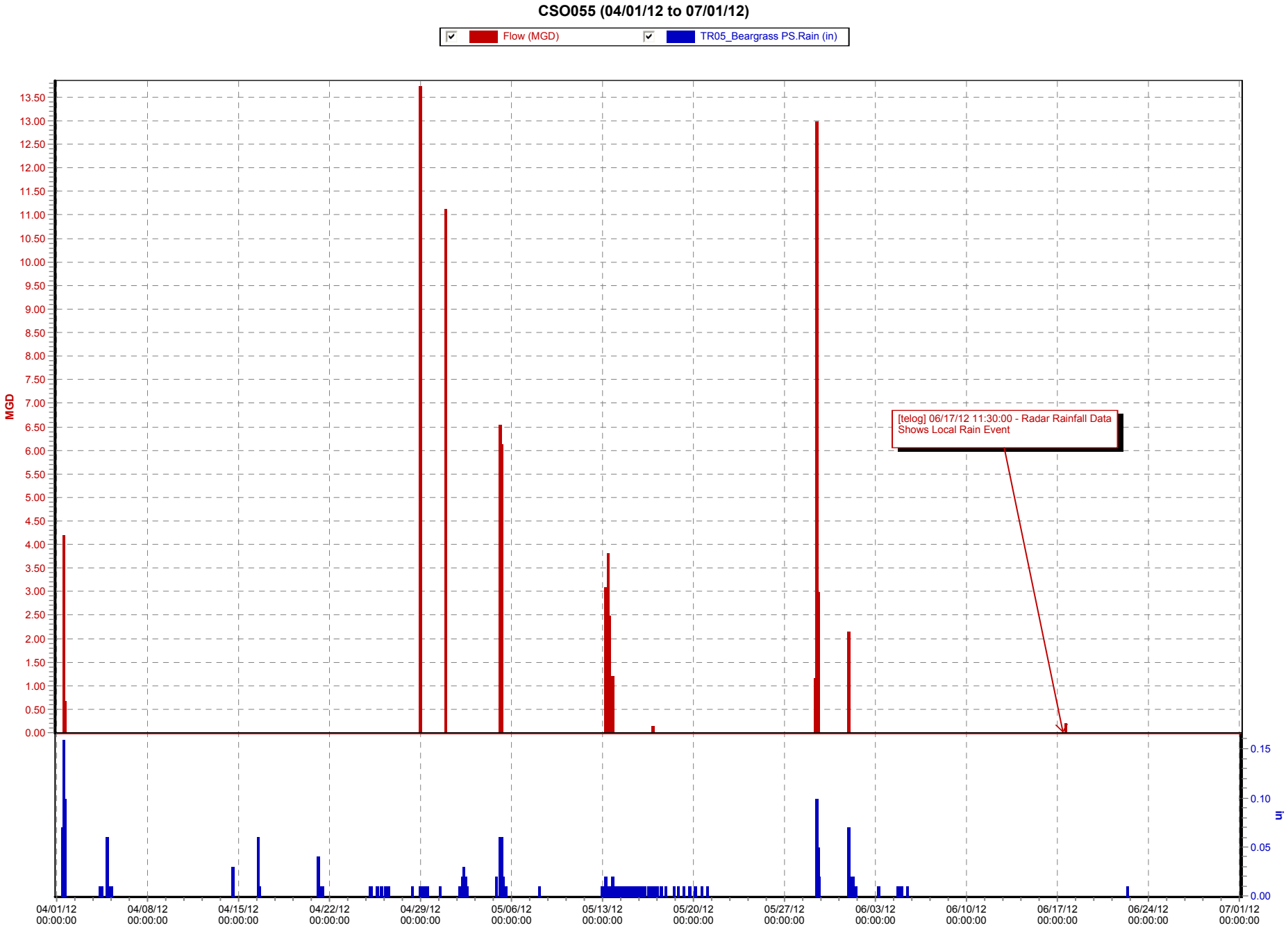

CSO020 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
440.00
420.00
400.00
380.00
360.00
340.00
320.00
300.00
280.00
260.00
240.00
220.00
200.00
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

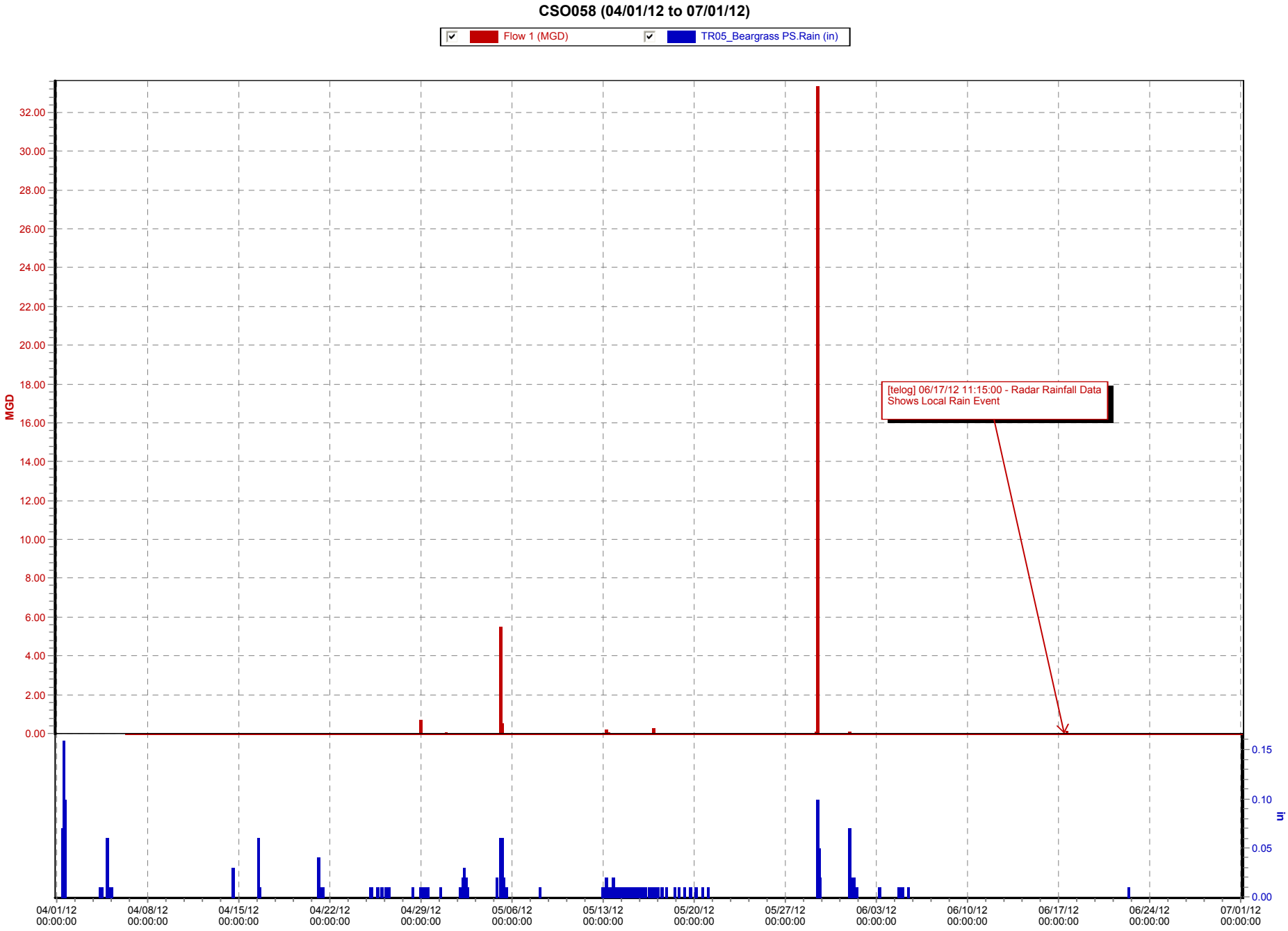

CSO029 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/09/12 05:45:00 - Suspected Dry Weather Overflow
140.00
135.00
130.00
125.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
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

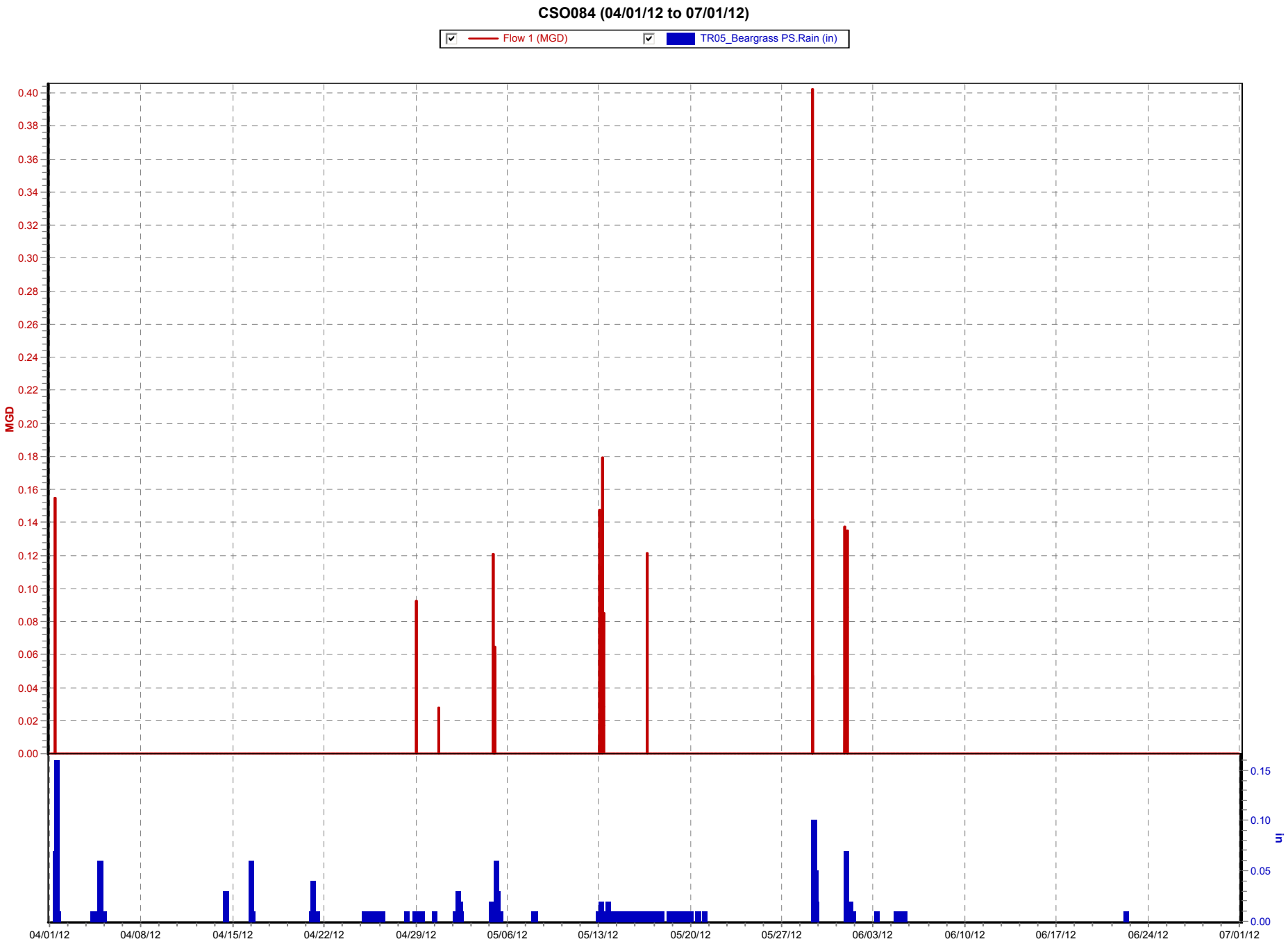

CSO050 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 11:15:00 - Radar Rainfall Data Shows Local Rain Event
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
04/09/12
04/16/12
04/23/12
04/30/12
05/07/12
05/14/12
05/21/12
05/28/12
06/04/12
06/11/12
06/18/12
06/25/12
07/02/12

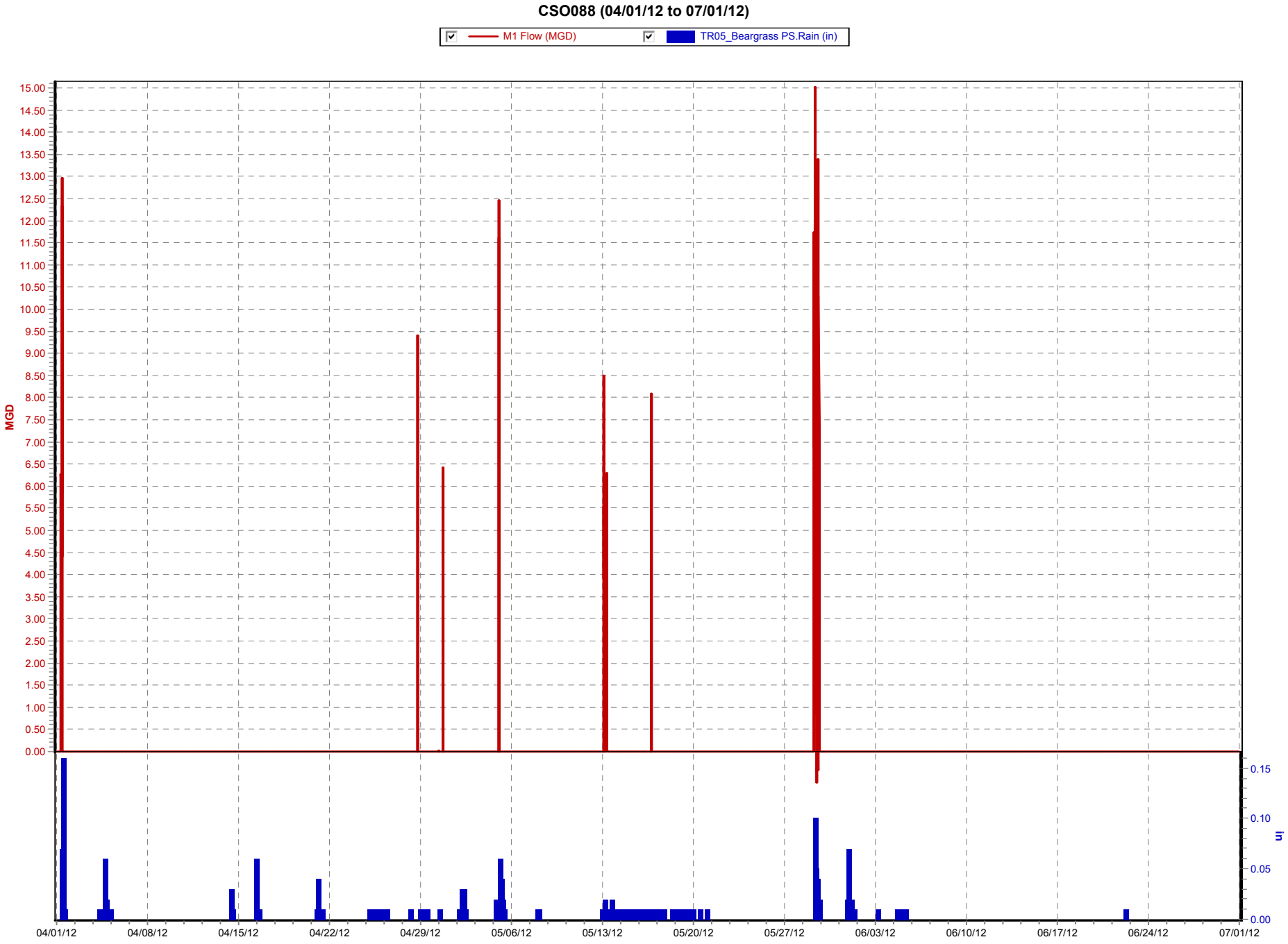

CSO053 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 11:30:00 - Radar Rainfall Data
Shows Local Rain Event
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

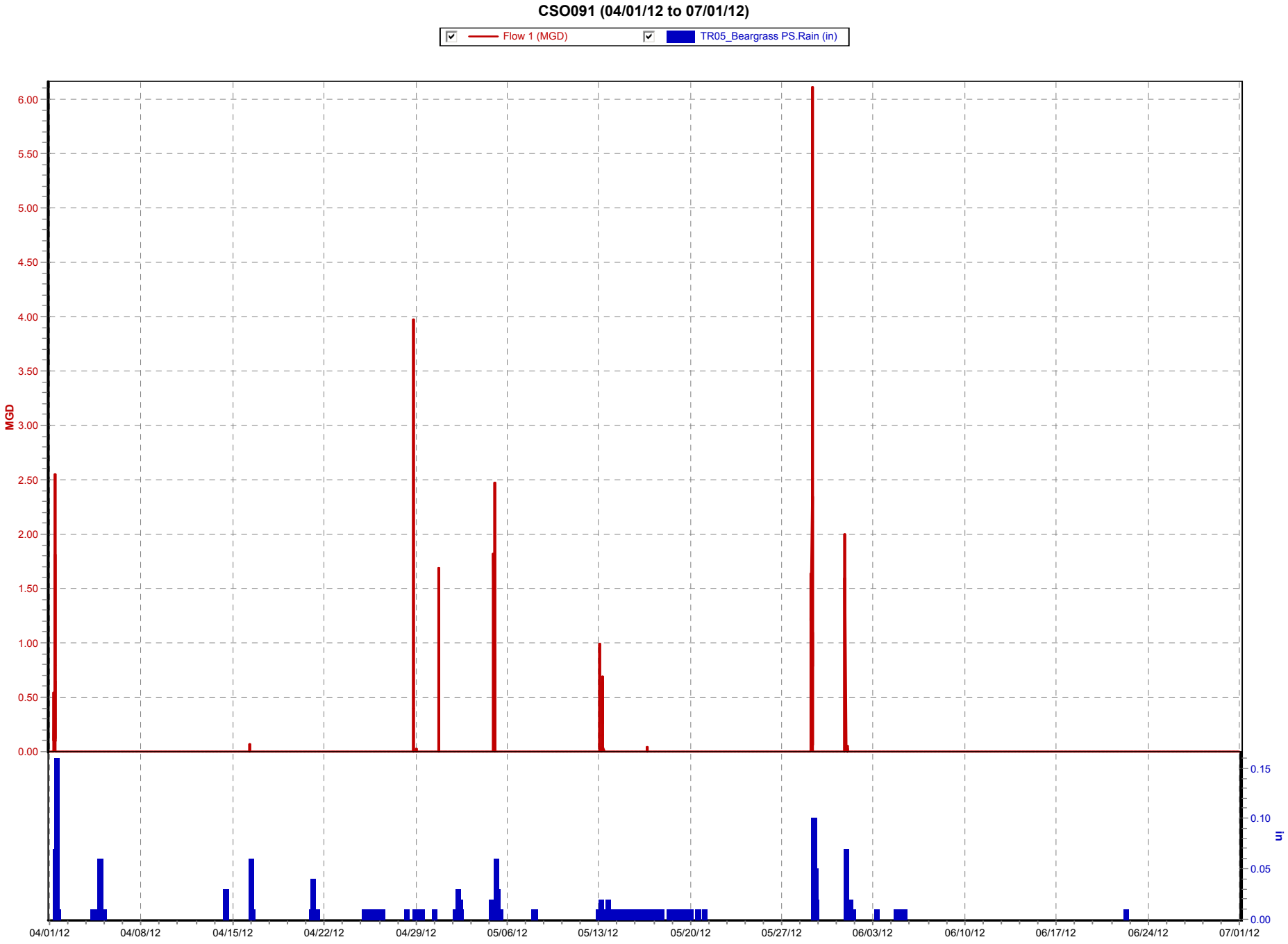

CSO054 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
[telog] 06/17/12 11:15:00 - Radar Rainfall Data Shows Local Rain Event
[telog] 06/25/12 03:15:00 - This is a false discharge, the sensor spiked
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

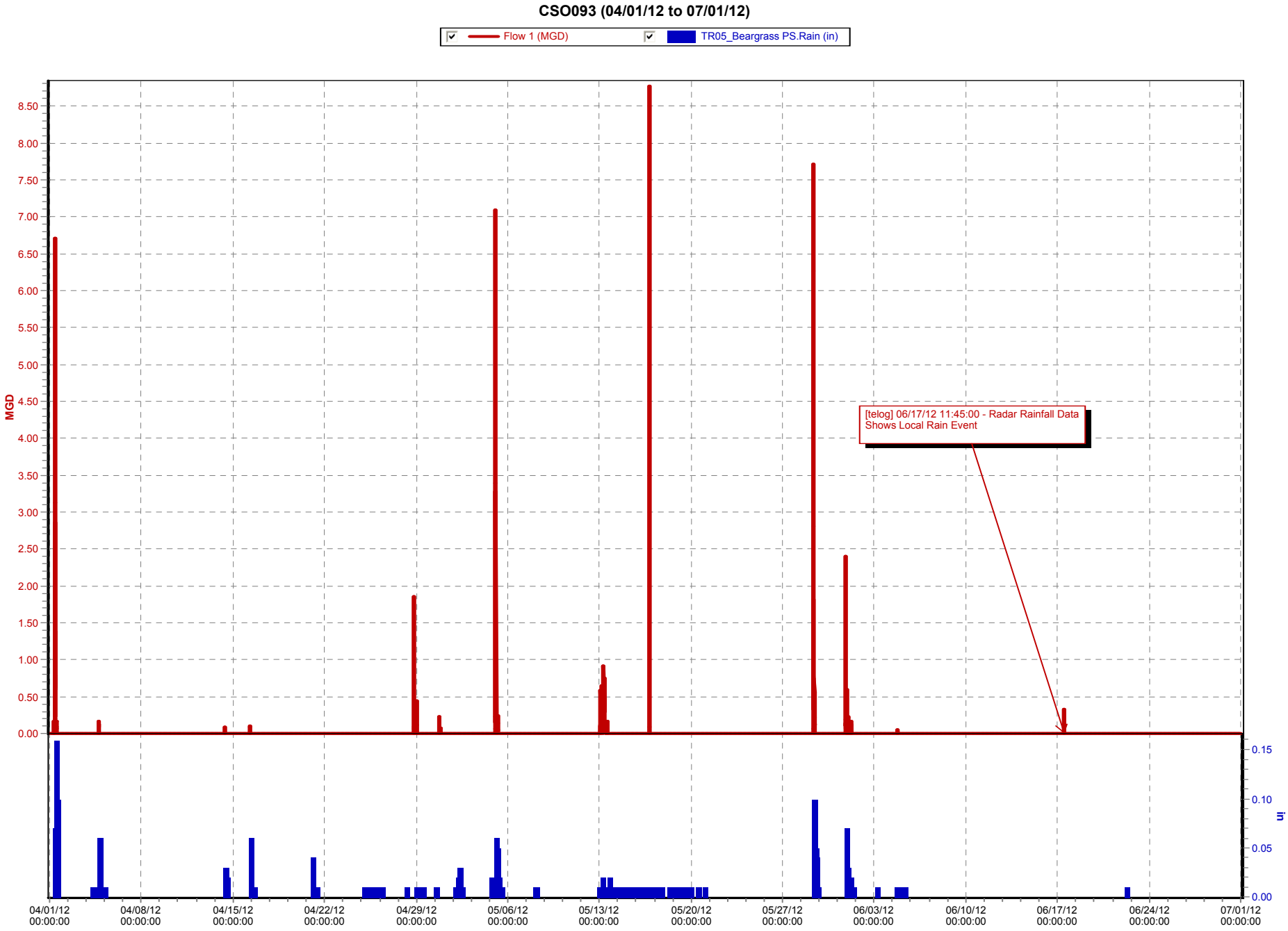

CSO055 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
[telog] 06/17/12 11:30:00 - Radar Rainfall Data
Shows Local Rain Event
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

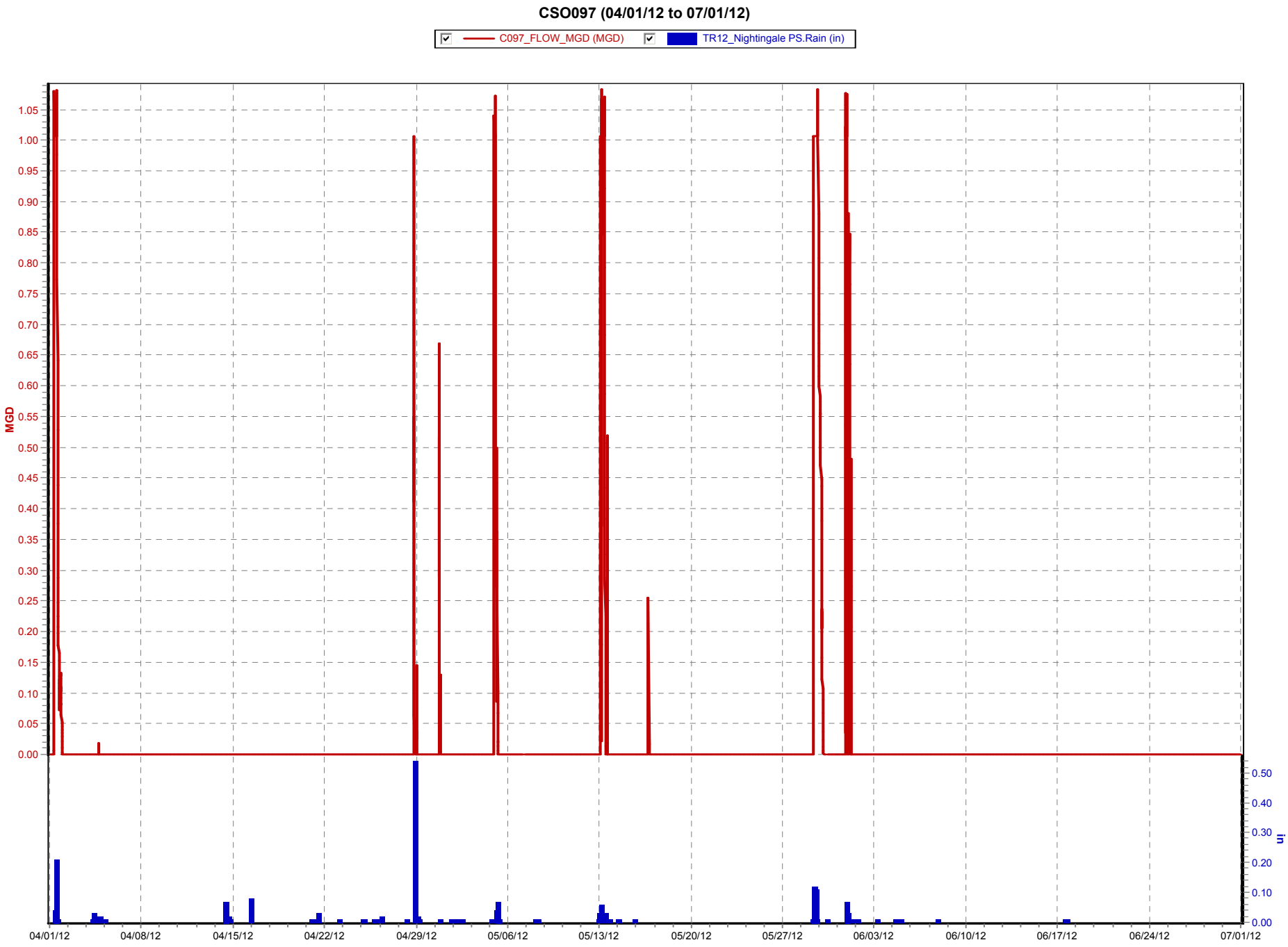

CSO058 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
[telog] 06/17/12 11:15:00 - Radar Rainfall Data
Shows Local Rain Event
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

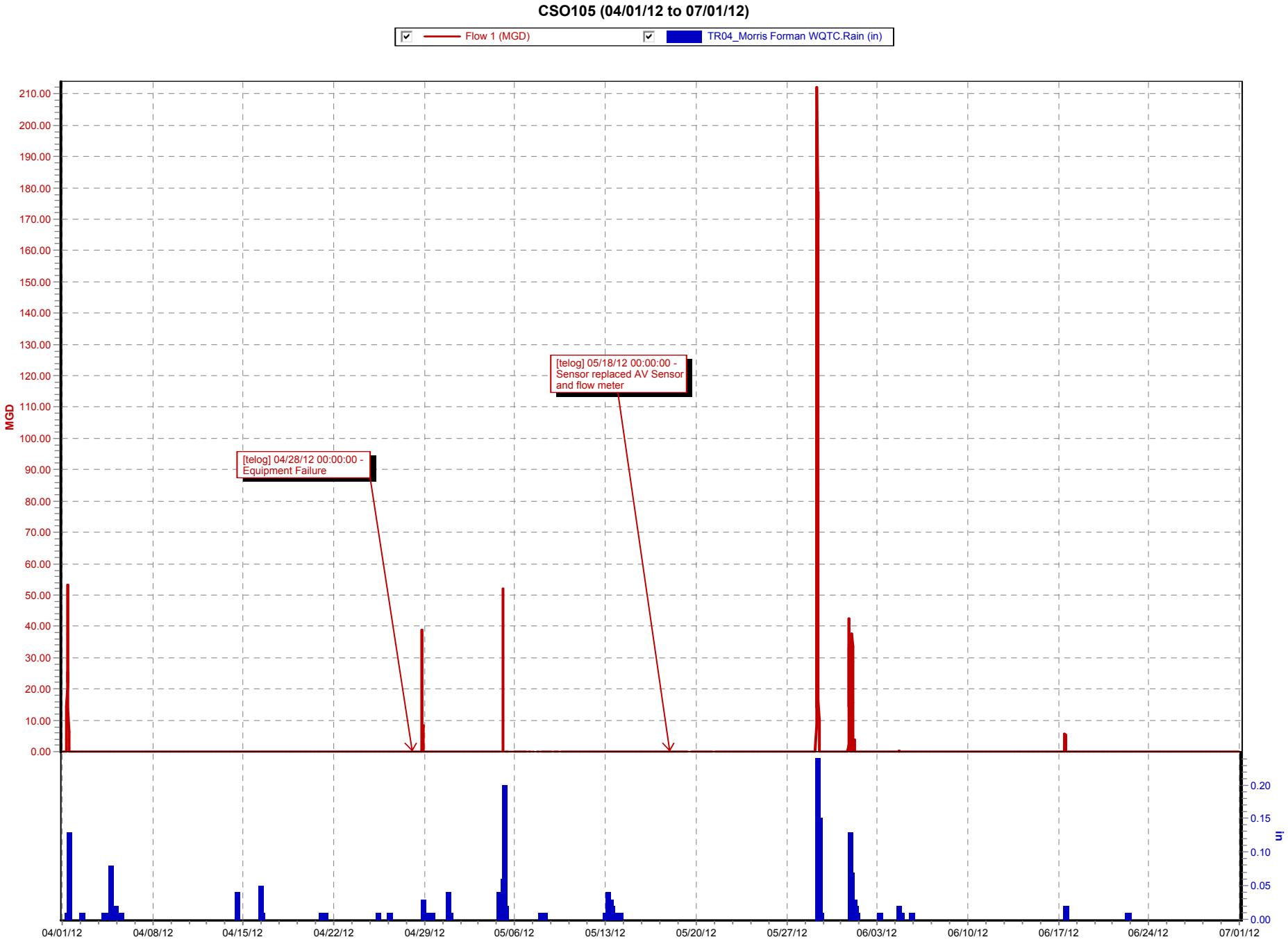

CSO084 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

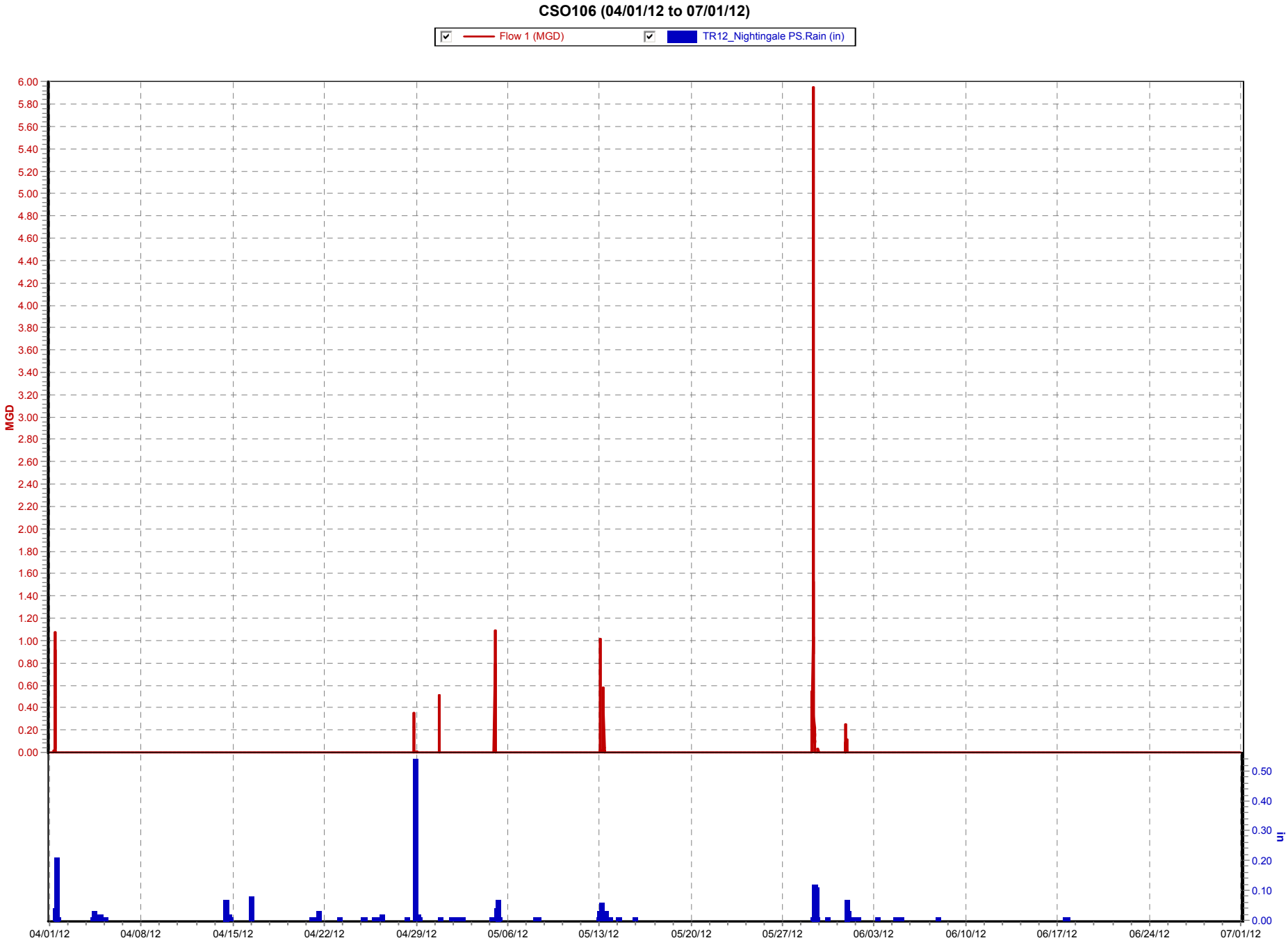

CSO088 (04/01/12 to 07/01/12)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
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


CSO091 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
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
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

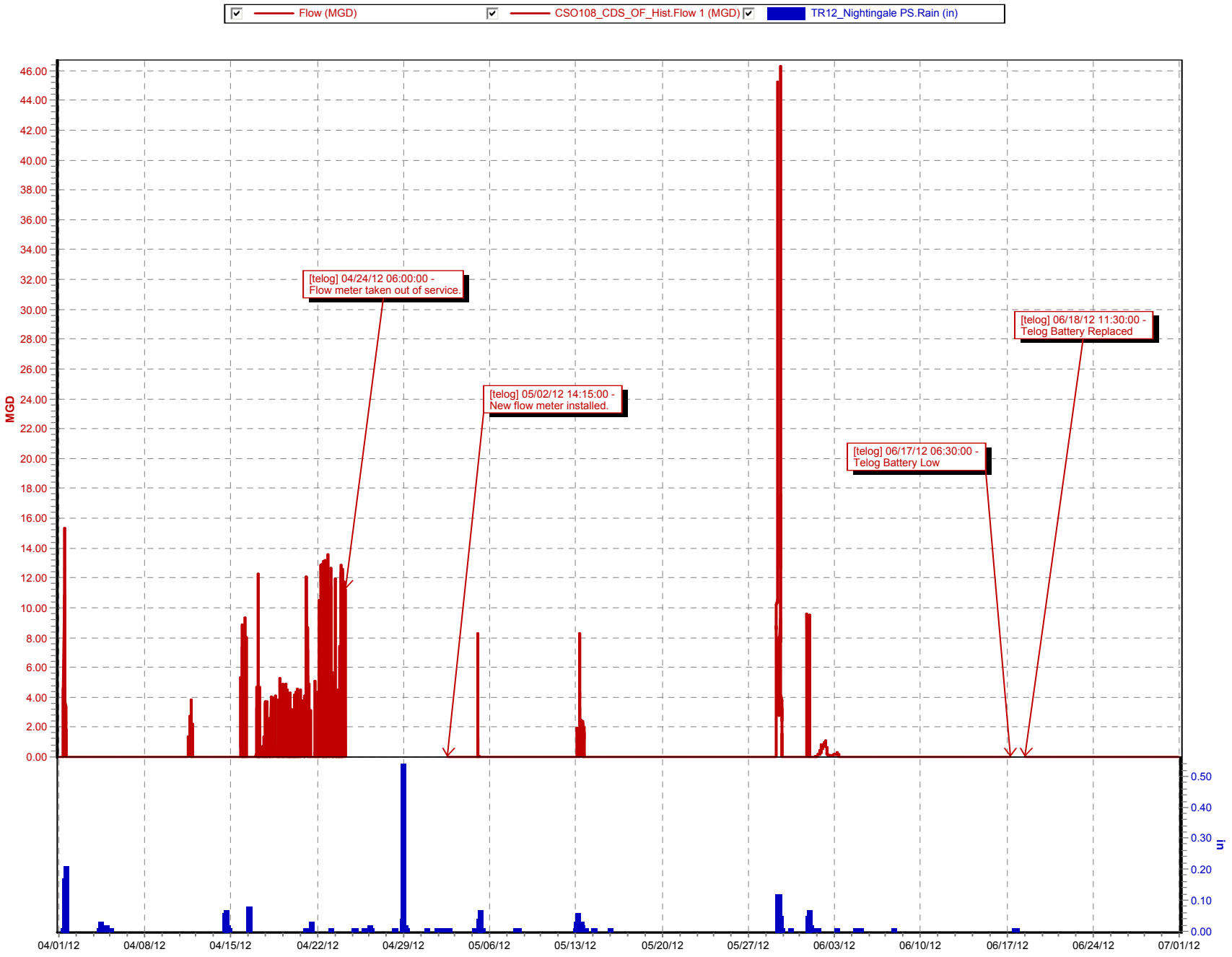

CSO093 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
[telog] 06/17/12 11:45:00 - Radar Rainfall Data Shows Local Rain Event
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

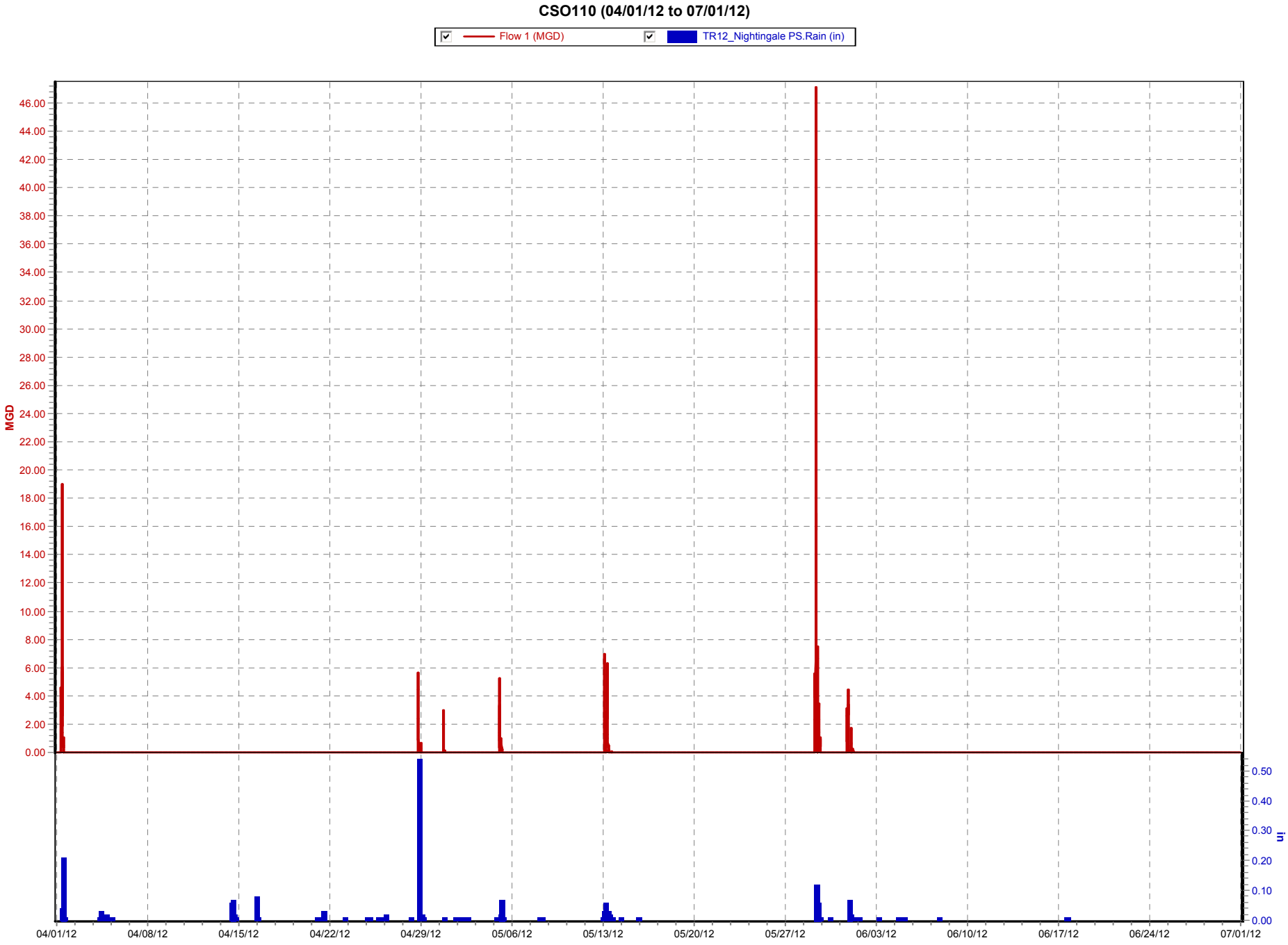

CSO097 (04/01/12 to 07/01/12)
C097_FLOW_MGD (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.50
0.40
0.30
0.20
0.10
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

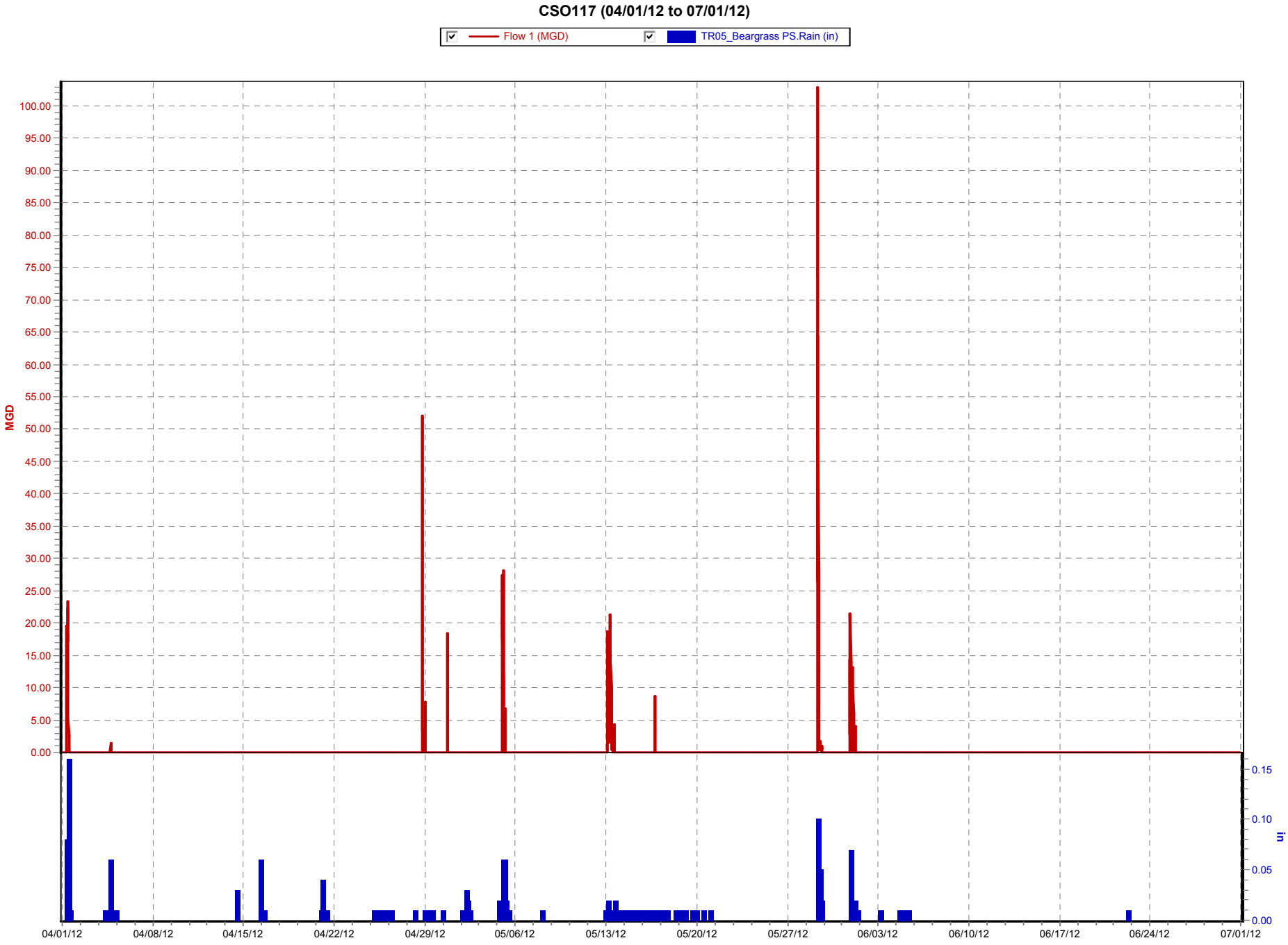

CSO105 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
[telog] 04/28/12 00:00:00 - Equipment Failure
[telog] 05/18/12 00:00:00 - Sensor replaced AV Sensor and flow meter
210.00
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.20
0.15
0.10
0.05
0.00
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

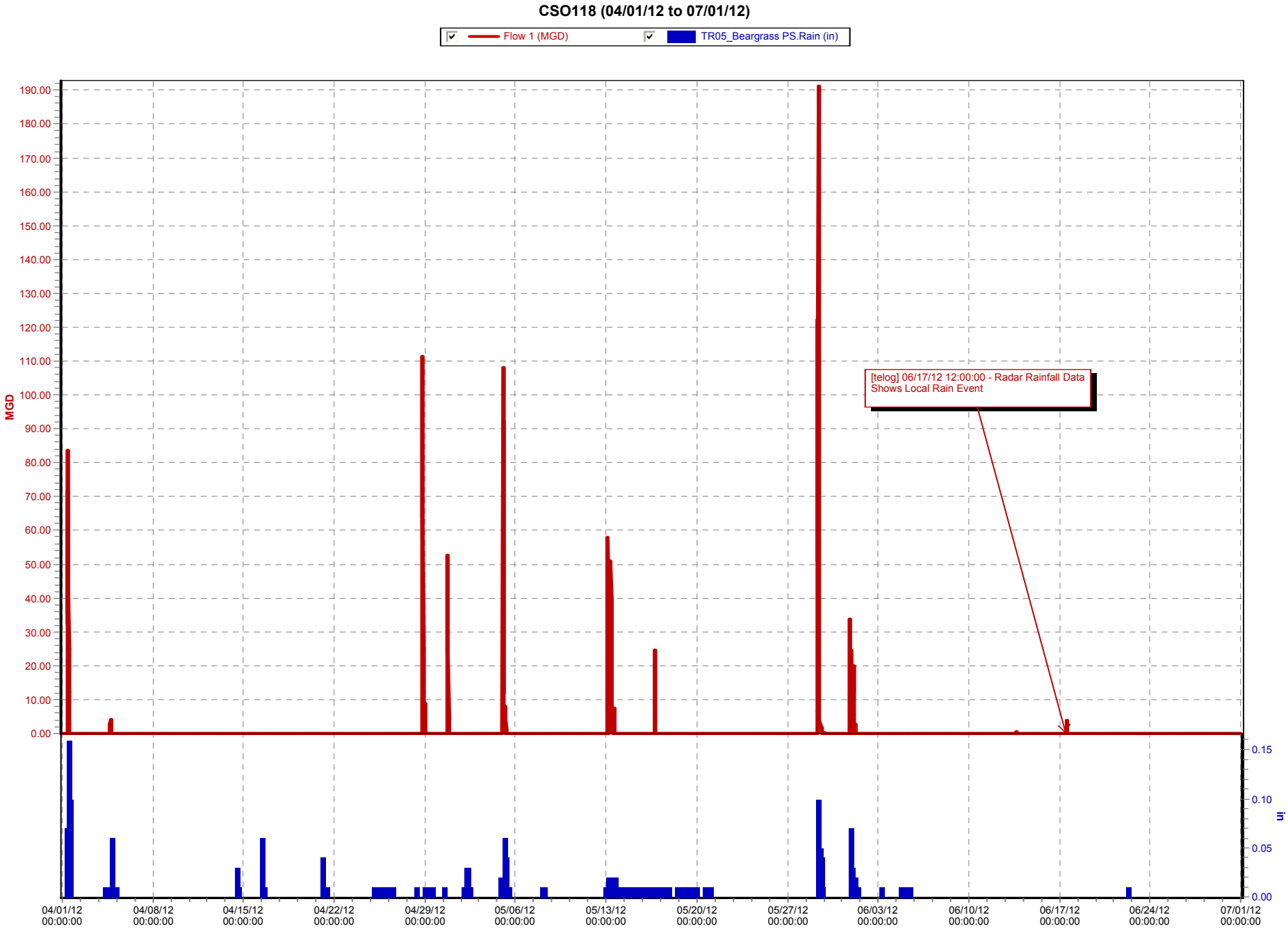

CSO106 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
6.00
5.80
5.60
5.40
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.50
0.40
0.30
0.20
0.10
0.00
04/01/12
04/08/12
04/15/12
04/22/12
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

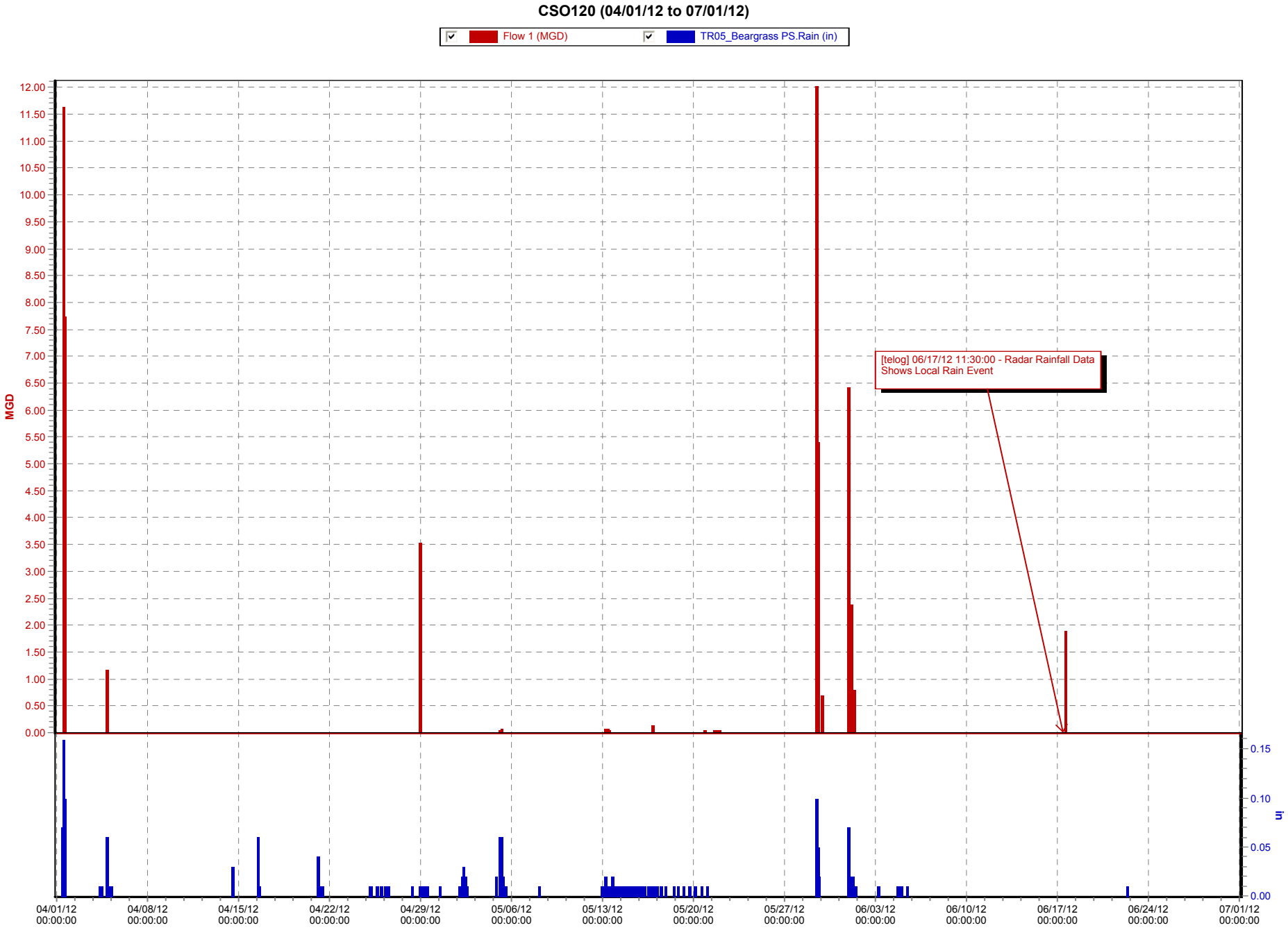
CSO108 CDS Unit (04/01/12 to 07/01/12)

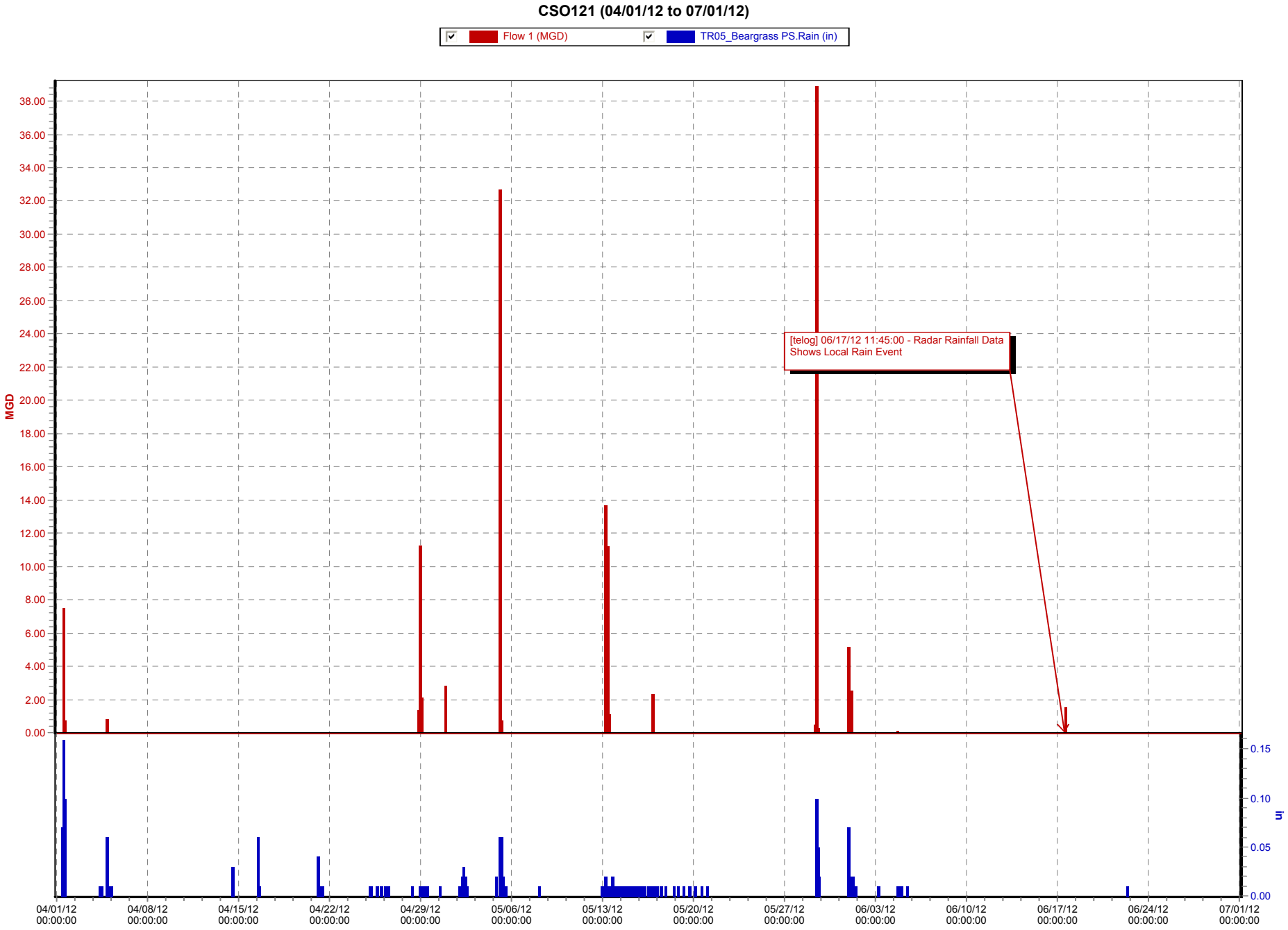


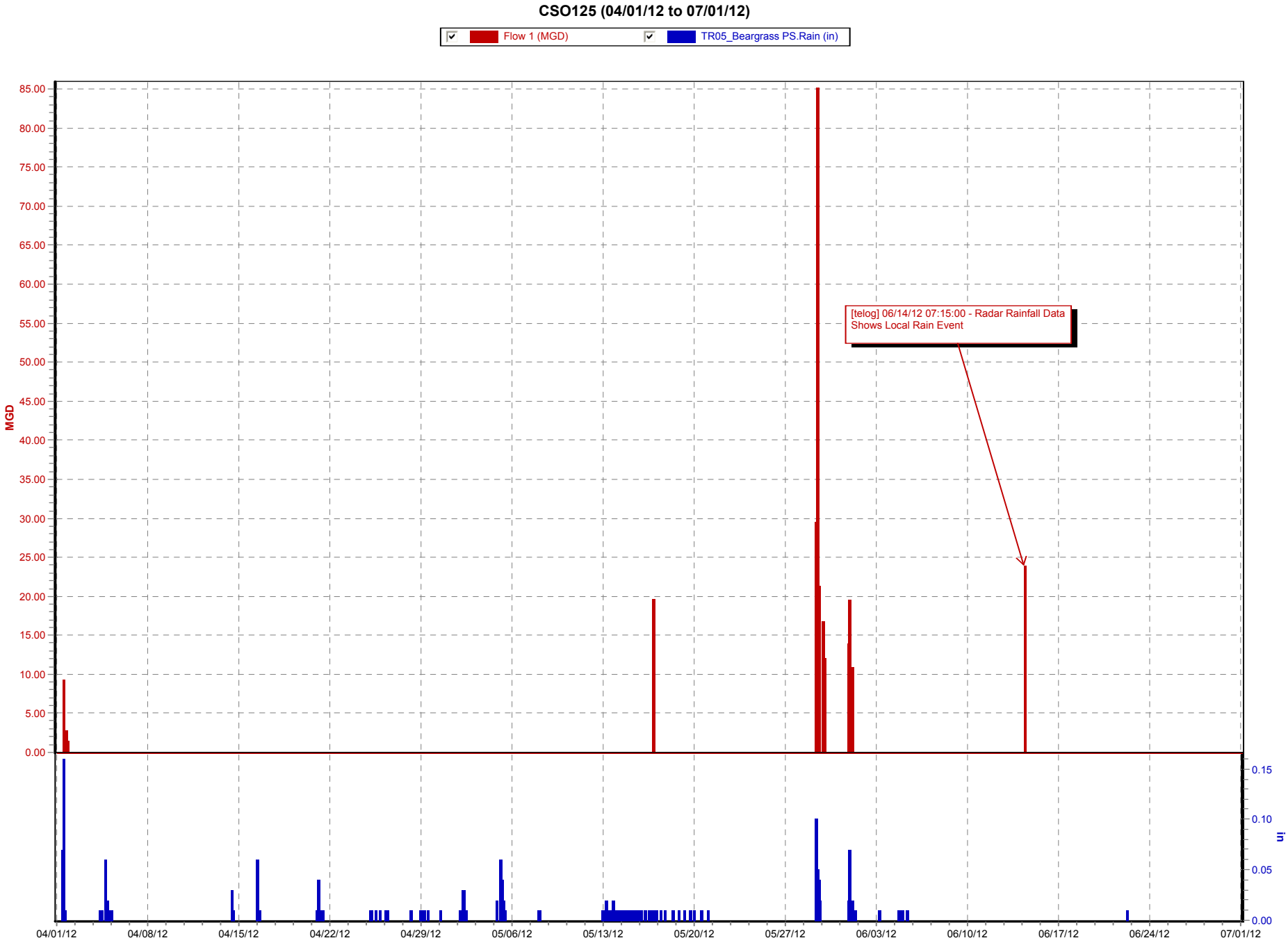

CSO110 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.50
0.40
0.30
0.20
0.10
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

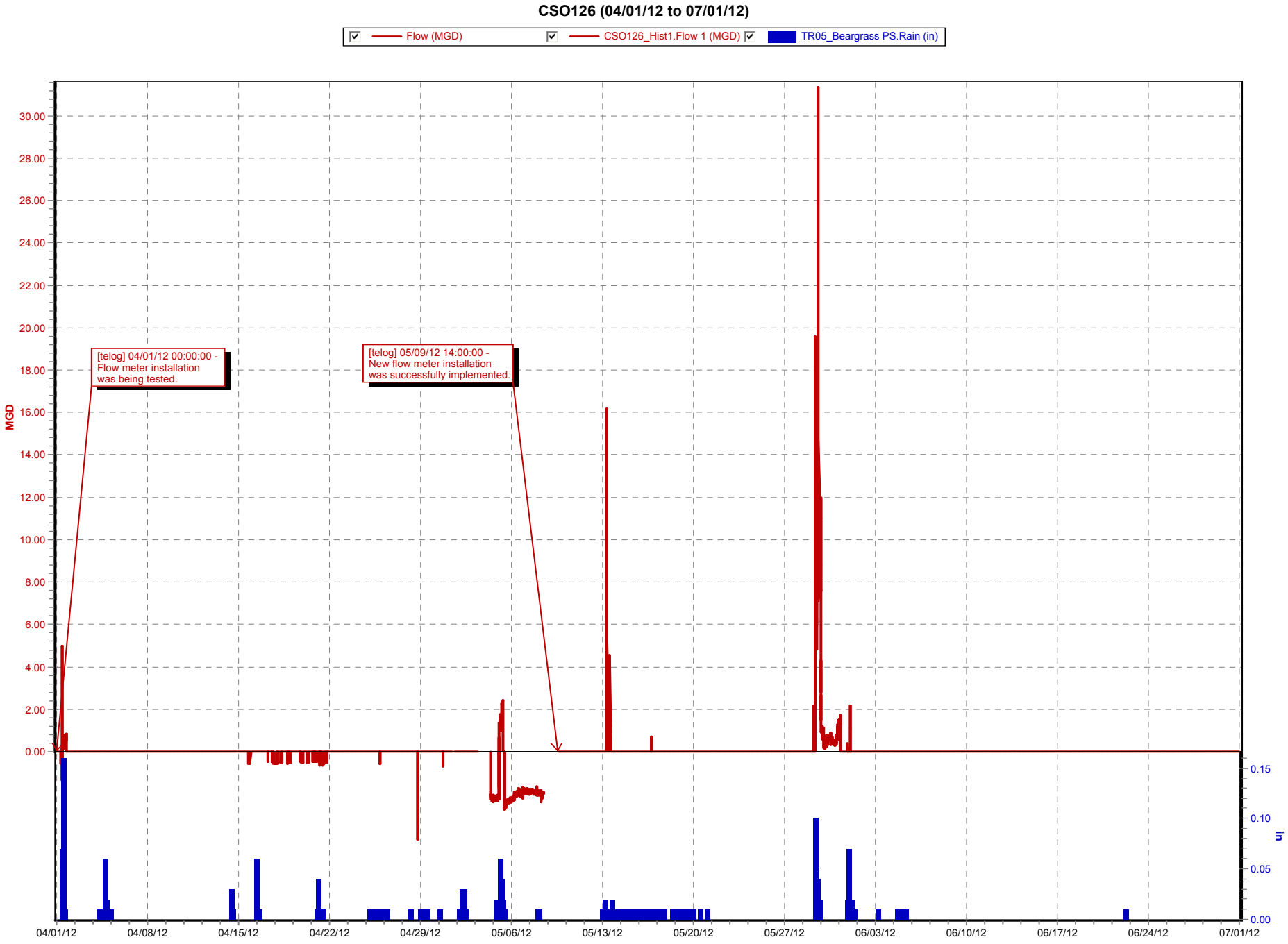

CSO117 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

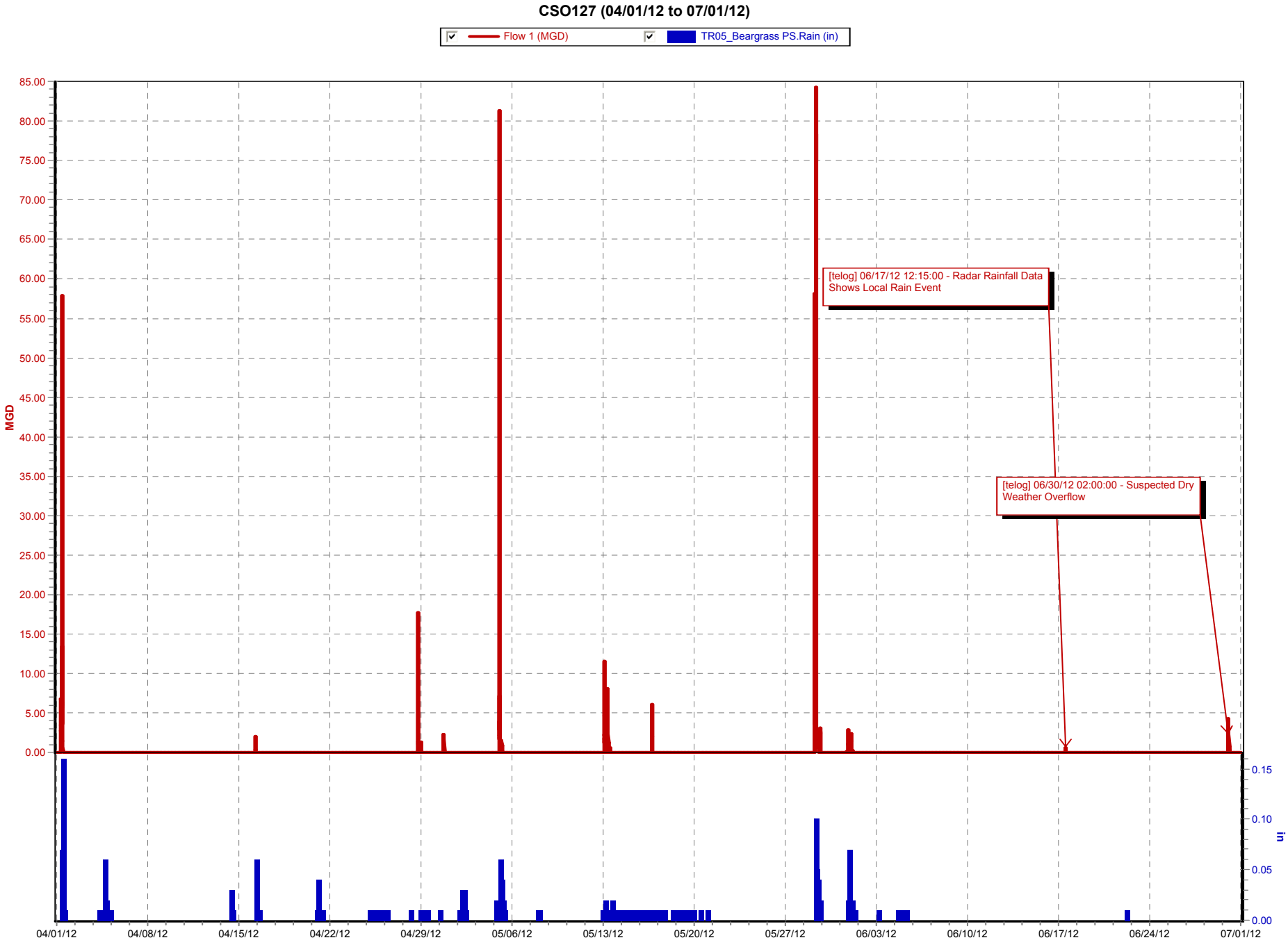

CSO118 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
[telog] 06/17/12 12:00:00 - Radar Rainfall Data
Shows Local Rain Event
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

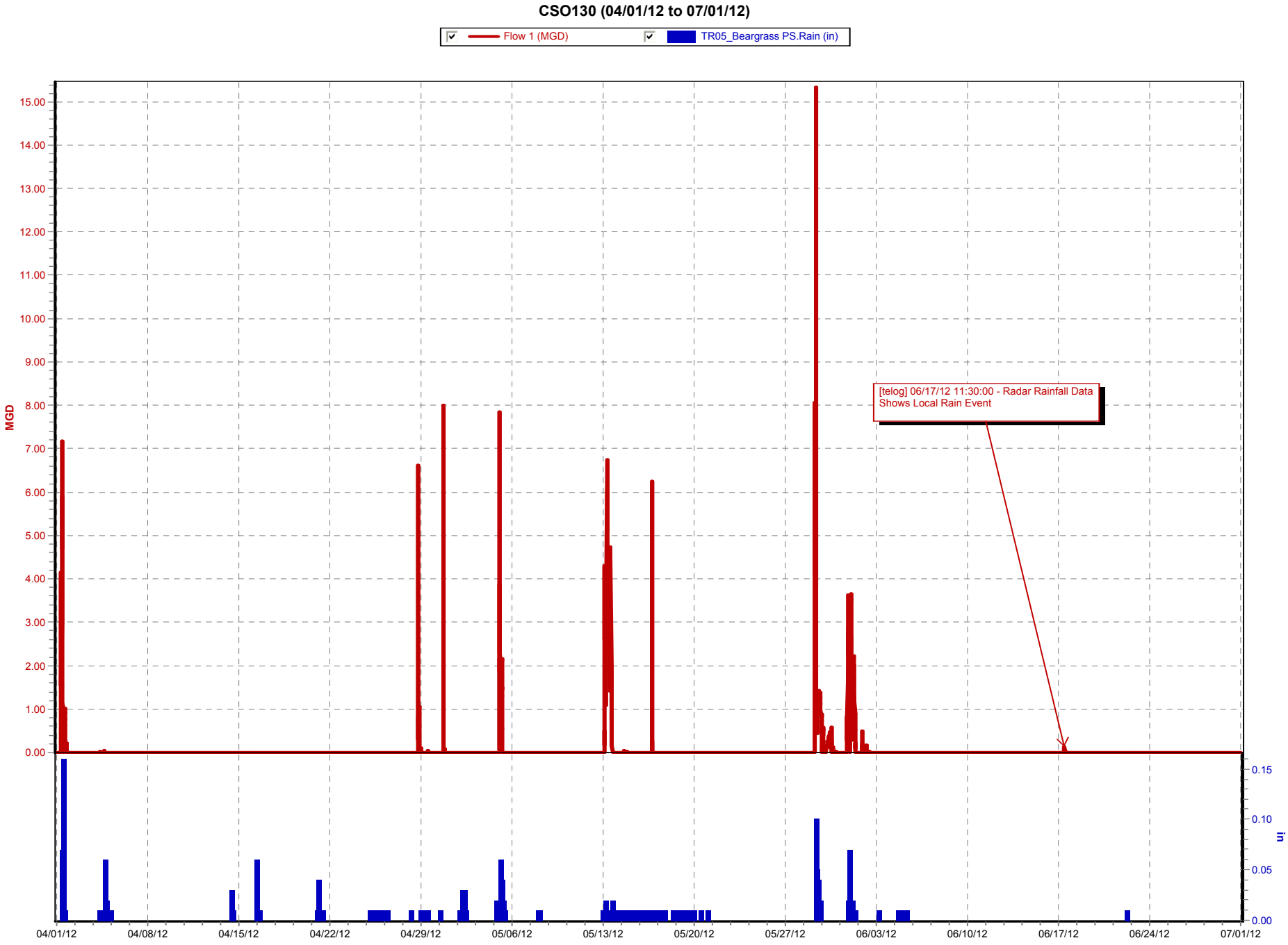

CSO120 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
[telog] 06/17/12 11:30:00 - Radar Rainfall Data Shows Local Rain Event
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

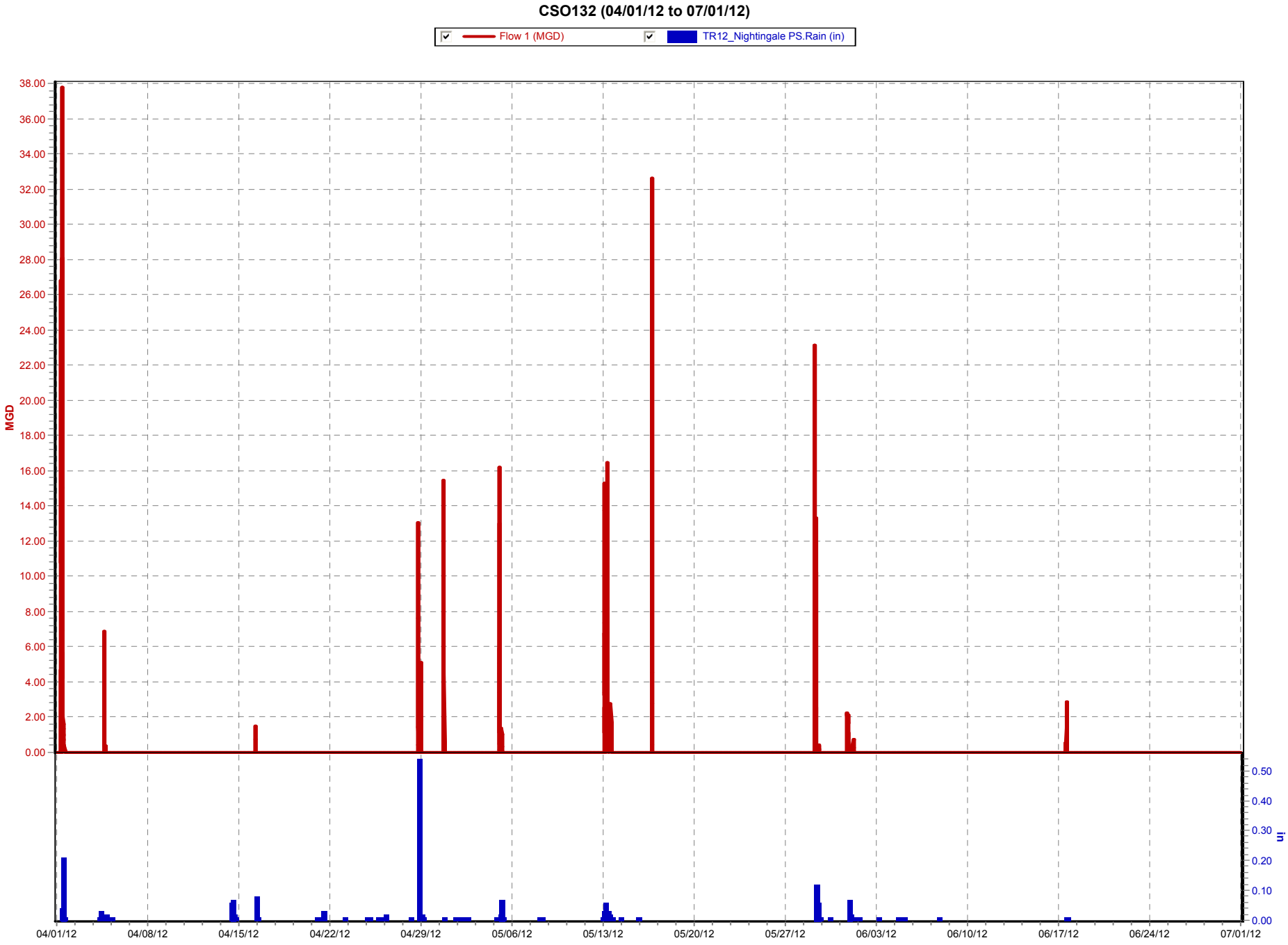

CSO121 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 11:45:00 - Radar Rainfall Data
Shows Local Rain Event
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
22.00
24.00
26.00
28.00
30.00
32.00
34.00
36.00
38.00
0.00
0.05
0.10
0.15
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

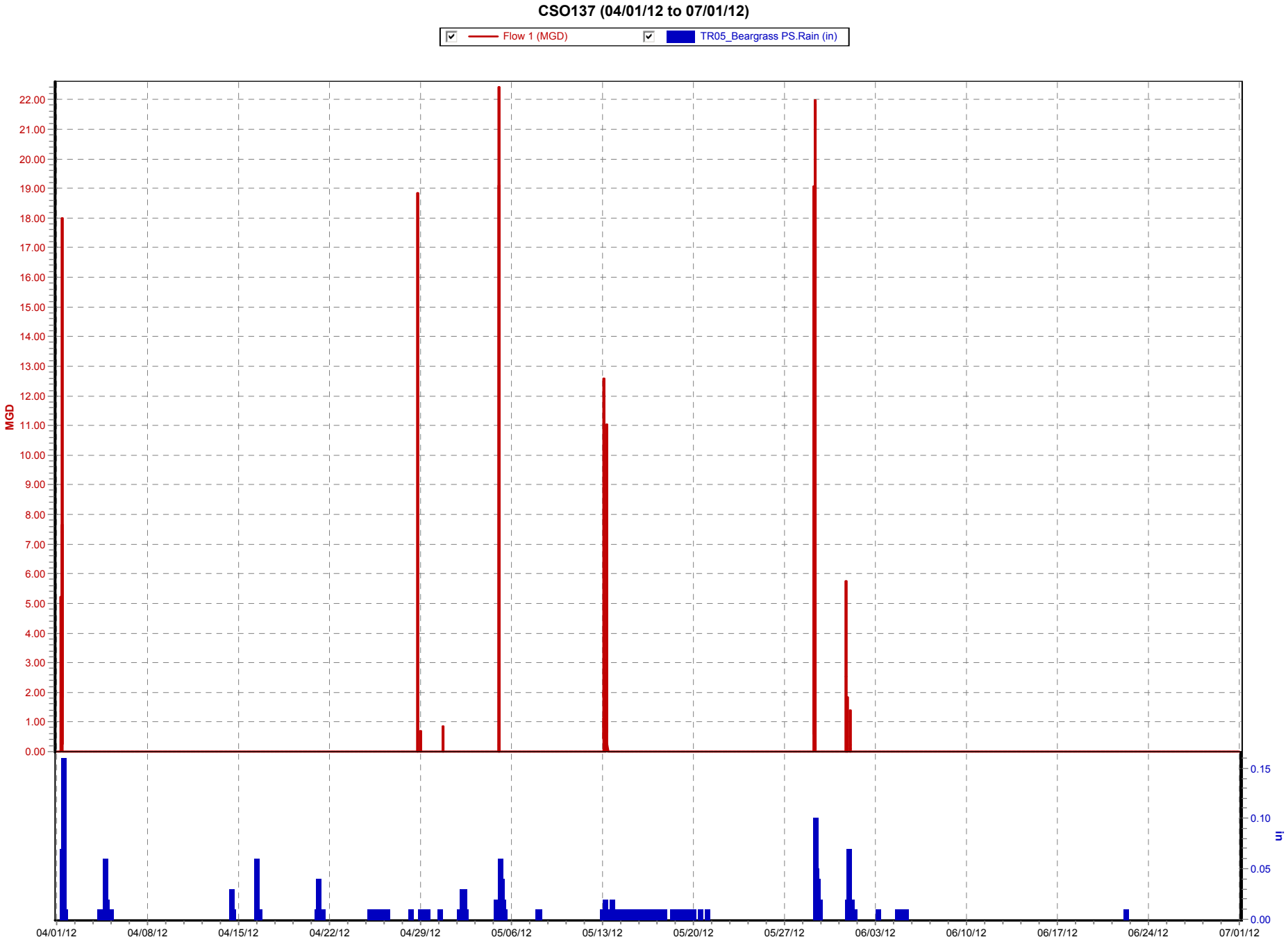

CSO125 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/14/12 07:15:00 - Radar Rainfall Data Shows Local Rain Event
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
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

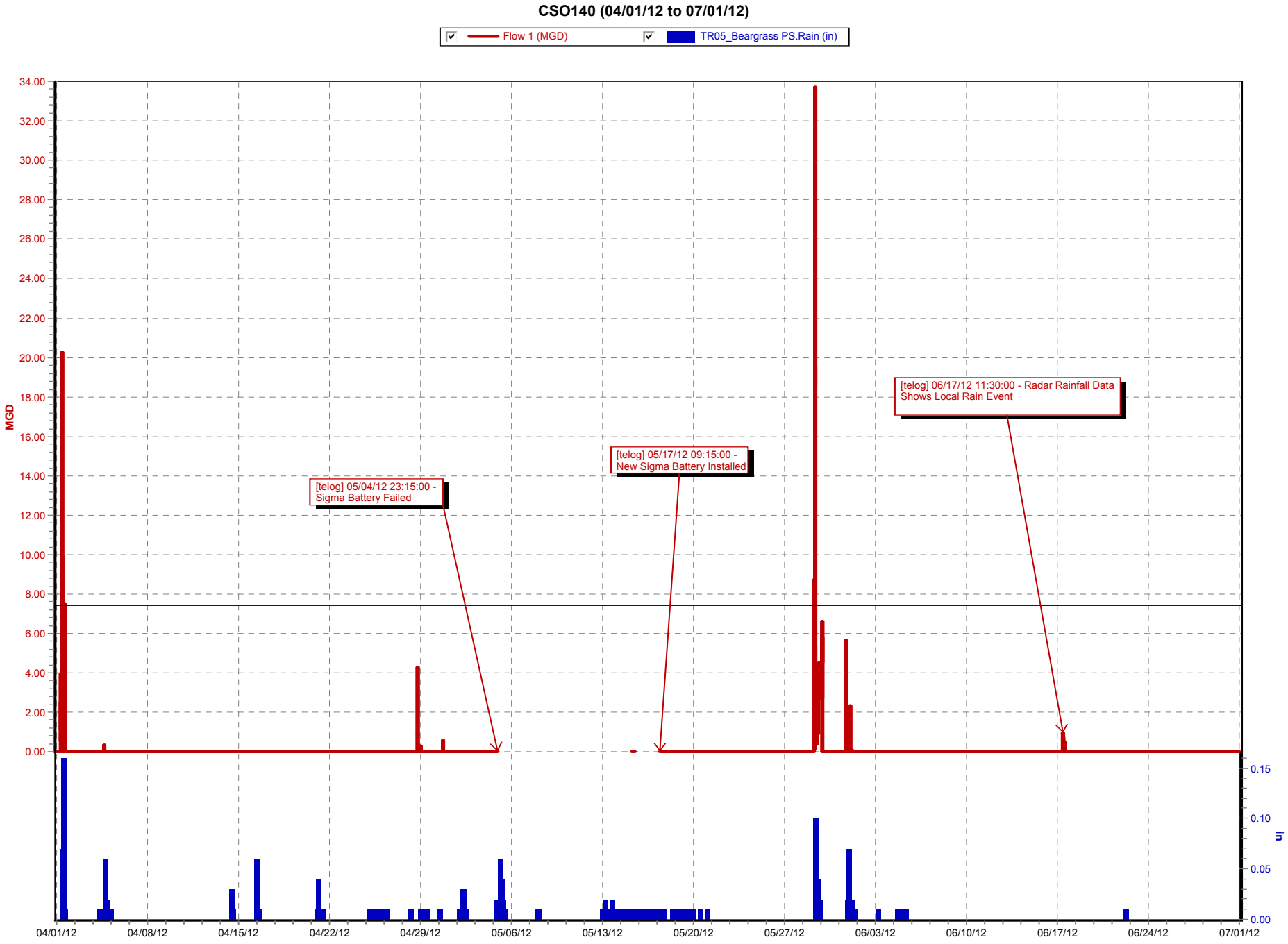

CSO126 (04/01/12 to 07/01/12)
Flow (MGD)
CSO126_Hist1.Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 04/01/12 00:00:00 - Flow meter installation was being tested.
[telog] 05/09/12 14:00:00 - New flow meter installation was successfully implemented.
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
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

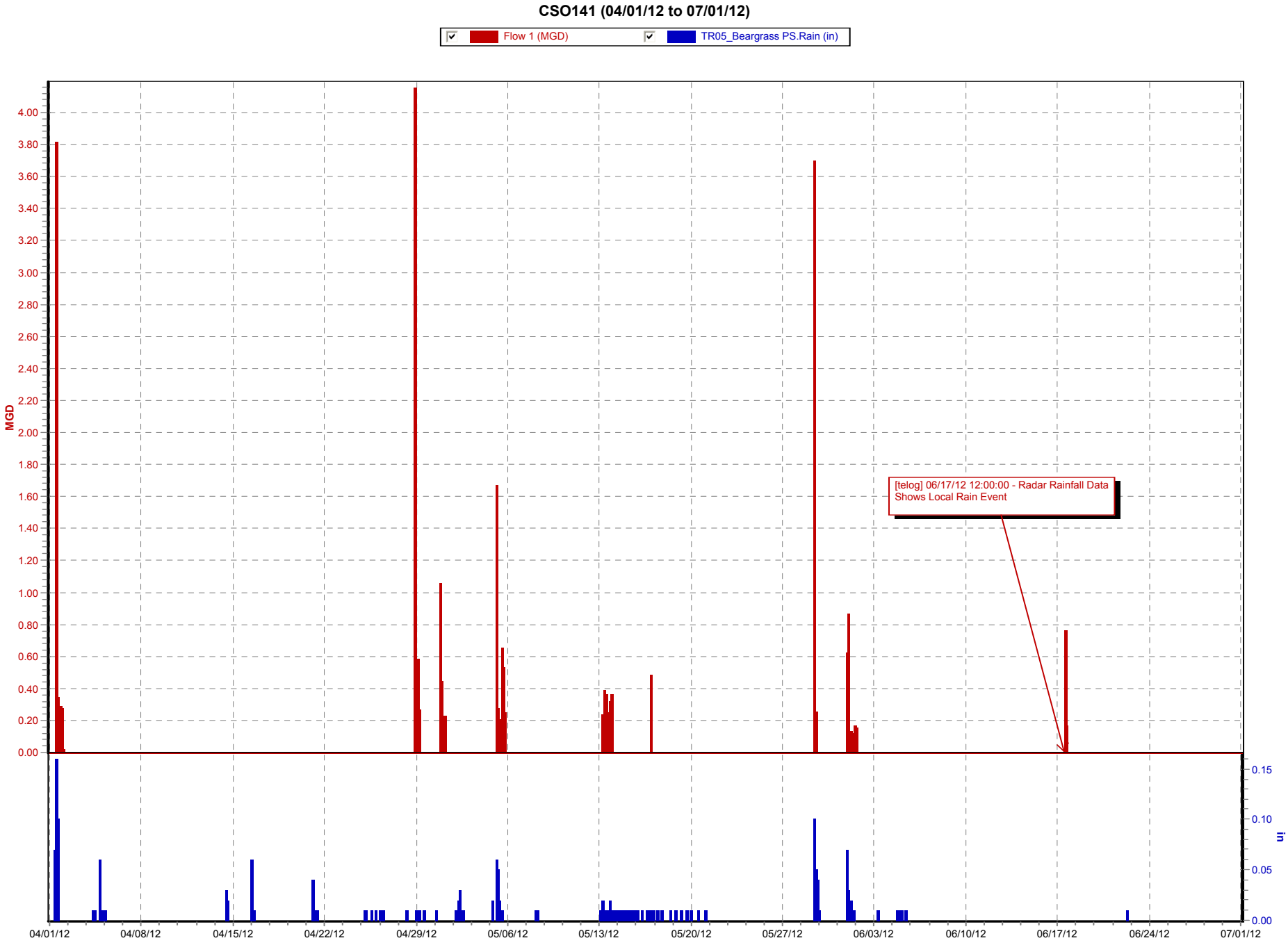

CSO127 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 12:15:00 - Radar Rainfall Data Shows Local Rain Event
[telog] 06/30/12 02:00:00 - Suspected Dry Weather Overflow
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
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

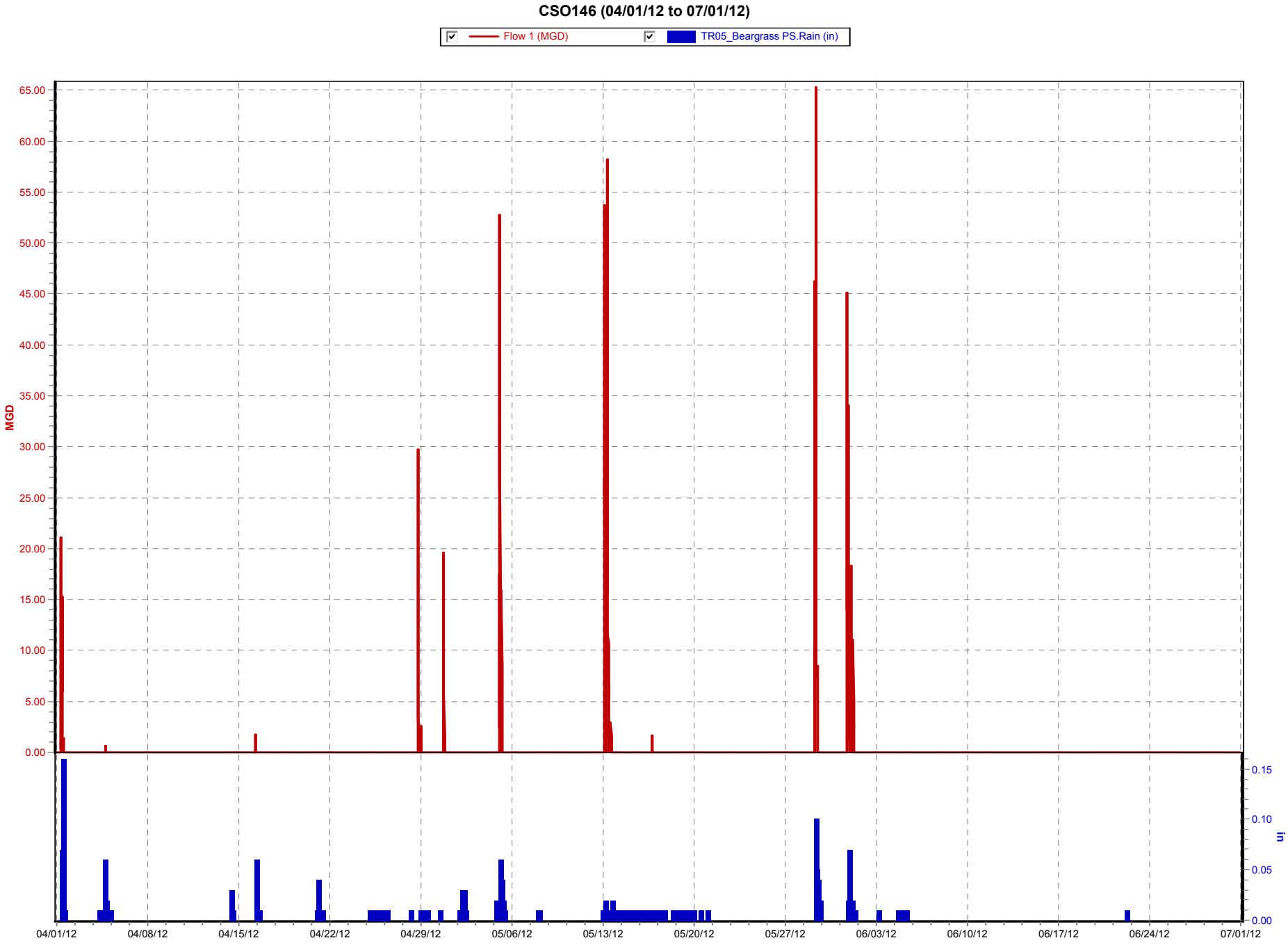

CSO130 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 11:30:00 - Radar Rainfall Data Shows Local Rain Event
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

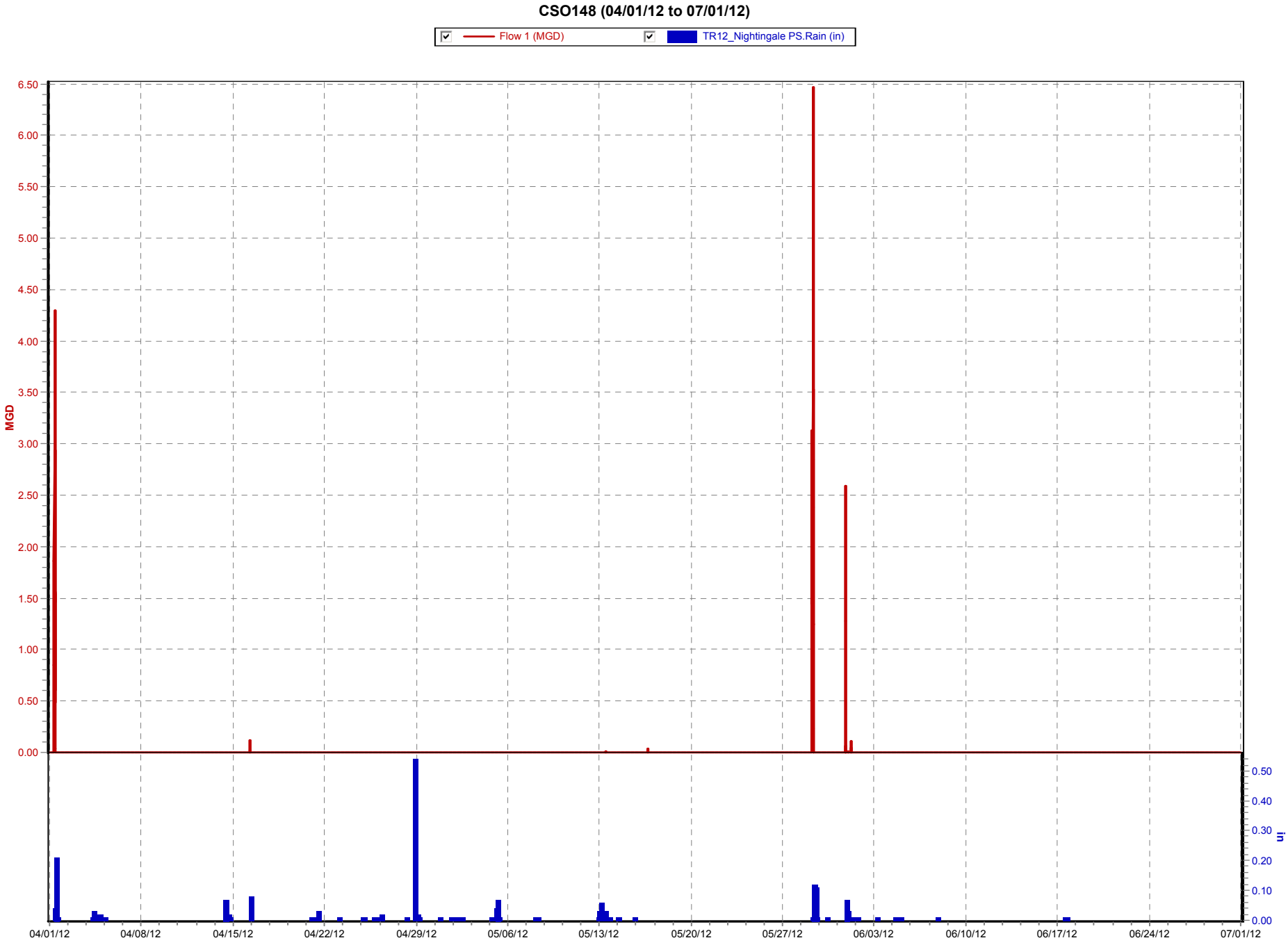

CSO132 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.50
0.40
0.30
0.20
0.10
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

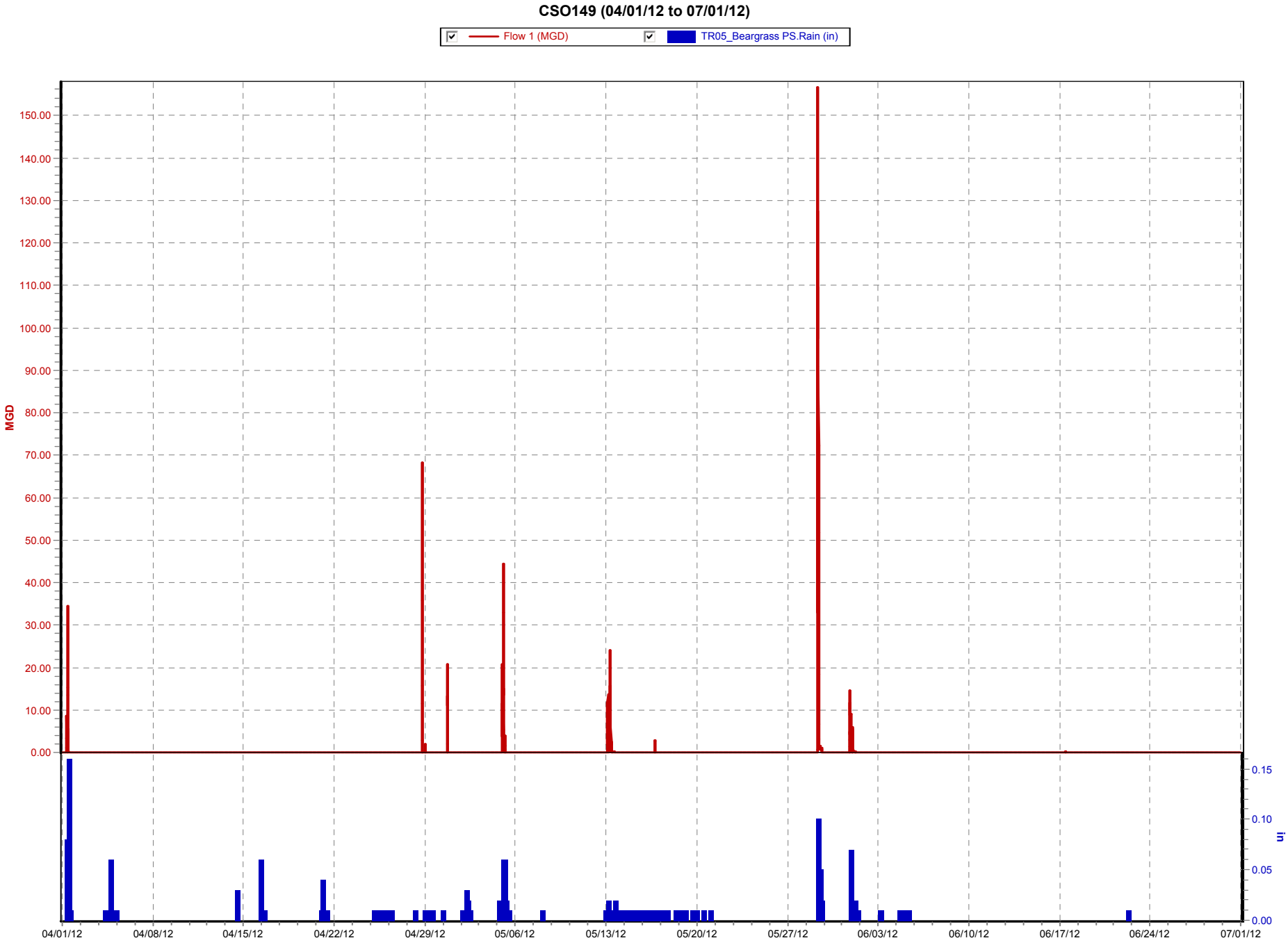

CSO137 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

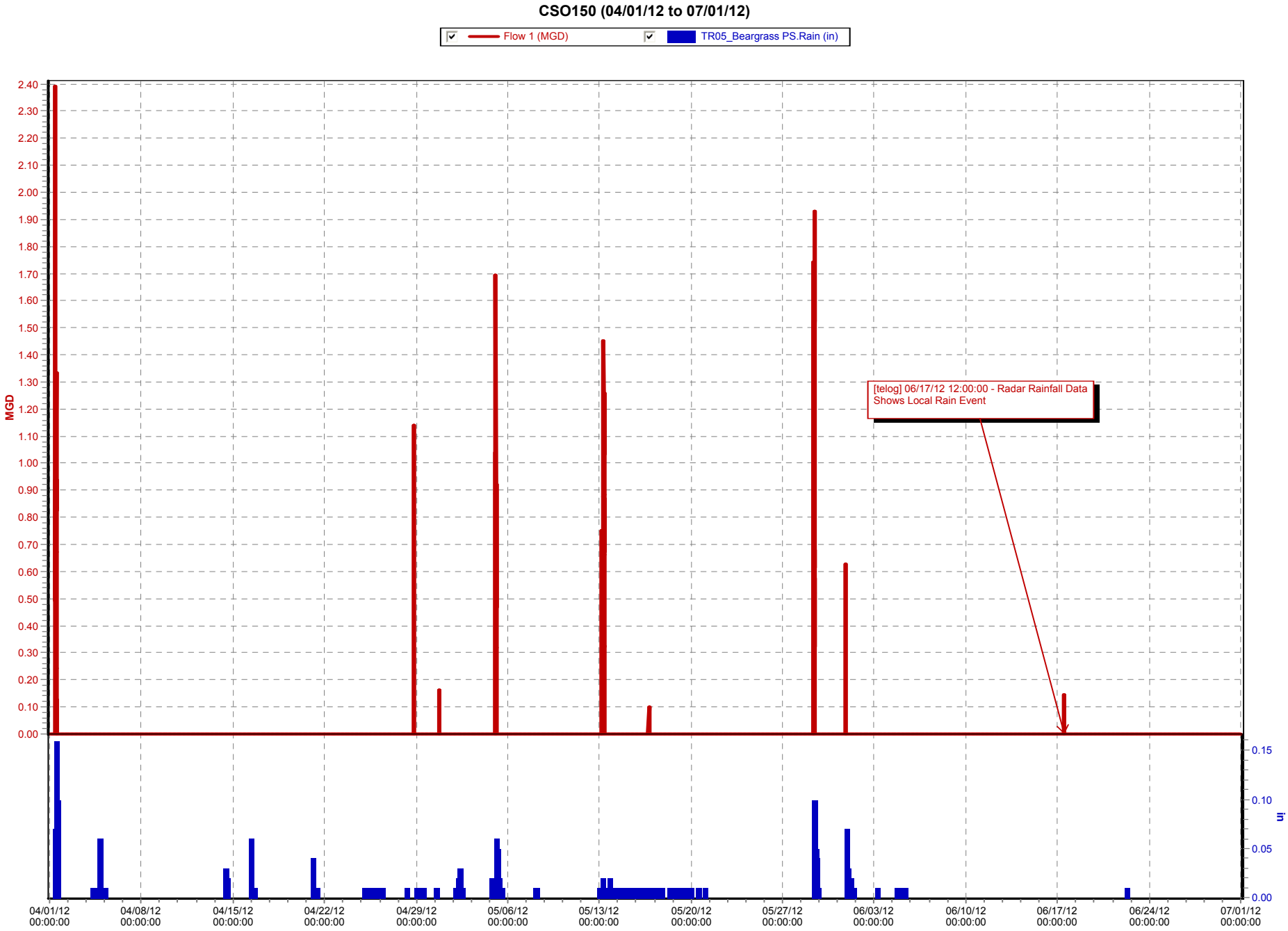

CSO140 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 05/04/12 23:15:00 - Sigma Battery Failed
[telog] 05/17/12 09:15:00 - New Sigma Battery Installed
[telog] 06/17/12 11:30:00 - Radar Rainfall Data Shows Local Rain Event
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
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
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

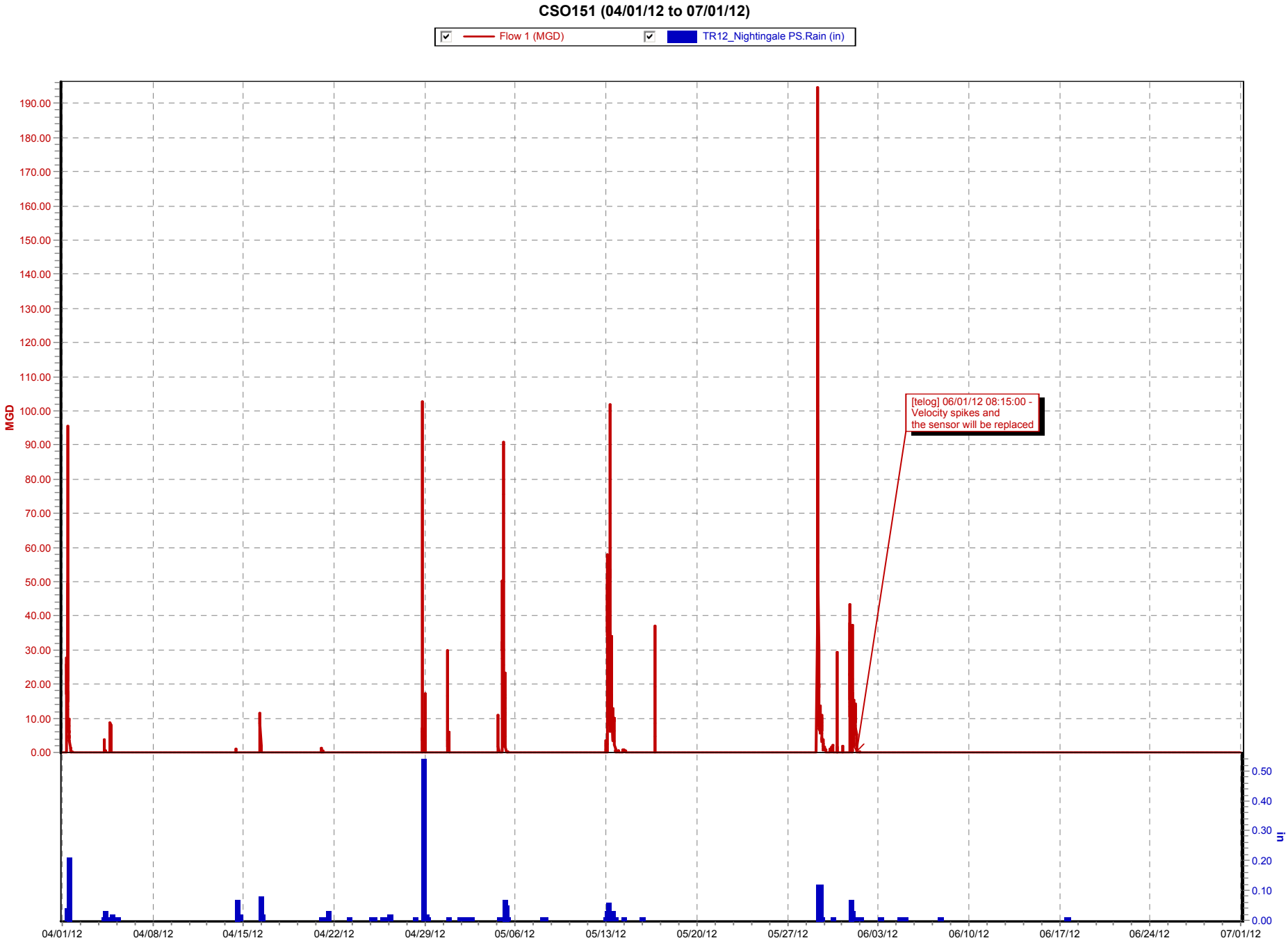

CSO141 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
[telog] 06/17/12 12:00:00 - Radar Rainfall Data Shows Local Rain Event
04/01/12
04/08/12
04/15/12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

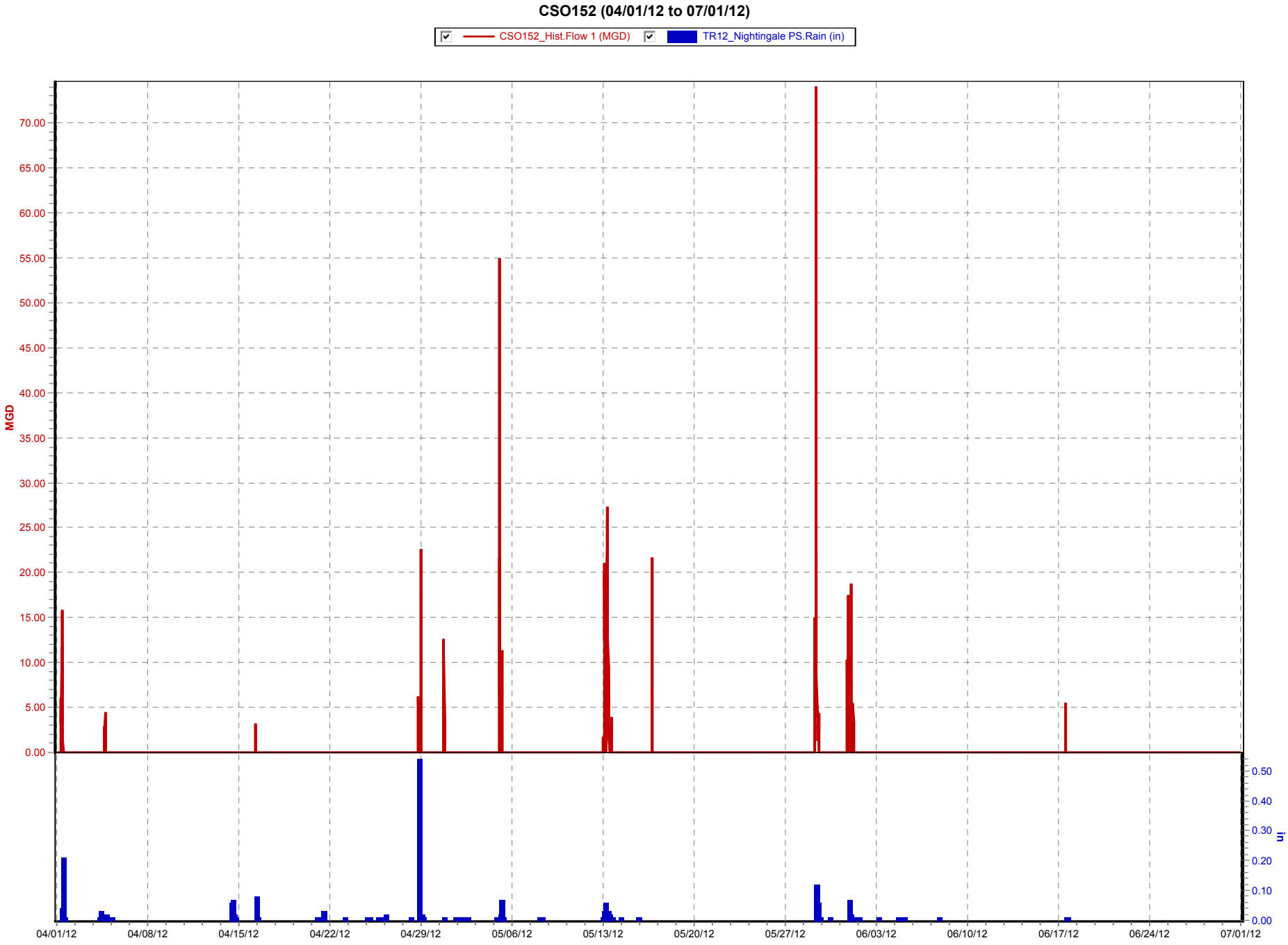

CSO146 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12


CSO148 (04/01/12 to 07/01/12)
Flow 1 (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
0.50
0.40
0.30
0.20
0.10
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

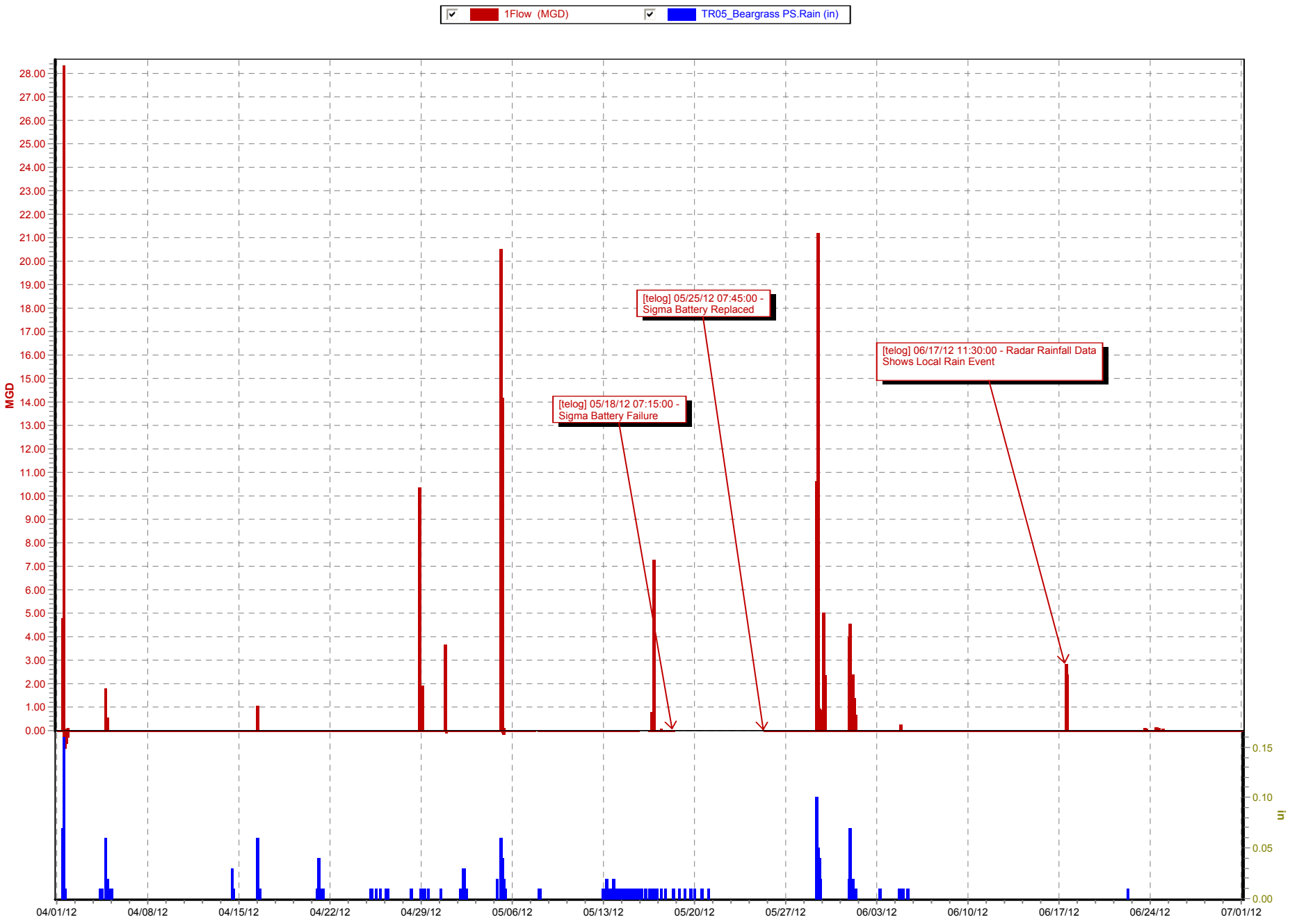

CSO149 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

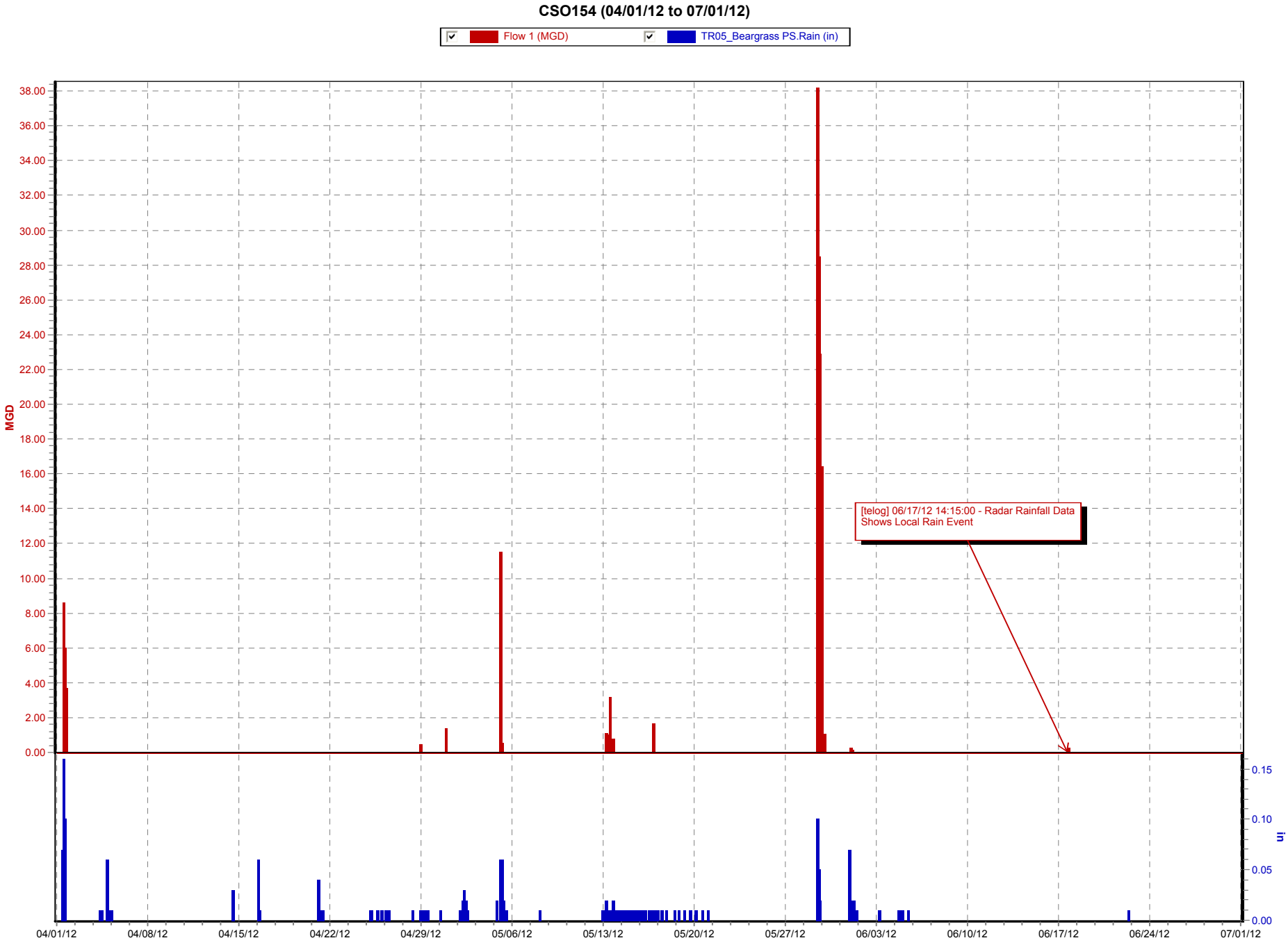

CSO150 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/17/12 12:00:00 - Radar Rainfall Data Shows Local Rain Event
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.15
0.10
0.05
0.00
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

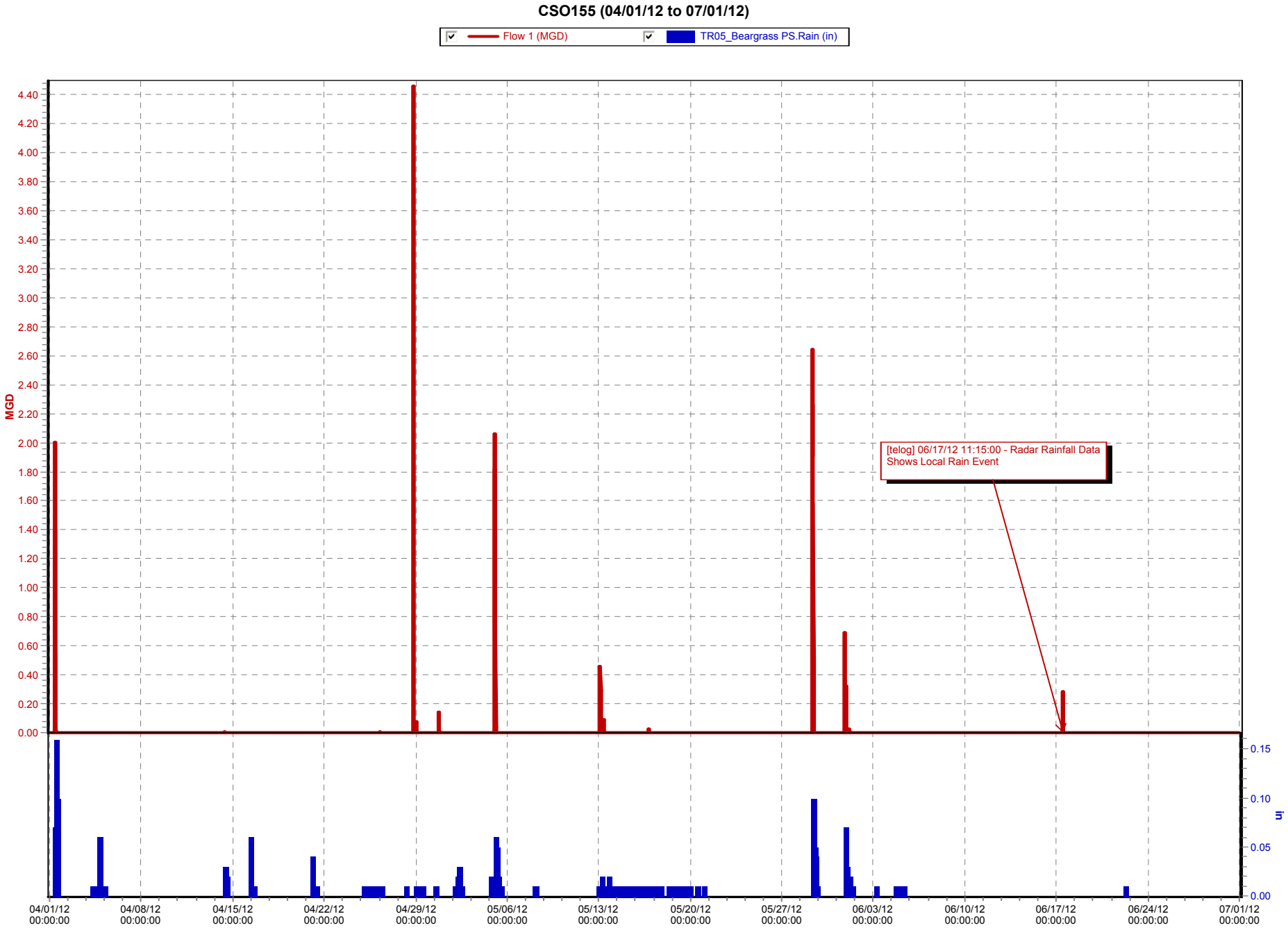

CSO151 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
[telog] 06/01/12 08:15:00 - Velocity spikes and the sensor will be replaced
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.50
0.40
0.30
0.20
0.10
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

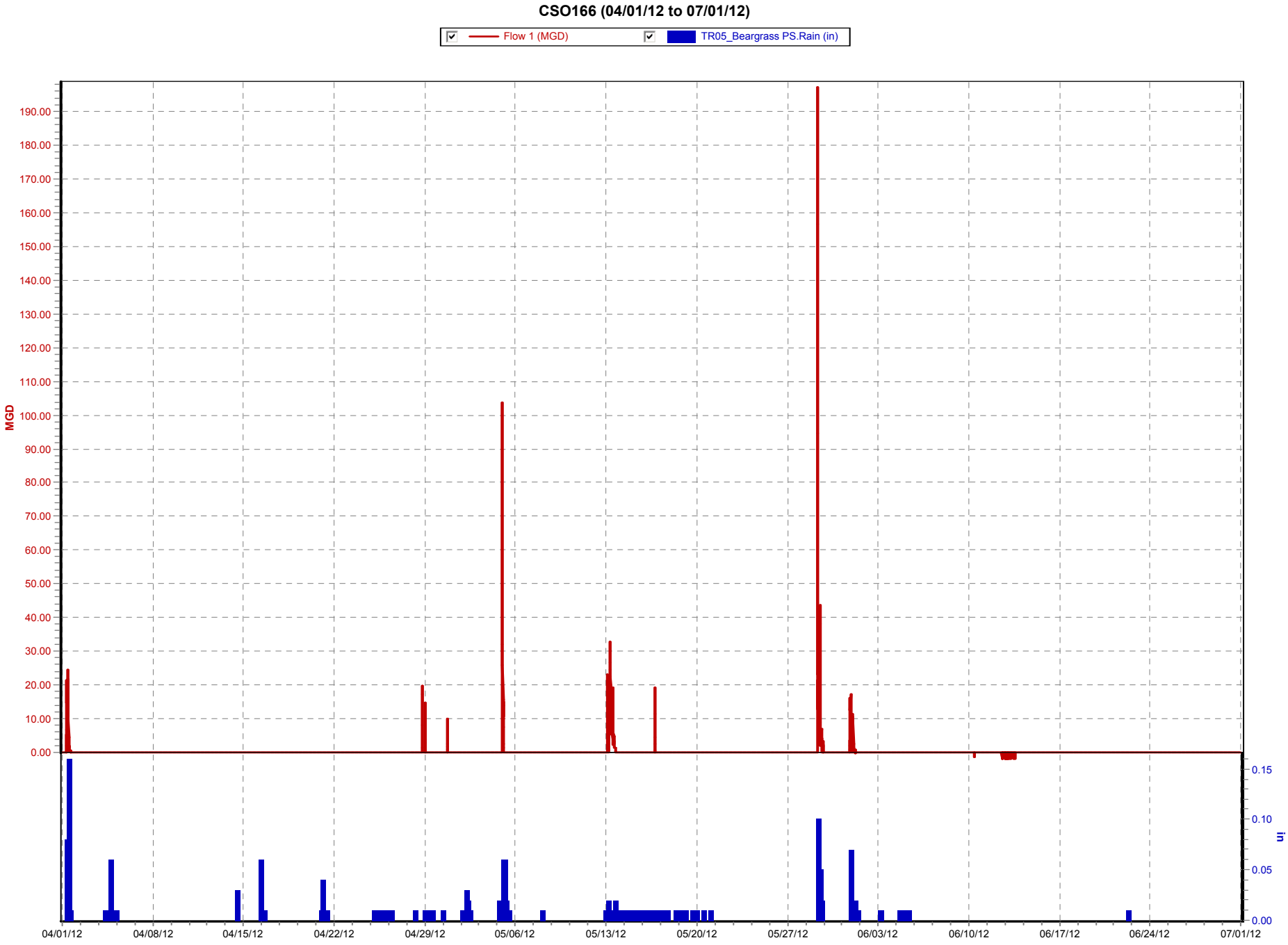

CSO152 (04/01/12 to 07/01/12)
CSO152_Hist.Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.50
0.40
0.30
0.20
0.10
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

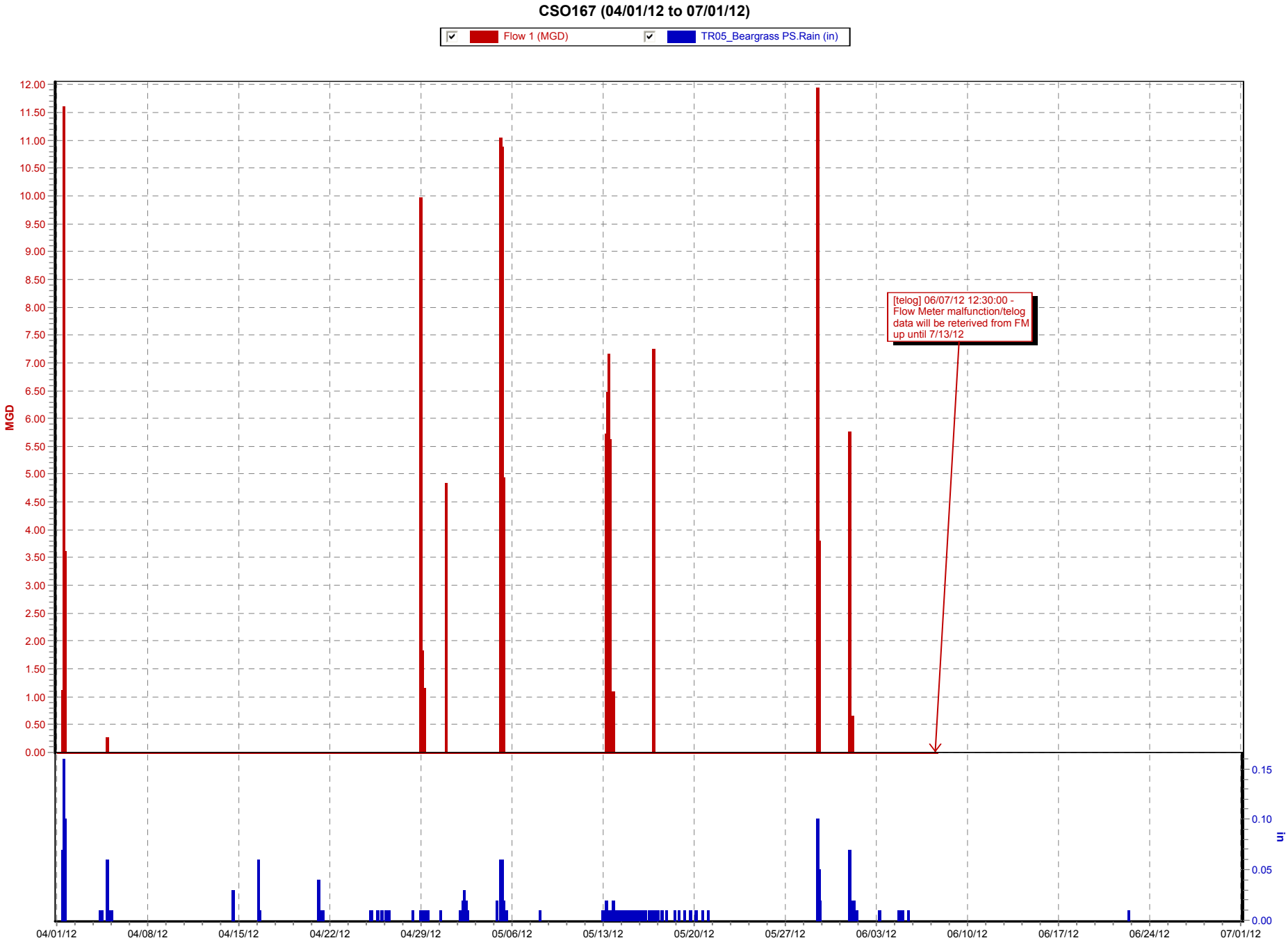
CSO153 (04/01/12 to 07/01/12)

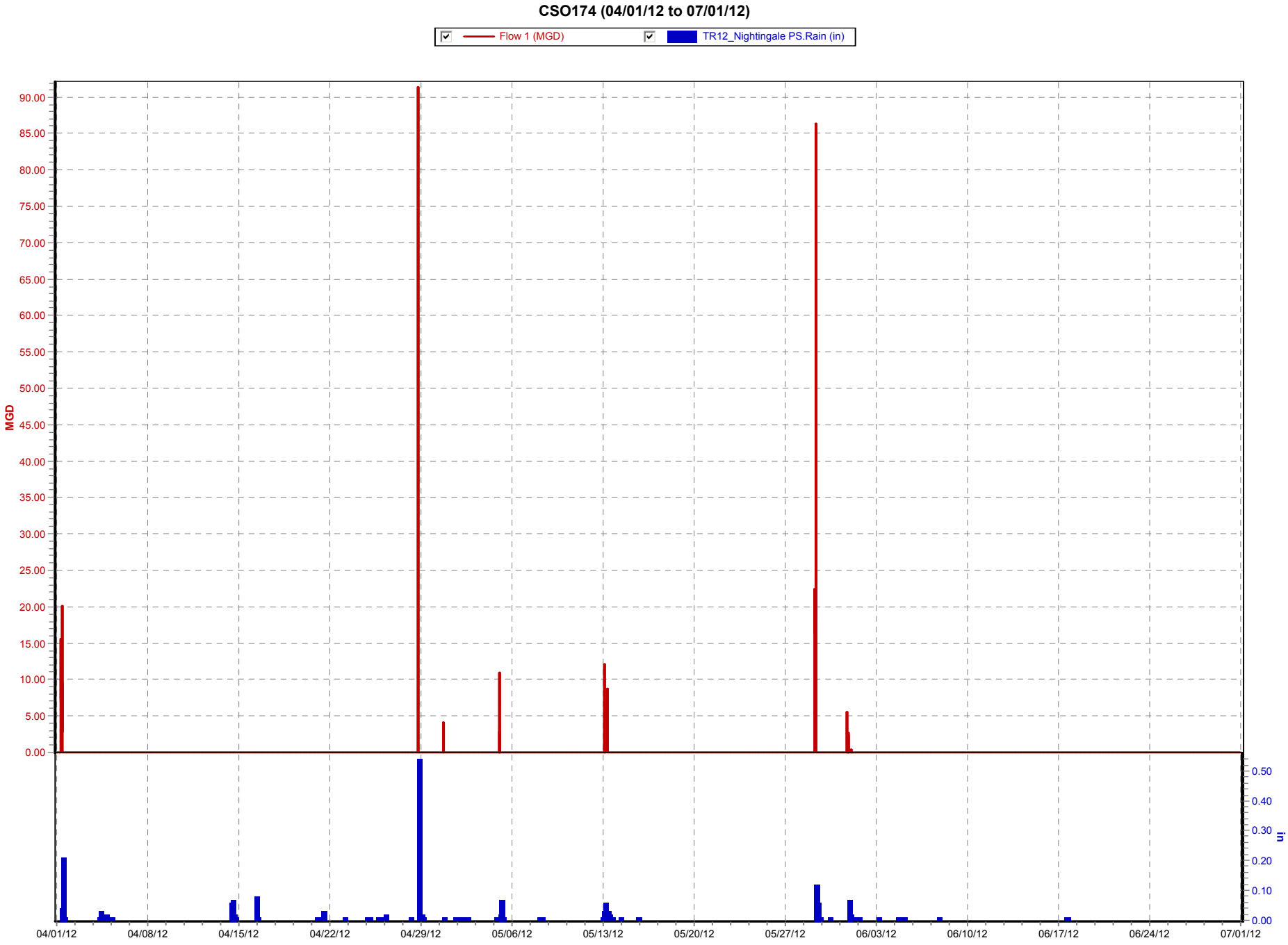


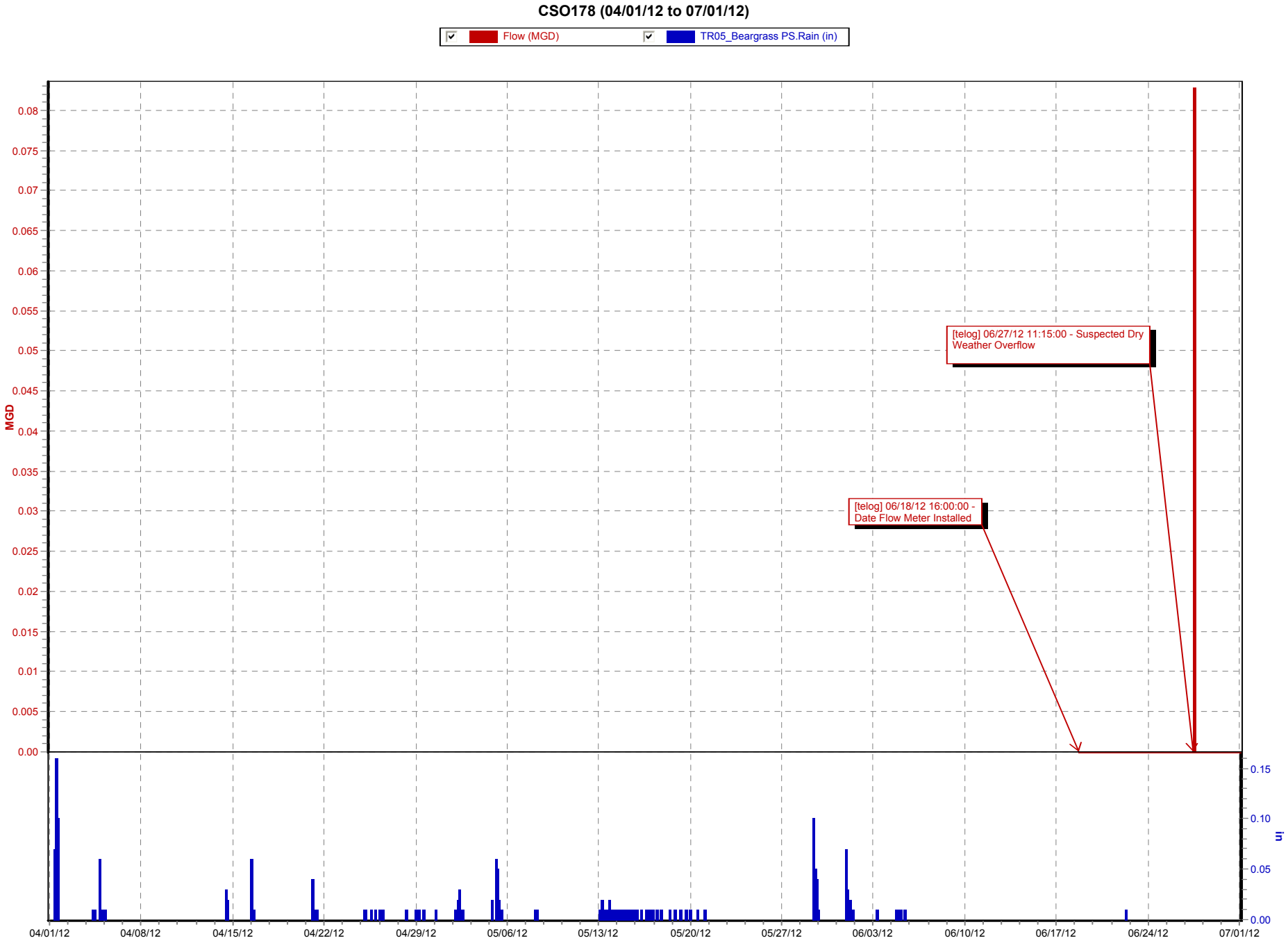

CSO154 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.15
0.10
0.05
0.00
[telog] 06/17/12 14:15:00 - Radar Rainfall Data Shows Local Rain Event
04/01/12
04/08/12
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

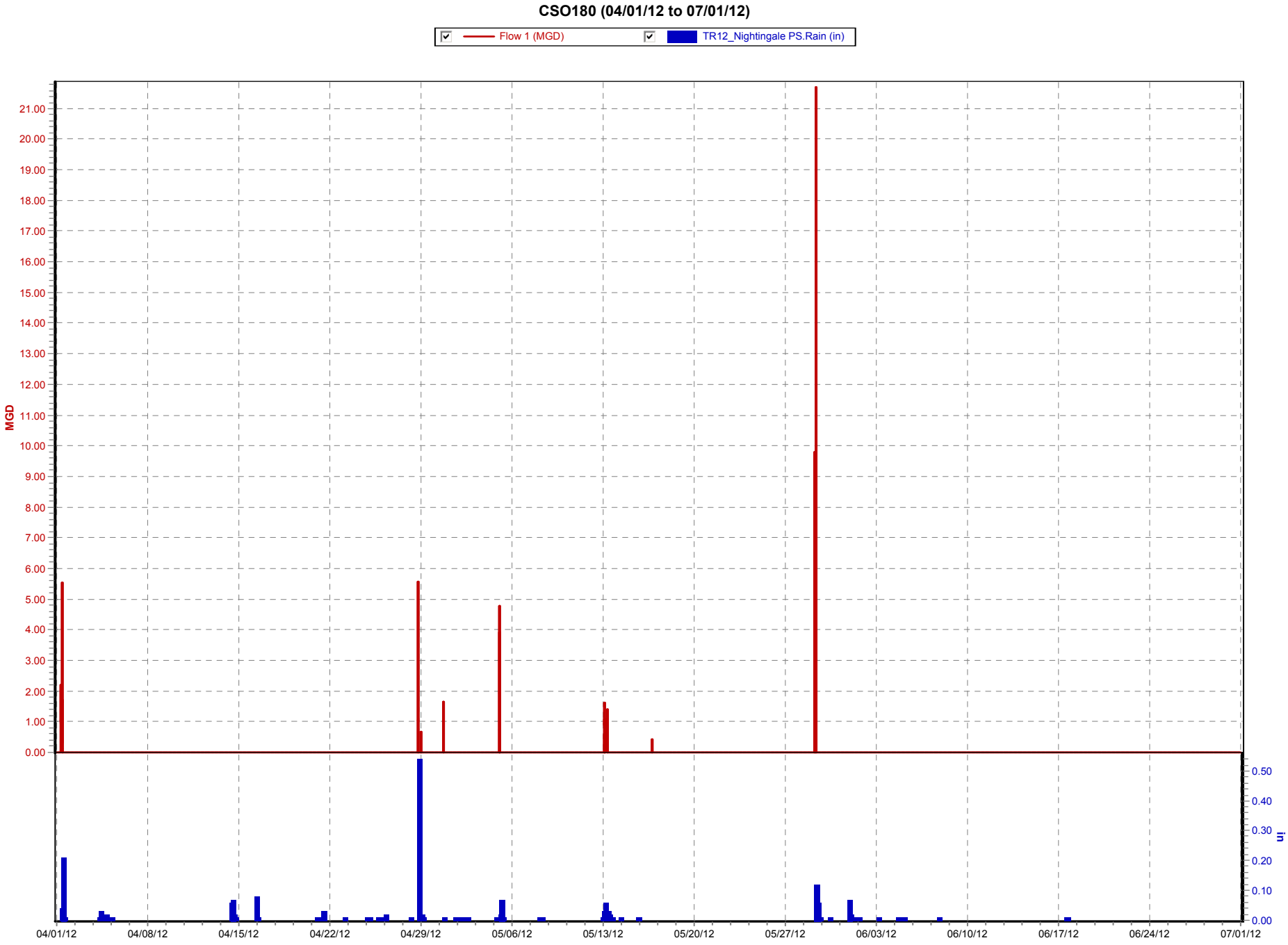

CSO155 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
[telog] 06/17/12 11:15:00 - Radar Rainfall Data Shows Local Rain Event
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

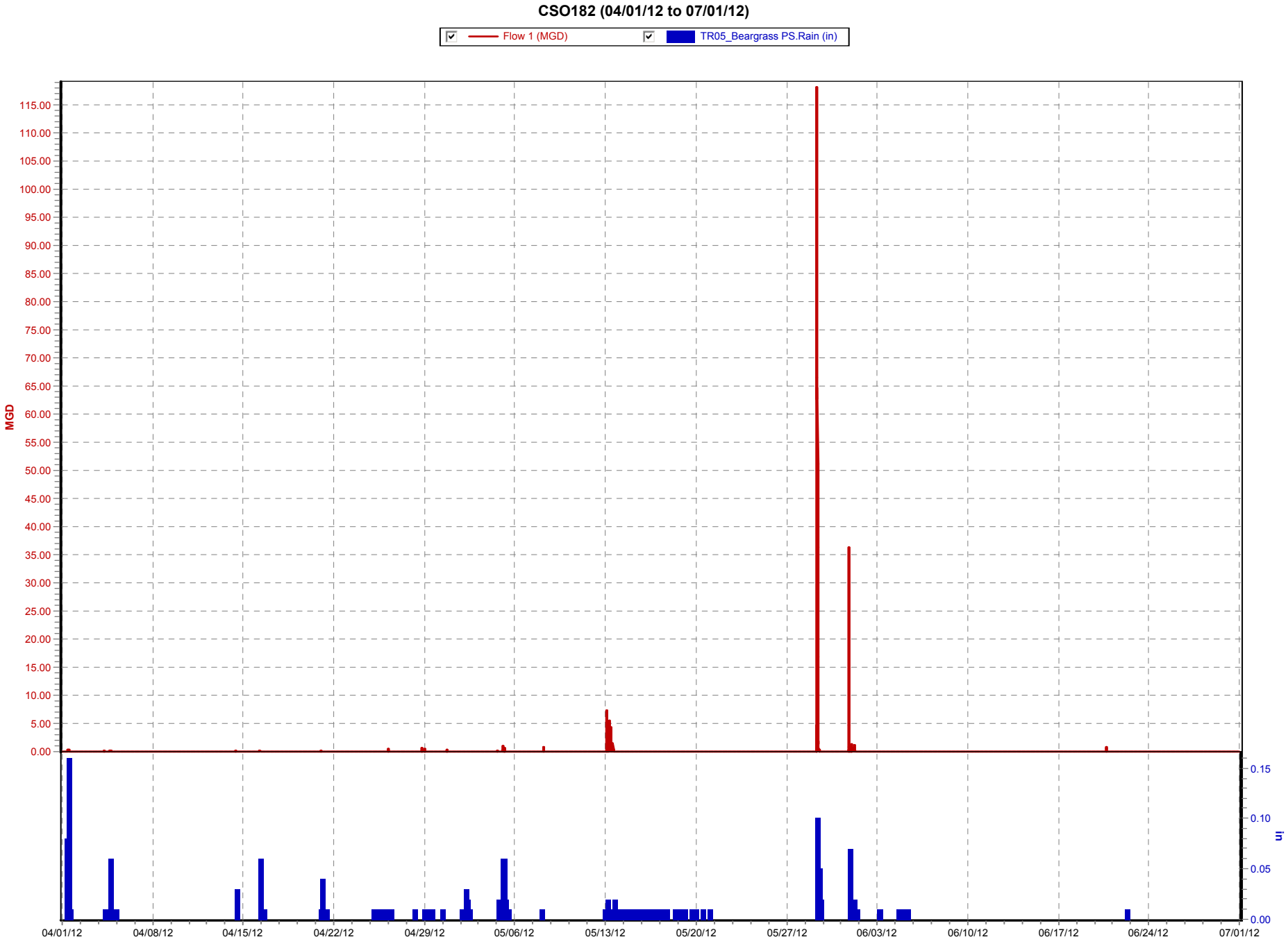

CSO166 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

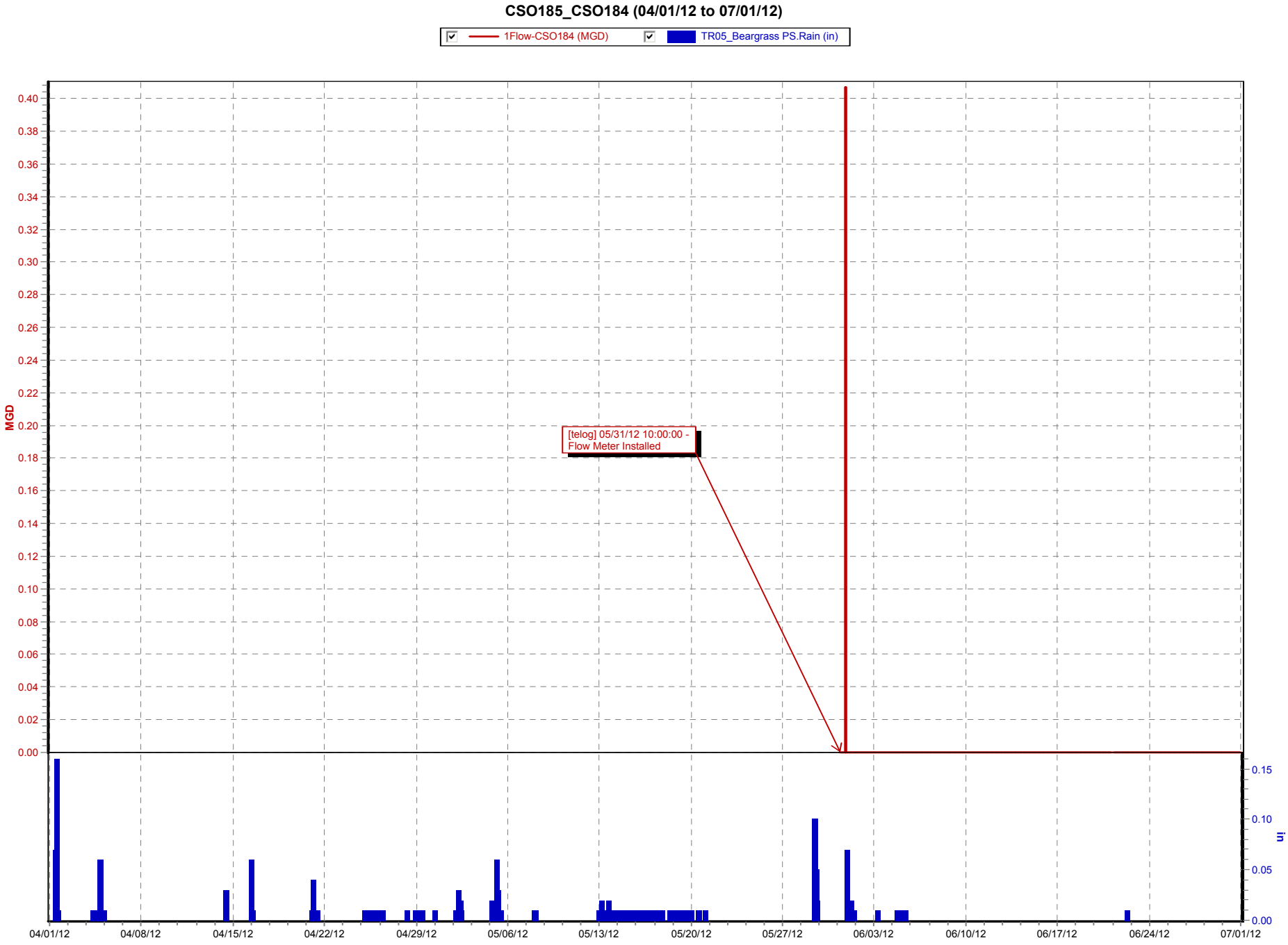

CSO167 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 06/07/12 12:30:00 - Flow Meter malfunction/telog data will be reterived from FM up until 7/13/12
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
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

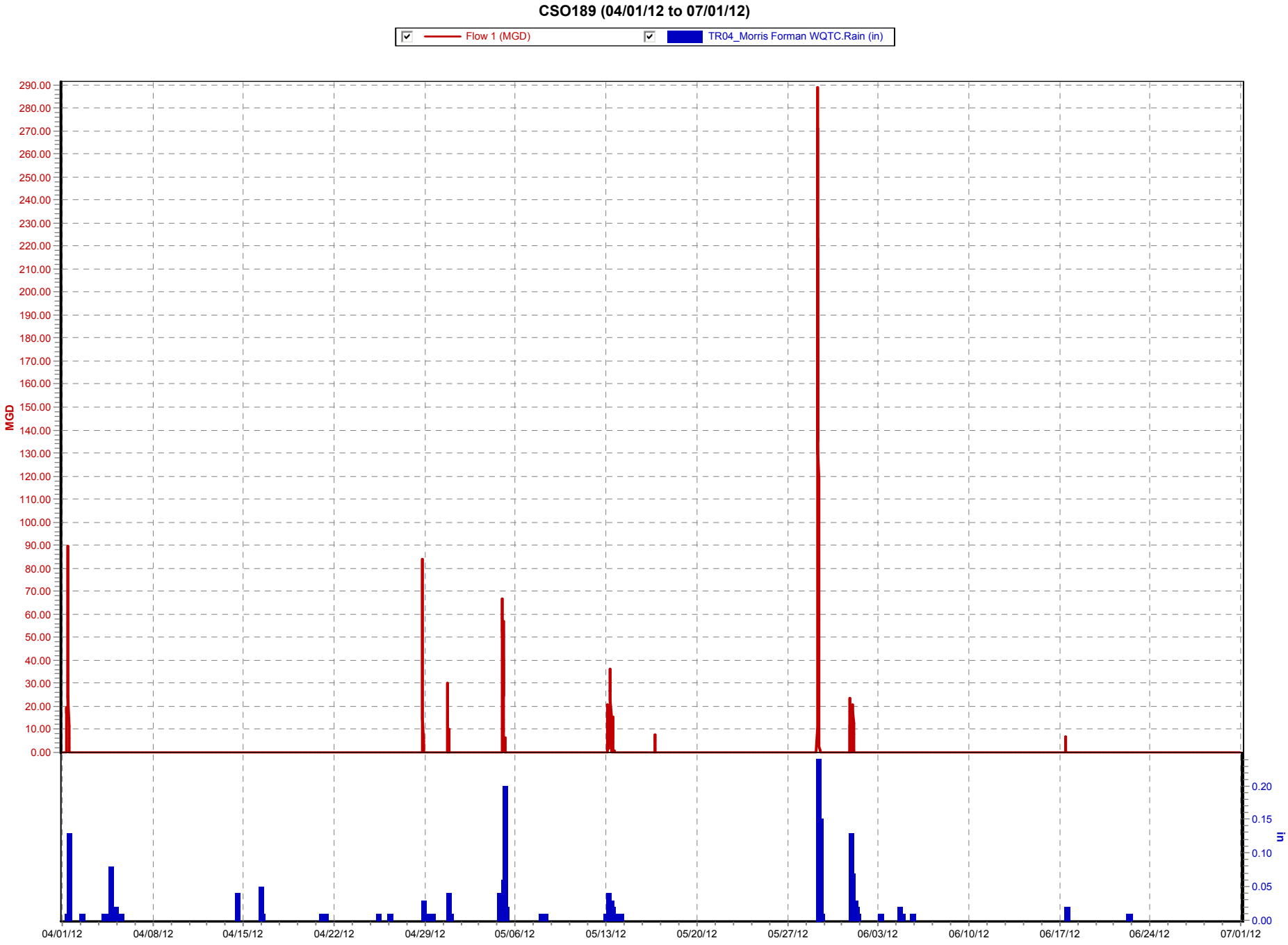

CSO174 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.50
0.40
0.30
0.20
0.10
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

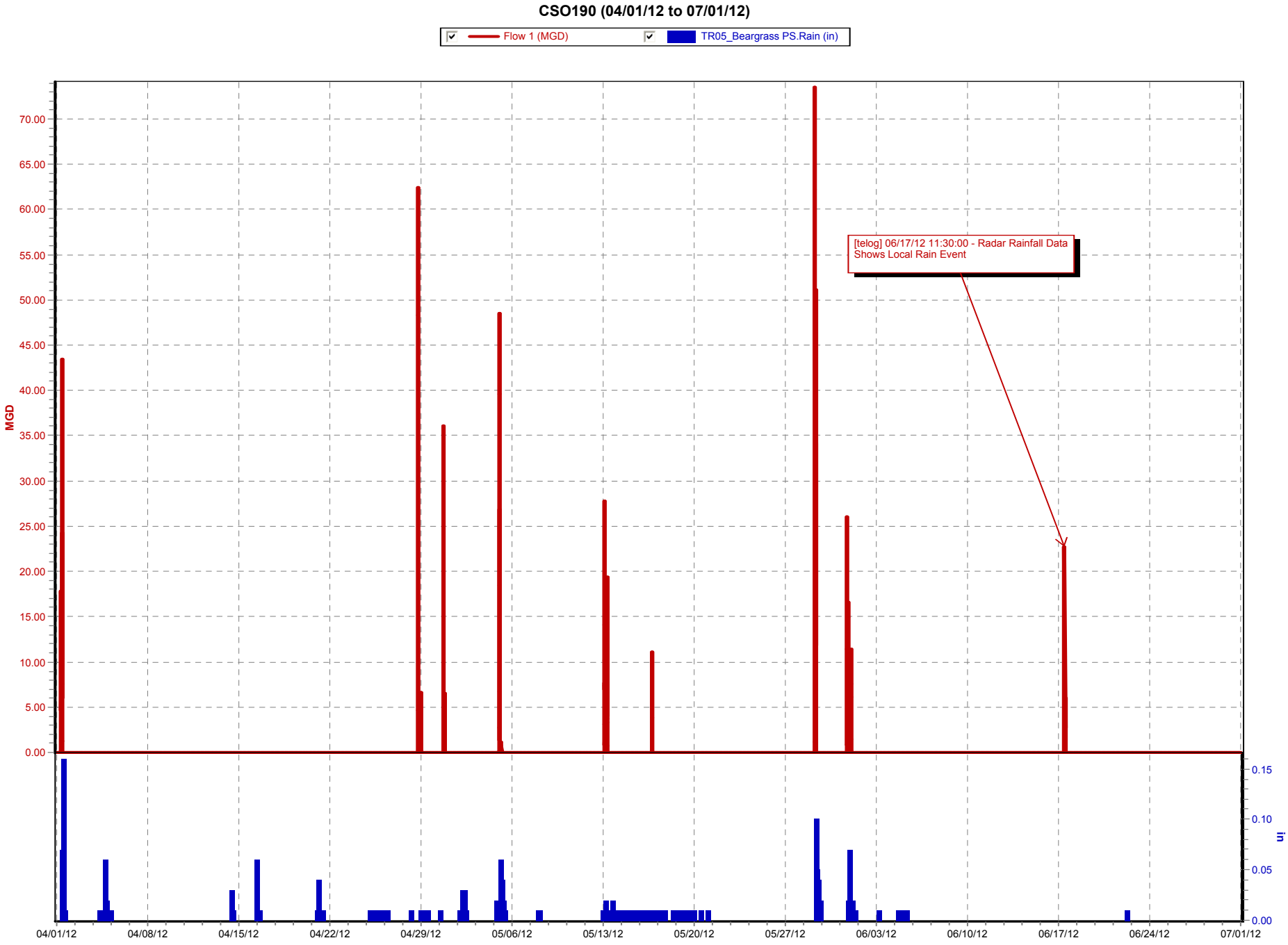

CSO178 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0.00
0.15
0.10
0.05
0.00
[telog] 06/27/12 11:15:00 - Suspected Dry Weather Overflow
[telog] 06/18/12 16:00:00 - Date Flow Meter Installed
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


CSO180 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
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
in
0.50
0.40
0.30
0.20
0.10
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

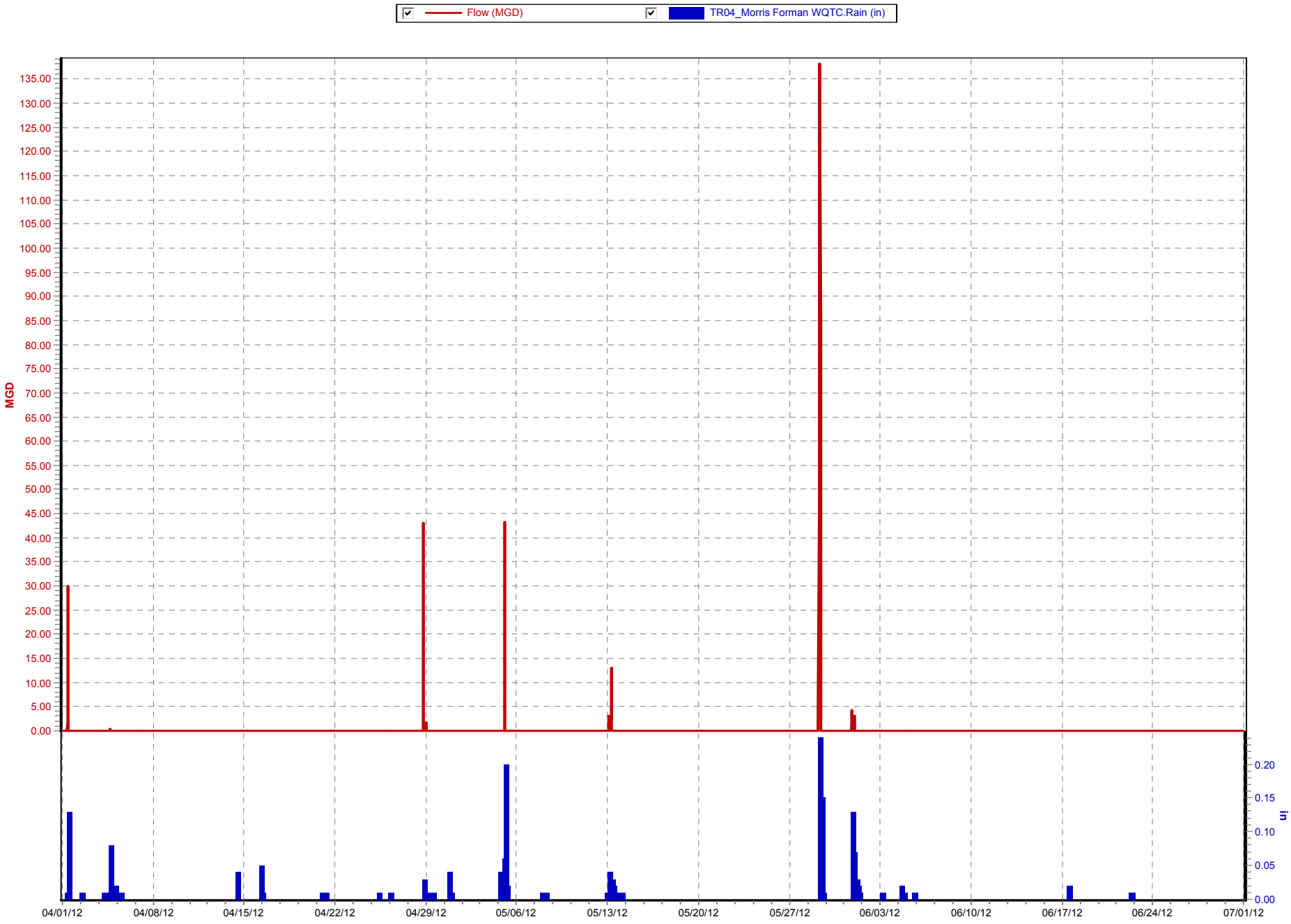

CSO182 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

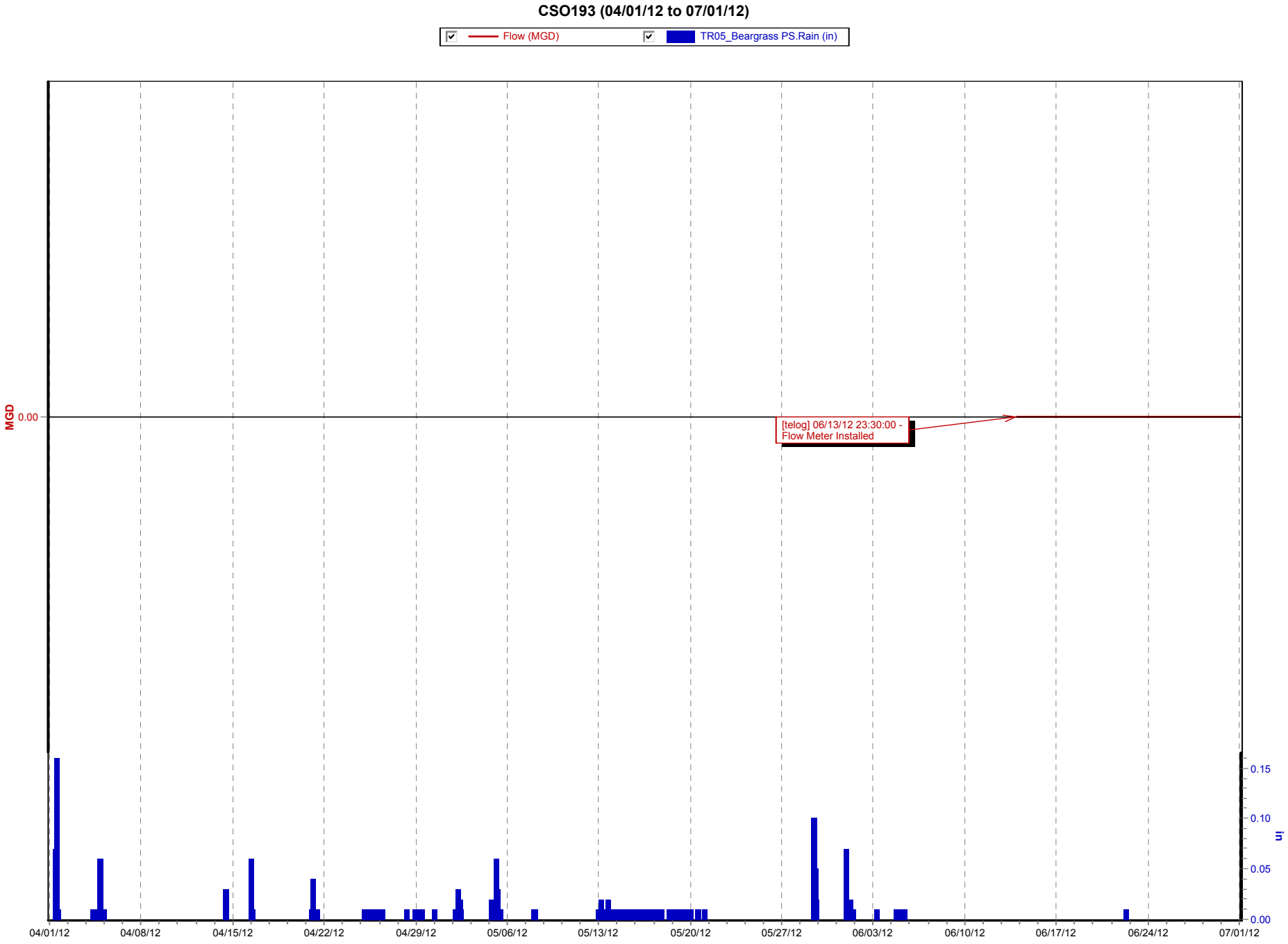

CSO185_CSO184 (04/01/12 to 07/01/12)
1Flow-CSO184 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 05/31/12 10:00:00 - Flow Meter Installed
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
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

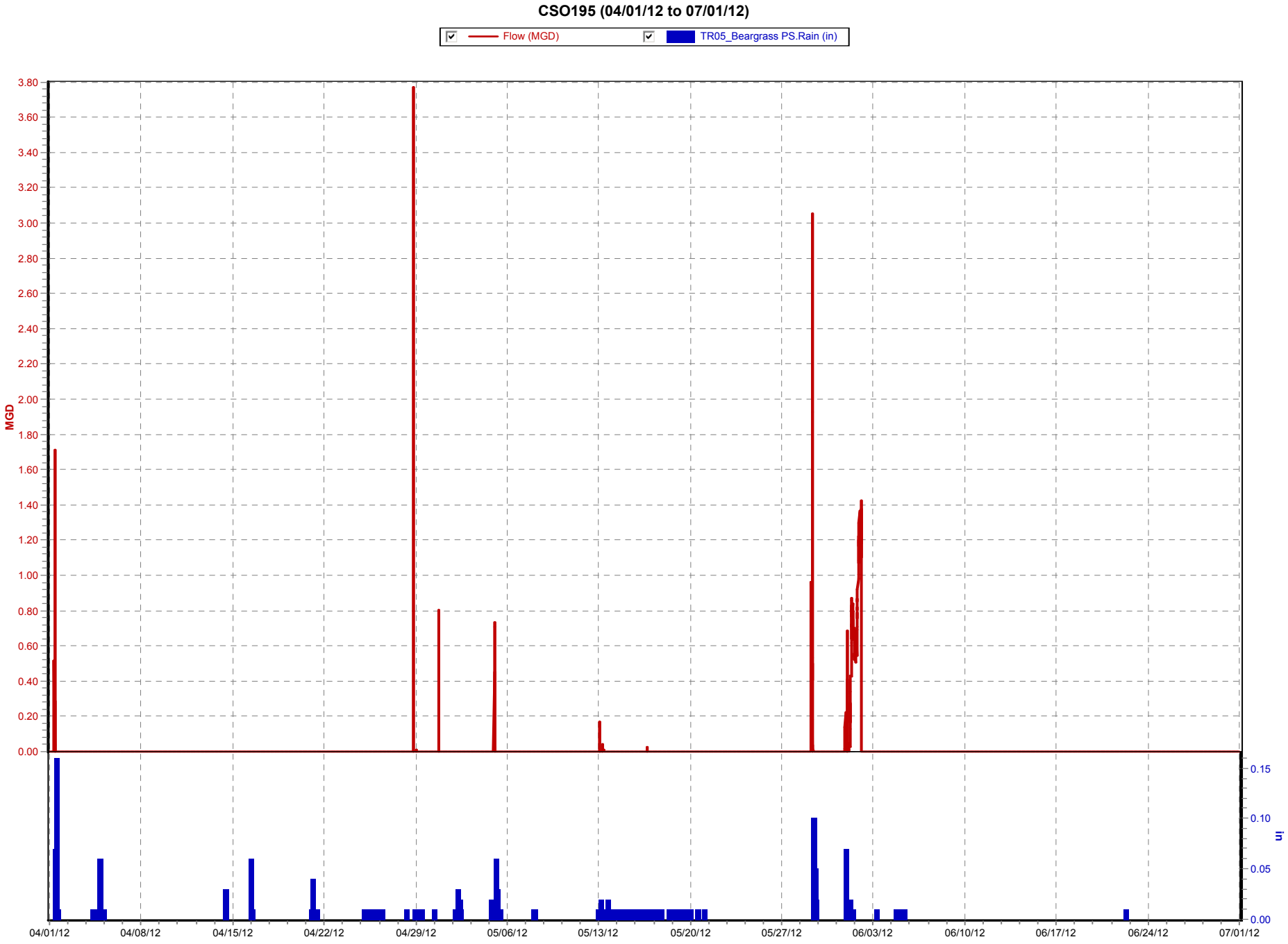

CSO189 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
290.00
280.00
270.00
260.00
250.00
240.00
230.00
220.00
210.00
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
in
0.20
0.15
0.10
0.05
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

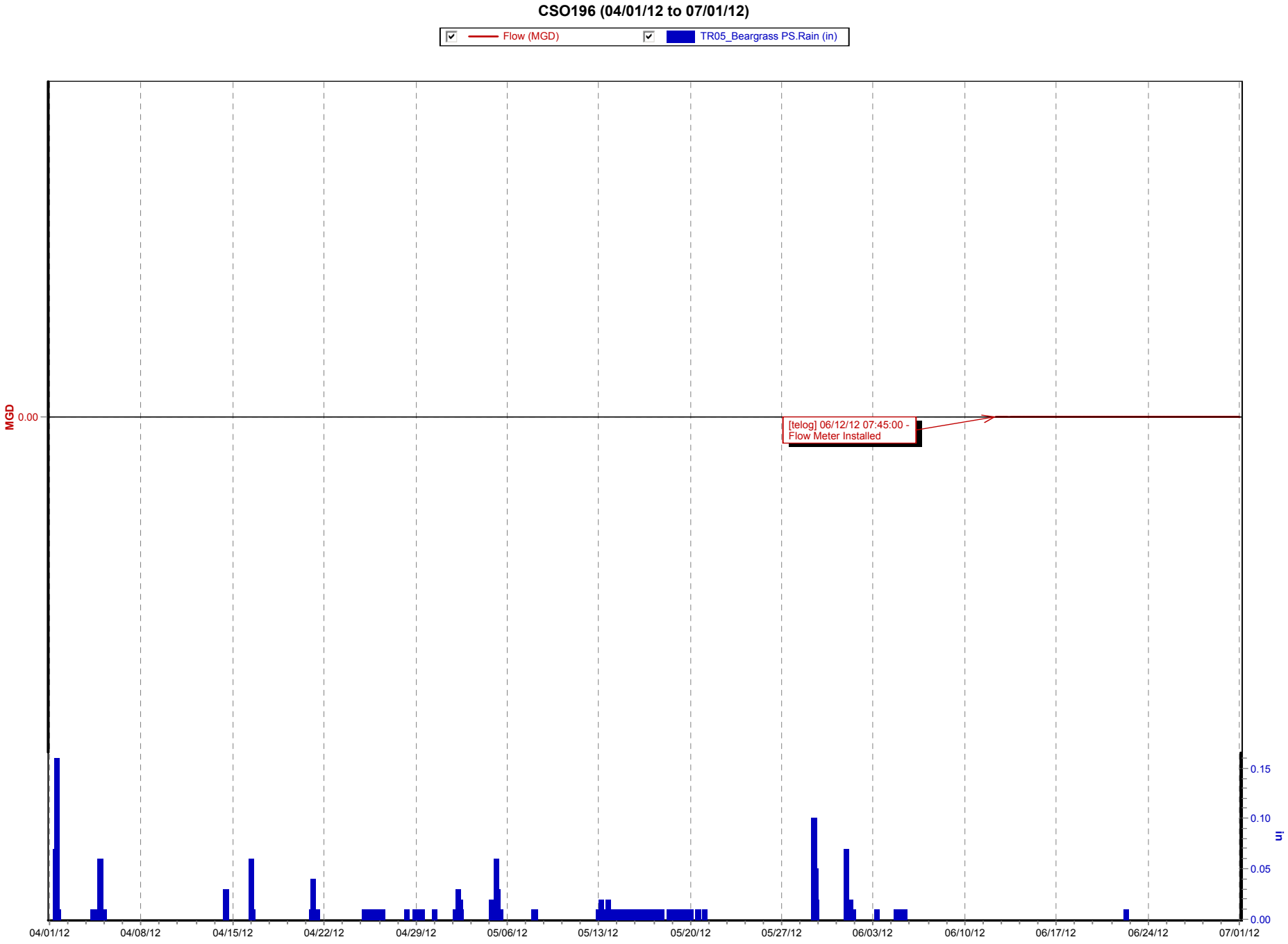

CSO190 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
[telog] 06/17/12 11:30:00 - Radar Rainfall Data
Shows Local Rain Event
MGD
in
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
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

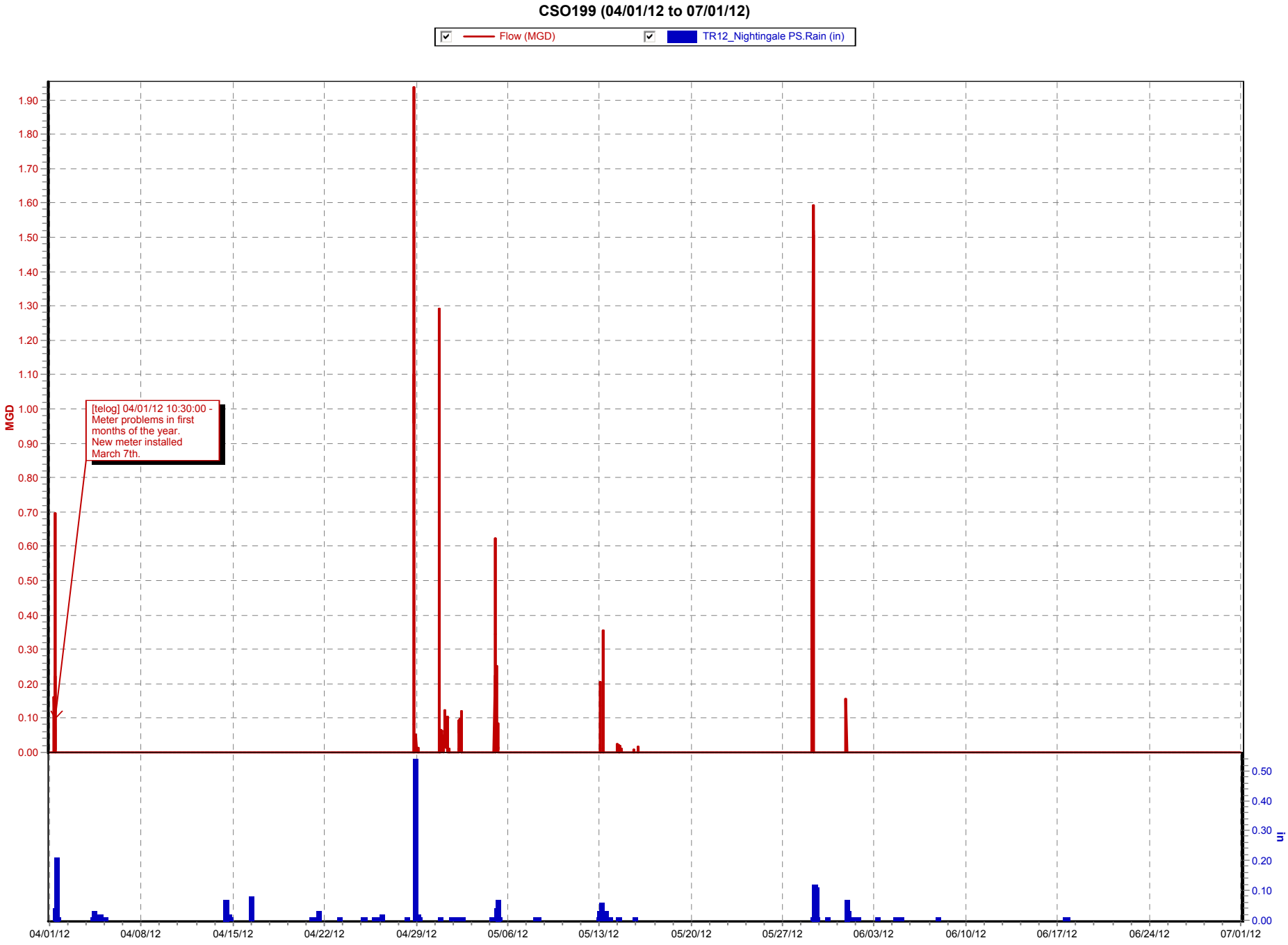
CSO191 (04/01/12 to 07/01/12)

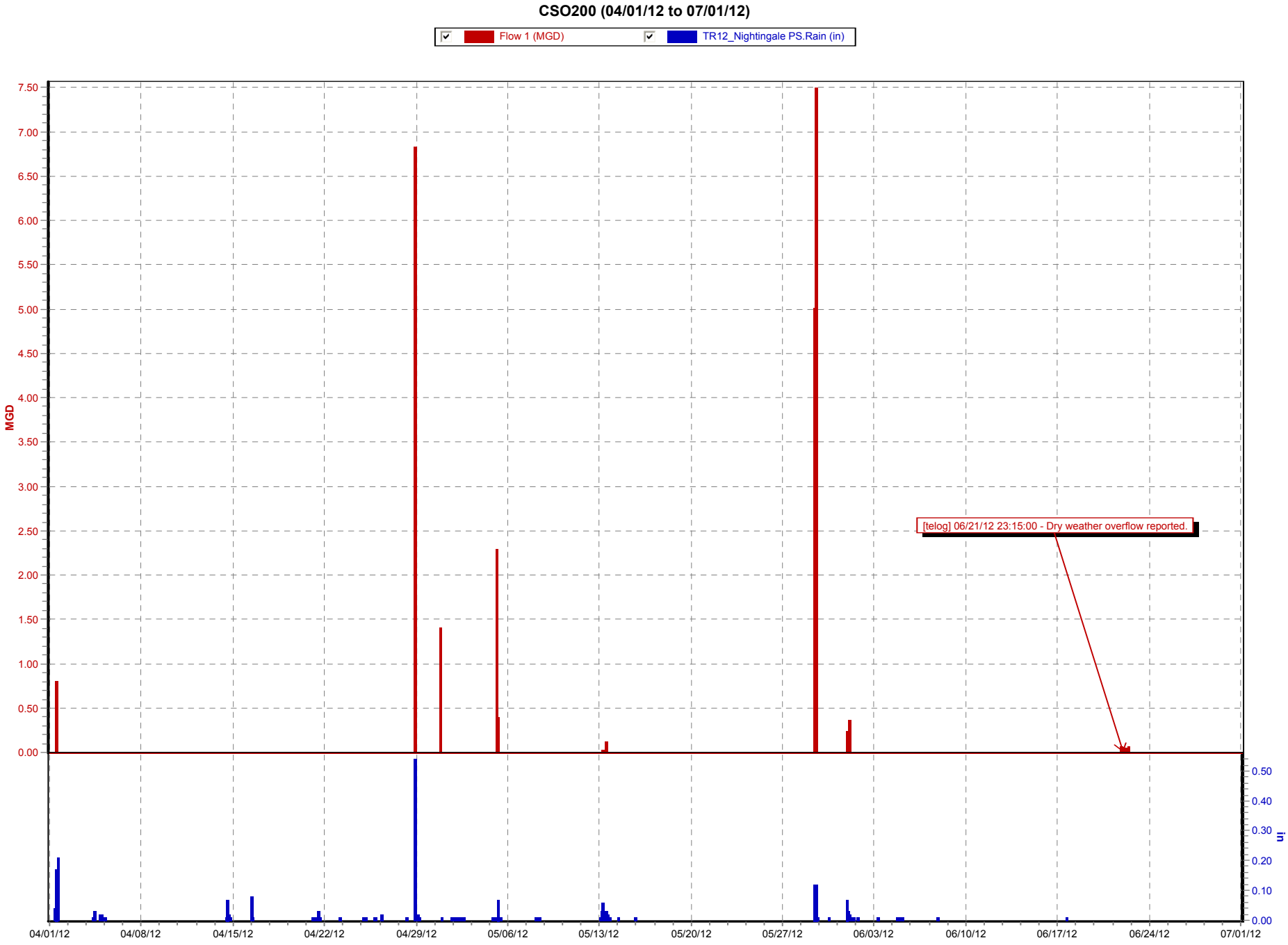


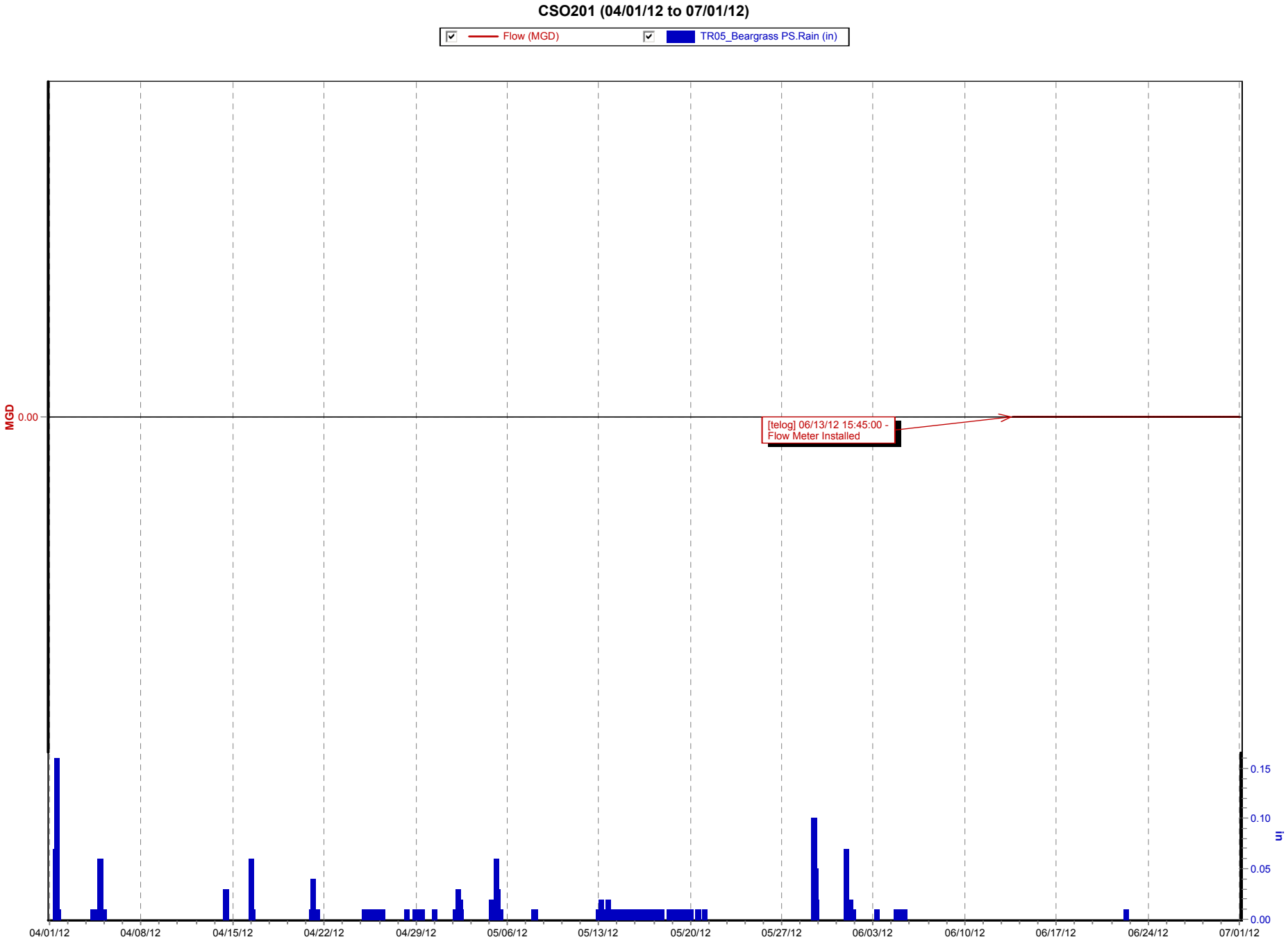

CSO193 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 06/13/12 23:30:00 - Flow Meter Installed
in
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

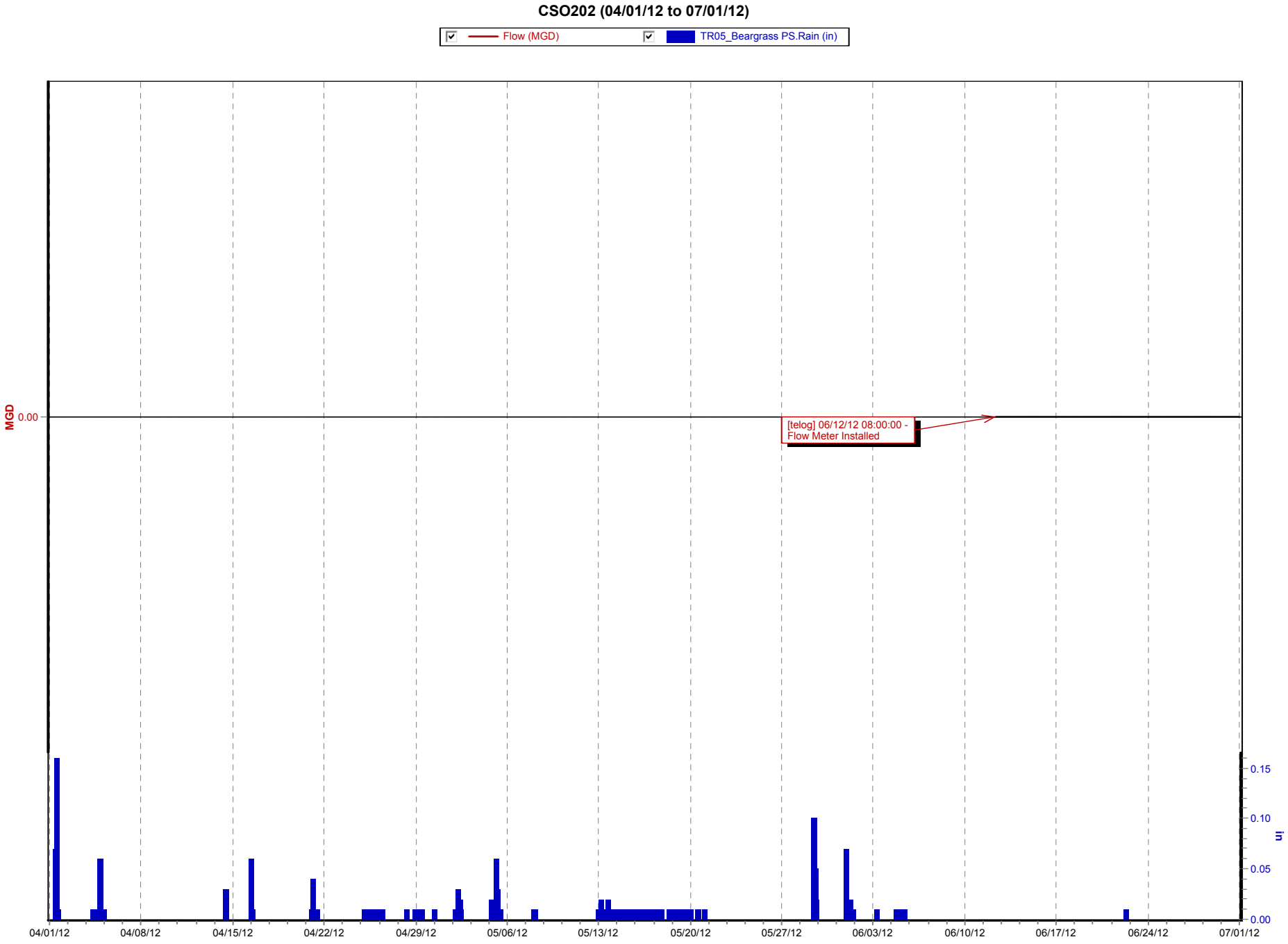

CSO195 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.15
0.10
0.05
0.00
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

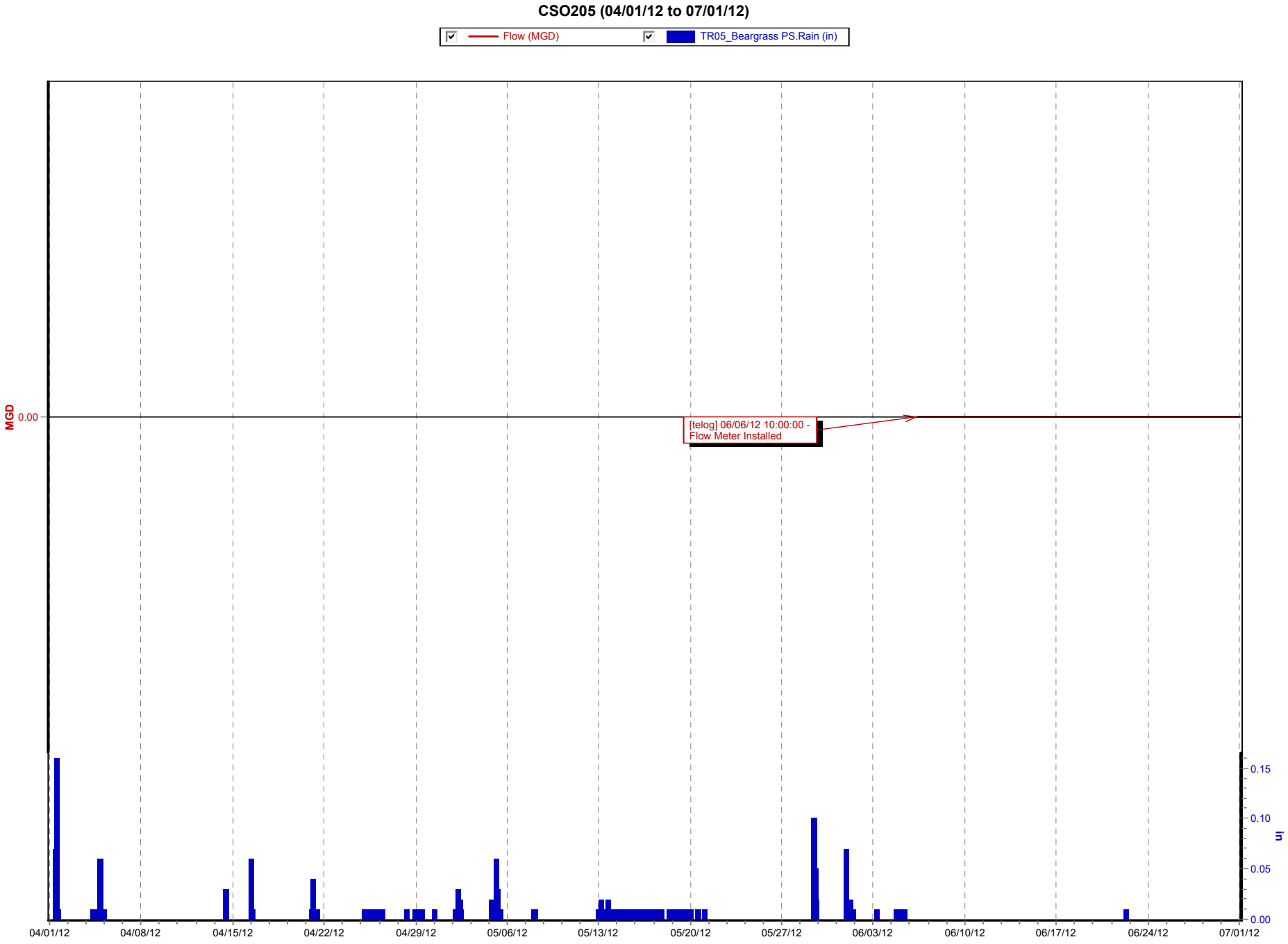

CSO196 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 06/12/12 07:45:00 - Flow Meter Installed
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

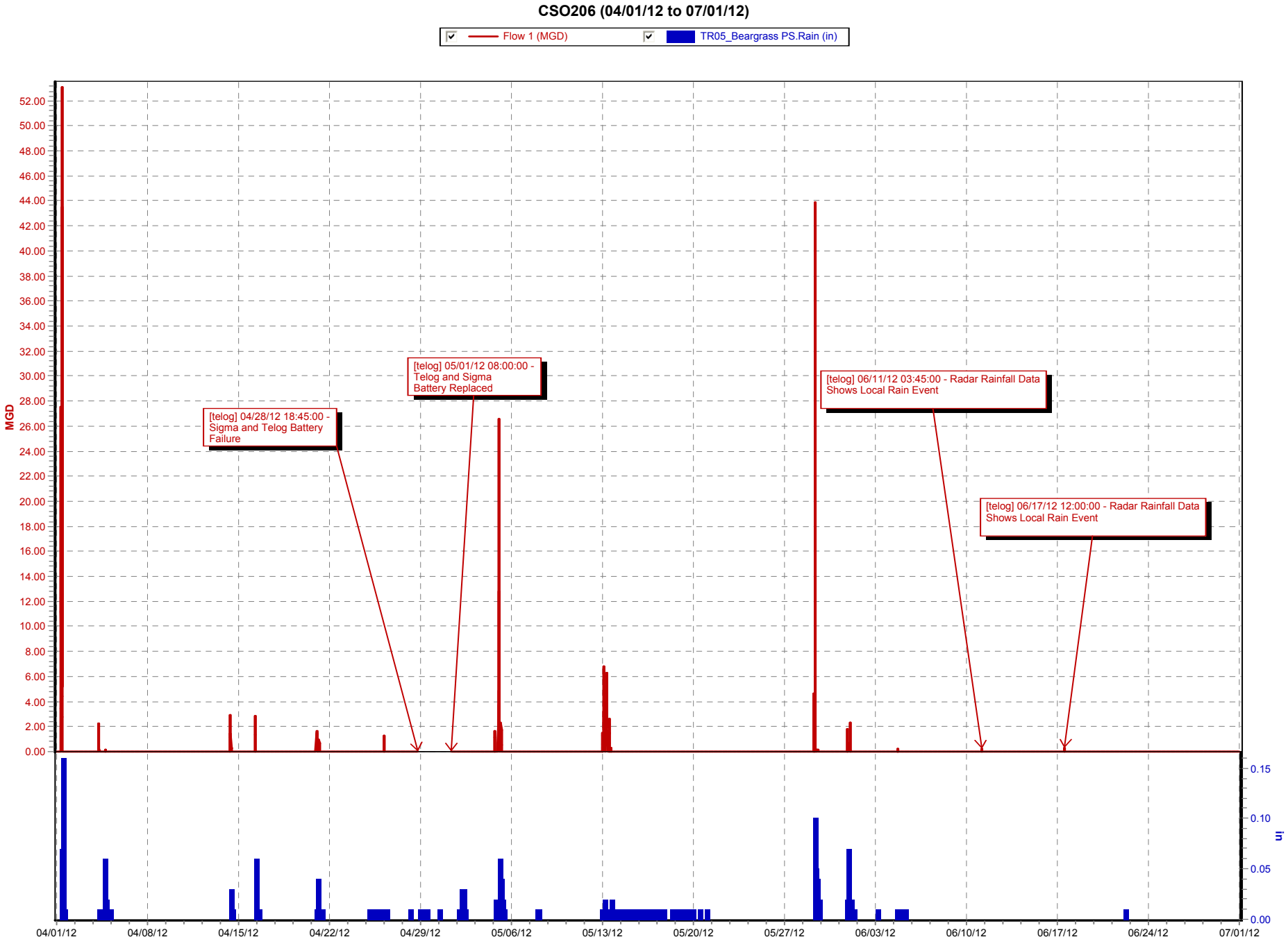

CSO199 (04/01/12 to 07/01/12)
Flow (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
[telog] 04/01/12 10:30:00 - Meter problems in first months of the year. New meter installed March 7th.
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.50
0.40
0.30
0.20
0.10
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

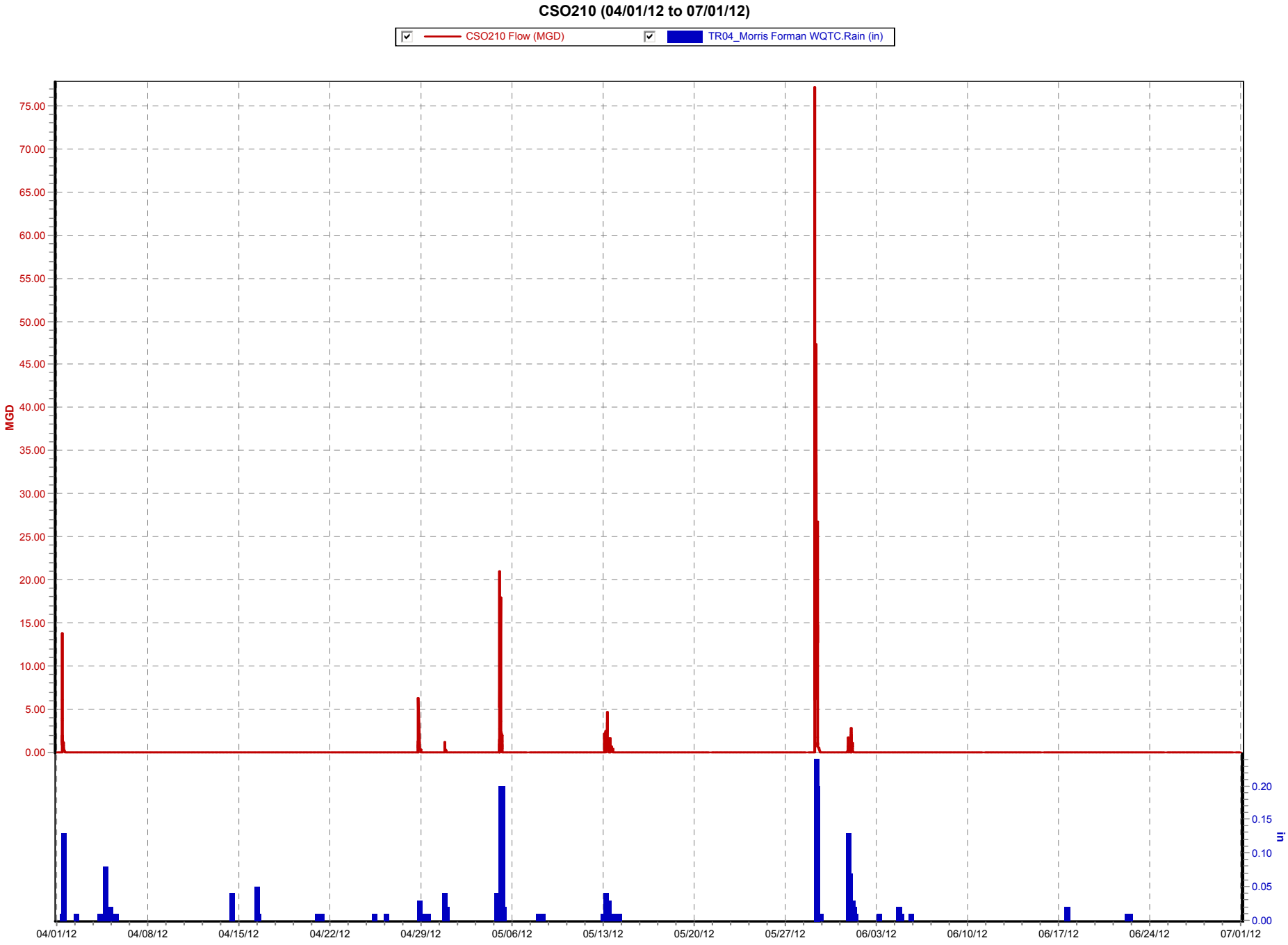

CSO200 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.50
0.40
0.30
0.20
0.10
0.00
[telog] 06/21/12 23:15:00 - Dry weather overflow reported.
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12

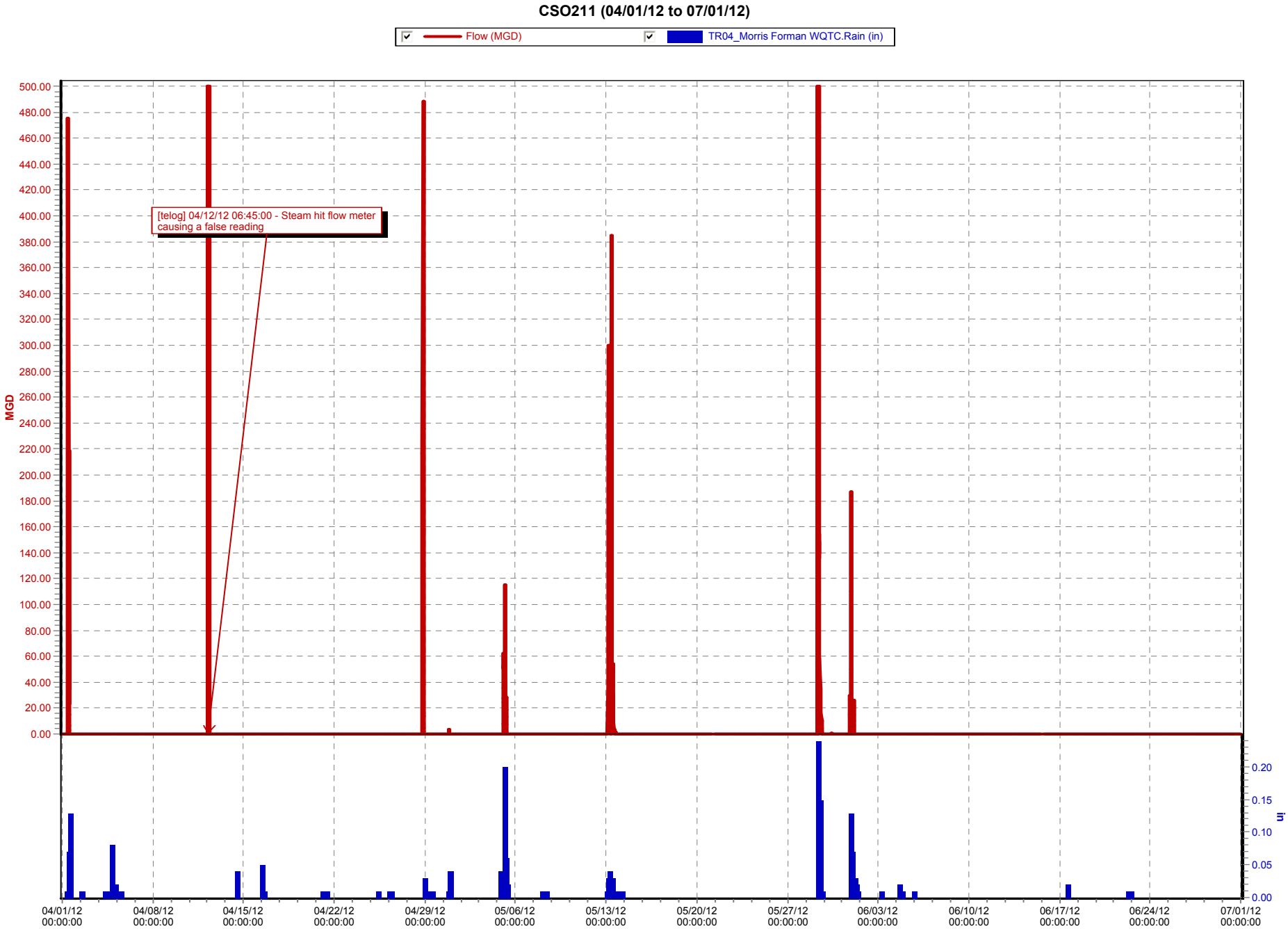

CSO201 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 06/13/12 15:45:00 -
Flow Meter Installed
0.15
0.10
0.05
0.00
in
04/01/12
04/08/12
04/15/12
04/22/12
04/29/12
05/06/12
05/13/12
05/20/12
05/27/12
06/03/12
06/10/12
06/17/12
06/24/12
07/01/12


CSO202 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 06/12/12 08:00:00 -
Flow Meter Installed
0.15
0.10
0.05
0.00
in
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


CSO205 (04/01/12 to 07/01/12)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.00
[telog] 06/06/12 10:00:00 - Flow Meter Installed
in
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


CSO206 (04/01/12 to 07/01/12)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 04/28/12 18:45:00 - Sigma and Telog Battery Failure
[telog] 05/01/12 08:00:00 - Telog and Sigma Battery Replaced
[telog] 06/11/12 03:45:00 - Radar Rainfall Data Shows Local Rain Event
[telog] 06/17/12 12:00:00 - Radar Rainfall Data Shows Local Rain Event
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
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


CSO210 (04/01/12 to 07/01/12)
CSO210 Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
in
0.20
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


CSO211 (04/01/12 to 07/01/12)
Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
[telog] 04/12/12 06:45:00 - Steam hit flow meter causing a false reading
MGD
500.00
480.00
460.00
440.00
420.00
400.00
380.00
360.00
340.00
320.00
300.00
280.00
260.00
240.00
220.00
200.00
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
0.20
0.15
0.10
0.05
0.00
in
04/01/12 00:00:00
04/08/12 00:00:00
04/15/12 00:00:00
04/22/12 00:00:00
04/29/12 00:00:00
05/06/12 00:00:00
05/13/12 00:00:00
05/20/12 00:00:00
05/27/12 00:00:00
06/03/12 00:00:00
06/10/12 00:00:00
06/17/12 00:00:00
06/24/12 00:00:00
07/01/12 00:00:00

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