ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
JANUARY 2014

Prepared by
SAVIN ENGINEERS, P.C.

FEBRUARY 2014

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DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
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1. INTRODUCTION

This is the twenty-fifth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of January 1, 2014 through January 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- January 6, and
- January 11

2. SUMMARY OF OVERFLOWS

There were two rainfall events that occurred on January 6 and January 11. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the two overflow events. Figures 1 through 5 show rainfall during the month of January.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 5, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 6 through 10. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – Figure 1 shows the hydrograph for the period of January 1, 2014 through January 31, 2014. The flow monitor data shows that approximately 1,748 gallons overflowed for 24 minutes on January 6.

CSO 004 (State Fair Blvd.) – During dry-weather, this site typically has 0.3 inches of standing water. There were no overflows during the month of January.

The meter probe and the membrane on the reference tube were frozen between January 6 and January 11, 2014. This freezing resulted in negative velocity readings during this time period. The desiccant was replaced on January 13.

At the request of the County, the meter at this site was moved to a different line within the same manhole on January 30.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. There were no overflows during the month of January.

CSO 018 (Rowland St.) – There is no longer a meter installed at this site, therefore, no overflows were recorded during the month of January.

CSO 030 (West Jefferson St.) - There were no overflows during the month of January.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of January 1, 2014 through January 31, 2014. The flow monitor data shows that approximately 90,729 gallons overflowed for 54 minutes on January 6

CSO 044 (West Castle St. and South Ave.) - There is no longer a meter installed at this site, therefore, no overflows were recorded during the month of January.

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of January 1, 2014 through January 31, 2014. The flow monitor data shows that approximately 4,341 gallons overflowed for 53 minutes on January 6 and approximately 16,140 gallons overflowed intermittently for 7 hours on January 11.

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 4 shows the hydrograph for the period of January 1, 2014 through January 31, 2014. The flow monitor data shows that approximately 2,795 gallons overflowed for 13 minutes on January 6.

CSO 063 (Emerson Ave.) – There were no overflows during the month of January.

The meter probe and the membrane on the reference tube were frozen between January 6 and January 11, 2014. This freezing resulted in negative velocity readings during this time period. The desiccant was replaced on January 13.

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 5 shows the hydrograph for the period of January 1, 2014 through January 31, 2014. The flow monitor data shows that approximately 30,226 gallons overflowed for 39 minutes on January 6.

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - January 2014

	Location	1/6 Overflow Quantity (gal)	1/11 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	1,748	0	1,748
2	**CSO 004**	0	0	0
3	**CSO 014**	0	0	0
4	**CSO 018**	N/A	N/A	N/A
5	**CSO 030**	0	0	0
6	**CSO 034**	90,729	0	90,729
7	**CSO 044**	N/A	N/A	N/A
8	**CSO 052**	4,341	16,140	20,481
9	**CSO 060**	2,795	0	2,795
10	**CSO 063**	0	0	0
11	**CSO 077**	30,226	0	30,226
	TOTAL =	**129,839**	**16,140**	**145,979**

				Monthly Overflow Total (in)
12	**Rainfall Total:**	0.18	0.20	0.38
13	**Average Rainfall Intensity:**	0.02	0.03	
14	**Peak Hourly Rainfall Intensity:**	0.07	0.08	

FIGURE 1

CSO 003 Hiawatha Boulevard Monthly Hydrograph

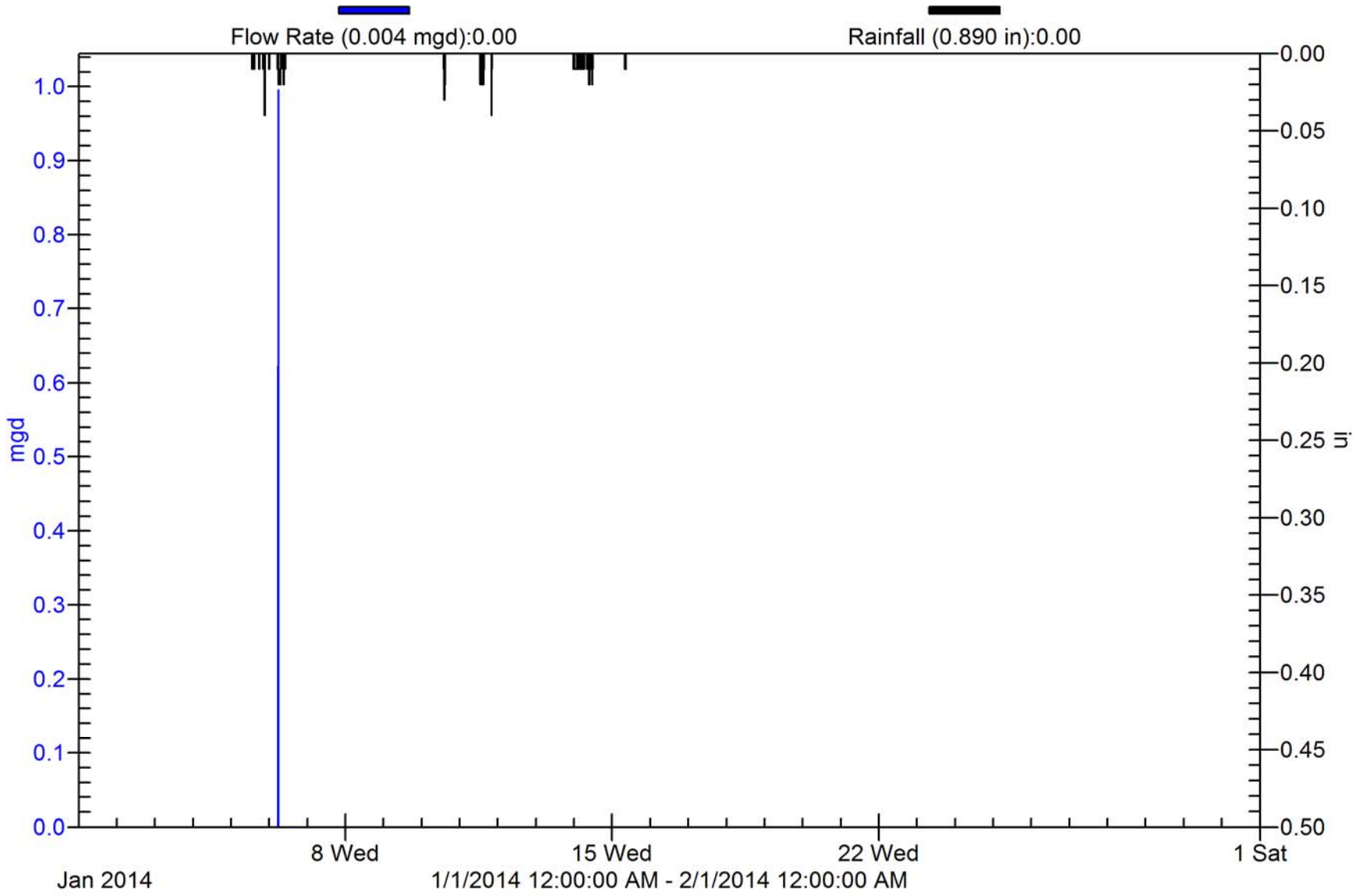


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

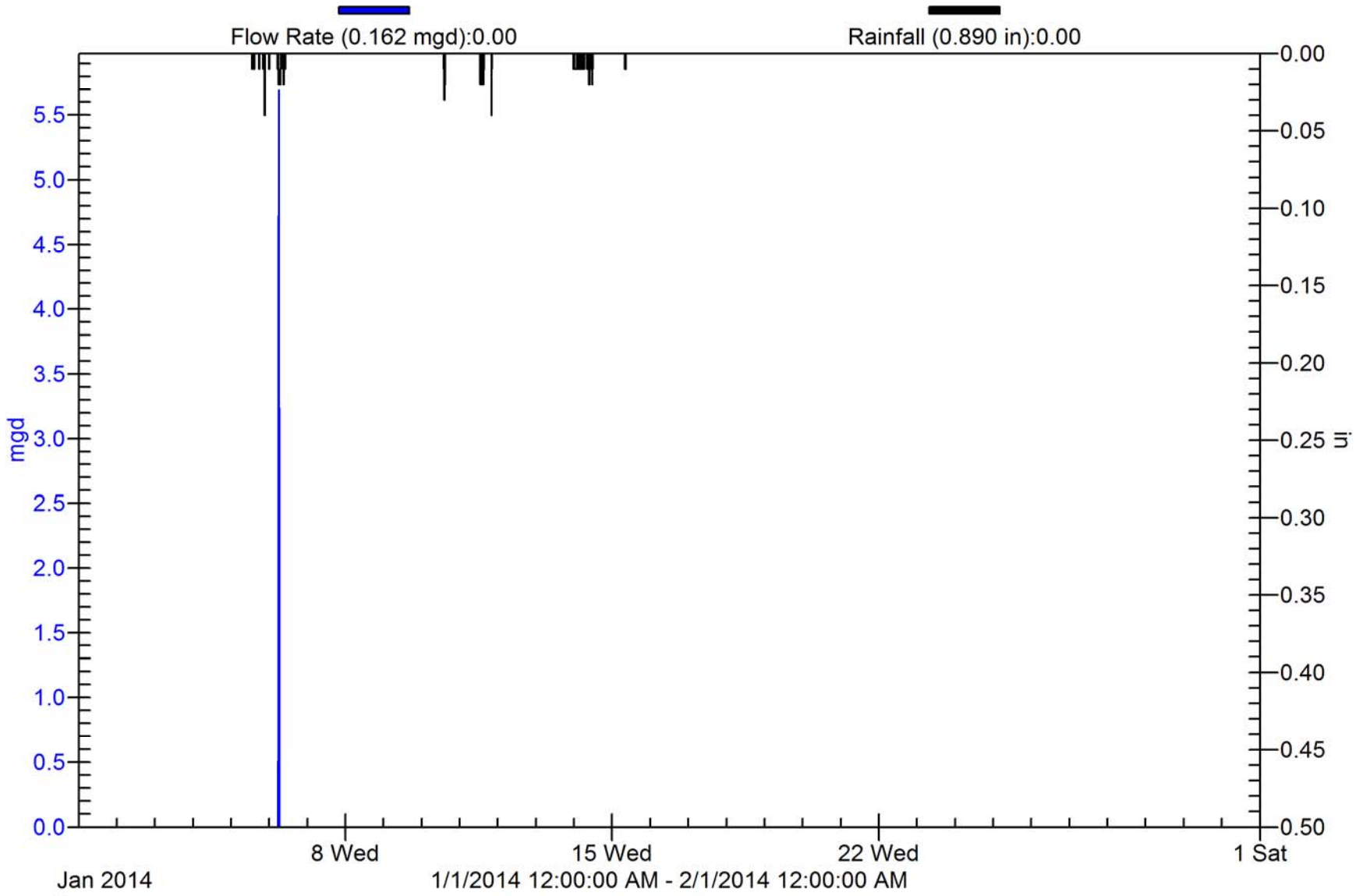


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

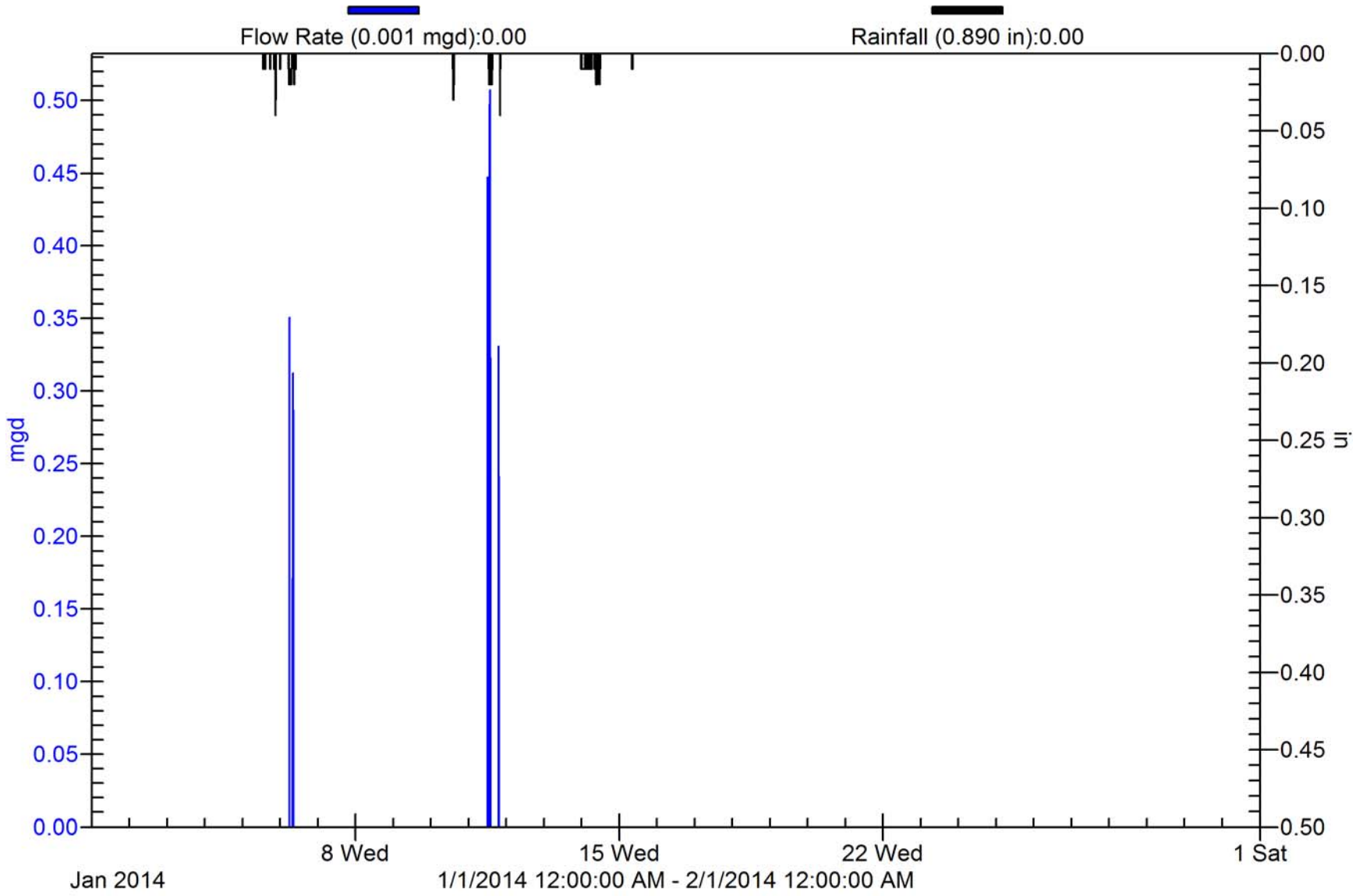


FIGURE 4

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

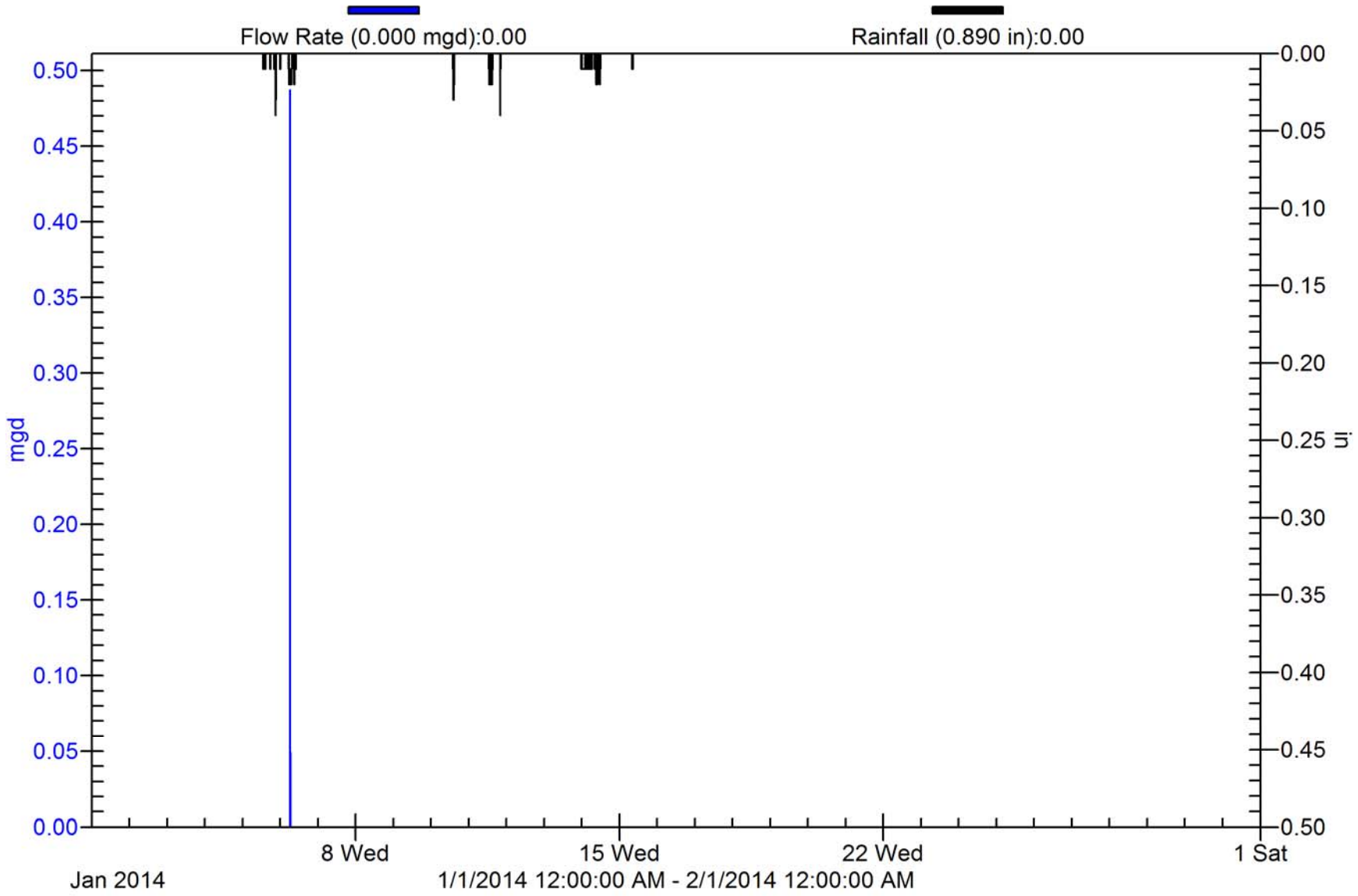


FIGURE 5

CSO 077 West Colvin Street - Midland Monthly Hydrograph

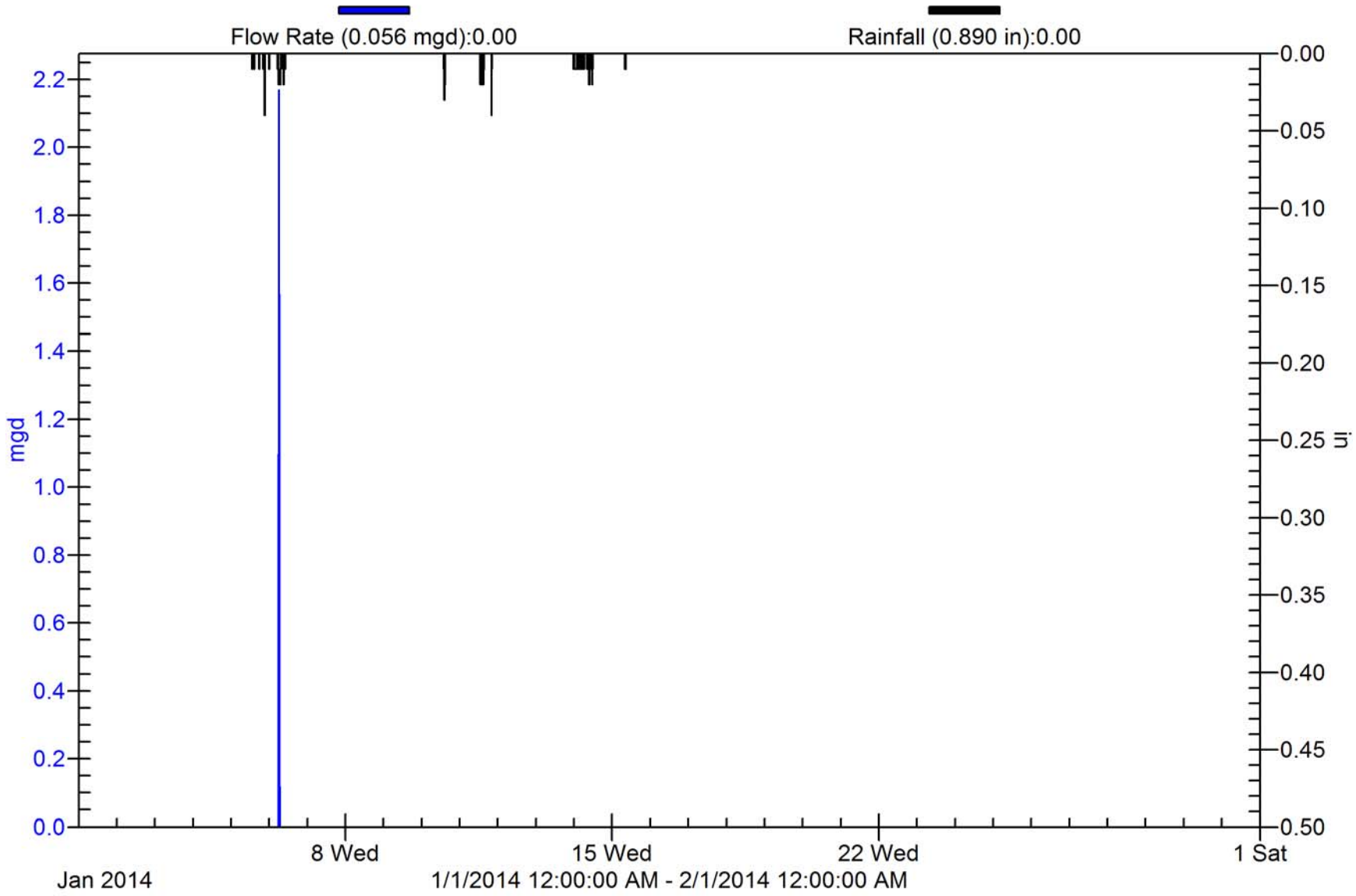
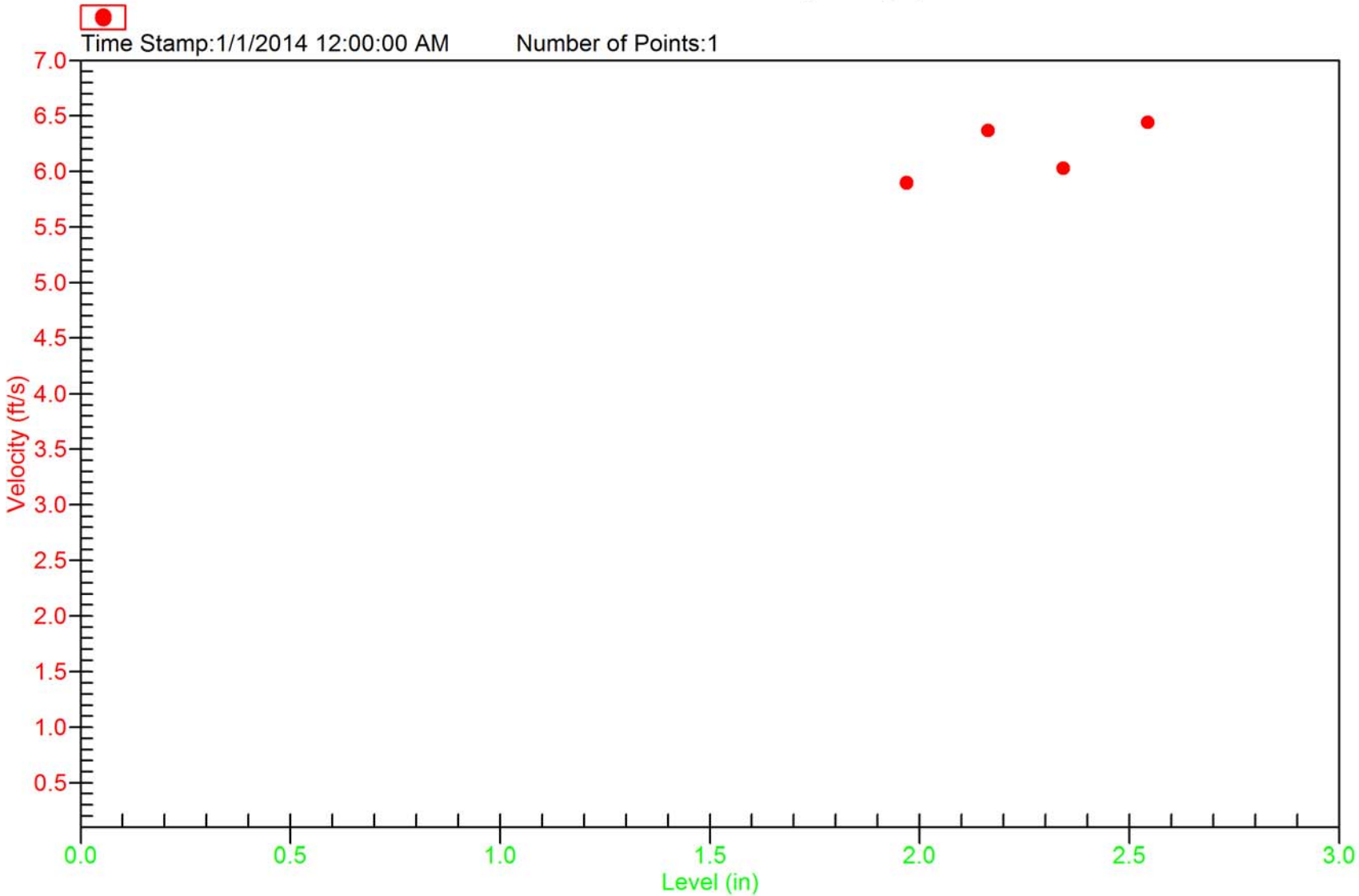


FIGURE 6

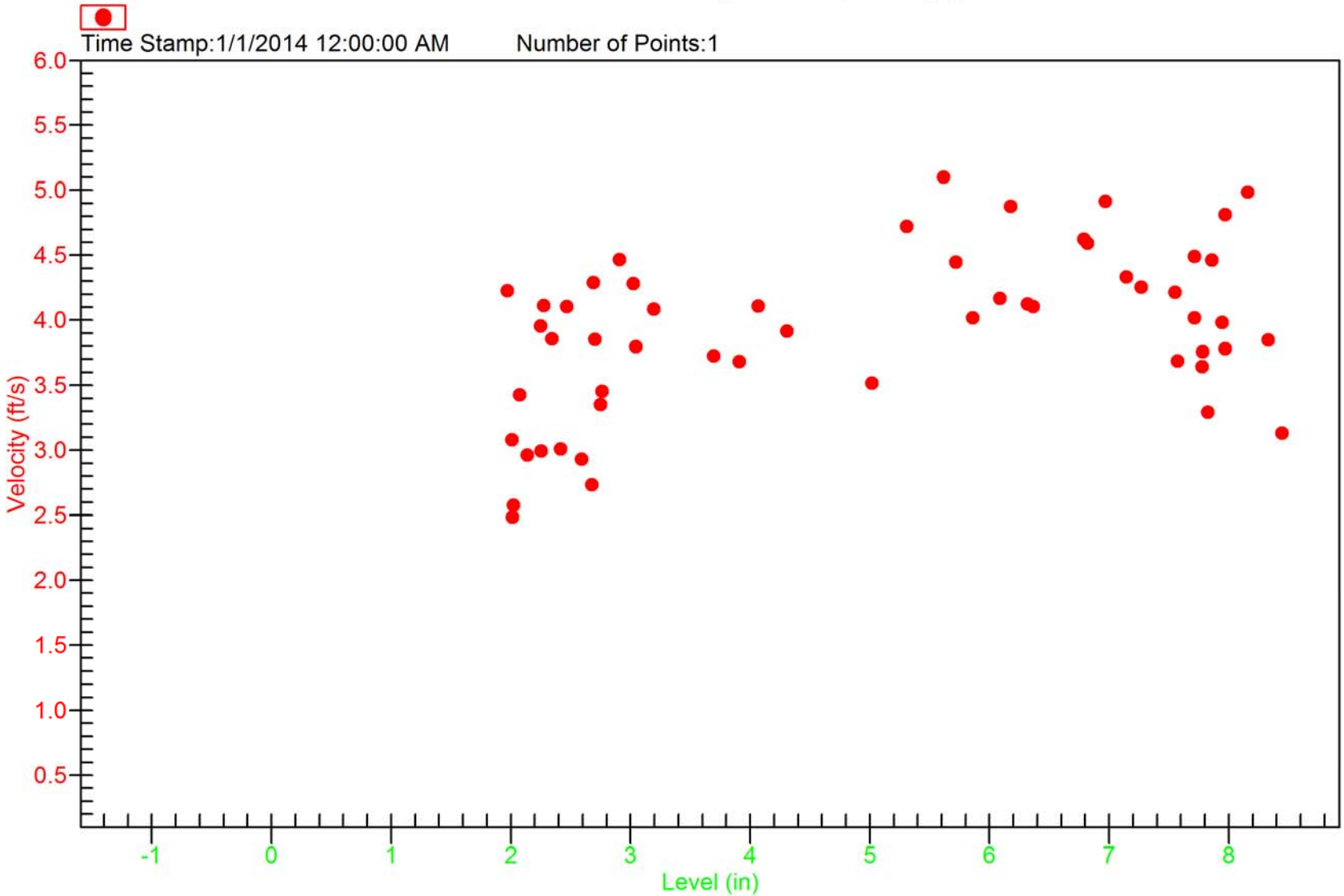
CSO 003 Hiawatha Boulevard Monthly Scattergraph



1/1/2014 12:00:00 AM - 2/1/2014 12:00:00 AM

FIGURE 7

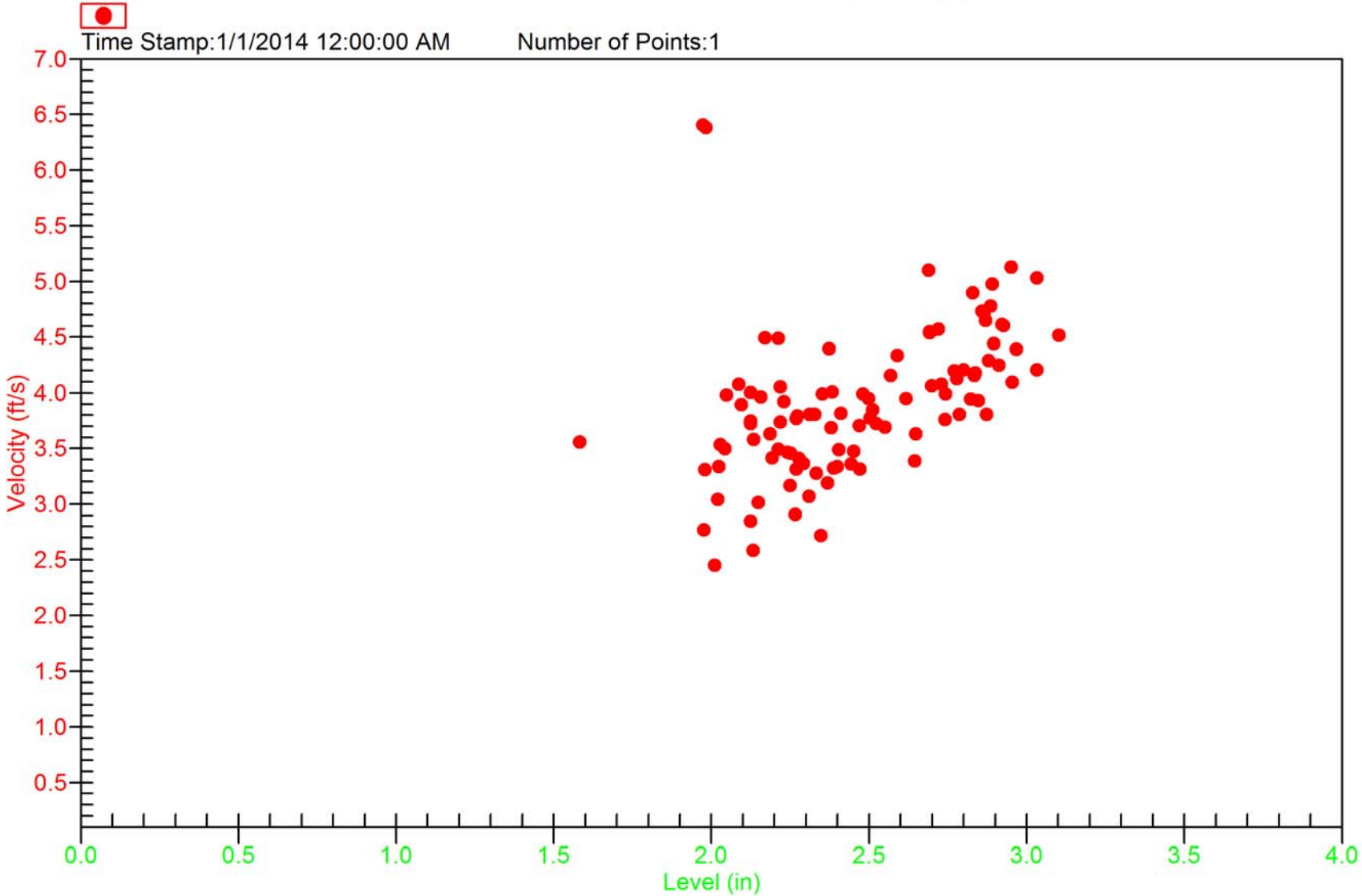
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



1/1/2014 12:00:00 AM - 2/1/2014 12:00:00 AM

FIGURE 8

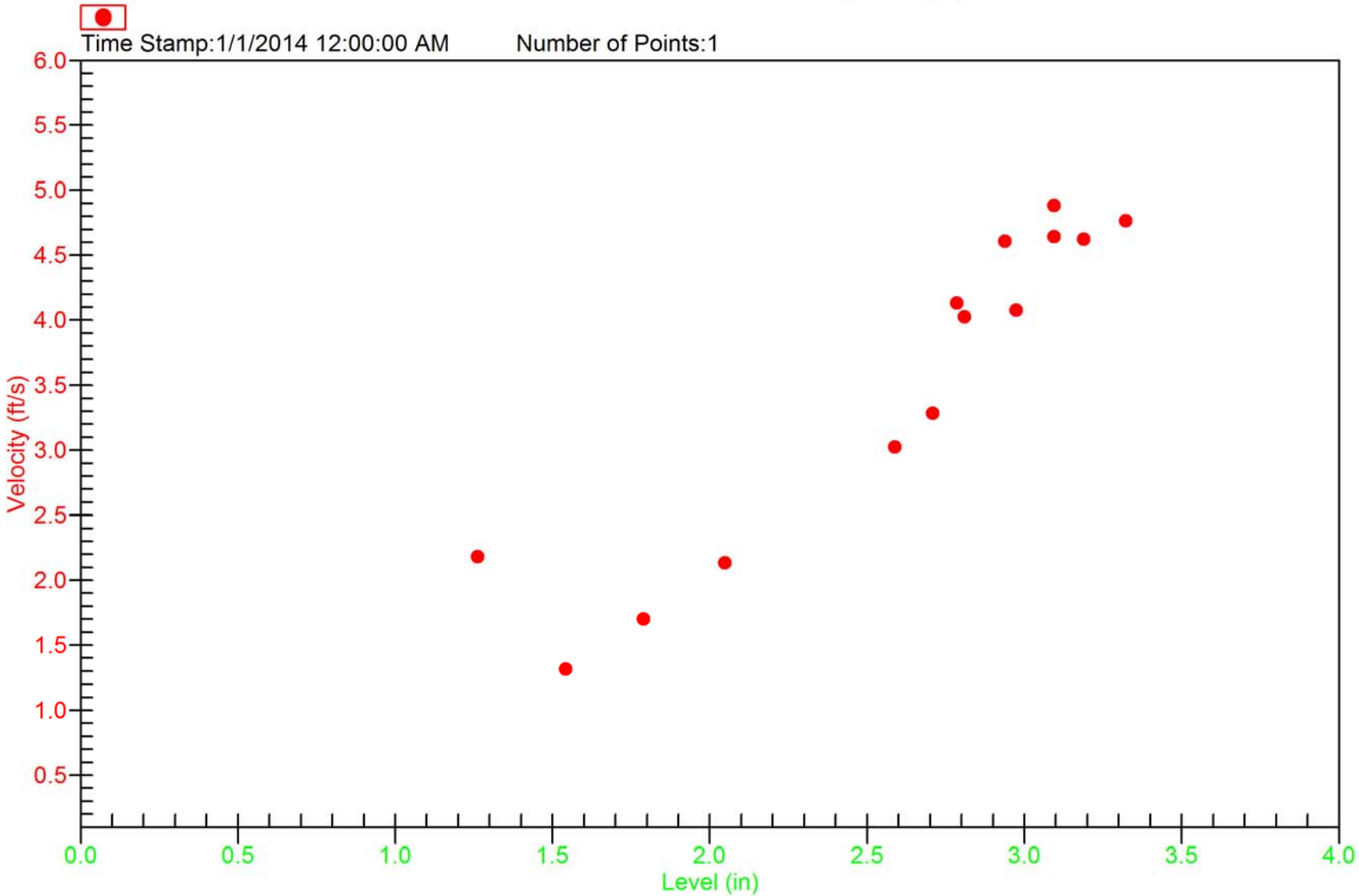
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



1/1/2014 12:00:00 AM - 2/1/2014 12:00:00 AM

FIGURE 9

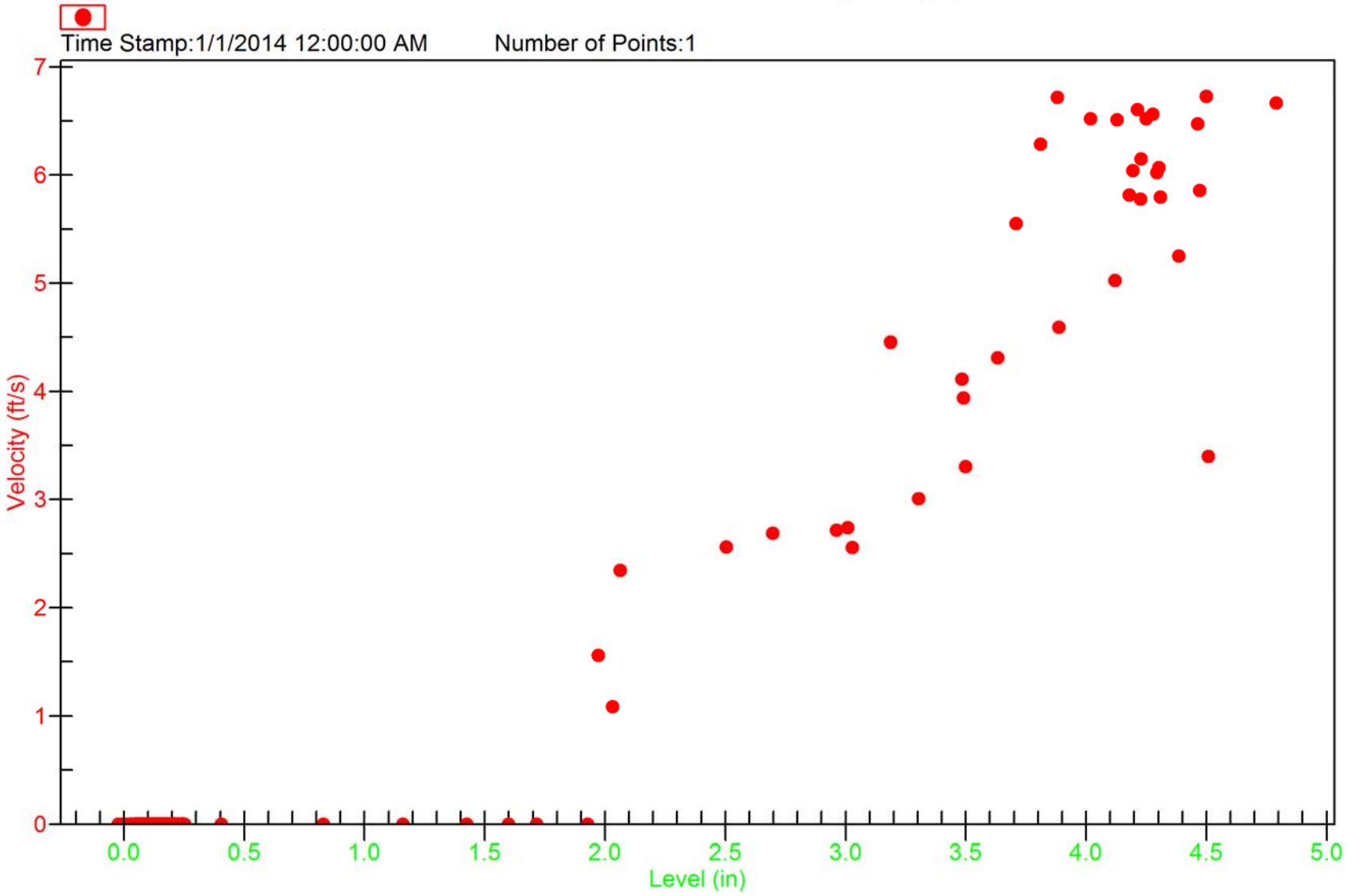
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



1/1/2014 12:00:00 AM - 2/1/2014 12:00:00 AM

FIGURE 10

CSO 077 West Colvin Street - Midland Monthly Scattergraph



1/1/2014 12:00:00 AM - 2/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO		
ENGINEER:	CDM / C&S		
OWNER:	Onondaga County		
SITE NAME:	CSO 003	Hiawatha Boulevard	
M.H. No.		MH DEPTH:	
PIPE SIZE	42	TYPE:	Con.

PROJECT No.	1130.04.01		
DATE:	11/16/11	TIME:	9:00
INSTALLER:	RT	JP	
LOGGER No.	205L02143		
PROBE No.	208K00749		
BATTERY TYPE:	6 volt lantern		

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:
INVERT CONDITION:	Smooth:	X	Rough: ____ In-Between
PROBE MOUNTED:	On Invert:	X	Side of Pipe:
ACTUAL PROBE OFFSET:			INCHES
COMMENTS:	Hiawatha Blvd. near Erie Blvd. under RR overpass.		

9142618980

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	9:35	14.00		13.941				11.2	New	Bucket test	RT
11/16/11	10:30	0.00	NA	0.072	NA			11.2	New	Installed	RT
11/28/11	9:30	0.00	NA	-0.375	NA			New	OK	Archived	RT
12/05/11	9:15	0.00	NA	-0.298	NA			11.8	OK	Archived	RT
12/06/11	9:10	0.00	NA	-0.056	NA			11.8	OK	Archived	RT
12/12/11	9:11	0.00	NA	0.253	NA		Adj.	11.7	OK	Archived	RT
12/21/11	9:00	0.00	NA	0.197	NA			11.4	OK	Archived	RT
01/03/12	8:30	0.00	NA	2.160	NA			11.0	New	Archived	RT
01/16/12	9:20	0.00	NA	-0.258	NA			10.5	New	Archived	RT
03/22/12	13:48	0.00	NA	-0.500	NA		Adj.	10.3	OK	Archived	GS
04/20/12	9:54	0.00	NA	0.420	NA		Adj.	New	New	Archived	GS
05/03/12	10:34	0.00	NA	-0.490	NA		Adj.	11.2	OK	Archived	GS
06/04/12									could not get access due to construction		
07/07/12	9:45	0.00	NA	-0.038	NA			New	New	Archived	GS
08/01/12	9:54	0.00	NA	0.152	NA			New	OK	Archived	GS
09/04/12	10:50	0.00	NA	-0.014	NA			11.0	OK	Archived	JAM
10/08/12	14:20	0.00	NA	0.491	NA		Adj.	New	New	Archived	GS
11/07/12	13:37	0.00	NA	0.013	NA			11.5	OK	Changed Time	GS
12/11/12	11:45	0.00	NA	-0.057	NA			11.5	OK	Archived	GS
01/07/13	8:45	0.00	NA	0.000	NA			10.7	OK	Archived	RT
02/05/13	10:00	0.00	NA	0.342	NA			11.0	OK	Archived	RT
02/20/13	12:00	0.00	NA	-0.027	NA			10.5	OK	Archived	BP
03/18/13	10:00	0.00	NA	0.017	NA			10.3	OK	Changed Time	BP
04/17/13	10:19	0.00	NA	-0.908	NA			New	OK	Archived	WP
06/04/13	8:09	0.00	NA	-0.293	NA		Adj.	11.2	New	Archived	WP
07/08/13	6:53	0.00	NA	0.866	NA		Adj.	10.8	OK	Archived	WP
08/27/13	6:13	0.00	NA	-0.009	NA			10.5	OK	Archived	WP
09/26/13	9:10	0.00	NA	-0.108	NA			10.2	New	Archived	BP
10/31/13	15:02	0.00	NA	0.251	NA		Adj.	New	OK	Archived	WP
11/11/13	9:11	0.00	NA	0.008	NA		Adj.	12.0	OK	Archived	BP
01/13/14	7:30	0	NA	-0.252	NA		Adj.	10.8	OK	Archived	WP
01/30/14	12:42	0.00	NA	0.359	NA			10.6	OK	Pulled	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No.: MH DEPTH:
PIPE SIZE: 48 TYPE: PVC

PROJECT No: 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No.:
PROBE No.:
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 State Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.

9148157913

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT
12/05/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT
12/06/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT
01/03/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT
01/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT
03/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS
04/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS
04/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS
05/03/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS
06/04/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS
07/07/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS
08/01/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS
09/04/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM
09/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS
10/08/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS
11/07/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT
01/07/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT
03/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP
04/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP
06/03/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP
07/08/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP
08/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP
09/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P
01/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP
01/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO	PROJECT No.	1130.04.01
ENGINEER:	CDM / C&S	DATE:	11/17/11 TIME: 10:00
OWNER:	Onondaga County	INSTALLER:	RT JP
SITE NAME:	CSO 014 Delaware Street	LOGGER No.	208H01126
M.H. No.	MH DEPTH:	PROBE No.	208K00211
PIPE SIZE	66 TYPE: Con.	BATTERY TYPE:	6 volt lantern

SITE CONDITIONS:

DEPOSITION:	NONE: X	INCHES:	
INVERT CONDITION:	Smooth: X	Rough:____	In-Between
PROBE MOUNTED:	On Invert:	Side of Pipe:	On Weir
ACTUAL PROBE OFFSET:		INCHES	
COMMENTS:	Delaware St. & Amy St.		

9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 W. Jefferson Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. 308

9148066825

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
01/06/14	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street

9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 052 Hunt Street & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.

9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/05/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/06/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
01/03/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
01/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
02/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
03/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
04/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
05/03/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
06/04/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
07/07/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
08/01/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
09/04/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/08/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/08/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/07/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
01/07/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
01/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
02/05/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
02/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
03/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
04/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
06/03/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
07/08/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
08/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
09/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
01/06/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
01/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 060 West Colvin Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST

9148747350

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/05/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/05/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/06/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
01/03/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
01/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
03/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
04/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
05/03/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
06/04/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
07/07/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
08/01/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
09/04/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/08/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/07/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
01/07/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
01/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
02/05/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
02/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
03/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
04/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
06/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
07/08/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
08/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
09/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
01/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 063 Emerson Avenue
M.H. No. MH DEPTH:
PIPE SIZE 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 914 Emerson Ave. in sidewalk

9148606821

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/05/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/06/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
01/03/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
01/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
03/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
04/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
05/03/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
05/03/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
05/03/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
06/04/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
07/07/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
08/01/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
09/04/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/08/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/07/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
01/07/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
02/05/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
02/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
03/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
04/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
06/03/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
07/08/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
08/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
09/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/07/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
01/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 077 West Colvin Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street

9143556375

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/05/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/06/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
01/03/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
01/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
02/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
03/05/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
03/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
04/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
05/03/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
06/04/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
07/07/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
08/01/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
09/04/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/08/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/07/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
01/07/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
02/05/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
02/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
03/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
04/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
06/03/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
06/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
07/08/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
08/06/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
09/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/07/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
01/06/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
01/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
FEBRUARY 2014

Prepared by
SAVIN ENGINEERS, P.C.

MARCH 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
FEBRUARY 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

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MONTHLY REPORT
FEBRUARY 2014

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ONONDAGA COUNTY, NEW YORK
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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
FEBRUARY 2014

1. INTRODUCTION

This is the twenty-sixth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of February 1, 2014 through February 28, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- February 20
- February 21, and
- February 22

2. SUMMARY OF OVERFLOWS

There were three rainfall events that occurred on February 20, February 21 and February 22. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the three overflow events. Figures 1 through 4 show rainfall during the month of February.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 4, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 5 through 8. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of February.

CSO 004 (State Fair Blvd.) – During dry-weather, this site typically has 0.3 inches of standing water. Figure 1 shows the hydrograph for the period of February 1, 2014 through February 28, 2014. The flow monitor data shows that approximately 5,427 gallons overflowed intermittently for 10 hours on February 21 and approximately 1,108 gallons overflowed intermittently for 20 hours on February 22.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. There were no overflows during the month of February.

CSO 030 (West Jefferson St.) - There were no overflows during the month of February.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of February 1, 2014 through February 28, 2014. The flow monitor data shows that approximately 2,698 gallons overflowed for 22 minutes on February 20 and approximately 1,604,664 gallons overflowed intermittently for 17 hours on February 21.

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. There were no overflows during the month of February.

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 3 shows the hydrograph for the period of February 1, 2014 through February 28, 2014. The flow monitor data shows that approximately 656,762 gallons overflowed intermittently for 13.5 hours on February 21.

CSO 063 (Emerson Ave.) – There were no overflows during the month of February.

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 4 shows the hydrograph for the period of February 1, 2014 through February 28, 2014. The flow monitor data shows that approximately 909,561 gallons overflowed intermittently for 15 hours on February 21.

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - February 2014

	Location	2/20 Overflow Quantity (gal)	2/21 Overflow Quantity (gal)	2/22 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0
2	**CSO 004**	0	5,427	1,108	6,535
3	**CSO 014**	0	0	0	0
4	**CSO 018**	N/A	N/A	N/A	N/A
5	**CSO 030**	0	0	0	0
6	**CSO 034**	2,698	1,604,664	0	1,607,362
7	**CSO 044**	N/A	N/A	N/A	N/A
8	**CSO 052**	0	0	0	0
9	**CSO 060**	0	656,762	0	656,762
10	**CSO 063**	0	0	0	0
11	**CSO 077**	0	909,561	0	909,561
	TOTAL =	**2,698**	**3,176,414**	**1,108**	**3,180,220**

					Monthly Overflow Total (in)
12	**Rainfall Total:**	0.39	0.75	*Leftover from 2/21 rain*	1.14
13	**Average Rainfall Intensity:**	0.01	0.05		
14	**Peak Hourly Rainfall Intensity:**	0.12	0.21		

FIGURE 1

CSO 004 State Fair Blvd. Monthly Hydrograph

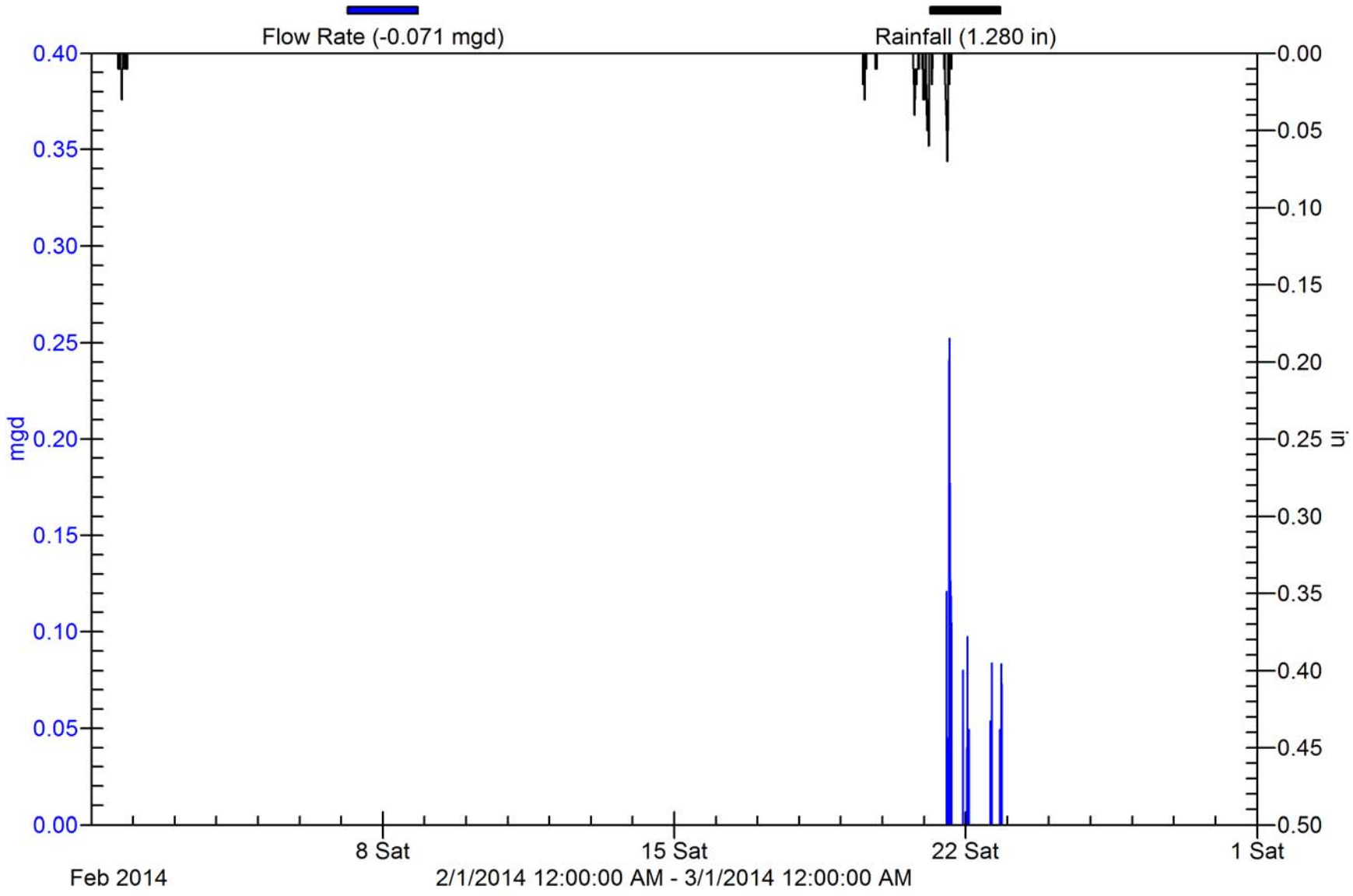


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

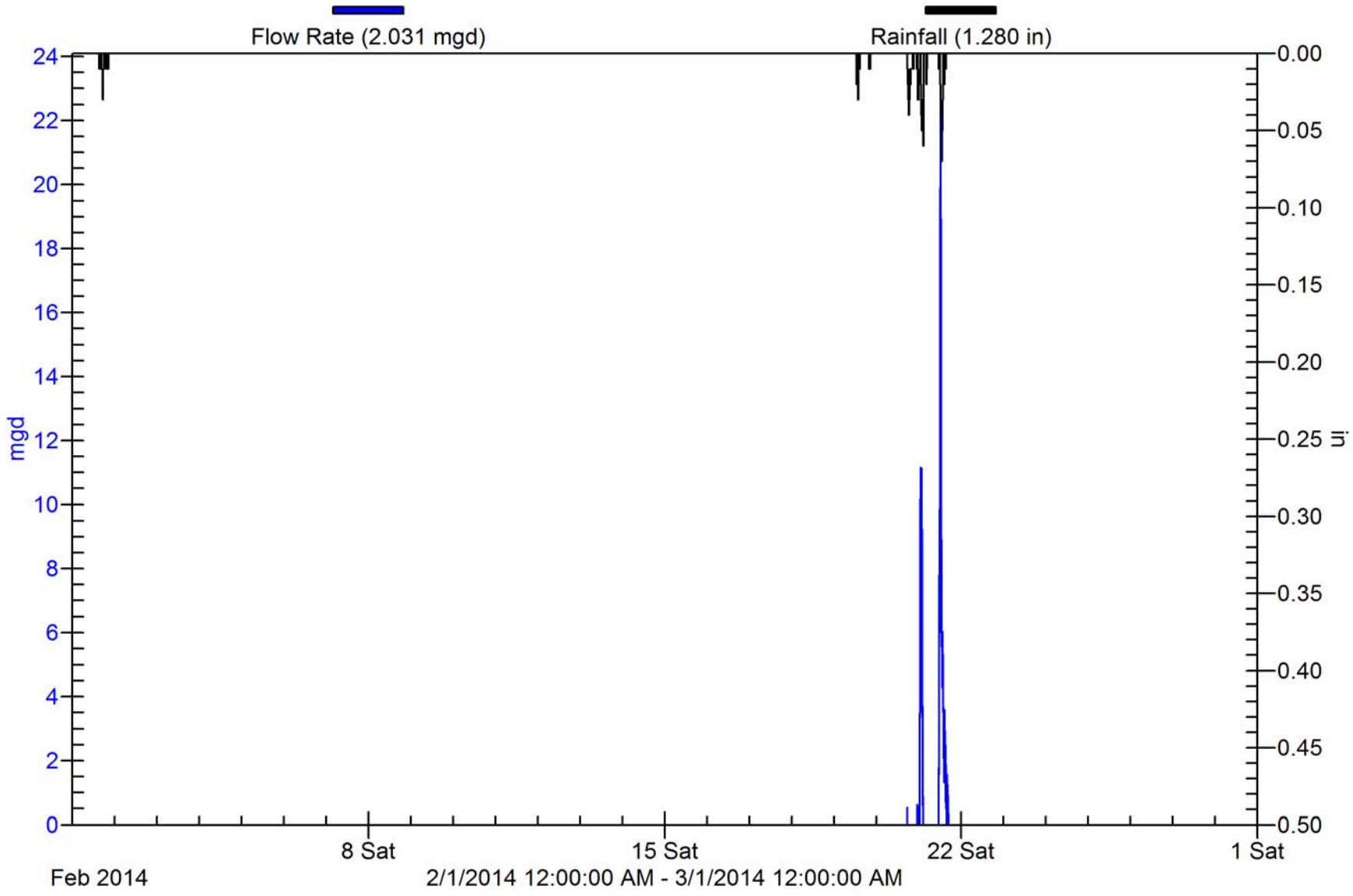


FIGURE 3

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

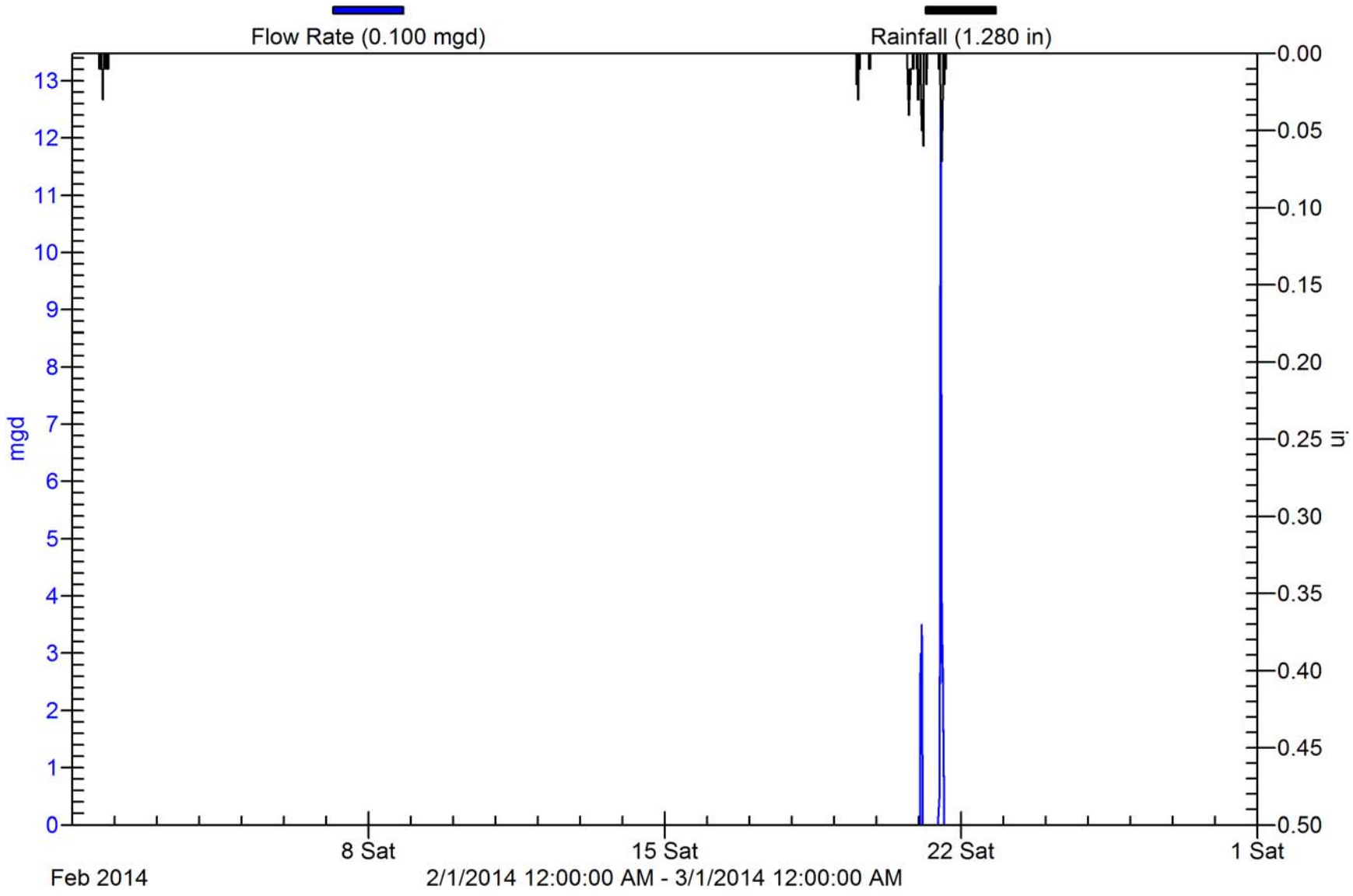


FIGURE 4

CSO 077 West Colvin Street - Midland Monthly Hydrograph

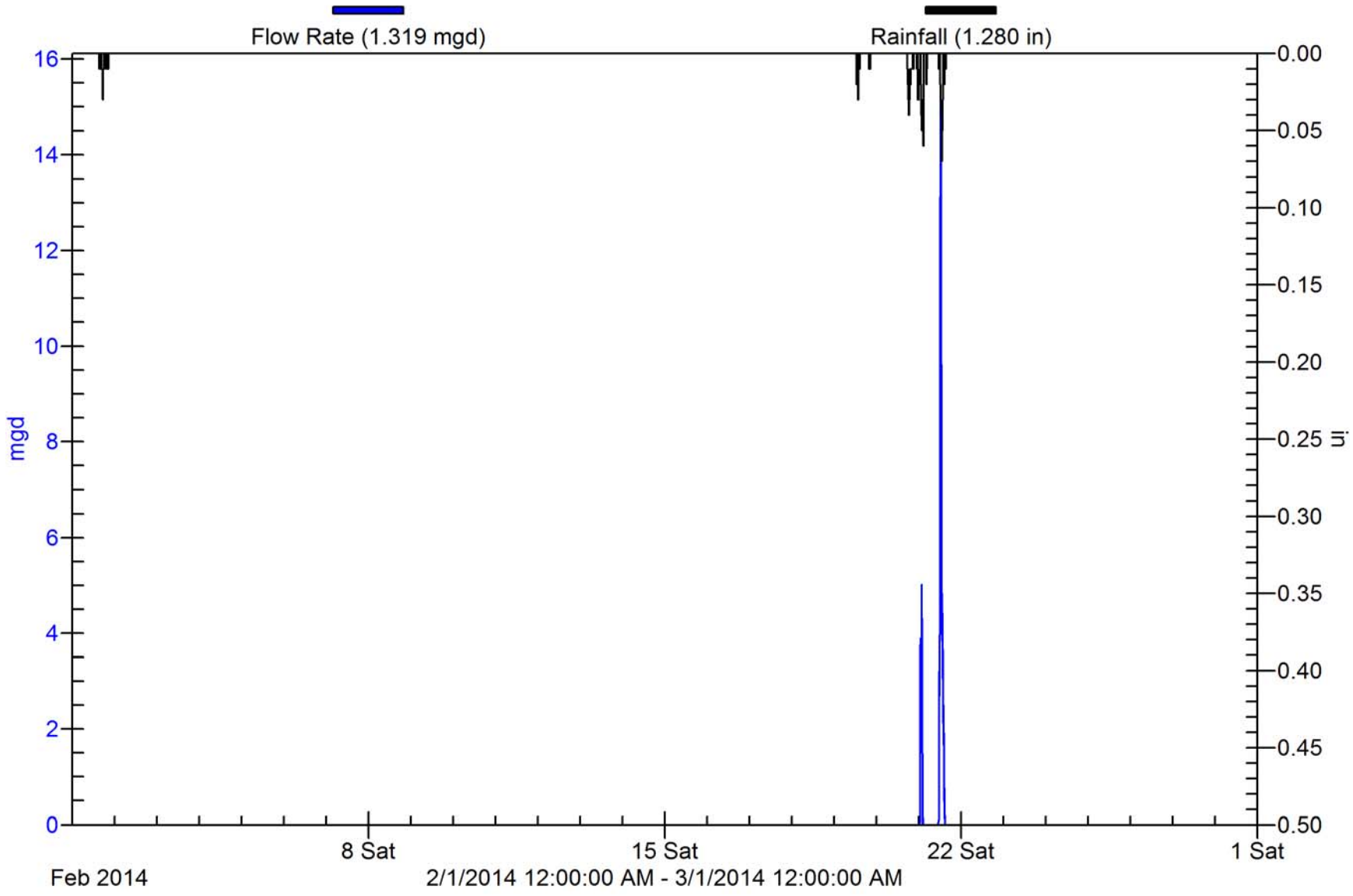
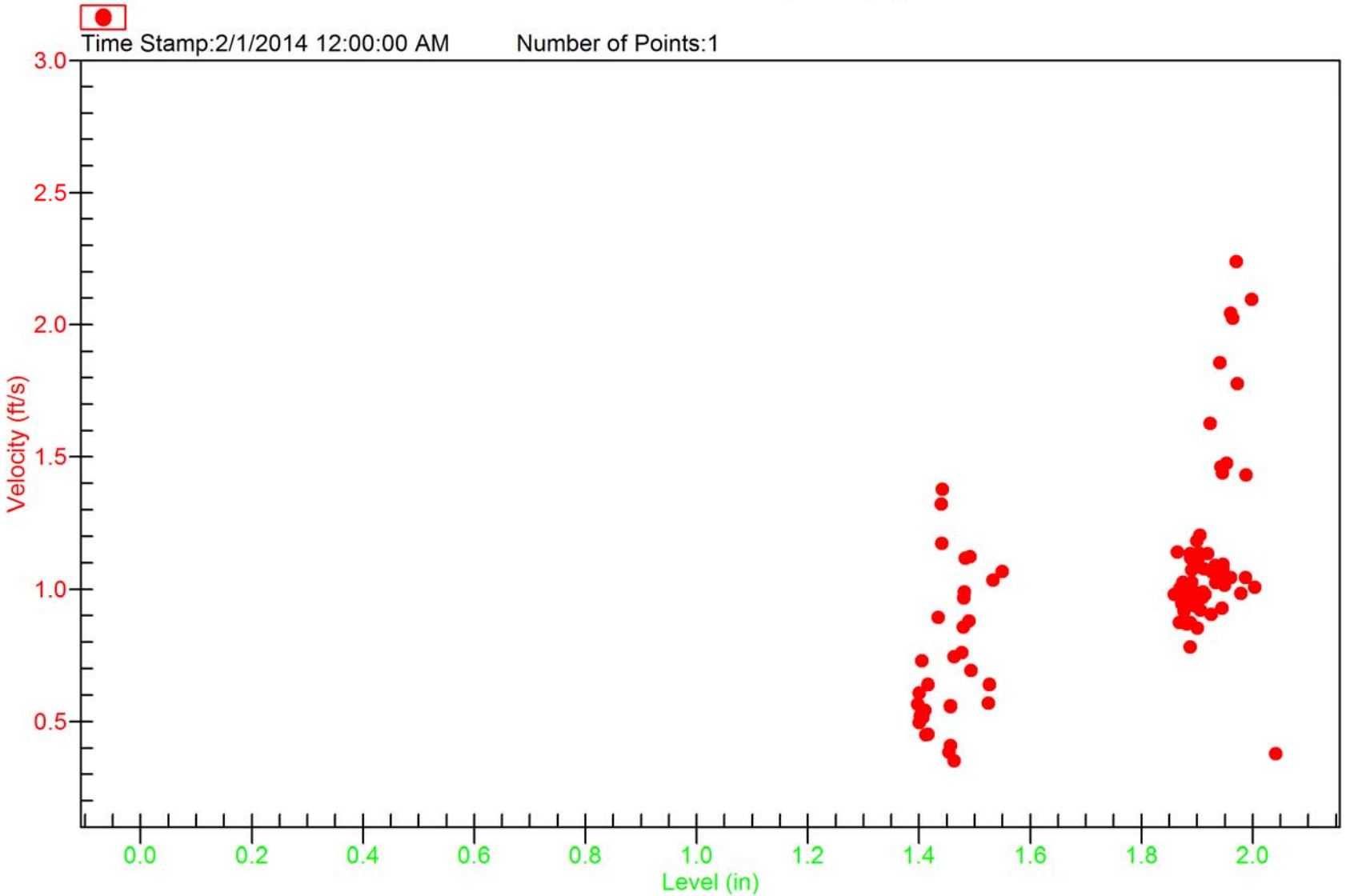


FIGURE 5

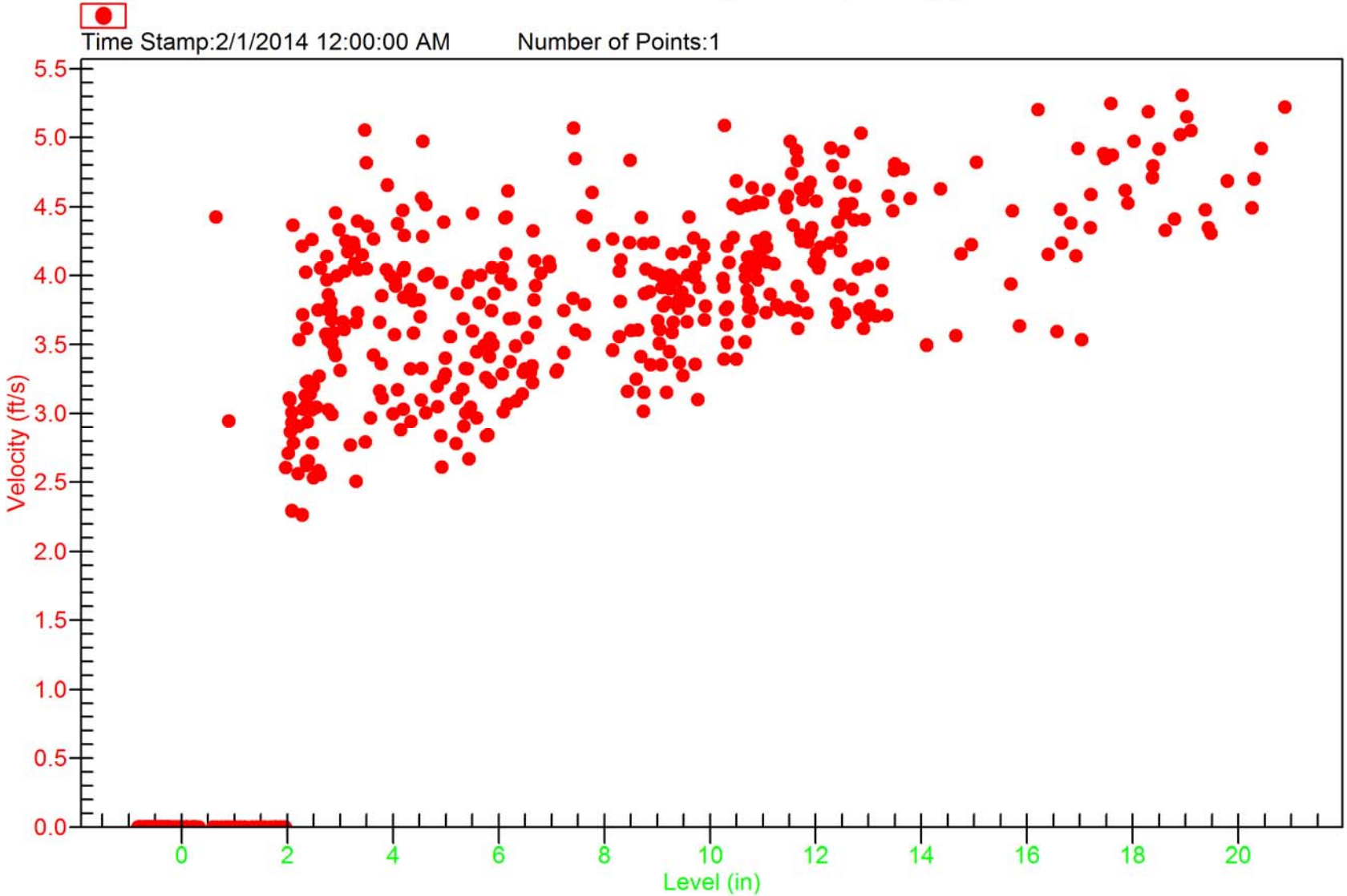
CSO 004 State Fair Blvd. Monthly Scattergraph



2/1/2014 12:00:00 AM - 3/1/2014 12:00:00 AM

FIGURE 6

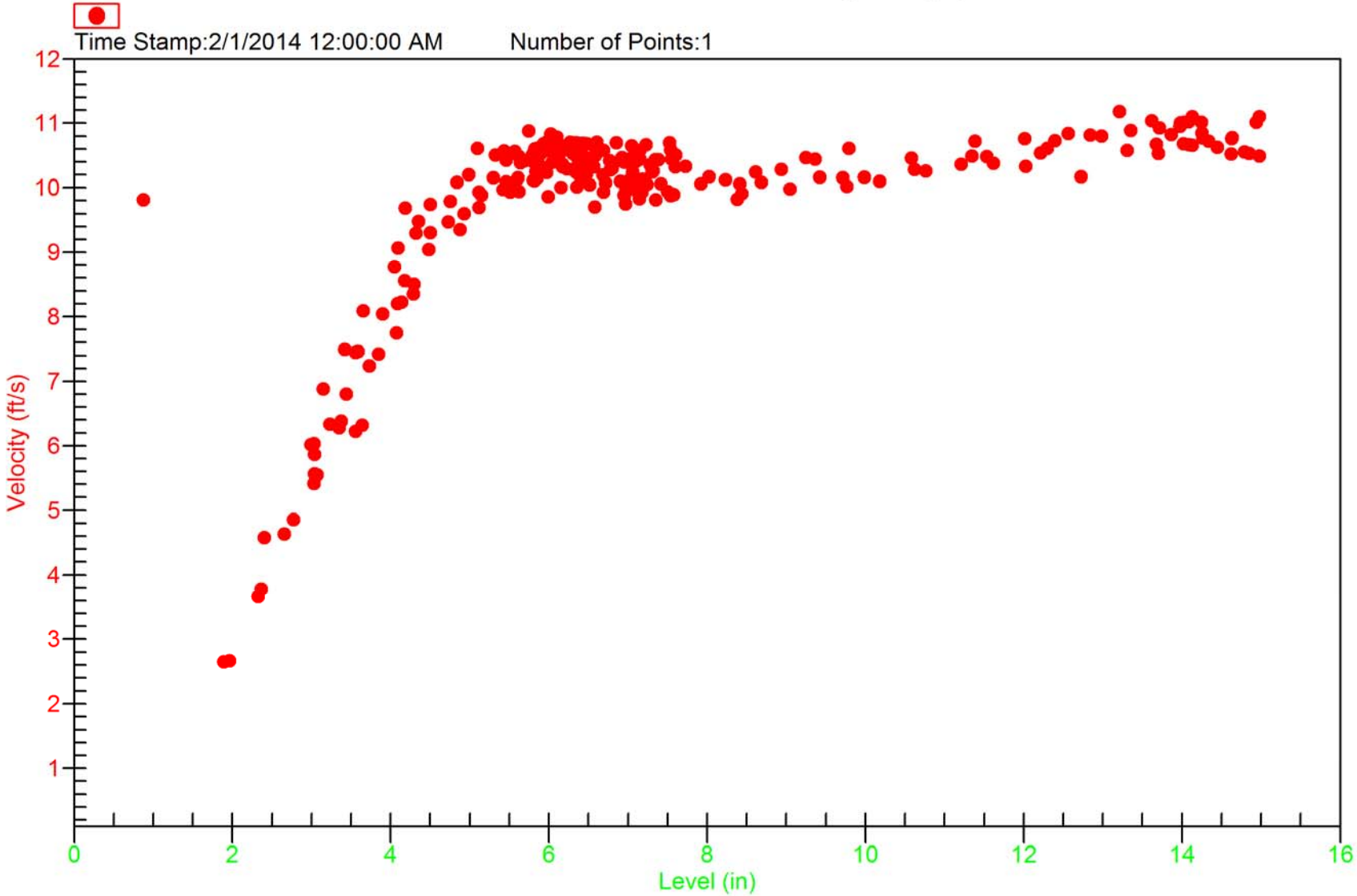
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



2/1/2014 12:00:00 AM - 3/1/2014 12:00:00 AM

FIGURE 7

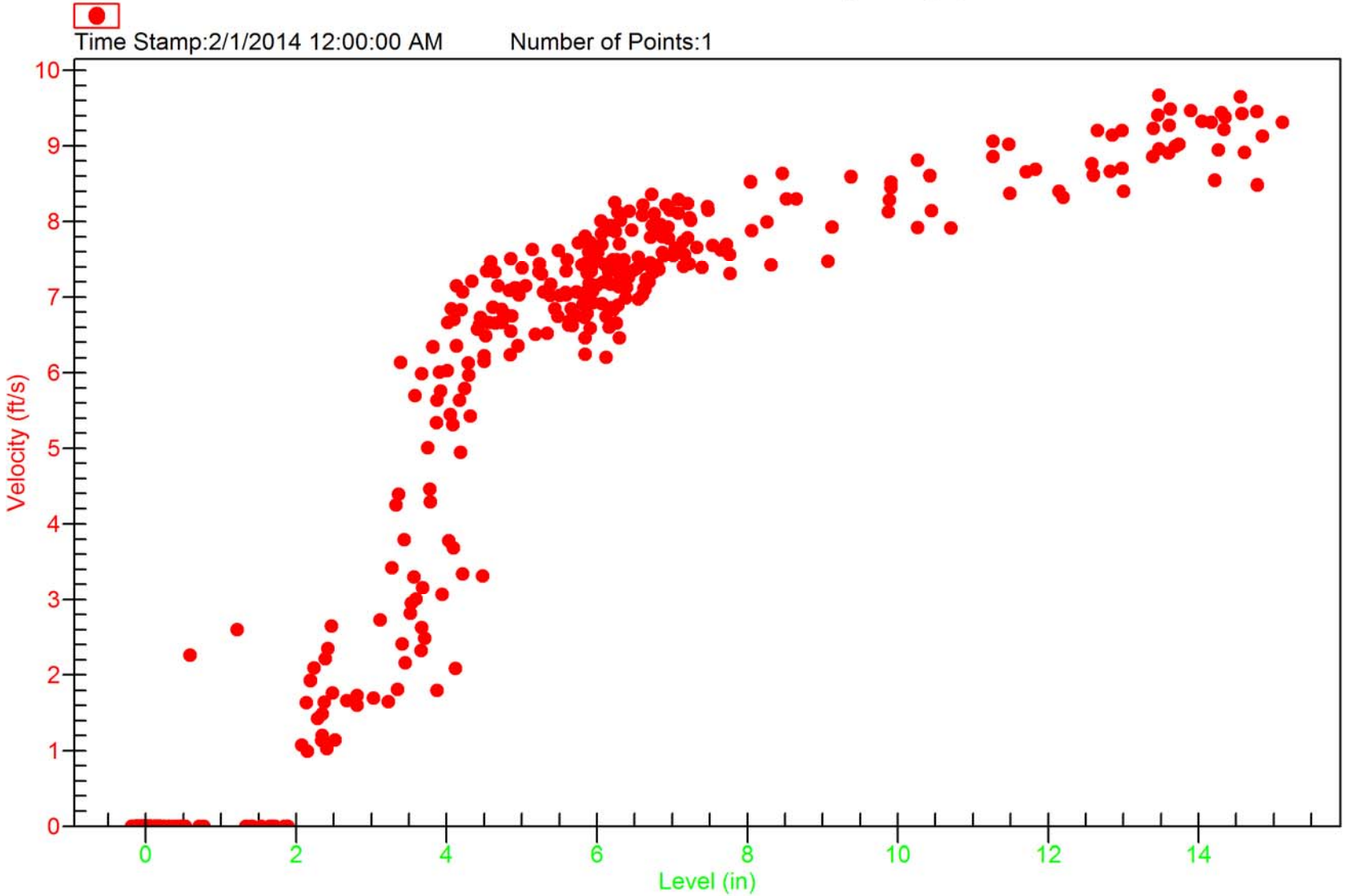
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



2/1/2014 12:00:00 AM - 3/1/2014 12:00:00 AM

FIGURE 8

CSO 077 West Colvin Street - Midland Monthly Scattergraph



2/1/2014 12:00:00 AM - 3/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. ______ MH DEPTH: ______
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No.
PROBE No.
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP	
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 State Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.

9148157913

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT
12/05/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT
12/06/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT
01/03/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT
01/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT
03/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS
04/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS
04/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS
05/03/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS
06/04/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS
07/07/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS
08/01/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS
09/04/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM
09/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS
10/08/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS
11/07/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT
01/07/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT
03/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP
04/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP
06/03/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP
07/08/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP
08/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP
09/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P
01/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP
01/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP
02/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. MH DEPTH:
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00211
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Delaware St. & Amy St.

9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 W. Jefferson Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. 308

9148066825

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO	PROJECT No.	1130.04.01
ENGINEER:	CDM / C&S	DATE:	11/21/11 TIME: 8:00
OWNER:	Onondaga County	INSTALLER:	RT JP
SITE NAME:	CSO 034 Clinton & West Onondaga Street	LOGGER No.	208E01109
M.H. No.	MH DEPTH:	PROBE No.	211L01001
PIPE SIZE	72 TYPE: PVC	BATTERY TYPE:	6 volt lantern

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:	
INVERT CONDITION:	Smooth:	X	Rough:	In-Between
PROBE MOUNTED:	On Invert:	X	Side of Pipe:	
ACTUAL PROBE OFFSET:			INCHES	
COMMENTS:	Clinton Street & Gilford Street			

9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 052 Hunt Street & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.

9148198097

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/05/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/06/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
01/03/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
01/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
02/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
03/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
04/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
05/03/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
06/04/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
07/07/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
08/01/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
09/04/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/08/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/08/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/07/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
01/07/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
01/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
02/05/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
02/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
03/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
04/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
06/03/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
07/08/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
08/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
09/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
01/06/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
01/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
02/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 060 West Colvin Street & Kirk Park Drive
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST

9148747350

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/05/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/05/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/06/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
01/03/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
01/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
03/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
04/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
05/03/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
06/04/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
07/07/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
08/01/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
09/04/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/08/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/07/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
01/07/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
01/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
02/05/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
02/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
03/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
04/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
06/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
07/08/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
08/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
09/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
01/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
02/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 063 Emerson Avenue
M.H. No. MH DEPTH:
PIPE SIZE 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 914 Emerson Ave. in sidewalk

9148606821

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/05/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/06/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
01/03/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
01/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
03/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
04/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
05/03/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
05/03/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
05/03/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
06/04/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
07/07/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
08/01/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
09/04/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/08/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/07/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
01/07/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
02/05/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
02/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
03/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
04/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
06/03/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
07/08/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
08/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
09/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/07/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
01/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
02/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 077 West Colvin Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street

9143556375

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/05/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/06/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
01/03/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
01/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
02/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
03/05/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
03/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
04/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
05/03/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
06/04/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
07/07/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
08/01/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
09/04/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/08/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/07/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
01/07/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
02/05/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
02/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
03/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
04/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
06/03/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
06/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
07/08/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
08/06/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
09/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/07/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/2014	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
01/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
02/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
MARCH 2014

Prepared by
SAVIN ENGINEERS, P.C.

APRIL 2014

ONONDAGA COUNTY, NEW YORK

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ONONDAGA COUNTY, NEW YORK
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11	CSO 004 Monthly Scattergraph
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ONONDAGA COUNTY, NEW YORK
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FIGURE	TITLE
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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
MARCH 2014

1. INTRODUCTION

This is the twenty-seventh monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of March 1, 2014 through March 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- March 28
- March 29, and
- March 30

2. SUMMARY OF OVERFLOWS

There were three rainfall events that occurred on March 28, March 29 and March 30. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the three overflow events. Figures 1 through 9 show rainfall during the month of March.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 9, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 10 through 16. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – Figure 1 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 28,156 gallons overflowed intermittently for 2.5 hours on March 30.

CSO 004 (State Fair Blvd.) – During dry-weather, this site typically has 0.3 inches of standing water. Figure 2 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 2,099 gallons overflowed intermittently for 3.75 hours on March 28, approximately 5,091 gallons overflowed intermittently for 24 hours on March 29 and approximately 4,199 gallons overflowed intermittently for 5.5 hours on March 30.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 3 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 6,126 gallons overflowed for 9 minutes on March 29 and approximately 111,541 gallons overflowed for 65 minutes on March 30.

CSO 030 (West Jefferson St.) - Figure 4 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 69,345 gallons overflowed for 15 minutes on March 29 and approximately 1,018,111 gallons overflowed intermittently for 7.5 hours on March 30.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 5 shows the

hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 2,232,631 gallons overflowed intermittently for 4.25 hours on March 29 and approximately 3,615,118 gallons overflowed intermittently for 15.25 hours on March 30.

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 6 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 299,042 gallons overflowed intermittently for 4.5 hours on March 29 and approximately 423,118 gallons overflowed intermittently for 8.75 hours on March 30.

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 7 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 959,822 gallons overflowed intermittently for 3.75 hours on March 29 and approximately 1,473,300 gallons overflowed intermittently for 7.75 hours on March 30.

CSO 063 (Emerson Ave.) – Figure 8 shows the hydrograph for the period of March 1, 2014 through March 31, 2014. The flow monitor data shows that approximately 984 gallons overflowed for 65 minutes on March 20, approximately 54,675 gallons overflowed intermittently for 4 hours on March 29 and approximately 292,225 gallons overflowed intermittently for 14.75 hours on March 30.

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 9 shows the hydrograph for the period of March 1,

2014 through March 31, 2014. The flow monitor data shows that approximately 1,550,063 gallons overflowed intermittently for 4 hours on March 29 and approximately 1,754,605 gallons overflowed intermittently for 5.5 hours on March 30.

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - March 2014

	Location	3/28 Overflow Quantity (gal)	3/29 Overflow Quantity (gal)	3/30 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	28,156	28,156
2	**CSO 004**	2,099	5,091	4,199	11,389
3	**CSO 014**	0	6,126	111,541	117,667
4	**CSO 018**	N/A	N/A	N/A	N/A
5	**CSO 030**	0	69,345	1,018,111	1,087,456
6	**CSO 034**	0	2,232,631	3,615,118	5,847,749
7	**CSO 044**	N/A	N/A	N/A	N/A
8	**CSO 052**	0	299,042	423,118	722,160
9	**CSO 060**	0	959,822	1,473,300	2,433,122
10	**CSO 063**	977	54,320	292,225	347,522
11	**CSO 077**	0	1,550,063	1,754,605	3,304,668
	TOTAL =	**3,076**	**5,176,440**	**8,720,373**	**13,899,889**

					Monthly Overflow Total (in)
12	**Rainfall Total:**	0.26	1.10	0.59	1.95
13	**Average Rainfall Intensity:**	0.02	0.06	0.05	
14	**Peak Hourly Rainfall Intensity:**	0.11	0.28	0.19	

FIGURE 1

CSO 003A Hiawatha Boulevard Monthly Hydrograph

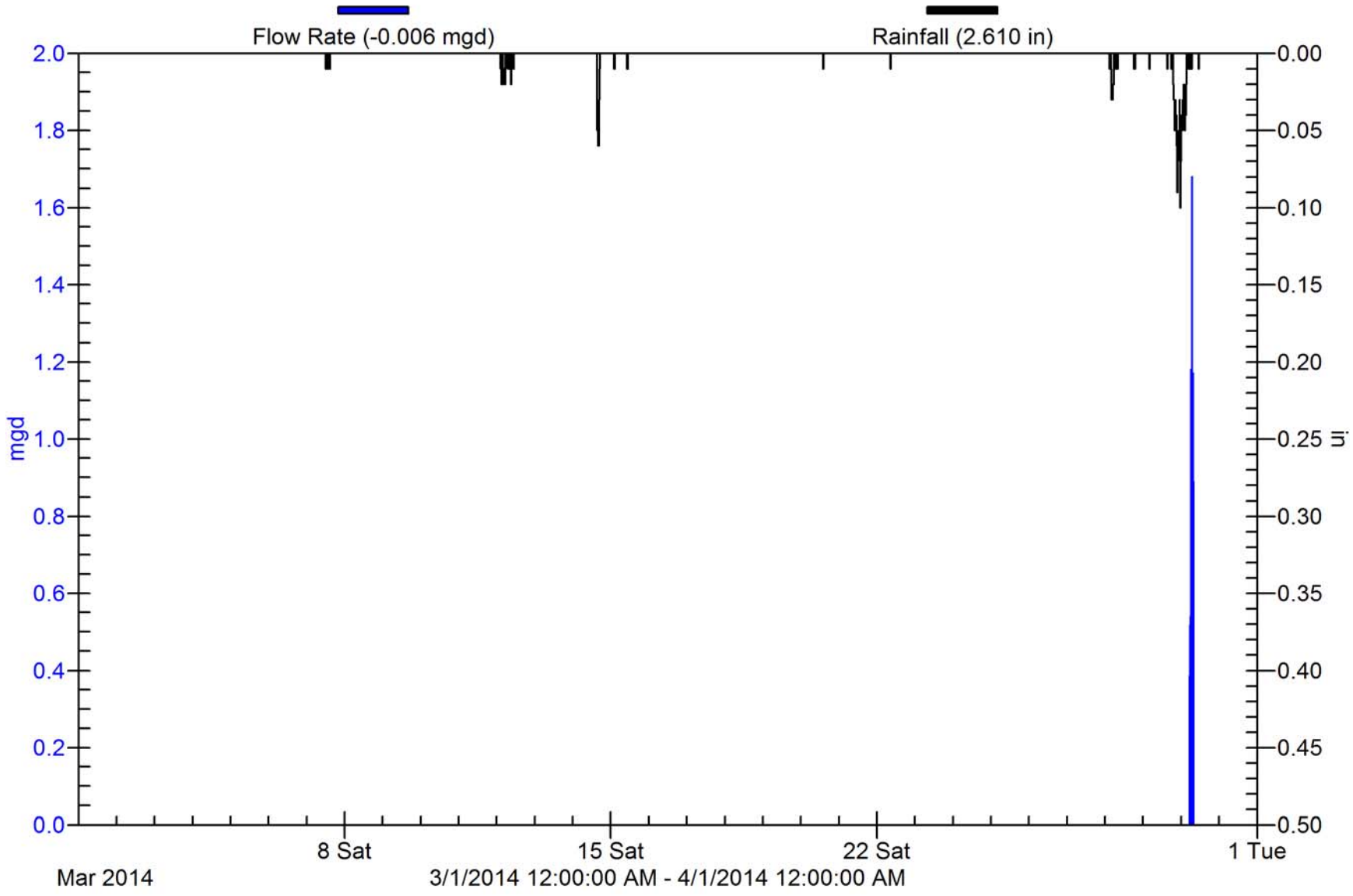


FIGURE 2

CSO 004 State Fair Blvd. Monthly Hydrograph

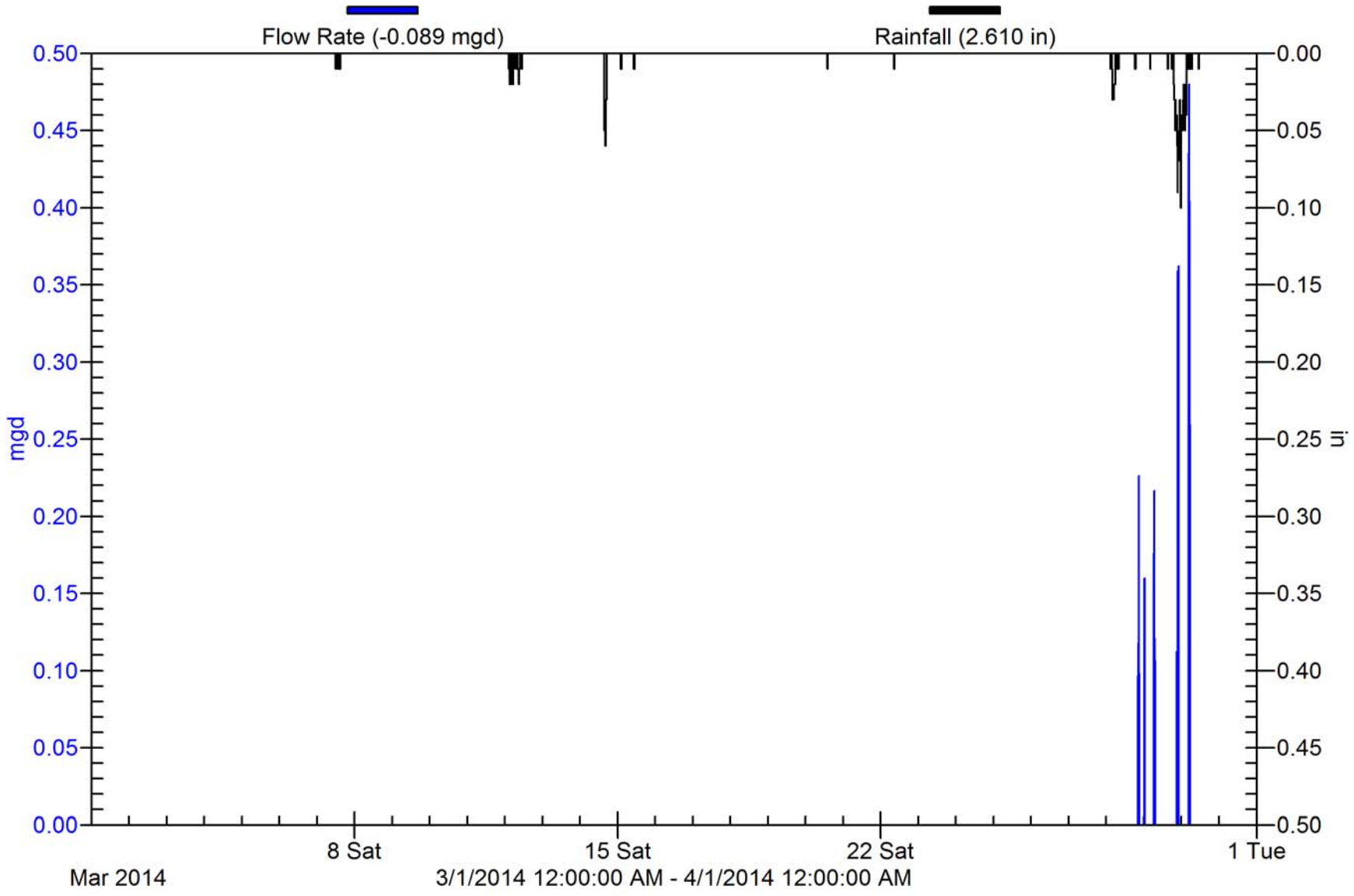


FIGURE 3

CSO 014 Delaware Street Monthly Hydrograph

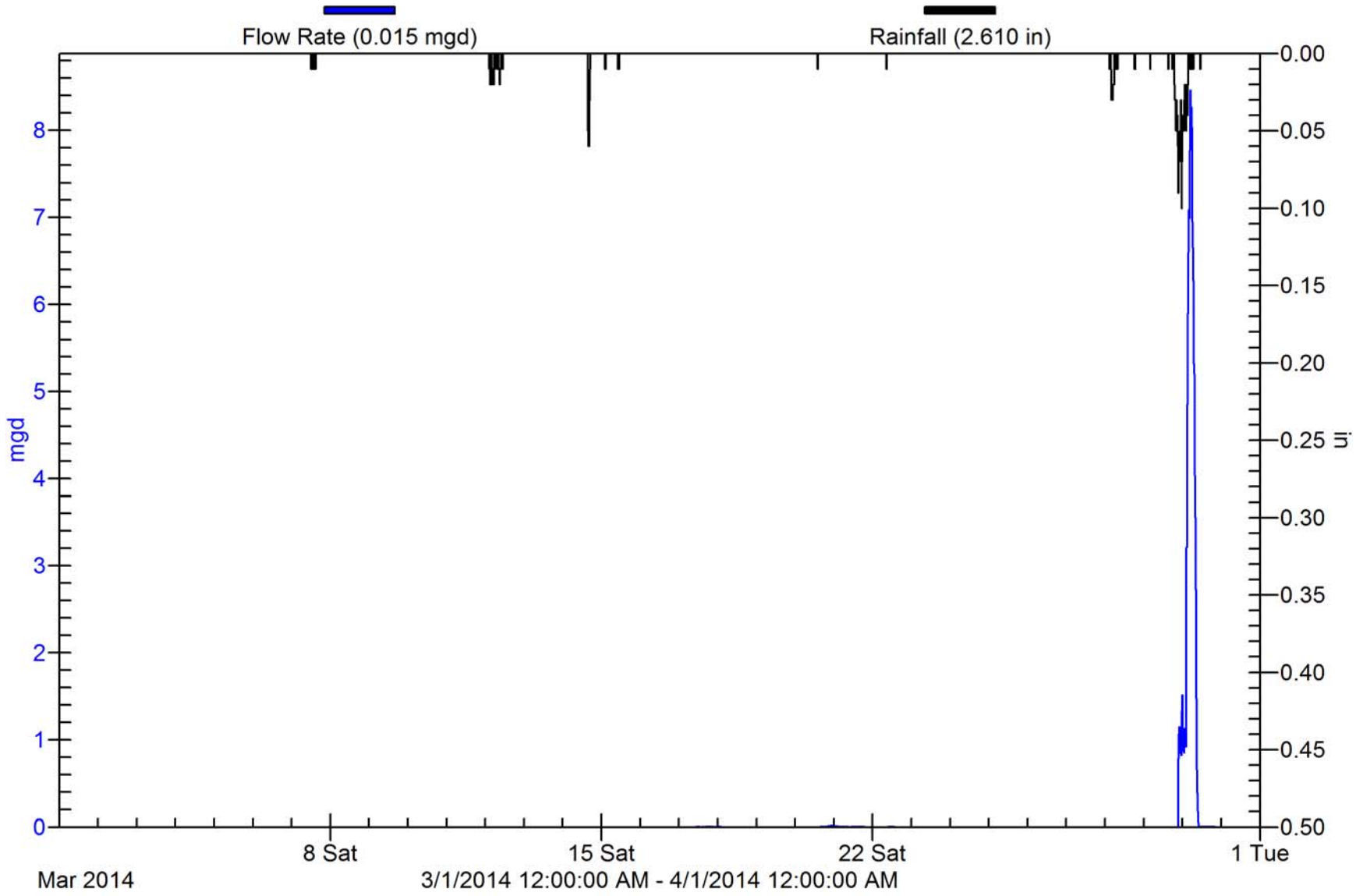


FIGURE 4

CSO 030 W. Jefferson Street (East of Monthly Hydrograph

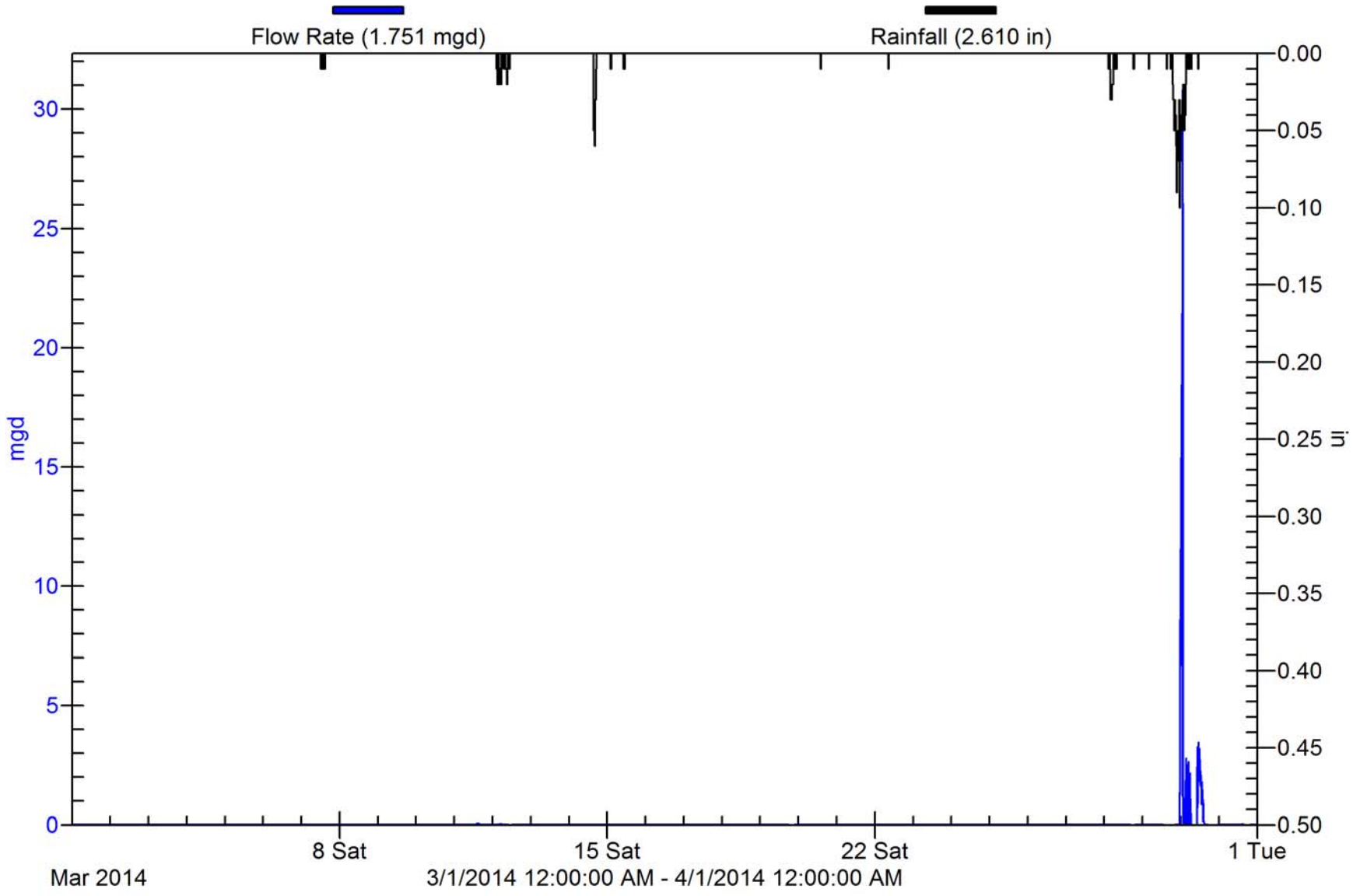


FIGURE 5

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

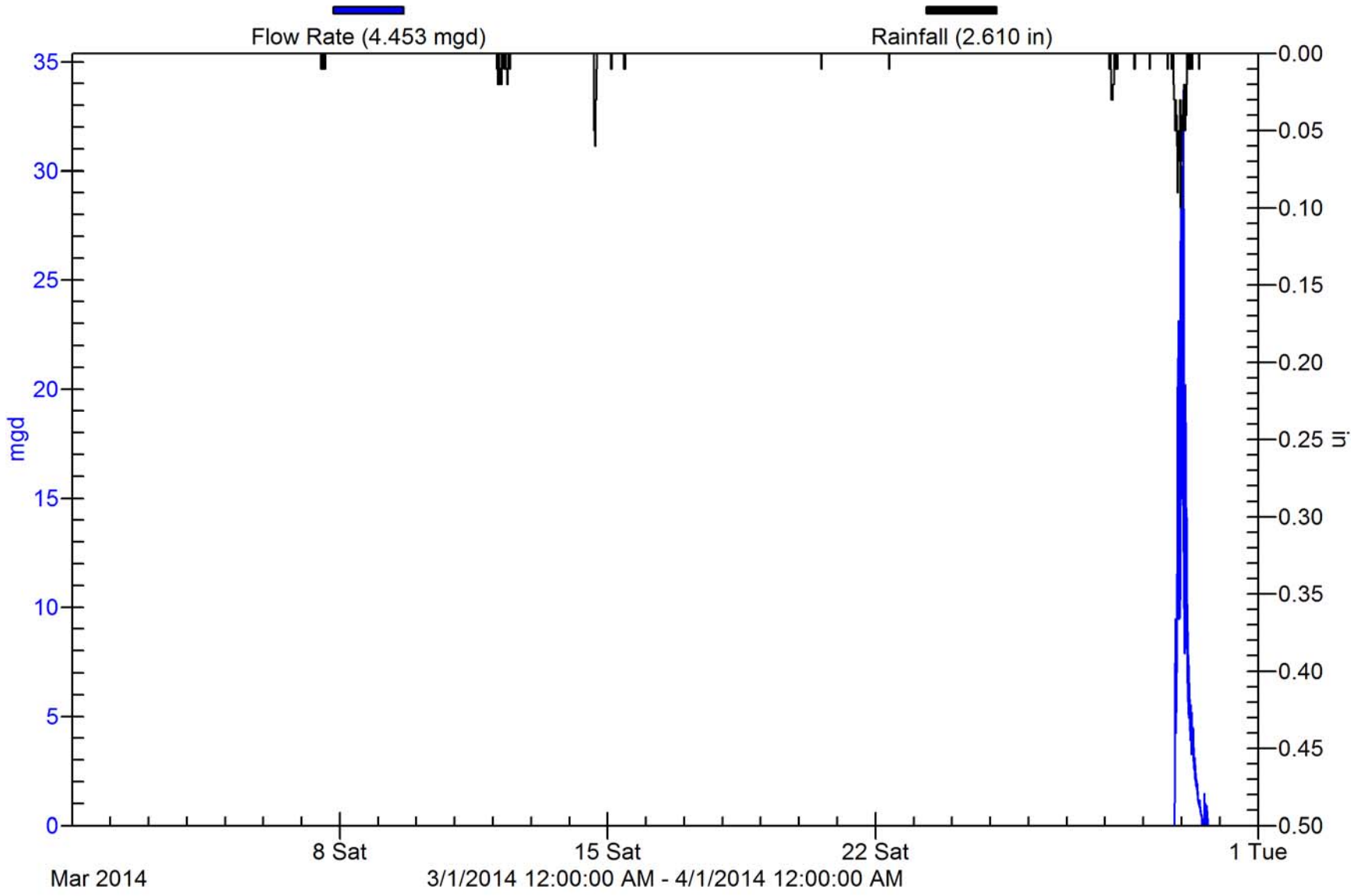


FIGURE 6

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

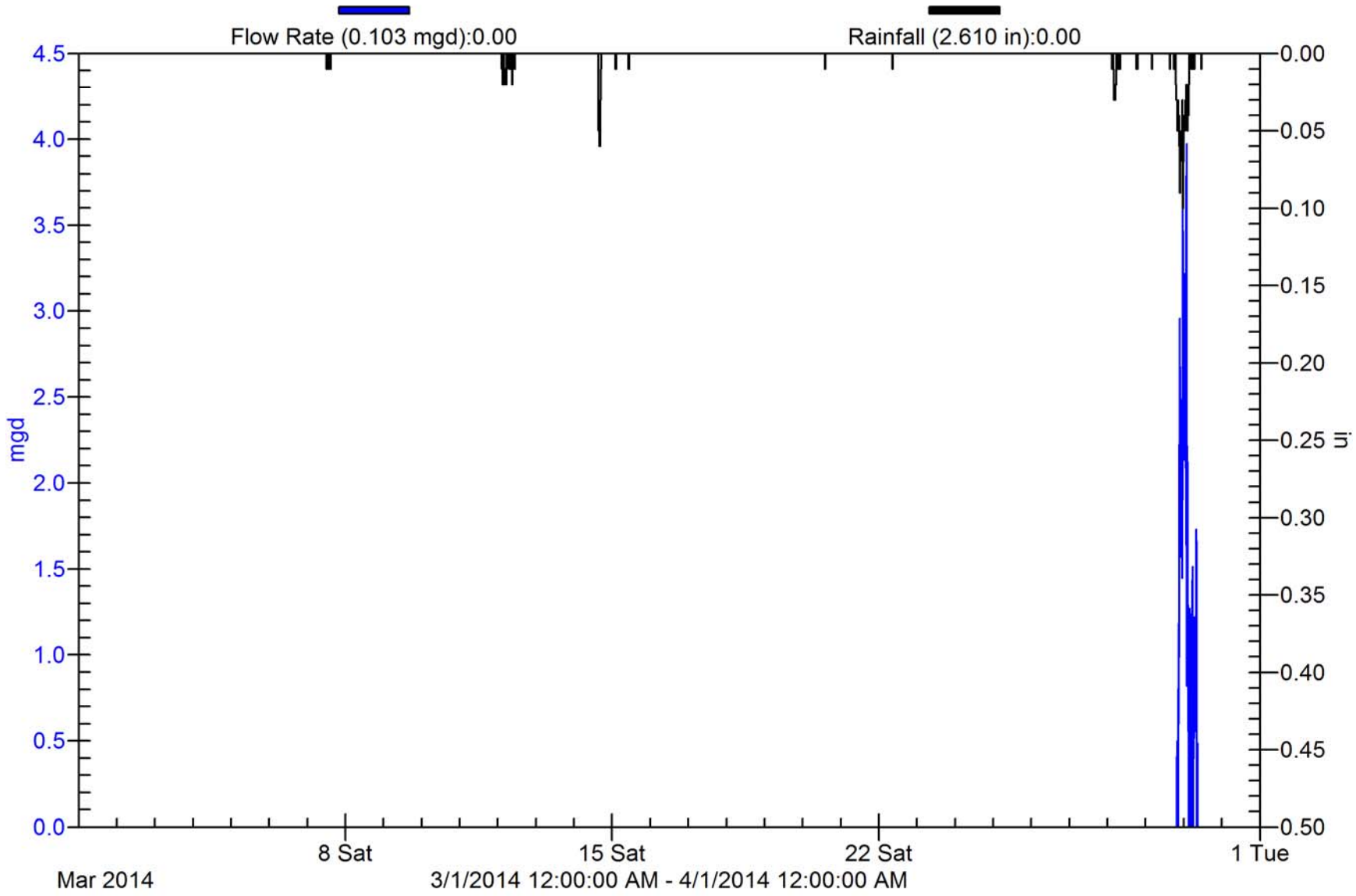


FIGURE 7

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

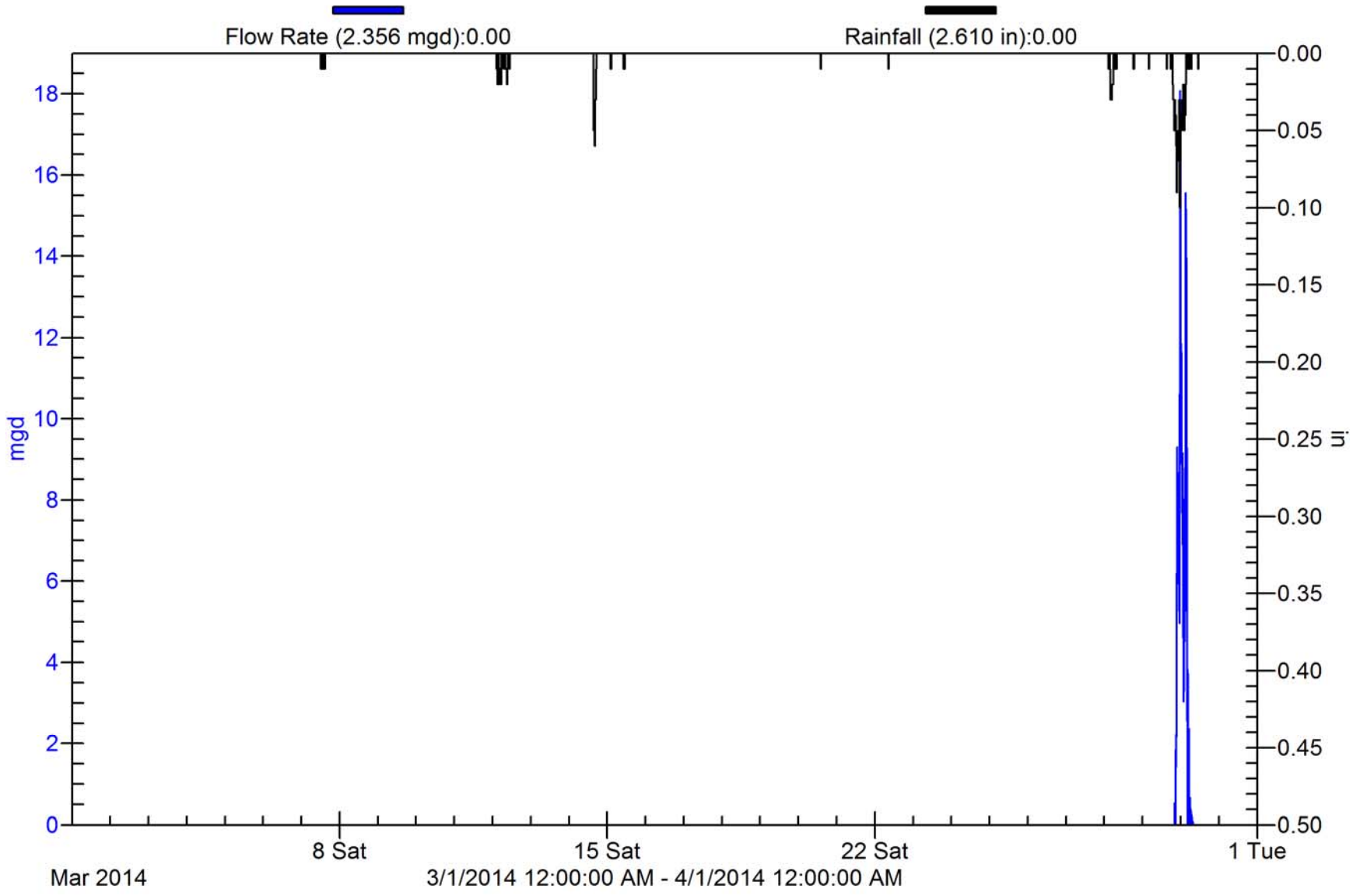


FIGURE 8

CSO 063 Emerson Avenue Monthly Hydrograph

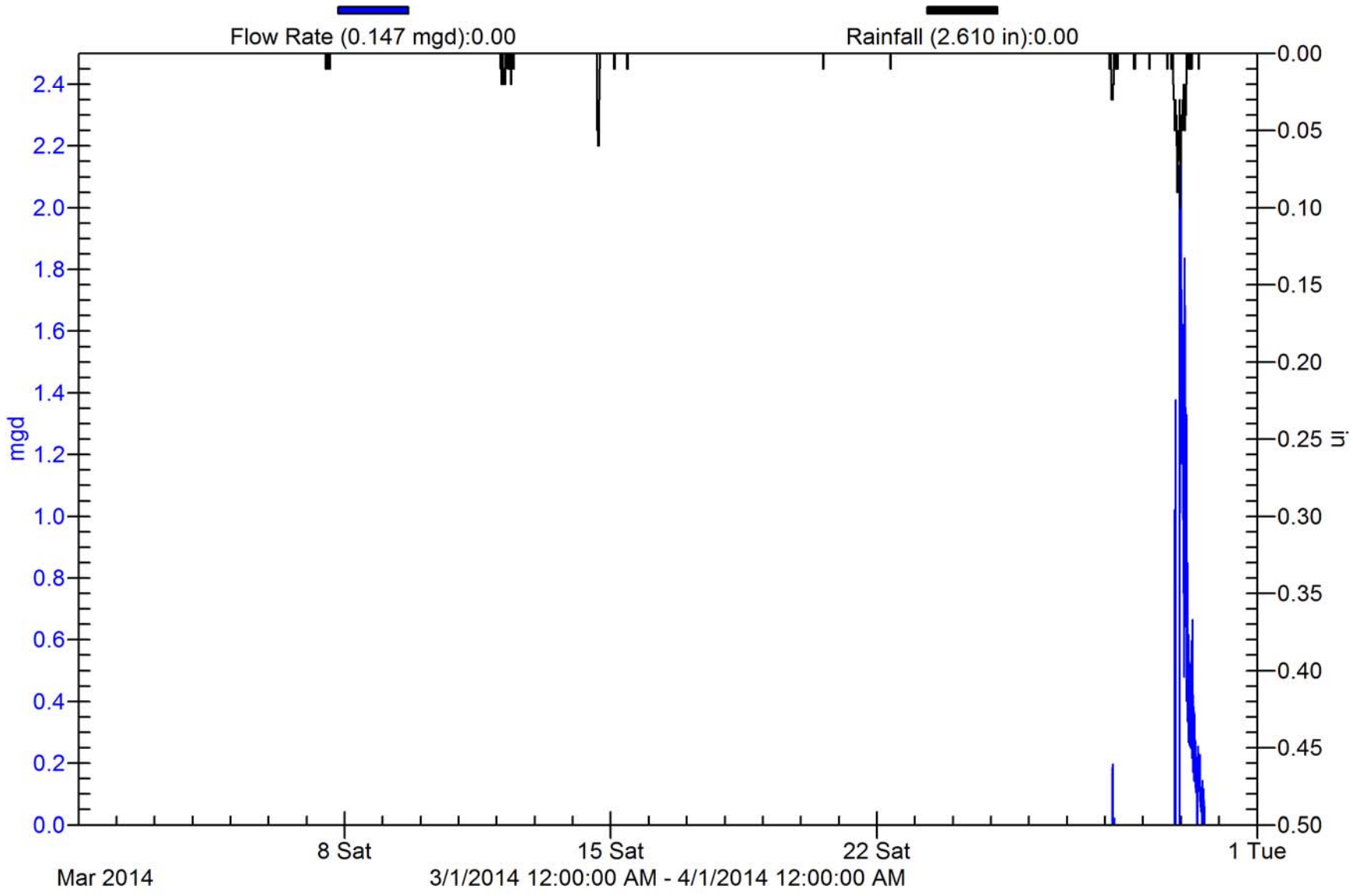


FIGURE 9

CSO 077 West Colvin Street - Midland Monthly Hydrograph

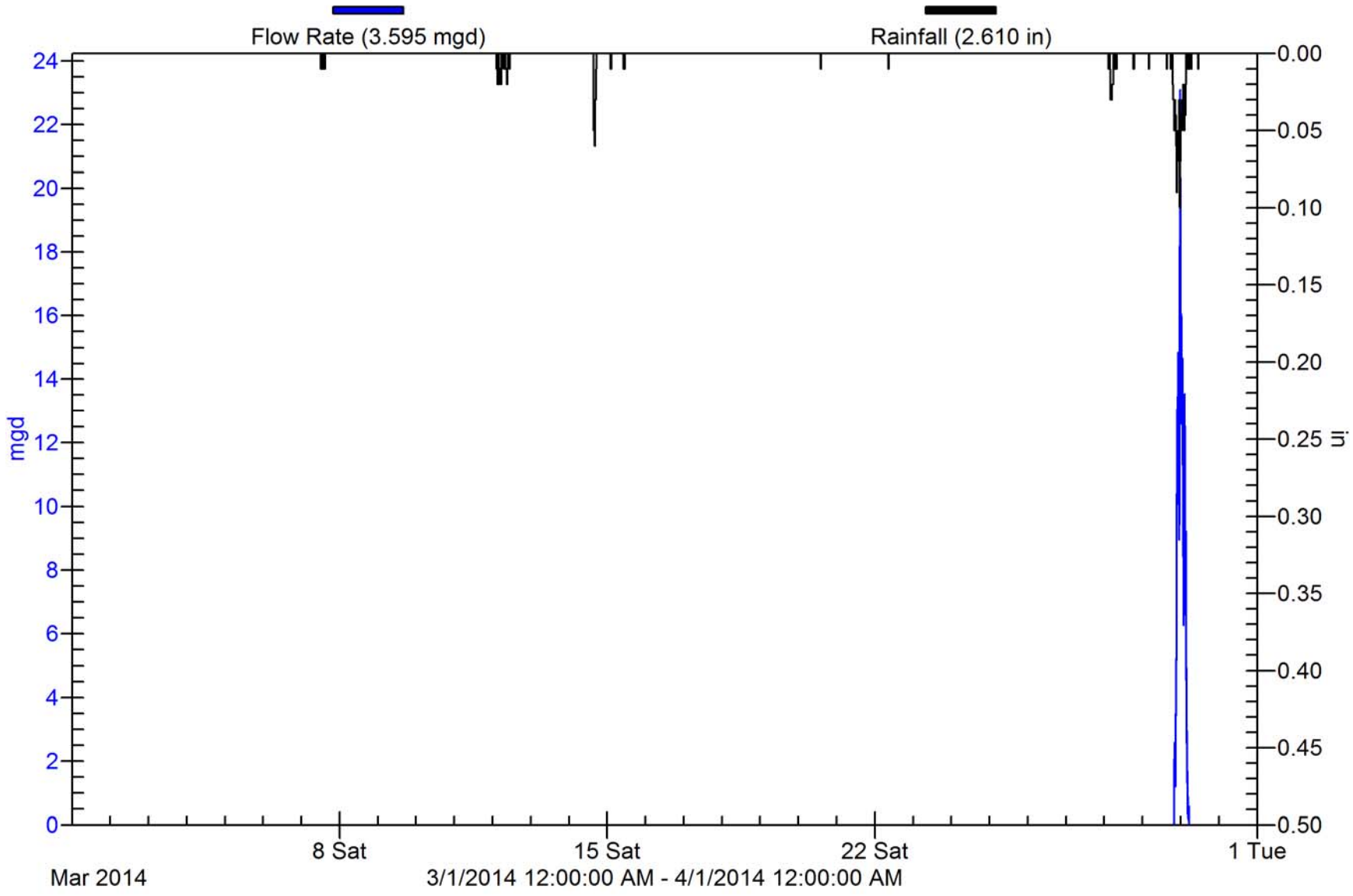
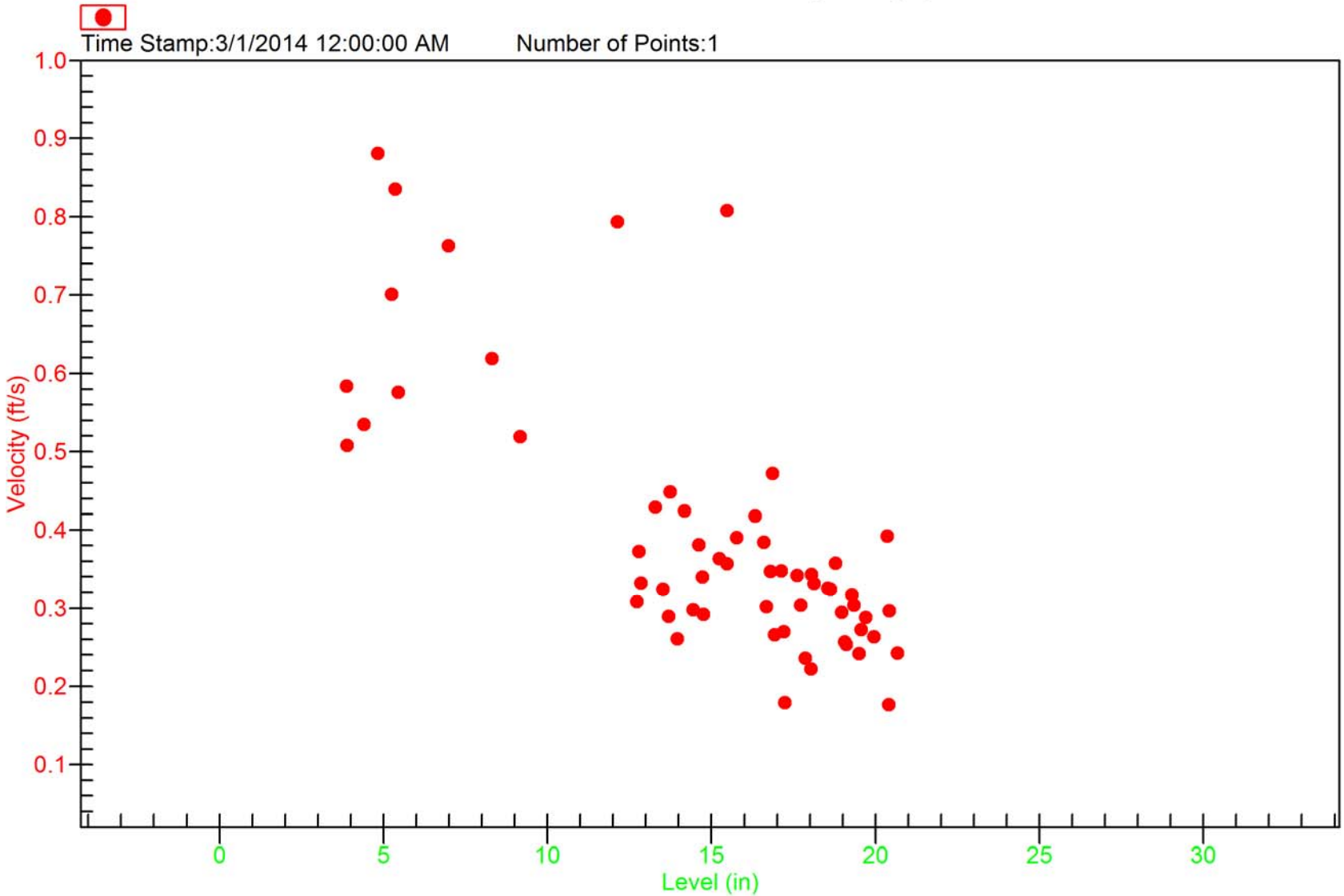


FIGURE 10

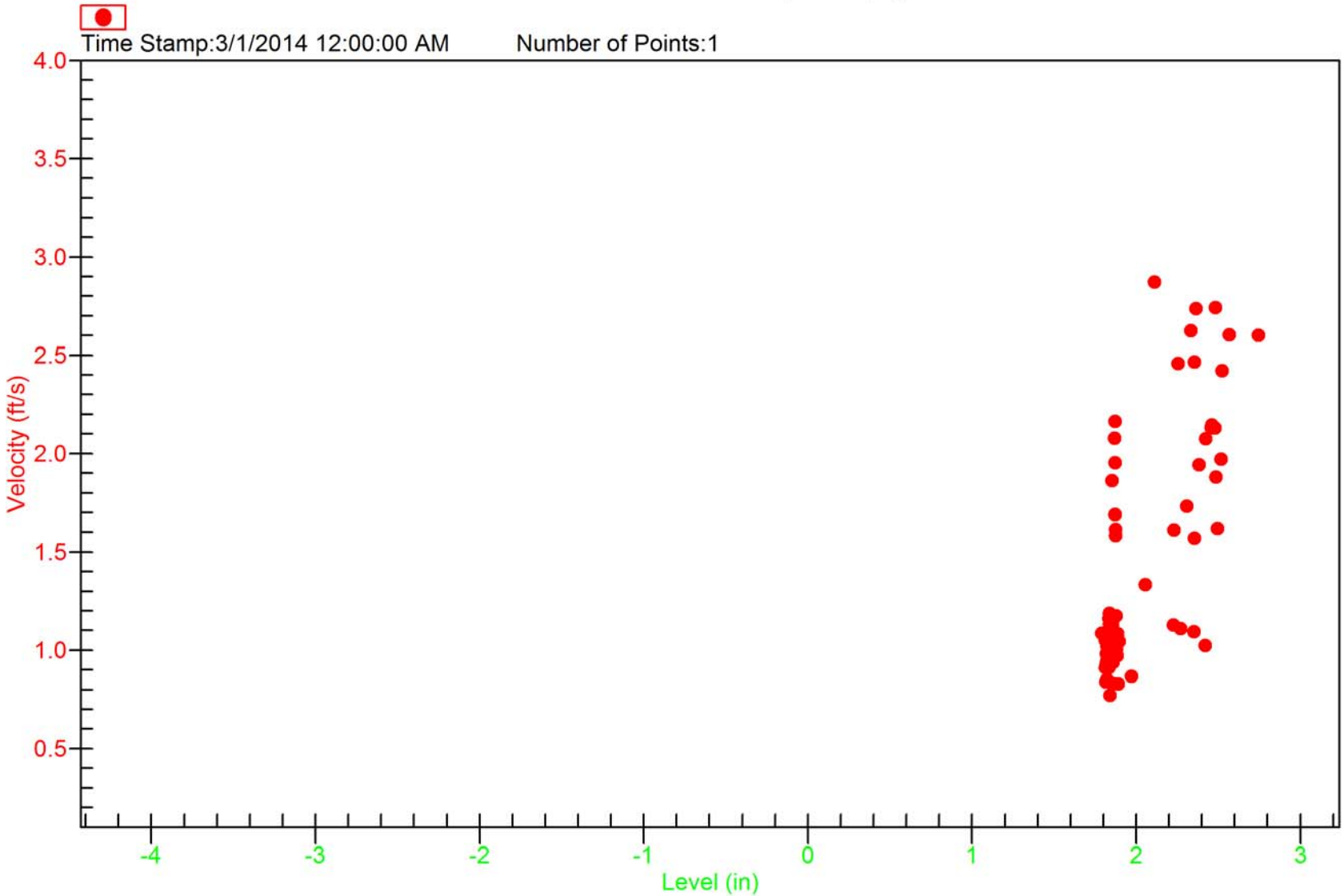
CSO 003A Hiawatha Boulevard Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

FIGURE 11

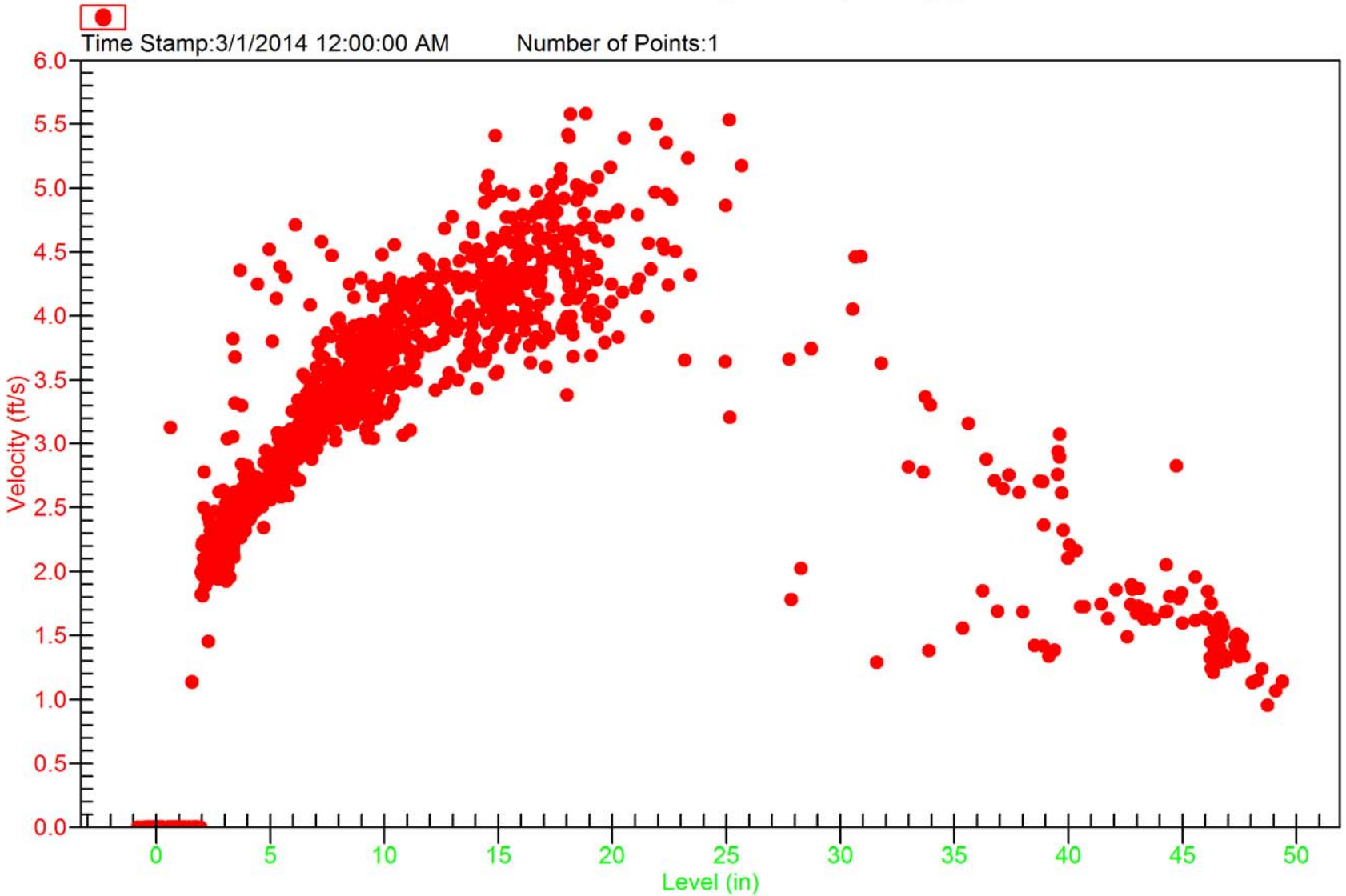
CSO 004 State Fair Blvd. Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

FIGURE 12

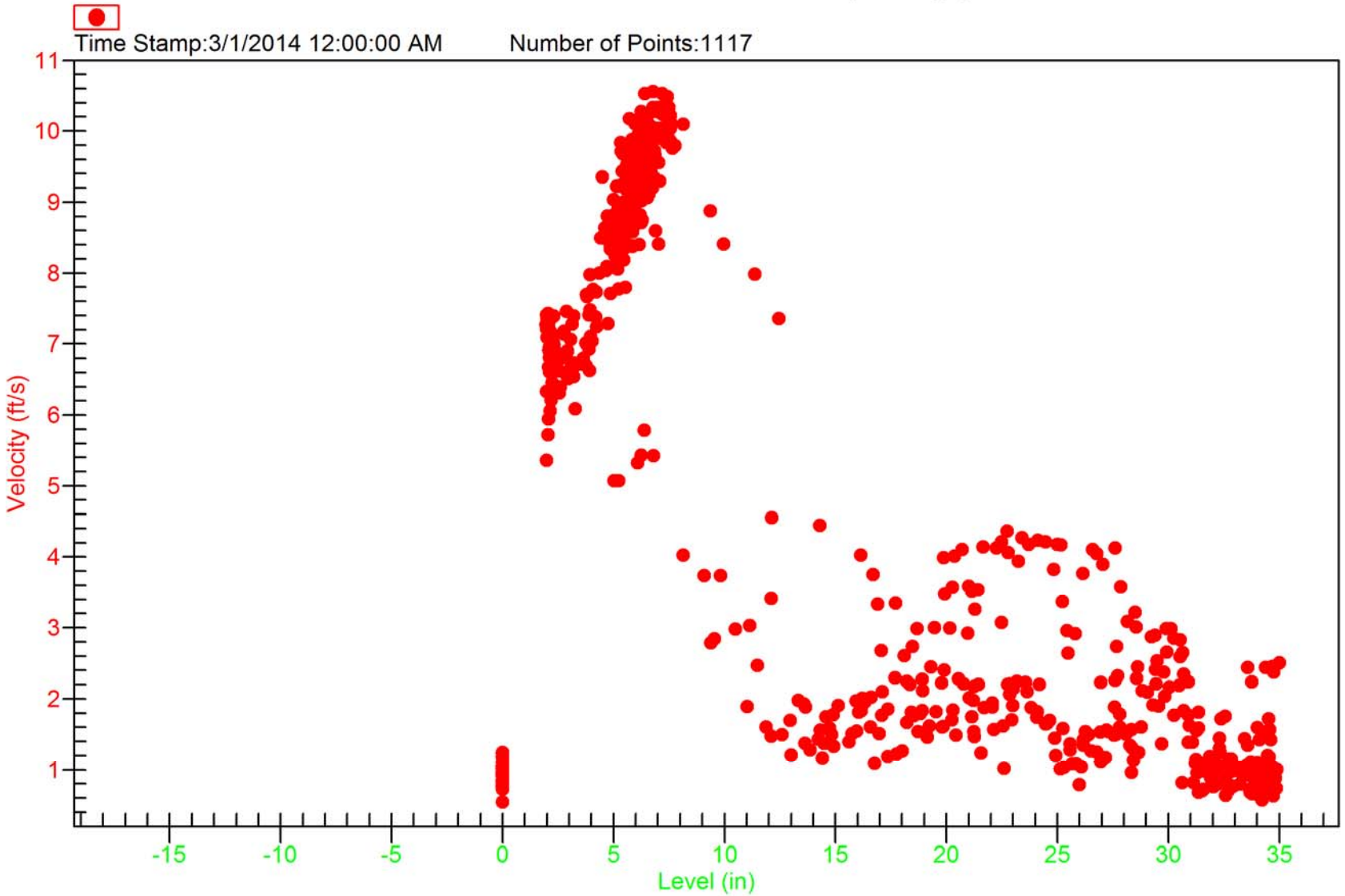
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

FIGURE 13

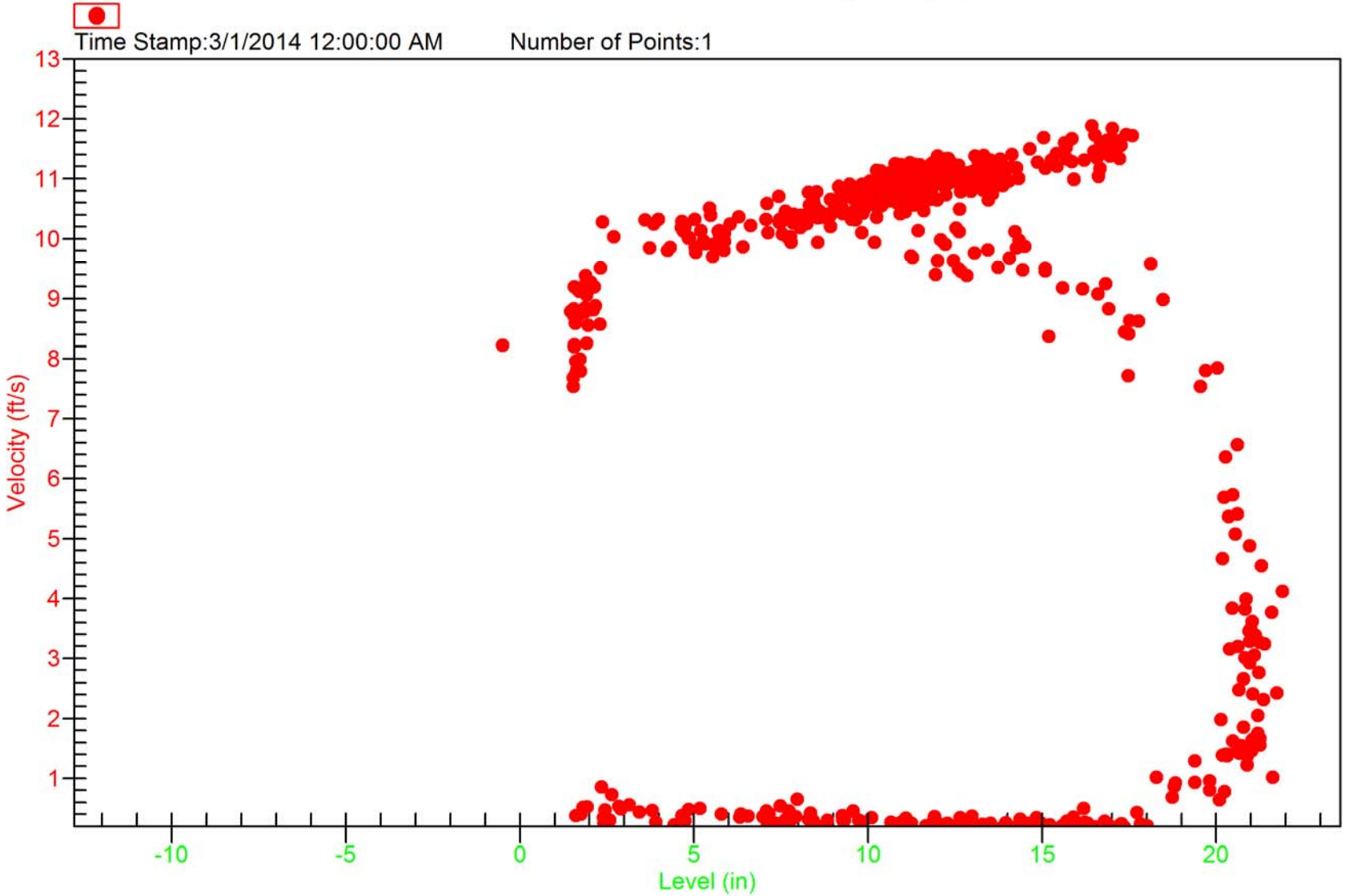
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

FIGURE 14

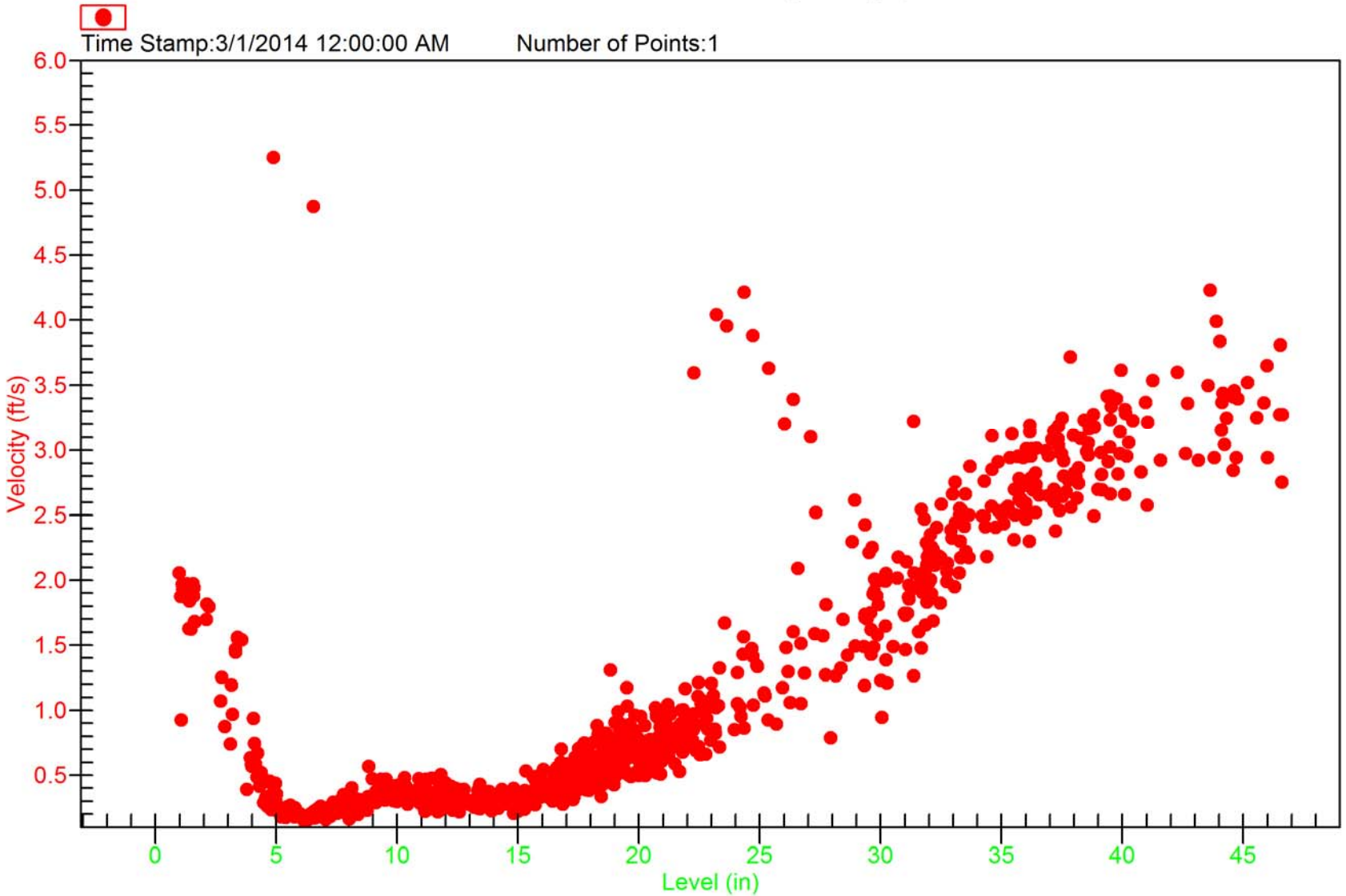
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

FIGURE 15

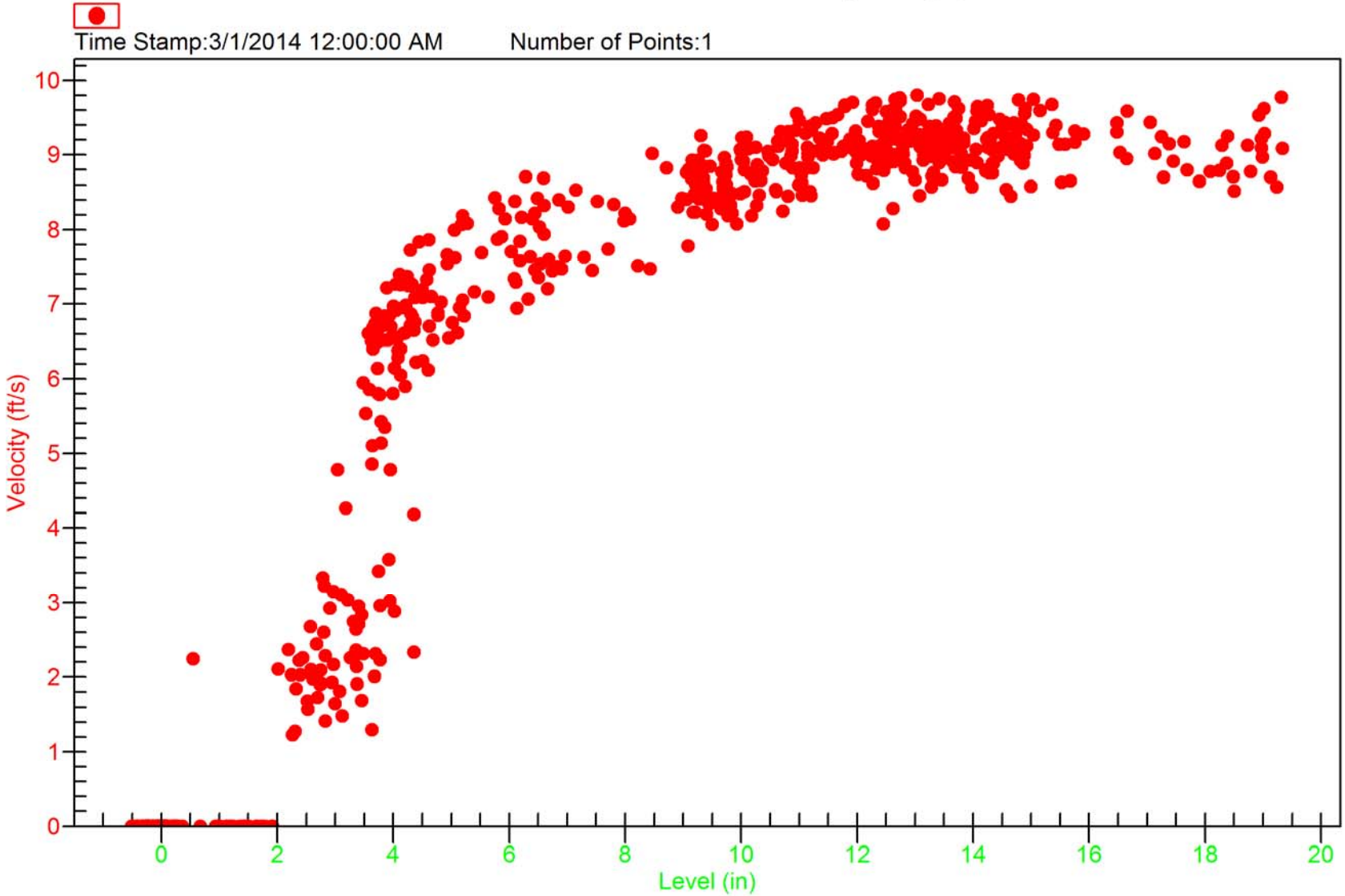
CSO 063 Emerson Avenue Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

FIGURE 16

CSO 077 West Colvin Street - Midland Monthly Scattergraph



3/1/2014 12:00:00 AM - 4/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. ______ MH DEPTH: ______
PIPE SIZE: 48 TYPE: PVC

PROJECT No: 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No.
PROBE No.
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: ____ In-Between ____
PROBE MOUNTED: On Invert: X Side of Pipe: ____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP	
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP	
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP	

Changed Time

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 State Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.

9148157913

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT
12/05/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT
12/06/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT
01/03/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT
01/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT
03/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS
04/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS
04/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS
05/03/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS
06/04/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS
07/07/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS
08/01/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS
09/04/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM
09/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS
10/08/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS
11/07/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT
01/07/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT
03/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP
04/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP
06/03/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP
07/08/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP
08/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP
09/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P
01/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP
01/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP
02/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP
03/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. MH DEPTH:
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00211
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Delaware St. & Amy St.

9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 W. Jefferson Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. 308

9148066825

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP

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SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO		
ENGINEER:	CDM / C&S		
OWNER:	Onondaga County		
SITE NAME:	CSO 034	Clinton & West Onondaga Street	
M.H. No.		MH DEPTH:	
PIPE SIZE	72	TYPE:	PVC

PROJECT No.	1130.04.01		
DATE:	11/21/11	TIME:	8:00
INSTALLER:	RT	JP	
LOGGER No.	208E01109		
PROBE No.	211L01001		
BATTERY TYPE:	6 volt lantern		

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:	
INVERT CONDITION:	Smooth:	X	Rough:____	In-Between
PROBE MOUNTED:	On Invert:	X	Side of Pipe:	
ACTUAL PROBE OFFSET:			INCHES	
COMMENTS:	Clinton Street & Gilford Street			

9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP

hanged time

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO	PROJECT No.	1130.04.01
ENGINEER:	CDM / C&S	DATE:	11/16/11 TIME: 13:40
OWNER:	Onondaga County	INSTALLER:	RT JP
SITE NAME:	CSO 052 Hunt Street & Elmhurst Avenue	LOGGER No.	210B00345
M.H. No.	MH DEPTH:	PROBE No.	208K01299
PIPE SIZE	48 TYPE: Con.	BATTERY TYPE:	6 volt lantern

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:	
INVERT CONDITION:	Smooth:	X	Rough:	In-Between
PROBE MOUNTED:	On Invert:	X	Side of Pipe:	
ACTUAL PROBE OFFSET:			INCHES	
COMMENTS:	Elmhurst Ave. & Hunt Ave.			

9148198097

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/05/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/06/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
01/03/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
01/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
02/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
03/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
04/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
05/03/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
06/04/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
07/07/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
08/01/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
09/04/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/08/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/08/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/07/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
01/07/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
01/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
02/05/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
02/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
03/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
04/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
06/03/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
07/08/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
08/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
09/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
01/06/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
01/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
02/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
03/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 060 West Colvin Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST

9148747350

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/05/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/05/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/06/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
01/03/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
01/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
03/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
04/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
05/03/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
06/04/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
07/07/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
08/01/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
09/04/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/08/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/07/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
01/07/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
01/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
02/05/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
02/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
03/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
04/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
06/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
07/08/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
08/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
09/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
01/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
02/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
03/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 063 Emerson Avenue
M.H. No. MH DEPTH:
PIPE SIZE 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 914 Emerson Ave. in sidewalk

9148606821

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/05/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/06/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
01/03/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
01/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
03/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
04/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
05/03/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
05/03/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
05/03/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
06/04/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
07/07/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
08/01/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
09/04/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/08/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/07/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
01/07/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
02/05/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
02/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
03/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
04/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
06/03/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
07/08/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
08/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
09/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/07/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
01/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
02/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
03/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO		
ENGINEER:	CDM / C&S		
OWNER:	Onondaga County		
SITE NAME:	CSO 077	West Colvin Street & Midland Ave	
M.H. No.		MH DEPTH:	
PIPE SIZE	82X56	TYPE:	Brick egg

PROJECT No.	1130.04.01		
DATE:	11/21/11	TIME:	11:15
INSTALLER:	RT	JP	
LOGGER No.	208E01100		
PROBE No.	211L01000		
BATTERY TYPE:	6 volt lantern		

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:		
INVERT CONDITION:	Smooth:	X	Rough:	In-Between	
PROBE MOUNTED:	On Invert:	X	Side of Pipe:		
ACTUAL PROBE OFFSET:			INCHES		
COMMENTS:	Midland Ave. & Colvin Street				

9143556375

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/05/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/06/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
01/03/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
01/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
02/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
03/05/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
03/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
04/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
05/03/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
06/04/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
07/07/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
08/01/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
09/04/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/08/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/07/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
01/07/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
02/05/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
02/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
03/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
04/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
06/03/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
06/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
07/08/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
08/06/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
09/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/07/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/2014	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
01/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
02/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
03/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
APRIL 2014

Prepared by
SAVIN ENGINEERS, P.C.

MAY 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
APRIL 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
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ONONDAGA COUNTY, NEW YORK
DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
APRIL 2014

1. INTRODUCTION

This is the twenty-eighth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of April 1, 2014 through April 30, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- April 4,
- April 5,
- April 6,
- April 7,
- April 8,
- April 14,
- April 15,
- April 29, and

- April 30

2. SUMMARY OF OVERFLOWS

There were nine rainfall events that occurred on April 4, April 5, April 6, April 7, April 8, April 14, April 15, April 29 and April 30. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the three overflow events. Figures 1 through 7 show rainfall during the month of April.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 7, respectively. Scattergraphs for each of the sites that overflowed are included in

Figures 8 through 13. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of April.

CSO 004 (State Fair Blvd.) – During dry-weather, this site typically has 0.3 inches of standing water. Figure 1 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
April 4	3,537	81 minutes
April 5	43	1 minute
April 6	320	75 minutes
April 7	1,981	67 minutes
April 8	5,030	22.5 hours (Intermittent)

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 2 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. The flow monitor data shows that approximately 32,547 gallons overflowed for 75 minutes on April 8.

CSO 030 (West Jefferson St.) - There were no overflows during the month of April.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 3 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
April 7	186,806	5 hours (Intermittent)
April 8	115,278	2.75 hours (Intermittent)
April 14	50,000	72 minutes
April 15	166,667	4 hours (Intermittent)
April 29	20,833	30 minutes
April 30	160,417	4 hours (Intermittent)

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 4 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
April 7	1,751	3.75 hours (Intermittent)
April 14	19,199	47 minutes
April 15	7,233	2.5 hours (Intermittent)
April 29	3,747	18 minutes
April 30	17,808	3 hours (Intermittent)

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 5 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
April 7	2,593	15 minutes
April 8	63,341	27 minutes
April 14	69,099	35 minutes
April 15	4,816	14 minutes

CSO 063 (Emerson Ave.) – Figure 6 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
April 4	28	1 minute
April 7	218,989	5 hours (Intermittent)
April 8	181,777	2.5 hours (Intermittent)
April 14	129,199	99 minutes
April 15	283,856	7 hours (Intermittent)
April 29	53,535	3.25 hours (Intermittent)
April 30	247,068	10.75 hours (Intermittent)

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 7 shows the hydrograph for the period of April 1, 2014 through April 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
April 7	89,585	94 minutes
April 8	378,853	67 minutes
April 14	177,691	54 minutes
April 15	62,771	79 minutes
April 30	20,436	32 minutes

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - April 2014

	Location	4/4 Overflow Quantity (gal)	4/5 Overflow Quantity (gal)	4/6 Overflow Quantity (gal)	4/7 Overflow Quantity (gal)	4/8 Overflow Quantity (gal)	4/14 Overflow Quantity (gal)	4/15 Overflow Quantity (gal)	4/29 Overflow Quantity (gal)	4/30 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0	0	0	0	0	0
2	**CSO 004**	3,537	43	320	1,981	5,030	0	0	0	0	10,911
3	**CSO 014**	0	0	0	0	32,547	0	0	0	0	32,547
4	**CSO 018**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	**CSO 030**	0	0	0	0	0	0	0	0	0	0
6	**CSO 034**	0	0	0	186,806	115,278	50,000	166,667	20,833	160,417	700,001
7	**CSO 044**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	**CSO 052**	0	0	0	1,751	0	19,199	7,233	3,747	17,808	49,738
9	**CSO 060**	0	0	0	2,593	63,341	69,099	4,816	0	0	139,849
10	**CSO 063**	28	0	0	218,989	181,777	129,199	283,856	53,535	247,068	1,114,452
11	**CSO 077**	0	0	0	89,585	378,853	177,691	62,771	0	20,436	729,336
	TOTAL =	**3,565**	**43**	**320**	**501,705**	**776,826**	**445,188**	**525,343**	**78,115**	**445,729**	**2,776,834**

											Monthly Overflow Total (in)
12	**Rainfall Total:**	0.15	0.04	**Leftover from 4/5 rain**	0.57	0.40	0.33	0.56	0.40	0.37	2.82
13	**Average Rainfall Intensity:**	0.02	0.02		0.06	0.02	0.11	0.04	0.05	0.02	
14	**Peak Hourly Rainfall Intensity:**	0.07	0.03		0.14	0.34	0.28	0.19	0.10	0.18	

FIGURE 1

CSO 004 State Fair Blvd. Monthly Hydrograph

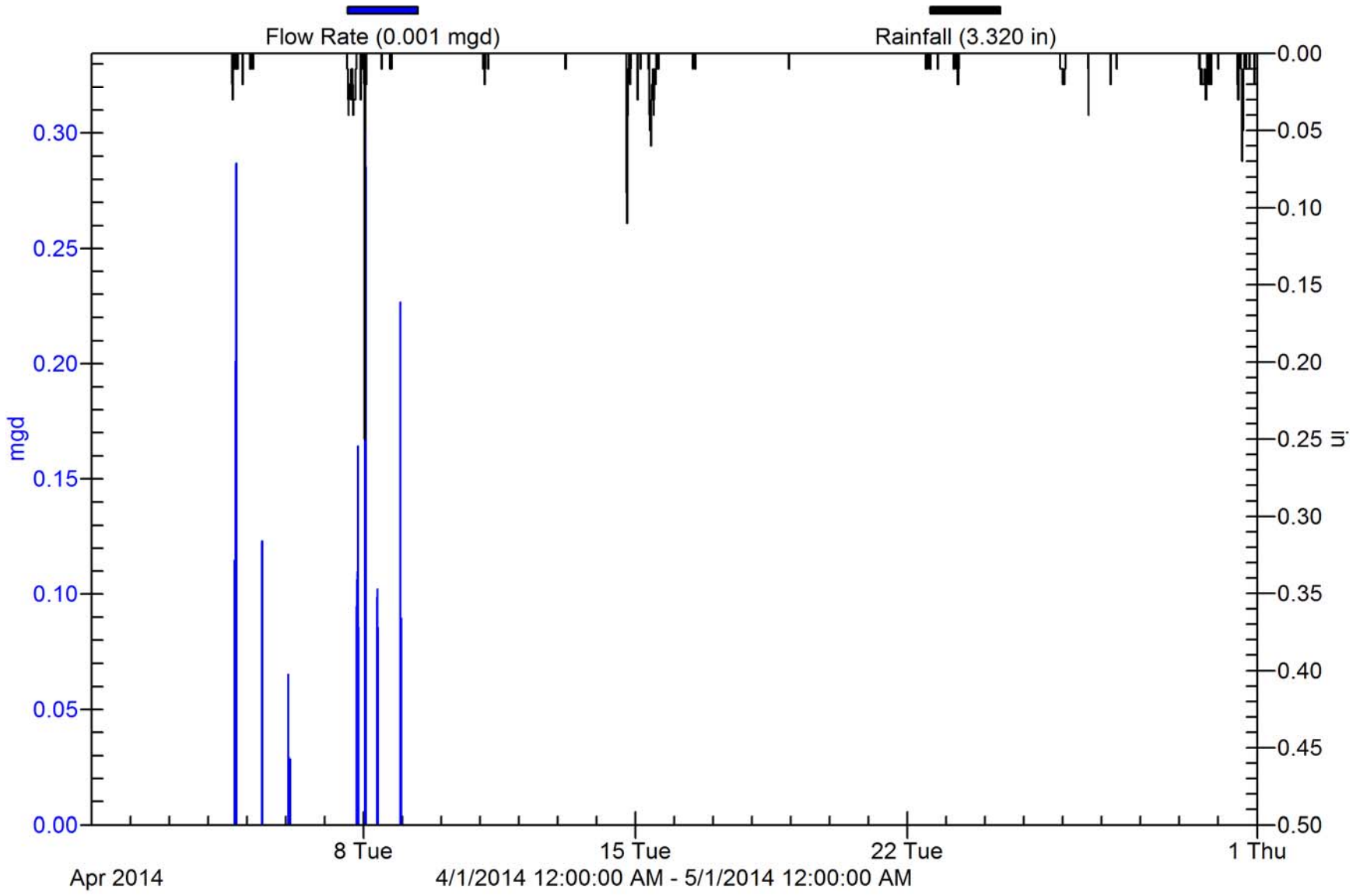


FIGURE 2

CSO 014 Delaware Street Monthly Hydrograph

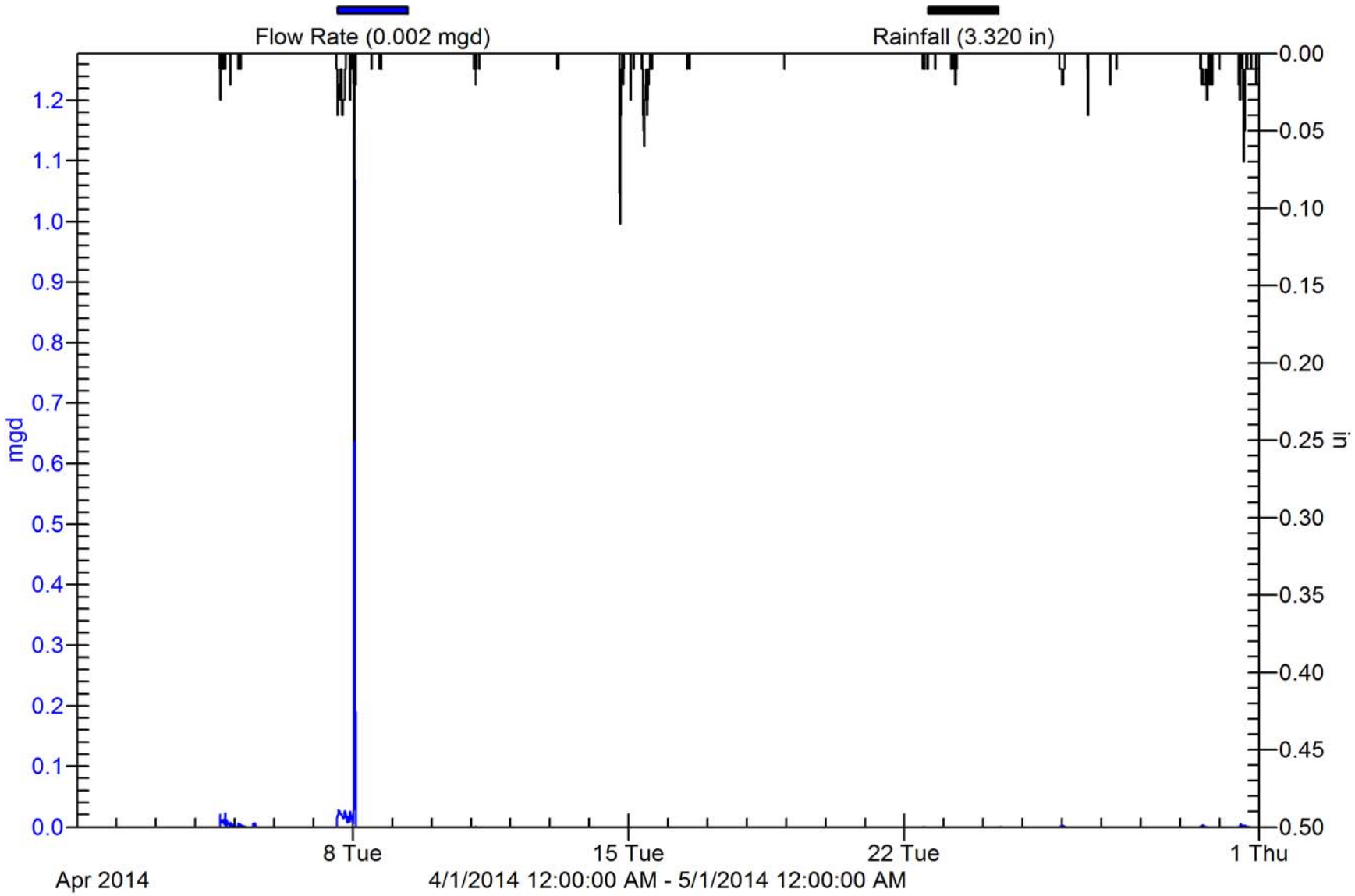


FIGURE 3

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

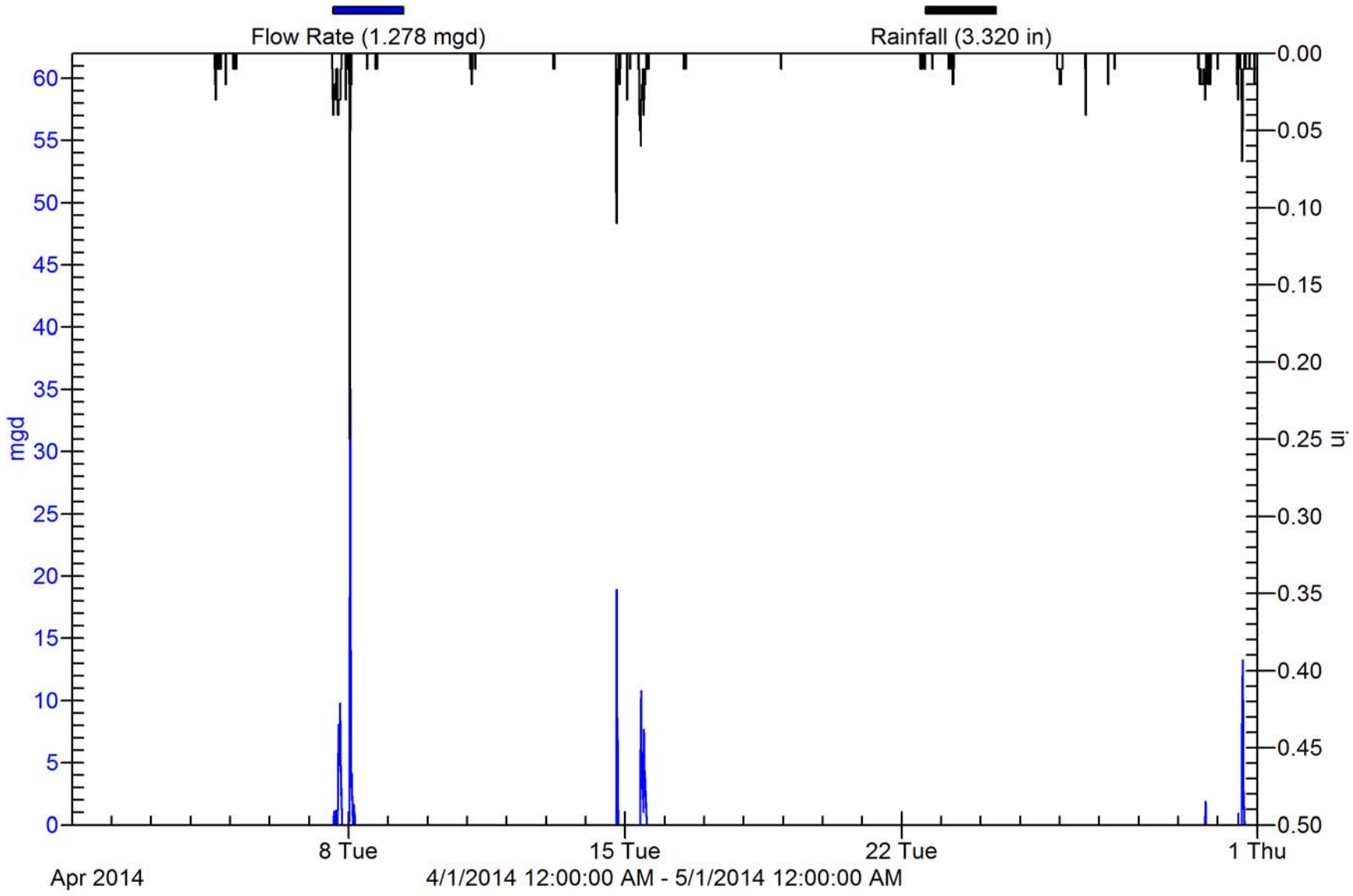


FIGURE 4

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

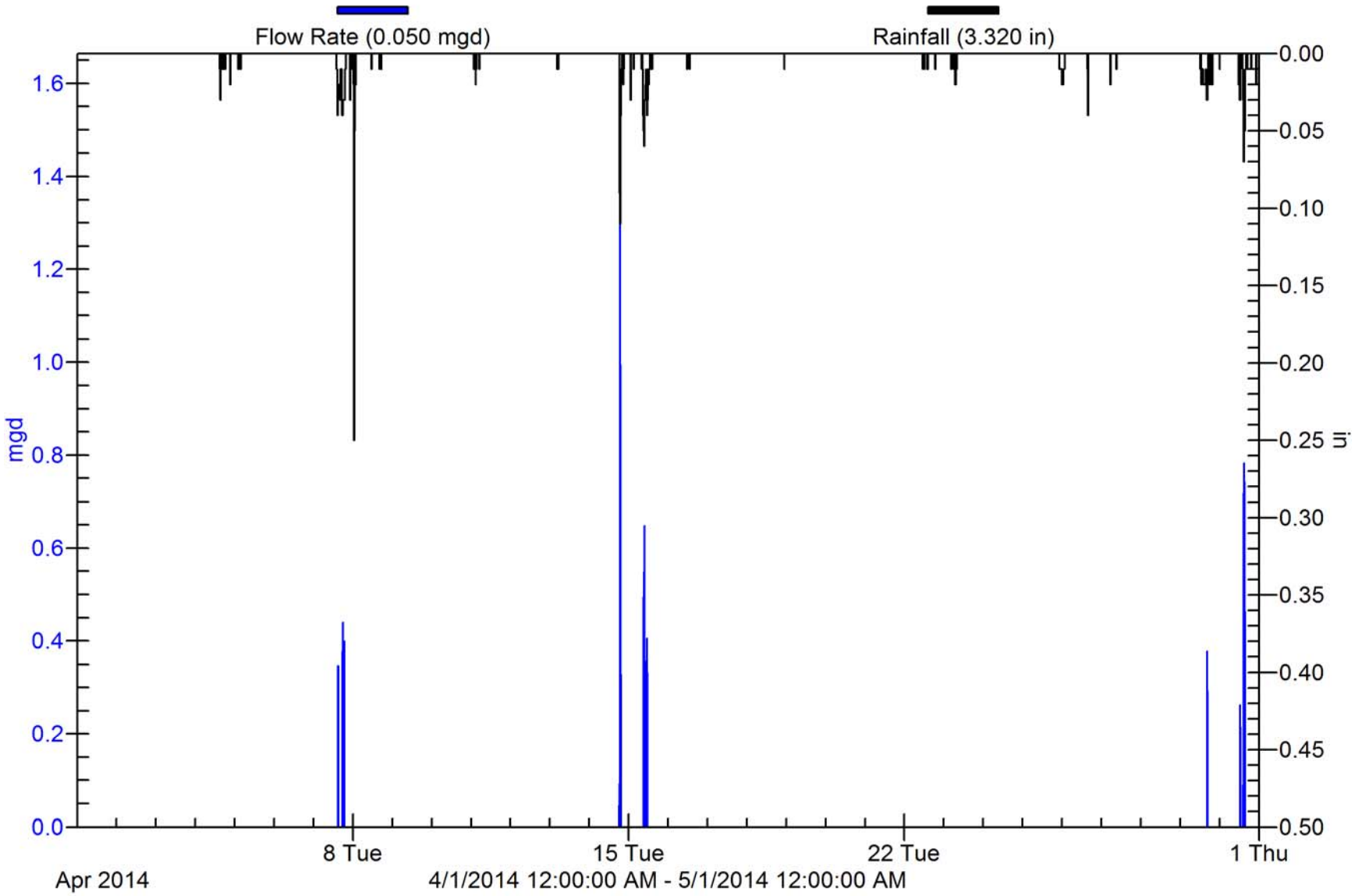


FIGURE 5

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

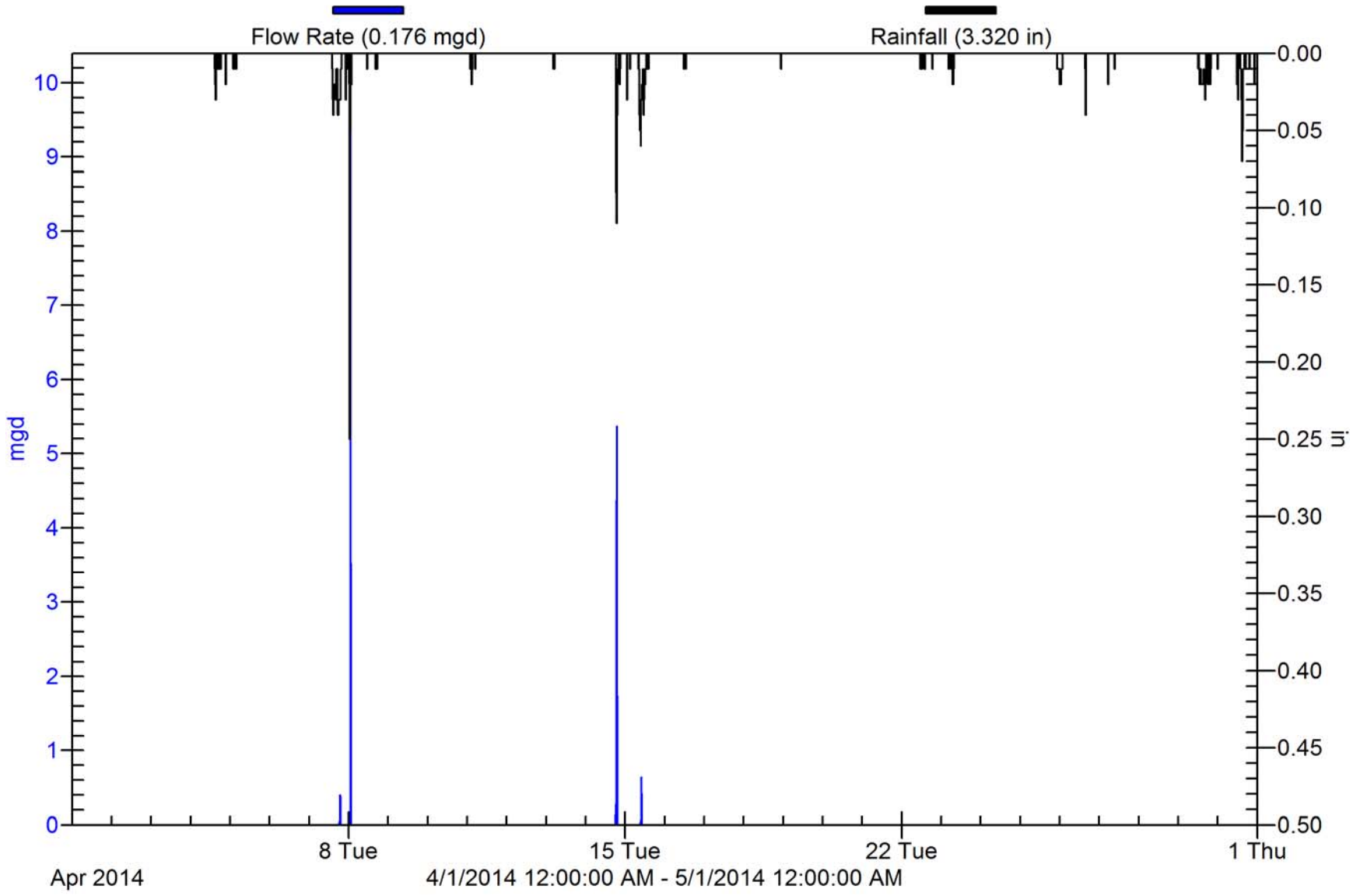


FIGURE 6

CSO 063 Emerson Avenue Monthly Hydrograph

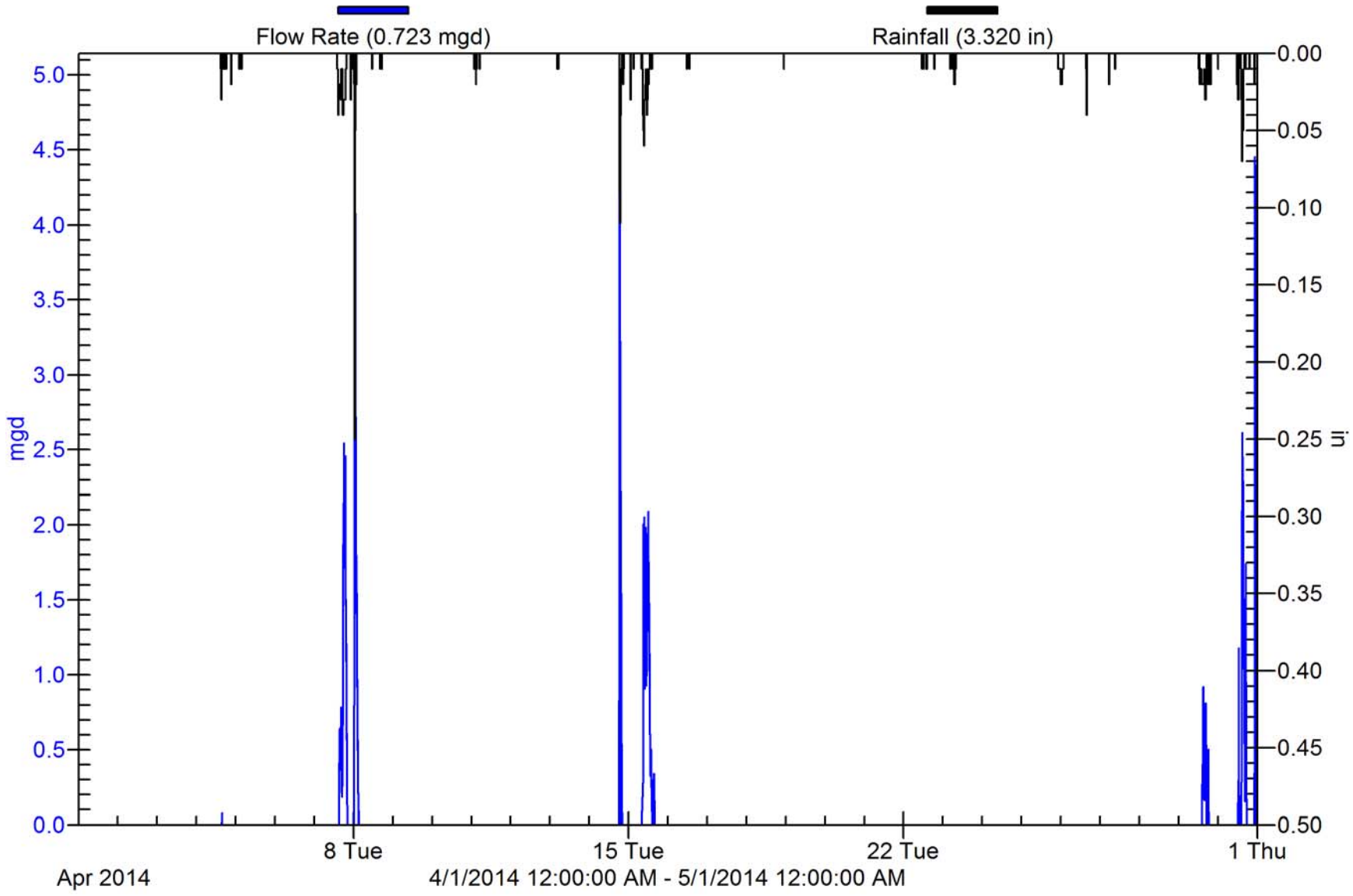


FIGURE 7

CSO 077 West Colvin Street - Midland Monthly Hydrograph

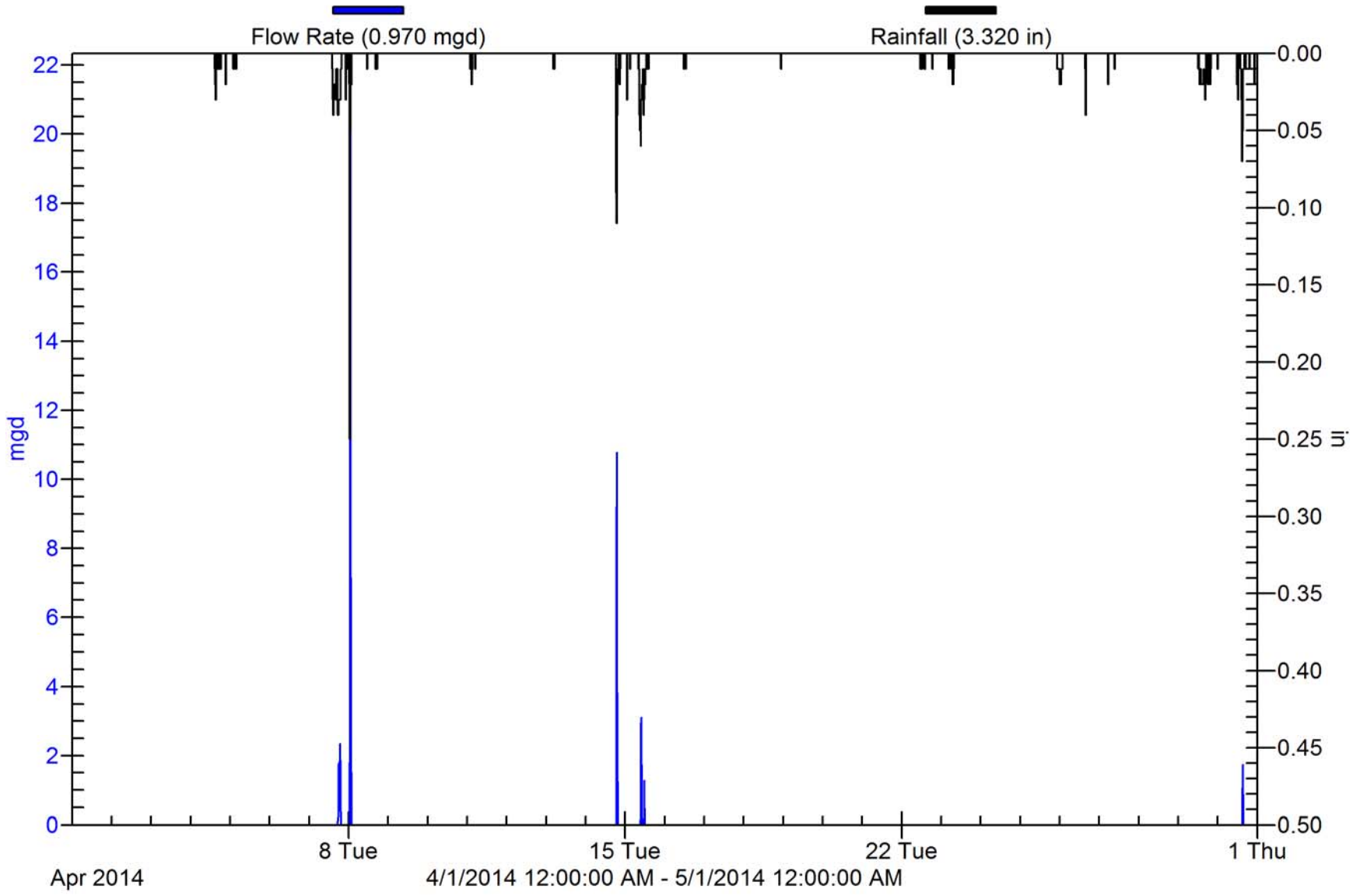
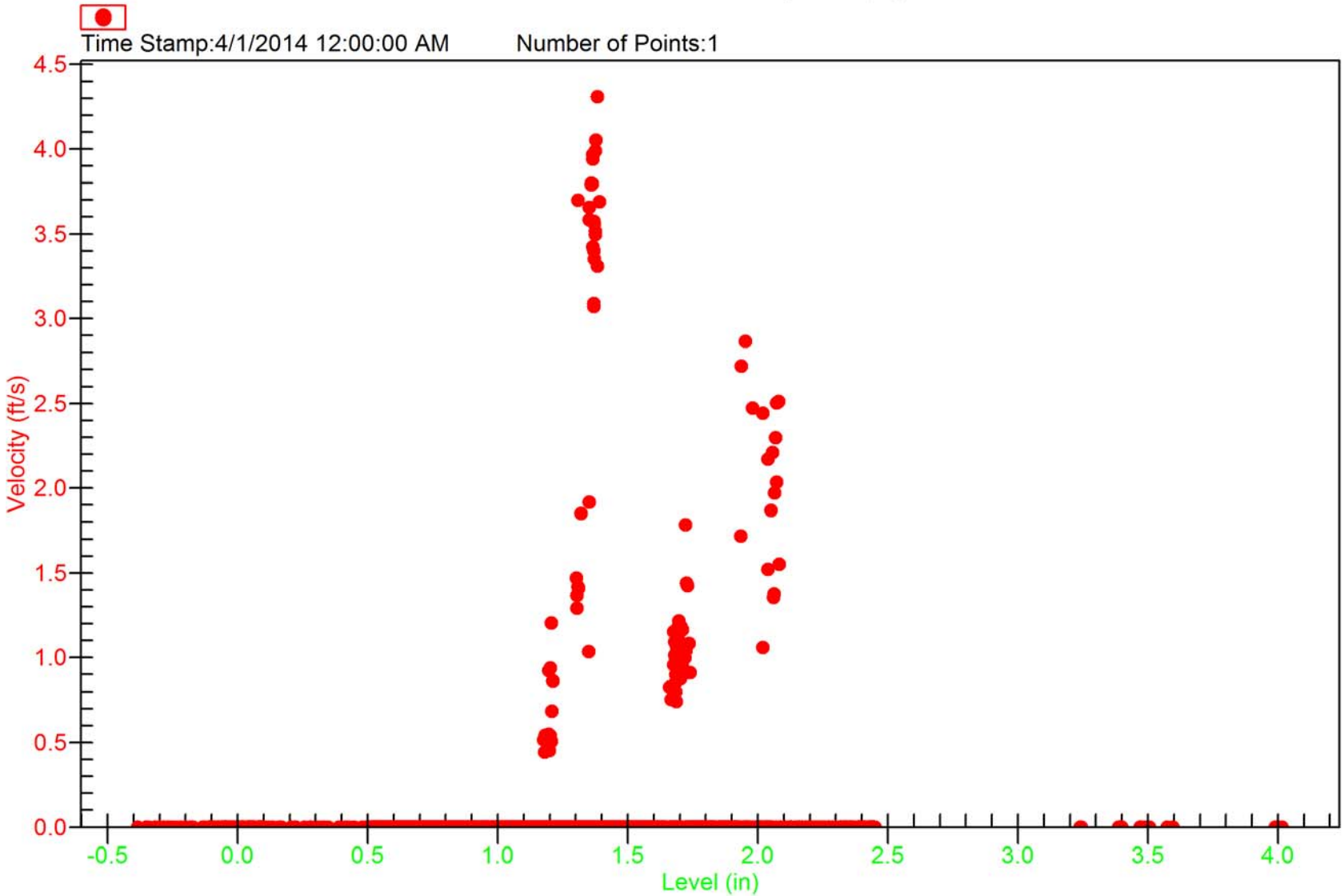


FIGURE 8

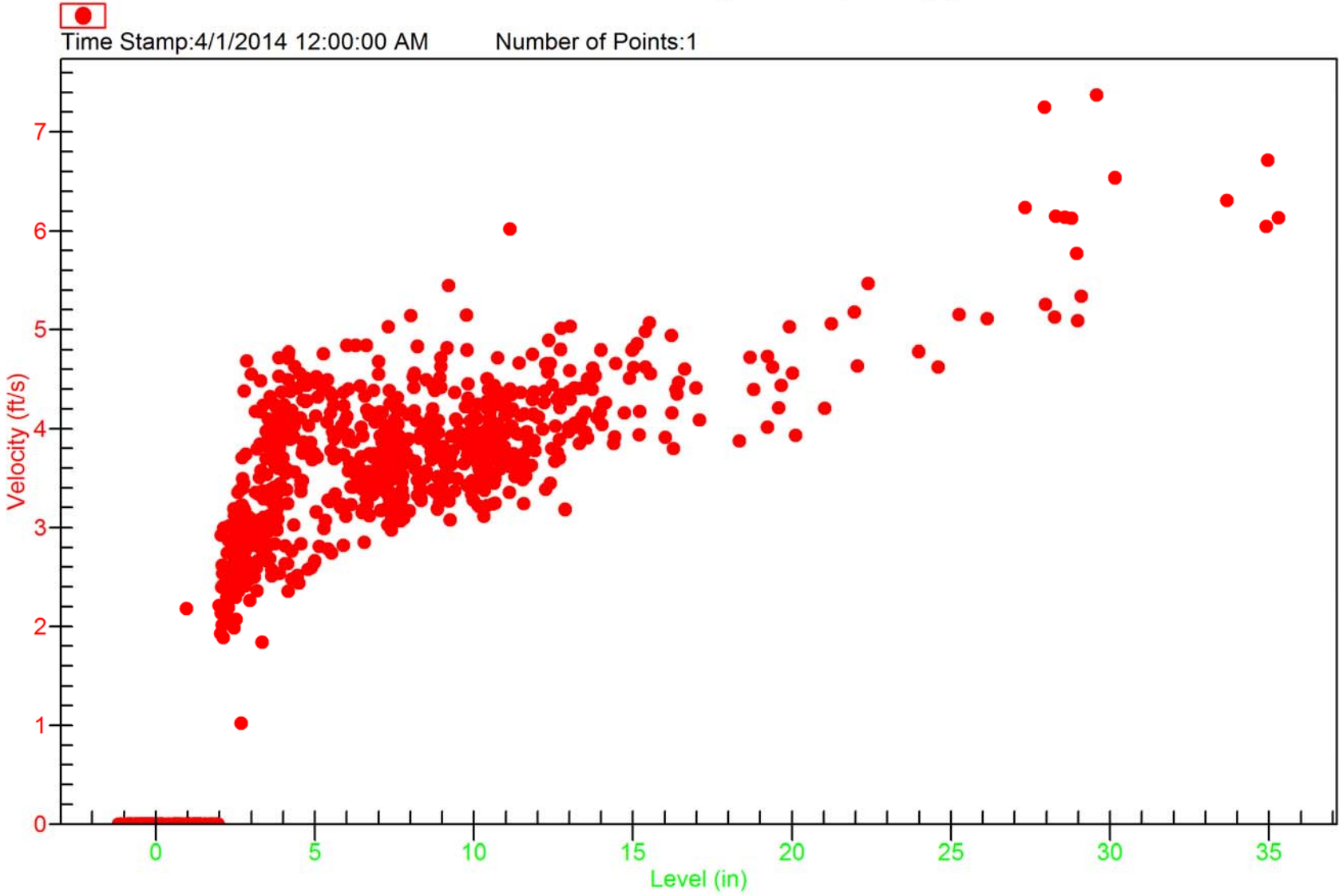
CSO 004 State Fair Blvd. Monthly Scattergraph



4/1/2014 12:00:00 AM - 5/1/2014 12:00:00 AM

FIGURE 9

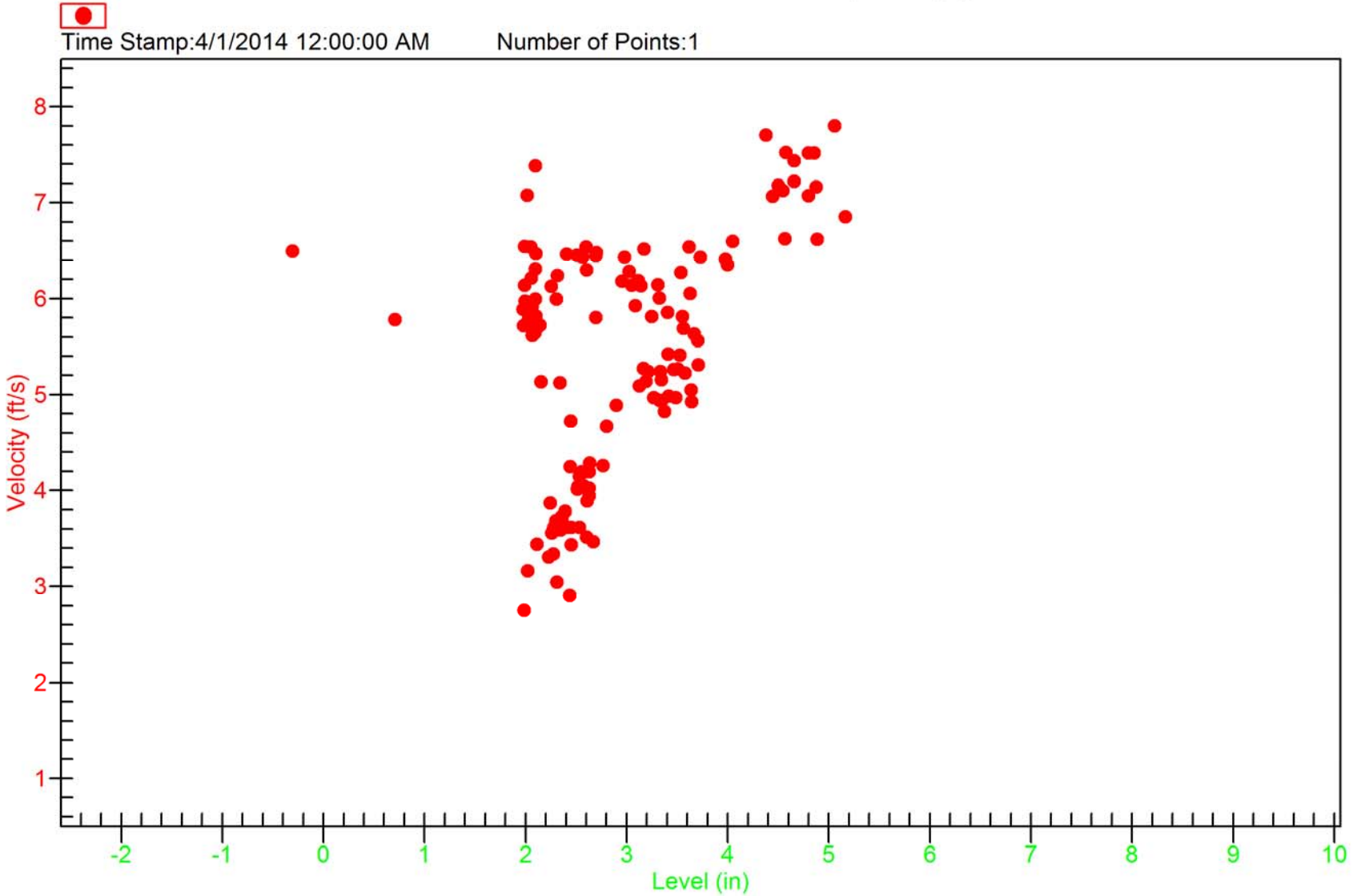
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



4/1/2014 12:00:00 AM - 5/1/2014 12:00:00 AM

FIGURE 10

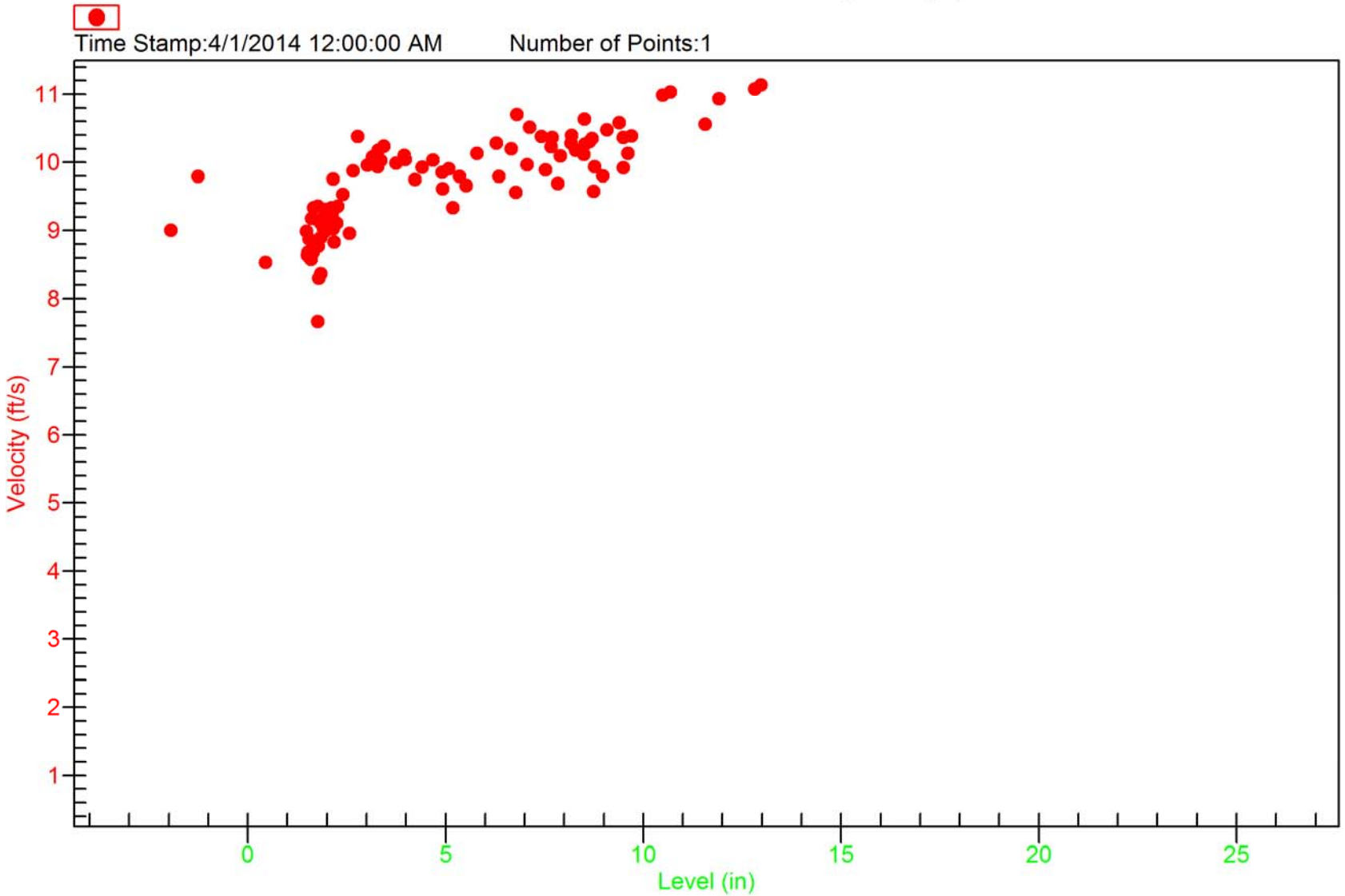
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



4/1/2014 12:00:00 AM - 5/1/2014 12:00:00 AM

FIGURE 11

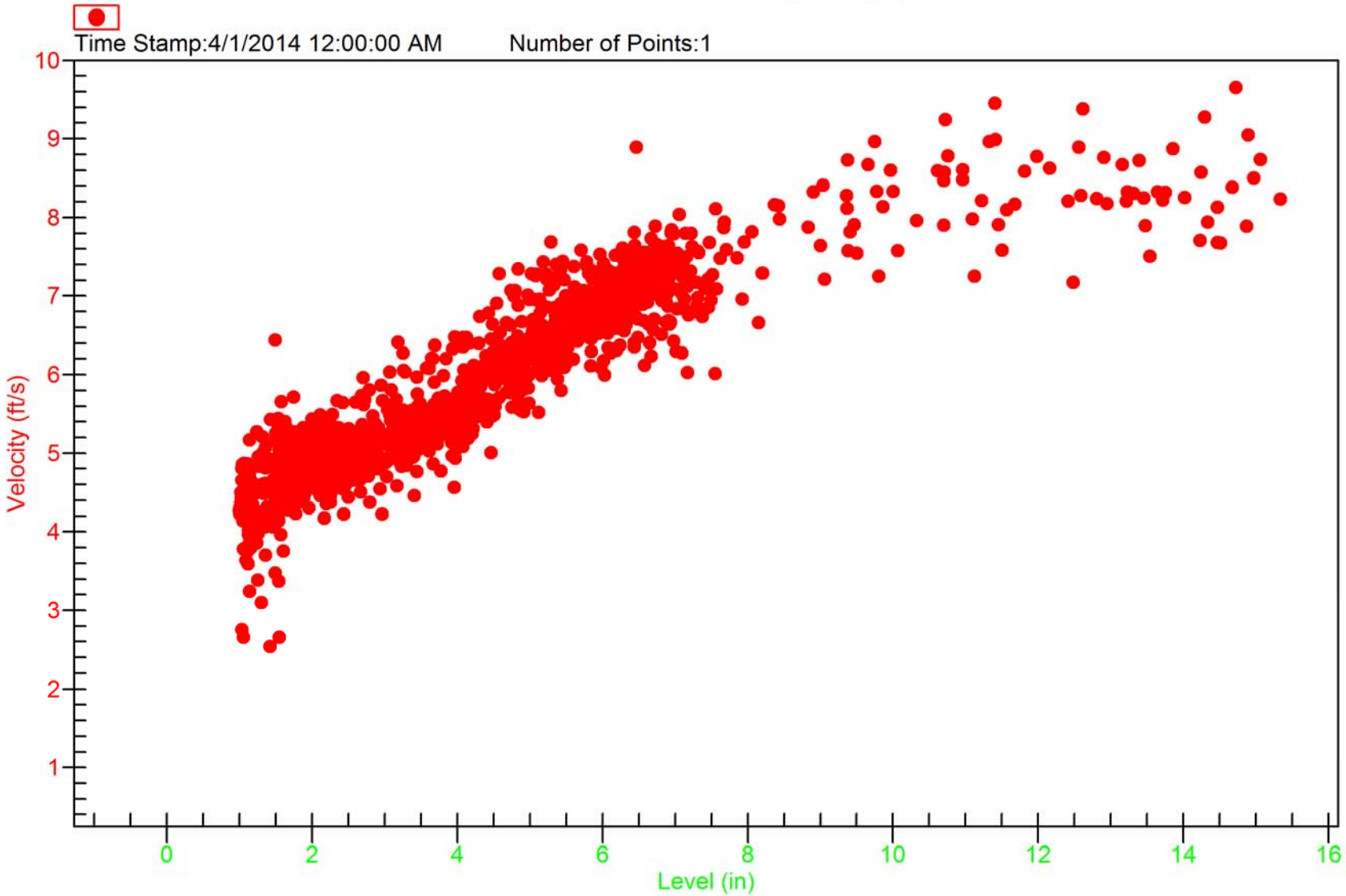
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



4/1/2014 12:00:00 AM - 5/1/2014 12:00:00 AM

FIGURE 12

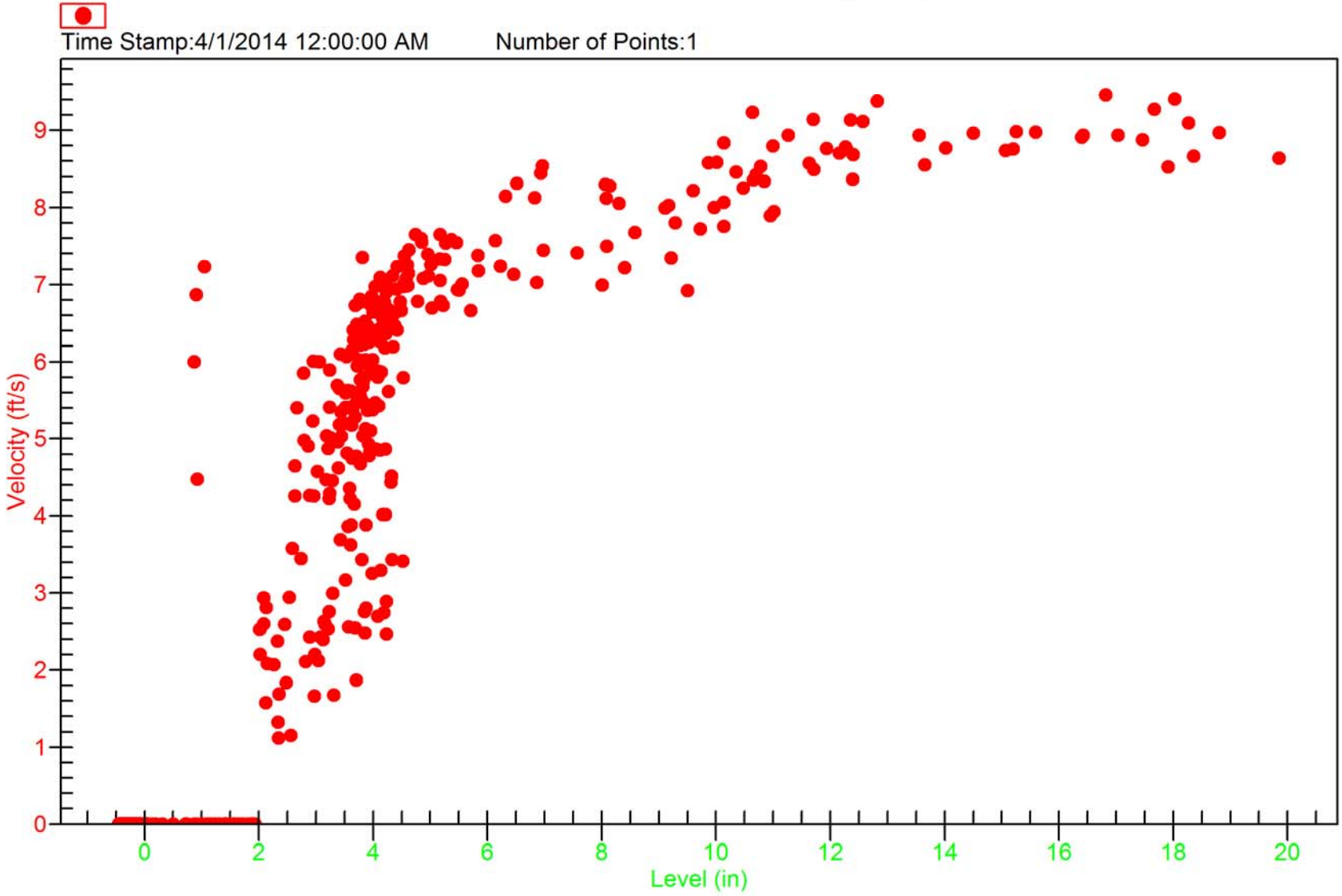
CSO 063 Emerson Avenue Monthly Scattergraph



4/1/2014 12:00:00 AM - 5/1/2014 12:00:00 AM

FIGURE 13

CSO 077 West Colvin Street - Midland Monthly Scattergraph



4/1/2014 12:00:00 AM - 5/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 State Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.

9148157913

IT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff lo
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. MH DEPTH:
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00211
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Delaware St. & Amy St.

9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO	PROJECT No.	1130.04.01
ENGINEER:	CDM / C&S	DATE:	11/17/11 TIME: 11:30
OWNER:	Onondaga County	INSTALLER:	RT JP
SITE NAME:	CSO 030 W. Jefferson Street (East of Creek)	LOGGER No.	208A02288
M.H. No.	MH DEPTH:	PROBE No.	208K00722
PIPE SIZE	58 TYPE: Con.	BATTERY TYPE:	6 volt lantern

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:		
INVERT CONDITION:	Smooth:	X	Rough:	In-Between	
PROBE MOUNTED:	On Invert:		Side of Pipe:	On Weir	
ACTUAL PROBE OFFSET:			INCHES		

COMMENTS: Easement off W. Jefferson St. 308

9148066825

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street

9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 052 Hunt Street & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.

9148198097

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: ɔaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE: 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST

9148747350

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 063 nerson Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: 914 Emerson Ave. in sidewalk

9148606821

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Midland Ave. & Colvin Street

9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
MAY 2014

Prepared by
SAVIN ENGINEERS, P.C.

JUNE 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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MAY 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
MAY 2014

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9	CSO 060 Monthly Scattergraph
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ONONDAGA COUNTY, NEW YORK
DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
MAY 2014

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ATTACHMENT	TITLE
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ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
MAY 2014

1. INTRODUCTION

This is the twenty-ninth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of May 1, 2014 through May 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- May 1,
- May 9,
- May 10,
- May 13,
- May 14,
- May 15,
- May 16,
- May 18, and

- May 23

2. SUMMARY OF OVERFLOWS

There were nine rainfall events that occurred on May 1, May 9, May 10, May 13, May 14, May 15, May 16, May 18 and May 23. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the three overflow events. Figures 1 through 7 show rainfall during the month of May.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 7, respectively. Scattergraphs for each of the sites that overflowed are included in

Figures 8 through 13. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of May.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of May.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of May 1, 2014 through May 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
May 10	3	2 minutes
May 13	98	1 minute
May 16	730	12 minutes
May 18	3	1 minute
May 23	258	3 minutes

CSO 030 (West Jefferson St.) - There were no overflows during the month of May.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of May 1, 2014 through May 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
May 1	6,664	11 minutes
May 9	263,397	60 minutes
May 10	419,287	120 minutes
May 13	445,683	120 minutes
May 14	901,259	3.25 hours
May 15	132,411	30 minutes
May 16	3,399,509	17 hours
May 23	383,335	1.25 hours

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of May 1, 2014 through May 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
May 9	16,337	32 minutes
May 10	43,526	120 minutes
May 13	111,506	2.25 hours
May 14	67,691	2.5 hours
May 15	34,586	22 minutes
May 16	509,381	18.5 hours

May 23	30,870	58 minutes

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 4 shows the hydrograph for the period of May 1, 2014 through May 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
May 9	41,390	30 minutes
May 13	533,295	53 minutes
May 14	66,909	129 minutes
May 15	97	1 minute
May 16	1,218,273	12 hours
May 23	1,455	9 minutes

CSO 063 (Emerson Ave.) – Figure 5 shows the hydrograph for the period of May 1, 2014 through May 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
May 1	3,118	12 minutes
May 9	54,318	56 minutes
May 10	154,699	2.25 hours
May 13	88,960	88 minutes
May 14	278,039	3.5 hours
May 15	31,085	33 minutes
May 16	491,657	9 hours
May 23	167,808	91 minutes

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 6 shows the hydrograph for the period of May 1, 2014 through May 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
May 9	78,142	39 minutes
May 10	27,187	56 minutes
May 13	602,353	72 minutes
May 14	151,971	2.25 hours
May 15	12,801	14 minutes
May 16	1,689,957	12.5 hours
May 23	27,879	38 minutes

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - May 2014

	Location	5/1 Overflow Quantity (gal)	5/9 Overflow Quantity (gal)	5/10 Overflow Quantity (gal)	5/13 Overflow Quantity (gal)	5/14 Overflow Quantity (gal)	5/15 Overflow Quantity (gal)	5/16 Overflow Quantity (gal)	5/18 Overflow Quantity (gal)	5/23 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0	0	0	0	0	0
2	**CSO 004**	0	0	0	0	0	0	0	0	0	0
3	**CSO 014**	0	0	3	98	0	0	730	3	258	1,092
4	**CSO 018**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	**CSO 030**	0	0	0	0	0	0	0	0	0	0
6	**CSO 034**	6,664	263,397	419,827	445,663	901,259	132,411	3,399,509	0	383,335	5,952,065
7	**CSO 044**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	**CSO 052**	0	16,337	43,526	111,606	67,691	34,586	509,381	0	30,870	813,997
9	**CSO 060**	0	41,390	0	533,295	66,909	97	1,218,273	0	1,455	1,861,419
10	**CSO 063**	3,118	54,318	154,699	88,960	278,039	31,085	491,657	0	167,808	1,269,684
11	**CSO 077**	0	78,142	27,187	602,353	151,971	12,801	1,689,957	0	27,879	2,590,290
	TOTAL =	**9,782**	**453,584**	**645,242**	**1,781,975**	**1,465,869**	**210,980**	**7,309,507**	**3**	**611,605**	**12,488,547**

											Monthly Overflow Total (in)
12	**Rainfall Total:**	0.12	0.25	*0.36*	0.85	***Leftover from 5/13***	0.26	1.42	0.02	0.38	3.66
13	**Average Rainfall Intensity:**	0.01	0.04	0.09	0.17		0.13	0.10	0.02	0.19	
14	**Peak Hourly Rainfall Intensity:**	0.10	0.22	0.19	0.35		0.24	0.31	0.02	0.31	

FIGURE 1

CSO 004 State Fair Blvd. Monthly Hydrograph

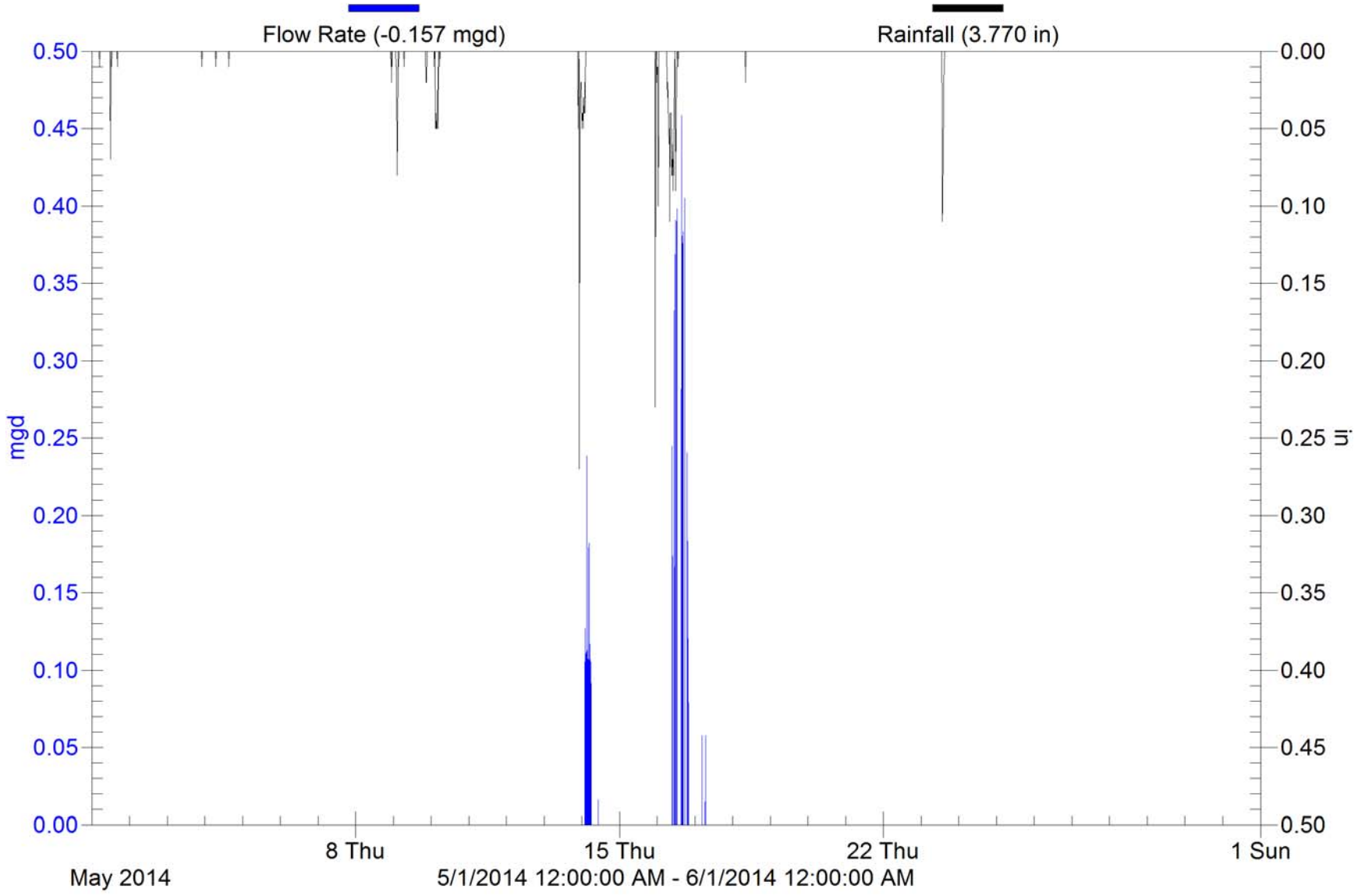


FIGURE 2

CSO 014 Delaware Street Monthly Hydrograph

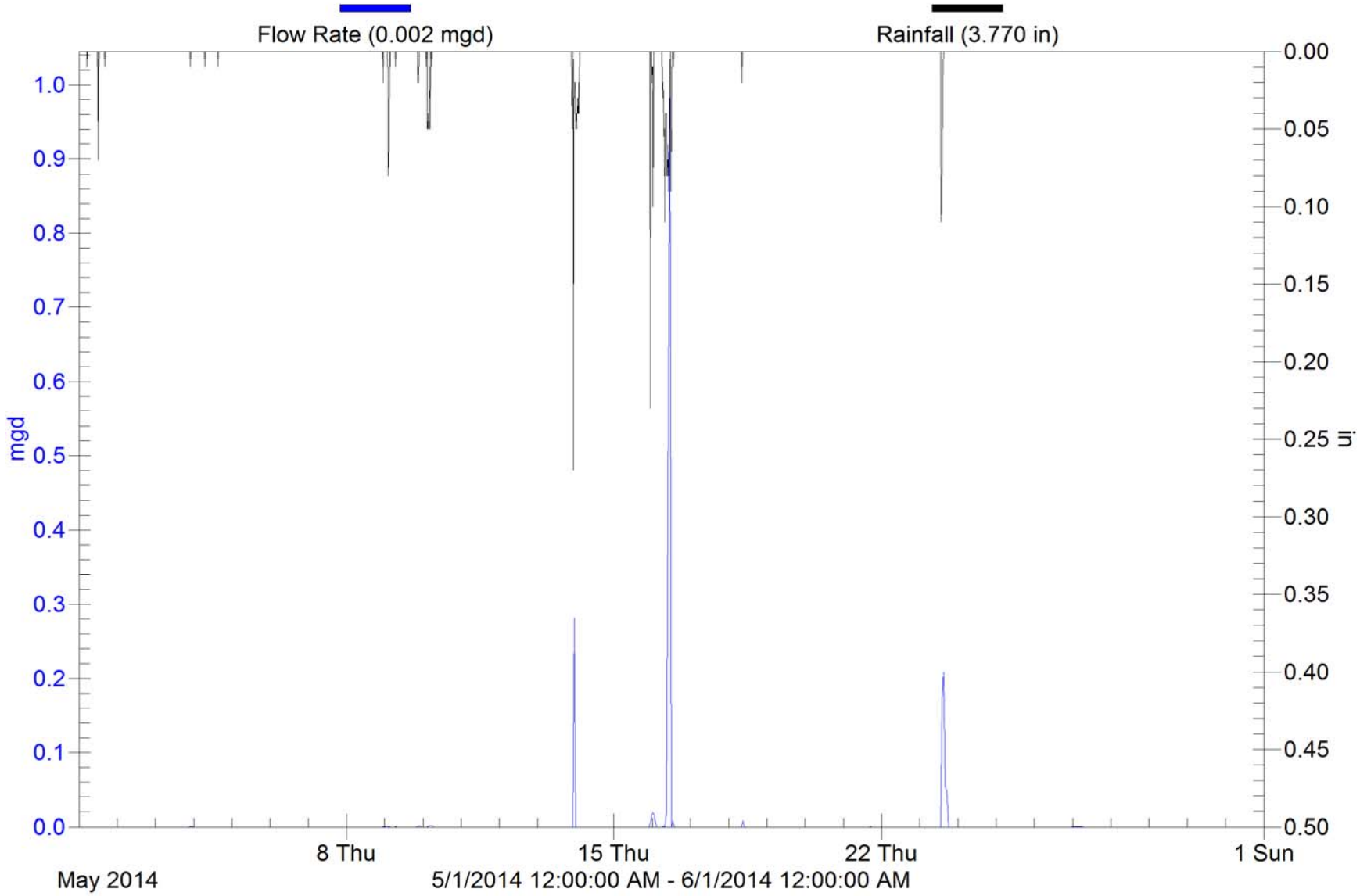


FIGURE 3

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

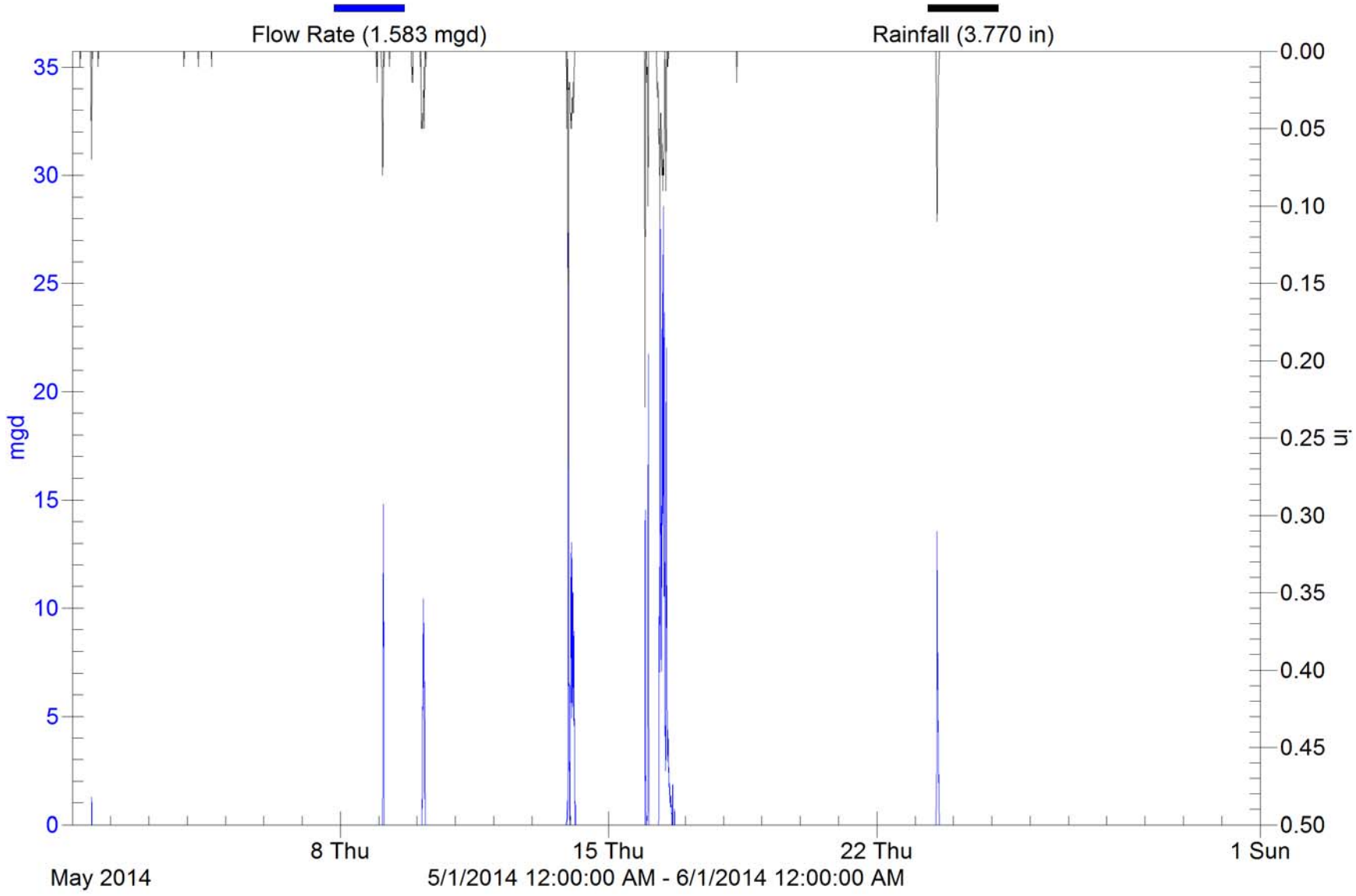


FIGURE 4

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

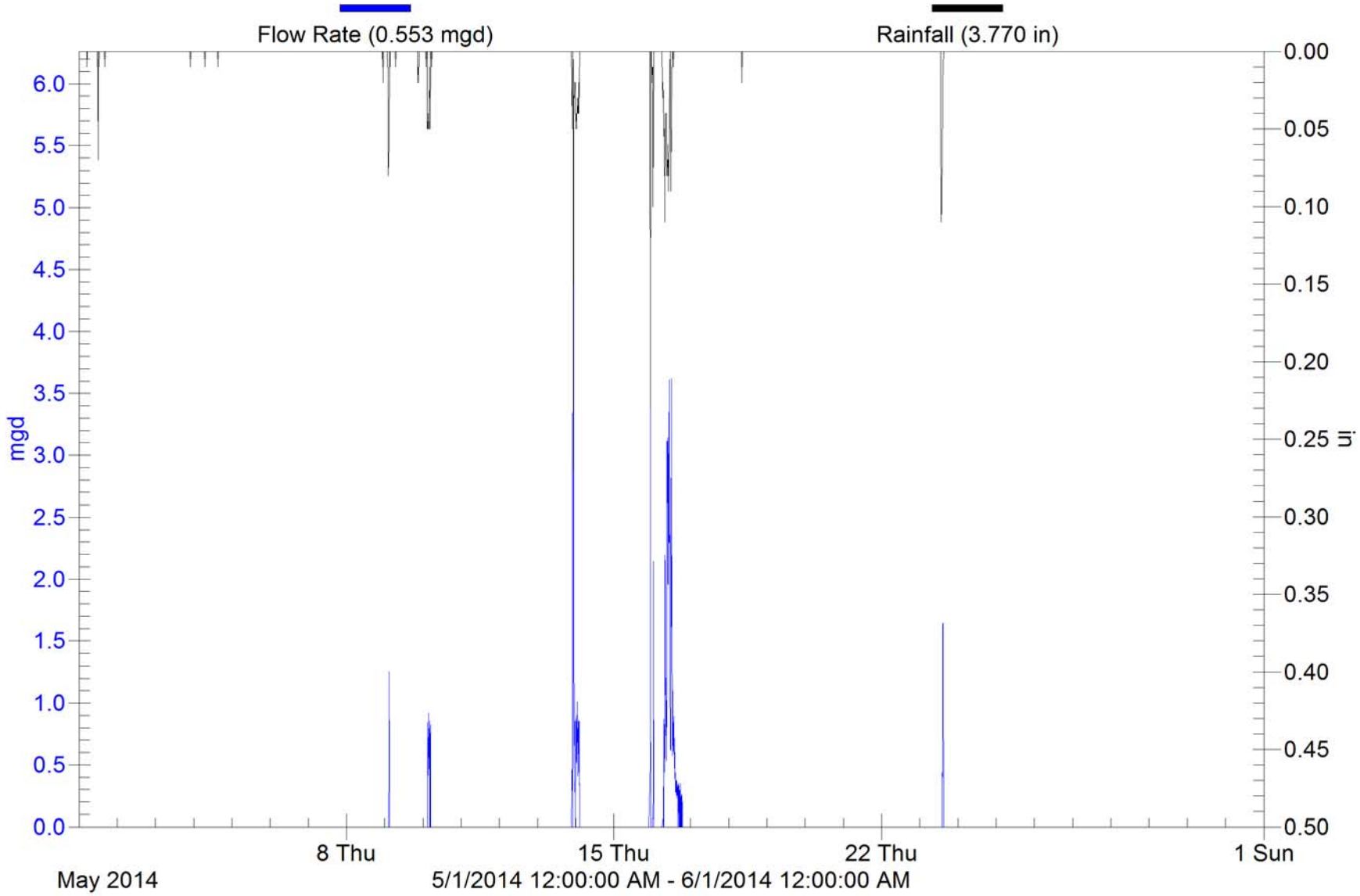


FIGURE 5

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

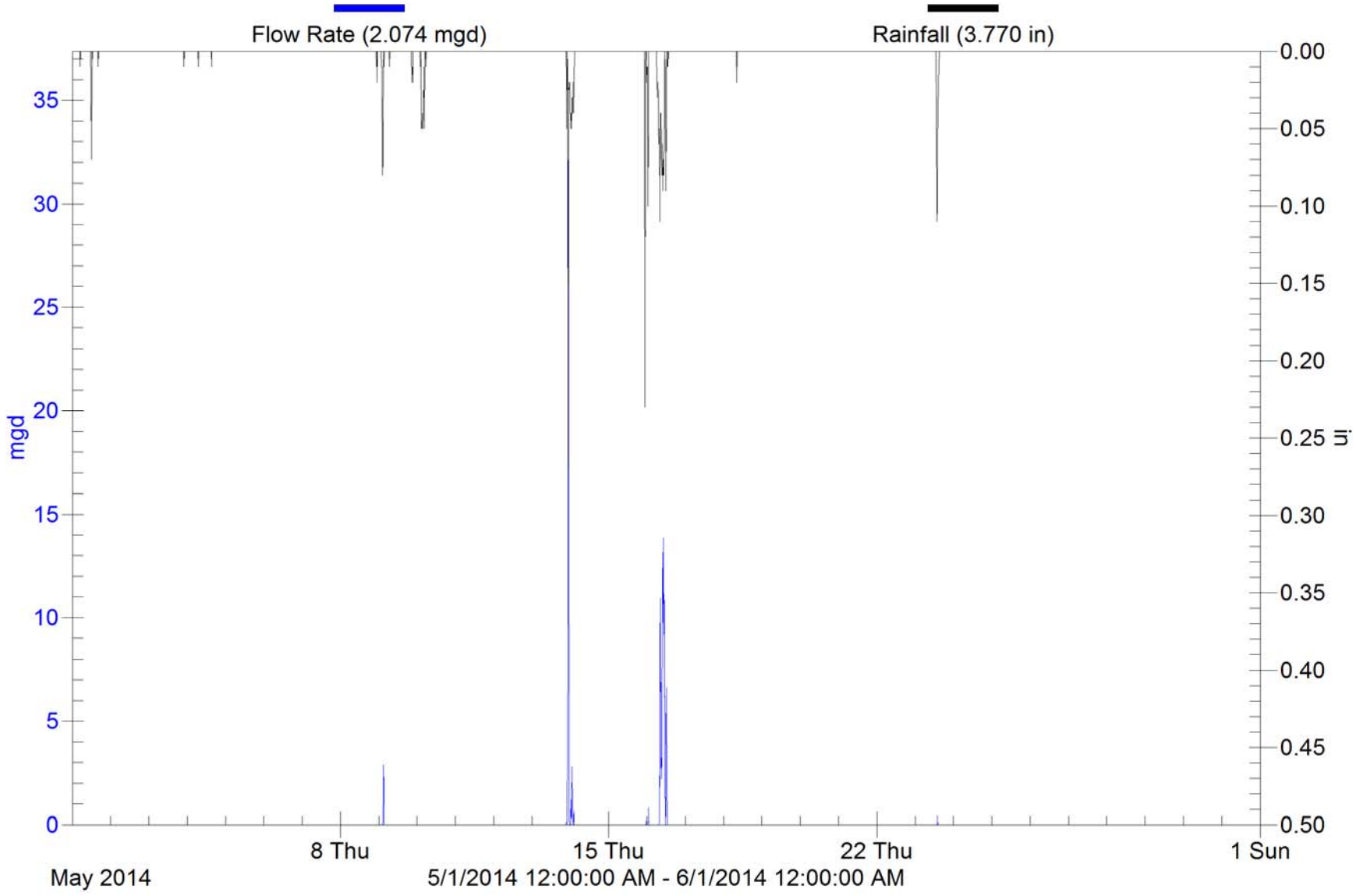


FIGURE 6

CSO 063 Emerson Avenue Monthly Hydrograph

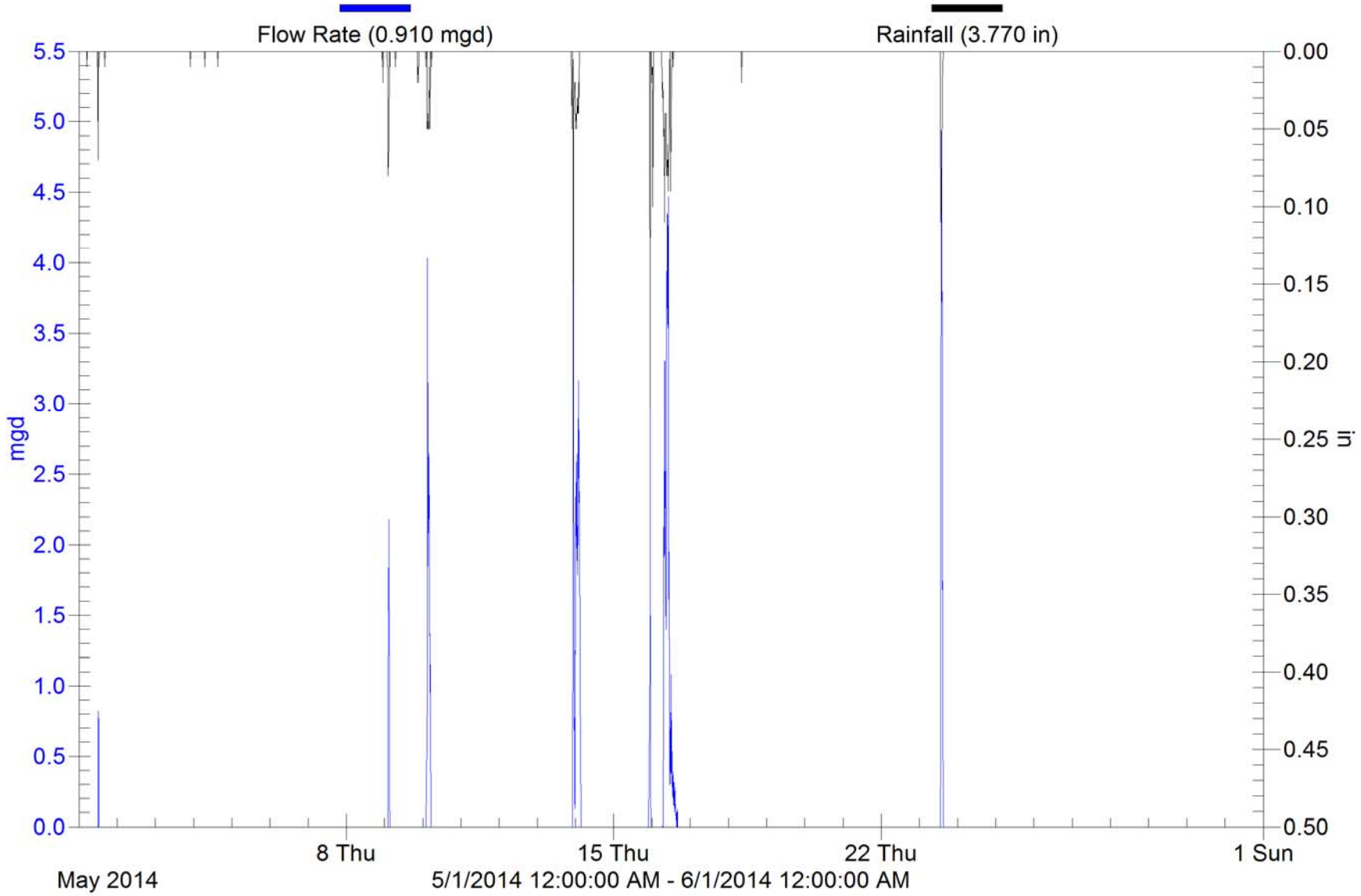


FIGURE 7

CSO 077 West Colvin Street - Midland Monthly Hydrograph

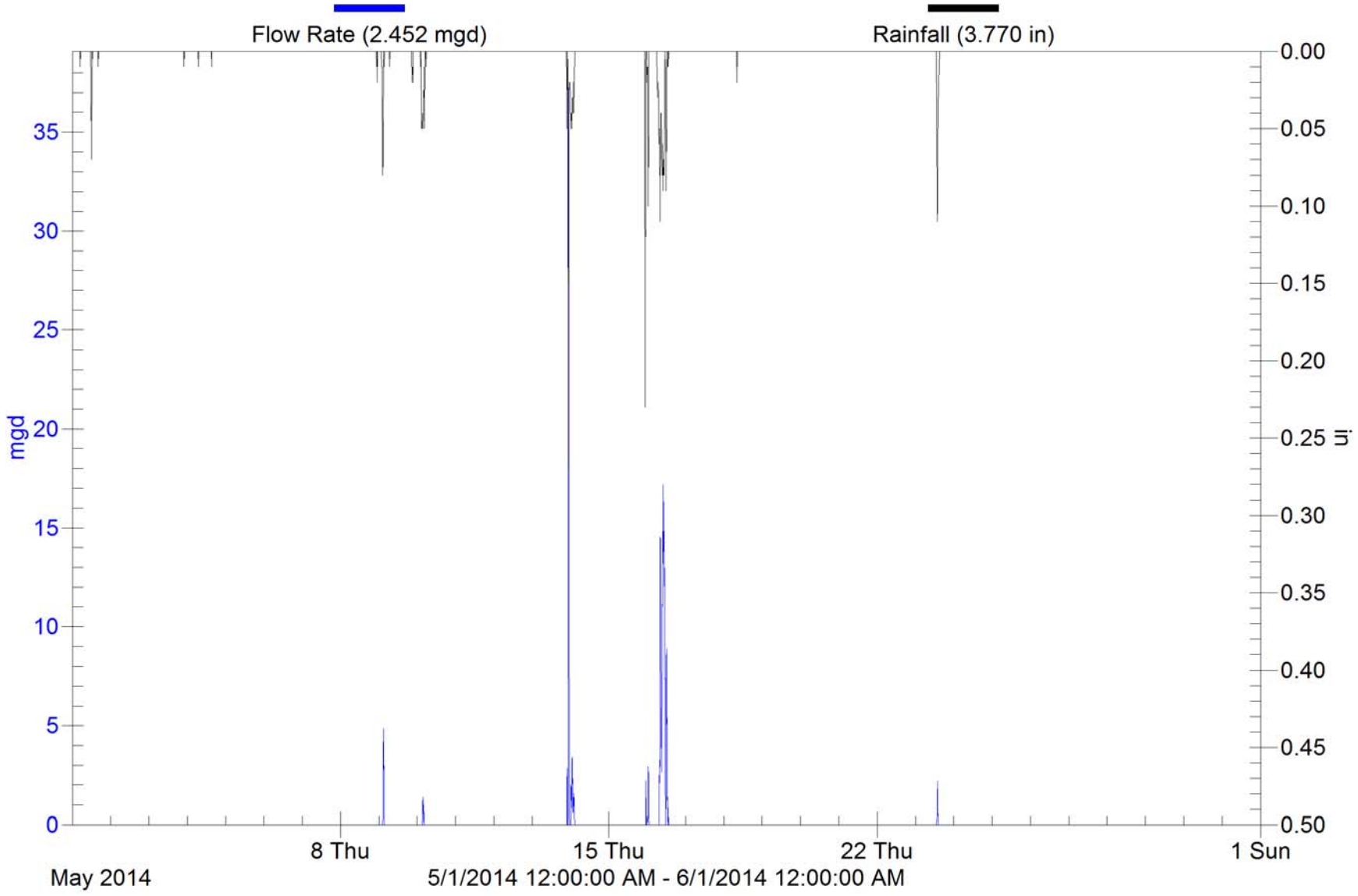
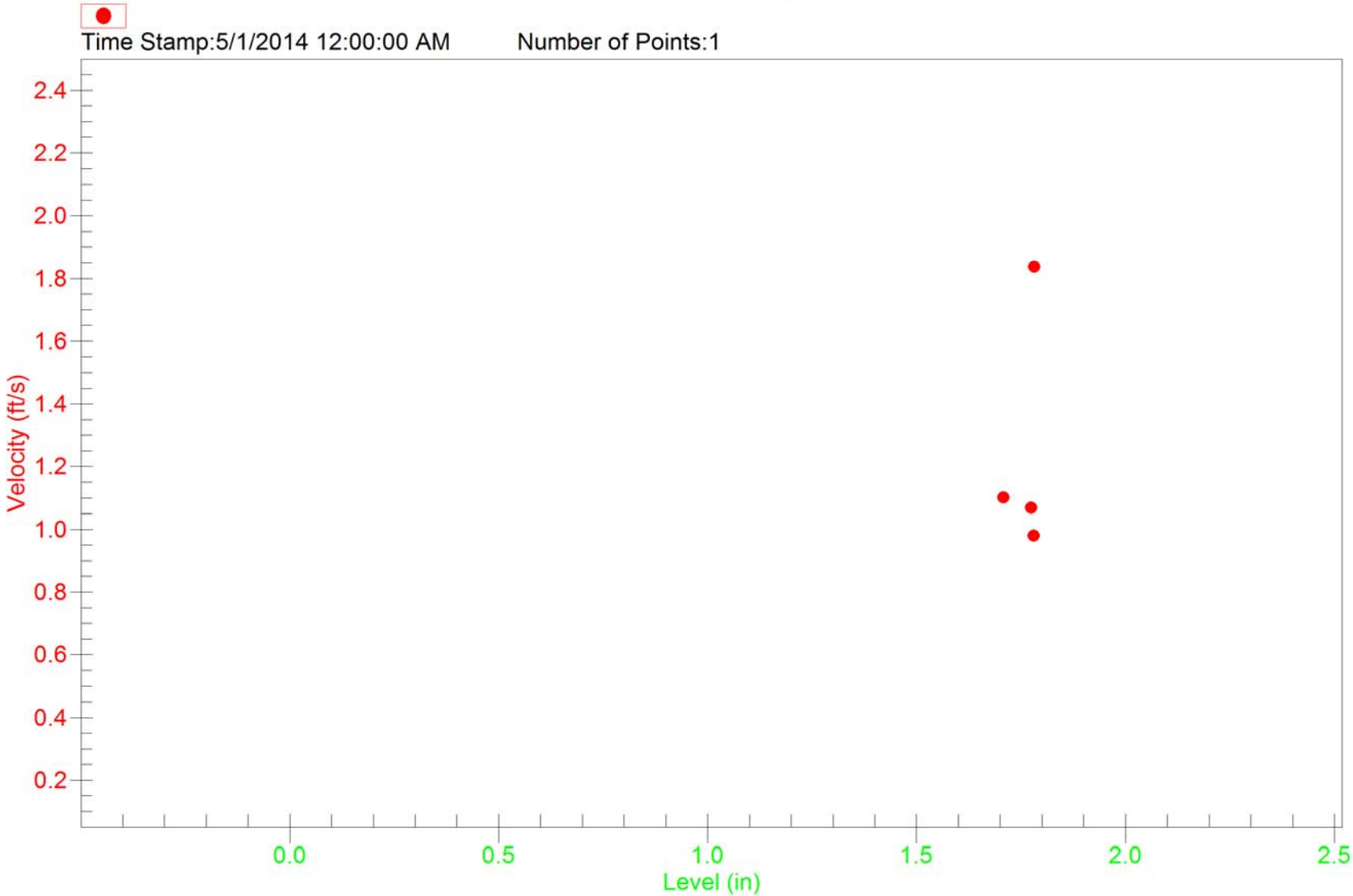


FIGURE 8

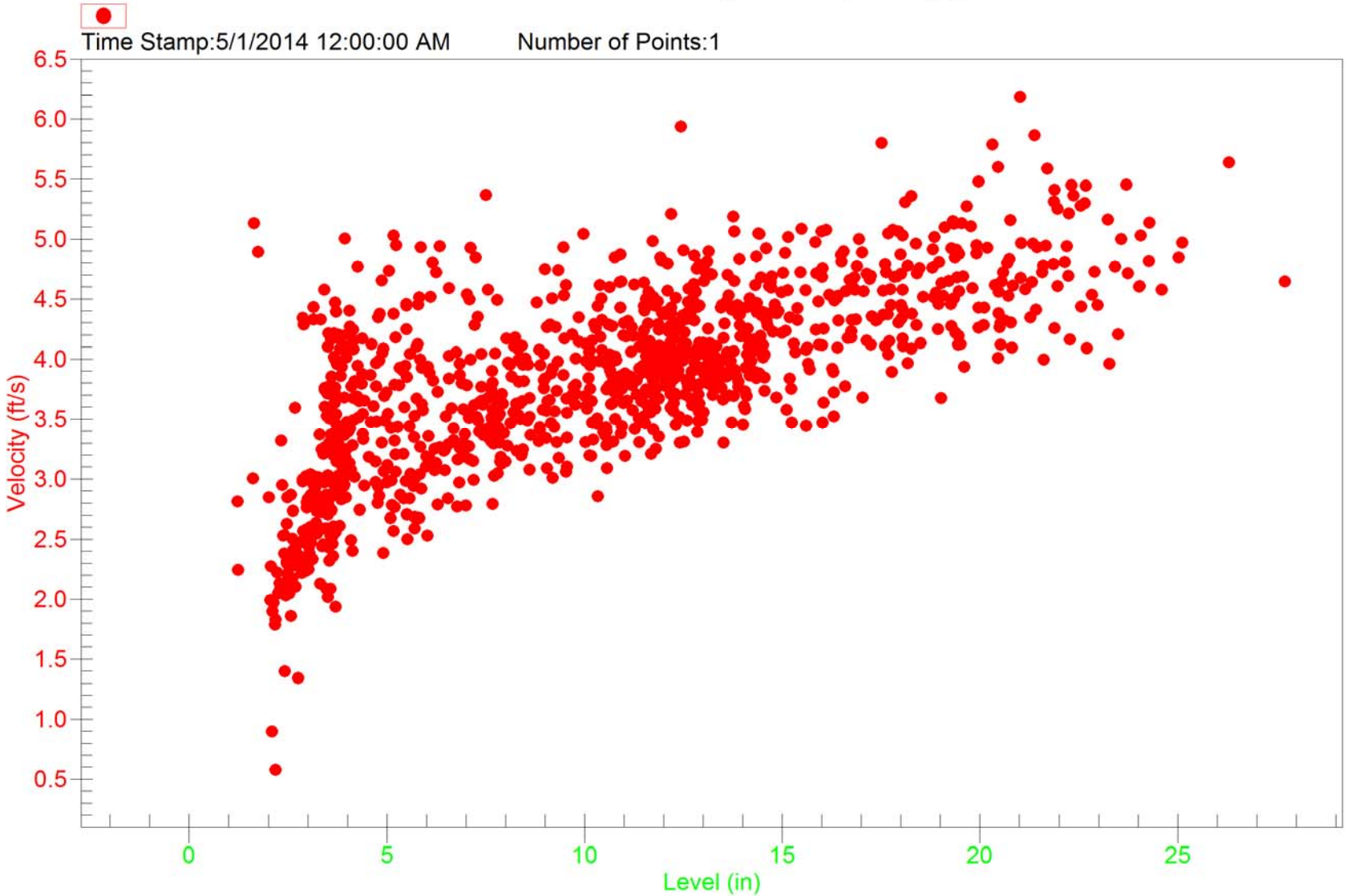
CSO 004 State Fair Blvd. Monthly Scattergraph



5/1/2014 12:00:00 AM - 6/1/2014 12:00:00 AM

FIGURE 9

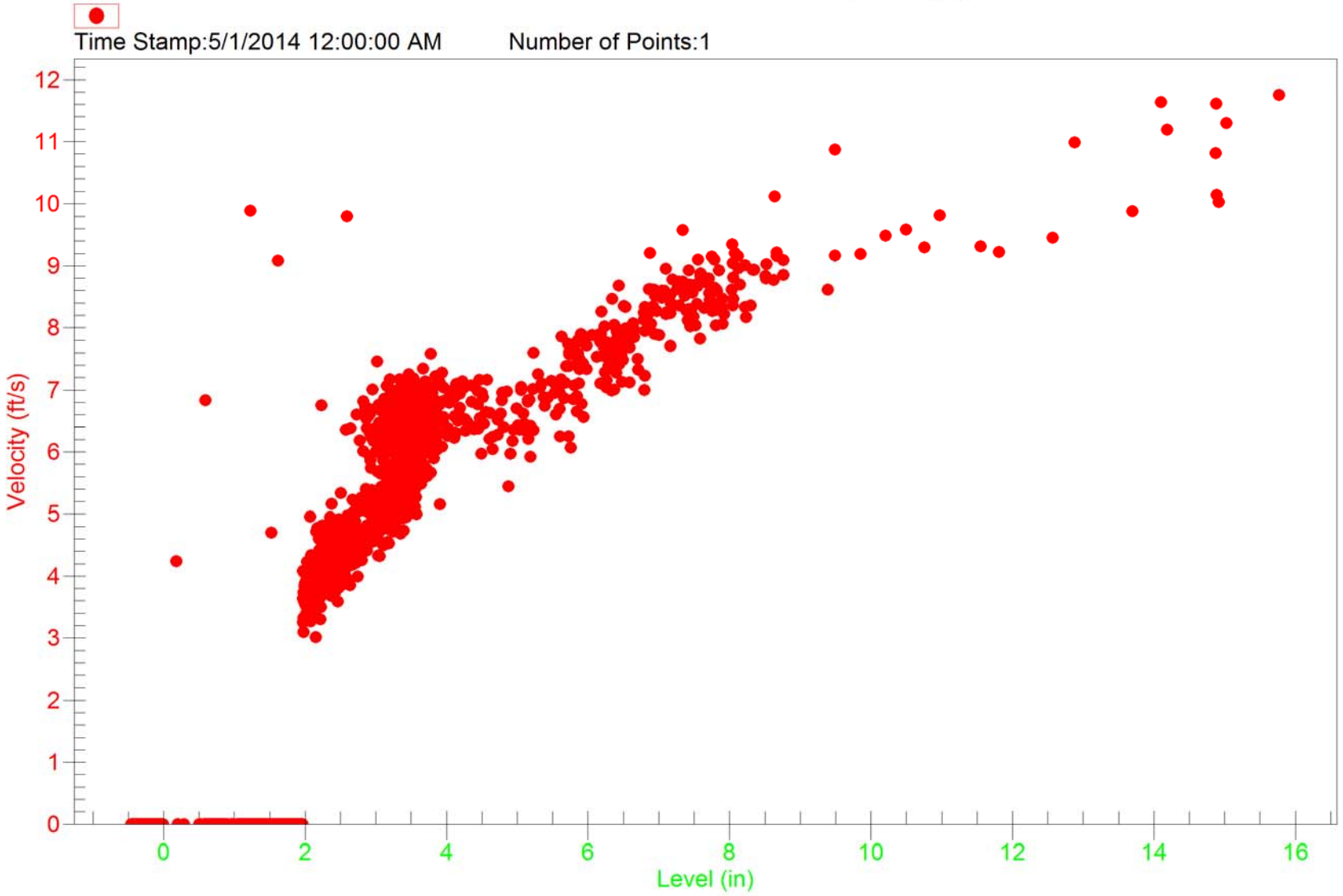
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



5/1/2014 12:00:00 AM - 6/1/2014 12:00:00 AM

FIGURE 10

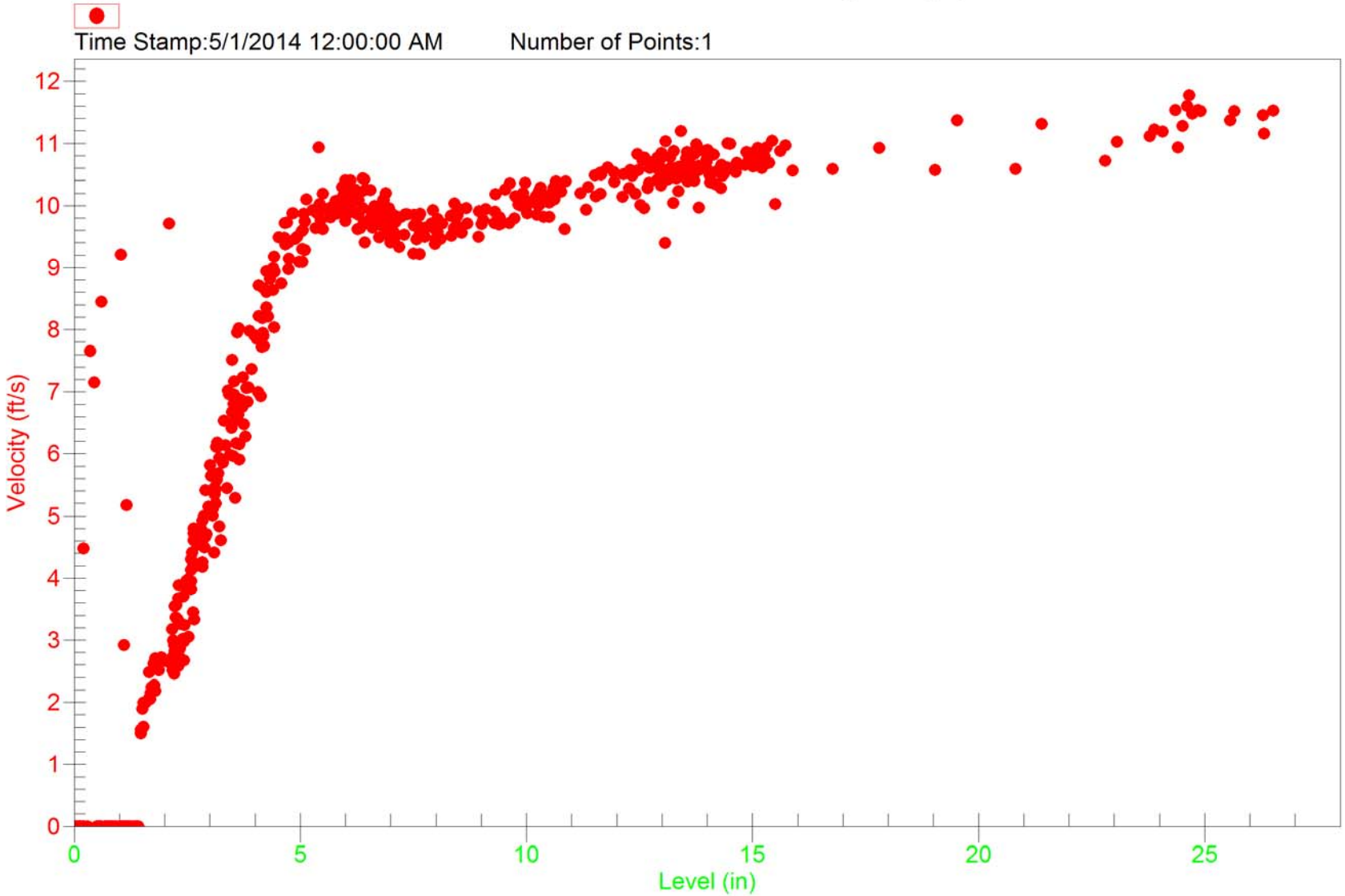
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



5/1/2014 12:00:00 AM - 6/1/2014 12:00:00 AM

FIGURE 11

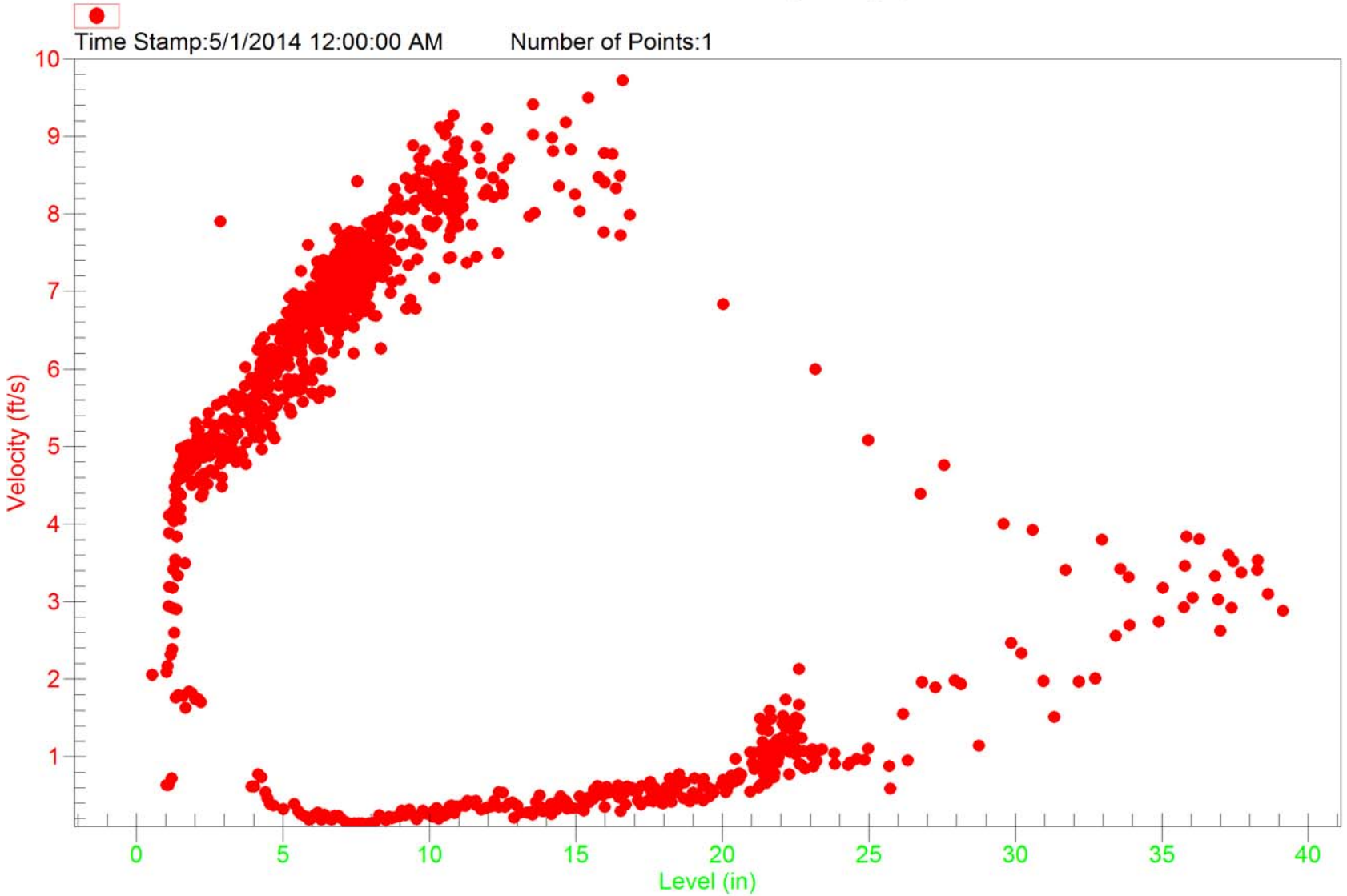
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



5/1/2014 12:00:00 AM - 6/1/2014 12:00:00 AM

FIGURE 12

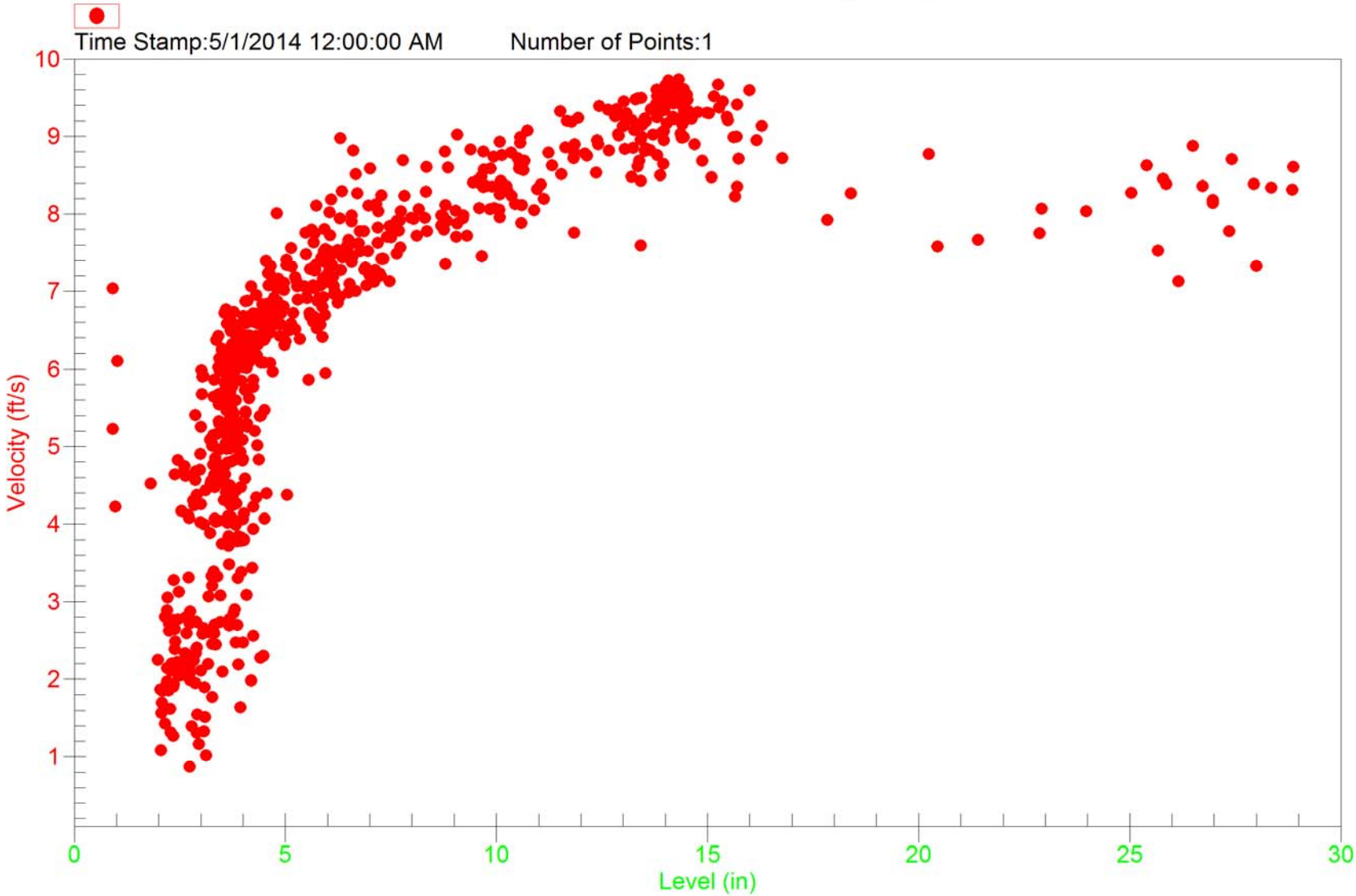
CSO 063 Emerson Avenue Monthly Scattergraph



5/1/2014 12:00:00 AM - 6/1/2014 12:00:00 AM

FIGURE 13

CSO 077 West Colvin Street - Midland Monthly Scattergraph



5/1/2014 12:00:00 AM - 6/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
05/21/14	13:43	0.00	NA	-0.142	NA			10.3	Ok	Archived	BP		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 State Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.

9148157913

IT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff lo
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
5/21/14	13:00	0	NA	-0.09	NA			11.7	OK	Archived	BP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. MH DEPTH:
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00211
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Delaware St. & Amy St.

9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP
05/21/14	16:12	0.00	NA	-0.602	NA		Adj.	11.9	OK	Archived	BP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT	Onondaga County CSO	PROJECT No.	1130.04.01
ENGINEER:	CDM / C&S	DATE:	11/17/11 TIME: 11:30
OWNER:	Onondaga County	INSTALLER:	RT JP
SITE NAME:	CSO 030 W. Jefferson Street (East of Creek)	LOGGER No.	208A02288
M.H. No.	MH DEPTH:	PROBE No.	208K00722
PIPE SIZE	58 TYPE: Con.	BATTERY TYPE:	6 volt lantern

SITE CONDITIONS:

DEPOSITION:	NONE:	X	INCHES:		
INVERT CONDITION:	Smooth:	X	Rough:	In-Between	
PROBE MOUNTED:	On Invert:		Side of Pipe:	On Weir	
ACTUAL PROBE OFFSET:			INCHES		

COMMENTS: Easement off W. Jefferson St. 308

9148066825

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street

9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
05/21/14	14:30	0.00	NA	0,563	NA		Adj.	10.7	OK	Archived	BP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 052 Hunt Street & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.

9148198097

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0	NA	-0.471	NA			10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: ɔaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE: 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST

9148747350

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 063 Emerson Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: 914 Emerson Ave. in sidewalk

9148606821

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
5/21/14	14:00	0	NA	-0.163	NA			10.7	OK	Archived	BP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Midland Ave. & Colvin Street

9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
JUNE 2014

Prepared by
SAVIN ENGINEERS, P.C.

JULY 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
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ONONDAGA COUNTY, NEW YORK
DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

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ATTACHMENT	TITLE
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ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
JUNE 2014

1. INTRODUCTION

This is the thirtieth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of June 1, 2014 through June 30, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- June 8,
- June 13,
- June 16,
- June 17,
- June 18,
- June 24, and
- June 25

2. SUMMARY OF OVERFLOWS

There were seven rainfall events that occurred on June 8, June 13, June 16, June 17, June 18, June 24 and June 25. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the seven overflow events. Figures 1 through 6 show rainfall during the month of June.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 6, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 7 through 11. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir

equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of June.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of June.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of June 1, 2014 through June 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
June 18	6,563	30 minutes
June 18	125	90 minutes
June 24	10,750	60 minutes
June 25	1,792	30 minutes

CSO 030 (West Jefferson St.) - There were no overflows during the month of June.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of June 1, 2014 through June 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration

June 8	88,541	25 minutes
June 13	20,206	49 minutes
June 17	470,873	40 minutes
June 24	1,414,280	1.75 hours
June 25	1,482,352	13 hours

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of June 1, 2014 through June 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
June 8	13,678	36 minutes
June 13	9,955	54 minutes
June 16	1,735	6 minutes
June 17	46,277	26 minutes
June 24	123,319	84 minutes
June 25	133,278	12.5 hours

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 4 shows the hydrograph for the period of June 1, 2014 through June 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
June 13	139,653	35 minutes
June 17	281,446	36 minutes
June 24	553,643	78 minutes

June 25	923,244	12.5 hours

CSO 063 (Emerson Ave.) – Figure 5 shows the hydrograph for the period of June 1, 2014 through June 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
June 8	48,083	54 minutes
June 13	19,636	53 minutes
June 16	8,696	14 minutes
June 17	55,013	66 minutes
June 24	173,151	2.25 hours
June 25	218,990	18.25 hours

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 6 shows the hydrograph for the period of June 1, 2014 through June 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
June 8	13,041	21 minutes
June 13	215,994	38 minutes
June 17	318,816	37 minutes
June 24	526,334	2.25 hours
June 25	1,000,763	12.25 hours

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - June 2014

	Location	6/8 Overflow Quantity (gal)	6/13 Overflow Quantity (gal)	6/16 Overflow Quantity (gal)	6/17 Overflow Quantity (gal)	6/18 Overflow Quantity (gal)	6/24 Overflow Quantity (gal)	6/25 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0	0	0	0
2	**CSO 004**	0	0	0	0	0	0	0	0
3	**CSO 014**	0	0	0	6,563	125	10,750	1,792	19,230
4	**CSO 030**	0	0	0	0	0	0	0	0
5	**CSO 034**	88,541	20,206	0	470,873	0	1,414,280	1,482,352	3,476,252
6	**CSO 052**	13,678	9,955	1,735	46,277	0	123,319	133,278	328,242
7	**CSO 060**	0	139,653	0	281,446	0	553,643	923,244	1,897,986
8	**CSO 063**	48,083	19,636	8,696	55,013	0	173,151	218,990	523,569
9	**CSO 077**	13,041	215,994	0	318,816	0	526,334	1,000,763	2,074,948
	TOTAL =	**163,343**	**405,444**	**10,431**	**1,178,988**	**125**	**2,801,477**	**3,760,419**	**8,320,227**

									Monthly Overflow Total (in)
12	**Rainfall Total:**	0.23	0.26	0.12	0.42	0.01	0.89	1.16	3.09
13	**Average Rainfall Intensity:**	0.12	0.01	0.12	0.21	0.01	0.06	0.05	
14	**Peak Hourly Rainfall Intensity:**	0.19	0.17	0.12	0.38	0.01	0.66	0.43	

FIGURE 1

CSO 014 Delaware Street Monthly Hydrograph

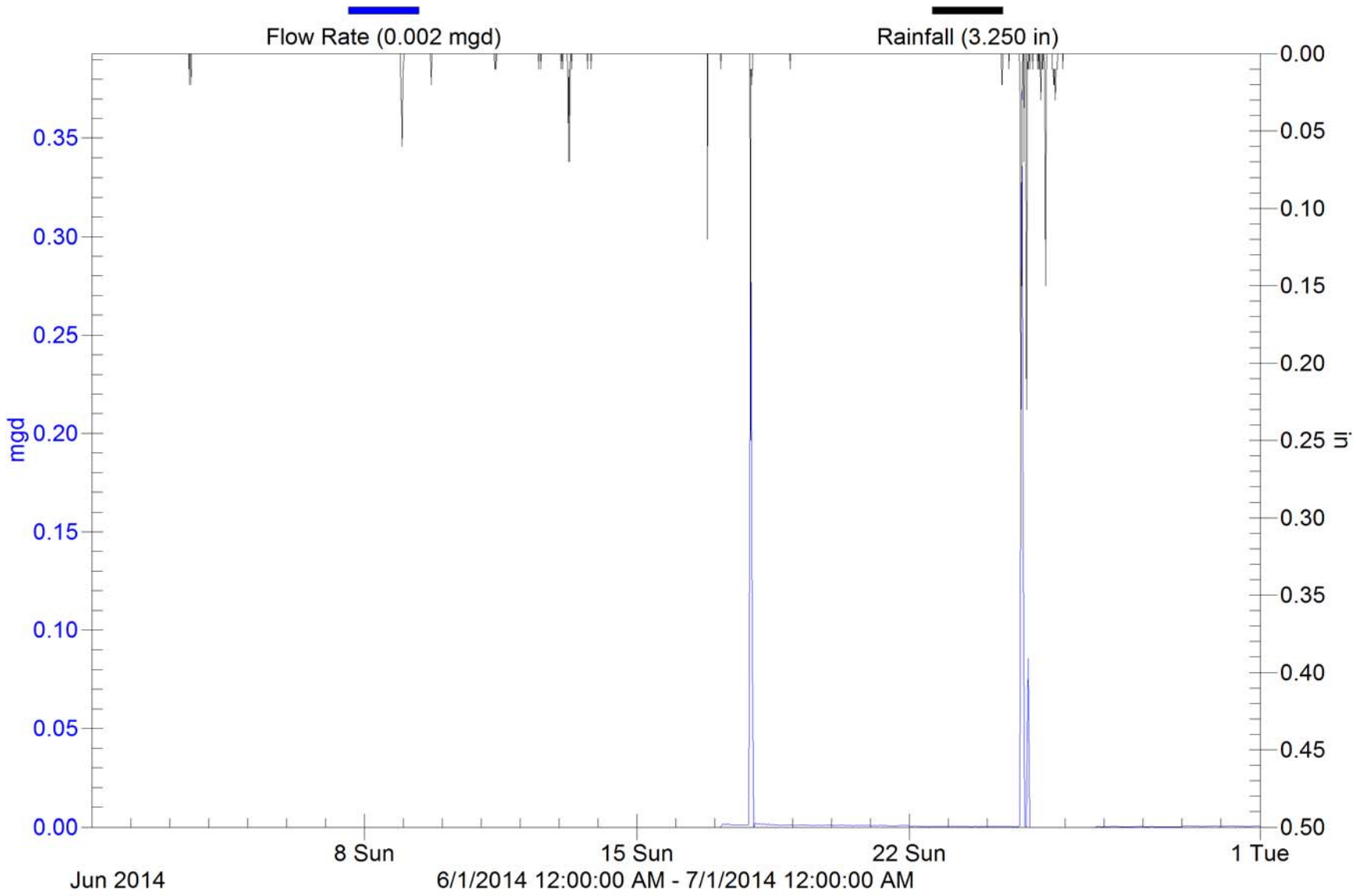


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

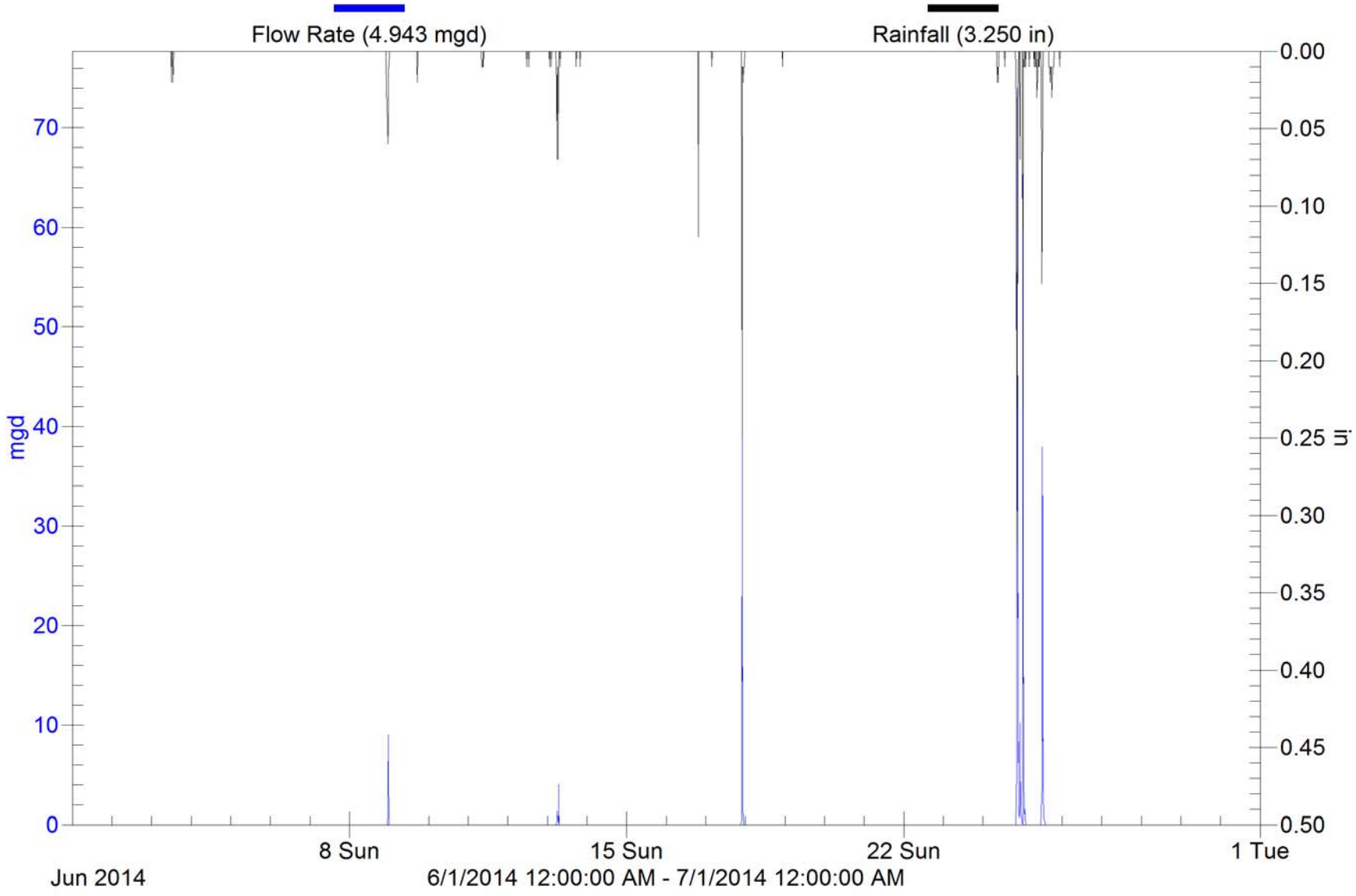


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

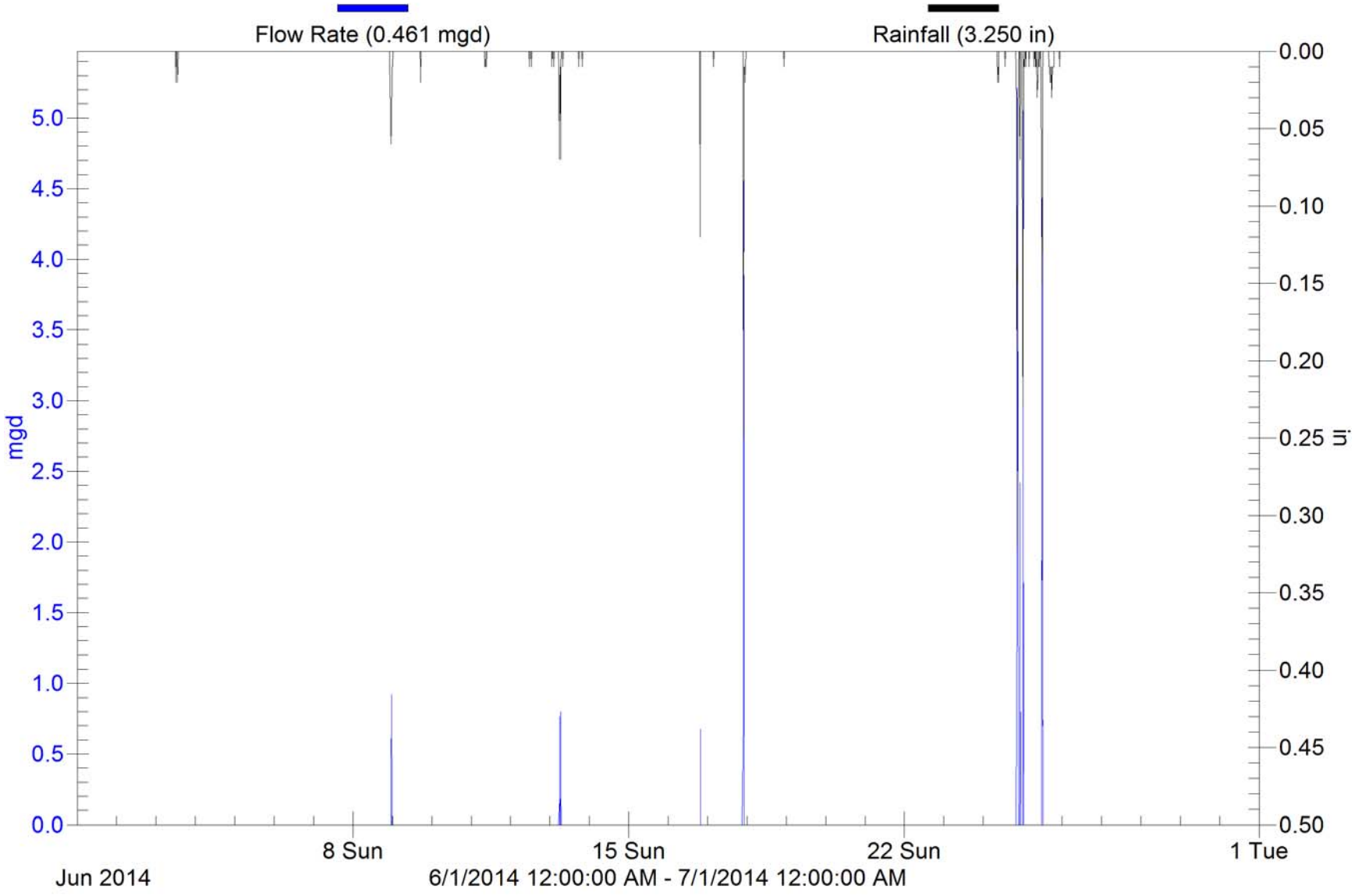


FIGURE 4

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

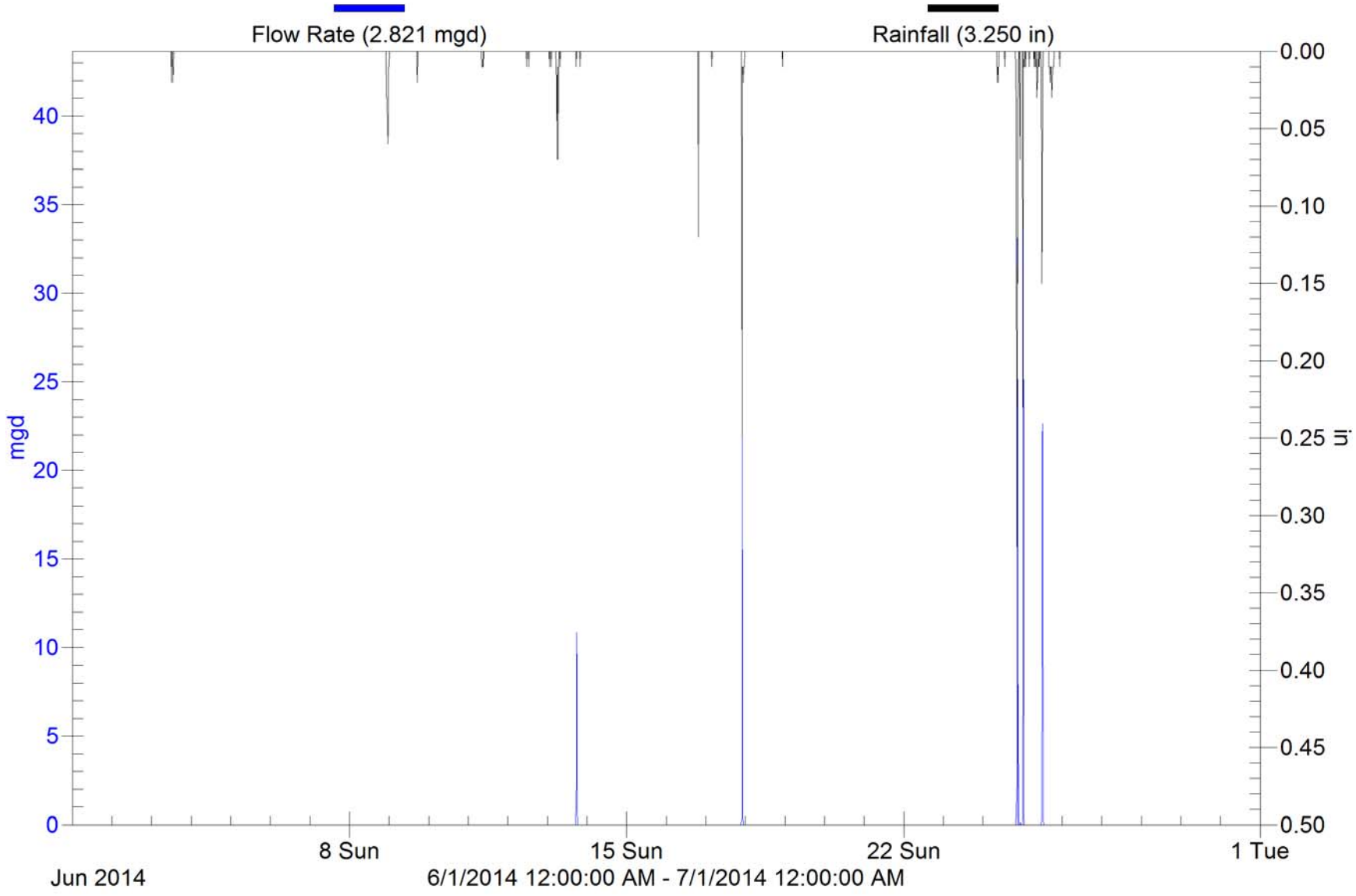


FIGURE 5

CSO 063 Emerson Avenue Monthly Hydrograph

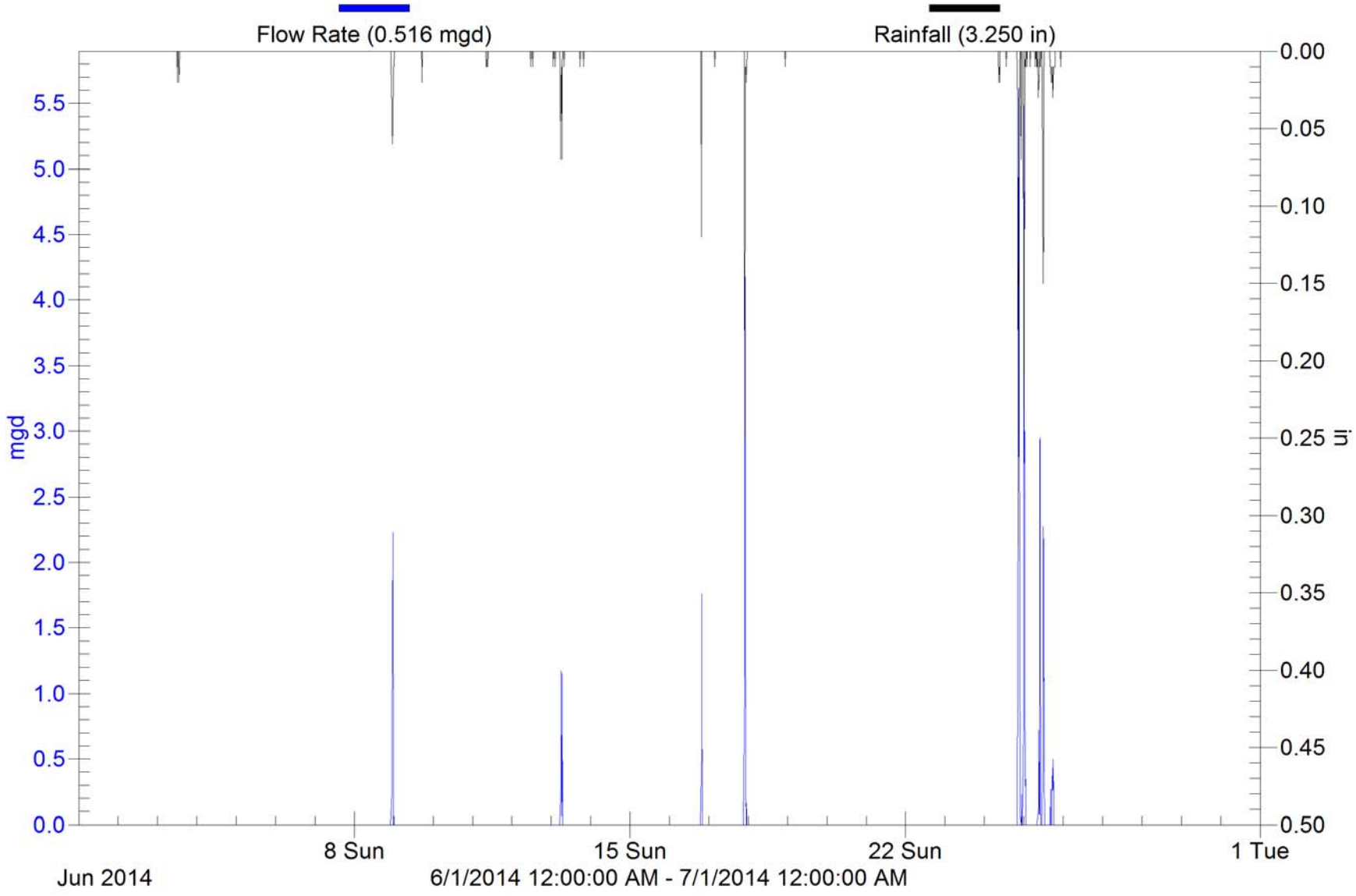


FIGURE 6

CSO 077 West Colvin Street - Midland Monthly Hydrograph

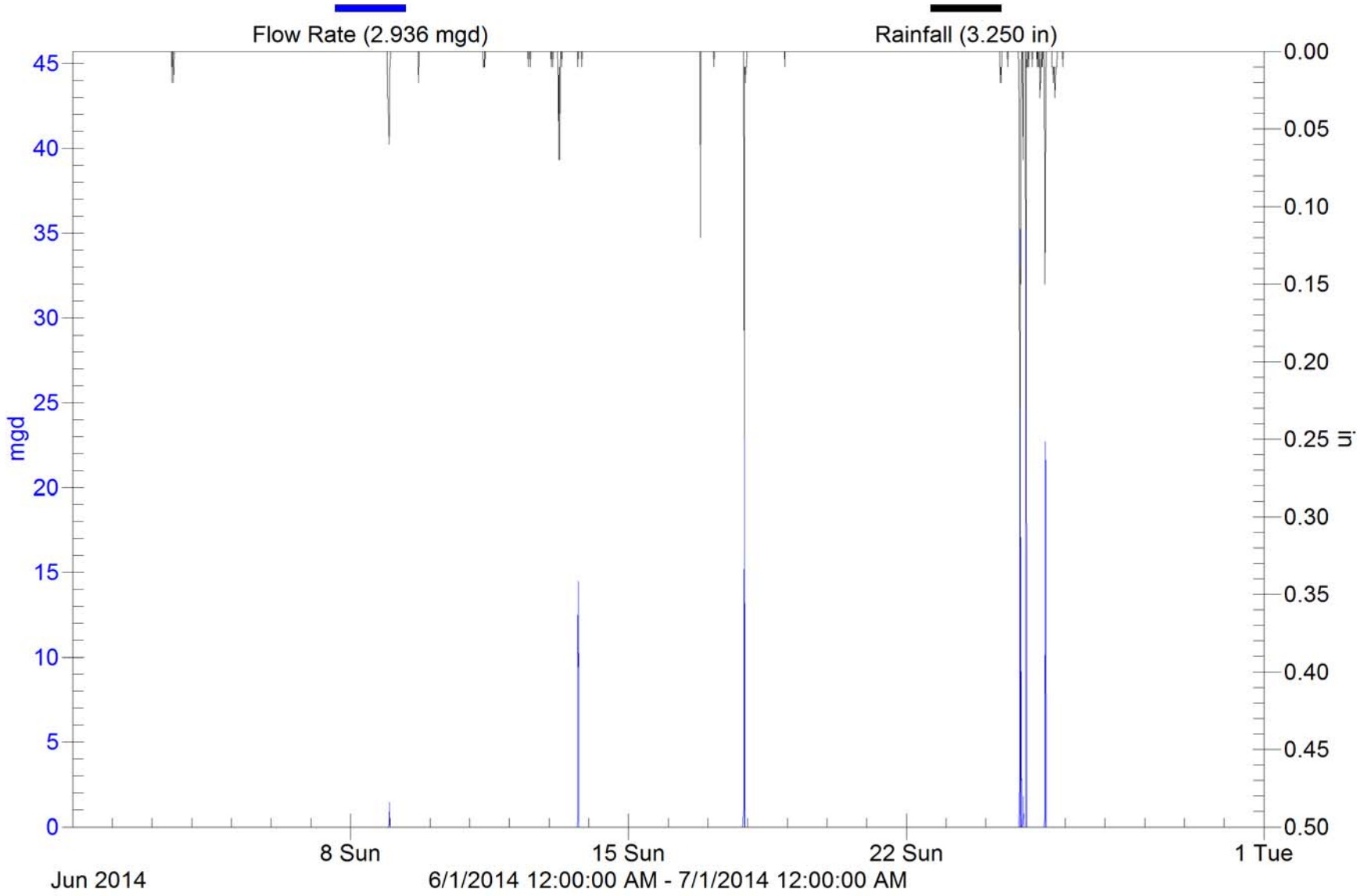
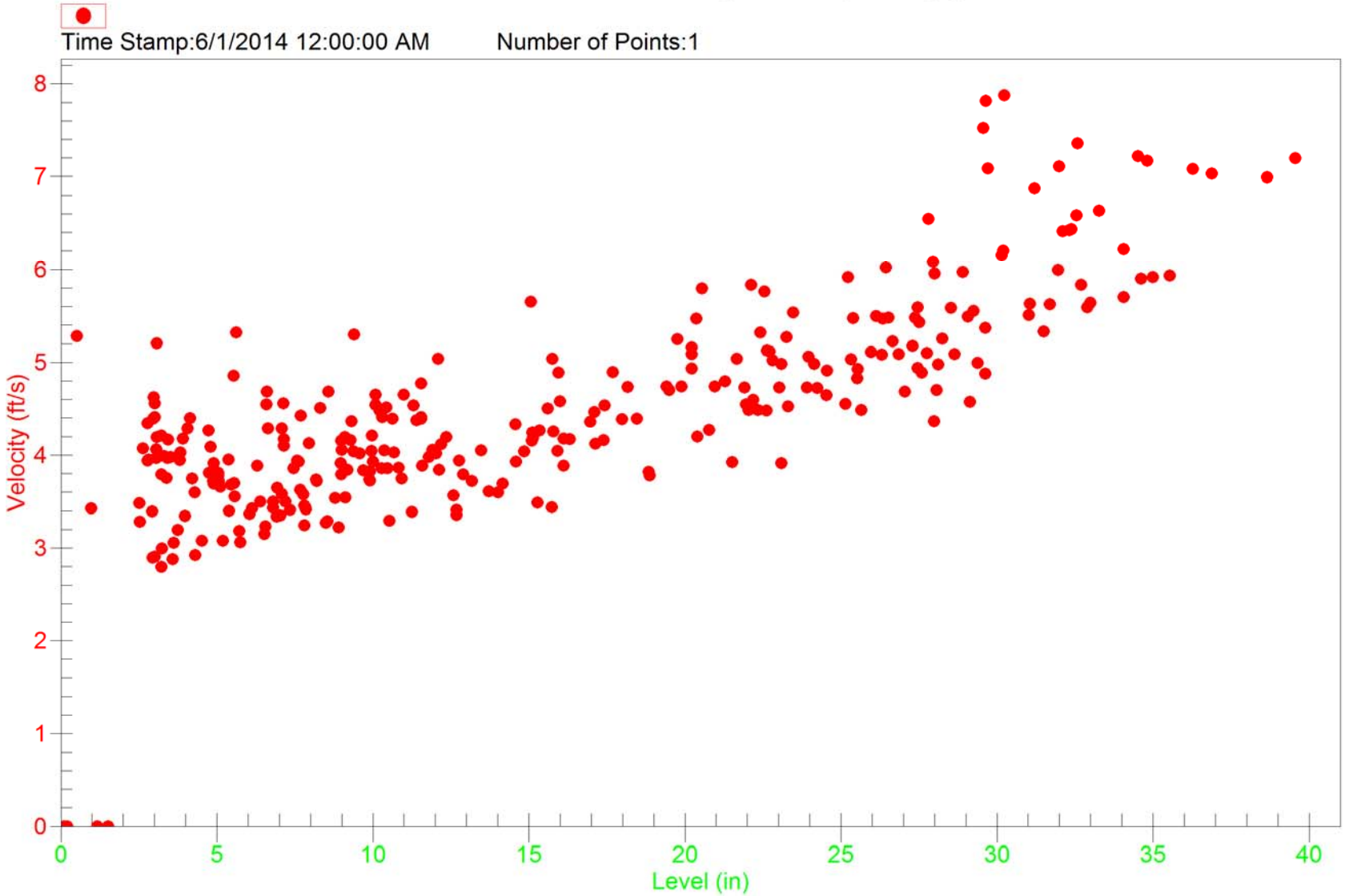


FIGURE 7

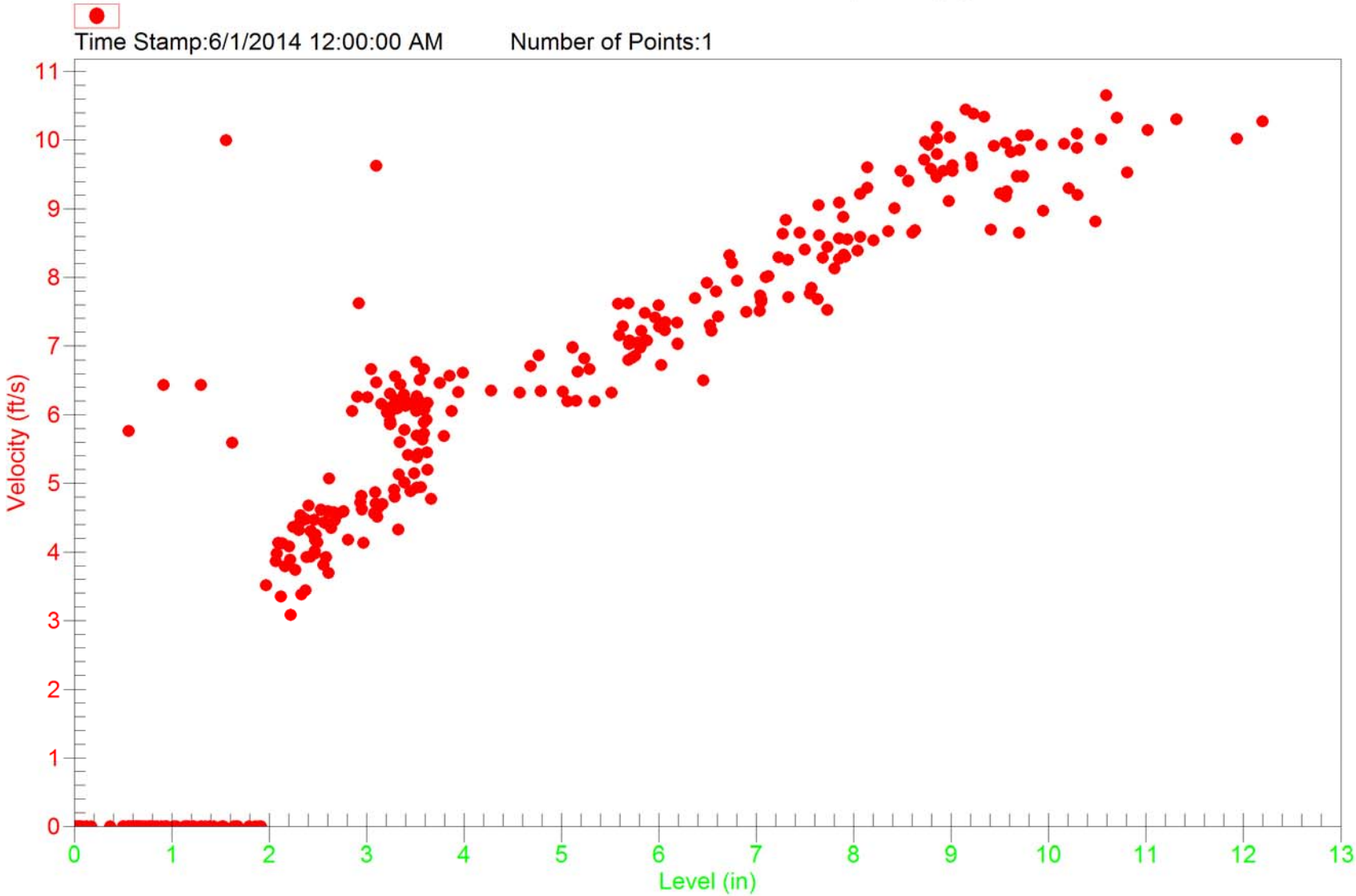
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



6/1/2014 12:00:00 AM - 7/1/2014 12:00:00 AM

FIGURE 8

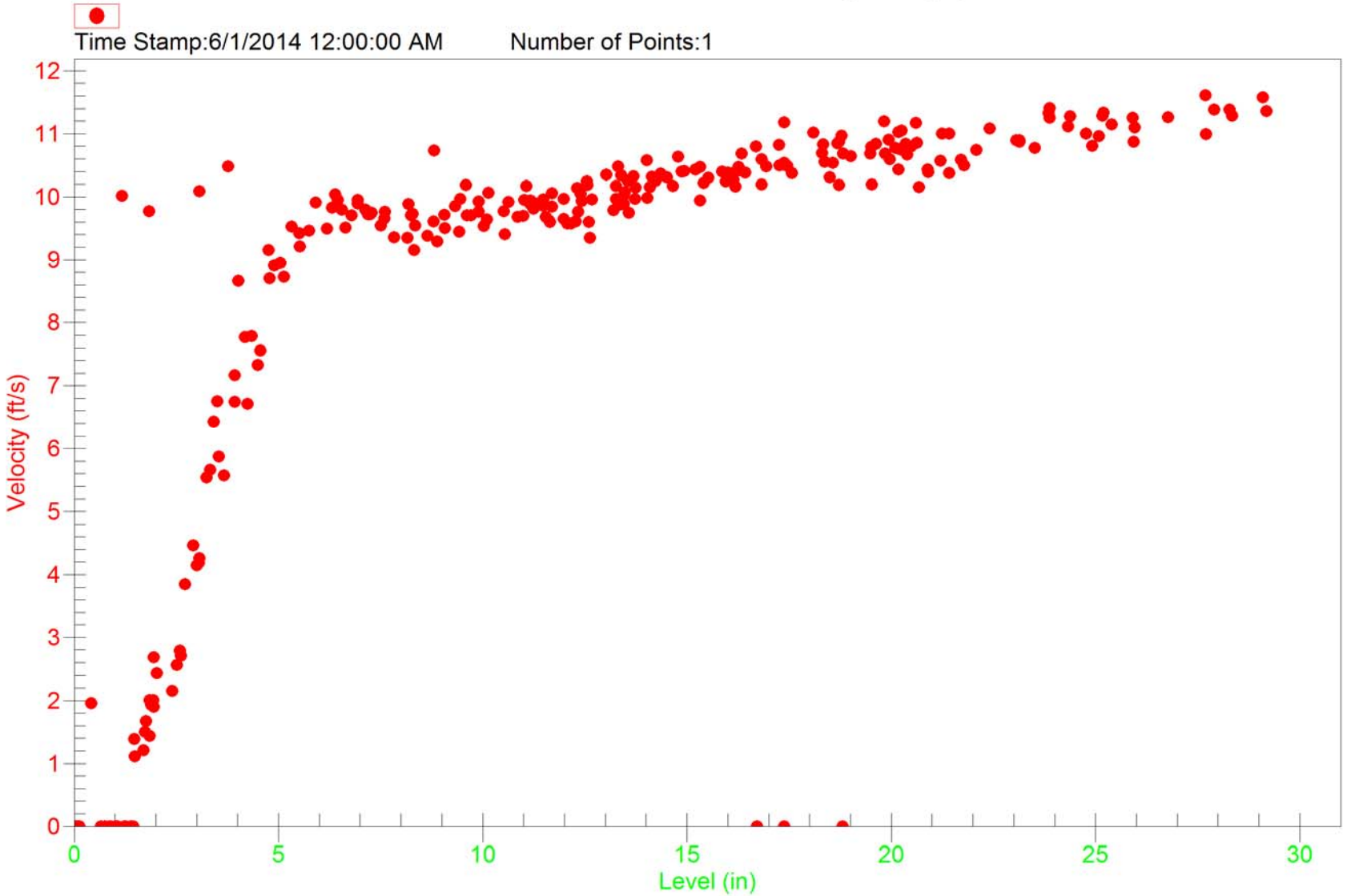
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



6/1/2014 12:00:00 AM - 7/1/2014 12:00:00 AM

FIGURE 9

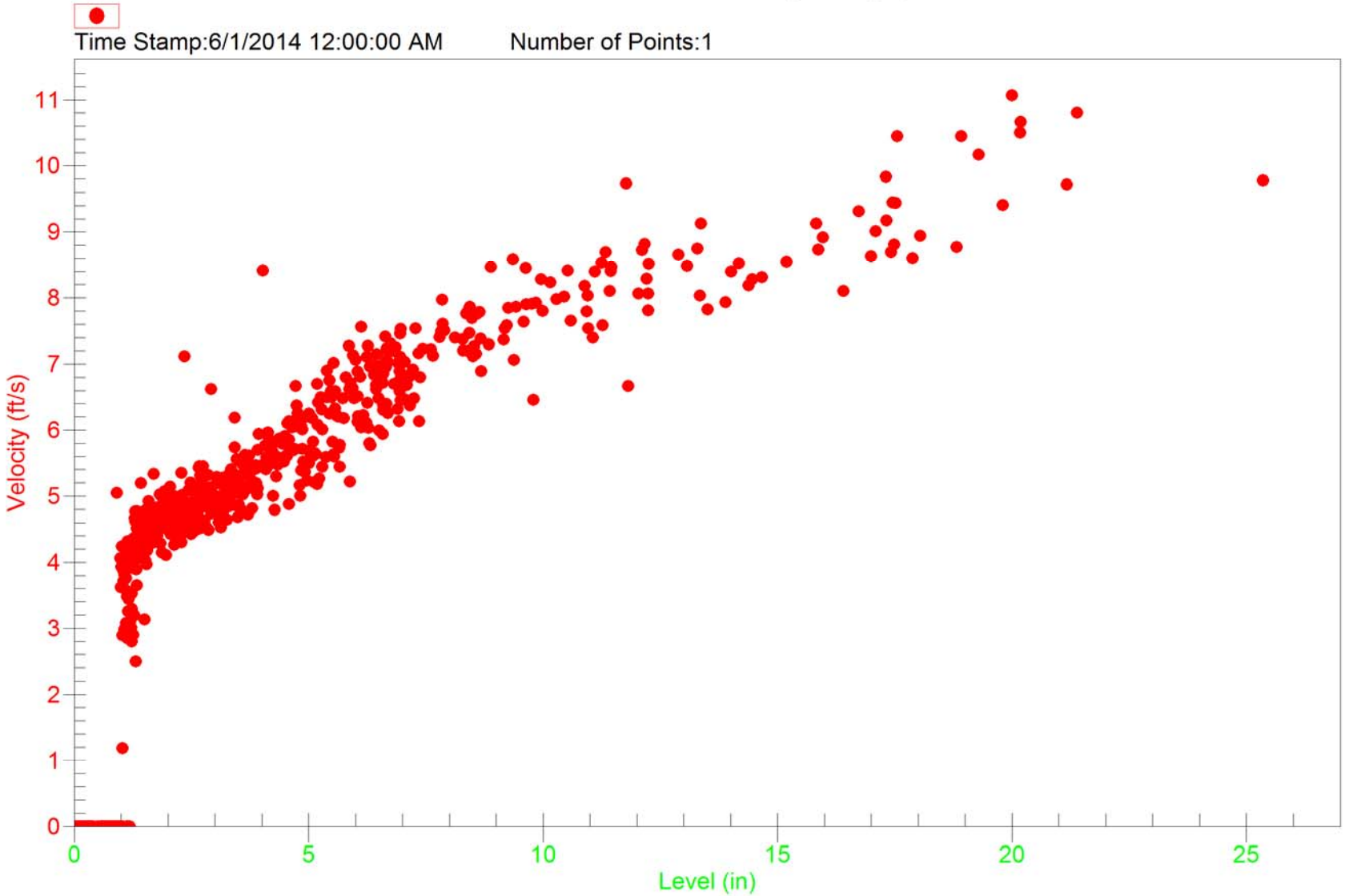
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



6/1/2014 12:00:00 AM - 7/1/2014 12:00:00 AM

FIGURE 10

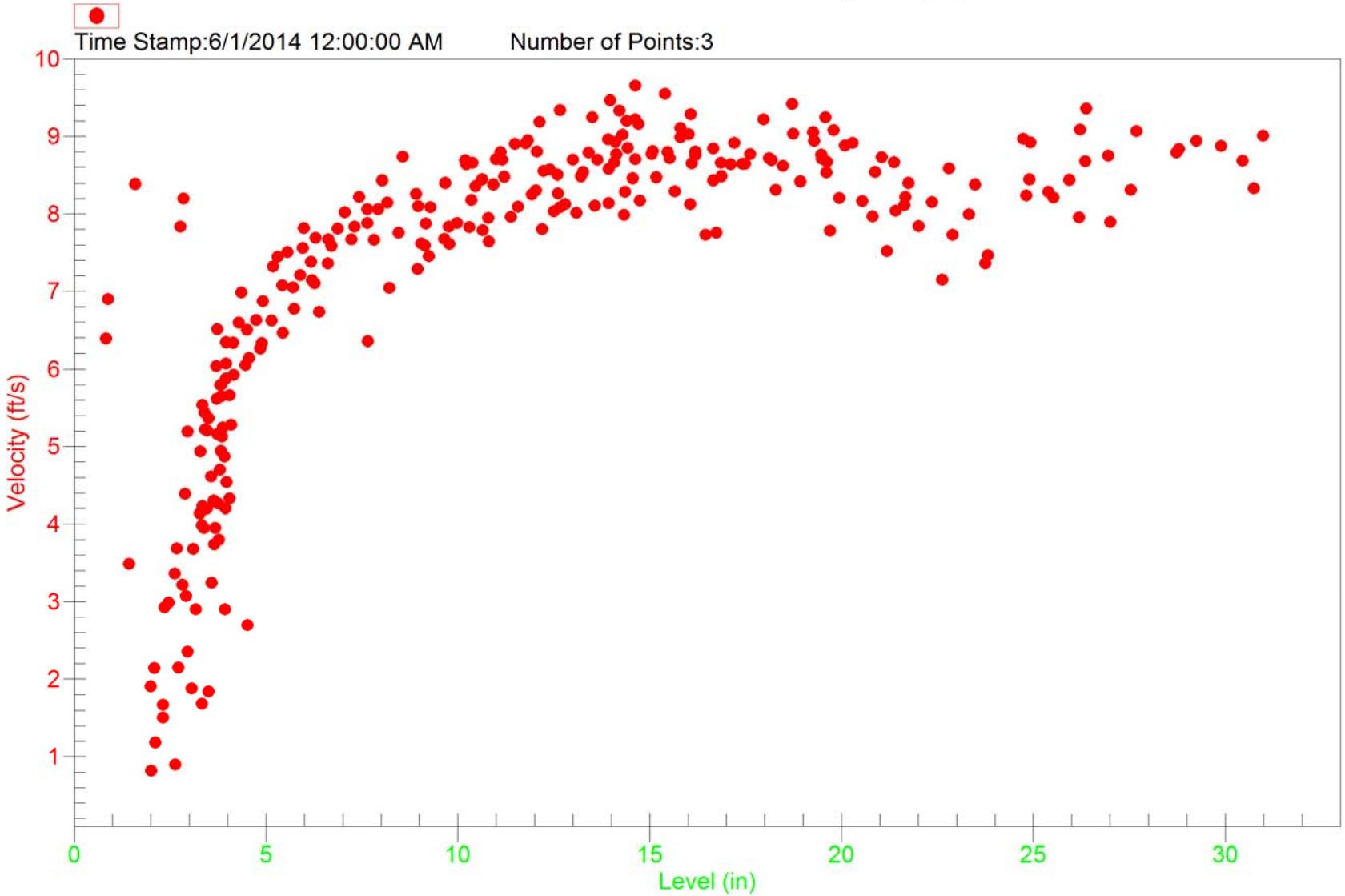
CSO 063 Emerson Avenue Monthly Scattergraph



6/1/2014 12:00:00 AM - 7/1/2014 12:00:00 AM

FIGURE 11

CSO 077 West Colvin Street - Midland Monthly Scattergraph



6/1/2014 12:00:00 AM - 7/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

IT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff lo
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. MH DEPTH:
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɟaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 052 ɹet & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: ɔaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE: 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

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SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

ɪT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 063 nerson Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɗaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
JULY 2014

Prepared by
SAVIN ENGINEERS, P.C.

AUGUST 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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JULY 2014

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ONONDAGA COUNTY, NEW YORK
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ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
JULY 2014

1. INTRODUCTION

This is the thirty-first monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of July 1, 2014 through July 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- July 1,
- July 2,
- July 3,
- July 4,
- July 7,
- July 8,
- July 9,
- July 13,

- July 14,
- July 15,
- July 17,
- July 23,
- July 27,
- July 28,
- July 29,
- July 30, and
- July 31

2. SUMMARY OF OVERFLOWS

There were seventeen rainfall events that occurred on July 1, July 2, July 3, July 4, July 7, July 8, July 9, July 13, July 14, July 15, July 17, July 23, July 27, July 28, July 29, July 30 and July 31. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the seventeen overflow events. Figures 1 through 6 show rainfall during the month of July.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 6, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 7 through 11. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of July.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of July.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of July 1, 2014 through July 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
July 1	1,583	30 minutes
July 3	542	30 minutes
July 8	2,750	30 minutes
July 9	809	30 minutes
July 13	583	30 minutes
July 14	1,688	30 minutes
July 15	167	30 minutes
July 17	88	3.5 hours
July 27	241	1 minute
July 28	1,959	9.5 hours
July 30	158	45 minutes

CSO 030 (West Jefferson St.) - There were no overflows during the month of July.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of July 1, 2014 through July 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
July 1	350,066	31 minutes

July 3	344,656	40 minutes
July 4	97,399	19 minutes
July 8	1,306,796	53 minutes
July 9	6,480	4 minutes
July 14	461,791	29 minutes
July 23	1,615	10 minutes
July 27	2,320	7.5 hours
July 28	10,748	21 hours
July 29	152	1 minute
July 30	3,872	2 hours
July 31	1,427	13 minutes

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of July 1, 2014 through July 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
July 1	34,464	22 minutes
July 2	4,593	11 minutes
July 3	59,050	33 minutes
July 8	66,102	27 minutes
July 14	32,216	17 minutes
July 15	15,706	1 hour
July 23	50,259	24 minutes

July 27	66,094	39 minutes
July 28	359,535	21 hours
July 30	66,347	35 minutes
July 31	41,385	26 minutes

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 4 shows the hydrograph for the period of July 1, 2014 through July 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
July 1	69,084	46 minutes
July 3	92,805	34 minutes
July 8	694,880	41 minutes
July 14	280,373	31 minutes
July 15	24,285	20 minutes
July 23	310,926	32 minutes
July 27	391,469	47 minutes
July 28	1,183,268	2.75 hours
July 30	328,042	41 minutes
July 31	265,269	34 minutes

CSO 063 (Emerson Ave.) – Figure 5 shows the hydrograph for the period of July 1, 2014 through July 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
July 3	37,536	43 minutes

July 4	27,863	34 minutes
July 7	13,386	33 minutes
July 8	92,967	50 minutes
July 9	67,538	83 minutes
July 14	48,812	74 minutes
July 17	3,123	20 minutes
July 23	76,786	52 minutes
July 27	118,034	78 minutes
July 28	292,750	21 hours
July 29	1,323	14 minutes
July 30	61,293	2 hours
July 31	28,641	52 minutes

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 6 shows the hydrograph for the period of July 1, 2014 through July 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
July 1	340,979	44 minutes
July 3	623,828	46 minutes
July 8	733,257	36 minutes
July 9	5,145	12 minutes
July 14	392,644	32 minutes
July 15	52,894	25 minutes

July 23	2,764	32 minutes
July 27	419,999	47 minutes
July 28	1,452,393	3 hours
July 30	403,918	45 minutes
July 31	364,135	41 minutes

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - July 2014

	Location	7/1 Overflow Quantity (gal)	7/2 Overflow Quantity (gal)	7/3 Overflow Quantity (gal)	7/4 Overflow Quantity (gal)	7/7 Overflow Quantity (gal)	7/8 Overflow Quantity (gal)	7/9 Overflow Quantity (gal)	7/13 Overflow Quantity (gal)	7/14 Overflow Quantity (gal)	7/15 Overflow Quantity (gal)	7/17 Overflow Quantity (gal)	7/23 Overflow Quantity (gal)	7/27 Overflow Quantity (gal)	7/28 Overflow Quantity (gal)	7/29 Overflow Quantity (gal)	7/30 Overflow Quantity (gal)	7/31 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	**CSO 004**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	**CSO 014**	1,583	0	542	0	0	2,750	809	583	1,688	167	88	0	241	1,959	0	158	0	10,568
4	**CSO 030**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	**CSO 034**	350,606	0	344,656	97,399	0	1,306,796	6,480	0	461,791	0	0	1,615	2,320	10,748	152	3,872	1,427	2,587,862
6	**CSO 052**	34,464	4,593	59,050	0	0	66,102	0	0	32,216	15,706	0	50,259	66,094	359,535	0	66,347	41,385	795,751
7	**CSO 060**	69,084	0	92,805	0	0	694,880	0	0	280,373	24,285	0	310,926	391,469	1,183,268	0	328,042	265,269	3,640,401
8	**CSO 063**	0	0	37,536	27,863	13,386	92,967	67,538	0	48,812	0	3,123	76,786	118,034	292,750	1,323	61,293	28,641	870,052
9	**CSO 077**	340,979	0	623,828	0	0	733,257	5,145	0	392,644	52,894	0	2,764	419,999	1,452,393	0	403,918	364,135	4,791,956
	TOTAL =	**796,716**	**4,593**	**1,158,417**	**125,262**	**13,386**	**2,896,752**	**79,972**	**583**	**1,217,524**	**93,052**	**3,211**	**442,350**	**998,157**	**3,300,653**	**1,475**	**863,630**	**700,857**	**12,696,590**

																			Monthly Overflow Total (in)
12	**Rainfall Total:**	0.38	0.03	0.39	0.09	0.08	0.57	0.18	0.05	0.49	0.19	0.04	0.49	0.49	1.95	****Leftover from 7/28****	0.45	0.31	6.18
13	**Average Rainfall Intensity:**	0.38	0.03	0.02	0.01	0.02	0.02	0.06	0.02	0.12	0.19	0.01	0.16	0.16	0.09		0.15	0.04	
14	**Peak Hourly Rainfall Intensity:**	0.38	0.03	0.29	0.08	0.05	0.39	0.12	0.03	0.41	0.19	0.02	0.47	0.47	0.58		0.33	0.29	

FIGURE 1

CSO 014 Delaware Street Monthly Hydrograph

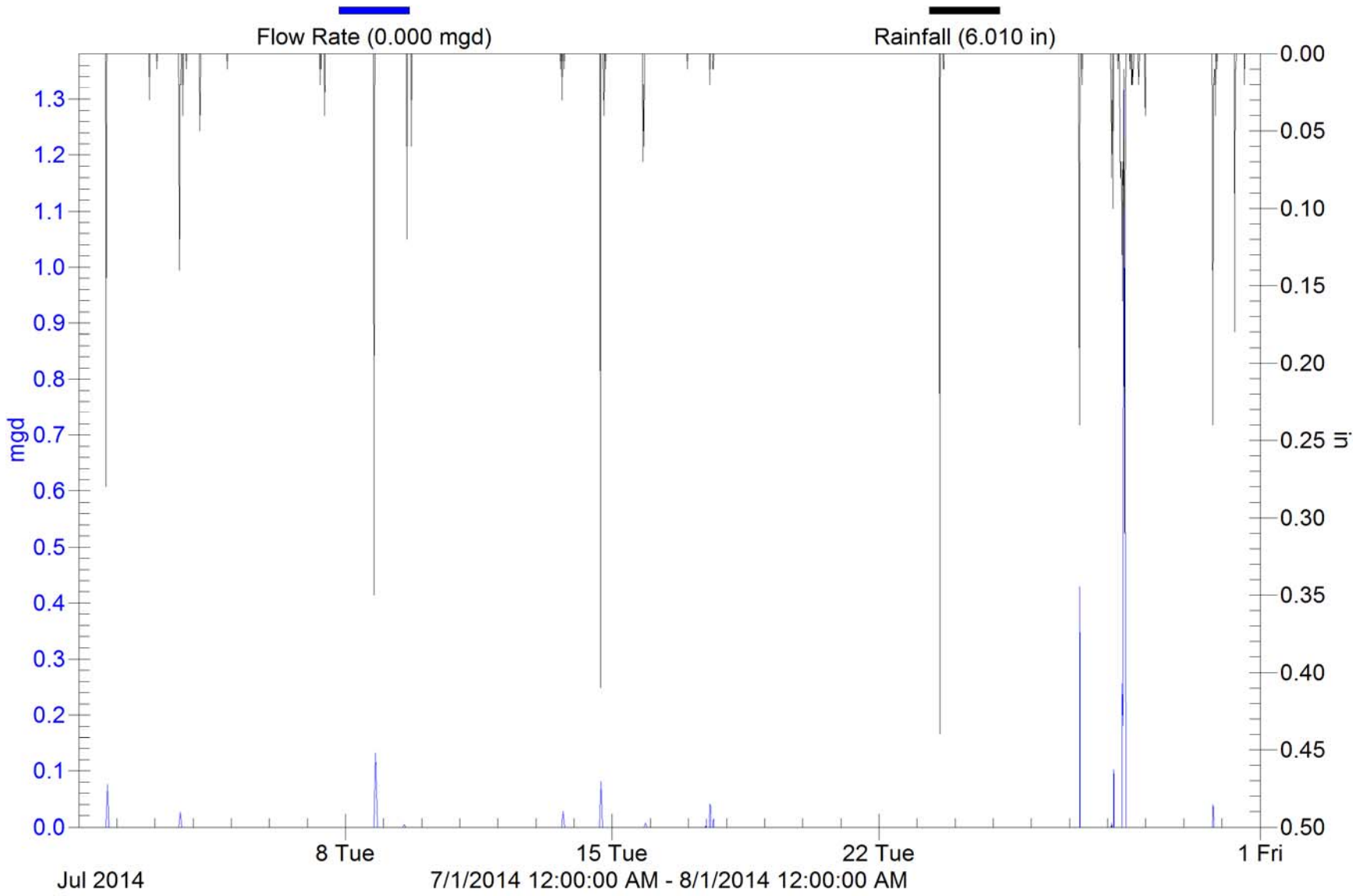


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

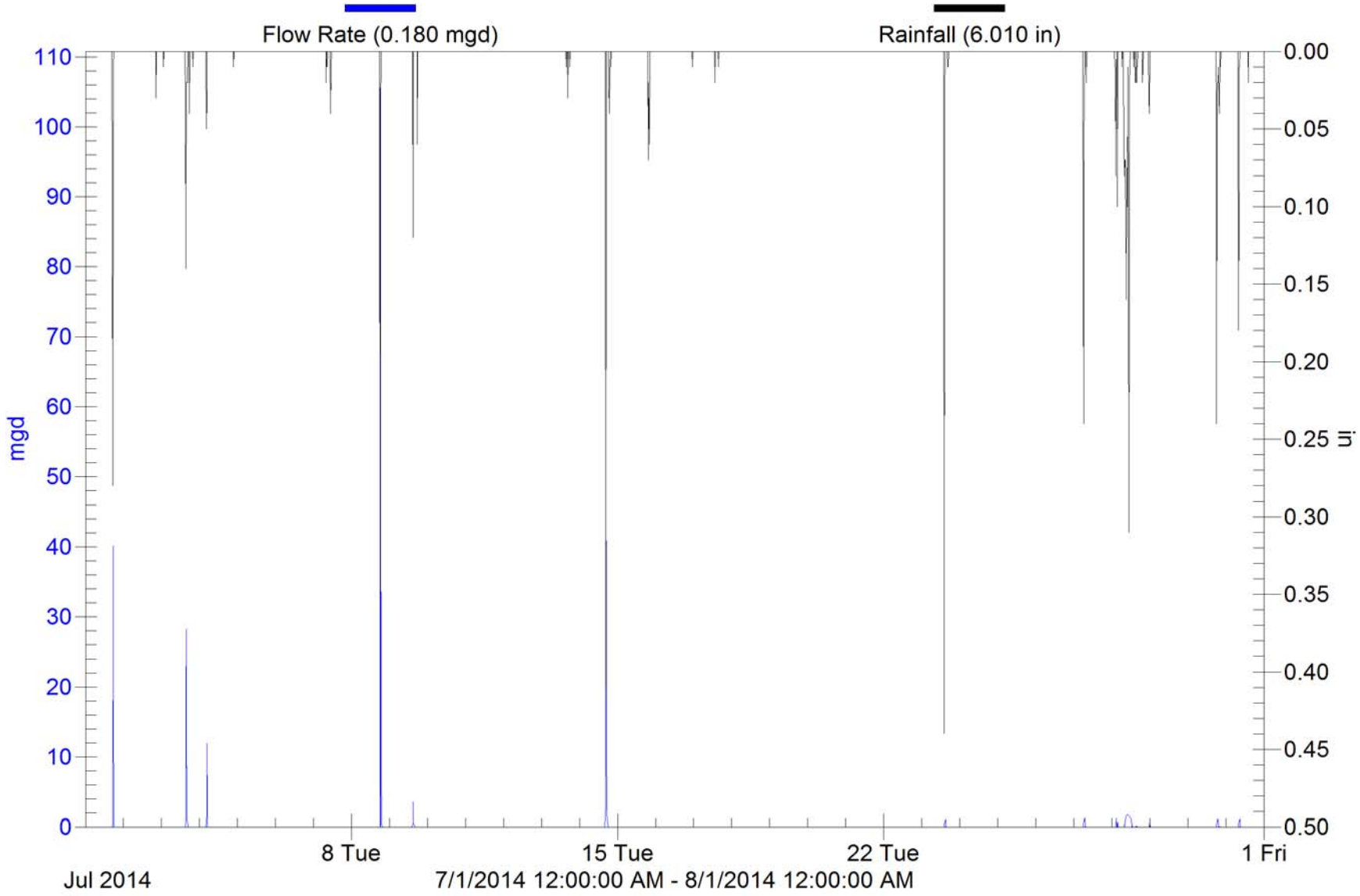


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

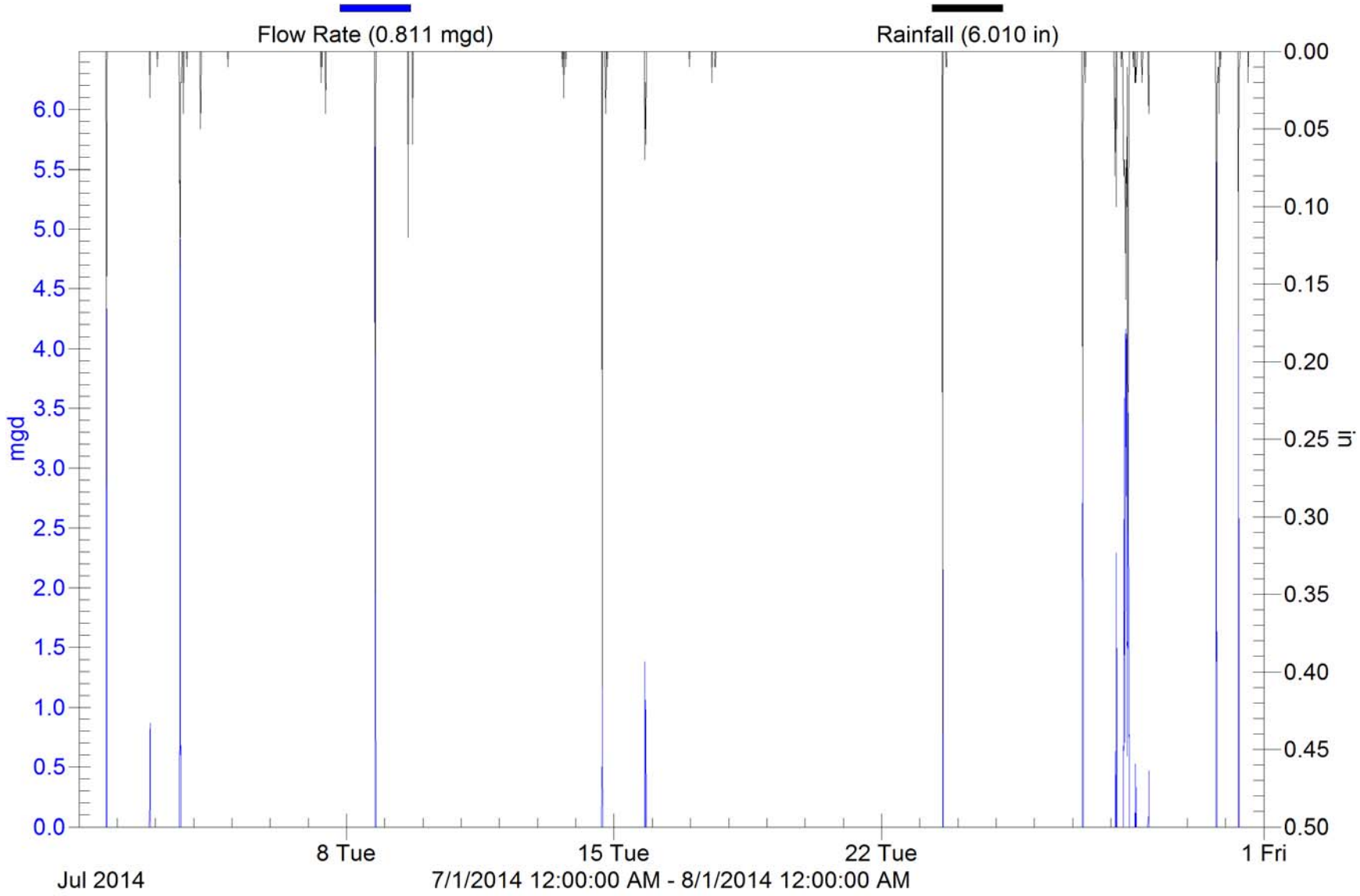


FIGURE 4

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

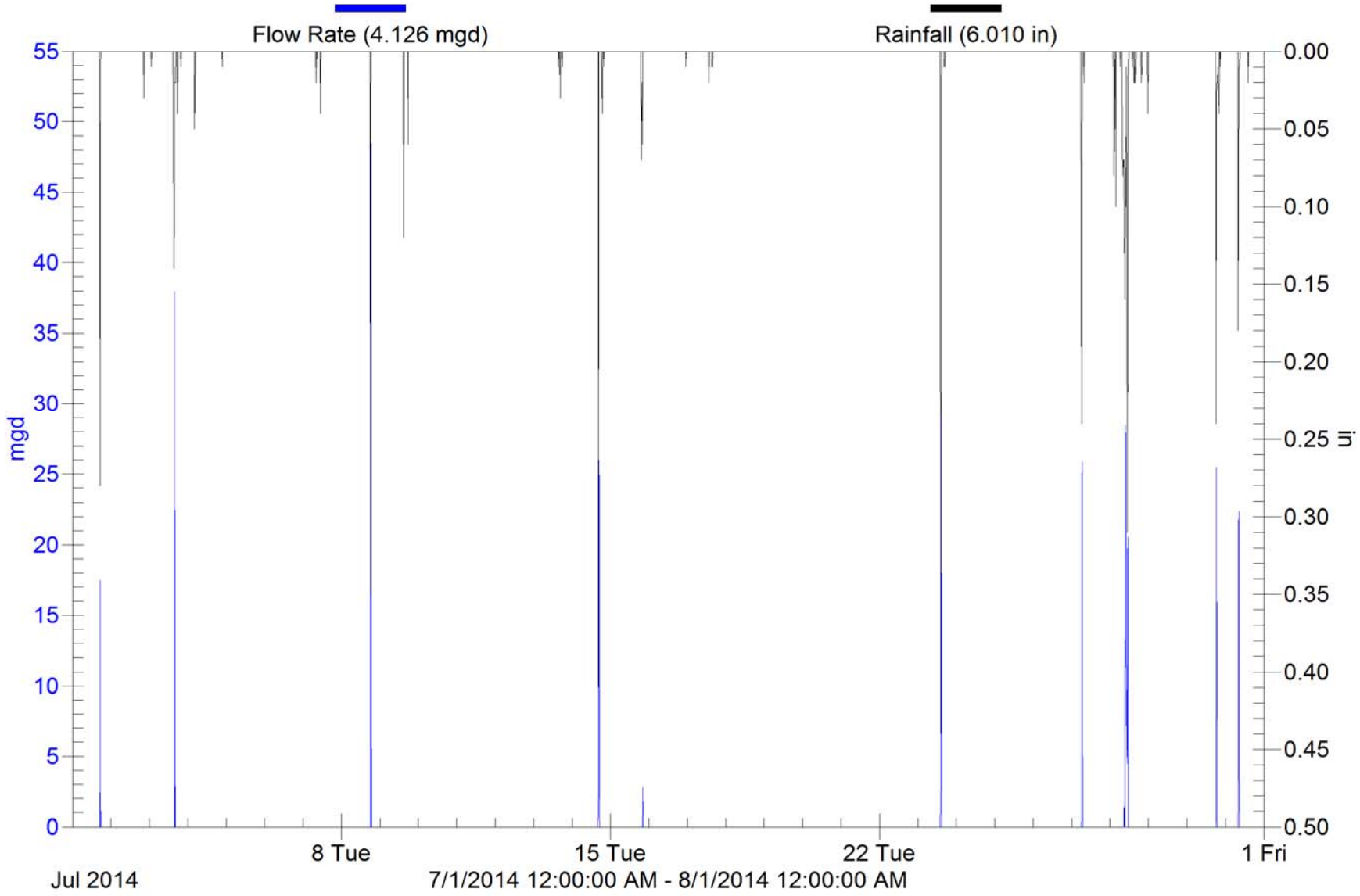


FIGURE 5

CSO 063 Emerson Avenue Monthly Hydrograph

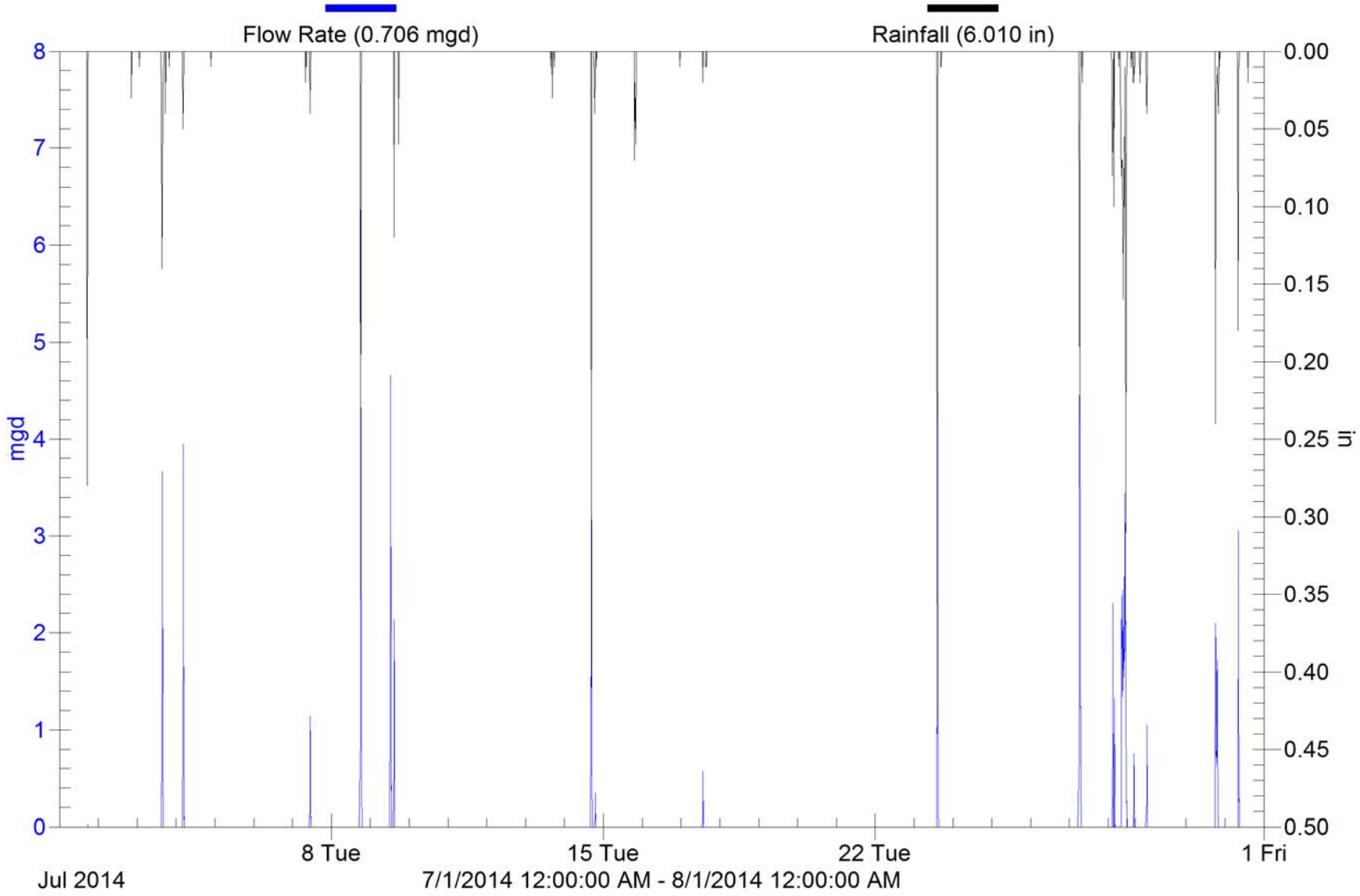


FIGURE 6

CSO 077 West Colvin Street - Midland Monthly Hydrograph

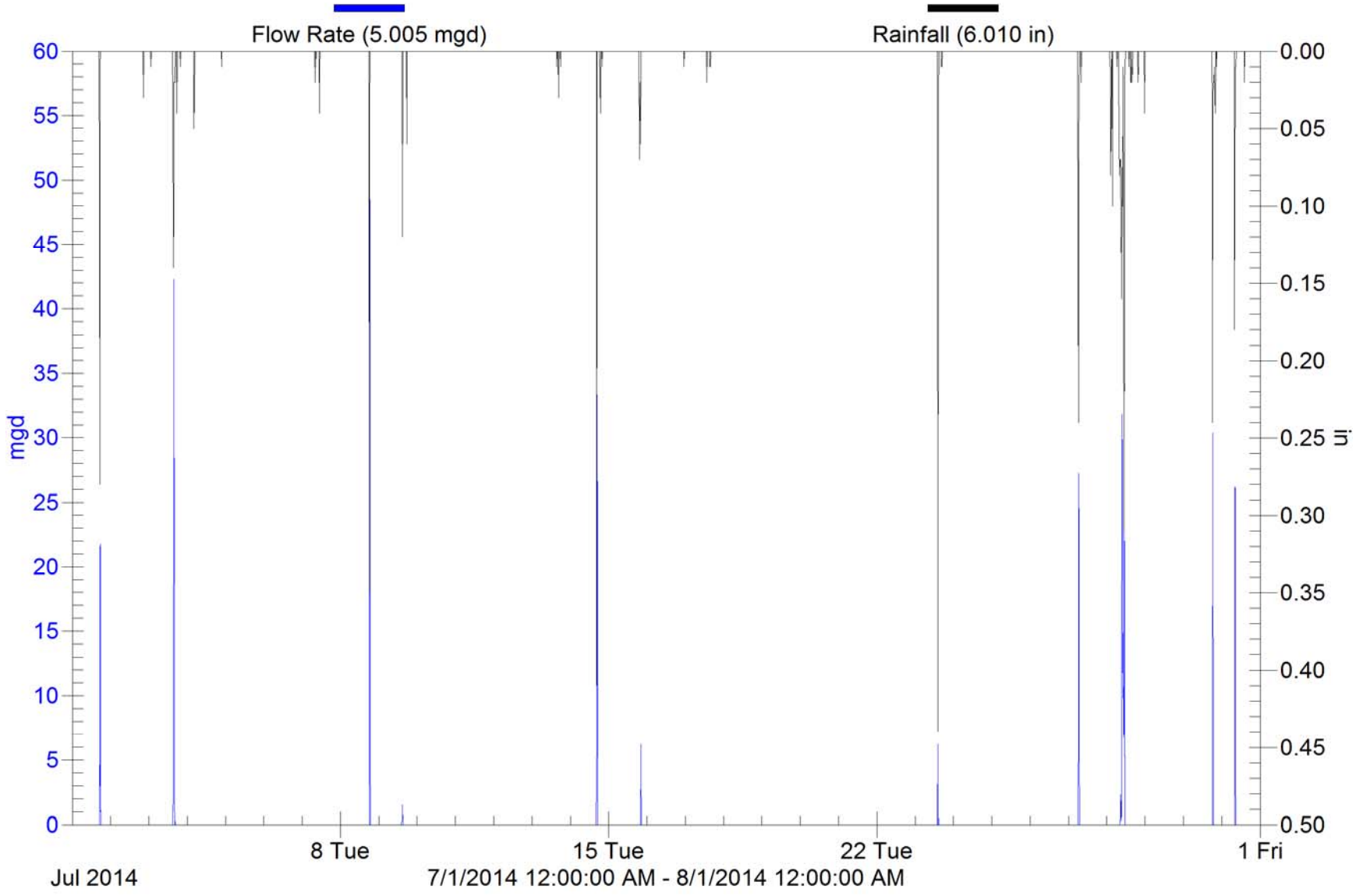
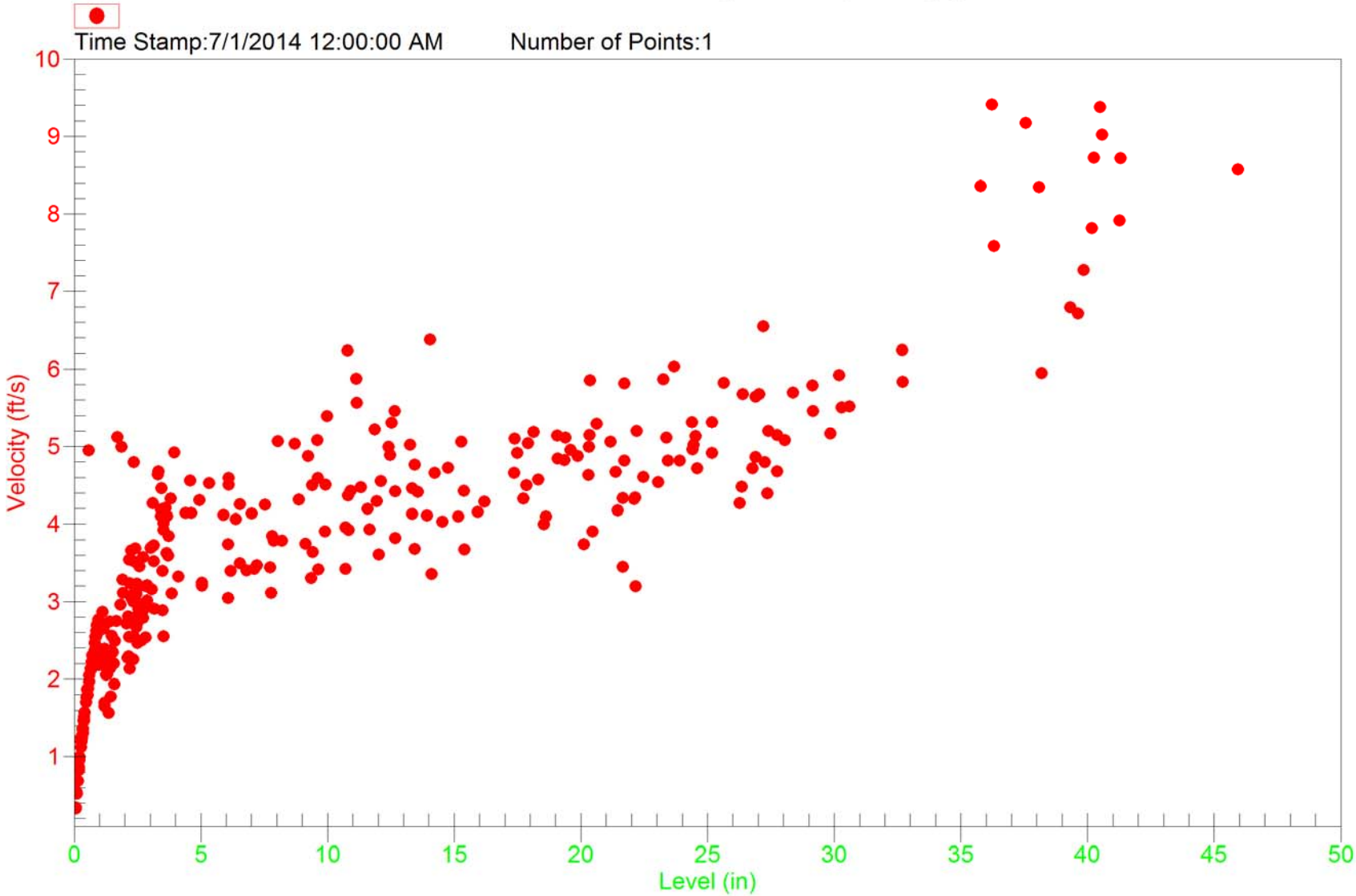


FIGURE 7

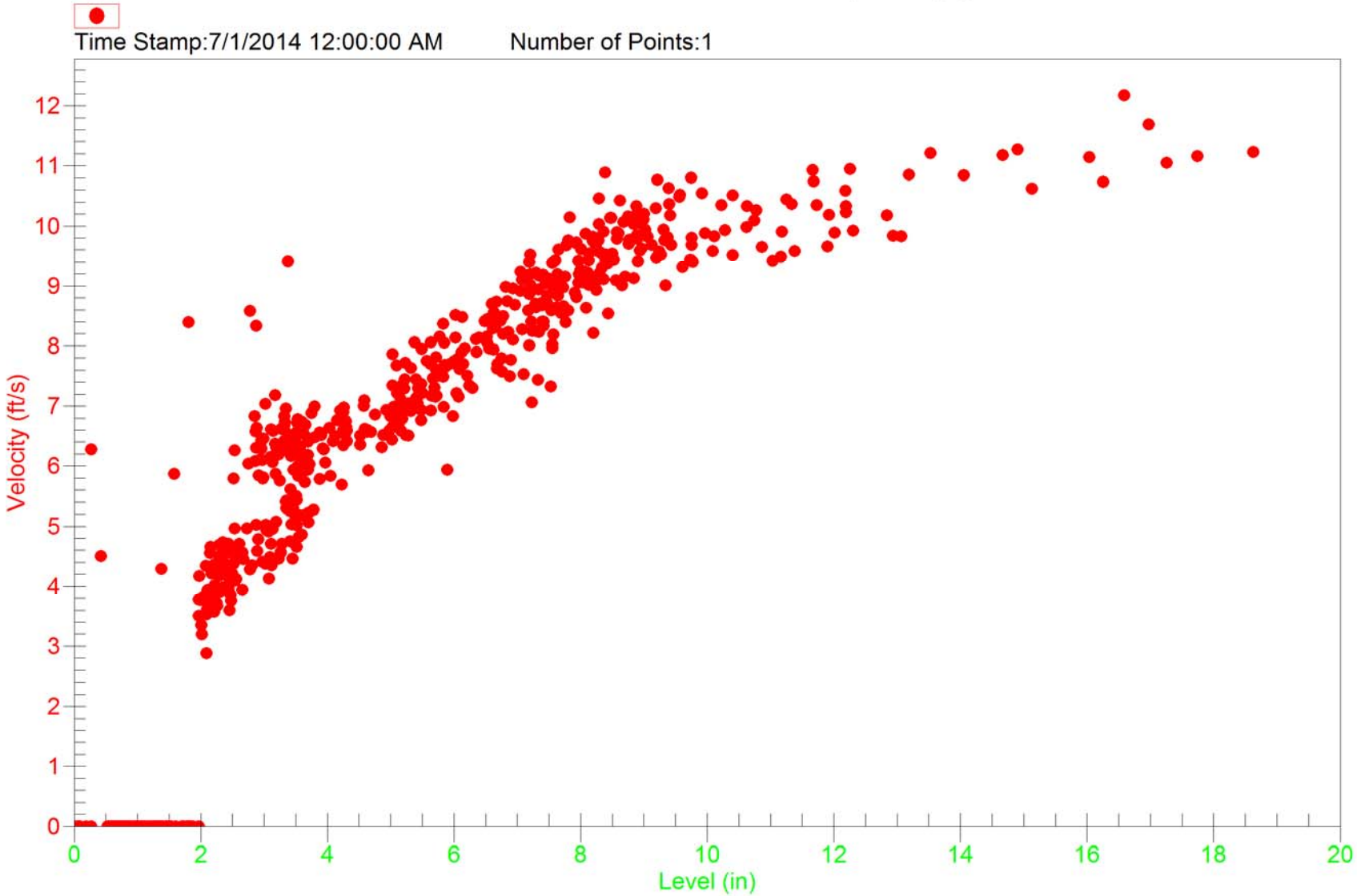
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



7/1/2014 12:00:00 AM - 8/1/2014 12:00:00 AM

FIGURE 8

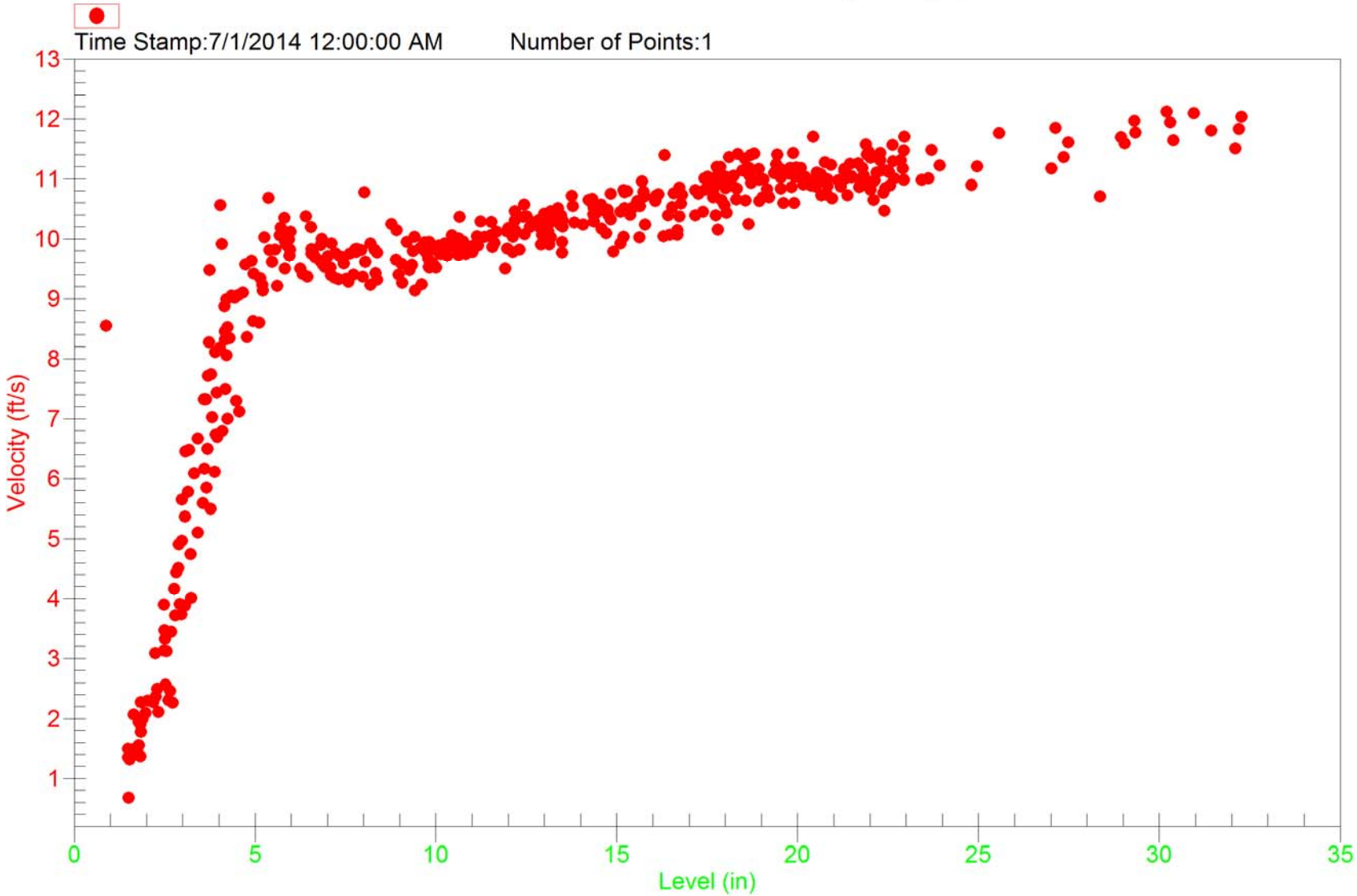
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



7/1/2014 12:00:00 AM - 8/1/2014 12:00:00 AM

FIGURE 9

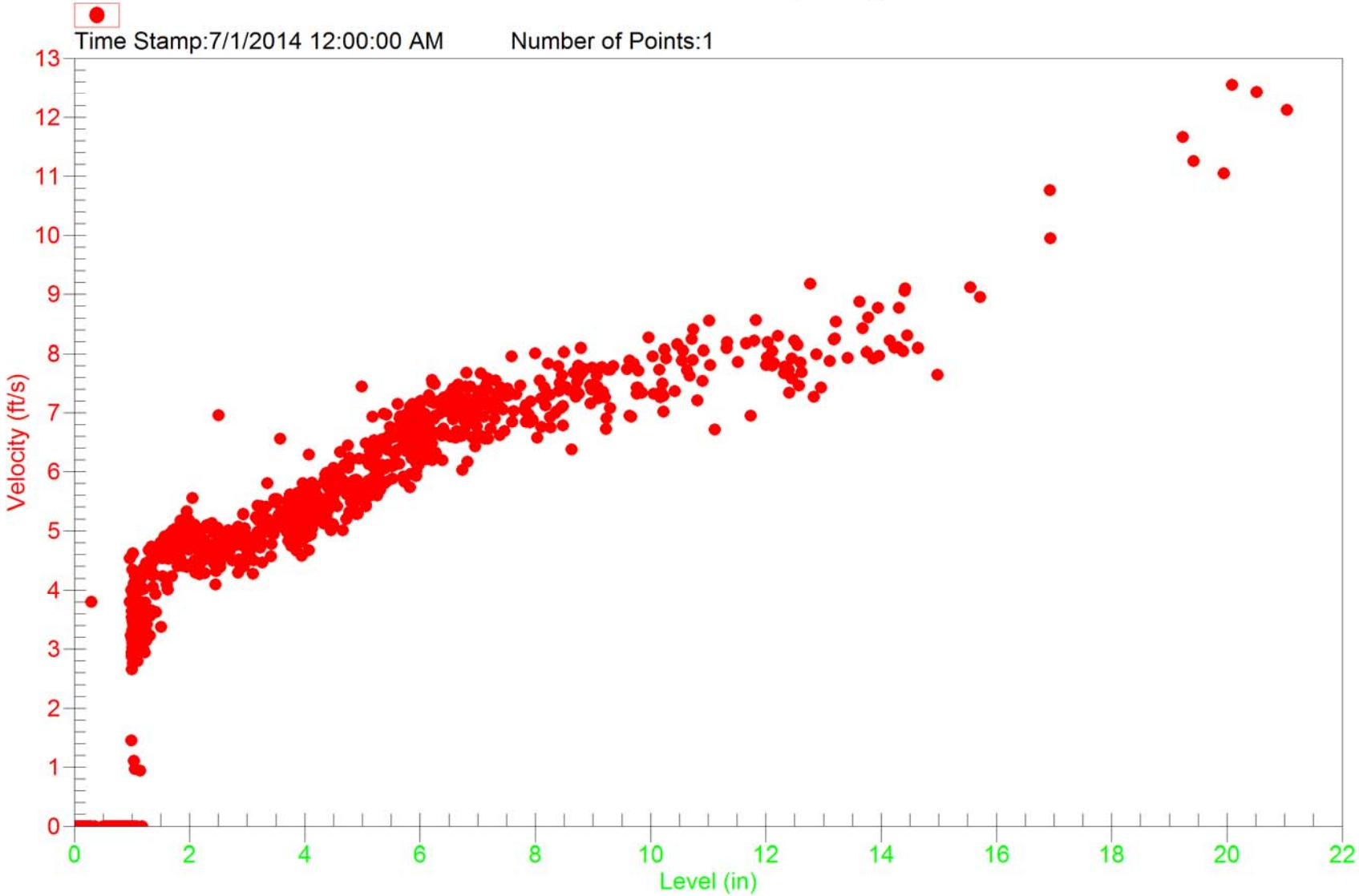
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



7/1/2014 12:00:00 AM - 8/1/2014 12:00:00 AM

FIGURE 10

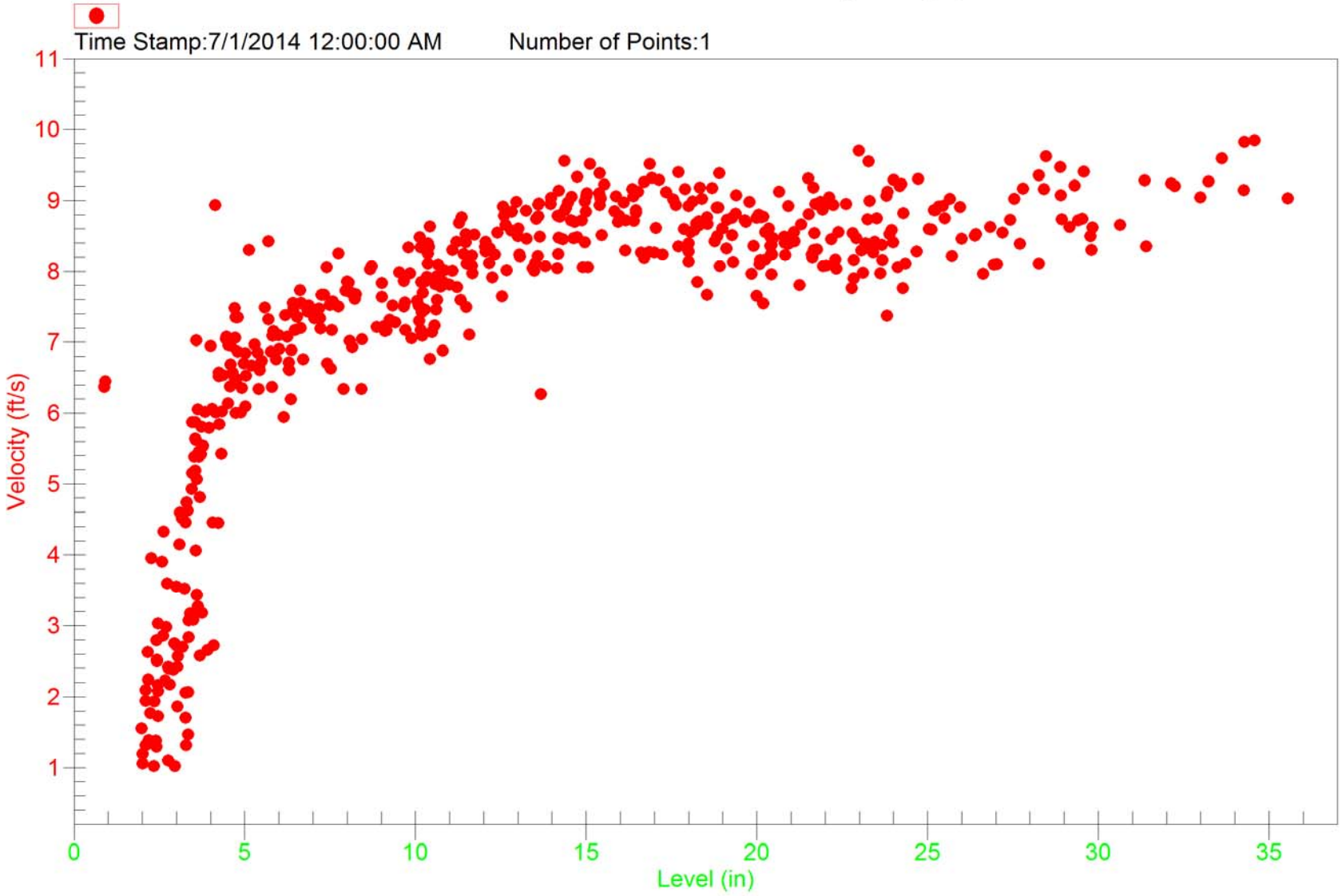
CSO 063 Emerson Avenue Monthly Scattergraph



7/1/2014 12:00:00 AM - 8/1/2014 12:00:00 AM

FIGURE 11

CSO 077 West Colvin Street - Midland Monthly Scattergraph



7/1/2014 12:00:00 AM - 8/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	
07/17/14	10:03	0.00	NA	0.119	NA			New	no	Archived	GS		
08/07/14	14:11	0.00	NA	0.161	NA			11.3	New	Archived	WP		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff loc
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	
7/17/14	9:44	0.00	NA	3.988	NA			new	OK	testing	GS	
7/17/14	9:52	0	NA	0.135	NA			new	OK	Archived	GS	
8/7/14	14:05	0	NA	-0.069	NA			11.5	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough:____ In-Between _____
PROBE MOUNTED: On Invert: _____ Side of Pipe: On Weir
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE
07/17/14	10:59	0.00	NA	0.059	NA			12.2	OK	Archived	GS	Changed alarm to velocity
08/04/14	6:42	0.00	NA	-0.041	NA			New	OK	Archived	WP	
08/07/14	13:04	0.00	NA	-0.045	0.00		Push Data	11.8	OK	Archived	WP	Changed Modem and updated firmware

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM
07/17/14	11:22	0.00	NA	-0.030	NA			11.0	OK	Archived	GS
08/07/14	14:43	0.00	NA	0.026	NA			10.9	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM
07/17/14	11:35	0.00	NA	0.210	NA			New	OK	Archived	GS
08/07/14	14:51	0.00	NA	-0.303	NA		Adj.	11.3	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 052 et & Elmhurst Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM
7/17/14	12:19	0	NA	-0.246	NA		Adj.	10.4	OK	Archived	GS
8/7/14	15:08	0	NA	0.002	NA			10.4	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: ɔaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE: 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

ɪT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM
8/7/14	15:19	0.00	NA	-0.066	NA			1.7	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 063 nerson Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE: 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM
7/17/14	12:10	0	NA	0.015	NA			11.1	OK	Archived	GS
8/7/14	15:27	0	NA	-0.011	NA			10.3	New	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
AUGUST 2014

Prepared by
SAVIN ENGINEERS, P.C.

SEPTEMBER 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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MONTHLY REPORT
AUGUST 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
AUGUST 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
AUGUST 2014

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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
AUGUST 2014

1. INTRODUCTION

This is the thirty-second monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of August 1, 2014 through August 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- August 3,
- August 12,
- August 13,
- August 16,
- August 17,
- August 20,
- August 21, and
- August 22

2. SUMMARY OF OVERFLOWS

There were eight rainfall events that occurred on August 3, August 12, August 13, August 16, August 17, August 20, August 21 and August 22. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the eight overflow events. Figures 1 through 8 show rainfall during the month of August.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 8, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 9 through 15. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – Figure 1 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. The flow monitor data shows that approximately 526,839 gallons overflowed intermittently for 5.5 hours on August 3.

CSO 004 (State Fair Blvd.) –Figure 2 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. The flow monitor data shows that approximately 298,437 gallons overflowed intermittently for 8 hours on August 3.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 3 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
August 3	20,017	3 hours
August 12	521	4 hours
August 13	6,551	22 minutes

August 21	10,705	10.25 hours

CSO 030 (West Jefferson St.) - There were no overflows during the month of August.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 4 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
August 3	6,081	3 hours
August 12	2,436	6 hours
August 13	6,478	4.25 hours
August 16	1,791	7 minutes
August 21	172,860	12.75 hours
August 22	6,670	22 hours

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 5 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
August 3	104,746	4 hours
August 12	3,939	11 minutes
August 13	131,436	3.5 hours

August 16	6,285	44 minutes
August 21	129,272	10.25 hours
August 22	123,087	68 minutes

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 6 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
August 3	11,906	35 minutes
August 13	485,172	2.5 hours
August 21	2,267,907	11 hours
August 22	977,182	69 minutes

CSO 063 (Emerson Ave.) – Figure 7 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
August 3	397,769	6 hours
August 12	37,692	16 hours
August 13	209,232	3.75 hours
August 16	71,345	3.75 hours
August 17	1,601	8 minutes
August 20	182	3 minutes
August 21	175,204	98 minutes
August 22	10,398	19 minutes

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 8 shows the hydrograph for the period of August 1, 2014 through August 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
August 3	47,215	60 minutes
August 13	796,584	3.5 hours
August 16	13,157	47 minutes
August 21	2,005,195	11 hours
August 22	1,100,592	72 minutes

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - August 2014

	Location	8/3 Overflow Quantity (gal)	8/12 Overflow Quantity (gal)	8/13 Overflow Quantity (gal)	8/16 Overflow Quantity (gal)	8/17 Overflow Quantity (gal)	8/20 Overflow Quantity (gal)	8/21 Overflow Quantity (gal)	8/22 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	526,839	0	0	0	0	0	0	0	526,839
2	**CSO 004**	298,437	0	0	0	0	0	0	0	298,437
3	**CSO 014**	20,017	521	6,551	0	0	0	10,705	0	37,794
4	**CSO 030**	0	0	0	0	0	0	0	0	0
5	**CSO 034**	6,081	2,436	6,478	1,791	0	0	172,860	6,670	196,316
6	**CSO 052**	104,746	3,939	131,436	6,285	0	0	129,272	123,087	498,765
7	**CSO 060**	11,906	0	485,172	0	0	0	2,267,907	977,182	3,742,167
8	**CSO 063**	397,769	37,692	209,232	71,345	1,601	182	175,204	10,398	903,423
9	**CSO 077**	47,215	0	796,584	13,157	0	0	2,005,195	1,100,592	3,962,743
	TOTAL =	**1,413,010**	**44,588**	**1,635,453**	**92,578**	**1,601**	**182**	**4,761,143**	**2,217,929**	**10,166,484**

										Monthly Overflow Total (in)
12	**Rainfall Total:**	0.53	0.43	0.98	0.38	0.02	0.18	0.84	0.53	3.89
13	**Average Rainfall Intensity:**	0.04	0.03	0.05	0.08	0.01	0.05	0.04	0.04	
14	**Peak Hourly Rainfall Intensity:**	0.20	0.14	0.41	0.20	0.01	0.07	0.46	0.51	

FIGURE 1

CSO 003A Hiawatha Boulevard Monthly Hydrograph

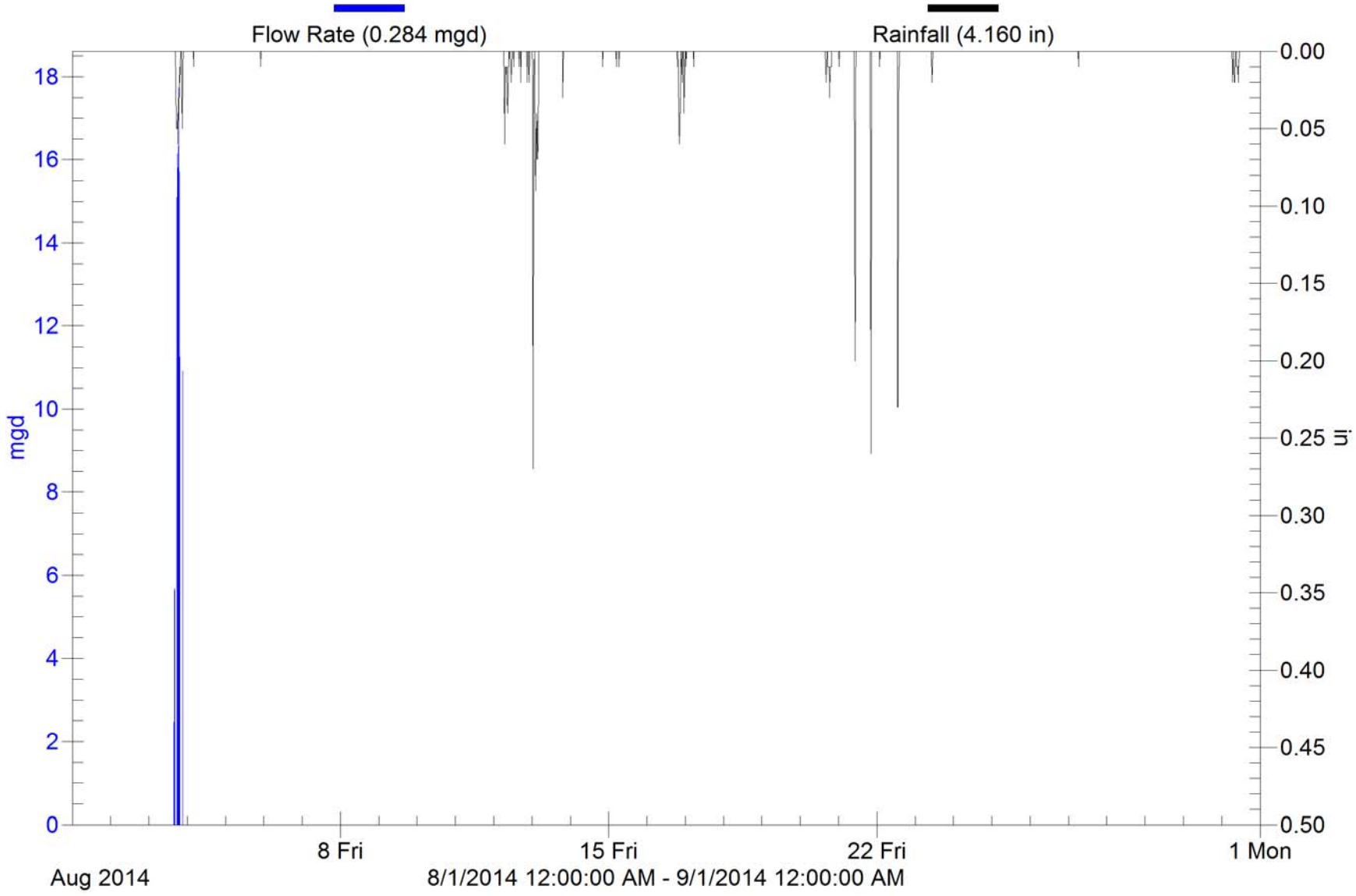


FIGURE 2

CSO 004 State Fair Blvd. Monthly Hydrograph

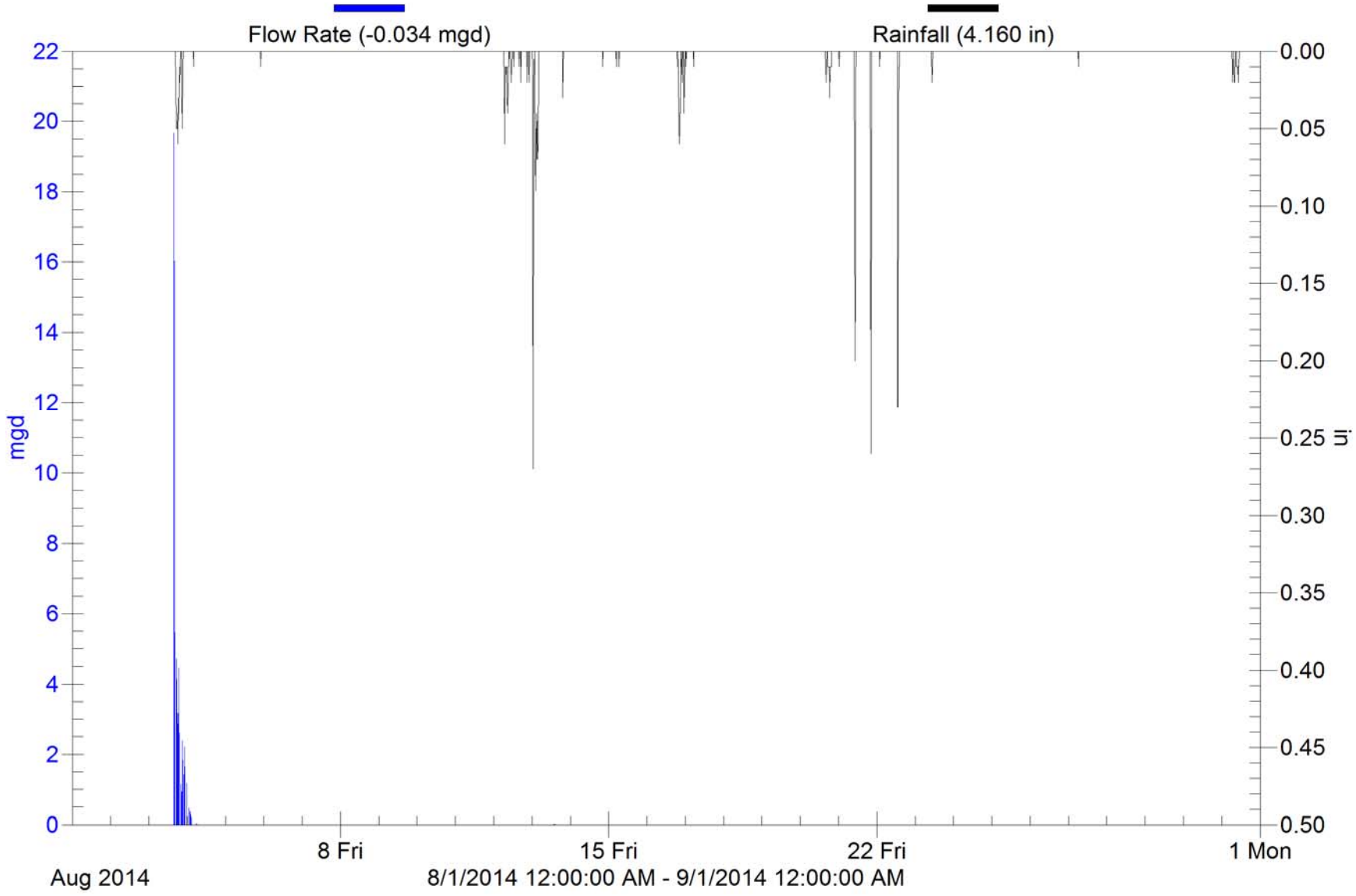


FIGURE 3

CSO 014 Delaware Street Monthly Hydrograph

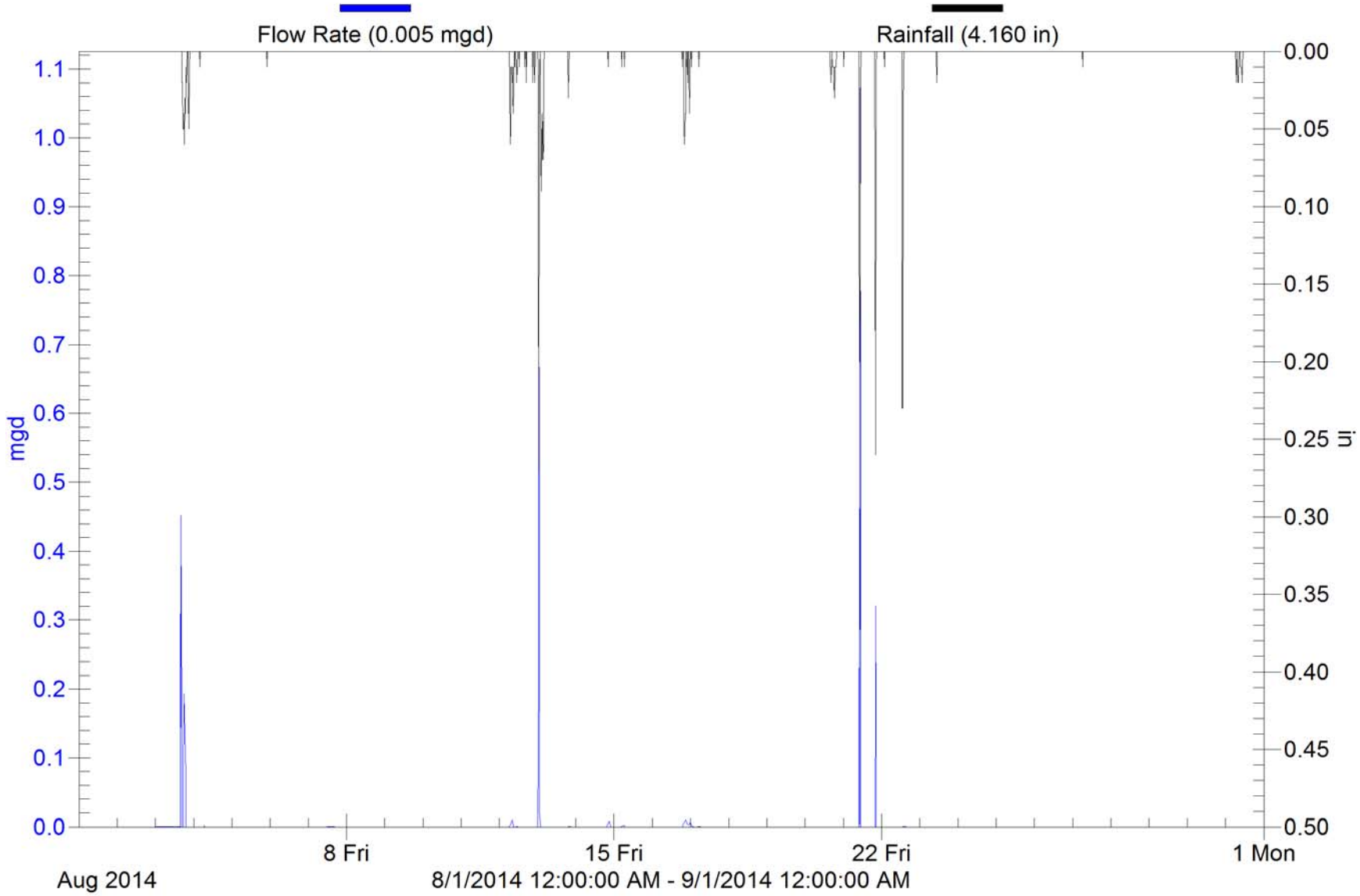


FIGURE 4

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

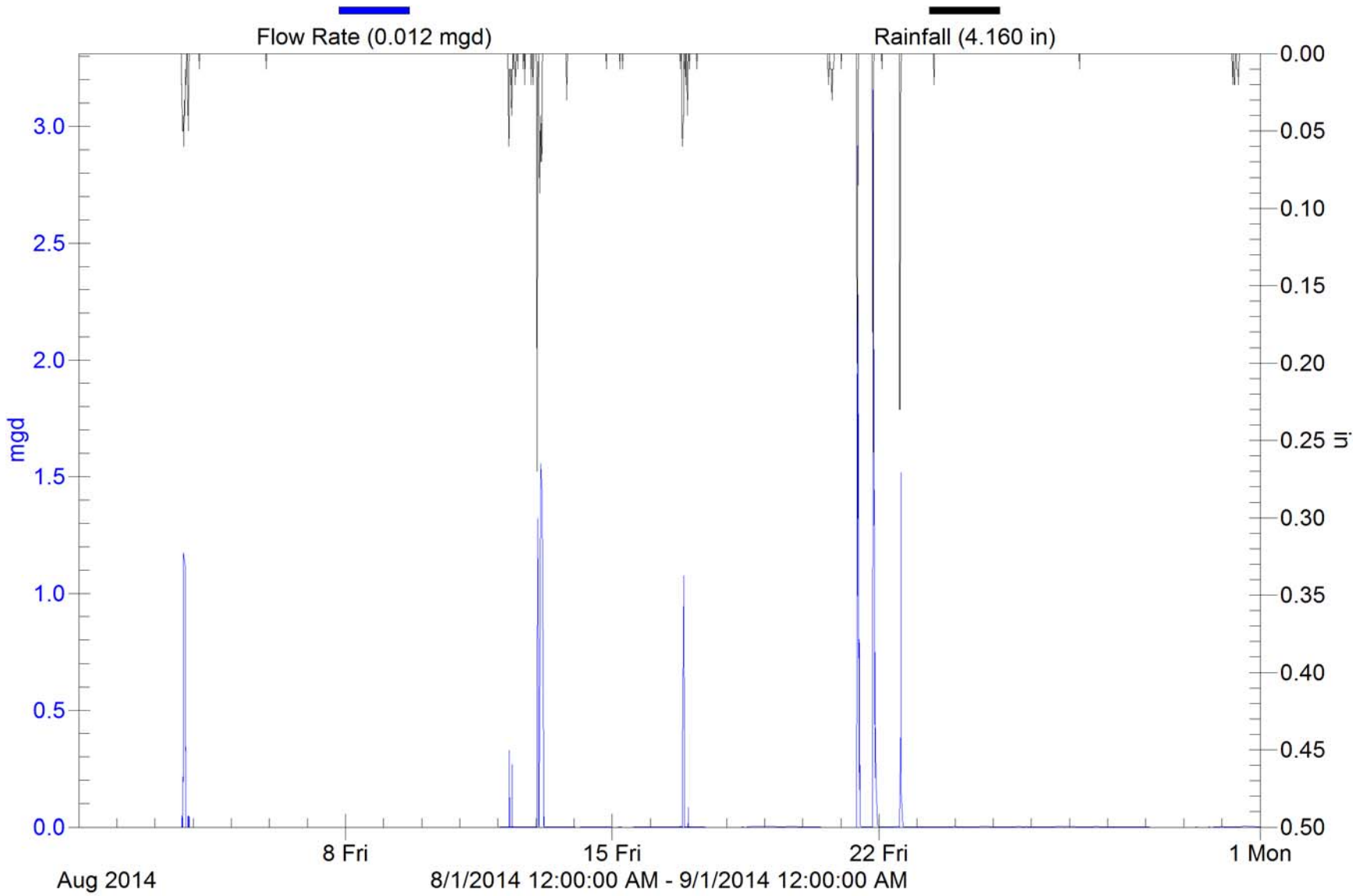


FIGURE 5

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

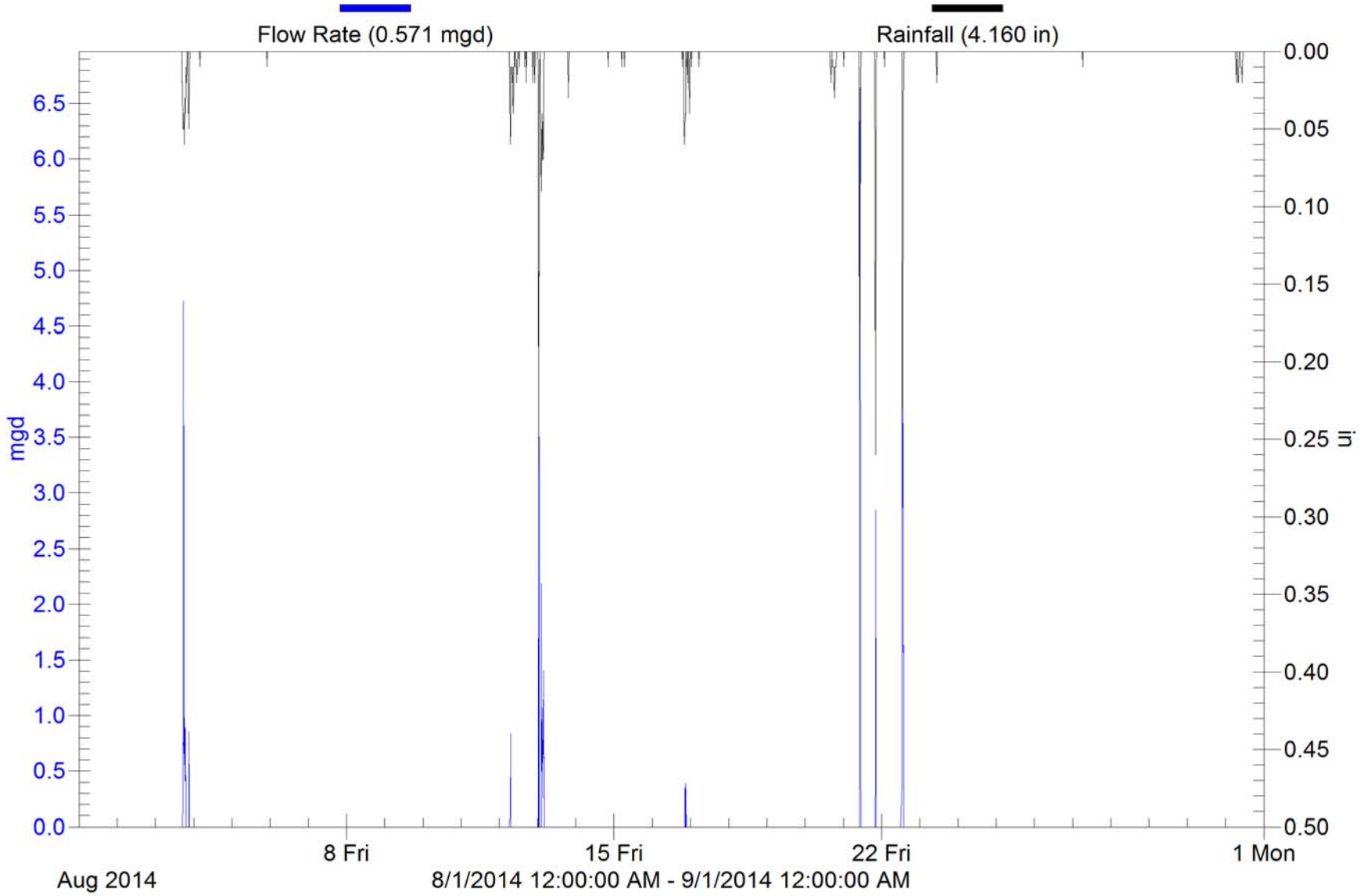


FIGURE 6

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

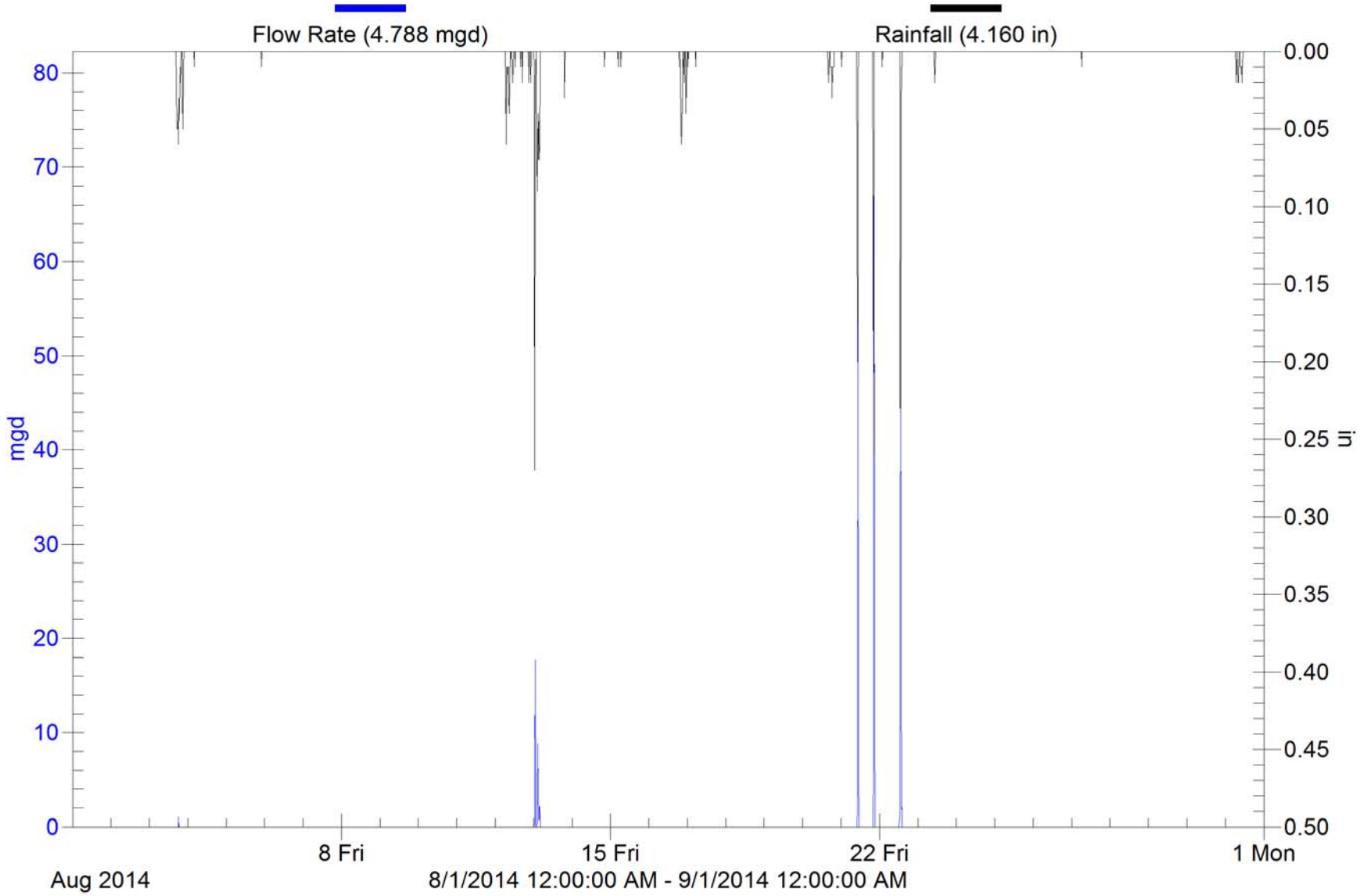


FIGURE 7

CSO 063 Emerson Avenue Monthly Hydrograph

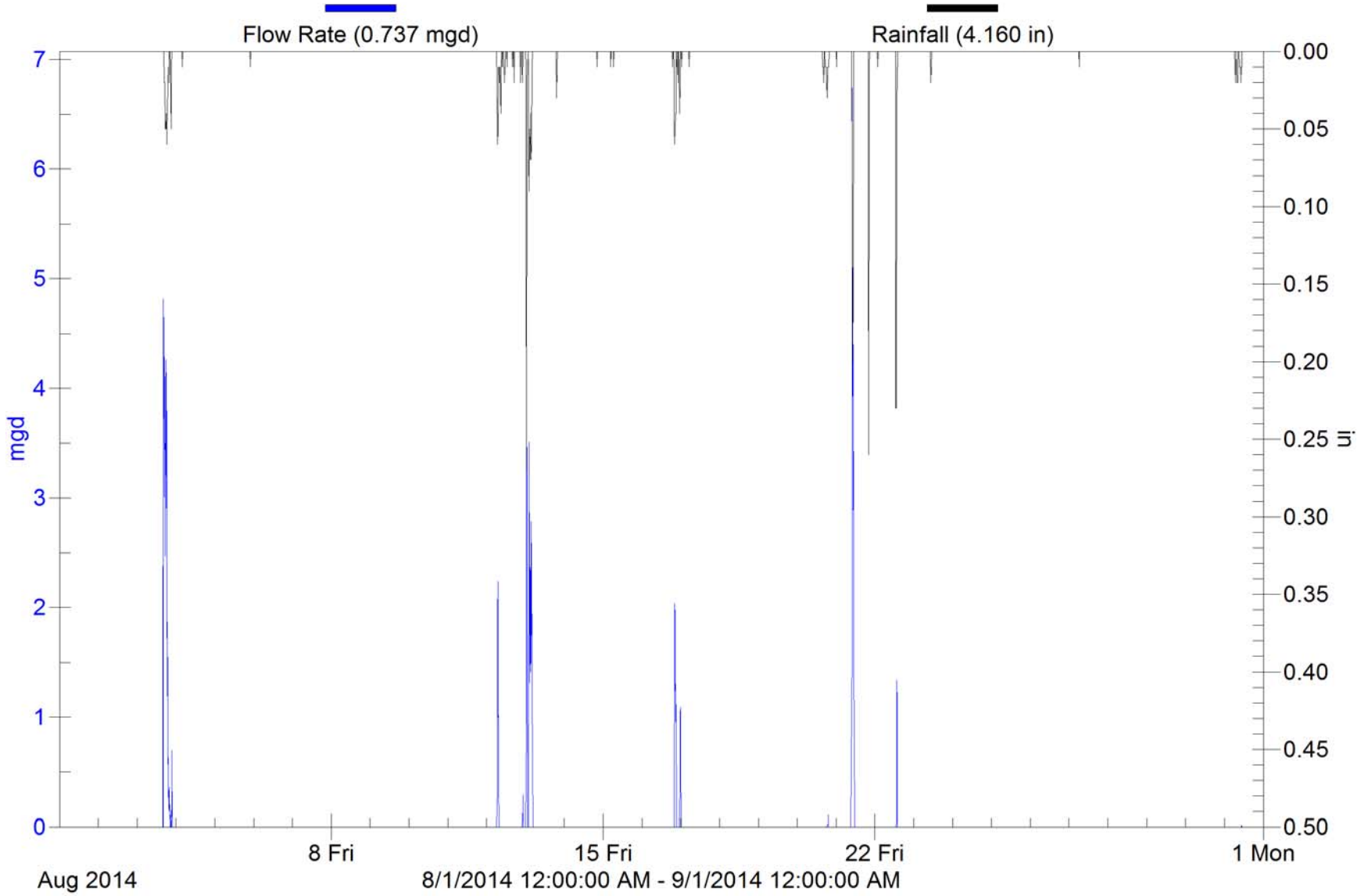


FIGURE 8

CSO 077 West Colvin Street - Midland Monthly Hydrograph

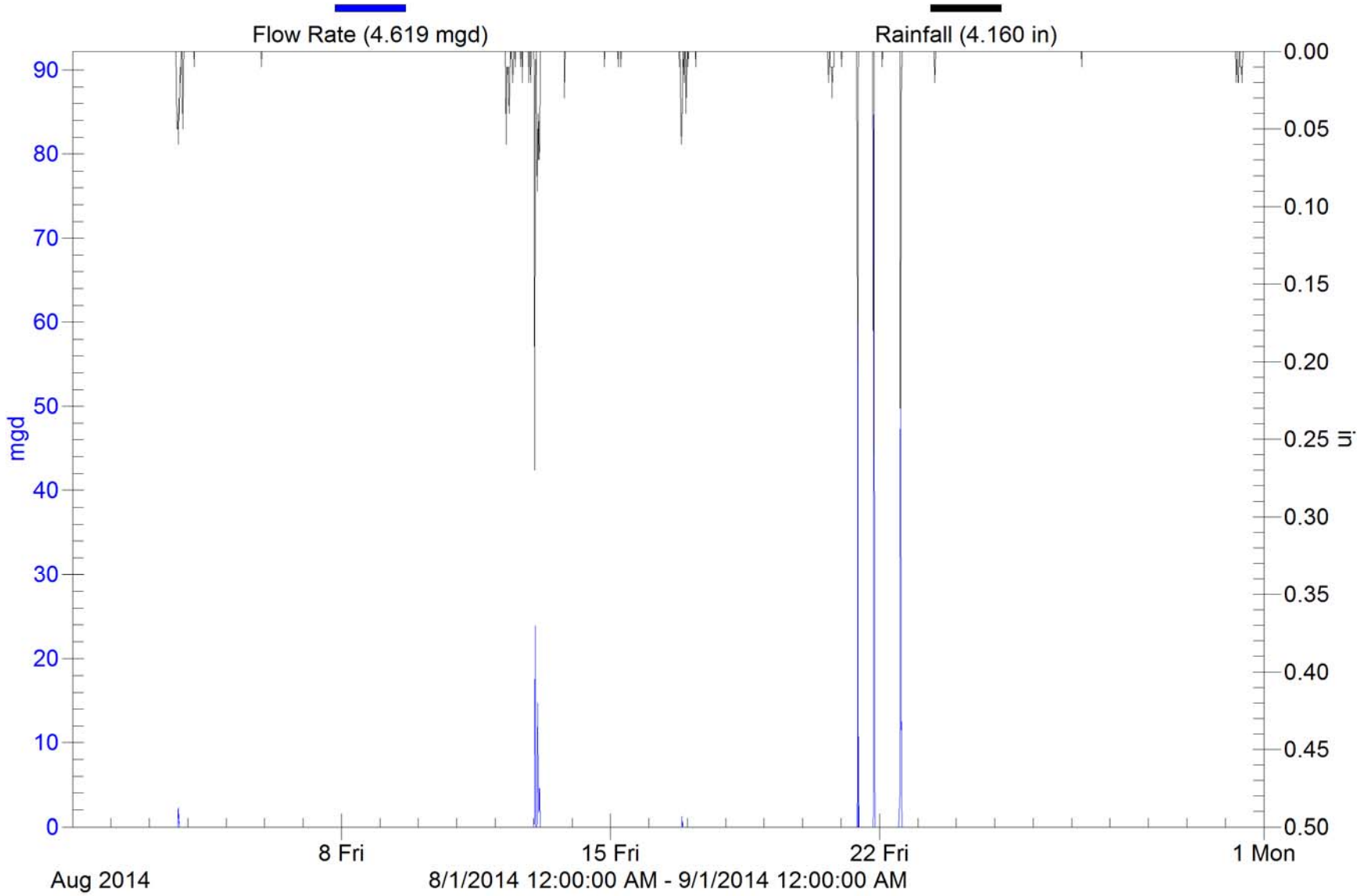
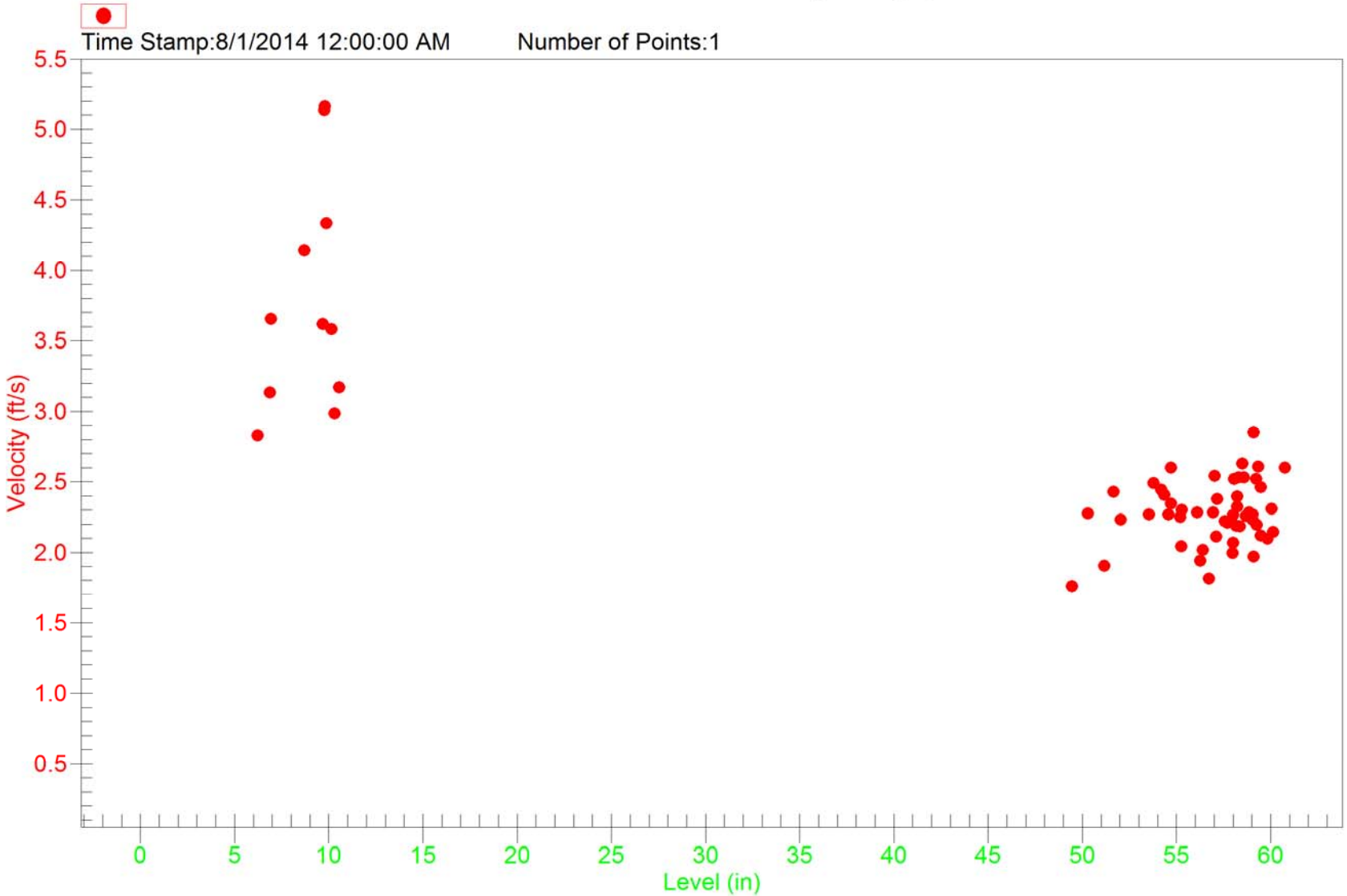


FIGURE 9

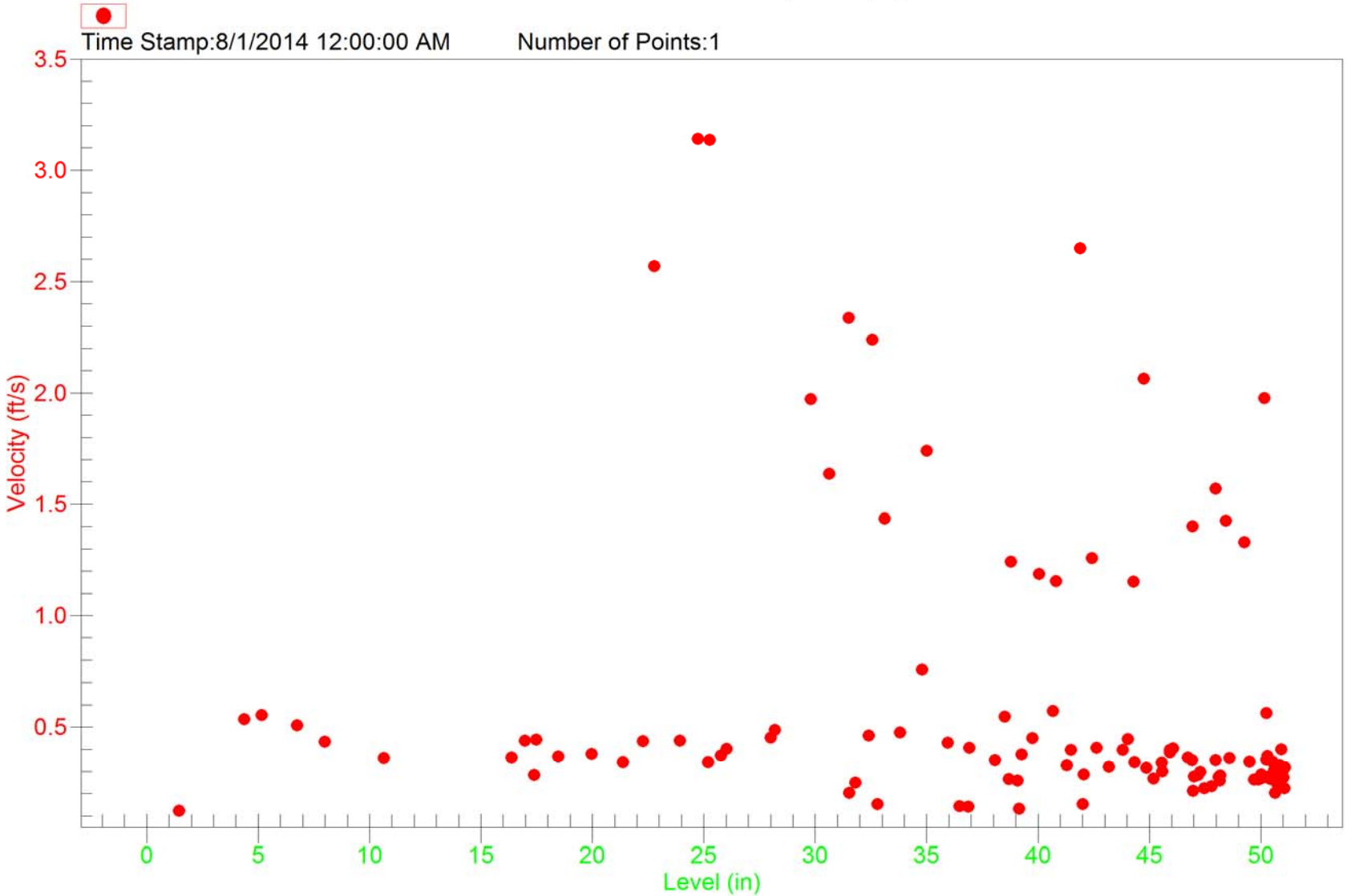
CSO 003A Hiawatha Boulevard Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

FIGURE 10

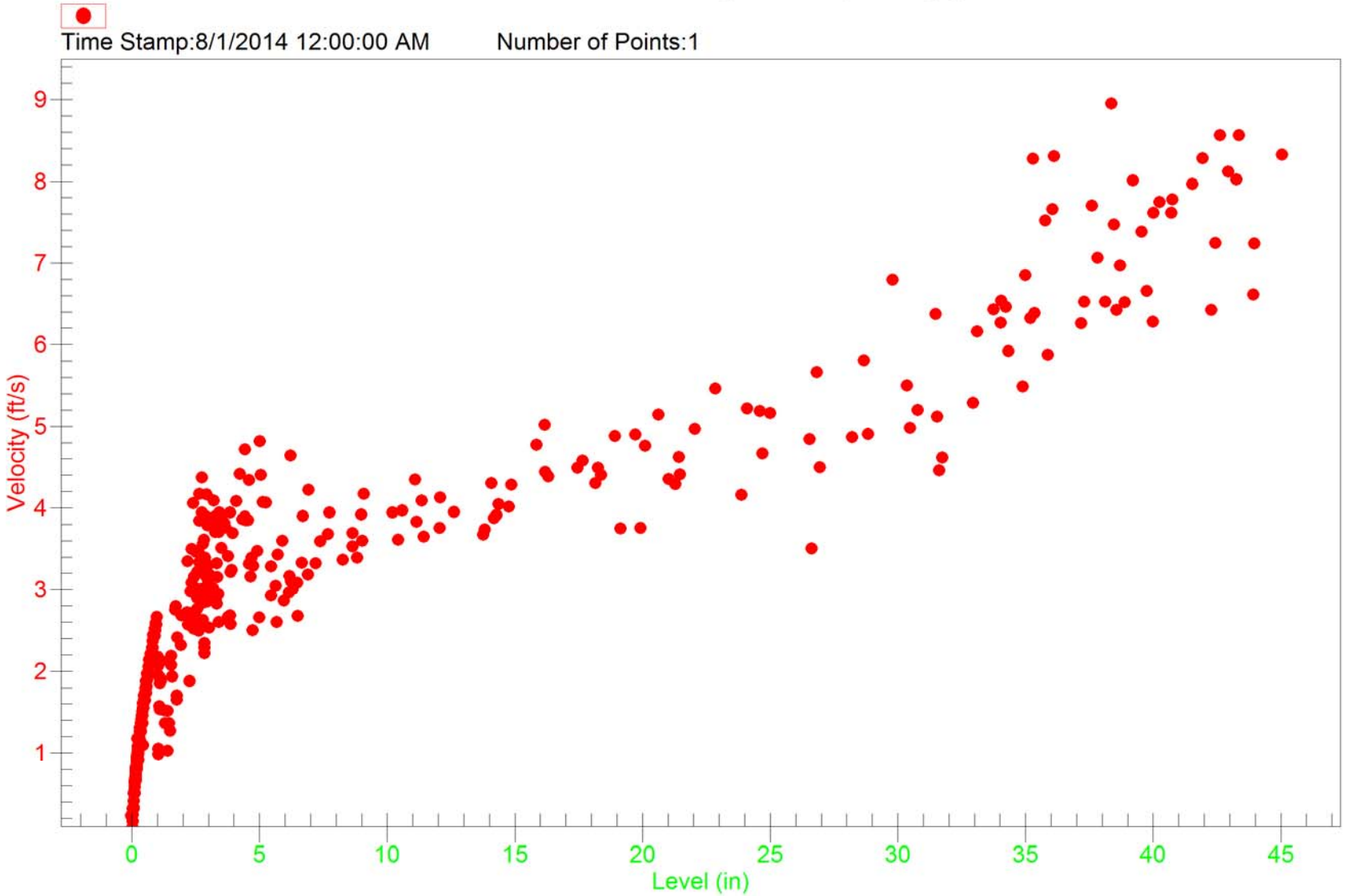
CSO 004 State Fair Blvd. Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

FIGURE 11

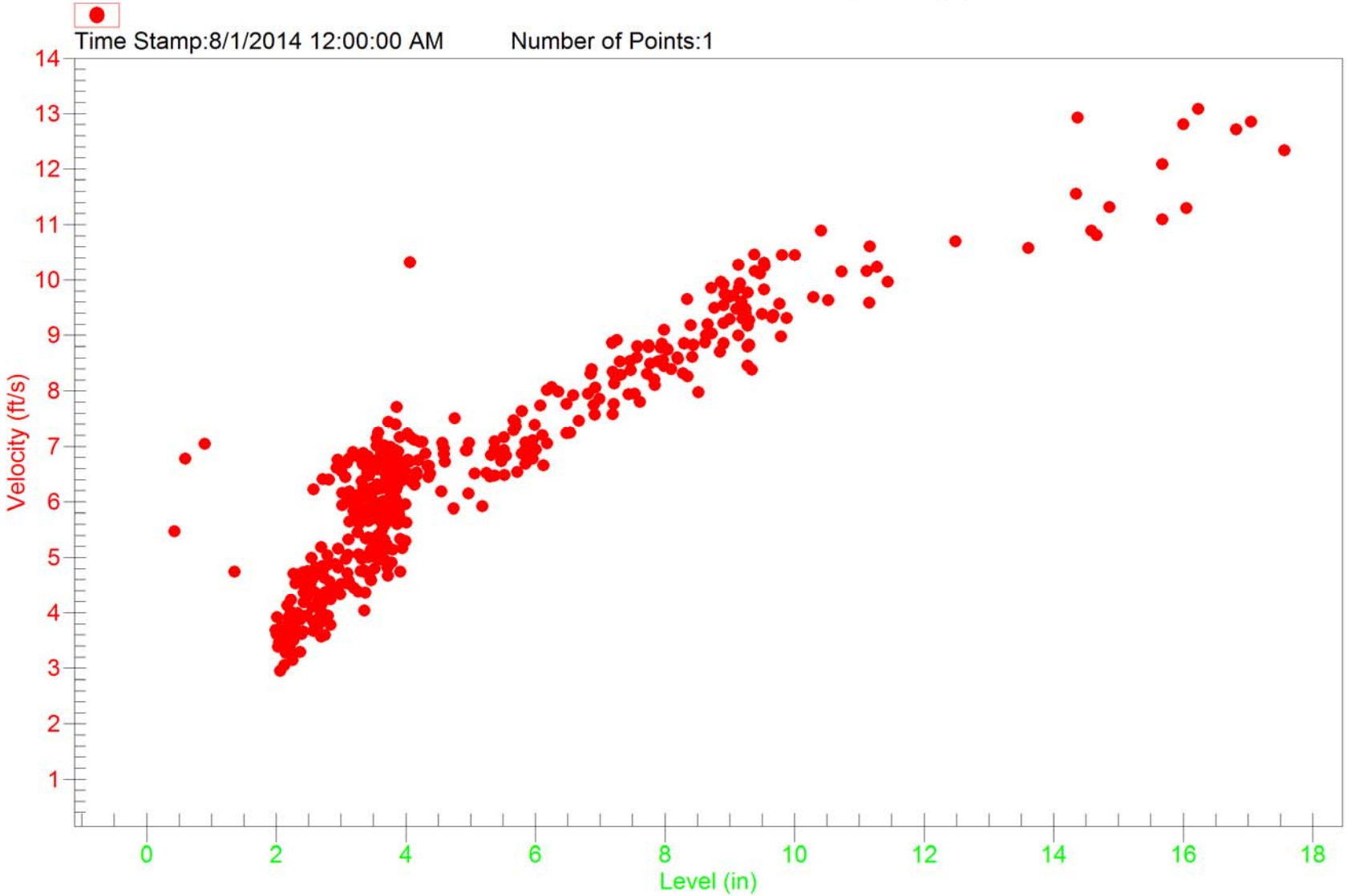
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

FIGURE 12

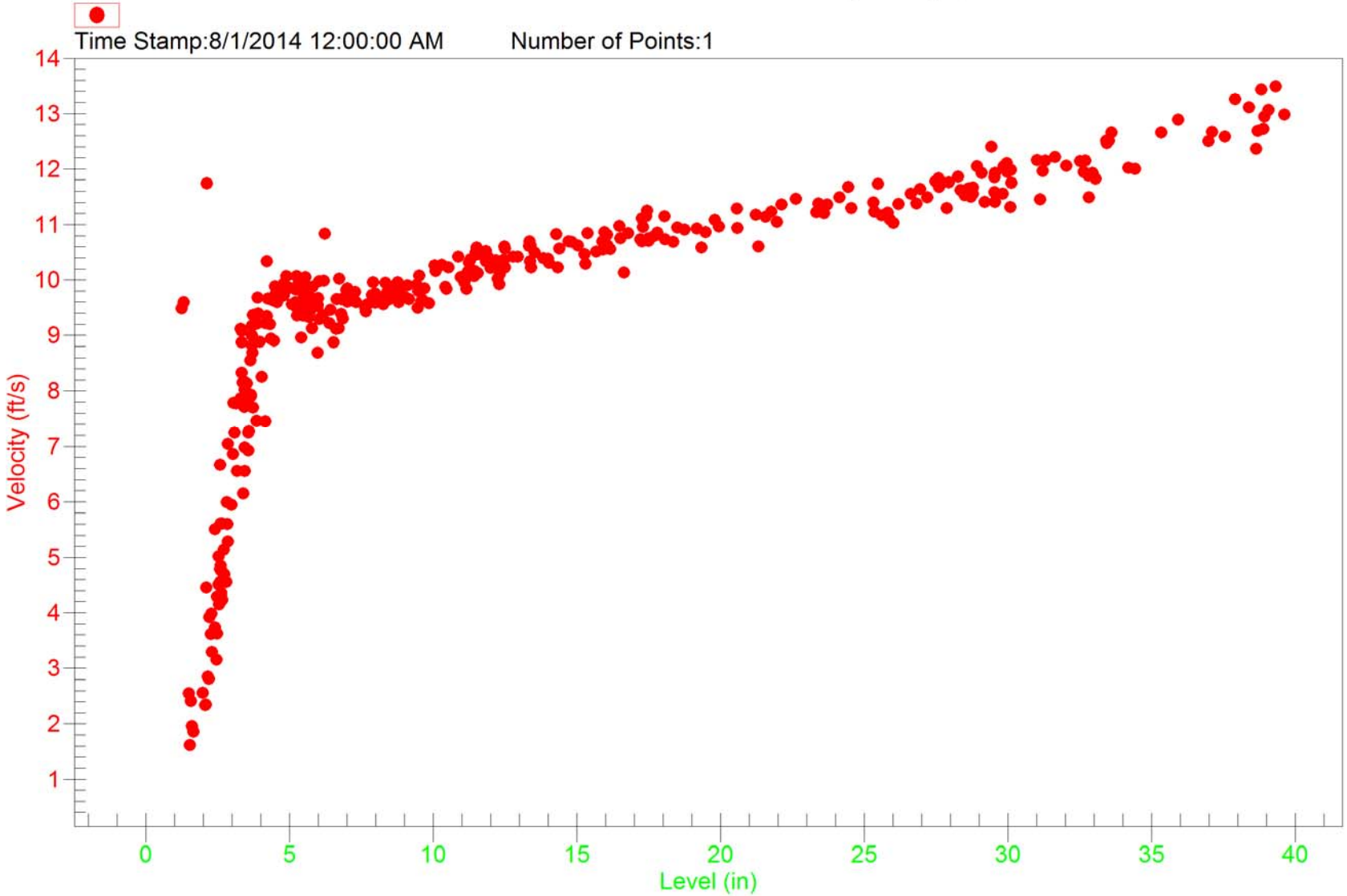
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

FIGURE 13

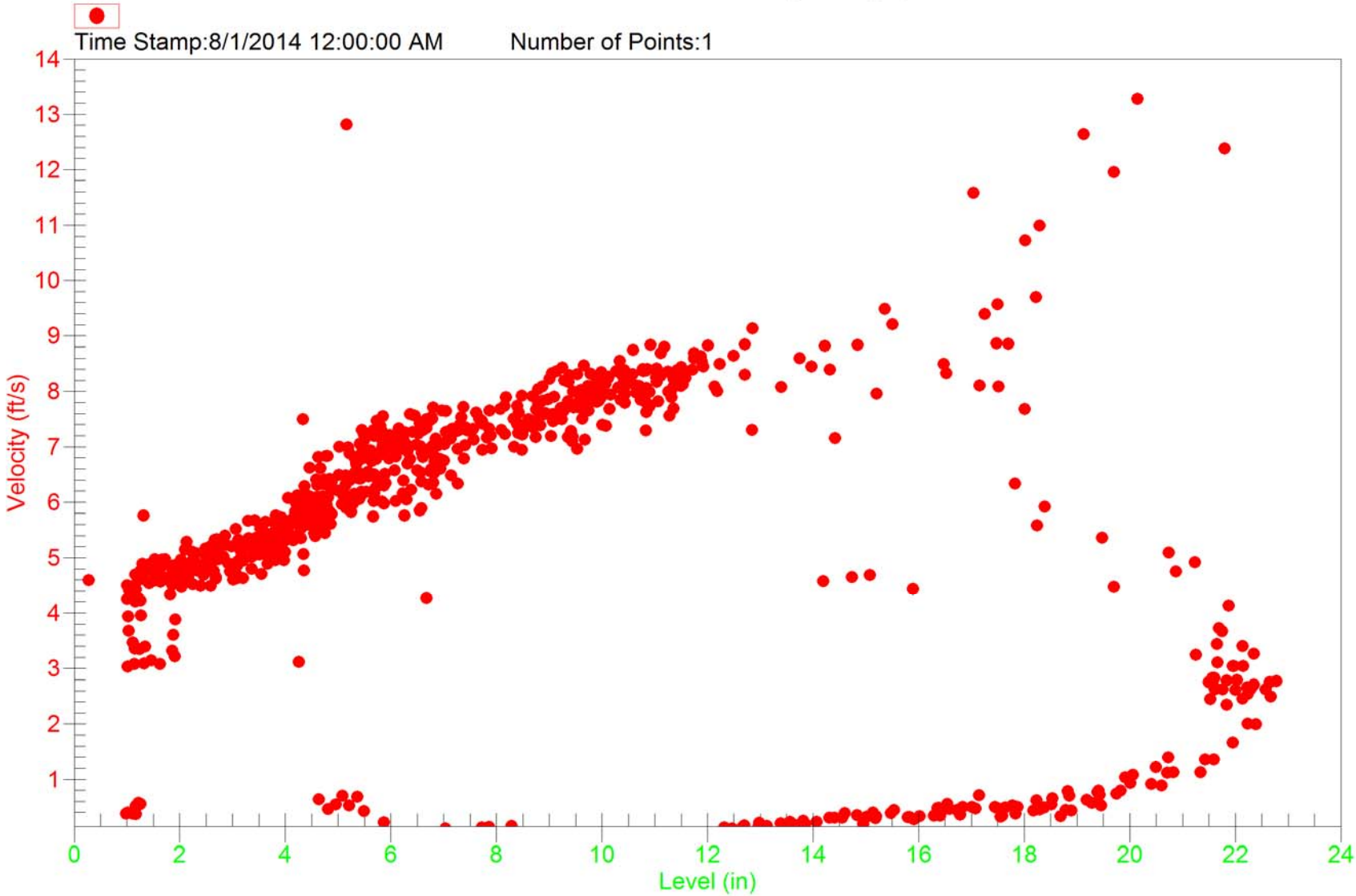
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

FIGURE 14

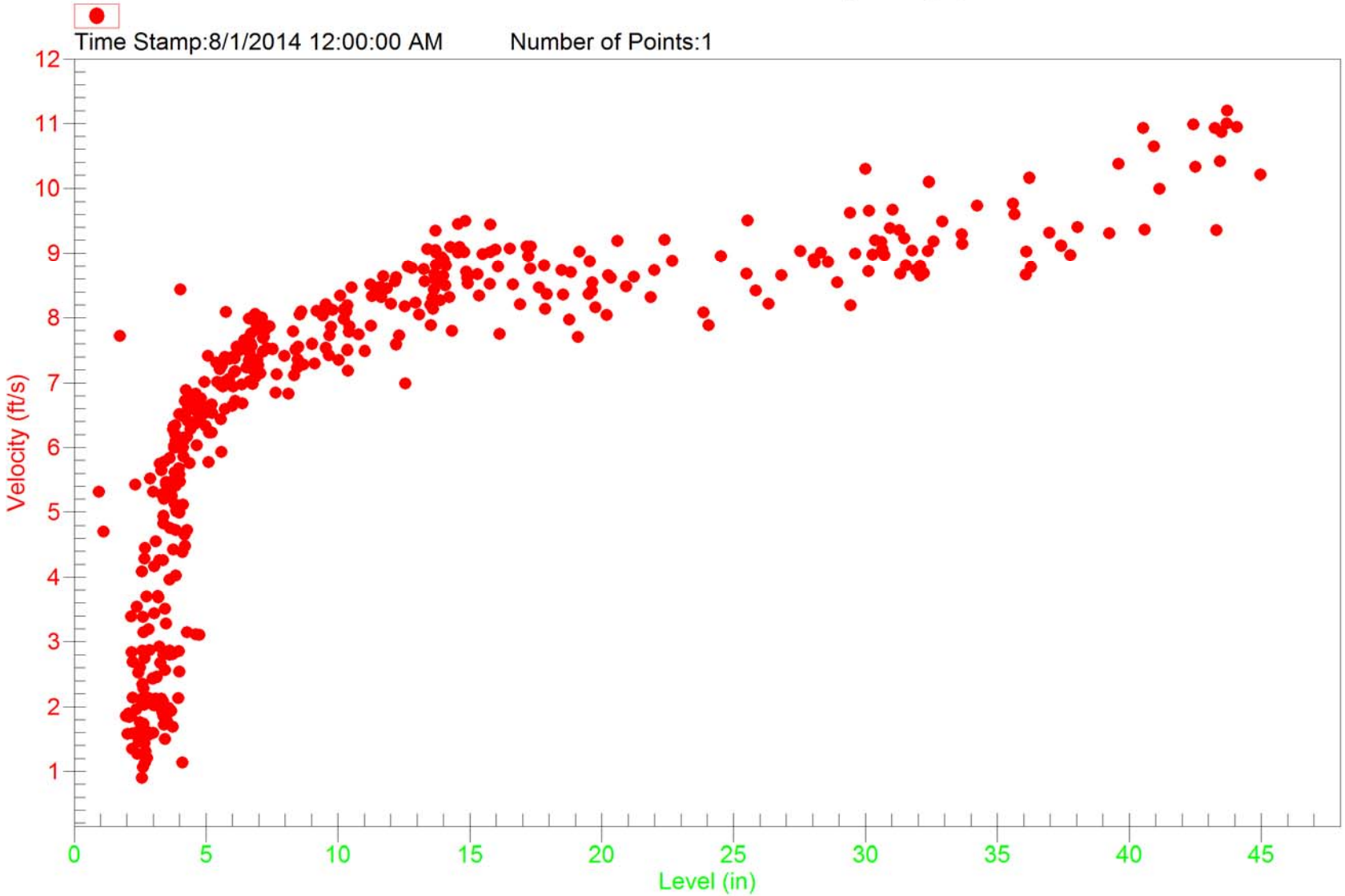
CSO 063 Emerson Avenue Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

FIGURE 15

CSO 077 West Colvin Street - Midland Monthly Scattergraph



8/1/2014 12:00:00 AM - 9/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	
07/17/14	10:03	0.00	NA	0.119	NA			New	no	Archived	GS		
08/07/14	14:11	0.00	NA	0.161	NA			11.3	New	Archived	WP		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff loc
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	
7/17/14	9:44	0.00	NA	3.988	NA			new	OK	testing	GS	
7/17/14	9:52	0	NA	0.135	NA			new	OK	Archived	GS	
8/7/14	14:05	0	NA	-0.069	NA			11.5	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough:____ In-Between _____
PROBE MOUNTED: On Invert: _____ Side of Pipe: On Weir
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE
07/17/14	10:59	0.00	NA	0.059	NA			12.2	OK	Archived	GS	Changed alarm to velocity
08/04/14	6:42	0.00	NA	-0.041	NA			New	OK	Archived	WP	
08/07/14	13:04	0.00	NA	-0.045	0.00		Push Data	11.8	OK	Archived	WP	Changed Modem and updated firmware

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM
07/17/14	11:22	0.00	NA	-0.030	NA			11.0	OK	Archived	GS
08/07/14	14:43	0.00	NA	0.026	NA			10.9	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM
07/17/14	11:35	0.00	NA	0.210	NA			New	OK	Archived	GS
08/07/14	14:51	0.00	NA	-0.303	NA		Adj.	11.3	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 052 et & Elmhurst Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM
7/17/14	12:19	0	NA	-0.246	NA		Adj.	10.4	OK	Archived	GS
8/7/14	15:08	0	NA	0.002	NA			10.4	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɗaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

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SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM
8/7/14	15:19	0.00	NA	-0.066	NA			1.7	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 063 nerson Avenue
M.H. No. MH DEPTH:
PIPE SIZE: 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM
7/17/14	10:12	0.00	NA	0.150	NA			10.6	OK	Archived	GS
8/7/14	14:22	0.00	NA	-0.088	NA			New	New	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE: 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM
7/17/14	12:10	0	NA	0.015	NA			11.1	OK	Archived	GS
8/7/14	15:27	0	NA	-0.011	NA			10.3	New	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
SEPTEMBER 2014

Prepared by
SAVIN ENGINEERS, P.C.

OCTOBER 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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SEPTEMBER 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
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ONONDAGA COUNTY, NEW YORK
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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
SEPTEMBER 2014

1. INTRODUCTION

This is the thirty-third monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of September 1, 2014 through September 30, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- September 2,
- September 13,
- September 16,
- September 21, and
- September 30

2. SUMMARY OF OVERFLOWS

There were five rainfall events that occurred on September 2, September 13, September 16, September 21 and September 30. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the five overflow events. Figures 1 through 6 show rainfall during the month of September.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 6, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 7 through 11. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir

equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of September.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of September.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of September 1, 2014 through September 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
September 2	19,322	69 minutes
September 30	1,271	8 minutes

CSO 030 (West Jefferson St.) - There were no overflows during the month of September.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of September 1, 2014 through September 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
September 2	104,136	1.75 hours

September 16	33	1 minute
September 21	451	2 minutes
September 30	293	1 minute

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of September 1, 2014 through September 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
September 2	14,930	12.75 hours
September 13	1,557	8 minutes
September 21	33,370	2.25 hours
September 30	75,277	78 minutes

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 4 shows the hydrograph for the period of September 1, 2014 through September 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
September 2	386,526	67 minutes
September 21	444,296	2.25 hours
September 30	337,785	47 minutes

CSO 063 (Emerson Ave.) – Figure 5 shows the hydrograph for the period of September 1, 2014 through September 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**

September 2	20,500	103 minutes
September 13	12,274	2 hours

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. Figure 6 shows the hydrograph for the period of September 1, 2014 through September 30, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
September 2	355,452	80 minutes
September 21	524,526	76 minutes
September 30	3,159	1 minute

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - September 2014

	Location	9/2 Overflow Quantity (gal)	9/13 Overflow Quantity (gal)	9/16 Overflow Quantity (gal)	9/21 Overflow Quantity (gal)	9/30 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0	0
2	**CSO 004**	0	0	0	0	0	0
3	**CSO 014**	19,322	0	0	0	1,271	20,593
4	**CSO 030**	0	0	0	0	0	0
5	**CSO 034**	104,136	0	33	451	293	104,913
6	**CSO 052**	14,930	1,557	0	33,370	75,277	125,134
7	**CSO 060**	386,526	0	0	444,296	337,785	1,168,607
8	**CSO 063**	20,500	12,274	0	0	0	32,774
9	**CSO 077**	355,452	0	0	524,526	3,159	883,137
	TOTAL =	**900,866**	**13,831**	**33**	**1,002,643**	**417,785**	**2,335,158**

							Monthly Overflow Total (in)
12	**Rainfall Total:**	0.85	0.28	0.22	0.33	0.46	2.14
13	**Average Rainfall Intensity:**	0.06	0.06	0.04	0.07	0.23	
14	**Peak Hourly Rainfall Intensity:**	0.59	0.10	0.12	0.21	0.44	

FIGURE 1

CSO 014 Delaware Street Monthly Hydrograph

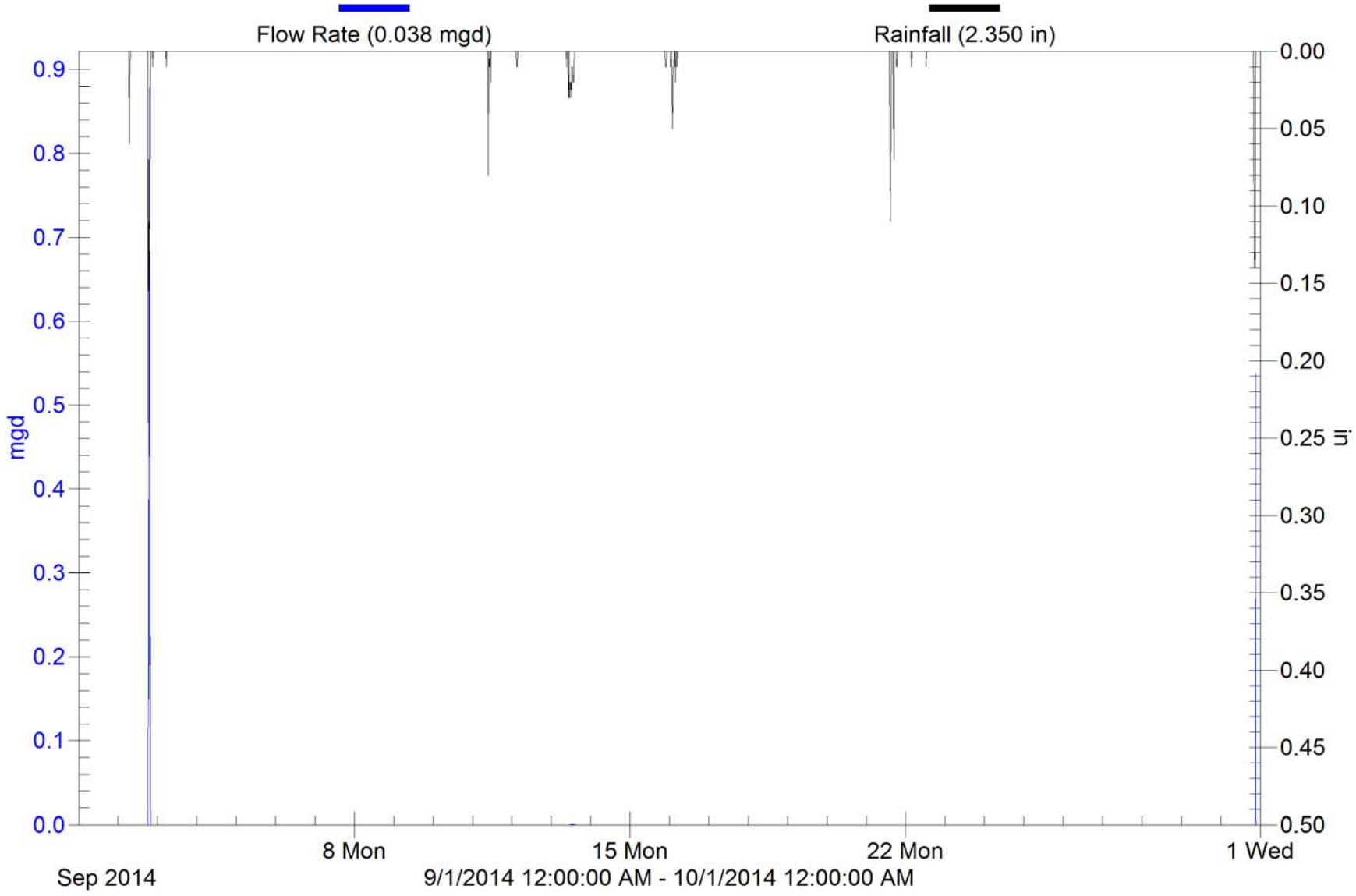


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

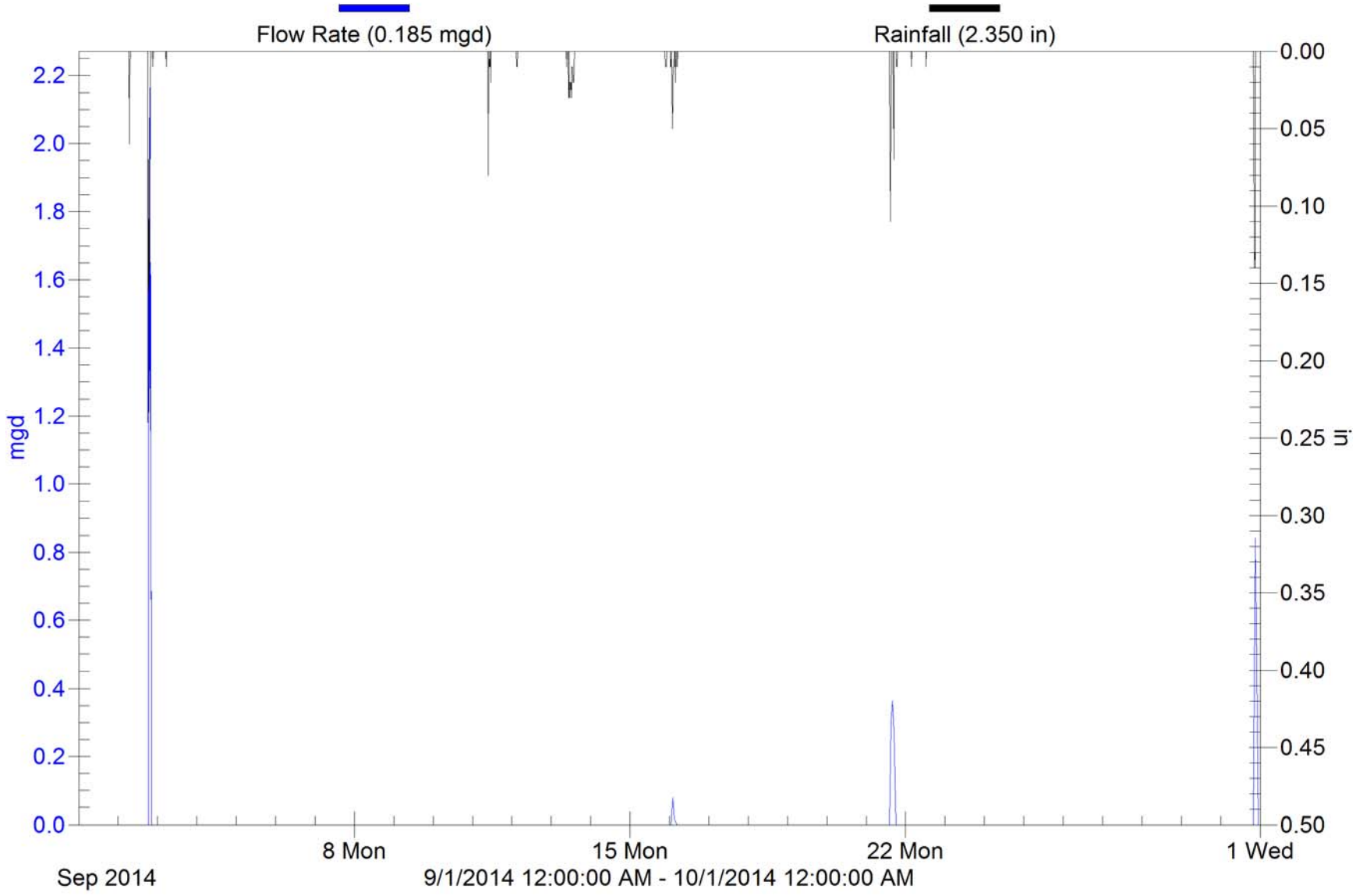


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

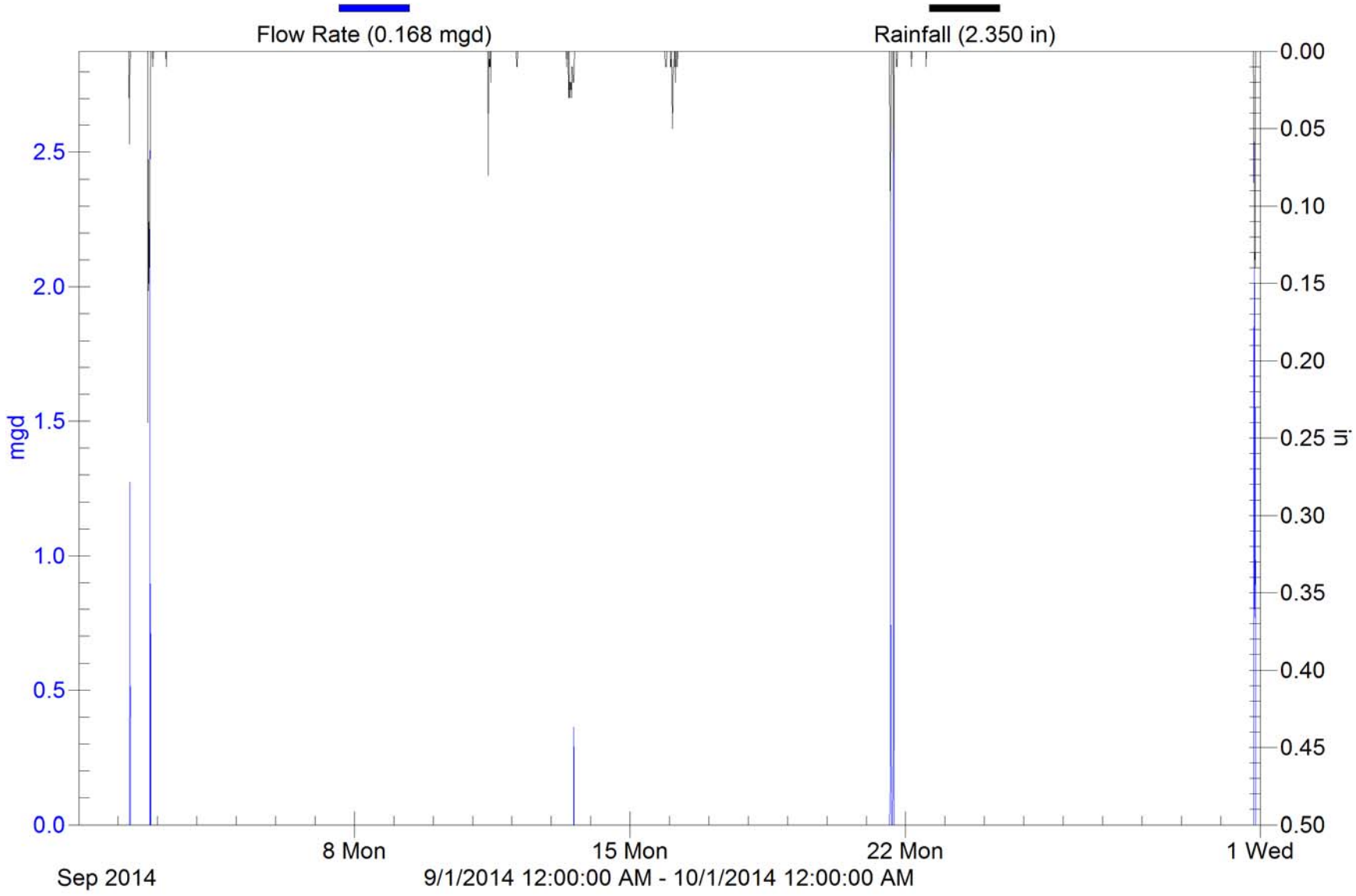


FIGURE 4

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

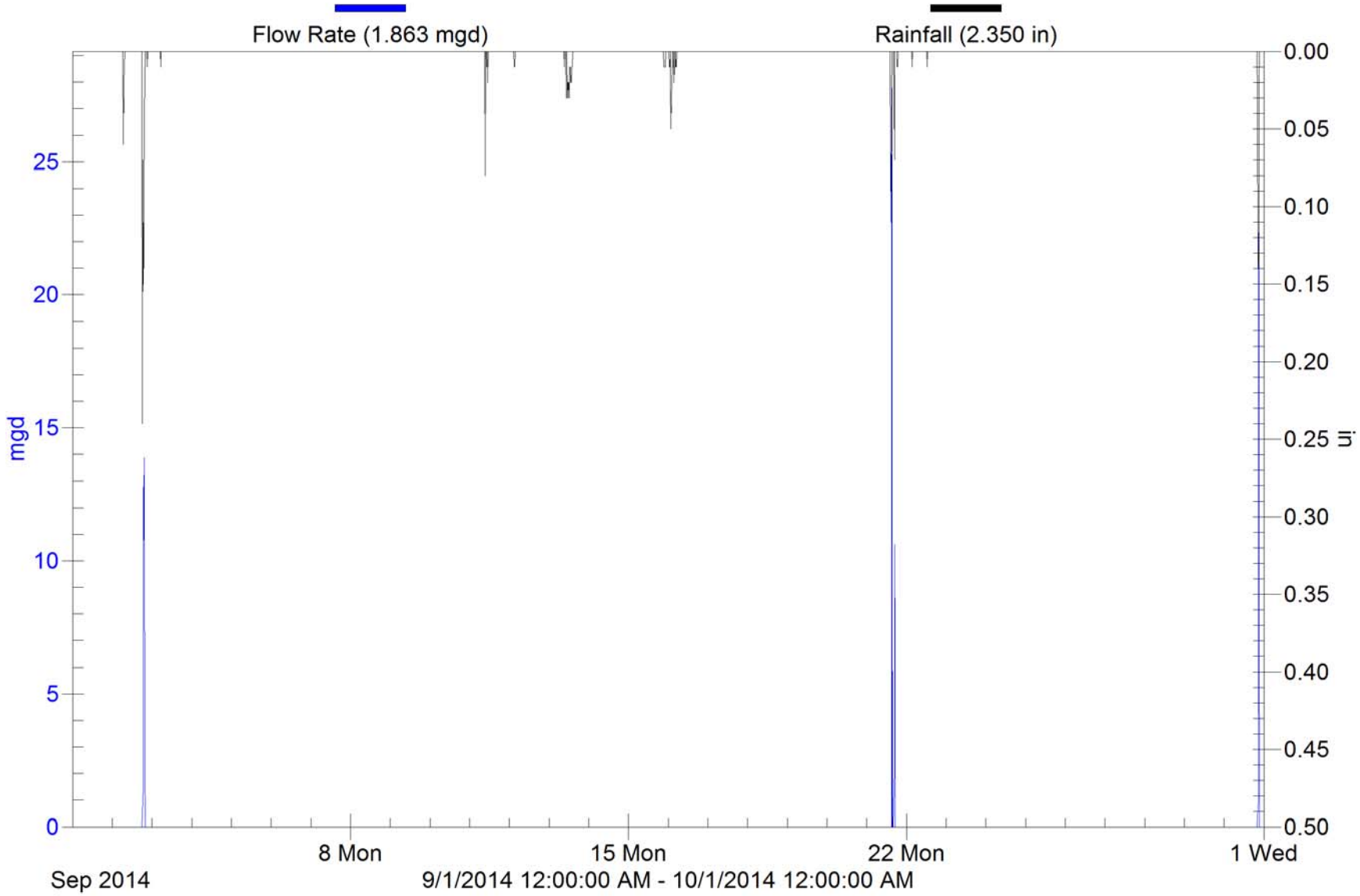


FIGURE 5

CSO 063 Emerson Avenue Monthly Hydrograph

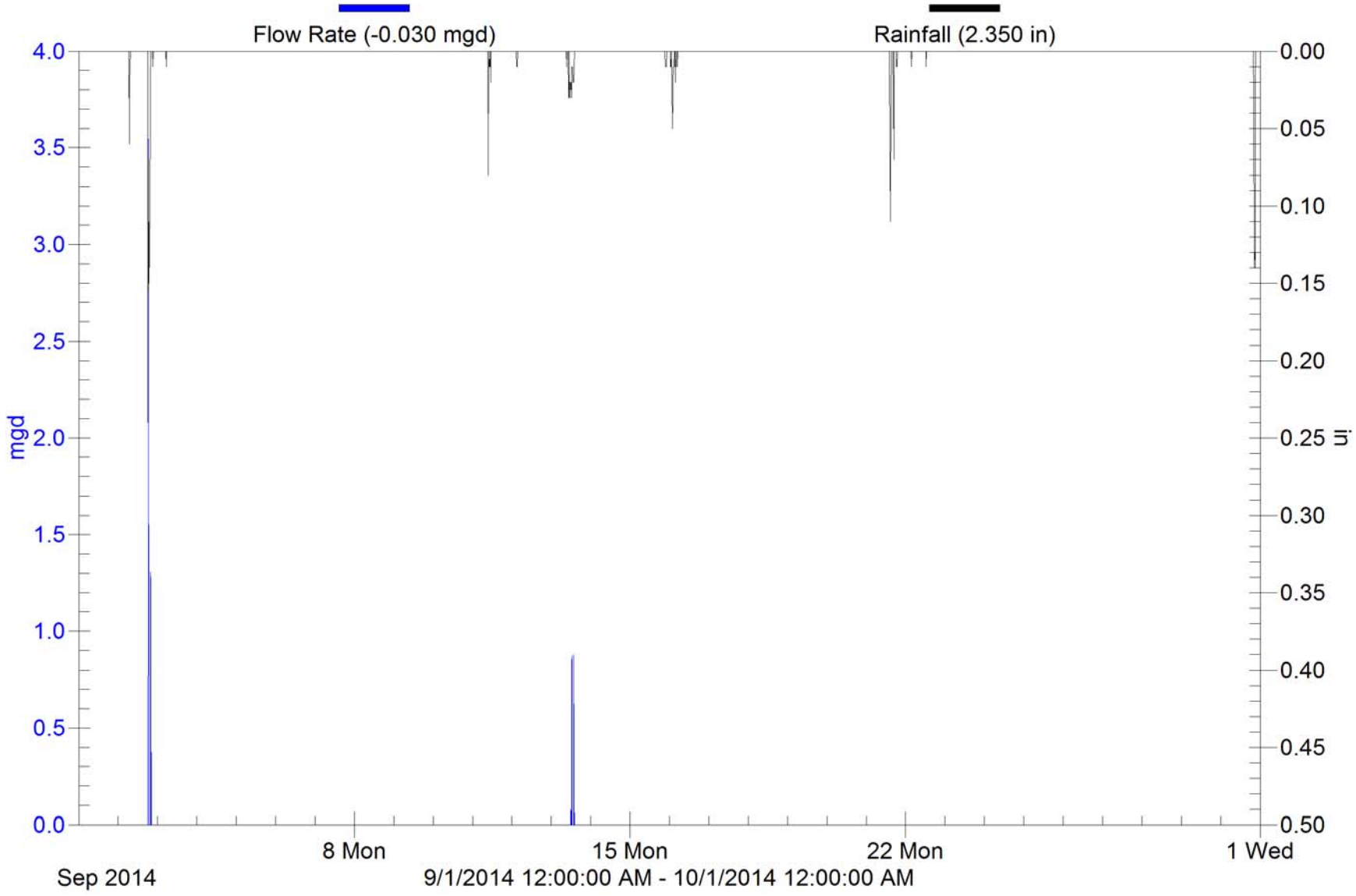


FIGURE 6

CSO 077 West Colvin Street - Midland Monthly Hydrograph

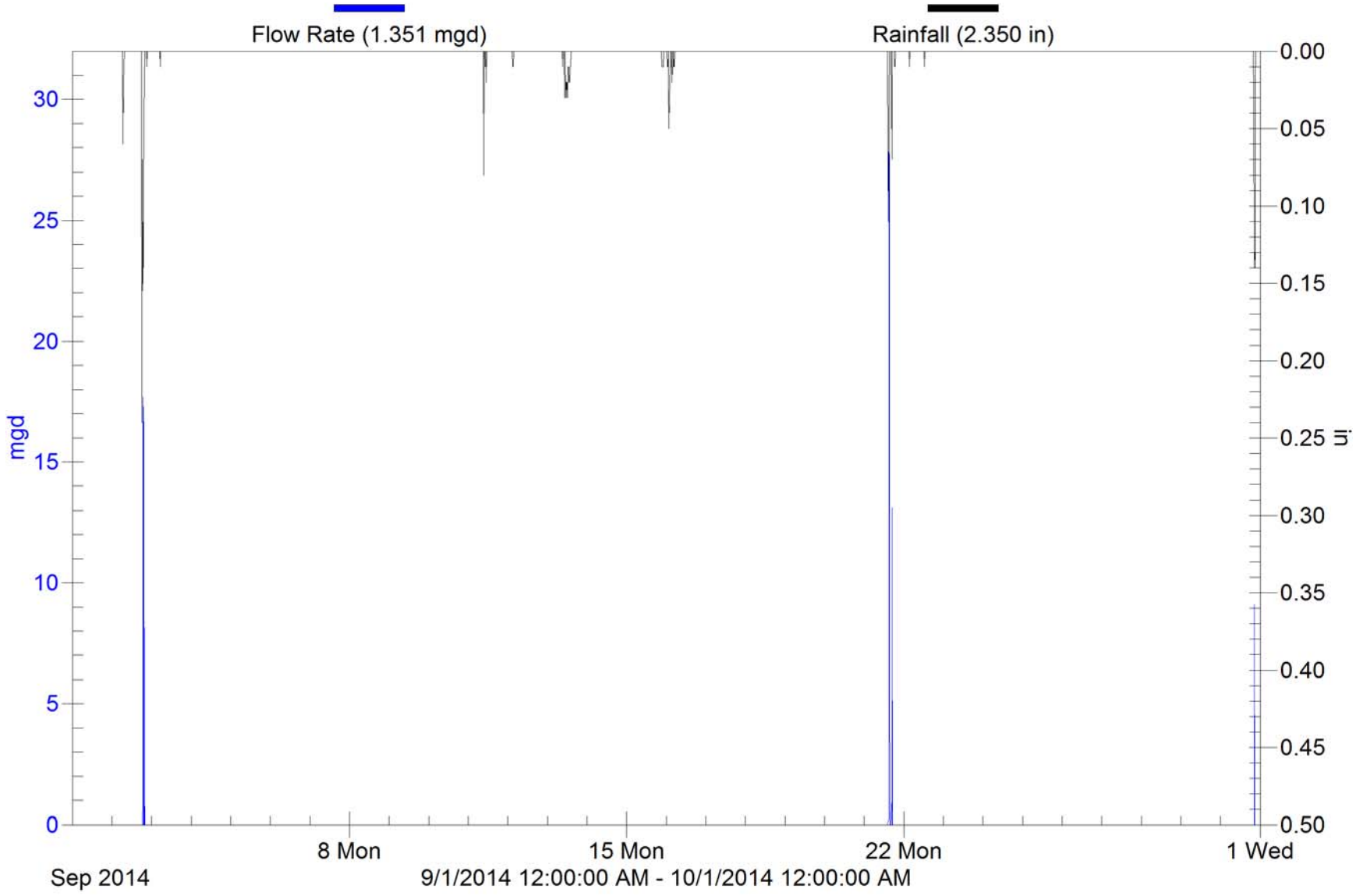
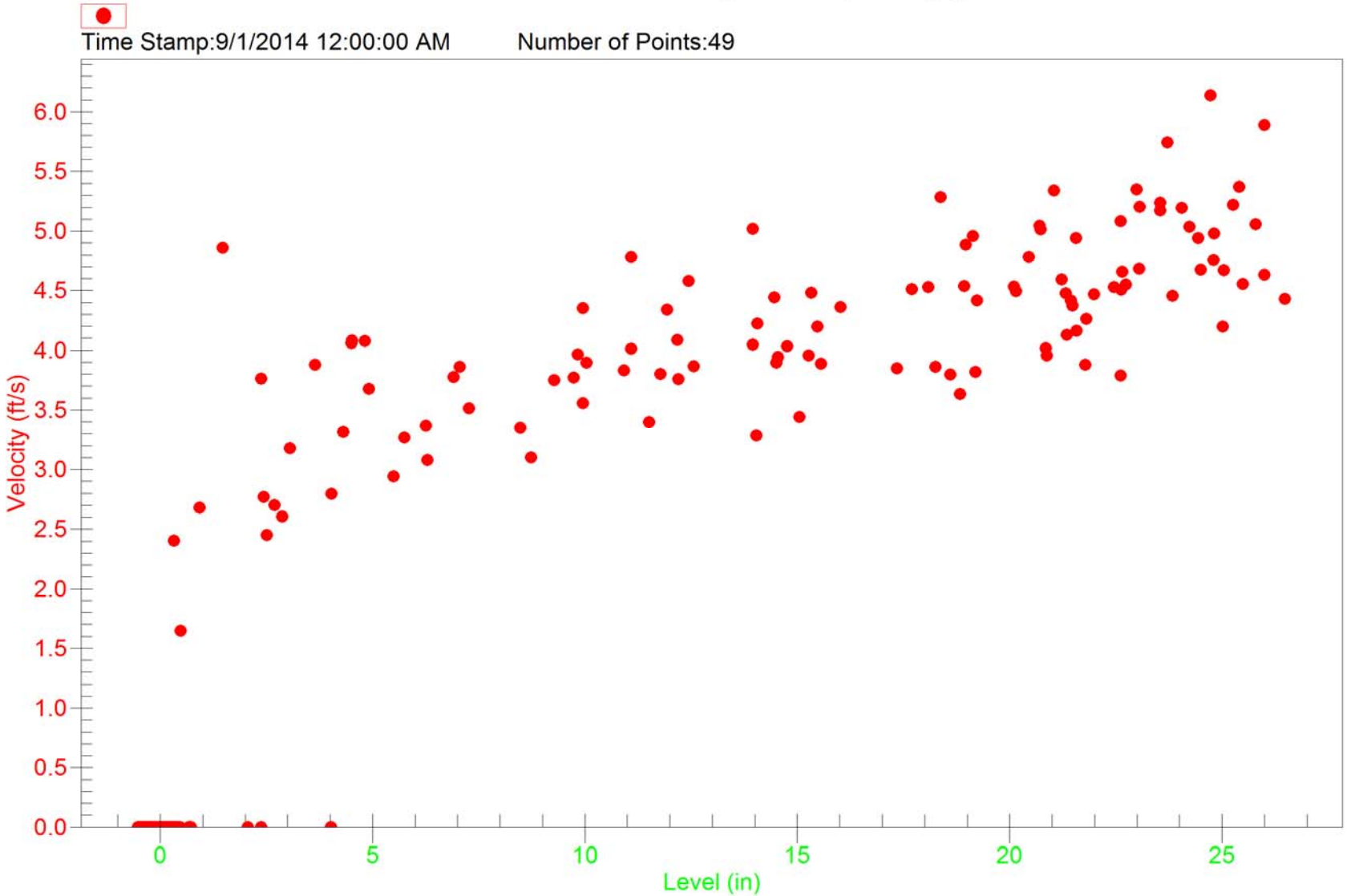


FIGURE 7

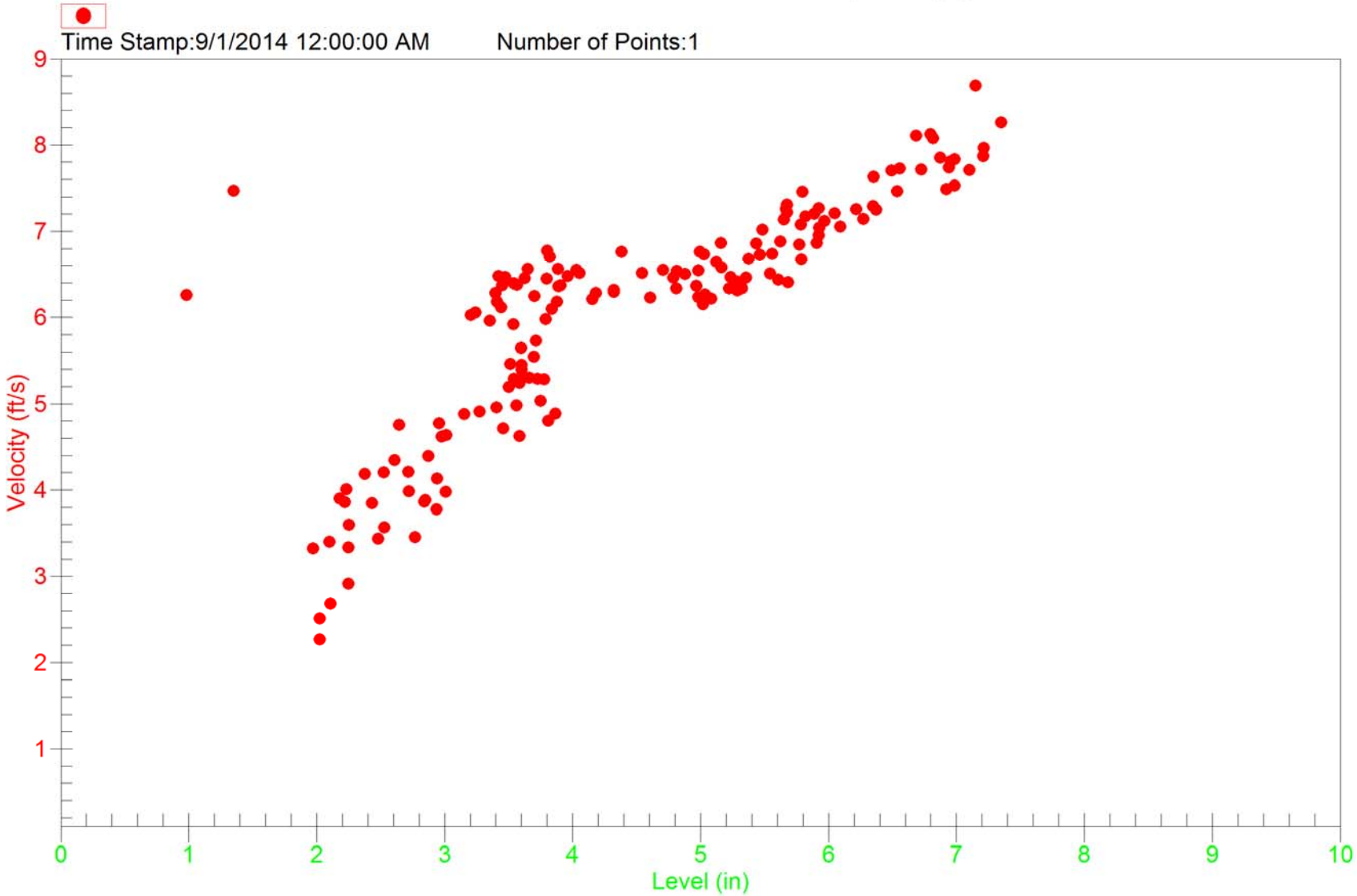
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



9/1/2014 12:00:00 AM - 10/1/2014 12:00:00 AM

FIGURE 8

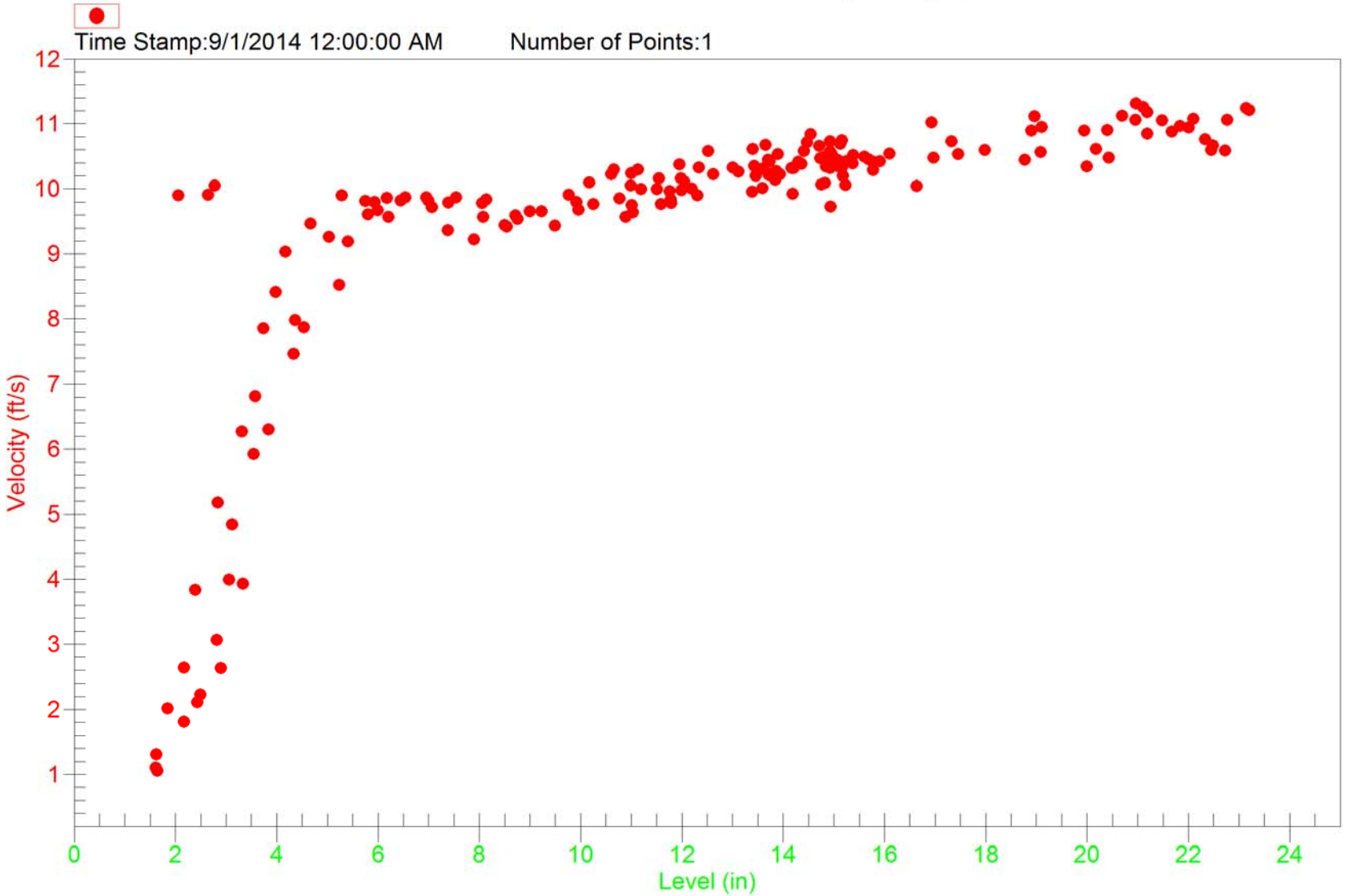
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



9/1/2014 12:00:00 AM - 10/1/2014 12:00:00 AM

FIGURE 9

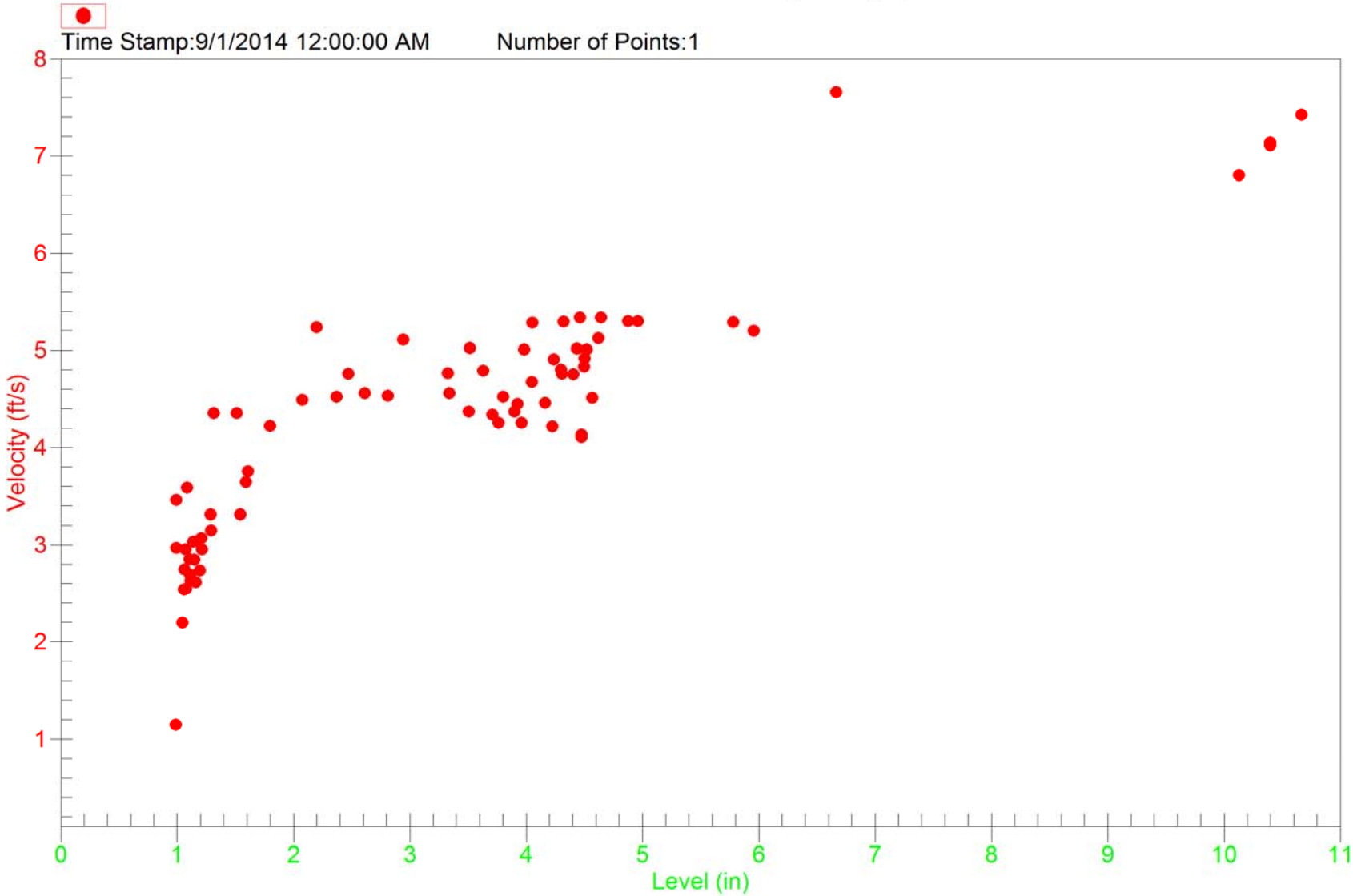
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



9/1/2014 12:00:00 AM - 10/1/2014 12:00:00 AM

FIGURE 10

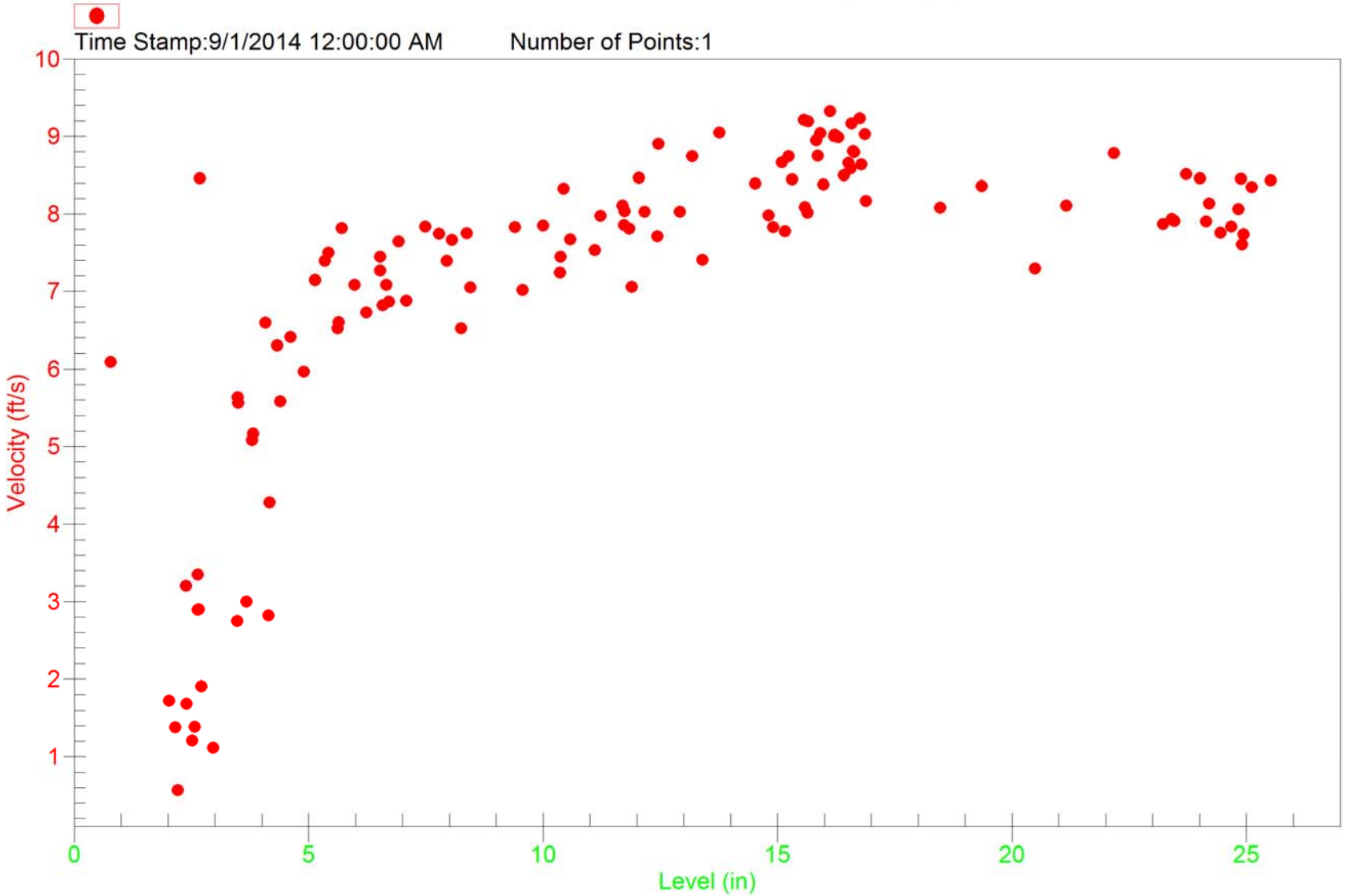
CSO 063 Emerson Avenue Monthly Scattergraph



9/1/2014 12:00:00 AM - 10/1/2014 12:00:00 AM

FIGURE 11

CSO 077 West Colvin Street - Midland Monthly Scattergraph



9/1/2014 12:00:00 AM - 10/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	
07/17/14	10:03	0.00	NA	0.119	NA			New	no	Archived	GS		
08/07/14	14:11	0.00	NA	0.161	NA			11.3	New	Archived	WP		
09/15/14	11:23	0.00	NA	0.016	NA			10.8	Ok	Archived	GS		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff loc
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	
7/17/14	9:44	0.00	NA	3.988	NA			new	OK	testing	GS	
7/17/14	9:52	0	NA	0.135	NA			new	OK	Archived	GS	
8/7/14	14:05	0	NA	-0.069	NA			11.5	OK	Archived	WP	
9/15/14	11:01	0	0	0.075	0			11.4	OK	Archived	GS	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough:____ In-Between _____
PROBE MOUNTED: On Invert: _____ Side of Pipe: On Weir
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE
07/17/14	10:59	0.00	NA	0.059	NA			12.2	OK	Archived	GS	Changed alarm to velocity
08/04/14	6:42	0.00	NA	-0.041	NA			New	OK	Archived	WP	
08/07/14	13:04	0.00	NA	-0.045	0.00		Push Data	11.8	OK	Archived	WP	Changed Modem and updated firmware
09/15/14	12:09	0.00	NA	-0.018	NA			11.2	OK	Archived	GS	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM
07/17/14	11:22	0.00	NA	-0.030	NA			11.0	OK	Archived	GS
08/07/14	14:43	0.00	NA	0.026	NA			10.9	New	Archived	WP
09/15/14	13:29	0	NA	0.14	0			10.8	OK	Archived	GS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough:____ In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM
07/17/14	11:35	0.00	NA	0.210	NA			New	OK	Archived	GS
08/07/14	14:51	0.00	NA	-0.303	NA		Adj.	11.3	New	Archived	WP
09/15/14	13:00	0.00	NA	0.384	NA		Adj.	New	OK	Archived	GS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 052 et & Elmhurst Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE: 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM
7/17/14	12:19	0	NA	-0.246	NA		Adj.	10.4	OK	Archived	GS
8/7/14	15:08	0	NA	0.002	NA			10.4	New	Archived	WP
9/15/14	14:09	0	NA	0.246	NA			New	OK	Archived	GS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 060 - Street & Kirk Park Drive
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM
8/7/14	15:19	0.00	NA	-0.066	NA			1.7	New	Archived	WP
9/15/14	14:31	0.00	NA	-0.302	NA		Adj.	11.2	OK	Archived	GS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 063 nerson Avenue
M.H. No. MH DEPTH:
PIPE SIZE: 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM
7/17/14	10:12	0.00	NA	0.150	NA			10.6	OK	Archived	GS
8/7/14	14:22	0.00	NA	-0.088	NA			New	New	Archived	WP
9/15/14	11:50	0	NA	0.219	NA		Adj.	11.9	OK	Archived	GS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT: daga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE: 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM
7/17/14	12:10	0	NA	0.015	NA			11.1	OK	Archived	GS
8/7/14	15:27	0	NA	-0.011	NA			10.3	New	Archived	WP
9/15/14	13:42	0	NA	-0.067	NA			New	OK	Archived	GS

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
OCTOBER 2014

Prepared by
SAVIN ENGINEERS, P.C.

NOVEMBER 2014

ONONDAGA COUNTY, NEW YORK

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
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ONONDAGA COUNTY, NEW YORK
DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
OCTOBER 2014

1. INTRODUCTION

This is the thirty-fourth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of October 1, 2014 through October 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- October 8,
- October 15,
- October 16,
- October 18,
- October 26,
- October 28, and
- October 29

2. SUMMARY OF OVERFLOWS

There were seven rainfall events that occurred on October 8, October 15, October 16, October 18, October 26, October 28 and October 29. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the seven overflow events. Figures 1 through 6 show rainfall during the month of October.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 6, respectively. Scattergraphs for each of the sites that overflowed are included in

Figures 7 through 11. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of October.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of October.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of October 1, 2014 through October 31, 2014. Data are summarized below:

Date	**Overflow Quantity (gallons)**	**Overflow Duration**
October 8	3,694	16 minutes
October 16	12,259	76 minutes

CSO 030 (West Jefferson St.) - There were no overflows during the month of October.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of October 1, 2014 through October 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
October 8	498	1 minute
October 16	2,854	6 minutes
October 29	154	1 minute

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of October 1, 2014 through October 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
October 8	52,590	54 minutes
October 15	24,891	38 minutes
October 16	71,156	6.5 hours
October 26	1,315	7 minutes
October 28	1,426	7 minutes
October 29	247	2 minutes

CSO 060 (West Colvin St. and Kirk Park Dr.) – Figure 4 shows the hydrograph for the period of October 1, 2014 through October 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
October 8	131,723	33 minutes
October 16	772,034	104 minutes

CSO 063 (Emerson Ave.) – Figure 5 shows the hydrograph for the period of October 1, 2014 through October 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
October 8	2,451	16 minutes
October 15	664	16 minutes
October 16	1,956	15 hours
October 18	137	5 minutes
October 26	295	1 minute
October 28	6,113	73 minutes
October 29	237	45 minutes

CSO 077 (West Colvin St. and Midland Ave.) – This is an internal CSO, which does not discharge to the receiving waters. Figure 6 shows the hydrograph for the period of October 1, 2014 through October 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
October 8	524,526	41 minutes
October 16	3,159	5 hours

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - October 2014

	Location	10/8 Overflow Quantity (gal)	10/15 Overflow Quantity (gal)	10/16 Overflow Quantity (gal)	10/18 Overflow Quantity (gal)	10/26 Overflow Quantity (gal)	10/28 Overflow Quantity (gal)	10/29 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0	0	0	0
2	**CSO 004**	0	0	0	0	0	0	0	0
3	**CSO 014**	3,694	0	12,259	0	0	0	0	15,953
4	**CSO 030**	0	0	0	0	0	0	0	0
5	**CSO 034**	498	0	2,854	0	0	0	154	3,506
6	**CSO 052**	52,590	24,891	71,156	0	1,315	1,426	247	151,625
7	**CSO 060**	131,723	0	772,034	0	0	0	0	903,757
8	**CSO 063**	2,451	664	1,956	137	295	6,113	237	11,853
9	**CSO 077**	171,952	0	48,807	0	0	0	0	220,759
	TOTAL =	**362,908**	**25,555**	**909,066**	**137**	**1,610**	**7,539**	**638**	**1,307,453**

									Monthly Overflow Total (in)
12	**Rainfall Total:**	0.41	0.65	0.78	0.21	0.41	0.18	0.10	2.74
13	**Average Rainfall Intensity:**	0.03	0.05	0.03	0.01	0.02	0.09	0.10	
14	**Peak Hourly Rainfall Intensity:**	0.27	0.19	0.47	0.10	0.10	0.12	0.10	

FIGURE 1

CSO 014 Delaware Street Monthly Hydrograph

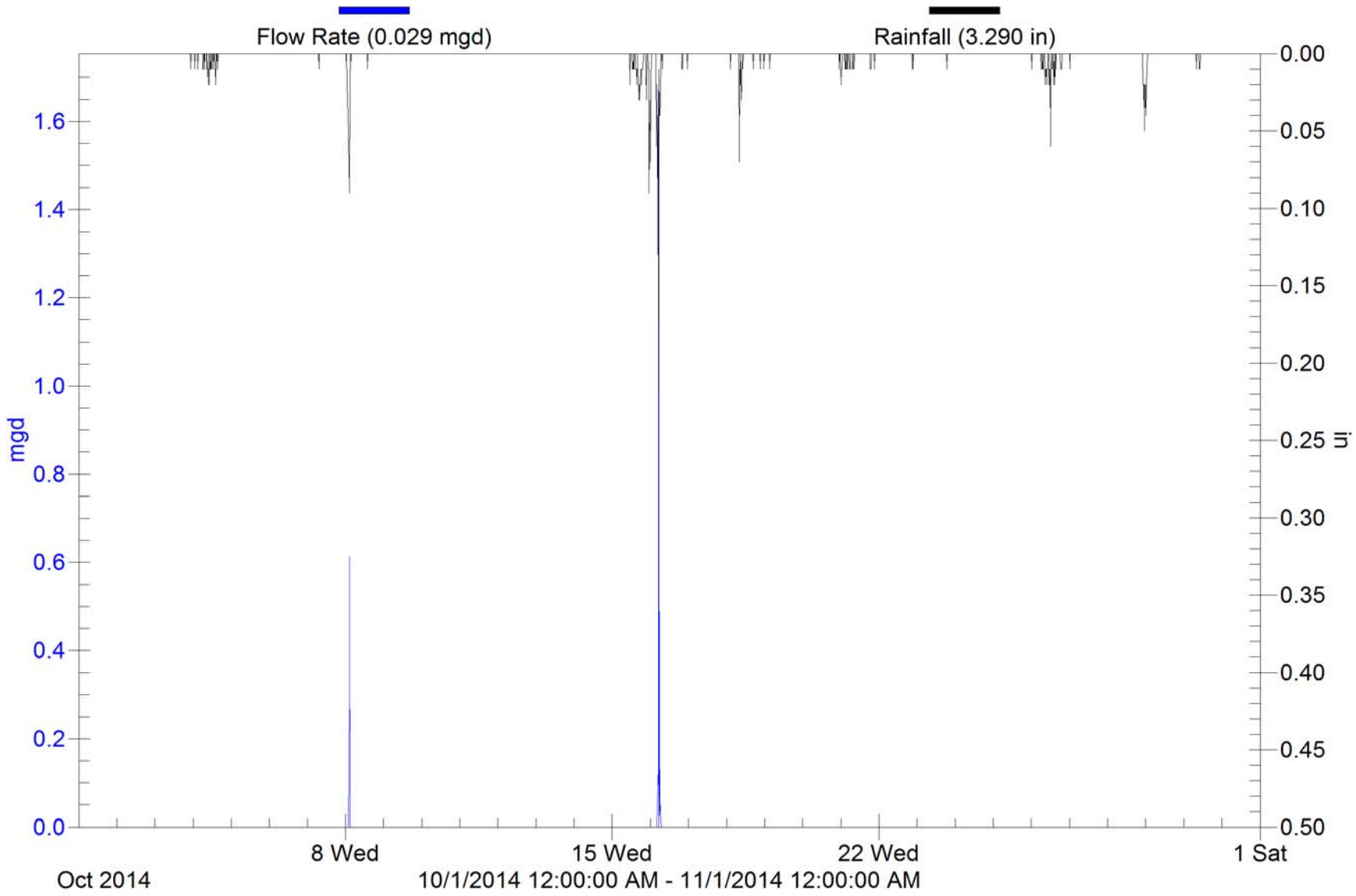


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

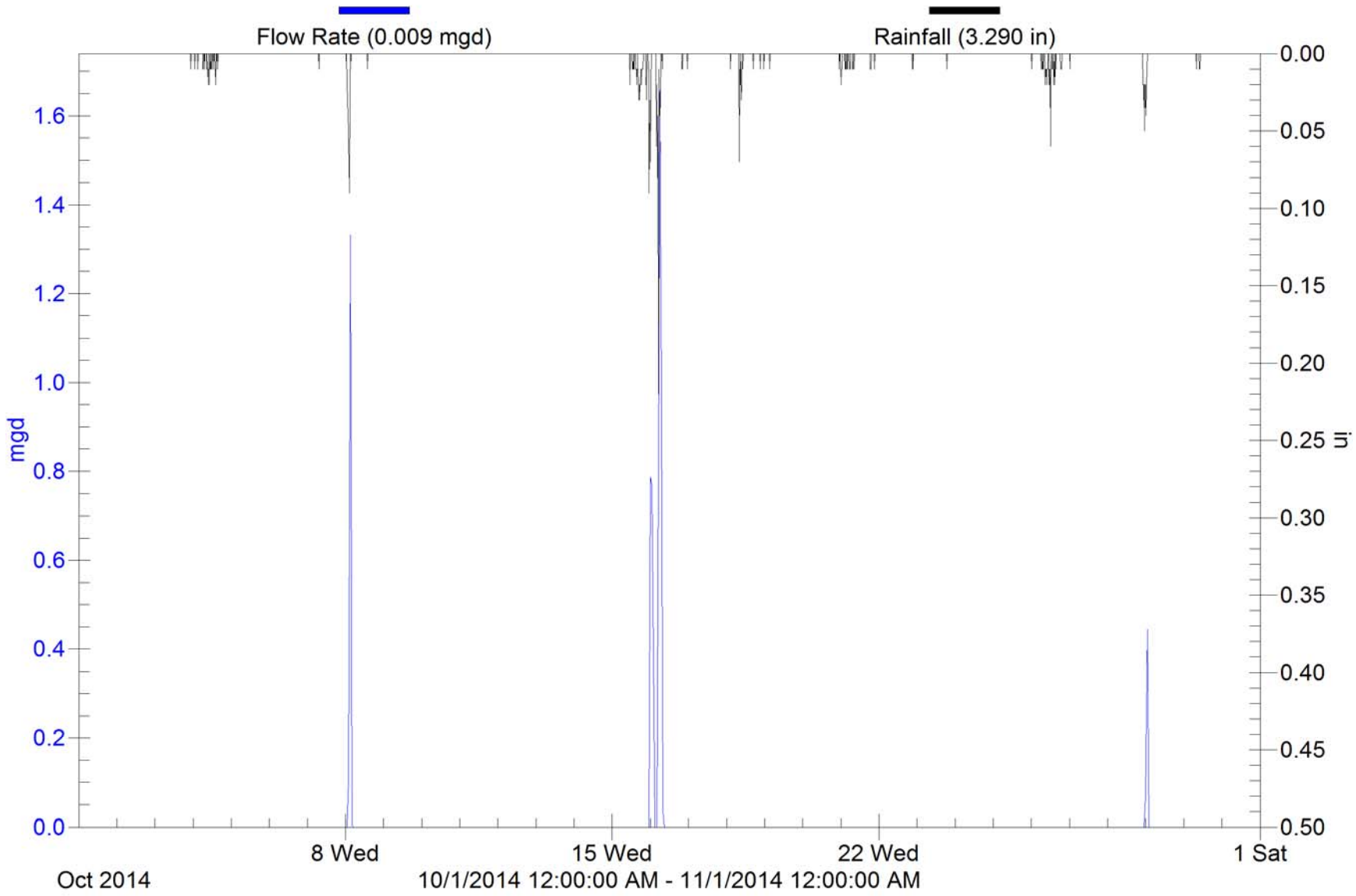


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

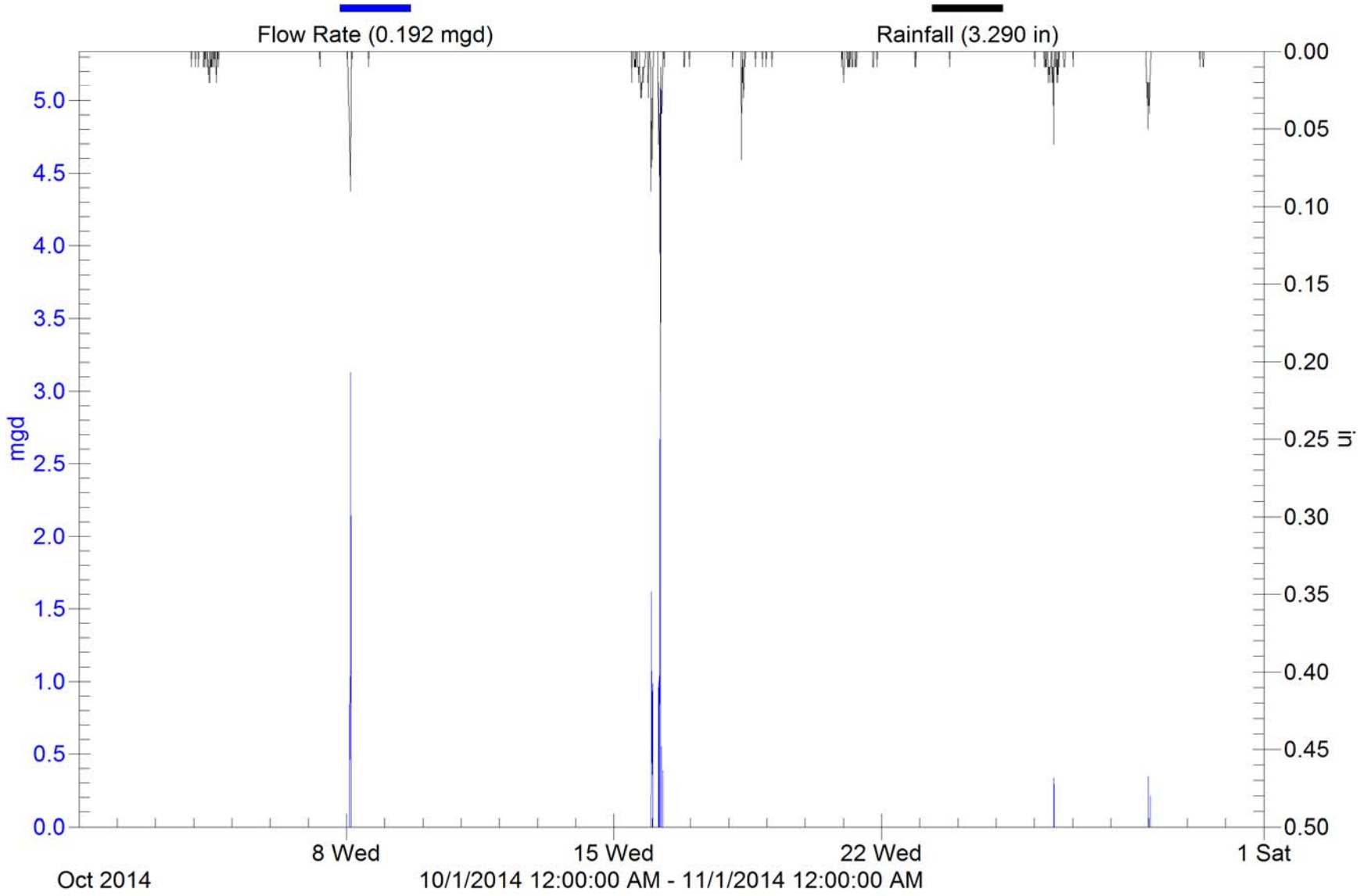


FIGURE 4

CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Hydrograph

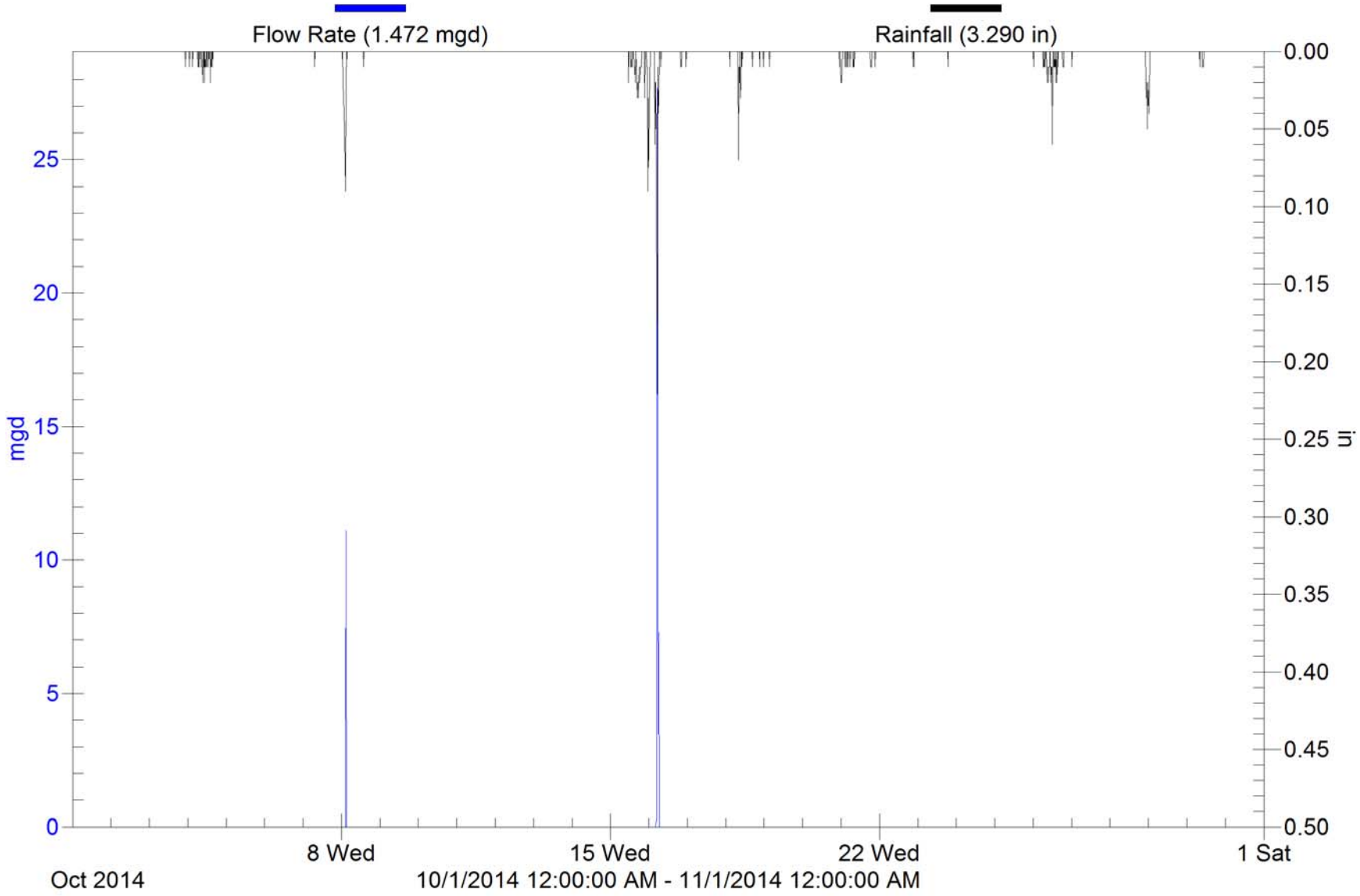


FIGURE 5

CSO 063 Emerson Avenue Monthly Hydrograph

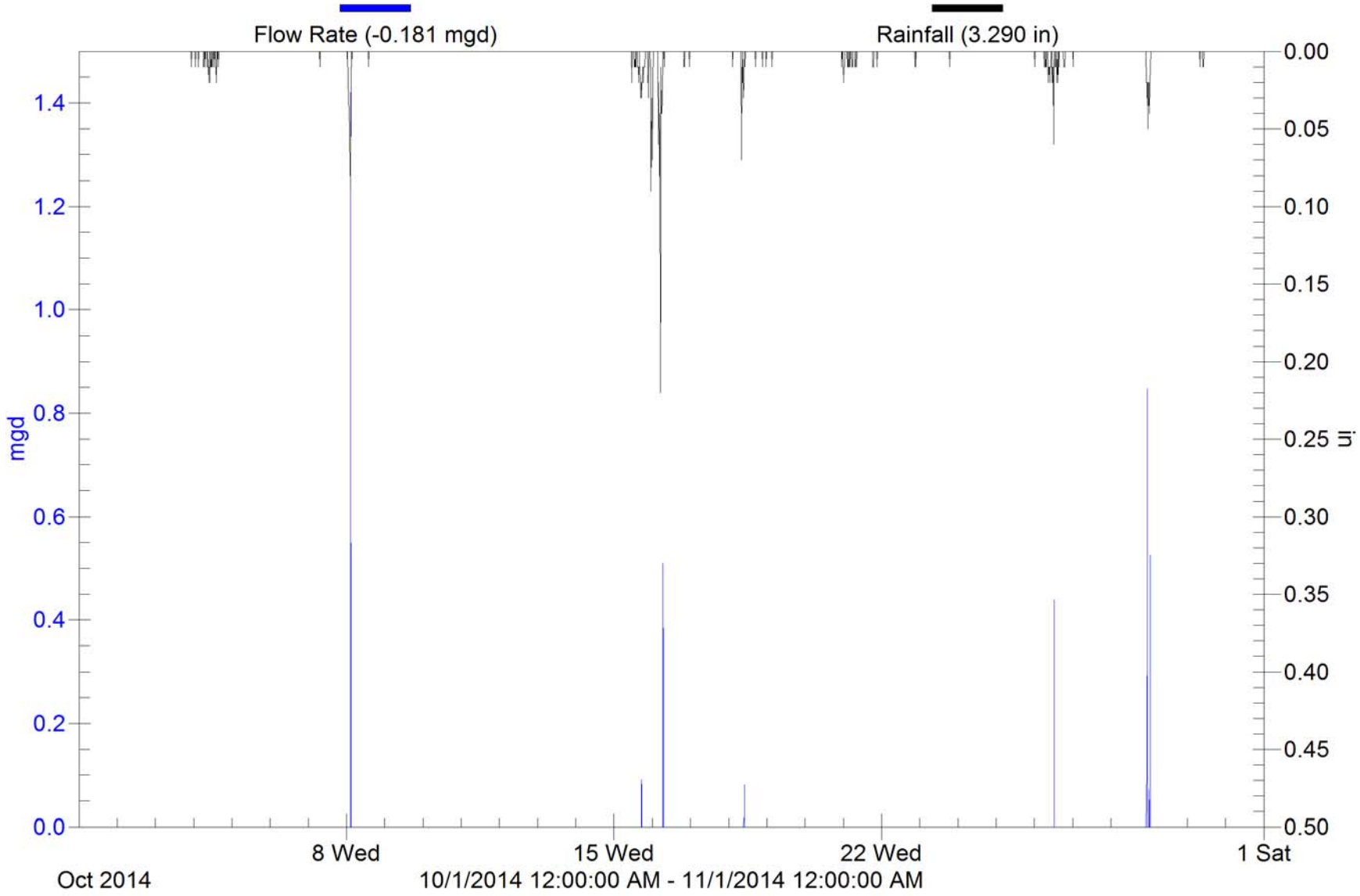


FIGURE 6

CSO 077 West Colvin Street - Midland Monthly Hydrograph

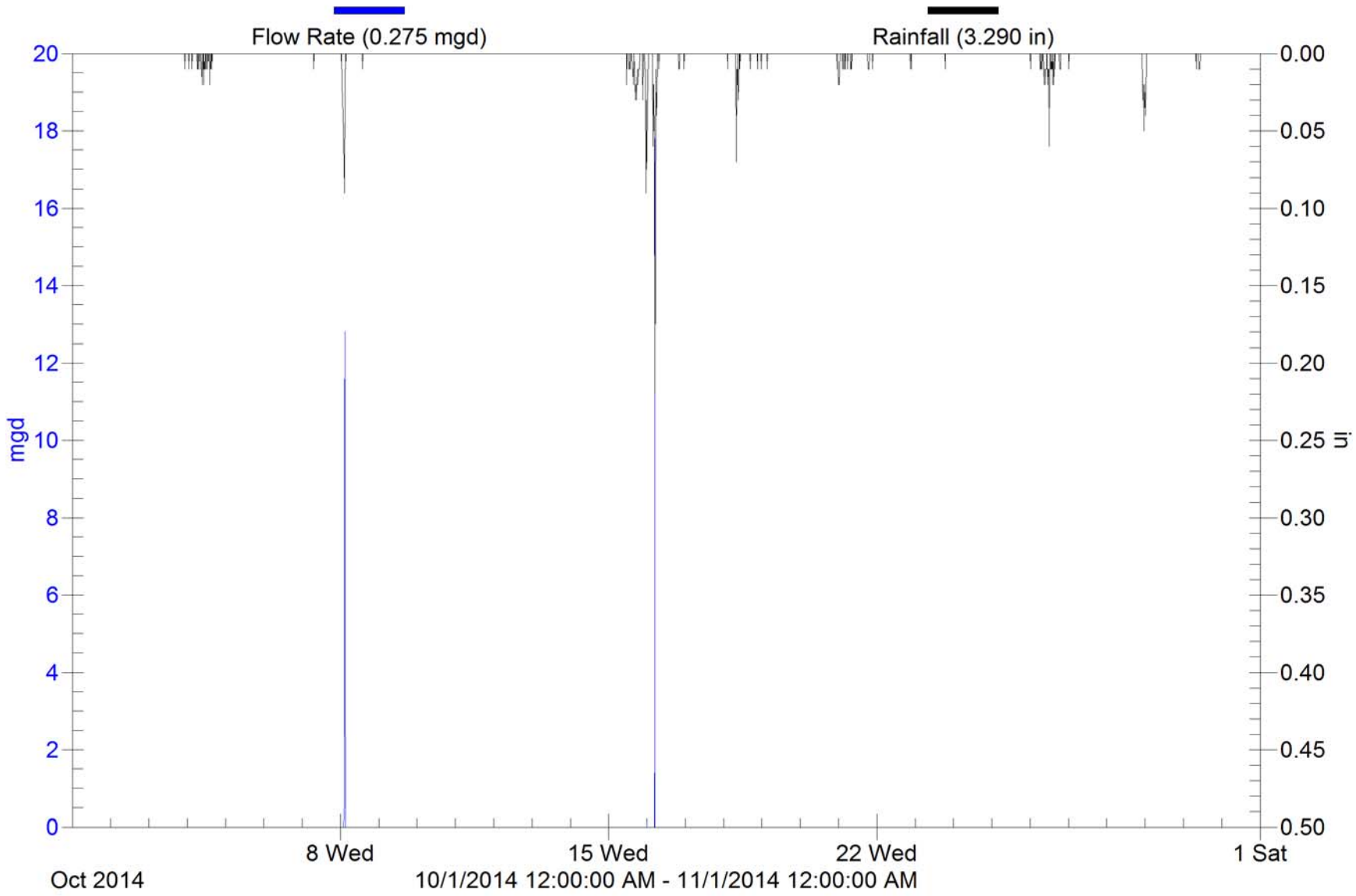
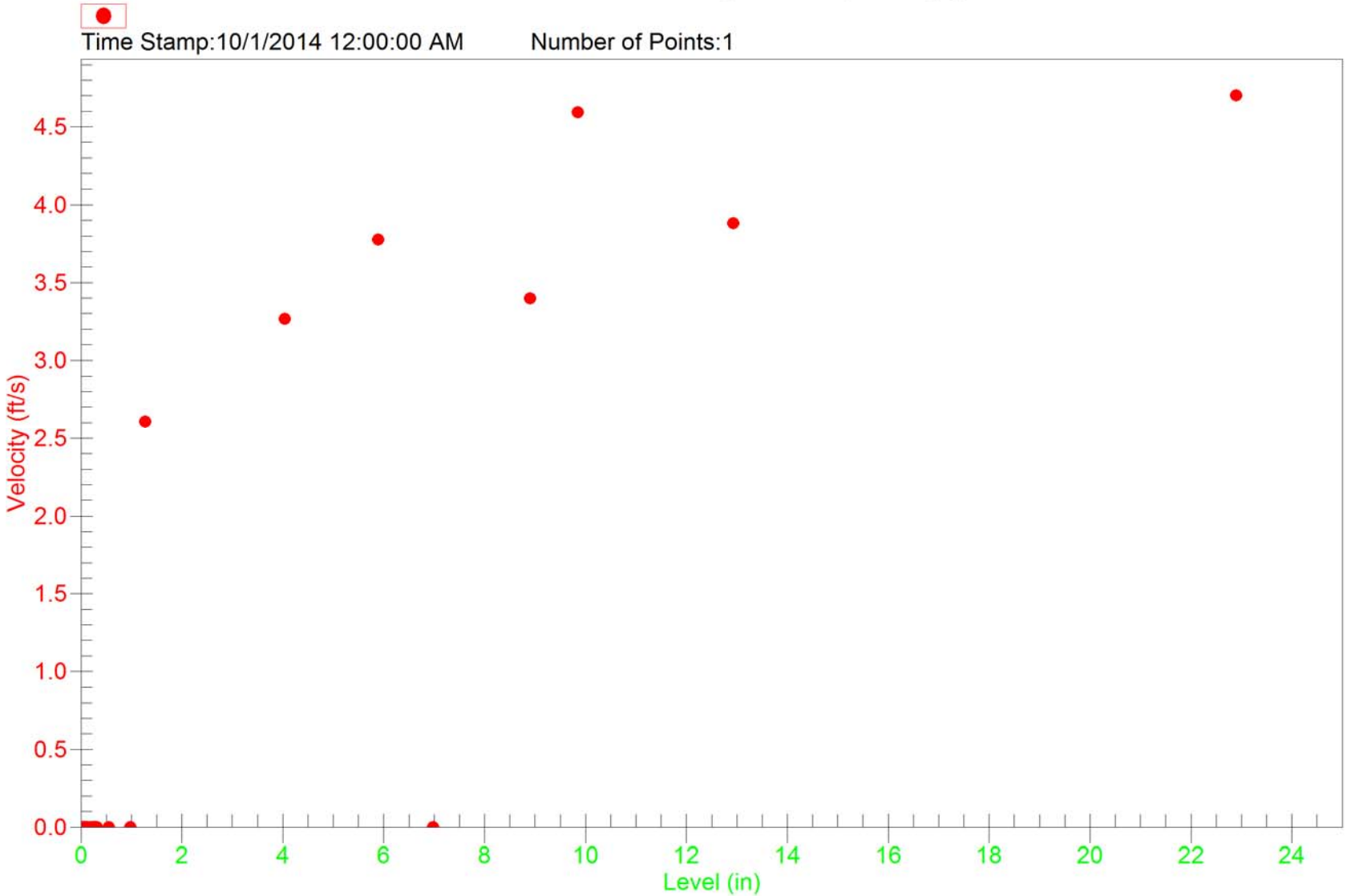


FIGURE 7

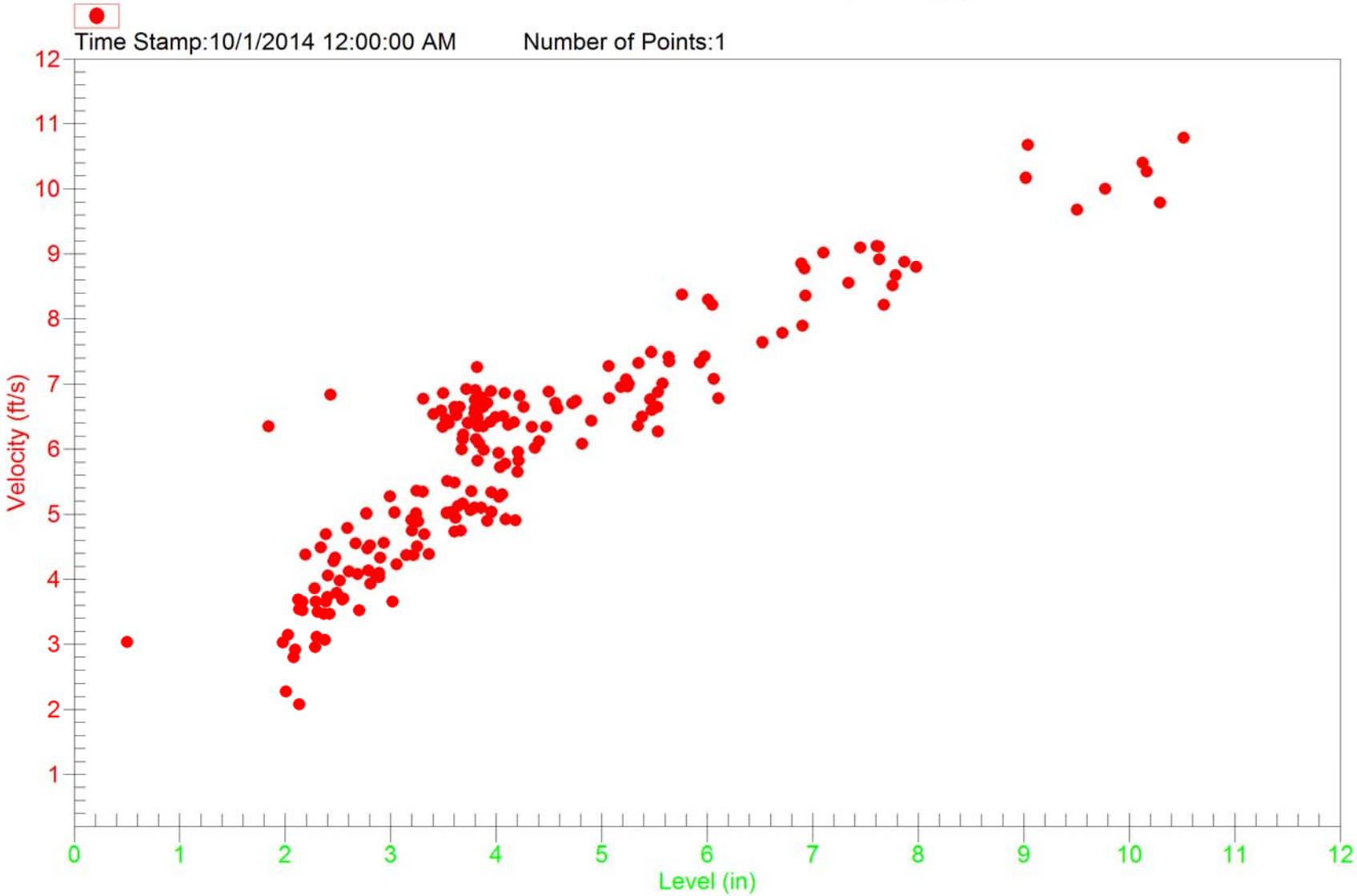
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



10/1/2014 12:00:00 AM - 11/1/2014 12:00:00 AM

FIGURE 8

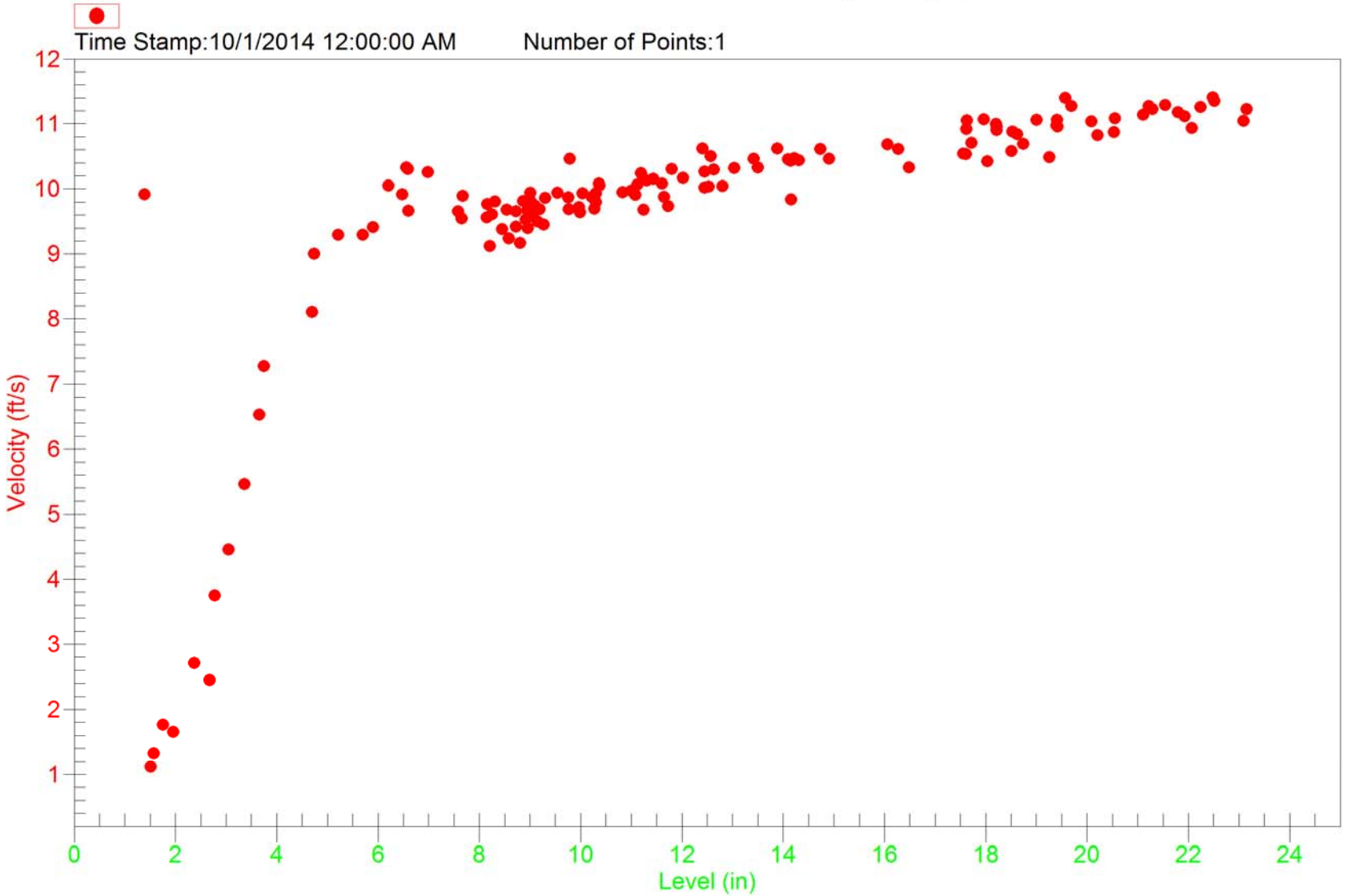
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



10/1/2014 12:00:00 AM - 11/1/2014 12:00:00 AM

FIGURE 9

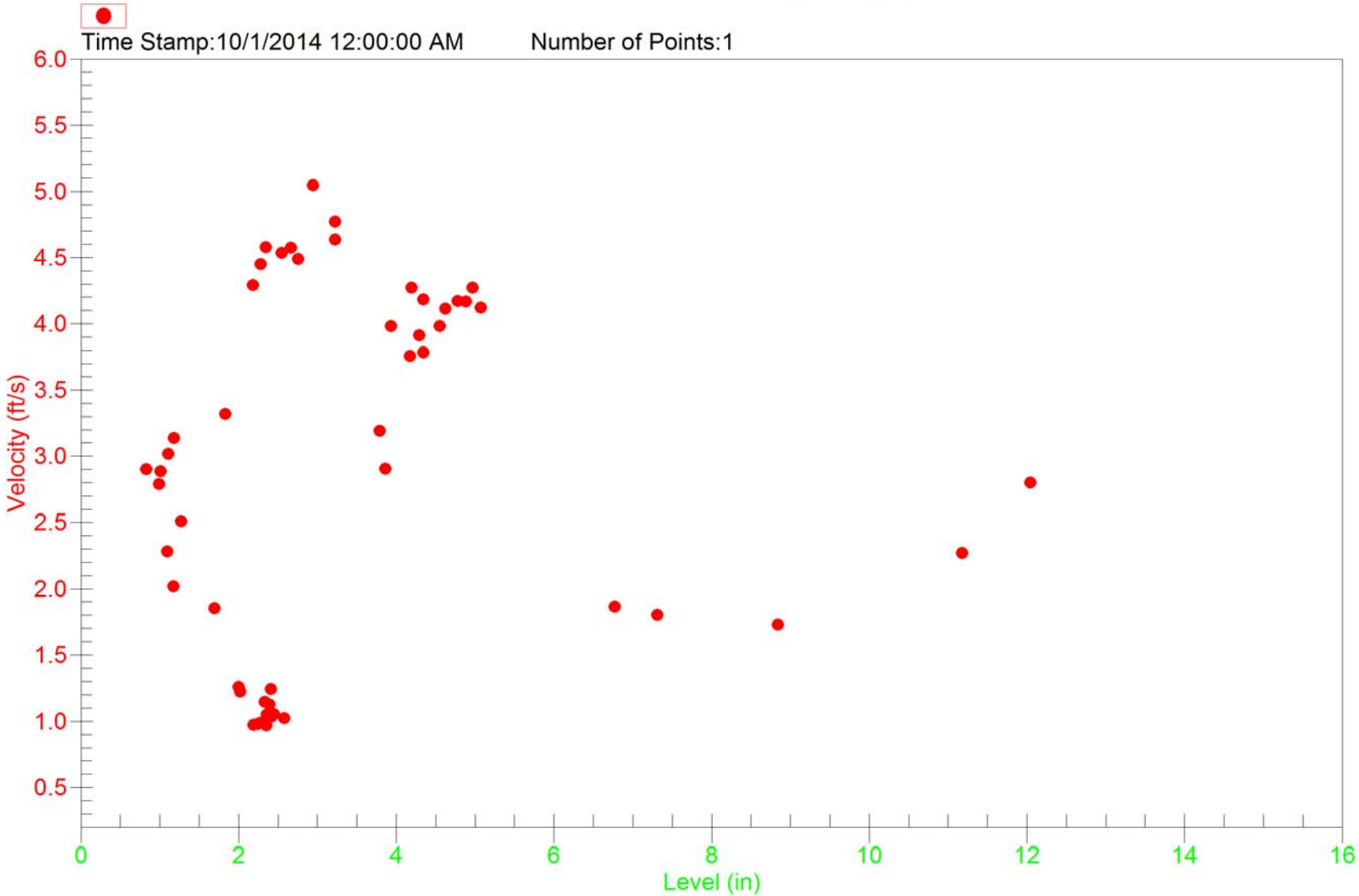
CSO 060 W. Colvin St. - Kirk Park Dr. Monthly Scattergraph



10/1/2014 12:00:00 AM - 11/1/2014 12:00:00 AM

FIGURE 10

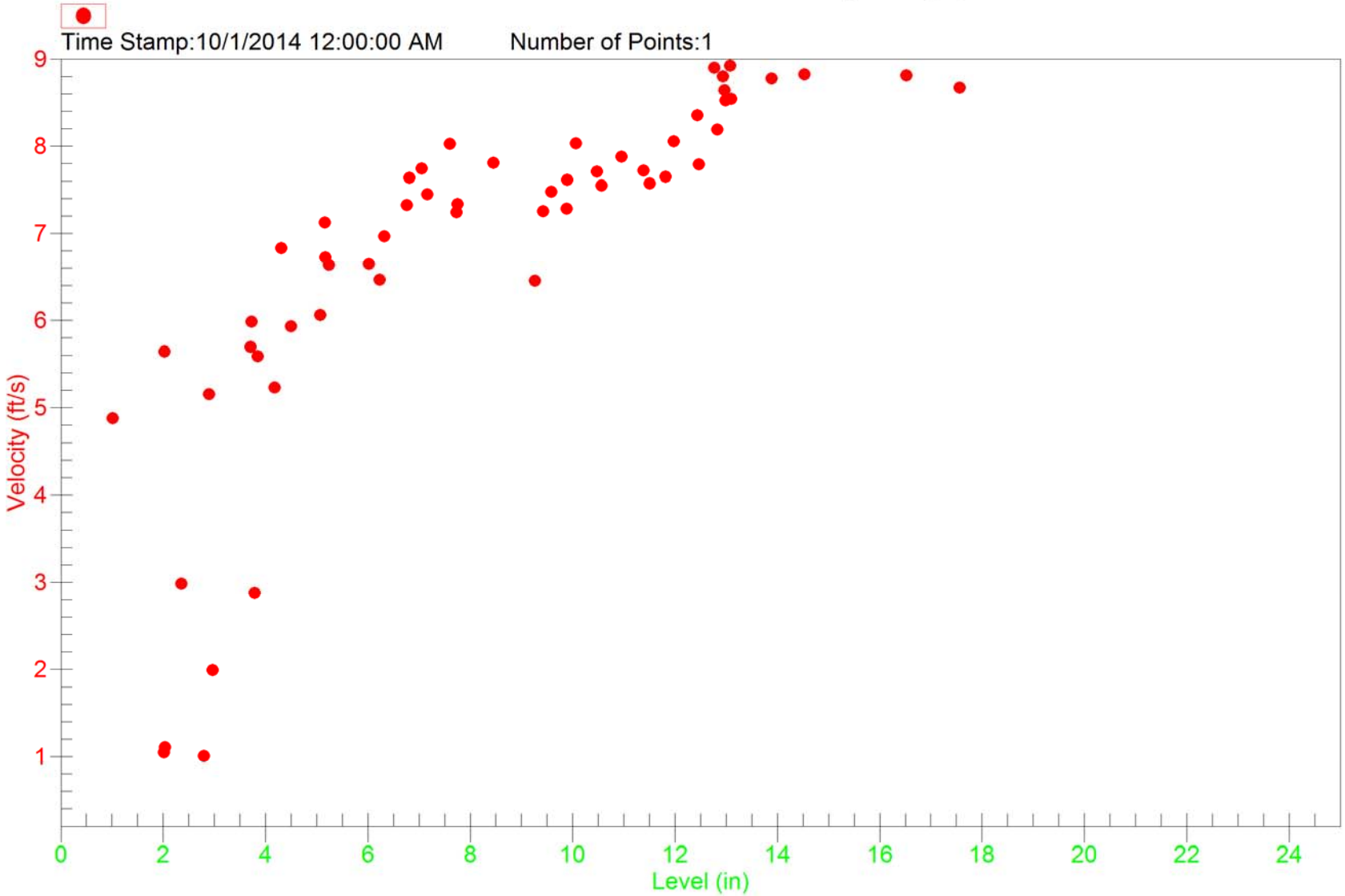
CSO 063 Emerson Avenue Monthly Scattergraph



10/1/2014 12:00:00 AM - 11/1/2014 12:00:00 AM

FIGURE 11

CSO 077 West Colvin Street - Midland Monthly Scattergraph



10/1/2014 12:00:00 AM - 11/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	
07/17/14	10:03	0.00	NA	0.119	NA			New	no	Archived	GS		
08/07/14	14:11	0.00	NA	0.161	NA			11.3	New	Archived	WP		
09/15/14	11:23	0.00	NA	0.016	NA			10.8	Ok	Archived	GS		
11/10/21	8:16	0.00	NA	0.082	NA			10.4	Ok	Archived	WP		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff lo
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	
7/17/14	9:44	0.00	NA	3.988	NA			new	OK	testing	GS	
7/17/14	9:52	0	NA	0.135	NA			new	OK	Archived	GS	
8/7/14	14:05	0	NA	-0.069	NA			11.5	OK	Archived	WP	
9/15/14	11:01	0	0	0.075	0			11.4	OK	Archived	GS	
10/21/14	8:08	0	NA	0.276	NA			11.2	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough:____ In-Between _____
PROBE MOUNTED: On Invert: _____ Side of Pipe: On Weir
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE
07/17/14	10:59	0.00	NA	0.059	NA			12.2	OK	Archived	GS	Changed alarm to velocity
08/04/14	6:42	0.00	NA	-0.041	NA			New	OK	Archived	WP	
08/07/14	13:04	0.00	NA	-0.045	0.00		Push Data	11.8	OK	Archived	WP	Changed Modem and updated firmware
09/15/14	12:09	0.00	NA	-0.018	NA			11.2	OK	Archived	GS	
10/21/14	8:43	0.00	NA	-0.157	NA			11.1	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM
07/17/14	11:22	0.00	NA	-0.030	NA			11.0	OK	Archived	GS
08/07/14	14:43	0.00	NA	0.026	NA			10.9	New	Archived	WP
09/15/14	13:29	0	NA	0.14	0			10.8	OK	Archived	GS
10/21/14	8:58	0	NA	0.157	NA			10.6	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM
07/17/14	11:35	0.00	NA	0.210	NA			New	OK	Archived	GS
08/07/14	14:51	0.00	NA	-0.303	NA		Adj.	11.3	New	Archived	WP
09/15/14	13:00	0.00	NA	0.384	NA		Adj.	New	OK	Archived	GS
10/21/14	9:08	0.00	NA	0.393	NA		Adj.	10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 052 et & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM
7/17/14	12:19	0	NA	-0.246	NA		Adj.	10.4	OK	Archived	GS
8/7/14	15:08	0	NA	0.002	NA			10.4	New	Archived	WP
9/15/14	14:09	0	NA	0.246	NA			New	OK	Archived	GS
10/21/14	9:22	0	NA	0.568	NA		Adj.	11.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɬaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

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SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM
8/7/14	15:19	0.00	NA	-0.066	NA			11.7	New	Archived	WP
9/15/14	14:31	0.00	NA	-0.302	NA		Adj.	11.2	OK	Archived	GS
10/21/14	9:33	0.00	NA	0.229	NA		Adj.	10.8	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 063 Emerson Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

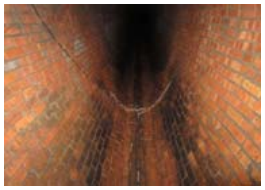
T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM
7/17/14	10:12	0.00	NA	0.150	NA			10.6	OK	Archived	GS
8/7/14	14:22	0.00	NA	-0.088	NA			New	New	Archived	WP
9/15/14	11:50	0	NA	0.219	NA		Adj.	11.9	OK	Archived	GS
10/21/14	8:29	0	NA	0.199	NA			10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Ilaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern



SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM
7/17/14	12:10	0	NA	0.015	NA			11.1	OK	Archived	GS
8/7/14	15:27	0	NA	-0.011	NA			10.3	New	Archived	WP
9/15/14	13:42	0	NA	-0.067	NA			New	OK	Archived	GS
10/21/14	9:42	0	NA	-0.038	NA			New	OK	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
NOVEMBER 2014

Prepared by
SAVIN ENGINEERS, P.C.

DECEMBER 2014

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

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MONTHLY REPORT
NOVEMBER 2014

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ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
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ONONDAGA COUNTY, NEW YORK
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ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
NOVEMBER 2014

1. INTRODUCTION

This is the thirty-fifth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of November 1, 2014 through November 30, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- November 6, and
- November 17

2. SUMMARY OF OVERFLOWS

There were two rainfall events that occurred on November 6 and November 17. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the two overflow events. Figures 1 through 4 show rainfall during the month of November.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 4, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 5 through 7. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of November.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of November.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of November 1, 2014 through November 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
November 6	3	1 minute

CSO 030 (West Jefferson St.) - There were no overflows during the month of November.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of November 1, 2014 through November 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
November 6	8,563	30 minutes
November 17	13,125	120 minutes

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of November 1, 2014 through November 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
November 6	14,120	47 minutes
November 17	62	1 minute

CSO 060 (West Colvin St. and Kirk Park Dr.) – There were no overflows during the month of November.

CSO 063 (Emerson Ave.) – Figure 4 shows the hydrograph for the period of November 1, 2014 through November 30, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
November 6	2,274	71 minutes
November 17	1,224	3.5 hours

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. There were no overflows during the month of November.

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - November 2014

	Location	11/6 Overflow Quantity (gal)	11/17 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0
2	**CSO 004**	0	0	0
3	**CSO 014**	3	0	3
4	**CSO 030**	0	0	0
5	**CSO 034**	8,563	13,125	21,688
6	**CSO 052**	14,120	62	14,182
7	**CSO 060**	0	0	0
8	**CSO 063**	2,274	1,224	3,498
9	**CSO 077**	0	0	0
	TOTAL =	**24,960**	**14,411**	**39,371**

				Monthly Overflow Total (in)
12	**Rainfall Total:**	0.36	0.61	0.97
13	**Average Rainfall Intensity:**	0.05	0.07	
14	**Peak Hourly Rainfall Intensity:**	0.17	0.16	

FIGURE 1

CSO 014 Delaware Street Monthly Hydrograph

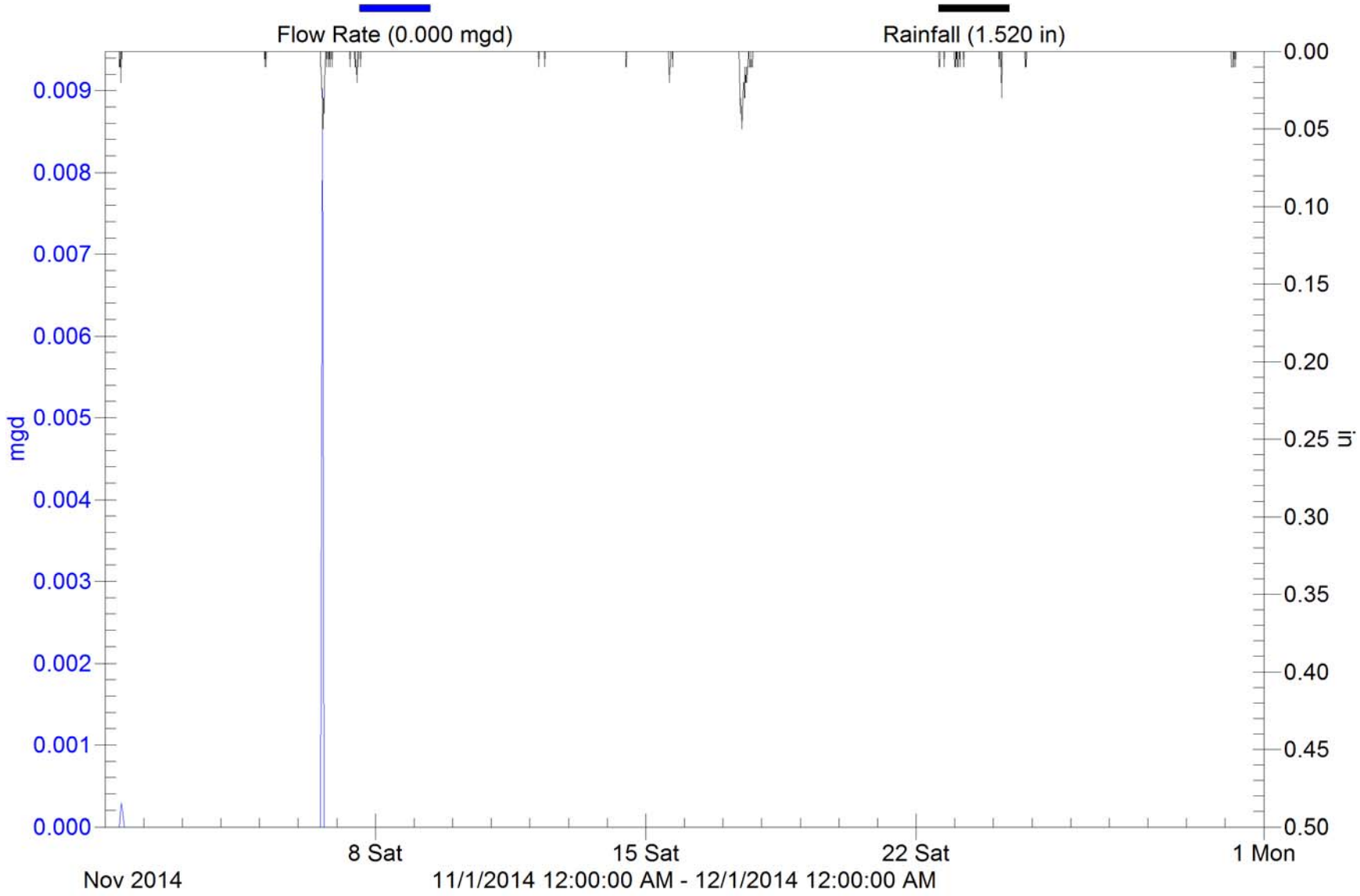


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

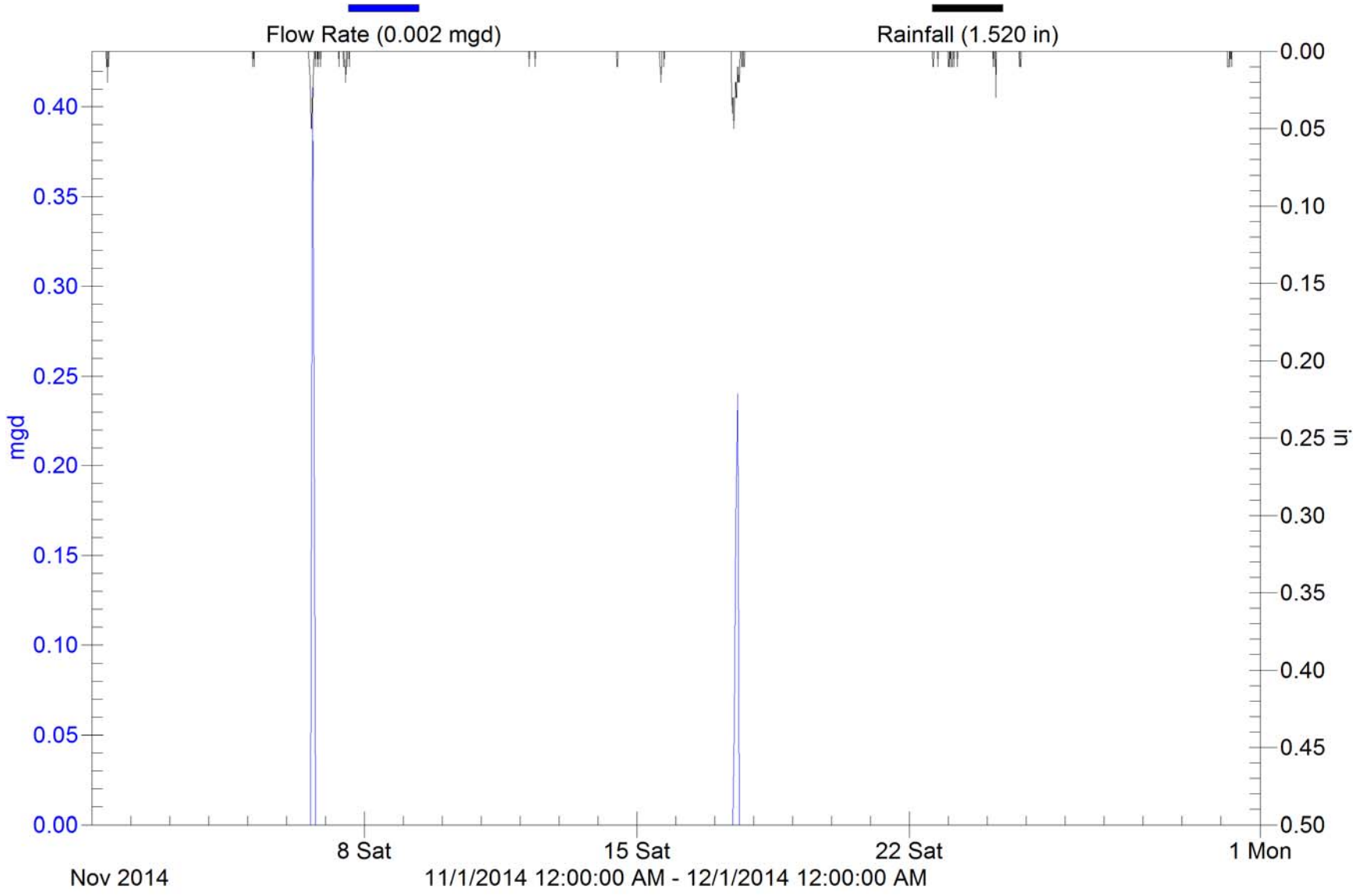


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

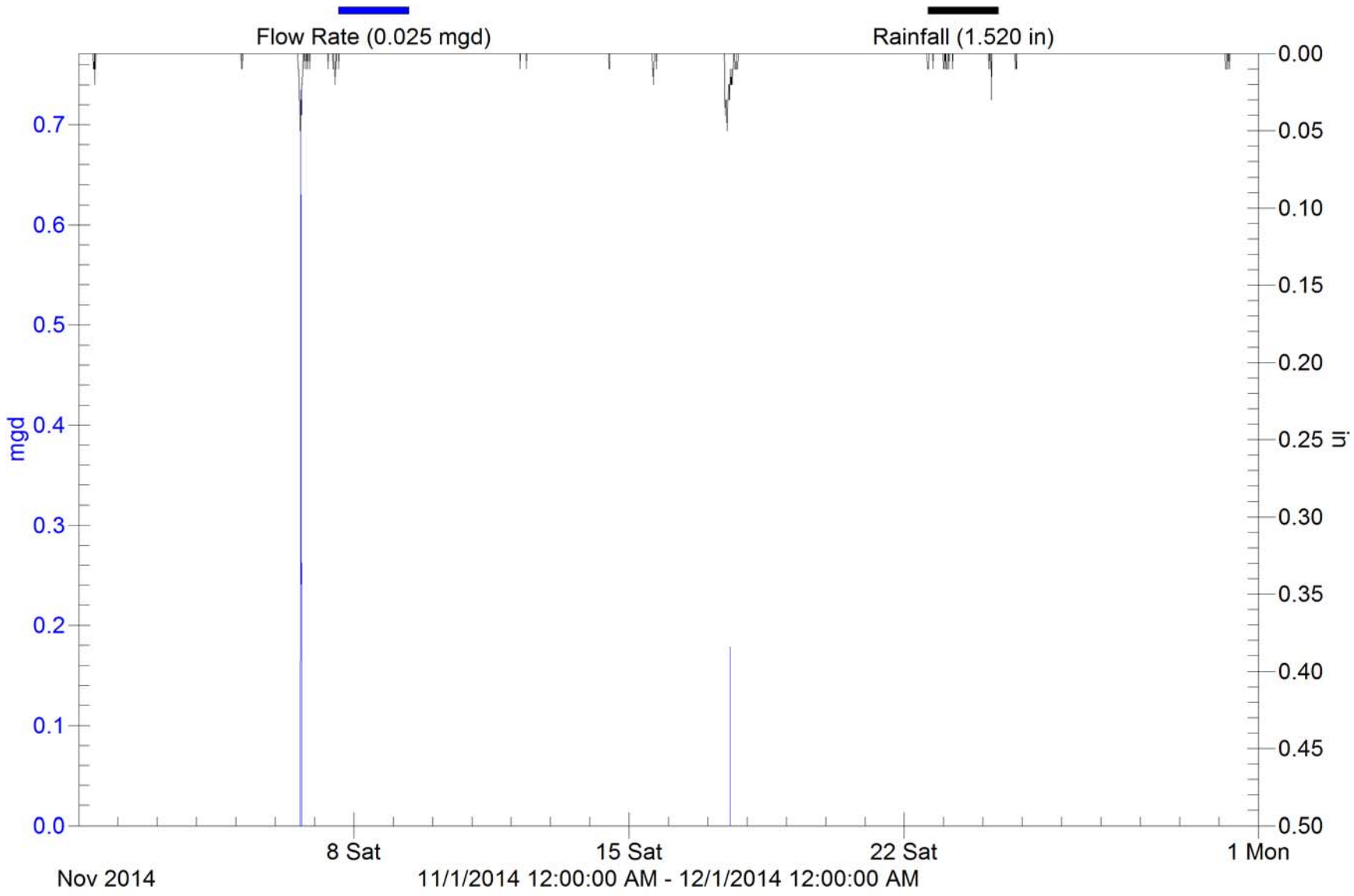


FIGURE 4

CSO 063 Emerson Avenue Monthly Hydrograph

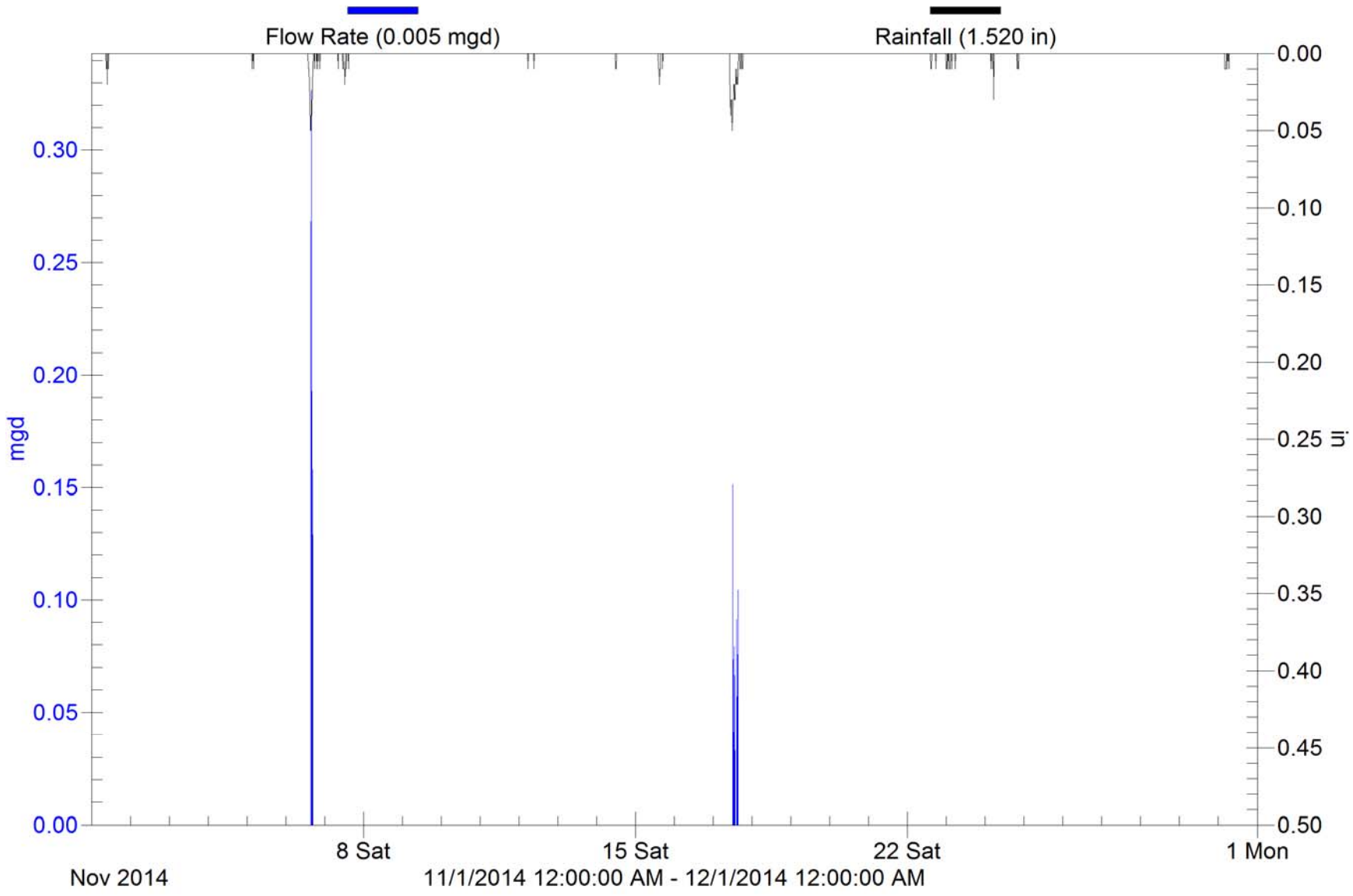
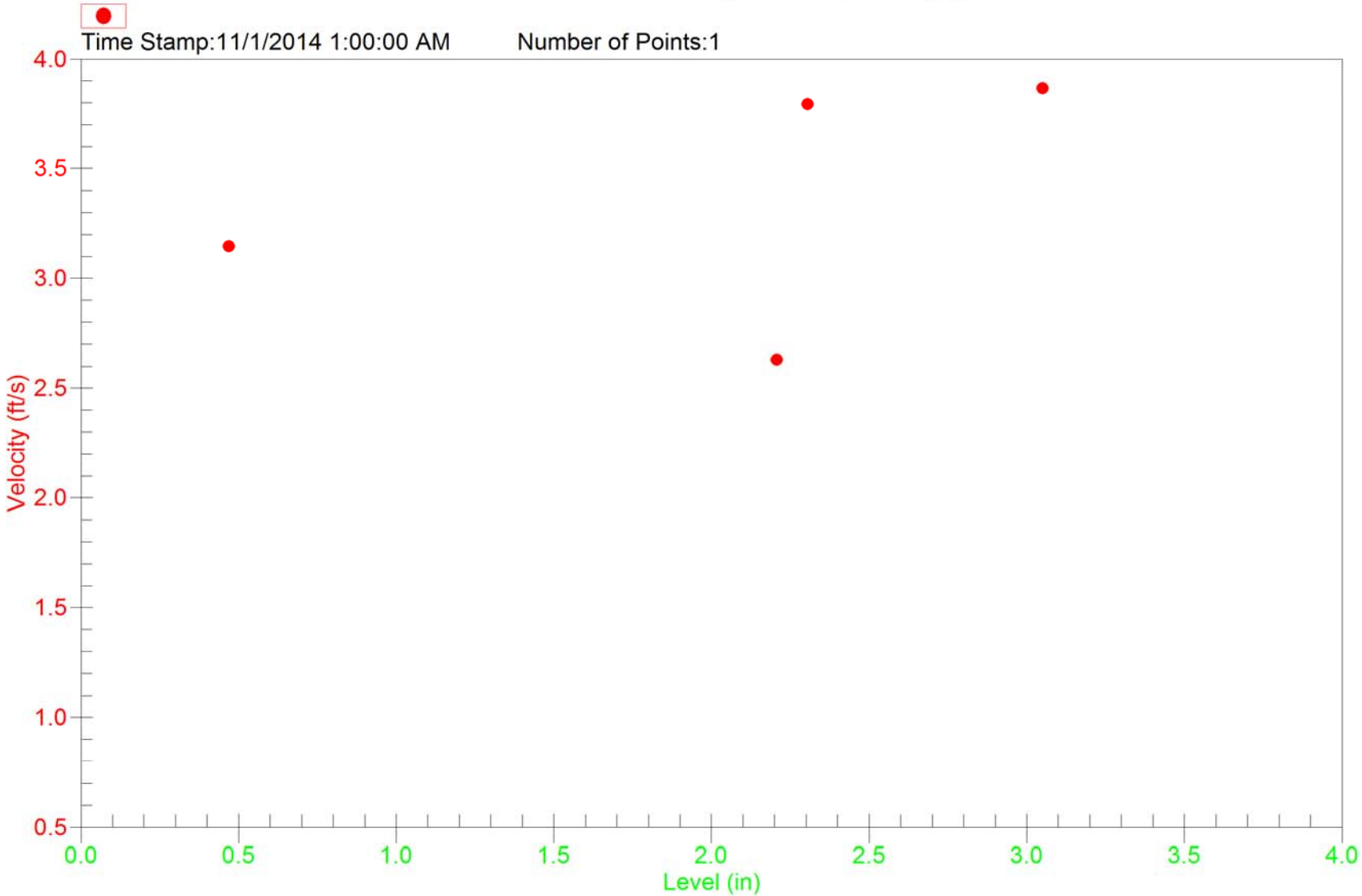


FIGURE 5

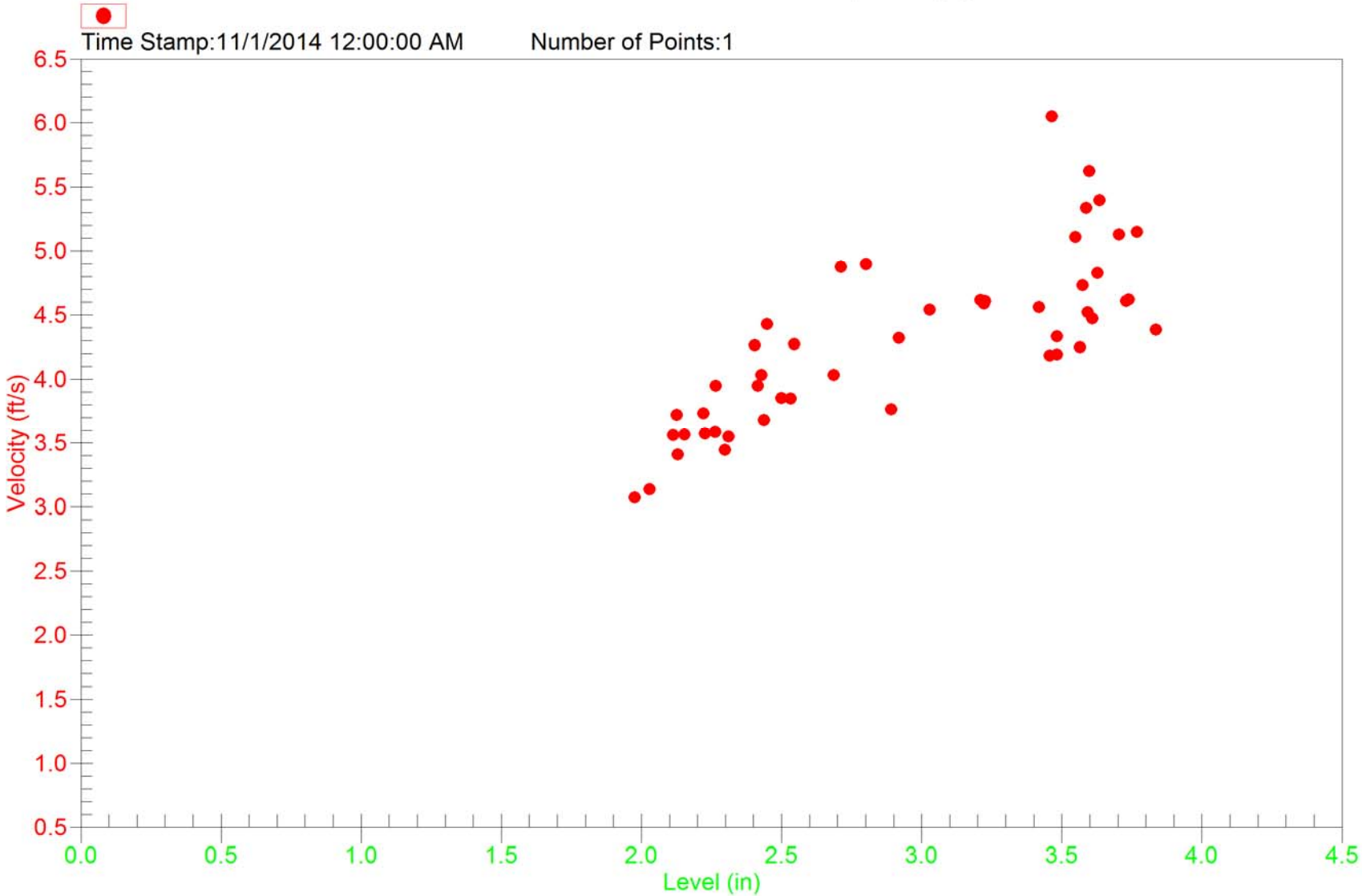
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



11/1/2014 12:00:00 AM - 12/1/2014 12:00:00 AM

FIGURE 6

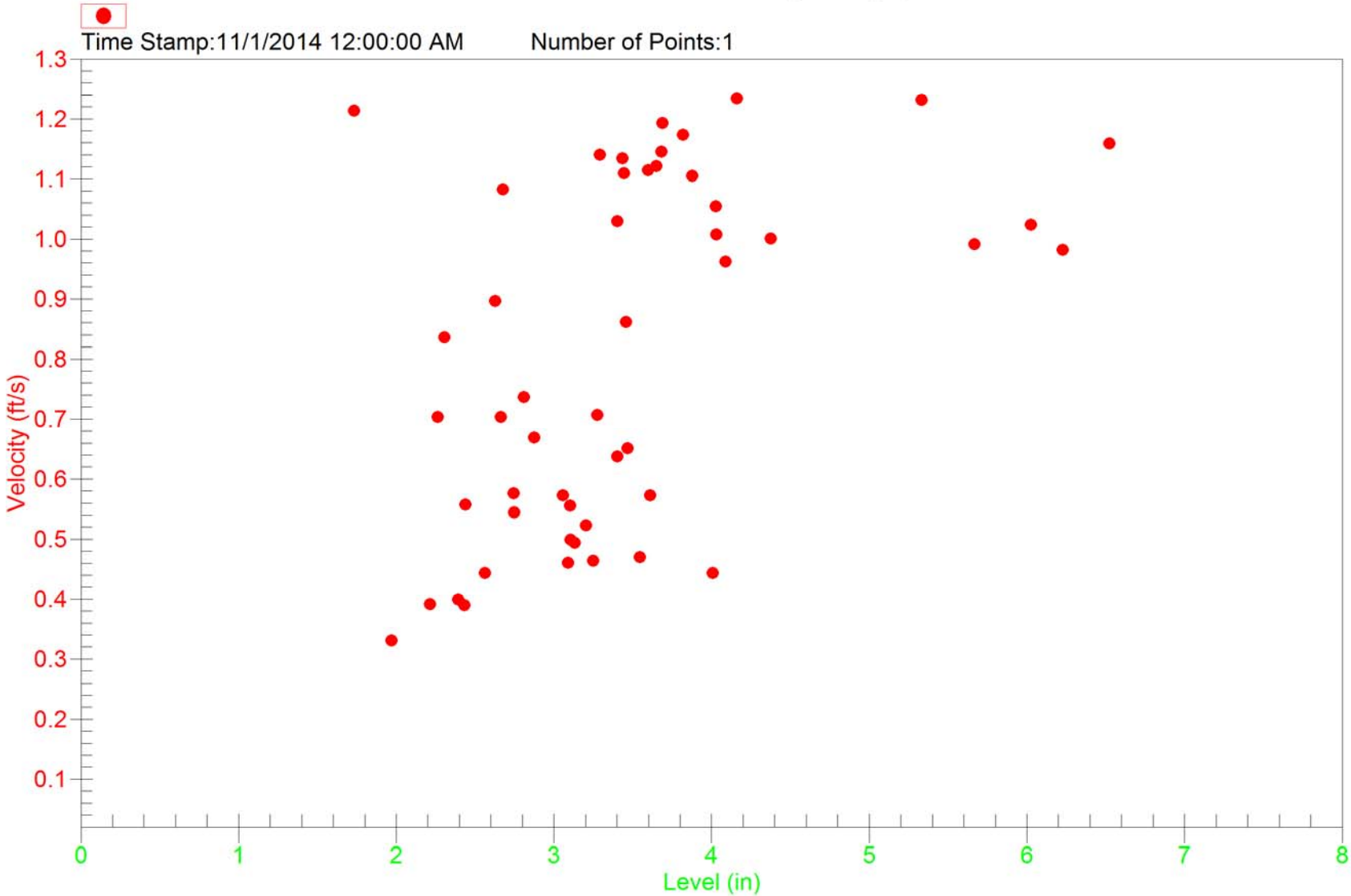
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



11/1/2014 12:00:00 AM - 12/1/2014 12:00:00 AM

FIGURE 7

CSO 063 Emerson Avenue Monthly Scattergraph



11/1/2014 12:00:00 AM - 12/1/2014 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	
07/17/14	10:03	0.00	NA	0.119	NA			New	no	Archived	GS		
08/07/14	14:11	0.00	NA	0.161	NA			11.3	New	Archived	WP		
09/15/14	11:23	0.00	NA	0.016	NA			10.8	Ok	Archived	GS		
11/10/21	8:16	0.00	NA	0.082	NA			10.4	Ok	Archived	WP		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff lo
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	
7/17/14	9:44	0.00	NA	3.988	NA			new	OK	testing	GS	
7/17/14	9:52	0	NA	0.135	NA			new	OK	Archived	GS	
8/7/14	14:05	0	NA	-0.069	NA			11.5	OK	Archived	WP	
9/15/14	11:01	0	0	0.075	0			11.4	OK	Archived	GS	
10/21/14	8:08	0	NA	0.276	NA			11.2	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough:____ In-Between _____
PROBE MOUNTED: On Invert: _____ Side of Pipe: On Weir
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE
07/17/14	10:59	0.00	NA	0.059	NA			12.2	OK	Archived	GS	Changed alarm to velocity
08/04/14	6:42	0.00	NA	-0.041	NA			New	OK	Archived	WP	
08/07/14	13:04	0.00	NA	-0.045	0.00		Push Data	11.8	OK	Archived	WP	Changed Modem and updated firmware
09/15/14	12:09	0.00	NA	-0.018	NA			11.2	OK	Archived	GS	
10/21/14	8:43	0.00	NA	-0.157	NA			11.1	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM
07/17/14	11:22	0.00	NA	-0.030	NA			11.0	OK	Archived	GS
08/07/14	14:43	0.00	NA	0.026	NA			10.9	New	Archived	WP
09/15/14	13:29	0	NA	0.14	0			10.8	OK	Archived	GS
10/21/14	8:58	0	NA	0.157	NA			10.6	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM
07/17/14	11:35	0.00	NA	0.210	NA			New	OK	Archived	GS
08/07/14	14:51	0.00	NA	-0.303	NA		Adj.	11.3	New	Archived	WP
09/15/14	13:00	0.00	NA	0.384	NA		Adj.	New	OK	Archived	GS
10/21/14	9:08	0.00	NA	0.393	NA		Adj.	10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 052 et & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM
7/17/14	12:19	0	NA	-0.246	NA		Adj.	10.4	OK	Archived	GS
8/7/14	15:08	0	NA	0.002	NA			10.4	New	Archived	WP
9/15/14	14:09	0	NA	0.246	NA			New	OK	Archived	GS
10/21/14	9:22	0	NA	0.568	NA		Adj.	11.7	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɬaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

11

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM
8/7/14	15:19	0.00	NA	-0.066	NA			11.7	New	Archived	WP
9/15/14	14:31	0.00	NA	-0.302	NA		Adj.	11.2	OK	Archived	GS
10/21/14	9:33	0.00	NA	0.229	NA		Adj.	10.8	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 063 Emerson Avenue
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: _____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

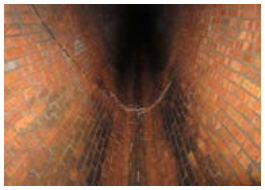
T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM
7/17/14	10:12	0.00	NA	0.150	NA			10.6	OK	Archived	GS
8/7/14	14:22	0.00	NA	-0.088	NA			New	New	Archived	WP
9/15/14	11:50	0	NA	0.219	NA		Adj.	11.9	OK	Archived	GS
10/21/14	8:29	0	NA	0.199	NA			10.9	OK	Archived	WP

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Ilaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern



SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM
7/17/14	12:10	0	NA	0.015	NA			11.1	OK	Archived	GS
8/7/14	15:27	0	NA	-0.011	NA			10.3	New	Archived	WP
9/15/14	13:42	0	NA	-0.067	NA			New	OK	Archived	GS
10/21/14	9:42	0	NA	-0.038	NA			New	OK	Archived	WP

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM

MONTHLY REPORT
DECEMBER 2014

Prepared by
SAVIN ENGINEERS, P.C.

JANUARY 2015

ONONDAGA COUNTY, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

CDM/C&S JOINT VENTURE

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DECEMBER 2014

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2	SUMMARY OF OVERFLOWS	1
3	RAINFALL MONITORING	2
4	REGULATOR FLOW MONITORING	2

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TABLE	TITLE
1	Summary of Regulator Overflows – December 2014

ONONDAGA COUNTY, NEW YORK
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
DECEMBER 2014

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7	CSO 063 Monthly Scattergraph

ONONDAGA COUNTY, NEW YORK
DEPARTMEMT OF WATER ENVIRONMENT PROTECTION
CDM/C&S JOINT VENTURE

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
DECEMBER 2014

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ATTACHMENTS

ATTACHMENT	TITLE
1	Site Sheets

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM
MONTHLY REPORT
DECEMBER 2014

1. INTRODUCTION

This is the thirty-sixth monthly report prepared for the Onondaga County CSO Flow Monitoring Program, covering activity during the period of December 1, 2014 through December 31, 2014. The purpose of the flow monitoring program is to monitor and quantify overflows at the combined sewer overflow structures. The CSO structures being monitored during this program include the following:

CSO 003	CSO 004	CSO 014
CSO 030	CSO 034	CSO 052
CSO 060	CSO 063	CSO 077

Activity during the period included monitoring and quantifying overflows on the following dates:

- December 16,
- December 23
- December 24, and
- December 28

2. SUMMARY OF OVERFLOWS

There were four rainfall events that occurred on December 16, December 23, December 24 and December 28. The overflow events are summarized in Table 1.

3. RAINFALL MONITORING

One rain gauge has been installed in the study area to provide rainfall data for the monitoring program. Rainfall data is used to verify overflow events. The rain gauge is located at the Midland Avenue Storm Water Treatment Facility.

Table 1 summarizes total rainfall, average rainfall intensity, and peak hourly rainfall intensity for each of the four overflow events. Figures 1 through 4 show rainfall during the month of December.

4. REGULATOR FLOW MONITORING

The flow meters record level and velocity at one (1) hour intervals during dry-weather periods. When an overflow occurs, the meters automatically begin recording level and velocity at one (1) minute increments. At the conclusion of the overflow, the meter returns to its normal one hour recording interval.

Hydrographs for each of the sites that overflowed during the period are included in Figures 1 through 4, respectively. Scattergraphs for each of the sites that overflowed are included in Figures 5 through 7. All site visits were recorded on site sheets, which are included in Attachment 1. Meter probes at CSO 014 and CSO 030 are installed on the weir crest. A weir equation is used to calculate flow rather than depth and velocity measurements. Therefore there are no scattergraphs for these two sites. A summary of the monitoring at each regulator is presented below.

CSO 003 (Hiawatha Blvd.) – There were no overflows during the month of December.

CSO 004 (State Fair Blvd.) – There were no overflows during the month of December.

CSO 014 (Delaware St.) – This site has a meter probe installed on the weir crest and utilizes the weir equation to calculate flow based on recorded depth. Figure 1 shows the hydrograph for the period of December 1, 2014 through December 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
December 16	51	3 minutes
December 23	2,780	2 hours

CSO 030 (West Jefferson St.) - There were no overflows during the month of December.

CSO 034 (Clinton/West Onondaga St.) – This monitoring location represents flow which is conveyed to the Clinton CSO Storage Facility, not to the receiving waters. Figure 2 shows the hydrograph for the period of December 1, 2014 through December 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
December 24	8	1 minute

CSO 052 (Hunt St. and Elmhurst Ave.) – During dry-weather, this site typically has between 0.5 and 0.75 inches of standing water. Figure 3 shows the hydrograph for the period of December 1, 2014 through December 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
December 24	9,053	30 minutes
December 28	1,790	7 minutes

CSO 060 (West Colvin St. and Kirk Park Dr.) – There were no overflows during the month of December.

CSO 063 (Emerson Ave.) – Figure 4 shows the hydrograph for the period of December 1, 2014 through December 31, 2014. Data are summarized below:

Date	Overflow Quantity (gallons)	Overflow Duration
December 17	68	2.25 hours

CSO 077 (West Colvin St. and Midland Ave.) - This is an internal CSO, which does not discharge to the receiving waters. There were no overflows during the month of December.

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - December 2014

	Location	12/16 Overflow Quantity (gal)	12/23 Overflow Quantity (gal)	12/24 Overflow Quantity (gal)	12/28 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 003**	0	0	0	0	0
2	**CSO 004**	0	0	0	0	0
3	**CSO 014**	51	2,780	0	0	2,831
4	**CSO 030**	0	0	0	0	0
5	**CSO 034**	0	0	8	0	8
6	**CSO 052**	0	0	9,053	1,790	10,843
7	**CSO 060**	0	0	0	0	0
8	**CSO 063**	0	0	0	68	68
9	**CSO 077**	0	0	0	0	0
	TOTAL =	**51**	**2,780**	**9,061**	**1,858**	**13,750**

						Monthly Overflow Total (in)
12	**Rainfall Total:**	0.11	0.16	0.26	0.24	0.77
13	**Average Rainfall Intensity:**	0.01	0.01	0.03	0.03	
14	**Peak Hourly Rainfall Intensity:**	0.06	0.05	0.12	0.09	

FIGURE 1

CSO 014 Delaware Street Monthly Hydrograph

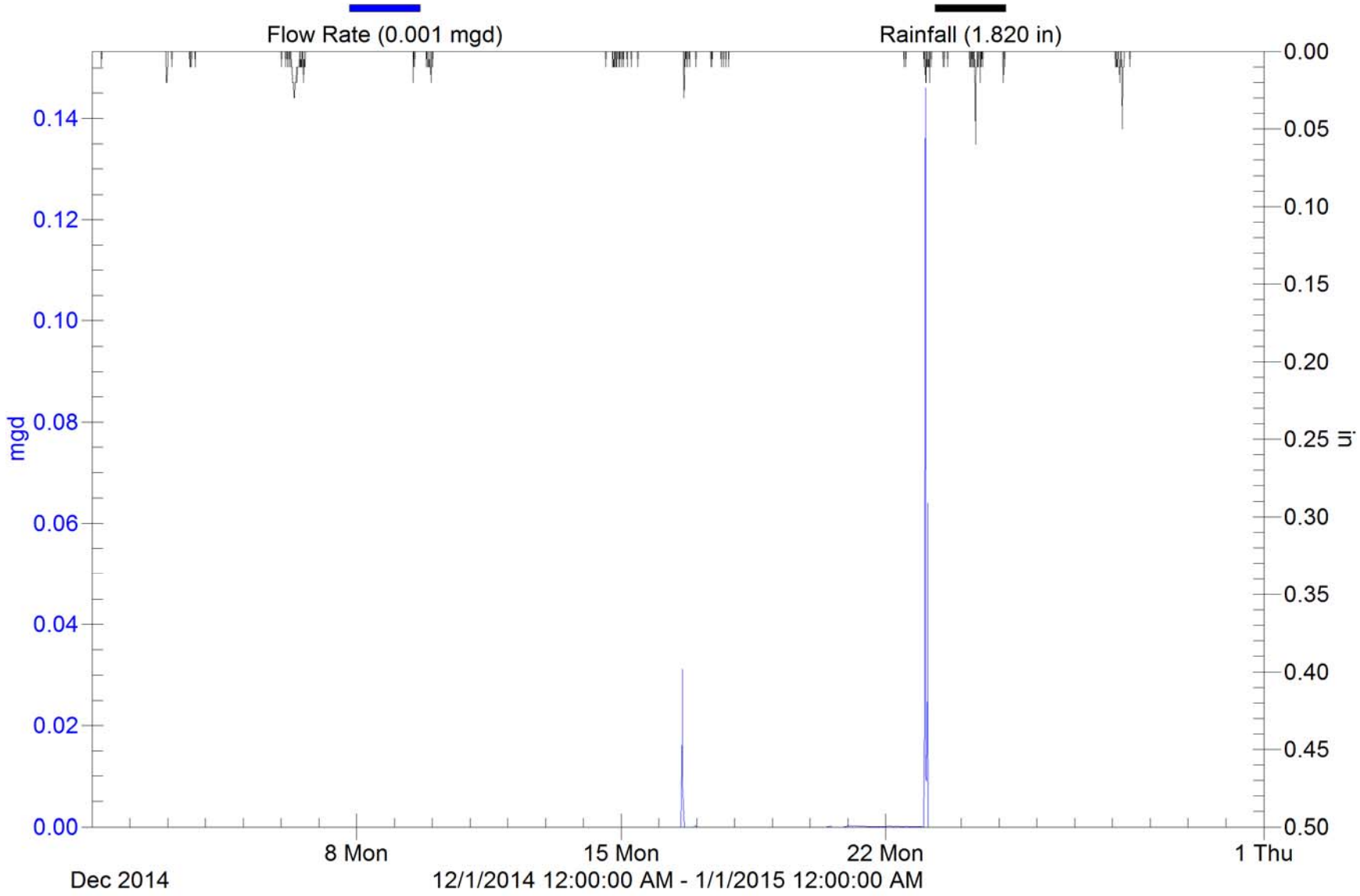


FIGURE 2

CSO 034 Clinton - West Onondaga St. Monthly Hydrograph

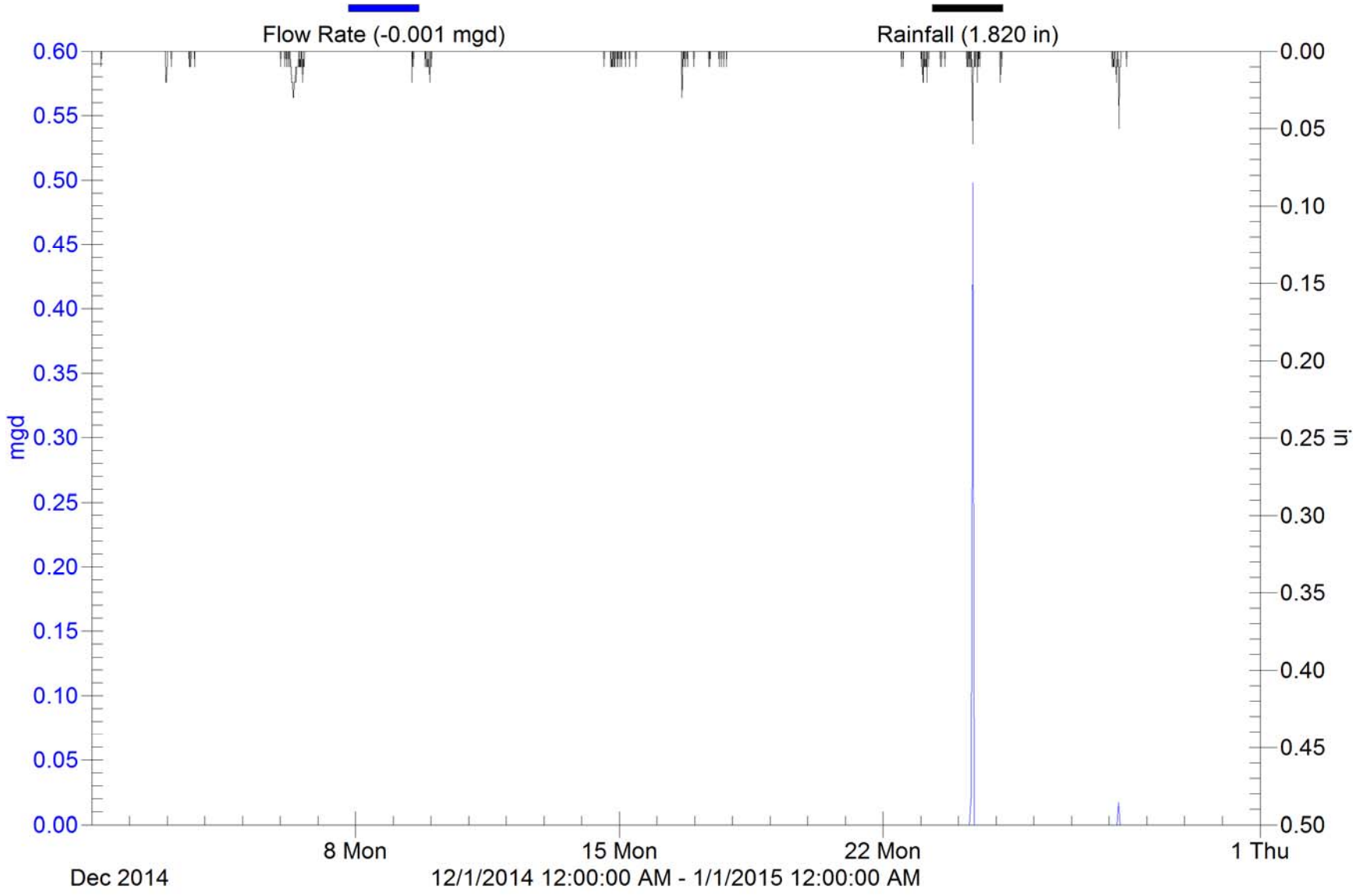


FIGURE 3

CSO 052 Hunt Street - Elmhurst Avenue Monthly Hydrograph

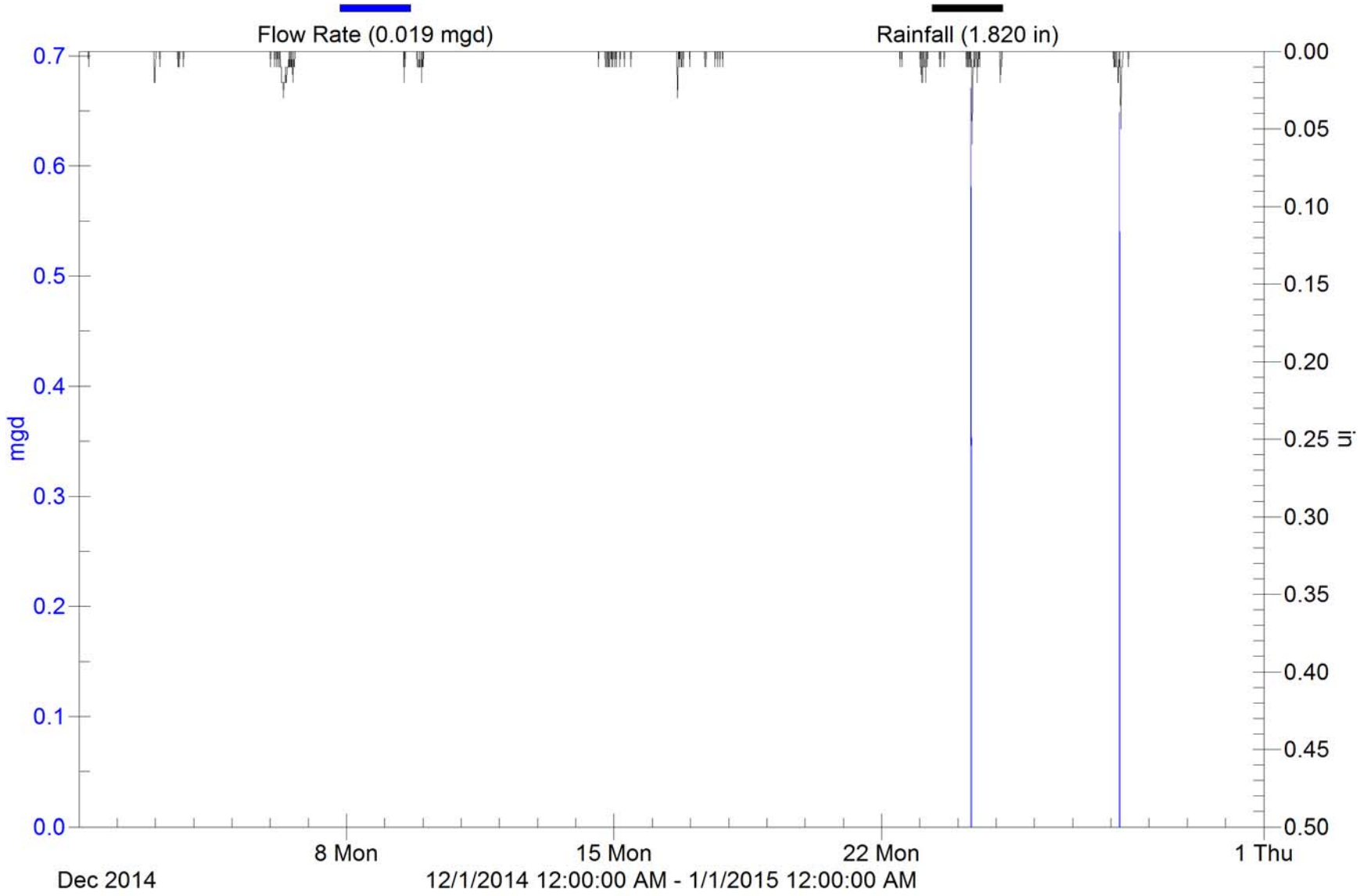


FIGURE 4

CSO 063 Emerson Avenue Monthly Hydrograph

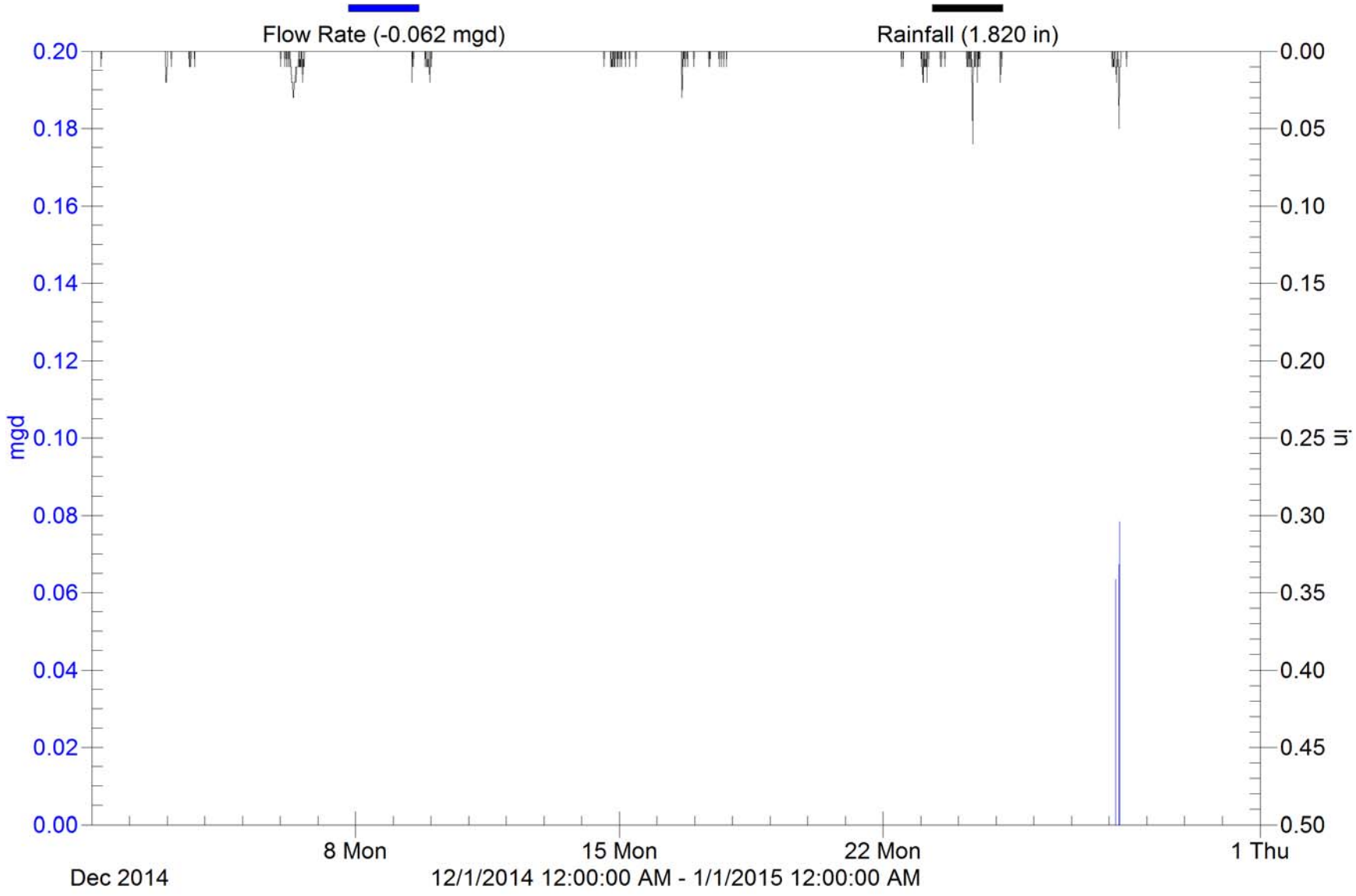
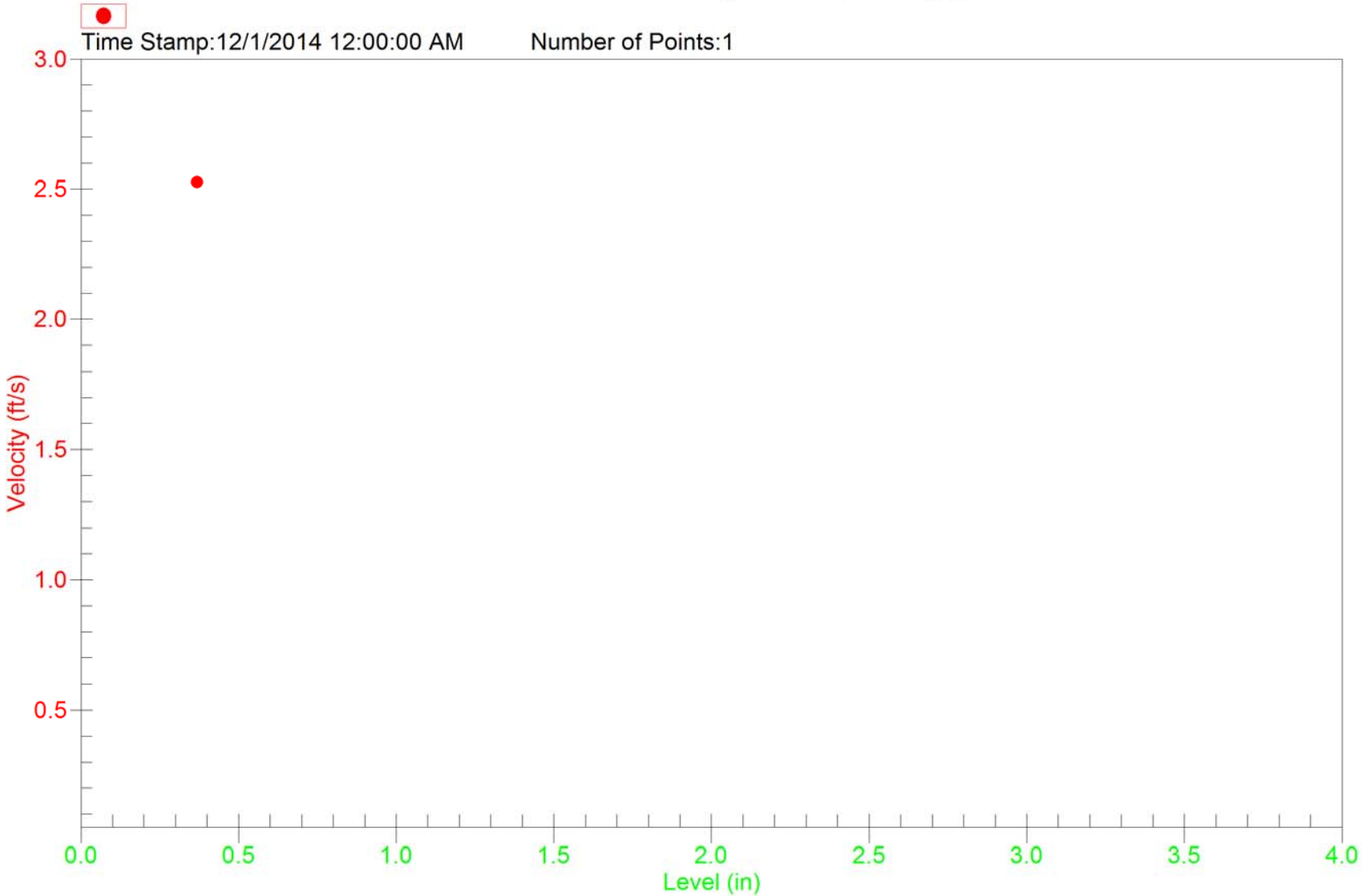


FIGURE 5

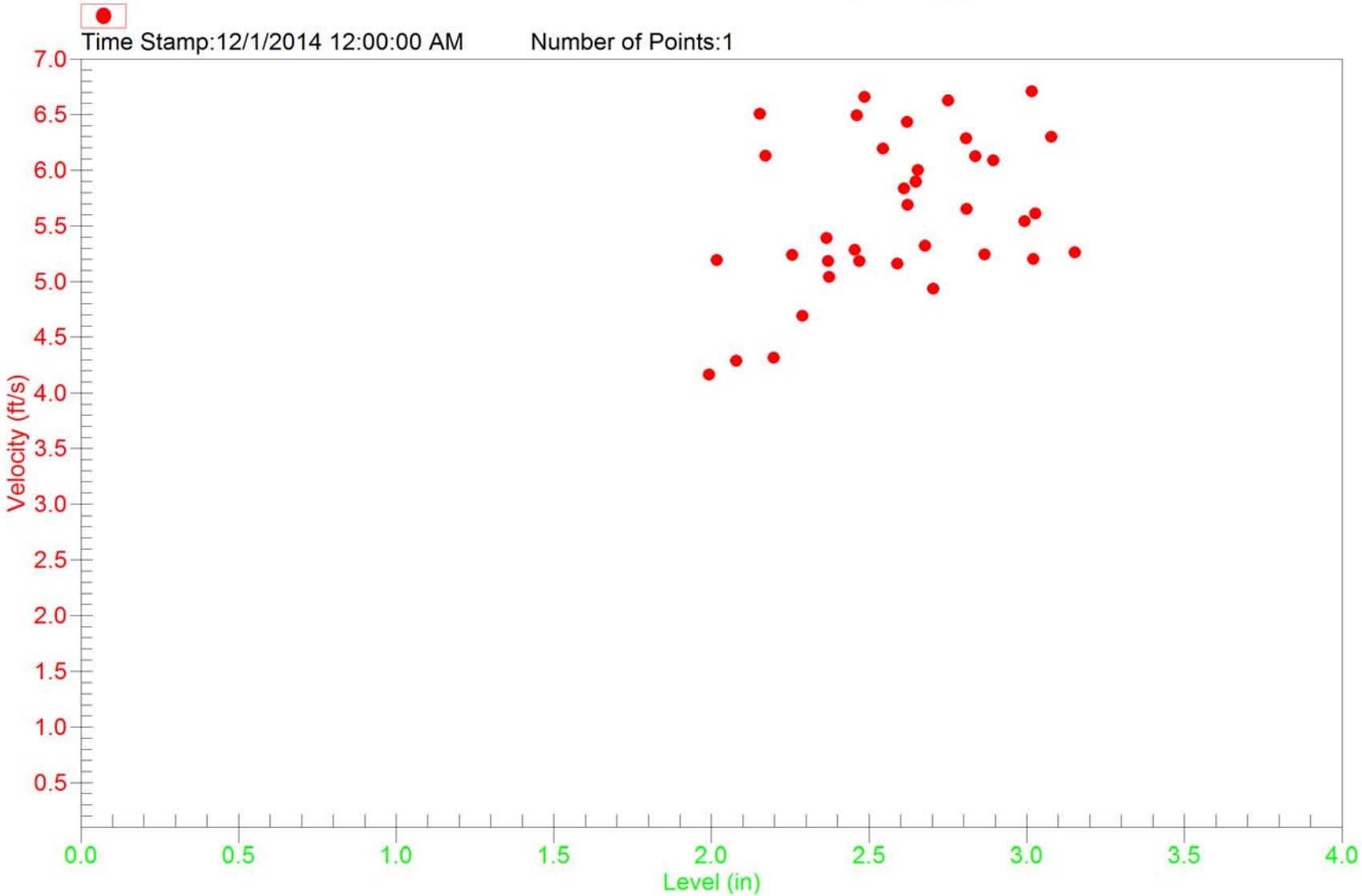
CSO 034 Clinton - West Onondaga St. Monthly Scattergraph



12/1/2014 12:00:00 AM - 1/1/2015 12:00:00 AM

FIGURE 6

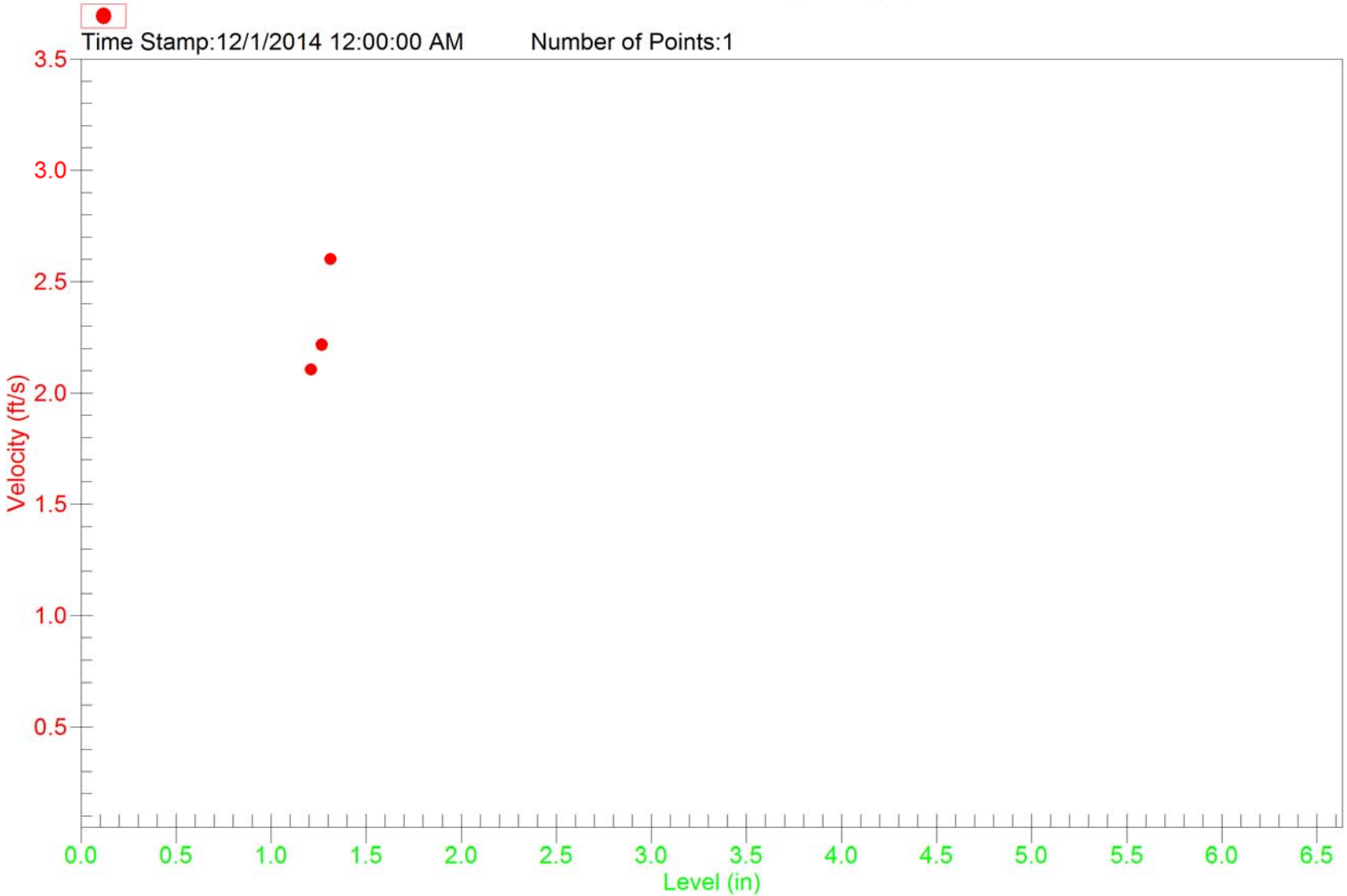
CSO 052 Hunt Street - Elmhurst Avenue Monthly Scattergraph



12/1/2014 12:00:00 AM - 1/1/2015 12:00:00 AM

FIGURE 7

CSO 063 Emerson Avenue Monthly Scattergraph



12/1/2014 12:00:00 AM - 1/1/2015 12:00:00 AM

ATTACHMENT 1

SITE SHEETS

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT laga County CSO
ENGINEER: CDM / C&S
OWNER: ndaga County
SITE NAME: CSO 003A
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 48 TYPE: PVC

PROJECT No 1130.04.01
DATE: 01/30/14 TIME: 13:41
INSTALLER: WP RP
LOGGER No. _____
PROBE No. _____
BATTERY TYPE: 6v Lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: 0 INCHES
COMMENTS:
Hiawatha Blvd near railroad bridge N 43.02284 W 076.18469
One manhole before previous location

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	WIRELESS SIGNAL	
01/30/14	14:29	0.25	NA	0.266	NA			New	New	Calibrated/Installed	WP		
02/24/14	13:45	0.25	NA	0.231	NA			11.2	Ok	Archived	WP		
03/17/14	8:42	0.00	NA	1.766	NA		Adjusted	10.7	Ok	Archived	WP		Changed Time
04/28/14	12:44	0.00	NA	-2.841	NA		Adjusted	10.5	New	Archived	WP		Set Alarm Notification
06/16/14	9:30	0.25	NA	0.270	NA			10.1	Ok	Archived	JAM	83.8	
07/17/14	10:03	0.00	NA	0.119	NA			New	no	Archived	GS		
08/07/14	14:11	0.00	NA	0.161	NA			11.3	New	Archived	WP		
09/15/14	11:23	0.00	NA	0.016	NA			10.8	Ok	Archived	GS		
11/10/21	8:16	0.00	NA	0.082	NA			10.4	Ok	Archived	WP		

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 004 tate Fair Blvd.
M.H. No. MH DEPTH:
PIPE SIZE 47.5 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 11:00
INSTALLER: RT JP
LOGGER No. 208L00608
PROBE No. 602004135
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 204 State Fair Blvd.
N 43.05383 W 076.18115
9148157913

'T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/16/11	11:00	14.25		14.292				12.1	New	Bucket test	RT	
11/16/11	11:50	0.15	NA	0.228	NA			12.1	New	Installed	RT	
11/28/11	9:20	0.50	NA	0.445	NA			12.0	OK	Archived	RT	
12/5/11	9:05	0.25	NA	0.379	NA			11.9	OK	Archived	RT	
12/6/11	9:00	0.25	NA	0.343	NA			11.3	OK	Archived	RT	
12/12/11	9:00	0.25	NA	0.308	NA			11.1	OK	Archived	RT	
12/21/11	8:30	0.25	NA	0.504	NA			10.9	OK	Archived	RT	
1/3/12	8:20	0.50	NA	0.637	NA			10.6	OK	Archived	RT	
1/16/12	9:10	0.25	NA	0.157	NA			10.2	OK	Archived	RT	
3/22/12	13:41	0.50	NA	0.465	NA			new	OK	Archived	GS	
4/20/12	9:39	0.25	NA	0.362	NA			11.6	OK	Archived	GS	
4/26/12	12:57	0.50	NA	0.478	NA			11.9	OK	NEW METER/PROBE	GS	
5/3/12	9:50	0.25	NA	-0.071	NA		Adj.	11.2	OK	Archived	GS	
6/4/12	11:52	0.25	NA	0.222	0.10			11.0	OK	Archived	GS	
7/7/12	9:16	0.25	NA	0.179	0.08			11.0	New	Archived	GS	
8/1/12	9:20	0.25	NA	0.221	NA			new	OK	Archived	GS	
9/4/12	11:05	0.00	NA	0.560	0.00		Adj.	11.3	OK	Archived	JAM	
9/20/12	6:30	0.00	NA	0.025	NA			new	OK	Archived	GS	
10/8/12	13:41	0.00	NA	0.034	NA			new	OK	Archived	GS	
11/7/12	13:00	0.25	NA	0.570	NA			11.7	OK	Changed Time	GS	
12/11/12	11:15	0.25	NA	0.190	NA			11.5	OK	Archived	GS	
12/20/12	9:15	0.25	NA	0.191	NA			11.3	OK	Archived	RT	
1/7/13	8:30	0.25	NA	0.271	NA			11.1	OK	Archived	RT	
3/18/13	17:45	0.00	NA	0.011	NA		Adj.	11.3	OK	Changed time, reinstalled meter	BP	
4/17/13	9:43	0.00	NA	-0.634	NA		Adj.	10.9	OK	Archived	WP	
6/3/13	14:50	0.00	NA	0.327	NA		Adj.	10.9	OK	Archived	WP	Rebolted meter in Manhole
7/8/13	6:42	0.00	NA	0.116	NA		Adj.	10.6	OK	Archived	WP	
8/27/13	6:06	0.00	NA	-0.526	NA		Adj.	10.4	New	Archived	WP	
9/26/13	9:27	0.00	NA	0.075	NA			10.2	OK	Archived	BP	
10/31/13	14:58	0.00	NA	0.236	NA		Adj.	new	OK	Archived	WP	
11/11/13	8:20	0.00	NA	0.220	NA			12.0	OK	Archived	B P	
1/13/14	7:13	0	NA	0.732	NA		Adj.	new	OK	Archived	WP	
1/30/14	10:42	0.00	NA	0.091	NA			10.9	OK	Archived	WP	changed probe reinstalled in diff lo
2/24/14	13:34	0.00	NA	0.103	NA			10.7	OK	Archived	WP	
3/17/14	8:28	0.00	NA	0.023	NA			10.7	OK	Archived	WP	Changed Time
4/28/14	11:19	0.00	NA	-0.063	NA			new	OK	Archived	WP	set up alarm notification
6/16/14	9:55	0	NA	-0.044	NA			11.5	OK	Archived	JAM	
7/17/14	9:44	0.00	NA	3.988	NA			new	OK	testing	GS	
7/17/14	9:52	0	NA	0.135	NA			new	OK	Archived	GS	
8/7/14	14:05	0	NA	-0.069	NA			11.5	OK	Archived	WP	
9/15/14	11:01	0	0	0.075	0			11.4	OK	Archived	GS	
10/21/14	8:08	0	NA	0.276	NA			11.2	OK	Archived	WP	
12/16/14	10:45	0	NA	20	NA			11.1	OK	Archived	JAM	time change

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɟaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 014 Delaware Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 66 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 10:00
INSTALLER: RT JP
LOGGER No. 208H01126
PROBE No. 208K00736
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:
DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough:____ In-Between _____
PROBE MOUNTED: On Invert: _____ Side of Pipe: On Weir
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Delaware St. & Amy St.
N 43.04043 W076.17449
9147726522

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF	
11/17/11	10:25	14.25		14.198				12.2	New	Bucket test	RT	
11/17/11	11:15	0.00	NA	-0.027	NA			12.2	New	Installed	RT	
11/28/11	14:35	0.00	NA	-0.252	NA			10.2	OK	Archived	RT	
12/05/11	10:00	0.00	NA	-0.226	NA		Adj.	New	OK	Archived	RT	
12/05/11	10:35	3.25	2.2	3.401	2.76			12.1	OK	Probe test	RT	
12/06/11	10:20	0.00	NA	-0.084	NA			11.7	OK	Archived	RT	
12/12/11	10:00	0.00	NA	-0.084	NA			10.5	OK	Archived	RT	
12/21/11	9:40	0.00	NA	0.128	NA			New	OK	Archived	RT	
01/03/12	9:20	0.00	NA	-0.498	NA			10.2	OK	Archived	RT	
01/16/12	10:15	0.00	NA	0.138	NA			New	OK	Archived	RT	
02/13/12	9:40	0.00	NA	-0.048	NA			New	OK	Archived	RT	
03/05/12	9:35	0.00	NA	0.683	NA			New	OK	Archived	RT	
03/22/12	14:52	0.00	NA	-1.030	NA		Adj.	New	OK	Archived	GS	
04/20/12	11:17	0.00	NA	0.041	NA			New	New	Archived	GS	
04/29/12	11:45	1.50	3.0	1.507	3.11			New	OK	Probe test	GS	
05/03/12	13:16	0.00	NA	-0.658	NA		Adj.	New	OK	Changed Cell modem	GS	
06/04/12	7:47	0.00	NA	0.971	NA		Adj.	New	New	Archived	GS	
07/07/12	10:27	0.00	NA	-0.002	NA			New	OK	Archived	GS	
08/01/12	10:40	0.00	NA	-0.205	NA			New	OK	Archived	GS	
09/04/12	8:45	0.00	NA	0.014	NA			New	OK	Archived	JAM	
09/20/12	7:53	0.00	NA	-0.216	NA			New	New	Archived	GS	
10/8/2012	13:08	0.00	NA	0.106	NA			New	New	Archived	GS	
11/07/12	12:35	0.00	NA	0.417	NA		Adj.	New	OK	Changed Time	GS	
12/11/12	10:34	0.00	NA	-0.713	NA		Adj.	New	OK	Archived	GS	
01/07/13	9:40	0.00	NA	-0.148	NA			10.1	OK	Archived	RT	
01/14/13	10:30	0.00	NA	-0.301	NA			New	OK	Archived	RT	
02/04/13	10:55	0.00	NA	-0.435	NA			New	OK	Archived	RT	
02/20/13	11:00	0.00	NA	-0.065	NA			New	OK	Archived	BP	
03/18/13	11:00	0.00	NA	-0.617	NA			10.1	OK	Changed Time	BP	
04/17/13	11:05	0.00	NA	-0.482	NA		Adj.	New	OK	Archived	WP	
05/13/13	17:17	0.00	NA	0.397	NA		Adj.	New	OK	Archived	WP	
06/03/13	15:43	0.00	NA	-0.431	NA		Adj.	10.6	New	Archived	WP	
06/20/13	16:02	0.00	NA	-0.260	NA			New	OK	Archived	WP	
07/08/13	7:17	0.00	NA	0.112	NA		Adj.	11.7	OK	Archived	WP	
08/13/13	6:12	0.00	NA	-3.855	NA		Adj.	New	OK	Archived	WP	
09/11/13	11:00	0.00	NA	0.296	NA		Adj.	11.4	OK	Archived	BP	CHANGED PROBE AND MODEM
10/14/13	8:15	0.00	0.0	0.020	0.00		Adj.	10.8	New	Archived	BP	REPLACED PROBE
10/31/13	13:55	0.00	0.0	-0.123	0.00			New	OK	Archived	WP	Changed Meter
11/11/13	10:07	0.00	0.0	0.045	0.00		Adj.	11.0	OK	Archived	BP	CHANGED PROBE
12/02/13	6:21	0.00	0.0	-1.310	NA		Adj.	New	New	Archived	WP	
12/05/13	10:15	0.00	NA	-0.006	NA			11.9	OK	Archived	WP	Changed both meter and modem
01/13/14	8:06	0.00	NA	-0.057	NA		Adj.	10.7	New	Archived	WP	
02/24/14	14:24	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	
03/10/14	6:57	0.00	NA	1.080	NA		Adj.	New	OK	Archived	WP	Changed Time
03/17/14	10:07	0.00	NA	0.006	NA			New	OK	Archived	WP	Change meter
04/28/14	10:49	0.00	NA	-0.176	NA			New	OK	Archived	WP	
06/16/14	10:25	0.00	NA	22.000	0.25			11.8	OK	Archived	JAM	CHANGED METER MODULE
07/17/14	10:59	0.00	NA	0.059	NA			12.2	OK	Archived	GS	Changed alarm to velocity
08/04/14	6:42	0.00	NA	-0.041	NA			New	OK	Archived	WP	
08/07/14	13:04	0.00	NA	-0.045	0.00		Push Data	11.8	OK	Archived	WP	Changed Modem and updated firmware
09/15/14	12:09	0.00	NA	-0.018	NA			11.2	OK	Archived	GS	
10/21/14	8:43	0.00	NA	-0.157	NA			11.1	OK	Archived	WP	

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 030 n Street (East of Creek)
M.H. No. MH DEPTH:
PIPE SIZE 58 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/17/11 TIME: 11:30
INSTALLER: RT JP
LOGGER No. 208A02288
PROBE No. 208K00722
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: Side of Pipe: On Weir
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Easement off W. Jefferson St. near 308
n 43.04726 w 07615652
9148066825

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/17/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/17/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	14:50	0.00	NA	-0.171	NA			12.2	OK	Archived	RT
12/05/11	12:45	0.00	NA	-0.016	NA			11.6	OK	Archived	RT
12/06/11	10:35	0.00	NA	0.090	NA			11.5	OK	Archived	RT
12/12/11	10:10	0.00	NA	0.167	NA		Adj.	11.3	OK	Archived	RT
12/21/11	10:25	0.00	NA	-0.176	NA			11.2	OK	Archived	RT
12/27/11	8:21	0.00	NA	-0.025	NA			11.2	OK	Archived	GS
01/03/12	9:30	0.00	NA	-0.288	NA			11.0	OK	Archived	RT
01/16/12	10:30	0.00	NA	41.269	NA	Probe is frozen	Adj.	10.5	New	Archived	RT
02/13/12	10:00	0.00	NA	-49.809	NA		Adj.	New	OK	Archived	RT
03/22/12	16:26	0.00	NA	-0.427	NA		Adj.	11.7	OK	Archived	GS
04/20/12	14:57	0.00	NA	0.028	NA			10.9	OK	Archived	GS
04/29/12	13:45	8.00		7.913				New	OK	Bucket test	GS
04/29/12	13:50	0.00	NA	0.014	NA			12.2	OK	Installed	GS
05/03/12	16:00	0.00	NA	0.026	NA			12.2	OK	Archived	GS
06/04/12	11:56	0.00	NA	0.106	NA			11.5	OK	Archived	GS
07/07/12	11:36	0.00	NA	0.020	NA			11.1	OK	Archived	GS
08/01/12	11:30	0.00	NA	-0.103	NA			11.1	OK	Archived	GS
09/04/12	14:57	0.00	NA	0.240	NA			10.9	OK	Archived	JAM
10/08/12	11:14	0.00	NA	0.640	NA		Adj.	New	OK	Archived	GS
11/07/12	10:52	0.00	NA	0.129	NA			11.7	OK	Changed time	GS
12/11/12	9:58	0.00	NA	0.046	NA			11.6	OK	Archived	GS
01/07/13	10:55	0.00	NA	0.109	NA			11.3	OK	Archived	RT
02/05/13	12:20	0.00	NA	-0.011	NA			11.0	OK	Archived	RT
02/19/13	17:55	0.00	NA	-0.009	NA			10.8	OK	Archived	BP
03/18/13	13:45	0.00	NA	0.003	NA			10.7	OK	Changed Time	BP
04/17/13	13:49	0.00	NA	-0.018	NA			10.7	OK	Archived	WP
06/03/13	17:52	0.00	NA	-0.131	NA			11.0	OK	Archived	WP
07/08/13	11:01	0.00	NA	-0.359	NA			10.9	OK	Archived	WP
08/27/13	7:39	0.00	NA	-0.103	NA		Adj.	10.8	OK	Archived	WP
09/26/13	13:50	0.00	NA	-0.135	NA			10.7	OK	Archived	BP
11/11/13	11:08	0.00	NA	0.045	NA		Adj.	10.2	OK	Archived	BP
1/6/2014	6:51	0.00	NA	-0.106	NA			New	OK	Archived	WP
01/13/14	9:29	0.00	NA	-0.083	NA			11.8	OK	Archived	WP
02/24/14	14:46	0.00	NA	0.136	NA			11.3	New	Archived	WP
03/17/14	10:38	0.00	NA	0.066	NA			11.2	OK	Archived	WP
04/28/14	7:35	0.00	NA	0.169	NA			11.1	OK	Archived	WP
06/16/14	13:15	0	NA	-0.008	NA			11.1	OK	Archived	JAM
07/17/14	11:22	0.00	NA	-0.030	NA			11.0	OK	Archived	GS
08/07/14	14:43	0.00	NA	0.026	NA			10.9	New	Archived	WP
09/15/14	13:29	0	NA	0.14	0			10.8	OK	Archived	GS
10/21/14	8:58	0	NA	0.157	NA			10.6	OK	Archived	WP
12/16/14	9:45	0	NA	0.15	NA			New	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 034 Clinton & West Onondaga Street
M.H. No. _____ MH DEPTH: _____
PIPE SIZE 72 TYPE: PVC

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 8:00
INSTALLER: RT JP
LOGGER No. 208E01109
PROBE No. 211L01001
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES: _____
INVERT CONDITION: Smooth: X Rough: ____ In-Between _____
PROBE MOUNTED: On Invert: X Side of Pipe: _____
ACTUAL PROBE OFFSET: _____ INCHES
COMMENTS: Clinton Street & Gilford Street
N 43.04373 W 076.15352
9148197172

SUBSEQUENT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	12:00	14.25		14.304				12.2	New	Bucket test	RT
11/21/11	12:40	0.00	NA	0.028	NA			12.2	New	Installed	RT
11/28/11	15:05	0.00	NA	0.167	NA			10.3	OK	Archived	RT
12/05/11	13:00	0.00	NA	0.163	NA			New	OK	Archived	RT
12/06/11	10:45	0.00	NA	0.202	NA		Adj.	11.6	OK	Archived	RT
12/12/11	10:30	0.00	NA	-0.105	NA			10.5	OK	Archived	RT
12/21/11	10:40	0.00	NA	-0.042	NA			New	OK	Archived	RT
12/27/11	8:45	0.00	NA	-0.054	NA			New	OK	Archived	GS
01/03/12	9:40	0.00	NA	0.122	NA			10.5	OK	Archived	RT
01/16/12	10:40	0.00	NA	34.703	NA	Probe is frozen	Adj.	New	New	Archived	RT
02/13/12	10:15	0.00	NA	-34.865	NA		Adj.	New	OK	Archived	RT
03/05/12	10:05	0.00	NA	0.084	NA			New	OK	Archived	RT
03/22/12	16:39	0.00	NA	-0.509	NA		Adj.	New	OK	Archived	GS
04/20/12	15:04	0.00	NA	-0.396	NA		Adj.	New	OK	Archived	GS
05/03/12	16:06	0.00	NA	-0.067	NA			New	OK	Archived	GS
06/04/12	11:04	0.00	NA	0.117	NA			New	OK	Archived	GS
07/07/12	11:49	0.00	NA	0.106	NA			New	OK	Archived	GS
08/01/12	11:45	0.00	NA	-0.049	NA			New	OK	Archived	GS
09/04/12	15:07	0.00	NA	0.054	NA			New	OK	Archived	JAM
09/20/12	8:20	0.00	NA	0.197	NA			New	New	Archived	GS
10/08/12	11:36	0.00	NA	0.051	NA			New	OK	Archived	GS
11/07/12	10:29	0.00	NA	-0.306	NA		Adj.	New	OK	Changed Time	GS
12/11/12	10:13	0.00	NA	0.001	NA			New	OK	Archived	GS
01/07/13	10:10	0.00	NA	-0.924	NA		Adj.	11.7	OK	Archived	RT
01/14/13	8:30	0.00	NA	81.116	NA		Replace probe	10.7	OK	Archived	RT
02/05/13	15:30	0.00	NA	-1.864	NA		Adj.	New	OK	Archived	RT
02/19/13	16:10	0.00	NA	0.001	NA		Adj.	NEW	OK	Archived	BP
03/18/13	14;00	0.00	NA	-0.754	NA			10.1	OK	Changed Time	BP
04/17/13	13:09	0.00	NA	-0.865	NA			New	OK	Archived	WP
06/03/13	17:08	0.00	NA	-0.482	NA		Adj.	New	New	Archived	WP
07/08/13	9:13	0.00	NA	-0.540	NA		Adj.	New	OK	Archived	WP
08/06/13	6:14	0.00	NA	0.022	NA			New	OK	Archived	WP
09/26/13	16:24	0.00	NA	-0.199	NA			New	OK	Archived	BP
11/11/13	11;29	0.00	NA	0.030	NA		Adj.	New	OK	Archived	BP
12/23/13	11:16	0.00	NA	-0.053	NA			New	OK	Archived	WP
01/13/14	8:32	0.00	NA	-0.037	NA			10.7	OK	Archived	WP
02/24/14	15:03	0.00	NA	-0.653	NA		Adj.	New	OK	Archived	WP
03/17/14	10:50	0.00	NA	-0.111	NA			10.7	OK	Archived	WP
04/28/14	7:55	0.00	NA	-0.745	NA		Adj.	New	New	Archived	WP
06/16/14	13:35	0.00	NA	-0.303	NA		Adj.	11.6	OK	Archived	JAM
07/17/14	11:35	0.00	NA	0.210	NA			New	OK	Archived	GS
08/07/14	14:51	0.00	NA	-0.303	NA		Adj.	11.3	New	Archived	WP
09/15/14	13:00	0.00	NA	0.384	NA		Adj.	New	OK	Archived	GS
10/21/14	9:08	0.00	NA	0.393	NA		Adj.	10.9	OK	Archived	WP
12/16/14	8:45	0.00	NA	0.007	NA		Adj.	New	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 052 et & Elmhurst Avenue
M.H. No. MH DEPTH:
PIPE SIZE 48 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 13:40
INSTALLER: RT JP
LOGGER No. 210B00345
PROBE No. 208K01299
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Elmhurst Ave. & Hunt Ave.
N 43.02097 W 076.15585
9148198097

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	13:55	14.25		14.355				12.1	New	Bucket test	RT
11/16/11	14:30	0.00	NA	-0.003	NA			12.1	New	Installed	RT
11/28/11	16:25	0.00	NA	1.007	NA		Adj.	New	OK	Archived	RT
12/5/11	13:55	0.00	NA	0.090	NA			12.0	OK	Archived	RT
12/6/11	12:00	0.00	NA	0.180	NA			11.9	OK	Archived	RT
12/12/11	11;00	0.00	NA	-0.631	NA		Adj.	11.7	OK	Archived	RT
12/21/11	12:45	0.75	NA	0.881	NA			11.5	OK	Archived	RT
1/3/12	10:25	0.25	NA	0.221	NA			11.3	OK	Archived	RT
1/16/12	11;30	0.25	NA	0.642	NA	Probe is frozen		11.0	OK	Archived	RT
2/13/12	11:10	0.50	NA	0.447	NA			11.2	OK	Archived	RT
3/22/12	17:32	0.00	NA	0.004	NA			11.2	OK	Archived	GS
4/20/12	14:29	0.00	NA	-0.147	NA			New	OK	Archived	GS
5/3/12	15:25	0.25	NA	0.349	NA			New	OK	Archived	GS
6/4/12	9:06	0.00	NA	0.004	NA			New	OK	Archived	GS
7/7/12	13:21	0.00	NA	0.404	NA		Adj.	New	OK	Archived	GS
8/1/12	13:28	0.00	NA	0.101	NA			11.7	New	Archived	GS
9/4/12	15:46	0.00	NA	0.314	NA		Adj.	11.1	OK	Archived	JAM
10/8/12	9:07	0.00	NA	0.231	NA			New	OK	Archived	GS
10/8/12	9:20	4.40	1.6	4.415	1.66					tested probe	
11/7/12	9:28	0.00	NA	-0.490	0.00			11.9	OK	Changed Time	GS
12/11/12	8:37	0.00	NA	0.806	11.50		Adj.	11.5	OK	Archived	GS
1/7/13	11:15	0.00	NA	-0.951	NA			10.9	OK	Archived	RT
1/23/13	9:15	0.00	NA	60.501	NA	Probe is frozen		10.6	OK	Archived	RT
2/5/13	13:10	0.00	NA	50.294	NA	Probe is frozen		10.5	OK	Archived	RT
2/20/12	9:10	0.00	NA	-0.169	NA			10.7	OK	Archived	BP
3/18/13	13:45	0.00	NA	0.012	NA		Adj.	11.8	New	Archived	BP
3/27/13	0:00	0.00	NA	0.002	NA		Adj.	11.6	OK	CHANGED PROBE	BP
4/17/13	11:46	0.00	NA	-0.446	NA		Adj.	11.5	OK	Archived	WP
6/3/13	16:27	0.00	NA	0.090	NA			11.2	OK	Archived	WP
7/8/13	8:14	0.00	NA	0.082	NA			11.2	OK	Archived	WP
8/27/13	8:13	0.00	NA	0.079	NA			11.1	OK	Archived	WP
9/26/13	14:39	0.00	NA	0.085	NA			10.8	OK	Archived	BP
11/11/13	12:31	0.00	NA	-0.022	NA		Adj.	10.6	OK	Changed Time	BP
1/6/14	7:17	0.00	NA	-1.519	NA		Adj.	New	OK	Archived	WP
1/13/14	9:46	0.00	NA	-0.062	NA			11.9	OK	Archived	WP
2/24/14	15:21	0.00	NA	1.444	NA		Adj.	10.9	OK	Archived	WP
3/17/14	11:08	0.00	NA	-17.016	NA		Adj.	10.7	OK	Archived	WP
4/28/14	8:22	0.00	NA	-1.659	NA		Adj.	10.7	OK	Archived	WP
5/27/14	11:04	0.00	NA	-0.471	NA			10.7	OK	Archived	WP
6/16/14	14:50	0.00	NA	-0.23	NA		Adj.	10.7	OK	Archived	JAM
7/17/14	12:19	0	NA	-0.246	NA		Adj.	10.4	OK	Archived	GS
8/7/14	15:08	0	NA	0.002	NA			10.4	New	Archived	WP
9/15/14	14:09	0	NA	0.246	NA			New	OK	Archived	GS
10/21/14	9:22	0	NA	0.568	NA		Adj.	11.7	OK	Archived	WP
12/16/14	11:40	0	NA	-0.26	NA		Adj.	11.2	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT ɬaga County CSO
ENGINEER: CDM / C&S
OWNER: ɔndaga County
SITE NAME: CSO 060 ı Street & Kirk Park Drive
M.H. No. MH DEPTH:
PIPE SIZE 72 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 15:00
INSTALLER: RT JP
LOGGER No. 205M0105
PROBE No. 211L01002
BATTERY TYPE: 6 volt lantern

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SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: KIRK PARK DR & W COLVIN ST
N 43.02350 W 076.15466
9148747350

ɪT SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	15:10	14.00		14.054				12.2	New	Bucket test	RT
11/21/11	16:00	0.00	NA	-0.009	NA			12.2	New	Installed	RT
11/28/11	16:00	0.00	NA	-0.014	NA			12.3	OK	Archived	RT
12/5/11	13:55	0.00	NA	-0.067	NA		Adj.	11.7	OK	Archived	RT
12/5/11	14:30	1.25	0.2	1.546	0.22			11.7	OK	Probe test	RT
12/6/11	12:15	0.00	NA	0.049	NA			11.4	OK	Archived	RT
12/12/11	11:15	0.00	NA	-0.011	NA			11.2	OK	Archived	RT
12/21/11	13:00	0.00	NA	0.053	NA			11.2	OK	Archived	RT
1/3/12	10:35	0.00	NA	-0.059	NA			10.4	OK	Archived	RT
1/16/12	11:45	0.00	NA	-0.136	NA			10.5	OK	Archived	RT
3/22/12	17:20	0.00	NA	0.043	NA			10.5	OK	Archived	GS
4/20/12	14:19	0.00	NA	-0.016	NA			NEW	OK	Archived	GS
5/3/12	15:17	0.00	NA	0.040	NA			11.7	OK	Archived	GS
6/4/12	10:13	0.00	NA	-0.026	NA			11.0	OK	Archived	GS
7/7/12	13:43	0.00	NA	0.040	NA			11.5	OK	Archived	GS
8/1/12	13:45	0.00	NA	0.075	NA			NEW	OK	Archived	GS
9/4/12	16:06	0.00	NA	0.035	NA			11.5	OK	Archived	JAM
10/8/12	10:10	0.00	NA	0.033	NA			NEW	OK	Archived	GS
11/7/12	9:47	0.00	NA	0.018	NA			11.3	OK	Changed Time	GS
12/11/12	9:00	0.00	NA	-0.275	NA			NEW	OK	Archived	GS
1/7/13	11:30	0.00	NA	1.127	NA			11.3	OK	Archived	RT
1/23/13	9:45	0.00	NA	-1.597	NA	Probe is frozen		10.7	OK	Archived	RT
2/5/13	13:30	0.00	NA	-1.494	NA	Probe is frozen		10.6	OK	Archived	RT
2/20/13	9:30	0.00	NA	-0.365	NA			10.5	OK	Archived	BP
3/18/13	16:10	0.00	NA	-0.256	NA			10.4	OK	Changed Time	BP
4/17/13	11:57	0.00	NA	-0.321	NA		Adj.	10.5	OK	Archived	WP
6/10/13	14:56	0.00	NA	0.254	NA			NEW	OK	Archived	WP
7/8/13	8:27	0.00	NA	0.069	NA			11.4	OK	Archived	WP
8/27/13	8:26	0.00	NA	0.043	NA			10.9	OK	Archived	WP
9/26/13	15:13	0.00	NA	0.007	NA			10.6	New	Archived	BP
11/11/13	12:47	0.00	NA	-0.06	NA			NEW	OK	Changed Time	BP
1/13/14	8:51	0.00	NA	0.063	NA			10.6	OK	Archived	WP
2/24/14	15:39	0.00	NA	9.171	NA	Snow		NEW	OK	Archived	WP
3/17/14	12:14	0.00	NA	-6.461	NA			11.2	OK	Changed Time	WP
4/28/14	9:58	0.00	NA	-2.688	NA		Adj.	10.8	OK	Archived	WP
5/27/14	11:20	0.00	NA	0.022	NA			10.7	OK	Archived	WP
6/16/14	14:25	0.00	NA	0.023	NA			10.2	OK	Archived	JAM
8/7/14	15:19	0.00	NA	-0.066	NA			11.7	New	Archived	WP
9/15/14	14:31	0.00	NA	-0.302	NA		Adj.	11.2	OK	Archived	GS
10/21/14	9:33	0.00	NA	0.229	NA		Adj.	10.8	OK	Archived	WP
12/16/14	11:55	0.00	NA	0.163	NA			10.2	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT laga County CSO
ENGINEER: CDM / C&S
OWNER: ondaga County
SITE NAME: CSO 063 nerson Avenue
M.H. No. MH DEPTH:
PIPE SIZE 36 TYPE: Con.

PROJECT No. 1130.04.01
DATE: 11/16/11 TIME: 12:00
INSTALLER: RT JP
LOGGER No. 208A02302
PROBE No. 208C00535
BATTERY TYPE: 6 volt lantern

SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: 914 Emerson Ave. in sidewalk
N 43.0588 W 076.19397
9148606821

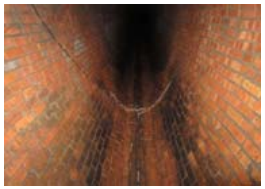
T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/16/11	12:15	14.25		14.258				12.1	New	Bucket test	RT
11/16/11	13:15	0.00	NA	0.013	NA			12.1	New	Installed	RT
11/28/11	9:45	0.00	NA	-0.365	NA			11.6	OK	Archived	RT
12/5/11	9:20	0.00	NA	-0.313	NA			10.6	OK	Archived	RT
12/6/11	9:20	0.00	NA	-0.183	NA			10.2	OK	Archived	RT
12/12/11	9:20	0.00	NA	-0.863	NA		Adj.	10.2	OK	Archived	RT
12/21/11	9:05	0.00	NA	0.367	NA			10.5	OK	Archived	RT
1/3/12	8:45	0.00	NA	0.589	NA			10.3	OK	Archived	RT
1/16/12	9:35	0.00	NA	-0.133	NA			10.3	OK	Archived	RT
3/22/12	14:25	0.00	NA	-0.370	NA			10.3	OK	Archived	GS
4/20/12	10:21	0.00	NA	-0.145	NA			New	OK	Archived	GS
5/3/12	11:14	0.00	NA	-0.086	NA		Before Test	12.0	OK	Archived	GS
5/3/12	11:24	6.00	0.5	6.012	NA		during test	12.0	OK	CHANGED PROBE	GS
5/3/12	12:08	0.00	NA	0.144	NA		After test	12.0	OK	Installed	GS
6/4/12	12:35	0.00	NA	-0.217	NA		Adj.	11.0	OK	Archived	GS
7/7/12	10:00	0.00	NA	0.352	NA		Adj.	11.0	New	Archived	GS
8/1/12	10:17	0.00	NA	0.008	NA			11.1	OK	Archived	GS
9/4/12	14:33	0.00	NA	-0.053	NA			10.9	OK	Archived	JAM
10/8/12	13:53	0.00	NA	-0.275	NA		Adj.	New	OK	Archived	GS
11/7/12	13:15	0.00	NA	0.071	NA			11.7	OK	Changed Time	GS
12/11/12	11:30	0.00	NA	0.385	NA		Adj.	11.1	OK	Archived	GS
12/20/12	12:15	0.00	NA	0.009	NA			10.7	OK	Archived	RT
1/7/13	8:55	0.00	NA	-0.616	NA			10.5	OK	Archived	RT
2/5/13	10:20	0.00	NA	-0.031	NA			10.5	OK	Archived	RT
2/20/13	12;20	0.00	NA	-0.008	NA			10.5	OK	Archived	BP
3/18/13	9:30	0.00	NA	-0.042	NA			10.4	OK	Changed Time	BP
4/17/13	10:41	0.00	NA	-0.432	NA		Adj.	New	OK	Archived	WP
6/3/13	15:19	0.00	NA	0.259	NA		Adj.	11.2	OK	Archived	WP
7/8/13	7:04	0.00	NA	-0.372	NA		Adj.	11.0	New	Archived	WP
8/27/13	6:29	0.00	NA	0.134	NA			10.8	OK	Archived	WP
9/26/13	8:52	0.00	NA	0.607	NA			10.5	New	Archived	BP
10/7/13	6:45	0.00	NA	0.299	NA		Adj.	New	OK	Archived	WP
10/14/13	9:05	0.00	0.0	0.002	0.00		Adj.	11.7	OK	Archived	BP
11/11/13	13:25	0.00	NA	0.011	NA			11.2	OK	Changed Time	BP
1/13/14	0	0	NA	0.059	NA			10.6	New	Archived	WP
2/24/14	13:56	0.00	NA	0.028	NA			New	OK	Archived	WP
3/17/14	8:59	0.00	NA	0.210	NA		Adj.	11.4	OK	Archived	WP
4/28/14	11:07	0.00	NA	-0.534	NA		Adj.	10.9	OK	Archived	WP
6/16/14	9:10	0	NA	-0.008	NA			10.7	OK	Archived	JAM
7/17/14	10:12	0.00	NA	0.150	NA			10.6	OK	Archived	GS
8/7/14	14:22	0.00	NA	-0.088	NA			New	New	Archived	WP
9/15/14	11:50	0	NA	0.219	NA		Adj.	11.9	OK	Archived	GS
10/21/14	8:29	0	NA	0.199	NA			10.9	OK	Archived	WP
12/16/14	11:10	0	NA	0.294	NA		Adj.	10.6	OK	Archived	JAM

SAVIN ENGINEERS, P.C.
FLOW MONITOR SITE SHEET

PROJECT Onondaga County CSO
ENGINEER: CDM / C&S
OWNER: Onondaga County
SITE NAME: CSO 077 in Street & Midland Ave
M.H. No. MH DEPTH:
PIPE SIZE 82X56 TYPE: Brick egg

PROJECT No. 1130.04.01
DATE: 11/21/11 TIME: 11:15
INSTALLER: RT JP
LOGGER No. 208E01100
PROBE No. 211L01000
BATTERY TYPE: 6 volt lantern



SITE CONDITIONS:

DEPOSITION: NONE: X INCHES:
INVERT CONDITION: Smooth: X Rough: In-Between
PROBE MOUNTED: On Invert: X Side of Pipe:
ACTUAL PROBE OFFSET: INCHES
COMMENTS: Midland Ave. & Colvin Street
N 43.02414 W 076.15087
9143556375

T SITE VISIT INFORMATION:

DATE	TIME	MANUAL DEPTH	MANUAL VEL	LOGGER DEPTH	LOGGER VEL	FOULING	CALIBRATION OFFSET	BATTERY VOLTAGE	DESICCANT	COMMENTS	CREW CHIEF
11/21/11	11:25	14.00		13.997				12.2	New	Bucket test	RT
11/21/11	12:30	0.00	NA	-0.013	NA			12.2	New	Installed	RT
11/28/11	15:30	0.00	NA	-0.214	NA			New	OK	Archived	RT
12/5/11	13:30	0.00	NA	-0.223	NA		Adj.	10.5	OK	Archived	RT
12/6/11	11:40	0.00	NA	0.231	NA		Adj.	10.5	OK	Archived	RT
12/12/11	10:50	0.00	NA	0.170	NA			10.1	OK	Archived	RT
12/21/11	12:35	0.00	NA	0.069	NA			New	OK	Archived	RT
1/3/12	10:15	0.00	NA	0.042	NA			10.3	OK	Archived	RT
1/16/12	11:15	0.00	NA	-0.222	NA			New	OK	Archived	RT
2/13/12	11:00	0.00	NA	-0.039	NA			New	OK	Archived	RT
3/5/12	a1:35	0.00	NA	0.053	NA			New	OK	Archived	RT
3/22/12	17:03	0.00	NA	0.039	NA			New	New	Archived	GS
4/20/12	13:58	0.00	NA	-0.264	NA		Adj.	New	OK	Archived	GS
5/3/12	14:56	0.00	NA	0.034	NA			New	OK	Archived	GS
6/4/12	8:52	0.00	NA	0.183	NA			New	OK	Archived	GS
7/7/12	13:10	0.00	NA	0.160	NA			New	OK	Archived	GS
8/1/12	13:13	0.00	NA	0.008	NA			New	New	Archived	GS
9/4/12	15:35	0.00	NA	-0.342	NA		Adj.	New	OK	Archived	JAM
10/8/12	10:20	0.00	0.0	0.303	NA		Adj.	New	OK	Archived	GS
11/7/12	10:00	0.00	NA	0.390	NA		Adj.	New	OK	Changed Time	GS
12/11/12	9:15	0.00	NA	-0.101	NA			New	OK	Archived	GS
1/7/13	11:10	0.00	NA	-0.550	NA			10.4	OK	Archived	RT
2/5/13	13;00	0.00	NA	-0.079	NA			New	OK	Archived	RT
2/20/13	09;45	0.00	NA	-0.112	NA			10.7	OK	Archived	BP
3/18/13	15:33	0.00	NA	-0.166	NA			10.1	OK	Changed Time	BP
4/17/13	12:11	0.00	NA	-0.235	NA			New	OK	Archived	WP
6/3/13	16:40	0.00	NA	-0.347	NA			10.4	New	Archived	WP
6/10/13	15:21	0.00	NA	0.246	NA		Adj.	New	OK	Archived	WP
7/8/13	8:42	0.00	NA	0.019	NA			10.8	OK	Archived	WP
8/6/13	5:59	0.00	NA	-0.354	NA		Adj.	New	OK	Archived	WP
9/26/13	14:15	0.00	NA	-0.008	NA			New	New	Archived	BP
10/7/13	6:18	0.00	NA	0.465	NA		Adj.	11.1	OK	Archived	WP
11/11/13	13:05	0.00	NA	0.095	NA			New	OK	Changed Time	BP
1/6/14	7:32	0.00	NA	0.010	NA			New	OK	Archived	WP
1/13/14	10:02	0.00	NA	0.021	NA			11.7	OK	Archived	WP
2/24/14	16:16	0.00	NA	0.072	NA			New	OK	Archived	WP
3/17/14	12:31	0.00	NA	-0.013	NA			New	OK	Changed Time	WP
4/28/14	10:15	0.00	NA	0.083	NA			New	New	Archived	WP
5/27/14	11:45	0	NA	-0.102	NA			10.4	OK	Archived	WP
6/16/14	14:05	0	NA	-0.162	NA			New	OK	Archived	JAM
7/17/14	12:10	0	NA	0.015	NA			11.1	OK	Archived	GS
8/7/14	15:27	0	NA	-0.011	NA			10.3	New	Archived	WP
9/15/14	13:42	0	NA	-0.067	NA			New	OK	Archived	GS
10/21/14	9:42	0	NA	-0.038	NA			New	OK	Archived	WP
12/16/14	12:10	0	NA	0.23	NA			New	OK	Archived	JAM

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - January 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - February 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - March 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - April 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - May 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - June 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - July 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - August 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - September 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - October 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - November 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - December 2014

	Location				Monthly Total (gal)
1	**CSO 018**	**Data Quality Issues**			0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - January 2014

	Location			Monthly Total (gal)
1	**CSO 027**	**Meter**		0
		Malfunction		
	TOTAL =			0

				Monthly Total (in)
2	**Rainfall Total:**			1.85
3	**Average Rainfall Intensity:**			
4	**Peak Hourly Rainfall Intensity:**			

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - February 2014

	Location			Monthly Total (gal)
1	**CSO 027**	**Meter**		0
		Malfunction		
	TOTAL =			0

				Monthly Total (in)
2	**Rainfall Total:**			2.79
3	**Average Rainfall Intensity:**			
4	**Peak Hourly Rainfall Intensity:**			

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - March 2014

	Location	3/15 Overflow Quantity (gal)	3/23 Overflow Quantity (gal)	3/26 Overflow Quantity (gal)	3/27 Overflow Quantity (gal)	3/28 Overflow Quantity (gal)	3/29 Overflow Quantity (gal)	3/30 Overflow Quantity (gal)	3/31 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	283,988	146,532	133,842	593,392	11,220	57,517	271,998	145,207	1,643,696
	TOTAL =	**283,988**	**146,532**	**133,842**	**593,392**	**11,220**	**57,517**	**271,998**	**145,207**	**1,643,696**

										Monthly Total (in)
2	**Rainfall Total:**	0.05	0.00	0.00	Snowmelt	0.26	1.10	0.59	Leftover Rain	4.35
4	**Peak Hourly Rainfall Intensity:**	0.03	0.00	0.00		0.11	0.28	0.19		

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - April 2014

	Location	04/07/14 Quantity (gal)	04/08/14 Quantity (gal)	04/09/14 Quantity (gal)	04/14/14 Quantity (gal)	04/15/14 Quantity (gal)	04/29/14 Quantity (gal)	04/30/14 Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	110,626	137,677	13,078	51,099	58,626	39,370	45,526	456,002
	TOTAL =	**110,626**	**137,677**	**13,078**	**51,099**	**58,626**	**39,370**	**45,526**	**456,002**

									Monthly Total (in)
2	**Rainfall Total:**	0.57	0.40	0.00	0.33	0.56	0.40	0.37	4.35
4	**Peak Hourly Rainfall Intensity:**	0.14	0.34	0.00	0.28	0.19	0.10	0.18	

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - May 2014

	Location	5/13 Overflow Quantity (gal)	5/14 Overflow Quantity (gal)	5/16 Overflow Quantity (gal)	5/17 Overflow Quantity (gal)	5/23 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	47,177	776,657	234,433	10,119	19,296	1,087,682
	TOTAL =	**47,177**	**776,657**	**234,433**	**10,119**	**19,296**	1,087,682

							Monthly Total (in)
2	**Rainfall Total:**	0.85	0.37	1.42	Left Over Rain from 5/16	0.38	3.70
4	**Peak Hourly Rainfall Intensity:**	0.35	0.18	0.31		0.31	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - June 2014

	Location	6/17 Overflow Quantity (gal)	6/24 Overflow Quantity (gal)	6/25 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	16,052	16,718	148,051	180,821
	TOTAL =	**16,052**	**16,718**	**148,051**	**180,821**

					Monthly Total (in)
2	**Rainfall Total:**	0.42	0.89	1.16	3.11
3	**Average Rainfall Intensity:**	0.21	0.06	0.05	
4	**Peak Hourly Rainfall Intensity:**	0.38	0.66	0.43	

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - July 2014

	Location	7/1 Overflow Quantity (gal)	7/3 Overflow Quantity (gal)	7/4 Overflow Quantity (gal)	7/8 Overflow Quantity (gal)	7/9 Overflow Quantity (gal)	7/14 Overflow Quantity (gal)	7/17 Overflow Quantity (gal)	7/18 Overflow Quantity (gal)	7/23 Overflow Quantity (gal)	7/27 Overflow Quantity (gal)	7/28 Overflow Quantity (gal)	7/30 Overflow Quantity (gal)	7/31 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	17,034	50,671	12,719	67,357	33,595				60,718	55,904	142,710	20,394	116,114	577,216
	TOTAL =	**17,034**	**50,671**	**12,719**	**67,357**	**33,595**	**0**			**60,718**	**55,904**	**142,710**	**20,394**	**116,114**	577,216

															Monthly Total (in)
2	**Rainfall Total:**	0.38	0.39		0.57	Leftover from 7/8	0.49			0.49		1.95	0.45	0.31	5.10
3	**Average Rainfall Intensity:**	0.38	0.02		0.02		0.12			0.16		0.09	0.15	0.04	
4	**Peak Hourly Rainfall Intensity:**	0.38	0.29		0.39		0.41			0.47		0.58	0.33	0.29	

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - August 2014

	Location	08/12/14 Quantity (gal)	08/13/14 Quantity (gal)	08/16/14 Quantity (gal)	08/17/14 Quantity (gal)	08/21/14 Quantity (gal)	08/22/14 Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	28120	131,461	37,641	1,763	22,245	94,879	316,109
	TOTAL =	**28,120**	**131,461**	**37,641**	**1,763**	**22,245**	**94,879**	316,109

								Monthly Total (in)
2	**Rainfall Total:**	**0.43**	0.92	0.38	Leftover from 8/16 event	0.58	0.53	5.14
4	**Peak Hourly Rainfall Intensity:**	**0.14**	0.32	0.2		0.57	0.51	

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - September 2014

	Location	09/02/14 Quantity (gal)	09/21/14 Quantity (gal)	09/30/14 Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	73,129	88,572	41,764	203,465
	TOTAL =	**73,129**	**88,572**	**41,764**	**203,465**

					Monthly Total (in)
2	**Rainfall Total:**	0.85	0.33	0.46	1.99
4	**Peak Hourly Rainfall Intensity:**	0.59	0.21	0.44	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - October 2014

	Location	10/8 Overflow Quantity (gal)	10/15 Overflow Quantity (gal)	10/16 Overflow Quantity (gal)		Monthly Total (gal)
1	**CSO 027**	41,764	245,997	3,510,206		3,797,967
	TOTAL =	**41,764**	**245,997**	**3,510,206**		3,797,967

						Monthly Total (in)
2	**Rainfall Total:**	0.41	0.65	0.78		3.93
4	**Peak Hourly Rainfall Intensity:**	0.27	0.19	0.47		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - November 2014

	Location	11/06/14 Quantity (gal)	11/17/14 Quantity (gal)		Monthly Total (gal)
1	**CSO 027**	23,774	27,602		51,376
	TOTAL =	**23,774**	**27,602**		**51,376**

					Monthly Total (in)
2	**Rainfall Total:**	0.36	0.61		1.95
4	**Peak Hourly Rainfall Intensity:**	0.17	0.18		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - December 2014

	Location	12/06/14 Quantity (gal)	12/16/14 Quantity (gal)	12/17/14 Quantity (gal)	12/24/14 Quantity (gal)	12/25/14 Quantity (gal)	Monthly Total (gal)
1	**CSO 027**	62,059	1,612,245	115,147	151,662	27,023	1,968,136
	TOTAL =	**62,059**	**1,612,245**	**115,147**	**151,662**	**27,023**	**1,968,136**

							Monthly Total (in)
2	**Rainfall Total:**	0.51	0.11	0.06	0.26	0.24	2.61
4	**Peak Hourly Rainfall Intensity:**	0.1	0.06	0.02	0.12	0.09	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - January 2014

	Location	Overflow Quantity (gal)			Monthly Total (gal)
1	**CSO 036**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				1.85
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - February 2014

	Location	2/21 Overflow Quantity (gal)			Monthly Total (gal)
1	**CSO 036**	564,240			564,240
	TOTAL =	**564,240**			**564,240**

					Monthly Total (in)
2	**Rainfall Total:**	0.75			2.79
3	**Average Rainfall Intensity:**	0.05			
4	**Peak Hourly Rainfall Intensity:**	0.21			

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - March 2014

	Location				Monthly Total (gal)
1	**CSO 036**	**Meter**			0
		Malfunction			
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				3.31
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - April 2014

	Location	04/01/14 Quantity (gal)	04/07/14 Quantity (gal)	04/08/14 Quantity (gal)	04/14/14 Quantity (gal)	04/15/14 Quantity (gal)	04/30/14 Quantity (gal)	Monthly Total (gal)
1	**CSO 036**	75,263.00	480,761	461,179	206,735	345,265	75,263	1,569,203
	TOTAL =	**75,263.00**	**480,761**	**461,179**	**206,735**	**345,265**	**75,263**	**1,569,203**

								Monthly Total (in)
2	**Rainfall Total:**	**Leftover Rain 3/30**	0.57	0.40	0.33	0.56	0.37	4.35
4	**Peak Hourly Rainfall Intensity:**		0.14	0.34	0.28	0.19	0.18	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - May 2014

	Location	5/10 Overflow Quantity (gal)	5/13 Overflow Quantity (gal)	5/15 Overflow Quantity (gal)	5/16 Overflow Quantity (gal)	5/23 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 036**	119,428	345,099	180,457	5,597,168	341,192	6,583,344
	TOTAL =	**119,428**	**345,099**	**180,457**	**5,597,168**	**341,192**	6,583,344

							Monthly Total (in)
2	**Rainfall Total:**	0.36	0.85	0.26	1.42	0.38	3.70
3	**Average Rainfall Intensity:**	0.09	0.17	0.13	0.10	0.19	
4	**Peak Hourly Rainfall Intensity:**	0.19	0.35	0.24	0.31	0.31	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - June 2014

	Location	6/17 Overflow Quantity (gal)	6/24 Overflow Quantity (gal)	6/25 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 036**	236,747	1,008,580	303,423	1,548,750
	TOTAL =	**236,747**	**1,008,580**	**303,423**	**1,548,750**

					Monthly Total (in)
2	**Rainfall Total:**	0.42	0.89	1.16	3.11
3	**Average Rainfall Intensity:**	0.21	0.06	0.05	
4	**Peak Hourly Rainfall Intensity:**	0.38	0.66	0.43	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - July 2014

	Location	7/1 Overflow Quantity (gal)	7/3 Overflow Quantity (gal)	7/8 Overflow Quantity (gal)	7/14 Overflow Quantity (gal)	7/23 Overflow Quantity (gal)	7/28 Overflow Quantity (gal)	7/30 Overflow Quantity (gal)	7/31 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 036**	119,687	113,376	346,482	28,383	285,263	1,933,458	78,454	153,910	3,059,013
	TOTAL =	**119,687**	**113,376**	**346,482**	**28,383**	**285,263**	**1,933,458**	**78,454**	**153,910**	3,059,013

										Monthly Total (in)
2	**Rainfall Total:**	0.38	0.39	0.57	0.49	0.49	1.95	0.45	0.31	5.10
3	**Average Rainfall Intensity:**	0.38	0.02	0.02	0.12	0.16	0.09	0.15	0.04	
4	**Peak Hourly Rainfall Intensity:**	0.38	0.29	0.39	0.41	0.47	0.58	0.33	0.29	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - August 2014

	Location	8/3 Overflow Quantity (gal)	8/12 Overflow Quantity (gal)	8/13 Overflow Quantity (gal)	8/21 Overflow Quantity (gal)	Monthly Total (gal)
1	**CSO 036**	78,649	81,681	655,518	891,234	1,707,082
	TOTAL =	**78,649**	**81,681**	**655,518**	**891,234**	1,707,082

						Monthly Total (in)
2	**Rainfall Total:**	0.53	0.43	0.96	0.84	5.14
3	**Average Rainfall Intensity:**	0.04	0.03	0.05	0.04	
4	**Peak Hourly Rainfall Intensity:**	0.2	0.14	0.41	0.46	

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - September 2014

	Location	9/2 Overflow Quantity (gal)	9/30 Overflow Quantity (gal)			Monthly Total (gal)
1	**CSO 036**	627,897	277,771			905,668
	TOTAL =	**627,897**	**277,771**			905,668

						Monthly Total (in)
2	**Rainfall Total:**	0.85	0.46			1.99
3	**Average Rainfall Intensity:**	0.06	0.23			
4	**Peak Hourly Rainfall Intensity:**	0.59	0.44			

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - October 2014

	Location	10/8 Overflow Quantity (gal)	10/15 Overflow Quantity (gal)	10/16 Overflow Quantity (gal)		Monthly Total (gal)
1	**CSO 036**	214,392	59,651	664,374		938,417
	TOTAL =	**214,392**	**59,651**	**664,374**		938,417

						Monthly Total (in)
2	**Rainfall Total:**	0.41	0.65	0.78		3.93
3	**Average Rainfall Intensity:**	0.03	0.05	0.03		
4	**Peak Hourly Rainfall Intensity:**	0.27	0.19	0.47		

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - November 2014

	Location	Overflow Quantity (gal)			Monthly Total (gal)
1	**CSO 036**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				1.95
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - December 2014

	Location	Overflow Quantity (gal)			Monthly Total (gal)
1	**CSO 036**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				2.61
3	**Average Rainfall Intensity:**				
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - January 2014

	Location	Quantity (gal)	Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				1.85
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - February 2014

	Location	02/21/14 Quantity (gal)	Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	302,675			302,675
	TOTAL =	**302,675**			**302,675**

					Monthly Total (in)
2	**Rainfall Total:**	0.78			2.79
4	**Peak Hourly Rainfall Intensity:**	0.27			

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - March 2014

	Location	03/29/14 Quantity (gal)	03/30/14 Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	302,675	*		302,675
	TOTAL =	**302,675**	*****		**302,675**

					Monthly Total (in)
2	**Rainfall Total:**	0.78	0.63		3.31
4	**Peak Hourly Rainfall Intensity:**	0.27	0.29		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - April 2014

	Location	04/08/14 Quantity (gal)	Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	517,744			517,744
	TOTAL =	**517,744**			**517,744**

					Monthly Total (in)
2	**Rainfall Total:**	0.43			4.35
4	**Peak Hourly Rainfall Intensity:**	0.34			

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - May 2014

	Location	05/14/14 Quantity (gal)	05/16/14 Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	234,680	4,788,387		5,023,067
	TOTAL =	**234,680**	**4,788,387**		**5,023,067**

					Monthly Total (in)
2	**Rainfall Total:**	0.57	1.23		3.70
4	**Peak Hourly Rainfall Intensity:**	0.26	0.33		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - June 2014

	Location	06/24/14 Quantity (gal)	06/25/14 Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	3,249	78,182		81,431
	TOTAL =	**3,249**	**78,182**		**81,431**

					Monthly Total (in)
2	**Rainfall Total:**	1.02	0.97		3.11
4	**Peak Hourly Rainfall Intensity:**	0.86	0.31		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - July 2014

	Location	07/08/14 Quantity (gal)	07/28/14 Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	28,991	1,782,419		1,811,410
	TOTAL =	**28,991**	**1,782,419**		**1,811,410**

					Monthly Total (in)
2	**Rainfall Total:**	0.43	1.50		5.10
4	**Peak Hourly Rainfall Intensity:**	0.39	0.39		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - August 2014

	Location	08/13/14 Quantity (gal)	08/21/14 Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	165,599	407,704		573,303
	TOTAL =	**165,599**	**407,704**		**573,303**

					Monthly Total (in)
2	**Rainfall Total:**	0.92	0.58		5.14
4	**Peak Hourly Rainfall Intensity:**	0.32	0.57		

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CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - September 2014

	Location	Quantity (gal)	Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				1.99
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - October 2014

	Location	10/16/14 Quantity (gal)	10/21/14 * Quantity (gal)	10/24/14 * Quantity (gal)	10/30/14 * Quantity (gal)	Monthly Total (gal)
1	**CSO 080**	101,331	150,000	150,000	150,000	551,331
	TOTAL =	**101,331**	**150,000**	**150,000**	**150,000**	**551,331**

						Monthly Total (in)
2	**Rainfall Total:**	0.44				3.93
4	**Peak Hourly Rainfall Intensity:**	0.12				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - November 2014

	Location	Quantity (gal)	Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				1.95
4	**Peak Hourly Rainfall Intensity:**				

ONONDAGA COUNTY, NEW YORK

CSO FLOW MONITORING PROGRAM

Table 1
Summary of Regulator Overflows - December 2014

	Location	Quantity (gal)	Quantity (gal)	Quantity (gal)	Monthly Total (gal)
1	**CSO 080**				0
	TOTAL =				**0**

					Monthly Total (in)
2	**Rainfall Total:**				2.61
4	**Peak Hourly Rainfall Intensity:**				