Woodard & Curran

2023 COMBINED SEWER OVERFLOW ANNUAL REPORT

APRIL 2023

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Veolia Water North America on behalf of the City of Holyoke

Woodard & Curran

Prepared on behalf of Veolia Water North America by:
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Signature: [signature]

Title: Vice President

Date: 4/30/2024

Submitted on behalf of the City of Holyoke, Massachusetts by:
Veolia Water North America

Printed Name: Michael Williams

Signature: [signature]

Title: Project Manager

Date: 4/30/24

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2023 ANNUAL REPORTING FOR CSO OPERATION AND SEWER O&M

April 30, 2024

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 the City of Holyoke, Massachusetts, Year 2023

Dear Mr. Moraff:

This letter is prepared on behalf of Veolia Water North America (Veolia) and the City of Holyoke (City) to serve as the 2023 Combined Sewer Overflow (CSO) Annual Report and Operation and Maintenance (O&M) of the Sewer System Annual Report. This annual report supports compliance with the City of Holyoke's National Pollutant Discharge Elimination System (NPDES) permit (No. MA0101630, effective January 25, 2024).

This report is divided into two major chapters. Chapter 1 serves to summarize the operation of the Holyoke CSO system during 2023. Compliance with the Nine Minimum Controls (NMCs) for CSOs, the status of CSO infrastructure, including the location of CSOs, a summary of CSO monitoring data, a review of CSO abatement work, and receiving water quality impact analysis are provided. Chapter 2 summarizes the annual Operation and Maintenance activities within the Holyoke POTW. Analysis in this Chapter serves as the annual report of Sewer O&M activities for 2023.

1. CSO ANNUAL REPORT

The City of Holyoke Department of Public Works (DPW) is authorized to discharge from the facility located at Holyoke Water Pollution Control Facility (WPCF) and combined sewer overflow (CSO) discharges at 10 locations to the Connecticut River under the National Pollutant Discharge Elimination System (NPDES) permit number MA0101630, authorized for renewal on January 25, 2024. Part I.H.4 of the permit requires the annual reporting of activities during the previous calendar year relating to compliance with the nine minimum controls (NMCs).

1.1 Nine Minimum Controls (NMCs)

Combined sewer overflow discharges are permitted at 10 distinct locations within the Holyoke Publicly Owned Treatment Works (POTW) system, provided that the CSO effluent meets quality standards achieved by implementation of the Nine Minimum Controls. Those Controls are as follows:

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;
9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Compliance with NMCs 1, 2, and 4 is accomplished by routine inspection of CSOs infrastructure. This includes all CSO structures or regulators, CSO pump stations, and tide gates. Inspections shall be conducted at least monthly to assess their condition and adjust or maintain the infrastructure. The City inspects this infrastructure three times per week, or after each 0.04" of accumulated rainfall. Inspection results must be recorded and maintained by the Permittee for at least three years.

Compliance with NMCs 3, 6, and 7 can be accomplished by prohibiting discharges of septage, holding tank wastes or other material that may cause visible oil sheen or contain floatable materials during wet weather events when CSO discharges may occur. Compliance with NMC 5 is accomplished by prohibiting and preventing dry weather overflows (DWOs). Compliance with NMC 8 is accomplished by public notification of CSO discharges. Notification shall be made in accordance with the Public Notification Plan provided to the Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MassDEP) and Part I.H.3.f and .g of the NPDES permit. Compliance with NMC 9 is achieved by quantifying and recording discharges from CSOs.

Finally, implementation of the Nine Minimum Controls must be documented by an annual report. This report serves that purpose for the City of Holyoke for the reporting year 2023. The report sections to follow

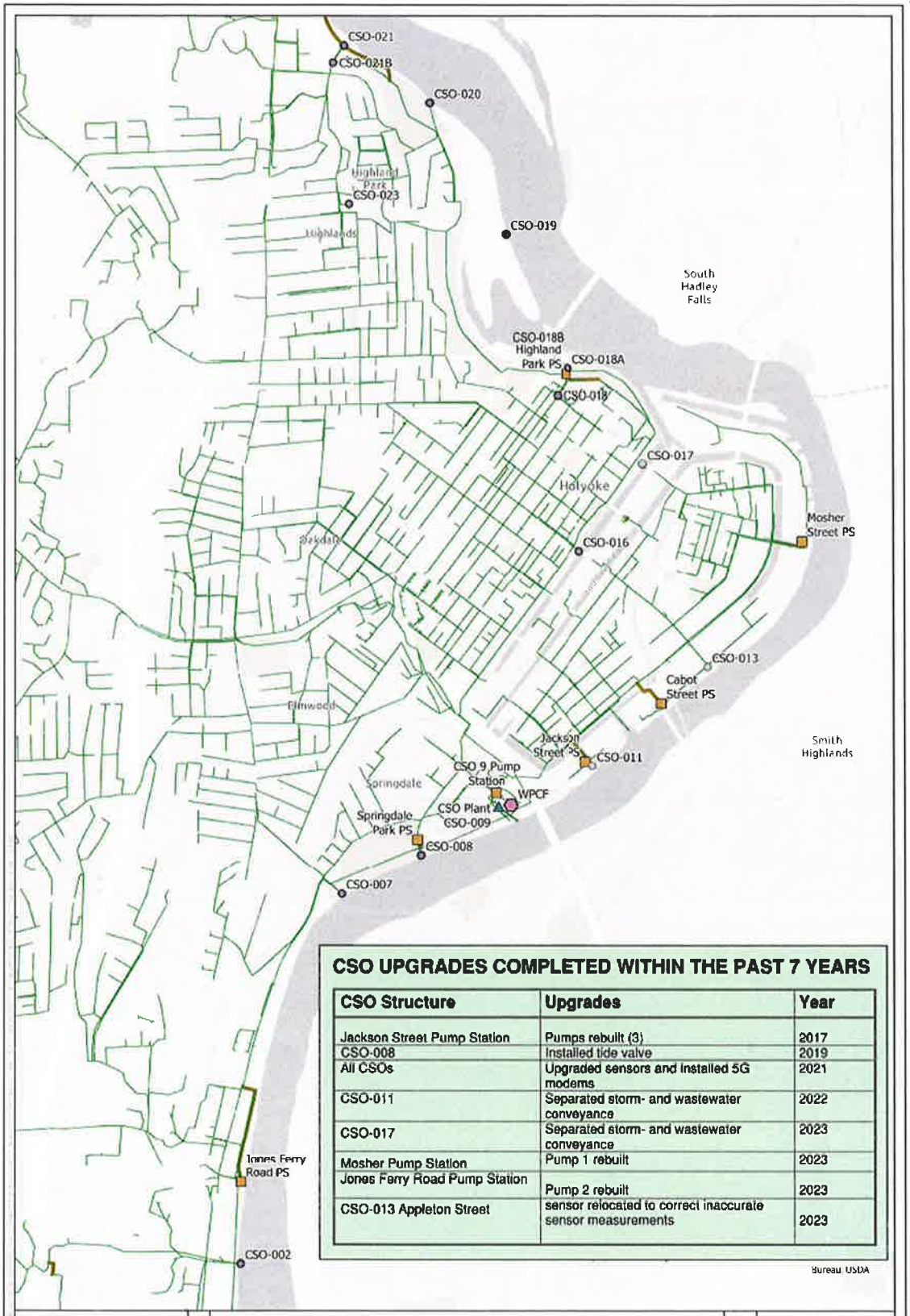
summarize activities relating to compliance with the NMCs, including the locations of CSOs, a summary of CSO outfall monitoring data required by Part I.H.5 of this permit, status and progress of CSO abatement work, and the impacts of CSOs on water quality of the receiving water.

1.2 Summary of Permitted CSOs and Related Infrastructure

The City of Holyoke DPW is authorized to discharge combined storm- and wastewater to the Connecticut River from the CSO Outfalls listed below during wet weather. The list below summarizes the NPDES permitted outfall locations.

Outfall	Latitude	Longitude	Description
002	42° 10' 18.1305" N	72° 37' 47.8194" W	Providence Hospital
007	42° 11' 11.4228" N	72° 37' 22.3278" W	Northampton St./Glen St
008	42° 11' 17.4372" N	72° 37' 6.3366" W	Springdale Park
009	42° 11' 24.8244" N	72° 36' 42.6636" W	Berkshire
016	42° 12' 14.0868" N	72° 36' 27.7122" W	Front St./Appleton St.
018	42° 12' 42.3" N	72° 36' 21.8442" W	Walnut St.
019	42° 13' 9.2496" N	72° 36' 46.872" W	Yale St.
020	42° 13' 31.9578" N	72° 37' 2.0136" W	Cleveland St.
021	42° 13' 41.7966" N	72° 37' 21.4782" W	River Terrace
023	42° 13' 20.6226" N	72° 37' 28.4304" W	Jefferson

The WPCF, CSO 002, 007, 008, 009, and 016 discharge to Connecticut River Segment MA34-05. CSO 018 019, 020, 021, and 023 discharge to the Connecticut River Segment MA34-04. Both receiving water segments lie within the Connecticut River Watershed. In addition to the permitted Connecticut River discharges, the City maintains and monitors CSO infrastructure at 3 additional locations: CSO 018A, CSO 018B, and CSO-021B. The locations of these CSOs, and additional CSO control structures are shown in **FIGURE 1** below.



CSO UPGRADES COMPLETED WITHIN THE PAST 7 YEARS

CSO Structure	Upgrades	Year
Jackson Street Pump Station	Pumps rebuilt (3)	2017
CSO-008	Installed tide valve	2019
All CSOs	Upgraded sensors and installed 5G modems	2021
CSO-011	Separated storm- and wastewater conveyance	2022
CSO-017	Separated storm- and wastewater conveyance	2023
Mosher Pump Station	Pump 1 rebuilt	2023
Jones Ferry Road Pump Station	Pump 2 rebuilt	2023
CSO-013 Appleton Street	sensor relocated to correct inaccurate sensor measurements	2023

CSO Pump Stations and Outfalls
City of Holyoke, MA

Legend
- Sewer/Combined Sewer Mains
- Sewer Force Mains
- Pump Stations
- CSO Plant
- Separated CSO Outfalls
- WPCF
- CSO Outfalls

N

Woodard & Curran
Project #: 20220422
Map Created: April 2024

Third Party GIS Disclaimer. This map is for reference and graphical purposes only and shouldn't be relied upon by third parties for any legal decision. Any reference upon this map or data contained herein shall be at the users sole risk. Data Sources:

CSOs 002, 007, 008, 016, 018, 018A, 018B, 019, 020, 021, 021B, and 023 are combined sewer outfalls. CSO-009 is the Berkshire Combined Sewer Outfall Treatment Facility. Additional CSO infrastructure in the Holyoke POTW system includes several pump stations located in the POTW collection system:

- Jones Ferry Road Pump Station
- Springdale Park Pump Station
- CSO-09 Pump Station
- Jackson Street Pump Station
- Cabot Street Pump Station
- Mosher Street Pump Station
- Highland Park Pump Station
- Smith's Ferry Pump Station

1.3 Combined Sewer Outfall Monitoring and Discharge Summary

Permit compliance with NMC 9 requires the City to quantify and record all discharges from CSOs (per NPEDES Part I.H.4). CSOs 002, 007, 008, 016, 018, 018A, 018B, 019, 020, 021, 021B, and 023 are combined sewer outfalls whereas CSO-009 is the Berkshire Combined Sewer Outfall Treatment Facility. Discharges from these CSO structures are permitted differently under the City's NPDES permit. Permit reporting and monitoring requirements are described in Section 1.3.1 for CSO Outfall discharges and Section 1.5 describes the permit and monitoring requirements for the Berkshire Street CSO Treatment Facility through CSO-009.

1.3.1 Permit monitoring and reporting requirements for CSO discharges

Discharges from the CSO outfalls (CSOs 002, 007, 008, 016, 018, 018A, 018B, 019, 020, 021, 021B, and 023) are subject to the following permit requirements:

TABLE 1: COMBINED SEWER OUTFALL DISCHARGE REPORTING AND MONITORING REQUIREMENTS

PARAMETERS	REPORTING REQUIREMENTS	MONITORING REQUIREMENTS	
	TOTAL MONTHLY	MEASUREMENT FREQUENCY	SAMPLE
Total Flow	Gallons	Daily during discharge	Continuous
Total Discharge Duration	Hours	Daily during discharge	Continuous
Total Discharge Events	Count	Daily during discharge	Count

Additionally, National Weather Service (NWS) precipitation data from the nearest gauge where precipitation is available at daily (24-hour) intervals and the nearest gauge where precipitation is available at one-hour intervals should be recorded for each discharge event so that cumulative precipitation per discharge event may be calculated. Three rain gauges throughout the POTW system are used to record precipitation data. They are located at CSO-009, CSO-008, and CSO-018B. Precipitation data and resulting discharges are reported to EPA and MassDEP monthly and are included in this Annual Report as Appendix 1.

1.4 2023 CSO Outfall Monitoring

Veolia staff monitor the City CSO infrastructure using pressure sensors and area velocity flow meters and in-person inspections of each CSO. Remote pressure sensor and area velocity flow metering data is sent to the WPCF for daily review. Remote monitoring at each CSO is continuous. The pressure sensors and modems for all CSO locations were recently upgraded (2021). Each CSO is inspected approximately three times per week and following weather events that generate at least 0.4 inches of precipitation. During inspections, staff record woodblock observations and inspect CSO infrastructure. Adjustments to equipment are made during inspections to reduce CSO overflows.

1.4.1 2023 CSO Outfall Discharge Summary

Detailed CSO information and daily rainfall and discharge data are provided as an Appendix to this Annual Report. However, CSO discharges throughout the 2023 reporting year are summarized here. Figures 2-1 and 2-2 present time series, by month, of the rainfall recorded, the number of CSO discharge events, and the number of woodblock activations observed at each CSO. For all CSOs, the highest rainfall was recorded in July. In all cases, this was accompanied by the highest number of CSO discharges in a month during the year. Given the combined nature of the Holyoke collection system, this is to be expected and is an indication of a normally operating collection system.

FIGURE 2-1: SUMMARY OF RAINFALL, CSO OUTFALL DISCHARGE EVENTS, AND WOODBLOCK ACTIVATIONS, BY MONTH

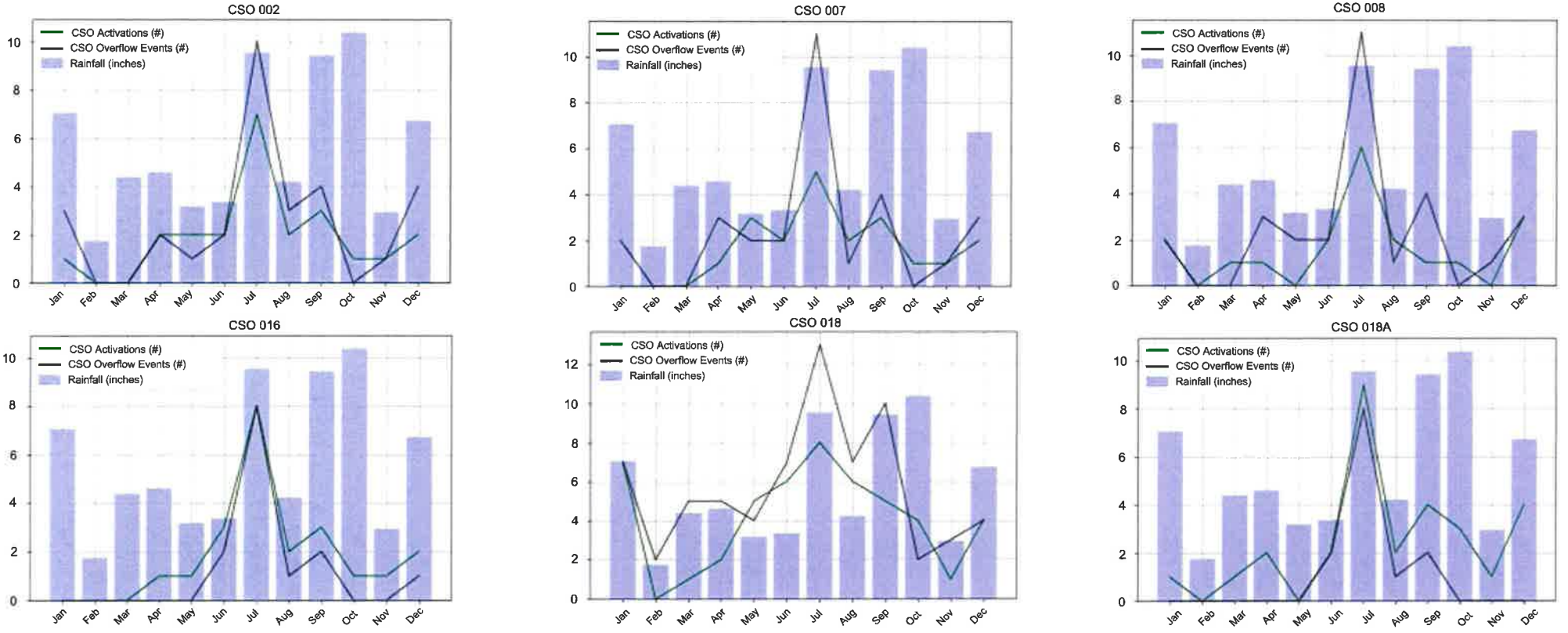


FIGURE 2-2: SUMMARY OF RAINFALL, CSO OUTFALL DISCHARGE EVENTS, AND WOODBLOCK ACTIVATIONS, BY MONTH

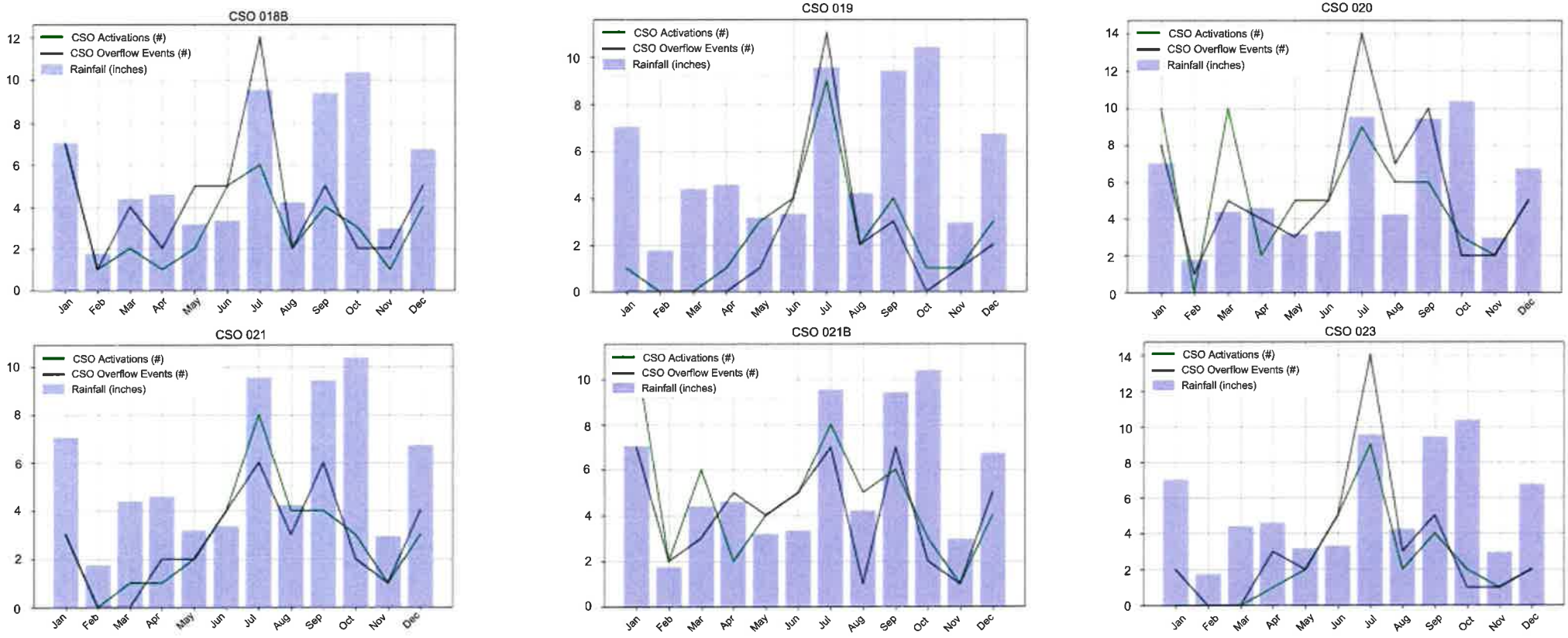
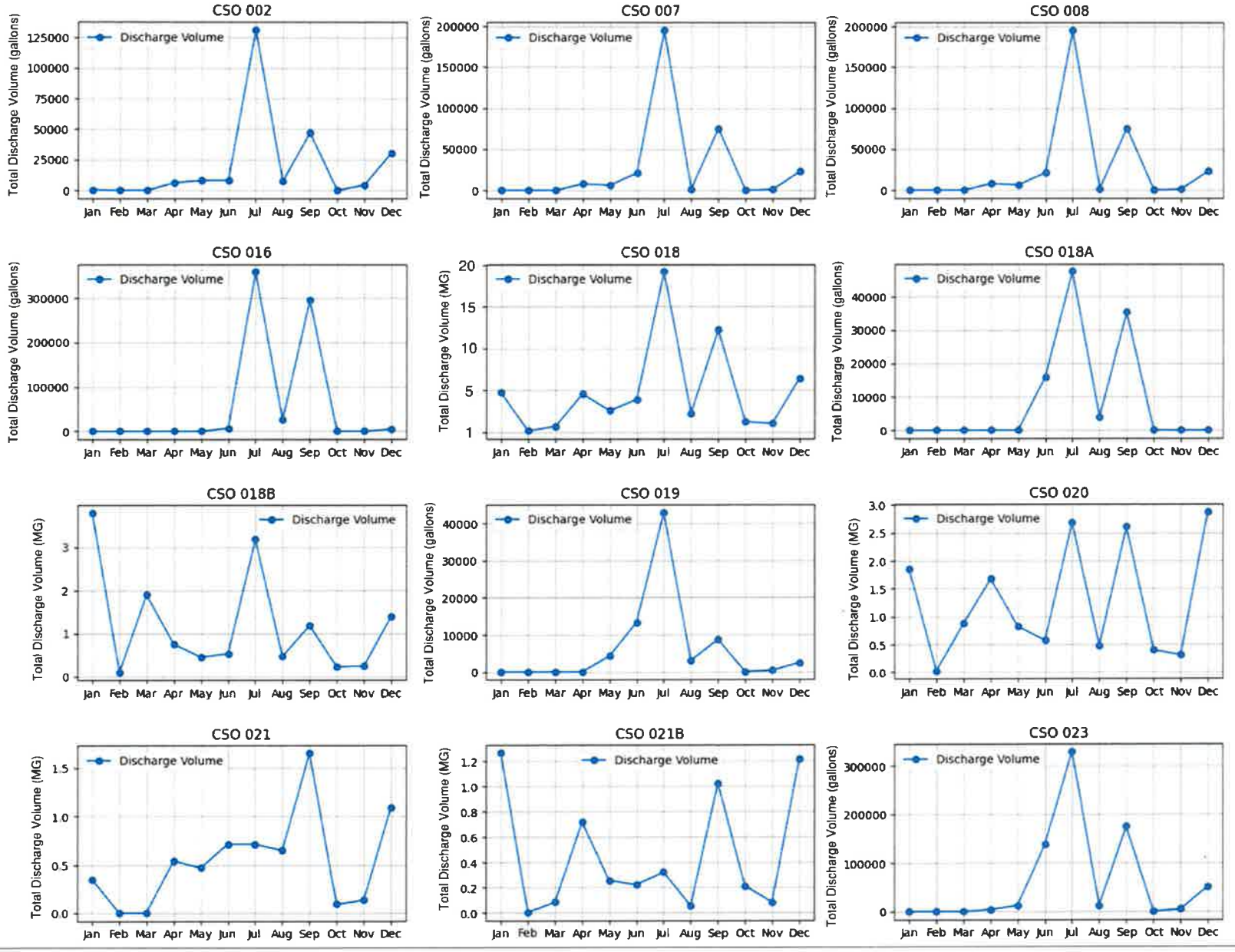


Figure 3: Summary of CSO Discharge Volumes, by Month



In most cases, July again represents the month with the highest volume of flow discharged of any month in 2023. Notably, this is not the trend for CSO-020, CSO-021, and CSO-021B. These CSOs discharged higher volumes of flow in September, despite recording a similar amount of rainfall during July and September and experiencing the same number of woodblock activations or discharge events as July. This is a universal condition at the CSOs: similar amounts of rainfall were recorded by gauge in both July and September. However, in all CSOs except CSO-021 and CSO-021B, July was the month with the highest volume of CSO discharge. These data may indicate some impact to the hydraulics in the region around CSO-021. This hydraulic condition is known by the City and these CSOs are scheduled for separation. The dates for separation are summarized in Section 1.7.

1.5 Permit monitoring and reporting requirements for discharge at the Berkshire Street CSO Treatment Facility through CSO-009

Discharges from the Berkshire Street CSO Treatment Facility through CSO-009 are subject to the following monitoring and reporting requirements:

TABLE 2: BERKSHIRE STREET CSO TREATMENT FACILITY DISCHARGE AND REPORTING REQUIREMENTS

EFFLUENT	EFFLUENT LIMITS		MONITORING REQUIREMENTS	
PARAMETER	AVERAGE MONTHLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE
E. Coli Bacteria	126 cfu/100 ml	409 cfu/100 ml	1 Event/Month, Hourly	Grab
Total Residual Chlorine	---	0.24 mg/L	Hourly	Grab
pH Range	Report Maximum and Minimum, S.U.		1 Event/Month	Grab
BOD_5	Report mg/L and lb/day	Report mg/L and lb/day	2/Year	Event Composite
TSS	Report mg/L and lb/day	Report mg/L and lb/day	2/Year	Event Composite
TKN, NO_3^-, NO_2^-, NH_3-N, TN	Report mg/L and lb/day	********	2/Year	Event Composite
LC_{50}	Report		2/Year	Event Composite

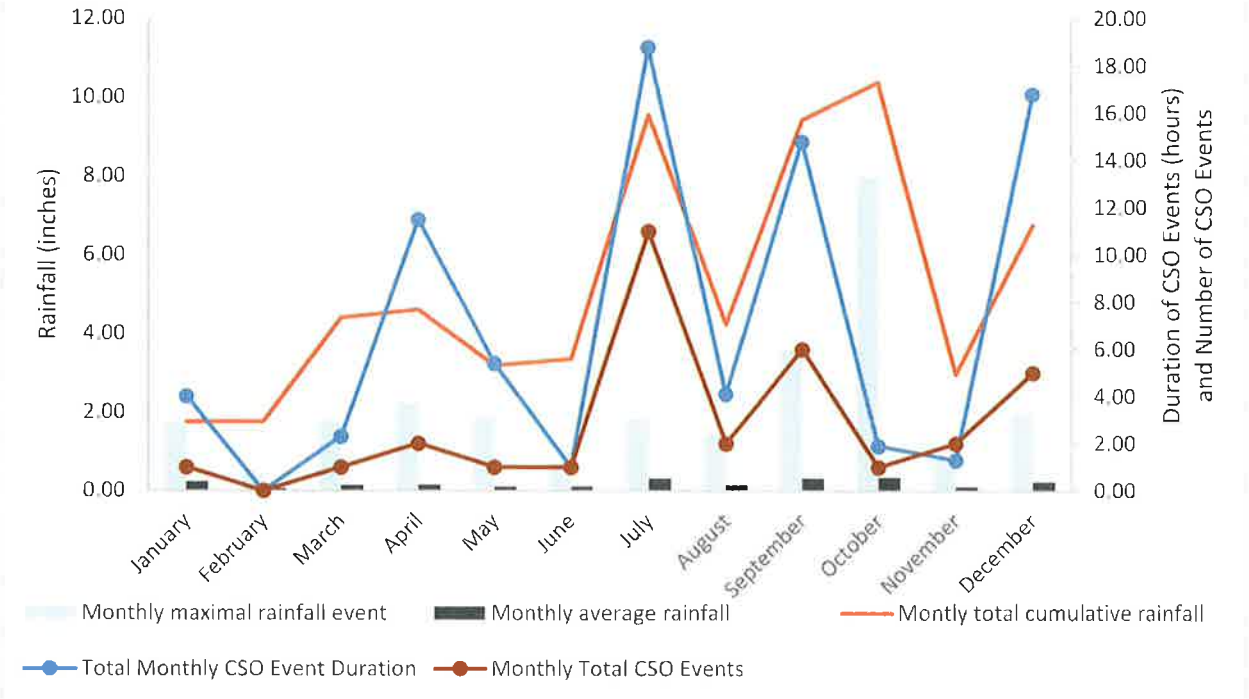
PARAMETER	TOTAL MONTHLY	MEASUREMENT FREQUENCY	SAMPLE TYPE
Total Flow (Treated Flow from Facility)	Report Gallons	Daily, when discharging	Continuous
Total Flow (Untreated Flow to River)	Report Gallons	Daily, when discharging	Continuous
Total Flow (Drained back to WPCF)	Report Gallons	Daily, when discharging	Continuous
Total Flow (Duration of flow through facility)	Report Hours	Daily, when discharging	Continuous
Number of CSO Events	Report Monthly Count	Daily, when discharging	Count

The City is required to submit monthly operating reports for the Berkshire Street CSO Treatment Facility to EPA and MassDEP. Monthly Operating reports for the Berkshire Street CSO Treatment Facility are attached to this Annual Report as Appendix 2.

1.6 2023 CSO-009 BERKSHIRE STREET TREATMENT FACILITY DISCHARGES

The Berkshire Street CSO Treatment Facility captures the majority of CSO 009 regulator overflows. The Berkshire CSO Report, provided in Appendix 2, compiles the daily activity at this CSO in 2023. Figure 4 contextualizes the CSO-009 operating year with a time series of CSO-009 average and maximum discharge events, by month.

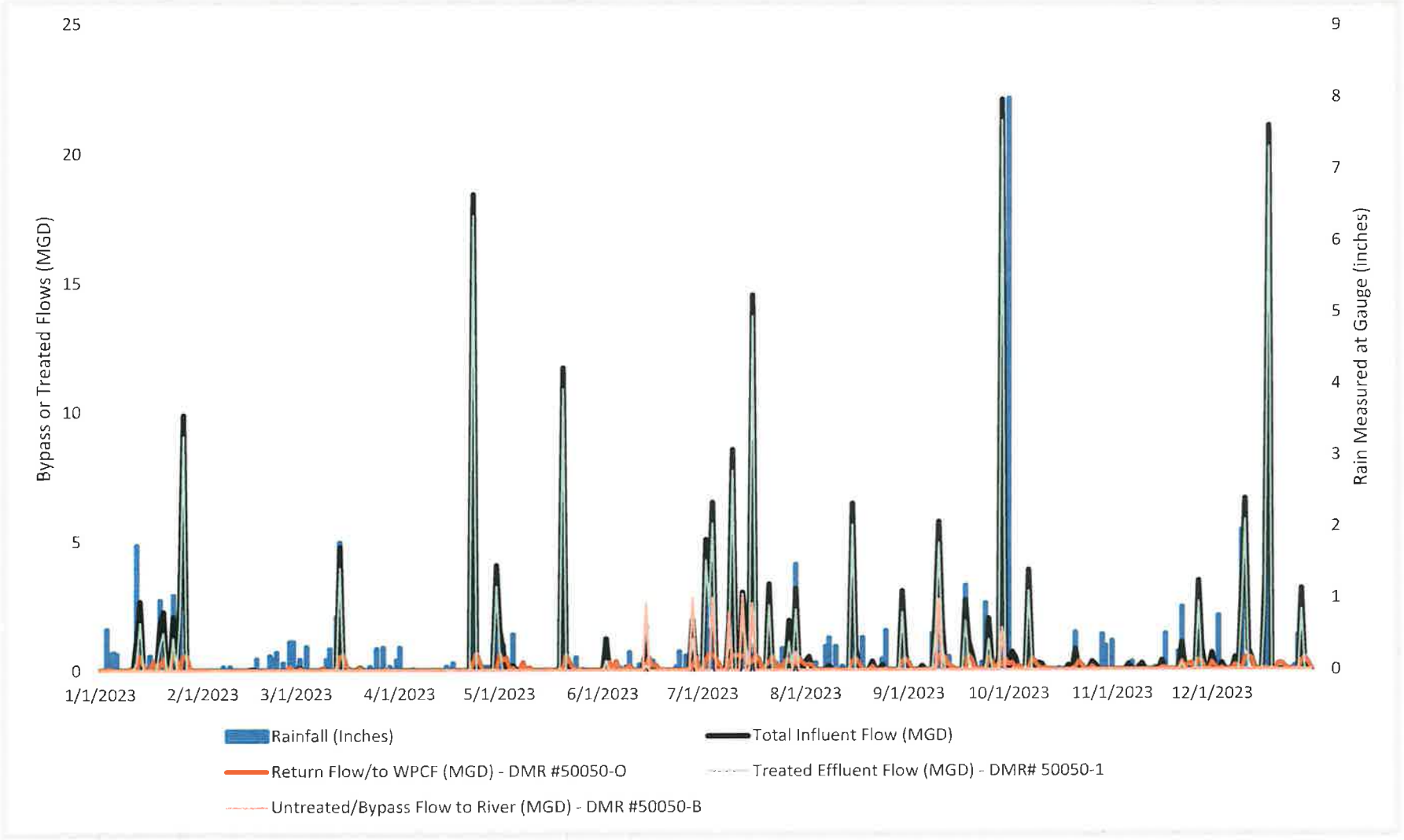
Figure 4: Rainfall and CSO-009 Discharge Events by Month



A review of Figure 4 demonstrates that the event duration of a precipitation event has a greater predictive capacity for likelihood of generating a discharge from CSO-009 than the total rainfall quantified at the rain gauge. This gives some indication that storage within the collection is being effectively used: large storm events, as measured by rain recorded at the rain gauge, may generate a single discharge event from instantaneous surcharging of the POTW, but the condition does not seem to persist. A comparison of October's significant rainfall event with the smaller, but more numerous wet weather events in July makes this clear.

Figure 4 and Figure 5 to follow also give insight into inflow and infiltration impacts on the Holyoke collection system. An increased number of CSO discharges correspond well with measurable rain events. There is a lack of CSO discharge during the spring months when high groundwater levels might cause groundwater infiltration into the collection system. Both Figure 4 and 5 demonstrate notably few spring CSO discharge events, but a strong correlation between measurable rainfall in the summer and fall and CSO discharge. This is a strong indication that the primary contributor of flow to the Holyoke POTW is inflow of stormwater to the combined collection system rather than infiltration of groundwater.

FIGURE 5: ANNUAL RAINFALL, CSO-009 TREATMENT FACILITY INFLUENT, EFFLUENT, AND BYPASS FLOWS IN 2023



The following observations summarize the significant storm and discharge events during 2023:

- In 2023, there were 142 rainfall events with measurable rainfall. The total rainfall for the year measured 67.67 inches.
- There were 36 events in 2023 that did result in activations, or flow recorded to the CSO 9 facility. The total volume of flow to the CSO 9 facility was approximately 228 MG in 2023. This is significantly higher than the 2022 value of 117 MG and an indication of the significant rain events recorded at the facility in 2023.
- Of the 228 MG discharged to the CSO 009 facility in 2023, 40.1 MG were returned to the Water Pollution Control Facility (WPCF) for secondary treatment.
- In 2023, there were 36 events leading to combined sewer flow exceeding the storage tank volume. Excess flows from these events were disinfected and discharged. The approximate volume that discharged through the basins was 179 MG.
- Nine storm events in 2023 were significant enough that overflows occurred without treatment. Seven of these 9 events occurred within six weeks of each other, between June 14 and July 29. These event account for a total of 21 MG of CSO that went untreated in 2023. The smallest rainfall event leading to an untreated overflow was 0.2 inches on July 16, 2023.

Rainfall is further separated into categories of rain events, by inches of rain measured at the WPCF gauge during the event. This analysis is presented in Table 1 to follow.

Table 1: Impact of Rainfall on WPCF Average Influent Flow

Volume of Rain Received During Event	Average WPCF Flow (MGD)	Number of Days in Range
>1"	13.76	16
0.5"-1"	10.92	20
0.1"-0.5"	8.43	51
<0.1"	7.73	40
No Rain Event	7.17	223

A brief revision of the data presented in the table reveals that a significant volume of flow treated at the Holyoke WPCF is comprised of stormwater during wet-weather events. Sixty-one percent of days in 2023 did not have a rain event, with an average flow of 7.17 MGD. Days with more than 1 inch of rain accounted for 0.04 percent of days during the year, and the flow for these days averages to 13.76 MGD.

1.7 Status and progress of CSO abatement work

The City is completing several sewer separation projects in compliance with the requirements of CSO Remedial Measures identified in Consent Decree Case 3:19-cv-10332-MGM. Those activities are as follows:

1. Submission of design of sewer separation for River Terrace (CSO Area 21A) to MassDEP by July 1, 2024
2. Submission of design of sewer separation for River Terrace (CSO Area 21B) to MassDEP by July 1, 2026

3. Construction completion of sewer separation projects for River Terrace (CSO Area 21A) by December 31, 2027
4. Construction completion of sewer separation projects for River Terrace (CSO Area 21B) by December 31, 2029
5. Submission of design of sewer separation for Springdale Park (CSO Area 8) to MassDEP by July 1, 2034
6. Construction completion of sewer separation projects for Springdale Park (CSO Area 8) by December 31, 2037.

Based on the data reviewed in this Annual Report, it is concluded that the quantity of extraneous clean water entering the Holyoke collection 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.

1.8 CSO Annual Report Certification

Each of the City's CSO structures and pumping stations are physically inspected three times per week or following rainfall of 0.4 inches. Daily checks are completed electronically using the Flow Assessment platform. The inspections ensure that the CSO structures are in working order and are adjusted as necessary to minimize combined sewer discharged and intrusion of flow due to high river stage. Physical 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.

Veolia and the City of Holyoke certify that the year 2023 inspections were conducted, physical inspection results recorded, and records maintained. The following is a certification that inspections were completed for 2023, 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 2023; that the results of the physical inspections were recorded, and the records are maintained.

_____ _____

Michael Williams Date

Project Manager

Veolia Water North America

2. SEWER SYSTEM O&M ANNUAL REPORT

Part 1.C.3. of the Holyoke NPDES permit requires the submission of an Annual Sewer System O&M Report providing update to the years' O&M Plan implementation.

2.1 Staffing

Veolia Water North America, operators of the Holyoke WPCF, Berkshire Street CSO Treatment Facility, and POTW operated with 17 personnel in 2023. There is currently one open position at the WPCF. Veolia submits a staffing report to MassDEP regarding the operation of the WPCF. This report is filed throughout the 2023 operational year.

2.2 Maintenance Activities and Corrective Actions

In 2023, the City/Veolia cleaned 50,346 linear feet of sewer via vacuuming and jetting. They inspected 800 linear feet by CCTV and cleaned out 377 catch basins. All streets in the City were swept at least once. Those streets that lie within the City's separated Municipal Separate Storm Sewer System (MS4) area were swept twice in 2023, per the MS4 permit.

Additional maintenance activities were focused on the following areas:

- Neighborhoods, and
- Known hot spots throughout the collection system.

Corrective actions within the POTW system were as follows:

- Additions of smart covers in the collection system, and
- Monitoring locations on the hot spot list.

Based on operations insights gained in 2023, Veolia plans to implement the following corrective actions and maintenance activities during 2024:

- Add 2 additional smart manhole covers in the collection system.

2.3 Collection System Maintenance Expenditures

In 2023, the City/Veolia spent $840,941.46 on collection system maintenance activities and corrective actions.

2.4 Summary of Unauthorized discharges in 2023

Part I.B. of the Holyoke NPDES permit states:

> "This permit authorizes discharges only from the outfall listed in Part I.A.1 and ten combined sewer overflow outfalls (CSOs) listed in Part I.H.1 in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this permit."

Furthermore, Part I.H.3.d. asserts that "Dry weather overflows ("DWOs") are prohibited (NMC # 5)." DWO and SSOs are considered unauthorized discharges and any unauthorized discharges that occurred during 2023 will be summarized to follow.

2.4.1 SSOs

In 2023, four SSOs were reported. The Massachusetts Department of Environmental Protection (MassDEP), the Environmental Protection Agency (EPA), and the Board of Health were contacted about the discharges as required by permit. Documentation of each SSO has been attached to this report as Appendix 3.

March 17, 2023: The discharge occurred near the Highland Park Pump Station over 3 hours and 15 minutes, from 10:45 AM to 2:00 PM. The estimated discharge volume was 600 gallons, discharged to the ground surface but did not discharge to surface water. The force main for the Highland Park Pump station failed. The station was bypassed, and pumps turned off to avoid more discharge. The force main was repaired on Monday, March 27, 2023.

March 21, 2023: The discharge occurred near 2 Grover Street, for a period of 20 minutes, from 8:40 PM to 9:00 PM, with an estimated discharge of 5 to 7 gallons. The discharge came from a sanitary sewer manhole and discharged to the ground surface. The cause of this SSO was a blockage of roots, grease, and debris. Manhole P20-5982 was vacuumed, and the sewer main was jet cleaned to clear the blockage, and the surrounding area was washed and vacuumed.

October 25, 2023: For a period of 1 hour and fifteen minutes from 10:45 AM to 12:00 PM between 25 and 50 gallons were discharged to the ground surface from a manhole at 105 Old Easthampton Road. The crew discovered manhole E28-6669 overflowing. Operations staff vacuumed the manhole and jet cleaned the main to resolve the overflow. The blockage was caused by a buildup of grease, rags, and other debris, which appeared to be toothpaste tubes. The tubes may have been from a rehabilitation center nearby.

November 9, 2023: Between 12:20 and 2:00 PM, fewer than 100 gallons was discharged from manhole SMH-5992.1 to the ground surface near 58 Canal Street. The discharge volume was visually estimated. The discharge occurred due to a buildup of debris, and the manhole was vacuumed, and the sewer main jet cleaned. This section of the sewer main is scheduled for CCTV as soon as possible.

2.4.2 DWOs

No DWOs occurred during 2023.

2.5 I/I Assessment and Plant Capacity Evaluation

Part I.C.3.f of the Holyoke POTW NPDES permit requires the Permittee to annually review the available capacity at the WPCF to assess the need for permit modification and inflow and infiltration remediation. An annual average influent flow exceeding 80 percent of the facility's 17.5 MGD design flow (14 MGD) would trigger this evaluation. WPCF daily monitoring data were reviewed to calculate this flow.

In 2023, the annual average influent flow to the WPCF was 8.0 MGD. By permit, the WPCF is required to calculate and address inflow and infiltration to the WPCF when the annual average plant flow exceeds eighty percent of design capacity. The Holyoke WPCF is permitted with a design capacity of 17.5 MGD, which results in a threshold capacity of 14 MGD to remain within permit. Despite the impact of stormwater inflow

to the system, the WPCF operates with significant additional treatment capacity. The Berkshire Street CSO Facility discharged overflows in 2023 that are attributable to the hydraulic limitations of the collection and treatment systems, and not the result of an exceedance of WPCF treatment capacity.

A significant source of inflow in the City's wastewater collection system is stormwater. Rainfall, CSO discharge, and Treatment Facility time series graphs previously reviewed (Chapter 1 Section 6) in this Report revealed the major impact of storm events on CSO discharge frequency and volume. Additionally, there is an absence of CSO discharges during high groundwater months, e.g. in the spring during snow melt. It is therefore concluded that the primary contributor of inflow and infiltration into the Holyoke POTW system is from inflow rather than infiltration. It is concluded that sewer separation projects will meaningfully reduce the quantity of stormwater treated at the WPCF. These upgrades are recommended.

APPENDIX 1: CSO FLOW MONITORING ANNUAL REPORTS

Holyoke, MA
CSO 002
Main Street at Lug Handle Road
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/12/2023 21:50	1/12/2023 23:40	110	0.84	0.22	31	0.000031
2	1/19/2023 22:30	1/19/2023 23:35	65	1.08	0.26	141	0.000141
3	1/25/2023 22:50	1/26/2023 1:20	150	0.68	0.31	236	0.000236
4	4/23/2023 4:30	4/23/2023 12:30	480	2.42	0.31	5,660	0.00566
5	4/30/2023 18:30	4/30/2023 18:35	5	0.82	0.23	475	0.000475
6	5/20/2023 14:35	5/20/2023 19:50	315	0.41	0.15	8,132	0.008132
7	6/14/2023 15:05	6/14/2023 15:25	20	0.58	0.57	4,186	0.004186
8	6/28/2023 16:00	6/28/2023 16:20	20	0.28	0.27	4,101	0.004101
9	7/2/2023 4:05	7/2/2023 8:10	245	1.52	0.48	10,811	0.010811
10	7/3/2023 23:25	7/4/2023 0:05	40	1.18	0.79	26,398	0.026398
11	7/4/2023 11:00	7/4/2023 11:10	10	0.87	0.72	2,206	0.002206
12	7/9/2023 12:40	7/9/2023 13:10	30	0.43	0.35	7,243	0.007243
13	7/10/2023 6:05	7/10/2023 8:00	115	0.96	0.33	13,562	0.013562
14	7/13/2023 23:15	7/13/2023 23:25	10	0.89	0.64	841	0.000841
15	7/16/2023 4:55	7/16/2023 9:25	270	2.38	1.1	61,517	0.061517
16	7/21/2023 19:55	7/21/2023 20:00	5	0.53	0.22	49	0.000049
17	7/27/2023 15:15	7/27/2023 15:40	25	0.49	0.44	3,318	0.003318
18	7/29/2023 17:50	7/29/2023 18:35	45	0.59	0.5	5,260	0.00526
19	8/15/2023 4:10	8/15/2023 4:20	10	1.49	0.37	703	0.000703
20	8/15/2023 7:15	8/15/2023 8:10	55	1.49	0.37	5,340	0.005340
21	8/30/2023 7:55	8/30/2023 8:10	15	0.68	0.59	1,193	0.001193
22	9/10/2023 13:40	9/10/2023 14:20	40	1.21	1.03	1,976	0.001976
23	9/11/2023 4:20	9/11/2023 4:25	5	0.96	0.5	1,322	0.001322
24	9/18/2023 20:55	9/18/2023 21:10	15	1.14	0.33	779	0.000779
25	9/29/2023 8:40	9/29/2023 15:20	400	3.39	0.53	42,941	0.042941
26	11/27/2023 1:50	11/27/2023 2:35	45	0.53	0.37	4,266	0.004266
27	12/10/2023 21:45	12/11/2023 2:50	305	1.29	0.47	6,877	0.006877
28	12/17/2023 18:30	12/17/2023 19:05	35	0.72	0.28	412	0.000412
29	12/18/2023 4:05	12/18/2023 11:10	425	1.66	0.39	22,595	0.022595
30	12/28/2023 6:40	12/28/2023 7:00	20	0.82	0.19	510	0.00051

Total Overflow (MG): 0.243081

Holyoke, MA

CSO 007

Glen Street and Northampton

2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/19/23 23:00	1/19/23 23:10	10	1.08	0.26	2	0.000002
2	1/25/23 23:10	1/25/23 23:20	10	0.68	0.31	93	0.000093
3	4/22/2023 22:00	4/23/23 12:25	865	2.42	0.31	6,738	0.006738
4	4/30/23 18:30	4/30/23 18:35	5	0.82	0.23	120	0.000120
5	4/30/23 20:00	4/30/23 20:10	10	0.82	0.23	937	0.000937
6	5/2/2023 16:45	5/2/23 16:50	5	0.41	0.15	260	0.00026
7	5/20/23 14:30	5/20/23 19:25	295	1.85	0.5	6,014	0.006014
8	6/14/2023 15:00	6/14/23 15:25	25	0.58	0.57	17,826	0.017826
9	6/28/23 16:00	6/28/23 16:15	15	0.28	0.27	3,125	0.003125
10	7/2/2023 5:20	7/2/23 5:25	5	1.52	0.48	335	0.000335
11	7/2/23 7:55	7/2/23 8:05	10	1.52	0.48	1,551	0.001551
12	7/2/23 23:20	7/3/23 0:45	85	1.52	0.48	2,629	0.002629
13	7/3/23 23:30	7/4/23 0:45	75	1.18	0.79	68,556	0.068556
14	7/9/23 12:40	7/9/23 13:10	30	0.43	0.35	23,392	0.023392
15	7/10/23 7:30	7/10/23 8:00	30	0.96	0.33	4,457	0.004457
16	7/13/2023 21:10	7/13/2023 21:35	25	0.89	0.64	14,856	0.014856
17	7/16/2023 4:30	7/16/2023 9:25	295	2.38	1.1	64,296	0.064296
18	7/21/2023 19:40	7/21/2023 19:55	15	0.53	0.22	1,161	0.001161
19	7/27/2023 15:15	7/27/2023 15:35	20	0.49	0.44	10,013	0.010013
20	7/29/2023 17:45	7/29/2023 18:00	15	0.59	0.5	3,742	0.003742
21	8/15/2023 7:10	8/15/23 7:25	15	1.49	0.37	1,612	0.001612
22	9/10/2023 12:50	9/10/23 14:20	90	1.21	1.03	55,443	0.055443
23	9/11/23 18:15	9/11/23 18:30	15	0.96	0.5	2,245	0.002245
24	9/18/23 20:45	9/18/23 21:00	15	1.14	0.33	1,842	0.001842
25	9/29/23 8:45	9/29/23 15:10	385	3.39	0.53	15,683	0.015683
26	11/27/2023 2:10	11/27/23 2:25	15	0.53	0.37	1,121	0.001121
27	12/10/2023 21:45	12/10/23 22:25	40	1.29	0.47	4,666	0.004666
28	12/17/23 18:45	12/17/23 18:50	5	0.72	0.28	150	0.000150
29	12/18/23 4:10	12/18/23 11:05	415	1.66	0.39	17,911	0.017911

Total Overflow (MG): 0.330776

Holyoke, MA

CSO 008
Springdale Park
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/12/2023 20:00	1/13/2023 1:20	320	0.84	0.22	135,002	0.135002
2	1/19/2023 21:30	1/20/2023 0:25	175	1.08	0.26	168,473	0.168473
3	1/23/2023 1:30	1/23/2023 2:10	40	1.04	0.16	19,318	0.019318
4	1/25/2023 21:55	1/26/2023 4:10	375	0.68	0.31	854,119	0.854119
5	3/14/2023 11:35	3/14/2023 12:20	45	1.78	0.17	30,047	0.030047
6	4/22/2023 22:00	4/23/2023 12:00	840	2.42	0.31	1,340,685	1.340685
7	4/30/2023 18:15	4/30/2023 23:55	340	0.82	0.23	140,696	0.140696
8	5/2/2023 11:35	5/2/2023 17:20	345	0.41	0.15	31,045	0.031045
9	5/20/2023 14:25	5/20/2023 20:00	335	1.85	0.5	706,924	0.706924
10	6/2/2023 17:50	6/2/2023 18:25	35	0.39	0.1	5,278	0.005278
11	6/9/2023 16:30	6/9/2023 16:45	15	0.24	0.23	821	0.000821
12	6/14/2023 15:10	6/14/2023 15:55	45	0.58	0.57	206,280	0.206280
13	6/28/2023 16:00	6/28/2023 16:25	25	0.28	0.27	6,015	0.006015
14	7/2/2023 4:10	7/2/2023 8:25	255	1.52	0.48	146,017	0.146017
15	7/2/2023 23:20	7/3/2023 0:55	95	1.52	0.48	30,573	0.030573
16	7/3/2023 22:15	7/4/2023 2:25	250	1.18	0.79	1,202,232	1.202232
17	7/9/2023 12:40	7/9/2023 13:20	40	0.43	0.35	46,974	0.046974
18	7/10/2023 6:00	7/10/2023 9:05	186	0.96	0.33	157,416	0.157416
19	7/13/2023 21:30	7/14/2023 0:10	160	0.89	0.64	251,924	0.251924
20	7/16/2023 5:05	7/16/2023 10:00	295	2.38	1.1	1,303,296	1.303296
21	7/21/2023 19:40	7/21/2023 19:45	5	0.53	0.22	6,411	0.006411
22	7/25/2023 16:45	7/25/2023 17:05	20	0.31	0.22	39,869	0.039869
23	7/27/2023 15:15	7/27/2023 15:55	40	0.49	0.44	155,510	0.155510
24	7/29/2023 17:45	7/29/2023 19:05	80	0.59	0.5	206,982	0.206982
25	8/10/2023 18:55	8/10/2023 19:10	15	0.3	0.13	1,522	0.001522
26	8/15/2023 2:55	8/15/2023 8:20	325	1.49	0.37	132,817	0.132817
27	8/30/2023 8:40	8/30/2023 8:45	5	0.68	0.59	24,146	0.024146
28	9/10/2023 12:55	9/10/2023 14:55	120	1.21	1.03	896,683	0.896683
29	9/11/2023 4:25	9/11/2023 4:40	15	0.96	0.5	11,170	0.011170
30	9/11/2023 18:15	9/11/2023 18:50	35	0.96	0.5	12,614	0.012614
31	9/18/2023 20:45	9/18/2023 22:45	120	1.14	0.33	67,001	0.067001
32	9/24/2023 19:30	9/25/2023 0:15	287	0.79	0.17	13,539	0.013539
33	9/29/2023 7:30	9/30/2023 6:50	1400	3.39	0.53	3,178,984	3.178984
34	10/7/2023 16:45	10/7/2023 20:15	210	0.84	0.28	208,627	0.208627
35	10/21/2023 9:20	10/21/2023 9:55	35	0.59	0.21	21,949	0.021949
36	11/27/2023 1:40	11/27/2023 2:50	70	0.53	0.37	123,368	0.123368
					Total		11.884327

CSO 008
2023 Activations

Pg1 Total 11.884327

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
37	12/10/2023 14:30	12/11/2023 3:45	795	1.29	0.47	646,967	0.646967
38	12/17/2023 23:00	12/17/2023 23:15	15	0.72	0.28	2,909	0.002909
39	12/18/2023 3:35	12/18/2023 11:30	475	1.66	0.39	913,205	0.913205
40	12/28/2023 6:30	12/28/2023 9:50	200	0.82	0.19	110,295	0.110295

Total 13.557703

CSO 008
2023 Activations

Holyoke, MA

CSO 016

Appleton Street at Nick Cosmo Way
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[1] (inches)	Peak Hourly Rainfall[1] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	6/14/2023 15:05	6/14/2023 15:25	20	0.58	0.57	3,716	0.003716
2	6/28/2023 16:05	6/28/2023 16:15	10	0.28	0.27	3,130	0.003130
3	7/2/2023 23:20	7/2/2023 23:30	10	1.52	0.48	1,690	0.001690
4	7/3/2023 23:30	7/4/2023 0:45	75	1.18	0.79	89,062	0.089062
5	7/9/2023 16:55	7/9/2023 17:05	10	0.43	0.35	11,873	0.011873
6	7/13/2023 21:10	7/13/2023 21:25	15	0.89	0.64	22,004	0.022004
7	7/16/2023 4:55	7/16/2023 9:15	260	2.38	1.1	144497	0.144497
8	7/21/2023 19:30	7/21/2023 19:50	20	0.53	0.22	45,690	0.045690
9	7/27/2023 15:15	7/27/2023 15:30	15	0.49	0.44	16,389	0.016389
10	7/29/2023 17:45	7/29/2023 18:00	15	0.59	0.5	26,846	0.026846
11	8/30/2023 7:55	8/30/2023 8:05	10	0.68	0.59	25,569	0.025569
12	9/9/2023 18:05	9/9/2023 18:30	25	0.15	0.07	61,383	0.061383
13	9/10/2023 12:50	9/10/2023 14:30	100	1.21	1.03	233,109	0.233109
14	12/10/2023 22:10	12/10/2023 22:20	10	1.29	0.47	4,727	0.004727

Subtotal Pg1 Overflow (MG): 0.689685

Total	0.689685

Total	0.689685

Holyoke, MA
CSO 018
Walnut Street
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume (MG)
1	1/3/2023 12:15	1/3/2023 14:20	125	0.5	0.09	0.076469
2	1/4/2023 21:15	1/4/2023 21:30	15	0.2	0.06	0.002552
3	1/6/2023 12:00	1/6/2023 13:40	100	0.46	0.11	0.087875
4	1/12/2023 19:55	1/13/2023 1:45	350	0.84	0.22	1.062941
5	1/19/2023 15:15	1/20/2023 0:55	580	1.08	0.26	0.909409
6	1/23/2023 0:05	1/23/23 9:10	545	1.04	0.16	0.698448
7	1/25/2023 21:25	1/26/23 5:25	480	0.68	0.31	1.844875
8	2/17/2023 12:45	2/17/2023 13:10	25	0.12	0.1	0.034016
9	2/23/2023 2:30	2/23/2023 4:00	90	0.43	0.12	0.075470
10	3/2/2023 4:45	3/2/2023 7:40	175	0.33	0.12	0.088826
11	3/11/2023 0:55	3/11/2023 1:40	45	0.34	0.08	0.010146
12	3/13/2023 20:05	3/14/2023 0:15	250	0.63	0.11	0.222136
13	3/14/2023 10:25	3/14/2023 18:10	465	1.78	0.17	0.335223
14	3/27/2023 20:45	3/27/2023 21:20	35	0.27	0.09	0.012353
15	4/1/2023 7:05	4/1/2023 11:00	235	0.32	0.09	0.086201
16	4/16/2023 15:25	4/16/2023 15:45	20	0.07	0.07	0.012951
17	4/22/2023 22:00	4/23/2023 15:45	1065	2.42	0.31	3.562732
18	4/29/2023 22:40	4/29/2023 23:05	25	0.32	0.08	0.004933
19	4/30/2023 18:15	5/1/2023 0:00	345	0.82	0.23	0.846310
20	5/1/2023 0:00	5/1/2023 0:30	30	0.1	0.04	0.053214
21	5/2/2023 4:55	5/2/2023 17:20	745	0.41	0.15	0.099062
22	5/20/2023 14:00	5/20/2023 20:15	375	1.85	0.5	2.208700
23	5/24/2023 16:00	5/24/2023 16:55	55	0.16	0.16	0.181673
24	6/2/2023 17:25	6/2/2023 18:55	90	0.39	0.32	0.622195
25	6/8/2023 16:50	6/8/2023 17:30	40	0.04	0.04	0.221784
26	6/9/2023 16:30	6/9/2023 16:55	25	0.24	0.23	0.033743
27	6/14/2023 15:00	6/14/2023 16:15	75	0.58	0.57	1.009355
28	6/16/2023 16:45	6/16/2023 16:55	10	0.1	0.1	0.006379
29	6/24/2023 12:15	6/24/23 13:20	65	0.29	0.09	0.236470
30	6/28/2023 14:40	6/28/23 16:55	135	0.28	0.27	1.726958
					Total	**16.373399**

CSO 018
2023 Activations

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume (MG)
31	7/2/2023 4:10	7/2/2023 8:45	275	1.52	0.48	1.692992
32	7/2/2023 23:20	7/3/2023 1:30	130	1.52	0.48	0.993609
33	7/3/2023 22:15	7/4/2023 1:00	165	1.18	0.79	2.156731
34	7/9/2023 12:45	7/9/2023 17:40	295	0.43	0.35	1.209525
35	7/10/2023 5:30	7/10/2023 13:10	460	0.96	0.33	1.888938
36	7/12/2023 18:40	7/12/23 19:20	40	0.09	0.09	0.313666
37	7/13/2023 21:10	7/13/23 23:40	150	0.89	0.64	1.133482
38	7/14/2023 10:45	7/14/2023 11:20	35	0.23	0.1	0.068978
39	7/16/2023 4:30	7/16/23 13:50	560	2.38	1.1	4.678423
40	7/21/2023 11:15	7/21/23 20:40	565	0.53	0.22	2.263333
41	7/25/2023 16:15	7/25/23 17:25	70	0.31	0.22	0.697108
42	7/27/2023 15:20	7/27/23 16:10	50	0.49	0.44	0.647985
43	7/29/2023 17:40	7/29/23 19:30	110	0.59	0.5	1.444251
44	8/7/2023 8:55	8/7/2023 9:20	25	0.3	0.14	0.016542
45	8/7/2023 18:00	8/7/2023 18:10	10	0.3	0.14	0.001873
46	8/10/2023 18:55	8/10/2023 19:25	30	0.3	0.13	0.027995
47	8/15/2023 2:45	8/15/2023 8:40	355	1.49	0.37	1.197460
48	8/18/2023 6:35	8/18/2023 8:10	95	0.25	0.12	0.063587
49	8/24/2023 19:40	8/24/23 20:50	70	0.3	0.13	0.088717
50	8/30/2023 7:50	8/30/23 9:00	70	0.68	0.59	0.826256
51	9/8/2023 18:15	9/8/2023 19:15	60	0.2	0.15	0.065679
52	9/9/2023 17:45	9/9/2023 19:30	105	0.15	0.07	2.151566
53	9/10/2023 12:55	9/10/2023 15:10	135	1.21	1.03	3.124572
54	9/11/2023 3:05	9/11/2023 6:50	225	0.96	0.5	0.124462
55	9/11/2023 18:15	9/11/2023 19:05	50	0.96	0.5	0.198638
56	9/13/2023 8:50	9/13/23 9:15	25	0.16	0.13	0.008496
57	9/18/2023 6:45	9/18/23 23:05	980	1.14	0.33	0.689544
58	9/24/2023 22:10	9/25/2023 1:00	170	0.79	0.17	0.44662
59	9/29/2023 6:10	9/29/23 18:20	730	3.39	0.53	5.200863
60	9/30/2023 5:40	9/30/23 7:10	90	0.24	0.14	0.172482
61	10/7/2023 16:45	10/7/2023 20:40	235	0.84	0.28	0.938319
62	10/20/2023 15:20	10/21/2023 10:20	1140	0.59	0.21	0.272227
63	11/1/2023 10:30	11/1/2023 11:05	35	0.35	0.1	0.007318
64	11/22/2023 2:55	11/22/2023 10:00	425	0.8	0.19	0.192620
65	11/27/2023 0:00	11/27/2023 3:10	190	0.53	0.37	0.806466
66	12/3/2023 9:40	12/4/2023 0:25	885	0.67	0.1	0.220794
67	12/10/2023 14:15	12/11/2023 5:00	885	1.29	0.47	1.959736
68	12/17/2023 17:50	12/18/2023 15:00	1270	1.66	0.39	3.529176
69	12/27/2023 23:35	12/28/2023 10:05	630	0.82	0.19	0.710748

58.605176

CSO 018
2023 Activations

Holyoke, MA
CSO 018A
Essex Street at Walnut Street
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	6/14/2023 15:05	6/14/2023 15:15	10	0.58	0.57	2,912	0.002912
2	6/28/2023 15:55	6/28/2023 16:10	15	0.28	0.27	12,931	0.012931
3	7/2/2023 23:20	7/2/2023 23:30	10	1.52	0.48	2,965	0.002965
4	7/3/2023 23:40	7/3/2023 23:55	15	1.18	0.79	14,084	0.014084
5	7/13/2023 21:10	7/13/2023 21:20	10	0.89	0.64	2,143	0.002143
6	7/16/2023 5:25	7/16/2023 5:30	5	2.38	1.1	161	0.000161
7	7/16/2023 8:50	7/16/2023 9:00	10	2.38	1.1	1032	0.001032
8	7/21/2023 19:30	7/21/2023 19:45	15	0.53	0.22	22218	0.022218
9	7/27/2023 15:15	7/27/2023 15:25	10	0.49	0.44	1,153	0.001153
10	7/29/2023 17:40	7/29/2023 17:50	10	0.59	0.5	3,788	0.003788
11	8/30/2023 7:55	8/30/2023 8:00	5	0.68	0.59	3,906	0.003906
12	9/9/2023 18:10	9/9/2023 18:25	15	0.15	0.07	21,266	0.021266
13	9/10/2023 12:50	9/10/2023 14:10	80	1.21	1.03	13,922	0.013922

Total Overflow (MG): 0.102481

Holyoke, MA
CSO 018B
Highland Pump Station
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/3/2023 12:25	1/3/2023 14:40	135	0.5	0.09	188,270	0.188270
2	1/4/2023 21:30	1/4/2023 21:50	20	0.2	0.06	9,843	0.009843
3	1/6/2023 12:10	1/6/2023 14:25	135	0.46	0.11	174,870	0.174870
4	1/12/2023 20:25	1/13/2023 2:00	335	0.84	0.22	603,620	0.60362
5	1/19/2023 15:15	1/20/2023 1:15	600	1.08	0.26	797,250	0.797250
6	1/22/2023 23:50	1/23/2023 9:30	580	1.04	0.16	778,048	0.778048
7	1/25/2023 21:30	1/26/2023 5:40	490	0.68	0.31	1,248,664	1.248664
8	2/23/2023 2:55	2/23/2023 4:20	85	0.43	0.12	94,168	0.094168
9	3/2/2023 5:30	3/2/2023 8:50	200	0.33	0.12	173,432	0.173432
10	3/13/2023 20:00	3/14/2023 0:25	265	0.63	0.11	68,282	0.068282
11	3/14/2023 11:25	3/14/2023 18:20	415	1.78	0.17	218,252	0.218252
12	3/25/2023 12:30	3/25/2023 20:20	470	0.28	0.06	1,434,762	1.434762
13	4/23/2023 1:55	4/23/2023 16:05	850	2.42	0.31	620,451	0.620451
14	4/30/2023 19:05	4/30/2023 23:55	290	0.82	0.23	129,207	0.129207
15	5/1/2023 0:00	5/1/2023 0:40	40	0.1	0.04	14,293	0.014293
16	5/2/2023 6:20	5/2/2023 6:50	30	0.41	0.15	17,376	0.017376
17	5/2/2023 12:10	5/2/2023 12:20	10	0.41	0.15	708	0.000708
18	5/20/2023 14:40	5/20/2023 20:30	350	1.85	0.5	383,317	0.383317
19	5/24/2023 16:30	5/24/2023 17:10	40	0.16	0.16	31,155	0.031155
20	6/2/2023 18:00	6/2/2023 19:10	70	0.39	0.32	96,638	0.096638
21	6/8/2023 17:30	6/8/2023 17:45	15	0.04	0.04	7,521	0.007521
22	6/14/2023 15:20	6/14/2023 16:35	75	0.58	0.57	118,642	0.118642
23	6/24/2023 12:30	6/24/2023 13:35	65	0.29	0.09	92,820	0.09282
24	6/28/2023 15:05	6/28/2023 17:10	125	0.28	0.27	214,677	0.214677
25	7/2/2023 4:30	7/2/2023 8:55	265	1.52	0.48	381,617	0.381617
26	7/2/2023 23:55	7/3/2023 1:45	110	1.52	0.48	157,329	0.157329
27	7/3/2023 22:55	7/4/2023 1:15	140	1.18	0.79	272,620	0.272620
28	7/9/2023 13:15	7/9/2023 17:55	280	0.43	0.35	105,218	0.105218
29	7/10/2023 5:55	7/10/2023 9:45	230	0.96	0.33	444,555	0.444555
30	7/12/2023 19:10	7/12/2023 19:35	25	0.09	0.09	158,917	0.158917

Subtotal Pg1 Overflow (MG): 9.036522

CSO 018B
2023 Activations

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
31	7/13/2023 21:25	7/13/2023 23:45	140	0.89	0.64	122,444	0.122444
32	7/14/2023 11:05	7/14/2023 11:35	30	0.23	0.1	20,308	0.020308
33	7/16/2023 4:55	7/16/2023 23:50	1135	2.38	1.1	1,336,430	1.336430
34	7/17/2023 8:00	7/17/2023 8:45	45	0.03	0.02	21,538	0.021538
35	7/21/2023 19:35	7/21/2023 20:40	65	0.53	0.22	86,392	0.086392
36	7/29/2023 17:55	7/29/2023 19:35	100	0.59	0.5	72,867	0.072867
37	8/15/2023 3:25	8/15/2023 8:30	305	1.49	0.37	437,928	0.437928
38	8/30/2023 8:20	8/30/2023 9:10	50	0.68	0.59	25,222	0.025222
39	9/9/2023 18:15	9/9/2023 19:35	80	0.15	0.07	122,813	0.122813
40	9/10/2023 13:20	9/10/2023 15:20	120	1.21	1.03	165,694	0.165694
41	9/18/2023 21:00	9/18/2023 23:15	135	1.14	0.33	76,226	0.076226
42	9/24/2023 23:10	9/25/2023 1:15	125	0.79	0.17	81,296	0.081296
43	9/29/2023 7:00	9/30/2023 7:20	1460	3.39	0.53	736,881	0.736881
44	10/7/2023 17:40	10/7/2023 20:50	190	0.84	0.28	160,934	0.160934
45	10/21/2023 9:10	10/21/2023 10:30	80	0.59	0.21	56,917	0.056917
46	11/22/2023 8:30	11/22/2023 10:35	125	0.8	0.19	66,241	0.066241
47	11/27/2023 0:50	11/27/2023 3:25	155	0.53	0.37	171,354	0.171354
48	12/3/2023 10:20	12/3/2023 15:20	300	0.67	0.1	94,071	0.094071
49	12/4/2023 0:25	12/4/2023 0:40	15	0.02	0.02	5,424	0.005424
50	12/10/2023 14:25	12/11/2023 5:10	885	1.29	0.47	507,772	0.507772
51	12/17/2023 18:25	12/18/2023 12:05	1060	0.72	0.28	633,676	0.633676
52	12/28/2023 0:20	12/28/2023 10:15	595	0.82	0.19	148,946	0.148946
				Total			14.187896

Holyoke, MA
CSO 019
Pleasant Street R.O.W.
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	5/20/2023 16:00	5/20/2023 19:15	195	1.85	0.5	4,274	0.004274
2	6/2/2023 17:40	6/2/2023 17:50	10	0.39	0.32	803	0.000803
3	6/14/2023 15:10	6/14/2023 15:20	10	0.58	0.57	605	0.000605
4	6/24/2023 12:10	6/24/2023 12:25	15	0.29	0.09	1,139	0.001139
5	6/28/2023 14:40	6/28/2023 16:20	100	0.28	0.27	10,767	0.010767
6	7/2/2023 4:10	7/2/2023 4:15	5	1.52	0.48	89	0.000089
7	7/2/2023 23:25	7/3/2023 0:45	80	1.52	0.48	163	0.000163
8	7/3/2023 23:35	7/4/2023 0:00	25	1.18	0.79	2,230	0.002230
9	7/9/2023 12:55	7/9/2023 17:10	255	0.43	0.35	2,678	0.002678
10	7/10/2023 6:00	7/10/2023 8:55	175	0.96	0.33	8,001	0.008001
11	7/12/2023 18:40	7/12/2023 18:45	5	0.09	0.09	534	0.000534
12	7/13/2023 21:10	7/13/2023 21:30	20	0.89	0.64	4,478	0.004478
13	7/16/2023 4:35	7/16/2023 9:30	295	2.38	1.1	16,054	0.016054
14	7/21/2023 19:30	7/21/2023 20:00	30	0.53	0.22	6,246	0.006246
15	7/27/2023 15:20	7/27/2023 15:25	5	0.49	0.44	59	0.000059
16	7/29/2023 17:40	7/29/2023 18:00	20	0.59	0.5	2,438	0.002438
17	8/15/2023 7:15	8/15/2023 7:25	10	1.49	0.37	471	0.000471
18	8/30/2023 7:50	8/30/2023 8:25	35	0.68	0.59	2,567	0.002567
19	9/9/2023 18:10	9/9/2023 18:35	25	0.15	0.07	4,316	0.004316
20	9/10/2023 12:55	9/10/2023 14:20	85	1.21	1.03	2,456	0.002456
21	9/29/2023 14:35	9/29/2023 15:05	30	3.39	0.53	1,927	0.001927
22	11/27/2023 2:15	11/27/2023 2:25	10	0.53	0.37	338	0.000338
23	12/10/2023 21:50	12/10/2023 22:20	30	1.29	0.47	1,636	0.001636
24	12/18/2023 4:10	12/18/2023 11:00	410	0.72	0.28	736	0.000736

Total Overflow (MG): 0.075005

Holyoke, MA

CSO 020
Cleveland Street at Oxford Road
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/3/2023 12:10	1/3/2023 14:50	160	0.5	0.09	17,148	0.017148
2	1/4/2023 21:05	1/4/2023 21:45	40	0.2	0.06	1,133	0.001133
3	1/6/2023 8:10	1/6/2023 14:05	355	0.46	0.11	36,274	0.036274
4	1/12/2023 20:05	1/13/2023 2:00	355	0.84	0.22	380,347	0.380347
5	1/19/2023 15:40	1/20/2023 1:25	585	1.08	0.26	259,943	0.259943
6	1/22/2023 23:45	1/23/2023 22:20	1355	1.04	0.16	334,631	0.334631
7	1/24/2023 12:00	1/24/2023 12:35	35	0.02	0.02	304	0.000304
8	1/25/2023 20:45	1/31/2023 8:35	7910	0.68	0.31	825237	0.825237
9	2/23/2023 2:40	2/23/2023 3:50	70	0.43	0.12	25,330	0.025330
10	3/2/2023 5:30	3/2/2023 7:40	130	0.33	0.12	11,563	0.011563
11	3/11/2023 1:25	3/11/2023 2:05	40	0.34	0.08	4,579	0.004579
12	3/13/2023 18:45	3/19/2023 16:10	8485	1.78	0.17	839,054	0.839054
13	3/25/2023 16:55	3/25/2023 19:25	150	0.28	0.06	6,283	0.006283
14	3/27/2023 20:45	3/27/2023 22:40	115	0.27	0.09	12,445	0.012445
15	4/1/2023 7:05	4/1/2023 19:25	740	0.32	0.09	45,658	0.045658
16	4/22/2023 22:05	4/23/2023 18:50	1245	2.42	0.31	1,294,750	1.294750
17	4/29/2023 23:05	4/29/2023 23:15	10	0.32	0.08	1,851	0.001851
18	4/30/2023 18:15	4/30/2023 23:55	340	0.82	0.23	332,669	0.332669
19	5/1/2023 0:00	5/2/2023 17:30	2490	0.1	0.04	163,524	0.163524
20	5/20/2023 14:20	5/20/2023 20:20	360	1.85	0.5	587,673	0.587673
21	5/24/2023 15:55	5/24/2023 16:55	60	0.16	0.16	67,735	0.067735
22	6/2/2023 17:35	6/2/2023 18:55	80	0.39	0.32	145,082	0.145082
23	6/8/2023 17:05	6/8/2023 17:25	20	0.04	0.04	8,685	0.008685
24	6/14/2023 15:00	6/14/2023 16:20	80	0.58	0.57	129,234	0.129234
25	6/24/2023 12:00	6/24/2023 13:20	80	0.29	0.09	95,289	0.095289
26	6/28/2023 14:40	6/28/2023 16:50	130	0.28	0.27	190,710	0.190710
27	7/2/2023 4:10	7/2/2023 8:40	270	1.52	0.48	318,598	0.318598
28	7/2/2023 23:20	7/3/2023 1:30	130	1.52	0.48	196,352	0.196352
29	7/3/2023 22:15	7/4/2023 0:50	155	1.18	0.79	246,647	0.246647
30	7/9/2023 12:50	7/9/2023 13:55	65	0.43	0.35	81,066	0.081066

Page Total 6.659794

FLOW
ASSESSMENT SERVICES

CSO 020
2023 Activations

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
31	7/9/2023 16:55	7/9/2023 17:55	60	0.43	0.35	75,249	0.075249
32	7/10/2023 5:30	7/10/2023 10:05	275	0.96	0.33	388,224	0.388224
33	7/12/2023 18:40	7/12/2023 19:15	35	0.09	0.09	7,953	0.007953
34	7/13/2023 21:05	7/13/2023 22:30	85	0.89	0.64	92001	0.092001
35	7/14/2023 10:55	7/14/2023 11:35	40	0.23	0.1	7790	0.00779
36	7/16/2023 4:30	7/16/2023 22:35	1085	2.38	1.1	849624	0.849624
37	7/21/2023 19:30	7/21/2023 20:50	80	0.53	0.22	116,683	0.116683
38	7/25/2023 16:10	7/25/2023 17:25	75	0.31	0.22	57,353	0.057353
39	7/27/2023 15:20	7/27/2023 16:20	60	0.49	0.44	55,250	0.05525
40	7/29/2023 16:20	7/29/2023 19:35	195	0.59	0.5	194,051	0.194051
41	8/7/2023 9:00	8/7/2023 9:35	35	0.3	0.14	15,661	0.015661
42	8/7/2023 17:50	8/7/2023 18:55	65	0.3	0.14	20,743	0.020743
43	8/10/2023 19:10	8/10/2023 19:30	20	0.3	0.13	8,984	0.008984
44	8/15/2023 2:50	8/15/2023 8:35	345	1.49	0.37	365,883	0.365883
45	8/18/2023 7:35	8/18/2023 7:55	20	0.25	0.12	9,215	0.009215
46	8/24/2023 19:45	8/24/2023 20:45	60	0.3	0.13	38,453	0.038453
47	8/30/2023 8:45	8/30/2023 8:55	10	0.68	0.59	10,917	0.010917
48	9/8/2023 18:30	9/8/2023 19:15	45	0.2	0.15	28,339	0.028339
49	9/9/2023 17:40	9/9/2023 19:30	110	0.15	0.07	204,150	0.204150
50	9/10/2023 12:55	9/10/2023 15:15	140	1.21	1.03	278,951	0.278951
51	9/11/2023 3:20	9/11/2023 6:50	210	0.96	0.5	47,022	0.047022
52	9/11/2023 18:25	9/11/2023 19:05	40	0.96	0.5	21,522	0.021522
53	9/13/2023 8:50	9/13/2023 9:20	30	0.16	0.13	13,955	0.013955
54	9/18/2023 6:45	9/18/2023 7:20	35	1.14	0.33	15,363	0.015363
55	9/18/2023 20:35	9/18/2023 23:10	155	1.14	0.33	203016	0.203016
56	9/24/2023 22:25	9/25/2023 1:15	170	0.79	0.17	181996	0.181996
57	9/29/2023 6:35	9/30/2023 10:45	1690	3.39	0.53	1612924	1.612924
58	10/7/2023 16:50	10/7/2023 20:45	235	0.84	0.28	280,575	0.280575
59	10/20/2023 16:00	10/21/2023 10:25	1105	0.59	0.21	113,511	0.113511
60	11/22/2023 8:25	11/22/2023 10:20	115	0.8	0.19	62,024	0.063864
61	11/27/2023 0:05	11/27/2023 3:20	195	0.53	0.37	246,947	0.246947
62	12/3/2023 9:45	12/4/2023 0:35	890	0.67	0.1	157,237	0.157237
63	12/10/2023 13:50	12/11/2023 10:15	1225	1.29	0.47	848,761	0.848761
64	12/17/2023 17:55	12/20/2023 19:35	4420	0.72	0.28	1,500,501	1.500501
65	12/27/2023 23:45	12/28/2023 10:20	635	0.17	0.07	373,731	0.373731
66	12/29/2023 6:45	12/29/2023 7:25	40	0.12	0.05	971	0.000971
					Total		15.167164

Holyoke, MA

CSO 021

Pleasant Street at River Terrace

2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/12/2023 20:10	1/13/2023 0:50	280	0.84	0.22	14,752	0.014752
2	1/19/2023 21:40	1/19/2023 23:45	125	1.08	0.26	46,730	0.046730
3	1/25/2023 21:55	1/26/2023 4:10	375	0.68	0.31	285,405	0.285405
4	4/22/2023 22:05	4/23/2023 12:35	870	2.42	0.31	461,878	0.461878
5	4/30/2023 18:20	4/30/2023 23:55	335	0.82	0.23	77,047	0.077047
6	5/20/2023 14:35	5/20/2023 19:50	315	1.85	0.5	464,773	0.464773
7	5/24/2023 15:55	5/24/2023 16:15	20	0.16	0.16	3,911	0.003911
8	6/2/2023 17:40	6/2/2023 18:30	50	0.39	0.32	170,966	0.170966
9	6/14/2023 15:00	6/14/2023 15:45	45	0.58	0.57	115,001	0.115001
10	6/24/2023 12:05	6/24/2023 12:40	35	0.29	0.09	149,423	0.149423
11	6/28/2023 14:35	6/28/2023 16:35	120	0.28	0.27	274,425	0.274425
12	7/2/2023 4:10	7/2/2023 8:20	250	1.52	0.48	93,743	0.093743
13	7/2/2023 23:25	7/3/2023 1:05	100	1.52	0.48	71,282	0.071282
14	7/3/2023 22:30	7/4/2023 0:25	115	1.18	0.79	130,046	0.130046
15	7/9/2023 12:55	7/9/2023 17:20	265	0.43	0.35	181,409	0.181409
16	7/27/2023 15:20	7/27/2023 15:55	35	0.49	0.44	105,078	0.105078
17	7/29/2023 17:50	7/29/2023 19:10	80	0.59	0.5	128,435	0.128435
18	8/15/2023 2:45	8/15/2023 8:35	350	1.49	0.37	473,145	0.473145
19	8/24/2023 19:50	8/24/2023 20:40	50	0.3	0.13	12,709	0.012709
20	8/30/2023 7:50	8/30/2023 8:40	50	0.68	0.59	157,701	0.157701
21	9/9/2023 17:45	9/9/2023 19:05	80	0.15	0.07	121,170	0.121170
22	9/10/2023 12:50	9/10/2023 14:40	110	1.21	1.03	154,669	0.154669
23	9/11/2023 6:10	9/11/2023 6:25	15	0.96	0.5	47,703	0.047703
24	9/18/2023 20:35	9/18/2023 21:20	45	1.14	0.33	52,802	0.052802
25	9/24/2023 23:40	9/25/2023 0:25	45	0.79	0.17	39,401	0.039401
26	9/29/2023 6:55	9/29/2023 16:25	570	3.39	0.53	1,234,327	1.234327
27	10/7/2023 17:40	10/7/2023 20:20	160	0.84	0.28	83,040	0.083040
28	10/21/2023 9:40	10/21/2023 9:50	10	0.59	0.21	5,190	0.005190
29	11/27/2023 1:40	11/27/2023 2:50	70	0.53	0.37	129,858	0.129858
30	12/10/2023 21:40	12/10/2023 23:15	95	1.29	0.47	281,027	0.281027
31	12/11/2023 2:40	12/11/2023 3:05	25	0.54	0.18	18,905	0.018905
32	12/17/2023 18:20	12/18/2023 11:45	1045	0.72	0.28	743,578	0.743578
33	12/28/2023 6:50	12/28/2023 7:15	25	0.82	0.19	45,394	0.045394
						Total	6.374923

Holyoke, MA
CSO 021B
Pleasant Street at River Terrace
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/3/2023 12:15	1/3/2023 14:05	110	0.5	0.09	5,740	0.005740
2	1/4/2023 21:10	1/4/2023 21:15	5	0.2	0.06	123	0.000123
3	1/6/2023 12:10	1/6/2023 13:25	75	0.46	0.11	13,447	0.013447
4	1/12/2023 19:55	1/13/2023 1:30	335	0.84	0.22	247,061	0.247061
5	1/19/2023 15:25	1/20/2023 0:55	570	1.08	0.26	185,768	0.185768
6	1/23/2023 0:30	1/23/2023 15:30	900	1.04	0.16	188495	0.188495
7	1/25/2023 21:15	1/28/2023 10:25	3670	0.68	0.31	624842	0.624842
8	2/17/2023 12:50	2/17/2023 13:00	10	0.12	0.1	253	0.000253
9	2/23/2023 2:45	2/23/2023 3:40	55	0.43	0.12	1,617	0.001617
10	3/13/2023 19:35	3/14/2023 1:30	355	1.78	0.17	20,188	0.020188
11	3/14/2023 10:05	3/14/2023 19:25	560	1.78	0.17	60,951	0.060951
12	3/27/2023 20:45	3/27/2023 21:05	20	0.27	0.09	1,307	0.001307
13	4/1/2023 7:05	4/1/2023 7:50	45	0.32	0.09	21,849	0.021849
14	4/1/2023 18:45	4/1/2023 19:05	20	0.32	0.09	8,048	0.008048
15	4/16/2023 15:25	4/16/2023 15:40	15	0.07	0.07	5,280	0.00528
16	4/22/2023 22:05	4/23/2023 15:20	1035	2.42	0.31	504,013	0.504013
17	4/30/2023 18:15	4/30/2023 23:55	340	0.82	0.23	176,592	0.176592
18	5/1/2023 0:00	5/1/2023 0:20	20	0.1	0.04	6,807	0.006807
19	5/2/2023 4:40	5/2/2023 11:55	435	0.41	0.15	3,014	0.003014
20	5/20/2023 14:25	5/20/2023 19:55	330	1.85	0.5	215,453	0.215453
21	5/24/2023 15:55	5/24/2023 16:35	40	0.16	0.16	28,345	0.028345
22	6/2/2023 17:35	6/2/2023 18:40	65	0.39	0.32	70,823	0.070823
23	6/8/2023 17:00	6/8/2023 17:05	5	0.58	0.57	61	0.000061
24	6/14/2023 15:00	6/14/2023 16:00	60	0.58	0.57	37,240	0.03724
25	6/24/2023 12:05	6/24/2023 12:45	40	0.29	0.09	40,635	0.040635
26	6/28/2023 14:35	6/28/2023 16:40	125	0.28	0.27	71,865	0.071865
27	7/2/2023 4:10	7/2/2023 8:25	255	1.52	0.48	121,788	0.121788
28	7/2/2023 23:25	7/3/2023 1:15	110	1.52	0.48	66,661	0.066661
29	7/3/2023 22:25	7/4/2023 0:35	130	1.18	0.79	57,766	0.057766
30	7/9/2023 12:50	7/9/2023 13:30	40	0.43	0.35	38,351	0.038351
						Page Total	2.824383

Holyoke, MA
CSO 021B
Pleasant Street at River Terrace
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
31	7/9/2023 16:55	7/9/2023 17:25	30	0.43	0.35	33,506	0.033506
32	7/27/2023 15:20	7/27/2023 15:35	15	0.49	0.44	662	0.000662
33	7/29/2023 17:50	7/29/2023 18:05	15	0.59	0.5	2147	0.002147
34	8/30/2023 7:45	8/30/2023 8:45	60	0.68	0.59	51,400	0.051400
35	9/9/2023 17:40	9/9/2023 19:15	95	0.15	0.07	97,582	0.097582
36	9/10/2023 12:50	9/10/2023 14:55	125	1.21	1.03	107,884	0.107884
37	9/11/2023 6:05	9/11/2023 6:35	30	0.96	0.5	25,860	0.02586
38	9/11/2023 18:25	9/11/2023 18:40	15	0.96	0.5	3,951	0.003951
39	9/18/2023 20:30	9/18/2023 22:35	125	1.14	0.33	57,909	0.057909
40	9/24/2023 22:35	9/25/2023 0:35	120	0.79	0.17	41356	0.041356
41	9/29/2023 6:45	9/30/2023 7:00	1455	3.39	0.53	688091	0.688091
42	10/7/2023 17:30	10/7/2023 20:35	185	0.84	0.28	183,704	0.183704
43	10/20/2023 21:05	10/21/2023 10:05	780	0.42	0.13	26,261	0.026261
44	11/27/2023 0:45	11/27/2023 3:00	135	0.53	0.37	79,665	0.079665
45	12/3/2023 23:55	12/4/2023 0:10	15	0.67	0.1	3,377	0.003377
46	12/10/2023 14:25	12/11/2023 4:55	870	1.29	0.47	213,300	0.2133
47	12/17/2023 17:55	12/18/2023 22:20	1705	1.66	0.39	795,240	0.79524
48	12/27/2023 23:25	12/28/2023 10:05	640	0.17	0.07	202,014	0.202014
49	12/29/2023 6:45	12/29/2023 6:55	10	0.12	0.05	330	0.00033

Page Total 5.438622

CSO 023
2023 Activations

Holyoke, MA
CSO 023
Jefferson Street
2023 Overflow Summary (1-1/23-12-31-23)

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
1	1/19/2023 23:20	1/19/2023 23:25	5	0.84	0.22	15	0.000015
2	1/25/2023 23:05	1/26/2023 1:20	135	1.08	0.26	8	0.000008
3	4/22/2023 22:10	4/22/2023 22:15	5	0.33	0.22	6	0.000006
4	4/23/2023 4:40	4/23/2023 11:25	405	2.42	0.31	2,805	0.002805
5	4/30/2023 18:20	4/30/2023 18:35	15	0.82	0.23	860	0.000860
6	5/20/2023 14:35	5/20/2023 19:10	275	1.85	0.5	12,094	0.012094
7	5/24/2023 15:55	5/24/2023 16:00	5	0.16	0.16	19	0.000019
8	6/2/2023 17:35	6/2/2023 18:20	45	0.39	0.32	20,533	0.020533
9	6/8/2023 16:50	6/8/2023 16:55	5	0.58	0.57	714	0.000714
10	6/14/2023 15:00	6/14/2023 15:30	30	0.58	0.57	29,667	0.029667
11	6/24/2023 12:00	6/24/2023 12:25	25	0.29	0.09	12,302	0.012302
12	6/28/2023 14:35	6/28/2023 16:20	105	0.28	0.27	73,810	0.07381
13	7/2/2023 4:10	7/2/2023 4:20	10	1.52	0.48	643	0.000643
14	7/2/2023 8:00	7/2/2023 8:10	10	1.52	0.48	118	0.000118
15	7/2/2023 23:25	7/2/2023 23:35	10	1.52	0.48	1,175	0.001175
16	7/3/2023 0:40	7/3/2023 0:50	10	1.18	0.79	231	0.000231
17	7/3/2023 23:35	7/4/2023 0:10	35	1.18	0.79	25,278	0.025278
18	7/9/2023 12:50	7/9/2023 13:25	35	0.43	0.35	15,798	0.015798
19	7/9/2023 16:55	7/9/2023 17:15	20	0.43	0.35	9,627	0.009627
20	7/10/2023 6:00	7/10/2023 8:10	130	0.09	0.09	19,237	0.019237
21	7/13/2023 21:10	7/13/2023 21:45	35	0.89	0.64	32,449	0.032449
22	7/16/2023 4:30	7/16/2023 5:55	85	2.38	1.1	58,906	0.058906
23	7/16/2023 8:45	7/16/2023 9:30	45	2.38	1.1	52,432	0.052432
24	7/21/2023 19:30	7/21/2023 20:05	35	0.53	0.22	71,387	0.071387
25	7/27/2023 15:20	7/27/2023 15:30	10	0.49	0.44	3,970	0.00397
26	7/29/2023 17:40	7/29/2023 18:05	25	0.59	0.5	37,648	0.037648
27	8/15/2023 3:20	8/15/2023 3:30	10	1.49	0.37	32	0.000032
28	8/15/2023 7:10	8/15/2023 7:35	25	1.49	0.37	3,105	0.003105
29	8/30/2023 8:10	8/30/2023 8:25	15	0.68	0.59	9,309	0.009309
30	9/9/2023 18:15	9/9/2023 18:45	30	0.15	0.07	69,990	0.069990

Subtotal Page 1 (MG): 0.564168

CSO 023
2023 Activations

Monthly Overflow Event	Event Start Date/Time	Event Stop Date/Time	Event Duration (minutes)	24-hour Rainfall[(1)] (inches)	Peak Hourly Rainfall[(1)] (inches)	Discharge Volume Gallons	Discharge Volume (MG)
31	9/10/2023 12:50	9/10/2023 14:20	90	1.21	1.03	67,020	0.06702
32	9/18/2023 20:40	9/18/2023 21:05	25	1.14	0.33	1,424	0.001424
33	9/24/2023 23:40	9/24/2023 23:50	10	0.79	0.17	89	0.000089
34	9/29/2023 8:35	9/29/2023 15:20	405	3.39	0.53	35,023	0.035023
35	10/7/2023 19:55	10/7/2023 20:05	10	0.84	0.28	19	0.000019
36	11/27/2023 1:50	11/27/2023 2:40	50	0.53	0.37	4,109	0.004109
37	12/10/2023 21:40	12/10/2023 22:45	65	1.29	0.47	22,746	0.022746
38	12/17/2023 18:20	12/18/2023 11:05	1005	1.66	0.39	27,432	0.027432
				Total			0.722030

APPENDIX 2: CSO 009 DMRS

MONTHLY CSO #09 REPORT

January, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Sun	01/01/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/02/23	0.00	0.000	0.000	0.00	0.025		0.000	0.000	0.00	0
Tue	01/03/23	0.57	0.000	0.000	0.00	0.031		0.000	0.000	0.00	0
Wed	01/04/23	0.23	0.000	0.000	0.00	0.055		0.000	0.000	0.00	0
Thu	01/05/23	0.25	0.000	0.000	0.00	0.014		0.000	0.000	0.00	0
Fri	01/06/23	0.23	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	01/07/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	01/08/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/09/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	01/10/23	0.00	0.000	0.000	0.00	0.061		0.000	0.000	0.00	0
Wed	01/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	01/12/23	1.75	1.184	2.600	3.50	0.020		0.000	0.384	0.40	1
Fri	01/13/23	0.05	2.660	4.010	2.00	0.565		0.000	1.860	1.50	0
Sat	01/14/23	0.00	0.000	0.000	0.00	0.218		0.000	0.000	0.00	0
Sun	01/15/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/16/23	0.20	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	01/17/23	0.10	0.000	0.000	0.00	0.344		0.000	0.000	0.00	0
Wed	01/18/23	0.00	0.000	0.000	0.00	0.054		0.000	0.000	0.00	0
Thu	01/19/23	0.98	1.764	1.980	3.80	0.190		0.000	0.964	0.00	1
Fri	01/20/23	0.07	2.262	2.420	1.00	0.459		0.000	1.462	0.80	0
Sat	01/21/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	01/22/23	0.20	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/23/23	1.05	2.060	2.140	5.80	0.640		0.000	1.260	0.90	1
Tue	01/24/23	0.00	0.000	0.000	0.00	0.483		0.000	0.000	0.00	0
Wed	01/25/23	1.33	2.781	3.650	2.20	0.066		0.000	1.981	1.00	1
Thu	01/26/23	0.05	9.881	11.010	5.60	0.569		0.000	9.081	4.00	0
Fri	01/27/23	0.00	0.000	0.000	0.00	0.556		0.000	0.000	0.00	0
Sat	01/28/23	0.00	0.000	0.000	0.00	0.067		0.000	0.000	0.00	0
Sun	01/29/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	01/30/23	0.00	0.000	0.000	0.00	0.020		0.000	0.000	0.00	0
Tue	01/31/23	0.00	0.000	0.000	0.00	0.000	16.0	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	16.0	0.000	0.000	0.00	0
	Max	1.75	9.881	11.010	5.80	0.640	16.0	0.000	9.081	4.00	1
	Total	7.06	22.592	27.810	23.90	***4.437***	16.0	***0.000***	***16.992***	8.60	***4***
	Avg	0.23	0.729	0.897	0.77	0.143	16.0	0.000	0.548	0.28	0
										TOTAL # of EVENTS in the MONTH	***4***

MONTHLY CSO #09 REPORT
February, 2023

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
						DMR #50050-O		*DMR #50050-B*	*DMR# 50050-1*		
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Wed	02/01/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	02/02/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	02/03/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	02/04/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	02/05/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	02/06/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	02/07/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	02/08/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	02/09/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	02/10/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	02/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	02/12/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	02/13/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	02/14/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	02/15/23	0.00	0.014	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	02/16/23	0.00	0.044	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	02/17/23	0.16	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	02/18/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	02/19/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	02/20/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	02/21/23	0.20	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	02/22/23	0.15	0.000	0.000	0.00	0.002		0.000	0.000	0.00	0
Thu	02/23/23	0.25	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	02/24/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	02/25/23	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	02/26/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	02/27/23	0.40	0.054	0.000	0.00	0.139		0.000	0.000	0.00	0
Tue	02/28/23	0.40	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
	Max	0.40	0.054	0.000	0.00	0.139		0.000	0.000	0.00	0
	Total	1.76	0.112	0.000	0.00	***0.141***		***0.000***	***0.000***	0.00	***0***
	Avg	0.06	0.004	0.000	0.00	0.005		0.000	0.000	0.00	0
										TOTAL # of EVENTS in the MONTH	***0***

MONTHLY CSO #09 REPORT
March, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Wed	03/01/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	03/02/23	0.15	0.087	0.000	0.00	0.085		0.000	0.000	0.00	0
Fri	03/03/23	0.00	0.000	0.000	0.00	0.003		0.000	0.000	0.00	0
Sat	03/04/23	0.33	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	03/05/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/06/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	03/07/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	03/08/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	03/09/23	0.00	0.091	0.000	0.00	0.103		0.000	0.000	0.00	0
Fri	03/10/23	0.15	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	03/11/23	0.30	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	03/12/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/13/23	0.75	0.008	0.040	1.55	0.041		0.000	0.000	0.00	0
Tue	03/14/23	1.79	4.786	5.260	9.12	0.541		0.000	3.986	2.30	1
Wed	03/15/23	0.00	0.000	0.000	0.00	0.596		0.000	0.000	0.00	0
Thu	03/16/23	0.00	0.000	0.000	0.00	0.160		0.000	0.000	0.00	0
Fri	03/17/23	0.02	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	03/18/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	03/19/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/20/23	0.00	0.106	0.000	0.00	0.114		0.000	0.000	0.00	0
Tue	03/21/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	03/22/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	03/23/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	03/24/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	03/25/23	0.30	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	03/26/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	03/27/23	0.32	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	03/28/23	0.00	0.027	0.000	0.00	0.054		0.000	0.000	0.00	0
Wed	03/29/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	03/30/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	03/31/23	0.14	0.000	0.000	0.00	0.000	32.0	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	32.0	0.000	0.000	0.00	0
	Max	1.79	4.786	5.260	9.12	0.596	32.0	0.000	3.986	2.30	1
	Total	4.40	5.105	5.300	10.67	***1.697***	32.0	***0.000***	***3.986***	2.30	***1***
	Avg	0.14	0.165	0.171	0.34	0.055	32.0	0.000	0.129	0.07	0
										TOTAL # of EVENTS in the MONTH	***1***

MONTHLY CSO #09 REPORT
April, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Sat	04/01/23	0.32	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	04/02/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	04/03/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	04/04/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	04/05/23	0.02	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	04/06/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	04/07/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	04/08/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	04/09/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	04/10/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	04/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	04/12/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	04/13/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	04/14/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	04/15/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	04/16/23	0.03	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	04/17/23	0.10	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	04/18/23	0.01	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	04/19/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	04/20/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	04/21/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	04/22/23	0.50	0.000	0.330	0.38	0.000		0.000	0.000	0.00	0
Sun	04/23/23	2.22	18.446	18.220	12.87	0.268		0.000	17.646	9.00	1
Mon	04/24/23	0.00	0.153	0.000	0.00	0.668		0.000	0.000	0.00	0
Tue	04/25/23	0.00	0.000	0.000	0.00	0.293		0.000	0.000	0.00	0
Wed	04/26/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	04/27/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	04/28/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	04/29/23	0.36	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	04/30/23	0.84	4.075	3.320	4.72	0.009	5.7	0.000	3.275	2.50	1
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	5.7	0.000	0.000	0.00	0
	Max	2.22	18.446	18.220	12.87	0.668	5.7	0.000	17.646	9.00	1
	Total	4.60	22.674	21.870	17.97	***1.238***	5.7	***0.000***	***20.921***	11.50	***2***
	Avg	0.15	0.756	0.729	0.60	0.041	5.7	0.000	0.697	0.38	0
										TOTAL # of EVENTS in the MONTH	***2***

MONTHLY CSO #09 REPORT
May, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Mon	05/01/23	0.10	1.583	2.290	1.78	0.628		0.000	0.783	1.00	0
Tue	05/02/23	0.35	0.779	0.610	1.17	0.402		0.000	0.000	0.00	0
Wed	05/03/23	0.05	0.000	0.000	0.00	0.503		0.000	0.000	0.00	0
Thu	05/04/23	0.00	0.000	0.000	0.00	0.061		0.000	0.000	0.00	0
Fri	05/05/23	0.50	0.180	0.000	0.00	0.098		0.000	0.000	0.00	0
Sat	05/06/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/07/23	0.03	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/08/23	0.00	0.000	0.000	0.00	0.317		0.000	0.000	0.00	0
Tue	05/09/23	0.00	0.000	0.000	0.00	0.005		0.000	0.000	0.00	0
Wed	05/10/23	0.00	0.076	0.000	0.00	0.110		0.000	0.000	0.00	0
Thu	05/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	05/12/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/13/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/14/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/15/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	05/16/23	0.00	0.014	0.000	0.00	0.032		0.000	0.000	0.00	0
Wed	05/17/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	05/18/23	0.00	0.003	0.000	0.00	0.005		0.000	0.000	0.00	0
Fri	05/19/23	0.00	0.000	0.000	0.00	0.007		0.000	0.000	0.00	0
Sat	05/20/23	1.90	11.713	11.510	6.38	0.066		0.000	10.913	4.40	1
Sun	05/21/23	0.07	0.000	0.000	0.00	0.601		0.000	0.000	0.00	0
Mon	05/22/23	0.00	0.202	0.000	0.00	0.320		0.000	0.000	0.00	0
Tue	05/23/23	0.00	0.004	0.000	0.00	0.112		0.000	0.000	0.00	0
Wed	05/24/23	0.18	0.000	0.000	0.08	0.000		0.000	0.000	0.00	0
Thu	05/25/23	0.00	0.000	0.010	0.10	0.016		0.000	0.000	0.00	0
Fri	05/26/23	0.00	0.016	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/27/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/28/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/29/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	05/30/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	05/31/23	0.00	0.000	0.000	0.00	0.000	22.8	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	22.8	0.000	0.000	0.00	0
	Max	1.90	11.713	11.510	6.38	0.628	22.8	0.000	10.913	4.40	1
	Total	3.18	14.570	14.420	9.51	***3.283***	22.8	***0.000***	***11.696***	5.40	***1***
	Avg	0.10	0.470	0.465	0.31	0.106	22.8	0.000	0.377	0.17	0
										TOTAL # of EVENTS in the MONTH	***1***

MONTHLY CSO #09 REPORT

June, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Thu	06/01/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	06/02/23	0.45	1.190	1.170	0.98	0.094		0.000	0.390	0.20	0
Sat	06/03/23	0.00	0.000	0.000	0.00	0.311		0.000	0.000	0.00	0
Sun	06/04/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	06/05/23	0.00	0.000	0.000	0.00	0.357		0.000	0.000	0.00	0
Tue	06/06/23	0.04	0.000	0.000	0.00	0.014		0.000	0.000	0.00	0
Wed	06/07/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	06/08/23	0.05	0.000	0.040	0.18	0.049		0.000	0.000	0.00	0
Fri	06/09/23	0.25	0.179	0.000	0.00	0.188		0.000	0.000	0.00	0
Sat	06/10/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	06/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	06/12/23	0.08	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	06/13/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	06/14/23	0.63	0.988	3.300	1.02	0.214		2.620	0.188	0.20	0
Thu	06/15/23	0.00	0.000	0.000	0.00	0.483		0.000	0.000	0.00	0
Fri	06/16/23	0.13	0.000	0.000	0.00	0.171		0.000	0.000	0.00	0
Sat	06/17/23	0.05	0.000	0.000	0.00	0.198		0.000	0.000	0.00	0
Sun	06/18/23	0.00	0.000	0.000	0.00	0.015		0.000	0.000	0.00	0
Mon	06/19/23	0.00	0.000	0.000	0.00	0.021		0.000	0.000	0.00	0
Tue	06/20/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	06/21/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	06/22/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	06/23/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	06/24/23	0.26	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	06/25/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	06/26/23	0.20	0.000	0.000	0.00	0.031		0.000	0.000	0.00	0
Tue	06/27/23	0.20	0.000	0.000	0.00	0.014		0.000	0.000	0.00	0
Wed	06/28/23	0.72	2.004	3.010	0.93	0.158		2.800	1.204	0.60	1
Thu	06/29/23	0.20	0.000	0.000	0.00	0.483		0.000	0.000	0.00	0
Fri	06/30/23	0.04	0.065	0.000	0.00	0.094	38.5	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	38.5	0.000	0.000	0.00	0
	Max	0.72	2.004	3.300	1.02	0.483	38.5	2.800	1.204	0.60	1
	Total	3.35	4.426	7.520	3.11	***2.895***	38.5	***5.420***	***1.782***	1.00	***1***
	Avg	0.11	0.148	0.251	0.10	0.097	38.5	0.181	0.059	0.03	0
										TOTAL # of EVENTS in the MONTH	***1***

MONTHLY CSO #09 REPORT
July, 2023

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
						DMR #50050-O		*DMR #50050-B*	*DMR# 50050-1*		
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Sat	07/01/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	07/02/23	1.06	5.073	4.790	3.57	0.408		0.000	4.273	1.90	1
Mon	07/03/23	0.55	3.285	2.510	2.68	0.648		0.000	2.485	1.50	1
Tue	07/04/23	1.83	6.499	11.280	2.47	0.588		2.800	5.699	1.60	1
Wed	07/05/23	0.00	0.000	0.000	0.00	0.439		0.000	0.000	0.00	0
Thu	07/06/23	0.00	0.000	0.000	0.00	0.215		0.000	0.000	0.00	0
Fri	07/07/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	07/08/23	0.12	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	07/09/23	0.52	1.834	3.050	1.52	0.236		2.270	1.034	0.60	1
Mon	07/10/23	0.75	8.543	7.950	4.47	0.556		0.000	7.743	3.60	1
Tue	07/11/23	0.00	0.000	0.000	0.00	0.577		0.000	0.000	0.00	0
Wed	07/12/23	0.12	0.000	0.010	0.10	0.570		0.000	0.000	0.00	0
Thu	07/13/23	0.60	3.015	2.210	1.82	0.537		2.950	2.215	0.70	1
Fri	07/14/23	0.50	1.874	1.190	0.87	0.552		0.000	1.074	0.60	1
Sat	07/15/23	0.20	0.000	0.000	0.00	0.254		0.000	0.000	0.00	0
Sun	07/16/23	0.20	14.532	16.210	9.60	0.346		2.578	13.732	5.40	1
Mon	07/17/23	0.08	0.000	0.000	0.00	0.584		0.000	0.000	0.00	0
Tue	07/18/23	0.00	0.000	0.000	0.00	0.403		0.000	0.000	0.00	0
Wed	07/19/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	07/20/23	0.00	0.000	0.000	0.00	0.197		0.000	0.000	0.00	0
Fri	07/21/23	1.00	3.330	4.080	2.00	0.289		0.000	2.530	0.80	1
Sat	07/22/23	0.00	0.000	0.000	0.00	0.538		0.000	0.000	0.00	0
Sun	07/23/23	0.10	0.000	0.000	0.00	0.105		0.000	0.000	0.00	0
Mon	07/24/23	0.00	0.000	0.000	0.00	0.153		0.000	0.000	0.00	0
Tue	07/25/23	0.30	0.000	0.680	0.68	0.122		0.000	0.000	0.00	0
Wed	07/26/23	0.00	0.000	0.000	0.00	0.370		0.000	0.000	0.00	0
Thu	07/27/23	0.15	1.916	1.800	0.85	0.335		0.000	1.116	0.60	1
Fri	07/28/23	0.00	0.000	0.000	0.00	0.513		0.000	0.000	0.00	0
Sat	07/29/23	1.48	3.161	3.440	1.72	0.254		0.693	2.361	1.50	1
Sun	07/30/23	0.00	0.000	0.000	0.00	0.472		0.000	0.000	0.00	0
Mon	07/31/23	0.00	0.000	0.000	0.00	0.294	17.8	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	17.8	0.000	0.000	0.00	0
	Max	1.83	14.532	16.210	9.60	0.648	17.8	2.950	13.732	5.40	1
	Total	9.56	53.062	59.200	32.35	***10.555***	17.8	***11.291***	***44.262***	18.80	***11***
	Avg	0.31	1.712	1.910	1.04	0.340	17.8	0.364	1.428	0.61	0
										TOTAL # of EVENTS in the MONTH	***11***

MONTHLY CSO #09 REPORT
August, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Tue	08/01/23	0.00	0.304	0.270	2.00	0.189		0.000	0.000	0.00	0
Wed	08/02/23	0.00	0.507	0.340	2.30	0.224		0.000	0.000	0.00	0
Thu	08/03/23	0.00	0.000	0.000	0.00	0.192		0.000	0.000	0.00	0
Fri	08/04/23	0.10	0.000	10.350	0.50	0.016		0.000	0.000	0.00	0
Sat	08/05/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	08/06/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/07/23	0.33	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	08/08/23	0.45	0.157	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	08/09/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	08/10/23	0.33	0.000	0.250	0.50	0.035		0.000	0.000	0.00	0
Fri	08/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	08/12/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	08/13/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/14/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	08/15/23	1.47	6.446	6.150	6.00	0.348		0.000	5.646	3.20	1
Wed	08/16/23	0.00	0.858	0.000	0.00	0.448		0.000	0.058	0.00	0
Thu	08/17/23	0.00	0.000	0.000	0.00	0.299		0.000	0.000	0.00	0
Fri	08/18/23	0.45	0.000	0.060	0.30	0.000		0.000	0.000	0.00	0
Sat	08/19/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	08/20/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/21/23	0.00	0.325	0.000	0.00	0.136		0.000	0.000	0.00	0
Tue	08/22/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	08/23/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	08/24/23	0.15	0.186	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	08/25/23	0.55	0.000	0.000	0.00	0.041		0.000	0.000	0.00	0
Sat	08/26/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	08/27/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	08/28/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	08/29/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	08/30/23	0.35	3.050	3.640	1.50	0.344		0.000	2.250	0.90	1
Thu	08/31/23	0.00	0.618	0.000	0.00	0.424	12.8	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	12.8	0.000	0.000	0.00	0
	Max	1.47	6.446	10.350	6.00	0.448	12.8	0.000	5.646	3.20	1
	Total	4.23	12.451	21.060	13.10	***2.696***	12.8	***0.000***	***7.954***	4.10	***2***
	Avg	0.14	0.402	0.679	0.42	0.087	12.8	0.000	0.257	0.13	0
										TOTAL # of EVENTS in the MONTH	***2***

MONTHLY CSO #09 REPORT
September, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Fri	09/01/23	0.00	0.000	0.000	0.00	0.283		0.000	0.000	0.00	0
Sat	09/02/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	09/03/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	09/04/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	09/05/23	0.00	0.152	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	09/06/23	0.00	0.000	0.000	0.00	0.020		0.000	0.000	0.00	0
Thu	09/07/23	0.00	0.000	0.000	0.00	0.013		0.000	0.000	0.00	0
Fri	09/08/23	0.50	0.000	0.000	0.00	0.007		0.000	0.000	0.00	0
Sat	09/09/23	0.40	2.296	2.570	1.55	0.072		0.000	1.496	0.60	1
Sun	09/10/23	1.55	5.743	11.120	2.33	0.550		2.719	4.943	2.20	1
Mon	09/11/23	0.61	1.807	1.600	1.10	0.550		0.000	1.007	0.50	1
Tue	09/12/23	0.00	0.000	0.000	0.00	0.468		0.000	0.000	0.00	0
Wed	09/13/23	0.18	0.000	0.000	0.00	0.166		0.000	0.000	0.00	0
Thu	09/14/23	0.00	0.000	0.000	0.00	0.114		0.000	0.000	0.00	0
Fri	09/15/23	0.00	0.000	0.000	0.00	0.021		0.000	0.000	0.00	0
Sat	09/16/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	09/17/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	09/18/23	1.18	2.700	1.420	2.28	0.002		0.000	1.900	1.30	1
Tue	09/19/23	0.00	1.098	1.170	0.05	0.576		0.000	0.298	0.10	0
Wed	09/20/23	0.00	0.580	0.000	0.00	0.370		0.000	0.000	0.00	0
Thu	09/21/23	0.00	0.000	0.000	0.00	0.012		0.000	0.000	0.00	0
Fri	09/22/23	0.00	0.000	0.000	0.00	0.042		0.000	0.000	0.00	0
Sat	09/23/23	0.10	0.000	0.000	0.00	0.034		0.000	0.000	0.00	0
Sun	09/24/23	0.93	0.000	0.270	1.52	0.000		0.000	0.000	0.00	0
Mon	09/25/23	0.18	1.986	2.210	2.88	0.478		0.000	1.186	0.90	1
Tue	09/26/23	0.00	0.000	0.000	0.00	0.293		0.000	0.000	0.00	0
Wed	09/27/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	09/28/23	0.00	0.533	0.000	0.00	0.264		0.000	0.000	0.00	0
Fri	09/29/23	3.60	22.124	24.260	10.87	0.165		1.625	21.324	9.20	1
Sat	09/30/23	0.20	0.618	0.000	0.00	0.424	11.0	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	11.0	0.000	0.000	0.00	0
	Max	3.60	22.124	24.260	10.87	0.576	11.0	2.719	21.324	9.20	1
	Total	9.43	39.637	44.620	22.58	***4.924***	11.0	***4.344***	***32.154***	14.80	***6***
	Avg	0.31	1.321	1.487	0.75	0.164	11.0	0.145	1.072	0.49	0
										TOTAL # of EVENTS in the MONTH	***6***

MONTHLY CSO #09 REPORT
October, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Sun	10/01/23	7.98	0.000	0.000	0.00	0.196		0.000	0.000	0.00	0
Mon	10/02/23	0.00	0.684	0.000	0.00	0.288		0.000	0.000	0.00	0
Tue	10/03/23	0.00	0.449	0.000	0.00	0.069		0.000	0.000	0.00	0
Wed	10/04/23	0.00	0.000	0.000	0.00	0.152		0.000	0.000	0.00	0
Thu	10/05/23	0.00	0.000	0.000	0.00	0.085		0.000	0.000	0.00	0
Fri	10/06/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/07/23	0.90	3.870	3.900	3.28	0.046		0.000	3.070	1.90	1
Sun	10/08/23	0.00	0.000	0.000	0.00	0.442		0.000	0.000	0.00	0
Mon	10/09/23	0.00	0.000	0.000	0.00	0.273		0.000	0.000	0.00	0
Tue	10/10/23	0.00	0.260	0.000	0.00	0.115		0.000	0.000	0.00	0
Wed	10/11/23	0.00	0.210	0.000	0.00	0.028		0.000	0.000	0.00	0
Thu	10/12/23	0.01	0.000	0.000	0.00	0.071		0.000	0.000	0.00	0
Fri	10/13/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	10/14/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	10/15/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	10/16/23	0.02	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	10/17/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	10/18/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	10/19/23	0.05	0.165	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	10/20/23	0.00	0.000	0.000	0.00	0.038		0.000	0.000	0.00	0
Sat	10/21/23	0.52	0.786	0.760	1.28	0.094		0.000	0.000	0.00	0
Sun	10/22/23	0.02	0.000	0.000	0.00	0.318		0.000	0.000	0.00	0
Mon	10/23/23	0.00	0.159	0.000	0.00	0.172		0.000	0.000	0.00	0
Tue	10/24/23	0.00	0.000	0.000	0.00	0.002		0.000	0.000	0.00	0
Wed	10/25/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	10/26/23	0.02	0.303	0.000	0.00	0.133		0.000	0.000	0.00	0
Fri	10/27/23	0.00	0.174	0.000	0.00	0.038		0.000	0.000	0.00	0
Sat	10/28/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	10/29/23	0.49	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	10/30/23	0.33	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	10/31/23	0.00	0.000	0.000	0.00	0.000	54.9	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	54.9	0.000	0.000	0.00	0
	Max	7.98	3.870	3.900	3.28	0.442	54.9	0.000	3.070	1.90	1
	Total	10.39	7.060	4.660	4.56	***2.560***	54.9	***0.000***	***3.070***	1.90	***1***
	Avg	0.34	0.228	0.150	0.15	0.083	54.9	0.000	0.099	0.06	0
										TOTAL # of EVENTS in the MONTH	***1***

MONTHLY CSO #09 REPORT
November, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Wed	11/01/23	0.40	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/02/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	11/03/23	0.00	0.000	0.000	0.00	0.002		0.000	0.000	0.00	0
Sat	11/04/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	11/05/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/06/23	0.00	0.205	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	11/07/23	0.11	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	11/08/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/09/23	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	11/10/23	0.03	0.240	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	11/11/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	11/12/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/13/23	0.00	0.000	0.180	0.75	0.000		0.000	0.000	0.00	0
Tue	11/14/23	0.03	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	11/15/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/16/23	0.00	0.345	0.000	0.00	0.082		0.000	0.000	0.00	0
Fri	11/17/23	0.50	0.000	0.000	0.00	0.069		0.000	0.000	0.00	0
Sat	11/18/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	11/19/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/20/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Tue	11/21/23	0.25	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	11/22/23	0.87	1.056	1.600	3.80	0.314		0.000	0.256	0.20	1
Thu	11/23/23	0.00	0.000	0.000	0.00	0.090		0.000	0.000	0.00	0
Fri	11/24/23	0.00	0.000	0.000	0.00	0.212		0.000	0.000	0.00	0
Sat	11/25/23	0.00	0.000	0.000	0.00	0.259		0.000	0.000	0.00	0
Sun	11/26/23	0.02	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	11/27/23	0.70	3.445	3.700	2.15	0.375		0.000	2.645	1.10	1
Tue	11/28/23	0.00	0.799	0.000	0.00	0.325		0.000	0.000	0.00	0
Wed	11/29/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	11/30/23	0.00	0.000	0.000	0.00	0.000	31.5	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	31.5	0.000	0.000	0.00	0
	Max	0.87	3.445	3.700	3.80	0.375	31.5	0.000	2.645	1.10	1
	Total	2.96	6.090	5.480	6.70	***1.728***	31.5	***0.000***	***2.901***	1.30	***2***
	Avg	0.10	0.203	0.183	0.22	0.058	31.5	0.000	0.097	0.04	0
										TOTAL # of EVENTS in the MONTH	***2***

MONTHLY CSO #09 REPORT
December, 2023

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF *DMR #50050-O*	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER *DMR #50050-B*	TREATED EFFLUENT FLOW *DMR# 50050-1*	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	MGD	%	MGD	MGD	Hours	Number
Fri	12/01/23	0.10	0.635	0.000	0.00	0.294		0.000	0.000	0.00	0
Sat	12/02/23	0.00	0.000	0.000	0.00	0.102		0.000	0.000	0.00	0
Sun	12/03/23	0.75	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	12/04/23	0.00	0.251	0.000	0.10	0.068		0.000	0.000	0.00	0
Tue	12/05/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	12/06/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	12/07/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	12/08/23	0.00	0.467	0.610	1.60	0.199		0.000	0.000	0.00	0
Sat	12/09/23	0.00	0.000	0.000	0.00	0.110		0.000	0.000	0.00	0
Sun	12/10/23	1.95	3.108	5.490	3.50	0.004		0.000	2.308	0.70	1
Mon	12/11/23	0.10	6.630	9.400	6.10	0.465		0.000	5.830	3.90	1
Tue	12/12/23	0.00	0.764	0.000	0.00	0.503		0.000	0.000	0.00	0
Wed	12/13/23	0.00	0.426	0.000	0.00	0.435		0.000	0.000	0.00	0
Thu	12/14/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	12/15/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	12/16/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	12/17/23	0.77	3.367	3.330	2.80	0.040		0.000	2.567	1.50	1
Mon	12/18/23	1.75	21.123	19.330	12.50	0.000		0.000	20.323	9.10	1
Tue	12/19/23	0.00	0.000	0.000	0.00	0.002		0.000	0.000	0.00	0
Wed	12/20/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	12/21/23	0.00	0.000	0.000	0.00	0.232		0.000	0.000	0.00	0
Fri	12/22/23	0.00	0.000	0.000	0.00	0.250		0.000	0.000	0.00	0
Sat	12/23/23	0.00	0.000	0.000	0.00	0.124		0.000	0.000	0.00	0
Sun	12/24/23	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	12/25/23	0.02	0.000	0.000	0.00	0.036		0.000	0.000	0.00	0
Tue	12/26/23	0.05	0.000	0.000	0.00	0.001		0.000	0.000	0.00	0
Wed	12/27/23	0.48	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	12/28/23	0.69	3.143	3.610	6.10	0.312		0.000	2.343	1.60	1
Fri	12/29/23	0.00	0.000	0.000	0.00	0.481		0.000	0.000	0.00	0
Sat	12/30/23	0.09	0.000	0.000	0.00	0.249		0.000	0.000	0.00	0
Sun	12/31/23	0.00	0.000	0.000	0.00	0.049	9.5	0.000	0.000	0.00	0
TOTALS	**Min**	0.00	0.000	0.000	0.00	0.000	9.5	0.000	0.000	0.00	0
	Max	1.95	21.123	19.330	12.50	0.503	9.5	0.000	20.323	9.10	1
	Total	6.75	39.914	41.770	32.70	***3.956***	9.5	***0.000***	***33.371***	16.80	***5***
	Avg	0.22	1.288	1.347	1.05	0.128	9.5	0.000	1.076	0.54	0
										TOTAL # of EVENTS in the MONTH	***5***

APPENDIX 3: SSO REPORTS

Massachusetts Department of Environmental Protection
Bureau of Water Protection – Wastewater Management Program

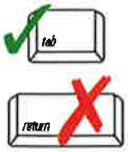
Sanitary Sewer Overflow (SSO)/Bypass Notification Form

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.



1. Facility Information

Holyoke Water Pollution Control Facility/Veolia North America — Reporting Sewer Authority
MA101630 — Permit #

2. Authorized Representative Transmitting Form:

Kevin — First Name
Lukasiewicz — Last Name
413-534-2222 — Telephone No.
Collections System Manager — Title
Kevin.Lukasiewicz@veolia.com — 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 (first name) Kurpaska (last name)
   Date/Time contacted: 3/17/2023 (Date) 6:01 (Time) ☐ am ☒ pm
2. **EPA staff** contacted: Douglas (first name) Koopman (last name)
   Date/Time EPA contacted: 03/17/2023 (Date) 6:00 (Time) ☐ am ☒ pm
3. Board of Health contacted: Sean (First Name) Gonsalves (Last Name)
   Date/Time contacted: 3/17/2023 (Date) 5:45 (Time) ☐ am ☒ pm
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: 3/17/2023 (Date) 10:45 (Time) ☒ am ☐ pm
   By: Jesse Danek
2. SSO Stopped: 3/17/2023 (Date) 2:00 (Time) ☐ am ☒ pm
3. SSO Discharge from: ☐ Sanitary Sewer Manhole ☐ Pump Station

☐ Backup into Property ☒ Other: Force main failure (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)

☐ Backup into Property Basement

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

C. SSO Information (cont.)

Location: Highland Park Pump Station
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 600 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: Force main failure.
   (Specify)

7. Corrective Actions Taken:

   Bypass pump setup, Pump Station was shutdown

   Impact Area cleaned and/or disinfected: ☒ Yes ☐ No

   Area was washed down.

   Corrective Actions Completed: ☒ Yes ☒ No

   Force main to be repaired 3/27/2023.

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 Friday 3/17/2023 while conducting pump station rounds, Jesse Danek informed me that the force main for the Highland Park Pump station had appeared to fail. Collections System personnel were mobilized to setup a bypass of the Station. Once bypass was setup, the station pumps were turned off to avoid any more discharge. Main was CCTV and the failure was confirmed. Repair is scheduled for Monday 3/27/2023

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

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. Lukasiewicz
Signature of Authorized Representative

3/22/2023
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

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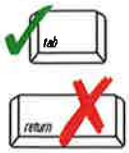

1. Facility Information

Holyoke Water Pollution Control Facility/Veolia North America — Reporting Sewer Authority
MA101630 — Permit #

2. Authorized Representative Transmitting Form:

Kevin — First Name
Lukasiewicz — Last Name
413-534-2222 — Telephone No.
Collections System Manager — Title
Kevin.Lukasiewicz@veolia.com — 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 (first name) Kurpaska (last name)
   Date/Time contacted: 3/22/2023 (Date) 8:28 (Time) ☒ am ☐ pm
2. **EPA staff** contacted: Douglas (first name) Koopman (last name)
   Date/Time EPA contacted: 03/22/2023 (Date) 8:28 (Time) ☒ am ☐ pm
3. Board of Health contacted: Sean (First Name) Gonsalves (Last Name)
   Date/Time contacted: 3/22/2023 (Date) 8:28 (Time) ☒ am ☐ pm
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: 3/21/20233 (Date) 8:40 (Time) ☐ am ☒ pm
   By: Holyoke Water Works
2. SSO Stopped: 3/21/2023 (Date) 9:00 (Time) ☐ am ☒ pm
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)

☐ Backup into Property Basement

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

C. SSO Information (cont.)

Location: 2 Grover St. (alley)
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 5-7 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: (Specify)

7. Corrective Actions Taken:

Jet cleaned City main and vactored manhole.

Impact Area cleaned and/or disinfected: ☒ Yes ☐ No

Area was washed down and vacuumed up..

Corrective Actions Completed: ☒ Yes ☐ No

City 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 Tuesday 03/21/2023 at 8:40pm Collections System personnel received a call for water bubbling out of the ground in the alley near 2 Grover St. The crew mobilized and upon arrival found manhole P20-5982 was slightly overflowing. The crew vacuumed out the manhole to stop the SSO. The sewer mains were then jet cleaned to clear the blockage of roots, grease and debris. The area around the manhole was also washed and vacuumed up.

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

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. Lukasiewicz
Signature of Authorized Representative

3/25/2023
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

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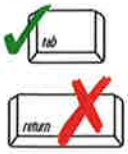

1. Facility Information

Holyoke Water Pollution Control Facility/Veolia North America (Reporting Sewer Authority) | MA101630 (Permit #)

2. Authorized Representative Transmitting Form:

Kevin (First Name) | Lukasiewicz (Last Name) | 413-534-2222 (Telephone No.)

Collections System Manager (Title) | Kevin.Lukasiewicz@veolia.com (E-mail Address)

B. Phone Notifications:

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

1. **MassDEP staff** contacted: Matt (first name) | Sokop (last name)

   Date/Time contacted: 10/26/2023 (Date) | 5:33 (Time) ☒ am ☐ pm

2. **EPA staff** contacted: Douglas (first name) | Koopman (last name)

   Date/Time EPA contacted: 10/26/2023 (Date) | 5:27 (Time) ☒ am ☐ pm

3. Board of Health contacted: Sean (First Name) | Gonsalves (Last Name)

   Date/Time contacted: 10/26/2023 (Date) | 5:31 (Time) ☒ am ☐ pm

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: 10/25/2023 (Date) | 10:45 (Time) ☒ am ☐ pm

   By: Joe Dulude

2. SSO Stopped: 10/25/2023 (Date) | 12:00 (Time) ☐ am ☒ pm

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)

   ☐ Backup into Property Basement

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

C. SSO Information (cont.)

Location: 105 Old Easthampton Rd.
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 25-50 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: (Specify)

7. Corrective Actions Taken:

   Jet cleaned City main and vactored manhole.

   Impact Area cleaned and/or disinfected: ☒ Yes ☐ No

   Area was washed down and vacuumed up..

   Corrective Actions Completed: ☒ Yes ☐ No

   City 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 Wednesday 10/25/23 at 10:45am the WWTP received a call for sewage overflowing from a manhole near 105 Old Easthampton Rd.. The Collections System crew mobilized and upon arrival found manhole E28-6669 was overflowing. The crew vacuumed out the manhole and jet cleaned the main to stop the SSO. Once free flow was observed, the area area was cleaned. The blockage was caused by a buildup of grease,rags,and debris. Debris appeared to be tooth paste tubes that may have been flushed from nearby Rehabilitation Center.

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

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. Lukasiewicz
Signature of Authorized Representative

10/27/2023
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

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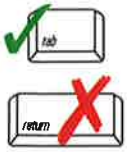

1. Facility Information

Holyoke Water Pollution Control Facility/Veolia North America (Reporting Sewer Authority) | MA101630 (Permit #)

2. Authorized Representative Transmitting Form:

Kevin (First Name) | Lukasiewicz (Last Name) | 413-534-2222 (Telephone No.)

Collections System Manager (Title) | Kevin.Lukasiewicz@veolia.com (E-mail Address)

B. Phone Notifications:

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

1. **MassDEP staff** contacted: Matt (first name) | Sokop (last name)

   Date/Time contacted: 11/09/2023 (Date) | 3:09 (Time) ☐ am ☒ pm

2. **EPA staff** contacted: Douglas (first name) | Koopman (last name)

   Date/Time EPA contacted: 11/09/2023 (Date) | 4:53 (Time) ☐ am ☒ pm

3. Board of Health contacted: Sean (First Name) | Gonsalves (Last Name)

   Date/Time contacted: 11/09/2023 (Date) | 3:19 (Time) ☐ am ☒ pm

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: 11/09/23203 (Date) | 12:20 (Time) ☐ am ☒ pm

   By: Miira Gates

2. SSO Stopped: 11/09/2023 (Date) | 2:00 (Time) ☐ am ☒ pm

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)

   ☐ Backup into Property Basement

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

C. SSO Information (cont.)

Location: 58 Canal 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 of debris.
(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-5992.1 were vacuumed out to remove the debris.

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 Thursday 11/09/2023 at 12:20pm, Mike Williams received a text of a possible overflow of water was coming out of a manhole onto the roadway across from the DPW offices at 63 Canal St. Collections System personnel were mobilized and responded to the area. Collections Crew found SMH-5992.1 overflowing at about <5 gpm. They immediately started to vacuum out the manhole to stop the SSO and jet clean the sewer main to free the blockage. The blockage was due due to a buildup of debris. This section of main is scheduled to be CCTV ASAP.

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

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. Lukasiewicz
Signature of Authorized Representative

11/09/2023
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	

Woodard & Curran

woodardcurran.com