MSD
Metropolitan Sewer District

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

April 30, 2013

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

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

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

Subject: Quarterly Report 30
Civil Action No. 3:08-cv-00608-CRS

Attention Chief:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 29 of our Amended Consent Decree. This report is for the period January 1, 2013 – March 31, 2013. This report provides an overview of significant program elements, issues, and accomplishments pertaining to Consent Decree compliance activities. Included are sections on Project WIN activities related to: NMC, SORP, Discharge Abatement Plans, Public Outreach, Education, Notification and Participation, CMOM and Performance Overview.

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

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

Sincerely,

W. Brian Bingham

Brian Bingham
Regulatory Services Director

cc: Greg Heitzman, PE Paula Purifoy

# Louisville and Jefferson County
# Wet Weather Consent Decree
# Quarterly Report #30

**Reporting Period:**

January 1, 2013 through March 31, 2013

**Submitted To:**

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

**Submitted By:**

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

**Submittal Date:**

April 30, 2013

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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 thirtieth Quarterly Report submitted in accordance with Paragraph 29 of the Amended Consent Decree. This report covers the time period from January 1, 2013, through March 31, 2013. **The structure for this report is outlined as follows:**

**Section 1: Program Activities for Nine Minimum Controls (NMC) -** This section describes the data collected for NMC 2 – Maximization of Storage in the Collection System, and NMC 4 – Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC) that were active during the reporting period (January 1, 2013, through March 31, 2013).

**Section 2: Program Activities for Sewer Overflow Response Protocol (SORP) -** This section describes the training attendance records, overflow data, and overflow reconnaissance inspection routes related to SORP that were active during the reporting period (January 1, 2013, through March 31, 2013).

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

**Section 4: Program Activities for Public Outreach, Education, Notification and Participation** - This section describes the activities related to public outreach that were active during the reporting period (January 1, 2013, through March 31, 2013).

**Section 5: Capacity Management, Operations and Maintenance Report** - The CMOM program activities and programmatic activities for WQTCs generating capital projects will be reported in a Gantt chart for the reporting period (January 1, 2013, through March 31, 2013), and include the schedule for activities planned for the next two reporting periods (April 1, 2013, through September 30, 2013), are included in this section for continued compliance with the Amended Consent Decree.

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

## SECTION 1: Program Activities for Nine Minimum Controls

### 1.1 Nine Minimum Controls Program Background

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

### 1.2 NMC 2: Maximization of Storage in the Collection System

Continued operation of Phase 1 and Phase 2 of the Real Time Control system. During this reporting period, approximately 246 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See the figure at the end of this section for a detailed report.

The gates at SWOR2 have been placed in manual control due to a failure of the gate level sensors that are integral to the integration of this site in the RTC schema. Weather permitting, these sensors will be replaced prior to May 31, 2013, and will allow the site to be operational at that time.

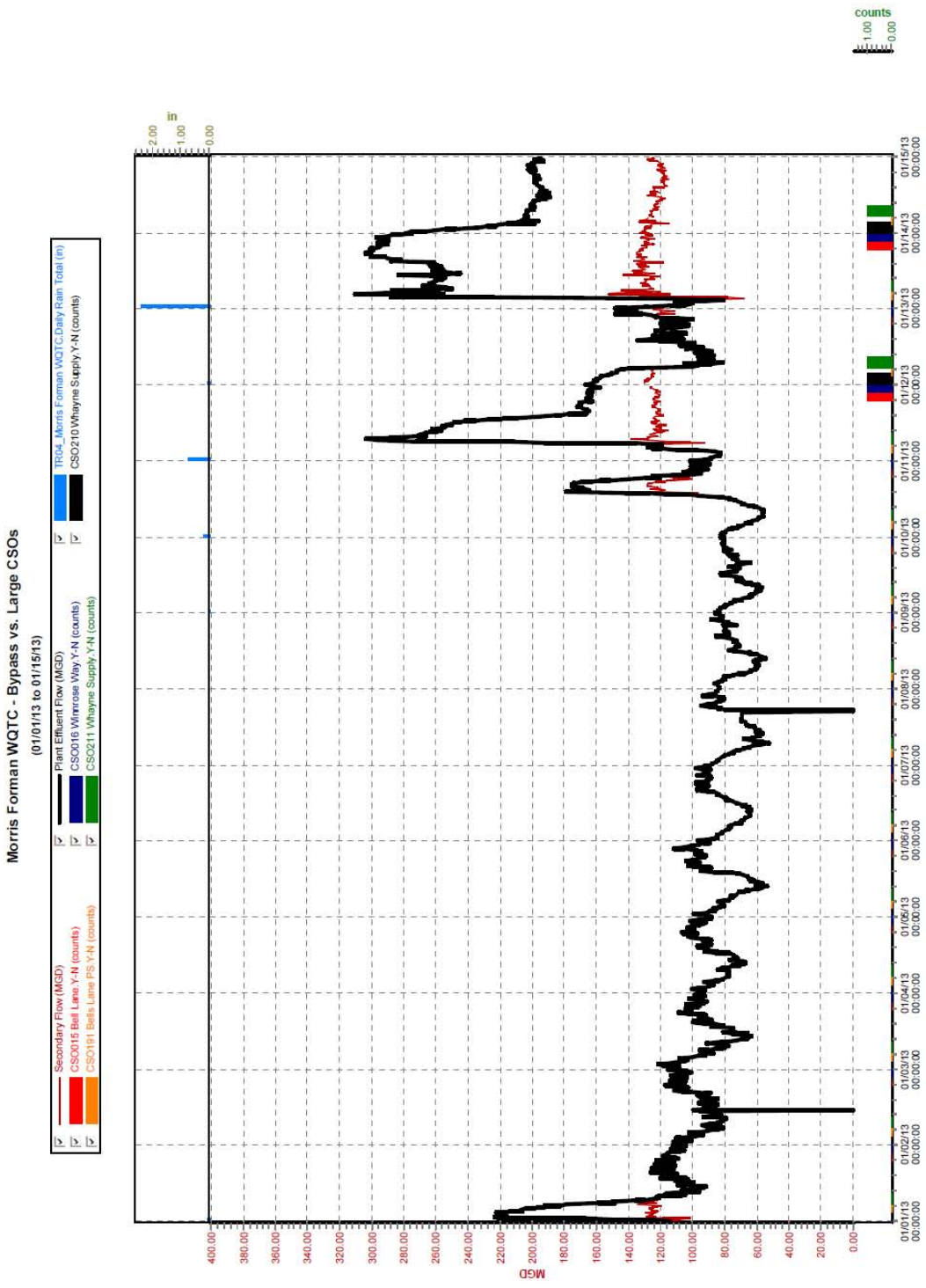
### 1.3 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)

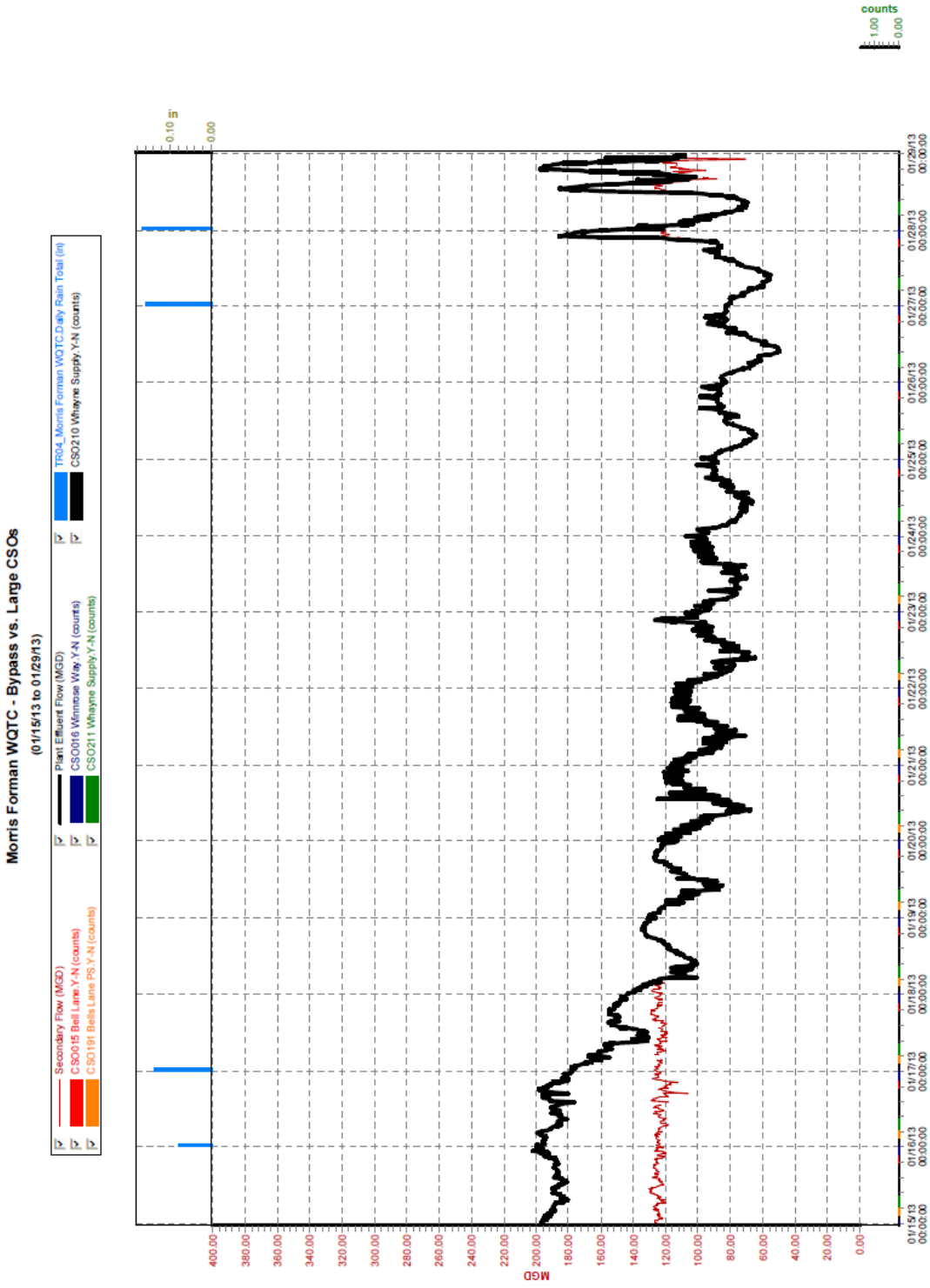
The following charts illustrate performance in maximizing flow to the Morris Forman WQTC. The top of the chart shows rainfall inches per day. The middle part of the chart shows Morris Forman WQTC effluent flow, secondary treatment flow, and secondary bypass flow. The bottom of the chart shows days with a CSO activation at the five CSOs in the vicinity of the Morris Forman WQTC (CSOs 015, 016, 191, 210, and 211). Note that the flow meter downstream from CSO 211 is known to be affected by backwater effects of the Ohio River and the ultrasonic signal is sometimes blocked by mist and condensation when air and sewage temperatures are significantly different, so CSO activations at CSO 211 are keyed to water levels upstream and downstream of the inflatable dam in the Main Diversion Structure. The other CSO activations are tied to flow measurement downstream of the respective CSOs. There are occasions in which a communications failure with telemetry has led to short-term gaps in the data.

Sporadic, short-term problems with grit chambers in the East Headworks occurred, resulting in reductions in the capacity of the East Headworks, but did not impact CSOs during the reporting period. In the West Headworks, brief problems with bar screens No. 1 and No. 3 impacted overall capacity, but did not impact CSOs over the reporting period. Primary sedimentation basin No. 4 was out of service from January 5, through February 3, 2013. This reduction in primary sedimentation capacity was the reason peak flows on January 31 were limited to approximately 260 MGD during the wet weather event at that time.

The evaluation of headworks performance and reliability of the West Headworks bar screens, West Headworks grit channels, and the East Headworks bar screens was completed, and

resulted in a preliminary engineering report recommending upgrades to improve headworks performance and reliability. Following MSD review, a 30 percent design is anticipated to begin during the next reporting period.


Morris Forman WQTC - Bypass vs. Large CSOs
(01/01/13 to 01/15/13)
Secondary Flow (MGD)
CSO015 Bell Lane Y-N (counts)
CSO161 Bells Lane PS Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Winnrose Way Y-N (counts)
CSO211 Whayne Supply Y-N (counts)
TR04_Morris Forman WQTC.Daily Rain Total (in)
CSO210 Whayne Supply Y-N (counts)
in
counts
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(01/15/13 to 01/29/13)
Secondary Flow (MGD)
CSO015 Bell Lane Y-N (counts)
CSO191 Bells Lane PS Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Winnetaw Way Y-N (counts)
CSO211 Whayne Supply Y-N (counts)
TR04_Morris Forman WQTC Daily Rain Total (in)
CSO210 Whayne Supply Y-N (counts)
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counts
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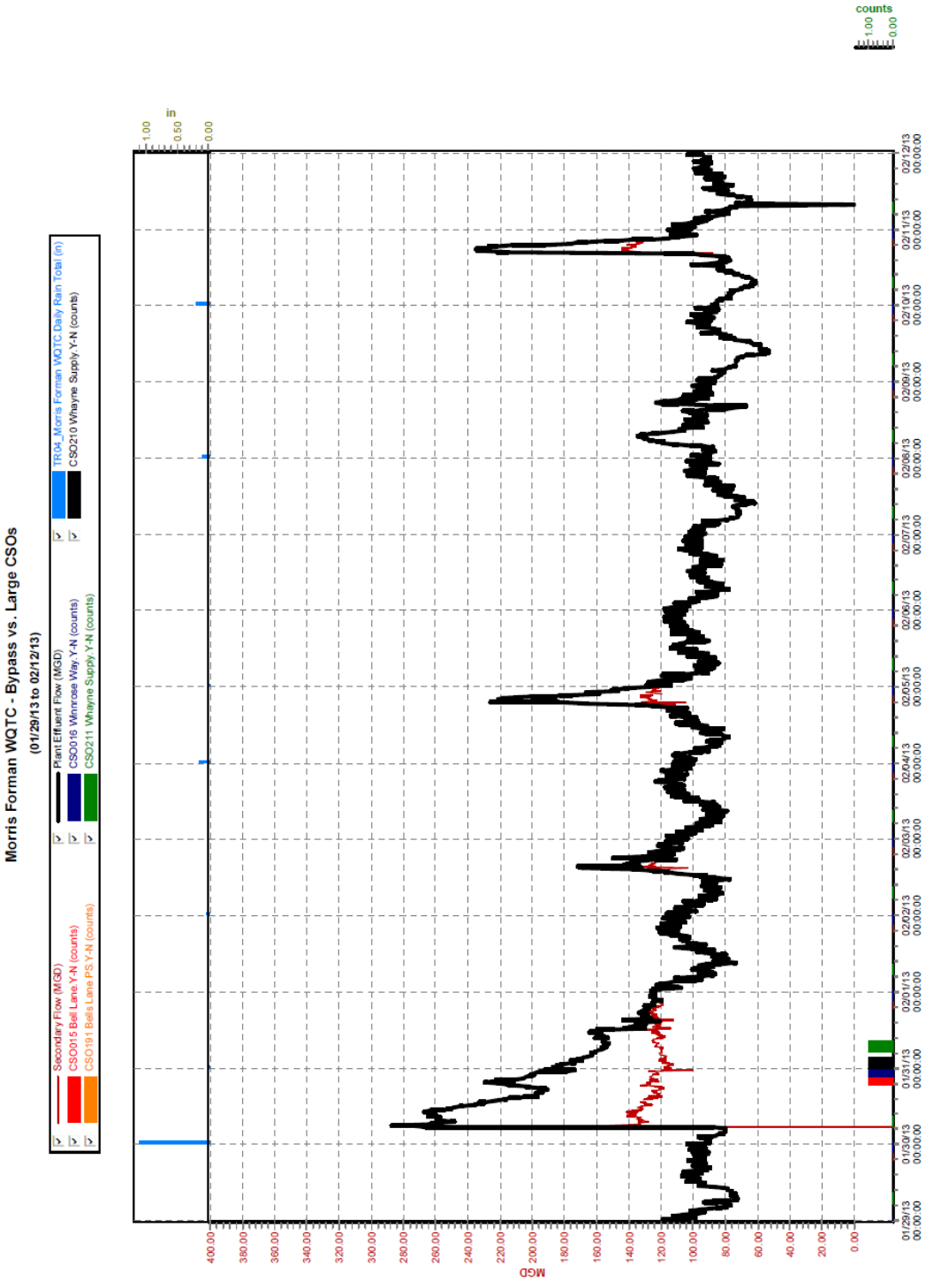
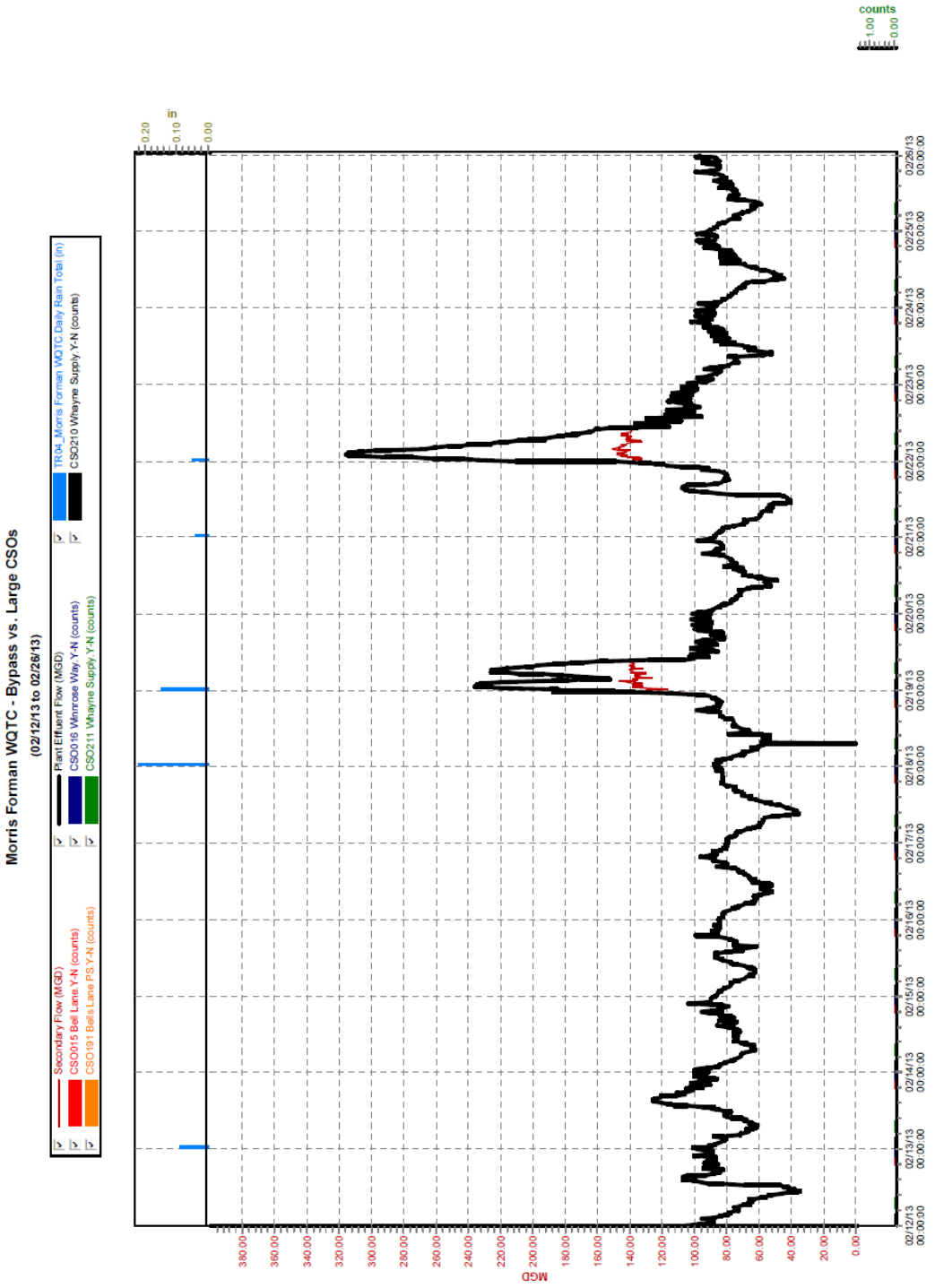

Morris Forman WQTC - Bypass vs. Large CSOs
(01/29/13 to 02/12/13)
Secondary Flow (MGD)
CSO015 Bell Lane Y-N (counts)
CSO191 Bells Lane PS Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Winnrose Way Y-N (counts)
CSO211 Whayne Supply Y-N (counts)
TR04_Morris Forman WQTC Daily Rain Total (in)
CSO210 Whayne Supply Y-N (counts)
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(02/12/13 to 02/26/13)
Secondary Flow (MGD)
CSO015 Bell Lane Y-N (counts)
CSO191 Bells Lane PS Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Winnrose Way Y-N (counts)
CSO211 Whayne Supply Y-N (counts)
TR04_Morris Forman WQTC Daily Rain Total (in)
CSO210 Whayne Supply Y-N (counts)
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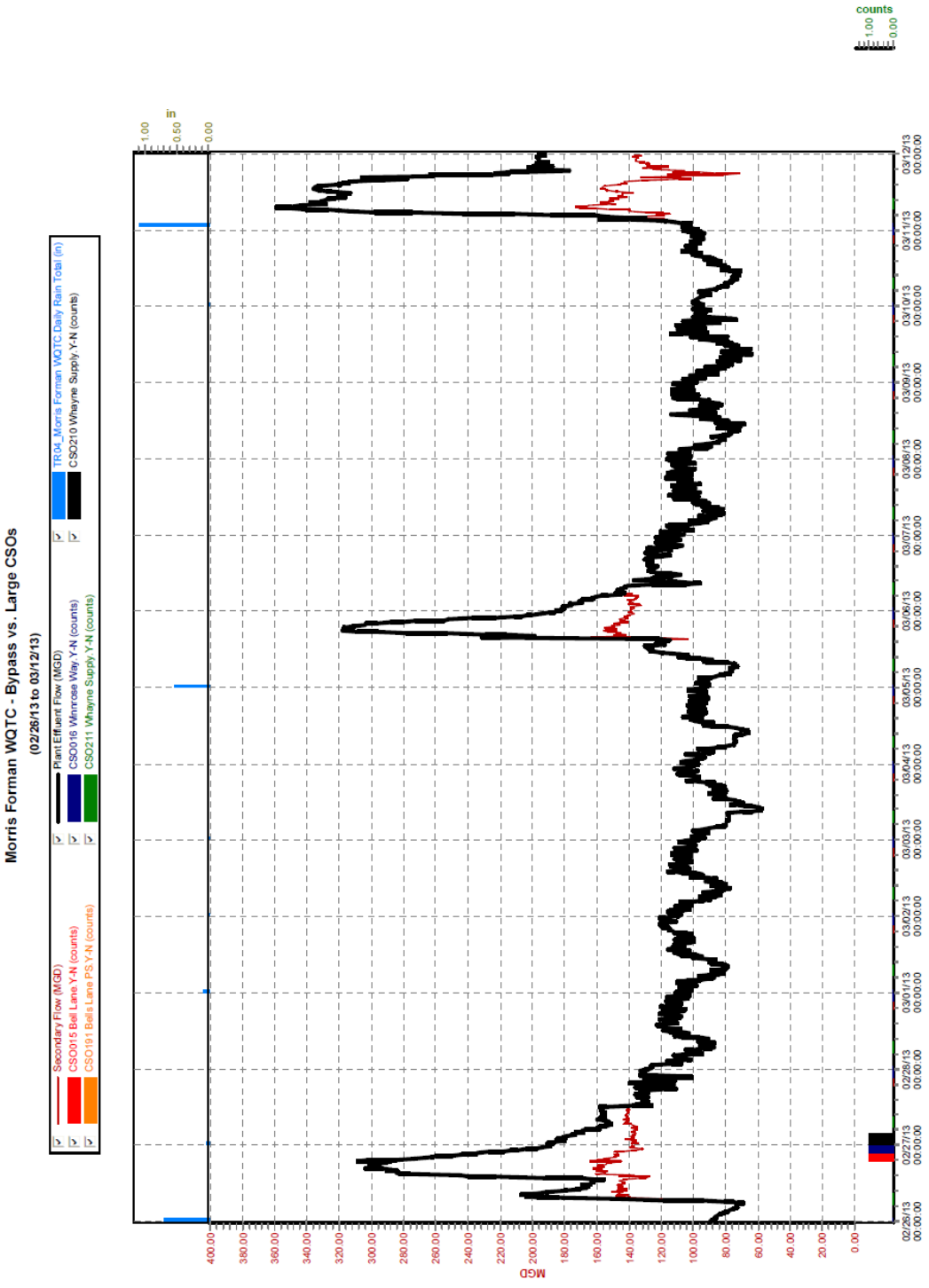
Morris Forman WQTC - Bypass vs. Large CSOs
(02/26/13 to 03/12/13)
Secondary Flow (MGD)
CSO015 Bell Lane Y-N (counts)
CSO191 Bells Lane PS Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Winnrose Way Y-N (counts)
CSO211 Wayne Supply Y-N (counts)
TR04_Morris Forman WQTC Daily Rain Total (in)
CSO210 Wayne Supply Y-N (counts)
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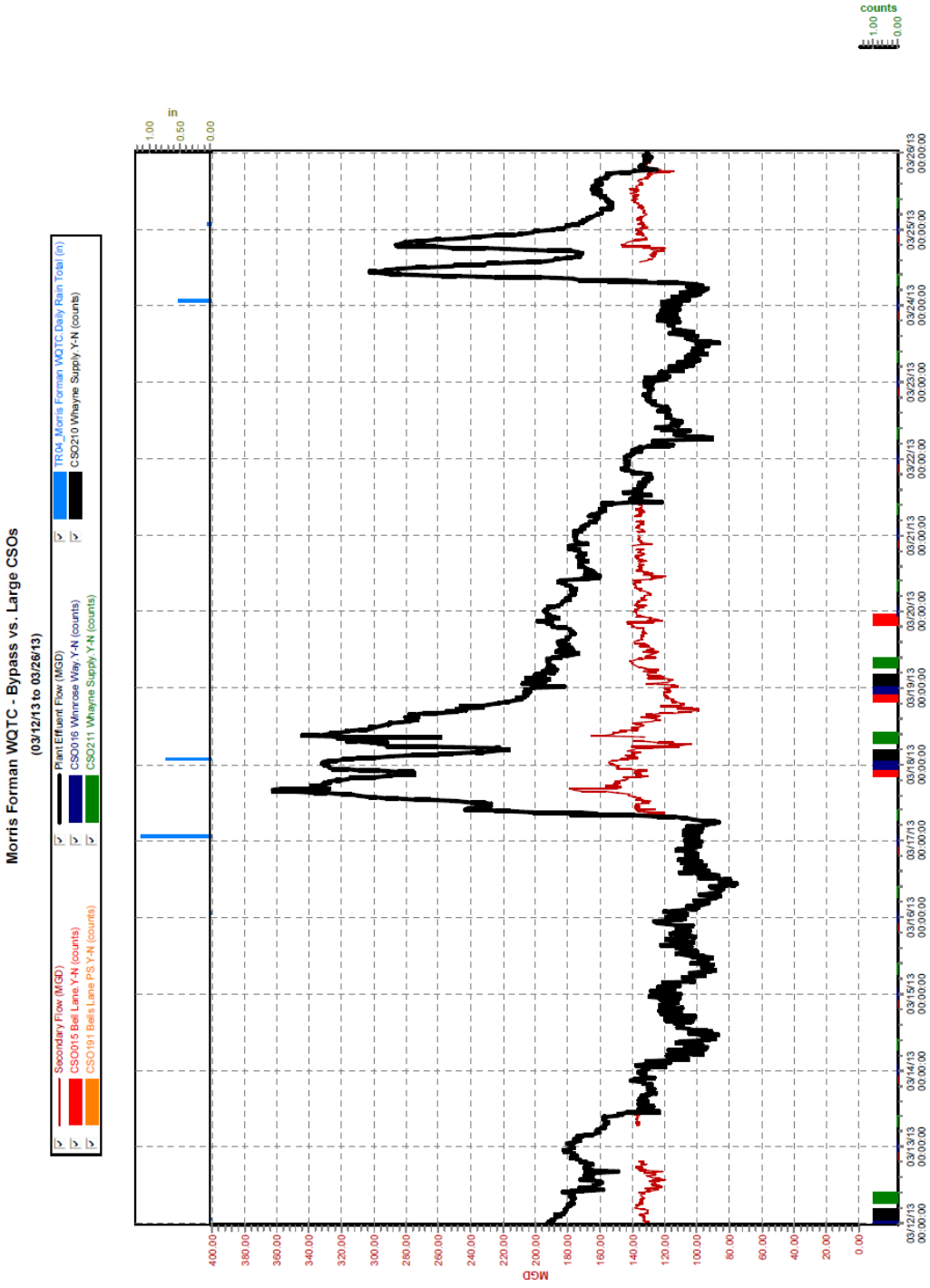
Morris Forman WQTC - Bypass vs. Large CSOs
(03/12/13 to 03/26/13)
Secondary Flow (MGD)
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CSO191 Bells Lane PS Y-N (counts)
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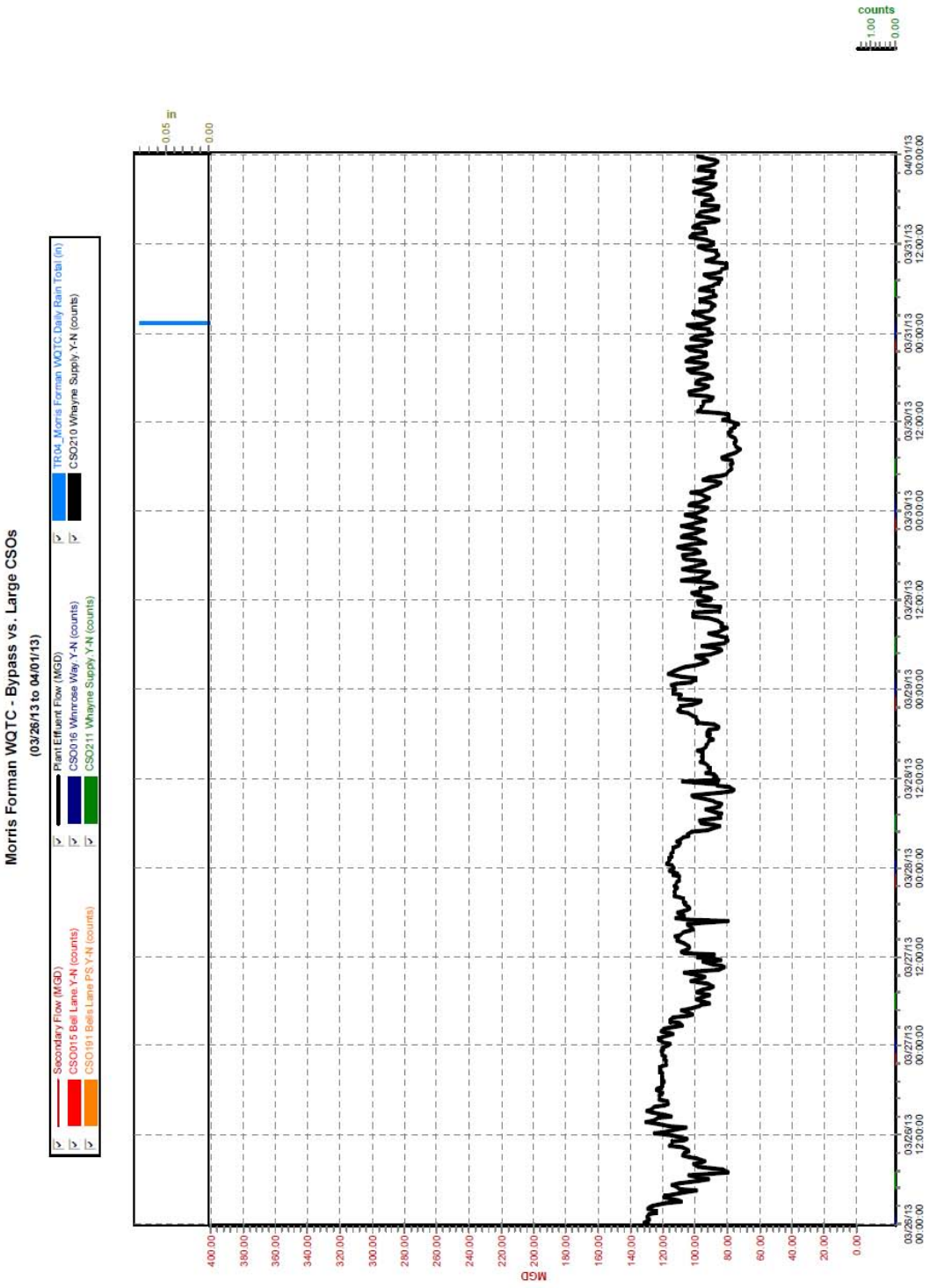
CSO210 Whayne Supply Y-N (counts)
counts
in
MGD


Morris Forman WQTC - Bypass vs. Large CSOs
(03/26/13 to 04/01/13)
Secondary Flow (MGD)
CSO015 Bell Lane Y-N (counts)
CSO191 Bella Lane PS Y-N (counts)
Plant Effluent Flow (MGD)
CSO016 Winrose Way Y-N (counts)
CSO211 Whayne Supply Y-N (counts)
TRS4_Morris Forman WQTC Daily Rain Total (in)
CSO210 Whayne Supply Y-N (counts)
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04/01/13 00:00:00

There were no KPDES permit violations at Morris Forman WQTC during January, February or March, 2013.

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

- Wet Weather Operational Plan - Wet weather SOP training and revisions to the Morris Forman WQTC Capacity Calculator will be implemented after completion of the secondary clarifier flow meter replacement project.
- Secondary Clarifier Flow Meter Replacement – A project to replace all 20 secondary clarifier influent flow meters is almost complete. All 20 flow meters have been installed and are in service. Performance testing will be completed during the next reporting period.
- RTC System-Wide Optimization Project – Progress was made towards development of control algorithms for integrating the Northern Ditch Diversion into the RTC system, and changing control algorithms for the Southeast Diversion Structure. It is expected that full integration in an automated mode will be delayed until operations staff have completed a period of manual operation to validate the control assumptions. Active control of both these systems is required now that the new Southeast Diversion and the Highgate Springs Pump Station have both been taken off line and the Southeast Interceptor Relief project is completed, in accordance with the Interim Sanitary Sewer Discharge Plan.

Louisville/Jefferson County
Metropolitan Sewer District

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

| Period | |
|---|---|
| From : | 01/01/2013 |
| To : | 04/01/2013 |

| 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 | | |
| 2012-094 | 12-31-12 15:10 | 1/1/13 9:05 | 17:55:00 | 0.19 | 0.28 | TR11 | 0.00 | 0.00 | 0.00 | 0.30 | 2.40 | 0.00 | 2.70 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. |
| 2013-001 | 1/10/13 10:50 | 1/12/13 2:15 | 39:25:00 | 0.75 | 0.89 | TR04 | 10.60 | 0.00 | 1.45 | 4.00 | 4.90 | 0.35 | 21.30 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. Moderate intensity storm cells occuring predominately in western reaches of collection system. |
| 2013-002&003 | 1/12/13 20:15 | 1/17/13 8:45 | 108:30:00 | 2.65 | 2.87 | TR14 | 29.50 | 0.00 | 2.40 | 3.70 | 3.30 | 1.65 | 40.55 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. High intensity storm cells (characteristic of 2-year return period) evenly distributed involving multiple storm cells and dewatering between cells. |
| 2013-005 | 1/27/13 19:10 | 1/29/13 0:55 | 29:45:00 | 0.31 | 0.39 | TR15 | 0.40 | 0.00 | 0.10 | 1.05 | 1.60 | 0.00 | 3.15 | no | SWOR2 manually controlled with gates in open position and minimal available storage utilization. |
| 2013-006 | 1/30/13 4:10 | 1/31/13 12:10 | 32:00:00 | 0.89 | 1.04 | TR04 | 18.00 | 0.00 | 2.50 | 1.90 | 2.10 | 1.45 | 25.95 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. High intensity event (characteristic of 1-year return period) with storm cells occuring predominately in western reaches of collections system with dewatering between cells. |
| 2013-012 | 2/18/13 21:20 | 2/19/13 12:15 | 14:55:00 | 0.32 | 0.36 | TR11 | 0.00 | 0.00 | 0.00 | 0.20 | 1.05 | 0.00 | 1.25 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. |
| 2013-013 | 2/21/13 20:20 | 2/22/13 16:25 | 20:05:00 | 0.17 | 0.35 | TR12 | 9.55 | 0.00 | 0.05 | 3.05 | 2.30 | 0.05 | 15.00 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. |
| 2013-014 | 2/26/13 4:55 | 2/27/13 12:05 | 31:10:00 | 0.65 | 0.69 | TR13 | 12.95 | 0.00 | 1.40 | 3.90 | 3.10 | 0.05 | 21.40 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. Moderate intensity storm cells occuring predominately in western and northern reaches of collection system. |
| 2013-017 | 3/5/13 5:25 | 3/6/13 8:30 | 27:05:00 | 0.43 | 0.52 | TR04 | 11.00 | 0.00 | 0.00 | 3.30 | 2.35 | 0.00 | 16.65 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. |
| 2013-019 | 3/10/13 23:45 | 3/13/13 10:30 | 58:45:00 | 1.16 | 1.48 | TR15 | 12.75 | 0.00 | 3.25 | 5.40 | 4.30 | 0.85 | 26.55 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. Moderate intensity storm cells occuring predominately in the eastern parts of the collection system. |
| 2013-020 | 3/17/13 4:25 | 3/21/13 9:55 | 101:30:00 | 1.91 | 2.01 | TR15 | 24.40 | 0.00 | 3.10 | 10.30 | 7.80 | 2.35 | 47.95 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. High intensity storm event through wesrtern and northern reaches of collection system and dewatering between storm cells. |
| 2013-021 | 3/24/13 4:50 | 3/25/13 17:25 | 36:35:00 | 0.55 | 0.62 | TR11 | 15.10 | 0.00 | 0.95 | 3.40 | 4.00 | 0.10 | 23.55 | no | SWOR2 manually controlled with both gates in open position and minimal available storage utilization. |
| **TOTAL** | | | | | | | **144.3** | **0.0** | **15.2** | **40.5** | **39.2** | **6.9** | **246.0** | | |

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

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

*** MDS is always manually controlled by operator

## SECTION 2: Program Activities for Sewer Overflow Response Protocol

### 2.1 SORP Program Background

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

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

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

### 2.2 Overflow Management and Field Documentation

- Monitored approximately 157 sanitary sewer overflow (SSO) sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO. These routes are monitored during rain events depending on the magnitude and location of the storm. If an overflow is observed, a Discharge Work Order is created to document the event. During this quarter, Regulatory Services and Engineering staff documented 77 suspected or unauthorized discharges through route reconnaissance. Inspection routes were run during rain events as described in the following table:

| Route Description | 1/11/2013 | 1/13/2013 | 1/30/2013 | 3/11/2013 | 3/17/2013 |
|---|---|---|---|---|---|
| Engineering Rain Event SSO Inspection Route | | X | | X | X |
| RS Hikes Point SSO Inspection Route | X | X | X | X | X |
| RS Jeffersontown Siphon Inspection Route | | X | | X | X |
| RS Jeffersontown/Fern Creek SSO Inspection Route | | X | 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 1,731,800 gallons of sewage. MSD also hauled due to other issues as indicated in the following table:

| MSD Hauled Volumes In Gallons (January 1, 2013 - March 31, 2013) | | | | |
|---|---|---|---|---|
| Problem | January | February | March | Total |
| CAPACITY | 430,500 | 746,600 | 554,700 | 1,731,800 |
| OBSTRUCTION | 14,000 | | | 14,000 |
| POWER | | 7,000 | 14,000 | 21,000 |
| **Total** | **444,500** | **753,600** | **568,700** | **1,766,800** |

## 2.3 Staff Training and Communication

- Reviewed and updated the training documentation for the 2013 first quarter SORP training that included Preparing for overflows and migration from Hansen 7 to Hansen 8.
- Commenced planning for the 2013 second quarter SORP training that will focus on establishing control zones and volume estimation.
- Conducted the following SORP Quarterly training sessions which were attended by 256 employees.

| Staff Training Participation - January 1, 2013 - March 31, 2013 | | | |
|---|---|---|---|
| **Date** | **Dept./Area** | **Module(s)** | **Attendees** |
| 02/06/13 | Morris Forman Operations & Maintenance Staff | Preparing For Overflows - Hansen Migration | 10 |
| 02/06/13 | Morris Forman Operations & Maintenance Staff | Preparing For Overflows - Hansen Migration | 40 |
| 02/06/13 | Metro Operations Staff | Preparing For Overflows - Hansen Migration | 24 |
| 02/07/13 | Morris Forman Operations & Maintenance Staff | Preparing For Overflows - Hansen Migration | 10 |
| 02/07/13 | Morris Forman Operations & Maintenance Staff | Preparing For Overflows - Hansen Migration | 13 |
| 02/07/13 | Metro Operations Staff | Preparing For Overflows - Hansen Migration | 20 |
| 02/07/13 | Morris Forman Operations & Maintenance Staff | Preparing For Overflows - Hansen Migration | 16 |
| 02/08/13 | I&FP Staff | Preparing For Overflows - Hansen Migration | 20 |
| 02/08/13 | Eng/RS Staff | Preparing For Overflows - Hansen Migration | 31 |
| 02/08/13 | Morris Forman Operations & Maintenance Staff | Preparing For Overflows - Hansen Migration | 3 |
| 02/12/13 | Eng/RS Staff | Preparing For Overflows - Hansen Migration | 37 |
| 02/13/13 | I&FP Staff | Preparing For Overflows - Hansen Migration | 17 |
| 02/13/13 | Metro Operations Staff | Preparing For Overflows - Hansen Migration | 15 |
| **Total:** | | | **256** |

## SECTION 3: Program Activities for Discharge Abatement Plans

### 3.1 Integrated Overflow Abatement Plan (IOAP)

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

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

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

### 3.2 Sanitary Sewer Discharge Plan (SSDP)

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

#### 3.2.1 Updated Sanitary Sewer Overflow Plan Implementation

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

#### 3.2.2 Interim Sanitary Sewer Discharge Plan

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

#### 3.2.3 Final Sanitary Sewer Discharge Plan

MSD submitted for approval a Final Sanitary Sewer Discharge Plan (SSDP) on December 19, 2008, as Volume 3 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

- Prospect WQTC Elimination Projects Easement Status - A total of 53 easements have been identified. Final design alignments increased the easement number from the previously reported 43.
- Acquired 27 of these easements. Details on the easement progress and status is provided below:
  - River Road Interceptor- 18 Easements acquired – project under construction.
  - River Road Interceptor Phase 1A- 2 Easements acquired – project under construction.
  - HC Pump Station- 2 Easements acquired – project under construction.
  - HC Int and FM Phase 1, 1 Easements acquired – project under construction.
  - HC Int and FM Phase 2- 3 Easements acquired – project under construction.
  - HC FM Phase 3A- 1 Easements acquired – project under construction.
  - HC FM Phase 3B- 21 Easements in process. Offer letters sent out and under negotiations. Project will bid in the Fall of 2013.
  - Shadow Wood- 2 Easements in process.
  - Hunting Creek North- 3 Easements in process.

### 3.3 CSO Long Term Control Plan

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

#### 3.3.1 Interim CSO Long Term Control Plan

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

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

#### 3.3.2 Final CSO Long Term Control Plan

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

#### 3.3.3 Green Program Update

MSD continued program activities to provide incentives to private property owners to reduce the amount of impervious surface that drains to the combined sewer system. This program is

outlined in the brochure at the following link: http://www.msdlouky.org/pdfs/Green_Infrastructure_Incentives_Savings_Weba.pdf

The green program incentives are being reviewed to reflect the values of green projects in CSO areas or regions based on the latest modeling results. The goal is to eventually tie incentives directly to overflow reductions in various CSO regions to promote green projects in the areas that provide the most value, and prioritize project opportunities to optimize available funding. Revised program literature and documentation during the reporting period and scheduled a presentation to the MSD Board on possible programmatic changes in April.

Continued to develop a green infrastructure website for distribution of information on the programs, incentives, and value to customers. A tentative completion date of August 1, 2013, has been set.

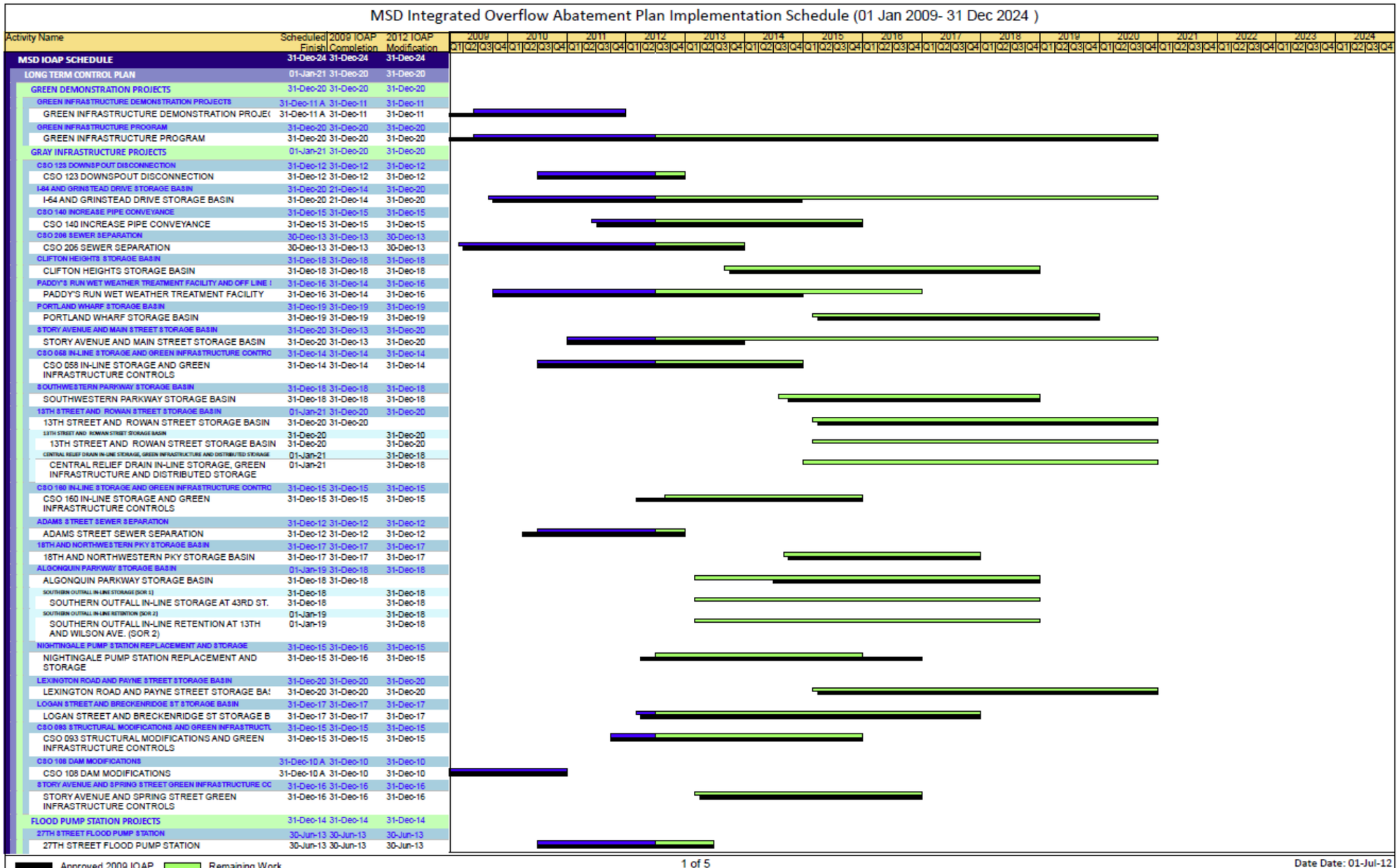
A green infrastructure tracking mechanism in the HANSEN system was utilized during the reporting period. HANSEN allows for scheduling of construction inspections, follow-up for correction of issues, and on-going long term inspections as required by the MS4 permit. Training on this system was facilitated in August 2012.

### 3.4 Activity Progress Chart

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

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

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




Approved 2009 IOAP  Remaining Work
Completed Work

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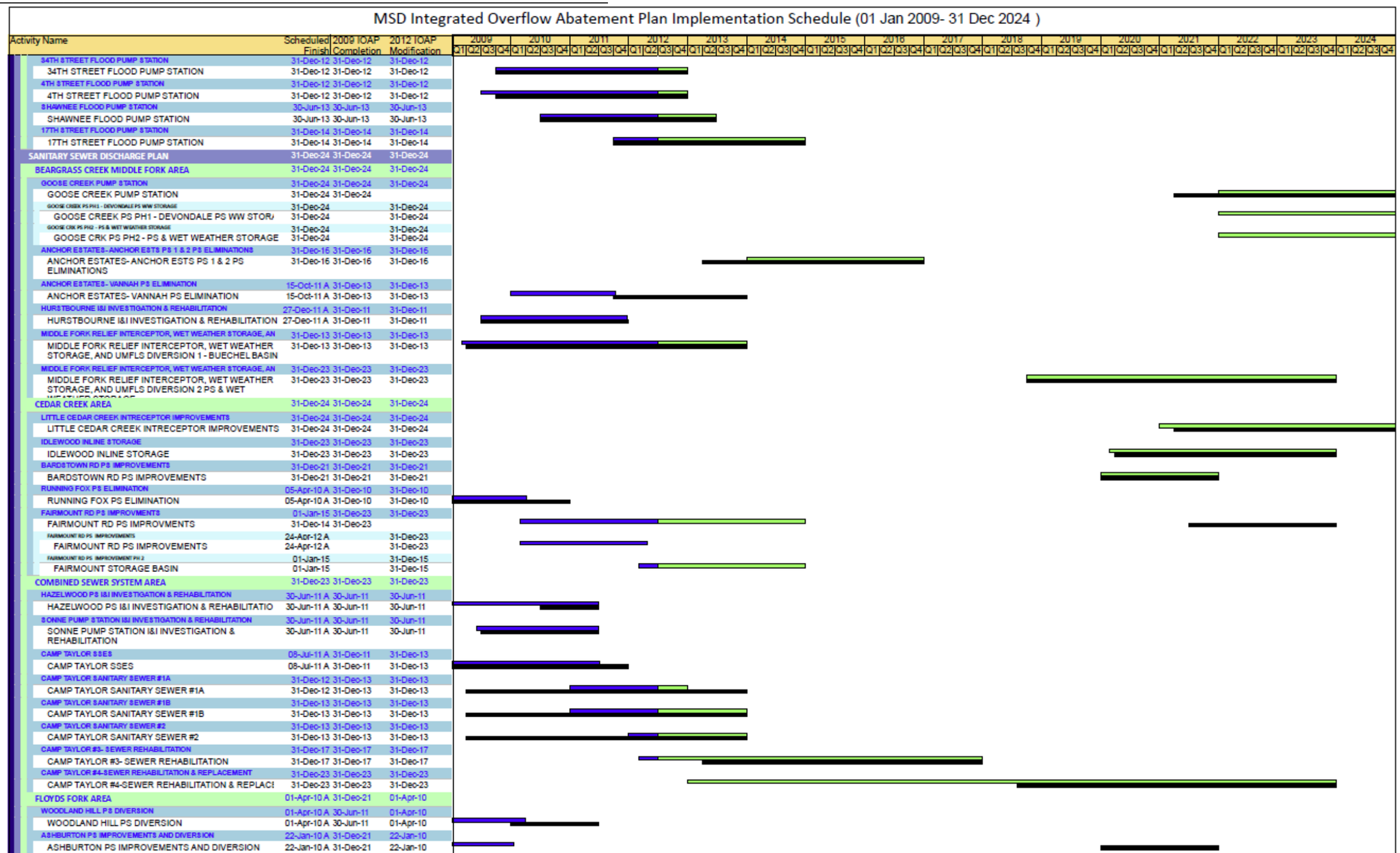
Date Date: 01-Jul-12

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

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




Approved 2009 IOAP
Remaining Work
Completed Work

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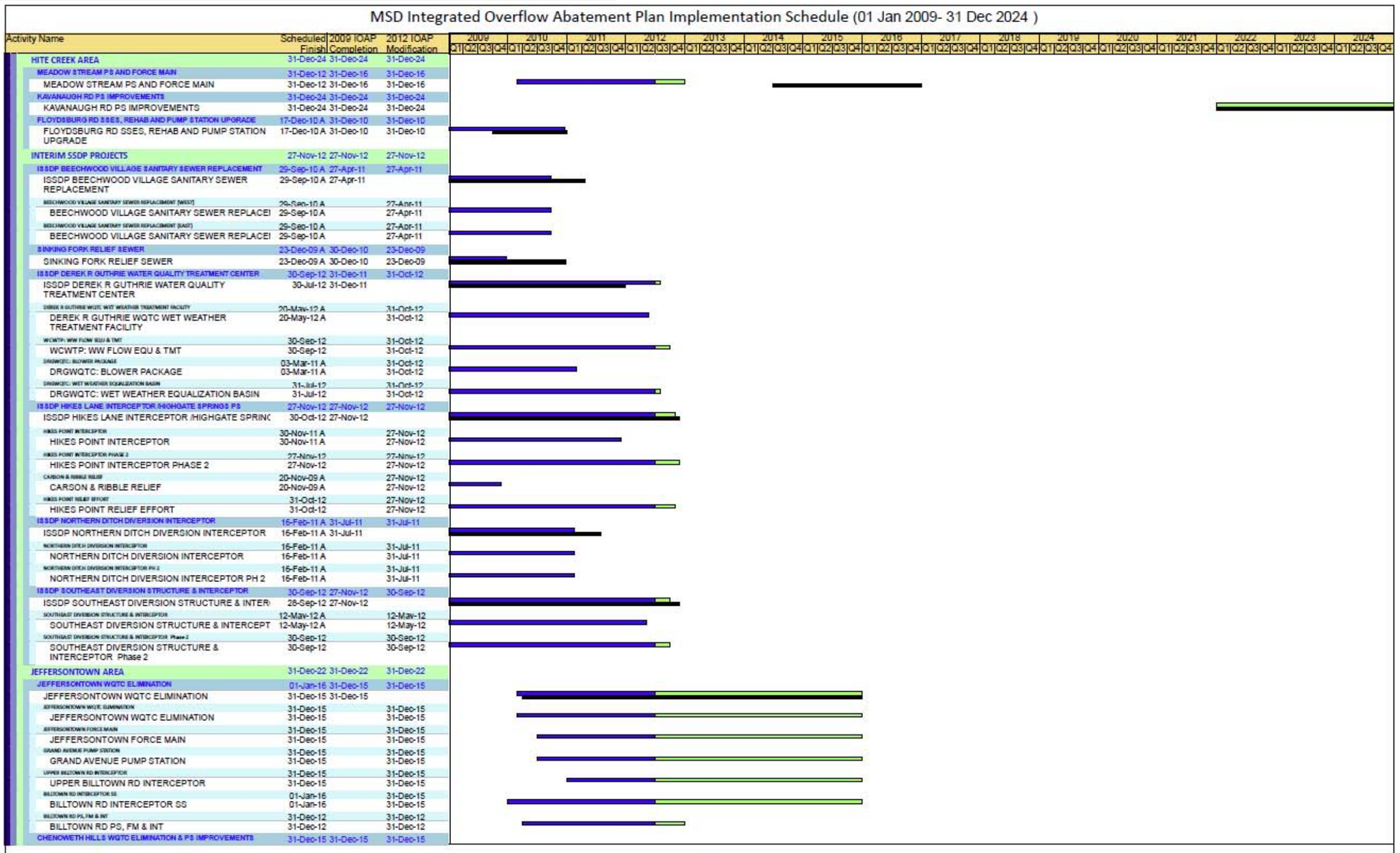
Date Date: 01-Jul-12

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

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

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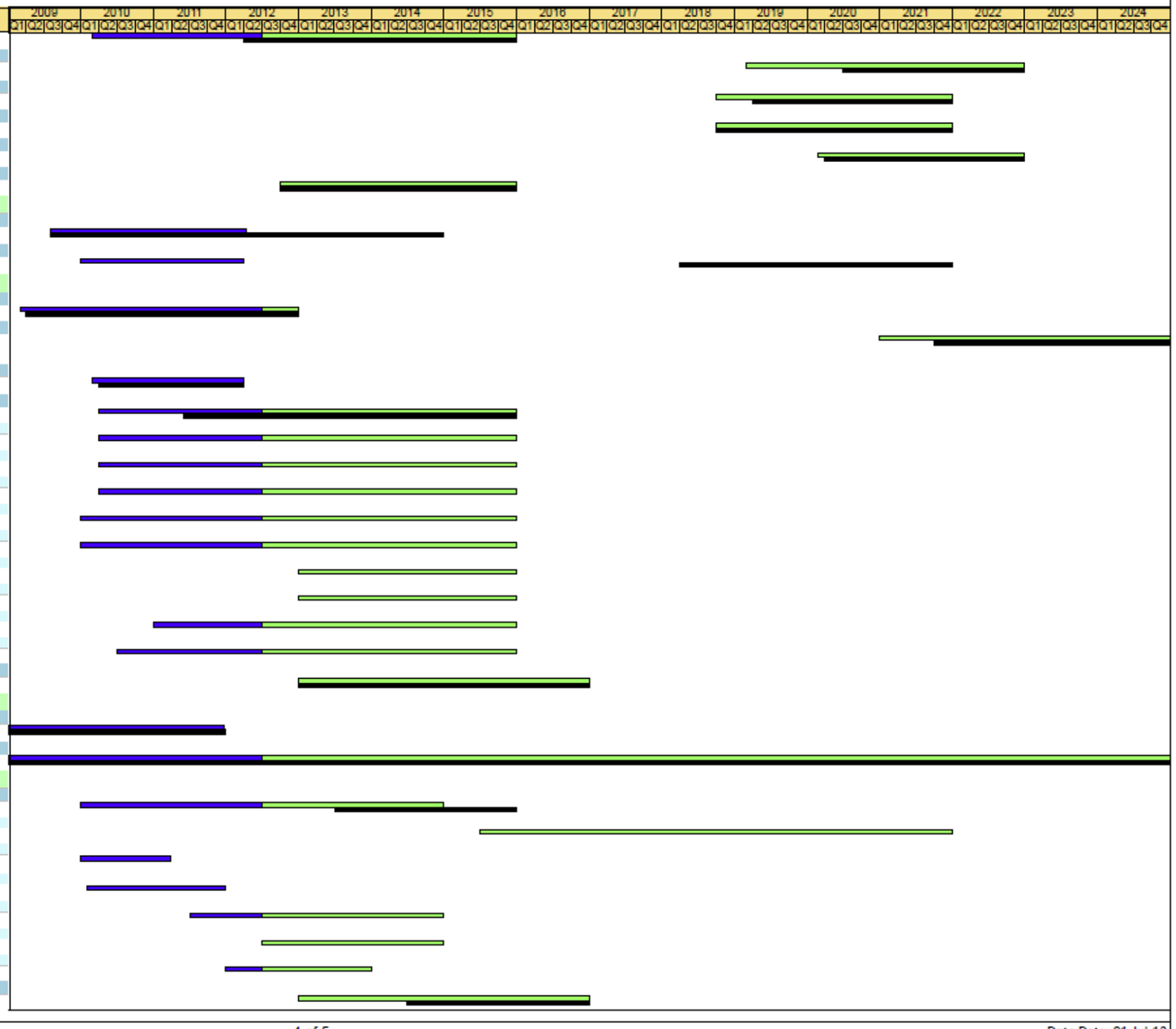
Date Date: 01-Jul-12

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

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

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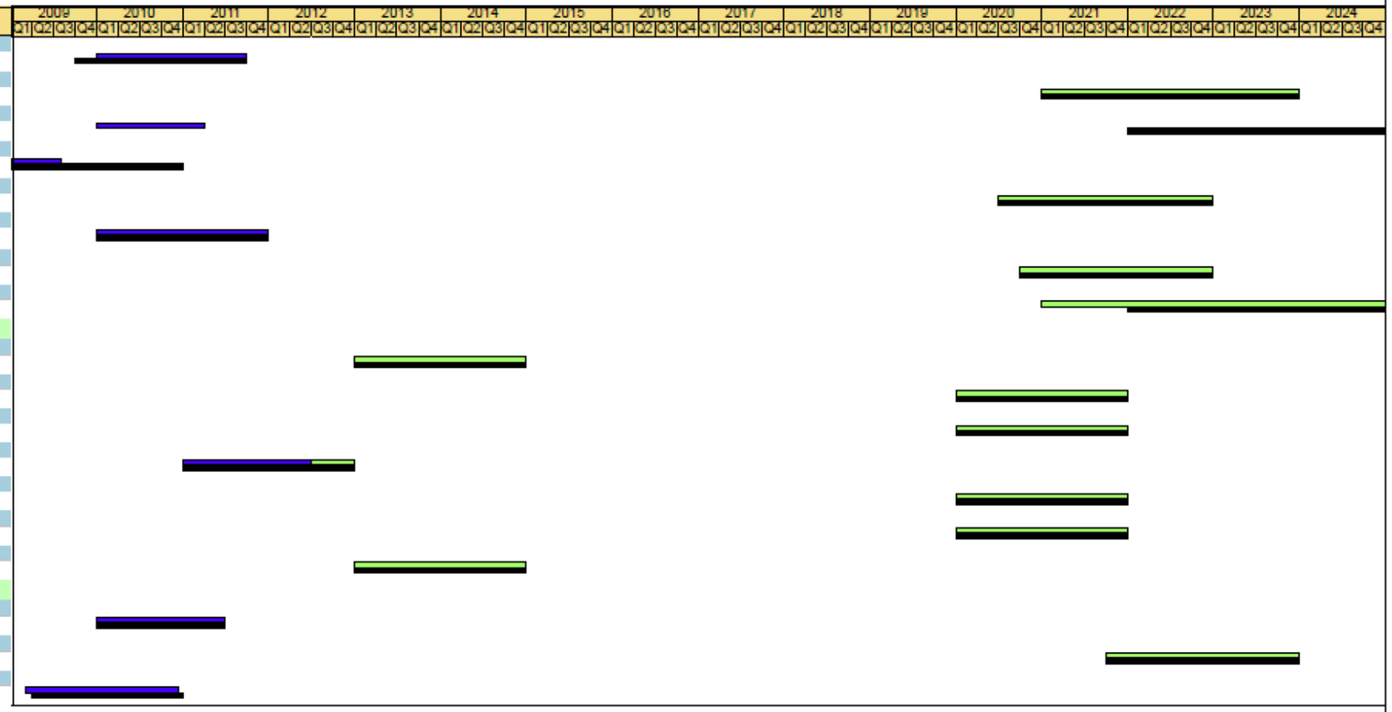
Date Date: 01-Jul-12

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

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

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## 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), and a rain barrel installation video.

### 4.3 Public Outreach Programs

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

#### 4.3.1 IOAP Project and Program Meetings

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

- Facilitated four IOAP meetings to discuss the proposed IOAP 2012 Modification and general project updates. The meetings were held on the following dates at the following venues.
  - January 8, 2013, Shively City Hall, 3920 Dixie Highway
  - January 22, 2013, Kammerer Middle School, 7315 Wesboro Road.
  - January 29, 2013, Shawnee Community Center, 607 S. 37th Street.
  - February 5, 2013, Moore High School, 6415 Outer Loop.
- Facilitated a Wet Weather Team meeting to update Stakeholders on the IOAP progress, public input process, and the IOAP 2012 modification on January 30, 2013, at the MSD Main Office at 700 West Liberty Street.
- Facilitated an IOAP public hearing to receive comments on the proposed IOAP 2012 modification on March 26, 2013, at the MSD Main Office at 700 West Liberty Street.
- Planned a public meeting Friday May 14, 2013, at 6PM, at the Fern Creek High School, to discuss and receive comments on upcoming projects in the IOAP 2012 Modification.

## SECTION 5: Capacity Management Operations and Maintenance Report

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

The primary objectives of CMOM are as follows:

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

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

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

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

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

### 5.1 Management Programs

**M-E-9 Infrastructure Rehabilitation**

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

### 5.2 Operations Programs

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

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

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

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

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

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

### 5.3.1 Hite Creek Water Quality Treatment Center

During this reporting period, MSD has put the Facilities Plan Update on hold pending determination if areas beyond the Jefferson County boundary will be included in the future service area. Once confirmed, the alternative analysis for both the collection and treatment systems will be finalized and MSD will begin scheduling public outreach meetings. During the next reporting period, MSD expects to complete the Facilities Plan Update document once the service area determination is finalized.

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

### 5.3.2 Floyds Fork Water Quality Treatment Center

Construction of the Phase 2 Expansion of the Floyds Fork WQTC continued in this reporting period with the structural improvements completed on the outer ring of the Oxidation Ditch, along with testing of Clarifiers No. 3, 4 and 5, and both ultraviolet disinfection channels placed in service. During the next reporting period, the plant's instrumentation and controls will be tested and demonstrated and staff trained on instrumentation, along with final site restoration activities expected to be complete. The expansion will provide an average daily design capacity of 6.5 MGD.

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

### 5.3.3 Derek R. Guthrie Water Quality Treatment Center

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

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

### 5.3.4 Cedar Creek Water Quality Treatment Center

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

### 5.3.5 Prospect Area Water Quality Treatment Center Updates

Submitted the elimination plan for the five WQTCs serving Prospect (Timberlake, Hunting Creek North, Hunting Creek South, Ken Carla, and Shadow Wood), to EPA and KDEP on March 31, 2009. Received approval of this plan on September 24, 2009, and work is proceeding on the projects defined in the IOAP. See **Section 3 – Program Activities for Discharge Abatement Plans** for an update on the design and construction of the projects

that make up the elimination plan for the Prospect Area WQTCs.

#### 5.3.5.1 Timberlake Water Quality Treatment Center

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

#### 5.3.5.2 Hunting Creek North Water Quality Treatment Center

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

#### 5.3.5.3 Hunting Creek South Water Quality Treatment Center

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

#### 5.3.5.4 Ken Carla Water Quality Treatment Center

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

#### 5.3.5.5 Shadow Wood Water Quality Treatment Center

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

### 5.3.6 Jeffersontown Water Quality Treatment Center

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

### 5.3.7 Starview Water Quality Treatment Center

Staff investigated the use of a salvaged 250 KW generator for use at the site for power outages. The site has frequent power outages due to the older overhead electrical lines in the area. The site was determined too small for the generator. A decision was made to store one of the district's mobile generators on the site. This generator will be set up as a permanent generator to prevent power outages. During the next reporting period, staff will set up the portable generator on site and set up the wiring and transfer switch for full operations.

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

### 5.3.8 Berrytown Water Quality Treatment Center

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

### 5.3.9 Chenoweth Hills Water Quality Treatment Center

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

### 5.3.10 Other Water Quality Treatment Centers

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

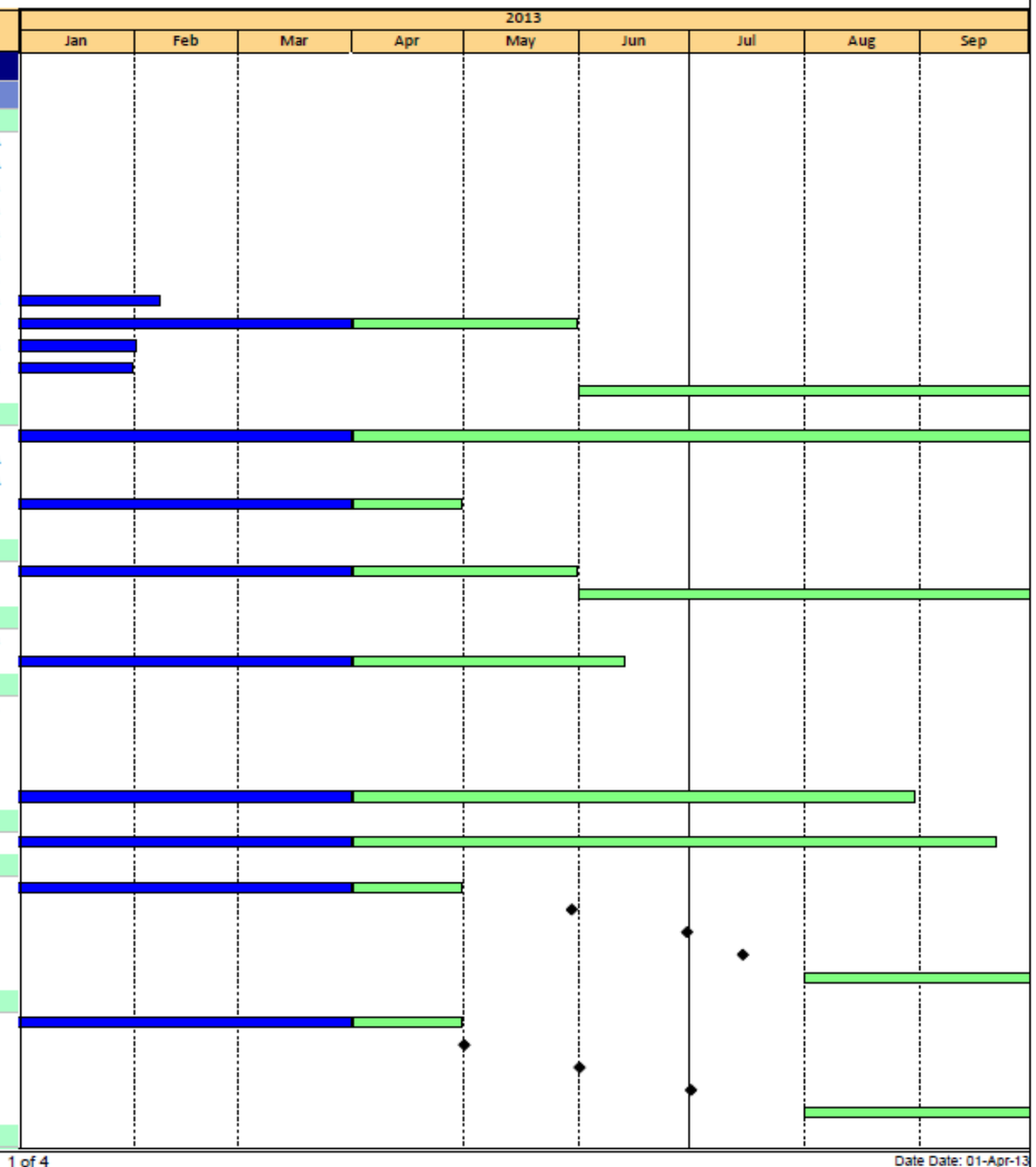
- McNeely Lake WQTC – MSD has final construction drawings for the gravity elimination of the plant. The plant flows will be diverted to the existing Washington Green Pump Station which will require expansion. The pump station expansion and plant elimination costs are not currently in the approved MSD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

## 5.4 CMOM Activity Schedule

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

MSD CMOM FY12 Annual Commitments Schedule (01 April 2013 - 30 September 2013) Date: 24-Apr-13

| Activity ID | Activity Name | Physical % Complete | Start | Finish |
|---|---|---|---|---|
| **CMOM FY ANNUAL REPORT COMMITMENTS FINAL** | | | 23-Mar-11 A | 02-Jan-15 |
| **M-E-9 Infrastructure Rehabilitation** | | | 01-Jul-11 A | 02-Jan-15 |
| **Annual I/I FY 12 Project (H09205)** | | | 15-Feb-12 A | 01-Jun-14 |
| A4540 | Camp Taylor 5 | 100% | 15-Feb-12 A | 01-Nov-12 A |
| A4530 | Camp Taylor 4 | 100% | 04-Apr-12 A | 01-Nov-12 A |
| A4550 | Dolphin Rd | 100% | 01-Aug-12 A | 31-Aug-12 A |
| A4560 | Heller St | 100% | 01-Aug-12 A | 01-Sep-12 A |
| A4580 | Fegenbush Ln | 100% | 01-Aug-12 A | 01-Sep-12 A |
| A4590 | Jenlee | 100% | 01-Aug-12 A | 01-Sep-12 A |
| A4600 | Edgehill Rd | 100% | 01-Sep-12 A | 01-Oct-12 A |
| A4930 | Penn Station | 100% | 01-Sep-12 A | 08-Feb-13 A |
| A5070 | Contract Administration | 95% | 22-Nov-12 A | 31-May-13 |
| A4660 | JCTMS MH | 100% | 01-Dec-12 A | 01-Feb-13 A |
| A4570 | Macon Rd | 100% | 10-Dec-12 A | 31-Jan-13 A |
| A5080 | Warranty | 0% | 01-Jun-13* | 01-Jun-14 |
| **Annual I/I FY13 Project (H09206)** | | | 19-Nov-12 A | 02-Jan-15 |
| A5090 | Contract Administration | 30% | 19-Nov-12 A | 31-Dec-13 |
| A4860 | Muddy Fork MH | 100% | 01-Dec-12 A | 31-Dec-12 A |
| A4870 | Prospect MH | 100% | 01-Dec-12 A | 31-Dec-12 A |
| A4880 | Macon MH | 30% | 10-Dec-12 A | 30-Apr-13 |
| A5100 | Warranty | 0% | 02-Jan-14* | 02-Jan-15 |
| **Lea Ann Way Interceptor I/I Rehabilitation Project (H12064)** | | | 15-Feb-12 A | 01-Jun-14 |
| A3010 | Construction | 95% | 15-Feb-12 A | 31-May-13 |
| A3040 | Warranty | 0% | 01-Jun-13* | 01-Jun-14 |
| **Lea Ann Way East - Stonybrook Rehabilitation Project (C08433)** | | | 16-Jan-12 A | 13-Jun-13 |
| A3920 | Design | 100% | 16-Jan-12 A | 30-Sep-12 A |
| A3910 | Construction | 20% | 15-Dec-12 A | 13-Jun-13 |
| **Lake Forest Sanitary Sewer Rehabilitation Project (H11303)** | | | 16-Jan-12 A | 30-Aug-13 |
| A3350 | Design | 100% | 16-Jan-12 A | 30-Jun-12 A |
| A3160 | Ad | 100% | 31-Aug-12 A | |
| A3170 | Bid Open | 100% | 25-Sep-12 A | |
| A3180 | Award | 100% | 22-Oct-12 A | |
| A3190 | Construction | 40% | 01-Nov-12 A | 30-Aug-13 |
| **Camp Taylor SSR Phase I Project (H09407)** | | | 21-Sep-12 A | 21-Sep-13 |
| A3680 | Warranty | 50% | 21-Sep-12 A | 21-Sep-13 |
| **Prospect Phase I Sanitary Sewer Rehabilitation Project (H11311)** | | | 02-Apr-12 A | 30-Jun-14 |
| A3360 | Design | 95% | 02-Apr-12 A | 30-Apr-13 |
| A3210 | Ad | 0% | 30-May-13* | |
| A3220 | Bid Open | 0% | 30-Jun-13* | |
| A3230 | Award | 0% | 15-Jul-13* | |
| A3240 | Construction | 0% | 01-Aug-13* | 30-Jun-14 |
| **Meadow Stream Sanitary Sewer Rehabilitation Project (H11305)** | | | 02-Apr-12 A | 30-Apr-14 |
| A4940 | Design | 95% | 02-Apr-12 A | 30-Apr-13 |
| A4890 | Ad | 0% | 01-May-13* | |
| A4900 | Bid Open | 0% | 01-Jun-13* | |
| A4920 | Award | 0% | 01-Jul-13* | |
| A4910 | Construction | 0% | 01-Aug-13* | 30-Apr-14 |
| **Lea Ann Way East - Fegenbush Rehabilitation Project (C08433)** | | | 16-Jan-12 A | 31-Aug-13 |

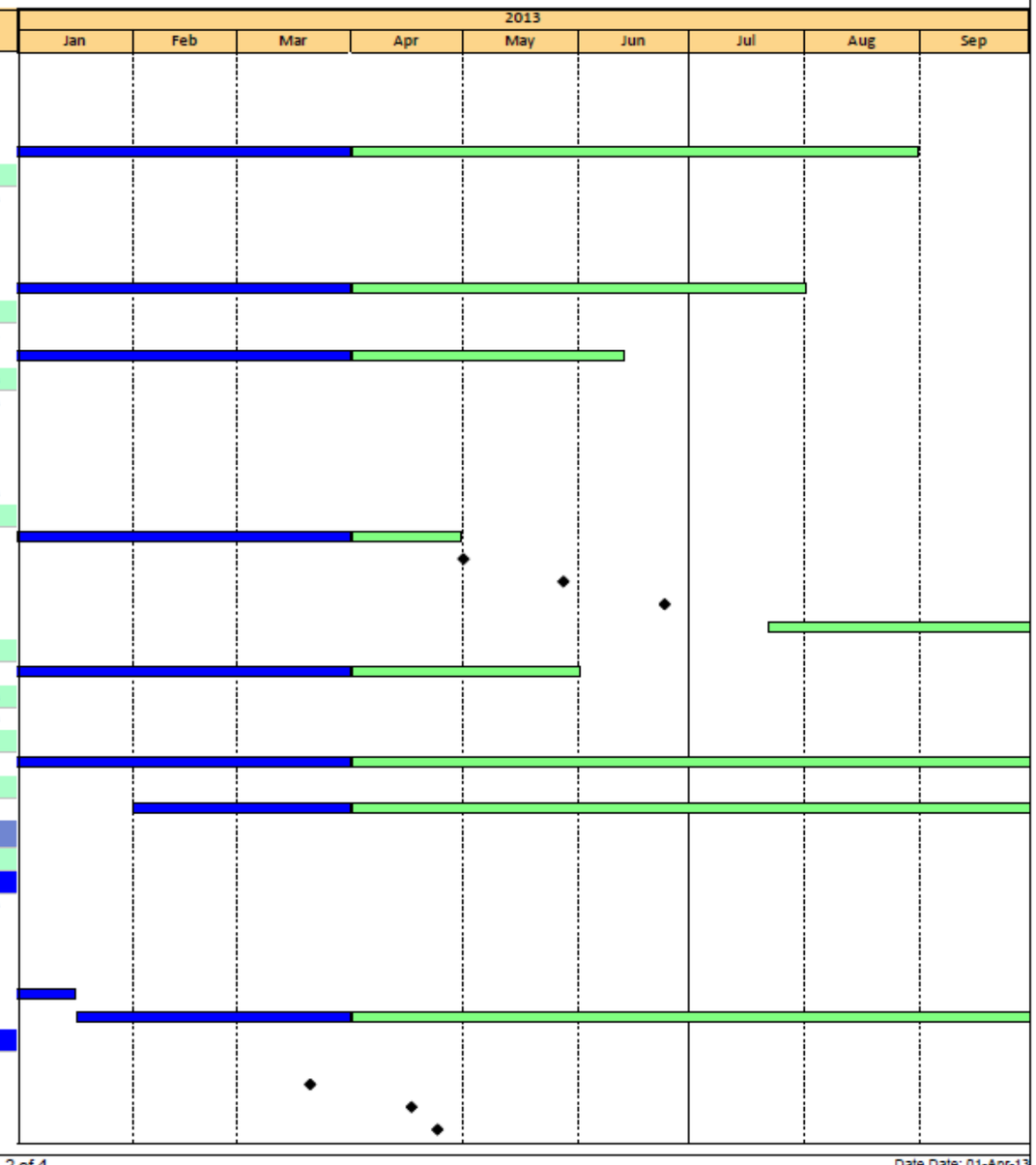



1 of 4 Date Date: 01-Apr-13

MSD CMOM FY12 Annual Commitments Schedule (01 April 2013 - 30 September 2013)

Date: 24-Apr-13

| Activity ID | Activity Name | Physical % Complete | Start | Finish |
|---|---|---|---|---|
| A3970 | Design | 100% | 16-Jan-12 A | 30-Jun-12 A |
| A3980 | Ad | 100% | 24-Sep-12 A | |
| A3990 | Bid Open | 100% | 24-Oct-12 A | |
| A4000 | Award | 100% | 12-Nov-12 A | |
| A3960 | Construction | 40% | 01-Dec-12 A | 31-Aug-13 |
| Lea Ann Way East - Fern Creek Rehabilitation Project (C08433) | | | 16-Jan-12 A | 01-Aug-13 |
| A4170 | Design | 100% | 16-Jan-12 A | 30-May-12 A |
| A4180 | Ad | 100% | 30-Jul-12 A | |
| A4190 | Bid Open | 100% | 30-Aug-12 A | |
| A4200 | Award | 100% | 10-Sep-12 A | |
| A4160 | Construction | 45% | 05-Oct-12 A | 01-Aug-13 |
| Lea Ann Way East - Picadilly Rehabilitation Project (C08433) | | | 16-Jan-12 A | 13-Jun-13 |
| A4270 | Design | 100% | 16-Jan-12 A | 30-Sep-12 A |
| A4260 | Construction | 20% | 15-Dec-12 A | 13-Jun-13 |
| 4th and Oak CIPP Project (H09205) | | | 01-Apr-12 A | 31-Dec-12 A |
| A4360 | Design | 100% | 01-Apr-12 A | 01-May-12 A |
| A4370 | Ad | 100% | 13-Jun-12 A | |
| A4380 | Bid Open | 100% | 10-Jul-12 A | |
| A4390 | Award | 100% | 01-Aug-12 A | |
| A4400 | Construction | 100% | 01-Aug-12 A | 31-Dec-12 A |
| Caven Avenue Rehab Project (H11304) | | | 01-Jan-13 A | 31-Jan-14 |
| A5250 | Design | 90% | 01-Jan-13 A | 30-Apr-13 |
| A5260 | Ad | 0% | 01-May-13* | |
| A5270 | Bid Open | 0% | 28-May-13* | |
| A5280 | Award | 0% | 24-Jun-13* | |
| A5290 | Construction | 0% | 22-Jul-13* | 31-Jan-14 |
| FY13 ICA Project | | | 01-Jun-12 A | 01-Jun-13 |
| A4410 | Planning | 65% | 01-Jun-12 A | 01-Jun-13 |
| Cedar Creek Phase II SSES (H11313) | | | 01-Jul-11 A | 15-Dec-12 A |
| A3120 | Planning | 100% | 01-Jul-11 A | 15-Dec-12 A |
| Goose Creek PS SSES (H11407) | | | 01-Oct-12 A | 30-Jun-14 |
| A4950 | Planning | 20% | 01-Oct-12 A | 30-Jun-14 |
| Nightingale PS SSES (H11313) | | | 01-Feb-13 A | 30-Jun-14 |
| A5110 | Planning | 5% | 01-Feb-13 A | 30-Jun-14 |
| Pump Station Operations Programs | | | 23-Mar-11 A | 11-Nov-14 |
| O-A-2 Emergency Operation Programs | | | 23-Mar-11 A | 11-Nov-14 |
| Trinity Homes Pump Station Emergency Generator & Access Road (H11440) | | | 23-Mar-11 A | 14-Jan-14 |
| A2020 | Design | 100% | 23-Mar-11 A | 01-Dec-12 A |
| A2030 | Ad | 100% | 24-Apr-12 A | |
| A2300 | Bid Open | 100% | 08-May-12 A | |
| A2040 | Award | 100% | 09-Aug-12 A | |
| A2050 | Construction | 100% | 09-Aug-12 A | 16-Jan-13 A |
| A2310 | Warranty | 25% | 17-Jan-13 A | 14-Jan-14 |
| Trinity Homes Pump Station Roof Hatch (H11440) | | | 25-Jul-12 A | 15-Aug-13 |
| A4610 | Design | 100% | 25-Jul-12 A | 15-Oct-12 A |
| A4620 | Ad | 100% | 21-Mar-13 A | |
| A4650 | Bid Open | 0% | 17-Apr-13* | |
| A4630 | Award | 0% | 24-Apr-13* | |

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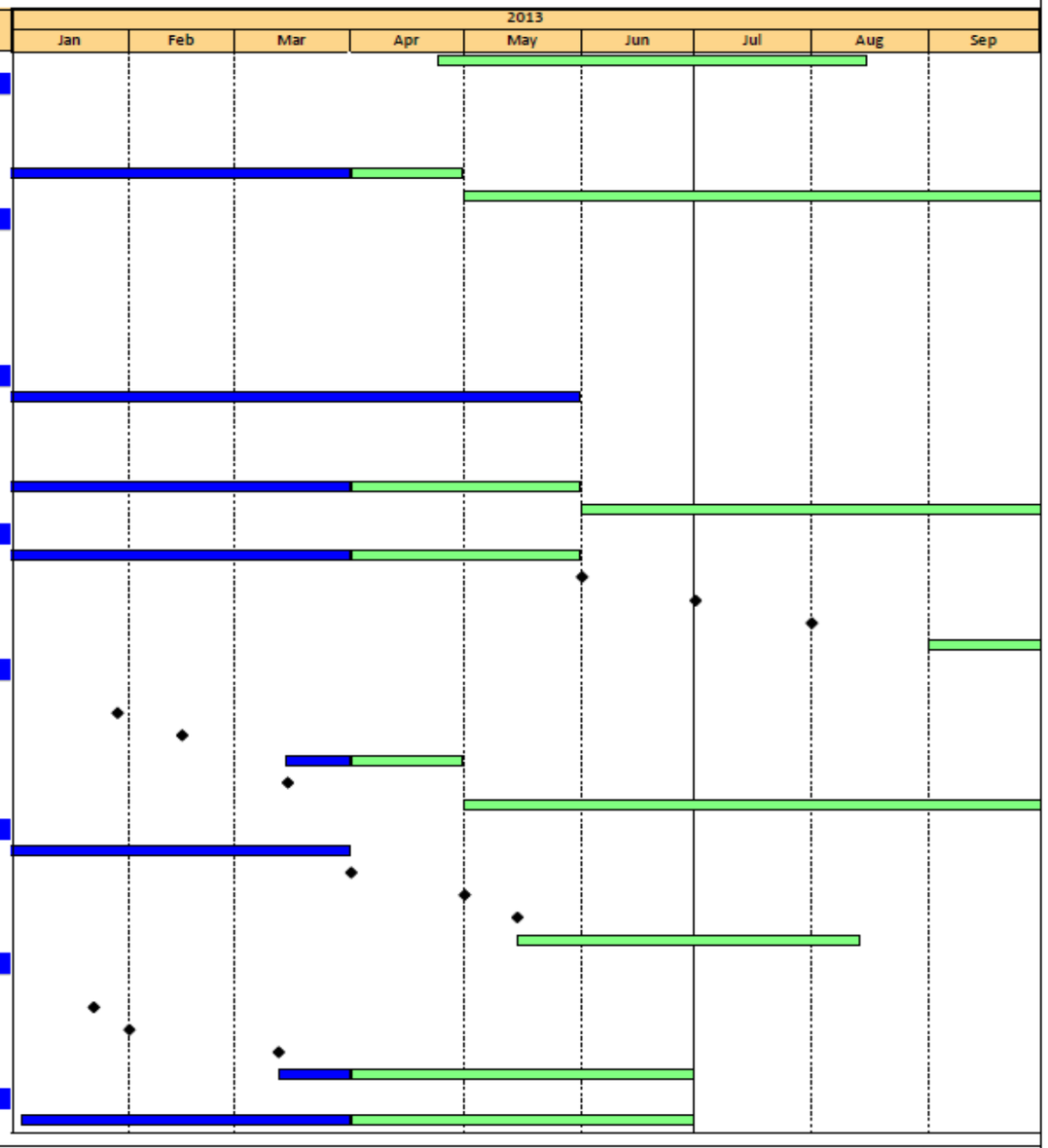
Date Date: 01-Apr-13

MSD CMOM FY12 Annual Commitments Schedule (01 April 2013 - 30 September 2013)

Date: 24-Apr-13

| Activity ID | Activity Name | Physical % Complete | Start | Finish |
|---|---|---|---|---|
| A4640 | Construction | 0% | 24-Apr-13* | 15-Aug-13 |
| **Northern Ditch Diversion Structure Flow Meter Manhole Project (H13033)** | | | **05-Sep-12 A** | **01-May-14** |
| A4680 | Award | 100% | 05-Sep-12 A | |
| A4700 | Bid Open | 100% | 21-Sep-12 A | |
| A4670 | Ad | 100% | 15-Oct-12 A | |
| A4690 | Construction | 99% | 15-Oct-12 A | 30-Apr-13 |
| A5120 | Warranty | 0% | 01-May-13* | 01-May-14 |
| **34th Street FPS Gate Actuator Replacement Project (H09352)** | | | **01-Jan-12 A** | **11-Nov-14** |
| A4800 | Design | 100% | 01-Jan-12 A | 30-May-12 A |
| A4760 | Ad | 100% | 15-Jun-12 A | |
| A4790 | Bid Open | 100% | 29-Jun-12 A | |
| A4770 | Award | 100% | 26-Jul-12 A | |
| A4780 | Construction | 100% | 26-Jul-12 A | 13-Nov-12 A |
| A5130 | Warranty | 0% | 11-Nov-13* | 11-Nov-14 |
| **Royster Basin Access Road Project (H09365)** | | | **26-Mar-12 A** | **01-Jun-14** |
| A4310 | Design | 100% | 26-Mar-12 A | 31-May-13 A |
| A4320 | Ad | 100% | 15-Jul-12 A | |
| A4350 | Bid Open | 100% | 15-Aug-12 A | |
| A4330 | Award | 100% | 01-Sep-12 A | |
| A4340 | Construction | 99% | 18-Sep-12 A | 31-May-13 |
| A5200 | Warranty | 0% | 01-Jun-13* | 01-Jun-14 |
| **Royster Basin Generator Project (H09365)** | | | **26-Mar-12 A** | **31-Dec-13** |
| A4810 | Design | 50% | 26-Mar-12 A | 31-May-13 |
| A4820 | Ad | 0% | 01-Jun-13* | |
| A4850 | Bid Open | 0% | 01-Jul-13* | |
| A4830 | Award | 0% | 01-Aug-13* | |
| A4840 | Construction | 0% | 01-Sep-13* | 31-Dec-13 |
| **Prospect Point Pump Station Access Road (H13084)** | | | **16-Jul-12 A** | **01-May-14** |
| A4420 | Design | 100% | 16-Jul-12 A | 26-Nov-12 A |
| A4430 | Ad | 100% | 29-Jan-13 A | |
| A4440 | Bid Open | 100% | 15-Feb-13 A | |
| A4460 | Construction | 99% | 15-Mar-13 A | 30-Apr-13 |
| A4450 | Award | 100% | 15-Mar-13 A | |
| A5140 | Warranty | 0% | 01-May-13* | 01-May-14 |
| **Brandies FPS Ventilation Modifications (H09352)** | | | **01-Jun-12 A** | **13-Aug-13** |
| A5010 | Design | 100% | 01-Jun-12 A | 31-Mar-13 A |
| A5040 | Award | 0% | 01-Apr-13* | |
| A5030 | Bid Open | 0% | 01-May-13* | |
| A5020 | Ad | 0% | 15-May-13* | |
| A5050 | Construction | 0% | 15-May-13* | 13-Aug-13 |
| **Valley Village PS Header Piping Improvements Project (H09352)** | | | **01-Jun-12 A** | **30-Jun-13** |
| A4960 | Design | 100% | 01-Jun-12 A | 31-Oct-12 A |
| A4970 | Ad | 100% | 23-Jan-13 A | |
| A4980 | Bid Open | 100% | 01-Feb-13 A | |
| A4990 | Award | 100% | 13-Mar-13 A | |
| A5000 | Construction | 20% | 13-Mar-13 A | 30-Jun-13 |
| **4th Street FPS Gate and Switch Gear Replacement Project (F12095)** | | | **04-Jan-13 A** | **30-Apr-14** |
| A5150 | Design | 50% | 04-Jan-13 A | 30-Jun-13 |

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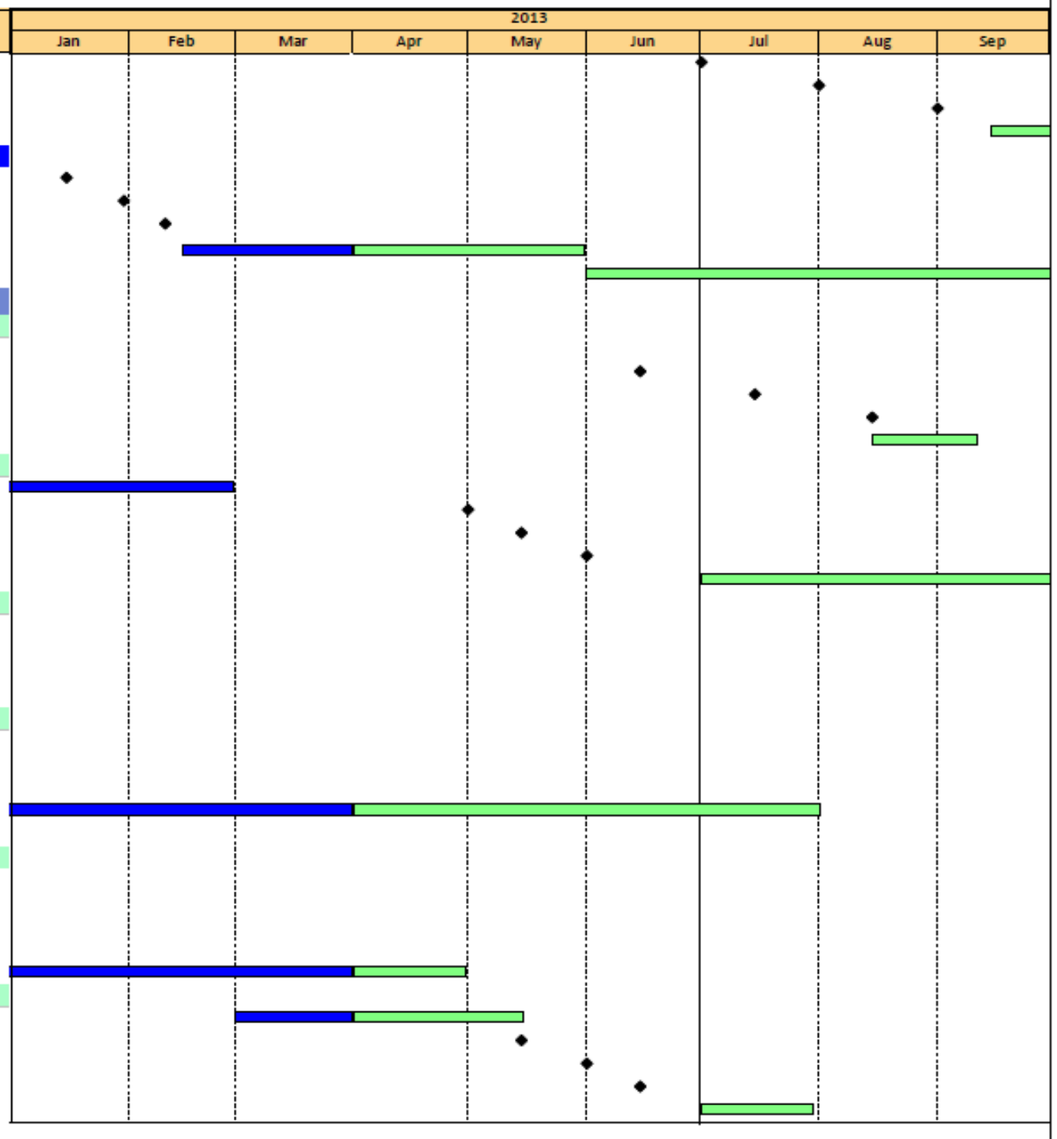
Date Date: 01-Apr-13

MSD CMOM FY12 Annual Commitments Schedule (01 April 2013 - 30 September 2013)

Date: 24-Apr-13

| Activity ID | Activity Name | Physical % Complete | Start | Finish |
|---|---|---|---|---|
| A5160 | Ad | 0% | 01-Jul-13* | |
| A5170 | Bid Open | 0% | 01-Aug-13* | |
| A5180 | Award | 0% | 01-Sep-13* | |
| A5190 | Construction | 0% | 15-Sep-13* | 30-Apr-14 |
| **Shannon Run PS Elimination Project (B13132)** | | | **16-Jan-13 A** | **01-Jun-14** |
| A5210 | Ad | 100% | 16-Jan-13 A | |
| A5220 | Bid Open | 100% | 31-Jan-13 A | |
| A5230 | Award | 100% | 11-Feb-13 A | |
| A5240 | Construction | 95% | 15-Feb-13 A | 31-May-13 |
| A5300 | Warranty | 0% | 01-Jun-13* | 01-Jun-14 |
| **CPE/CPE Treatment Plant Activities** | | | **01-Mar-12 A** | **30-Sep-13** |
| **CMOM CPE/CCP FY11 - CL2 and SO2 Flow Pacing (H09360)** | | | **01-Jun-12 A** | **11-Sep-13** |
| A3440 | Design | 100% | 01-Jun-12 A | 30-Oct-12 A |
| A3400 | Ad | 0% | 15-Jun-13* | |
| A3410 | Bid Open | 0% | 15-Jul-13* | |
| A3430 | Award | 0% | 15-Aug-13* | |
| A3420 | Construction | 0% | 15-Aug-13* | 11-Sep-13 |
| **Morris Forman WWTP Sampling Manholes (H09374)** | | | **01-Sep-12 A** | **30-Sep-13** |
| A4750 | Design | 100% | 01-Sep-12 A | 28-Feb-13 A |
| A4710 | Ad | 0% | 01-May-13* | |
| A4740 | Bid Open | 0% | 15-May-13* | |
| A4720 | Award | 0% | 01-Jun-13* | |
| A4730 | Construction | 0% | 01-Jul-13* | 30-Sep-13 |
| **Hillridge WTP Diversion Project (A13070)** | | | **04-Jun-12 A** | **24-Oct-12 A** |
| A4490 | Ad | 100% | 04-Jun-12 A | |
| A4500 | Bid Open | 100% | 27-Jun-12 A | |
| A4510 | Award | 100% | 15-Aug-12 A | |
| A4520 | Construction | 100% | 15-Aug-12 A | 24-Oct-12 A |
| **Morris Forman Secondary Flume Replacement (H12047)** | | | **01-Mar-12 A** | **01-Aug-13** |
| A3250 | Design | 100% | 01-Mar-12 A | 01-Jun-12 A |
| A3290 | Ad | 100% | 14-Jul-12 A | |
| A3260 | Bid Open | 100% | 14-Aug-12 A | |
| A3270 | Construction | 80% | 12-Sep-12 A | 01-Aug-13 |
| A3280 | Award | 100% | 12-Sep-12 A | |
| **Morris Forman Secondary Flow Meters (H12046)** | | | **01-Mar-12 A** | **30-Apr-13** |
| A3340 | Design | 100% | 01-Mar-12 A | 07-Jul-12 A |
| A3300 | Ad | 100% | 04-Aug-12 A | |
| A3310 | Bid Open | 100% | 14-Sep-12 A | |
| A3330 | Award | 100% | 11-Oct-12 A | |
| A3320 | Construction | 99% | 21-Oct-12 A | 30-Apr-13 |
| **Berrytown Tank Rehabilation (H09374)** | | | **01-Mar-13 A** | **30-Jul-13** |
| A5350 | Design | 5% | 01-Mar-13 A | 15-May-13 |
| A5310 | Ad | 0% | 15-May-13* | |
| A5320 | Bid Open | 0% | 01-Jun-13* | |
| A5340 | Award | 0% | 15-Jun-13* | |
| A5330 | Construction | 0% | 01-Jul-13* | 30-Jul-13 |

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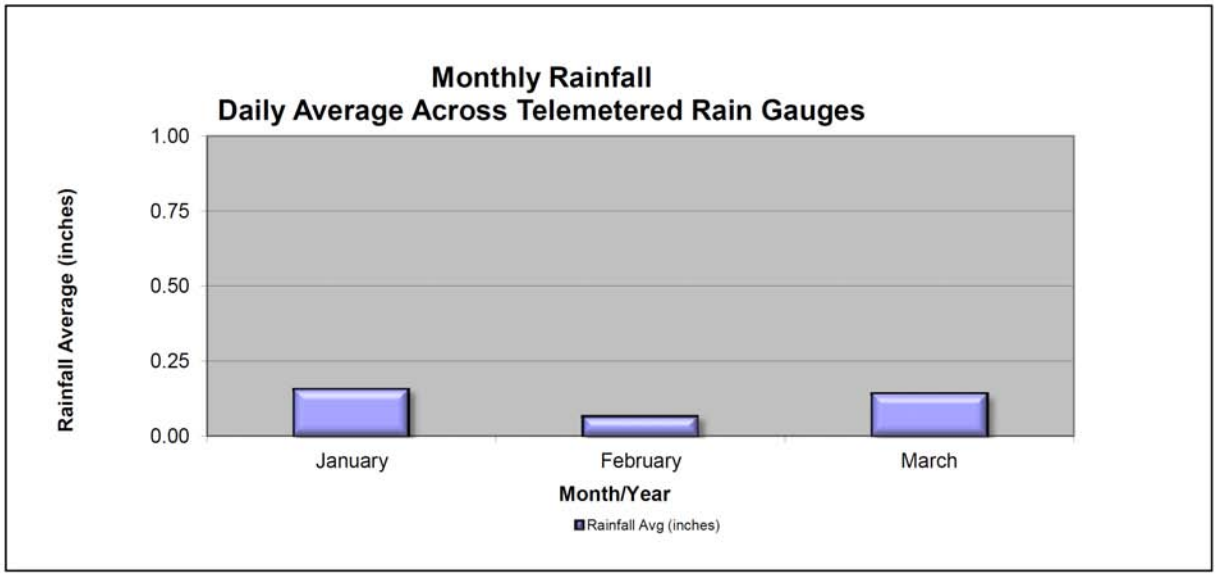
Date Date: 01-Apr-13

## SECTION 6: Project WIN Performance Overview

### 6.1 Rainfall

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




### 6.2 Collection System Unauthorized Discharges

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

Recorded information related to overflows reaching Waters of the United States (WUS) for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. Details of these overflows will be included in the Annual Report for the period of July 1, 2012, through June 30, 2013, and will be posted on the Project WIN website. During this quarter, 153 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 | 12 | 14 |
| Lack of System Capacity | 0 | 121 | 121 |
| Mechanical Failure | 0 | 2 | 2 |
| Obstruction-Not Grease or Root | 1 | 0 | 1 |
| Pumped Overflow | 0 | 5 | 5 |
| Roots | 1 | 1 | 2 |
| Structural Failure | 0 | 1 | 1 |
| Utility Damage | 2 | 0 | 2 |
| WQTC Process Upset | 1 | 0 | 1 |
| Total | 7 | 146 | 153 |

### 6.2.2 Overflows to Ground (EXT)

Recorded information related to overflows to the ground that did not reach waters of the United States for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows will be included in the Annual Report for the period of July 1, 2012, through June 30, 2013.

### 6.2.3 Overflows to Interior (INT)

Recorded information related to overflows to building interiors for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. These overflows, that are the result of an issue in the main line, will be included in the Annual Report for the period of July 1, 2012, through June 30, 2013.

### 6.2.4 Dry Weather CSOs

Recorded information related to dry weather overflows from permitted combined sewer overflow outfalls. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Amended Consent Decree. A detailed report of these overflows will be included in the Annual Report for the period of July 1, 2012, through June 30, 2013. The table below summarizes dry weather CSOs that occurred during the quarter. Appendix A-1 includes details on the dry weather overflows that occurred in the quarter.

| Dry Weather CSO - January 1, 2013 - March 31, 2013 | | | | | |
|---|---|---|---|---|---|
| CSO | Type of Discharge | Date/Time | Problem | Cause | Volume (Gal) |
| CSO117 | DISDW | 1/2/13 10:15 PM | UTILITY DAMAGED MSD ASSET | LWC WATER MAIN BREAK | 13,750 GAL |
| CSO149 | DISDW | 1/2/13 9:45 PM | UTILITY DAMAGED MSD ASSET | LWC WATER MAIN BREAK NEAR CSO LOCATION | 60,142 GAL |

## 6.3 CSO Reductions

Included in **Appendix B** is the CSO data for this quarter. A summary of any data anomalies and the CSO data for each monitored overflow has been graphed along with rainfall information from the nearest rain gauge to facilitate review of the overflows that occurred.

- No CSO reduction projects completed during the reporting period.

## 6.4 SSO Reductions

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

- Shannon Run PS Elimination – Completed March 27, 2013 – Eliminated the following SSOs: MSD1203-PS.
- Hikes Point Interceptor Ph1 and Hikes Point Relief – Completed November 27, 2012 – Eliminated the following SSOs: 18370, 48888, 48886, 18297, 18299, 48885, 73111.

## 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 January 1, 2013, through March 31, 2013. The first table includes data and targets. The second table includes unplanned maintenance and other maintenance activities that are performed in response to inspection.

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

| Rolling Quarterly Planned GLPM Performance With Targets | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Apr-Jun | Jul-Sep | Oct-Dec | **Jan-Mar** | Total | Target/ qtr | % Complete of Annual Target |
| **Combined Sewer Area** | | | | | | | |
| Catch Basins Cleaned CSO Area - PM | 6,261 | 5,439 | 5,300 | **7,165** | 24,165 | 4,460 | 100% |
| CSO Inspections | 1,321 | 918 | 1,324 | **1,310** | 4,873 | 1,272 | 70% |
| | | | | | | | |
| **Sanitary Sewer Area** | | | | | | | |
| Catch Basins Cleaned SSO Area - PM | 1,987 | 86 | 2,773 | **1,561** | 6,407 | 1,144 | 97% |
| | | | | | | | |
| **County Wide** | | | | | | | |
| Sewer Main Inspections MSD Crews (LF) | 179,018 | 167,171 | 180,054 | **56,434** | 582,677 | 198,000 | 51% |
| Sewer Main Inspections Contractor (LF) | 545,877 | 0 | 132,891 | **98,656** | 777,424 | 198,000 | 29% |
| Total Inspections (LF) | 724,895 | 167,171 | 312,945 | **155,090** | 1,360,101 | 396,000 | 40% |

| Rolling Quarterly Unplanned GLPM Performance | | | | | |
|---|---|---|---|---|---|
| | Apr-Jun | Jul-Sep | Oct-Dec | **Jan-Mar** | Total |
| **Combined Sewer Area** | | | | | |
| Catch Basins Cleaned CSO Area - UM | 375 | 308 | 351 | **183** | 1,217 |
| CSO Debris Removal WO | 121 | 101 | 108 | **112** | 442 |
| Chemical Root Treatment CSO Area (LF) | 0 | 0 | 28,730 | **2,586** | 31,316 |
| Root Cutting CSO Area (LF) | 36,496 | 2,920 | 26,604 | **570** | 66,590 |
| Flushing and Cleaning of Sewer Mains CSO Area (LF) | 10,190 | 11,319 | 22,290 | **3,382** | 47,181 |
| | | | | | |
| **Sanitary Sewer Area** | | | | | |
| Catch Basins Cleaned SSO Area - UM | 93 | 32 | 84 | **91** | 300 |
| Chemical Root Treatment SSO Area (LF) | 2,853 | 0 | 64,436 | **48,858** | 116,147 |
| Root Cutting SSO Area (LF) | 40,751 | 220 | 39,535 | **23,945** | 104,451 |
| Flushing and Cleaning of Sewer Mains SSO Area (LF) | 31,346 | 3,852 | 53,487 | **16,033** | 104,718 |

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

| Bypass Events - January 1, 2013 - March 31, 2013 | | | |
|---|---|---|---|
| **Type of Bypass** | **Date** | **ID** | **Facility Name** |
| Dry Weather | 1/3/13 | MSD0228 | MCNEELY LAKE |
| Wet Weather | 1/13/13 | MSD0294 | FLOYDS FORK |
| Wet Weather | 1/13/13 | MSD0209 | BERRYTOWN |
| Wet Weather | 1/13/13 | MSD0263 | CHENOWETH HILLS |
| Wet Weather | 1/13/13 | MSD0263 | CHENOWETH HILLS |
| Wet Weather | 1/13/13 | MSD0294 | FLOYDS FORK |
| Wet Weather | 1/13/13 | MSD0263 | CHENOWETH HILLS |
| Dry Weather | 1/19/13 | MSD0278 | MORRIS FORMAN |
| Wet Weather | 3/17/13 | MSD0255 | JEFFERSONTOWN |
| Wet Weather | 3/17/13 | MSD0255 | JEFFERSONTOWN |
| Wet Weather | 3/18/13 | MSD0209 | BERRYTOWN |
| Wet Weather | 3/18/13 | MSD0209 | BERRYTOWN |
| Wet Weather | 3/18/13 | MSD0209 | BERRYTOWN |
| Wet Weather | 3/20/13 | MSD0209 | BERRYTOWN |

### 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 January 1, 2013, and March 31, 2013.

| Bypass Summary - January 1, 2013 to March 31, 2013 | | |
|---|---|---|
| **DATE/TIME** | **BYPASS DESCRIPTION** | **FAILURE RESOLUTION** |
| **Capacity (CAP)** | | |
| 1/13/13 11:45 AM | FLOYDS FORK - WO# 1623234 - OVERFLOW - CAPACITY - RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY - SECONDARY (CAP) | LACK OF SYSTEM CAPACITY DURING RAIN EVENT DUE TO PLANT EXPANSION. APPROXIMATELY 1.072 MG BYPASSED SECONDARY TREATMENT. ALL FLOW RECEIVED PRIMARY AND UV DISINFECTION. DESIGN FLOW = 3.25 MGD, PEAK DURING BYPASS = 12.84MGD, TOTAL DAILY FLOW = 10.899 MG. PROCESS ADJUSTMENT TO OXIDATION DITCH. FLOW DECREASED AND BYPASS STOPPED. |
| 1/13/13 4:05 PM | CHENOWETH HILLS - WO# 1623302 - OVERFLOW - CAPACITY - SURGE TANK FULL; DISCHARGE PIPE MIXING WITH CLARIFIER EFFLUENT(CAP) | SURGE TANK FLOWED INTO EFFLUENT LINE RESULTING IN BYPASS. SURGE TANK LINE TO EFFLUENT PLUGGED TO PREVENT RECURRENCE 1/13/2013. IF OPERATIONAL NEEDS FOR RESOURCES ALLOW, MSD WILL HAUL WASTEWATER FROM THIS WQTC DURING SIGNIFICANT RAIN EVENTS. |
| 1/13/13 4:45 PM | BERRYTOWN - WO# 1623301 - OVERFLOW - CAPACITY - LACK OF SYSTEM CAPACITY – PLANT AERATION BASIN(CAP) | HEAVY RAIN CAUSED ELEVATED WATER LEVELS IN PLANT TANKS. APPROXIMATELY 303,750 GALLONS OF WATER OVERFLOWED PLANT AERATION BASIN. FLOW RECEIVED PRIMARY TREATMENT. APPROXIMATION OF TOTAL PLANT FLOWS COULD NOT BE CALCULATED AS FLOW EXCEDED PLANT MEASUREMENT CAPACITY. IF OPERATIONAL NEEDS FOR RESOURCES ALLOW, MSD WILL HAUL WASTEWATER FROM THIS WQTC DURING SIGNIFICANT RAIN EVENTS. |

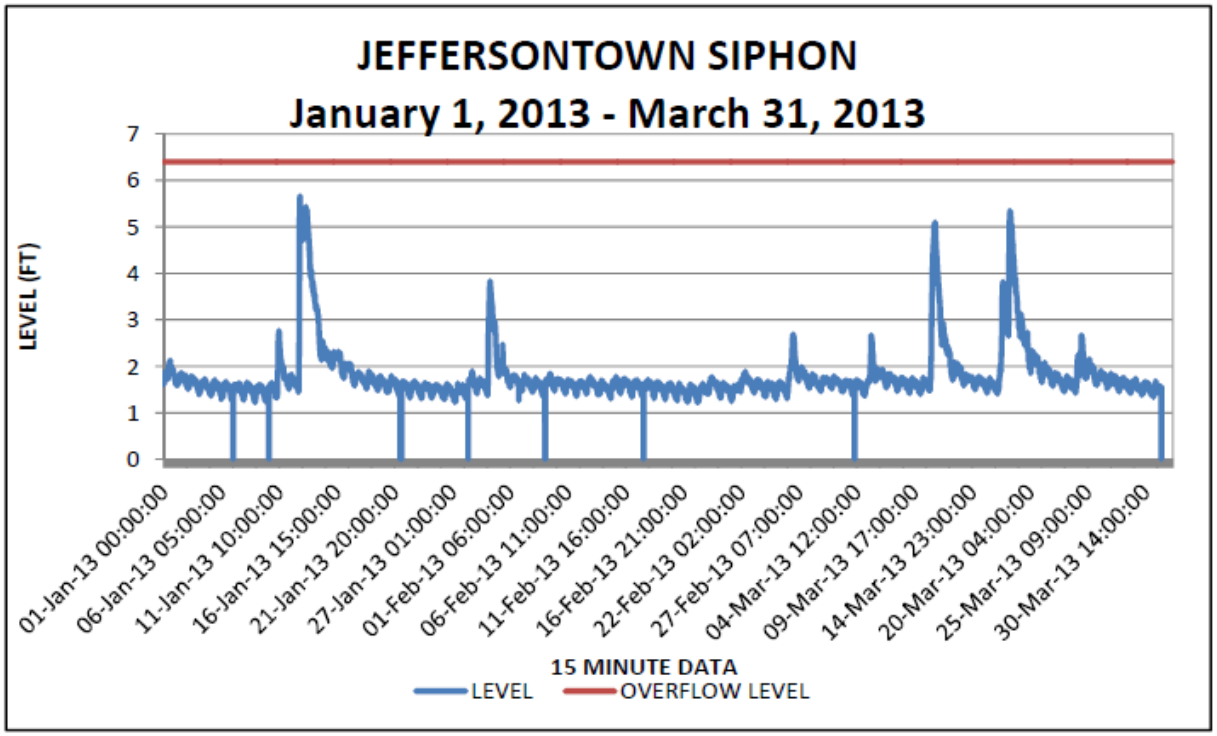
| | | |
|---|---|---|
| 1/13/13 7:40 PM | CHENOWETH HILLS - WO# 1623346 - OVERFLOW - CAPACITY - LACK OF CAPACITY IN THE CHLORINE TANK(CAP) | HEAVY RAIN CAUSED ELEVATED WATER LEVELS IN PLANT TANKS. APPROXIMATELY 26,700 GALLONS OF WATER OVERFLOWED PLANT CHLORINE CONTACT CHAMBER. FLOW RECEIVED PRIMARY AND SECONDARY TREATMENT. PEAK FLOW DURING THIS EVENT WAS 1.359 MG. DESIGN FLOW IS 200,000 GPD. IF OPERATIONAL NEEDS FOR RESOURCES ALLOW, MSD WILL HAUL WASTEWATER FROM THIS WQTC DURING SIGNIFICANT RAIN EVENTS. |
| 3/17/13 6:11 PM | JEFFERSONTOWN - WO# 1656899 - OVERFLOW - CAPACITY - LACK OF SYSTEM CAPACITY – PLANT NO. 1 AERATION TANK NO. 7(CAP) | AERATION TANK NO. 7 ON PLANT NO. 1 OVERFLOWED DUE TO HEAVY RAIN AND HIGH FLOW. APPROXIMATELY 4500 GALLONS OVERFLOWED TO GROUND. PEAK FLOW AT TIME OF OVERFLOW = 12.02 MGD. FLOW THROUGH PLANT 1 = 180683. IMPLEMENTED WET WEATHER SOP. |
| 3/17/13 7:10 PM | JEFFERSONTOWN - WO# 1656898 - OVERFLOW - CAPACITY - LACK OF SYSTEM CAPACITY - EFFLUENT(CAP) | SOLIDS LEFT PLANT VIA EFFLUENT. 10,000 GALLONS CONTAINING SOLIDS DISCHARGED TO EFFLUENT. PEAK FLOW AT TIME OF OVERFLOW = 12.02 MGD. FLOW THROUGH PLANT 2 = .164 MGD. IMPLEMENTED WET WEATHER SOP (EXTENDED DURATION). |
| 3/18/13 2:37 PM | BERRYTOWN - WO# 1657583 - OVERFLOW - CAPACITY - LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT – CLARIFIER 1(CAP) | **CLARIFIER 1 -** HEAVY RAIN CAUSED ELEVATED WATER LEVELS IN PLANT TANKS. APPROX 32,650 GALLONS OF WATER OVERFLOWED PLANT CLARIFIER NO. 1. FLOW RECEIVED PRIMARY AND SECONDARY TREATMENT. APPROXIMATE TOTAL PLANT FLOWS: 3/18 = .175MGD, 3/19 = .330MGD. IF OPERATIONAL NEEDS FOR RESOURCES ALLOW, MSD WILL HAUL WASTEWATER FROM THIS WQTC DURING SIGNIFICANT RAIN EVENTS. |

| | | |
|---|---|---|
| 3/18/13 2:37 PM | BERRYTOWN - WO# 1657585 - OVERFLOW - CAPACITY - LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT – CLARIFIER 2 (CAP) | **CLARIFIER 2** - HEAVY RAIN CAUSED ELEVATED WATER LEVELS IN PLANT TANKS. APPROXIMATELY 32,650 GALLONS OF WATER OVERFLOWED PLANT CLARIFIER NO. 2. FLOW RECEIVED PRIMARY AND SECONDARY TREATMENT. APPROX TOTAL PLANT FLOWS: 3/18 = .175MGD, 3/19 = .330MGD. IF OPERATIONAL NEEDS FOR RESOURCES ALLOW, MSD WILL HAUL WASTEWATER FROM THIS WQTC DURING SIGNIFICANT RAIN EVENTS. |
| 3/18/13 2:37 PM | BERRYTOWN - WO# 1657587 - OVERFLOW - CAPACITY - LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT - DIGESTER(CAP) | **DIGESTER** - HEAVY RAIN CAUSED ELEVATED WATER LEVELS IN PLANT TANKS. APPROX 48,975 GALLONS OF WATER OVERFLOWED THE DIGESTER. FLOW RECEIVED PRIMARY AND SECONDARY TREATMENT. APPROX TOTAL PLANT FLOWS: 3/18 = .175MG, 3/19 = .330MG. IF OPERATIONAL NEEDS FOR RESOURCES ALLOW, MSD WILL HAUL WASTEWATER FROM THIS WQTC DURING SIGNIFICANT RAIN EVENTS. |
| 3/20/13 9:55 PM | BERRYTOWN - WO# 1658588 - OVERFLOW - EQ FAIL ELECTRICAL - PUMP CONTROLLER SWITCH FAILURE DUE TO TURBULENCE FROM HIGH FLOWS – INFLUENT PS (CAP) | HIGH FLOWS CAUSED TURBULENCE AT INFLUENT PS, WHICH INTERFERED WITH LEVEL CONTROLLER. LEVEL CONTROL DEVICE CHANGED FROM TILT BULB TO HRYDROSTATIC CONTROLLER 3/26/2013. NO BYPASS ASSOCIATED WITH THIS FAILURE ANTICIPATED. |
| **Facility Failure ( Mechanical - MCH, Electrical - ELE, Structural - SRT)** | | |
| 1/13/13 7:40 PM | CHENOWETH HILLS - WO# 1623401 - OVERFLOW - EQ FAIL STRUCTURAL - EFFLUENT PIPE TO EFFLUENT PUMP STATION FAILED (SRT) | CONTRACTOR REPAIRED STRUCTURAL FAILURE 1/14/2013. |

| | | |
|---|---|---|
| 1/13/13 10:19 PM | FLOYDS FORK - WO# 1623398 - OVERFLOW - EQ FAIL ELECTRICAL - UV FAILURE (ELE) | NEW UV SYSTEM AS PART OF PLANT EXPANSION SHUTDOWN IN AUTO MODE DUE TO COMMUNICATION PROBLEM. 33,937 GALLONS DID NOT RECEIVE UV DISINFECTION. FLOW RECEIVED ALL OTHER TREATMENT. RESTARTED UV SYSTEM AND PLACED IN HAND MODE. SYSTEM WILL NOT SHUTDOWN DUE TO COMMUNICATION FAILURES IN HAND MODE 1/13/2013. CONTRACTOR INVESTIGATING FAILURE. |
| 1/19/13 3:05 PM | MORRIS FORMAN - WO# 1627275 - OVERFLOW - EQ FAIL ELECTRICAL - BIOTOWER PUMP FAILURE (ELE) | BIOTOWER PUMPS SHUT DOWN UNEXPECTEDLY CAUSING APPROXIMATELY 200 GALLONS OF PARTIALLY TREATED WASTEWATER TO ENTER RIVER VIA STORM DRAIN. TRENCH DRAIN HAD BEEN CONSTRUCTED BUT SMALL AMOUNT OF FLOW TRAVELLED THROUGH UNDERGROUND CONDUIT AND SURCHARGED INTO STORM DRAIN DOWNSTREAM. INVESTIGATION REVEALED THE PROCESSOR IN THE PUMP DRIVE FAULTED AND WAS REPLACED 3/20/2013. NO FURTHER BYPASSES DUE TO THIS FAILURE ANTICIPATED. |
| **External Power failures (LGE Related-PWR)** | | |
| | No bypasses of this category occurred during the reporting period. | N/A |
| **Human Error (OPN)** | | |
| 1/3/13 3:30 PM | MCNEELY LAKE - WO# 1619146 - OVERFLOW - HUMAN ERROR - OPERATOR ERROR. PUMP SELECTOR SWITCH LEFT IN OFF POSITION. (OPN) | OPERATIONS PERSONNEL TO BE RE-TRAINED TO PREVENT REOCCURRENCE. TRAINING TO BE COMPLETED BY 4/26/2013. |
| **Utility Damage** | | |
| | No bypasses of this category occurred during the reporting period. | N/A |

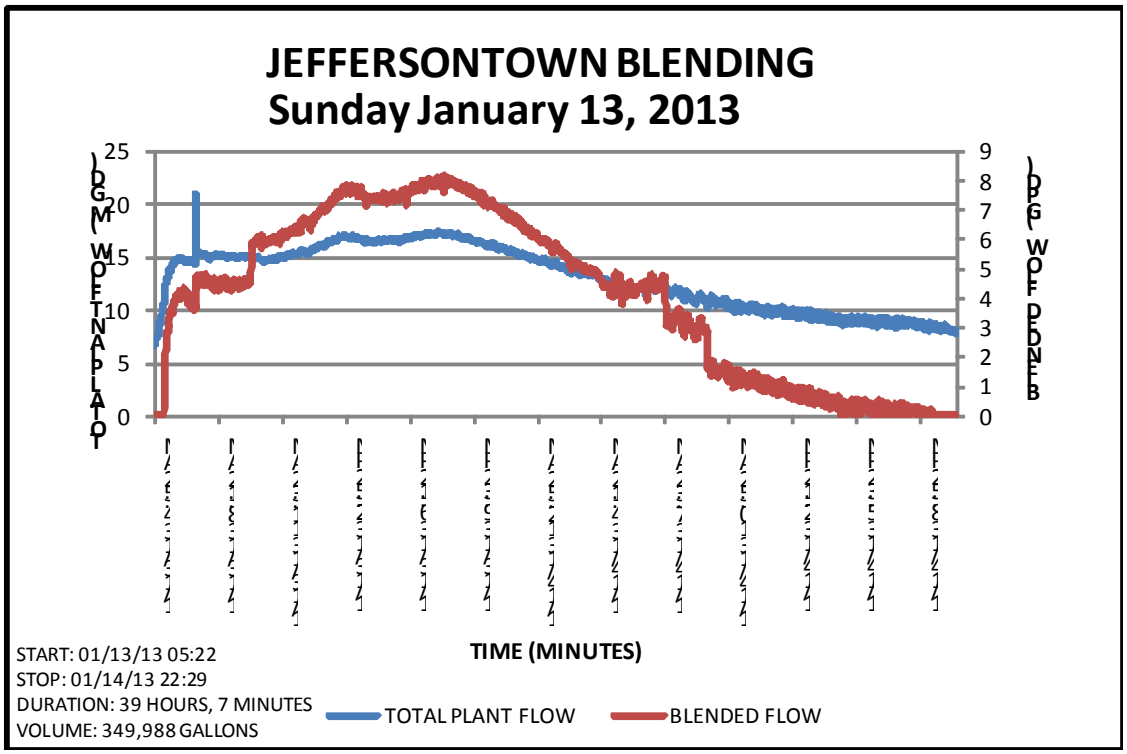
### 6.6.3 Jeffersontown Water Quality Treatment Center

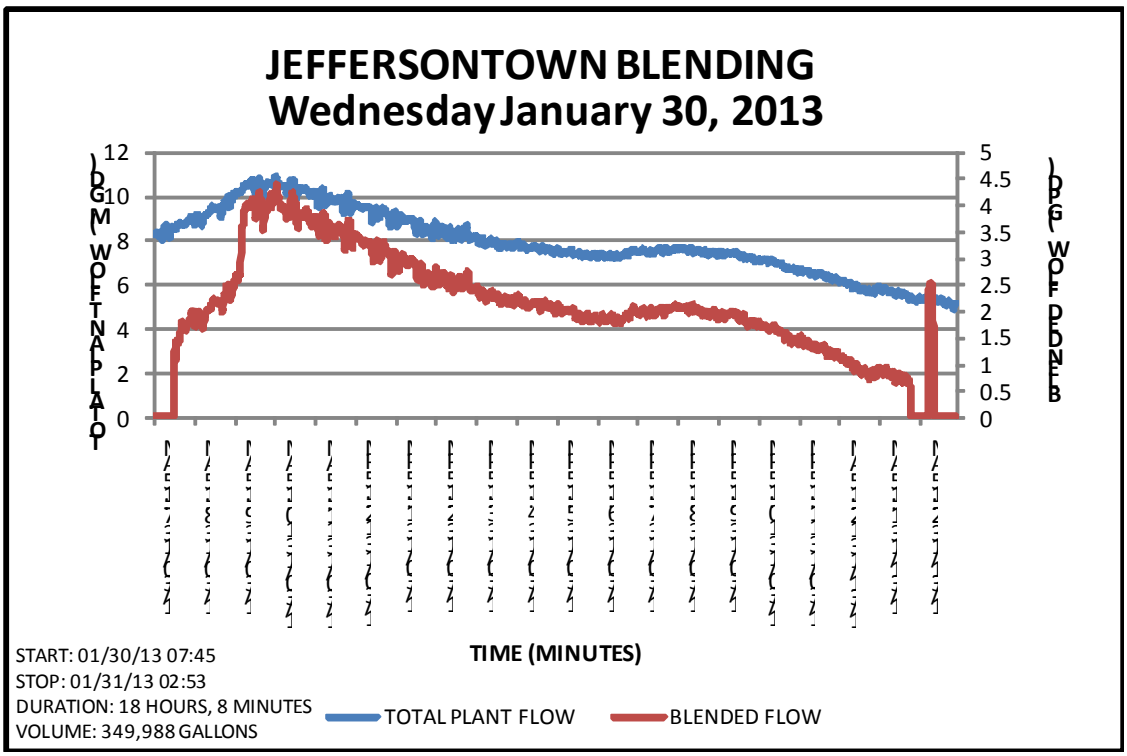
MSD submitted a Jeffersontown WQTC Process Control Plan on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this document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

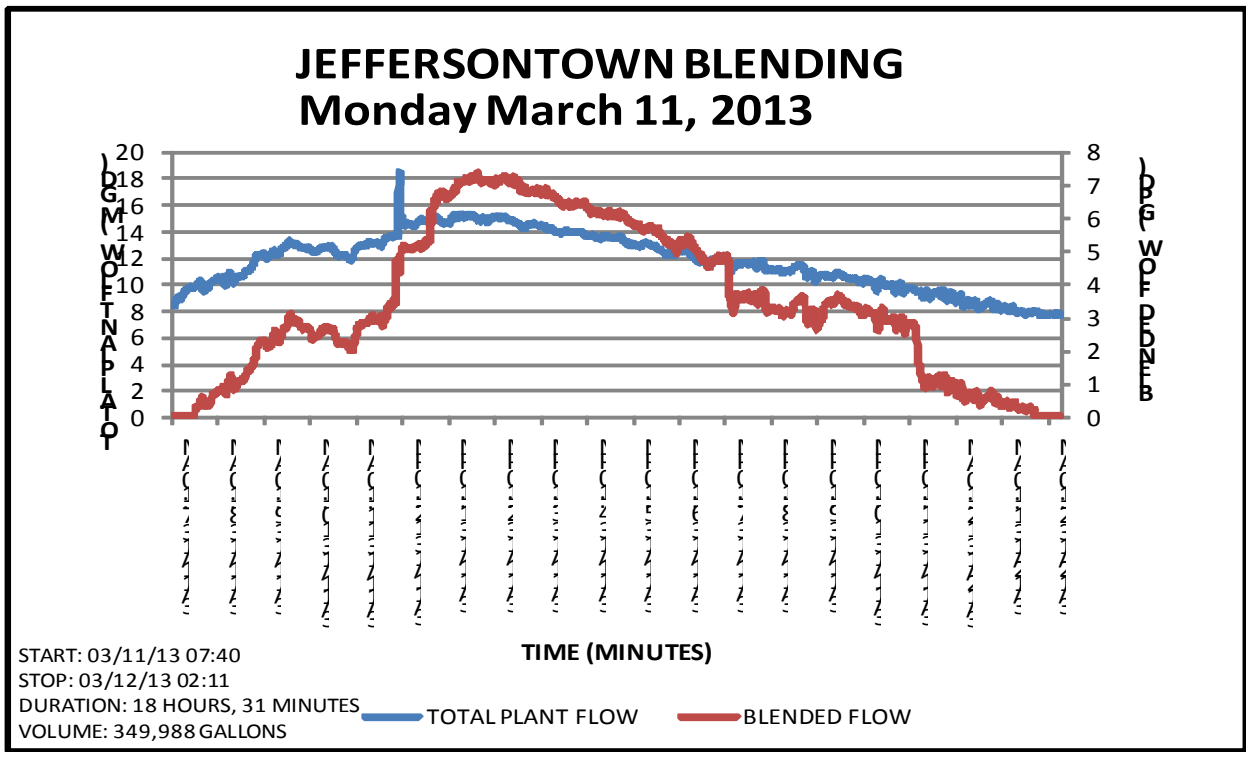


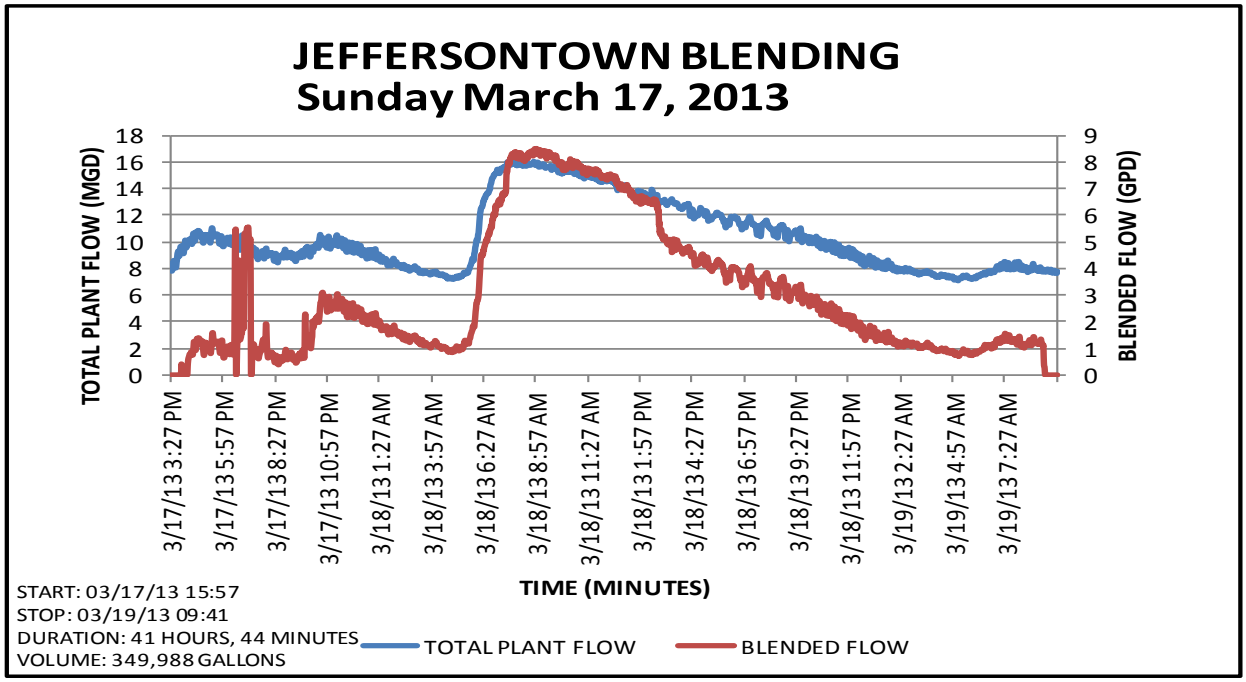

The following activities occurred at the Jeffersontown WQTC during the reporting period:

- Inspections were conducted upstream of the Jeffersontown WQTC Headworks three times (January 14, 2013, March 11, 2013 & March 17, 2013). Three overflows were reported as a result of the inspections. All three overflows occurred at manhole 28173 (not associated with the siphon).
- There were four blending events during the reporting period. Below are charts for each blending event that show total plant flow during the blending event.


JEFFERSONTOWN BLENDING
Sunday January 13, 2013
TIME (MINUTES)
START: 01/13/13 05:22
STOP: 01/14/13 22:29
DURATION: 39 HOURS, 7 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW

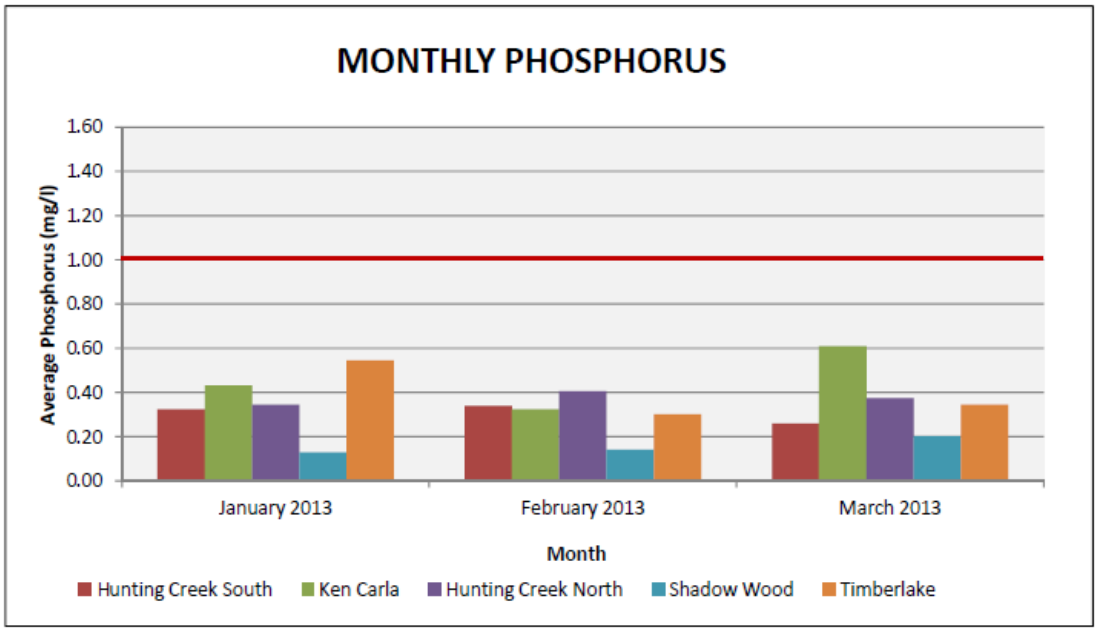

JEFFERSONTOWN BLENDING
Wednesday January 30, 2013
TIME (MINUTES)
START: 01/30/13 07:45
STOP: 01/31/13 02:53
DURATION: 18 HOURS, 8 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW


JEFFERSONTOWN BLENDING
Monday March 11, 2013
TOTAL PLANT FLOW (MGD)
BLENDED FLOW (GPD)
TIME (MINUTES)
START: 03/11/13 07:40
STOP: 03/12/13 02:11
DURATION: 18 HOURS, 31 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW


JEFFERSONTOWN BLENDING
Sunday March 17, 2013
TOTAL PLANT FLOW (MGD)
BLENDED FLOW (GPD)
TIME (MINUTES)
START: 03/17/13 15:57
STOP: 03/19/13 09:41
DURATION: 41 HOURS, 44 MINUTES
VOLUME: 349,988 GALLONS
TOTAL PLANT FLOW
BLENDED FLOW

## 6.7 Phosphorus Monitoring at the Prospect WQTCs

As part of the Amended Consent Decree, MSD has agreed to submit phosphorus monitoring data including the calculations of monthly averages with the quarterly reports. MSD WQTCs were under the 1mg/l limit during the reporting period, per the Amended Consent Decree requirement. The following chart displays monthly average phosphorus results for the Prospect WQTCs.



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

# APPENDIX A-1
# UNAUTHORIZED DISCHARGES
# TO WATERS OF UNITED STATES
## JANUARY 1, 2013 THROUGH MARCH 31, 2013

| 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 | 938 LOGAN ST | 01/02/13 10:15: PM | 01/02/13 11:15 PM | 13,750 GAL | Sewer Manhole | CSO117 | STREAM | SOUTH FORK BEARGRASS CREEK | LWC WATER MAIN BREAK | UTILITY DAMAGED MSD ASSET | 1618843 | FRESH WATER DISCHARGED TO CREEK-NO CLEANUP NEEDED | LWC REPAIRED WATER MAIN |
| MORRIS FORMAN | KY0022411 | 623 E KENTUCKY ST | 01/02/13 9:45: PM | 01/02/13 11:15 PM | 60,142 GAL | Sewer Manhole | CSO149 | STREAM | SOUTH FORK BEARGRASS CREEK | LWC WATER MAIN BREAK NEAR CSO LOCATION | UTILITY DAMAGED MSD ASSET | 1618992 | FRESH WATER DISCHARGE- NONE NEEDED | LOCATION INCLUDED IN THE IOAP |

Appendix A-2 - Discharge Work Orders – Bypass

# APPENDIX A-2
# UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
## JANUARY 1, 2013 THROUGH MARCH 31, 2013

| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type | Source Asset ID | Facility Discharges To | Receiving Stream | Cause of Overflow | Due To | WO # | Cleanup Efforts by MSD | Repair Efforts by MSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 01/13/13 4:45: PM | 01/14/13 12:30 PM | 303,750 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY | BYPASS AT WQTC | 1623301 | MSD CLEANED & SANITZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/18/13 2:37: PM | 03/19/13 01:30 AM | 32,650 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | BYPASS AT WQTC | 1657583 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/18/13 2:37: PM | 03/19/13 01:30 AM | 32,650 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | BYPASS AT WQTC | 1657585 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/18/13 2:37: PM | 03/19/13 01:30 AM | 48,975 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | BYPASS AT WQTC | 1657587 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |

Appendix A-3 - Discharge Work Orders – Blending

# APPENDIX A-3
# UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
## JANUARY 1, 2013 THROUGH MARCH 31, 2013

| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type | Source Asset ID | Facility Discharges To | Receiving Stream | Cause of Overflow | Due To | WO # | Cleanup Efforts by MSD | Repair Efforts by MSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 01/13/13 5:22: AM | 01/14/13 10:29 PM | 7,177,246 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1623167 | PIPE DISCHARGE SUBMERGED- NO CLEANUP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 01/30/13 7:45: AM | 01/31/13 02:53 AM | 1,712,000 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1633908 | PIPE DISCHARGE SUBMERGED- NO CLEANUP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 03/11/13 7:40: AM | 03/12/13 02:11 AM | 2,821,225 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1654779 | PIPE DISCHARGE SUBMERGED- NO CLEAN UP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 03/17/13 3:57: PM | 03/19/13 09:41 AM | 5,348,765 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1656877 | PIPE DISCHARGE SUBMERGED- NO CLEAN UP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |

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

# APPENDIX A-4
# UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
## JANUARY 1, 2013 THROUGH MARCH 31, 2013

| 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 | 7302 FLOYDSBURG RD | 01/13/13 10:35: AM | 01/14/13 04:50 AM | 10,950 GAL | Sewer Manhole | 108957 | DITCH | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | LACK OF SYSTEM CAPACITY | 1623210 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 01/13/13 4:45: PM | 01/14/13 12:30 PM | 303,750 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY | BYPASS AT WQTC | 1623301 | MSD CLEANED & SANITZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/18/13 2:37: PM | 03/19/13 01:30 AM | 32,650 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | BYPASS AT WQTC | 1657583 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/18/13 2:37: PM | 03/19/13 01:30 AM | 32,650 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | BYPASS AT WQTC | 1657585 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/18/13 2:37: PM | 03/19/13 01:30 AM | 48,975 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | BYPASS AT WQTC | 1657587 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| BERRYTOWN | KY0036501 | 1203 HEAFER RD | 03/20/13 9:55: PM | 03/20/13 10:00 PM | 200 GAL | Sewer Treatment Plant | MSD0209 | STREAM | FLOYDS FORK | PUMP CONTROLLER SWITCH FAILURE. | BYPASS AT WQTC | 1658588 | MSD CLEANED & SANITIZED THE AREA | RESET PUMP CONTROLLER SWITCH. |
| MCNEELY LAKE | KY0029416 | 10300 ROD N REEL RD | 01/03/13 3:30: PM | 01/03/13 03:35 PM | 100 GAL | Sewer Treatment Plant | MSD0228 | STREAM | PENNSYLVANIA RUN | OPERATOR ERROR. PUMP SELECTOR SWITCH LEFT IN OFF POSITION. | BYPASS AT WQTC | 1619146 | MSD CLEANED, SANITIZED, & LIMED THE AREA. | SELECTOR SWITCH PUT IN ON POSITION. |
| JEFFERSONTOWN | KY0025194 | 3258 RUCKRIEGEL PKY | 01/13/13 8:44: AM | 01/15/13 03:00 PM | 72,000 GAL | Sewer Manhole | 28173 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623199 | DISCLN WO# 1623569 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3258 RUCKRIEGEL PKY | 03/11/13 10:36: AM | 03/11/13 04:36 PM | 2,300 GAL | Sewer Manhole | 28173 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1655107 | DISCLN WO# 1655305 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3258 RUCKRIEGEL PKY | 03/18/13 8:32: AM | 03/18/13 03:20 PM | 31,500 GAL | Sewer Manhole | 28173 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1657231 | DISCLN WO# 1657847 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 9707 WILLOWWOOD WAY | 01/13/13 9:29: AM | 01/15/13 03:00 PM | 57,000 GAL | Sewer Manhole | 28336 | DITCH | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623268 | DISCLN WO# 1623585 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 9707 WILLOWWOOD WAY | 03/11/13 1:22: PM | 03/11/13 04:25 PM | 950 GAL | Sewer Manhole | 28336 | DITCH | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1655118 | DISCLN WO# 1655310 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 9707 WILLOWWOOD WAY | 03/18/13 9:10: AM | 03/18/13 01:40 PM | 10,500 GAL | Sewer Manhole | 28336 | DITCH | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1657236 | DISCLN WO# 1657828 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3620 CHARLANE PKY | 01/13/13 9:29: AM | 01/15/13 03:00 PM | 15,600 GAL | Sewer Manhole | 28340 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623448 | DISCLN WO# 1623580 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3620 CHARLANE PKY | 03/11/13 1:27: PM | 03/11/13 04:22 PM | 1,450 GAL | Sewer Manhole | 28340 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1655111 | DISCLN WO# 1655307 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3620 CHARLANE PKY | 03/18/13 9:10: AM | 03/18/13 01:59 PM | 18,000 GAL | Sewer Manhole | 28340 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1657234 | DISCLN WO# 1657834 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 2901 LIVINGSTON AVE | 01/13/13 3:19: PM | 01/15/13 03:00 PM | 90,000 GAL | Sewer Manhole | 28395 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623313 | DISCLN WO# 1623664 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3400 DELL RD | 01/13/13 2:40: PM | 01/15/13 03:00 PM | 45,000 GAL | Sewer Manhole | 28414 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623310 | DISCLN WO# 1623657 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 11401 GRAND AVE | 01/13/13 5:35: AM | 01/15/13 03:00 PM | 160,000 GAL | Sewer Manhole | 28551 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623183 | DISCLN WO# 1623566 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 11401 GRAND AVE | 01/30/13 10:21: AM | 01/30/13 11:30 AM | 100 GAL | Sewer Manhole | 28551 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1634066 | NONE NEEDED DUE TO LEVEL OF DISCHARGE AND THE MAGNITUDE OF STORM | LOCATION INCLUDED IN THE IOAP |

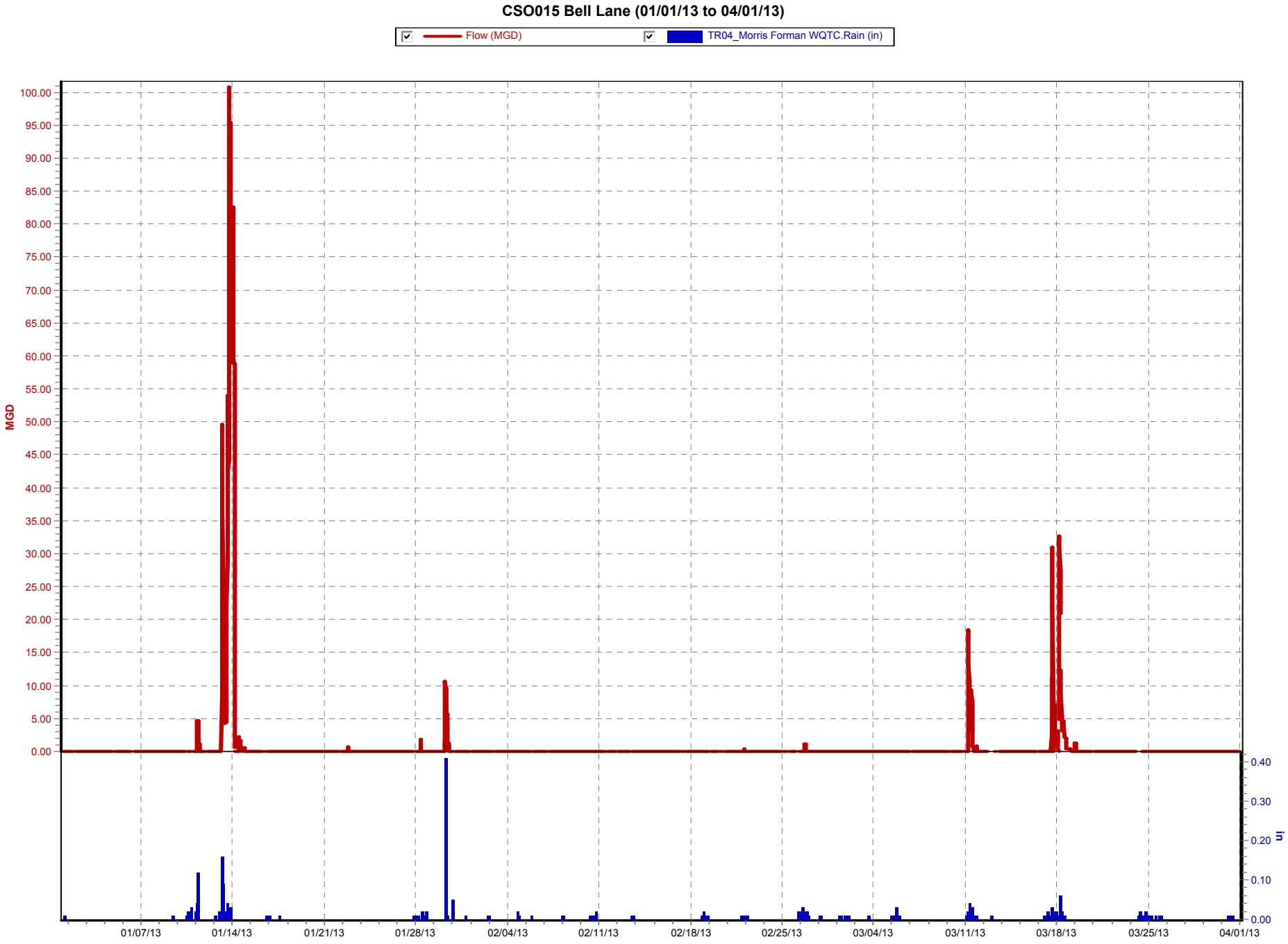
# APPENDIX A-4
# UNAUTHORIZED DISCHARGES TO WATERS OF UNITED STATES
## JANUARY 1, 2013 THROUGH MARCH 31, 2013

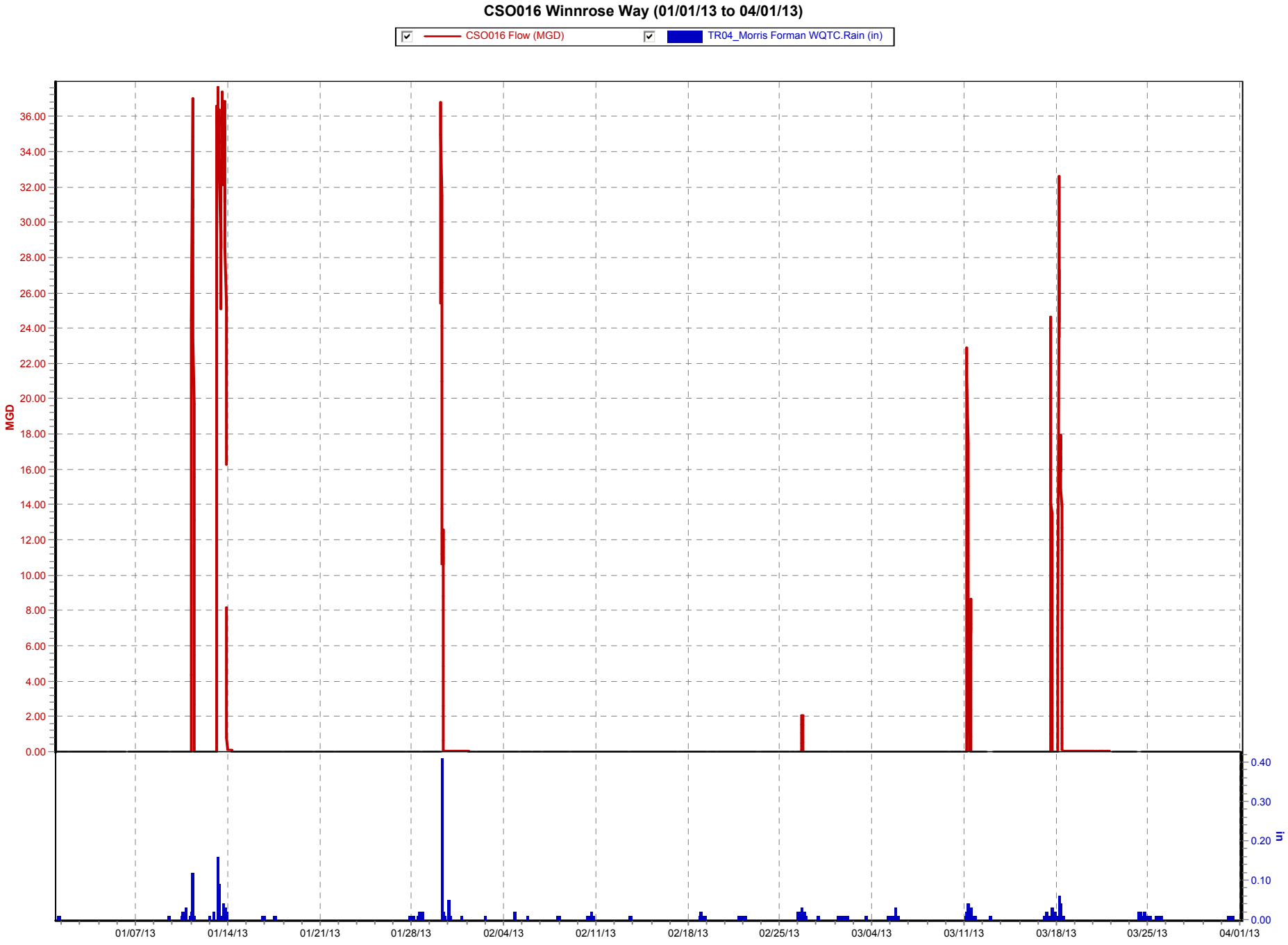
| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type | Source Asset ID | Facility Discharges To | Receiving Stream | Cause of Overflow | Due To | WO # | Cleanup Efforts by MSD | Repair Efforts by MSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JEFFERSONTOWN | KY0025194 | 11401 GRAND AVE | 03/11/13 8:52: AM | 03/13/13 11:00 AM | 1,500 GAL | Sewer Manhole | 28551 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1655036 | DISCLN WO# 1655293 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 11401 GRAND AVE | 03/17/13 5:26: PM | 03/18/13 01:40 PM | 21,500 GAL | Sewer Manhole | 28551 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1656897 | DISCLN WO# 1657963 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 11201 AMPERE CT | 03/26/13 1:00: PM | 03/26/13 04:42 PM | 3,330 GAL | Sewer Main | 29373 | DITCH | CHENOWETH RUN | DAMAGED MAIN SEWER AT CREEK CROSSING, DAMAGE CAUSED BY CREEK WASHOUT/EROSION | STRUCTURAL FAILURE | 1661085 | MSD CLEANED THE IMPACTED AREA | SANITARY CREWS MADE REPAIR TO BROKEN PORTION OF MAIN |
| JEFFERSONTOWN | KY0025194 | 2711 GRASSLAND DR | 01/13/13 3:20: PM | 01/15/13 03:00 PM | 42,000 GAL | Sewer Manhole | 31733 | DITCH | BEATTY BROOK | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623317 | DISCLN WO# 1623673 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 3200 RUCKRIEGEL PKY | 01/13/13 9:15: AM | 01/15/13 03:00 PM | 24,000 GAL | Sewer Manhole | 64505 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623202 | DISCLN WO# 1623573 | LOCATION INCLUDED IN THE IOAP |
| JEFFERSONTOWN | KY0025194 | 11804 CHIPPEWA RIDGE LN | 01/13/13 6:30: PM | 01/13/13 06:43 PM | 1,300 GAL | Sewer Manhole | 92061 | GROUND | CHENOWETH RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA | LACK OF SYSTEM CAPACITY | 1623350 | NO DEBRIS | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 01/13/13 5:22: AM | 01/14/13 10:29 PM | 7,177,246 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1623167 | PIPE DISCHARGE SUBMERGED- NO CLEANUP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 01/30/13 7:45: AM | 01/31/13 02:53 AM | 1,712,000 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1633908 | PIPE DISCHARGE SUBMERGED- NO CLEANUP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 03/11/13 7:40: AM | 03/12/13 02:11 AM | 2,821,225 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1654779 | PIPE DISCHARGE SUBMERGED- NO CLEAN UP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 03/17/13 3:57: PM | 03/19/13 09:41 AM | 5,348,765 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF CAPACITY DUE TO RAIN EVENT IN THE AREA | BLENDING AT JTOWN WQTC | 1656877 | PIPE DISCHARGE SUBMERGED- NO CLEAN UP | NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION. |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 03/17/13 6:11: PM | 03/17/13 06:56 PM | 4,500 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY | BYPASS AT WQTC | 1656899 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| JEFFERSONTOWN | KY0025194 | 10725 OLD TAYLORSVILLE RD | 03/17/13 7:10: PM | 03/17/13 09:00 PM | 10,000 GAL | Sewer Treatment Plant | MSD0255 | STREAM | CHENOWETH RUN | LACK OF SYSTEM CAPACITY | BYPASS AT WQTC | 1656898 | PIPE DISCHARGE SUBMERGED- NO CLEANUP | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| SILVER HEIGHTS | KY0028801 | 9718 TITAN DR | 01/13/13 2:00: PM | 01/14/13 12:00 AM | 120,000 GAL | Sewer Manhole | 61667 | GROUND | MUD CREEK | LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1623235 | MSD TO CLEAN SANITIZED AFFECTED AREA | AREA INCLUDED IN THE IOAP |
| SILVER HEIGHTS | KY0028801 | 3501 GRISSOM WAY | 01/13/13 2:15: PM | 01/14/13 12:15 AM | 15,000 GAL | Sewer Manhole | 61687 | GROUND | MUD CREEK | LACK OF SYSYTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1623231 | MSD CLEANED AND SANITIZED AFFECTED AREA | AREA INCLUDED IN THE IOAP |
| CHENOWETH HILLS | KY0029459 | 4305 ST RENE CT | 01/13/13 4:05: PM | 01/14/13 05:00 AM | 600,625 GAL | Sewer Treatment Plant | MSD0263 | STREAM | CHENOWETH RUN | SURGE TANK FULL; DISCHARGE PIPE MIXING WITH CLARIFIER EFFLUENT | BYPASS AT WQTC | 1623302 | PIPE DISCHARGE SUBMERGED- NO CLEAN UP | SURGE TANK LINE HAS BEEN PLUGGED |
| CHENOWETH HILLS | KY0029459 | 4305 ST RENE CT | 01/13/13 7:40: PM | 01/13/13 10:38 PM | 26,700 GAL | Sewer Treatment Plant | MSD0263 | STREAM | CHENOWETH RUN | LACK OF CAPACITY IN THE CHLORINE TANK | BYPASS AT WQTC | 1623346 | MSD CLEANED & SANITIZED THE AREA | CL2 TANK BEING HAULED |
| CHENOWETH HILLS | KY0029459 | 4305 ST RENE CT | 01/13/13 7:40: PM | 01/14/13 10:40 AM | 45,000 GAL | Sewer Treatment Plant | MSD0263 | STREAM | CHENOWETH RUN | EFFLUENT PIPE TO EFFLUENT PUMP STATION FAILED | BYPASS AT WQTC | 1623401 | NO DEBRIS | CONTRACTOR HAVE REPAIRED THE PIPE |
| DEREK R. GUTHRIE | KY0078956 | 12602 E ORELL RD | 01/14/13 1:00: PM | 01/15/13 06:45 AM | 9,999 GAL | Sewer Manhole | 106289 | STREAM | WEAVER RUN | EQUIPMENT (SCREENS) FAILURE AT DRG WQTC | MECHANICAL FAILURE | 1623843 | MSD PERSONNEL CLEANED THE IMPACTED AREA | SCREENS BEING REPAIRED AT WQTC |
| DEREK R. GUTHRIE | KY0078956 | 13018 E ORELL RD | 01/13/13 5:40: PM | 01/15/13 06:45 AM | 9,999 GAL | Sewer Manhole | 106296 | STREAM | WEAVER RUN | EQUIPMENT FAILURE (SCREENS) AT DRGWQTC | MECHANICAL FAILURE | 1623315 | MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA | DISCHARGE ASSOCIATED WITH SCREEN FAILURES AT DRGWQTC. SCREENS CURRENTLY UNDER REPAIR. |
| DEREK R. GUTHRIE | KY0078956 | 8126 MINOR LN | 02/22/13 12:30: PM | 02/22/13 01:00 PM | 200 GAL | Sewer Manhole | 14444 | DITCH | SOUTHERN DITCH | OBSTRUCTION IN MAIN SEWER | OBSTRUCTION-NOT GREASE OR ROOT | 1648156 | MSD CLEANED PERSONNEL CLEANED AND SANITIZE THE IMPACTED AREA | WORK ORDERS 1648164,1648155; ROOT CUT, VACTORED THE MAIN SEWER |

# APPENDIX A-4
# UNAUTHORIZED DISCHARGES
# TO WATERS OF UNITED STATES
## JANUARY 1, 2013 THROUGH MARCH 31, 2013

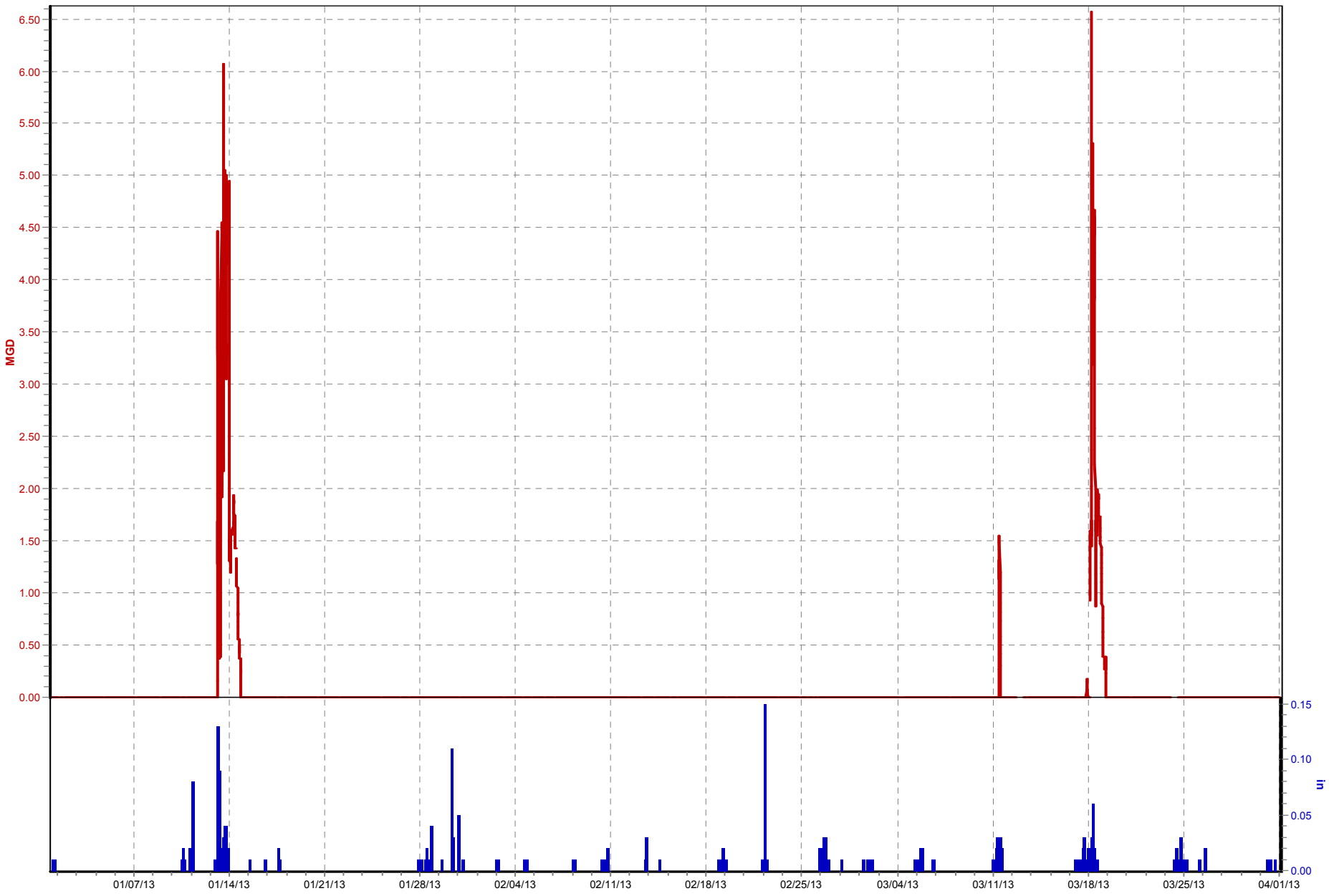
| Associated Wastewater Treatment Plant Name | Associated Treatment Plant KPDES # | Overflow Location | Overflow Start Date & Time | Overflow Stop Date & Time | Volume of Overflow | Source Asset Type | Source Asset ID | Facility Discharges To | Receiving Stream | Cause of Overflow | Due To | WO # | Cleanup Efforts by MSD | Repair Efforts by MSD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEREK R. GUTHRIE | KY0078956 | 6023 COOPER CHAPEL RD | 01/30/13 8:00: AM | 01/30/13 10:15 PM | 42,750 GAL | Sewer Service Line | 160264 | GROUND | FISHPOOL CREEK | LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1634076 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| DEREK R. GUTHRIE | KY0078956 | 6023 COOPER CHAPEL RD | 03/18/13 7:00: AM | 03/18/13 02:00 PM | 10,500 GAL | Sewer Service Line | 160264 | GROUND | FISHPOOL CREEK | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | LACK OF SYSTEM CAPACITY | 1656982 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| DEREK R. GUTHRIE | KY0078956 | 6615 MOORMAN RD | 01/13/13 1:00: PM | 01/15/13 01:45 PM | 95,000,000 GAL | Sewer Manhole | 22370 | GROUND | MILL CREEK | SCREEN FAILURE AT DRG. | LACK OF SYSTEM CAPACITY | 1623224 | CONTRACTOR PERFORMED EXTENSIVE CLEANUP IN THE AREA. | SCREEN FAILURE REPAIR TO BE COMPLETED AT DRG. |
| DEREK R. GUTHRIE | KY0078956 | 6102 COOPER CHAPEL RD | 01/13/13 8:30: AM | 01/14/13 02:50 AM | 27,500 GAL | Sewer Manhole | 25479 | CATCH BASIN | PENNSYLVANIA RUN | RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1623213 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| DEREK R. GUTHRIE | KY0078956 | 6102 COOPER CHAPEL RD | 03/18/13 9:41: AM | 03/18/13 02:00 PM | 3,246 GAL | Sewer Manhole | 25479 | CATCH BASIN | PENNSYLVANIA RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | LACK OF SYSTEM CAPACITY | 1657254 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |
| DEREK R. GUTHRIE | KY0078956 | 9317 LANTANA DR | 01/13/13 8:40: AM | 01/14/13 02:45 AM | 27,000 GAL | Sewer Manhole | 25484 | STREAM | PENNSYLVANIA RUN | LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT | LACK OF SYSTEM CAPACITY | 1623211 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON-WILL MONITOR & EVALUATE FOR REPAIR |
| DEREK R. GUTHRIE | KY0078956 | 10304 CAVEN AVE | 01/13/13 7:00: AM | 01/14/13 12:00 PM | 261,000 GAL | Sewer Manhole | 27116 | STREAM | MUD CREEK | LACK OF SYSTEM CAPACITY - HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623174 | MSD TO CLEAN AND SANITIZE AFFECTED AREA | A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP. |
| DEREK R. GUTHRIE | KY0078956 | 10304 CAVEN AVE | 01/30/13 8:30: AM | 01/30/13 02:00 PM | 66,000 GAL | Sewer Manhole | 27116 | STREAM | MUD CREEK | LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1634056 | MSD CLEAN AND SANITIZE AFFECTED AREA | AREA INCLUDED IN THE IOAP |
| DEREK R. GUTHRIE | KY0078956 | 10304 CAVEN AVE | 03/11/13 8:00: AM | 03/11/13 07:00 PM | 66,000 GAL | Sewer Manhole | 27116 | STREAM | MUD CREEK | WET WEATHER - HEAVY RAINFALL | LACK OF SYSTEM CAPACITY | 1654928 | MSD TO CLEAN AND SANITIZE AFFECTED AREA | AREA INCLUDED IN IOAP |
| DEREK R. GUTHRIE | KY0078956 | 10304 CAVEN AVE | 03/17/13 11:30: PM | 03/18/13 04:23 PM | 102,000 GAL | Sewer Manhole | 27116 | STREAM | MUD CREEK | LACK OF SYSTEM CAPACITY - HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1656964 | MSD TO CLEAN AND SANITIZE AFFECTED AREA | A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP. |
| DEREK R. GUTHRIE | KY0078956 | 6810 SANDSTONE BLVD | 01/13/13 6:30: AM | 01/14/13 03:00 AM | 69,750 GAL | Sewer Manhole | 29948 | GROUND | FERN CREEK | RAIN EVENT LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1623190 | MSD PERSONNEL TO CLEAN AND SANITIZE AFFECTED AREA UNDER WORKORDER# | A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP |
| DEREK R. GUTHRIE | KY0078956 | 6810 SANDSTONE BLVD | 03/18/13 7:20: AM | 03/18/13 11:40 AM | 12,000 GAL | Sewer Manhole | 29948 | GROUND | FERN CREEK | LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1657212 | MSD TO CLEAN AND SANITIZE AFFECTED AREA | LOCATION INCLUDED IN IOAP |
| DEREK R. GUTHRIE | KY0078956 | 6808 SANDSTONE BLVD | 01/13/13 6:45: AM | 01/13/13 11:30 PM | 27,375 GAL | Sewer Manhole | 31073 | DITCH | FERN CREEK | LACK OF SYSTEM CAPACITY - HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623196 | MSD CLEANED AND SANITIZED AFFECTED AREA | A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP. |
| DEREK R. GUTHRIE | KY0078956 | 6808 SANDSTONE BLVD | 03/18/13 7:40: AM | 03/18/13 11:40 AM | 12,000 GAL | Sewer Manhole | 31073 | DITCH | FERN CREEK | LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1657215 | MSD TO CLEAN AND SANITIZE AFFECTED AREA | AREA INCLUDED IN IOAP |
| DEREK R. GUTHRIE | KY0078956 | 6808 SANDSTONE BLVD | 01/13/13 6:45: AM | 01/14/13 11:08 AM | 133,740 GAL | Sewer Manhole | 31074 | DITCH | FERN CREEK | RAIN EVENT LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1623203 | MSD PERSONNEL TO CLEAN AND SANITIZE AFFECTED AREA UNDER WORKORDER# | LOCATION PART OF MSD IOAP |
| DEREK R. GUTHRIE | KY0078956 | 6808 SANDSTONE BLVD | 03/18/13 7:30: AM | 03/18/13 11:40 AM | 12,000 GAL | Sewer Manhole | 31074 | DITCH | FERN CREEK | LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1657213 | MSD TO CLEAN AND SANITIZE AFFECTED AREA | AREA INCLUDED IN IOAP |
| DEREK R. GUTHRIE | KY0078956 | 6707 W ORELL RD | 01/13/13 11:00: AM | 01/13/13 07:35 PM | 9,999 GAL | Sewer Manhole | 32682 | STREAM | ALVEY DITCH | LACK OF SYSTEM CAPACITY-HEAVY RAIN | LACK OF SYSTEM CAPACITY | 1623284 | DISCLN WO# 1623694 | LOCATION INCLUDED IN THE IOAP |
| DEREK R. GUTHRIE | KY0078956 | 4705 NOTTINGHAMSHIRE DR | 03/14/13 6:55: PM | 03/14/13 07:30 PM | 750 GAL | Sewer Manhole | 41545 | CATCH BASIN | FERN CREEK | ROOTS OBSTRUCTION CAUSED MANHOLE TO OVERFLOW | ROOTS | 1656512 | CONTRACTOR CLEANED AND SANITIZED THE AREA | A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP. |
| DEREK R. GUTHRIE | KY0078956 | 9114 CINDERELLA LN | 01/13/13 11:50: AM | 01/14/13 03:00 AM | 22,750 GAL | Sewer Manhole | 60679 | DITCH | FISHPOOL CREEK | RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY | LACK OF SYSTEM CAPACITY | 1623215 | MSD CLEANED & SANITIZED THE AREA | SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR |

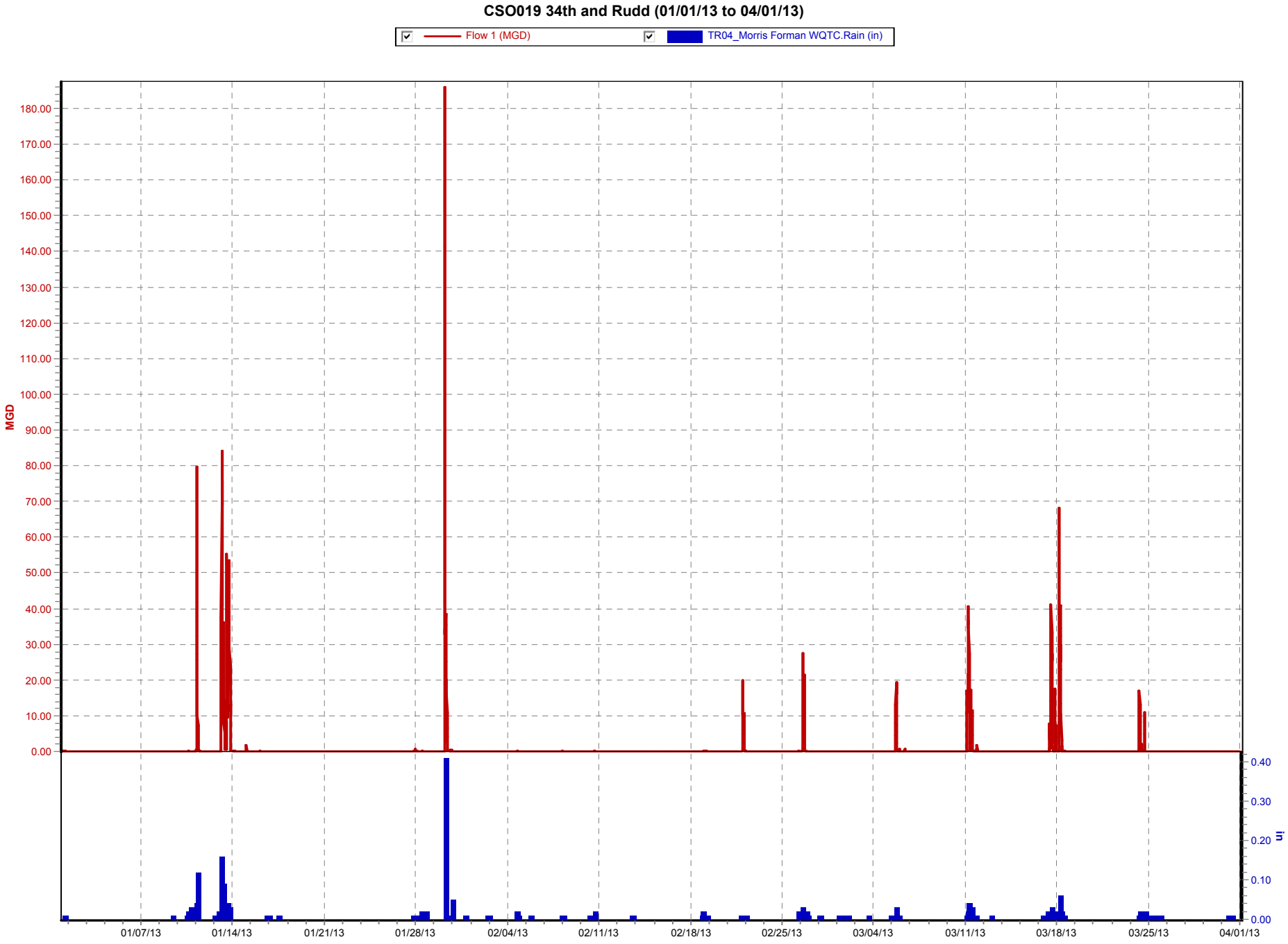
Appendix B – CSO Flow Monitoring Data


CSO015 Bell Lane (01/01/13 to 04/01/13)
Flow (MGD)
TR04_Morris Forman WQTC.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
0.40
0.30
0.20
0.10
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO016 Winnrose Way (01/01/13 to 04/01/13)
CSO016 Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
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
0.40
0.30
0.20
0.10
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

## CSO018 Nightingale Rd (01/01/13 to 04/01/13)




CSO019 34th and Rudd (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
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
0.40
0.30
0.20
0.10
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
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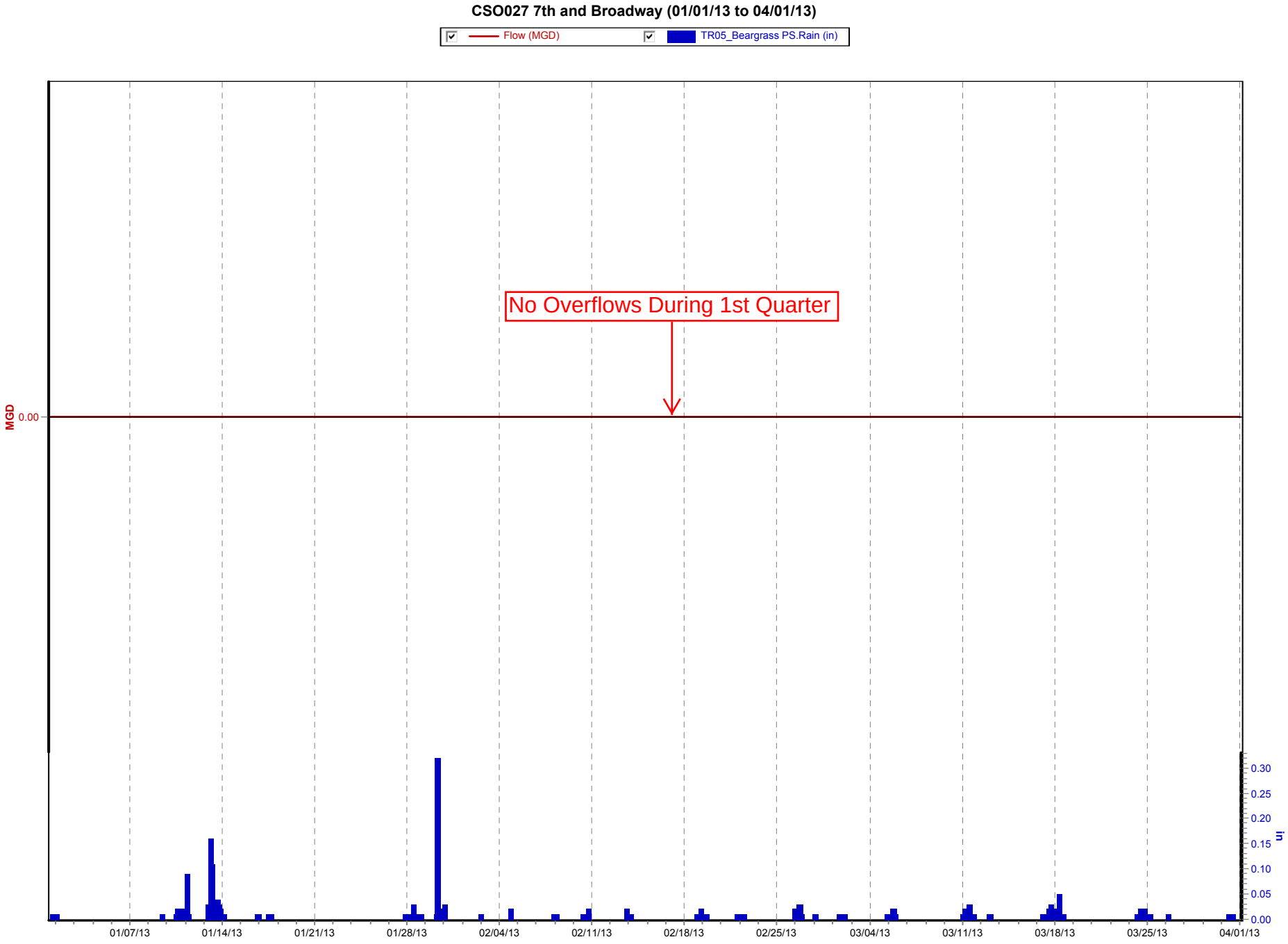
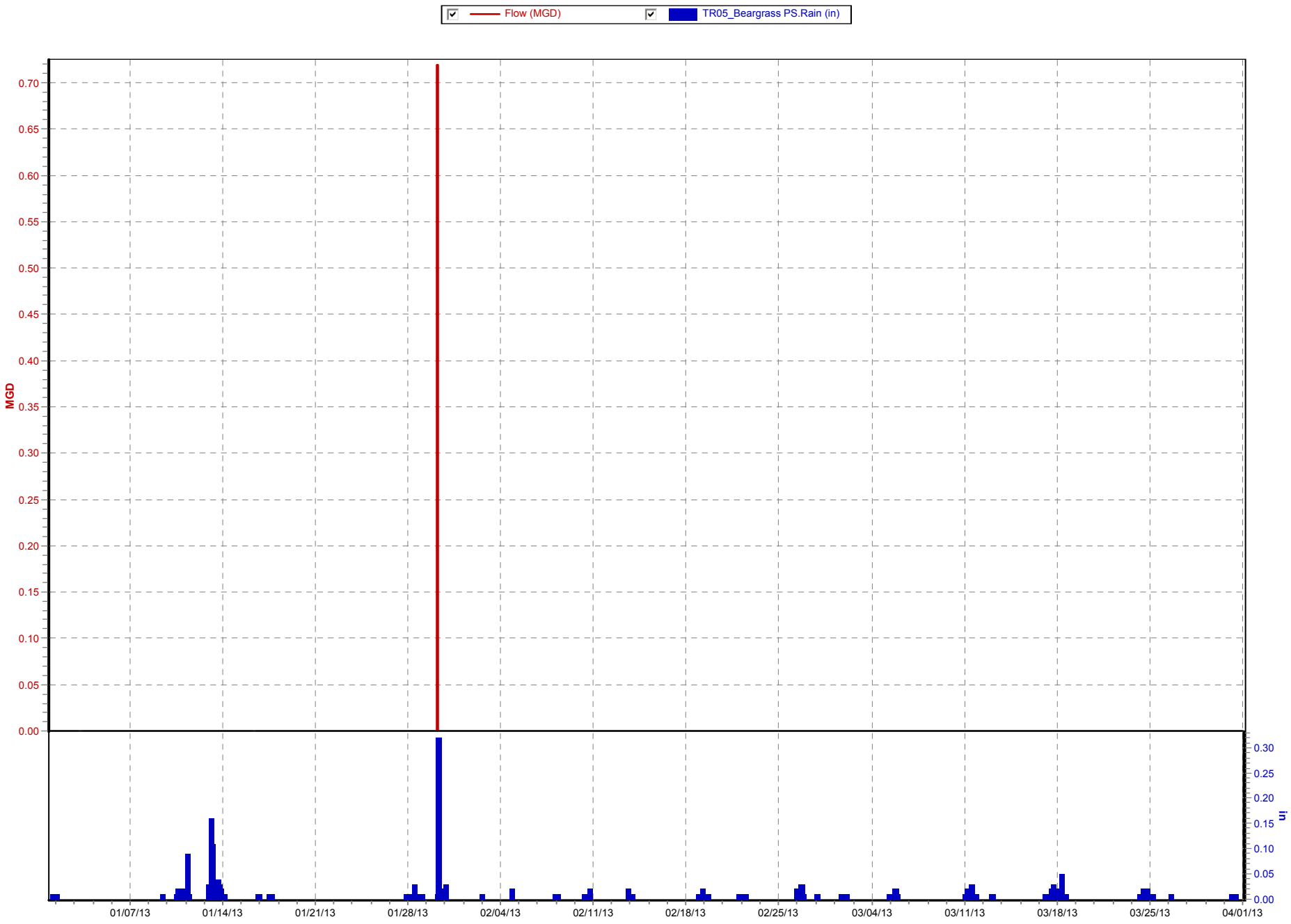
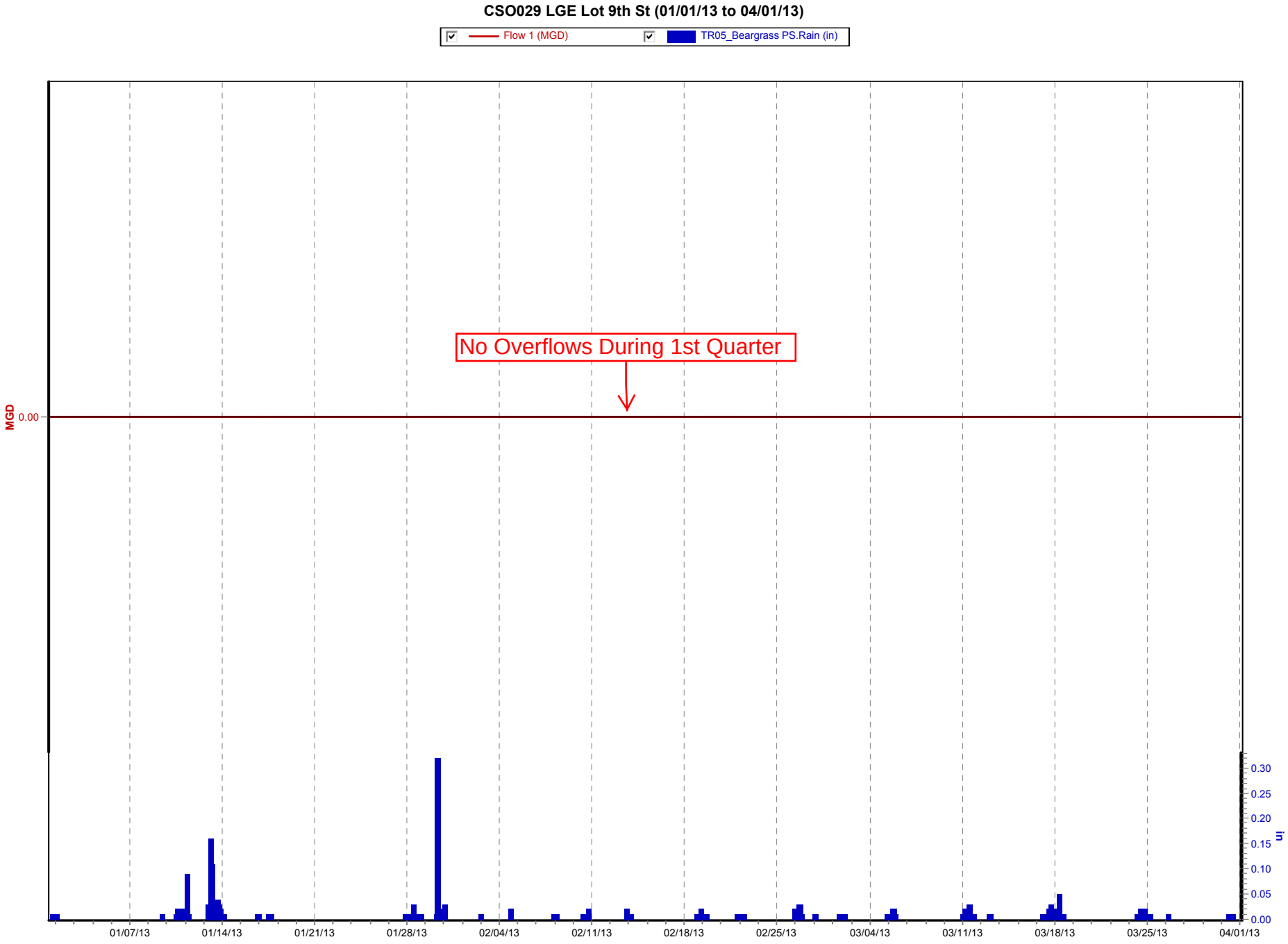
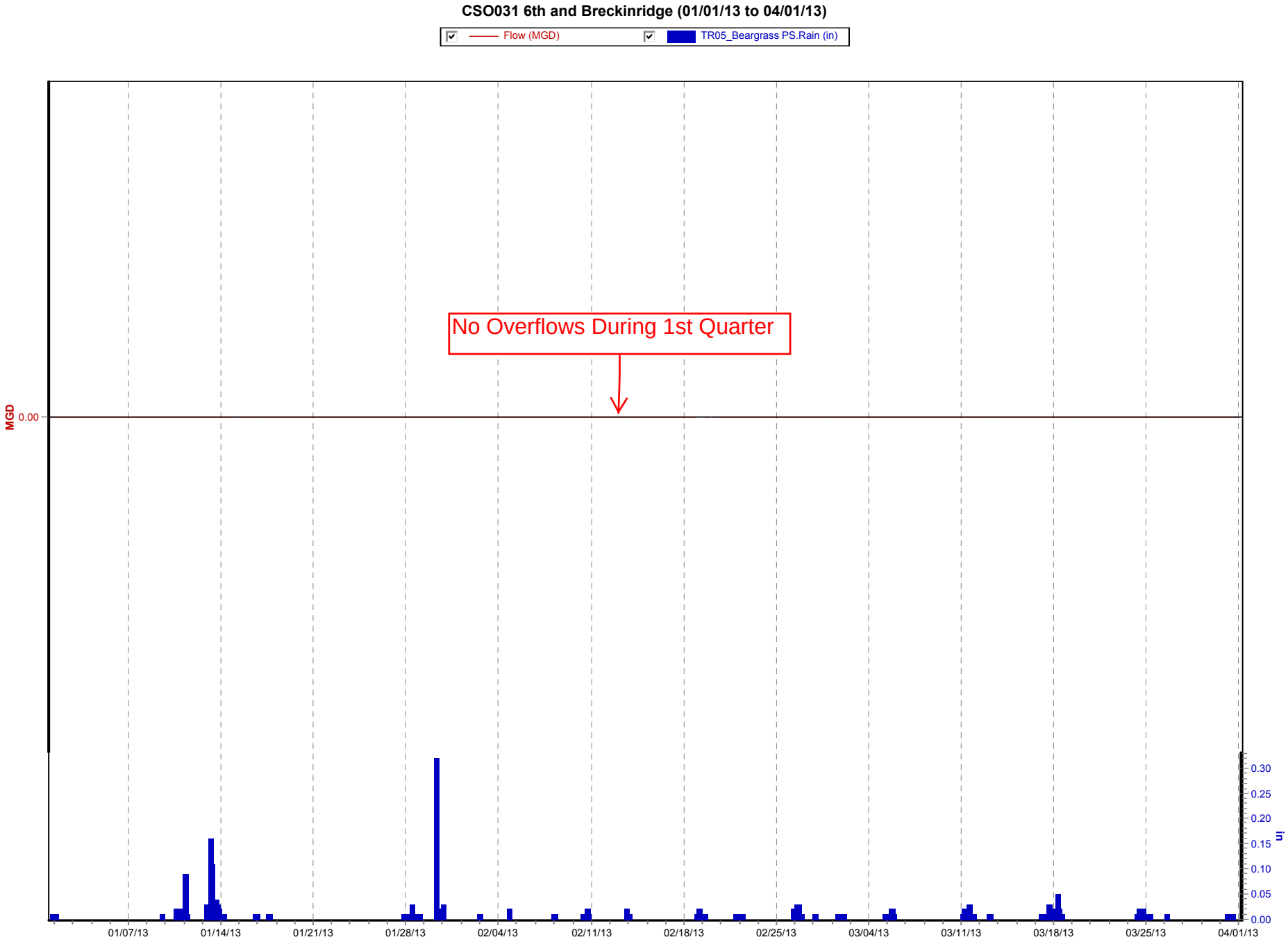
03/11/13
03/18/13
03/25/13
04/01/13


CSO027 7th and Broadway (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
No Overflows During 1st Quarter
MGD
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

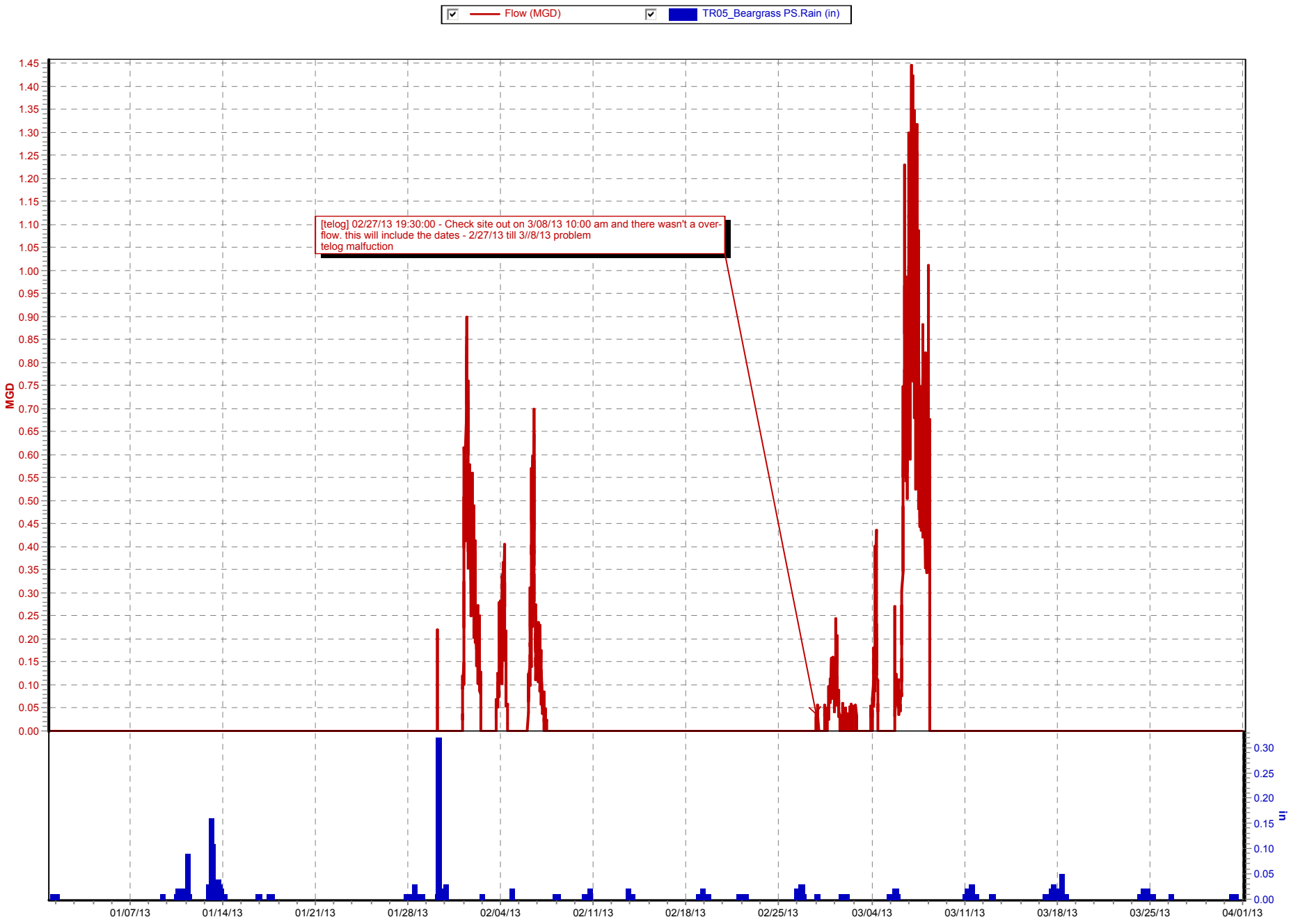
## CSO028 6th and York St (01/01/13 to 04/01/13)

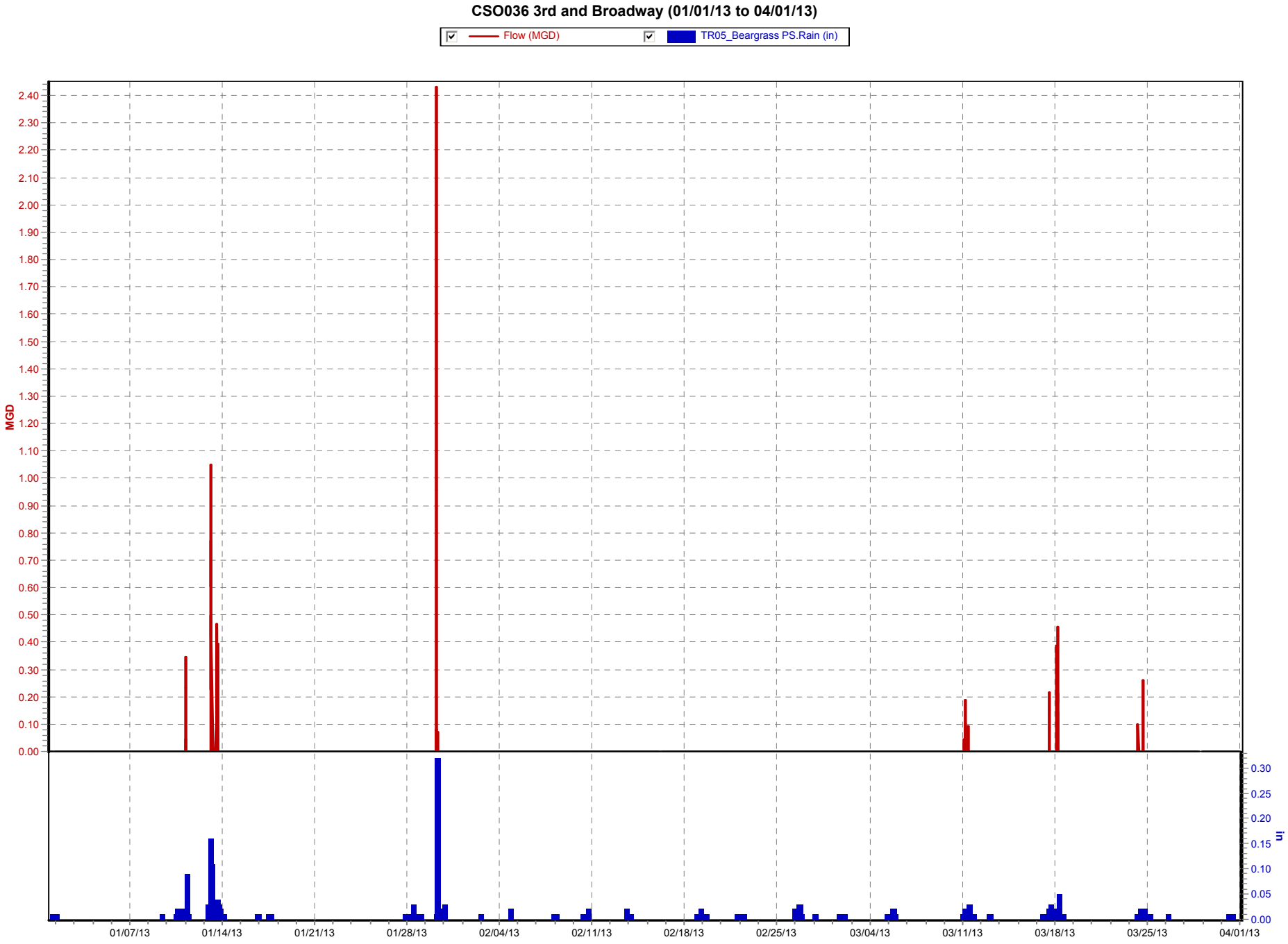



CSO029 LGE Lot 9th St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
No Overflows During 1st Quarter
MGD
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

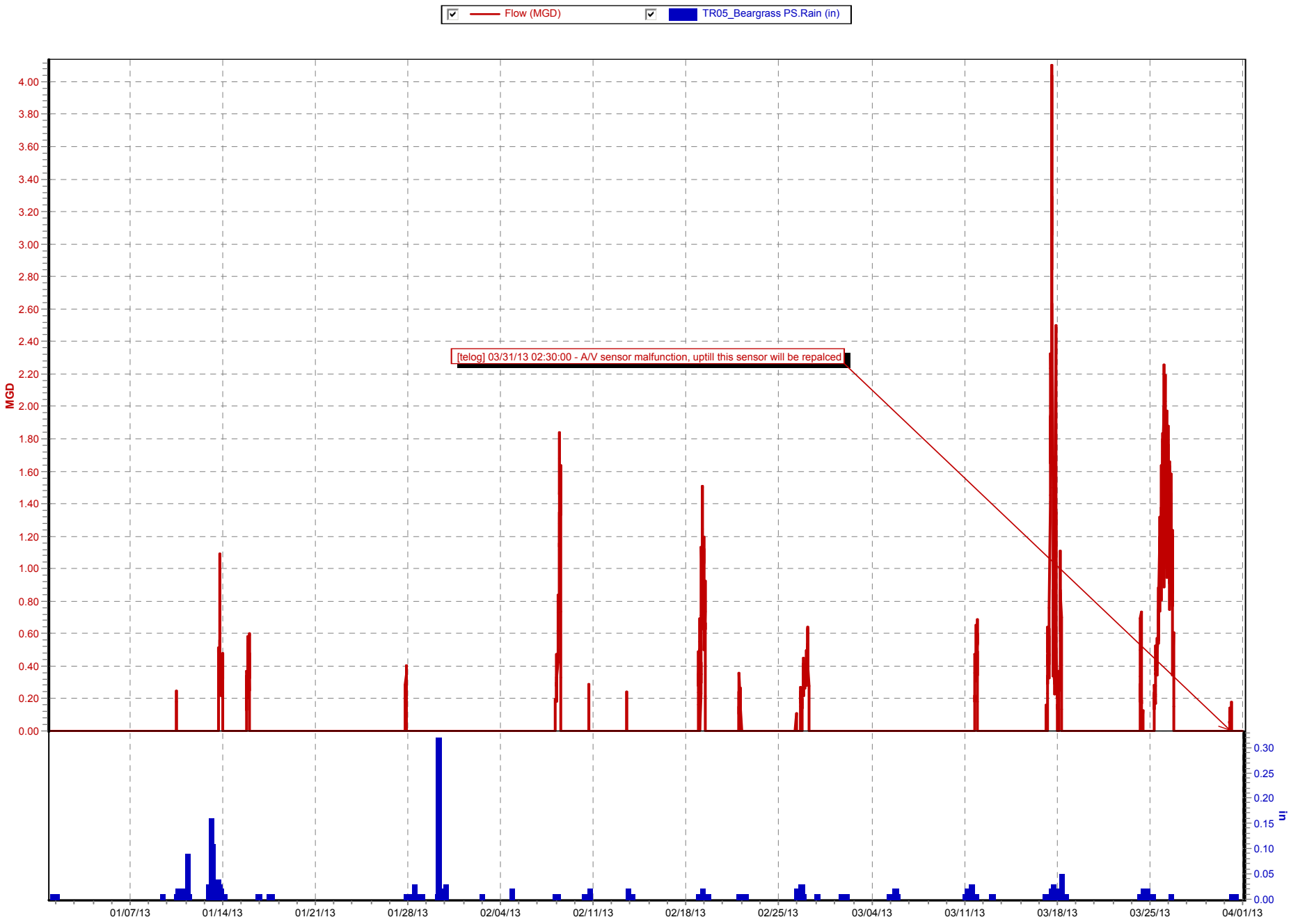

CSO031 6th and Breckinridge (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
No Overflows During 1st Quarter
MGD
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

# CSO034 4th and York (01/01/13 to 04/01/13)

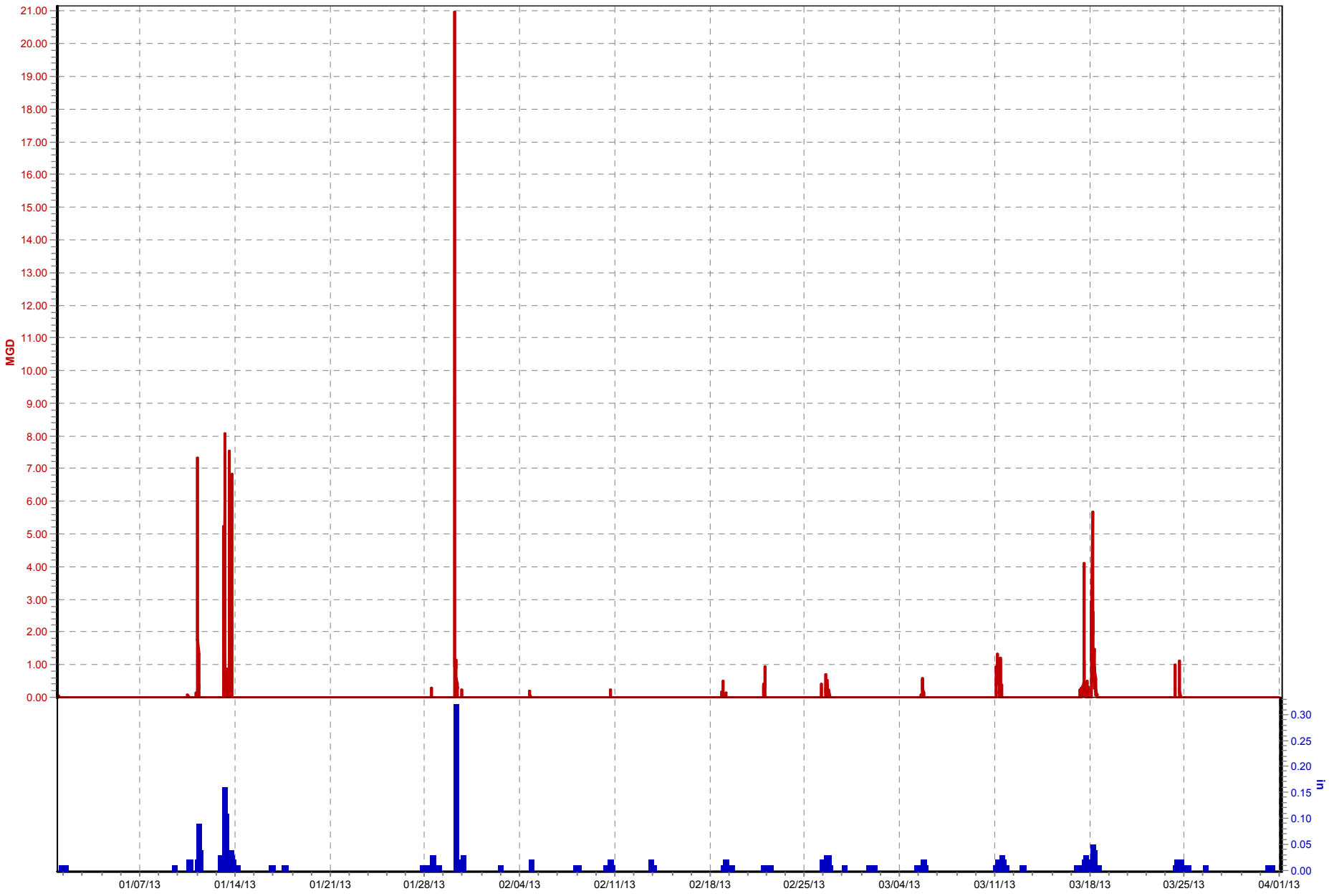



CSO036 3rd and Broadway (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

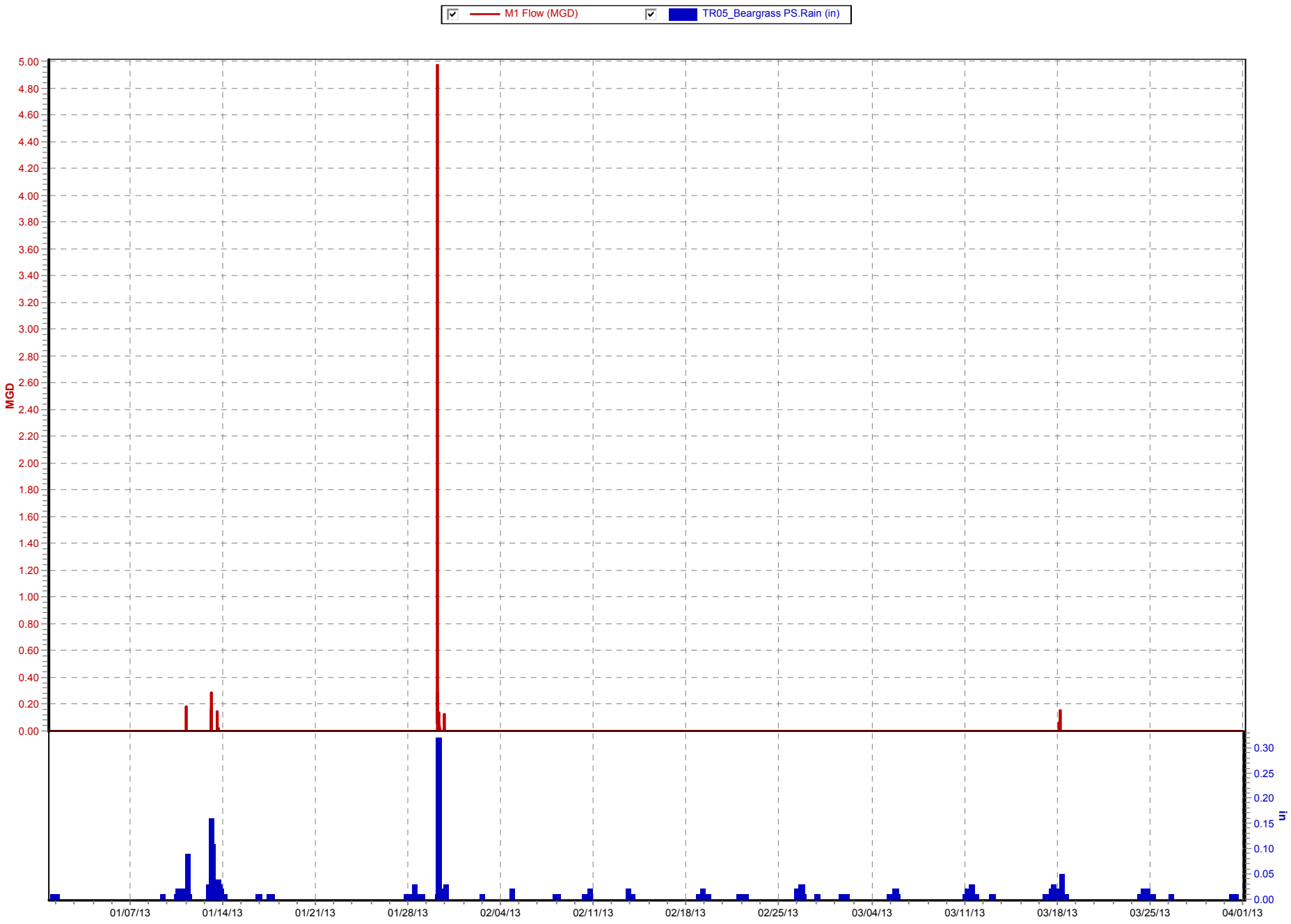
## CSO038 5th and Broadway (01/01/13 to 04/01/13)

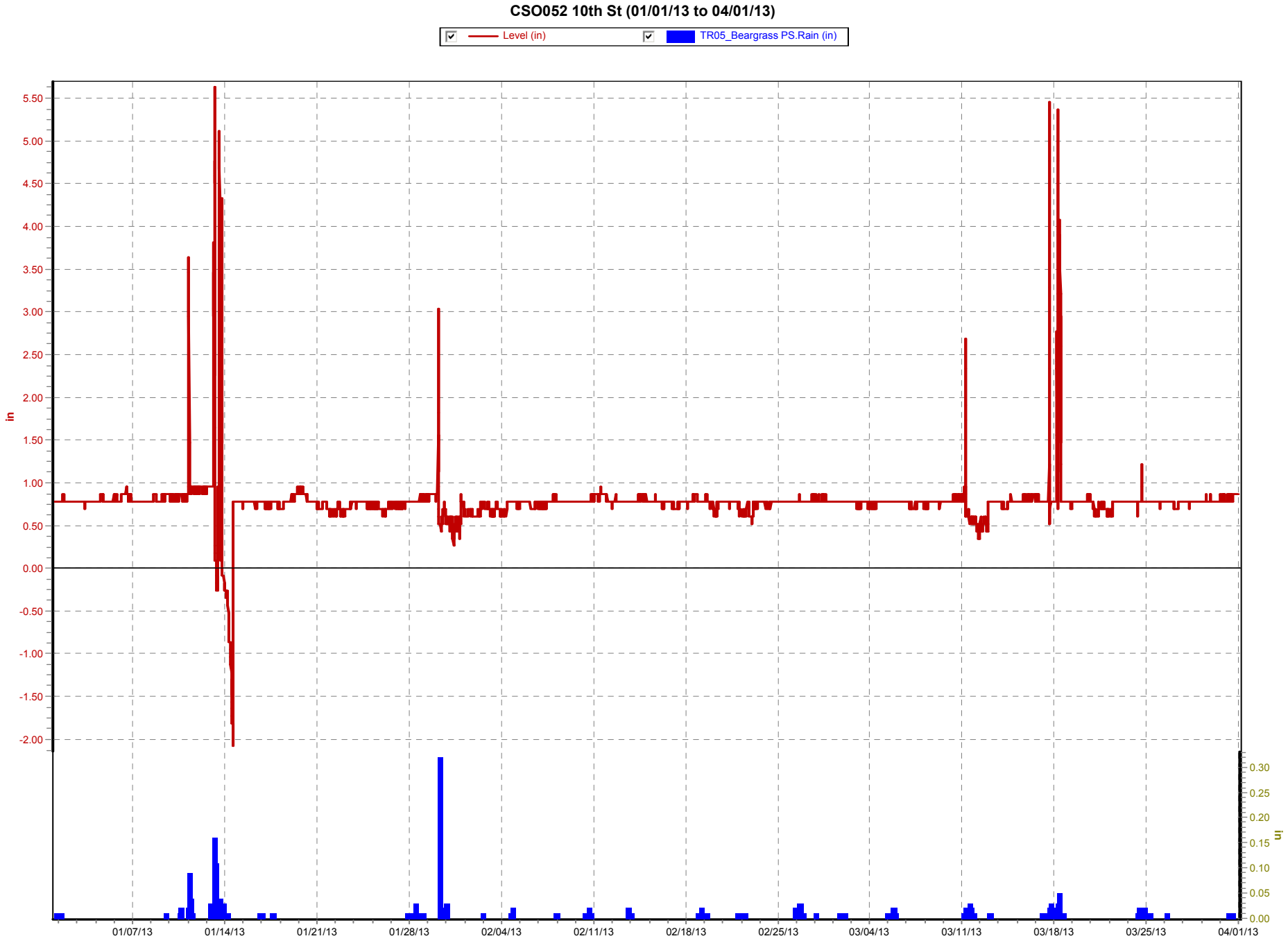


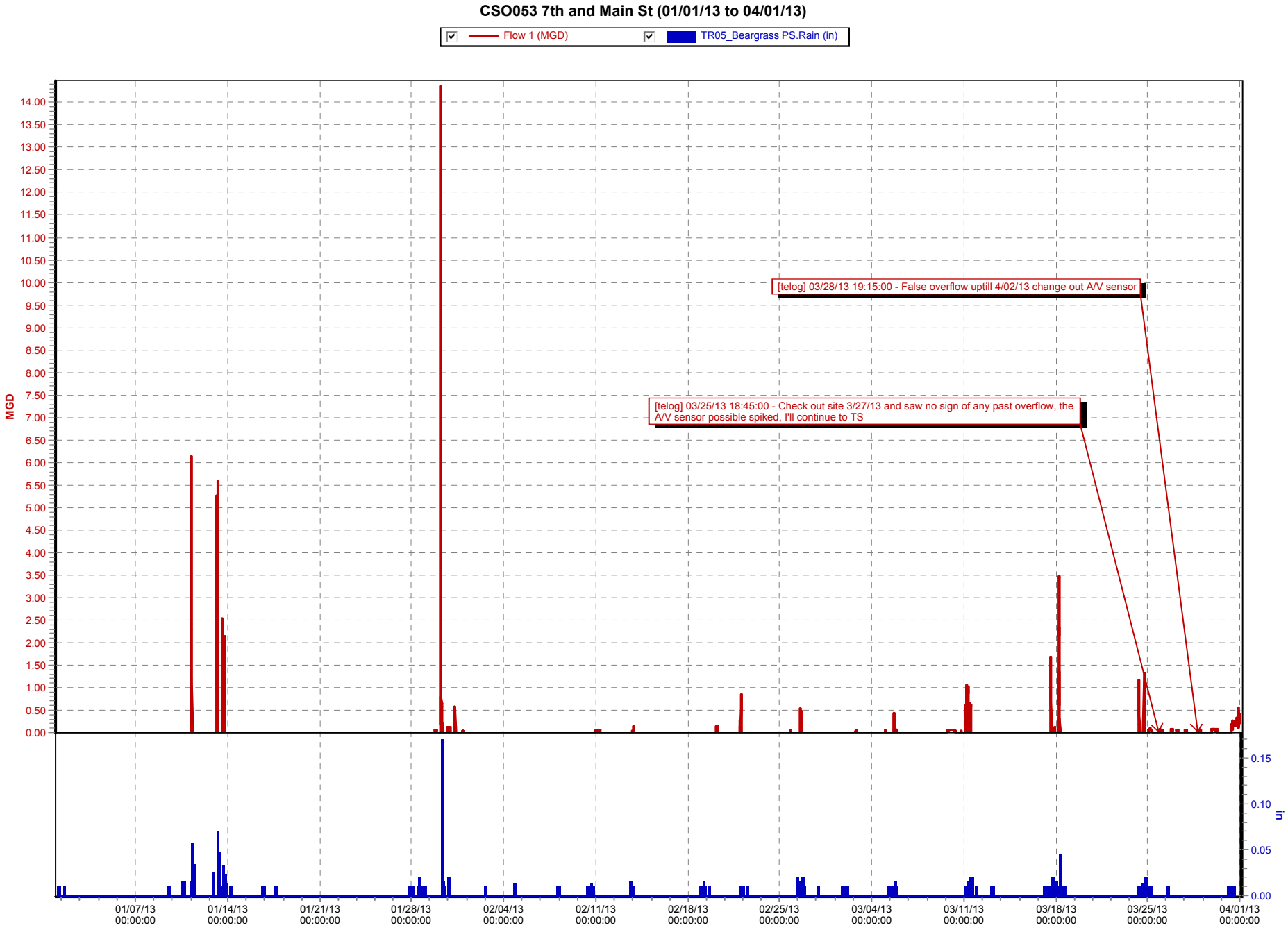
## CSO050 12th and Rowan (01/01/13 to 04/01/13)



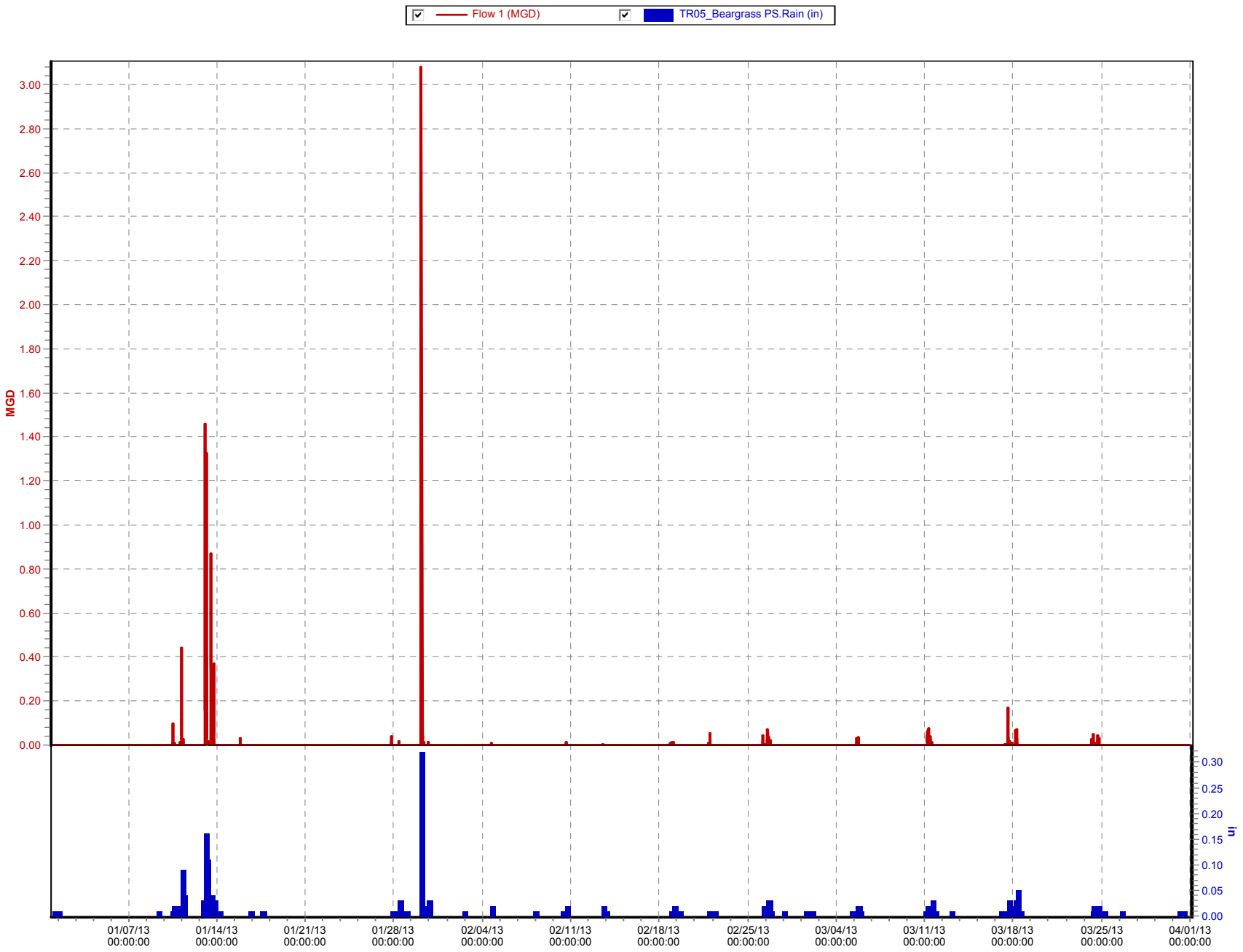
## CSO051 11th St and Main St (01/01/13 to 04/01/13)

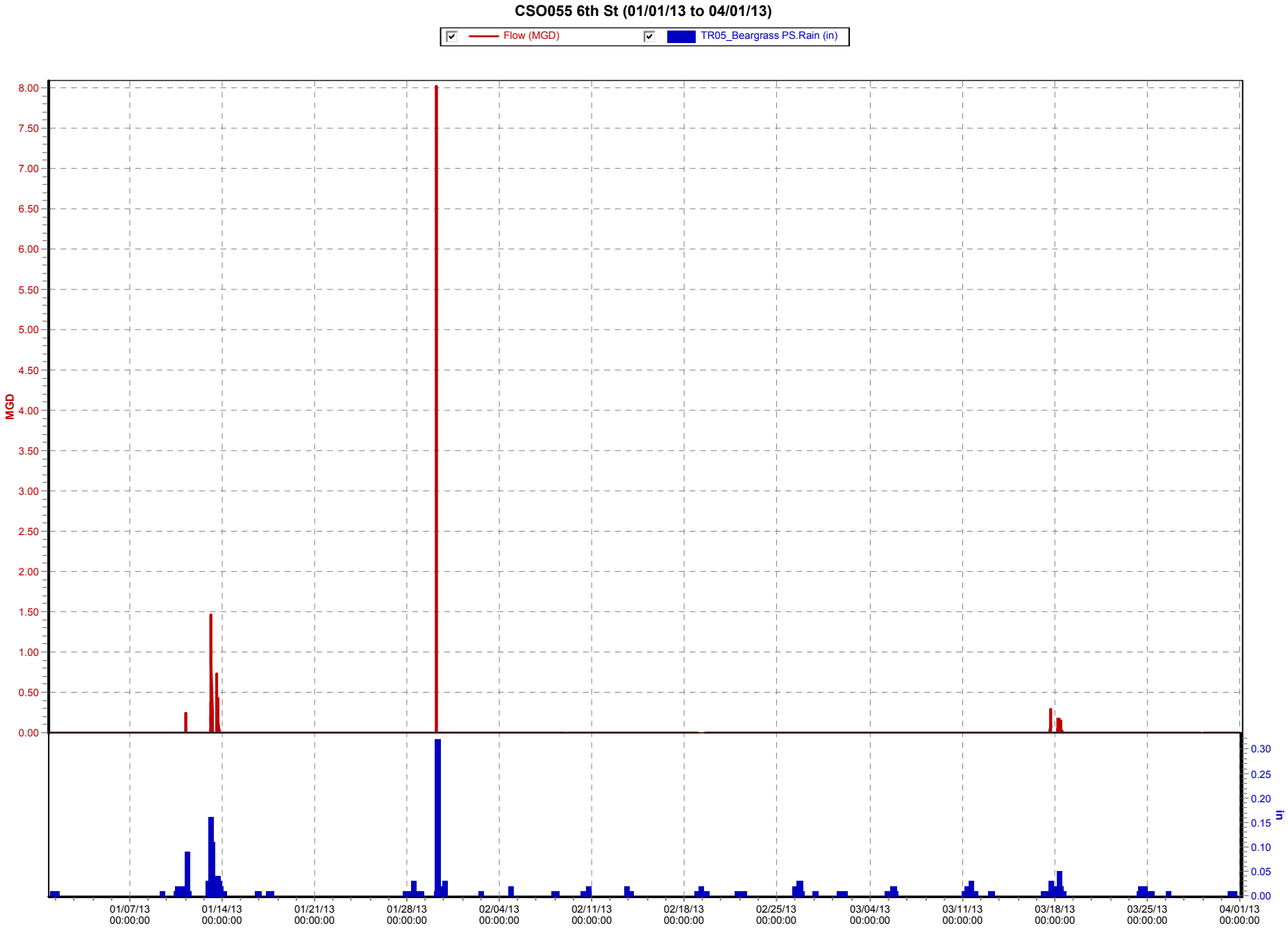


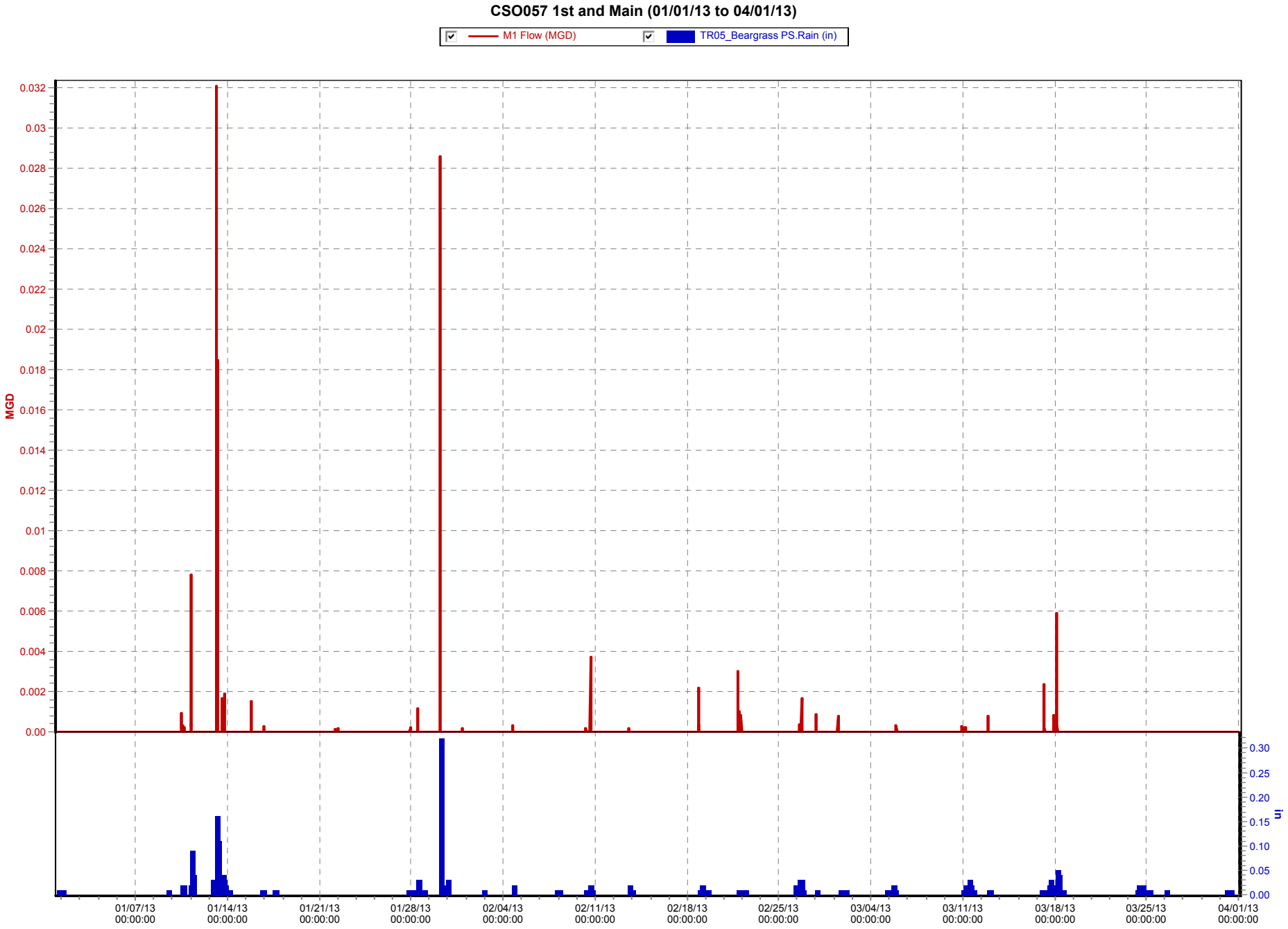

CSO052 10th St (01/01/13 to 04/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

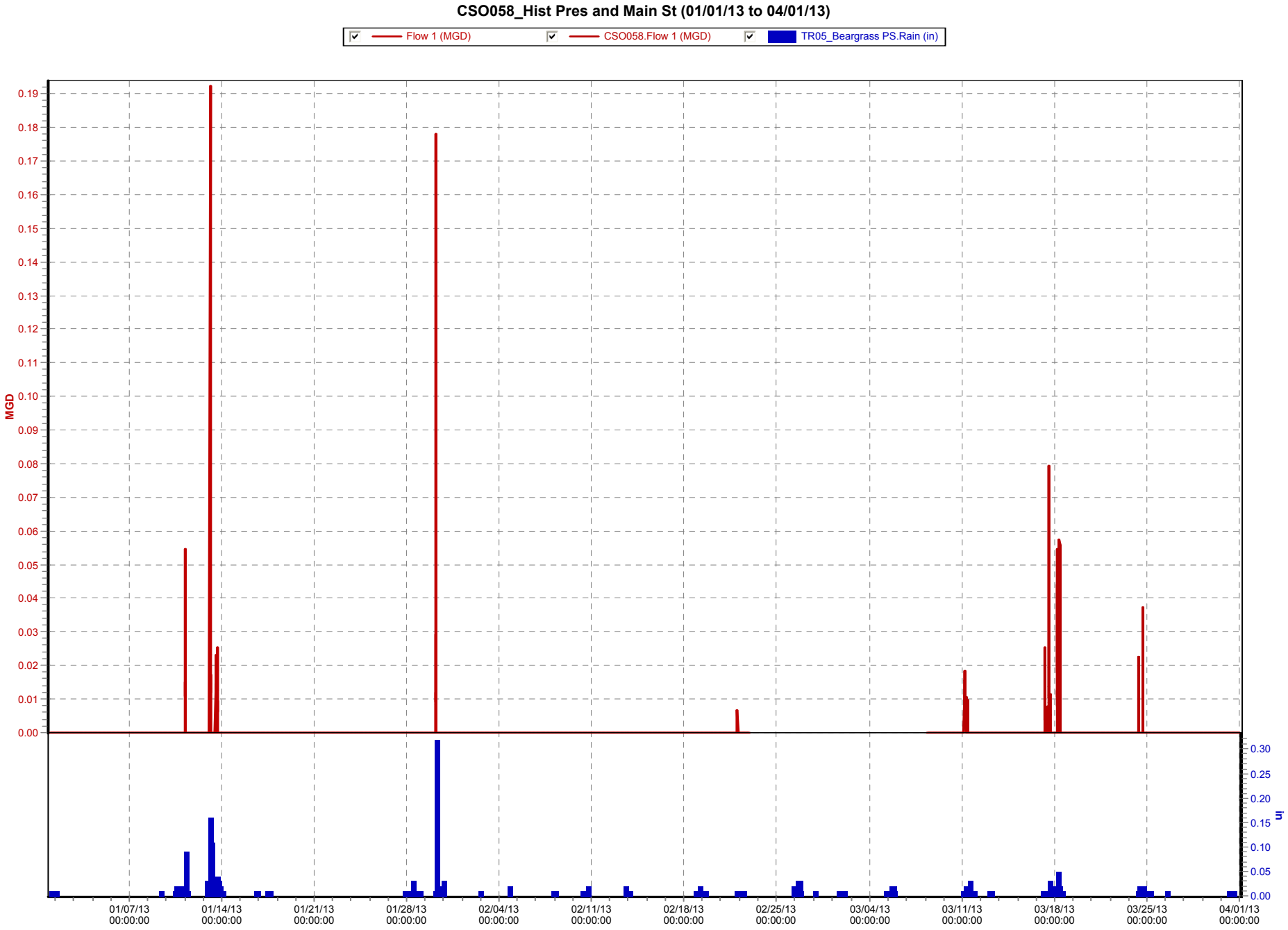

CSO053 7th and Main St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
[telog] 03/28/13 19:15:00 - False overflow uptill 4/02/13 change out A/V sensor
[telog] 03/25/13 18:45:00 - Check out site 3/27/13 and saw no sign of any past overflow, the A/V sensor possible spiked, I'll continue to TS
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
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

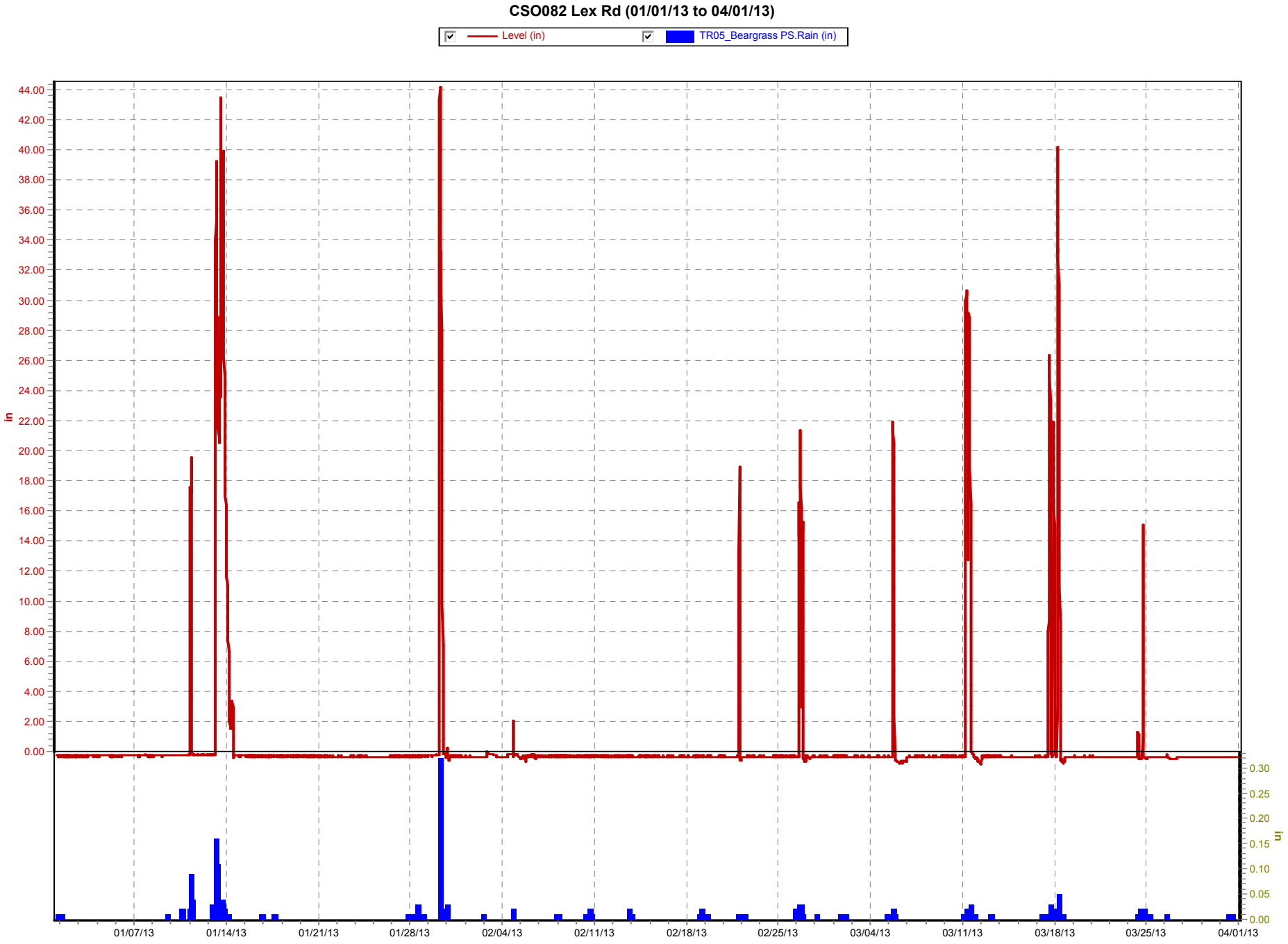
## CSO054 7th St (01/01/13 to 04/01/13)

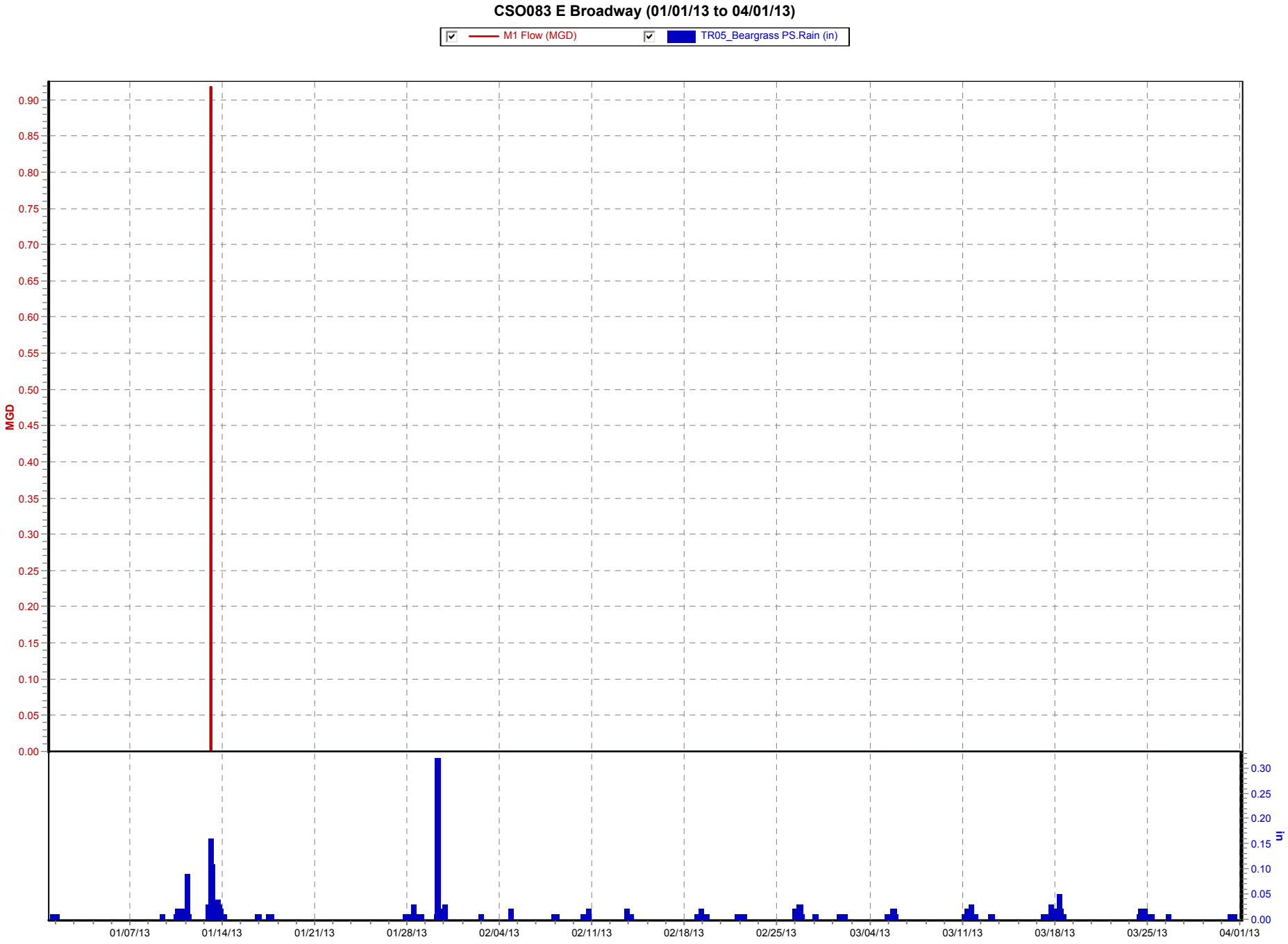



CSO055 6th St (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

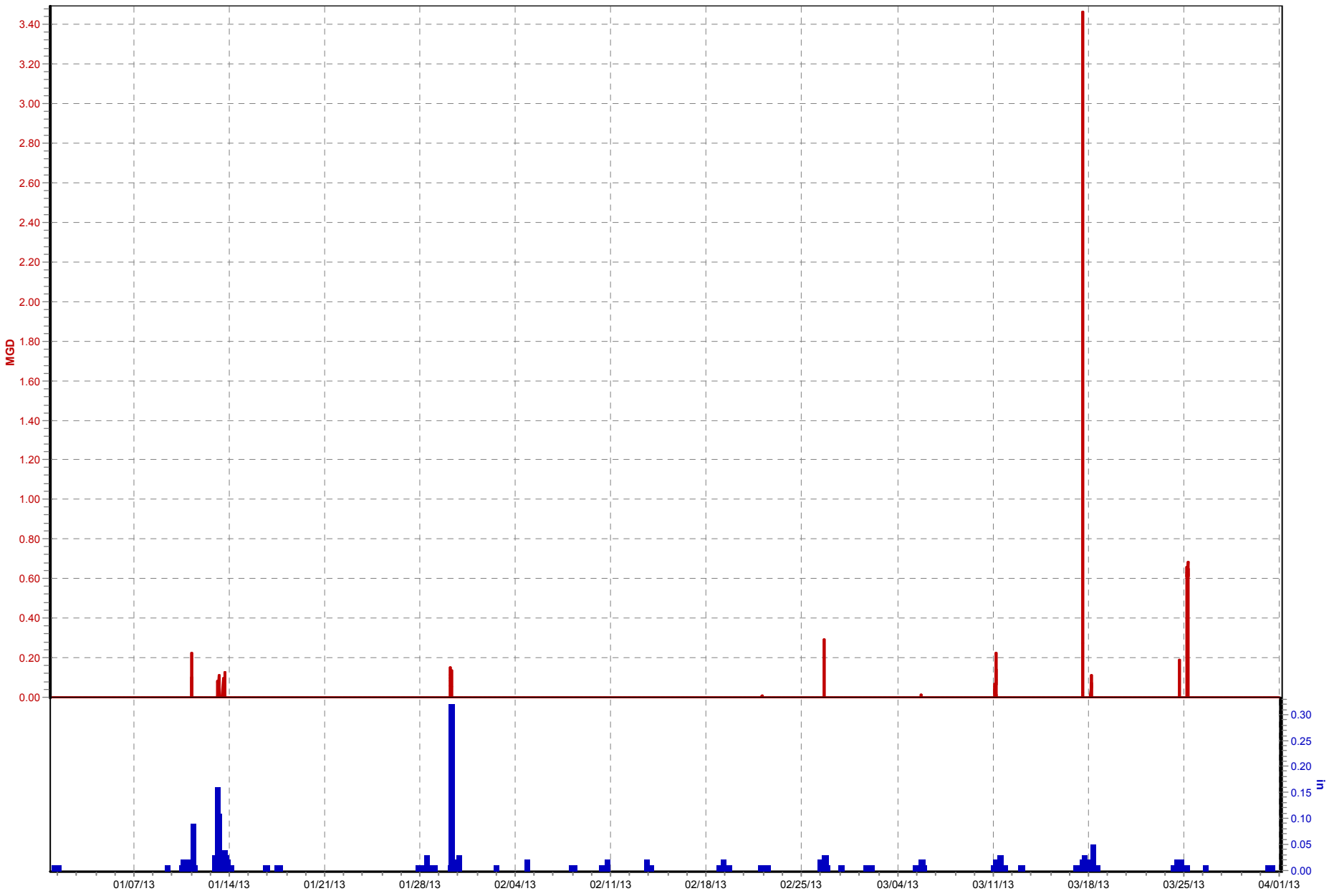

CSO057 1st and Main (01/01/13 to 04/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.032
0.03
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00


CSO058_Hist Pres and Main St (01/01/13 to 04/01/13)
Flow 1 (MGD)
CSO058.Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.19
0.18
0.17
0.16
0.15
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

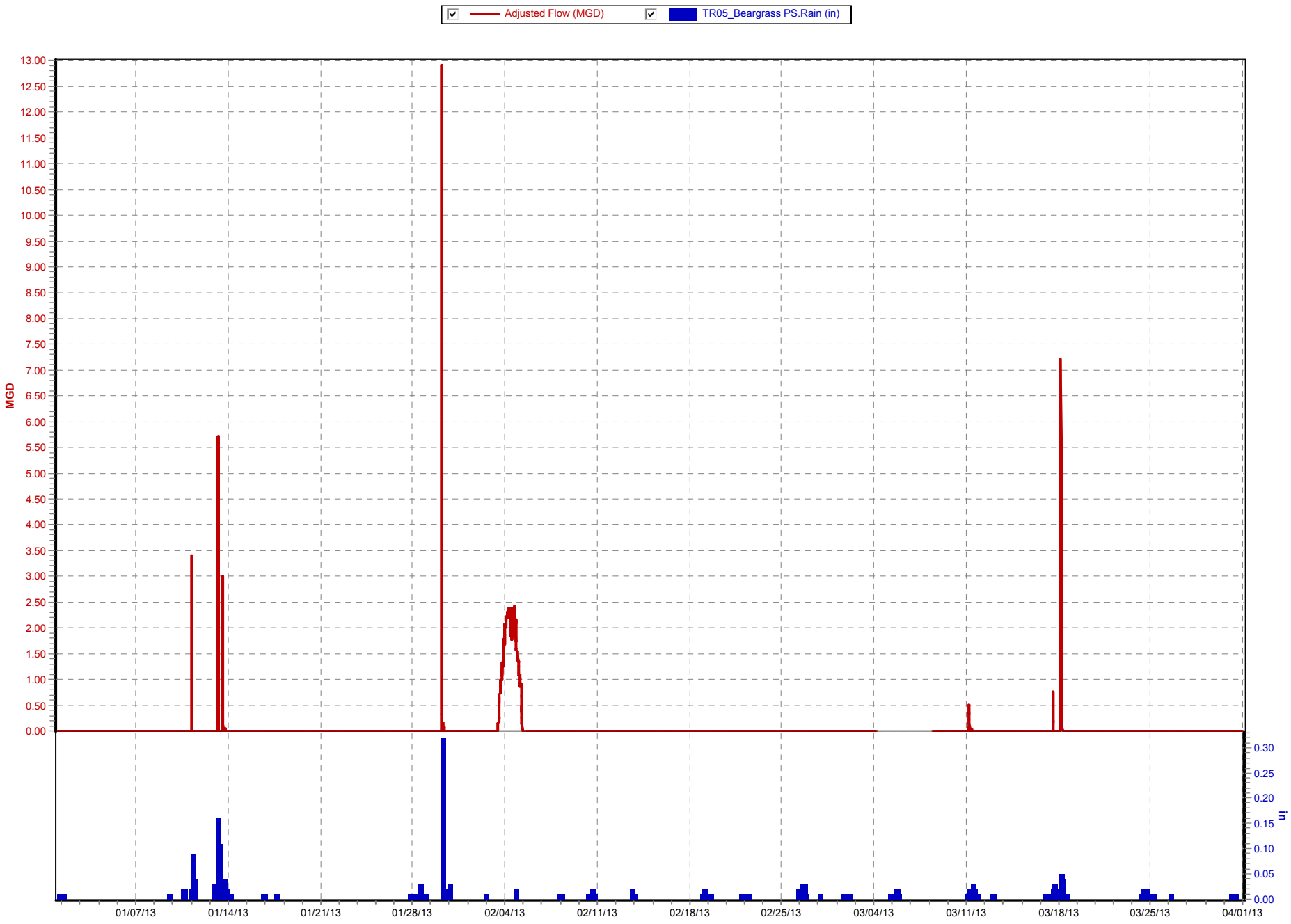

CSO082 Lex Rd (01/01/13 to 04/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO083 E Broadway (01/01/13 to 04/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

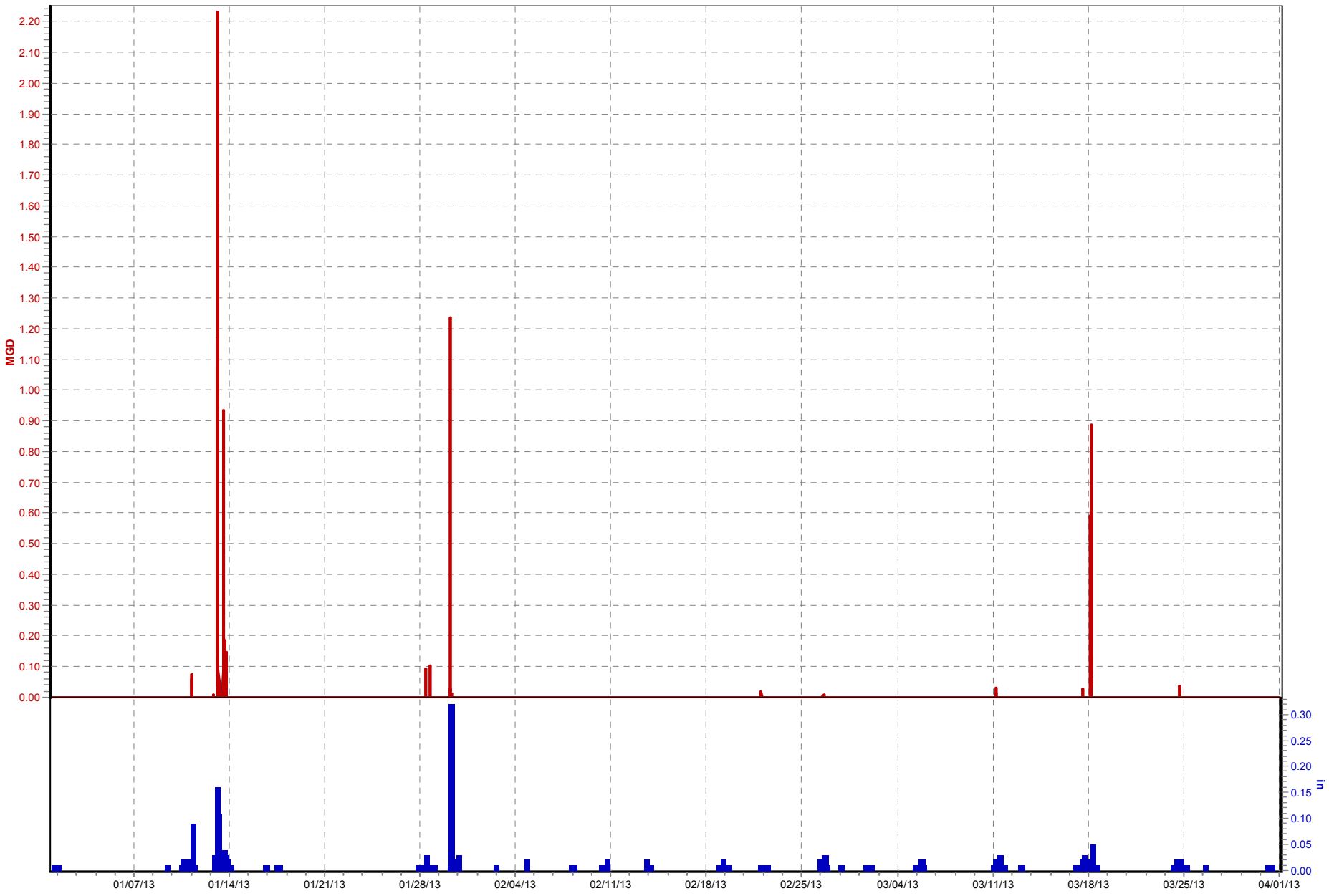
## CSO084 Brent St and BGC (01/01/13 to 04/01/13)

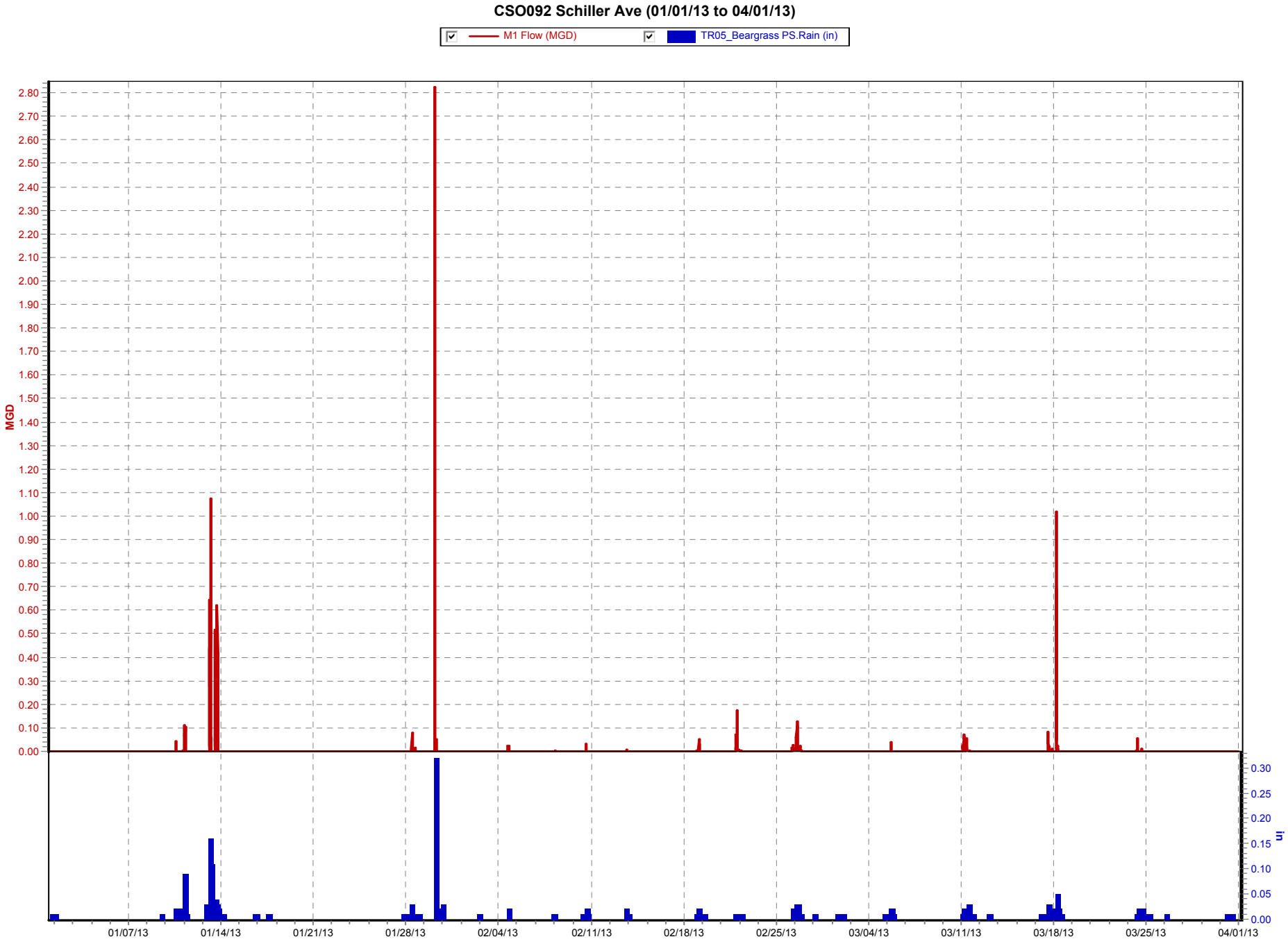


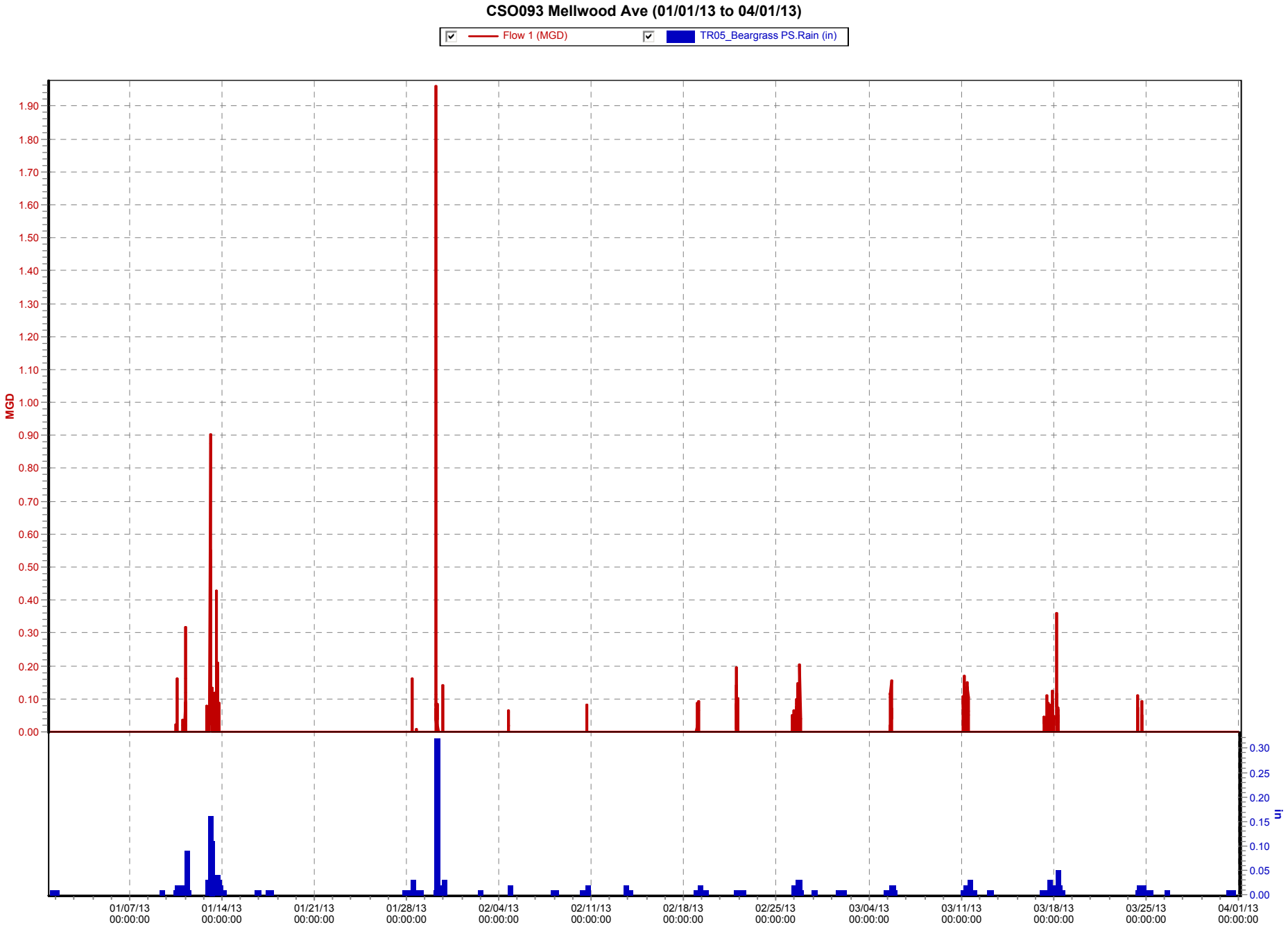
## CSO088 Brownsboro Rd-BGC (01/01/13 to 04/01/13)

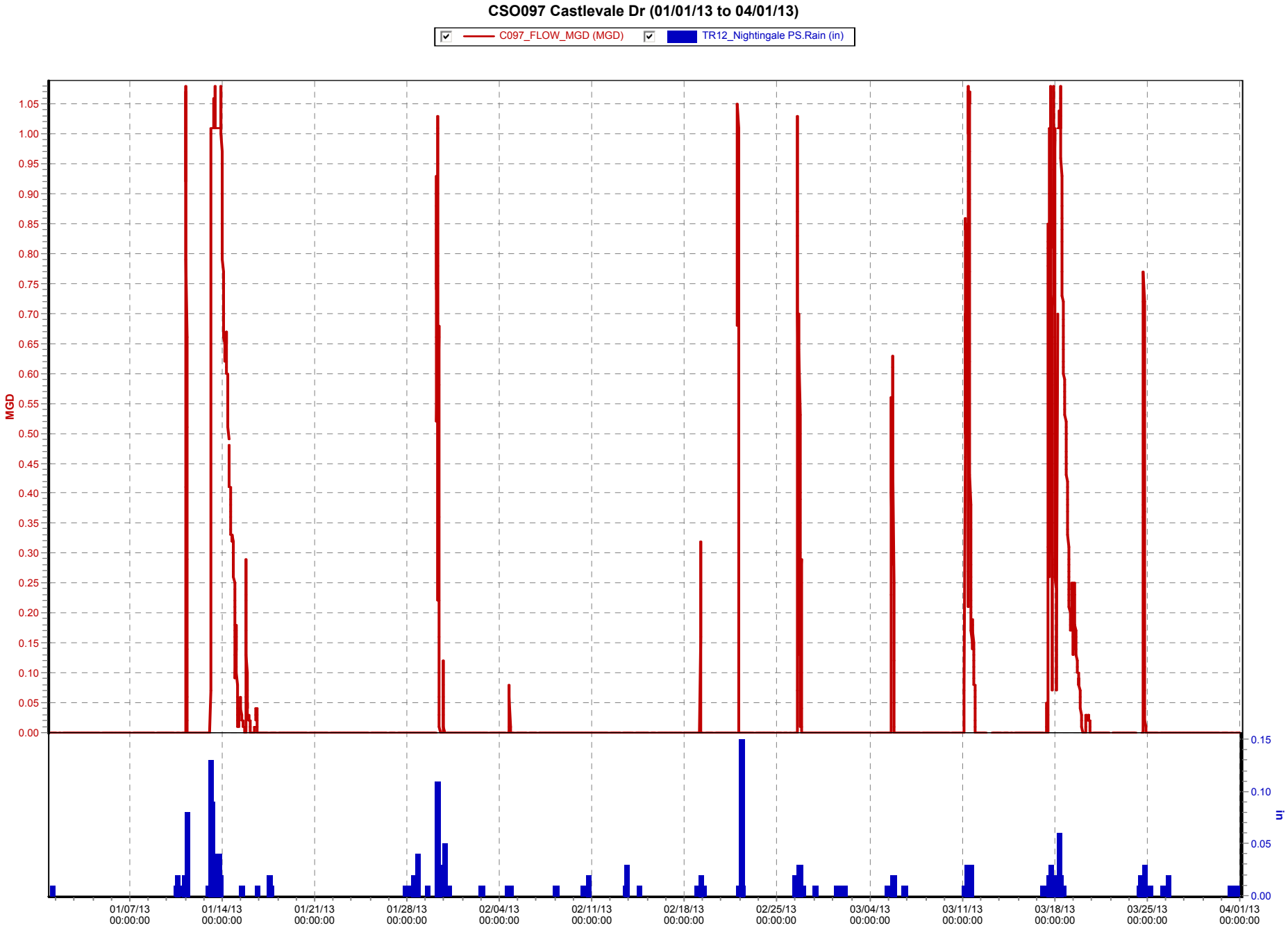


## CSO091 Schiller Ave (01/01/13 to 04/01/13)

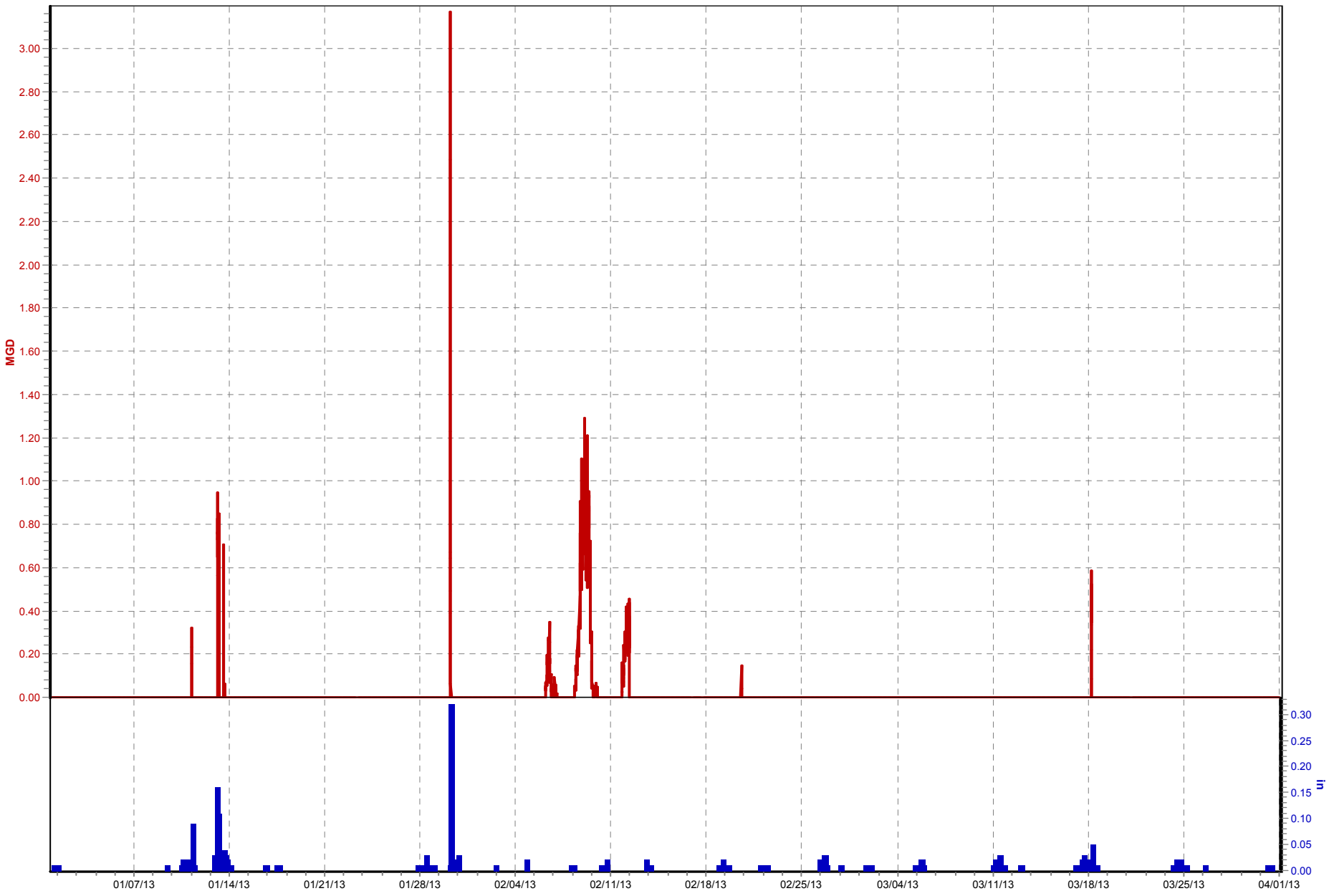


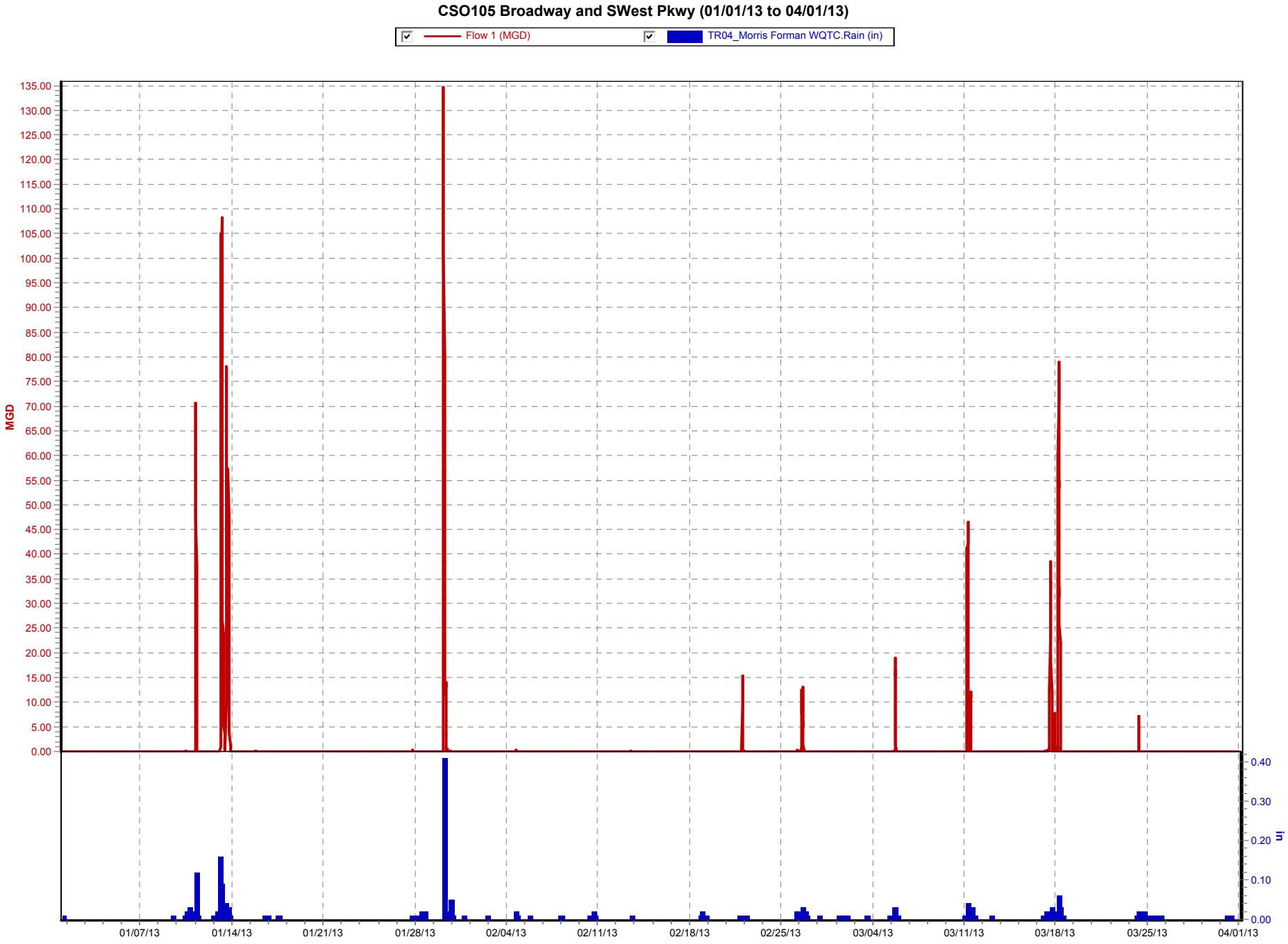

CSO092 Schiller Ave (01/01/13 to 04/01/13)
M1 Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
2.80
2.70
2.60
2.50
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO093 Mellwood Ave (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
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
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

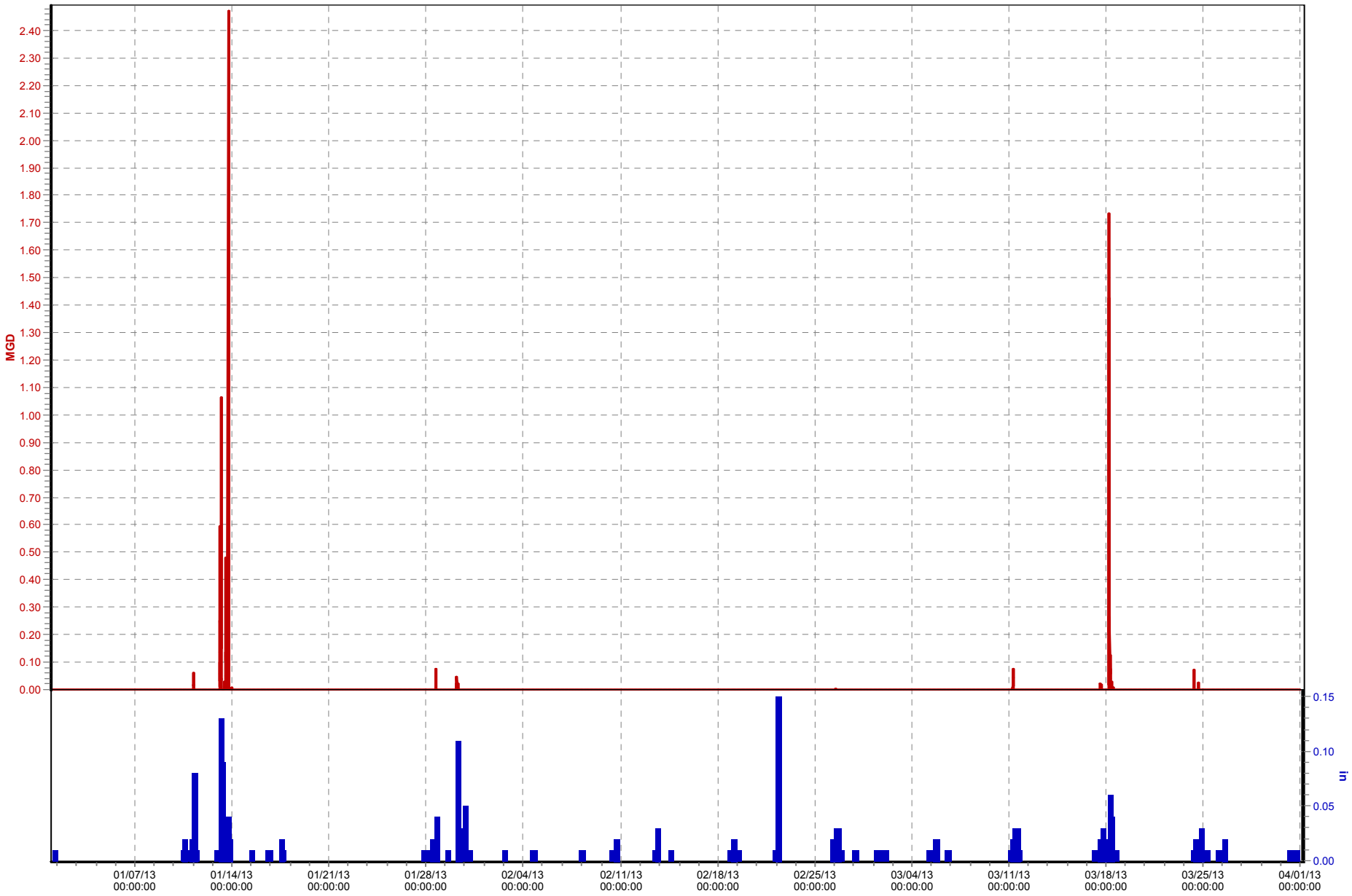

CSO097 Castlevale Dr (01/01/13 to 04/01/13)
C097_FLOW_MGD (MGD)
TR12_Nightingale PS.Rain (in)
MGD
IN
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.15
0.10
0.05
0.00
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

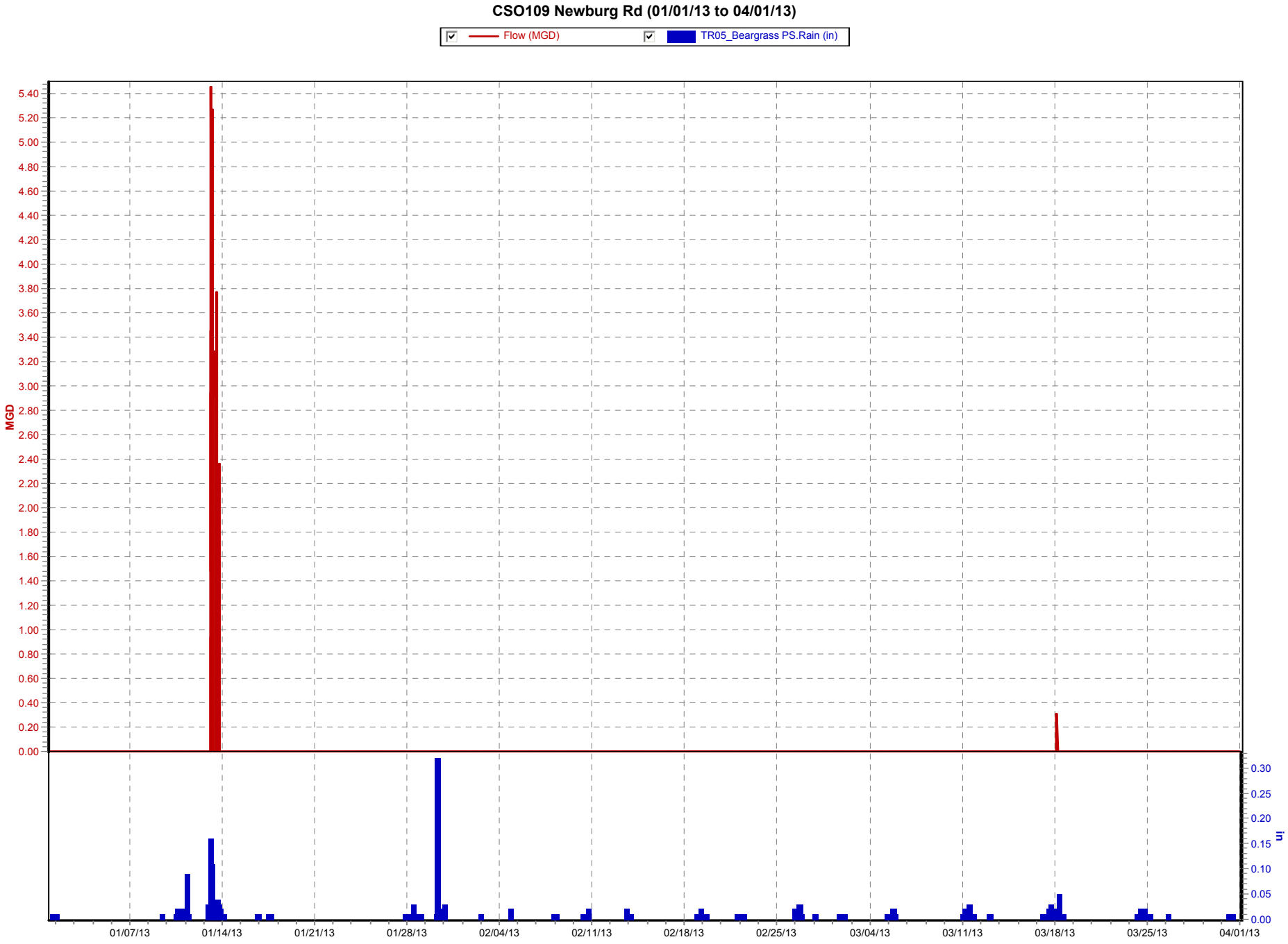
## CSO104 SWest Pkwy and Broadway (01/01/13 to 04/01/13)

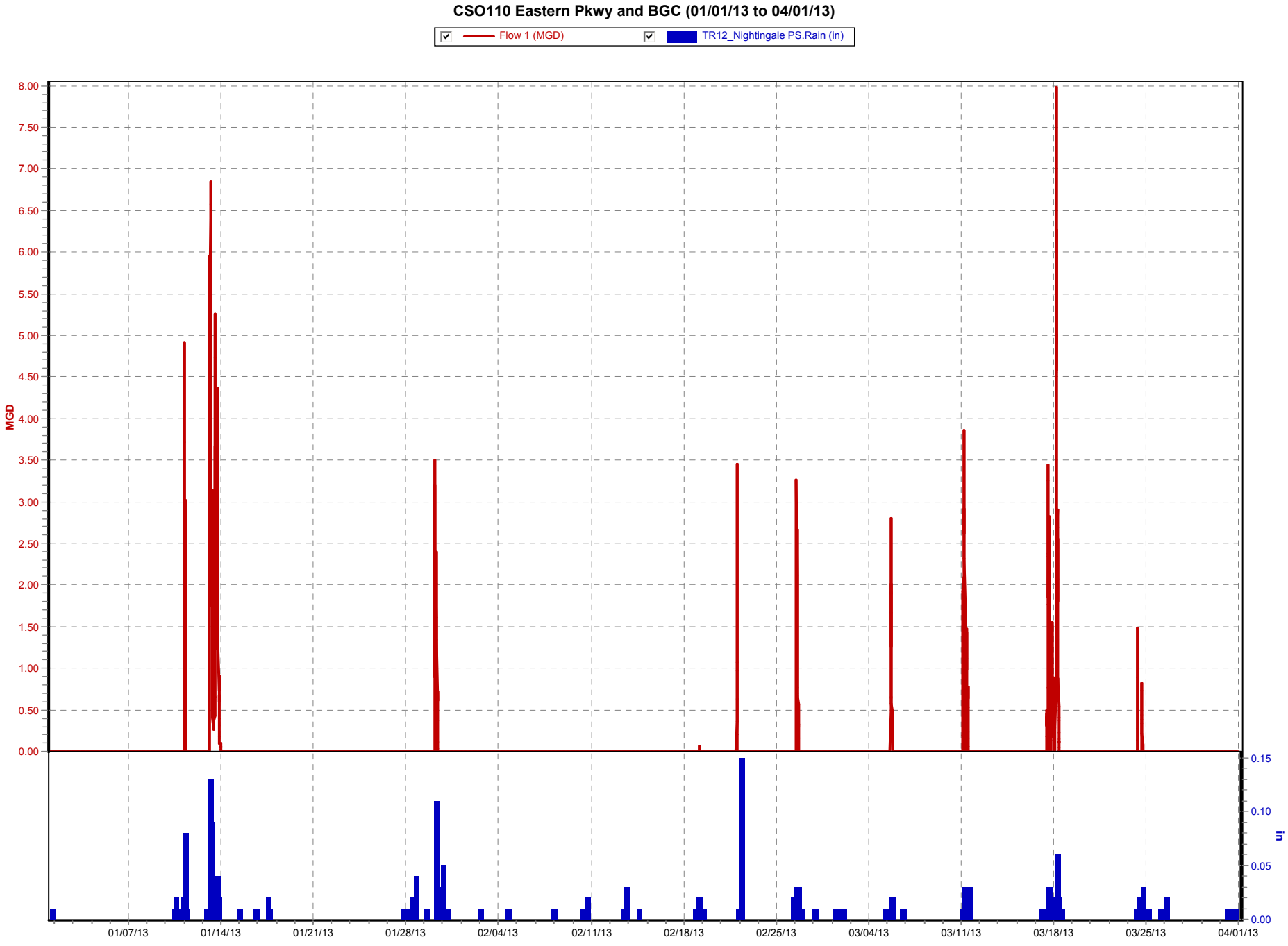


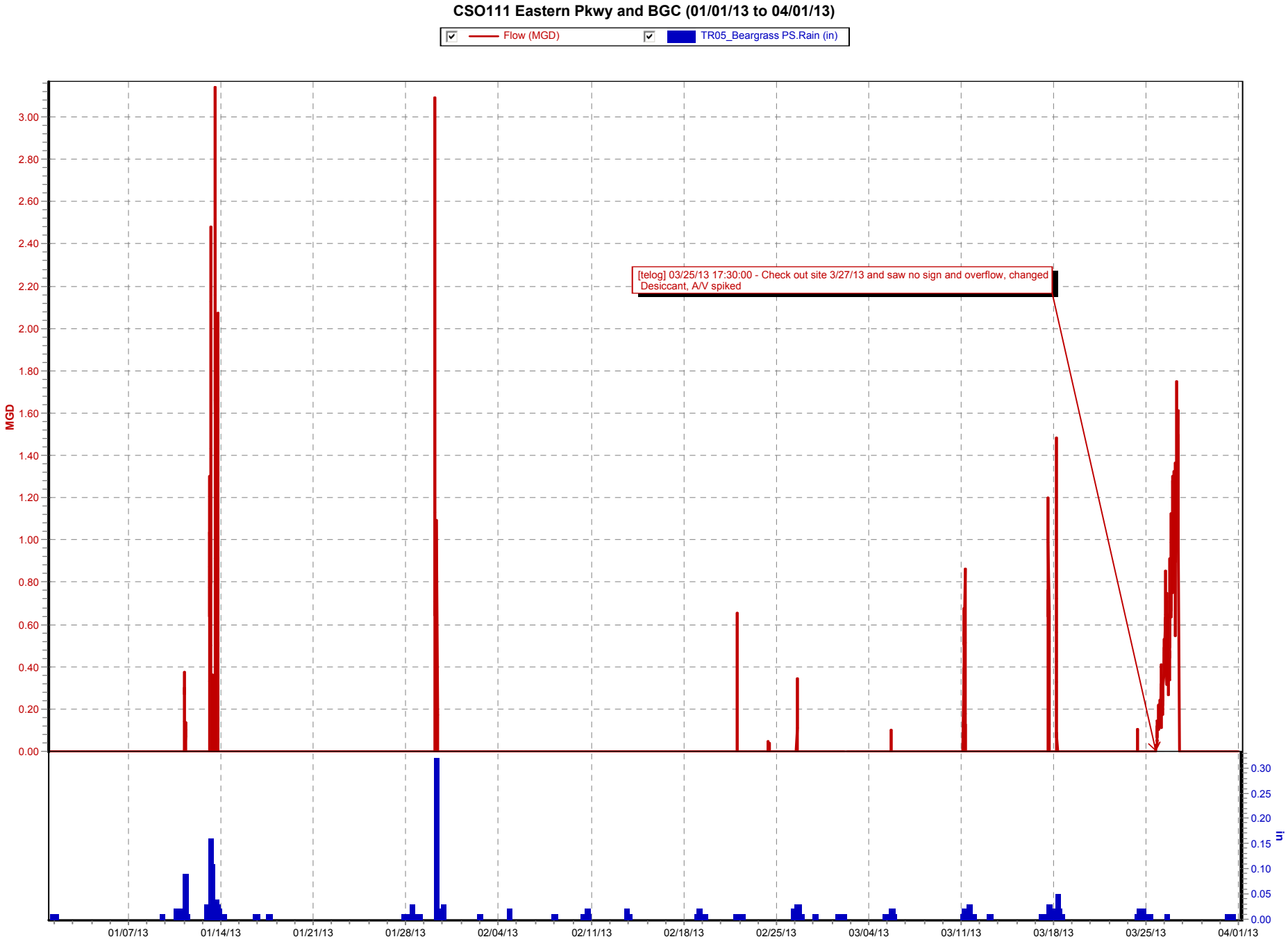

CSO105 Broadway and SWest Pkwy (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
135.00
130.00
125.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.40
0.30
0.20
0.10
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

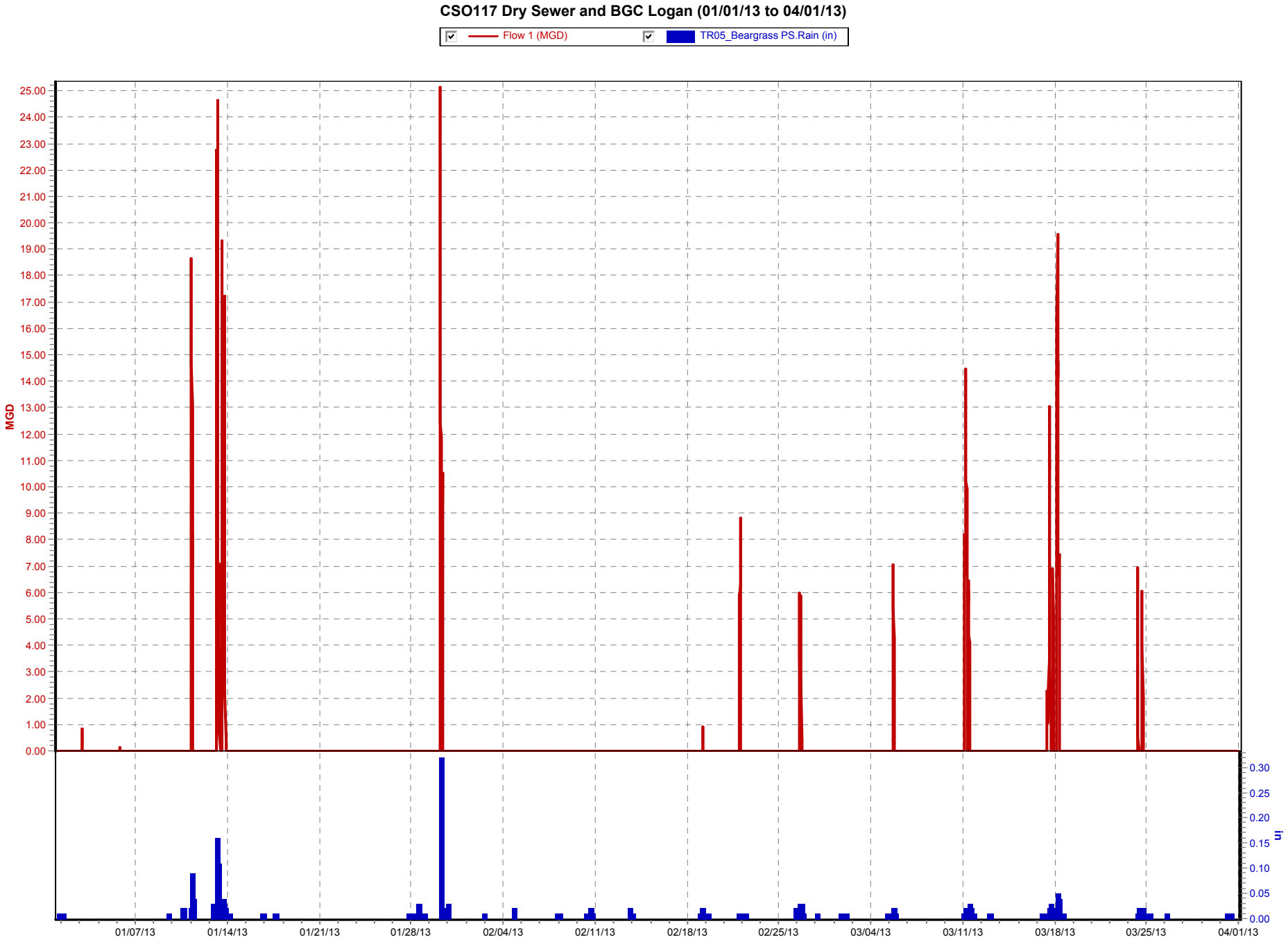
## CSO106 Castlevale Dr (01/01/13 to 04/01/13)

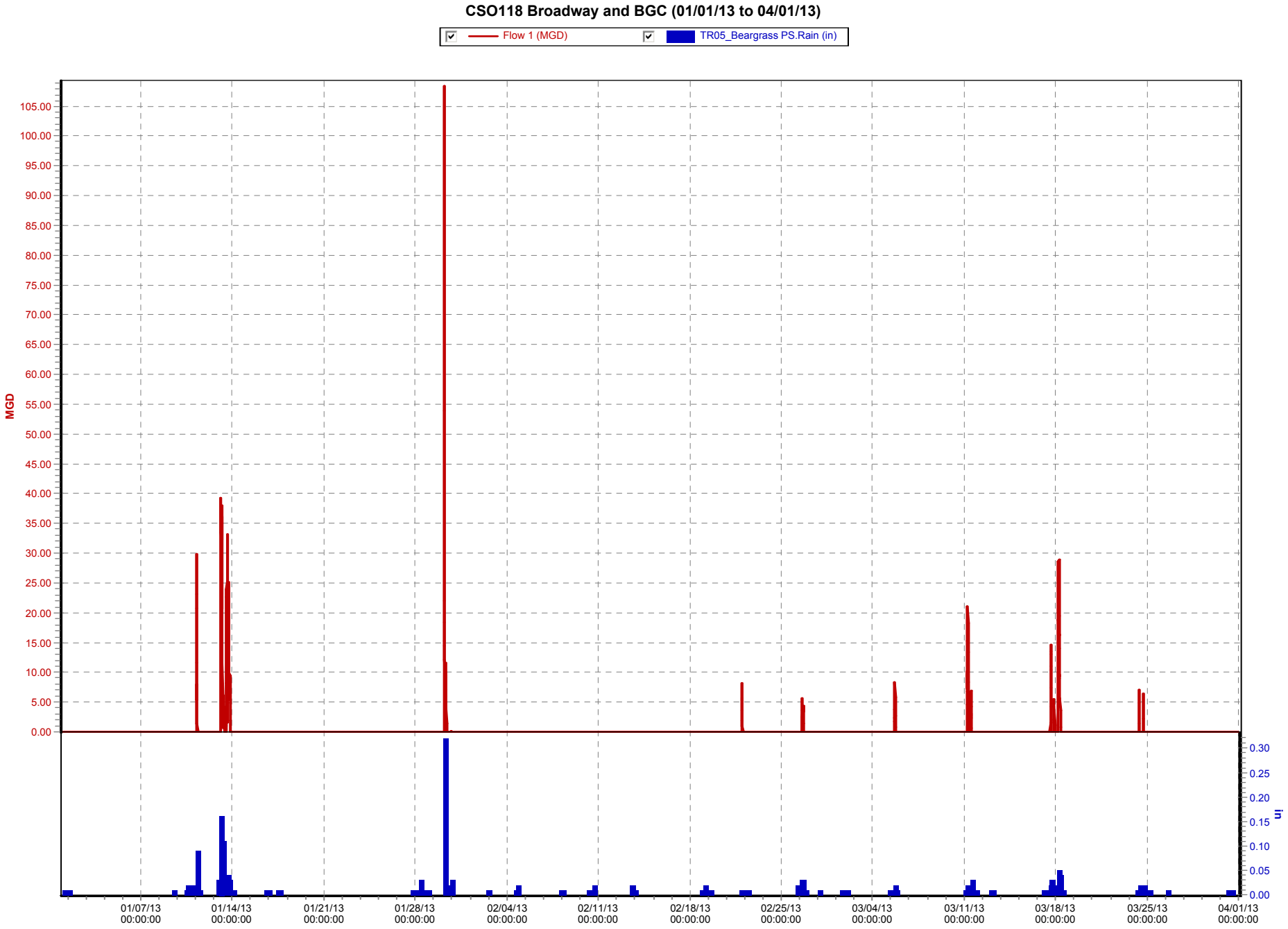


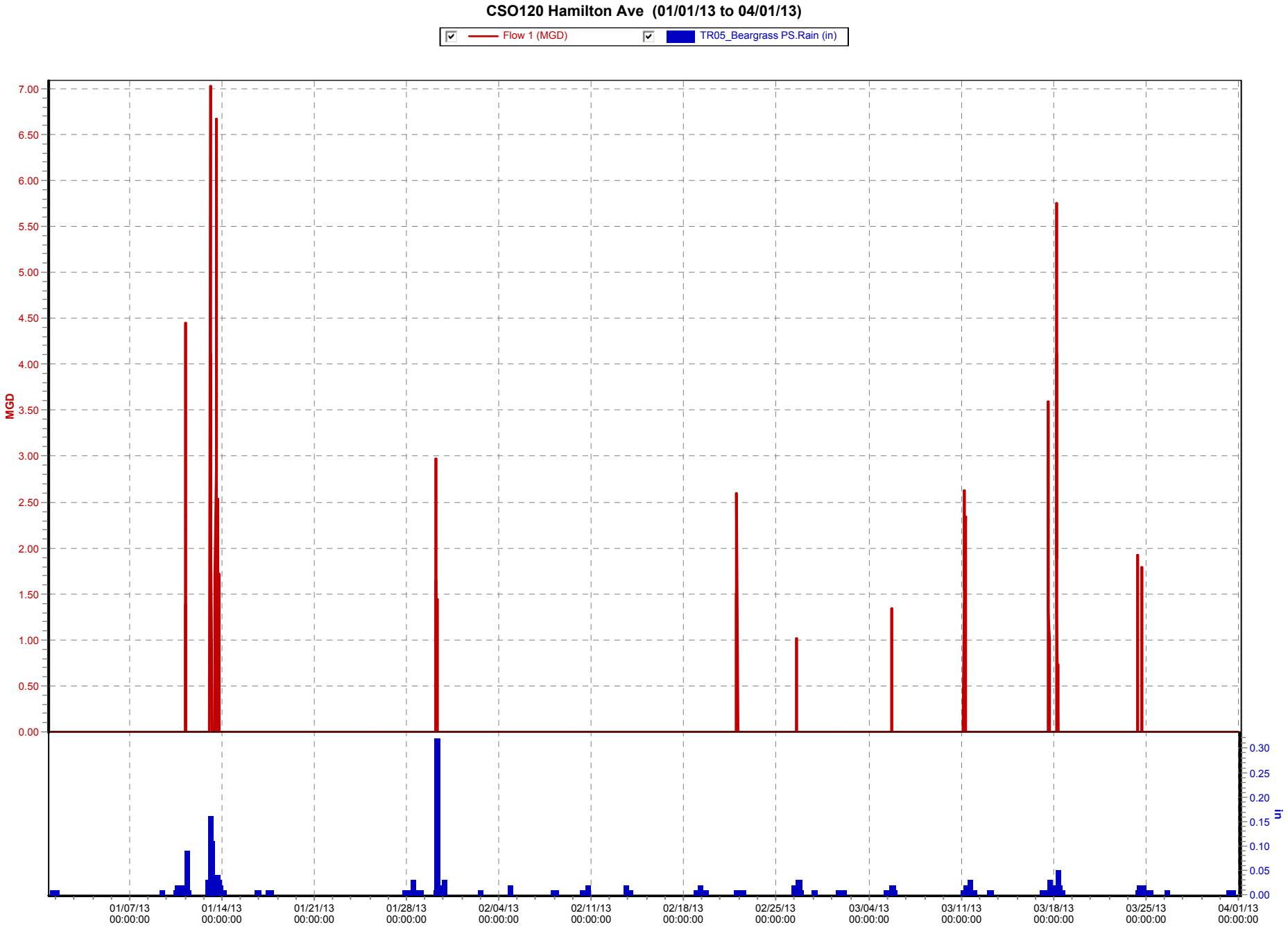

CSO109 Newburg Rd (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
5.40
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

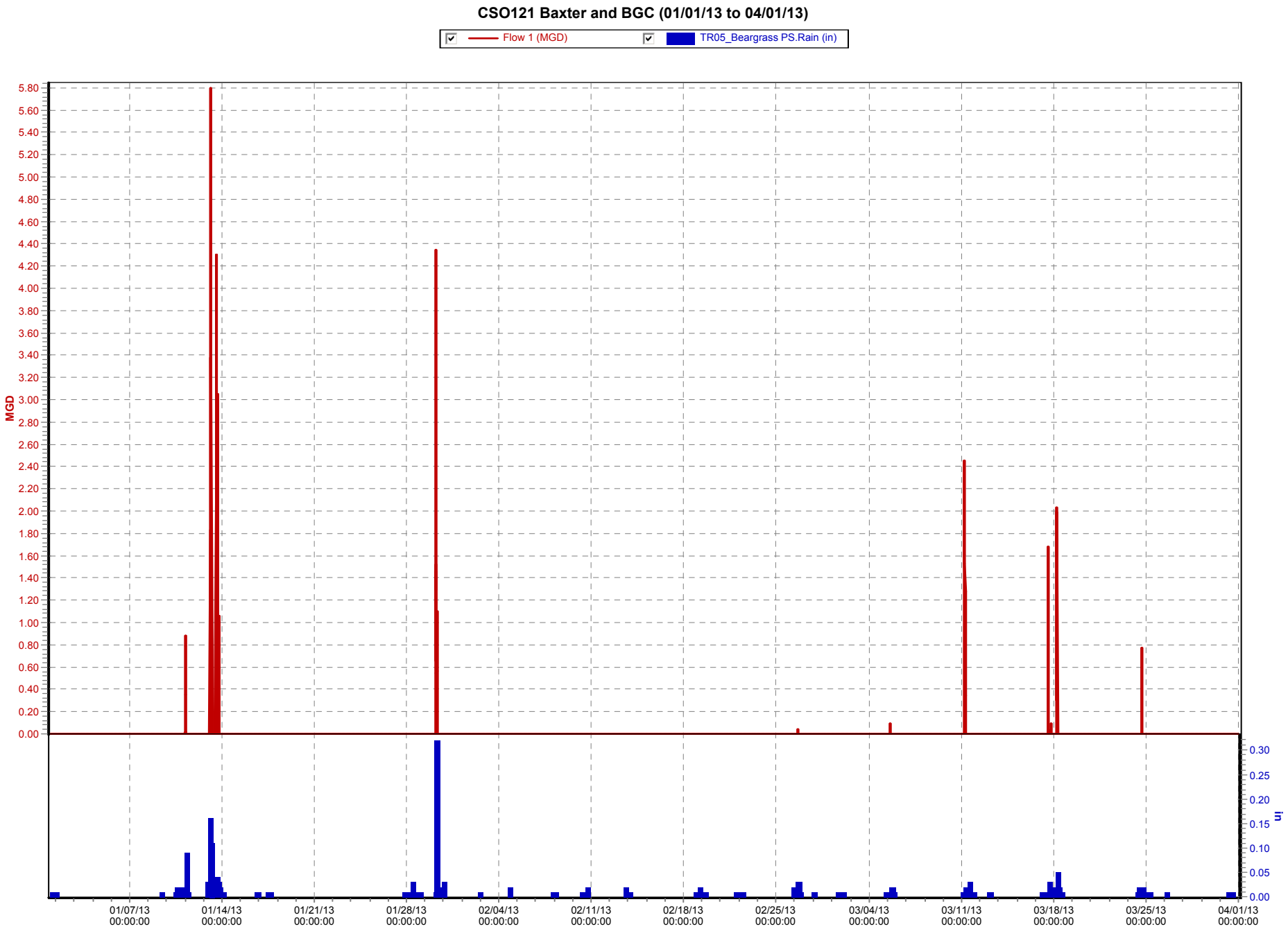

CSO110 Eastern Pkwy and BGC (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

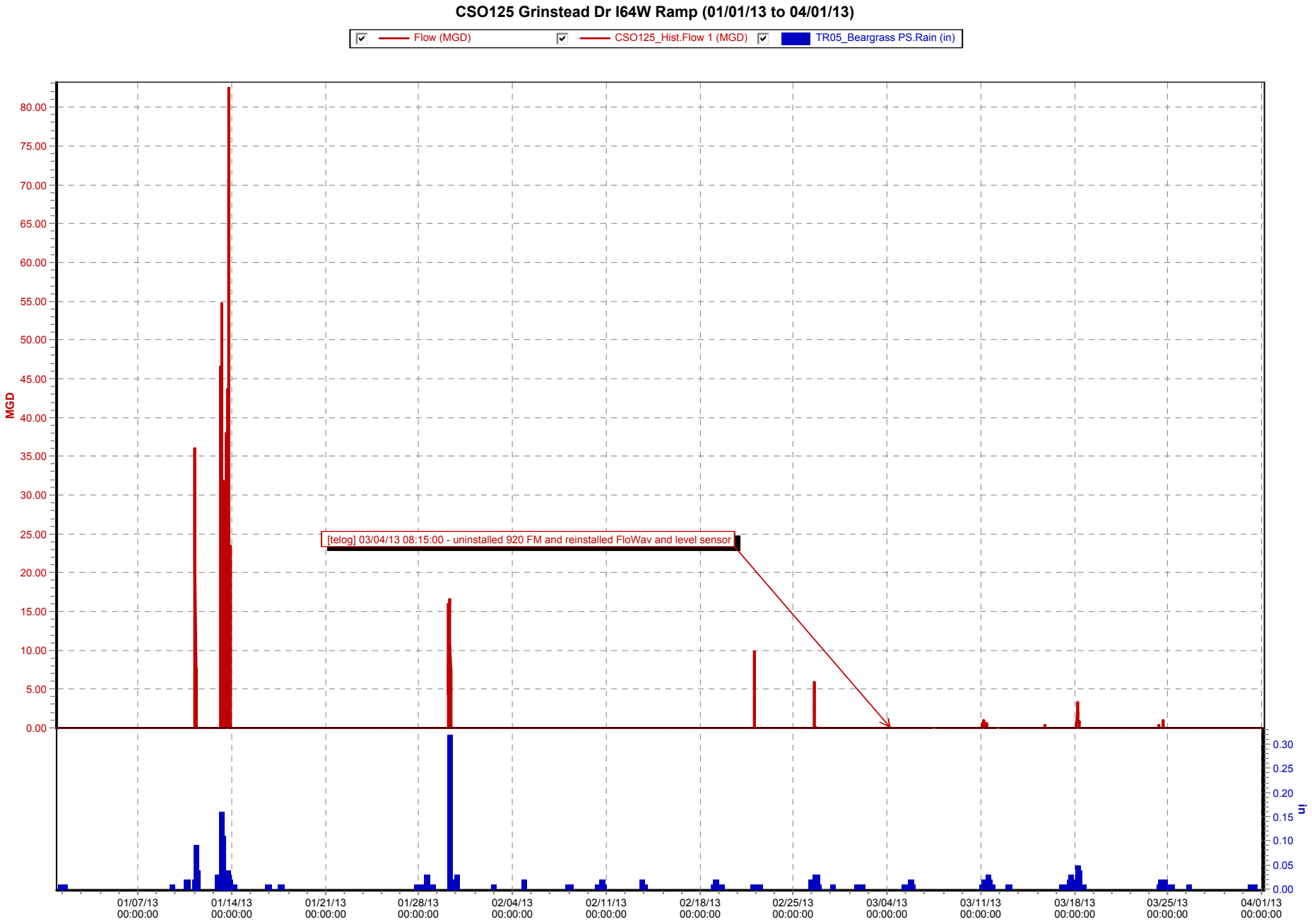

CSO111 Eastern Pkwy and BGC (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
[telog] 03/25/13 17:30:00 - Check out site 3/27/13 and saw no sign and overflow, changed Desiccant, A/V spiked
MGD
in
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

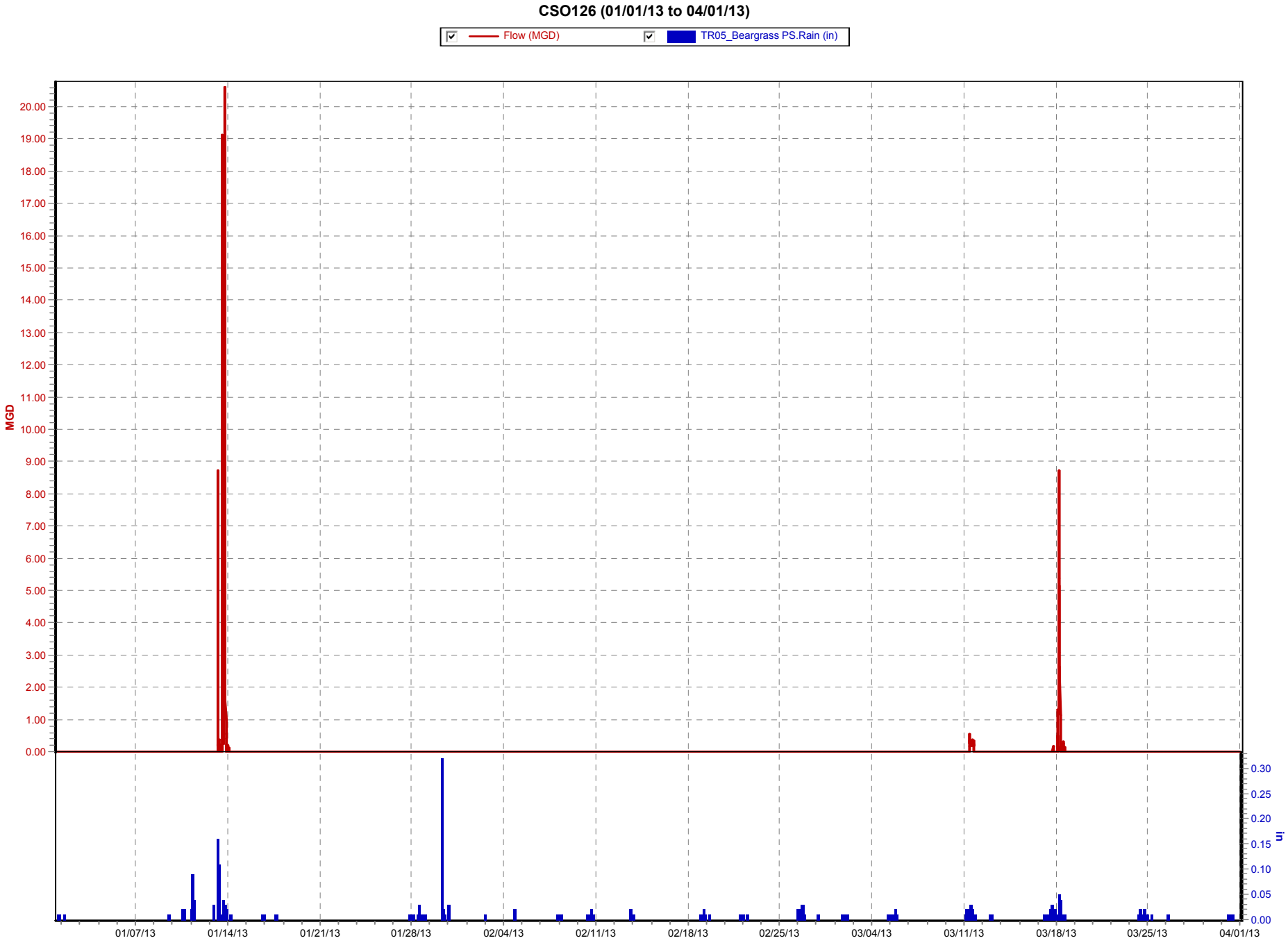

CSO117 Dry Sewer and BGC Logan (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
25.00
24.00
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO118 Broadway and BGC (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

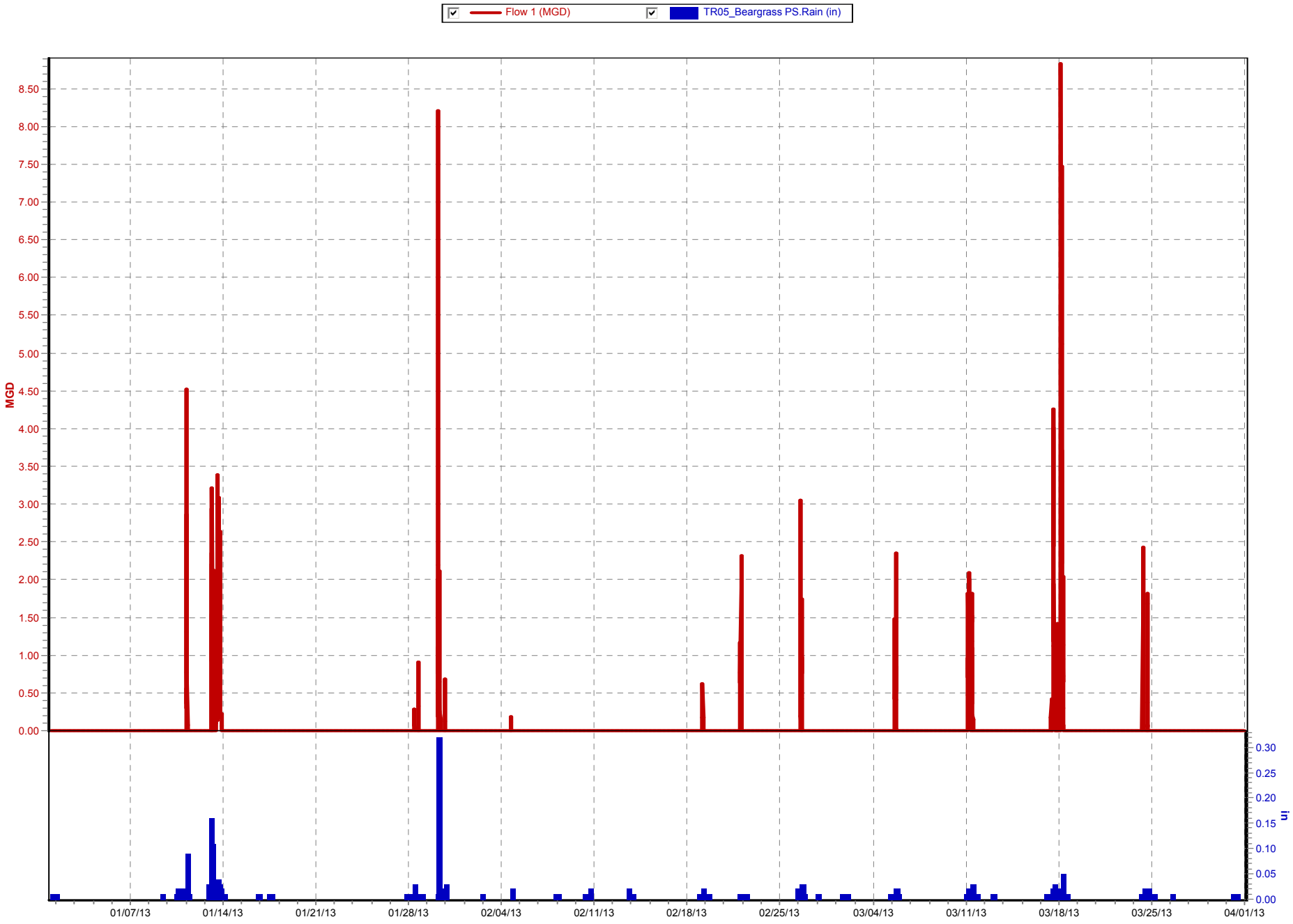

CSO120 Hamilton Ave (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

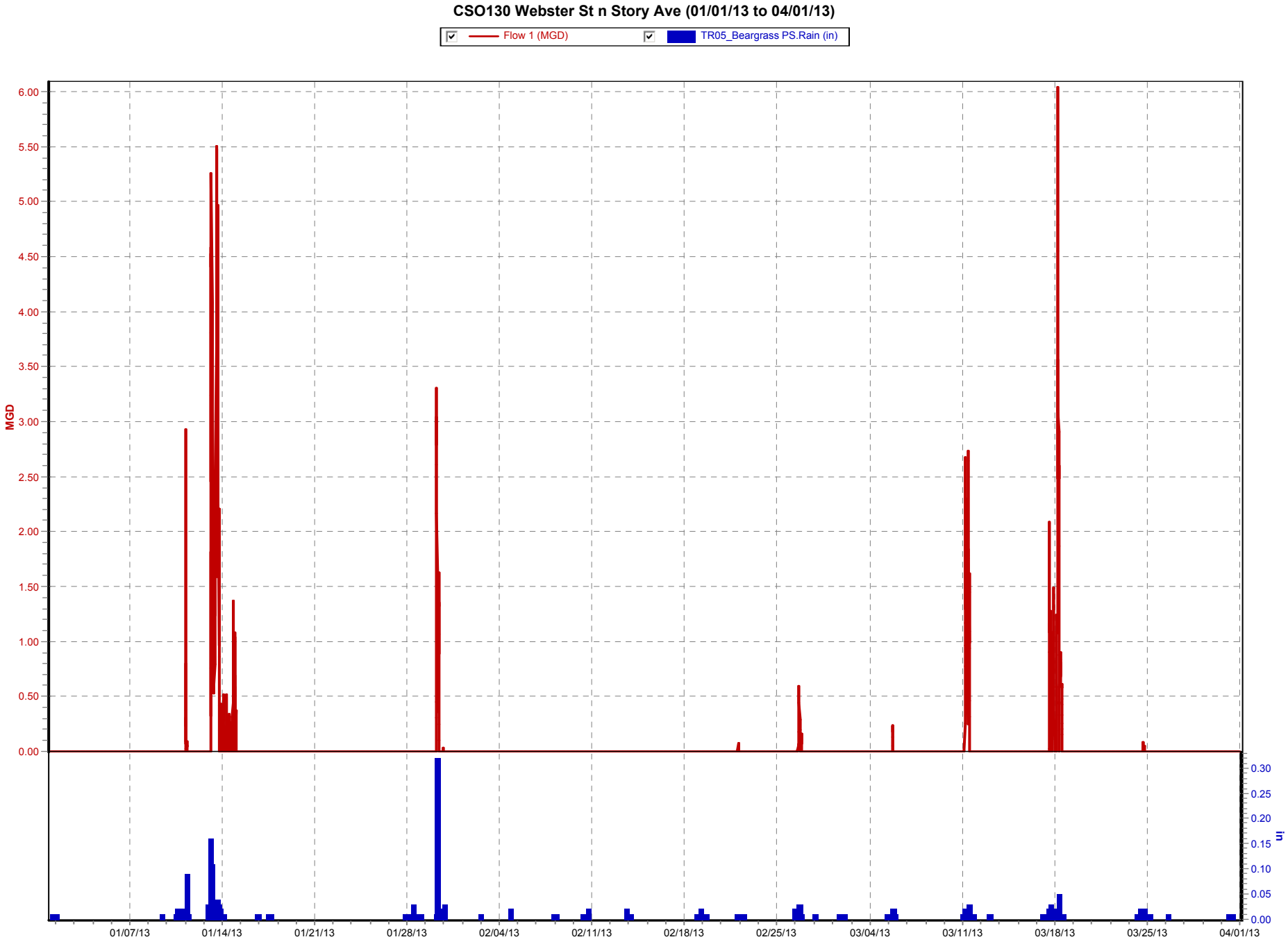

CSO121 Baxter and BGC (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
IN
5.80
5.60
5.40
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

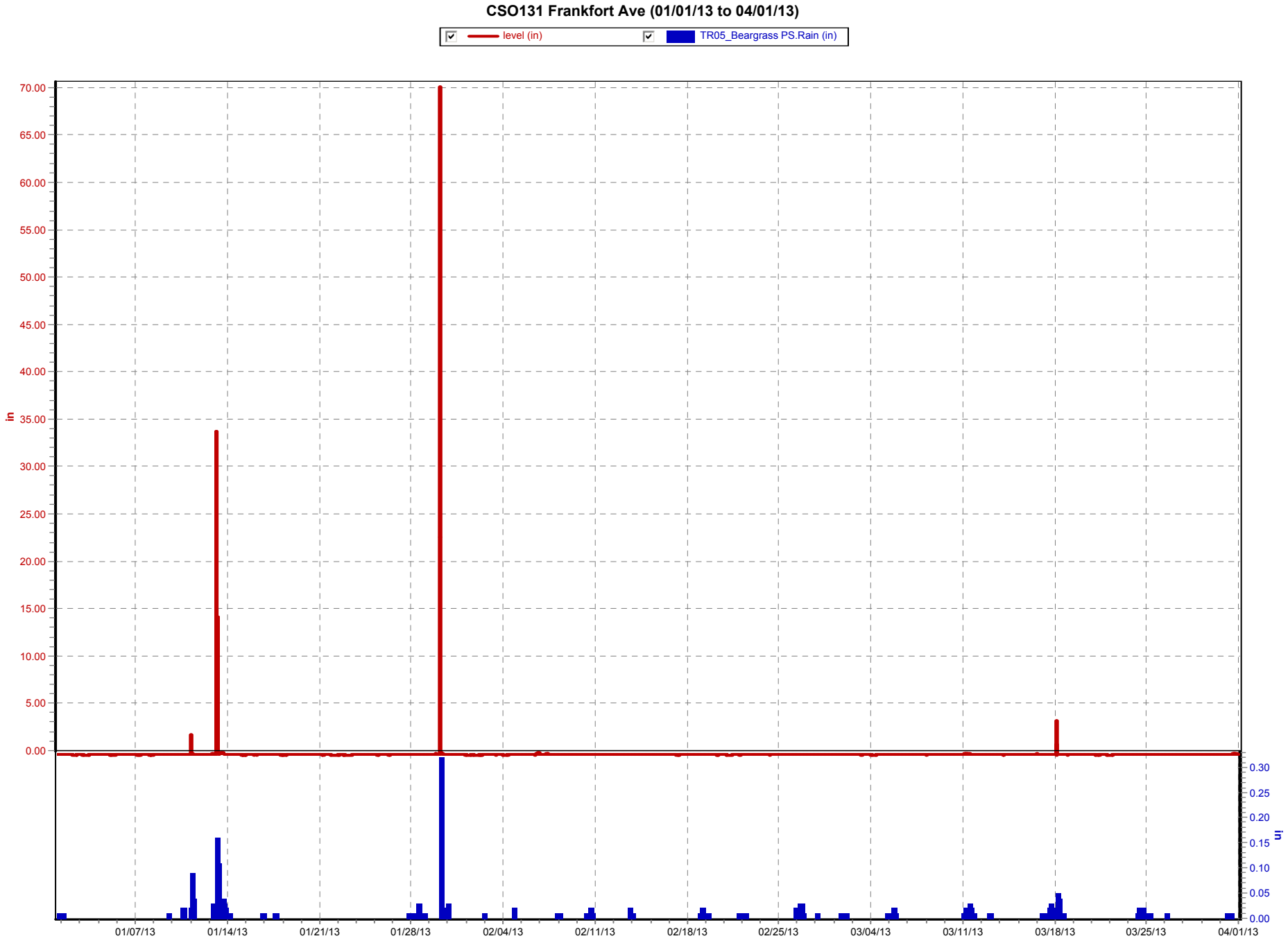

CSO125 Grinstead Dr I64W Ramp (01/01/13 to 04/01/13)
Flow (MGD)
CSO125_Hist.Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
[telog] 03/04/13 08:15:00 - uninstalled 920 FM and reinstalled FloWav and level sensor
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00


CSO126 (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

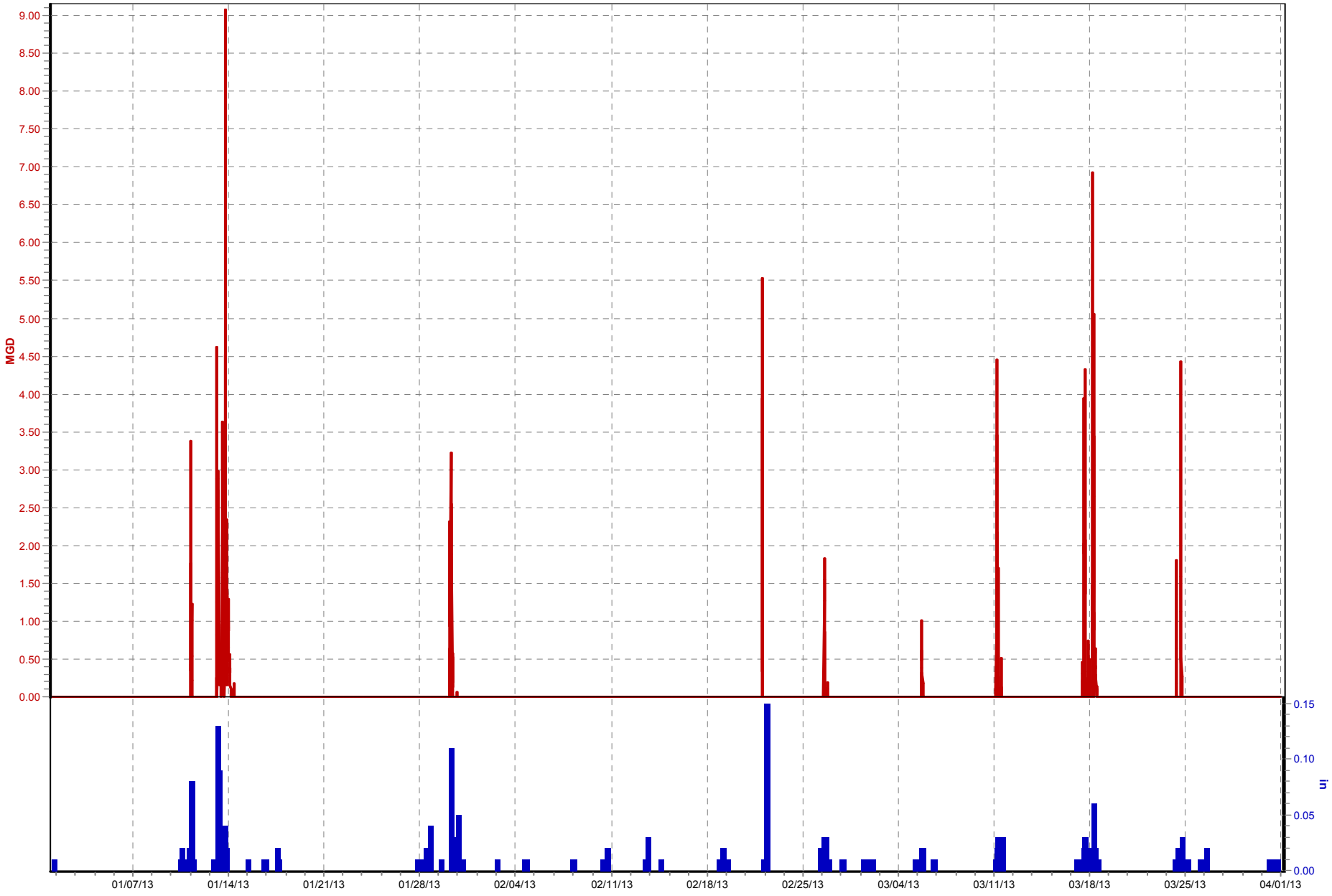
## CSO127 Etley Ave and Lex Rd (01/01/13 to 04/01/13)



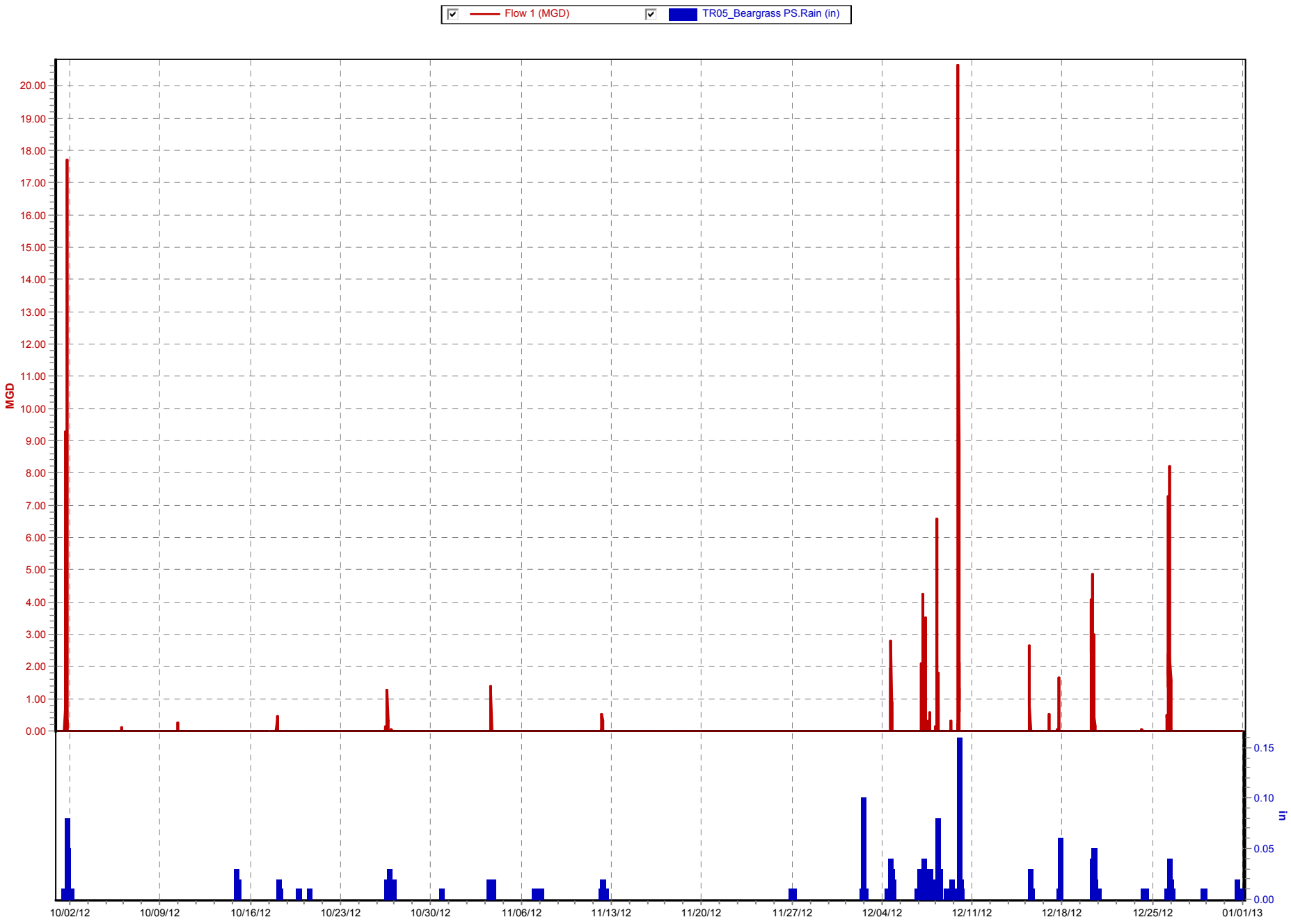

CSO130 Webster St n Story Ave (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO131 Frankfort Ave (01/01/13 to 04/01/13)
level (in)
TR05_Beargrass PS.Rain (in)
in
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

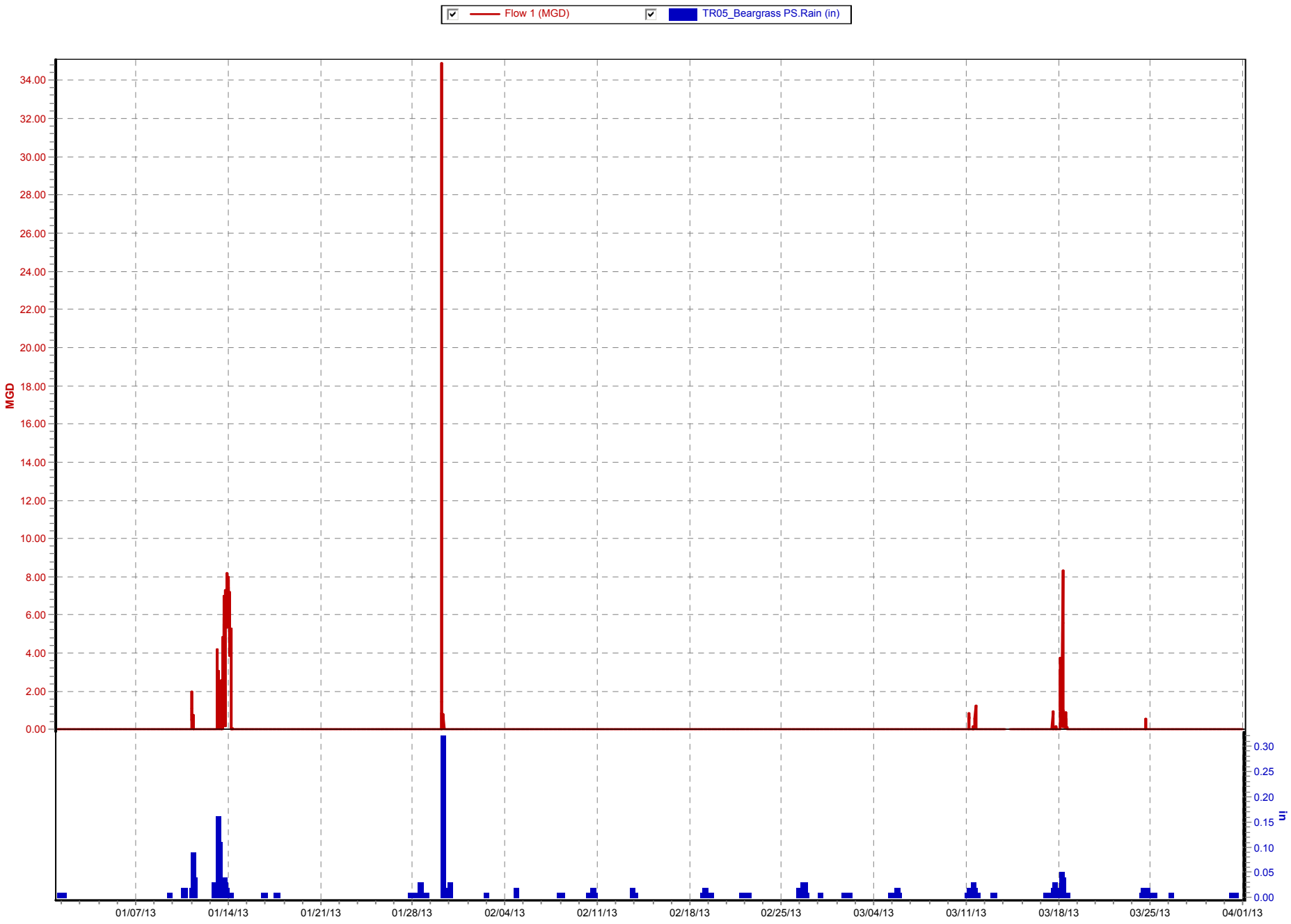
## CSO132 Brownsboro Rd (01/01/13 to 04/01/13)

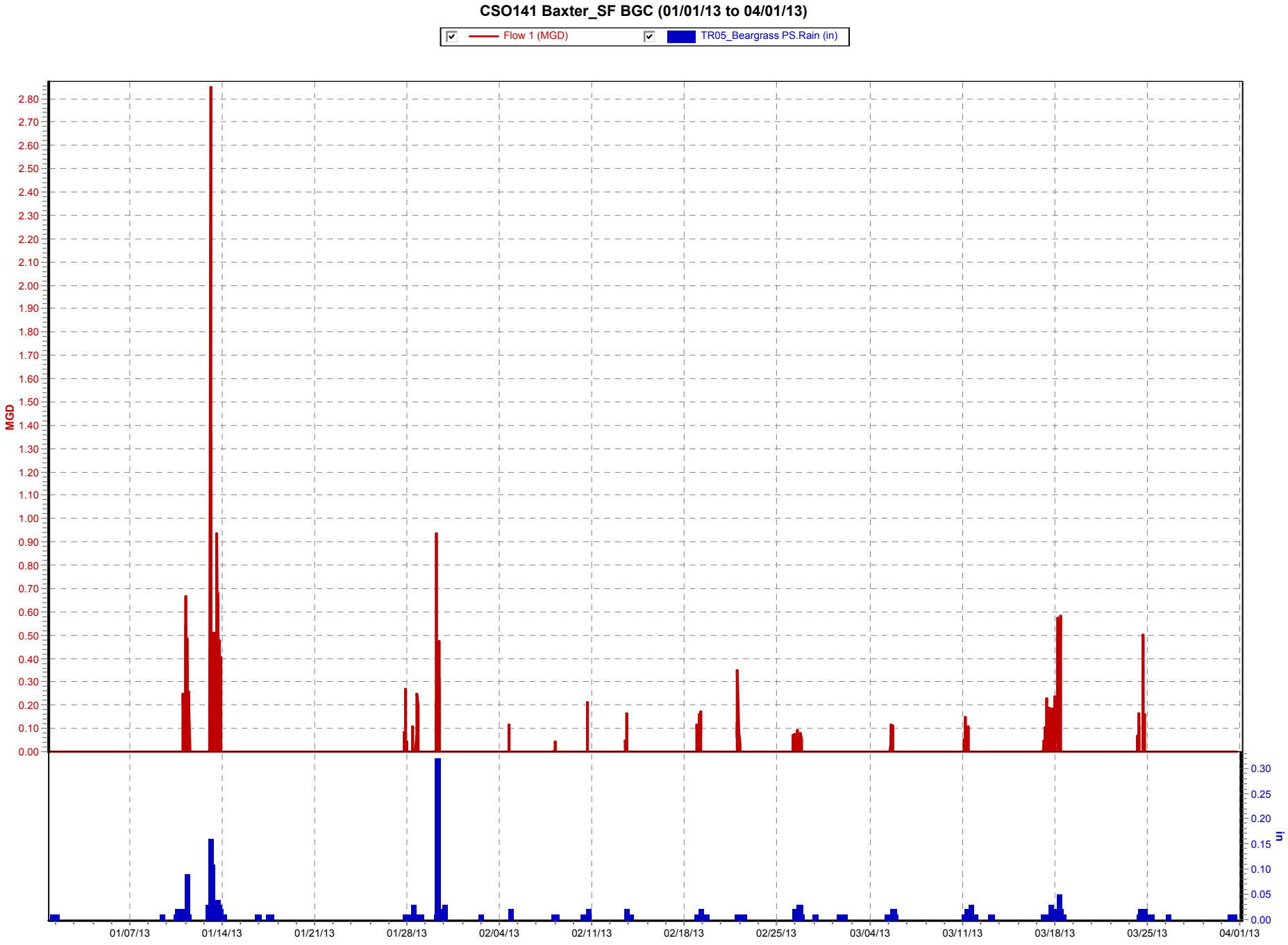


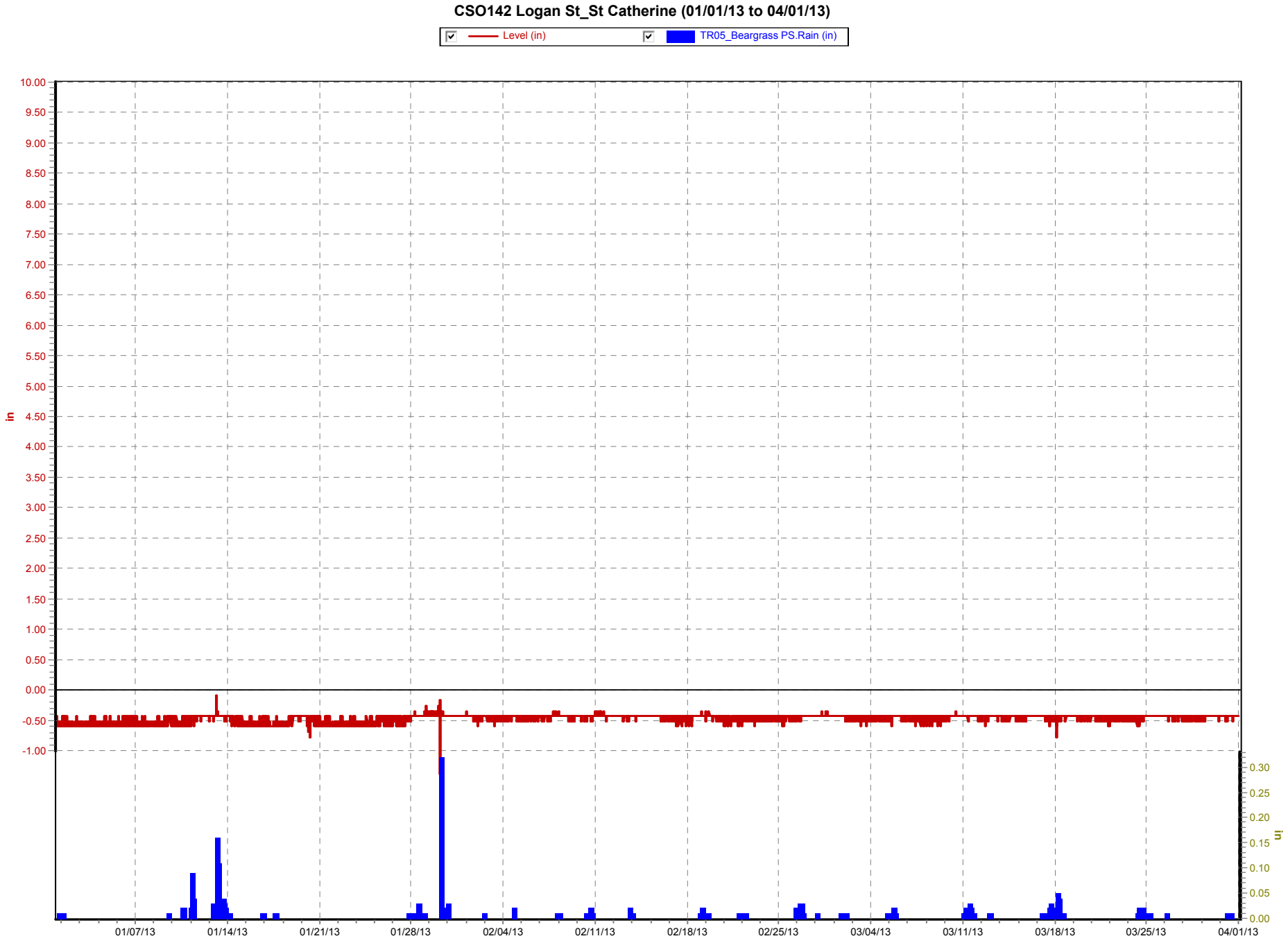
## CSO137 Cavalry Cemetery (10/01/12 to 01/01/13)



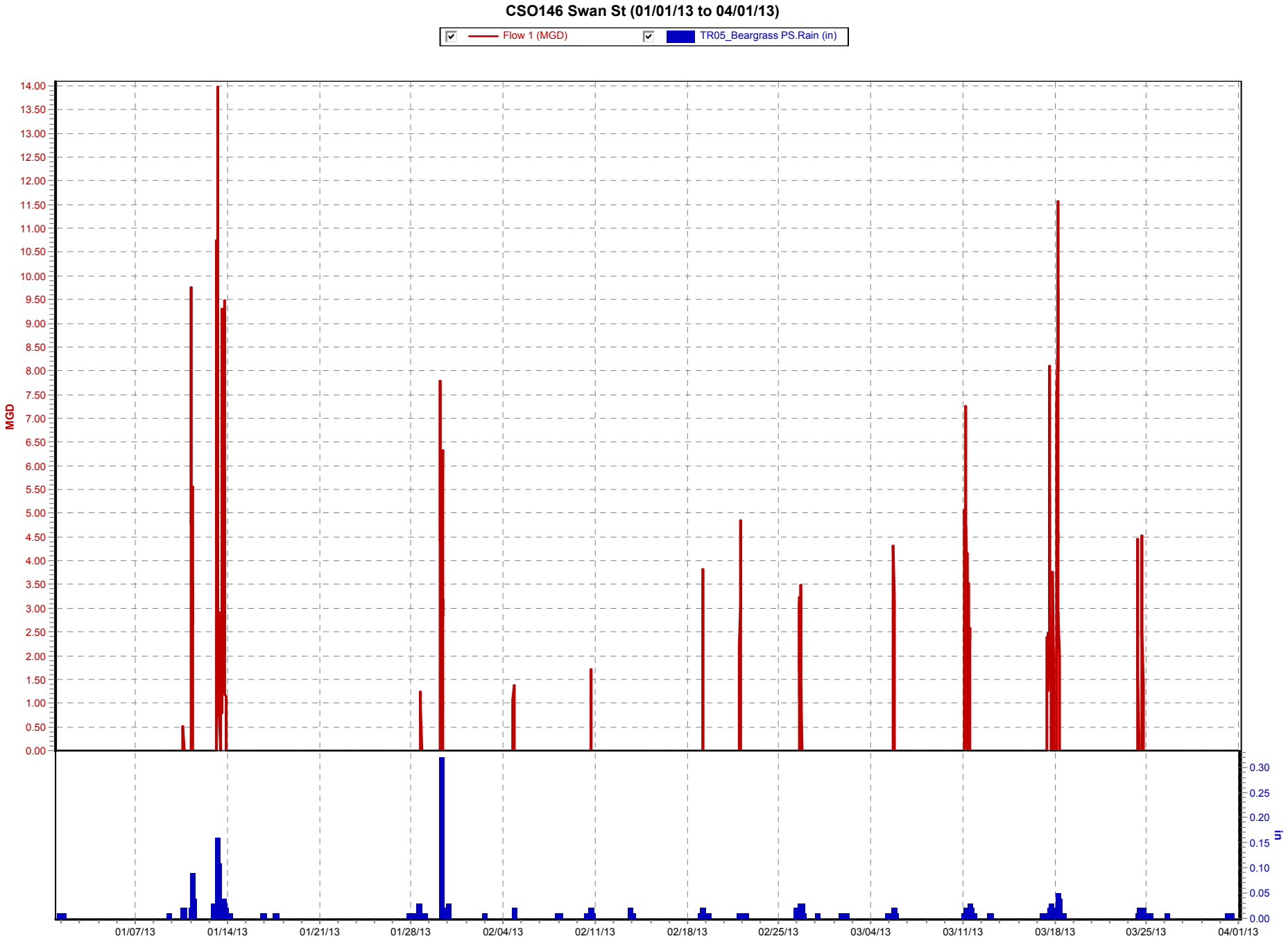
## CSO140 Locust St_Lobdell Alley (01/01/13 to 04/01/13)

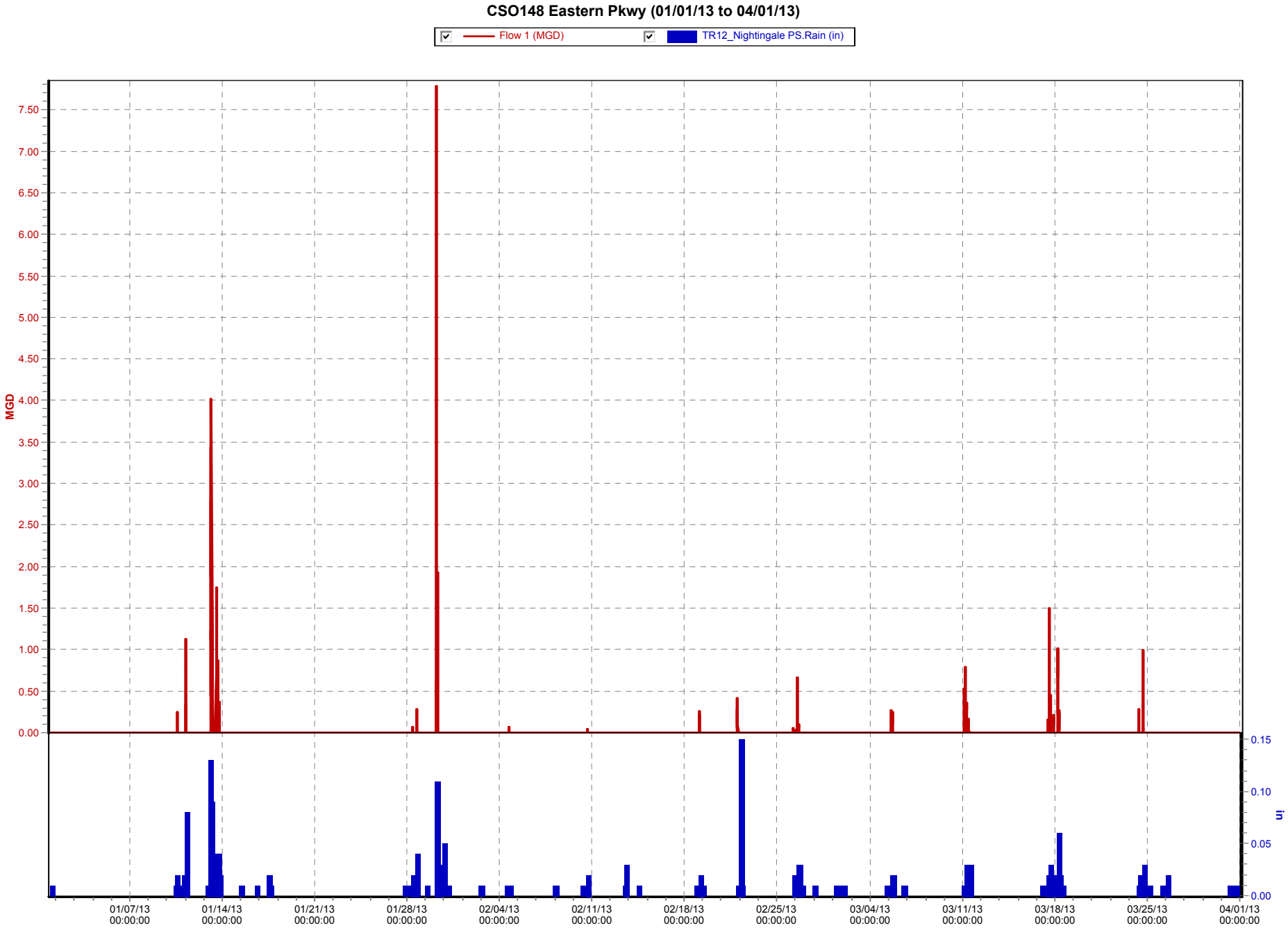


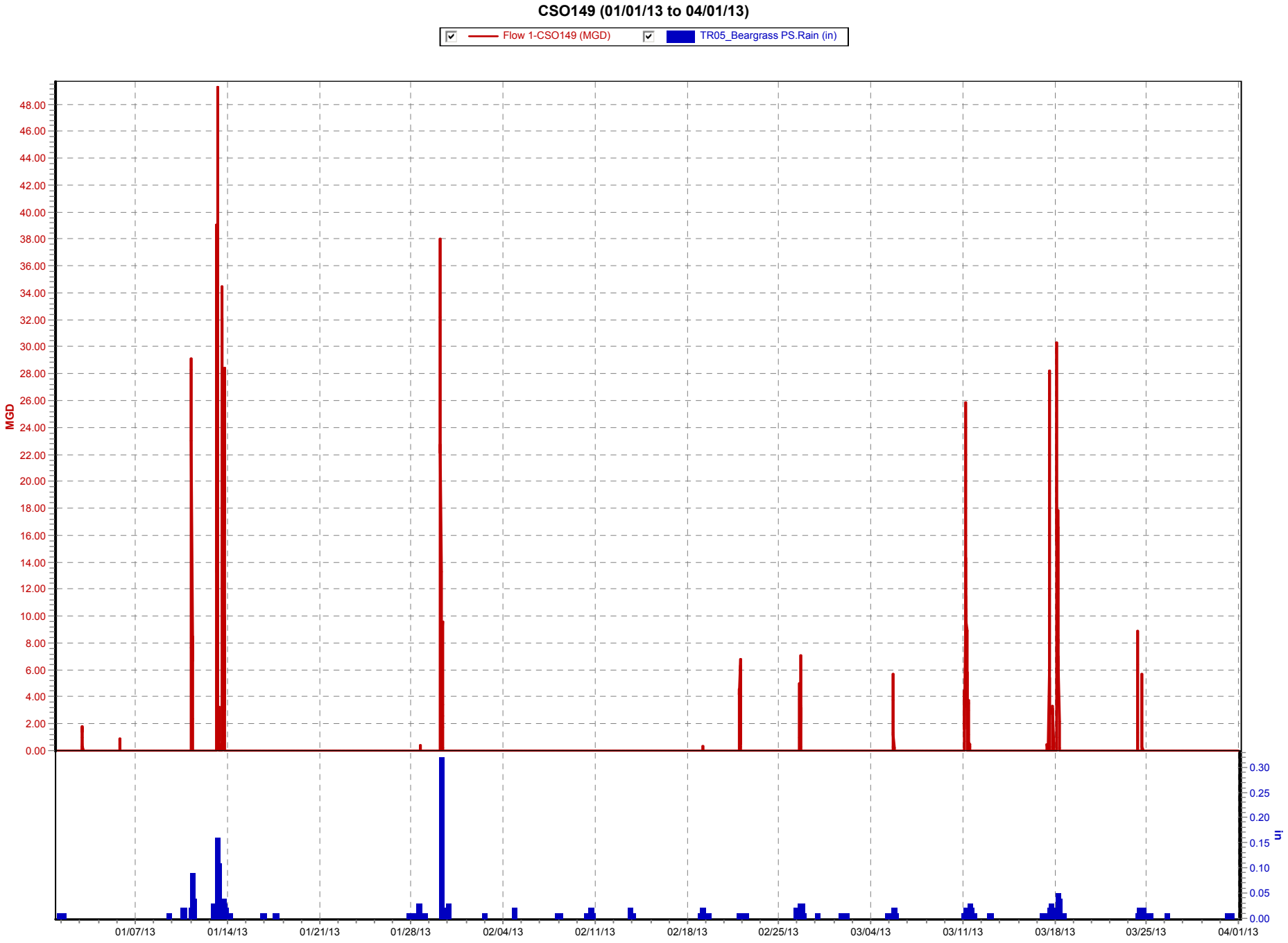

CSO141 Baxter_SF BGC (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
2.80
2.70
2.60
2.50
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

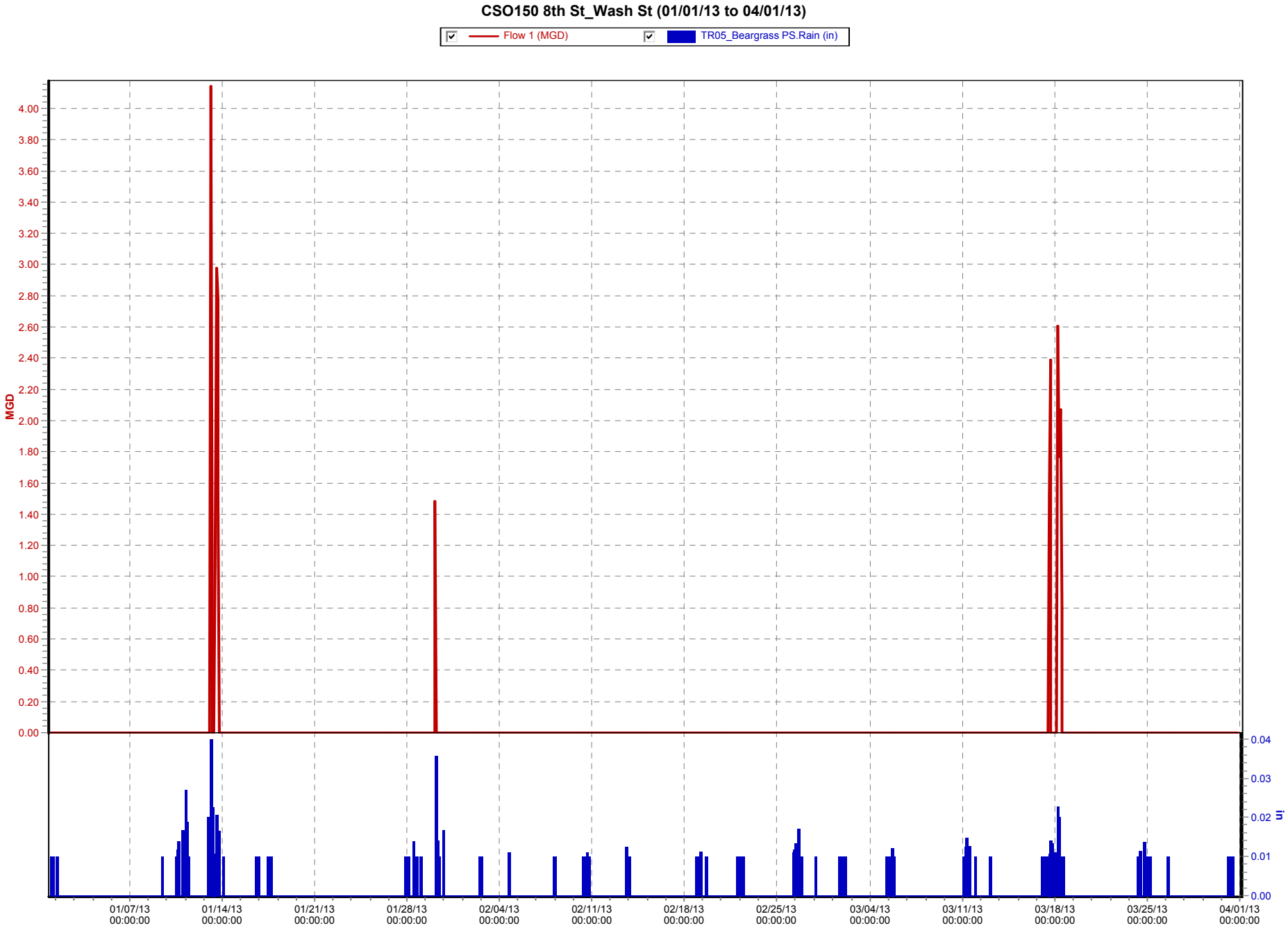

CSO142 Logan St_St Catherine (01/01/13 to 04/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

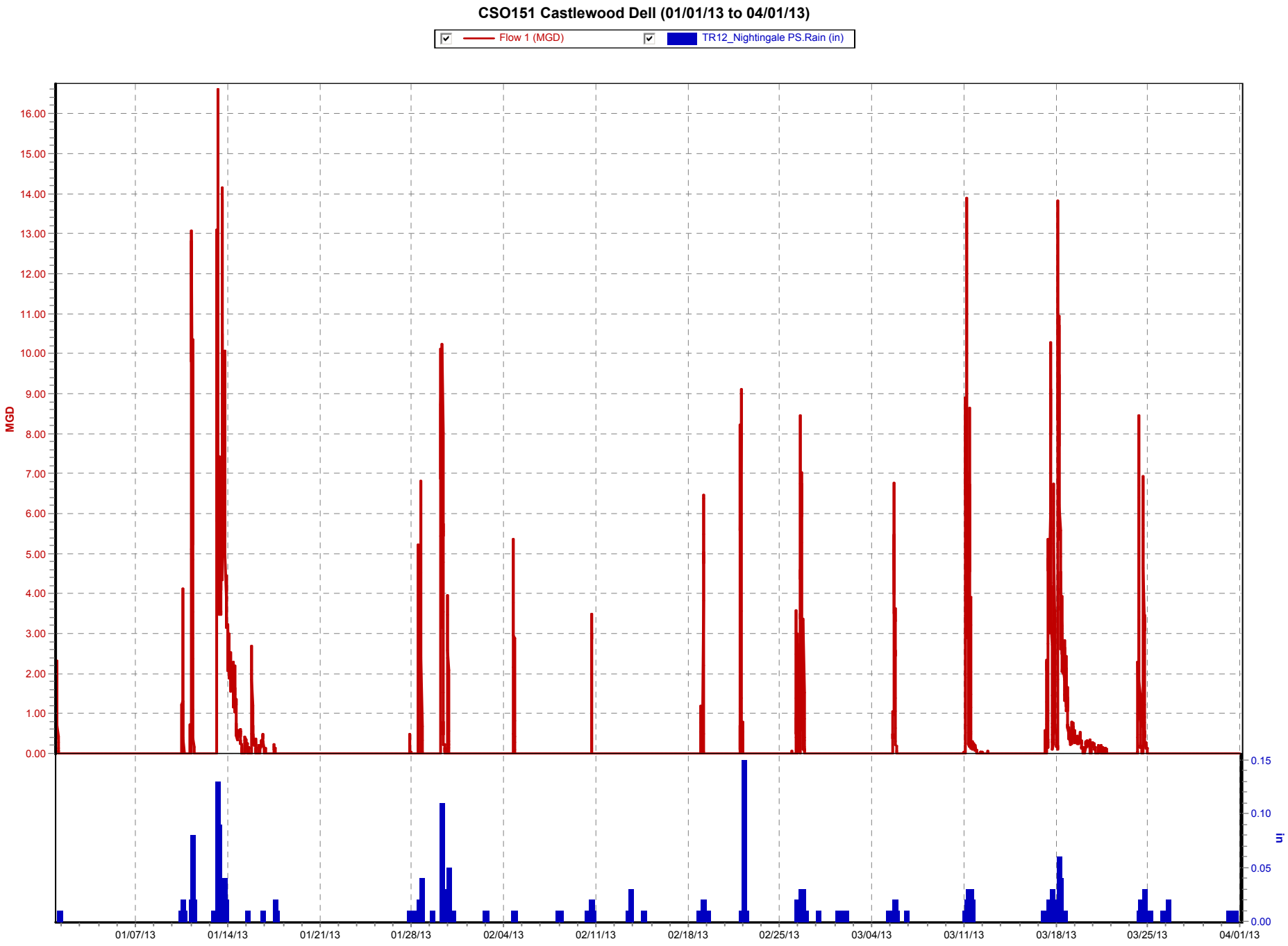
# CSO144 Brauner Way (01/01/13 to 04/01/13)

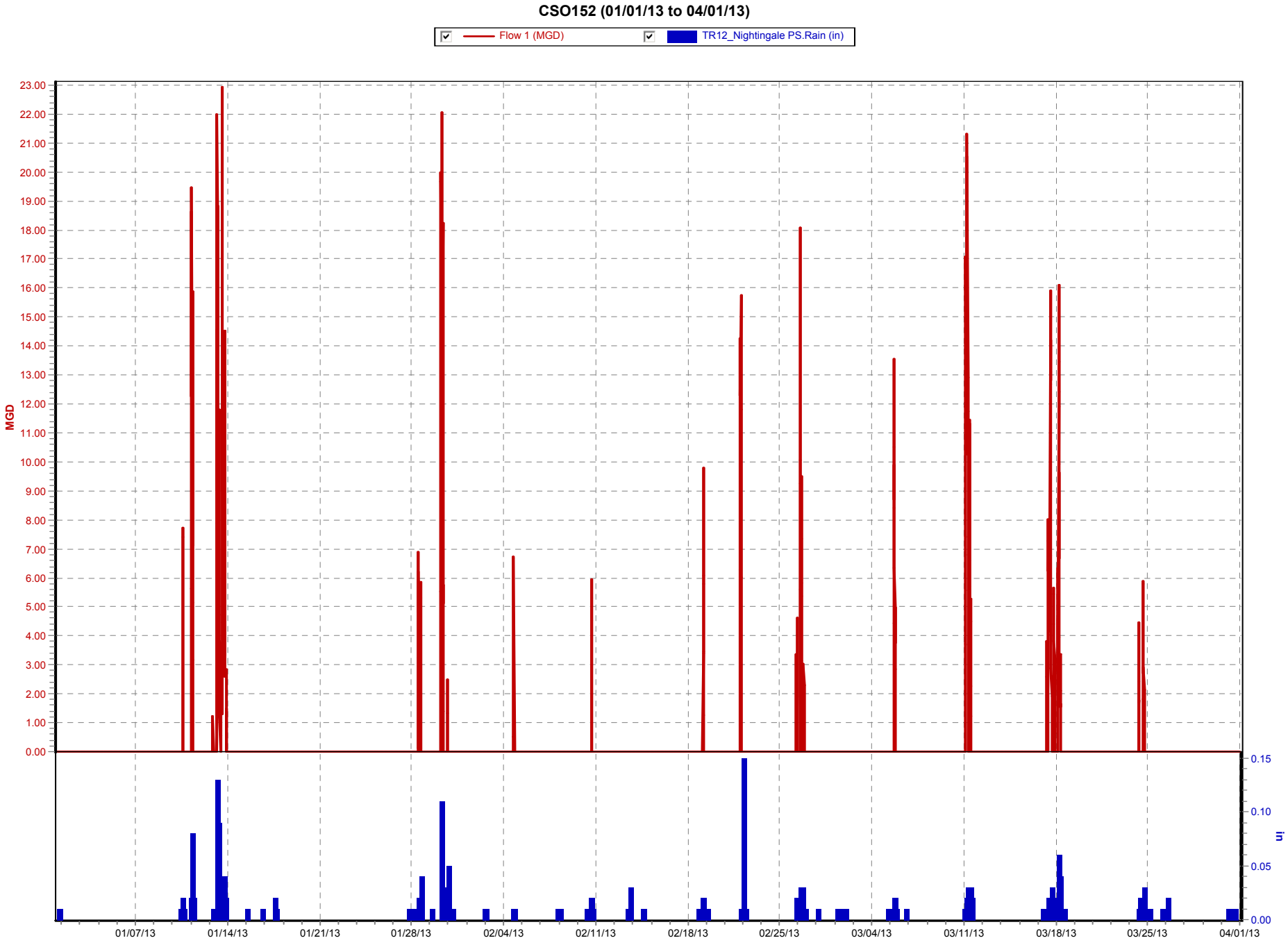

CSO146 Swan St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

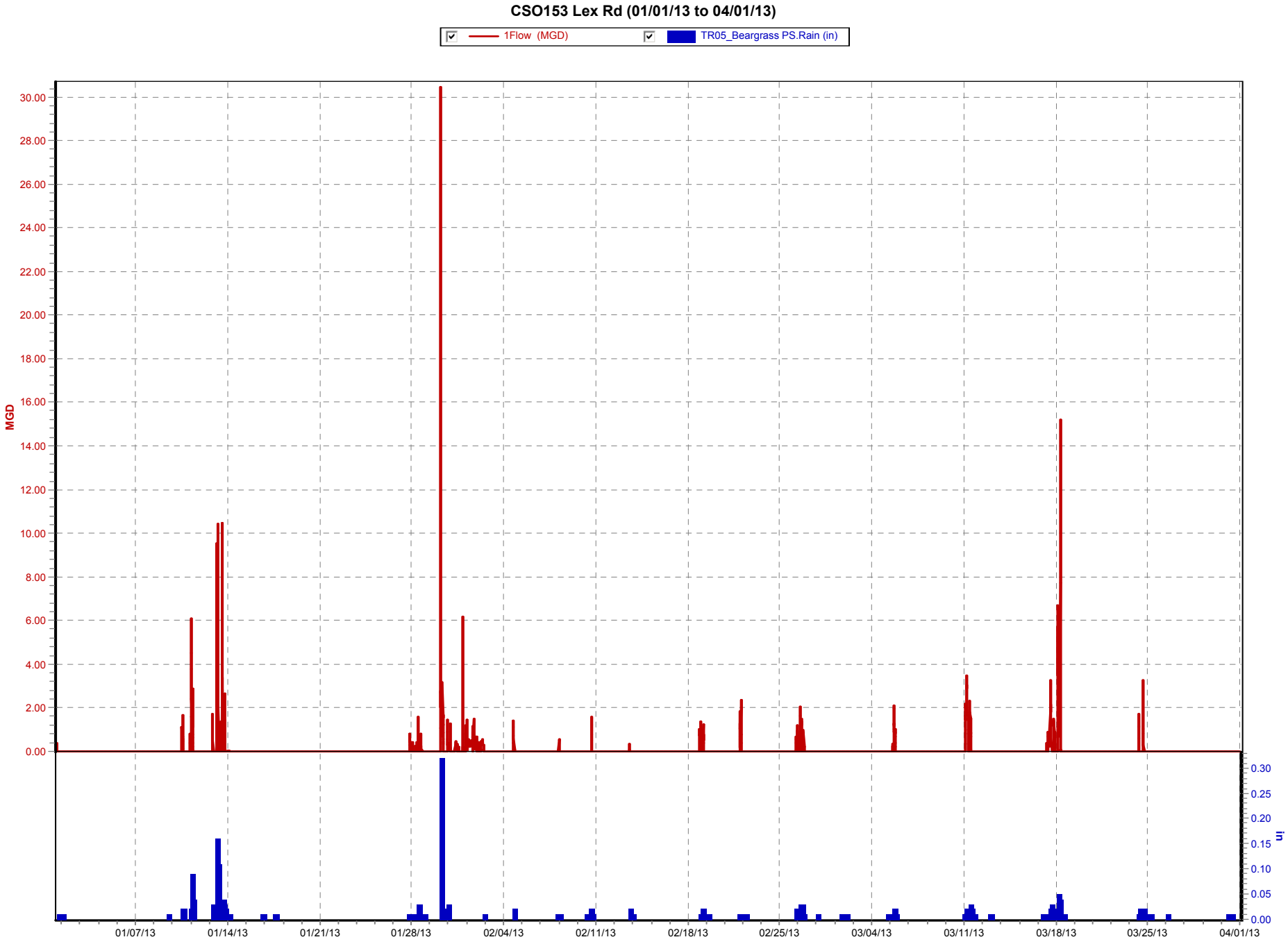

CSO148 Eastern Pkwy (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
IN
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

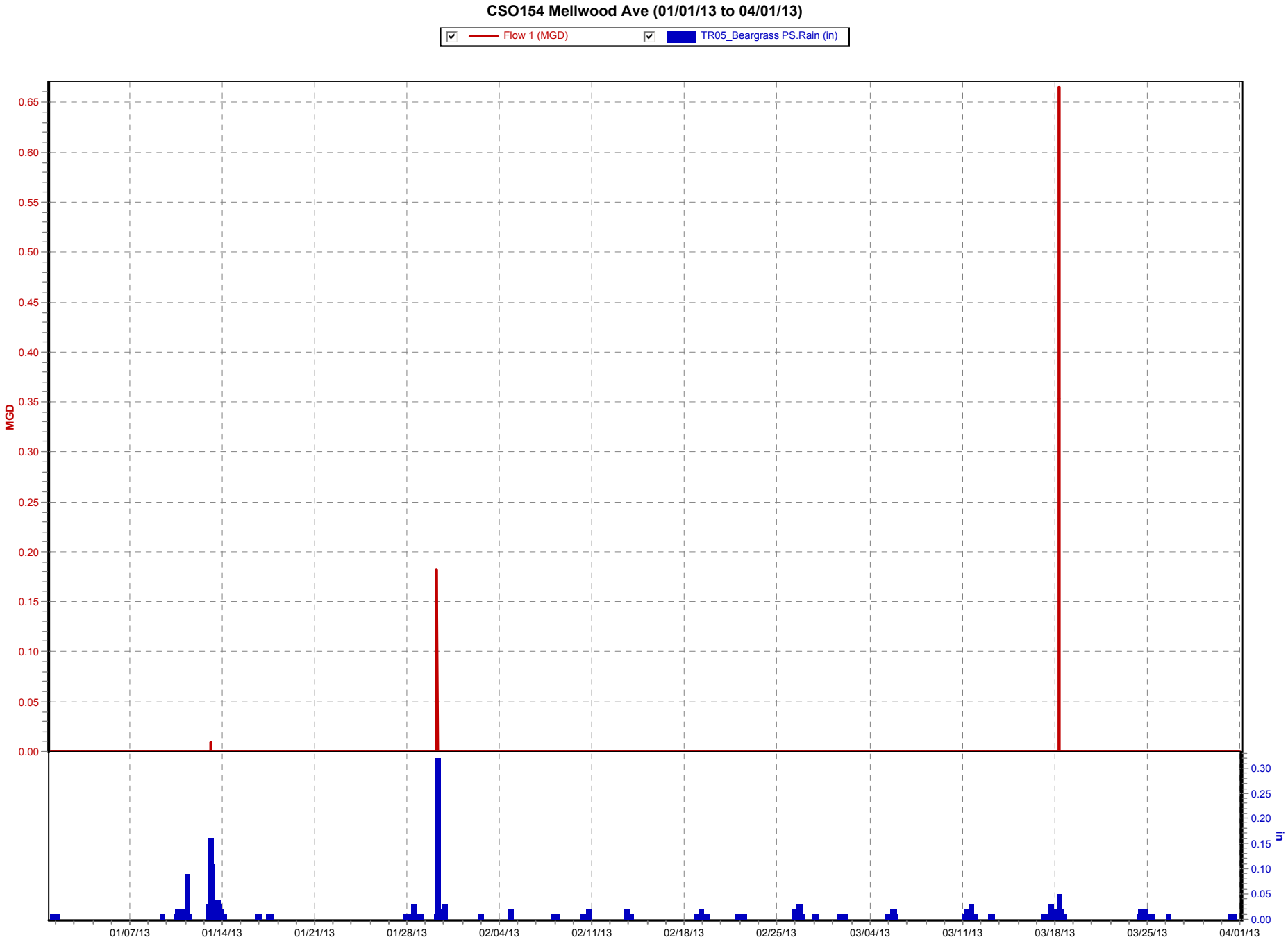

CSO149 (01/01/13 to 04/01/13)
Flow 1-CSO149 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
48.00
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO150 8th St_Wash St (01/01/13 to 04/01/13)
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
0.04
0.03
0.02
0.01
0.00
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 00:00:00

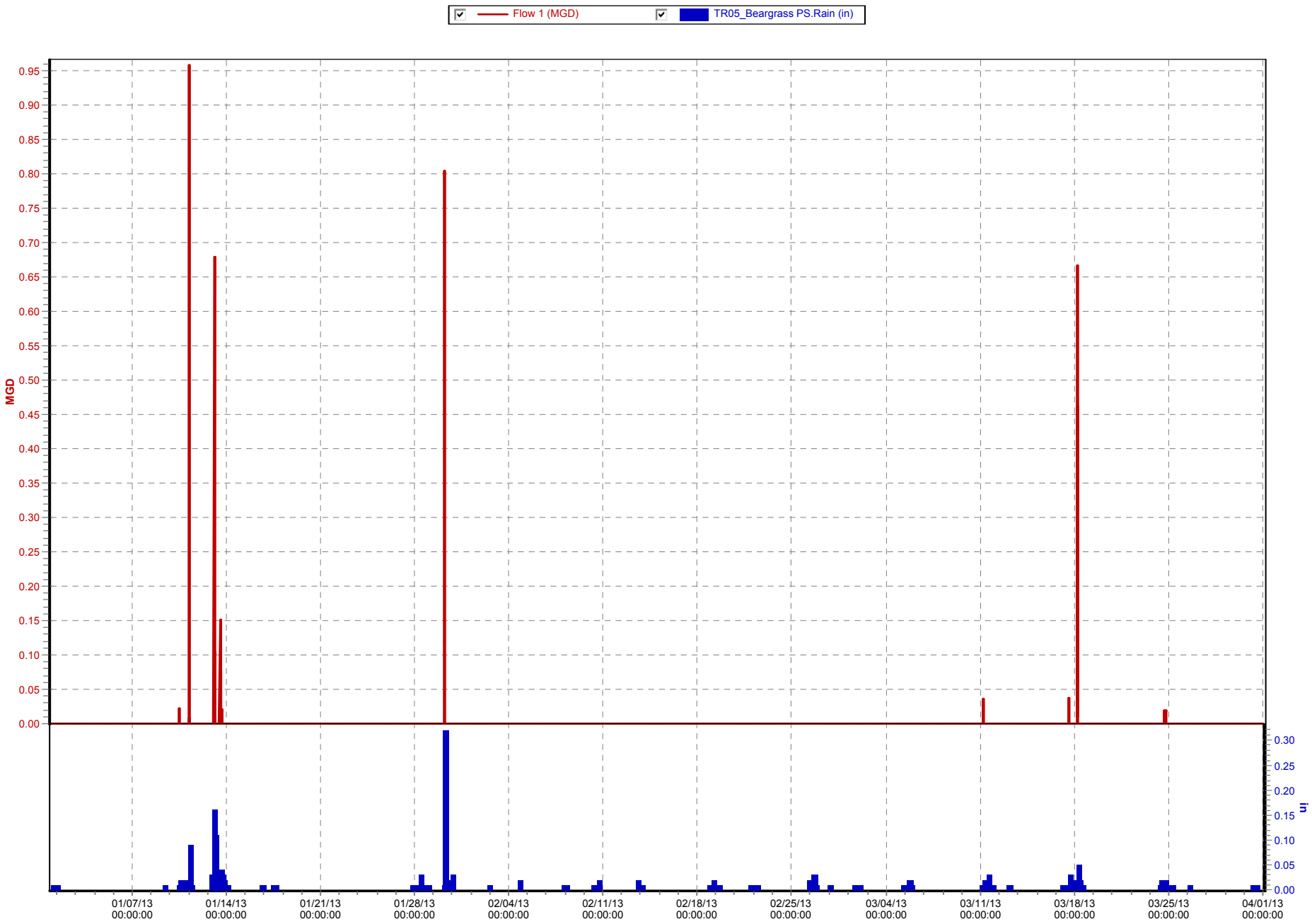

CSO151 Castlewood Dell (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

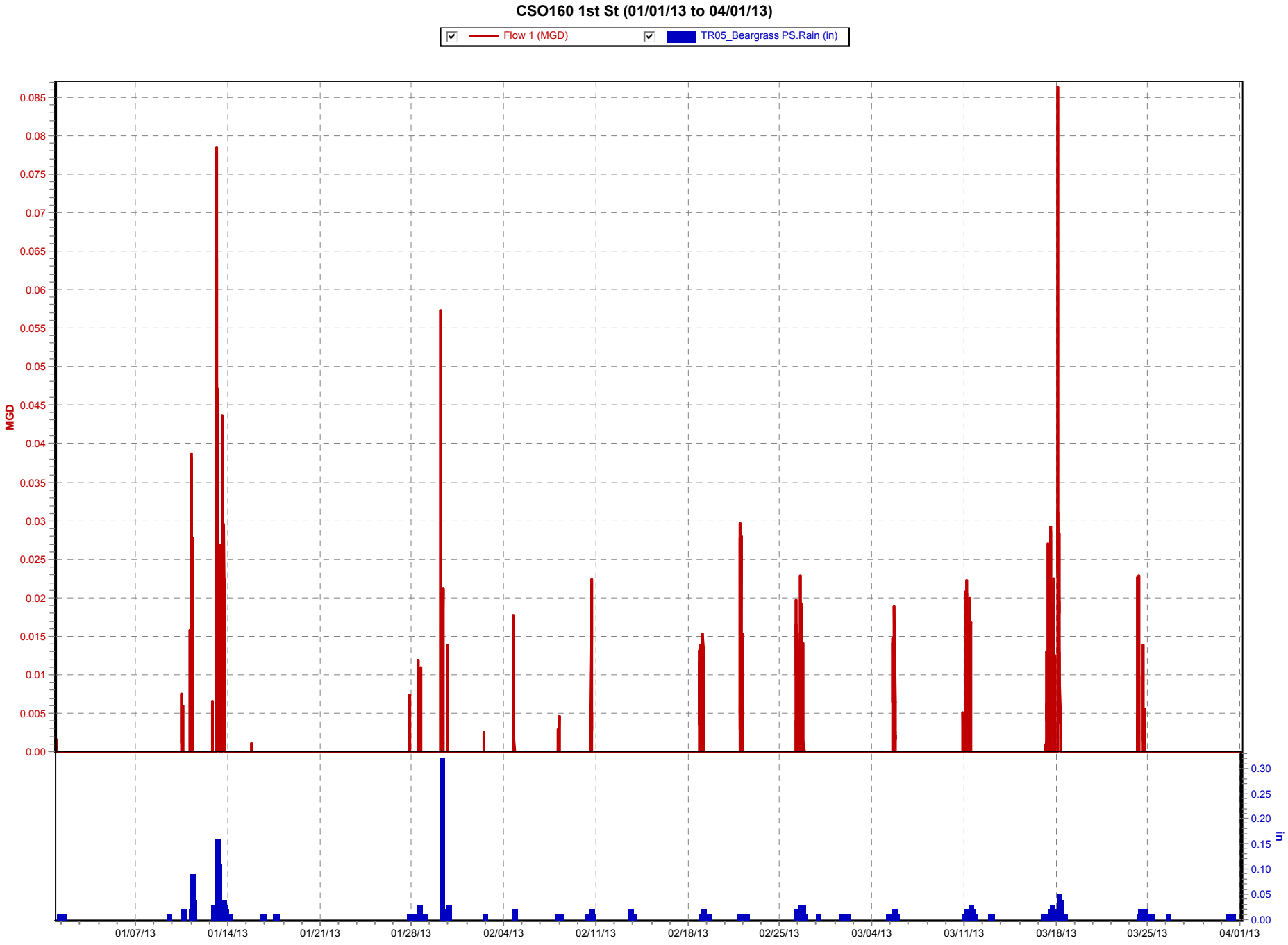

CSO152 (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
23.00
22.00
21.00
20.00
19.00
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

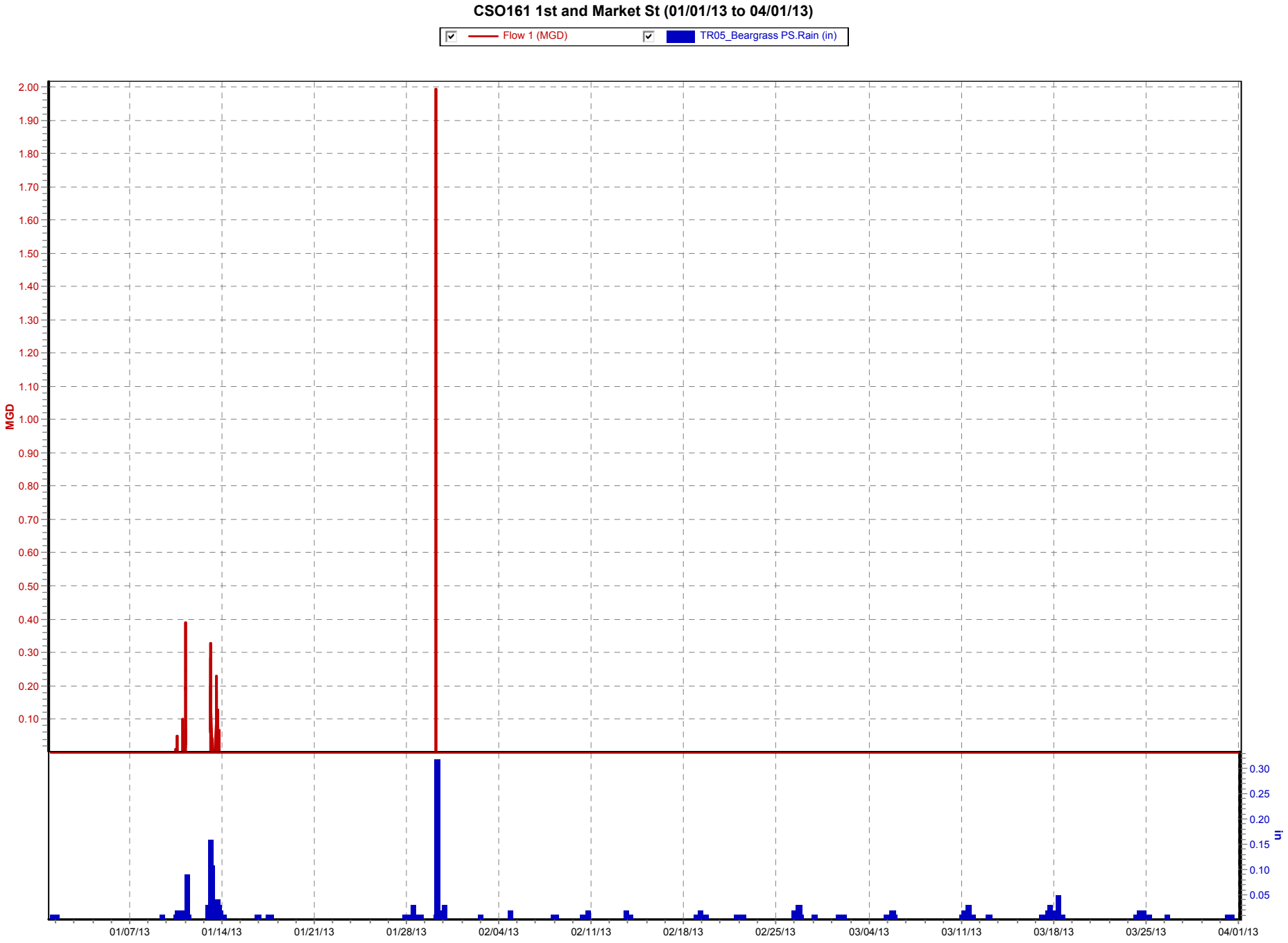

CSO153 Lex Rd (01/01/13 to 04/01/13)
1Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO154 Mellwood Ave (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

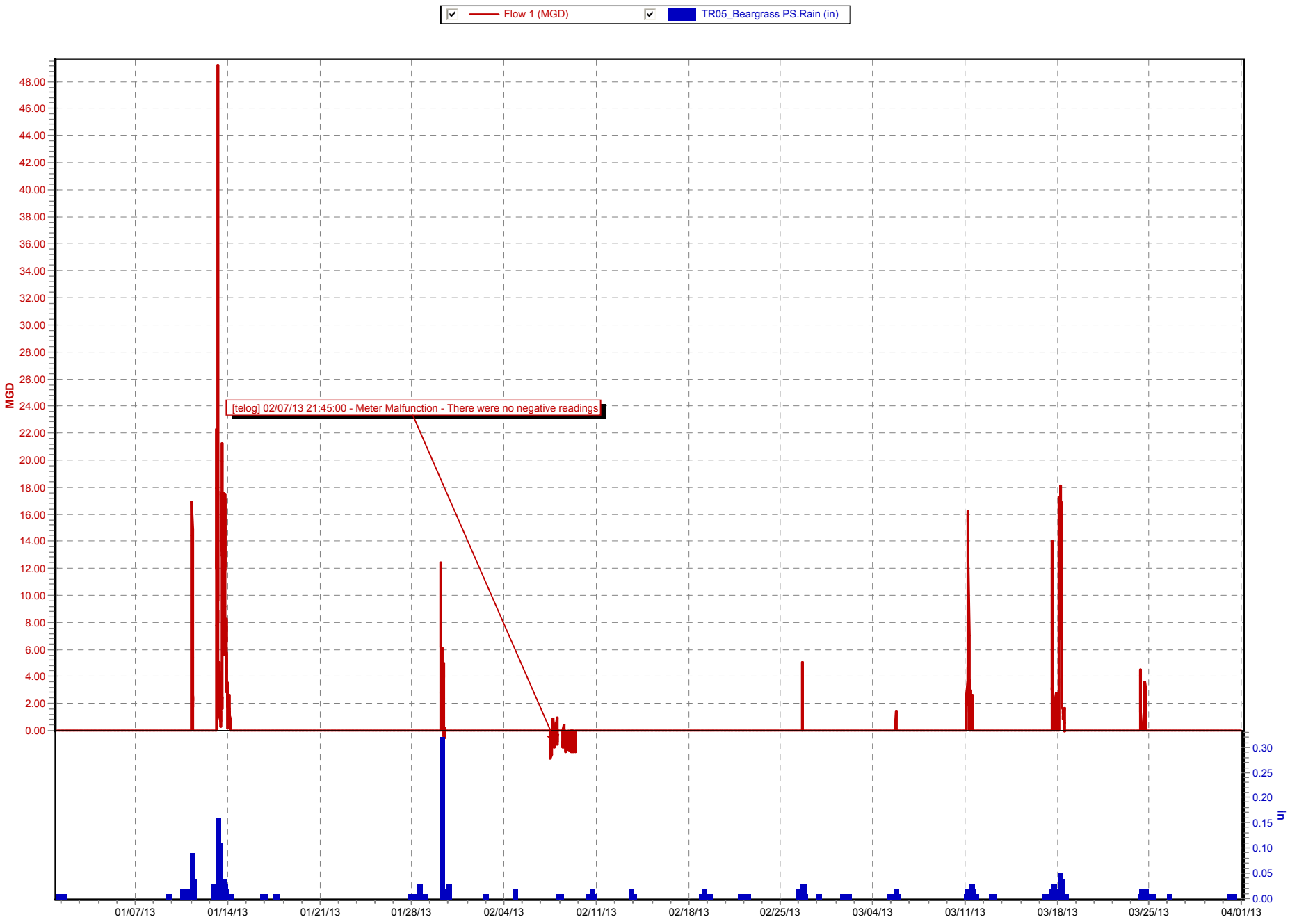
# CSO155 Rowan St (01/01/13 to 04/01/13)

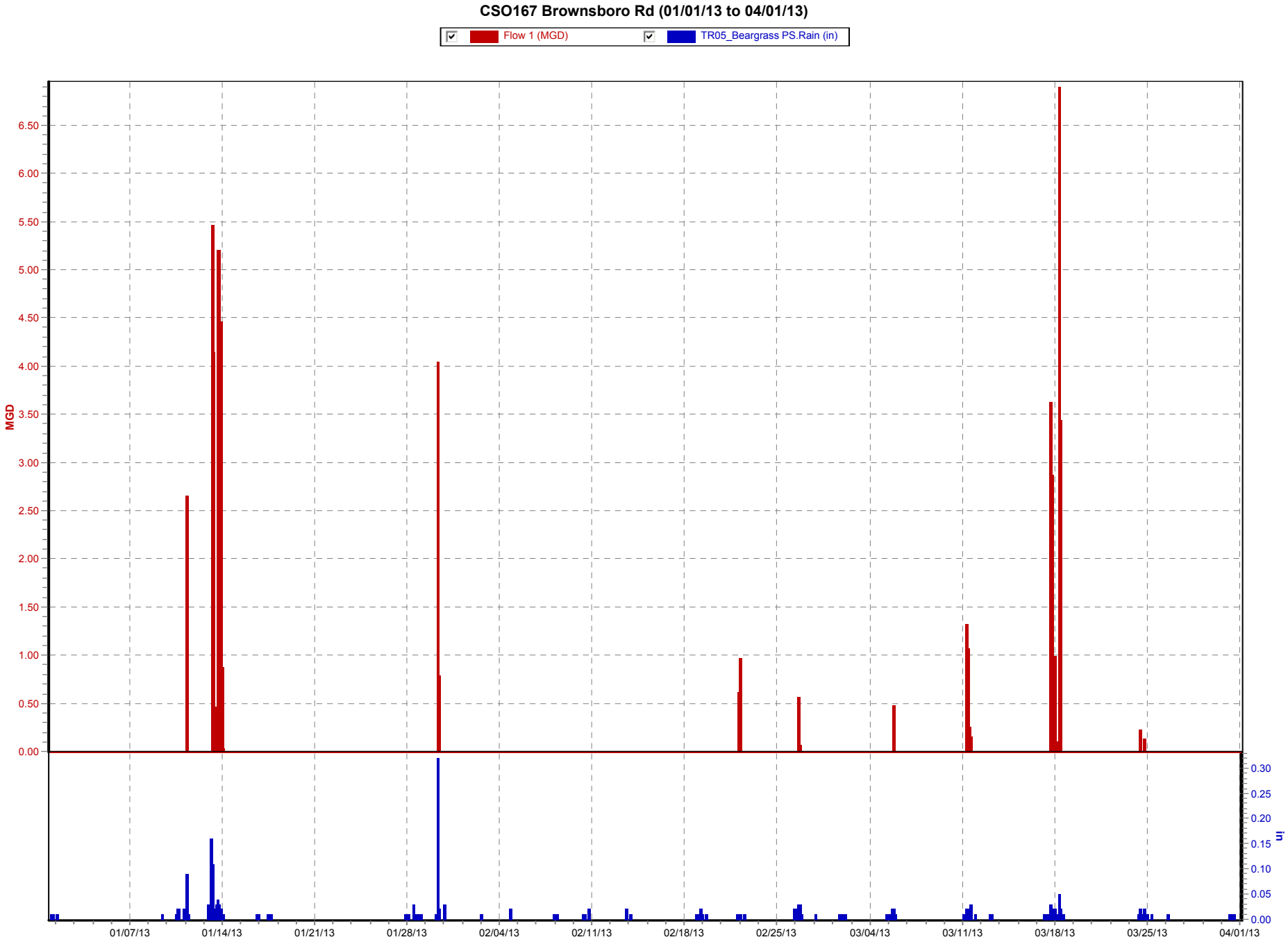


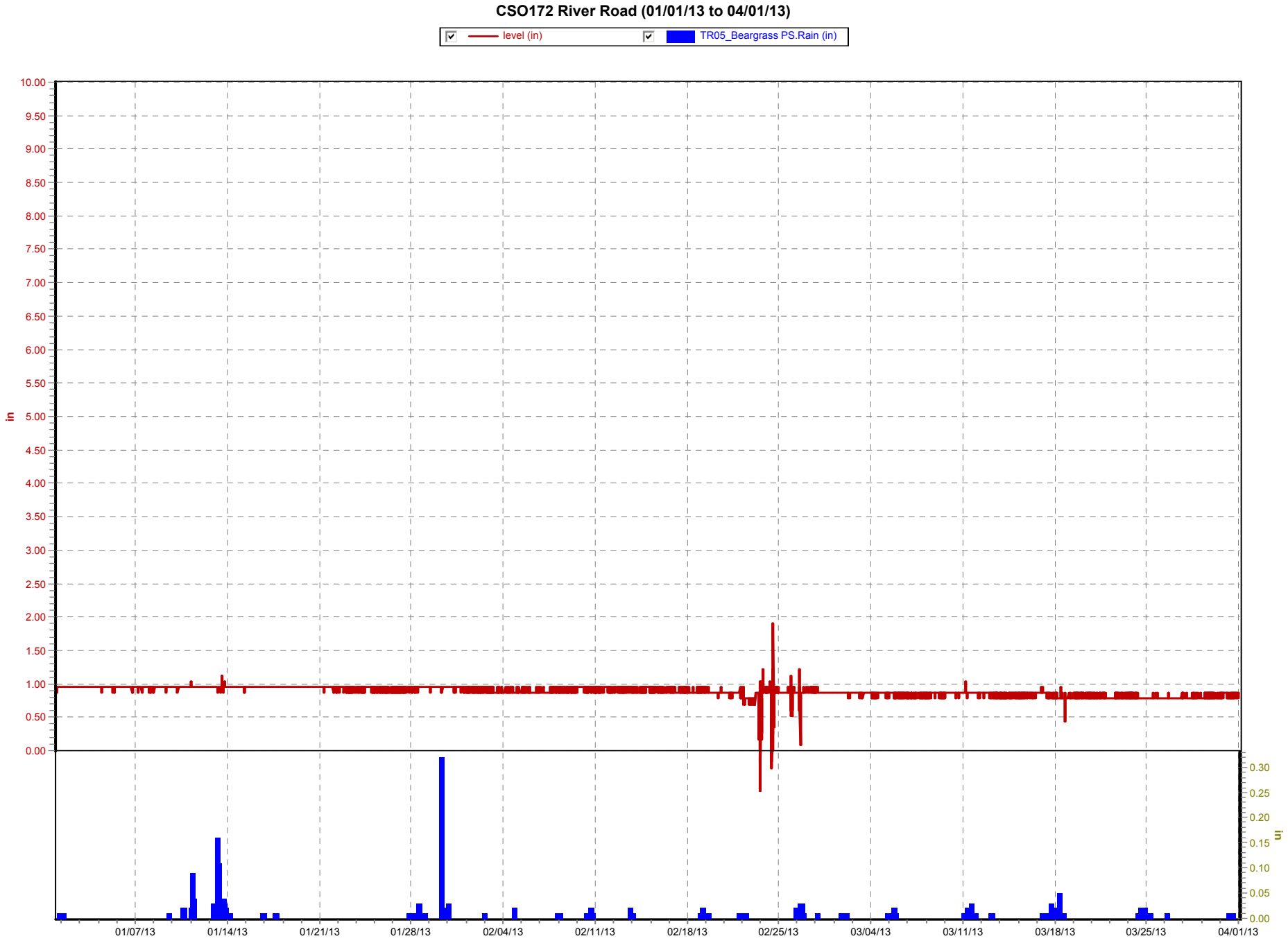

CSO160 1st St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

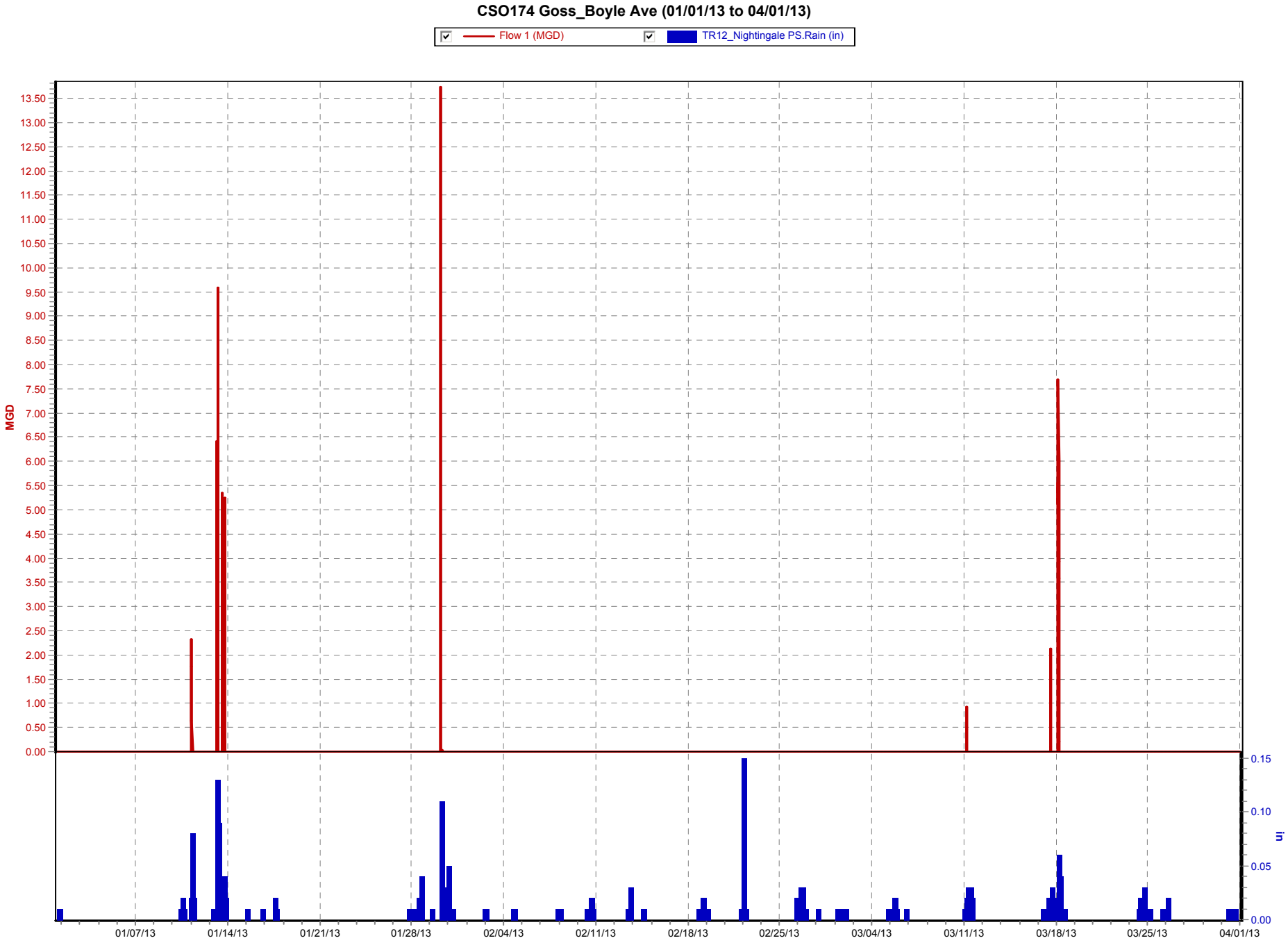

CSO161 1st and Market St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.30
0.25
0.20
0.15
0.10
0.05
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

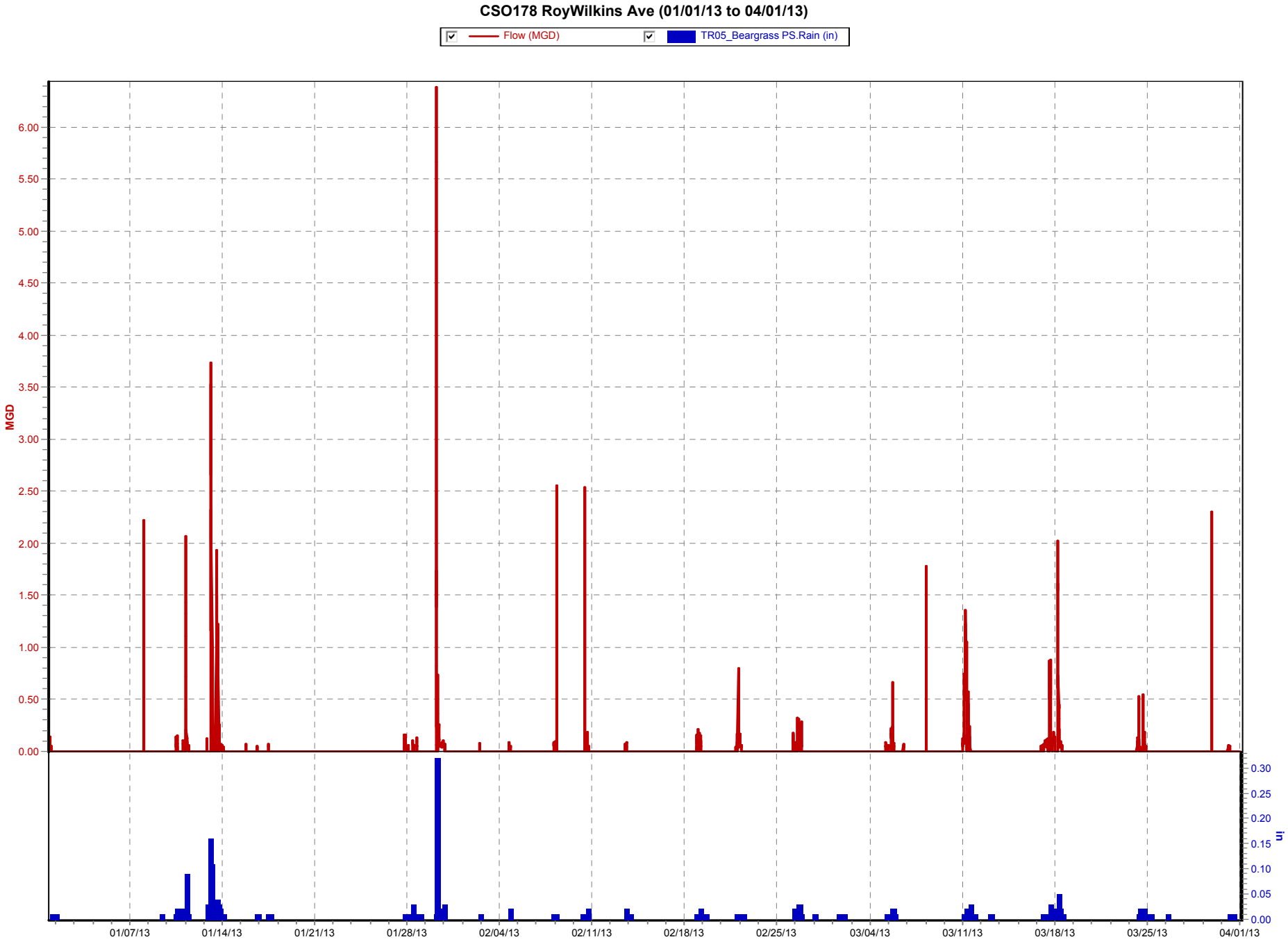
# CSO166 Lex Rd (01/01/13 to 04/01/13)

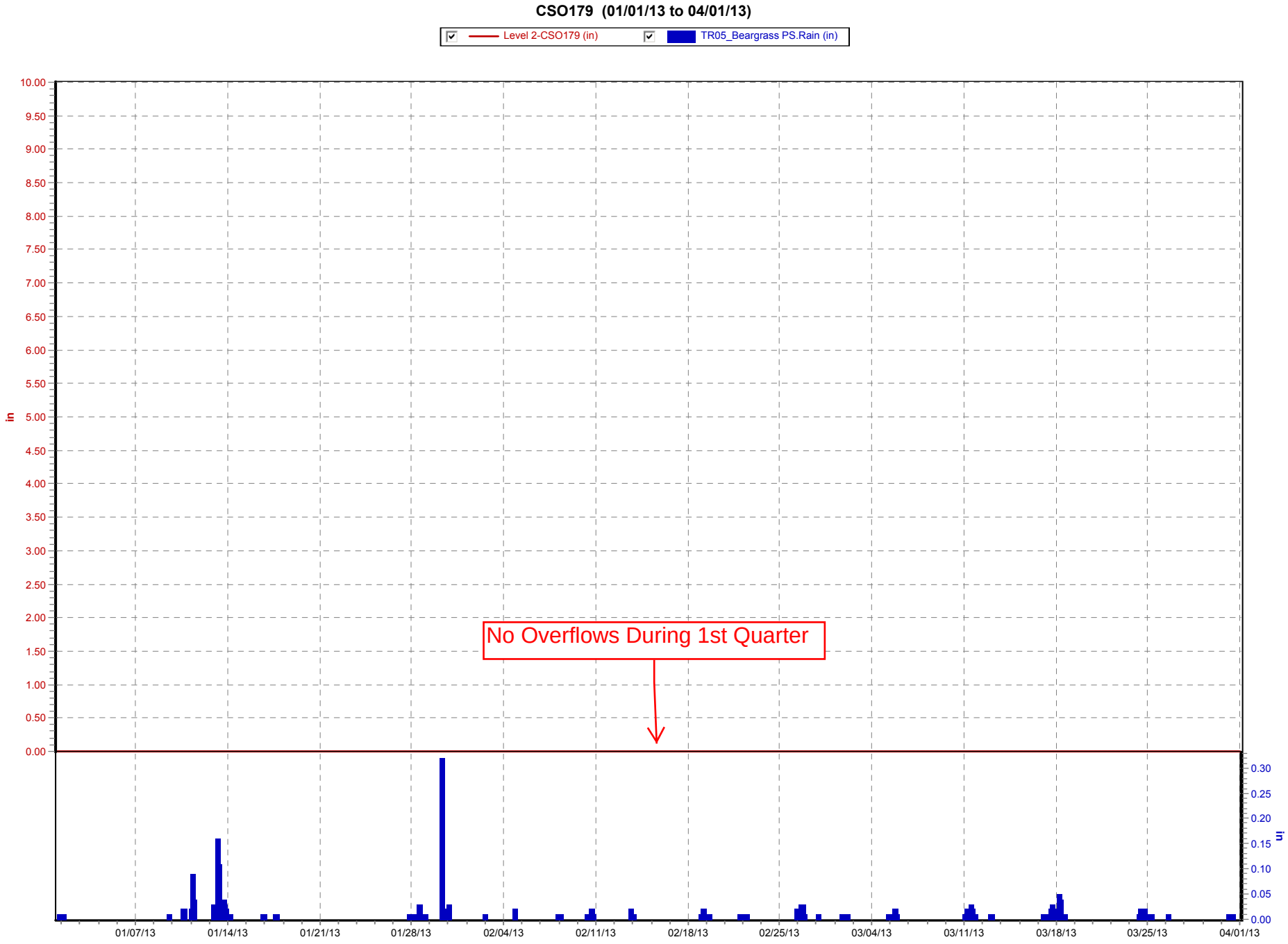


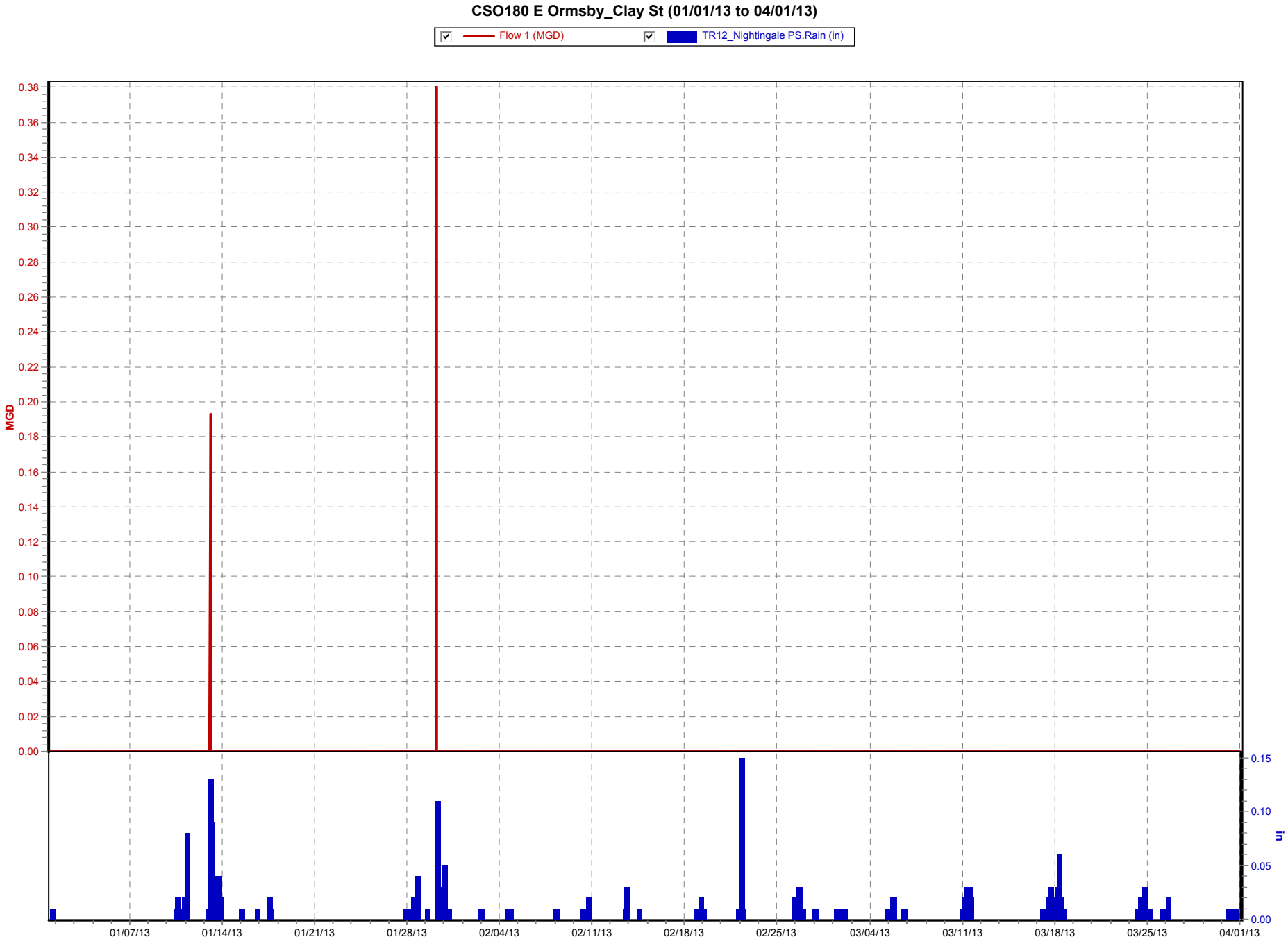

CSO167 Brownsboro Rd (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

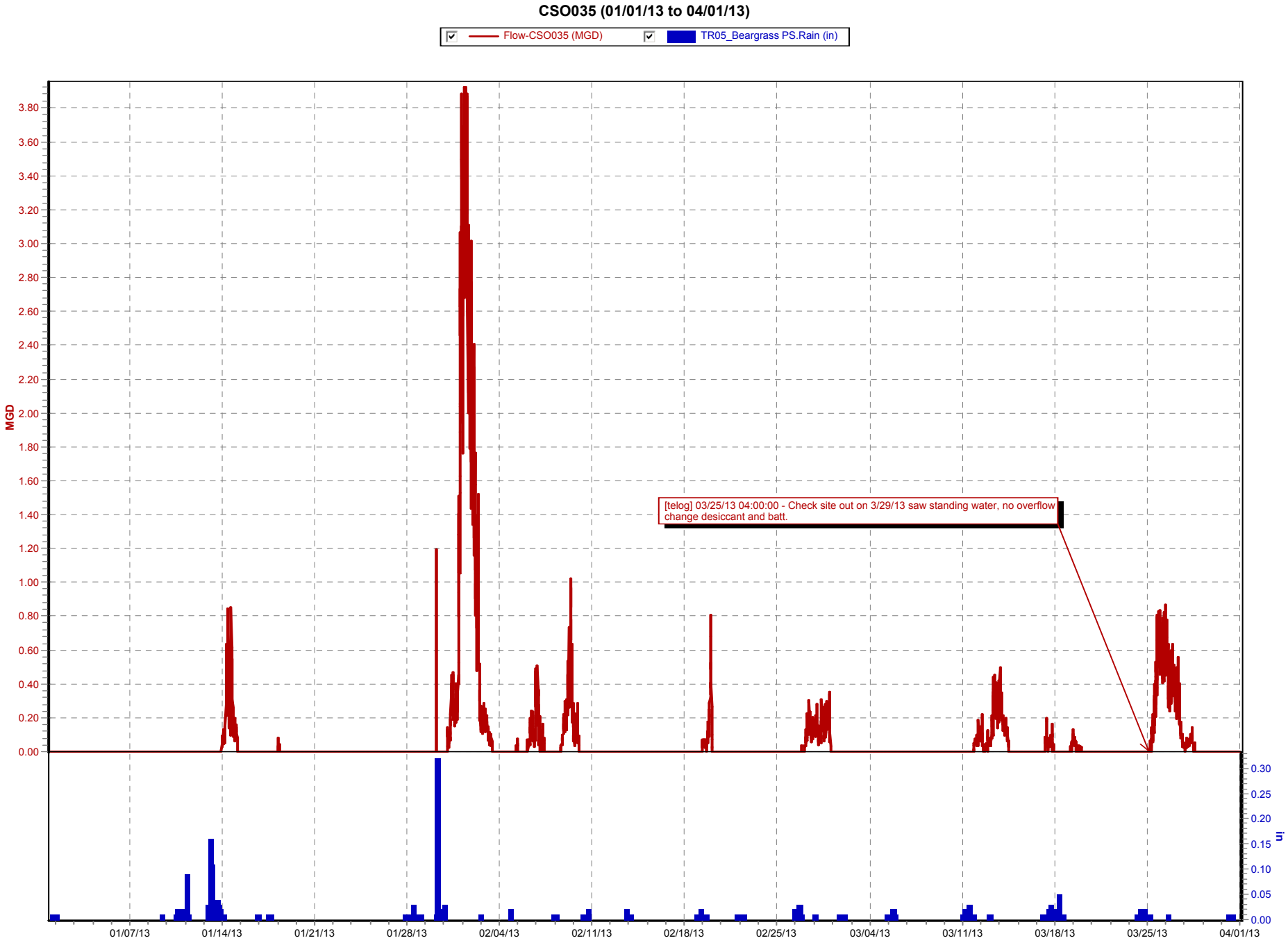

CSO172 River Road (01/01/13 to 04/01/13)
level (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

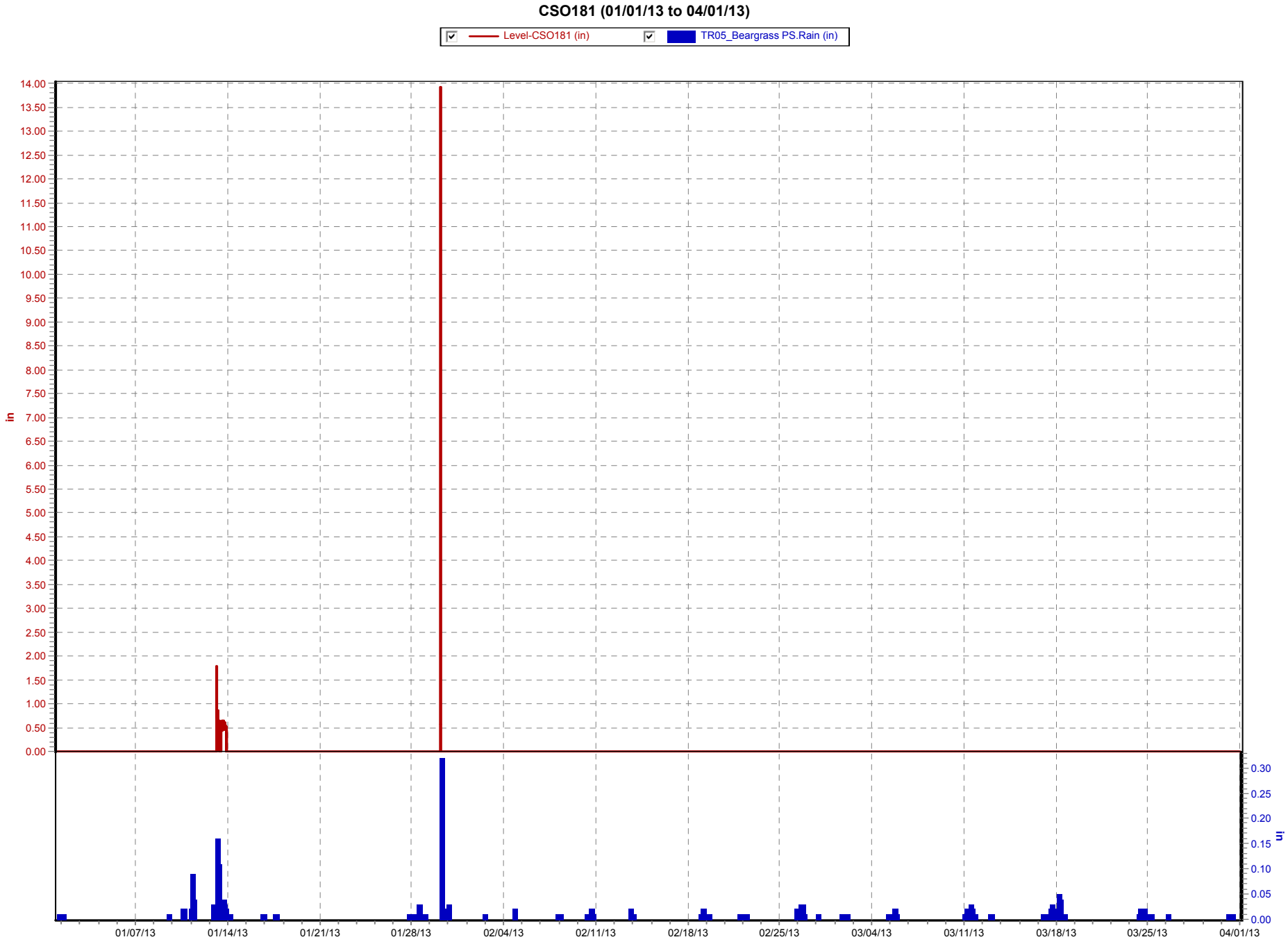

CSO174 Goss_Boyle Ave (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

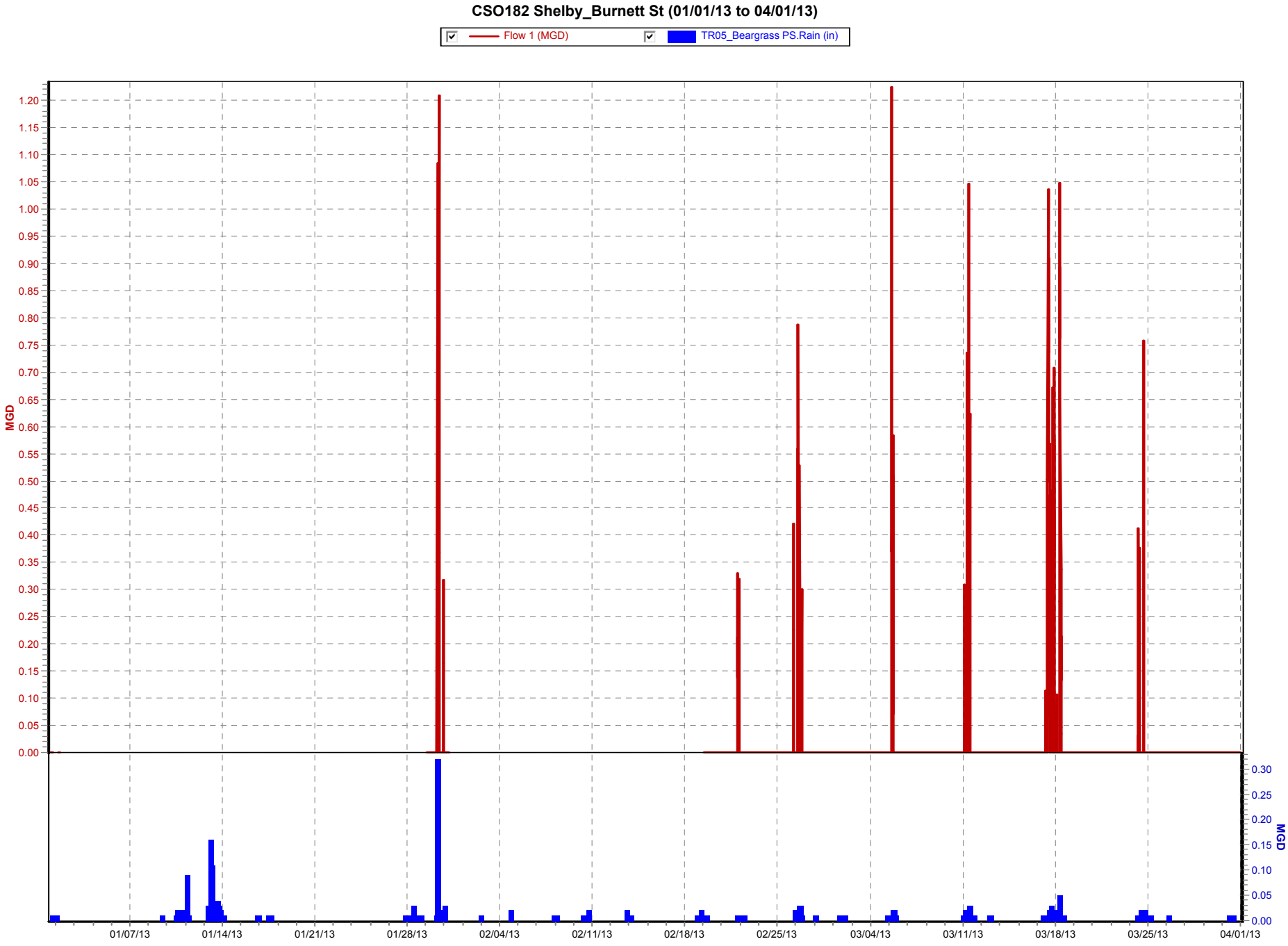

CSO178 RoyWilkins Ave (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

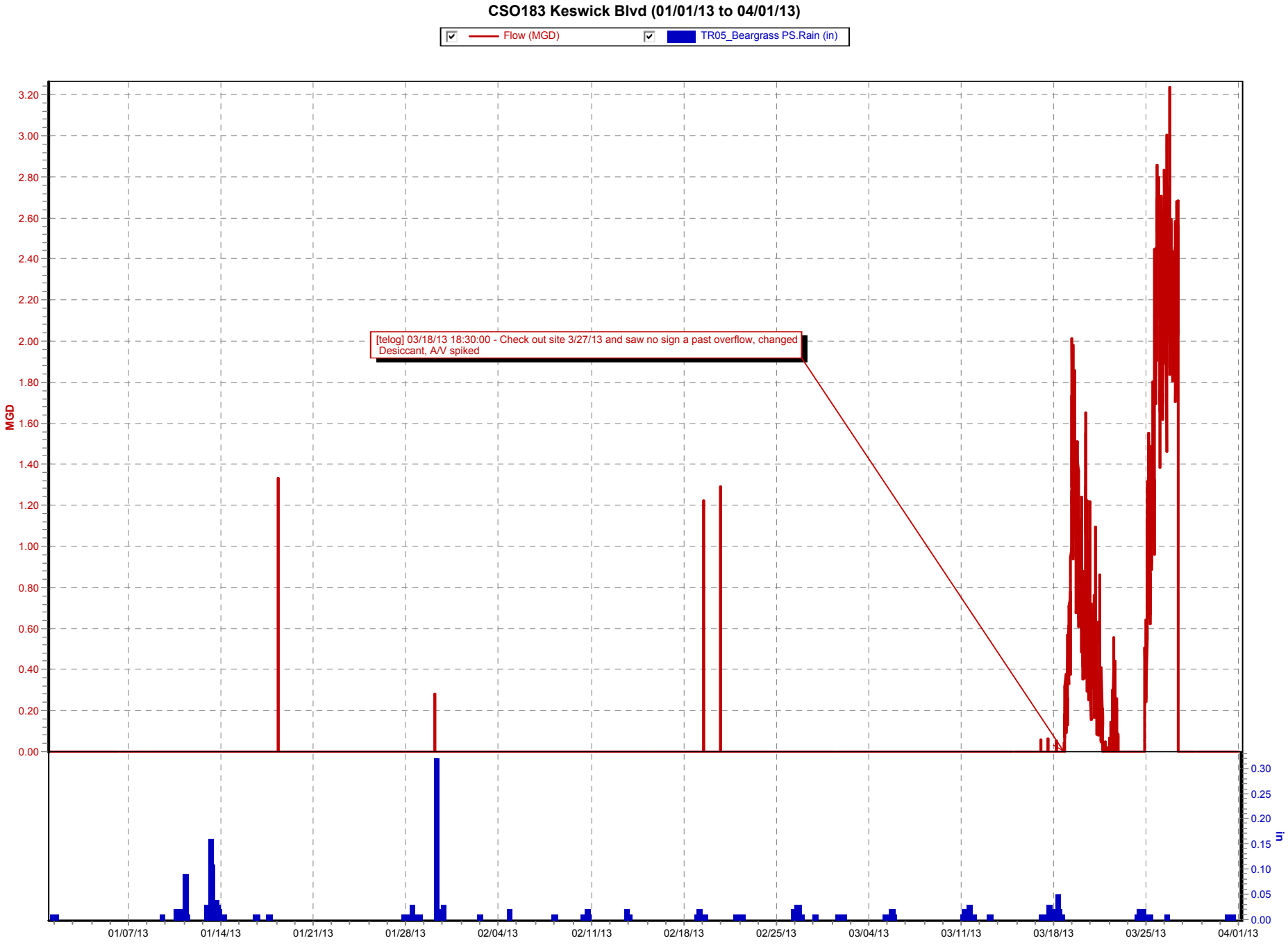

CSO179 (01/01/13 to 04/01/13)
Level 2-CSO179 (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
No Overflows During 1st Quarter
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

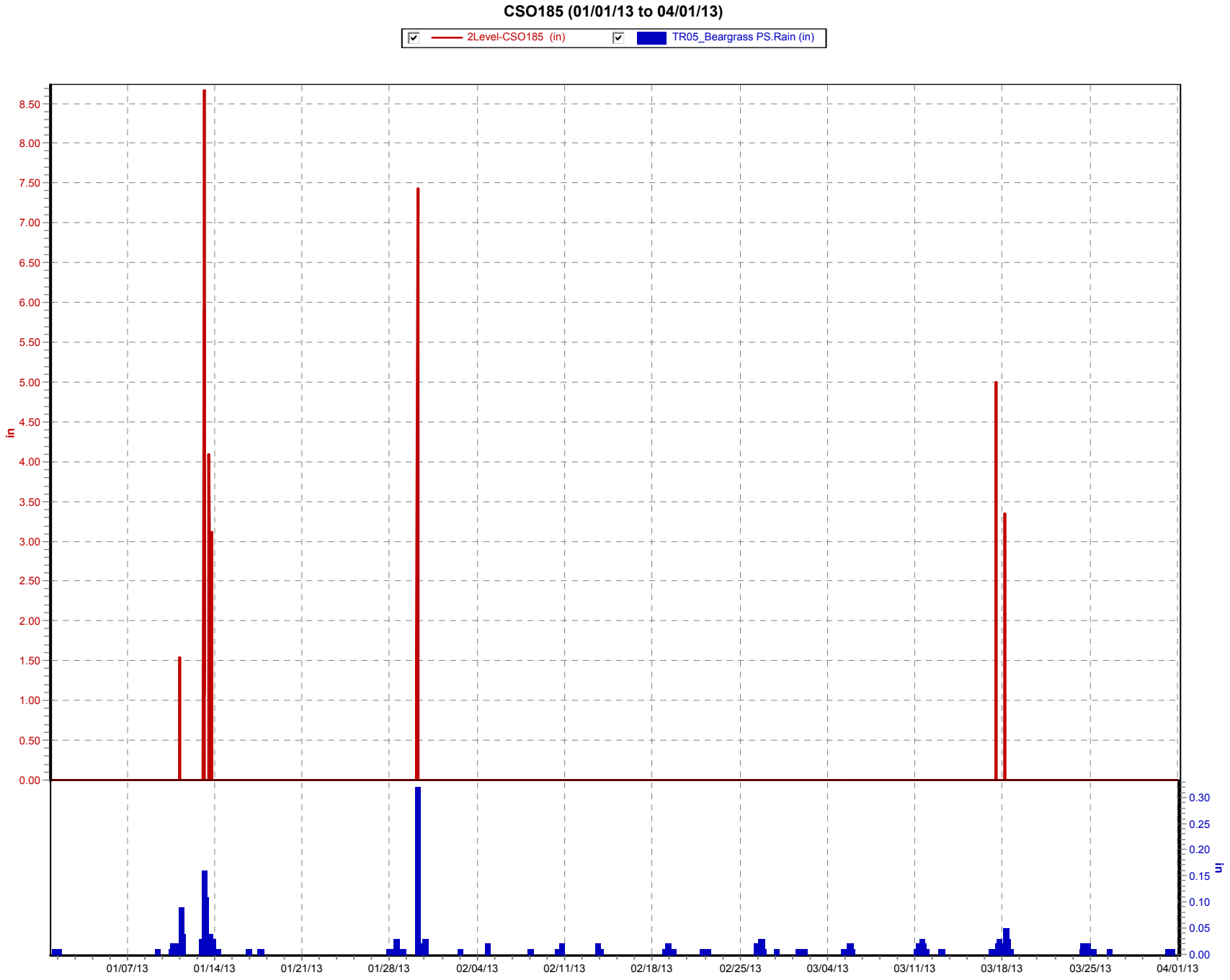

CSO180 E Ormsby_Clay St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
in
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

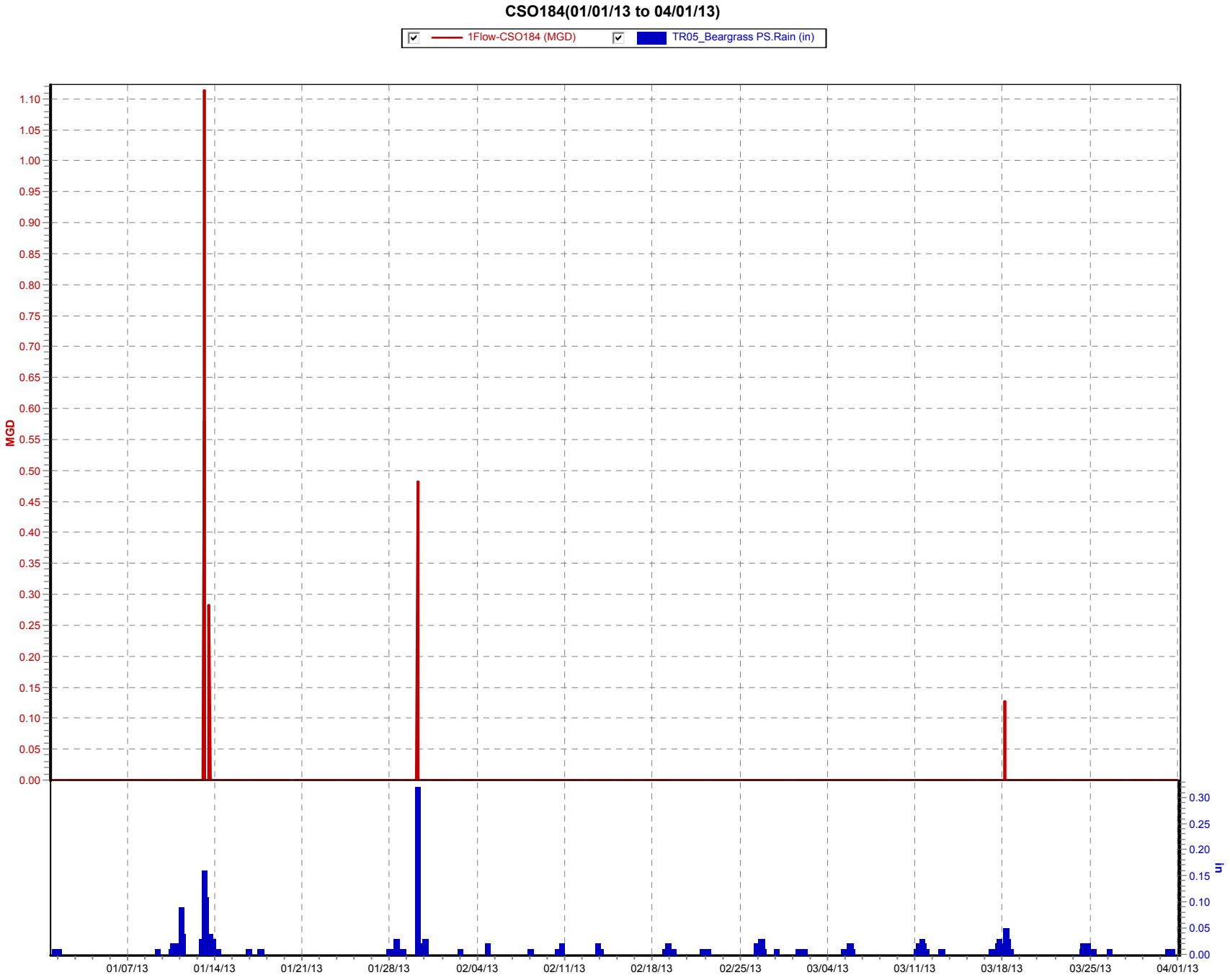

CSO035 (01/01/13 to 04/01/13)
Flow-CSO035 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 03/25/13 04:00:00 - Check site out on 3/29/13 saw standing water, no overflow change desiccant and batt.
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

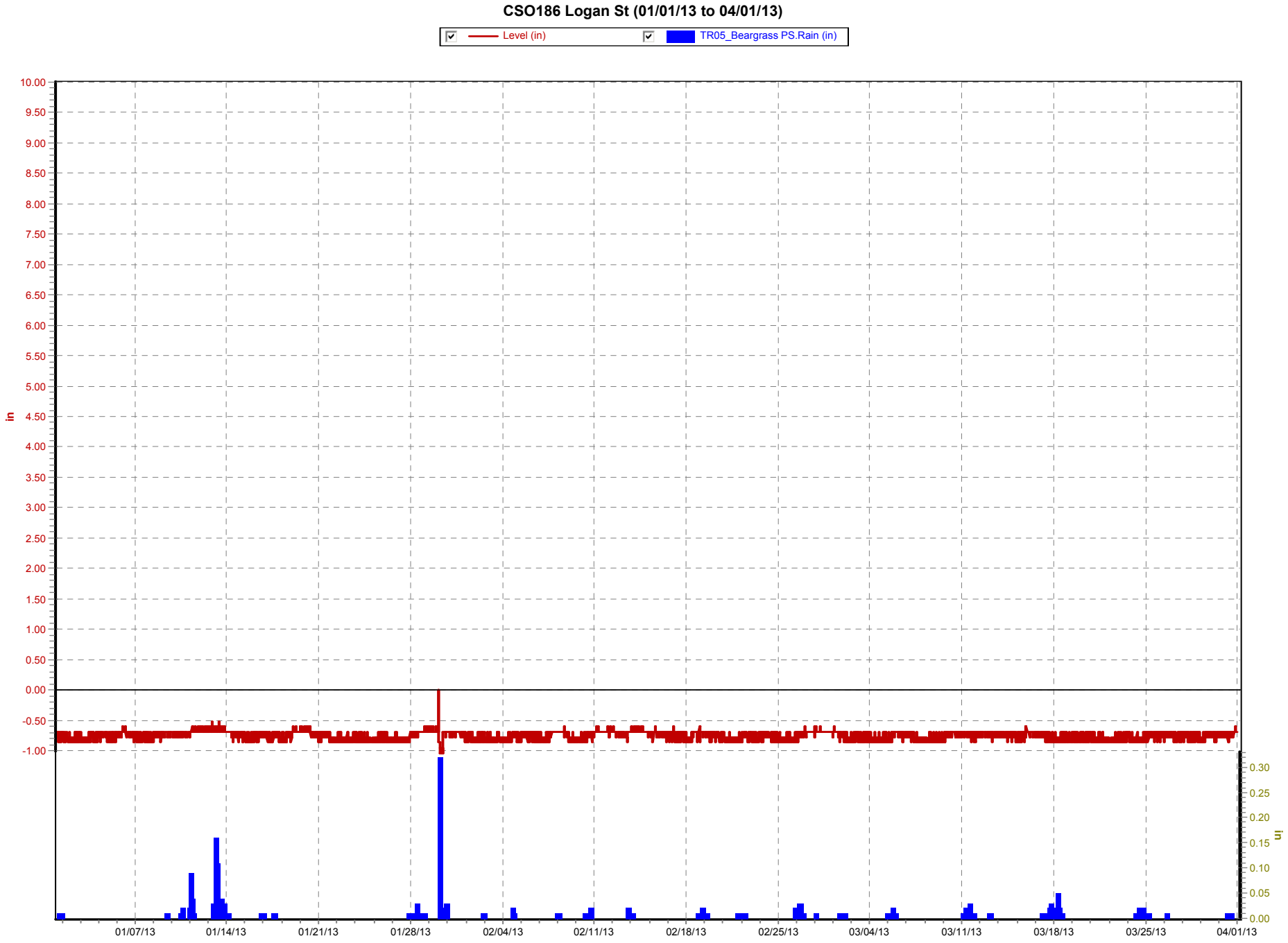

CSO181 (01/01/13 to 04/01/13)
Level-CSO181 (in)
TR05_Beargrass PS.Rain (in)
in
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

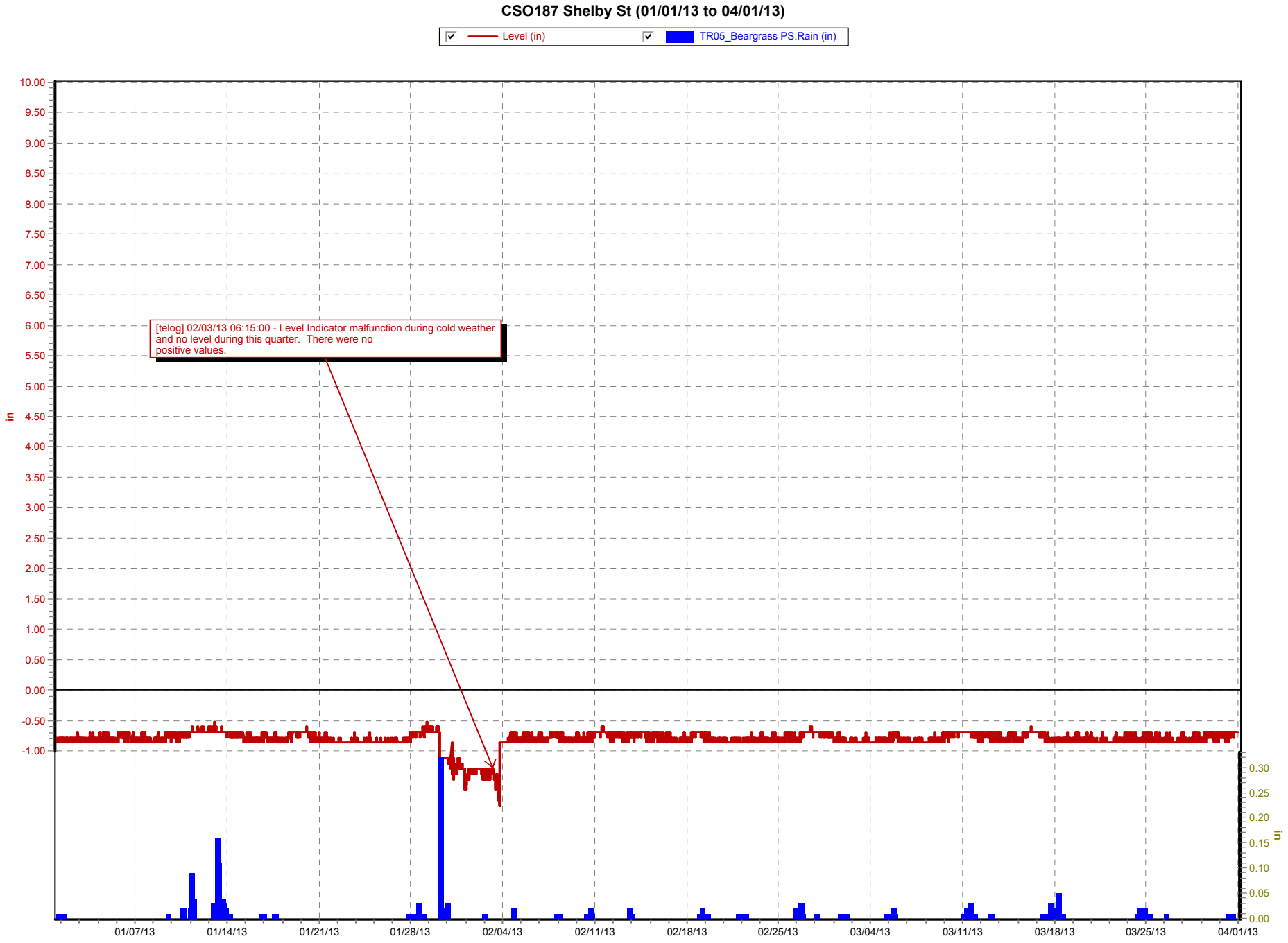

CSO182 Shelby_Burnett St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
MGD
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

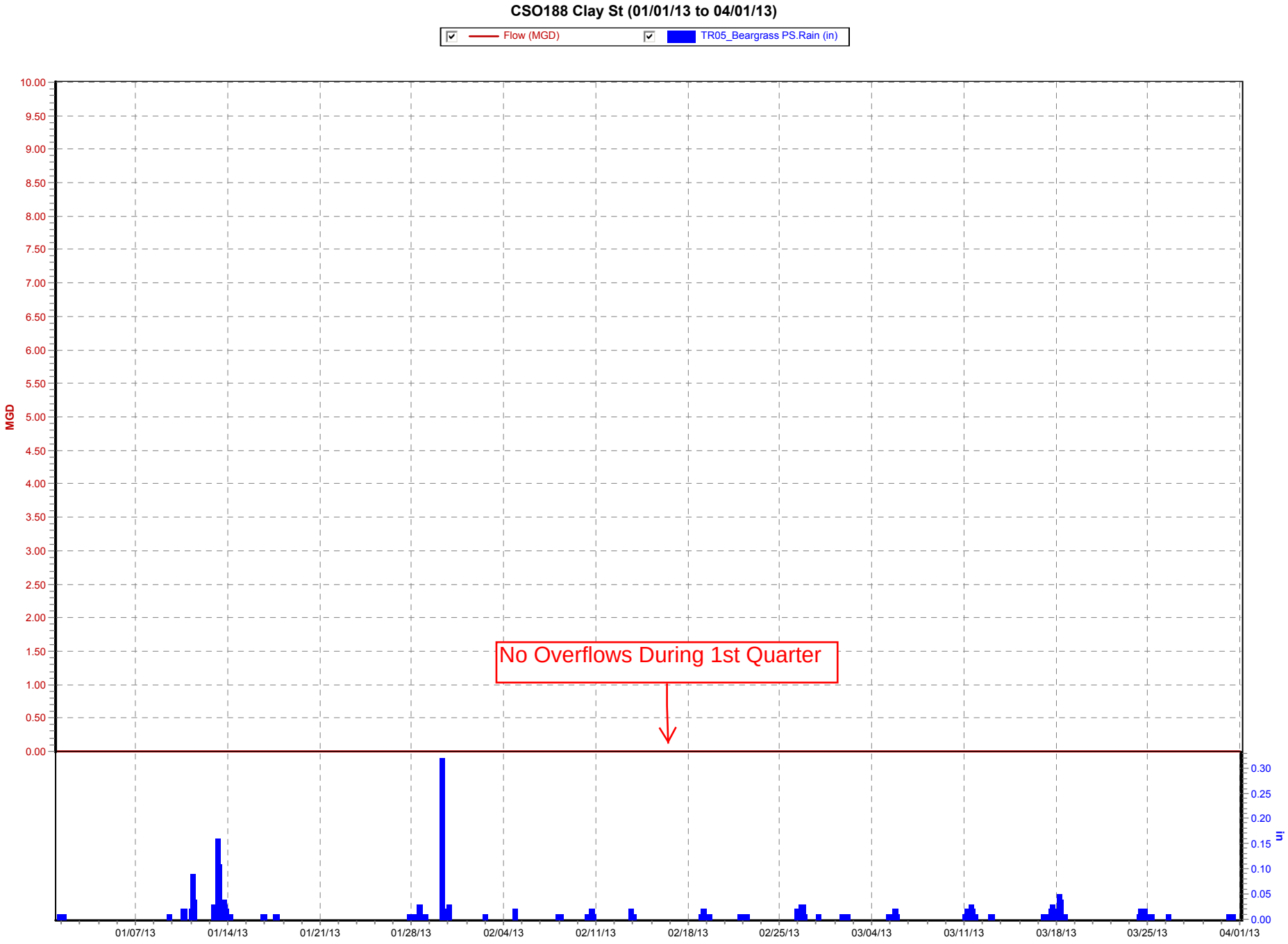

CSO183 Keswick Blvd (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
[telog] 03/18/13 18:30:00 - Check out site 3/27/13 and saw no sign a past overflow, changed Desiccant, A/V spiked
MGD
in
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

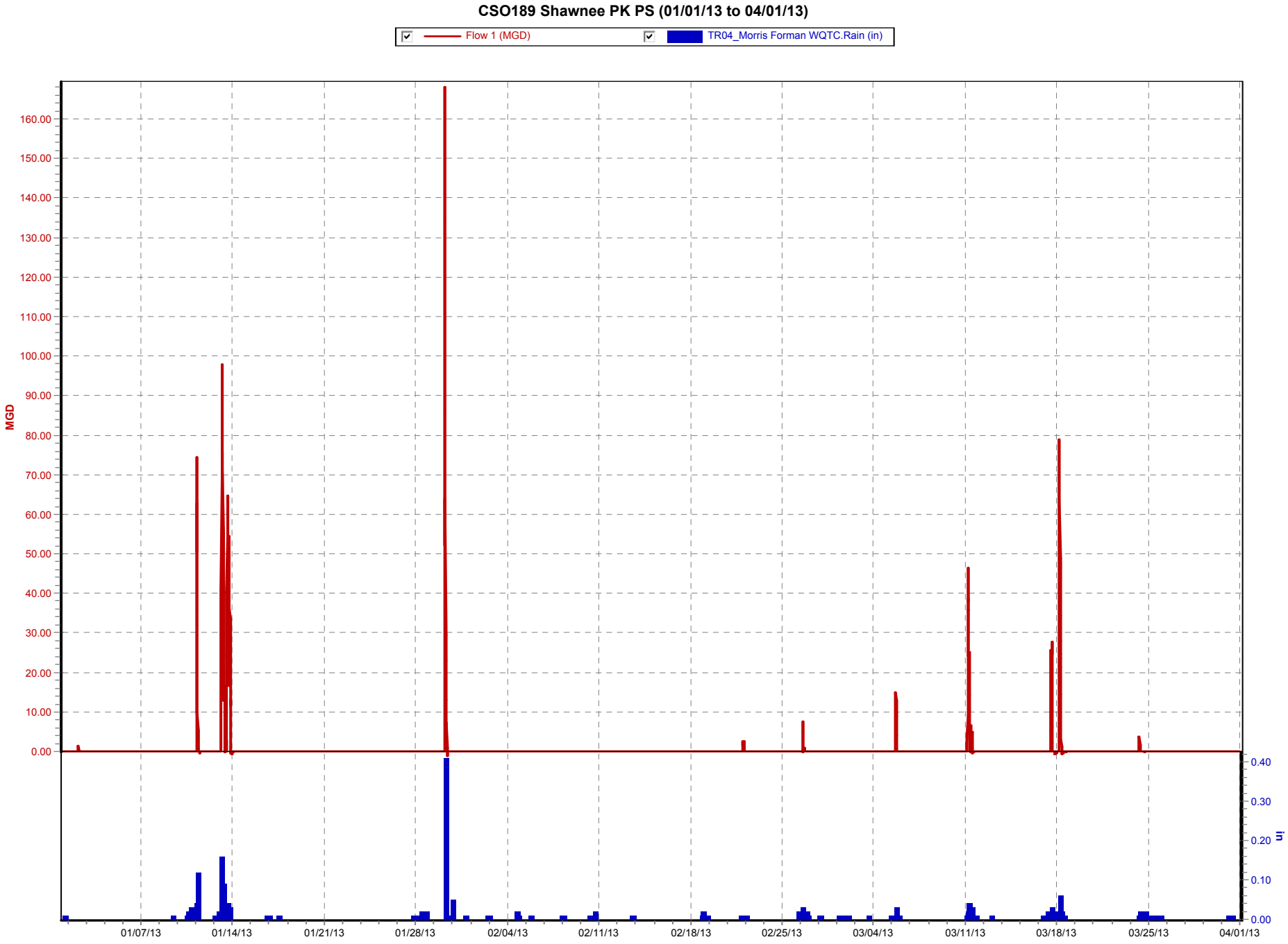

CSO185 (01/01/13 to 04/01/13)
2Level-CSO185 (in)
TR05_Beargrass PS.Rain (in)
in
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

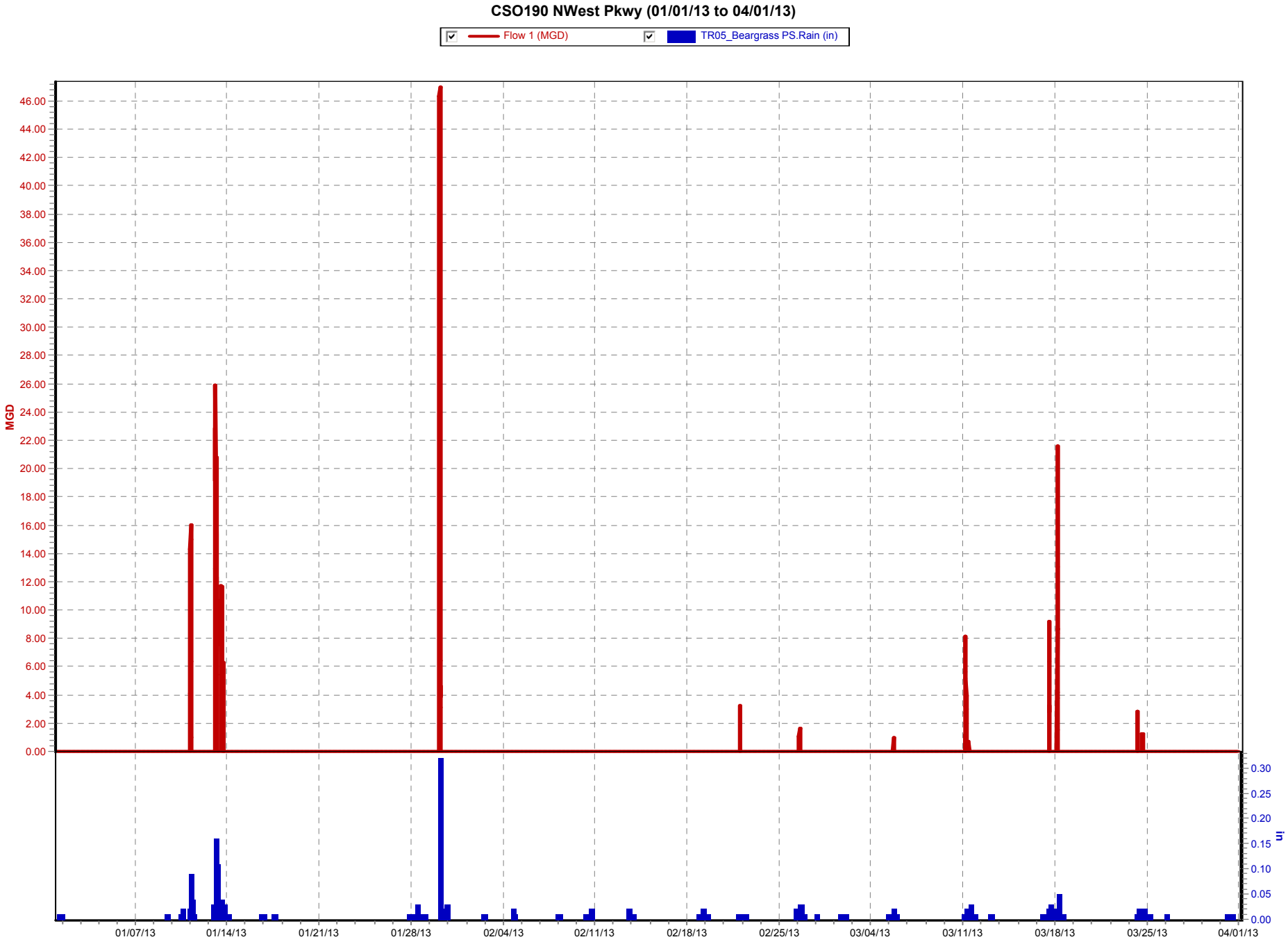

CSO184(01/01/13 to 04/01/13)
1Flow-CSO184 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

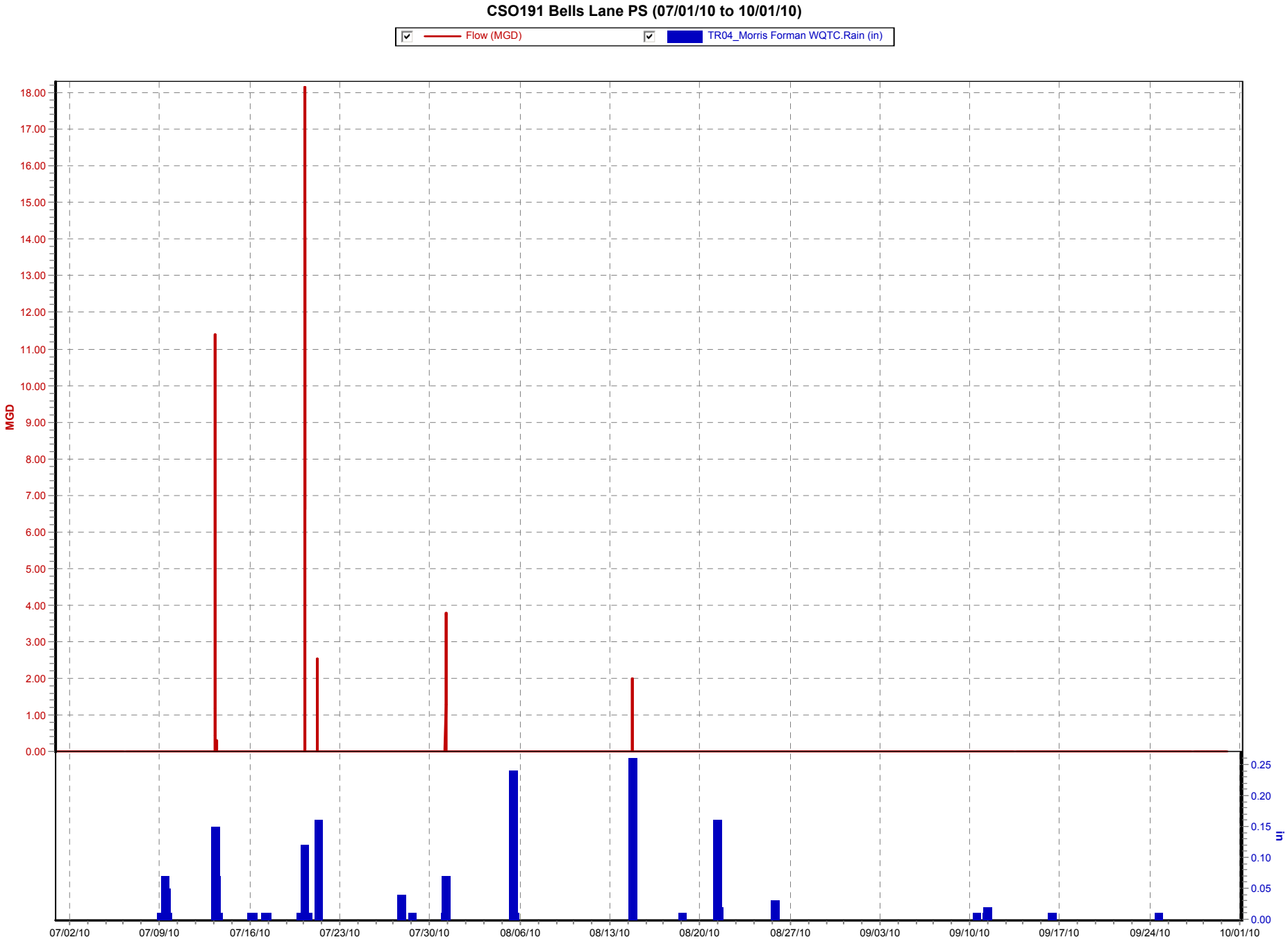

CSO186 Logan St (01/01/13 to 04/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO187 Shelby St (01/01/13 to 04/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
[telog] 02/03/13 06:15:00 - Level Indicator malfunction during cold weather and no level during this quarter. There were no positive values.
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

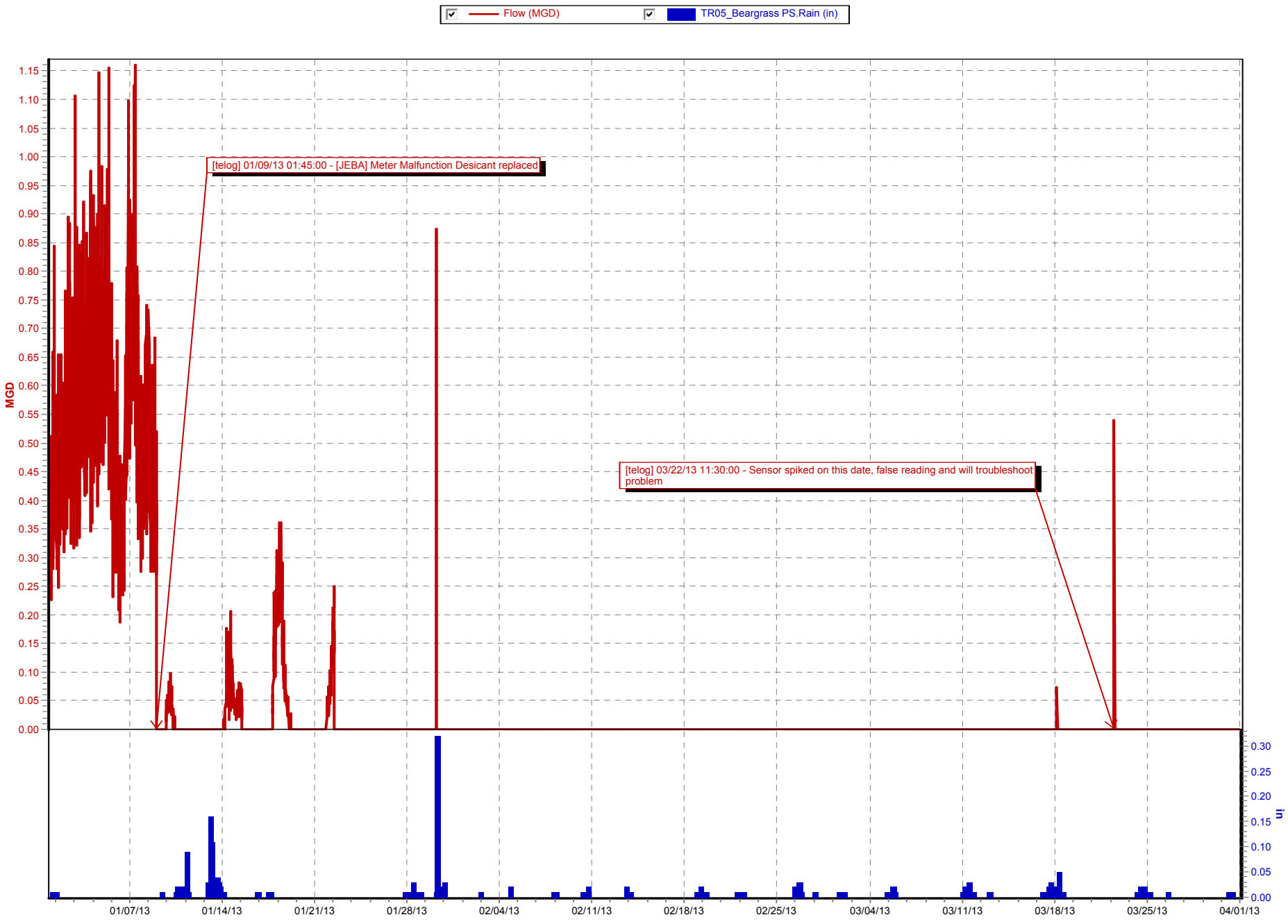

CSO188 Clay St (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
No Overflows During 1st Quarter
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

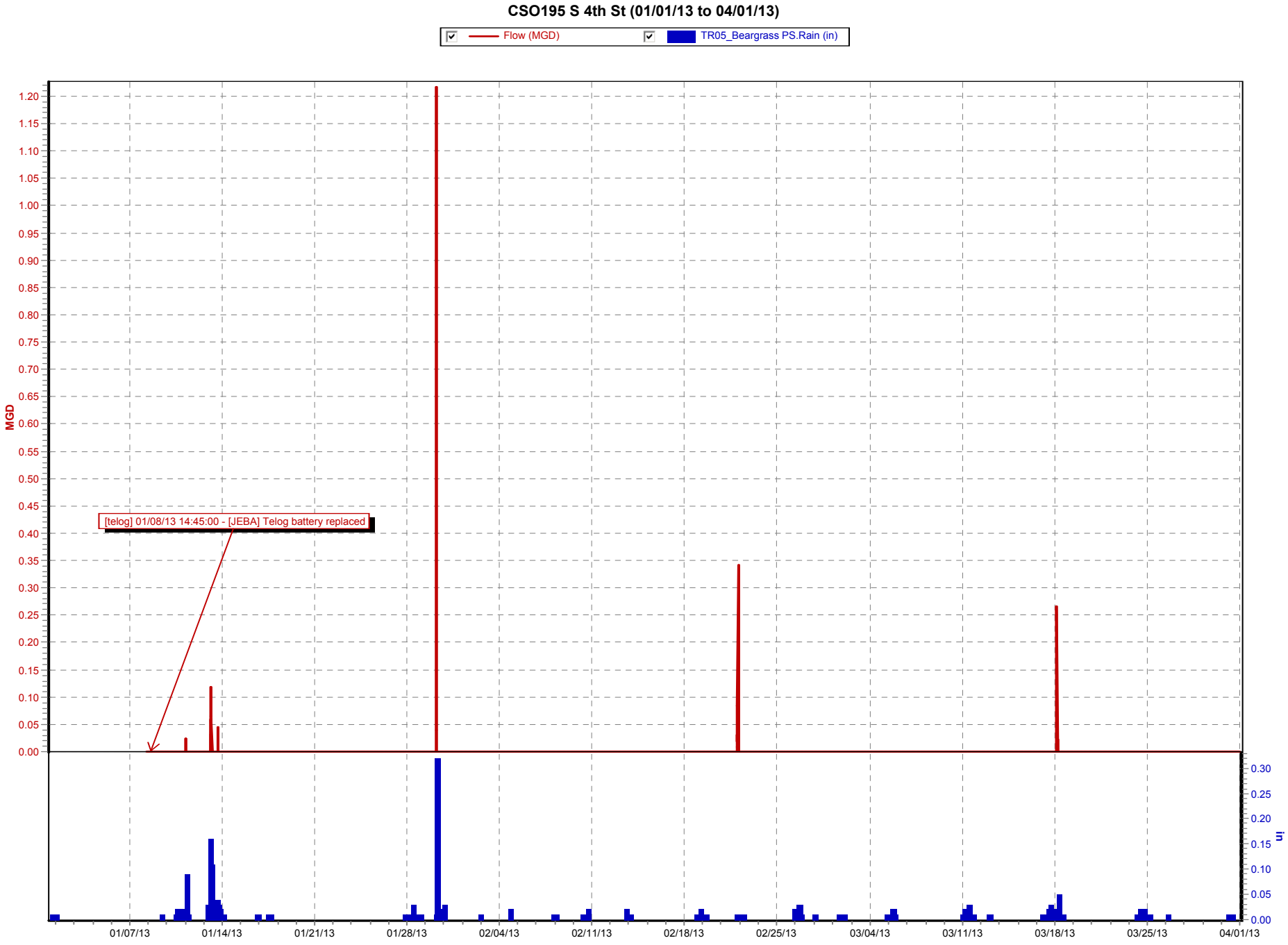

CSO189 Shawnee PK PS (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
160.00
150.00
140.00
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0.40
0.30
0.20
0.10
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

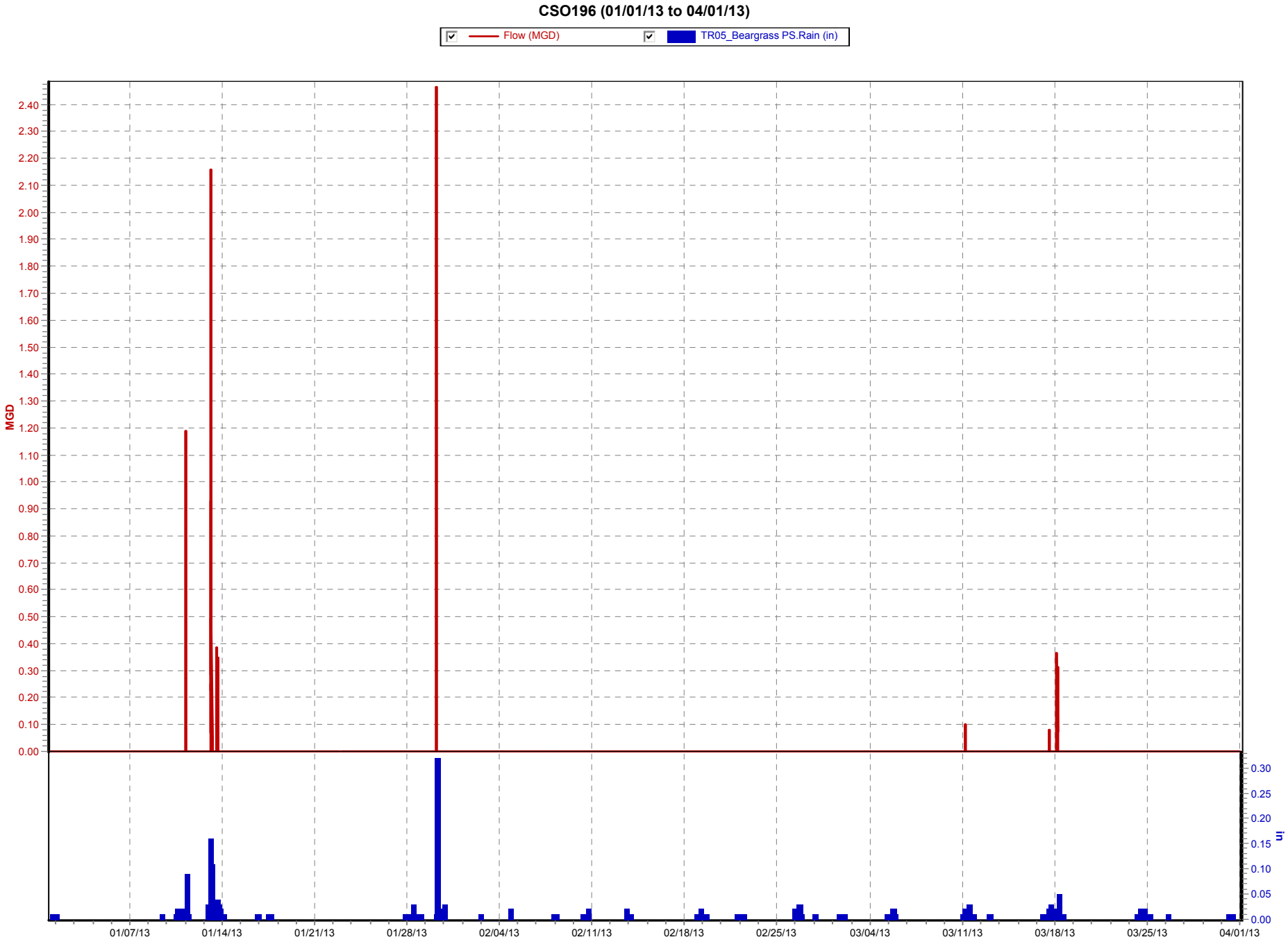

CSO190 NWest Pkwy (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
46.00
44.00
42.00
40.00
38.00
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

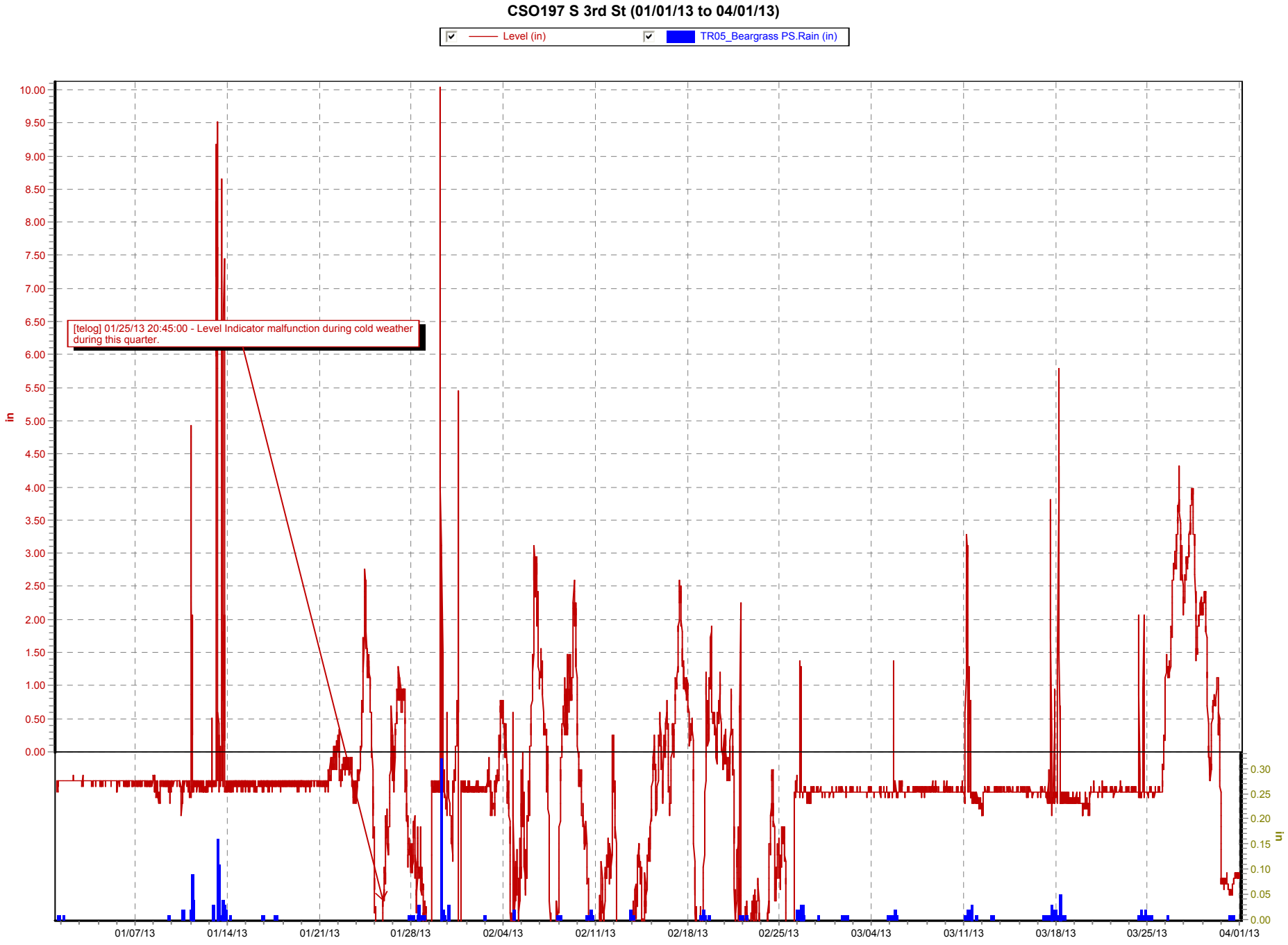

CSO191 Bells Lane PS (07/01/10 to 10/01/10)
Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
18.00
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.25
0.20
0.15
0.10
0.05
0.00
07/02/10
07/09/10
07/16/10
07/23/10
07/30/10
08/06/10
08/13/10
08/20/10
08/27/10
09/03/10
09/10/10
09/17/10
09/24/10
10/01/10

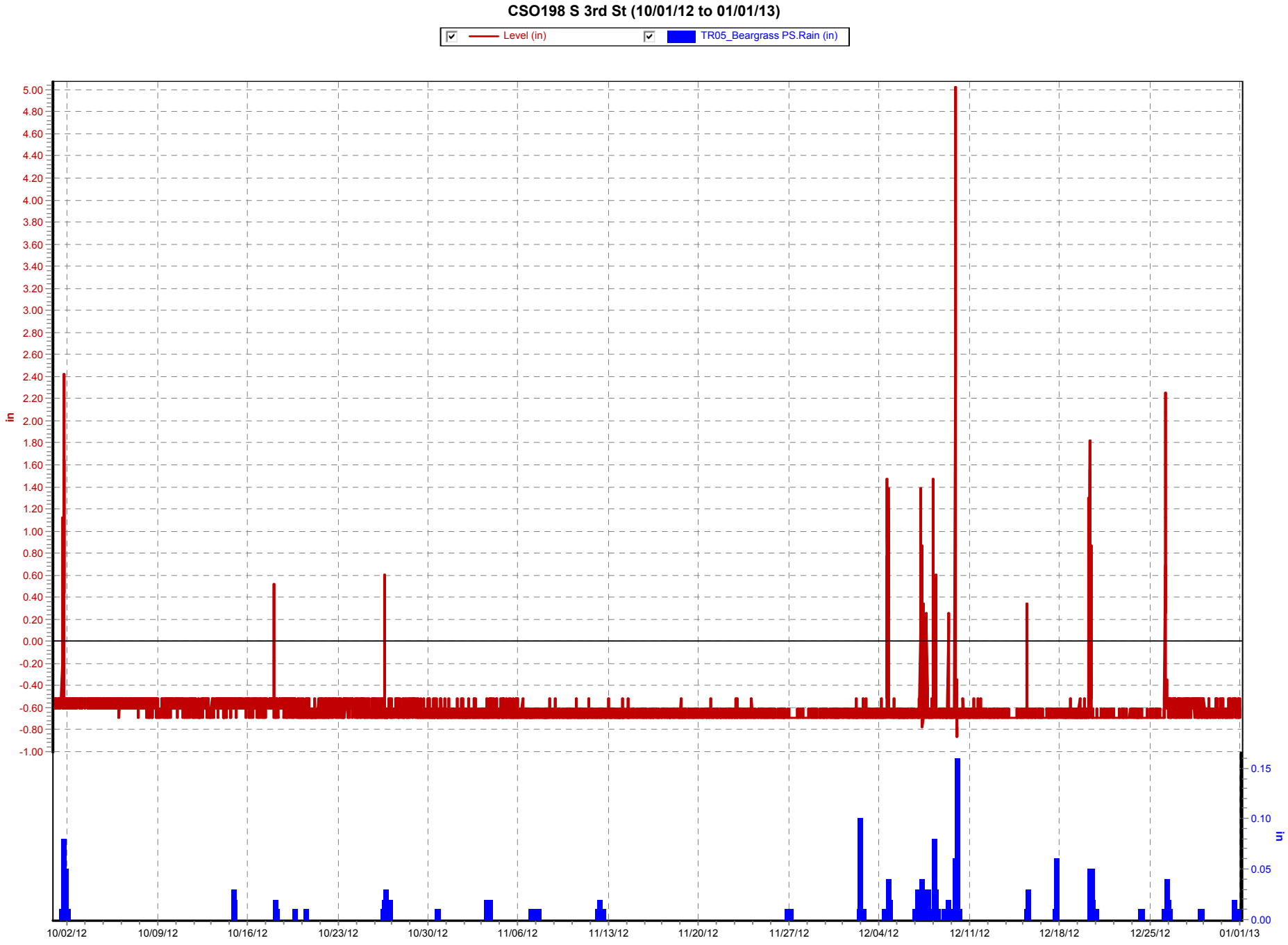
# CSO193 6th and KY (01/01/13 to 04/01/13)



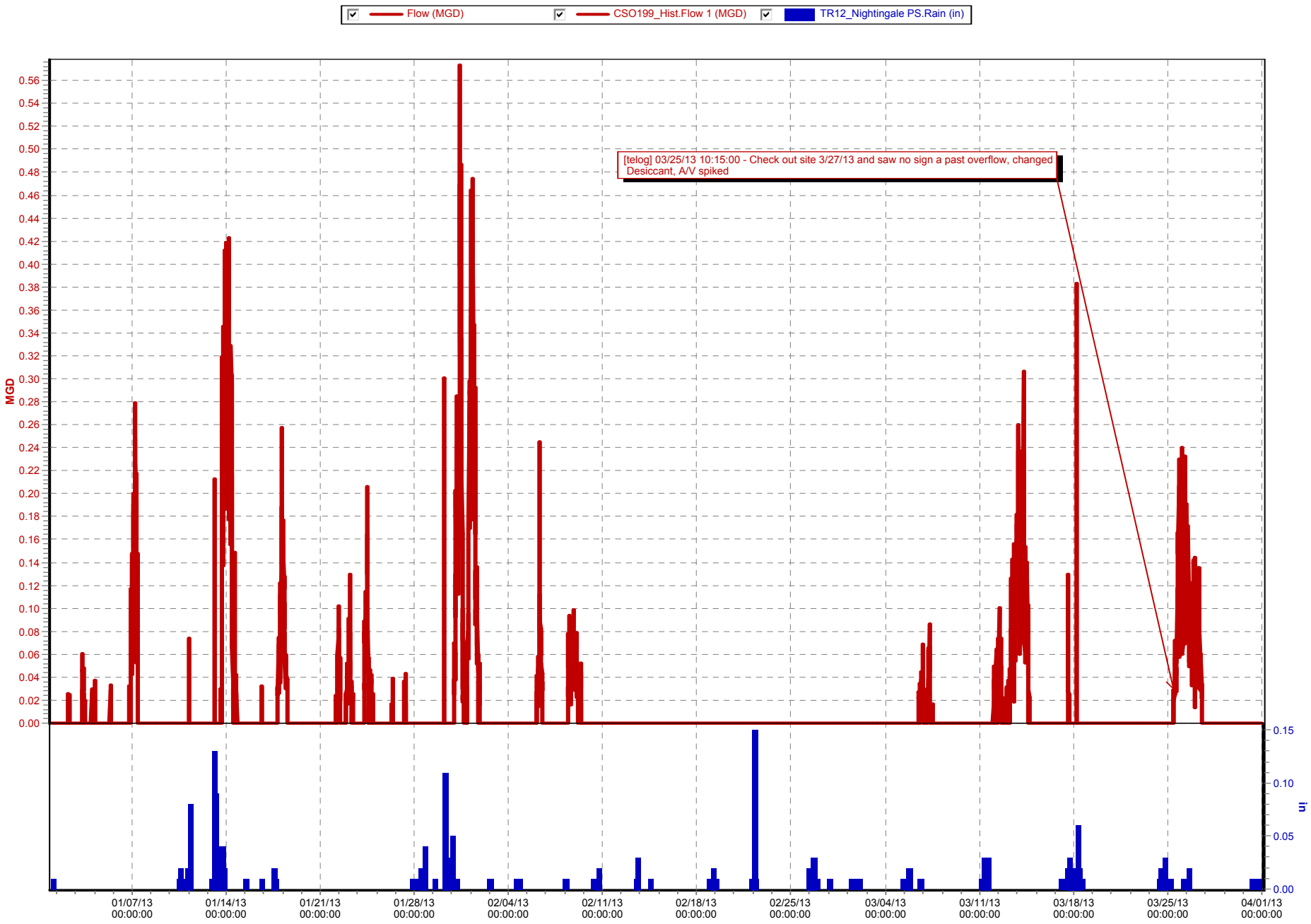

CSO195 S 4th St (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 01/08/13 14:45:00 - [JEBA] Telog battery replaced
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

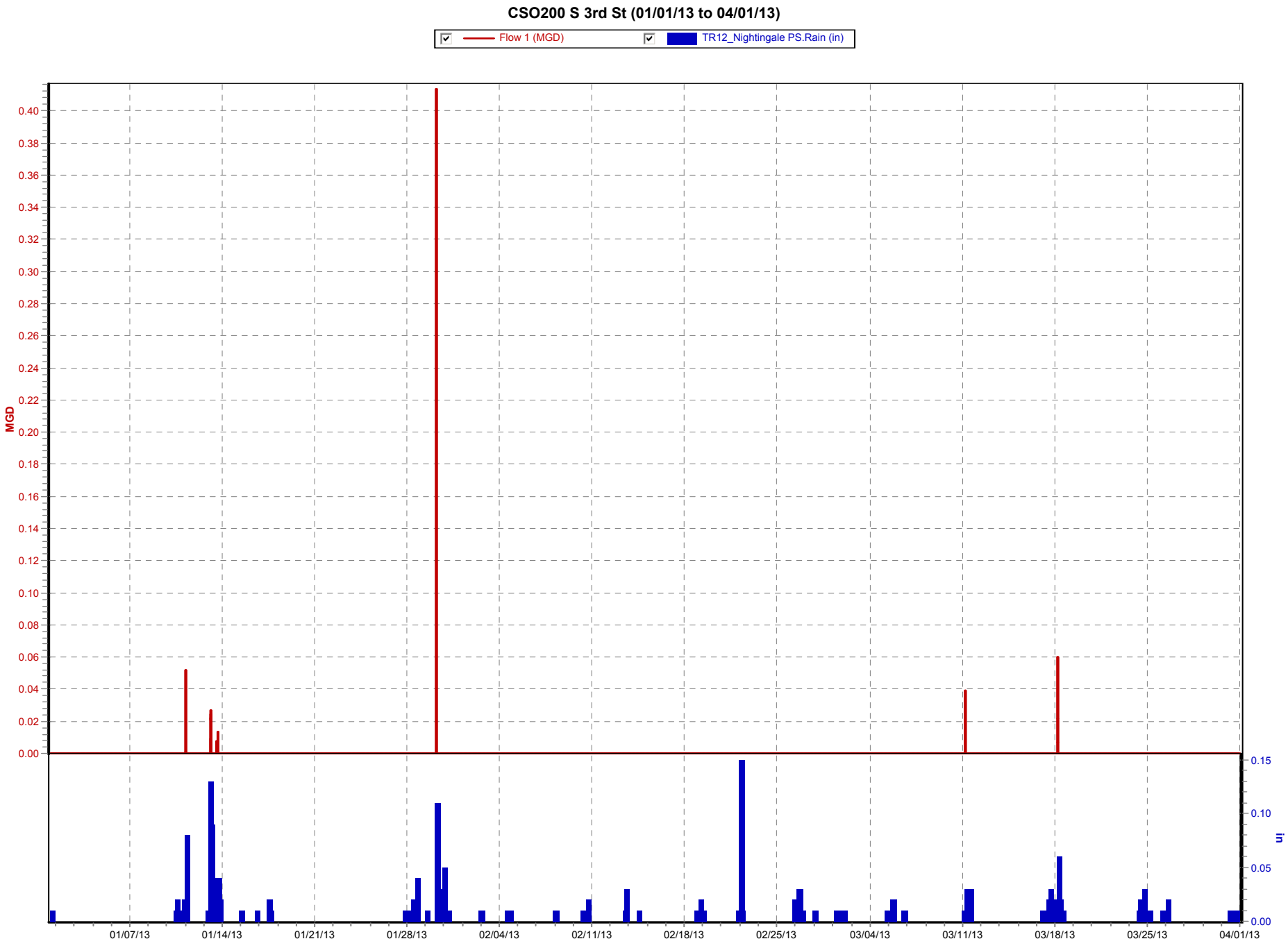

CSO196 (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
2.40
2.30
2.20
2.10
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

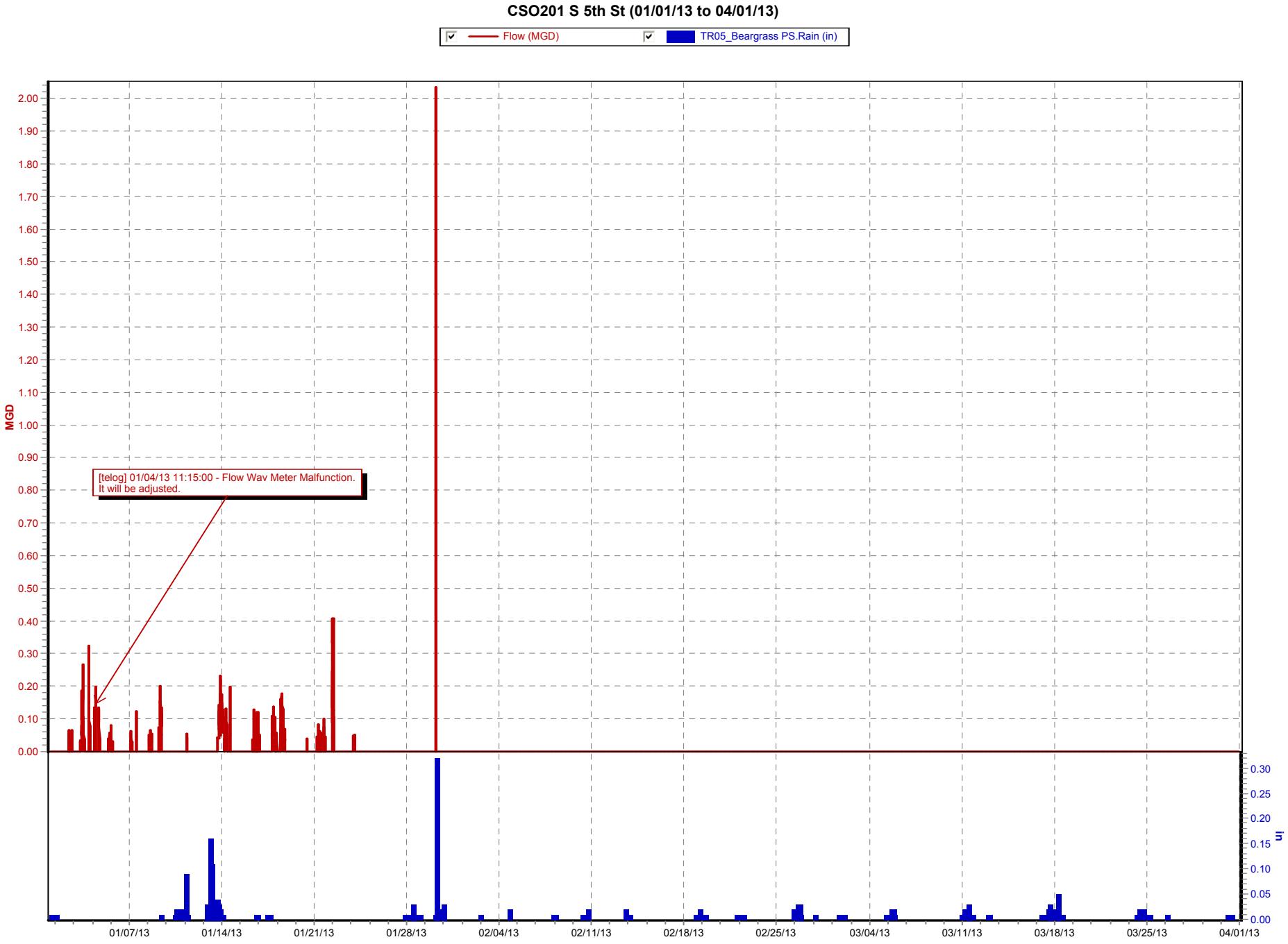

CSO197 S 3rd St (01/01/13 to 04/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
[telog] 01/25/13 20:45:00 - Level Indicator malfunction during cold weather during this quarter.
in
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

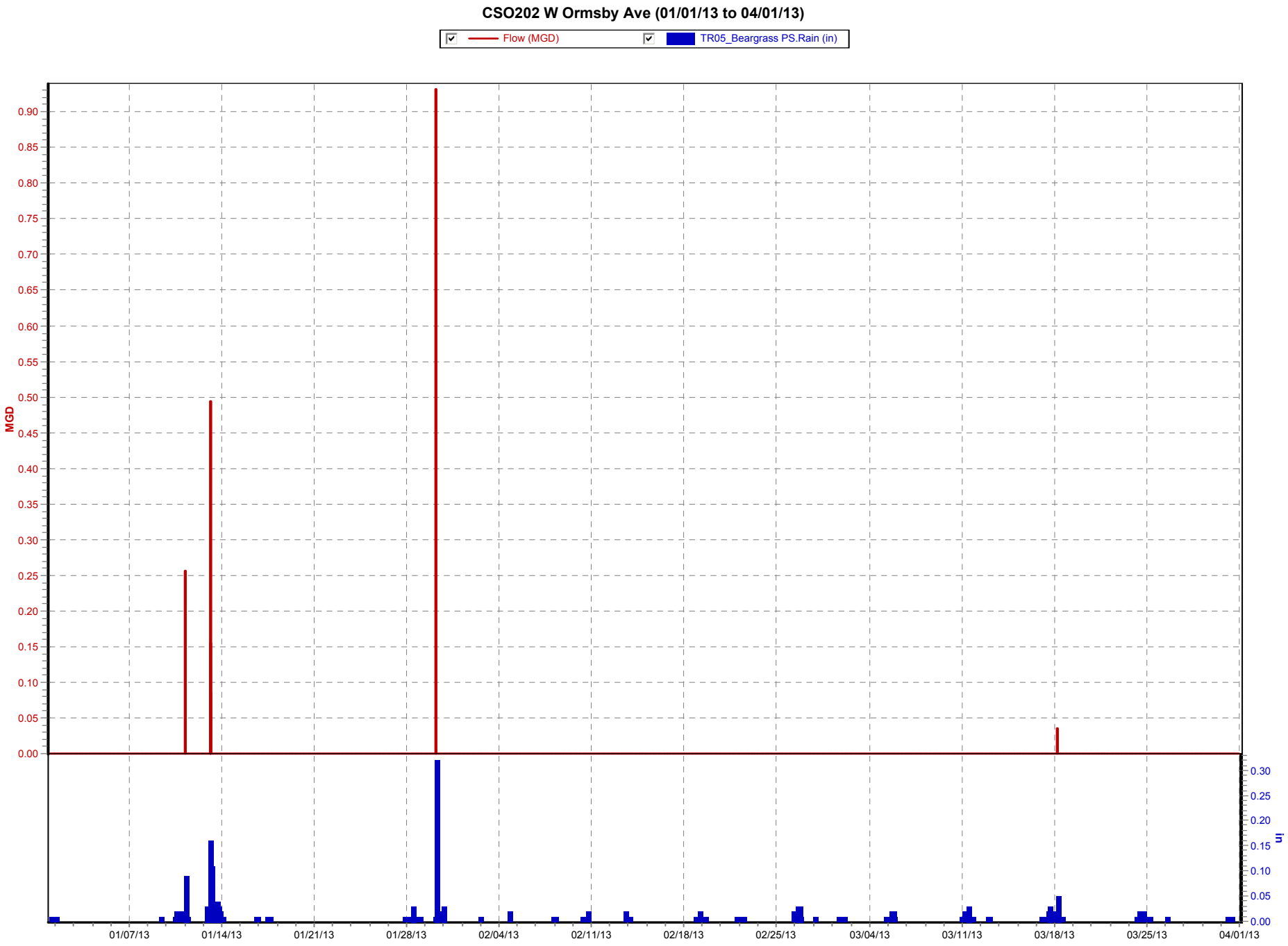

CSO198 S 3rd St (10/01/12 to 01/01/13)
Level (in)
TR05_Beargrass PS.Rain (in)
in
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
-0.20
-0.40
-0.60
-0.80
-1.00
0.15
0.10
0.05
0.00
10/02/12
10/09/12
10/16/12
10/23/12
10/30/12
11/06/12
11/13/12
11/20/12
11/27/12
12/04/12
12/11/12
12/18/12
12/25/12
01/01/13

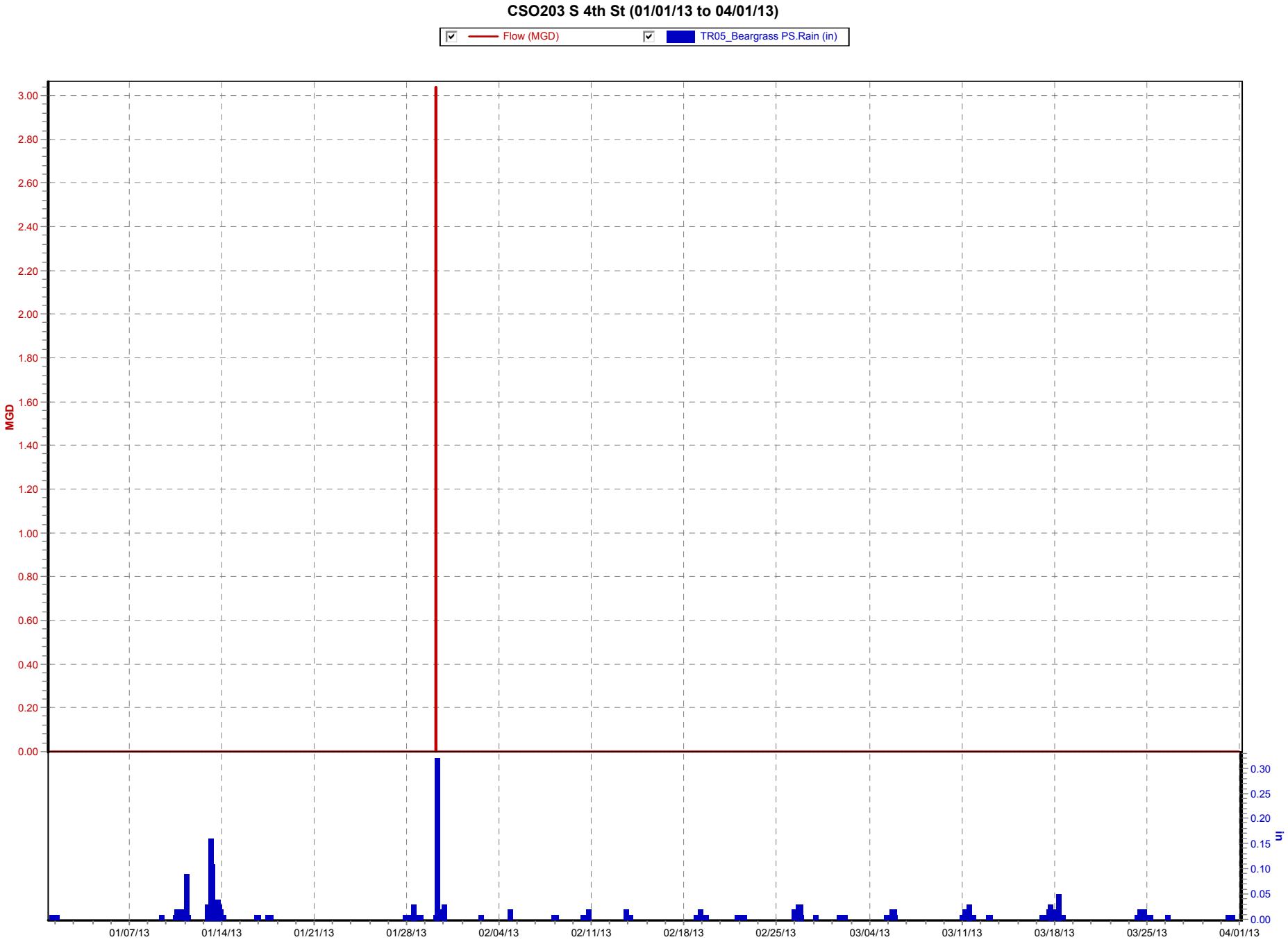
# CSO199 S 3rd St (01/01/13 to 04/01/13)

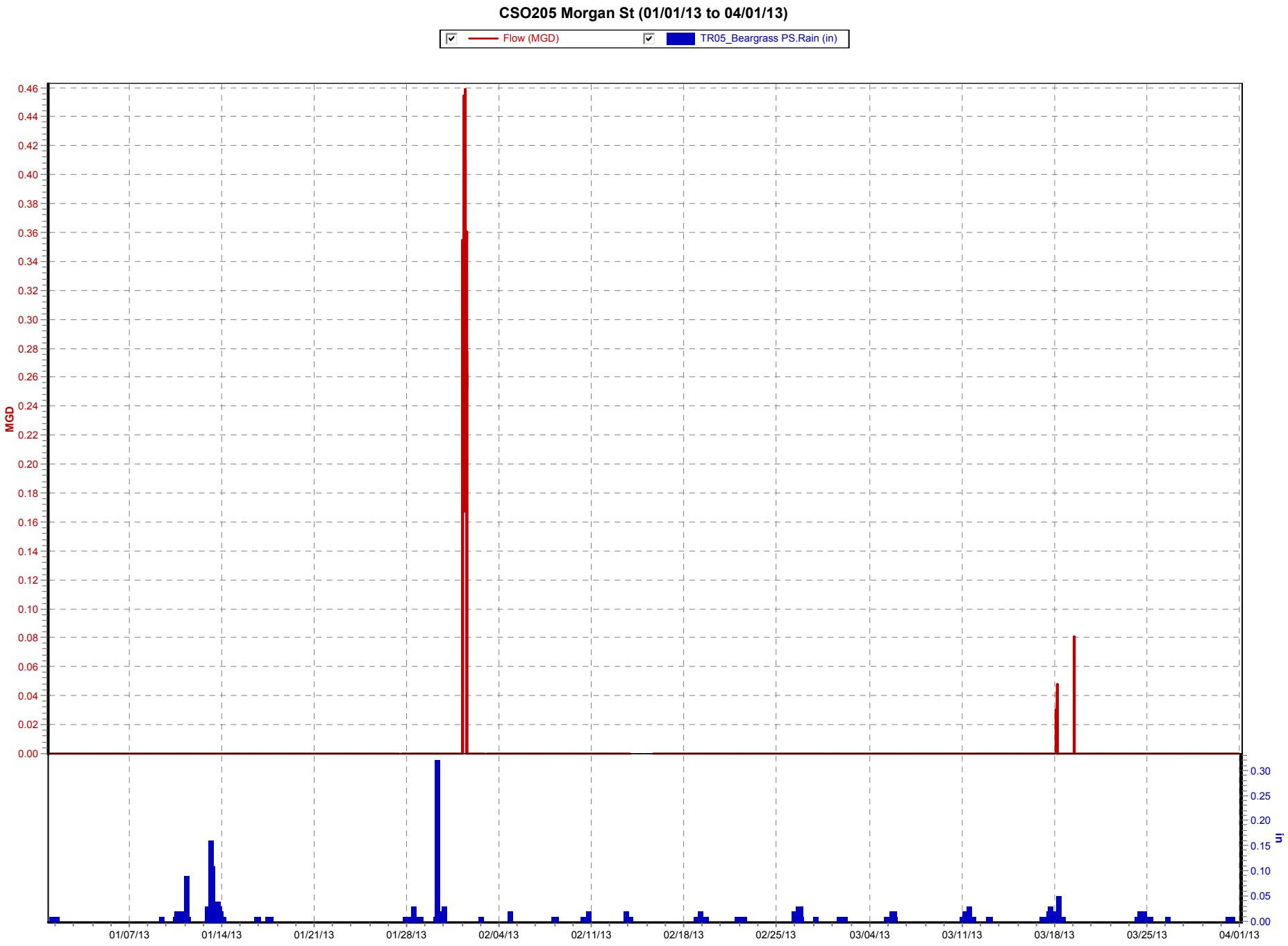


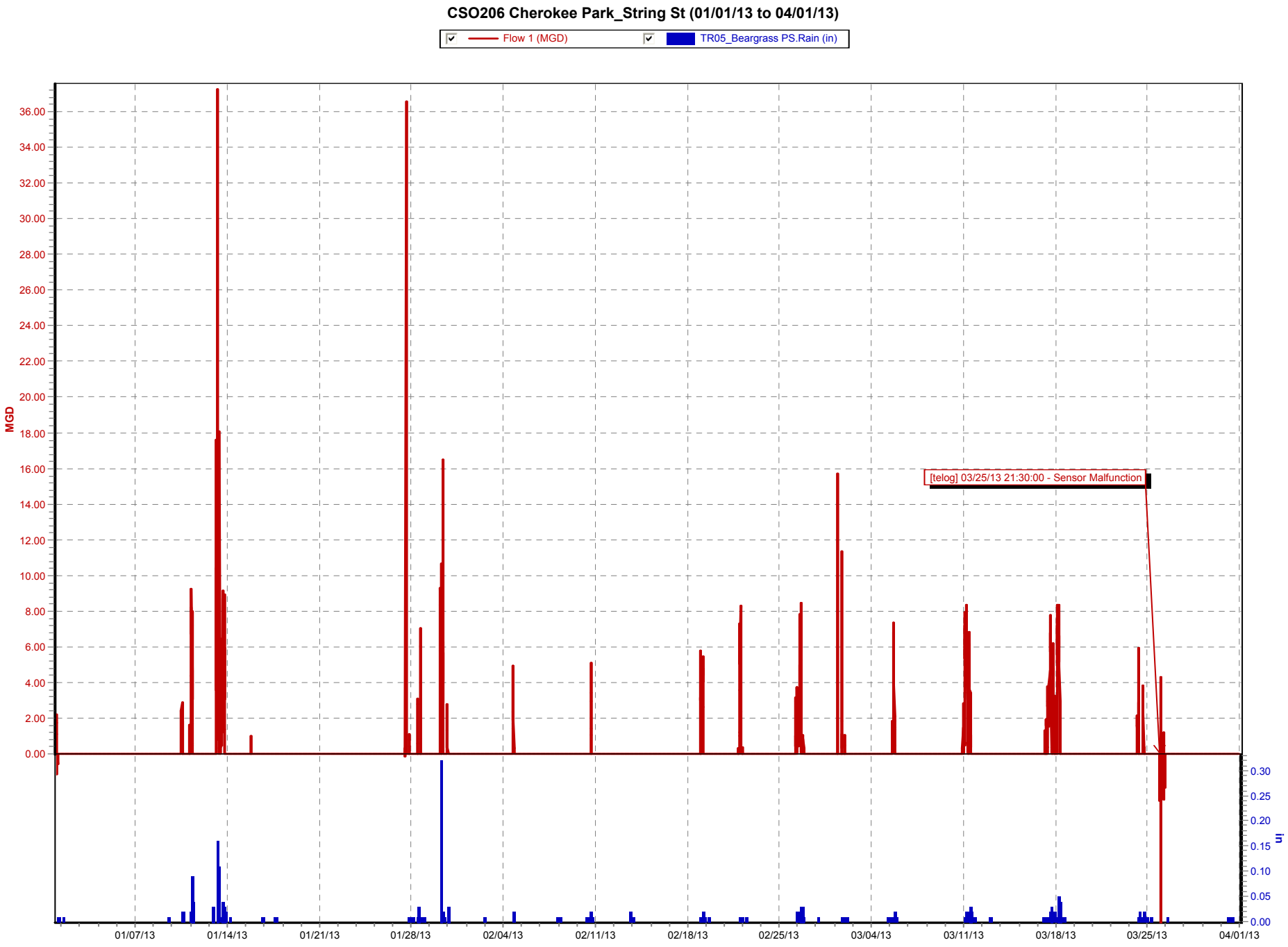

CSO200 S 3rd St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR12_Nightingale PS.Rain (in)
MGD
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.15
0.10
0.05
0.00
in
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

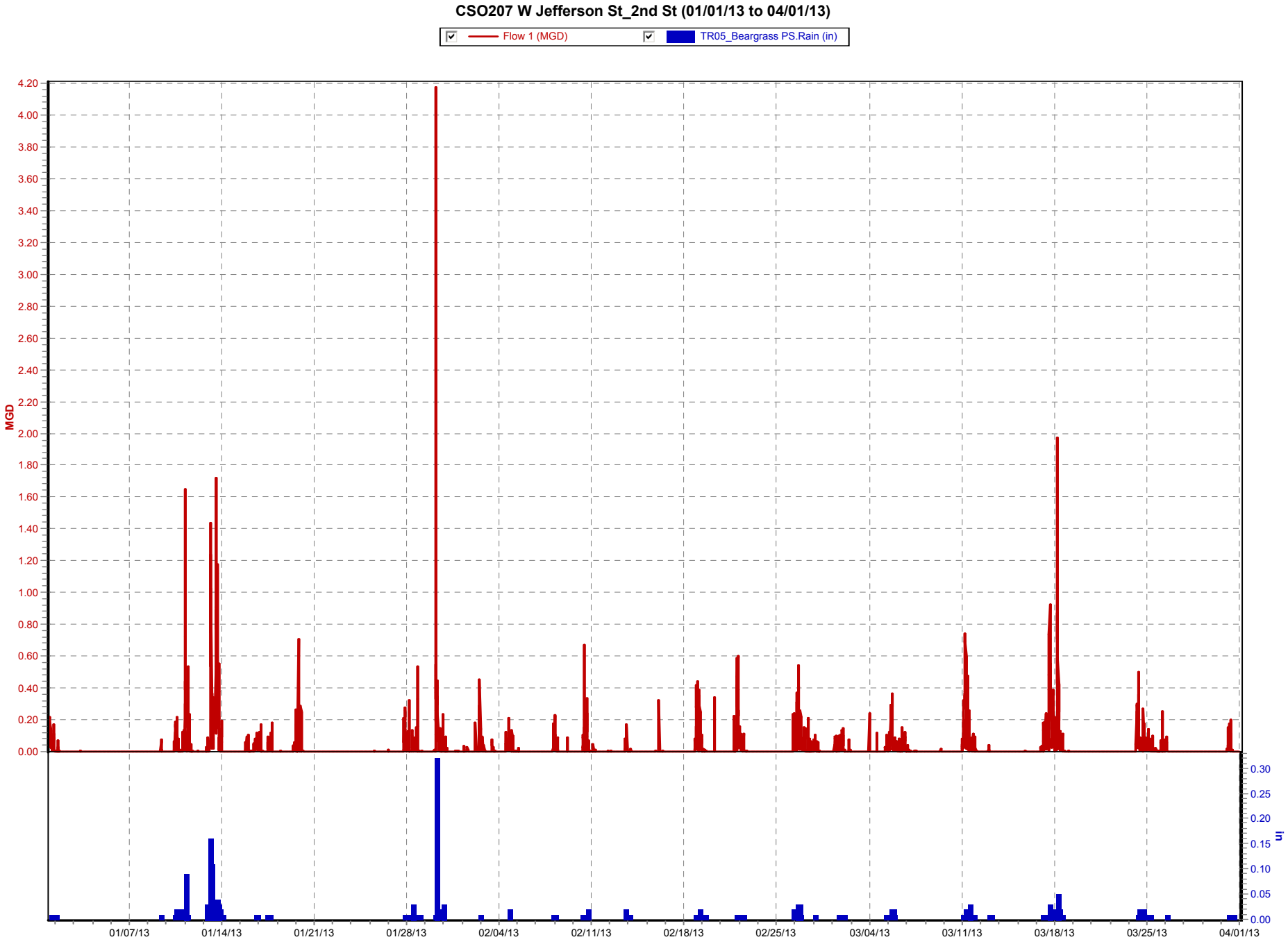

CSO201 S 5th St (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 01/04/13 11:15:00 - Flow Wav Meter Malfunction.
It will be adjusted.
2.00
1.90
1.80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO202 W Ormsby Ave (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

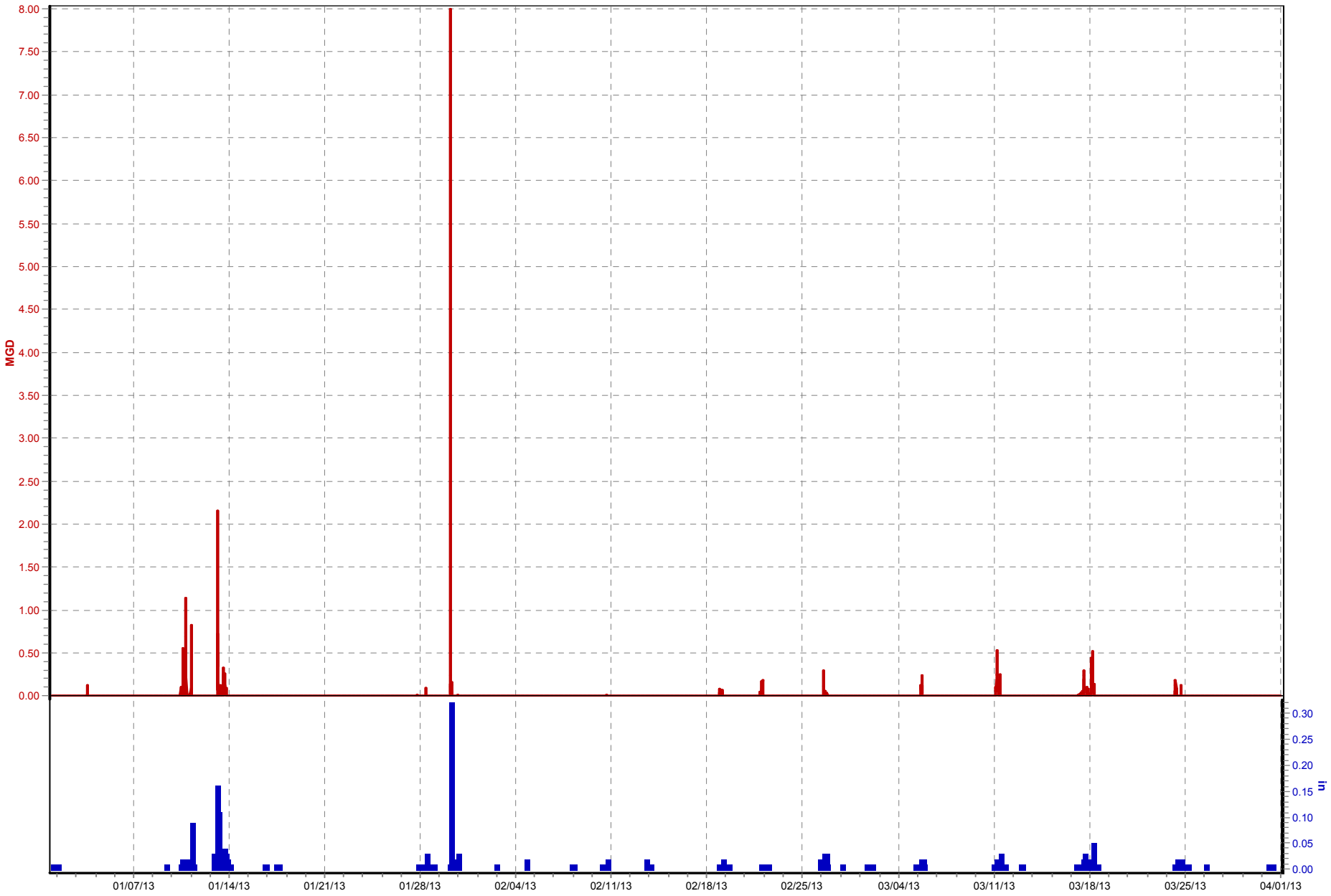

CSO203 S 4th St (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13


CSO205 Morgan St (01/01/13 to 04/01/13)
Flow (MGD)
TR05_Beargrass PS.Rain (in)
MGD
0.46
0.44
0.42
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
in
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

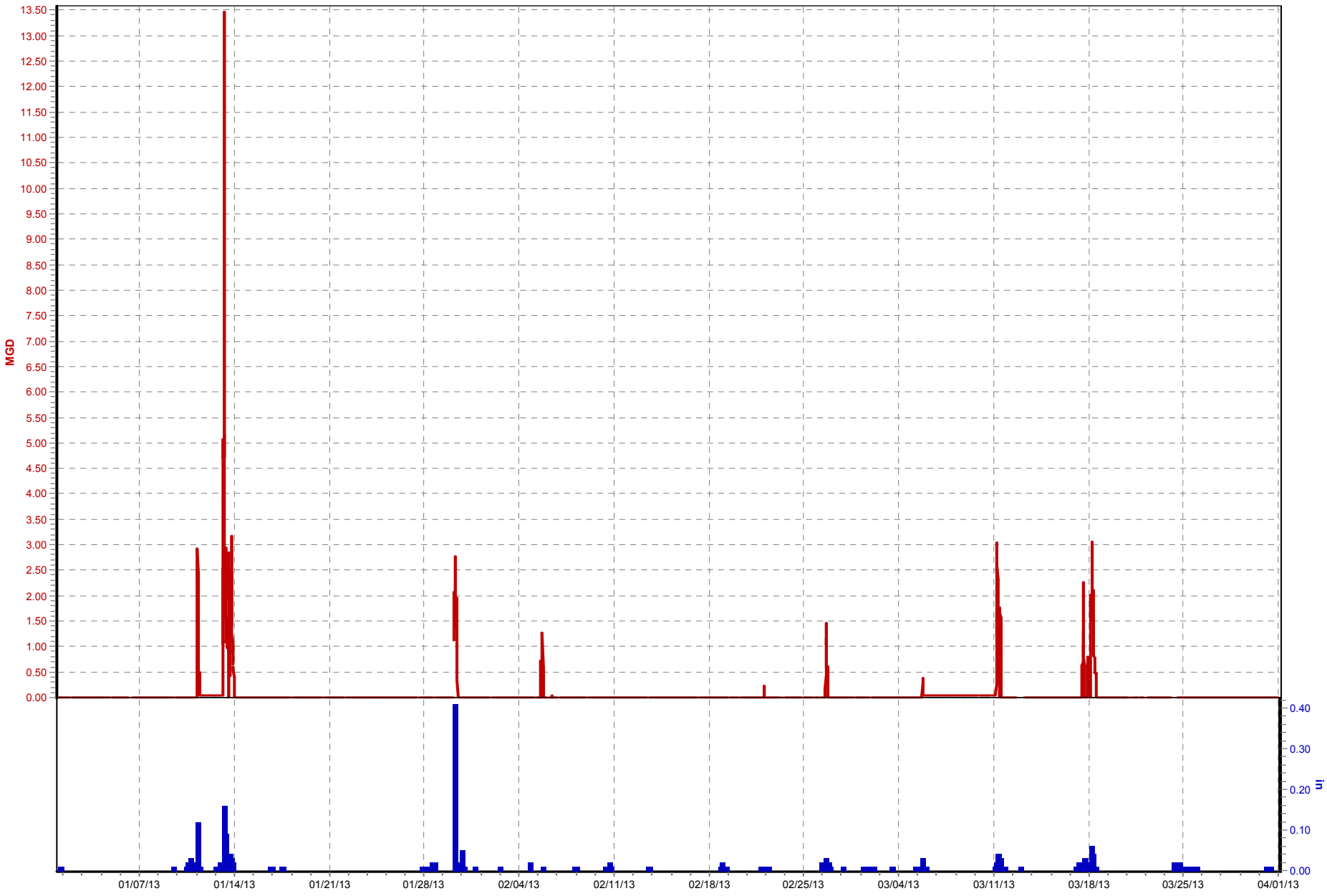

CSO206 Cherokee Park_String St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
[telog] 03/25/13 21:30:00 - Sensor Malfunction
36.00
34.00
32.00
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

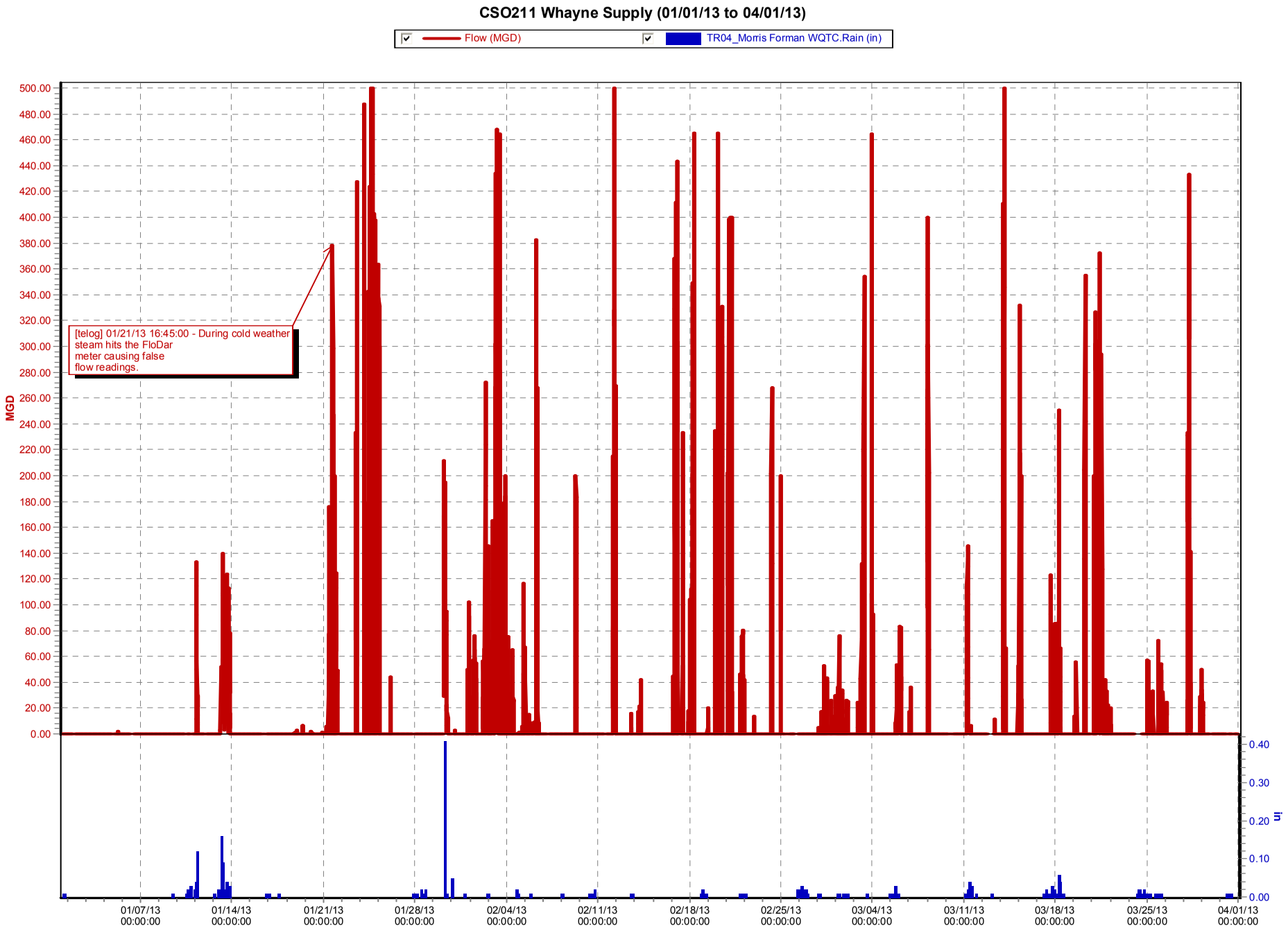

CSO207 W Jefferson St_2nd St (01/01/13 to 04/01/13)
Flow 1 (MGD)
TR05_Beargrass PS.Rain (in)
MGD
in
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
01/07/13
01/14/13
01/21/13
01/28/13
02/04/13
02/11/13
02/18/13
02/25/13
03/04/13
03/11/13
03/18/13
03/25/13
04/01/13

## CSO208 W Jefferson St_12th St (01/01/13 to 04/01/13)



## CSO210 Whayne Supply (01/01/13 to 04/01/13)




CSO211 Whayne Supply (01/01/13 to 04/01/13)
Flow (MGD)
TR04_Morris Forman WQTC.Rain (in)
MGD
in
[telog] 01/21/13 16:45:00 - During cold weather steam hits the FloDar meter causing false flow readings.
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
0.40
0.30
0.20
0.10
0.00
01/07/13 00:00:00
01/14/13 00:00:00
01/21/13 00:00:00
01/28/13 00:00:00
02/04/13 00:00:00
02/11/13 00:00:00
02/18/13 00:00:00
02/25/13 00:00:00
03/04/13 00:00:00
03/11/13 00:00:00
03/18/13 00:00:00
03/25/13 00:00:00
04/01/13 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 |