



**COMBINED  
SEWER  
OVERFLOW  
ANNUAL  
REPORT**

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**SUEZ Water  
Environmental  
Services, Inc. on  
behalf of the City  
of Holyoke**

4/22/2022

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April 22, 2022

Massachusetts Department of Environmental Protection  
Bureau of Resource Protection  
Western Regional Office  
436 Dwight Street  
Springfield, Massachusetts 01103  
and

U.S. Environmental Protection Agency  
Office of Environmental Stewardship (OES)  
Water Technical Unit  
5 Post Office Square, Suite 100 (OES-SMR)  
Boston, Massachusetts 02109-3912

Subject: Combined Sewer Overflow Annual Report and Operation and Maintenance of the Sewer System Annual Report for Year 2021  
City of Holyoke, Massachusetts

Dear Sir or Madam:

This letter has been prepared on behalf of SUEZ and the City of Holyoke (City) to serve as the 2021 Combined Sewer Overflow (CSO) Annual Report and Operation and Maintenance (O&M) of the Sewer System Annual Report. The annual reports are a requirement of the City of Holyoke's National Pollutant Discharge Elimination System (NPDES) permit (No. MA0101630, effective January 1, 2017). This 2021 Annual Report summarizes activities during the previous calendar year relating to compliance with the Nine Minimum Controls (NMC):

- (1) Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows;
- (2) Maximum use of the collection system for storage;
- (3) Review and modification of the pretreatment program to assure CSO impacts are minimized;
- (4) Maximization of flow to the POTW for treatment;
- (5) Prohibition of dry weather overflows from CSOs;
- (6) Control of solid and floatable materials in CSOs;

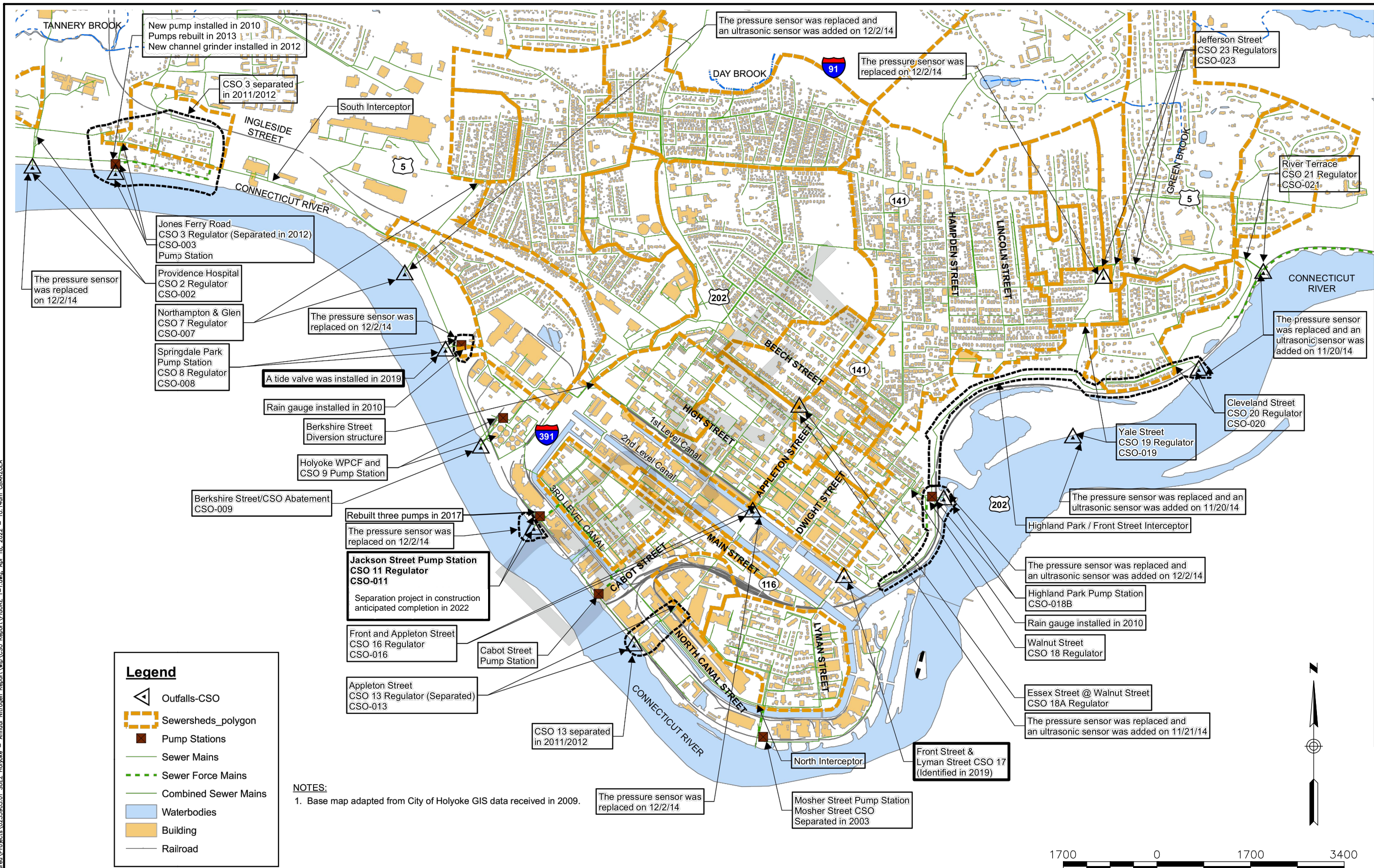
- (7) Pollution prevention programs that focus on contaminant reduction activities;
- (8) Public notification to ensure that the public receives adequate notification of CSO occurrences and impacts; and
- (9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

For background information and details of the City's CSO system, please refer to the following City of Holyoke documents:

- *"Combined Sewer Overflow Monitoring Plan and Inflow/Infiltration Control Plan"*, prepared by Sevee & Maher Engineers, Inc. (SME) dated February 2010 (Revised September 2010);
- *"2009 Annual Report for Combined Sewer Overflow and Infiltration / Inflow"*, prepared by SME, dated April 2010 (Revised September 2010);
- *"2010 Annual Report for Combined Sewer Overflow and Infiltration / Inflow,"* prepared by SME, dated April 2011;
- *"2011 Annual Report for Combined Sewer Overflow and Infiltration / Inflow,"* prepared by SME, dated April 2012;
- *"2012 Annual Report for Combined Sewer Overflow and Infiltration / Inflow,"* prepared by SME, dated March 2013;
- *"2013 Annual Report for Combined Sewer Overflow and Infiltration / Inflow,"* prepared by SME, dated March 2014;
- *"Combined Sewer Annual Report and Infiltration / Inflow Annual Report for year 2014,"* prepared by SME, dated March 2015;
- *"Combined Sewer Annual Report and Infiltration / Inflow Annual Report for year 2015,"* prepared by SME, dated March 2016;
- *"Combined Sewer Overflow Annual Report and Operation and Maintenance of the Sewer System Annual Report for Year 2016,"* prepared by SME, dated April 2017;
- *"Combined Sewer Overflow Annual Report and Operation and Maintenance of the Sewer System Annual Report for Year 2017,"* prepared by SME, dated April 2018;
- *"Combined Sewer Overflow Annual Report and Operation and Maintenance of the Sewer System Annual Report for Year 2018,"* prepared by SME, dated April 2019; and
- *"Combined Sewer Overflow Annual Report and Operation and Maintenance of the Sewer System Annual Report for Year 2020"*, prepared by SME dated April 2020.

The location of CSO pump stations, regulators, and outfall locations are shown on Figure 1-1.

\\woodwardcurran.net\shared\Projects\0233905.01\_SUEZ\_Holyoke - Annual Nitrogen Report\wp\CSD\_Report\Figure 1-1.dwg, Apr 18, 2022 - 10:14am CBAZOLA



**Legend**

- Outfalls-CSO
- Sewersheds\_polygon
- Pump Stations
- Sewer Mains
- Sewer Force Mains
- Combined Sewer Mains
- Waterbodies
- Building
- Railroad

**NOTES:**  
 1. Base map adapted from City of Holyoke GIS data received in 2009.



CHECK GRAPHIC SCALE BEFORE USING

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COMMITMENT & INTEGRITY DRIVE RESULTS

Woodard  
& Curran

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SITE PLAN

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DESIGNED BY: #####  
 CHECKED BY: #####  
 DRAWN BY: #####

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JOB NO: 0233905.01  
 DATE: MARCH 2022  
 SCALE: AS NOTED

FIG-1

## 1. EVALUATION OF APPROVED NMC PROGRAM

In 2021, the City and SUEZ have complied with the Minimum Implementation Levels of the NMCs as documented in the NPDES permit and further described in the WPCF's Combined Sewer Overflow Monitoring Plan and Inflow/Infiltration Control Plan (the O&M Plan).

NMC #1, 2, and 4, Inspection and Maintenance: Each CSO structure/regulator and pumping station has been routinely inspected as certified in Section 2.7.

NMC #3, 6, and 7: There were no discharges to the combined system of septage, holding tank wastes, or other material which caused a visible oil sheen or contained floatable material during wet weather when CSO discharges may have been active. All of the City's Significant Industrial Users (SIU) will be in a separated sewer system upon completion of the Jackson Street Sewer Separation project (anticipated 2022).

NMC #5: Dry weather overflows are prohibited and are reported if they occur. The City and SUEZ have reviewed the monitoring data and found evidence of only one dry weather overflows were recorded in 2021. This DWO was recorded, and its occurrence is included with this Report as an Appendix.

NMC #8: Signs at outfalls are routinely inspected and maintained in accordance with the Public Information program described in the O&M Plan.

NMC #9: During 2010, the City/SUEZ implemented CSO monitoring improvements that included installation of instruments for remote flow monitoring and precipitation data collection as documented in Section 2.1 below. These improvements allow the City/SUEZ to quantify and record all discharges from combined sewer outfalls. In 2014, pressure sensors were replaced by ultrasonic meters at CSOs 2, 7, 11, 16, 18A, 18B, 19, 20, 21, and 23. In 2021, Flow Assessment Services upgraded modems to 5G service at all sites with appropriate sensors providing more reliable data.

In 2018, the City identified an additional CSO (CSO 17), located at the Front Street/Lyman Street intersection. Monitoring equipment was installed on October 17, 2018 and removed on February 27, 2020. No activations were recorded during that time. In December 2021, a contractor was scheduled to raise the overflow invert by 50%.

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## 2. COMBINED SEWER OVERFLOWS (CSO)

### 2.1 CSO Overflow Measurement

The City/SUEZ operations staff monitor overflow occurrences at CSO locations through woodblock observations approximately three times per week and after every rain event measuring at least 0.4-inches. The operations staff record whether the woodblock is still in-place since the last inspection (i.e., no overflow has occurred since the last inspection), if there is an active overflow occurring, or if there is no active overflow but the woodblock has been displaced from its location (i.e., an overflow has caused the woodblock to be moved since the last inspection). If the woodblock has moved since the last inspection, rainfall data, records of overflows that occurred at other locations, and analysis of CSO instrumentation data are used to estimate the day the overflow occurred.

Beginning in 2008, the City/SUEZ initiated work to automate CSO overflow monitoring and data collection to allow for continuous monitoring of event occurrences, flow volumes, and overflow duration at each CSO. As a result, remote flow monitoring stations with remote flow pressure sensors (installed June 2009) and area velocity flow meters (installed February 2010) now exist at each CSO location. Pressure sensors were replaced with ultrasonic meters (November and December 2014) at the Providence Hospital (002), Northampton & Glen (007), Jackson Street (011), Front and Appleton Street (016), Essex Street at Walnut Street (018A), Highland Park (018B), Yale Street (019), Cleveland Street (020), River Terrace (021), and Jefferson Street (023) CSOs, as shown on Figure 1-1. In conjunction with the remote monitoring instrumentation, the construction of a sharp crested weir (from 4 to 6 inches high) or a weir extension for existing diversion walls was completed in each overflow pipeline at CSOs 002, 007, 008, 011, 013, 018A, 019, 020, and 023. The weir wall crest elevations at these locations were increased to minimize the occurrence of overflows.

Flow Assessment installed a weir on CSO 21, relocating the baffle and sensors and resurveying the chamber to improve flow measurement on December 6, 2018. In 2021 modems were upgraded to 5G with compatible sensors in appropriate locations.

### 2.2 2021 CSO Overflows

The data from remote monitoring was analyzed with precipitation data from one of several rain gauges. The rain gauge used for each CSO was based on proximity in accordance with NMC #9. Overflows for each CSO were compared to the corresponding rain events. The smallest and least intense rain events to result in overflows are reported for each CSO to identify areas where improvements will have the greatest impact. A report for each CSO, detailing overflow events and associated rain data from the Smith's Ferry rain gauge for 2021, is included in Attachment 1. The reports include CSO events that occurred continuously over multiple days and multiple events within a single day. A summary of the overflow data is provided in Table 2-1 and Table 2-2 summarizes the annual CSO discharge for the City on a daily basis.

### 2.3 Berkshire Street CSO 9 Facility

The Berkshire Street CSO Treatment Facility continues to capture the majority of CSO 009 regulator overflows. The Berkshire CSO Report, provided in Attachment 2, details the daily activity at this CSO in 2021. The following is a summary of significant occurrences:

- During 2021, there were 132 discrete storm events that had measurable rainfall totaling approximately 57.24 inches, significantly greater than the 49-inch average annual rainfall measured by the WPCF rain gauge since it was installed in 2010. The rainfall volume and intensity during 100 of the 2021 storm events did not result in a combined sewer flow discharge to the CSO 009 facility.
- There were 32 events in 2021 that resulted in activations (i.e., flow recorded to the CSO 9 facility). The total volume of flow to the CSO 009 facility was 155 million gallons (MG) in 2021. This value is higher than recent annual totals in 2020 and 2019 which both recorded flows between 120-130 MG, yet significantly less than the 277 MG in 2018.
- Of the CSO 009 activations in 2021, 42.2 MG of the 155 MG discharged to the CSO 009 facility were captured within the CSO 009 facility storage basin(s) and returned to the WPCF for secondary treatment.

In 2021, there were 32 events that caused combined sewer flow to exceed the storage tank volume. Excess flows from these events were disinfected and discharged. The approximate volume that discharged through the basins was 125 MG in 2021.

- Ten storm events in 2021 were significant enough that overflows occurred without treatment. The total annual volume of CSO that went untreated was 44 MG in 2021. The smallest rainfall event leading to an overflow without treatment was approximately 0.48 inches on July 18, 2021.



Table 2-1  
2021 CSO Overflows (Woodblock and Instrument-Based Data)

Location	CSO No.	Overflows Based on Wood Block Observations	Number of Days with Duration >= 5 minutes	Number of Days Resulting in Measurable Discharge (>1,000 gallons)	Lowest Intensity Storm Causing Overflow		Smallest Storm Causing Overflow		Rain Gauge associated with storm intensity and Depth
					Date	Intensity (inches/hour)	Date	Total Rainfall (in)	
Providence Hospital	002	36	27	24	5/26/2021	0.1	7/16/2021	0.14	Springdale Park
Jones Ferry	003	CSO Separated in December 2011/January 2012							
Northampton and Glen	007	26	28	17	5/5/2021	0.1	7/16/2021	0.14	Springdale Park
Springdale Park	008	22	50	49	7/13/2021	0.02	3/31/2021	0.05	Springdale Park
Jackson Street	011	23	43	35	7/21/2021	0.01	7/21/2021	0.01	Springdale Park
Appleton Street	013	CSO Separated in December 2011/January 2012							
Front and Appleton	016	21	107	69	14 occurrences	0.01	14 occurrences	0.01	Highland Park
Walnut Street	018	48	56	50	2 occurrences	0.02	2 occurrences	0.15	Highland Park
Essex at Walnut	018A	41	2	0	7/17/2021	0.83	7/17/2021	1.54	Highland Park
Highland Park	018B	30	48	48	8/4/2021	0.01	8/4/2021	0.14	Highland Park
Yale Street	019	31	18	7	5/5/2021	0.01	5/10/2021	0.04	Highland Park
Cleveland Street	020	55	58	55	3 occurrences	0.01	5/10/2021	0.04	Highland Park
River Terrace	021	36	37	36	5/26/2021	0.08	5/10/2021	0.04	Highland Park
River Terrace B	021B	48	42	42	5/26/2021	0.08	5/10/2021	0.04	Highland Park
Jefferson Street	023	28	31	28	5/26/2021	0.08	5/26/2021	0.15	Highland Park
Total CSO Occurrences		445	547	460					

Storm Events	Rain Quantity (inches)	Events at Holyoke WPCF Rain Gauge
Events	>1" rain	21
Events	0.5" - 1.0"	20
Events	0.25" - 0.5"	14
Events	0.1" - 0.25"	10
Events	> 0.1"	36

**Notes**

Rain events at the WPCF were identified on a daily basis. Events spanning multiple days are counted as multiple events

Multiple CSO events on the same day are counted as one day of discharge

The smallest storms causing overflow exclude discharges <1000 gallons or events lasting fewer than 5 minutes

Wood block at CSO #018A Essex at Walnut was moved during maintenance to align directly with catch basin. This resulted in false positives. The wood block was corrected when this was recognized and false positive activations ceased.

Table 2-2

Holyoke CSO Regulator # and Name	Receiving Water	Days of Untreated Discharges/Year Wood Block Method	Days of Untreated Discharges/year Metered flow event	Volume of Untreated Discharge (MG/year)	Measurement Method
# 002 Providence Hospital	CT River	36	24	0.18	Meter
#007 Northampton/Glen Street	CT River	26	17	0.31	Meter
#008 Springdale Park PS	CT River	22	49	30.01	Meter
#009 Berkshire Street	CT River		2	43.97	Meter
#011 Jackson Street PS	CT River	23	35	11.12	Meter
#016 Front/Appleton Street	First Level Canal, then CT River	21	69	2.80	Meter
#018 Walnut Street	CT River	48	50	19.71	Meter
#018A Essex/Walnut Street	CT River	41	0	0.01	Meter
#018B Highland PS High Outlet Overflow	CT River	30	48	8.76	Meter
#019 Yale Street	CT River	31	7	0.03	Meter
#020 Cleveland Street	CT River	55	55	14.42	Meter
#021 River Terrace	CT River	36	36	14.42	Meter
#021B River Terrace B	CT River	48	42	16.63	Meter
#023 Jefferson Street	Dry Dingle	28	28	1.17	Meter
City Cumulative		445	462	163.53	

NOTE: Wood block at CSO #018A Essex at Walnut was moved during maintenance to align directly with catch basin. This resulted in false positives. The wood block was corrected when this was recognized and false positive activations ceased.

Month	Monthly Rainfall Inches (WPCF Rain Gauge)	Monthly Total Untreated CSO Volume Discharged from all CSOs (MG/Month)	Monthly Treated CSO Volume Discharged from Berkshire Street CSO Facility (MG/month)
January	2.78	7.02	11
February	3.20	1.36	3
March	2.54	2.53	2
April	5.18	8.19	8
May	5.77	10.64	8
June	2.25	2.89	1
July	12.50	33.30	31
August	5.28	13.30	17
September	5.78	16.60	27
October	5.96	9.66	10
November	1.97	12.10	7
December	4.03	3.09	0
TOTAL	57.2	120.7	125

## 2.4 Dry Weather Overflows

The City and SUEZ monitor for dry weather overflows (DWO). One DWO was reported during 2021. The report for the DWO event has been included with this report as Appendix 3. The identified DWO occurred on May 11, 2021, during a scheduled bypass that was planned to allow for repair of a collapse on the Highland Park interceptor. While the repair was being attempted, operators noted that bypass pumps were not keeping up with flow. Despite adding additional bypass pumps, pumping capacity was exceeded and approximately 12,700 gallons were discharged to the CSO outfall at CSO 18B. The scheduled repair was immediately abandoned and within 32 minutes of noting the high-level alarm at the pump station, interceptor flow had returned to normal.

## 2.5 Sanitary Sewer Overflows (SSO)

The City and SUEZ monitor for sanitary sewer overflows. Two SSOs were reported during 2021. One SSO occurred in January and one in May. Reports for the SSOs are included as Appendix 4 with this Report. The January event occurred at 20 Easthampton Road. Holyoke Water Works reported seeing an SSO from a sanitary sewer manhole discharging from a catch basin to the Green Brook receiving water. Discharge volume was visually estimated at 900 gallons. The blockage was caused by grease, rags, and wipes. The SUEZ crew jet cleaned the sewer main to free the blockage, successfully returning the main to free flow. After clearing the blockage, nearby manhole SMH-6419 was vacuumed to remove grease and rags.

The May event occurred at 229 Beech Street. The SSO was discovered and reported by the homeowner. An estimated 100 gallons were discharged, caused by a blockage of roots, rags, and wipes. The crew jet cleaned the sewer main to free the blockage. The homeowner was tasked with pumping out the basement and correcting the internal plumbing to current plumbing codes.

## 2.6 Inspections

Each of the City's CSO structures/regulators and pumping stations are routinely inspected, at a minimum of twice per week to ensure they are in good working condition and are adjusted as needed to minimize combined sewer discharges and intrusion of flow due to high river stage. Inspection results are recorded and include: the date and time of the inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the following is recorded: a description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. All records of inspection are maintained for at least three years.

SUEZ and the City of Holyoke certify that the year 2021 inspections were conducted, results recorded, and records maintained. The following is a certification that inspections were completed for 2021, as required by the permit:

I certify to the best of my knowledge that; inspections of the Combined Sewer Overflow system structures, regulators, and pumping stations were conducted in 2021; that the results of the inspections were recorded, and the records are maintained.

*Michael Williams*

4/29/2022

Michael Williams

Date

Project Manager

SUEZ Water Environmental Services, Inc.

### **3. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM**

#### **3.1 Operations and Maintenance Staff**

SUEZ operated in 2021 with 17 personnel to complete the operation, maintenance, repair, and testing functions required to ensure compliance with terms and conditions of the NPDES permit in partnership with the City of Holyoke. There were two open positions at the WPCF in 2021; one position was filled.

#### **3.2 Inspection and Maintenance Activities and Corrective Actions**

Routine maintenance activities related to the system were completed in accordance with the WPCF O&M plan throughout the City of Holyoke's CSO system.

Inspections identified an additional CSO (CSO 17), located at the Front Street/Lyman Street intersection. CSO 17 was incorporated into the CSO monitoring program between October 17, 2018 and February 27, 2020. No activations of CSO 17 were identified during that time period.

A tide valve was installed at the Springdale Park CSO (008) in 2019 to prevent river water from entering the combined system when the river level is high.

During routine maintenance on December 6, 2021, SUEZ staff noticed a high outlet for a manhole on Jefferson Street submerged. Staff jetted the sewer and the water level receded avoiding a CSO through their due diligence.

#### **Capacity, Management, Operations, and Maintenance Program**

The City/SUEZ implemented the Capacity, Management, Operations, and Maintenance (CMOM) program that was developed in 2013.

In 2021, approximately 61,158 linear feet of sewer were cleaned via vacuuming and jetting. Approximately 1689 linear feet of sewer were inspected by CCTV. Clean-outs were performed on 138 catch basins. All streets in the City were swept at least once, per the City's Small Municipal Separate Storm Sewer System (MS4) permit. 33.3 miles of City streets were swept for a second time as part of the MS4 permit.

#### **I/I at Springdale Park and Jackson Street Pump Stations**

Monitoring and field investigations have identified two primary sources of potential I/I at the Springdale Park and Jackson Street pump stations. In 2009, the City/SUEZ began a program at these locations to investigate the quantity and source of this extraneous water by televising several the toe drains related to the dikes and floodwalls in those areas and through inspections of the pump station structures. In 2011, the City/SUEZ determined river water likely back flows into the Springdale Park and Jackson Street pump stations when the river stage reached certain elevations. The City/SUEZ continues to evaluate cost-effective, practical solutions to prevent extraneous toe drain water from surcharging the weirs and entering the sanitary pump stations while allowing free discharge.

The City is currently working to separate the Jackson Street CSO. The design for the separation was completed in 2019 and the City awarded the project bid in February 2020. Initial construction began in

summer 2020. The City anticipates completion of construction in 2022. Detail on CSO separation is provided in the City's Long-Term Control Plan (LTCP).

In 2020 an interconnection between the Berkshire Street pond and City system was identified. Currently, the City is working on the design of a separation project for this area. The City plans to bid the separation of the Berkshire Street pond in 2022. This separation will remove approximately 250,000 gallons of inflow to the WPCF daily.

### 3.3 Collection System Maintenance Expenditures

In 2021, \$408,138.16 was spent on collection system maintenance activities and corrective actions.

### 3.4 Investigations and Corrective Actions

Based on ongoing sewer separation work within the Holyoke collection system, it is estimated that the quantity of extraneous clean water entering the sewer system is dominated by stormwater runoff during wet weather rather than groundwater infiltration. The City will continue to reduce inflow and infiltration where practical during implementation of the on-going streets improvement program and through mitigation efforts described in the City's LCTP. Where streets are scheduled to be reconstructed, existing underground utilities such as sewer, water, and, if existing, stormwater piping are separated, rehabilitated, or replaced. As this improvement program continues, combined sewer system lines will continue to be replaced or separated and the volume of inflow and infiltration will be decreased.

A summary of the maximum and average monthly flows to the WPCF and the total monthly rainfalls during 2021 is provided in Table 3-1.

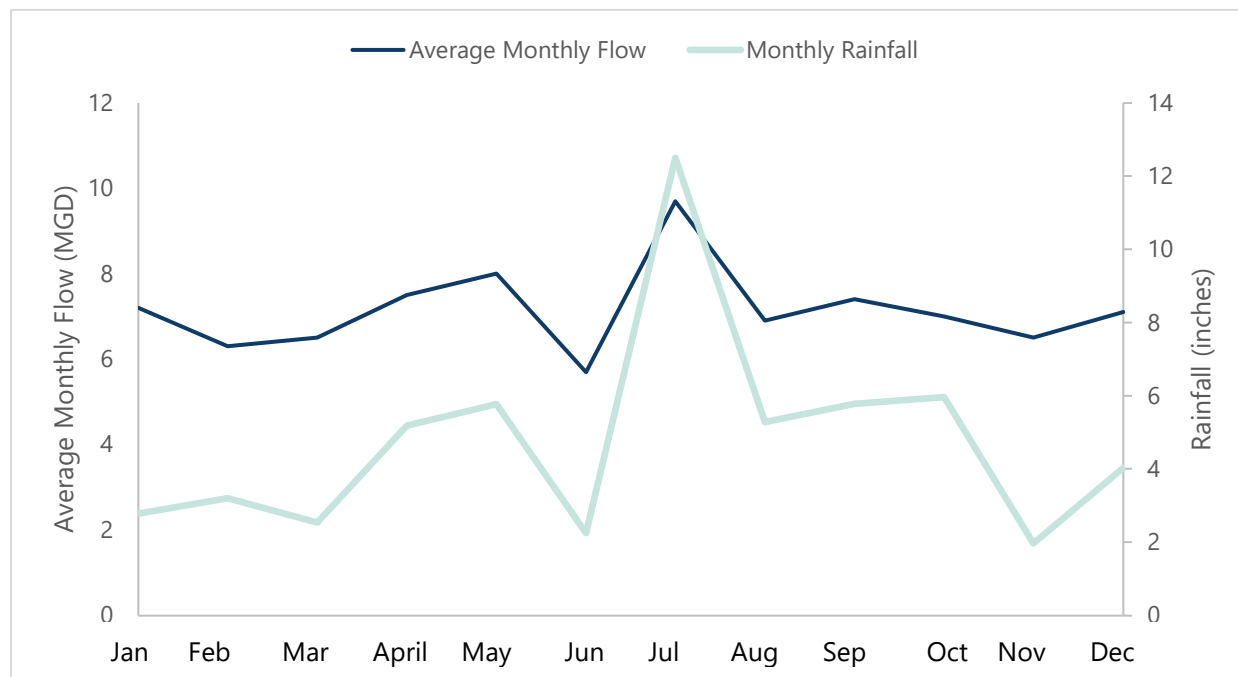
**Table 3-1**

Month	Monthly Rainfall <sup>1</sup>	Maximum Daily Flow <sup>2</sup>	Average Monthly Flow <sup>2</sup>
	(in)	(MGD)	(MGD)
January	2.78	14.3	7.2
February	3.20	13.4	6.3
March	2.54	11.1	6.5
April	5.18	19.5	7.5
May	5.77	14.8	8.0
June	2.25	8.6	5.7
July	12.5	17.5	9.7
August	5.28	12.7	6.9
September	5.78	18.0	7.4
October	5.96	18.8	7.0
November	1.97	11.7	6.5
December	4.03	11.7	7.1
<b>Average</b>	4.77	14.4	7.2

1. Rainfall values observed at WPCF rain gauge.
2. Based on total daily flow data

The correlation between average monthly flows and monthly rainfall is represented in Figure 3-1. Significant rainfall events in July were recorded that also likely caused a high WPCF flow.

**Figure 3-1**



Further analysis was conducted on the impact of each rain event on the WPCF flow. Rain events were separated into four ranges: greater than 1 inch; between 1 inch and 0.5 inch; between 0.5 inch and 0.1 inch; and less than 0.1 inch. The WPCF flow for the day of each event was averaged for the appropriate range. The results indicate a clear correlation between the rain events and WPCF flow, as shown in Table 3-2.

**TABLE 3-2**

**2021 RAIN EVENT IMPACT ANALYSIS**

Rain Event Size	Average WPCF Flow (MGD)
>1"	12.4
0.5"-1"	10.3
0.1"-0.5"	8.0
<0.1"	7.2
No Rain Event	6.3

### **3.5 Assessment of WPCF Flow**

A summary of the year 2021 daily totals, maximum flows, and minimum flows to the Holyoke WPCF is provided in Table 3-1. Table 3-1 shows the average daily flow for 2021 through the WPCF is 7.2 million gallons per day (MGD). The NPDES permit states that if the annual average flow exceeds 80 percent of the design flow or there have been capacity related overflows, then the City must calculate the volume of infiltration and inflow to the WPCF. The annual average plant flow (7.2 MGD) is below the 80 percent design flow threshold (80% of 17.5 MGD = 14 MGD). The Berkshire Street CSO Facility had overflows in 2021 related to the hydraulic limitations of the collection and treatment systems.

The majority of inflow in the City's wastewater collection system is stormwater. Based on Table 3-2, it is approximated that 6.3 MGD is the result of regular use and infiltration. Therefore, in 2021, inflow contributed approximately 0.9 MGD to the WPCF.

### **3.6 Unauthorized Discharges**

SUEZ identified no unauthorized discharges in 2021.



If you have any questions, comments, or require more information, please feel free to contact Robert Peirent at the City of Holyoke (413-322-5605), Michael Williams at SUEZ Water Environmental Services, Inc(413-478-5773)

Sincerely,

Woodard & Curran Inc.

*Michael Williams*

Attachments:

Attachment 1: CSO Overflow Reports

Attachment 2: Berkshire CSO Report

Attachment 3 DWO Report

Attachment 4 SSO Reports

cc: Michael Williams, SUEZ Water Environmental Services, Inc  
Jason Swain, SUEZ Water Environmental Services, Inc  
Kevin Lukasiewicz, SUEZ Water Environmental Services, Inc  
Robert Peirent, City of Holyoke

**APPENDIX 1: CSO REPORTS**



CSO 002  
2021 Activations

Holyoke, MA

CSO 002

Main Street at Lug Handle Road

2021 Overflow Summary (1-1/21-12-31-21)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/2021 6:50	1/16/2021 8:25	95	1.78	0.38	1,161	0.001161
2	4/21/2021 11:20	4/21/2021 15:25	245	0.37	0.23	594	0.000594
3	4/29/2021 11:35	4/29/2021 18:25	410	1.51	0.45	2,223	0.002223
4	5/4/2021 1:10	5/4/2021 1:55	45	0.93	0.42	22	0.000022
5	5/26/2021 18:00	5/26/2021 21:35	215	0.35	0.1	3,427	0.003427
6	5/28/2021 22:10	5/28/2021 22:25	15	1.23	0.33	26	0.000026
7	6/8/2021 12:20	6/8/2021 13:20	60	1.28	0.79	7,922	0.007922
8	6/14/2021 6:35	6/14/2021 7:05	30	0.54	0.35	2,899	0.002899
9	7/1/2021 17:45	7/2/2021 0:25	400	2.27	1.03	17,533	0.017533
10	7/8/2021 1:40	7/8/2021 1:50	10	1.28	0.71	2,338	0.002338
11	7/9/2021 8:05	7/9/2021 10:30	145	1.29	0.35	5,639	0.005639
12	7/12/2021 6:35	7/12/2021 8:20	105	1.17	0.38	416	0.000416
13	7/14/2021 19:50	7/14/2021 20:15	25	0.17	0.14	4,894	0.004894
14	7/16/2021 14:50	7/16/2021 15:10	20	0.14	0.14	1,449	0.001449
15	7/17/2021 16:05	7/18/2021 20:25	1700	1.78	1.1	20,263	0.020263
16	7/25/2021 20:40	7/25/2021 20:50	10	0.27	0.09	1,432	0.001432
17	7/27/2021 17:35	7/27/2021 17:55	20	0.54	0.52	2,586	0.002586
18	8/19/2021 7:00	8/19/2021 7:50	50	2.32	1.31	12,820	0.012820
19	8/22/2021 13:50	8/22/2021 14:10	20	1.15	0.42	4,468	0.004468
20	8/23/2021 14:15	8/23/2021 14:30	15	1.49	0.71	4,530	0.004530
21	8/27/2021 16:00	8/27/2021 16:30	30	0.19	0.19	5,490	0.005490
22	9/1/2021 19:30	9/2/2021 1:35	365	3.16	0.6	64,334	0.064334
23	9/24/2021 5:20	9/24/2021 5:35	15	0.86	0.54	1,875	0.001875
24	10/26/2021 5:20	10/26/2021 5:25	5	0.65	0.15	1,313	0.001313
25	11/12/2021 12:45	11/12/2021 14:30	105	1.94	1.1	10,928	0.010928
26	11/13/2021 16:35	11/13/2021 17:00	25	0.43	0.41	3,044	0.003044
27	12/11/2021 10:50	12/11/2021 11:05	15	0.51	0.31	1,029	0.001029

Total Overflow (MG):

0.184655



CSO 007  
2021 Activations

Holyoke, MA

CSO 007

Glen Street and Northampton

2021 Overflow Summary (1/1/21-12/31/21)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/21 4:45	1/16/21 8:25	220	1.78	38	1,724	0.001724
2	4/21/21 15:20	4/21/21 15:25	5	0.37	0.23	137	0.000137
3	5/3/21 22:30	5/3/21 23:30	60	0.33	0.18	5,349	0.005349
4	5/4/21 1:05	5/4/21 1:10	5	0.93	0.42	22	0.000022
5	5/5/21 0:05	5/5/21 0:40	35	0.35	0.1	1,077	0.001077
6	5/26/21 18:00	5/26/21 21:35	215	0.15	0.08	4,376	0.004376
7	5/28/21 22:15	5/28/21 22:20	5	1.23	0.33	80	0.000080
8	6/8/21 12:35	6/8/21 14:55	140	1.28	0.79	18,808	0.018808
9	6/14/21 6:35	6/14/21 6:45	10	0.54	0.35	889	0.000889
10	7/1/21 17:50	7/1/21 23:30	340	2.27	1.03	12,563	0.012563
11	7/6/21 16:25	7/6/21 16:35	10	0.25	0.22	919	0.000919
12	7/8/21 1:25	7/8/21 1:50	25	1.28	0.71	21,766	0.021766
13	7/9/21 8:15	7/9/21 8:20	5	1.29	0.35	51	0.000051
14	7/11/21 18:50	7/12/21 8:05	795	0.54	0.2	5,096	0.005096
15	7/16/21 14:50	7/16/21 14:55	5	0.14	0.14	166	0.000166
16	7/17/21 16:20	7/18/21 3:00	640	1.78	1.1	48,113	0.048113
17	7/27/2021 17:30	7/27/2021 17:55	25	0.54	0.52	15,210	0.01521
18	8/12/21 16:50	8/12/21 17:05	15	0.34	0.34	685	0.000685
19	8/19/21 6:40	8/19/21 7:55	75	2.32	1.31	46,920	0.046920
20	8/22/21 13:50	8/22/21 14:10	20	1.15	0.42	5,926	0.005926
21	8/23/21 14:00	8/23/21 14:40	40	1.49	0.71	8,610	0.008610
22	8/27/21 16:00	8/27/21 16:15	15	0.19	0.19	4,185	0.004185
23	9/1/21 20:10	9/2/21 1:20	310	3.16	0.6	59,881	0.059881
24	9/15/21 18:55	9/15/21 19:00	5	0.19	0.18	449	0.000449
25	9/24/21 5:15	9/24/21 5:45	30	0.86	0.54	5,627	0.005627
26	10/4/21 22:00	10/4/21 22:15	15	2.15	0.35	868	0.000868
27	11/12/21 12:40	11/12/21 13:50	70	1.94	1.1	41,177	0.041177
28	12/11/21 10:55	12/11/21 11:05	10	0.51	0.31	129	0.000129

Total Overflow (MG): 0.310803



CSO 008  
2021 Activations

Holyoke, MA

CSO 008  
Springdale Park  
2021 Overflow Summary (1/1/21-12/31/21)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/2021 3:35	1/16/2021 9:20	345	1.78	0.38	2,060,302	2.060302
2	2/16/2021 6:05	2/16/2021 9:15	190	0.48	0.32	295,199	0.295199
3	3/18/2021 17:50	3/18/2021 18:10	20	0.66	0.11	2,860	0.002860
4	3/28/2021 11:30	3/28/2021 21:10	580	0.87	0.24	272,513	0.272513
5	3/29/2021 11:05	3/29/2021 11:20	15	0.87	0.24	14,356	0.014356
6	3/31/2021 23:20	3/31/2021 23:55	35	0.05	0.05	19,439	0.019439
7	4/15/2021 14:45	4/15/2021 17:15	150	1.48	0.2	110,265	0.110265
8	4/16/2021 11:00	4/16/2021 11:50	50	1.14	0.17	56,731	0.056731
9	4/21/2021 11:25	4/21/2021 16:00	275	0.37	0.23	255,594	0.255594
10	4/29/2021 11:50	4/29/2021 23:15	685	1.51	0.45	493,995	0.493995
11	5/3/2021 21:30	5/4/2021 5:10	460	0.33	0.18	332,201	0.332201
12	5/4/2021 23:35	5/5/2021 2:45	190	0.93	0.42	216,634	0.216634
13	5/10/2021 0:55	5/10/2021 3:50	175	0.4	0.15	113,434	0.113434
14	5/26/2021 18:00	5/26/2021 21:50	230	0.15	0.08	498,371	0.498371
15	5/28/2021 20:35	5/29/2021 1:10	277	1.23	0.33	993,256	0.993256
16	5/30/2021 10:25	5/30/2021 11:25	60	0.68	0.13	82,651	0.082651
17	5/30/2021 22:00	5/30/2021 22:35	35	0.68	0.13	63,395	0.063395
18	5/31/2021 3:00	5/31/2021 3:25	25	0.21	0.15	77,160	0.077160
19	6/8/2021 12:35	6/8/2021 15:20	165	1.28	0.79	1,008,208	1.008208
20	6/14/2021 6:40	6/14/2021 7:30	50	0.54	0.35	226,893	0.226893
21	7/1/2021 17:45	7/3/2021 18:05	2900	2.27	1.03	2,342,880	2.342880
22	7/6/2021 16:25	7/9/2021 11:45	4040	0.25	0.22	2,391,739	2.391739
23	7/11/2021 16:15	7/13/2021 5:45	2250	0.54	0.02	1,614,304	1.614304
24	7/16/2021 15:05	7/18/2021 23:45	3400	0.14	0.14	2,377,733	2.377733
25	7/27/2021 17:35	7/27/2021 18:20	45	0.54	0.52	413,914	0.413914
26	7/29/2021 16:30	7/29/2021 16:35	5	0.4	0.14	774	0.000774
27	8/12/2021 16:45	8/12/2021 17:25	40	0.34	0.34	292,473	0.292473
28	8/19/2021 5:10	8/19/2021 12:45	455	2.32	1.31	1,150,088	1.150088
29	8/22/2021 11:30	8/22/2021 15:25	235	1.15	0.42	855,237	0.855237
30	8/23/2021 13:25	8/23/2021 17:00	215	1.49	0.71	1,185,845	1.185845
31	8/27/2021 16:05	8/27/2021 16:30	25	0.19	0.19	105,749	0.105749
32	9/1/2021 15:50	9/2/2021 2:30	640	3.16	0.6	5,269,309	5.269309
33	9/9/2021 1:55	9/9/2021 2:05	10	0.27	0.16	10,332	0.010332
34	9/15/2021 18:55	9/15/2021 19:15	20	0.19	0.18	91,212	0.091212
35	9/22/2021 17:30	9/22/2021 17:40	10	0.28	0.15	5,116	0.005116
36	9/24/2021 5:15	9/24/2021 7:50	156	0.86	0.54	572,529	0.572529
Total							25.872691



CSO 008  
2021 Activations

Pg1 Total 25.872691

37	10/4/2021 1:35	10/4/2021 4:50	195	2.15	0.35	1,270,195	1.270195
38	10/4/2021 14:25	10/4/2021 22:35	490	2.15	0.35	647,893	0.647893
39	10/16/2021 22:15	10/16/2021 22:35	20	0.4	0.2	9,437	0.009437
40	10/25/2021 5:15	10/25/2021 5:50	35	0.58	0.2	90,473	0.090473
41	10/26/2021 3:05	10/26/2021 5:50	166	0.65	0.15	77,650	0.077650
42	10/30/2021 15:30	10/30/2021 16:05	35	0.83	0.15	60,344	0.060344
43	10/31/2021 3:20	10/31/2021 3:30	10	0.31	0.14	1,646	0.001646
44	11/12/2021 10:00	11/12/2021 14:55	295	1.94	1.1	1,120,679	1.120679
45	11/13/2021 16:35	11/13/2021 17:20	45	0.43	0.41	469,574	0.469574
46	12/11/2021 10:50	12/11/2021 11:25	35	0.51	0.31	268,256	0.268256
47	12/16/2021 2:35	12/16/2021 4:05	90	0.35	0.11	4,639	0.004639
48	12/18/2021 23:35	12/18/2021 23:55	20	0.64	0.11	8,257	0.008257
49	12/22/2021 7:40	12/22/2021 9:10	90	0.54	0.15	72,580	0.072580
50	12/26/2021 0:55	12/26/2021 1:50	55	0.33	0.16	33,635	0.033635

Total 30.007949



CSO 008  
2021 Activations



CSO 011  
2021 Activations

Holyoke, MA

CSO 011

Jackson Street

2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/2021 3:45	1/16/2021 9:10	325	1.78	38	541,966	0.541966
2	2/16/2021 6:05	2/16/2021 9:25	200	0.48	0.32	100,516	0.100516
3	3/28/2021 11:30	3/28/2021 15:45	255	0.87	0.24	330,279	0.330279
4	3/31/2021 23:25	3/31/2021 23:50	25	0.05	0.05	19,924	0.019924
5	3/18/2021 17:45	3/18/2021 18:20	35	0.66	0.11	206	0.000206
6	4/15/2021 10:55	4/15/2021 16:55	360	1.48	0.2	159,766	0.159766
7	4/16/2021 10:55	4/16/2021 11:45	50	1.14	0.17	4,368	0.004368
8	4/21/2021 11:25	4/21/2021 16:05	280	0.37	0.23	102,445	0.102445
9	4/29/2021 11:50	4/29/2021 12:35	45	1.51	0.45	19,290	0.019290
10	4/29/2021 18:00	4/29/2021 19:40	100	1.51	0.45	118,623	0.118623
11	5/3/2021 21:35	5/4/2021 2:40	305	0.33	0.18	255,548	0.255548
12	5/4/2021 18:00	5/5/2021 7:15	795	0.93	0.42	1,683,776	1.683776
13	5/10/2021 0:55	5/10/2021 3:50	175	0.4	0.15	190,007	0.190007
14	5/26/2021 18:05	5/26/2021 22:05	240	0.15	0.08	197,971	0.197971
15	5/28/2021 20:45	5/29/2021 0:40	235	1.23	0.33	246,871	0.246871
16	5/30/2021 10:30	5/30/2021 11:20	50	0.68	0.13	111	0.000111
17	5/30/2021 22:00	5/30/2021 22:45	45	0.68	0.13	6,587	0.006587
18	6/8/2021 12:45	6/8/2021 13:35	50	1.28	0.79	142,016	0.142016
19	6/9/2021 14:55	6/9/2021 15:10	15	0.08	0.07	617	0.000617
20	6/14/2021 6:45	6/14/2021 7:35	50	0.54	0.35	51,646	0.051646
21	7/1/2021 17:50	7/2/2021 6:35	765	2.27	1.03	619,402	0.619402
22	7/2/2021 23:15	7/2/2021 23:40	25	1.25	0.23	69	0.000069
23	7/8/2021 1:30	7/8/2021 2:35	65	1.28	0.71	151,401	0.151401
24	7/9/2021 7:45	7/9/2021 11:30	225	1.29	0.35	289,251	0.289251
25	7/11/2021 16:20	7/11/2021 19:15	175	0.54	0.54	30,029	0.030029
26	7/12/2021 6:15	7/12/2021 8:45	150	1.17	0.38	244,902	0.244902
27	7/17/2021 16:10	7/19/2021 20:30	3140	1.54	0.83	3,639,794	3.639794
28	7/21/21 13:35	7/21/2021 14:40	65	0.01	0.01	153,792	0.153792
29	7/27/2021 17:35	7/27/2021 18:15	40	0.54	0.54	138,911	0.138911
						Total:	9.440084





CSO 011  
2021 Activations

30	8/12/2021 16:45	8/12/2021 17:30	45	0.34	0.34	64,620	0.064620
31	8/19/2021 5:10	8/19/2021 8:20	190	2.32	1.31	238,627	0.238627
32	8/23/2021 13:35	8/23/2021 17:00	205	1.49	0.71	33,594	0.033594
33	8/22/2021 11:40	8/22/2021 14:30	170	1.15	0.42	15,692	0.015692
34	8/27/2021 16:10	8/27/2021 16:25	15	0.19	0.19	11	0.000011
35	9/1/2021 16:45	9/2/2021 2:05	560	3.16	0.6	1,089,827	1.089827
36	9/9/2021 1:55	9/9/2021 2:10	15	0.27	0.16	934	0.000934
37	9/15/2021 19:00	9/15/2021 19:15	15	0.19	0.18	328	0.000328
38	9/24/2021 5:15	9/24/2021 6:05	50	0.2	0.09	22,368	0.022368
39	10/4/2021 2:50	10/4/2021 4:45	115	2.15	0.35	40,007	0.040007
40	10/4/2021 22:00	10/4/2021 22:25	25	2.15	0.35	7,559	0.007559
41	11/12/2021 10:20	11/12/2021 15:10	290	1.94	1.1	154,562	0.154562
42	11/13/2021 16:40	11/13/2021 17:15	35	0.43	0.41	10,698	0.010698
43	12/11/2021 10:55	12/11/2021 11:15	20	0.51	0.31	398	0.000398

Total: 11.119309



CSO 011  
2021 Activations



CSO 016  
2021 Activations

Holyoke, MA

CSO 016  
Appleton Street at Nick Cosmo Way  
2021 Overflow Summary (1/1/21-12/31/21)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/2/2021 0:20	1/2/2021 12:10	710	0.62	0.09	13,205	0.013205
2	1/16/2021 1:25	1/16/2021 11:35	610	1.78	0.38	130,998	0.130998
3	2/16/2021 3:25	2/16/2021 16:50	805	0.48	0.32	54,596	0.054596
4	2/24/2021 12:25	2/24/2021 16:30	245	0.32	0.28	1,158	0.001158
5	2/27/2021 11:05	2/27/2021 15:10	245	0.24	0.13	13,511	0.013511
6	3/1/2021 2:50	3/1/2021 7:00	250	0.22	0.07	65,091	0.065091
7	3/18/2021 10:35	3/18/2021 20:35	600	0.66	0.11	11,352	0.011352
8	3/24/2021 22:05	3/24/2021 22:40	35	0.04	0.04	162	0.000162
9	3/25/2021 0:50	3/25/2021 5:05	255	0.17	0.07	1575	0.001575
10	3/28/2021 11:15	3/28/2021 22:20	665	0.87	0.24	37,448	0.037448
11	3/31/2021 22:50	3/31/2021 23:55	65	0.05	0.05	5,051	0.005051
12	4/1/2021 0:00	4/1/2021 0:40	40	0.08	0.03	1,004	0.001004
13	4/1/2021 5:00	4/1/2021 5:05	5	0.08	0.08	22	0.000022
14	4/12/2021 12:10	4/12/2021 12:45	35	0.03	0.03	207	0.000207
15	4/15/2021 10:35	4/16/2021 16:50	1815	1.48	0.2	80,555	0.080555
16	4/21/2021 11:20	4/21/2021 12:10	50	0.37	0.23	6,955	0.006955
17	4/21/2021 15:15	4/21/2021 18:45	210	0.37	0.23	13,870	0.013870
18	4/25/2021 7:35	4/25/2021 8:40	65	0.08	0.05	168	0.000168
19	4/29/2021 9:15	4/29/2021 23:40	865	1.51	0.45	61,940	0.061940
20	5/3/2021 19:50	5/4/2021 6:10	620	0.33	0.18	39,842	0.039842
21	5/4/2021 23:15	5/5/2021 3:20	245	0.93	0.42	37,048	0.037048
22	5/9/2021 23:35	5/10/2021 4:45	310	0.15	0.11	26,449	0.026449
23	5/26/2021 18:00	5/26/2021 22:25	265	0.15	0.08	71,857	0.071857
24	5/28/2021 18:35	5/29/2021 12:35	1080	1.23	0.33	78,535	0.078535
25	5/30/2021 10:00	5/30/2021 18:35	515	0.68	0.13	19,216	0.019216
26	5/30/2021 21:15	5/31/2021 4:00	405	0.68	0.13	20,283	0.020283

Subtotal Pgl Overflow (MG): 0.792098



CSO 016  
2021 Activations

27	6/8/2021 12:40	6/8/2021 16:25	225	1.28	0.79	33,517	0.033517
28	6/9/2021 14:45	6/9/2021 15:45	60	0.08	0.07	2,539	0.002539
29	6/10/2021 10:25	6/10/2021 19:00	515	0.06	0.06	550	0.000550
30	6/11/2021 12:35	6/11/2021 15:00	145	0.06	0.06	43	0.000043
31	6/12/2021 6:00	6/12/2021 7:25	85	0.13	0.06	675	0.000675
32	6/13/2021 11:50	6/14/2021 13:00	1510	0.54	0.35	19,237	0.019237
33	6/15/2021 15:10	6/15/2021 15:15	5	0.54	0.35	31	0.000031
34	6/18/2021 11:40	6/20/2021 15:10	3090	0.04	0.03	254	0.000254
35	6/22/2021 12:40	6/22/2021 19:20	400	0.36	0.13	8607	0.008607
36	6/23/2021 16:00	6/23/2021 17:50	110	0.36	0.13	233	0.000233
37	6/24/2021 15:35	6/29/2021 15:35	7200	0.36	0.13	222	0.000222
38	6/29/2021 15:40	6/29/2021 17:20	100	0.02	0.02	1,659	0.001659
39	6/30/2021 10:35	6/30/2021 15:30	295	0.02	0.02	36	0.000036
40	6/30/2021 20:40	6/30/2021 21:20	40	0.02	0.02	68	0.000068
41	7/1/2021 17:40	7/3/2021 2:15	1955	2.27	1.03	170,325	0.170325
42	7/3/2021 23:25	7/4/2021 4:45	320	0.35	0.19	7,914	0.007914
43	7/6/2021 16:30	7/6/2021 17:15	45	0.25	0.22	2,759	0.002759
44	7/7/2021 9:55	7/7/2021 16:20	385	1.28	0.71	4,274	0.004274
45	7/8/2021 1:30	7/8/2021 3:10	100	1.28	0.71	73792	0.073792
46	7/8/2021 13:50	7/9/2021 12:45	1375	1.28	0.71	95,378	0.095378
47	7/9/2021 3:50	7/10/2021 18:55	2345	1.29	0.35	81,817	0.081817
48	7/11/2021 15:35	7/12/2021 9:25	1070	0.54	0.54	120,303	0.120303
49	7/13/2021 5:00	7/13/2021 5:55	55	0.11	0.09	2904	0.002904
50	7/14/2021 18:30	7/14/2021 21:00	150	0.17	0.14	9,660	0.009660
51	7/15/2021 9:40	7/16/2021 16:20	1840	0.14	0.14	999	0.000999
52	7/17/2021 10:20	7/18/2021 4:00	1060	1.54	0.83	373,516	0.373516
53	7/18/2021 13:20	7/18/2021 21:20	480	1.78	1.1	16,097	0.016097
54	7/19/2021 14:20	7/19/2021 17:10	170	0.13	0.07	6,173	0.006173
55	7/19/2021 18:50	7/31/2021 16:05	17115	0.13	0.07	43,639	0.043639
56	8/1/2021 14:00	8/1/2021 15:45	105	0.04	0.04	168	0.000168
57	8/2/2021 12:55	8/2/2021 15:55	180	0.01	0.01	69	0.000069
58	8/4/2021 12:15	8/4/2021 14:25	130	0.01	0.01	93	0.000093
59	8/6/2021 13:50	8/6/2021 18:50	300	0.01	0.01	8	0.000008
60	8/7/2021 12:30	8/7/2021 15:25	175	0.01	0.01	8	0.000008
61	8/8/2021 10:15	8/8/2021 17:30	435	0.01	0.01	10	0.000010
62	8/10/2021 15:35	8/10/2021 16:45	70	0.01	0.01	9	0.000009
63	8/11/2021 12:25	8/11/2021 16:50	265	0.34	34	58	0.000058
64	8/12/2021 16:45	8/12/2021 17:55	70	0.34	0.34	20,934	0.020934
65	8/13/2021 9:40	8/13/2021 19:20	580	0.01	0.01	170	0.000170
66	8/14/2021 11:30	8/14/2021 18:30	420	0.01	0.01	224	0.000224
67	8/15/2021 12:15	8/15/2021 18:50	395	0.01	0.01	212	0.000212
68	8/16/2021 12:15	8/16/2021 18:20	365	0.01	0.01	128	0.000128
69	8/17/2021 11:25	8/17/2021 18:00	395	0.01	0.01	128	0.000128
70	8/19/2021 3:10	8/19/2021 13:45	635	2.32	1.31	161,833	0.161833
71	8/22/2021 9:05	8/22/2021 18:35	570	1.15	0.42	69,471	0.069471
72	8/23/2021 12:20	8/23/2021 18:05	345	1.49	0.71	88,126	0.088126
73	8/27/2021 16:00	8/27/2021 16:40	40	0.19	0.19	7,664	0.007664
74	8/30/2021 12:55	8/30/2021 13:10	15	0.01	0.01	424	0.000424

Total 2.219056



CSO 016  
2021 Activations

75	9/1/2021 13:25	9/2/2021 3:10	825	3.16	0.6	319,606	0.319606
76	9/9/2021 1:50	9/9/2021 2:30	40	0.27	0.16	5,565	0.005565
77	9/9/2021 17:10	9/9/2021 19:00	110	0.27	0.16	233	0.000233
78	9/13/2021 3:45	9/13/2021 5:05	80	0.09	0.05	829	0.000829
79	9/15/2021 19:00	9/15/2021 19:40	40	0.19	0.18	3793	0.003793
80	9/16/2021 2:35	9/16/2021 6:20	225	0.2	0.09	1,832	0.001832
81	9/22/2021 17:30	9/22/2021 21:25	235	0.28	0.15	5,826	0.005826
82	9/24/2021 5:15	9/24/2021 9:50	275	0.86	0.54	61,964	0.061964
83	9/28/2021 13:10	9/28/2021 13:55	45	0.01	0.01	1517	0.001517
84	10/3/2021 18:55	10/5/2021 1:30	1835	2.15	0.35	179,328	0.179328
85	10/14/2021 20:35	10/14/2021 21:00	25			986	0.000986
86	10/16/2021 18:50	10/17/2021 0:40	350	0.4	0.2	15,638	0.015638
87	10/24/2021 23:30	10/25/2021 6:35	425	0.08	0.07	18,459	0.018459
88	10/26/2021 1:05	10/27/2021 0:00	1375	0.65	0.15	29748	0.029748
89	10/30/2021 1:00	10/31/2021 5:50	1730	0.83	0.15	32,545	0.032545
90	11/12/2021 6:30	11/12/2021 15:30	540	1.94	1.1	48,881	0.048881
91	11/13/2021 16:30	11/13/2021 17:30	60	0.43	0.41	28,210	0.028210
92	11/15/2021 0:15	11/15/2021 0:40	25	0.01	0.01	69	0.000069
93	11/18/2021 21:50	11/19/2021 1:40	230	0.07	0.06	963	0.000963
94	11/21/2021 23:30	11/22/2021 7:10	460	0.07	0.07	656	0.000656
95	11/26/2021 10:05	11/26/2021 12:05	120	0.16	0.05	329	0.000329
96	12/2/2021 21:10	12/2/2021 22:15	65	0.2	0.14	3,118	0.003118
97	12/6/2021 6:15	12/6/2021 8:40	145	0.23	0.1	151	0.000151
98	12/6/2021 21:10	12/6/2021 21:50	40	0.23	0.1	869	0.000869
99	12/11/2021 9:30	12/11/2021 12:20	170	0.51	0.31	8,262	0.008262
100	12/11/2021 22:45	12/11/2021 23:35	50	0.51	0.31	664	0.000664
101	12/15/2021 19:20	12/16/2021 5:05	585	0.35	0.11	22,264	0.022264
102	12/18/2021 13:50	12/19/2021 2:35	765	0.64	0.11	15,601	0.015601
103	12/22/2021 4:10	12/22/2021 11:05	415	0.54	0.15	16,090	0.016090
104	12/25/2021 9:55	12/25/2021 15:15	320	0.35	0.1	5033	0.005033
105	12/26/2021 0:20	12/26/2021 3:15	175	0.33	0.16	4,158	0.004158
106	12/28/2021 21:55	12/29/2021 0:55	180	0.13	0.07	1,379	0.001379
107	12/30/2021 21:20	12/31/2021 3:40	380	0.08	0.06	298	0.000298
						Total	3.053920



CSO 018  
2021 Activations

Holyoke, MA  
CSO 018  
Walnut Street  
2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume (MG)
1	1/16/2021 1:50	1/16/2021 7:55	365	1.78	0.38	0.210029
2	2/16/2021 3:35	2/16/2021 8:40	305	0.48	0.32	0.096694
3	3/1/2021 1:35	3/1/2021 2:30	55	0.22	0.07	0.000884
4	3/18/2021 16:05	3/18/2021 16:50	45	0.66	0.11	0.002258
5	3/28/2021 10:00	3/28/2021 18:50	530	0.87	0.24	0.031707
6	3/31/2021 21:50	3/31/2021 22:20	30	0.05	0.05	0.001256
7	4/15/2021 9:20	4/15/2021 15:50	390	1.48	0.2	0.062086
8	4/16/2021 9:15	4/16/2021 12:00	165	1.14	0.17	0.012107
9	4/21/2021 9:55	4/21/2021 10:15	20	0.37	0.23	0.000503
10	4/21/2021 13:50	4/21/2021 14:30	40	0.37	0.23	0.008940
11	4/29/2021 10:15	4/29/2021 18:50	515	1.51	0.45	0.155453
12	4/15/2021 21:45	4/15/2021 22:00	15	1.48	0.2	0.000089
13	5/3/2021 20:10	5/4/2021 2:00	350	0.33	0.18	0.035998
14	5/4/2021 21:50	5/5/2021 0:20	150	0.93	0.42	0.064703
15	5/9/2021 23:25	5/10/2021 2:25	180	0.15	0.11	0.016699
16	5/26/2021 16:30	5/26/2021 20:05	215	0.15	0.08	0.007791
17	5/28/2021 21:05	5/28/2021 21:25	20	1.23	0.33	0.007239
18	5/30/2021 20:30	5/30/21 20:35	5	0.68	0.13	0.000049
19	6/8/2021 11:20	6/8/2021 13:45	145	1.28	0.79	0.109504
20	6/9/2021 13:15	6/9/2021 13:30	15	0.08	0.07	0.000676
21	6/14/2021 5:05	6/14/2021 6:10	65	0.54	0.35	0.049063
22	6/22/2021 11:15	6/22/2021 16:05	290	0.36	0.13	0.012006
23	6/29/2021 14:05	6/29/2021 14:25	20	0.02	0.02	0.005928
24	7/1/2021 16:05	7/2/2021 23:00	1855	2.27	1.03	1.130215
25	7/7/2021 23:50	7/9/2021 10:10	2060	1.28	0.71	0.914615
26	7/11/2021 14:20	7/13/2021 3:55	2255	0.54	0.54	0.853257
27	7/14/2021 16:45	7/19/2021 15:00	7095	0.17	0.14	2.663652
28	7/27/2021 15:55	7/27/2021 16:40	45	0.54	0.52	0.090663
29	7/29/2021 13:20	7/29/21 13:40	20	0.4	0.14	0.000819
<b>Total</b>						<b>6.544883</b>



CSO 018  
2021 Activations

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume (MG)
30	8/12/2021 16:45	8/12/2021 17:40	55	0.34	0.34	0.146940
31	8/19/2021 4:40	8/19/2021 8:30	230	2.32	1.31	2.001261
32	8/21/2021 5:00	8/21/2021 5:30	30	0:28	0.02	0.019856
33	8/22/2021 11:35	8/22/2021 15:05	210	1.15	0.42	0.491755
34	8/23/2021 12:45	8/23/2021 16:35	230	1.49	0.71	0.512421
35	8/27/2021 16:05	8/27/2021 16:40	35	0.19	0.19	0.058203
36	9/1/2021 15:00	9/2/2021 3:10	730	3.16	0.6	2.125744
37	9/9/2021 1:55	9/9/2021 2:15	20	0.27	0.16	0.002178
38	9/15/2021 18:55	9/15/2021 19:25	30	0.19	0.18	0.006709
39	9/22/2021 17:30	9/22/2021 18:05	35	0.28	0.15	0.011249
40	9/24/2021 5:15	9/24/2021 8:50	215	0.86	0.54	0.199374
41	10/3/2021 19:45	10/4/2021 23:00	1635	2.15	0.35	2.685516
42	10/16/2021 18:55	10/16/2021 23:10	255	0.4	0.2	0.183192
43	10/25/2021 2:50	10/25/2021 6:15	205	0.58	0.2	0.259231
44	10/26/2021 2:50	10/26/2021 6:15	205	0.65	0.15	0.362253
45	10/30/2021 13:10	10/31/2021 3:50	880	0.83	0.15	0.244560
46	11/12/2021 6:40	11/12/2021 15:10	510	1.94	1.1	2.168039
47	11/13/2021 16:30	11/13/2021 17:40	70	0.43	0.41	0.408548
48	12/2/2021 21:15	12/2/2021 21:55	40	0.2	0.14	0.036817
49	12/6/2021 21:00	12/6/2021 21:35	35	0.23	0.1	0.040804
50	12/11/2021 10:45	12/11/2021 11:50	65	0.51	0.31	0.330540
51	12/11/2021 23:00	12/11/2021 23:20	20	0.51	0.31	0.013392
52	12/15/2021 23:10	12/16/2021 4:20	310	0.35	0.11	0.293811
53	12/18/2021 17:50	12/19/21 0:30	400	0.64	0.11	0.191683
54	12/22/2021 6:35	12/22/21 10:30	235	0.54	0.15	0.220325
55	12/25/2021 12:15	12/25/2021 13:45	90	0.35	0.1	0.044206
56	12/26/2021 1:00	12/26/21 2:25	85	0.33	0.16	0.105155

19.561705



CSO 018  
2021 Activations





CSO 018A  
2021 Activations

**Holyoke, MA**  
**CSO 018A**  
**Essex Street at Walnut Street**  
**2021 Overflow Summary 1/1/21-12/31/21**

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	7/17/2021 16:25	7/17/2021 16:30	5	1.54	0.83	125	0.000125
2	7/18/2021 1:10	7/18/2021 1:20	10	1.78	1.1	9,320	0.009320

Total Overflow (MG): 0.009445



CSO 018B  
2021 Activations

Holyoke, MA  
CSO 018B

Highland Pump Station  
2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/2/2021 3:05	1/2/2021 4:20	75	0.62	0.09	56,262	0.056262
2	1/16/2021 4:25	1/16/2021 9:45	320	1.78	0.38	385,847	0.385847
3	2/16/2021 6:20	2/16/2021 11:30	310	0.48	0.32	404,335	0.404335
4	2/27/2021 13:00	2/27/2021 13:20	20	0.24	0.13	18,663	0.018663
5	3/1/2021 3:55	3/1/2021 7:00	185	0.22	0.07	288,142	0.288142
6	3/18/21 15:55	3/18/2021 19:35	220	0.66	0.11	453,189	0.453189
7	3/25/21 4:35	3/25/2021 4:45	10	0.17	0.07	3,180	0.003180
8	3/28/21 11:50	3/28/2021 16:10	260	0.87	0.24	516,866	0.516866
9	3/28/21 20:05	3/28/2021 20:55	50	0.87	0.24	77,115	0.077115
10	3/31/21 23:35	3/31/2021 23:55	20	0.05	0.05	39,293	0.039293
11	4/1/21 0:00	4/1/2021 0:35	35	0.08	0.03	56,575	0.056575
12	4/15/21 11:30	4/16/2021 0:25	775	1.48	0.2	1,130,455	1.130455
13	4/16/21 5:15	4/16/2021 17:00	705	1.14	0.17	653,893	0.653893
14	4/21/21 11:55	4/21/2021 16:30	275	0.37	0.23	81,779	0.081779
15	4/29/21 11:20	4/29/2021 23:40	740	1.51	0.45	709,185	0.709185
16	5/3/21 21:45	5/4/2021 5:45	480	0.33	0.18	450,936	0.450936
17	5/4/21 23:55	5/5/2021 3:15	200	0.33	0.18	185,144	0.185144
18	5/5/2021 16:40	5/5/2021 16:55	15	0.35	0.1	9,985	0.009985
19	5/10/2021 1:30	5/10/2021 3:00	90	0.4	0.15	58,813	0.058813
20	5/11/2021 9:40	5/11/2021 9:55	15	0.06	0.06	12,662	0.012662
21	5/28/2021 20:55	5/28/2021 23:25	150	1.23	0.33	353,839	0.353839
22	5/29/2021 11:45	5/29/2021 11:55	10	0.41	0.07	2,254	0.002254
23	6/8/2021 13:55	6/8/2021 15:25	90	1.28	0.79	35,915	0.035915
24	7/1/2021 18:50	7/1/2021 23:55	305	1.28	0.79	35,822	0.035822
25	7/9/2021 8:25	7/9/2021 10:55	150	1.29	0.35	53,873	0.053873
26	7/11/2021 16:40	7/11/2021 16:55	15	0.54	0.2	6,181	0.006181
27	7/12/2021 6:45	7/12/2021 8:40	115	0.11	0.09	82,374	0.082374
28	7/17/2021 16:15	7/18/2021 20:30	1695	1.54	0.83	172,177	0.172177
29	7/27/2021 18:05	7/27/2021 18:10	5	0.54	0.52	1,111	0.001111

Subtotal Pg1 Overflow (MG): 6.335865



CSO 018B  
2021 Activations

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
30	8/4/2021 12:45	8/4/2021 12:55	10	0.01	0.01	52,972	0.052972
31	8/19/2021 6:40	8/19/2021 8:35	115	2.32	1.31	609,181	0.609181
32	8/22/2021 13:40	8/22/2021 14:30	50	1.15	0.42	264,861	0.264861
33	8/23/2021 13:55	8/23/2021 15:10	75	1.49	0.71	397,292	0.397292
34	9/1/2021 19:45	9/2/2021 2:00	375	3.16	0.6	176,194	0.176194
35	9/24/2021 6:30	9/24/2021 6:45	15	0.86	0.54	20,481	0.020481
36	10/4/2021 3:15	10/4/2021 6:25	190	2.15	0.35	68,379	0.068379
37	10/4/2021 17:45	10/4/2021 22:55	310	2.15	0.35	90,897	0.090897
38	10/25/2021 4:15	10/25/2021 6:25	130	0.58	0.2	42,389	0.042389
39	10/26/2021 3:45	10/26/2021 6:25	160	0.65	0.15	39,079	0.039079
40	10/30/2021 15:55	10/30/2021 16:55	60	0.83	0.15	14,028	0.014028
41	11/12/2021 11:10	11/12/2021 15:25	255	1.94	1.1	241,541	0.241541
42	11/13/2021 17:10	11/13/2021 17:35	25	0.43	0.41	8,035	0.008035
43	12/11/2021 11:20	12/11/2021 12:05	45	0.51	0.31	27,987	0.027987
44	12/15/2021 23:55	12/16/2021 4:35	280	0.35	0.11	122,982	0.122982
45	12/18/2021 18:30	12/19/2021 0:55	385	0.64	0.11	94,398	0.094398
46	12/22/2021 7:35	12/22/2021 10:40	185	0.54	0.15	97,815	0.097815
47	12/25/2021 12:40	12/25/2021 13:55	75	0.35	0.1	42,354	0.042354
48	12/26/2021 1:45	12/26/2021 2:40	55	0.33	0.16	17,590	0.017590

Total

8.764320



CSO 019  
2021 Activations

Holyoke, MA

CSO 019

Pleasant Street R.O.W.

2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	4/21/2021 15:25	4/21/2021 15:30	5	0.37	0.23	95	0.000095
2	4/29/2021 12:10	4/29/2021 12:25	15	1.51	0.45	1,435	0.001435
3	5/5/2021 0:05	5/5/2021 0:10	5	0.35	0.01	271	0.000271
4	5/10/2021 1:05	5/10/2021 1:10	5	0.04	0.15	851	0.000851
5	7/1/2021 18:50	7/1/2021 18:55	5	2.27	1.03	108	0.000108
6	7/17/2021 16:00	7/18/2021 1:35	575	1.54	0.83	2,493	0.002493
7	7/27/2021 17:35	7/27/2021 17:55	20	0.54	0.52	856	0.000856
8	8/22/2021 13:50	8/22/2021 14:15	25	1.15	0.42	1,910	0.001910
9	8/23/2021 14:10	8/23/2021 14:45	35	1.49	0.71	4,804	0.004804
10	8/27/21 16:00	8/27/2021 16:10	10	0.19	0.19	393	0.000393
11	9/1/2021 20:05	9/2/2021 1:05	300	3.16	0.6	10,924	0.010924
12	11/12/2021 12:45	11/12/2021 13:15	30	1.94	1.1	3,098	0.003098
13	12/11/2021 10:50	12/11/2021 10:55	5	0.51	0.31	260	0.000260
14	12/15/2021 23:30	12/15/2021 23:45	15	0.32	0.17	453	0.000453
15	12/18/2021 23:25	12/18/2021 23:50	25	0.64	0.11	302	0.000302
16	12/22/2021 8:25	12/22/2021 9:05	40	0.54	0.15	373	0.000373
17	12/25/2021 13:10	12/25/2021 13:30	20	0.35	0.1	1,125	0.001125
18	12/26/2021 1:30	12/26/2021 1:35	5	0.33	0.16	6	0.000006

Total Overflow (MG):

0.029757



CSO 020  
2021 Activations

Holyoke, MA

CSO 020  
Cleveland Street at Oxford Road  
2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/2/2021 2:05	1/2/2021 13:25	680	0.62	0.09	8,382	0.008382
2	1/16/2021 3:20	1/16/2021 15:45	745	1.78	0.38	635,829	0.635829
3	2/16/2021 5:20	2/16/2021 11:20	360	0.48	0.32	252,963	0.252963
4	2/27/2021 12:25	2/27/2021 13:30	65	0.24	0.13	9,769	0.009769
5	3/1/2021 3:45	3/1/2021 6:30	165	0.22	0.07	12,090	0.012090
6	3/18/2021 16:30	3/18/2021 19:15	165	0.66	0.11	43,021	0.043021
7	3/28/2021 11:30	3/28/2021 20:55	565	0.87	0.24	244,313	0.244313
8	3/31/2021 23:20	3/31/2021 23:55	35	0.05	0.05	22,240	0.022240
9	4/1/2021 0:00	4/1/2021 0:20	20	0.08	0.03	5,567	0.005567
10	4/15/2021 11:05	4/16/2021 21:30	2065	1.48	0.2	813,086	0.813086
11	4/20/2021 22:55	4/20/2021 23:00	5	0.37	0.23	254	0.000254
12	4/21/2021 11:25	4/21/2021 16:25	300	0.37	0.23	125,333	0.125333
13	4/29/2021 9:05	4/29/2021 22:55	830	1.51	0.45	1,392,774	1.392774
14	5/3/2021 21:45	5/4/2021 5:45	480	0.33	0.18	213,826	0.213826
15	5/4/2021 23:20	5/5/2021 3:50	270	0.33	0.18	222,566	0.222566
16	5/5/2021 8:05	5/5/2021 9:05	60	0.35	0.01	1,513	0.001513
17	5/5/2021 13:40	5/5/2021 18:25	285	0.35	0.01	22,342	0.022342
18	5/5/2021 22:50	5/6/2021 6:40	470	0.35	0.01	1,191	0.001191
19	5/10/2021 0:40	5/10/2021 5:00	260	0.04	0.15	165,311	0.165311
20	5/26/2021 18:05	5/26/2021 22:10	245	0.15	0.08	61,764	0.061764
21	5/28/2021 19:25	5/29/2021 12:00	995	1.23	0.33	537,110	0.537110
22	5/30/2021 10:20	5/30/2021 17:05	405	0.68	0.13	151,231	0.151231
23	5/30/2021 22:05	5/31/2021 4:00	355	0.68	0.13	104,929	0.104929
24	6/8/2021 13:05	6/8/2021 16:05	180	1.28	0.79	163,894	0.163894
25	6/14/2021 6:40	6/14/2021 7:55	75	0.54	0.35	68,218	0.068218
26	6/22/2021 12:55	6/22/2021 18:00	305	0.36	0.13	27,649	0.027649
27	6/29/2021 15:55	6/29/2021 16:00	5	0.02	0.02	191	0.000191
28	7/1/2021 17:55	7/3/2021 0:40	1845	2.27	1.03	617,234	0.617234
29	7/8/2021 1:40	7/9/2021 12:30	2090	1.28	0.71	598,834	0.598834
30	7/11/2021 15:25	7/13/2021 6:30	2345	0.54	0.2	534,124	0.534124
31	7/14/2021 18:25	7/14/2021 19:00	35	0.17	0.14	34,169	0.034169
32	7/17/2021 15:55	7/21/2021 20:10	6015	1.54	0.83	958,997	0.958997
33	7/25/2021 10:35	7/25/2021 10:40	5	0.27	0.09	301	0.000301
34	7/27/2021 17:30	7/27/2021 18:10	40	0.54	0.52	87,216	0.087216

Total 8.138231



CSO 020  
2021 Activations

Monthly Overflow	Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
	35	8/12/2021 16:45	8/12/2021 17:40	55	0.34	0.34	50,519	0.050519
	36	8/19/2021 4:50	8/19/2021 13:30	520	2.32	1.31	484,004	0.484004
	37	8/22/2021 11:40	8/22/2021 17:35	355	1.15	0.42	322,516	0.322516
	38	8/23/2021 12:45	8/24/2021 0:25	700	1.49	0.71	495,212	0.495212
	39	8/27/2021 16:00	8/27/2021 16:35	35	0.19	0.19	23,835	0.023835
	40	9/1/2021 14:50	9/3/2021 15:30	2920	3.16	0.6	1,622,208	1.622208
	41	9/22/2021 17:30	9/22/2021 18:05	35	0.28	0.15	2,390	0.002390
	42	9/24/2021 5:15	9/24/2021 9:00	225	0.86	0.54	63,863	0.063863
	43	10/3/2021 20:05	10/4/2021 23:30	1645	2.15	0.35	1,441,421	1.441421
	44	10/16/2021 19:20	10/16/2021 23:10	230	0.4	0.2	95,409	0.095409
	45	10/25/2021 3:50	10/25/2021 6:15	145	0.58	0.2	130,424	0.130424
	46	10/26/2021 3:05	10/26/2021 6:20	195	0.65	0.15	193,587	0.193587
	47	10/30/2021 13:15	10/31/2021 5:10	955	0.83	0.15	241,476	0.241476
	48	11/12/2021 10:00	11/12/2021 15:40	340	1.94	1.1	343,864	0.343864
	49	11/13/2021 16:30	11/13/2021 17:55	85	0.43	0.41	88,385	0.088385
	50	12/2/2021 21:10	12/2/2021 21:45	35	0.2	0.14	16,073	0.016073
	51	12/6/2021 21:00	12/6/2021 21:30	30	0.23	0.1	9,988	0.009988
	52	12/11/2021 10:45	12/11/2021 11:55	70	0.51	0.31	70,783	0.070783
	53	12/11/2021 22:50	12/11/2021 23:25	35	0.51	0.31	23,040	0.023040
	54	12/15/2021 23:20	12/16/2021 4:20	300	0.35	0.11	116,894	0.116894
	55	12/18/2021 18:10	12/19/2021 2:00	470	0.64	0.11	144,613	0.144613
	56	12/22/2021 6:30	12/22/2021 10:45	255	0.54	0.15	182,053	0.182053
	57	12/25/2021 12:10	12/25/2021 14:00	110	0.35	0.1	49,054	0.049054
	58	12/26/2021 1:00	12/26/2021 2:35	95	0.33	0.16	65,541	0.065541

Total 14.415383



CSO 021  
2021 Activations

Holyoke, MA

CSO 021  
Pleasant Street at River Terrace  
2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/2021 4:15	1/16/2021 9:05	290	1.78	0.38	380,752	0.380752
2	2/16/2021 7:55	2/16/2021 9:05	70	0.48	0.32	112,508	0.112508
3	3/28/2021 11:40	3/28/2021 12:00	20	0.87	0.24	14,968	0.014968
4	4/21/2021 11:30	4/21/2021 11:35	5	0.37	0.23	1,720	0.001720
5	4/21/2021 15:20	4/21/2021 15:45	25	0.37	0.23	39,986	0.039986
6	4/29/2021 11:55	4/29/2021 12:40	45	1.51	0.45	129,973	0.129973
7	4/29/2021 18:05	4/29/2021 19:10	65	1.51	0.45	89,539	0.089539
8	5/3/2021 21:50	5/4/2021 1:40	230	0.33	0.18	33,399	0.033399
9	5/4/2021 23:30	5/5/2021 1:35	125	0.33	0.18	65,294	0.065294
10	5/10/2021 1:25	5/10/2021 1:40	15	0.04	0.15	5,009	0.005009
11	5/26/2021 18:00	5/26/2021 21:40	220	0.15	0.08	10,559	0.010559
12	5/28/2021 21:05	5/28/2021 23:25	140	1.23	0.33	79,739	0.079739
13	5/30/2021 10:40	5/30/2021 10:45	5	0.68	0.13	662	0.000662
14	5/31/2021 3:10	5/31/2021 3:15	5	0.21	0.15	4,519	0.004519
15	6/8/2021 13:05	6/8/2021 15:15	130	1.28	0.79	287,172	0.287172
16	6/14/2021 6:40	6/14/2021 7:15	35	0.54	0.35	17,009	0.017009
17	7/1/2021 17:50	7/2/2021 23:35	1785	2.27	1.03	312,171	0.312171
18	7/8/2021 1:40	7/9/2021 11:20	2020	1.28	0.71	323,585	0.323585
19	7/11/2021 16:00	7/13/2021 5:20	2240	0.54	0.2	702,968	0.702968
20	7/17/2021 15:55	7/18/2021 20:25	1710	1.54	0.83	916,208	0.916208
21	7/27/2021 17:35	7/27/2021 18:15	40	0.54	0.52	134,662	0.134662
22	7/27/2021 17:35	7/27/2021 18:15	40	0.54	0.52	139,229	0.139229
23	8/12/2021 16:55	8/12/2021 17:30	35	0.34	0.34	127,668	0.127668
24	8/19/2021 6:45	8/19/2021 8:25	100	2.32	1.31	338,578	0.338578
25	8/22/2021 11:55	8/22/2021 14:40	165	1.15	0.42	285,345	0.285345
26	8/23/2021 13:25	8/23/2021 16:20	175	1.49	0.71	429,817	0.429817
27	8/27/2021 16:05	8/27/2021 16:25	20	0.19	0.19	52,374	0.052374
28	9/1/2021 17:00	9/2/2021 3:20	620	3.16	0.6	1,641,284	1.641284
29	9/24/2021 5:25	9/24/2021 6:10	45	0.86	0.54	185,509	0.185509
30	10/4/2021 2:35	10/4/2021 4:50	135	2.15	0.35	320,526	0.320526
						Total	7.182732



CSO 021  
2021 Activations

Page 1 7.182732

31	10/4/2021 17:40	10/4/2021 22:40	300	2.15	0.35	244,165	0.244165
32	10/16/2021 22:25	10/16/2021 22:30	5	0.4	0.2	1,740	0.001740
33	10/25/2021 5:25	10/25/2021 5:40	15	0.58	0.2	21,008	0.021008
34	10/26/2021 4:45	10/26/2021 16:20	695	0.65	0.15	13,769	0.013769
35	11/12/2021 12:40	11/12/2021 14:30	110	1.94	1.1	1,015,948	1.015948
36	11/13/2021 16:35	11/13/2021 17:15	40	0.43	0.41	126,387	0.126387
37	12/11/2021 10:45	12/11/2021 11:25	40	0.51	0.31	196,420	0.196420

Total 8.802169





CSO 021B  
2021 Activations

Holyoke, MA

CSO 021B

Pleasant Street at River Terrace

2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/2021 3:20	1/16/2021 11:30	490	1.78	0.38	2,578,976	2.578976
2	4/15/2021 11:00	4/15/2021 17:10	370	1.48	0.2	167,542	0.167542
3	4/15/2021 23:25	4/15/2021 23:30	5	1.48	0.2	1,034	0.001034
4	4/16/2021 10:50	4/16/2021 14:10	200	1.14	0.17	156,016	0.156016
5	4/21/2021 11:20	4/21/2021 16:05	285	0.37	0.23	197,496	0.197496
6	4/29/2021 11:45	4/29/2021 23:05	680	1.51	0.45	676,152	0.676152
7	5/3/2021 21:40	5/4/2021 3:45	365	0.33	0.18	448,200	0.448200
8	5/4/2021 23:20	5/5/2021 2:05	165	0.33	0.18	482,119	0.482119
9	5/5/2021 16:15	5/5/2021 16:40	25	0.35	0.1	5,688	0.005688
10	5/10/2021 0:45	5/10/2021 4:20	215	0.04	0.15	398387	0.398387
11	5/26/2021 18:00	5/26/2021 21:50	230	0.15	0.08	156,549	0.156549
12	5/28/2021 19:25	5/29/2021 1:05	340	1.23	0.33	746023	0.746023
13	5/30/2021 10:25	5/30/2021 11:55	90	0.68	0.15	122150	0.12215
14	5/30/2021 22:00	5/30/2021 22:25	25	0.68	0.13	32321	0.032321
15	5/31/2021 3:00	5/31/2021 3:30	30	0.21	0.15	71900	0.0719
16	6/8/2021 13:00	6/8/2021 15:25	145	1.28	0.79	364,439	0.364439
17	6/14/2021 6:40	6/14/2021 7:25	45	0.54	0.35	145,479	0.145479
18	6/22/2021 12:50	6/22/2021 13:10	20	0.36	0.13	9,938	0.009938
19	7/1/2021 17:45	7/3/2021 0:15	1830	2.27	1.03	811,927	0.811927
20	7/8/2021 1:35	7/14/2021 19:00	9685	1.28	0.71	2,098,269	2.098269
21	7/14/2021 18:30	7/19/2021 20:45	7335	0.17	0.14	2,699,162	2.699162
22	7/27/2021 17:30	7/29/2021 15:25	2755	0.54	0.52	273,666	0.273666
23	8/12/2021 16:45	8/12/2021 17:30	45	0.34	0.34	126,165	0.126165
24	8/19/2021 5:00	8/19/2021 13:10	490	2.32	1.31	402,371	0.402371
25	8/22/2021 11:45	8/22/2021 14:50	185	1.15	0.42	340,796	0.340796
26	8/23/2021 13:10	8/23/2021 18:05	295	1.49	0.71	478,159	0.478159
27	8/27/2021 16:00	8/27/2021 16:35	35	0.19	0.19	85,197	0.085197
28	9/1/2021 16:40	9/2/2021 10:55	1095	3.16	0.6	1,691,315	1.691315
29	9/22/2021 17:35	9/22/2021 17:55	20	0.28	0.15	4,593	0.004593
30	9/24/2021 5:20	9/24/2021 7:50	150	0.86	0.54	157,771	0.157771
						<b>Total:</b>	15.929800



CSO 021B  
2021 Activations

Pg 1 Total 15.9298

31	10/3/2021 21:10	10/4/2021 22:55	1545	2.15	0.35	439,436	0.439436
32	10/16/2021 22:05	10/16/2021 22:40	35	0.4	0.2	23,460	0.02346
33	10/25/2021 5:20	10/25/2021 5:45	25	0.58	0.2	7,000	0.007
34	10/26/2021 3:15	10/26/2021 5:55	160	0.65	0.15	6,317	0.006317
35	11/12/2021 10:10	11/12/2021 16:35	385	1.94	1.1	126,094	0.126094
36	11/13/2021 16:35	11/13/2021 17:20	45	0.43	0.41	35,359	0.035359
37	12/11/2021 10:45	12/11/2021 11:30	45	0.51	0.31	36,741	0.036741
38	12/11/2021 22:50	12/11/2021 22:55	5	0.51	0.31	1,108	0.001108
39	12/15/2021 23:25	12/15/2021 23:55	30	0.35	0.11	8,070	0.00807
40	12/18/2021 23:20	12/19/2021 0:00	40	0.64	0.11	4,107	0.004107
41	12/22/2021 7:50	12/22/2021 9:05	75	0.54	0.15	9,753	0.009753
42	12/26/2021 1:15	12/26/2021 1:35	20	0.33	0.16	2275	0.002275

Total 16.62952



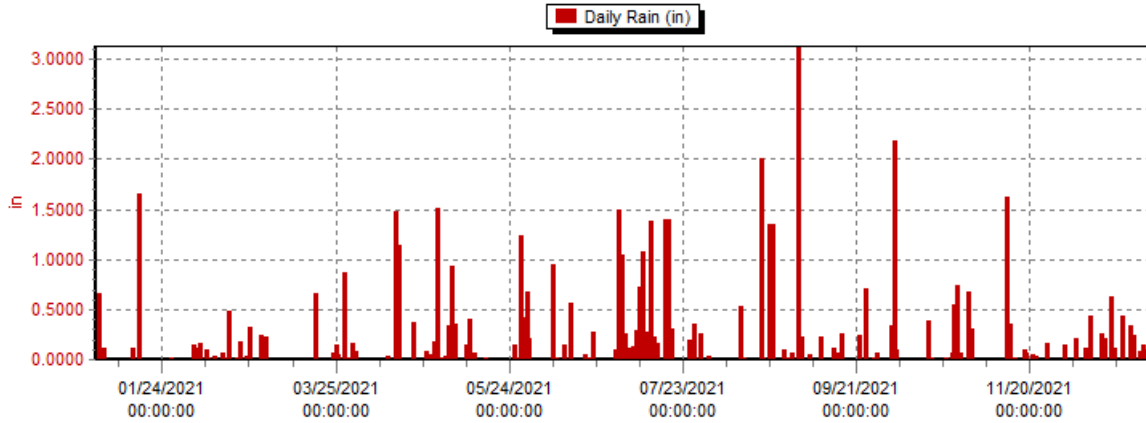
CSO 023  
2021 Activations

Holyoke, MA  
CSO 023  
Jefferson Street  
2021 Overflow Summary 1/1/21-12/31/21

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall <sup>(1)</sup> (inches)	Peak Hourly Rainfall <sup>(1)</sup> (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/16/2021 5:05	1/16/2021 8:40	215	1.78	0.38	16,560	0.01656
2	2/16/2021 8:15	2/16/2021 8:50	35	0.48	0.32	3649	0.003649
3	3/28/2021 11:35	3/28/2021 11:50	15	0.87	0.24	299	0.000299
4	4/21/2021 11:25	4/21/2021 11:30	5	0.37	0.23	70	0.00007
5	4/21/2021 15:20	4/21/2021 15:40	20	0.37	0.23	5,607	0.005607
6	4/29/21 18:05	4/29/2021 18:50	45	1.51	0.45	5,338	0.005338
7	4/29/21 11:50	4/29/2021 12:35	45	1.51	0.45	23,967	0.023967
8	5/3/21 21:45	5/4/2021 1:30	225	0.33	0.18	1,223	0.001223
9	5/4/2021 23:25	5/5/2021 0:20	55	0.33	0.18	8328	0.008328
10	5/26/2021 18:00	5/26/2021 21:35	215	0.15	0.08	10883	0.010883
11	5/28/2021 21:00	5/28/2021 23:00	120	1.23	0.33	6103	0.006103
12	6/8/2021 13:00	6/8/2021 15:05	125	1.28	0.79	62,289	0.062289
13	6/14/2021 6:40	6/14/2021 7:05	25	0.54	0.36	6,808	0.006808
14	7/1/2021 17:40	7/2/2021 23:25	1785	2.27	1.03	91,786	0.091786
15	7/8/2021 1:30	7/8/2021 1:50	20	1.28	0.71	13,482	0.013482
16	7/9/2021 7:55	7/9/2021 10:05	130	1.29	0.35	2,241	0.002241
17	7/11/2021 15:55	7/12/2021 8:20	985	0.54	0.2	77,236	0.077236
18	7/17/2021 15:55	7/18/2021 3:10	675	1.54	0.83	220,086	0.220086
19	7/27/2021 17:30	7/27/2021 17:55	25	0.54	0.52	34,433	0.034433
20	8/12/2021 16:40	8/12/2021 17:15	35	0.34	0.34	39,065	0.039065
21	8/19/2021 6:40	8/19/2021 8:10	90	2.32	1.31	146,527	0.146527
22	8/22/2021 13:50	8/22/2021 14:15	25	1.15	0.42	32,547	0.032547
23	8/23/2021 14:10	8/23/2021 15:45	95	1.49	0.71	81,386	0.081386
24	8/27/2021 15:55	8/27/2021 16:10	15	0.19	0.19	10,286	0.010286
25	9/1/2021 20:10	9/2/2021 1:05	295	3.16	0.6	170,190	0.17019
26	9/24/2021 5:20	9/24/2021 5:55	35	0.86	0.54	25,129	0.025129
27	10/4/2021 3:45	10/4/2021 4:45	60	2.15	0.35	440	0.000440
28	10/4/2021 17:35	10/4/2021 22:20	285	2.15	0.35	5,016	0.005016
29	11/12/2021 12:40	11/12/2021 13:55	75	1.94	1.1	56,862	0.056862
30	11/13/2021 16:35	11/13/2021 17:05	30	0.43	0.41	4,522	0.004522
31	12/11/2021 10:45	12/11/2021 11:10	25	0.51	0.31	7,829	0.007829

Total Overflow (MG): 1.170187

Smiths Ferry P-S Rain (01/01/2021 00:00:00 to 01/01/2022 00:00:00)



Time Stamp	Daily Rain (in)
01/01/2021 00:00:00	0.0100
01/02/2021 00:00:00	0.6600
01/03/2021 00:00:00	0.0000
01/04/2021 00:00:00	0.1100
01/05/2021 00:00:00	0.0000
01/06/2021 00:00:00	0.0000
01/07/2021 00:00:00	0.0000
01/08/2021 00:00:00	0.0000
01/09/2021 00:00:00	0.0000
01/10/2021 00:00:00	0.0000
01/11/2021 00:00:00	0.0000
01/12/2021 00:00:00	0.0000
01/13/2021 00:00:00	0.0000
01/14/2021 00:00:00	0.1100
01/15/2021 00:00:00	0.0000
01/16/2021 00:00:00	1.6600
01/17/2021 00:00:00	0.0000
01/18/2021 00:00:00	0.0000
01/19/2021 00:00:00	0.0000
01/20/2021 00:00:00	0.0000
01/21/2021 00:00:00	0.0000
01/22/2021 00:00:00	0.0000
01/23/2021 00:00:00	0.0000
01/24/2021 00:00:00	0.0000
01/25/2021 00:00:00	0.0000
01/26/2021 00:00:00	0.0000
01/27/2021 00:00:00	0.0100
01/28/2021 00:00:00	0.0000
01/29/2021 00:00:00	0.0000
01/30/2021 00:00:00	0.0000
01/31/2021 00:00:00	0.0000
02/01/2021 00:00:00	0.0000
02/02/2021 00:00:00	0.0000
02/03/2021 00:00:00	0.0000
02/04/2021 00:00:00	0.1400
02/05/2021 00:00:00	0.1100
02/06/2021 00:00:00	0.1600

Time Stamp	Daily Rain (in)
02/07/2021 00:00:00	0.0000
02/08/2021 00:00:00	0.1000
02/09/2021 00:00:00	0.0100
02/10/2021 00:00:00	0.0000
02/11/2021 00:00:00	0.0400
02/12/2021 00:00:00	0.0000
02/13/2021 00:00:00	0.0000
02/14/2021 00:00:00	0.0700
02/15/2021 00:00:00	0.0100
02/16/2021 00:00:00	0.4800
02/17/2021 00:00:00	0.0000
02/18/2021 00:00:00	0.0000
02/19/2021 00:00:00	0.0100
02/20/2021 00:00:00	0.1700
02/21/2021 00:00:00	0.0000
02/22/2021 00:00:00	0.0300
02/23/2021 00:00:00	0.3200
02/24/2021 00:00:00	0.0000
02/25/2021 00:00:00	0.0000
02/26/2021 00:00:00	0.0000
02/27/2021 00:00:00	0.2400
02/28/2021 00:00:00	0.0200
03/01/2021 00:00:00	0.2200
03/02/2021 00:00:00	0.0000
03/03/2021 00:00:00	0.0000
03/04/2021 00:00:00	0.0000
03/05/2021 00:00:00	0.0000
03/06/2021 00:00:00	0.0000
03/07/2021 00:00:00	0.0000
03/08/2021 00:00:00	0.0000
03/09/2021 00:00:00	0.0000
03/10/2021 00:00:00	0.0000
03/11/2021 00:00:00	0.0000
03/12/2021 00:00:00	0.0000
03/13/2021 00:00:00	0.0000
03/14/2021 00:00:00	0.0000
03/15/2021 00:00:00	0.0000
03/16/2021 00:00:00	0.0000
03/17/2021 00:00:00	0.0000
03/18/2021 00:00:00	0.6600
03/19/2021 00:00:00	0.0000
03/20/2021 00:00:00	0.0000
03/21/2021 00:00:00	0.0000
03/22/2021 00:00:00	0.0000
03/23/2021 00:00:00	0.0000
03/24/2021 00:00:00	0.0700
03/25/2021 00:00:00	0.1400
03/26/2021 00:00:00	0.0500
03/27/2021 00:00:00	0.0000
03/28/2021 00:00:00	0.8700
03/29/2021 00:00:00	0.0100
03/30/2021 00:00:00	0.0000
03/31/2021 00:00:00	0.1600
04/01/2021 00:00:00	0.0800

Time Stamp	Daily Rain (in)
04/02/2021 00:00:00	0.0000
04/03/2021 00:00:00	0.0000
04/04/2021 00:00:00	0.0000
04/05/2021 00:00:00	0.0000
04/06/2021 00:00:00	0.0000
04/07/2021 00:00:00	0.0000
04/08/2021 00:00:00	0.0000
04/09/2021 00:00:00	0.0000
04/10/2021 00:00:00	0.0000
04/11/2021 00:00:00	0.0000
04/12/2021 00:00:00	0.0300
04/13/2021 00:00:00	0.0000
04/14/2021 00:00:00	0.0000
04/15/2021 00:00:00	1.4800
04/16/2021 00:00:00	1.1400
04/17/2021 00:00:00	0.0000
04/18/2021 00:00:00	0.0000
04/19/2021 00:00:00	0.0000
04/20/2021 00:00:00	0.0000
04/21/2021 00:00:00	0.3700
04/22/2021 00:00:00	0.0000
04/23/2021 00:00:00	0.0000
04/24/2021 00:00:00	0.0000
04/25/2021 00:00:00	0.0800
04/26/2021 00:00:00	0.0000
04/27/2021 00:00:00	0.0500
04/28/2021 00:00:00	0.1700
04/29/2021 00:00:00	1.5100
04/30/2021 00:00:00	0.0100
05/01/2021 00:00:00	0.0000
05/02/2021 00:00:00	0.0300
05/03/2021 00:00:00	0.3300
05/04/2021 00:00:00	0.9300
05/05/2021 00:00:00	0.3500
05/06/2021 00:00:00	0.0000
05/07/2021 00:00:00	0.0000
05/08/2021 00:00:00	0.0000
05/09/2021 00:00:00	0.1500
05/10/2021 00:00:00	0.4000
05/11/2021 00:00:00	0.0000
05/12/2021 00:00:00	0.0600
05/13/2021 00:00:00	0.0000
05/14/2021 00:00:00	0.0000
05/15/2021 00:00:00	0.0000
05/16/2021 00:00:00	0.0100
05/17/2021 00:00:00	0.0000
05/18/2021 00:00:00	0.0000
05/19/2021 00:00:00	0.0000
05/20/2021 00:00:00	0.0000
05/21/2021 00:00:00	0.0000
05/22/2021 00:00:00	0.0000
05/23/2021 00:00:00	0.0000
05/24/2021 00:00:00	0.0000
05/25/2021 00:00:00	0.0000

Time Stamp	Daily Rain (in)
05/26/2021 00:00:00	0.1500
05/27/2021 00:00:00	0.0100
05/28/2021 00:00:00	1.2300
05/29/2021 00:00:00	0.4100
05/30/2021 00:00:00	0.6800
05/31/2021 00:00:00	0.2100
06/01/2021 00:00:00	0.0000
06/02/2021 00:00:00	0.0000
06/03/2021 00:00:00	0.0000
06/04/2021 00:00:00	0.0000
06/05/2021 00:00:00	0.0000
06/06/2021 00:00:00	0.0000
06/07/2021 00:00:00	0.0000
06/08/2021 00:00:00	0.9400
06/09/2021 00:00:00	0.0100
06/10/2021 00:00:00	0.0000
06/11/2021 00:00:00	0.0000
06/12/2021 00:00:00	0.1500
06/13/2021 00:00:00	0.0000
06/14/2021 00:00:00	0.5600
06/15/2021 00:00:00	0.0000
06/16/2021 00:00:00	0.0000
06/17/2021 00:00:00	0.0000
06/18/2021 00:00:00	0.0000
06/19/2021 00:00:00	0.0500
06/20/2021 00:00:00	0.0000
06/21/2021 00:00:00	0.0100
06/22/2021 00:00:00	0.2800
06/23/2021 00:00:00	0.0000
06/24/2021 00:00:00	0.0000
06/25/2021 00:00:00	0.0000
06/26/2021 00:00:00	0.0000
06/27/2021 00:00:00	0.0000
06/28/2021 00:00:00	0.0000
06/29/2021 00:00:00	0.0000
06/30/2021 00:00:00	0.0900
07/01/2021 00:00:00	1.4900
07/02/2021 00:00:00	1.0500
07/03/2021 00:00:00	0.2500
07/04/2021 00:00:00	0.1200
07/05/2021 00:00:00	0.0000
07/06/2021 00:00:00	0.1300
07/07/2021 00:00:00	0.2900
07/08/2021 00:00:00	0.7200
07/09/2021 00:00:00	1.0800
07/10/2021 00:00:00	0.0000
07/11/2021 00:00:00	0.2700
07/12/2021 00:00:00	1.3800
07/13/2021 00:00:00	0.2300
07/14/2021 00:00:00	0.1600
07/15/2021 00:00:00	0.0000
07/16/2021 00:00:00	0.0000
07/17/2021 00:00:00	1.3900
07/18/2021 00:00:00	1.3900

Time Stamp	Daily Rain (in)
07/19/2021 00:00:00	0.3100
07/20/2021 00:00:00	0.0000
07/21/2021 00:00:00	0.0000
07/22/2021 00:00:00	0.0000
07/23/2021 00:00:00	0.0000
07/24/2021 00:00:00	0.0000
07/25/2021 00:00:00	0.1900
07/26/2021 00:00:00	0.0000
07/27/2021 00:00:00	0.3500
07/28/2021 00:00:00	0.0000
07/29/2021 00:00:00	0.2600
07/30/2021 00:00:00	0.0000
07/31/2021 00:00:00	0.0000
08/01/2021 00:00:00	0.0400
08/02/2021 00:00:00	0.0000
08/03/2021 00:00:00	0.0000
08/04/2021 00:00:00	0.0000
08/05/2021 00:00:00	0.0000
08/06/2021 00:00:00	0.0000
08/07/2021 00:00:00	0.0000
08/08/2021 00:00:00	0.0000
08/09/2021 00:00:00	0.0000
08/10/2021 00:00:00	0.0000
08/11/2021 00:00:00	0.0000
08/12/2021 00:00:00	0.5300
08/13/2021 00:00:00	0.0100
08/14/2021 00:00:00	0.0000
08/15/2021 00:00:00	0.0000
08/16/2021 00:00:00	0.0000
08/17/2021 00:00:00	0.0000
08/18/2021 00:00:00	0.0000
08/19/2021 00:00:00	2.0000
08/20/2021 00:00:00	0.0200
08/21/2021 00:00:00	0.0000
08/22/2021 00:00:00	1.3500
08/23/2021 00:00:00	1.3500
08/24/2021 00:00:00	0.0000
08/25/2021 00:00:00	0.0000
08/26/2021 00:00:00	0.0000
08/27/2021 00:00:00	0.1000
08/28/2021 00:00:00	0.0100
08/29/2021 00:00:00	0.0000
08/30/2021 00:00:00	0.0700
08/31/2021 00:00:00	0.0000
09/01/2021 00:00:00	3.1300
09/02/2021 00:00:00	0.2200
09/03/2021 00:00:00	0.0000
09/04/2021 00:00:00	0.0000
09/05/2021 00:00:00	0.0500
09/06/2021 00:00:00	0.0000
09/07/2021 00:00:00	0.0000
09/08/2021 00:00:00	0.0000
09/09/2021 00:00:00	0.2200
09/10/2021 00:00:00	0.0000



Time Stamp	Daily Rain (in)
09/11/2021 00:00:00	0.0000
09/12/2021 00:00:00	0.0000
09/13/2021 00:00:00	0.1100
09/14/2021 00:00:00	0.0000
09/15/2021 00:00:00	0.0600
09/16/2021 00:00:00	0.2500
09/17/2021 00:00:00	0.0000
09/18/2021 00:00:00	0.0000
09/19/2021 00:00:00	0.0000
09/20/2021 00:00:00	0.0000
09/21/2021 00:00:00	0.0000
09/22/2021 00:00:00	0.2400
09/23/2021 00:00:00	0.0000
09/24/2021 00:00:00	0.7000
09/25/2021 00:00:00	0.0000
09/26/2021 00:00:00	0.0000
09/27/2021 00:00:00	0.0100
09/28/2021 00:00:00	0.0700
09/29/2021 00:00:00	0.0000
09/30/2021 00:00:00	0.0000
10/01/2021 00:00:00	0.0000
10/02/2021 00:00:00	0.0000
10/03/2021 00:00:00	0.3400
10/04/2021 00:00:00	2.1900
10/05/2021 00:00:00	0.1000
10/06/2021 00:00:00	0.0000
10/07/2021 00:00:00	0.0000
10/08/2021 00:00:00	0.0000
10/09/2021 00:00:00	0.0000
10/10/2021 00:00:00	0.0000
10/11/2021 00:00:00	0.0000
10/12/2021 00:00:00	0.0000
10/13/2021 00:00:00	0.0000
10/14/2021 00:00:00	0.0000
10/15/2021 00:00:00	0.0000
10/16/2021 00:00:00	0.3800
10/17/2021 00:00:00	0.0200
10/18/2021 00:00:00	0.0000
10/19/2021 00:00:00	0.0000
10/20/2021 00:00:00	0.0000
10/21/2021 00:00:00	0.0000
10/22/2021 00:00:00	0.0200
10/23/2021 00:00:00	0.0000
10/24/2021 00:00:00	0.0700
10/25/2021 00:00:00	0.5400
10/26/2021 00:00:00	0.7400
10/27/2021 00:00:00	0.0700
10/28/2021 00:00:00	0.0000
10/29/2021 00:00:00	0.0000
10/30/2021 00:00:00	0.6800
10/31/2021 00:00:00	0.3100
11/01/2021 00:00:00	0.0000
11/02/2021 00:00:00	0.0000
11/03/2021 00:00:00	0.0000

Time Stamp	Daily Rain (in)
11/04/2021 00:00:00	0.0000
11/05/2021 00:00:00	0.0000
11/06/2021 00:00:00	0.0000
11/07/2021 00:00:00	0.0000
11/08/2021 00:00:00	0.0000
11/09/2021 00:00:00	0.0000
11/10/2021 00:00:00	0.0000
11/11/2021 00:00:00	0.0000
11/12/2021 00:00:00	1.6200
11/13/2021 00:00:00	0.3500
11/14/2021 00:00:00	0.0200
11/15/2021 00:00:00	0.0200
11/16/2021 00:00:00	0.0000
11/17/2021 00:00:00	0.0000
11/18/2021 00:00:00	0.1000
11/19/2021 00:00:00	0.0700
11/20/2021 00:00:00	0.0000
11/21/2021 00:00:00	0.0500
11/22/2021 00:00:00	0.0400
11/23/2021 00:00:00	0.0000
11/24/2021 00:00:00	0.0000
11/25/2021 00:00:00	0.0000
11/26/2021 00:00:00	0.1600
11/27/2021 00:00:00	0.0000
11/28/2021 00:00:00	0.0000
11/29/2021 00:00:00	0.0000
11/30/2021 00:00:00	0.0000
12/01/2021 00:00:00	0.0000
12/02/2021 00:00:00	0.1500
12/03/2021 00:00:00	0.0000
12/04/2021 00:00:00	0.0000
12/05/2021 00:00:00	0.0000
12/06/2021 00:00:00	0.2100
12/07/2021 00:00:00	0.0000
12/08/2021 00:00:00	0.0000
12/09/2021 00:00:00	0.1100
12/10/2021 00:00:00	0.0000
12/11/2021 00:00:00	0.4400
12/12/2021 00:00:00	0.0000
12/13/2021 00:00:00	0.0000
12/14/2021 00:00:00	0.0000
12/15/2021 00:00:00	0.2500
12/16/2021 00:00:00	0.2100
12/17/2021 00:00:00	0.0000
12/18/2021 00:00:00	0.6200
12/19/2021 00:00:00	0.1200
12/20/2021 00:00:00	0.0000
12/21/2021 00:00:00	0.0000
12/22/2021 00:00:00	0.4400
12/23/2021 00:00:00	0.0000
12/24/2021 00:00:00	0.0000
12/25/2021 00:00:00	0.3300
12/26/2021 00:00:00	0.2400
12/27/2021 00:00:00	0.0000

Time Stamp	Daily Rain (in)
12/28/2021 00:00:00	0.0800
12/29/2021 00:00:00	0.1500
12/30/2021 00:00:00	0.0900
12/31/2021 00:00:00	0.0100
Minimum	0.0000
Average	0.1412
Maximum	3.1300
Total	51.5500
Time of Min	01/03/2021 00:00:00
Time of Max	09/01/2021 00:00:00

**APPENDIX 2:        BERKSHIRE CSO #09 REPORTS**

# MONTHLY CSO #09 REPORT

January, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Fri	01/01/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	01/02/21	0.56	0.000	0.000	0.00	0.039		0.000	0.000	0.00	0
Sun	01/03/21	0.04	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/04/21	0.03	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	01/05/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	01/06/21	0.00	0.000	0.000	0.00	0.056		0.000	0.000	0.00	0
Thu	01/07/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	01/08/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	01/09/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	01/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/11/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	01/12/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	01/13/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	01/14/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	01/15/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	01/16/21	1.60	11.651	12.751	6.30	0.646		0.000	10.851	4.90	1
Sun	01/17/21	0.00	0.000	0.000	0.00	0.497		0.000	0.000	0.00	0
Mon	01/18/21	0.00	0.000	0.000	0.00	0.181		0.000	0.000	0.00	0
Tue	01/19/21	0.00	0.000	0.000	0.00	0.076		0.000	0.000	0.00	0
Wed	01/20/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	01/21/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	01/22/21	0.00	0.000	0.000	0.00	0.003		0.000	0.000	0.00	0
Sat	01/23/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	01/24/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/25/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	01/26/21	0.25	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	01/27/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	01/28/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	01/29/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	01/30/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	01/31/21	0.00	0.000	0.000	0.00	0.000	11.7	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	11.7	0.000	0.000	0.00	0
	<b>Max</b>	1.60	11.651	12.751	6.30	0.646	11.7	0.000	10.851	4.90	1
	<b>Total</b>	2.78	11.651	12.751	6.30	<u>1.498</u>	11.7	<u>0.000</u>	<u>10.851</u>	4.90	<u>1</u>
	<b>Avg</b>	0.09	0.376	0.411	0.20	0.048	11.7	0.000	0.350	0.16	0
<b>TOTAL # of EVENTS in the MONTH</b>											<b>1</b>



# MONTHLY CSO #09 REPORT

March, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Mon	03/01/21	0.25	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	03/02/21	0.00	0.000	0.000	0.00	0.029		0.000	0.000	0.00	0
Wed	03/03/21	0.00	0.000	0.000	0.00	0.011		0.000	0.000	0.00	0
Thu	03/04/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	03/05/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	03/06/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	03/07/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/08/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	03/09/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	03/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	03/11/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	03/12/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	03/13/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	03/14/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/15/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	03/16/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	03/17/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	03/18/21	0.73	0.000	0.000	0.00	0.035		0.000	0.000	0.00	0
Fri	03/19/21	0.00	0.000	0.000	0.00	0.016		0.000	0.000	0.00	0
Sat	03/20/21	0.00	0.000	0.000	0.00	0.002		0.000	0.000	0.00	0
Sun	03/21/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/22/21	0.00	0.000	0.000	0.00	0.084		0.000	0.000	0.00	0
Tue	03/23/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	03/24/21	0.25	0.000	0.000	0.00	0.007		0.000	0.000	0.00	0
Thu	03/25/21	0.20	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	03/26/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	03/27/21	0.00	0.000	0.000	0.00	0.003		0.000	0.000	0.00	0
Sun	03/28/21	0.93	2.958	3.060	4.80	0.196		0.000	2.158	1.30	0
Mon	03/29/21	0.00	0.000	0.000	0.00	0.541		0.000	0.000	0.00	0
Tue	03/30/21	0.00	0.000	0.000	0.00	0.424		0.000	0.000	0.00	0
Wed	03/31/21	0.18	0.000	0.000	0.00	0.065	46.2	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	46.2	0.000	0.000	0.00	0
	<b>Max</b>	0.93	2.958	3.060	4.80	0.541	46.2	0.000	2.158	1.30	0
	<b>Total</b>	2.54	2.958	3.060	4.80	<b>1.413</b>	46.2	<b>0.000</b>	<b>2.158</b>	1.30	<b>0</b>
	<b>Avg</b>	0.08	0.095	0.099	0.15	0.046	46.2	0.000	0.070	0.04	0
<b>TOTAL # of EVENTS in the MONTH</b>											<b>0</b>





# MONTHLY CSO #09 REPORT

May, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Sat	05/01/21	0.00	0.000	0.000	0.00	0.187		0.000	0.000	0.00	0
Sun	05/02/21	0.09	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/03/21	0.87	0.000	0.540	1.10	0.180		0.000	0.000	0.00	0
Tue	05/04/21	0.55	0.000	2.740	2.20	0.827		0.000	0.000	1.10	1
Wed	05/05/21	0.12	0.506	3.150	3.20	0.834		0.000	0.000	1.50	1
Thu	05/06/21	0.00	0.000	0.000	0.00	0.383		0.000	0.000	0.00	0
Fri	05/07/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/08/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/09/21	0.64	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/10/21	0.00	1.955	2.130	3.50	0.676		0.000	1.155	0.80	1
Tue	05/11/21	0.00	0.000	0.000	0.00	0.411		0.000	0.000	0.00	0
Wed	05/12/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	05/13/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	05/14/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/15/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/16/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/17/21	0.03	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	05/18/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	05/19/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	05/20/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	05/21/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/22/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/23/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/24/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	05/25/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	05/26/21	0.72	1.359	1.450	2.00	0.145		0.000	0.559	1.00	1
Thu	05/27/21	0.00	0.000	0.150	0.10	0.479		0.000	0.000	0.00	0
Fri	05/28/21	1.20	3.652	2.360	2.30	0.320		0.000	2.852	1.60	1
Sat	05/29/21	0.54	2.867	5.650	4.30	0.725		0.000	2.067	2.70	1
Sun	05/30/21	1.00	1.887	2.100	4.80	0.580		0.000	1.087	0.80	1
Mon	05/31/21	0.01	0.135	0.670	0.20	0.801	31.3	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	31.3	0.000	0.000	0.00	0
	<b>Max</b>	1.20	3.652	5.650	4.80	0.834	31.3	0.000	2.852	2.70	1
	<b>Total</b>	5.77	12.361	20.940	23.70	<b>6.548</b>	31.3	<b>0.000</b>	<b>7.720</b>	9.50	<b>7</b>
	<b>Avg</b>	0.19	0.399	0.675	0.76	0.211	31.3	0.000	0.249	0.31	0
<b>TOTAL # of EVENTS in the MONTH</b>											<b>7</b>





# MONTHLY CSO #09 REPORT

August, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Sun	08/01/21	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/02/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	08/03/21	0.00	0.000	0.000	0.00	0.010		0.000	0.000	0.00	0
Wed	08/04/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	08/05/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	08/06/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	08/07/21	0.00	0.000	0.000	0.00	0.008		0.000	0.000	0.00	0
Sun	08/08/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/09/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	08/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	08/11/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	08/12/21	0.37	0.715	1.010	0.70	0.137		0.000	0.000	0.10	0
Fri	08/13/21	0.00	0.000	0.000	0.00	0.694		0.000	0.000	0.00	0
Sat	08/14/21	0.00	0.000	0.000	0.00	0.060		0.000	0.000	0.00	0
Sun	08/15/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/16/21	0.00	0.000	0.000	0.00	0.018		0.000	0.000	0.00	0
Tue	08/17/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	08/18/21	0.00	0.000	0.000	0.00	0.015		0.000	0.000	0.00	0
Thu	08/19/21	2.10	7.283	13.520	4.30	0.468		0.000	6.483	2.70	1
Fri	08/20/21	0.02	0.000	0.000	0.00	0.430		0.000	0.000	0.00	0
Sat	08/21/21	0.03	0.000	0.000	0.00	0.096		0.000	0.000	0.00	0
Sun	08/22/21	1.25	5.042	6.510	4.30	0.256		0.000	4.242	2.60	1
Mon	08/23/21	1.25	6.945	9.470	4.60	0.635		0.000	6.145	3.20	1
Tue	08/24/21	0.02	0.000	0.000	0.00	0.712		0.000	0.000	0.00	0
Wed	08/25/21	0.00	0.000	0.000	0.00	0.111		0.000	0.000	0.00	0
Thu	08/26/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	08/27/21	0.19	0.749	0.830	0.60	0.193		0.000	0.000	0.00	0
Sat	08/28/21	0.00	0.000	0.000	0.00	0.616		0.000	0.000	0.00	0
Sun	08/29/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/30/21	0.00	0.079	0.000	0.00	0.017		0.000	0.000	0.00	0
Tue	08/31/21	0.00	0.000	0.000	0.00	0.106	14.6	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	14.6	0.000	0.000	0.00	0
	<b>Max</b>	2.10	7.283	13.520	4.60	0.712	14.6	0.000	6.483	3.20	1
	<b>Total</b>	5.28	20.813	31.340	14.50	<b>4.582</b>	14.6	<b>0.000</b>	<b>16.870</b>	8.60	<b>3</b>
	<b>Avg</b>	0.17	0.671	1.011	0.47	0.148	14.6	0.000	0.544	0.28	0
<b>TOTAL # of EVENTS in the MONTH</b>											<b>3</b>

# MONTHLY CSO #09 REPORT

September, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Wed	09/01/21	1.55	14.702	20.108	6.80	0.007		5.406	13.902	4.80	1
Thu	09/02/21	2.00	13.499	25.080	5.00	0.395		12.462	12.699	4.40	1
Fri	09/03/21	0.00	0.000	0.000	0.00	0.260		0.000	0.000	0.00	0
Sat	09/04/21	0.00	0.000	0.000	0.00	0.236		0.000	0.000	0.00	0
Sun	09/05/21	0.05	0.000	0.000	0.00	0.110		0.000	0.000	0.00	0
Mon	09/06/21	0.00	0.000	0.000	0.00	0.001		0.000	0.000	0.00	0
Tue	09/07/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	09/08/21	0.00	0.000	0.000	0.00	0.007		0.000	0.000	0.00	0
Thu	09/09/21	0.30	0.058	0.040	0.20	0.071		0.000	0.000	0.00	0
Fri	09/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	09/11/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	09/12/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	09/13/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	09/14/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	09/15/21	0.33	0.000	0.350	0.40	0.056		0.000	0.000	0.00	0
Thu	09/16/21	0.20	0.000	0.000	0.00	0.295		0.000	0.000	0.00	0
Fri	09/17/21	0.00	0.000	0.000	0.00	0.009		0.000	0.000	0.00	0
Sat	09/18/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	09/19/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	09/20/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	09/21/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	09/22/21	0.25	0.000	0.060	0.50	0.028		0.000	0.000	0.00	0
Thu	09/23/21	0.00	0.000	0.000	0.00	0.059		0.000	0.000	0.00	0
Fri	09/24/21	0.86	1.441	2.980	2.00	0.355		1.333	0.641	0.50	1
Sat	09/25/21	0.00	0.000	0.000	0.00	0.210		0.000	0.000	0.00	0
Sun	09/26/21	0.00	0.000	0.000	0.00	0.227		0.000	0.000	0.00	0
Mon	09/27/21	0.00	0.000	0.000	0.00	0.342		0.000	0.000	0.00	0
Tue	09/28/21	0.12	0.000	0.000	0.00	0.005		0.000	0.000	0.00	0
Wed	09/29/21	0.02	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	09/30/21	0.00	0.000	0.000	0.00	0.000	5.5	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	5.5	0.000	0.000	0.00	0
	<b>Max</b>	2.00	14.702	25.080	6.80	0.395	5.5	12.462	13.902	4.80	1
	<b>Total</b>	5.78	29.700	48.618	14.90	<u>2.673</u>	5.5	<u>19.201</u>	<u>27.242</u>	9.70	<u>3</u>
	<b>Avg</b>	0.19	0.990	1.621	0.50	0.089	5.5	0.640	0.908	0.32	0
<b>TOTAL # of EVENTS in the MONTH</b>											<b><u>3</u></b>

# MONTHLY CSO #09 REPORT

October, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Fri	10/01/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/02/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	10/03/21	1.28	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	10/04/21	1.29	10.124	9.090	10.40	0.520		0.000	9.324	5.70	1
Tue	10/05/21	0.03	0.000	2.090	0.30	0.761		0.000	0.000	0.00	0
Wed	10/06/21	0.00	0.000	0.000	0.00	0.266		0.000	0.000	0.00	0
Thu	10/07/21	0.00	0.000	0.000	0.00	0.049		0.000	0.000	0.00	0
Fri	10/08/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/09/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	10/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	10/11/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	10/12/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	10/13/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	10/14/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	10/15/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/16/21	0.40	0.000	0.050	0.30	0.000		0.000	0.000	0.00	0
Sun	10/17/21	0.01	0.000	0.000	0.00	0.075		0.000	0.000	0.00	0
Mon	10/18/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	10/19/21	0.00	0.000	0.000	0.00	0.018		0.000	0.000	0.00	0
Wed	10/20/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	10/21/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	10/22/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/23/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	10/24/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	10/25/21	0.77	0.446	0.750	1.00	0.510		0.000	0.000	0.00	0
Tue	10/26/21	1.05	1.213	1.560	2.60	0.681		0.000	0.413	0.40	1
Wed	10/27/21	0.00	0.000	0.000	0.00	0.445		0.000	0.000	0.00	0
Thu	10/28/21	0.00	0.000	0.000	0.00	0.022		0.000	0.000	0.00	0
Fri	10/29/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/30/21	1.10	0.000	0.030	0.40	0.033		0.000	0.000	0.00	0
Sun	10/31/21	0.03	0.000	0.000	0.00	0.042	25.2	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	25.2	0.000	0.000	0.00	0
	<b>Max</b>	1.29	10.124	9.090	10.40	0.761	25.2	0.000	9.324	5.70	1
	<b>Total</b>	5.96	11.783	13.570	15.00	<u>3.422</u>	25.2	<u>0.000</u>	<u>9.737</u>	6.10	<u>2</u>
	<b>Avg</b>	0.19	0.380	0.438	0.48	0.110	25.2	0.000	0.314	0.20	0
<b>TOTAL # of EVENTS in the MONTH</b>											<u>2</u>

# MONTHLY CSO #09 REPORT

November, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	<i>DMR #50050-O</i> MGD	%	<i>DMR #50050-B</i> MGD	<i>DMR# 50050-1</i> MGD	Hours	Number
Mon	11/01/21	0.03	0.000	0.000	0.00	0.042		0.000	0.000	0.00	0
Tue	11/02/21	0.00	0.000	0.000	0.00	0.115		0.000	0.000	0.00	0
Wed	11/03/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/04/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	11/05/21	0.00	0.000	0.000	0.00	0.028		0.000	0.000	0.00	0
Sat	11/06/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	11/07/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/08/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	11/09/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	11/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/11/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	11/12/21	0.85	7.562	12.400	6.00	0.332		5.674	6.762	2.90	1
Sat	11/13/21	0.55	1.488	1.670	1.00	0.717		0.000	0.688	0.50	1
Sun	11/14/21	0.05	0.000	0.000	0.00	0.500		0.000	0.000	0.00	0
Mon	11/15/21	0.00	0.000	0.000	0.00	0.275		0.000	0.000	0.00	0
Tue	11/16/21	0.00	0.103	0.000	0.00	0.140		0.000	0.000	0.00	0
Wed	11/17/21	0.00	0.000	0.000	0.00	0.009		0.000	0.000	0.00	0
Thu	11/18/21	0.20	0.000	0.000	0.00	0.012		0.000	0.000	0.00	0
Fri	11/19/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	11/20/21	0.00	0.000	0.000	0.00	0.010		0.000	0.000	0.00	0
Sun	11/21/21	0.08	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/22/21	0.07	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	11/23/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	11/24/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/25/21	0.03	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	11/26/21	0.11	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	11/27/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	11/28/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/29/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	11/30/21	0.00	0.000	0.000	0.00	0.000	15.5	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	15.5	0.000	0.000	0.00	0
	<b>Max</b>	0.85	7.562	12.400	6.00	0.717	15.5	5.674	6.762	2.90	1
	<b>Total</b>	1.97	9.153	14.070	7.00	<u>2.180</u>	15.5	<u>5.674</u>	<u>7.450</u>	3.40	<u>2</u>
	<b>Avg</b>	0.07	0.305	0.469	0.23	0.073	15.5	0.189	0.248	0.11	0
<b>TOTAL # of EVENTS in the MONTH</b>											<u><b>2</b></u>

# MONTHLY CSO #09 REPORT

December, 2021

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD	%	DMR #50050-B MGD	DMR# 50050-1 MGD	Hours	Number
Wed	12/01/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	12/02/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	12/03/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	12/04/21	0.00	0.000	0.000	0.00	0.032		0.000	0.000	0.00	0
Sun	12/05/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	12/06/21	0.40	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	12/07/21	0.00	0.000	0.000	0.00	0.021		0.000	0.000	0.00	0
Wed	12/08/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	12/09/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	12/10/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	12/11/21	0.44	0.460	0.690	0.90	0.290		0.000	0.000	0.00	0
Sun	12/12/21	0.00	0.000	0.000	0.00	0.355		0.000	0.000	0.00	0
Mon	12/13/21	0.00	0.000	0.000	0.00	0.068		0.000	0.000	0.00	0
Tue	12/14/21	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	12/15/21	0.21	0.058	0.300	0.60	0.006		0.000	0.000	0.00	0
Thu	12/16/21	0.40	0.257	0.450	0.70	0.424		0.000	0.000	0.00	0
Fri	12/17/21	0.00	0.000	0.000	0.00	0.013		0.000	0.000	0.00	0
Sat	12/18/21	0.69	0.000	0.000	0.00	0.028		0.000	0.000	0.00	0
Sun	12/19/21	0.00	0.000	0.000	0.00	0.020		0.000	0.000	0.00	0
Mon	12/20/21	0.00	0.000	0.000	0.00	0.113		0.000	0.000	0.00	0
Tue	12/21/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	12/22/21	0.41	0.000	0.050	0.20	0.075		0.000	0.000	0.00	0
Thu	12/23/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	12/24/21	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	12/25/21	0.51	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	12/26/21	0.00	0.000	0.000	0.00	0.041		0.000	0.000	0.00	0
Mon	12/27/21	0.05	0.000	0.000	0.00	0.007		0.000	0.000	0.00	0
Tue	12/28/21	0.22	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	12/29/21	0.08	0.000	0.000	0.00	0.007		0.000	0.000	0.00	0
Thu	12/30/21	0.12	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	12/31/21	0.00	0.000	0.000	0.00	0.000	100.7	0.000	0.000	0.00	0
<b>TOTALS</b>	<b>Min</b>	0.00	0.000	0.000	0.00	0.000	100.7	0.000	0.000	0.00	0
	<b>Max</b>	0.69	0.460	0.690	0.90	0.424	100.7	0.000	0.000	0.00	0
	<b>Total</b>	4.03	0.775	1.490	2.40	<b>1.500</b>	100.7	<b>0.000</b>	<b>0.000</b>	0.00	<b>0</b>
	<b>Avg</b>	0.13	0.025	0.048	0.08	0.048	100.7	0.000	0.000	0.00	0
<b>TOTAL # of EVENTS in the MONTH</b>											<b>0</b>



**APPENDIX 3:      DWO REPORTS**



Michael Williams  
**SUEZ, City of Holyoke WPCF**  
1 Berkshire Street, Holyoke MA 01040  
Tel: 413-534-2222 Fax: 413-536-5213  
Email:mike.williams@suez.com

May 14, 2021

Matt Sokop  
Section Chief – Water Pollution Control  
[Matthew.sokop@state.ma.us](mailto:Matthew.sokop@state.ma.us)

Dear Matt Sokop:

This letter is a follow-up to the discharge that occurred on May 11, 2021 at the CSO #18B. location. A scheduled bypass was planned on the Highland Park interceptor to repair a collapse. At approximately 10:20am, Collections System Operator Ozzie P. called and informed Collection System Manager Kevin L that the bypass pump was not keeping up with the flow. They had set up a second pump to aid with pumping down the manhole and kept it from surcharging out of the manhole. At 10:28 am, the plant SCADA system received a high-level alarm for the Highland Park Pump Station. Operator Dennis Flores informed Kevin that the Pump Station was in high level alarm and that it was about to discharge to the CSO outfall. At that moment, we immediately abandoned the schedule repair and reestablished flow to normal operation. The interceptor flow returned to normal by 11:00am and a total discharge 12,700 gallons occurred out of CSO 18B.

Best regards,

*Michael Williams*

Michael Williams  
Project Manager

**APPENDIX 4:      SSO REPORTS**



**Massachusetts Department of Environmental Protection**  
 Bureau of Water Protection – Wastewater Management Program  
**Sanitary Sewer Overflow (SSO)/Bypass**  
**Notification Form**

FOR DEP USE ONLY

Tax Identification Number \_\_\_\_\_

**A. Reporting Facility**

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



See DEP Regional Office telephone and fax numbers at the end of this form.

1. Facility Information

Holyoke Water Pollution Control Facility/SUEZ Environmental Inc. MA101630  
 Reporting Sewer Authority Permit #

2. Authorized Representative Transmitting Form:

Kevin Lukasiewicz 413-534-2222  
 First Name Last Name Telephone No.  
Collections System Manager Kevin.Lukasiewicz@suez.com  
 Title E-mail Address

**B. Phone Notifications:**

1. **MassDEP staff** contacted: Dan Kurpaska  
 first name last name  
 Date/Time contacted: 01/25/2021 9:57  am  pm  
 Date Time
2. **EPA staff** contacted: Douglas Koopman  
 first name last name  
 Date/Time EPA contacted: 01/25/2021 10:01  am  pm  
 Date Time
3. Board of Health contacted: Sean Gonsalves  
 First Name Last Name  
 Date/Time contacted: 01/25/2021 10:03  am  pm  
 Date Time
4. Others notified (select all that apply);  Conservation Commission  
 Harbormaster  Shellfish Warden  Division of Marine Fisheries  
 Downstream Drinking Water Supplier  Watershed Association  
 Beach Resource Manager  Other: \_\_\_\_\_  
 (specify)

**C. SSO Information**

1. SSO Discovered: 01/25/2021 8:10  am  pm  
 Date Time  
 By: Holyoke Water Works
2. SSO Stopped: 01/25/2021 9:15  am  pm  
 Date Time
3. SSO Discharge from:  Sanitary Sewer Manhole  Pump Station  
 Backup into Property  Other: \_\_\_\_\_  
 (specify)
4. SSO Discharge to:  Ground Surface (no release to surface water)  
 Direct to Receiving Water \_\_\_\_\_  
 (surface water)  
 Catch basin to Receiving Water Green Brook  
 (surface water)  
 Backup into Property Basement



# Sanitary Sewer Overflow (SSO)/Bypass Notification Form

Tax Identification Number \_\_\_\_\_

## C. SSO Information (cont.)

Location: 20 Easthampton Rd.  
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 15 GPM x 1.0 hours= 900 gallons

Method of Estimating Volume: Visual

6. Cause of SSO Event:

Rain Event     Pump Station Failure     Insufficient Capacity in System

Treatment Unit failure

Sewer System Blockage:     Pipe Collapse     Root Intrusion     Grease Blockage

Other: Buildup of grease, rags and wipes.  
(Specify)

7. Corrective Actions Taken:

The crew jet cleaned the sewer main to free the blockage. The obstruction was cleared and free flow was observed. Once blockage was cleared, manhole SMH-6419 were vacuumed out to remove the grease and rags.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Impact Area cleaned and/or disinfected:     Yes     No

Impacted area vacuumed up.

\_\_\_\_\_  
\_\_\_\_\_

Corrective Actions Completed:     Yes     No

The City sewer main was jet cleaned.

\_\_\_\_\_

## D. Comments/Attachments/Follow-up

I wish to provide (select all that apply):

Attachment     Additional comments below:     No additional comments or attachments

Additional comments and planned actions:

On Monday 01/25/2021 at 8:10am, The WPCF received a call from the Holyoke Water Works that water was coming out of a manhole onto the roadway. Collections System personnel were mobilized and responded to the area of University Park Apartments. Collections Crew found SMH-6419 overflowing at about 15 gpm. They immediately started to jet clean the sewer main to free the blockage. The blockage was due due to a buildup of grease and rags. The sewer main was going to be cctv on 1/25/2021 to inspect the the condition of the main.



**Sanitary Sewer Overflow (SSO)/Bypass  
Notification Form**

Tax Identification Number

**E. Certification Statement**

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

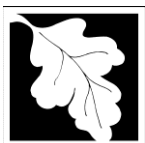
Signature of Authorized Representative

Date Signed

Please keep a copy of this report for your records. When submitting additional information, include the MassDEP Incident Number from this report.

**MassDEP Regional Office and EPA Telephone and Fax Numbers:**

Northeast Region	Phone: 978-694-3215	Fax: 978-694-3499
Southeast Region	Phone: 508-946-2750	Fax: 508-947-6557
Central Region	Phone: 508-792-7650	Fax: 508-792-7621
Western Region	Phone: 413-784-1100	Fax: 413-784-1149
EPA	Phone: 617-918-1510	
EPA for Southeast Region, David Turin	Phone: 617-918-1598	Fax: 617-918-0598
EPA for Northeast, Central and Western Regions, Douglas Koopman	Phone: 617-918-1747	Fax: 617-918-0747
DEP 24-hour emergency	Phone: 888-304-1133	



**Massachusetts Department of Environmental Protection**  
 Bureau of Water Protection – Wastewater Management Program  
**Sanitary Sewer Overflow (SSO)/Bypass**  
**Notification Form**

FOR DEP USE ONLY

Tax Identification Number

**A. Reporting Facility**

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Facility Information

Holyoke Water Pollution Control Facility/SUEZ Water Environmental Services Inc. MA101630  
Permit #

2. Authorized Representative Transmitting Form:

Kevin Lukasiewicz 413-534-2222  
 First Name Last Name Telephone No.  
Collections System Manager Kevin.Lukasiewicz@suez.com  
 Title E-mail Address

**B. Phone Notifications:**

See DEP Regional Office telephone and fax numbers at the end of this form.

1. **MassDEP staff** contacted: Dan Kurpaska  
 first name last name  
 Date/Time contacted: 05/25/2021 10:48  am  pm  
 Date Time
2. **EPA staff** contacted: Douglas Koopman  
 first name last name  
 Date/Time EPA contacted: 05/25/2021 10:50  am  pm  
 Date Time
3. **Board of Health** contacted: Sean Gonsalves  
 First Name Last Name  
 Date/Time contacted: 05/25/2021 10:51  am  pm  
 Date Time
4. Others notified (select all that apply);  Conservation Commission  
 Harbormaster  Shellfish Warden  Division of Marine Fisheries  
 Downstream Drinking Water Supplier  Watershed Association  
 Beach Resource Manager  Other: \_\_\_\_\_  
 (specify)

**C. SSO Information**

1. SSO Discovered: 05/25/2021 8:30  am  pm  
 Date Time  
 By: Homeowner
2. SSO Stopped: 05/25/2021 9:00  am  pm  
 Date Time
3. SSO Discharge from:  Sanitary Sewer Manhole  Pump Station  
 Backup into Property  Other: \_\_\_\_\_  
 (specify)
4. SSO Discharge to:  Ground Surface (no release to surface water)  
 Direct to Receiving Water \_\_\_\_\_  
 (surface water)  
 Catch basin to Receiving Water \_\_\_\_\_  
 (surface water)



**Massachusetts Department of Environmental Protection**  
 Bureau of Water Protection – Wastewater Management Program  
**Sanitary Sewer Overflow (SSO)/Bypass**  
**Notification Form**

FOR DEP USE ONLY

\_\_\_\_\_  
 Tax Identification Number

Backup into Property Basement

**C. SSO Information (cont.)**

Location: 229 Beech St.  
 (Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 100 gallons

Method of Estimating Volume: Visual

6. Cause of SSO Event:

Rain Event     Pump Station Failure     Insufficient Capacity in System

Treatment Unit failure

Sewer System Blockage:     Pipe Collapse     Root Intrusion     Grease Blockage

Other: Buildup rags and wipes.  
 (Specify)

7. Corrective Actions Taken:

The crew jet cleaned the sewer main to free the blockage.

Impact Area cleaned and/or disinfected:     Yes     No

Corrective Actions Completed:     Yes     No

Homeowner was going to pump out basement and install a check valve

**D. Comments/Attachments/Follow-up**

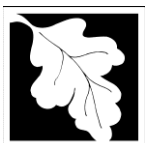
I wish to provide (select all that apply):

Attachment     Additional comments below:     No additional comments or attachments

Additional comments and planned actions:

Tuesday, 05/25/21 at 8:15am the Holyoke WPCF received notification of a backup of water into the basement at an abandoned home at 229 Beech Street. Collection System personnel were





**Sanitary Sewer Overflow (SSO)/Bypass  
Notification Form**

Tax Identification Number

immediately mobilized and dispatched to the area to investigate. Collections personnel located a blockage and immediately began to jet-rod/flush the main and found a blockage of roots and rags.

**E. Certification Statement**

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

*Kevin M. Lukasiwicz*  
Signature of Authorized Representative

*5/27/2021*  
Date Signed

Please keep a copy of this report for your records. When submitting additional information, include the MassDEP Incident Number from this report.

**MassDEP Regional Office and EPA Telephone and Fax Numbers:**

Northeast Region	Phone: 978-694-3215	Fax: 978-694-3499
Southeast Region	Phone: 508-946-2750	Fax: 508-947-6557
Central Region	Phone: 508-792-7650	Fax: 508-792-7621
Western Region	Phone: 413-784-1100	Fax: 413-784-1149
EPA	Phone: 617-918-1510	
EPA for Southeast Region, David Turin	Phone: 617-918-1598	Fax: 617-918-0598
EPA for Northeast, Central and Western Regions, Douglas Koopman	Phone: 617-918-1747	Fax: 617-918-0747
DEP 24-hour emergency	Phone: 888-304-1133	



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