



2024 COMBINED SEWER OVERFLOW ANNUAL REPORT

APRIL 2025



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Veolia Water North
America on behalf
of the City of
Holyoke

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2024 ANNUAL REPORTING FOR CSO OPERATION AND SEWER O&M

April 30, 2025

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 2024

Dear Mr. Rennie:

This letter is prepared on behalf of Veolia Water North America (Veolia) and the City of Holyoke (City) to serve as the 2024 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 summarizes the operation of the Holyoke CSO system during 2024. 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 2024.

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, as measured by Citywide rain gauges. 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 2024. The report sections that follow summarize NMC compliance activities. They identify the locations of CSOs in the City of Holyoke

collection system, summarize CSO outfall monitoring data, as required by Part I.H.5 of this permit, update the status of CSO abatement work, and analyze the impacts of CSOs on receiving water quality.

1.2 Summary of Permitted CSOs and Related Infrastructure

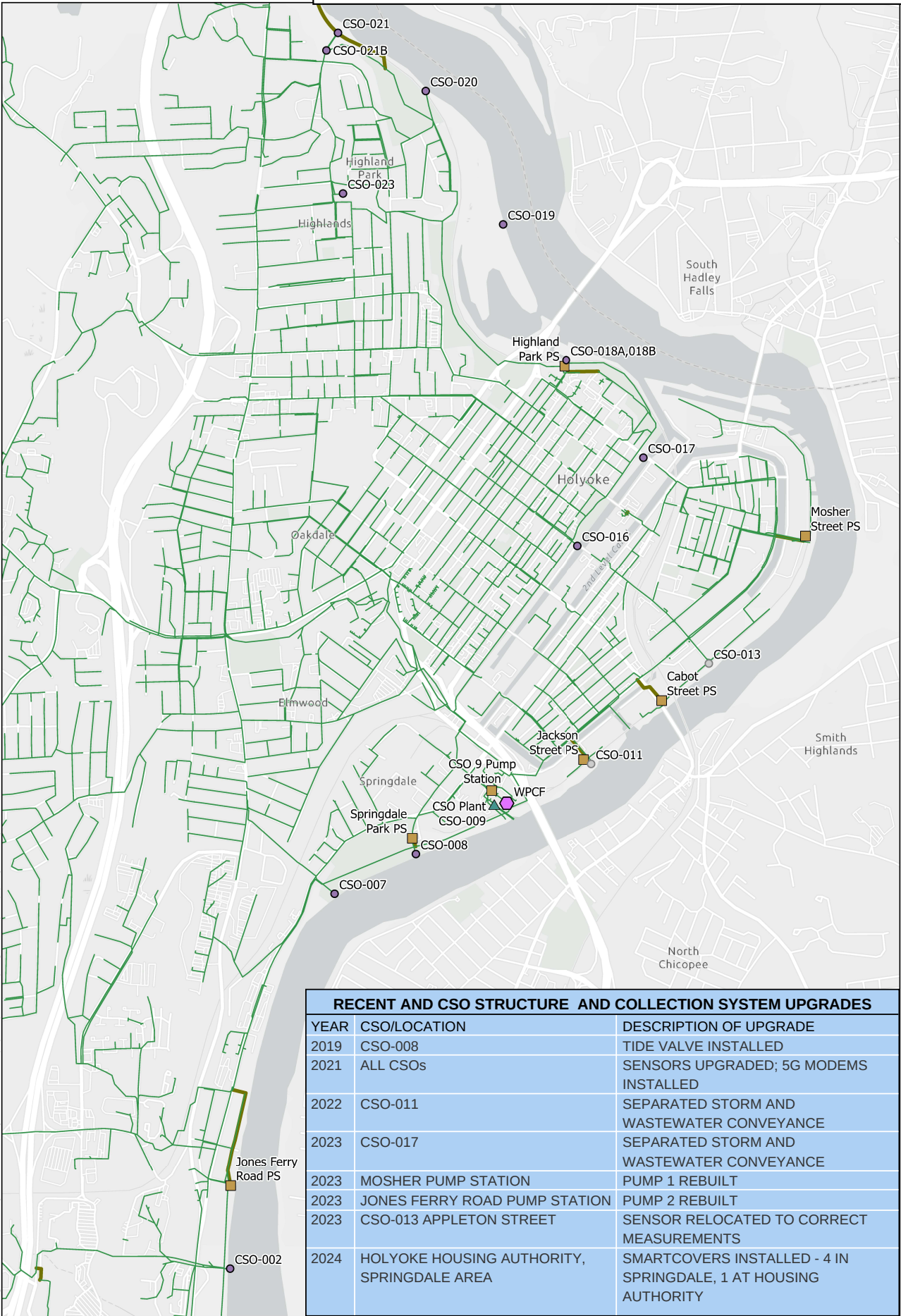
The City of Holyoke DPW is authorized to discharge combined storm- and wastewater to the Connecticut River from the CSO Outfalls listed below during wet weather. The list below summarizes the NPDES permitted outfall locations.

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.

FIGURE 1: CITY OF HOLYOKE COLLECTION SYSTEM AND CSO STRUCTURES



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 NPDES 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 2024 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 2024 CSO Outfall Discharge Summary

CSO discharges throughout the 2024 reporting year are summarized here (detailed reports included as Appendix 1). 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.

The highest rainfall month in 2024 was recorded in March, with 8.74 inches recorded. Only in CSO 002 did March have the highest number of discharge events, tied at 4 events with June and December. March did not have the highest number of woodblock activations for any of the CSOs. June was the most common month for the highest count of woodblock activations. CSO 018B and 021 each had 7 woodblock activations in June. The highest number of woodblock activations occurring throughout the year occurred in January at CSOs 020 and 021B, with 11 and 10 activations, respectively. For overflow events recorded by flow metering, June was also the most common month to have the highest number of overflow events. CSO 020 had the greatest number of overflow events in June, with 9 events.

In only CSOs 018, 018B, 020, and 021B did March represent the month with the most flow volume discharged by the CSO. In most of the other CSOs, June represented the month with the highest flow discharged. CSO 008 was an exception to this, with January as the month with the highest volume of flow discharged via the CSO. CSOs 008, 018, 018B, 020, 021, and 021B represent the CSOs with the highest volume of flow discharged in any month – all of which discharged more than 2 million gallons in a single month at their maximum month discharge. Those CSOs with the highest discharge volumes should be targeted for separation and remediation activities. Table 2, Figure 2, and Figure 3 below present summaries of the discharge information by CSO.

Table 2 - Montly Log of CSO Woodblock Activations and Flow Assessment Monitoring Discharges

	# of Woodblock Activations												# of Discharges Measured by Flow Assessment											
CSO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CSO 002	3	1	3	2	3	4	3	4	1	0	1	1	2	0	4	1	3	4	2	3	0	0	0	4
CSO 007	0	1	1	0	3	5	1	2	1	0	1	1	1	1	2	1	3	4	3	0	1	0	0	1
CSO 008	2	0	2	3	1	3	1	0	0	0	0	1	3	2	5	2	5	8	6	6	2	0	1	3
CSO 016	1	1	2	0	2	4	2	1	0	0	0	1	1	0	0	0	2	4	1	0	0	0	0	1
CSO 018	4	1	5	4	5	6	8	7	2	2	2	5	5	2	6	5	5	7	8	8	2	1	3	5
CSO 018A	3	1	3	5	4	6	5	6	2	2	1	2	0	0	0	0	1	3	1	0	0	0	0	0
CSO 018B	6	1	6	4	5	7	7	6	2	0	1	1	5	1	7	5	5	8	8	6	1	0	2	2
CSO 019	3	1	1	3	4	5	5	6	2	1	2	1	1	0	1	0	3	4	6	5	1	0	1	2
CSO 020	11	1	9	8	5	7	9	6	2	0	2	3	4	2	5	5	5	9	8	7	2	0	3	5
CSO 021	3	1	5	2	3	7	7	6	1	0	1	2	3	1	6	3	4	5	9	6	1	0	1	2
CSO 021B	10	1	7	5	5	7	6	3	2	0	2	3	4	2	6	5	7	7	0	3	2	0	3	2
CSO 023	2	1	2	1	2	5	5	5	1	0	0	1	2	1	4	2	3	5	6	4	1	0	0	2

LEGEND	
month with the most CSO discharges in 2024	7 5 count of woodblock activations count of flow-metered discharges

Figure 2 - CSO Count of Woodblock activations and Flow Assessment-monitored Discharges by Month

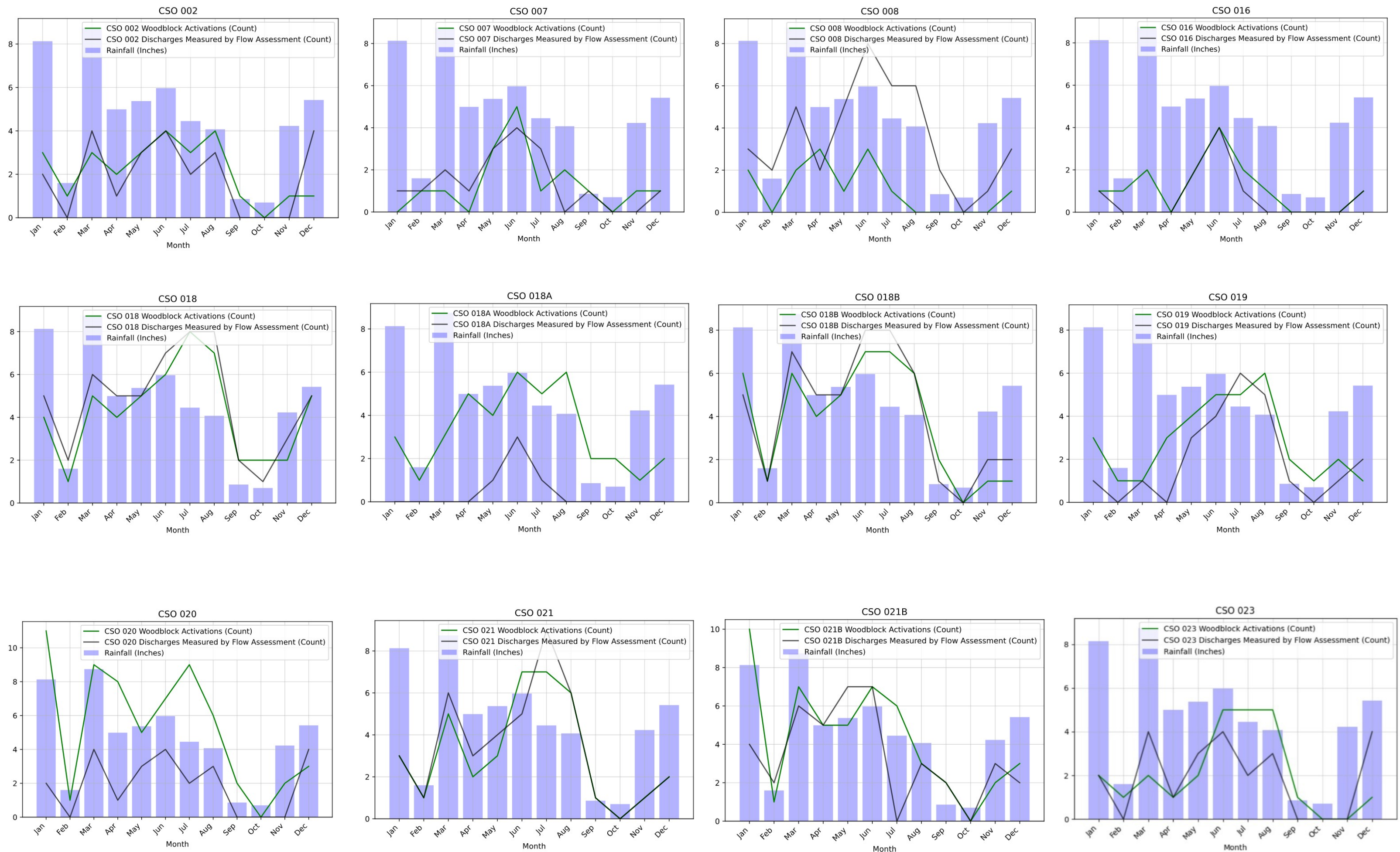
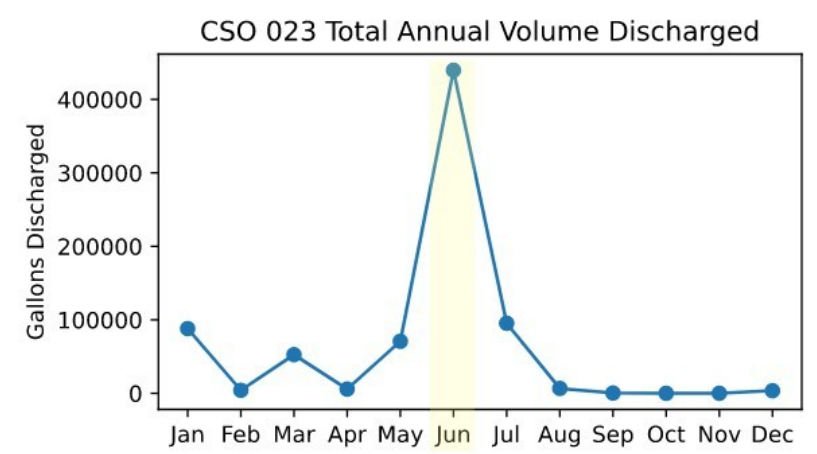
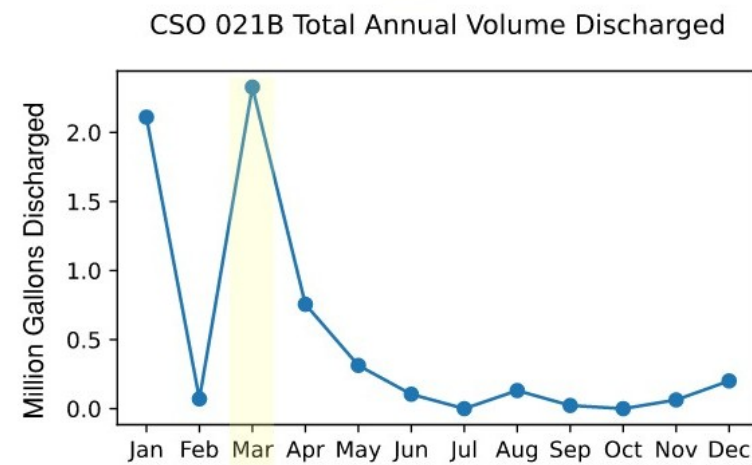
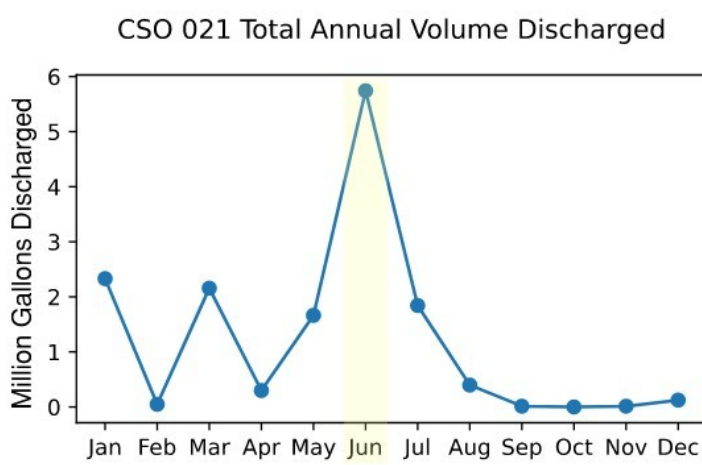
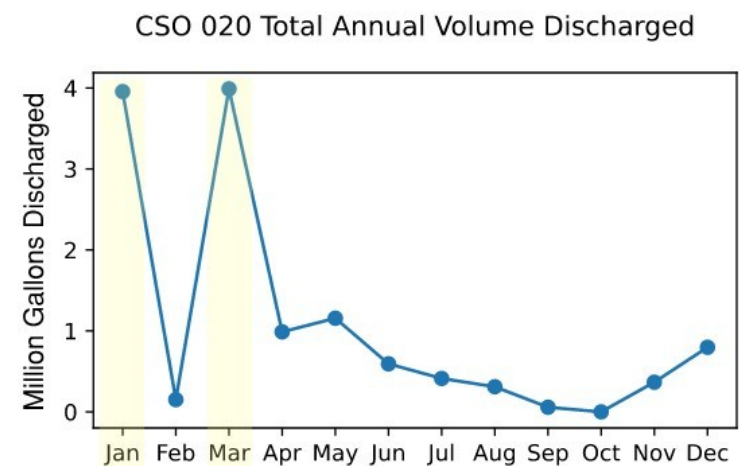
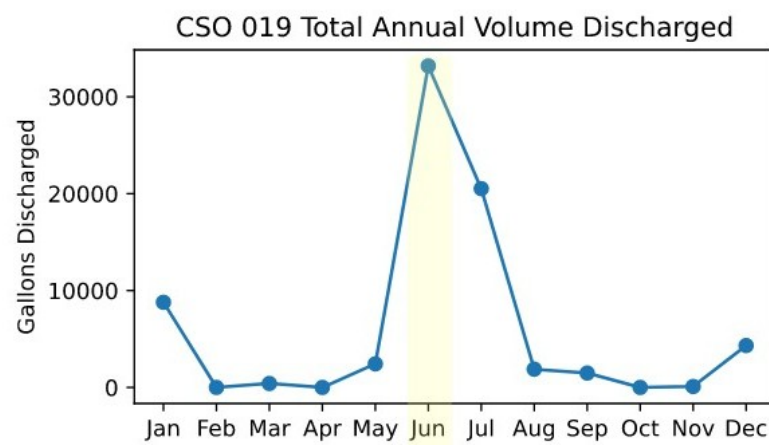
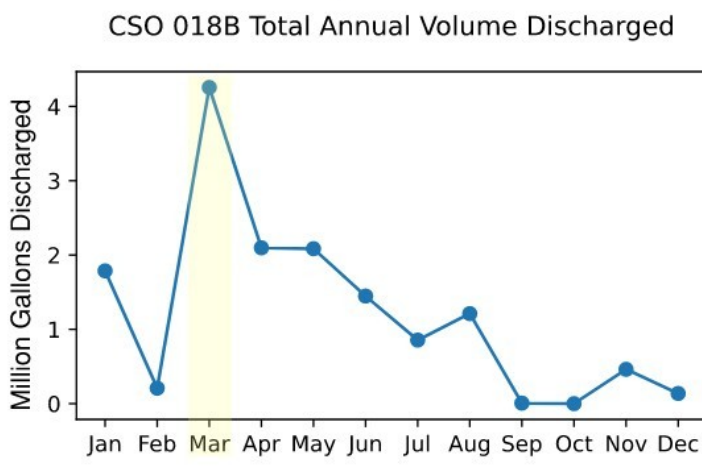
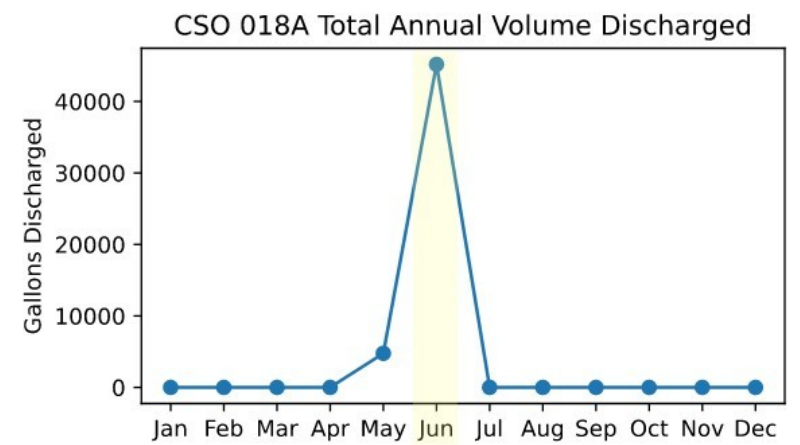
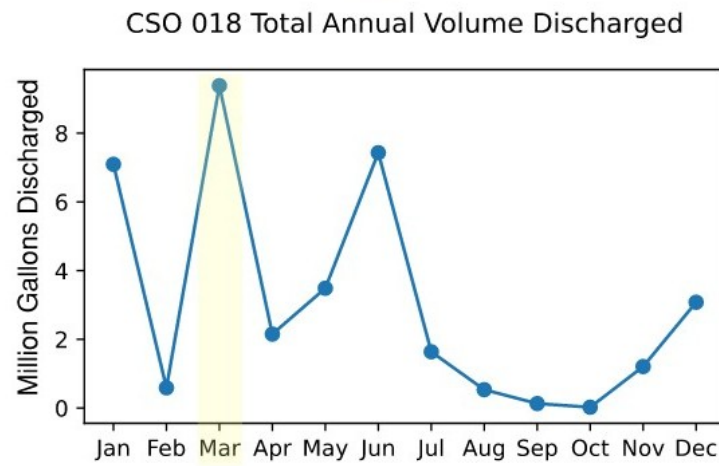
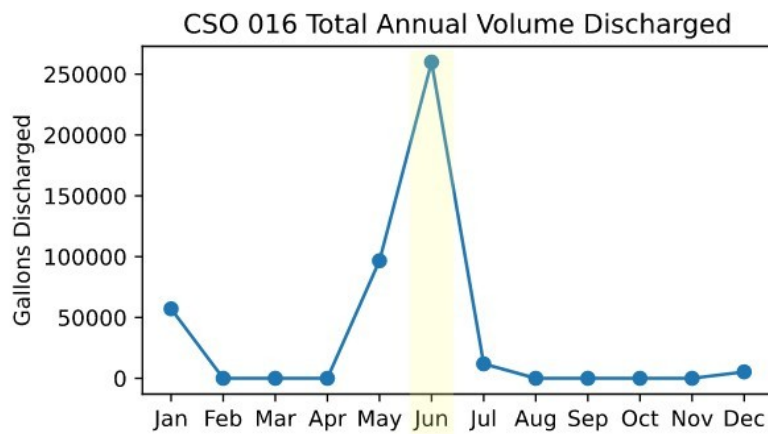
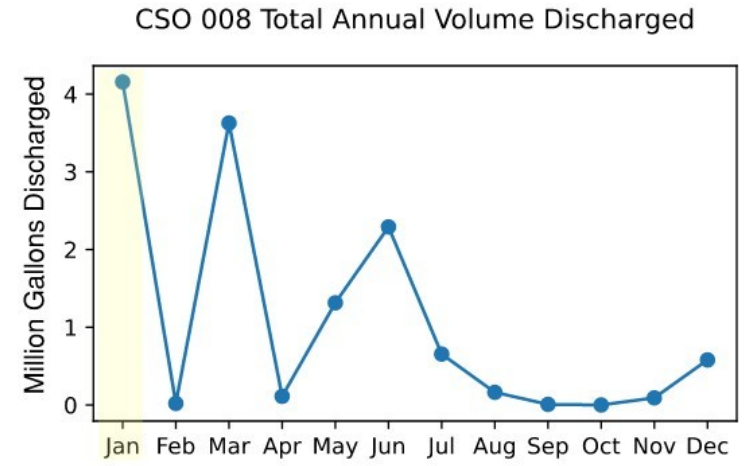
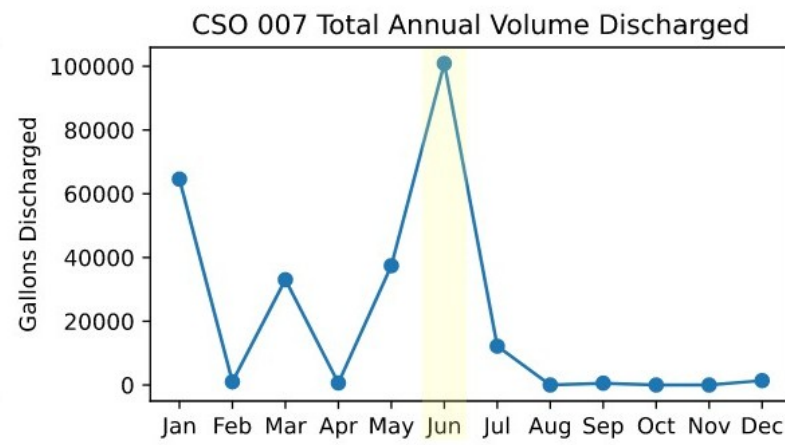
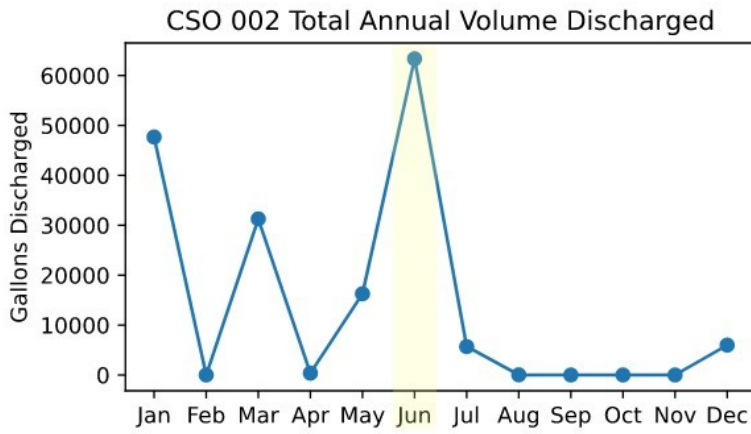


Figure 3 - Total Volume of CSO Discharges by Month



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 3: BERKSHIRE STREET CSO TREATMENT FACILITY DISCHARGE AND REPORTING REQUIREMENTS

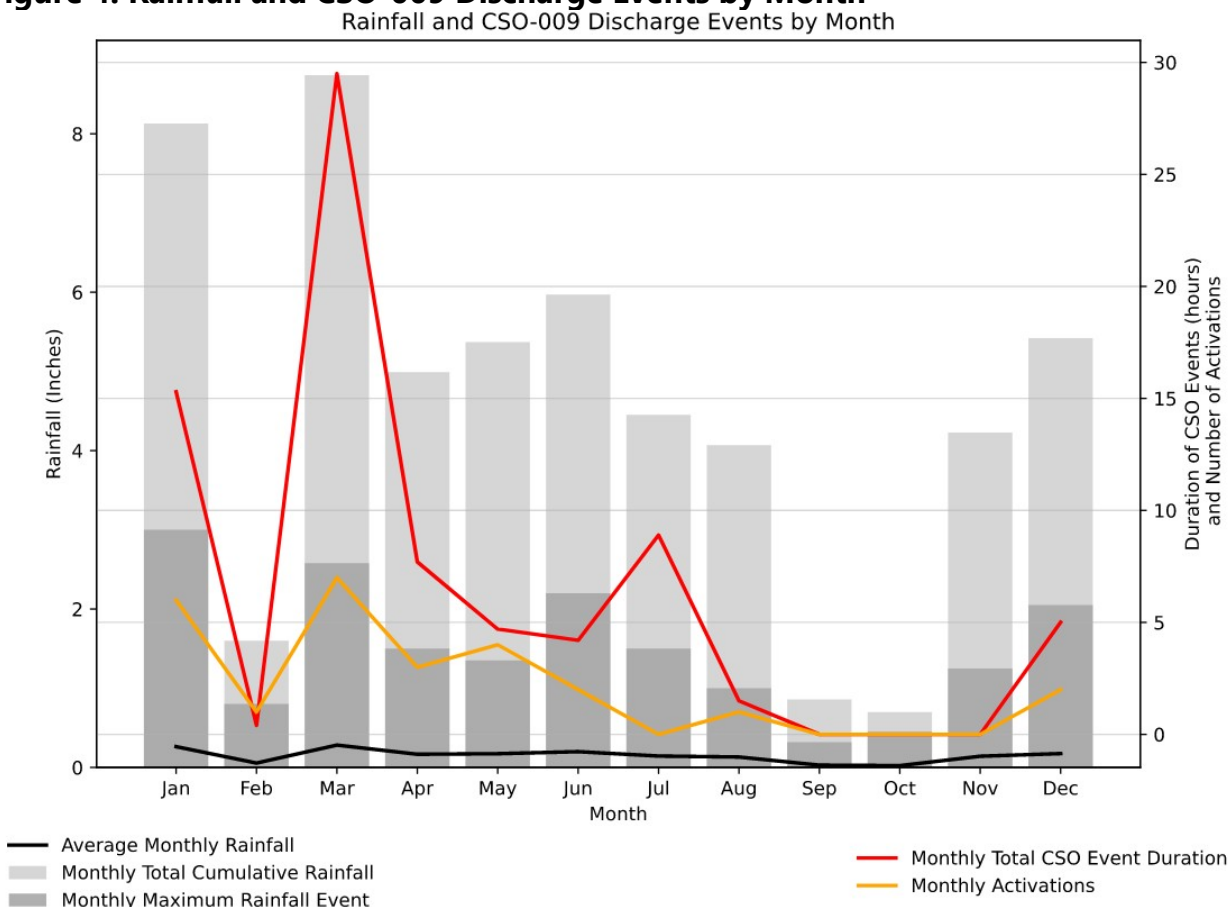
EFFLUENT	EFFLUENT LIMITS		MONITORING REQUIREMENTS	
PARAMETER	AVERAGE MONTHLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE
E. Coli Bacteria	126 cfu/100 ml	409 cfu/100 ml	1 Event/Month, Hourly	Grab
Total Residual Chlorine	---	0.24 mg/L	Hourly	Grab
pH Range	Report Maximum and Minimum, S.U.		1 Event/Month	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 2024 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.

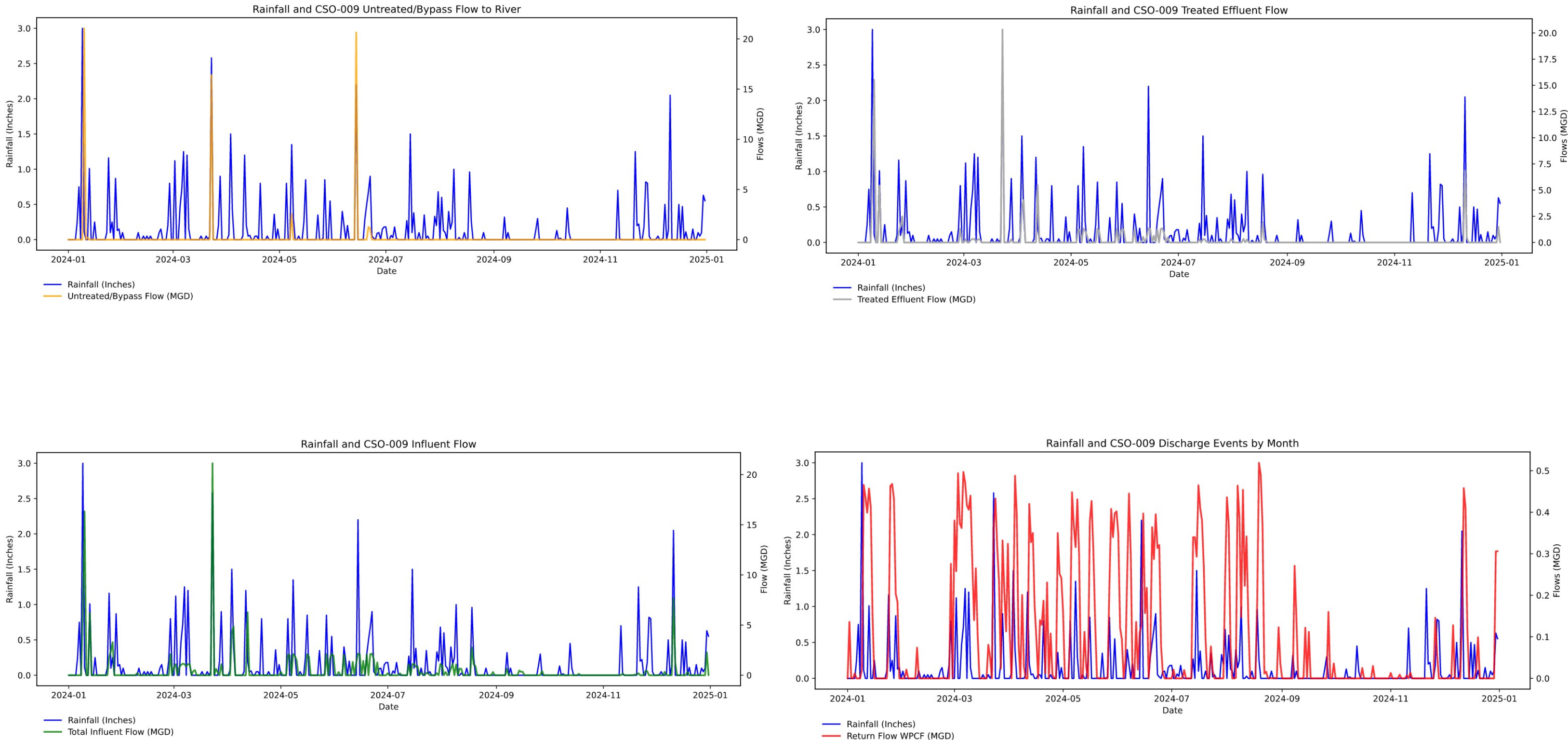
Figure 4: Rainfall and CSO-009 Discharge Events by Month



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.

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 larger measurable rain events. In months where there were not large rain events, CSO discharges were lower. Both Figure 4 and 5 indicate a strong correlation between high influent WPCF flow and wet weather periods.

Figure 5 - Annual Rainfall, CSO-009 Influent Flow, CSO-009 Treated Flow, CSO-009 Returned Secondary Flow, CSO-009 Bypassed Flow in 2024



The following observations summarize the significant storm and discharge events during 2024:

- In 2024, there were 132 rainfall events with measurable rainfall. The total rainfall for the year measured 54.53 inches.
- There were 26 events in 2024 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 163 MG in 2024. This is significantly lower than the 2023 value of 228 MG.
- Of the 163 MG discharged to the CSO 009 facility in 2024, 37.4 MG were returned to the Water Pollution Control Facility (WPCF) for secondary treatment.
- There were seven instances in 2024 in which overflows occurred without treatment. These events account for a total of 63.3 MG of CSO that went untreated in 2024. The smallest volume of untreated flow discharged by CSO-009 on a day with no recorded rainfall was 0.2 MG on January 12, 2024.

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 4: Impact of Rainfall on WPCF Average Influent Flow

Volume of Rain Received During Event	Average WPCF Flow (MGD)	Number of Days in Range
> 1"	13.33	14
0.5"-1"	10.15	21
0.1"-0.5"	8.98	51
<0.1"	7.55	46
No Rain Event	7.08	234

A significant volume of flow treated at the Holyoke WPCF is comprised of stormwater during wet-weather events. Sixty-four percent of days in 2024 did not have a rain event, with an average flow of 7.08 MGD. This value represents an average base wastewater flow to the WPCF without any I/I. It is assumed that the average wastewater flow does not significantly increase to the WPCF on days with rainfall, and the increased flow on such days is attributable to inflow from storms. Days with more than 1 inch of rain accounted for 3.8 percent of days during the year. Flow recorded at the WPCF on high rainfall days averages to 13.33 MGD, significantly higher than the base wastewater flow of 7.08 MGD on days without recorded rain.

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.
 - a. This project is on track. CSO 21A Separation project kicked off on January 16, 2025 with a pre-construction meeting between the City's consulting engineer for the sewer separation project (Woodard & Curran, Inc.), the City, and the contractor. Meeting minutes documenting this progress are attached to this report as Appendix 4.
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 LTCP. 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 decrease.

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 0.04 inches or more. 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 discharges and intrusion of flow due to high river levels. 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 2024 inspections were conducted, physical inspection results recorded, and records maintained. The following is a certification that inspections were completed for 2024, 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 2024; that the results of the physical inspections were recorded, and the records are maintained.

Jason Swain
Project Leader
Veolia Water North America

Date

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. The submission of Chapter 2 of this report represents compliance with that permit requirement. The sections to follow document the City's efforts in 2024 for O&M Plan Implementation.

2.1 Staffing

Veolia Water North America, operators of the Holyoke WPCF, Berkshire Street CSO Treatment Facility, and the City of Holyoke POTW operated with 17 personnel in 2024 – 12 Operator Maintainers, 1 Laborer, and 4 Management personnel. Veolia, on behalf of the City of Holyoke, submits a staffing report to MassDEP regarding the operation of the WPCF. This report is filed throughout the 2024 operational year.

2.2 Maintenance Activities and Corrective Actions

In 2024, the City/Veolia cleaned 25,432 linear feet of sewer via vacuuming and jetting. They inspected 2,885 linear feet by CCTV and cleaned out 86 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 2024, per the MS4 permit. Street sweeping efforts accounted for approximately 350 miles of cleaning, which accounts for both sides of City streets.

Additional maintenance activities were focused on the following areas:

- Smith's Ferry to identify possible I&I into the collection system, and
- Holyoke River Terrace CSO, in support of CSO-21A separation construction, which is set to begin in 2025. A pre-construction meeting kicked off the project, and meeting minutes documenting the progress are attached to this report as Appendix 4.

Corrective actions taken during 2024 within the POTW system were as follows:

- Additions of smart covers in the collection system installed at the following locations:
 - Holyoke Housing Authority (475 Maple St), and
 - 4 installed in the Springdale area,

2.3 Collection System Maintenance Expenditures

In 2024, the City of Holyoke spent \$296,908 on collection system maintenance activities and corrective actions. Additionally, \$55,000 was paid for Flow Assessment equipment rental cost during the calendar year.

2.4 Summary of Unauthorized discharges in 2024

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 2024 will be summarized to follow.

2.4.1 SSOs

Four SSOs were reported during calendar year 2024. 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. A summary of the events is provided below.

April 6, 2024: The discharge occurred at 145 Westfield Road and Woodland St, beginning at 2:40 PM and stopping at 3:51 PM. The estimated discharge volume was 1000 gallons, discharged to the ground surface but did not discharge to surface water. The cause of this SSO was determined to be a sewer system blockage due to root intrusion and grease blockage. The sewer line was jet cleaned, the blockage removed, and the area vacuum cleaned, including the catch basin receiving combined flow.

June 17, 2024: The discharge occurred near 12 Bowers Street, for a period of 66 minutes, from 1:34 PM to 2:40 PM, with an estimated discharge of 100 gallons. The discharge came from a sanitary sewer manhole and discharged to the ground surface. The SSO was caused by a blockage of grease and rags. Operators vacuumed SMH-5788 to remove grease and rags and jet cleaned the sewer main.

November 12, 2024: 5-7 gallons were discharged from a sanitary sewer manhole near 2 Grover Street. WPCF Operators discovered manhole P20-5982 overflowing slightly. Operations staff vacuumed the manhole and jet cleaned the main to resolve the overflow. The blockage was caused by a buildup of roots, grease, and other debris. The area around the manhole was also washed and vacuumed.

November 12, 2024: Between 8:45 and 11:25 AM, approximately 16,162 gallons were discharged from a broken water main near the CSO-21 structure. The discharge occurred from CSO 021 and 021B and discharged to the CT River. Holyoke Water Works shut down and subsequently repaired the broken main. The flow from this break caused the CSO to discharge due to it being a combined area.

2.4.2 DWOs

No DWOs occurred during 2024.

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 2024, the annual average influent flow to the WPCF was 7.14 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 maintain permit compliance. 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 2024 that are attributable to the short-term, 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 reveal 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 inflow from rainwater, rather than infiltration from groundwater, is the primary contributor of flow to into the Holyoke POTW system. This evidence supports the completion of sewer separation projects to meaningfully reduce the quantity of stormwater treated at the WPCF. These upgrades are recommended and progressing.

APPENDIX 1: CSO FLOW MONITORING ANNUAL REPORTS



CSO 002
2024 Activations

Holyoke, MA

CSO 002

Main Street at Lug Handle Road

2024 Overflow Summary (1-1-24/12-31-24)

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	1/9/2024 22:20	1/10/2024 5:05	405	1.35	0.4	45,128	0.045128
2	1/13/2024 4:05	1/13/2024 6:45	160	0.99	0.23	2,548	0.002548
3	3/2/2024 20:55	3/2/2024 21:05	10	0.94	0.22	88	0.000088
4	3/6/2024 21:45	3/7/2024 1:20	215	1.19	0.47	12,743	0.012743
5	3/9/2024 21:05	3/10/2024 1:40	275	0.79	0.2	1,414	0.001414
6	3/23/2024 14:15	3/23/2024 18:15	240	2.95	0.51	17,027	0.017027
7	4/12/2024 2:25	4/12/2024 2:45	20	0.91	0.28	373	0.000373
8	5/8/2024 7:25	5/8/2024 7:30	5	1.24	0.82	750	0.00075
9	5/8/2024 14:45	5/8/2024 15:25	40	1.24	0.82	10,734	0.010734
10	5/27/2024 10:45	5/27/2024 11:10	25	0.78	0.47	4,791	0.004791
11	6/14/2024 14:45	6/14/2024 22:00	435	1.99	1.09	52,086	0.052086
12	6/19/2024 18:10	6/19/2024 18:25	15	0.22	0.22	1,069	0.001069
13	6/21/2024 15:55	6/21/2024 16:40	45	0.6	0.57	7,164	0.007164
14	6/22/2024 14:25	6/22/2024 14:40	15	0.71	0.7	3,029	0.003029
15	7/15/2024 13:40	7/15/2024 14:00	20	1.04	0.6	2,181	0.002181
16	7/31/2024 7:25	7/31/2024 16:35	550	0.69	0.36	3,516	0.003516
17	8/6/2024 22:00	8/6/2024 22:05	5	0.48	0.24	10	0.00001
18	8/18/2024 14:50	8/18/2024 15:05	15	0.91	0.21	8	0.000008
19	8/19/2024 18:00	8/19/2024 18:30	30	0.24	0.22	12	0.000012
20	12/11/2024 14:25	12/11/2024 15:05	40	1.66	0.28	3,450	0.00345
21	12/11/2024 18:25	12/11/2024 18:35	10	1.66	0.28	16	0.000016
22	12/11/2024 20:20	12/11/2024 21:15	55	1.66	0.28	2,483	0.002483
23	12/30/2024 4:05	12/30/2024 4:25	20	0.6	0.26	39	0.000039

Total Overflow (MG):

0.170659



CSO 007
2024 Activations

Holyoke, MA

CSO 007

Glen Street and Northampton

2024 Overflow Summary (1-1/24-12-31-24)

Monthly Overflow	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)
Event							
1	1/9/24 23:50	1/10/24 2:45	175	1.35	0.4	64,589	0.064589
2	2/28/24 21:15	2/28/24 21:20	5	0.76	0.22	1,013	0.001013
3	3/6/24 22:55	3/7/24 1:05	130	1.19	0.47	6,973	0.006973
4	3/23/24 16:00	3/23/24 17:50	110	2.95	0.51	26,064	0.026064
5	4/12/24 2:25	4/12/24 2:40	15	0.91	0.28	642	0.000642
6	5/8/24 7:10	5/8/24 7:25	15	1.24	0.82	301	0.000301
7	5/8/24 14:40	5/8/24 15:10	30	1.24	0.82	31,861	0.031861
8	5/27/24 10:45	5/27/24 11:10	25	0.78	0.47	5,268	0.005268
9	6/14/24 14:30	6/14/24 21:55	445	1.99	1.09	71,223	0.071223
10	6/19/24 18:05	6/19/24 18:20	15	0.22	0.22	1,628	0.001628
11	6/21/24 16:00	6/21/24 16:35	35	0.6	0.57	9,055	0.009055
12	6/22/24 14:15	6/22/24 14:45	30	0.71	0.7	18,975	0.018975
13	7/13/24 4:55	7/13/24 5:05	10	0.07	0.05	6,990	0.00699
14	7/15/24 15:25	7/15/24 16:35	70	1.04	0.6	820	0.000820
15	7/31/24 16:20	7/31/24 16:25	5	0.69	0.36	4,362	0.004362
16	9/7/24 17:20	9/7/24 17:30	10	0.36	0.21	580	0.00058
17	12/11/2024 14:35	12/11/24 14:45	10	1.66	0.28	1,389	0.001389

Total Overflow (MG): 0.251733



CSO 008
2024 Activations

Holyoke, MA

CSO 008
Springdale Park
2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 21:25	1/10/2024 5:55	510	1.35	0.4	3,725,773	3.725773
2	1/13/2024 4:15	1/13/2024 7:20	185	0.99	0.23	353,990	0.353990
3	1/24/2024 20:50	1/24/2024 22:30	100	0.78	0.13	76,905	0.076905
4	2/28/2024 6:10	2/28/2024 6:35	25	0.76	0.22	5,147	0.005147
5	2/28/2024 21:15	2/28/2024 21:55	40	0.76	0.22	15,045	0.015045
6	3/2/2024 18:30	3/2/2024 21:50	200	0.94	0.22	160,768	0.160768
7	3/5/2024 19:50	3/5/2024 20:05	15	0.56	0.16	24,787	0.024787
8	3/6/2024 22:10	3/7/2024 1:55	225	1.19	0.47	816,260	0.816260
9	3/9/2024 22:40	3/10/2024 1:50	190	0.79	0.2	532,186	0.532186
10	3/23/2024 8:20	3/23/2024 18:40	624	2.95	0.51	2,093,680	2.093680
11	4/12/2024 4:00	4/12/2024 4:40	40	0.91	0.28	64,079	0.064079
12	4/28/2024 1:20	4/28/2024 2:00	40	0.34	0.3	47,893	0.047893
13	5/5/2024 15:50	5/5/2024 16:20	30	0.75	0.15	22,385	0.022385
14	5/8/2024 14:40	5/8/2024 16:05	85	1.24	0.82	758,587	0.758587
15	5/16/2024 3:35	5/16/2024 4:35	60	0.86	0.14	15,564	0.015564
16	5/27/2024 10:40	5/27/2024 11:25	45	0.78	0.47	413,804	0.413804
17	5/30/2024 6:00	5/30/2024 7:15	75	0.66	0.31	103,982	0.103982
18	6/6/2024 8:55	6/6/2024 9:35	40	0.47	0.22	26,309	0.026309
19	6/6/2024 19:50	6/6/2024 20:00	10	0.47	0.22	9,733	0.009733
20	6/7/2024 19:45	6/7/2024 19:50	5	0.11	0.11	454	0.000454
21	6/14/2024 14:40	6/14/2024 22:30	470	1.99	1.09	1,570,255	1.570255
22	6/19/2024 18:10	6/19/2024 18:35	25	0.22	0.22	5,817	0.005817
23	6/20/2024 14:35	6/20/2024 15:00	25	0.22	0.19	28,458	0.028458
24	6/21/2024 16:05	6/21/2024 17:00	55	0.6	0.57	40,721	0.040721
25	6/22/2024 14:15	6/22/2024 15:10	55	0.71	0.7	609,653	0.609653
26	7/13/2024 4:55	7/13/2024 5:40	45	0.07	0.05	225,932	0.225932
27	7/15/2024 13:55	7/15/2024 17:00	185	1.04	0.6	275,652	0.275652
28	7/16/2024 0:55	7/16/2024 1:10	15	0.19	0.14	4,835	0.004835
29	7/23/2024 5:35	7/23/2024 5:45	10	0.27	0.19	4,359	0.004359
30	7/29/2024 6:20	7/29/2024 6:30	10	0.3	0.13	3,856	0.003856
31	7/31/2024 7:30	7/31/2024 16:55	565	0.69	0.36	140,476	0.140476

Total 12.177345



CSO 008
2024 Activations

Pg1 Total 12.177345

Holyoke, MA

CSO 008

Springdale Park

2024 Overflow Summary (1-1/24-12-31-24)

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)
32	8/6/2024 22:10	8/6/2024 23:05	55	0.48	0.24	37,121	0.037121
33	8/8/2024 14:35	8/8/2024 17:05	150	0.45	0.2	15,358	0.015358
34	8/9/2024 21:15	8/9/2024 22:30	75	0.45	0.16	24,087	0.024087
35	8/18/2024 3:50	8/18/2024 3:55	5	0.91	0.21	3,155	0.003155
36	8/18/2024 13:40	8/18/2024 15:35	115	0.91	0.21	66,622	0.066622
37	8/19/2024 18:10	8/19/2024 18:35	25	0.24	0.22	16,594	0.016594
38	9/7/2024 17:20	9/7/2024 17:40	20	0.36	0.21	2,721	0.002721
39	9/26/2024 15:25	9/26/2024 15:40	15	0.39	0.25	4,858	0.004858
40	11/28/2024 10:55	11/28/2024 14:15	200	0.85	0.21	91,687	0.091687
41	12/11/2024 3:50	12/11/2024 4:10	20	1.66	0.28	6,148	0.006148
52	12/11/2024 14:10	12/11/2024 21:30	440	1.66	0.28	538,919	0.538919
43	12/30/2024 4:05	12/30/2024 5:50	105	0.6	0.26	34,537	0.034537

Total 13.019152



CSO 008
2024 Activations



CSO 016
2024 Activations

Holyoke, MA

CSO 016

Appleton Street at Nick Cosmo Way
2024 Overflow Summary (1-1/24-12-31-24)

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	1/10/2024 0:45	1/10/2024 1:35	50	1.41	0.67	57,120	0.057120
2	5/8/2024 14:40	5/8/2024 15:00	20	1.24	0.82	95,127	0.095127
3	5/27/2024 10:45	5/27/2024 10:50	5	0.78	0.47	1,497	0.001497
4	6/14/2024 14:30	6/14/2024 21:45	435	1.99	1.09	194,326	0.194326
5	6/19/2024 18:05	6/19/2024 18:15	10	0.22	0.22	14,525	0.014525
6	6/21/2024 16:15	6/21/2024 16:30	15	0.6	0.57	17,152	0.017152
7	6/22/2024 14:15	6/22/2024 14:35	20	0.71	0.7	33,903	0.033903
8	7/31/2024 16:15	7/31/2024 16:25	10	0.69	0.36	11,862	0.011862
9	12/11/2024 14:35	12/11/2024 14:40	5	1.66	0.28	5,299	0.005299

Subtotal Pg1 Overflow (MG): 0.430811



CSO 016
2024 Activations

Total	0.430811
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CSO 016
2024 Activations

Total	0.430811
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CSO 018
2024 Activations

Holyoke, MA
CSO 018
Walnut Street
2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 19:40	1/10/2024 6:30	650	1.35	0.4	4.676900
2	1/13/2024 3:05	1/13/2024 14:40	695	0.99	0.23	1.113847
3	1/24/2024 20:05	1/25/2024 1:25	320	0.78	0.13	0.731358
4	1/26/2024 4:20	1/26/2024 10:50	390	0.56	0.17	0.563536
5	1/28/2024 10:10	1/28/2024 10:40	30	0.81	0.11	0.009024
6	2/27/2024 21:30	2/27/2024 22:35	65	0.13	0.02	0.064447
7	2/28/2024 6:05	2/28/2024 22:15	970	0.76	0.22	0.524635
8	3/2/2024 17:25	3/2/2024 22:40	315	0.94	0.22	0.801276
9	3/5/2024 11:35	3/5/2024 20:25	530	0.56	0.16	0.255471
10	3/6/2024 19:40	3/7/2024 10:30	890	1.19	0.47	3.001106
11	3/9/2024 20:45	3/10/2024 4:25	460	0.79	0.2	1.530751
12	3/23/2024 5:25	3/23/2024 19:45	860	2.95	0.51	3.508808
13	3/28/2024 2:20	3/28/24 17:00	880	0.82	0.15	0.285178
14	4/3/2024 9:15	4/4/2024 12:50	1655	1.09	0.22	0.584853
15	4/11/2024 20:05	4/12/2024 15:30	1165	0.91	0.28	1.050969
16	4/18/2024 1:10	4/18/2024 8:20	430	0.5	0.16	0.170702
17	4/20/2024 5:15	4/20/2024 6:40	85	0.24	0.11	0.041359
18	4/28/2024 1:15	4/28/2024 2:15	60	0.34	0.3	0.303662
19	5/5/2024 14:10	5/5/2024 21:20	430	0.75	0.15	0.327020
20	5/8/2024 7:10	5/8/2024 15:40	510	1.24	0.82	1.353064
21	5/16/2024 0:45	5/16/2024 12:15	690	0.86	0.14	0.489073
22	5/27/2024 10:30	5/27/2024 20:10	580	0.78	0.47	0.820750
23	5/30/2024 5:10	5/30/2024 7:45	155	0.66	0.31	0.496805
24	6/6/2024 8:35	6/6/2024 20:30	715	0.47	0.22	0.535315
25	6/7/2024 19:45	6/7/2024 19:55	10	0.11	0.11	0.011039
26	6/9/2024 8:35	6/9/2024 9:10	35	0.17	0.13	0.039090
27	6/14/2024 14:30	6/14/2024 22:15	465	1.99	1.09	3.815014
28	6/19/2024 17:50	6/19/2024 18:35	45	0.22	0.22	0.370310
29	6/21/2024 16:15	6/21/24 17:00	45	0.6	0.57	1.093614
30	6/22/2024 13:55	6/22/24 15:10	75	0.71	0.7	1.566400

Total 28.568976



CSO 018
2024 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	7/5/2024 3:05	7/5/2024 3:35	30	0.07	0.05	0.113942
32	7/6/2024 22:00	7/6/2024 22:10	10	0.18	0.11	0.002678
33	7/13/2024 4:50	7/13/2024 5:35	45	0.42	0.39	0.218804
34	7/15/2024 14:45	7/15/2024 17:10	145	1.04	0.6	0.451085
35	7/16/2024 0:55	7/16/2024 1:30	35	0.19	0.14	0.124669
36	7/17/2024 16:40	7/17/24 18:35	115	0.35	0.1	0.091334
37	7/23/2024 5:15	7/23/24 5:50	35	0.27	0.19	0.006529
38	7/31/2024 7:25	7/31/2024 20:30	785	0.69	0.36	0.628475
39	8/2/2024 21:15	8/2/2024 21:35	20	0.07	0.04	0.026072
40	8/6/2024 22:10	8/6/2024 23:20	70	0.48	0.24	0.114957
41	8/7/2024 8:40	8/7/2024 8:55	15	0.38	0.1	0.000495
42	8/8/2024 14:40	8/8/2024 17:15	155	0.45	0.2	0.016470
43	8/9/2024 20:35	8/9/2024 22:35	120	0.45	0.16	0.077300
44	8/18/2024 3:45	8/18/24 4:25	40	0.91	0.21	0.032960
45	8/18/2024 13:35	8/18/24 15:50	135	0.91	0.21	0.183811
46	8/19/2024 18:10	8/19/2024 18:45	35	0.24	0.22	0.082432
47	9/7/2024 17:20	9/7/2024 19:00	100	0.36	0.21	0.043661
48	9/26/2024 15:10	9/26/2024 15:45	35	0.39	0.25	0.086198
49	10/7/2024 7:30	10/7/2024 7:55	25	0.19	0.16	0.023494
50	11/21/2024 8:30	11/22/2024 3:30	1140	0.8	0.14	0.267295
51	11/23/2024 6:15	11/23/2024 7:30	75	0.38	0.13	0.055636
52	11/28/2024 9:35	11/28/2024 14:50	315	0.85	0.21	0.884143
53	12/9/2024 16:05	12/9/2024 18:35	150	0.48	0.13	0.201430
54	12/10/2024 22:45	12/11/2024 22:55	1450	1.66	0.28	1.919393
55	12/17/2024 0:50	12/17/2024 2:20	90	0.2	0.1	0.077937
56	12/18/2024 19:40	12/18/2024 22:40	180	0.39	0.12	0.236420
57	12/30/2024 4:05	12/30/2024 6:55	170	0.6	0.26	0.643778

35.066432



CSO 018
2024 Activations



CSO 018A
2024 Activations

Holyoke, MA

CSO 018A

Essex Street at Walnut Street

2024 Overflow Summary (1-1/24-12-31-24)

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	5/8/2024 14:45	5/8/2024 14:50	5	1.24	0.82	4,772	0.004772
2	6/14/2024 14:30	6/14/2024 21:35	425	1.99	1.09	39,783	0.039783
3	6/21/2024 16:20	6/21/2024 16:25	5	0.6	0.57	1,416	0.001416
4	6/22/2024 14:15	6/22/2024 14:25	10	0.71	0.7	3,986	0.003986
5	7/31/2024 16:15	7/31/2024 16:20	5	0.69	0.36	4	0.000004

Total Overflow (MG): 0.049961



CSO 018B
2024 Activations

Holyoke, MA
CSO 018B

**Highland Pump Station
2024 Overflow Summary (1-1/24-12-31-24)**

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	1/9/2024 20:55	1/10/2024 6:50	595	1.35	0.4	575,562	0.575562
2	1/13/2024 3:20	1/13/2024 9:35	375	0.99	0.23	247,949	0.247949
3	1/24/2024 19:50	1/25/2024 4:10	500	0.78	0.13	431,673	0.431673
4	1/26/2024 4:25	1/26/2024 11:15	410	0.56	0.17	397,176	0.397176
5	1/28/2024 10:10	1/28/2024 16:15	365	0.81	0.11	134,835	0.134835
6	2/28/2024 7:30	2/28/2024 22:40	910	0.76	0.22	207,557	0.207557
7	3/2/2024 17:40	3/3/2024 0:00	380	0.94	0.22	501,793	0.501793
8	3/5/2024 12:05	3/5/2024 13:50	105	0.56	0.16	98,326	0.098326
9	3/5/2024 19:25	3/5/2024 20:45	80	0.56	0.16	82,716	0.082716
10	3/6/2024 19:55	3/7/2024 11:00	905	1.19	0.47	1,177,740	1.17774
11	3/9/2024 18:45	3/10/2024 5:00	615	0.79	0.2	637,685	0.637685
12	3/23/2024 5:45	3/23/2024 20:15	870	2.95	0.51	1,338,311	1.338311
13	3/28/2024 2:25	3/28/2024 22:20	1195	0.82	0.15	418,620	0.418620
14	4/3/2024 9:20	4/4/2024 14:15	1735	1.09	0.22	1,076,520	1.076520
15	4/11/2024 12:25	4/12/2024 15:50	1645	0.91	0.28	691,943	0.691943
16	4/18/2024 1:15	4/18/2024 8:40	445	0.5	0.16	139,051	0.139051
17	4/20/2024 5:15	4/20/2024 7:05	110	0.24	0.11	125,444	0.125444
18	4/28/2024 1:30	4/28/2024 2:35	65	0.34	0.3	64,349	0.064349
19	5/5/2024 14:15	5/5/2024 21:45	450	0.75	0.15	424,141	0.424141
20	5/8/2024 7:30	5/8/2024 16:05	515	1.24	0.82	190,946	0.190946
21	5/16/2024 1:00	5/16/2024 12:50	710	0.86	0.14	659,100	0.659100
22	5/27/2024 10:50	5/27/2024 20:35	585	0.78	0.47	454,363	0.454363
23	5/30/2024 5:30	5/30/2024 8:35	185	0.66	0.31	356,494	0.356494
24	6/6/2024 8:55	6/6/2024 10:25	90	0.47	0.22	136,395	0.136395
25	6/6/2024 20:15	6/6/2024 20:50	35	0.47	0.22	33,701	0.033701
26	6/9/2024 9:15	6/9/2024 10:00	45	0.17	0.13	29,233	0.029233
27	6/14/2024 14:40	6/14/2024 23:05	505	1.99	1.09	514,798	0.514798
28	6/19/2024 18:00	6/19/2024 19:15	75	0.22	0.22	106,862	0.106862
29	6/20/2024 19:45	6/20/2024 20:30	45	0.22	0.19	51,169	0.051169
30	6/21/2024 16:20	6/21/2024 17:50	90	0.6	0.57	173,478	0.173478
31	6/22/2024 14:00	6/23/2024 1:30	690	0.71	0.7	402,617	0.402617

Subtotal Pg1 Overflow (MG): 11.880547



CSO 018B
2024 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)
32	7/5/2024 3:25	7/5/2024 4:05	40	0.07	0.05	40,365	0.040365
33	7/6/2024 6:55	7/6/2024 8:05	70	0.18	0.11	80,224	0.080224
34	7/13/2024 5:15	7/13/2024 6:05	50	0.42	0.39	54,627	0.054627
35	7/15/2024 14:55	7/15/2024 17:40	165	1.04	0.6	268,153	0.268153
36	7/16/2024 1:15	7/16/2024 2:00	45	0.19	0.14	44,557	0.044557
37	7/17/2024 17:00	7/17/2024 19:10	130	0.35	0.1	152,587	0.152587
38	7/23/2024 5:50	7/23/2024 6:40	50	0.27	0.19	46,154	0.046154
39	7/31/2024 8:00	7/31/2024 17:30	570	0.69	0.36	168,511	0.168511
40	8/2/2024 21:40	8/2/2024 22:20	40	0.07	0.04	34,507	0.034507
41	8/6/2024 22:35	8/7/2024 9:35	660	0.38	0.1	294,106	0.294106
42	8/8/2024 15:05	8/8/2024 17:50	165	0.45	0.2	88,767	0.088767
43	8/9/2024 18:55	8/9/2024 23:05	250	0.45	0.16	344,939	0.344939
44	8/18/2024 4:25	8/18/2024 17:15	770	0.91	0.21	409,904	0.409904
45	8/19/2024 18:35	8/19/2024 19:15	40	0.24	0.22	38,971	0.038971
46	9/7/2024 18:50	9/7/2024 19:20	30	0.36	0.21	6,852	0.006852
47	11/23/2024 6:55	11/23/2024 7:25	30	0.38	0.13	3,991	0.003991
48	11/28/2024 10:35	11/28/2024 15:35	300	0.85	0.21	457,905	0.457905
49	12/11/2024 14:40	12/11/2024 22:05	445	1.66	0.28	116,781	0.116781
50	12/30/2024 5:30	12/30/2024 6:55	85	0.6	0.26	20,137	0.020137

Total

14.552585



CSO 019
2024 Activations

Holyoke, MA

CSO 019

Pleasant Street R.O.W.

2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 23:45	1/10/2024 1:50	125	1.35	0.4	8,791	0.008791
2	3/23/2024 16:55	3/23/2024 17:00	5	2.95	0.51	407	0.000407
3	5/8/2024 7:25	5/8/2024 7:30	5	1.24	0.82	165	0.000165
4	5/8/2024 14:40	5/8/2024 15:00	20	1.24	0.82	1,995	0.001995
5	5/27/2024 10:50	5/27/2024 11:05	15	0.78	0.47	275	0.000275
6	6/14/2024 14:30	6/14/2024 21:50	440	1.99	1.09	15,248	0.015248
7	6/19/2024 18:00	6/19/2024 18:10	10	0.22	0.22	691	0.000691
8	6/21/2024 16:15	6/21/2024 16:35	20	0.6	0.57	4,698	0.004698
9	6/22/2024 13:55	6/22/2024 14:50	55	0.71	0.7	12,549	0.012549
10	7/5/2024 3:00	7/5/2024 3:20	20	0.07	0.05	2,442	0.002442
11	7/13/2024 4:55	7/13/2024 5:15	20	0.42	0.39	1,133	0.001133
12	7/15/2024 14:40	7/15/2024 16:50	130	1.04	0.6	11,096	0.011096
13	7/16/2024 1:00	7/16/2024 1:20	20	0.19	0.14	1,468	0.001468
14	7/17/2024 16:35	7/17/2024 17:00	25	0.35	0.1	1,148	0.001148
15	7/31/2024 7:30	7/31/2024 16:30	540	0.69	0.36	3,230	0.00323
16	8/2/2024 21:10	8/2/2024 21:20	10	0.07	0.04	416	0.000416
17	8/6/2024 22:10	8/6/2024 22:25	15	0.38	0.1	296	0.000296
18	8/9/2024 20:40	8/9/2024 20:55	15	0.45	0.16	672	0.000672
19	8/18/2024 15:00	8/18/2024 15:10	10	0.91	0.21	125	0.000125
20	8/19/2024 18:15	8/19/2024 18:25	10	0.24	0.22	376	0.000376
21	9/26/2024 15:15	9/26/2024 15:35	20	0.39	0.25	1,486	0.001486
22	11/28/2024 13:40	11/28/2024 13:50	10	0.85	0.21	95	0.000095
23	12/11/2024 14:30	12/11/2024 20:55	385	1.66	0.28	3,712	0.003712
24	12/30/2024 4:10	12/30/2024 4:35	25	0.6	0.26	613	0.000613

Total Overflow (MG):

0.073127



CSO 020
2024 Activations

Holyoke, MA

CSO 020
Cleveland Street at Oxford Road
2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 20:25	1/16/2024 20:35	10090	1.35	0.4	3,255,020	3.255020
	2	1/24/2024 20:35	1/25/2024 3:15	400	0.78	0.13	322,502	0.322502
	3	1/26/2024 4:20	1/26/2024 10:55	395	0.56	0.17	303,136	0.303136
	4	1/28/2024 10:00	1/28/2024 16:50	410	0.81	0.11	75,402	0.075402
	5	2/27/2024 22:05	2/27/2024 22:15	10	0.13	0.02	2,233	0.002233
	6	2/28/2024 6:10	2/28/2024 22:30	980	0.76	0.22	148,962	0.148962
	7	3/2/2024 17:40	3/2/2024 23:45	365	0.94	0.22	360,161	0.360161
	8	3/5/2024 11:50	3/5/2024 20:45	535	0.56	0.16	126,546	0.126546
	9	3/6/2024 19:45	3/14/2024 7:05	10760	1.19	0.47	2,110,094	2.110094
	10	3/23/2024 6:35	3/25/2024 12:45	3250	2.95	0.51	1,247,245	1.247245
	11	3/28/2024 2:25	3/28/2024 20:40	1095	0.82	0.15	146,028	0.146028
	12	4/3/2024 9:25	4/5/2024 10:30	2945	1.09	0.22	307,083	0.307083
	13	4/11/2024 12:30	4/14/2024 20:50	4820	0.91	0.28	562,164	0.562164
	14	4/18/2024 1:25	4/18/2024 8:50	445	0.5	0.16	23,010	0.023010
	15	4/20/2024 5:05	4/20/2024 6:40	95	0.24	0.11	43,405	0.043405
	16	4/28/2024 1:15	4/28/2024 2:10	55	0.34	0.3	52,182	0.052182
	17	5/5/2024 14:30	5/5/2024 21:30	420	0.75	0.15	170,395	0.170395
	18	5/8/2024 7:10	5/8/2024 15:45	515	1.24	0.82	192,765	0.192765
	19	5/16/2024 2:40	5/16/2024 12:30	590	0.86	0.14	383,217	0.383217
	20	5/27/2024 10:45	5/27/2024 20:10	565	0.78	0.47	231,594	0.231594
	21	5/30/2024 5:15	5/30/2024 8:10	175	0.66	0.31	178,556	0.178556
	22	6/6/2024 8:50	6/6/2024 20:35	705	0.47	0.22	110,108	0.110108
	23	6/9/2024 8:50	6/9/2024 9:25	35	0.17	0.13	10,595	0.010595
	24	6/14/2024 11:15	6/14/2024 23:10	715	1.99	1.09	226,481	0.226481
	25	6/19/2024 17:50	6/19/2024 18:55	65	0.22	0.22	69,224	0.069224
	26	6/20/2024 19:30	6/20/2024 20:35	65	0.22	0.19	40,337	0.040337
	27	6/21/2024 16:10	6/21/2024 17:40	90	0.6	0.57	60,578	0.060578
	28	6/22/2024 13:55	6/22/2024 15:20	85	0.71	0.7	42,631	0.042631
	29	6/23/2024 0:45	6/23/2024 6:10	325	0.16	0.12	30436	0.030436
	30	6/30/2024 19:30	6/30/2024 19:45	15	0.12	0.06	2801	0.002801

Total 10.834891



CSO 020
2024 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	7/5/2024 3:00	7/5/2024 3:35	35	0.07	0.05	43,064	0.043064
	32	7/6/2024 7:15	7/6/2024 7:30	15	0.18	0.11	6,436	0.006436
	33	7/13/2024 4:50	7/13/2024 5:25	35	0.42	0.39	30,592	0.030592
	34	7/15/2024 14:35	7/15/2024 17:10	155	1.04	0.6	162,178	0.162178
	35	7/16/2024 1:00	7/16/2024 1:30	30	0.19	0.14	38,606	0.038606
	36	7/17/2024 16:35	7/17/2024 18:30	115	0.35	0.1	91,328	0.091328
	37	7/23/2024 5:35	7/23/2024 6:25	50	0.27	0.19	8,230	0.00823
	38	7/31/2024 7:30	7/31/2024 16:40	550	0.69	0.36	32184	0.032184
	39	8/2/2024 21:10	8/2/2024 21:30	20	0.07	0.04	1,789	0.001789
	40	8/6/2024 22:10	8/7/2024 5:20	430	0.38	0.1	21,522	0.021522
	41	8/8/2024 16:55	8/8/2024 17:00	5	0.45	0.2	519	0.000519
	42	8/9/2024 20:25	8/9/2024 22:30	125	0.45	0.16	61,725	0.061725
	43	8/18/2024 4:05	8/18/2024 4:50	45	0.91	0.21	21,876	0.021876
	44	8/18/2024 13:15	8/18/2024 16:25	190	0.91	0.21	185,444	0.185444
	45	8/19/2024 18:10	8/19/2024 19:05	55	0.24	0.22	17,290	0.01729
	46	9/7/2024 17:30	9/7/2024 19:10	100	0.36	0.21	11,322	0.011322
	47	9/26/2024 15:10	9/26/2024 15:55	45	0.39	0.25	45,680	0.045680
	48	11/21/2024 18:05	11/21/2024 23:35	330	0.8	0.14	34,912	0.034912
	49	11/23/2024 6:00	11/23/2024 7:25	85	0.38	0.13	61,642	0.061642
	50	11/28/2024 10:40	11/28/2024 14:45	245	0.85	0.21	270,141	0.270141
	51	12/9/2024 16:30	12/9/2024 18:20	110	0.48	0.13	58,896	0.058896
	52	12/10/2024 23:55	12/11/2024 23:05	1390	1.66	0.28	475,477	0.475477
	53	12/17/2024 1:30	12/17/2024 2:10	40	0.2	0.1	21,036	0.021036
	54	12/18/2024 20:10	12/18/2024 21:40	90	0.39	0.12	52,837	0.052837
	55	12/30/2024 4:05	12/30/2024 6:55	170	0.6	0.26	189,159	0.189159

Total 12.778776



CSO 021
2024 Activations

Holyoke, MA

CSO 021
Pleasant Street at River Terrace
2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 21:55	1/10/2024 6:50	535	1.35	0.4	1,959,686	1.959686
2	1/13/2024 4:05	1/13/2024 7:40	215	0.99	0.23	291,130	0.291130
3	1/26/2024 4:35	1/26/2024 5:55	80	0.56	0.17	79,054	0.079054
4	2/28/2024 21:10	2/28/2024 21:40	30	0.76	0.22	48,506	0.048506
5	3/2/2024 21:00	3/2/2024 21:30	30	0.94	0.22	39,533	0.039533
6	3/5/2024 19:35	3/5/2024 19:50	15	0.56	0.16	7,930	0.007930
7	3/6/2024 20:35	3/7/2024 5:25	530	1.19	0.47	905,315	0.905315
8	3/9/2024 20:55	3/10/2024 3:40	405	0.79	0.2	345,074	0.345074
9	3/23/2024 9:10	3/23/2024 19:30	620	2.95	0.51	857,575	0.857575
10	3/28/2024 4:15	3/28/2024 4:20	5	0.82	0.15	1,368	0.001368
11	4/3/2024 16:50	4/3/2024 17:15	25	1.09	0.22	10,477	0.010477
12	4/12/2024 2:10	4/12/2024 5:25	195	0.91	0.28	221,341	0.221341
13	4/28/2024 1:20	4/28/2024 1:50	30	0.34	0.3	66,605	0.066605
14	5/8/2024 7:15	5/8/2024 7:40	25	1.24	0.82	49,208	0.049208
15	5/8/2024 14:35	5/8/2024 15:20	45	1.24	0.82	1,349,575	1.349575
16	5/27/2024 10:50	5/27/2024 11:35	45	0.78	0.47	190,892	0.190892
17	5/30/2024 6:05	5/30/2024 7:05	60	0.66	0.31	74,236	0.074236
18	6/6/2024 9:00	6/6/2024 9:40	40	0.47	0.22	161,492	0.161492
19	6/14/2024 11:15	6/14/2024 22:15	660	1.99	1.09	4,578,814	4.578814
20	6/19/2024 17:45	6/19/2024 18:30	45	0.22	0.22	25,491	0.025491
21	6/21/2024 16:10	6/21/2024 17:10	60	0.6	0.57	385,438	0.385438
22	6/22/2024 13:50	6/23/2024 6:40	1010	0.71	0.7	590,803	0.590803
23	7/5/2024 3:00	7/5/2024 3:50	50	0.07	0.05	704,393	0.704393
24	7/5/2024 18:40	7/5/2024 19:10	30	0.07	0.05	33,135	0.033135
25	7/6/2024 6:40	7/6/2024 7:45	65	0.18	0.11	51,271	0.051271
26	7/13/2024 4:55	7/13/2024 5:30	35	0.42	0.39	70,261	0.070261
27	7/15/2024 14:35	7/15/2024 17:10	155	1.04	0.6	494,681	0.494681
28	7/16/2024 0:55	7/16/2024 1:30	35	0.19	0.14	88,918	0.088918
29	7/17/2024 16:35	7/17/2024 18:40	125	0.35	0.1	256024	0.256024
30	7/23/2024 2:25	7/23/2024 6:10	225	0.27	0.19	13,052	0.013052
31	7/31/2024 7:25	7/31/2024 16:45	560	0.69	0.36	130,863	0.130863
						Total	14.082141



CSO 021
2024 Activations

Holyoke, MA

CSO 021

Pleasant Street at River Terrace

2024 Overflow Summary (1-1/24-12-31-24)

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)
32	8/2/2024 21:10	8/2/2024 21:45	35	0.07	0.04	74,484	0.074484
33	8/6/2024 22:10	8/7/2024 8:40	630	0.48	0.24	87,301	0.087301
34	8/8/2024 14:45	8/8/2024 17:20	155	0.45	0.2	15,530	0.015530
35	8/9/2024 18:20	8/9/2024 22:45	265	0.45	0.16	166,851	0.166851
36	8/18/2024 14:35	8/18/2024 15:30	55	0.91	0.21	36,742	0.036742
37	8/19/2024 18:15	8/19/2024 18:35	20	0.24	0.22	16,582	0.016582
38	9/26/2024 15:20	9/26/2024 15:35	15	0.39	0.25	14,208	0.014208
39	11/28/2024 13:40	11/28/2024 14:05	25	0.85	0.21	14,162	0.014162
40	12/11/2024 14:30	12/11/2024 21:20	410	1.66	0.28	103,993	0.103993
41	12/30/2024 4:15	12/30/2024 4:45	30	0.6	0.26	20,801	0.020801

Total 14.632795



CSO 021B
2024 Activations

Holyoke, MA

CSO 021B

Pleasant Street at River Terrace

2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 20:25	1/11/2024 20:40	2895	1.35	0.4	1,161,564	1.161564
2	1/13/2024 3:00	1/14/2024 15:20	2180	0.99	0.23	453,710	0.45371
3	1/24/2024 20:15	1/25/2024 3:55	460	0.78	0.13	228,119	0.228119
4	1/26/2024 4:15	1/26/2024 12:40	505	0.56	0.17	267,269	0.267269
5	2/28/2024 6:15	2/28/2024 6:40	25	0.76	0.22	15,927	0.015927
6	2/28/2024 21:10	2/28/2024 21:55	45	0.76	0.22	54,779	0.054779
7	3/2/2024 18:30	3/2/2024 22:00	210	0.94	0.22	96,871	0.096871
8	3/5/2024 12:35	3/5/2024 20:00	445	0.56	0.16	27,648	0.027648
9	3/6/2024 20:05	3/7/2024 23:10	1625	1.19	0.47	744,012	0.744012
10	3/9/2024 20:40	3/11/2024 8:15	2135	0.79	0.2	548,751	0.548751
11	3/23/2024 6:30	3/24/2024 1:40	1150	2.95	0.51	829,070	0.82907
12	3/28/2024 2:25	3/28/2024 20:40	1095	0.82	0.15	81692	0.081692
13	4/3/2024 9:20	4/4/2024 14:50	1770	1.09	0.22	249,835	0.249835
14	4/11/2024 17:35	4/12/2024 18:00	1465	0.91	0.28	391,981	0.391981
15	4/18/2024 3:35	4/18/2024 8:10	275	0.5	0.16	28,586	0.028586
16	4/20/2024 5:20	4/20/2024 6:40	80	0.24	0.11	7,990	0.00799
17	4/28/2024 1:15	4/28/2024 2:05	50	0.34	0.3	77,214	0.077214
18	5/5/2024 15:35	5/5/2024 21:10	335	0.75	0.15	9,436	0.009436
19	5/8/2024 7:15	5/8/2024 7:50	35	1.24	0.82	39,345	0.039345
20	5/8/2024 14:35	5/8/2024 15:30	55	1.24	0.82	54,331	0.054331
21	5/16/2024 3:20	5/16/2024 10:15	415	0.86	0.14	27,856	0.027856
22	5/27/2024 10:35	5/27/2024 11:45	70	0.78	0.47	68,502	0.068502
23	5/27/2024 17:45	5/27/2024 19:55	130	0.78	0.47	26444	0.026444
24	5/30/2024 5:50	5/30/2024 7:25	95	0.66	0.31	87364	0.087364
25	6/6/2024 8:50	6/6/2024 20:10	680	0.47	0.22	45,440	0.045440
26	6/9/2024 8:50	6/9/2024 9:00	10	0.17	0.13	139	0.000139
27	6/14/2024 11:10	6/14/2024 22:05	655	1.99	1.09	54,346	0.054346
28	6/19/2024 17:45	6/19/2024 17:55	10	0.22	0.22	937	0.000937
29	6/20/2024 19:50	6/20/2024 19:55	5	0.22	0.19	352	0.000352
30	6/21/2024 16:15	6/21/2024 16:45	30	0.6	0.57	2612	0.002612
31	6/22/2024 14:00	6/22/2024 14:05	5	0.71	0.7	591	0.000591

Total: 5.682713



CSO 021B
2024 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)
32	8/18/2024 4:00	8/18/2024 4:20	20	0.91	0.21	6,649	0.006649
33	8/18/2024 13:35	8/18/2024 15:50	135	0.91	0.21	99,366	0.099366
34	8/19/2024 18:10	8/19/2024 18:40	30	0.24	0.22	25,147	0.025147
35	9/7/2024 17:30	9/7/2024 17:40	10	0.36	0.21	3,268	0.003268
36	9/26/2024 15:10	9/26/2024 15:45	35	0.39	0.25	19,890	0.01989
37	11/12/2024 8:45	11/12/2024 9:25	40	0.13	0.11	16,161	0.016161
38	11/21/2024 18:00	11/21/2024 23:05	305	0.8	0.14	777	0.000777
39	11/28/2024 11:05	11/28/2024 14:20	195	0.85	0.21	46,513	0.046513
40	12/11/2024 14:10	12/11/2024 21:40	450	1.66	0.28	143,536	0.143536
41	12/30/2024 4:10	12/30/2024 5:50	100	0.6	0.26	57,390	0.05739

Total: 6.101410



CSO 023
2024 Activations

Holyoke, MA
CSO 023
Jefferson Street
2024 Overflow Summary (1-1/24-12-31-24)

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	1/9/2024 22:50	1/10/2024 2:40	230	1.35	0.4	87,374	0.087374
2	1/13/2024 4:05	1/13/2024 6:35	150	0.99	0.23	712	0.000712
3	2/28/2024 21:10	2/28/2024 21:30	20	0.76	0.22	4,083	0.004083
4	3/2/2024 21:00	3/2/2024 21:05	5	0.94	0.22	22	0.000022
5	3/6/2024 22:40	3/7/2024 1:35	175	1.19	0.47	24,452	0.024452
6	3/9/2024 23:40	3/10/2024 0:55	75	0.79	0.2	1,048	0.001048
7	3/23/2024 15:55	3/23/2024 18:05	130	2.95	0.51	27,025	0.027025
8	4/12/2024 2:20	4/12/2024 4:10	110	0.91	0.28	4,438	0.004438
9	4/28/2024 1:25	4/28/2024 1:40	15	0.34	0.3	1,291	0.001291
10	5/8/2024 7:15	5/8/2024 7:30	15	1.24	0.82	2,653	0.002653
11	5/8/2024 14:35	5/8/2024 15:05	30	1.24	0.82	53,636	0.053636
12	5/27/2024 10:45	5/27/2024 11:25	40	0.78	0.47	14,483	0.014483
13	6/6/2024 9:00	6/6/2024 9:30	30	0.47	0.22	4,792	0.004792
14	6/14/2024 14:25	6/14/2024 21:55	450	1.99	1.09	240,074	0.240074
15	6/19/2024 17:50	6/19/2024 18:20	30	0.22	0.22	2,781	0.002781
16	6/21/2024 16:10	6/21/2024 16:45	35	0.6	0.57	61,427	0.061427
17	6/22/2024 13:50	6/22/2024 14:55	65	0.71	0.7	130,585	0.130585
18	7/5/2024 2:55	7/5/2024 3:20	25	0.07	0.05	14,410	0.014410
19	7/13/2024 4:50	7/13/2024 5:10	20	0.42	0.39	4,505	0.004505
20	7/15/2024 14:35	7/15/2024 15:15	40	1.04	0.6	56,026	0.056026
21	7/16/2024 1:00	7/16/2024 1:15	15	0.19	0.14	3,787	0.003787
22	7/17/2024 16:35	7/17/2024 16:55	20	0.35	0.1	8,474	0.008474
23	7/31/2024 7:25	7/31/2024 16:25	540	0.69	0.36	8,133	0.008133
24	8/2/2024 21:10	8/2/2024 21:20	10	0.07	0.04	3,322	0.003322
25	8/6/2024 22:10	8/6/2024 22:20	10	0.48	0.24	1,122	0.001122
26	8/9/2024 20:35	8/9/2024 20:50	15	0.45	0.16	1,009	0.001009
27	8/19/2024 18:10	8/19/2024 18:25	15	0.24	0.22	1,220	0.001220
28	9/26/2024 15:10	9/26/2024 15:25	15	0.39	0.25	354	0.000354
29	12/11/2024 14:25	12/11/2024 20:35	370	1.66	0.28	3,496	0.003496
30	12/30/2024 4:25	12/30/2024 4:30	5	0.6	0.26	18	0.000018

Total Overflow (MG): 0.766752

APPENDIX 2: CSO 009 DMRS

January, 2024

TOTAL # of EVENTS in the MONTH	<u>6</u>
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February, 2024

TOTAL # of EVENTS in the MONTH	<u>1</u>
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March, 2024

TOTAL # of EVENTS in the MONTH	<u>7</u>
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April, 2024

TOTAL # of EVENTS in the MONTH	<u>3</u>
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May, 2024

DAY	DATE	RAINFALL	TOTAL INFLUENT FLOW	SOUTH ST FLOW TOTAL	SOUTH ST FLOW DURATION	RETURN FLOW to WPCF	% RETURN FLOW to WPCF for SECONDARY TREATMENT	UNTREATED/ BYPASS FLOW to RIVER	TREATED EFFLUENT FLOW	EVENT/ ACTIVATION DURATION	EVENTS/ ACTIVATIONS
		Inches	MGD	MGD	Hours	DMR #50050-O MGD		DMR #50050-B MGD	DMR# 50050-1 MGD		
Wed	05/01/24	0.00	0.337	0.000	0.00	0.159		0.000	0.000	0.00	0
Thu	05/02/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	05/03/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/04/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/05/24	0.80	2.034	1.150	3.30	0.115		0.000	1.234	0.00	0
Mon	05/06/24	0.00	1.999	0.000	0.00	0.448		0.000	1.199	0.00	0
Tue	05/07/24	0.00	0.000	0.000	0.00	0.368		0.000	0.000	0.00	0
Wed	05/08/24	1.35	2.118	5.170	2.90	0.316		2.573	1.318	1.70	1
Thu	05/09/24	0.30	1.910	0.000	0.00	0.431		0.000	1.110	0.00	0
Fri	05/10/24	0.00	1.486	0.000	0.00	0.295		0.000	0.686	0.00	0
Sat	05/11/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/12/24	0.05	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/13/24	0.00	0.000	0.000	0.00	0.112		0.000	0.000	0.00	0
Tue	05/14/24	0.00	0.000	0.000	0.00	0.027		0.000	0.000	0.00	0
Wed	05/15/24	0.25	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	05/16/24	0.85	2.101	2.640	6.15	0.378		0.000	1.301	0.90	1
Fri	05/17/24	0.00	1.849	0.000	0.00	0.427		0.000	1.049	0.00	0
Sat	05/18/24	0.00	0.000	0.000	0.00	0.306		0.000	0.000	0.00	0
Sun	05/19/24	0.00	0.000	0.000	0.00	0.136		0.000	0.000	0.00	0
Mon	05/20/24	0.00	0.000	0.000	0.00	0.002		0.000	0.000	0.00	0
Tue	05/21/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Wed	05/22/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Thu	05/23/24	0.35	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Fri	05/24/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sat	05/25/24	0.00	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Sun	05/26/24	0.02	0.000	0.000	0.00	0.000		0.000	0.000	0.00	0
Mon	05/27/24	0.85	2.106	2.910	2.60	0.225		0.000	1.306	1.20	1
Tue	05/28/24	0.00	0.000	0.000	0.00	0.408		0.000	0.000	0.00	0
Wed	05/29/24	0.00	1.679	0.000	0.00	0.340		0.000	0.879	0.00	0
Thu	05/30/24	0.55	2.102	2.800	3.10	0.397		0.000	1.302	0.90	1
Fri	05/31/24	0.00	1.961	0.000	0.00	0.402	36.1	0.000	1.161	0.00	0
TOTALS	Min	0.00	0.000	0.000	0.00	0.000	36.1	0.000	0.000	0.00	0
	Max	1.35	2.118	5.170	6.15	0.448	36.1	2.573	1.318	1.70	1
	Total	5.37	21.682	14.670	18.05	5.292	36.1	2.573	12.545	4.70	4
	Avg	0.17	0.699	0.473	0.58	0.171	36.1	0.083	0.405	0.15	0
TOTAL # of EVENTS in the MONTH											

June, 2024

TOTAL # of EVENTS in the MONTH 2

July, 2024

TOTAL # of EVENTS in the MONTH 0

August, 2024

TOTAL # of EVENTS in the MONTH	<u>1</u>
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September, 2024

TOTAL # of EVENTS in the MONTH	<u>0</u>
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October, 2024

TOTAL # of EVENTS in the MONTH	<u>0</u>
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November, 2024

TOTAL # of EVENTS in the MONTH	<u>0</u>
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December, 2024

TOTAL # of EVENTS in the MONTH 2

APPENDIX 3: SSO REPORTS



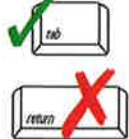
Massachusetts Department of Environmental Protection
Bureau of Water Resources— Wastewater Management Program
**Sanitary Sewer Overflow (SSO)/Bypass
Notification Form**

FOR DEP USE ONLY

Tax Identification Number

A. Reporting Facility

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



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

1. Facility Information

Holyoke WWTF

Reporting Sewer Authority

MA0101630

Permit #

2. Authorized Representative Transmitting Form:

Scott

First Name

Urban

Last Name

413 534 2222

Telephone No.

Assistant Project Manager

scott.urban@veolia.com

Title

E-mail Address

B. Phone Notifications:

1. MassDEP staff contacted:

Matthew

first name

04/06/24

Date

Date/Time contacted:

Douglas

first name

04/06/24

Date

Date/Time EPA contacted:

Colton

First Name

04/06/24

Date

Date/Time contacted:

Sokop

last name

4:50

Time

☐ am ☒ pm

Koopman

last name

4:50

Time

☐ am ☒ pm

Garelli

Last Name

4:50

Time

☐ am ☒ pm

3. Board of Health contacted:

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:

04/06/24

Date

2:40

Time

☐ am ☒ pm

By: Resident

2. SSO Stopped:

04/06/24

Date

3:51

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 Resources– Wastewater Management Program
Sanitary Sewer Overflow (SSO)/Bypass
Notification Form

FOR DEP USE ONLY

Tax Identification Number

C. SSO Information (cont.)

Location: 145 Westfield Road & Woodland St, Holyoke Ma 01040
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 1000g

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 sewer line, removed blockage, and vac cleaned the surrounding area including receiving combined catch basin.

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

Corrective Actions Completed: ☒ Yes ☐ No

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:



Massachusetts Department of Environmental Protection
Bureau of Water Resources— 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.

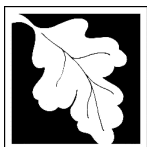
Signature of Authorized Representative

04/11/24
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 Email addresses:

Northeast Region	Phone: 978-694-3215	Massdep.nerowastewater@mass.gov
Southeast Region	Phone: 508-946-2750	Massdep.serowastewater@mass.gov
Central Region	Phone: 508-792-7650	Massdep.cerowastewater@mass.gov
Western Region	Phone: 413-784-1100	Massdep.wero.wastewater@mass.gov
EPA	Phone: 617-918-1510	
EPA for Southeast Region, David Turin	Phone: 617-918-1598	Turin.david@epa.gov
EPA for Northeast, Central and Western Regions, Douglas Koopman	Phone: 617-918-1747	Koopman.douglas@epa.gov
DEP 24-hour emergency	Phone: 888-304-1133	



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

FOR DEP USE ONLY

Tax Identification Number

A. Reporting Facility

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



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

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@suez.com
E-mail Address

B. Phone Notifications:

1. **MassDEP staff** contacted: Matt Sokop
first name last name
Date/Time contacted: 06/17/2024 4:59 ☐ am ☒ pm
Date Time
2. **EPA staff** contacted: Douglas Koopman
first name last name
Date/Time EPA contacted: 06/17/2024 4:59 ☐ am ☒ pm
Date Time
3. Board of Health contacted: Tim Rivers
First Name Last Name
Date/Time contacted: 06/17/2024 4:59 ☐ am ☒ pm
Date Time
4. Others notified (select all that apply); ☐ Conservation Commission
☐ Harbormaster ☐ Shellfish Warden ☐ Division of Marine Fisheries
☐ Downstream Drinking Water Supplier ☐ Watershed Association
☐ Beach Resource Manager ☐ Other: _____
(specify)

C. SSO Information

1. SSO Discovered: 6/17/2024 1:34 ☐ am ☒ pm
Date Time
By: David White
2. SSO Stopped: 06/17/2024 2:40 ☐ am ☒ pm
Date Time
3. SSO Discharge from: ☒ Sanitary Sewer Manhole ☐ Pump Station
☐ Backup into Property ☐ Other: _____
(specify)
4. SSO Discharge to: ☒ Ground Surface (no release to surface water)
☐ Direct to Receiving Water _____
(surface water)
☐ Catch basin to Receiving Water _____
(surface water)
☐ 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: 12 Bowers 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 grease and rags.
(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-5786 was vacuumed out to remove the grease and rags.

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

Impacted area vacuumed up.

Corrective Actions Completed: ☒ Yes ☐ No

The City sewer main was jet cleaned.

D. Comments/Attachments/Follow-up

I wish to provide (select all that apply):

☐ Attachment ☒ Additional comments below: ☐ No additional comments or attachments

Additional comments and planned actions:

On Tuesday 6/17/2024 at 1:34pm, The WWTP received a call from a resident about a manhole with water coming out of it. Collections System personnel were mobilized and responded to the area. Collections Crew found SMH-5786 overflowing. They immediately started to jet clean the sewer main to free the blockage. The blockage was due due to a buildup of grease and rags.



Sanitary Sewer Overflow (SSO)/Bypass Notification Form

Tax Identification Number

E. Certification Statement

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

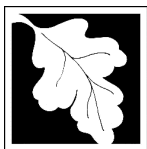
Signature of Authorized Representative

Date Signed

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

MassDEP Regional Office and EPA Telephone and Fax Numbers:

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



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

FOR DEP USE ONLY

Tax Identification Number

A. Reporting Facility

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



1. Facility Information

Holyoke Water Pollution Control Facility/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:

Kathy
first name

Fournier
last name

Date/Time contacted:

11/12/2024
Date

9:46
Time

☒ am
pm

☐

2. EPA staff contacted:

Douglas
first name

Koopman
last name

Date/Time EPA contacted:

11/12/2024
Date

9:46
Time

☒ am
pm

☐

3. Board of Health contacted:

Tim
First Name

Rivers
Last Name

Date/Time contacted:

11/12/2024
Date

9:46
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:

11/12/2024
Date

8:45
Time

☐ am
pm

☒

By:

Resident



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

FOR DEP USE ONLY

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

Tax Identification Number

2. SSO Stopped: 11/12/2024 11:2 ☐ am ☒ pm
Date Time

3. SSO Discharge from: ☒ Sanitary Sewer Manhole ☐ Pump Station
☐ Backup into Property ☐ Other: _____
(specify)

4. SSO Discharge to: ☒ Ground Surface (no release to surface water)
☐ Direct to Receiving Water _____
(surface water)
☐ Catch basin to Receiving Water _____
(surface water)
☐ Backup into Property Basement

C. SSO Information (cont.)

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

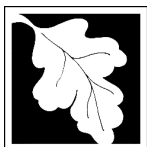
5. Estimated SSO Volume at time of this Report: 5-7 gallons

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..



Massachusetts Department of Environmental Protection
Bureau of Water Protection – Wastewater Management Program
**Sanitary Sewer Overflow (SSO)/Bypass
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FOR DEP USE ONLY

Tax Identification Number

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.

E. Certification Statement

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

Signature of Authorized Representative

Date Signed

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

MassDEP Regional Office and EPA Telephone and Fax Numbers:

Northeast Region	Phone: 978-694-3215	Fax: 978-694-3499
Southeast Region	Phone: 508-946-2750	Fax: 508-947-6557
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Western Region	Phone: 413-784-1100	Fax: 413-784-1149
EPA	Phone: 617-918-1510	



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

FOR DEP USE ONLY

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

Tax Identification Number

EPA for Southeast
Region, David Turin

Phone: 617-918-1598

Fax: 617-918-0598

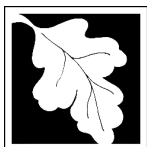
EPA for Northeast,
Central and Western
Regions, Douglas
Koopman

Phone: 617-918-1747

Fax: 617-918-0747

DEP 24-hour
emergency

Phone: 888-304-1133



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

FOR DEP USE ONLY

Tax Identification Number

A. Reporting Facility

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



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

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@suez.com
E-mail Address

B. Phone Notifications:

1. MassDEP staff contacted:

Kathy
first name

Fournier
last name

Date/Time contacted:

11/12/2024
Date

9:46
Time

☒ am ☐ pm

2. EPA staff contacted:

Douglas
first name

Koopman
last name

Date/Time EPA contacted:

11/12/2024
Date

9:46
Time

☒ am ☐ pm

3. Board of Health contacted:

Tlm
First Name

Rivers
Last Name

Date/Time contacted:

11/12/2024
Date

9:46
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:

11/12/2024
Date

8:45
Time

☒ am ☐ pm

By: FLOW Assessment monitoring

2. SSO Stopped:

11/12/2024
Date

11:25
Time

☒ am ☐ pm

3. SSO Discharge from:

☐ Sanitary Sewer Manhole

☐ Pump Station

☐ Backup into Property

☒ Other:

CSO 21 & 21 B
(specify)

4. SSO Discharge to:

☐ Ground Surface (no release to surface water)

☐ Direct to Receiving Water

(surface water)

☒ Catch basin to Receiving Water

CT.River

(surface water)

☐ Backup into Property Basement



Massachusetts Department of Environmental Protection
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**Sanitary Sewer Overflow (SSO)/Bypass
Notification Form**

FOR DEP USE ONLY

Tax Identification Number

C. SSO Information (cont.)

Location: CSO 21 Structure
(Description of discharge site or closest address)

5. Estimated SSO Volume at time of this Report: 16,162

Method of Estimating Volume: Flow Assessment

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: Water main break on Mountain View Dr.
(Specify)

7. Corrective Actions Taken:

Holyoke Water Works shut down broken main.

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

.

Corrective Actions Completed: ☒ Yes ☐ No

Holyoke Water works repaired broken water main.

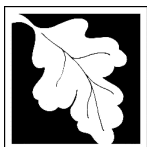
D. Comments/Attachments/Follow-up

I wish to provide (select all that apply):

☐ Attachment ☒ Additional comments below: ☐ No additional comments or attachments

Additional comments and planned actions:

On Tuesday 11/12/2024 I received a report from our Flow Assessment monitoring that CSO 21&21b were discharging. The On-Call Collections Staff then received a call about water bubbling out of the road on Mountain View Dr. Holyoke Water Works was notified and began to shut broken water main down. The broken main was 12 inches and discharged around 140,000 gallons according to the Water Works. The flow from this braek caused the CSO to discharge as it is a combined area. Discharge was verified by both flow Montior and woodblock movement. Discharge ceased @ 11:30am



Sanitary Sewer Overflow (SSO)/Bypass Notification Form

Tax Identification Number

E. Certification Statement

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

Signature of Authorized Representative

Date Signed

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

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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	

APPENDIX 4: CSO-21A SEPARATION PRE-CONSTRUCTION MEETING MINUTES

REVISION 1: 1/24/25

MEETING MINUTES



MEETING: Holyoke River Terrace CSO-021 – Preconstruction Meeting

DATE: Thursday, January 16, 2025

TIME: 10:00 AM

LOCATION: 1st Floor, City Hall, 536 Dwight St, Holyoke, MA 01040

PROJECT NAME: Holyoke River Terrace CSO-021 CWSRF# 7339

PROJECT NUMBER: 0234823.02 / 2025-10DPW

CLIENT: City of Holyoke, MA

AGENDA

1. INTRODUCTIONS

Owner: City of Holyoke, MA

- Victoria Houle, Interim City Engineer
- Carl Rossi, DPW Director
- Jon Moquin, General Construction Supervisor

Engineer: Woodard & Curran, Inc.

- Krista Forti, Senior Project Manager
- Will DiTullio, Senior Technical Manager
- Alex Moody, Project Engineer
- Jennie King, Engineer
- Resident Project Representative - TBD

Contractor: Ludlow Construction Co.

- Scott Pio, President
- Mike Pio, Project Manager

2. PROJECT SUMMARY

Project Description

- River Terrace CSO 21 Sewer Separation Phase A (CWSRF 7339)
- The purpose of this project is to address structural pipe failures and to separate stormwater and sanitary sewer flows to reduce combined sewer discharges (CSOs) to the Connecticut River watershed.



Project Goals

- The Contractor shall work in collaboration with the City and the Engineer through the entirety of the project. Good and frequent communication is essential to the success of the work. Contractor to provide regular coordination, maintain a good working relationship, and minimal interruption of service and inconvenience to public. Potential issues should be identified early on and addressed in a timely manner.

Contract Dates and Times

- The total contract amount is \$7,976,383.50
- The Contract Award dated December 13, 2024.
- Substantial completion and Final Completion
 - Substantial Completion - within 540 calendar days from the commencement of Contract Time.
 - Post Substantial Completion Punchlist - 720 calendar days from the commencement of Contract Time.
 - Warranty Inspection (ready for final payment) within 14 calendar days prior to expiration of the Warranty Period (351 days from Substantial Completion).

3. COMMUNICATIONS

General Communications

- All project correspondence shall include the following City contacts: Carl Rossi, Jon Moquin, and Victoria Houle, and the following W&C contacts: Krista Forti, Will DiTullio, Jennie King, and Alex Moody, and the following Ludlow Construction Contacts: Mike Pio, Paul Fragoso, Fred DaCruz, and Joe Underkofler.
- A project contact list will be distributed by W&C with the minutes from this Pre-Construction Meeting.
- Ludlow Construction to provide emergency contact information to W&C for inclusion in project contact list.
 - Ludlow Construction's emergency contact shall be on-call 24 hours a day, 7 days a week.
 - All communications shall include Victoria Houle (City Engineer), Carl Rossi (DPW Director), and Jon Moquin (General Construction Supervisor).
- Resident questions and communications are to be documented and directed to the City and Engineer.
 - For work in easements at 21 and 33 Hampton Knolls Road, the City will establish a Pre-construction Meeting to coordinate and inform residents of work that is to be performed, approximately a month before construction starts.
- The Contractor shall notify the City and Engineer of any communications with residents or the public of any kind.



- Contractor to provide daily work location updates to be coordinated with the City and Engineer. Where and when the work is happening is critical information for the City. If changes to the work location are to be made, the Contractor must inform the City and Engineer ASAP and receive approval before commencing work.
 - If there are changes to work locations, and the City and W&C need to be notified.
- A coordination meeting will be scheduled with the two (2) private properties on Hampton Knolls Road that will be within the construction easements. The meeting will be scheduled at least one (1) month before the start of construction within the easements. Meeting to be set once Contractor's schedule is submitted and closer to the expected time of work

Procore

- Procore to be used for the following:
 - Submittals & RFIs
 - W&C reviewing and responding to RFIs and submittals.
 - Resident Project Representative (RPR) daily logs
 - Conformed Contract Drawings and Specifications will be housed in the Documents section of Procore.
 - W&C will be managing the Procore and will be adding people to Procore directory as necessary. If access is required, the parties shall email Alex/Jennie.
 - Change Orders and Pay Requisitions will be reviewed via email and then the final executed versions will be uploaded to Procore.

Progress Meetings

- Bi-Weekly Progress Meetings with City, Contractor and Engineer. W&C will be responsible for preparing the agenda and meeting minutes. Meeting minutes will be distributed no later than one (1) week after the meeting.
 - Contractor to provide 3-week lookaheads in advance of bi-weekly meetings to accurately convey the expected work location and potential impacts. Changes to the lookaheads should be communicated to the City and Engineer immediately.

Notifications

- Sewer/Drain Replacement Notifications
 - 1 Week Notice
 - 24 Hour Notice
- Water Service Interruption Notification
 - 1 Week Notice
 - 24 Hour Notice
- CIPP Notifications Sewer/Drain
 - 1 Week Notice
 - 24 Hour Notice
- W&C will work with the RPR and Ludlow to identify the notification limits on CIPP work based on recent projects. The RPR and Ludlow will coordinate distributing these notifications.
- Police Details



- Police Details are to be billed directly to the City of Holyoke Engineering Department. The Contractor may cancel a police detail up to one hour before work begins. If cancellation is within one hour before the start of work, the Contractor will be invoiced for a four-hour police detail. It is imperative that if work is to be cancelled, police details also are cancelled.

4. SRF REQUIREMENTS

- The following must be posted by the Contractor in a location accessible to workers before the start of work:
 - Employee Rights Poster
 - Davis Bacon Wage rates
 - Massachusetts Prevailing Wage rates
- Certified payrolls:
 - Contractor to provide certified payrolls with monthly pay applications.
- Periodic labor Interviews
 - The RPR will conduct labor interviews with Ludlow and any other subcontractors on site throughout the duration of construction.
 - Greg Devine mentioned MassDEP will not be on site for labor interviews. Greg asked that labor interview information is kept of file by W&C during construction. W&C will send them to MassDEP upon request.
- Project Signage
 - The City may implement signage via standard sign; poster or wall signage in a public building; newspaper ad for project construction, groundbreaking ceremony, or operation of the facility; on-line signage in community website or social media; press release.
 - Signage requirements:
 - The name of the facility, project, and community
 - Project cost
 - The State Agency/SRF administering the program
 - The EPA and State Agency logos
 - W&C will work with Ludlow to ensure that the standard SRF signage is included. No BIL sign required. Greg mentioned that the signage can be displayed electronically, such as on the City's website. W&C will work with the City and Ludlow to get that posted.
 - W&C to collaborate with Greg Devine to ensure signage meets SRF requirements.
- American Iron and Steel requirements. (BABA is waived)
- Diesel Retrofit Certification form and list
 - W&C to collaborate with Ludlow to ensure all certifications such as the Diesel Retrofit Certification are being sent to DEP. W&C will create a DEP folder on Procore.
- MBE/WBE Requirement



- 4.2% MBE
- 4.5% WBE
- The subcontractor participation form must be submitted by the Contractor to DEP within 90 days of award of the contract (3/13/25), including all subcontractors of the Contractor doing actual work at the construction site. Suppliers are not to be listed on this form. Ludlow to submit the subcontractor participation form to W&C via email, then W&C to submit the form to the City and Greg Devine at MassDEP.

5. CONTRACTUAL MATTERS

- Contractor Supervision Assignments/Emergency Contacts – Contractor to submit information to W&C who will distribute a comprehensive list of emergency contact information, including subcontractors.
 - Emergency Contact list is imperative. Once Ludlow has provided all emergency contact information, the list will be distributed to all associated parties on the project via W&C.

Payment Procedures

- Contractor & RPR Daily Coordination on Quantities
- The RPR and Contractor to review quantities daily together to avoid quantity disputes on pay applications.
- Monthly Pay Applications to be submitted in EJCDC Format (W&C to provide excel file to Ludlow)
- Final Pay Requisitions to be notarized. Once executed by the procurement office, the Final copy will be uploaded to Procore.
 - Certified Payrolls to be must be current in order to approve pay applications for payment.
 - Finalized Pay Applications to be notarized

Contract Changes and Clarifications

- Requests for Information (RFI)
- Field Orders
- Construction Change Directive or Work Change Directive
- Change Orders
- Contract changes will be dealt with via email and then uploaded onto Procore once finalized.
 - Change Orders reviewed and recommended for approval will be forwarded to City Procurement Department for processing. No change order should be considered approved until the City Procurement Department issues final approval.
- Will requests that the Contractor provides detailed backup information for each proposed change order, cost proposal, or pay application. W&C will use this backup information as part of their review process.



Record Drawings

- W&C requests that records and maintaining as-builts will be maintained and coordinated throughout the course of construction to avoid information being lost.
- W&C to provide an electronic version of the plans to Ludlow Construction that they can use to collect GPS points for as-builts.
- Record drawings to be kept by the contractor will be coordinated between the RPR, W&C, and Ludlow on an iterative basis to avoid missing documentation of project information. W&C to work with the utilities to provide them the record drawings and redlines in the appropriate format for their mapping systems. Contractor to refer to specification Sections 01 15 30 Payment and Administrative Procedures and Quality Requirements Part 1.03 C.9 & Section 01 70 00 Execution and Closeout Requirements Part 1.03 D.4 for more information on the requirements for record drawings on the project.

6. SITE CONTROL

- Material Storage and Staging Area
 - Ludlow asked if the City has any recommendations for staging areas.
 - Victoria suggested Ludlow may identify City-owned properties and inform them if they would like to use it for staging.
 - If use of private property is proposed for staging of materials or equipment, Ludlow Construction should provide the City proof of agreement from said private property owner.
 - The City requests that the Contractor notify the City of any intent to sell or donate materials such as soil or pavement millings to Holyoke private properties.
- Utilities: Contractor is responsible for coordinating work with all utility companies (including Holyoke Water Works and Holyoke Gas & Electric). The City and the Engineer shall be included in correspondence with all utilities.
 - W&C will assist with coordination of utilities to ensure that there are no utility conflicts that will interfere with Ludlow's schedule.
- Safety: Must comply with all applicable OSHA standards. Safety is not the responsibility of the City of Holyoke or W&C.

7. SCHEDULE

- Contract Times
 - Ludlow expected to commence work at end of Winter
 - Contractor to provide proposed Construction Schedule as soon as possible.
 - Notice to proceed will be issued for April 1, 2025 unless Ludlow requests an earlier date.
- Standard work hours are 7:00 am to 4:00 pm, Monday through Friday.



- 7:00 am is the start time of all construction activities. Now work will be conducted before 7:00 AM including starting and running equipment.
- Work outside business hours and weekends/holidays must be preapproved by the City. CIPP lining shall not go past 4 PM, unless preapproved by the City.
- In the event Contractor comes across an issue where work may extend past the approved end time for daily work activities, the City shall be notified immediately so they can coordinate needed notifications to others.
- Submittals must be reviewed and approved before the start of construction.
- Storm drain work to occur during dry weather. Storm bypass only to be used as approved by the Engineer.
- In general, the downstream end of the main trunk line of the drainage and sewer is to be completed before the upstream portion.
- Full width mill and overlay final pavement shall be scheduled and coordinated with the City, Holyoke Gas & Electric Company, and Holyoke Water Works.
- Water main installations will need to occur before sewer installations on Jefferson St and George St.
- Victoria stresses that she does not want neighborhood traffic to be impacted adversely. Victoria wants at least one (1) lane of traffic open when possible.
 - Ludlow mentions that on some of the deeper excavations it will not be possible to safely keep the roadway open and they will need to close the road at times. Victoria stresses that in those cases the City needs to know ASAP so they can notify the School Department. Ludlow to follow up with traffic control plan submittal for roads they anticipate to have shutdowns on.
- Trash pickup schedule is attached to the meeting minutes for convenience. Trash pickup occurs on Tuesdays for the entire project area.

Edward Nelson White School

- Work near the Edward Nelson White School and work on Hampton Knolls Road to be scheduled in the summer when school is not in session as specified in specification section 01 11 00-3 1.04.K. Summary of Work. Work at this location should be closely coordinated with the City and Engineer.
 - HG&E notes that during gas replacement last year, Hampton Knolls Road was used for a pickup and drop off route for the School.

8. SUBMITTALS

- Submittals will be submitted electronically and managed through Procore.
 - Initial Submittals:
 - List of emergency contacts
 - Subcontractor participation form
 - Construction Schedule
 - Schedule of Submittals



- W&C will send a preliminary list of submittals they are looking for, but stressed this list is not all encompassing, so Ludlow will need to review the list and add submittals as needed.
- Bypass Plans
- Preconstruction videos
- Product Data
- Ludlow plans to get the submittals started now and has targeted construction to start on April 1, 2025. Ludlow plans to finalize all their paperwork and get the submittal process underway.
- Ludlow says they will submit traffic/detour plans as part of their submittals.

9. OTHER CONTRACTOR RESPONSIBILITIES

- All Traffic Signage
- Police Details – Scheduling and Cancelling
- Disposal of debris from cleaning and CCTV operations.
 - Contractor shall provide the City with the location(s) of any proposed disposal sites for catch basin and pipe cleaning debris
 - The City requests Ludlow provide quantities of materials disposed for MS4 tracking purposes.
- Contractor Access to Water
 - Kevin Lukasiewicz says that Ludlow can fill up the jet truck at the City wastewater treatment plant via 2" connection. They are open until 3 PM.
 - Connection to fire hydrants must be coordinated with the Holyoke Water Works Department
 - David Conti emphasized that if water is to be withdrawn from hydrants for construction purposes, Ludlow must coordinate with HWW before doing so. No more than a 1" hose can be connected to hydrant within the project area.

10. SPECIAL COORDINATION

- Private Property Work just north of EN White Elementary School.
 - 33 Hampton Knolls
 - 21 Hampton Knolls
 - Easements have been obtained.
 - See C-101A
 - Woodard & Curran to check Contract Documents and CWSRF requirements to confirm any requirements for pre-construction surveying or staking of work within easement areas
- Holyoke Gas & Electric
- Holyoke Water Works
- Bemis Road Special Structure



11. OPEN DISCUSSION

- The City wants to be aware of everything that is going on. Victoria does not want to find out after the fact. Krista stresses the RPR will keep everyone informed as to what is going on in the field daily, and in turn W&C will keep everyone informed on the project.
- DEP will engage as necessary. Greg mentioned they will get all the forms over to W&C to get through the first requisition process.

Holyoke Gas & Electric Coordination

- Gas replacement plan for 2025 is to replace gas main along Northampton within project area, Meadowview Road and Hillview Road. They plan to start replacement in Spring 2025. HG&E mentioned that by Bemis Road and Vadnais Street are two gas vaults and that area is very sensitive.
- HG&E to be onsite anytime Ludlow is working within the encroachment area limits of the gas lines. W&C to coordinate with HG&E to identify areas where Ludlow will be within the limits of the encroachment area and translate that information to Ludlow.
- Jeff Barthelette says that HG&E plans to replace electric on George Street and Jefferson St between Liberty St and Jefferson St. W&C to follow up with them regarding proposed schedule of this construction.

12. ACTION ITEMS

Meeting Date	Status	Responsible Party	Due Date	Item
1/16/25	In progress	City of Holyoke	4/1/2025	Coordinate Notice to Proceed with Ludlow Construction
1/16/25	In progress	Woodard & Curran	1/31/25	Send project contact list and emergency contact list once received from Ludlow
1/16/25	In progress	Woodard & Curran	1/31/25	Add all appropriate personnel to Procore. Create MassDEP SRF folder in Procore.
1/16/25	In progress	Woodard & Curran	1/31/25	Coordinate with Ludlow and MassDEP to create the SRF project signage for Holyoke's website.
1/16/25	In progress	Woodard & Curran	2/21/25	Distribute plans and specs Send hard copies of plans and specifications to Victoria, Holyoke Water Works, and HG&E.
1/16/25	In progress	Woodard & Curran	1/31/25	Reach out to HG&E for proposed construction schedule for electrical work
1/16/25	In progress	Woodard & Curran	2/7/25	Look into construction staking or survey work for the easements at 21 and 33 Hampton Knolls Road.

REVISION 1: 1/24/25



Meeting Date	Status	Responsible Party	Due Date	Item
1/16/25	In progress	Ludlow Construction	Ongoing	Submittals to be sent to W&C via Procore for review.
1/16/25	In progress	Ludlow Construction	Before Construction	Ludlow to document existing conditions with preconstruction video.
1/16/25	In progress	Ludlow Construction	ASAP	Submit draft construction schedule.
1/16/25	In progress	Ludlow Construction	Before Construction	Submit traffic control plans.
1/16/25	In progress	Ludlow Construction	Before Construction	Send City and W&C staging area options if Ludlow has a City-Owned parcel in mind.
1/16/25	In progress	Ludlow Construction	Before Construction	Send proposed location for disposal of catch basin and pipe cleaning debris materials.
1/16/25	In progress	Ludlow Construction	ASAP	Submit Holyoke specific permits (Street/Sidewalk Occupancy permit, road opening permit, and trench permit). All fees, insurance and bonding requirements will be waived.
1/16/25	In progress	Holyoke Gas & Electric	ASAP	Send W&C their standards for separation of utilities from gas and electric.
1/16/25	In progress	Holyoke Gas & Electric	TBD	Send W&C gas replacement plans for 2026 and 2027.
1/16/25	In progress	Holyoke Gas & Electric	ASAP	Send W&C map of gas replacement work for 2025.
1/16/25	In progress	Holyoke Gas & Electric	ASAP	Send W&C map of where cast iron gas lines are in project area.
1/16/25	In progress	MassDEP	ASAP	Send SRF documents to W&C

Next Progress Meeting is TBD

4/14/2011

A

ACORN	TUESDAY	████████	✓
ADAMS	THURSDAY	████████	✓
ALDERMAN	WEDNESDAY	████████	✓
ALLYN	MONDAY	████████	✓
ALMA	MONDAY	████████	✓
ALTO	WEDNESDAY	████████	✓
AMHERST	TUESDAY	████████	✓
ANDERSON AVE	WEDNESDAY	████████	✓
ANDERSON HILL	MONDAY	████████	✓
ANNIVERSARY RD	TUESDAY	████████	✓
APPLETON	WEDNESDAY	████████	BEECH TO PLEASANT ✓
APPLEWOOD LN	TUESDAY	████████	✓
APREMONT HWY	TUESDAY	████████	✓
ARDEN	WEDNESDAY	████████	✓
ARGLE	WEDNESDAY	████████	✓
ARLINGTON	MONDAY	████████	✓
ARNODALE AVE	WEDNESDAY	████████	✓
ARTHUR	MONDAY	████████	✓
ASHLEY RD	THURSDAY	████████	✓
AUTUMN	THURSDAY	████████	✓

4/14/2011

B

BASSET RD	MONDAY	[REDACTED]	✓
BAYSTATE RD	WEDNESDAY	[REDACTED]	✓
BAYBERRY DR	TUESDAY	[REDACTED]	✓
BEACON AVE	MONDAY	[REDACTED]	✓
BEAUDION TERR	MONDAY	[REDACTED]	✓
BEECH	WEDNESDAY	[REDACTED]	✓
BELVIDERE AVE	WEDNESDAY	[REDACTED]	HILL ✓
BELVIDERE AVE	WEDNESDAY	[REDACTED]	FLAT ✓
BEMIS	TUESDAY	[REDACTED]	✓
BERKSHIRE	MONDAY	[REDACTED]	✓
BLACKBERRY CIR	TUESDAY	[REDACTED]	✓
BLAINE	WEDNESDAY	[REDACTED]	✓
BLOSSOM LN	TUESDAY	[REDACTED]	✓
BOWERS	MONDAY	[REDACTED]	✓
BRAY PARK DR	THURSDAY	[REDACTED]	✓
BRENAN	WEDNESDAY	[REDACTED]	✓
BRETON LN	THURSDAY	[REDACTED]	✓
BRIARWOOD DR	TUESDAY	[REDACTED]	✓
BROOK	MONDAY	[REDACTED]	✓
BROOKLINE AVE	WEDNESDAY	[REDACTED]	HILL ✓
BROOKLINE AVE	WEDNESDAY	[REDACTED]	FLAT ✓
BROWN AVE	THURSDAY	[REDACTED]	✓
BULLARD AVE	TUESDAY	[REDACTED]	✓
BURNSWAY	TUESDAY	[REDACTED]	✓

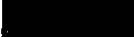
4/14/2011

C

CABOT	WEDNESDAY	████████ BEECH TO PLEASANT ✓
CABOT	FRIDAY	████████ BEECH TO COMMERCIAL ✓
CALUMET	WEDNESDAY	████████ ✓
CALVIN LN	TUESDAY	████████ ✓
CAMPUS RD	FRIDAY	EVERY FRIDAY ✓
CANAL	MONDAY	████████ FLATS ✓
CANAL	THURSDAY	████████ SOUTH HOLYOKE ✓
CANBY	MONDAY	████████ ✓
CARLTON	THURSDAY	████████ ✓
CAROL LN	TUESDAY	████████ ✓
CARTER	WEDNESDAY	████████ ✓
CEDAR HILL	MONDAY	████████ ✓
CENTER	MONDAY	████████ ✓
CENTRAL PARK DR	TUESDAY	████████ ✓
CHAPIN	THURSDAY	████████ ✓
CHAPMAN	THURSDAY	████████ ✓
CHARLES HILL	THURSDAY	████████ ✓
CHARLES ST	THURSDAY	████████ ✓
CHERRY	WEDNESDAY	████████ SOUTH SIDE ✓
CHERRY	WEDNESDAY	████████ NORTH SIDE ✓
CHERRY HILL	WEDNESDAY	████████ ✓
CHESTNUT	FRIDAY	████████ ✓
CLAREMONT	WEDNESDAY	████████ HILL ✓
CLAREMONT	WEDNESDAY	████████ FLAT ✓

4/14/2011

C

CLAREN	TUESDAY		✓
CLARK	THURSDAY		✓
CLAYTON	THURSDAY		✓
CLEMENTE	THURSDAY		✓
CLEVELAND	TUESDAY		✓
CLINTON	MONDAY		✓
COIT	WEDNESDAY		✓
COLUMBIA	MONDAY		✓
COLUMBUS	WEDNESDAY		HILL ✓
COLUMBUS	WEDNESDAY		FLAT ✓
COMMERCIAL	FRIDAY		✓
CONCORD	WEDNESDAY		✓
CONGRESS	THURSDAY		✓
CONNECTICUT	THURSDAY		✓
COOK	THURSDAY		✓
CORONET	TUESDAY		✓
CORSER	WEDNESDAY		✓
COTTAGE	MONDAY		✓
COUNTY	TUESDAY		✓
CRANBERRY	TUESDAY		✓
CRAY	WEDNESDAY		✓
CROSS	TUESDAY		✓
CURRAN LN	MONDAY		✓
CYPRESS	TUESDAY		

4/14/2011

D

DALE	MONDAY	[REDACTED] ✓
DARTMOUTH	TUESDAY	[REDACTED] ✓
DAVIS	THURSDAY	[REDACTED] ✓
DAY	MONDAY	[REDACTED] ✓
DEER RUN	TUESDAY	[REDACTED] ✓
DEXTER	THURSDAY	[REDACTED] ✓
DINGLE RD	TUESDAY	[REDACTED] ✓
DISCAL LN	MONDAY	[REDACTED] ✓
DILLION	WEDNESDAY	[REDACTED] ✓
DONLEE	MONDAY	[REDACTED] ✓
DRAKE	TUESDAY	[REDACTED] ✓
DOWNING	WEDNESDAY	[REDACTED] ✓
DUNN AVE	WEDNESDAY	[REDACTED] ✓
DUPUIS	TUESDAY	[REDACTED] ✓
DWIGHT northside	MONDAY	[REDACTED] NORTHAMPDEN TO LINDEN ✓
DWIGHT southside	WEDNESDAY	[REDACTED] NORTHAMPTON TO BEECH ✓
DWIGHT	FRIDAY	[REDACTED] EAST OF BEECH

*Dwight - Between Race & Main
Monday green*

4/14/2011

E

EASTERN PROM	THURSDAY	████████	✓
EASTHAMPTON	MONDAY	████████	✓
EDBERT DR	WEDNESDAY	████████	✓
EDWARD DR	WEDNESDAY	████████	✓
EDWIN AVE	WEDNESDAY	████████	✓
ELLIOTT	TUESDAY	████████	✓
ELM	FRIDAY	████████	✓
ELMORE	WEDNESDAY	████████	✓
ELMWOOD	THURSDAY	████████	✓
ELY	MONDAY	████████	✓
ELY CT	MONDAY	████████	✓
ERIE	WEDNESDAY	████████	✓
ERNEST	THURSDAY	████████	✓
ESSEX	FRIDAY	████████	✓
ESSEX	WEDNESDAY	████████	BEECH TO PLEASANT ✓
EVERGREEN	THURSDAY	████████	✓

4/14/2011

F

FAILLE	MONDAY		✓
FAIRFIELD	MONDAY		✓
FAIRMONT	MONDAY		✓
FARNUM	THURSDAY		✓
FENTON	WEDNESDAY		✓
FIELD	MONDAY		✓
FINI	TUESDAY		✓
FIR LN	TUESDAY		✓
FLORENCE	WEDNESDAY		✓
FLORIDA	THURSDAY		✓
FORER	WEDNESDAY		✓
FORESTDALE	WEDNESDAY		✓
FRANCIS	WEDNESDAY		✓
FRANKS DR	THURSDAY		✓
FRANKLIN	FRIDAY		✓

4/14/2011

G

GARY	THURSDAY	 ✓
GATES	THURSDAY	 ✓
GEORGE	TUESDAY	 ✓
GILMAN	THURSDAY	 ✓
GLEN	THURSDAY	 ✓
GORDON	THURSDAY	 ✓
GRANDVIEW	THURSDAY	 ✓
GRANT	MONDAY	 ✓
GRANVILLE	WEDNESDAY	 ✓
GREEN	TUESDAY	 ✓
GREENWILLOW	THURSDAY	 ✓
GREENWOOD	WEDNESDAY	 ✓
GROVER	MONDAY	 ✓

4/114/11

H

HAMILTON	THURSDAY	██████████	MAIN TO CANAL ✓
HAMPDEN	FRIDAY	██████████	PINE TO FRONT ✓
HAMPDEN	MONDAY	██████████	NORTHAMPTON TO LINDEN ✓
HAMPSHIRE	WEDNESDAY	██████████	BEECH TO SYCAMORE ✓
HAMPSHIRE	FRIDAY	██████████	BEECH TO COMMERCIAL ✓
HAMPTON KNOLLS	TUESDAY	██████████	✓
HARRISON	THURSDAY	██████████	✓
HARVARD	TUESDAY	██████████	✓
HAWTHORNE	TUESDAY	██████████	✓
HEMLOCK	TUESDAY	██████████	✓
HENDEL	TUESDAY	██████████	✓
HICKORY	MONDAY	██████████	✓
HICKS	WEDNESDAY	██████████	✓
HIGH	FRIDAY	██████████	✓
HIGHLAND	TUESDAY	██████████	✓
HILLCREST	THURSDAY	██████████	✓
HILLSIDE west side	WEDNESDAY	██████████	HILL ✓
HILLSIDE east side	WEDNESDAY	██████████	FLAT ✓
HILLVIEW	TUESDAY	██████████	✓
HITCHCOCK	THURSDAY	██████████	✓
HOLLYGRAPE	TUESDAY	██████████	✓
HOLLYMEADOW	TUESDAY	██████████	✓

4/14/2011

H

HOLY FAMILY	THURSDAY	██████████ ✓
HOMESTEAD	MONDAY	██████████ CHERRY TO NICHOLLS ✓
HOMESTEAD	WEDNESDAY	██████████ WESTFIELD TO FENTON ✓
HOMESTEAD	THURSDAY	██████████ WESTFIELD TO WHITNEY ✓
HOWARD	MONDAY	██████████ ✓
HUMESTON	MONDAY	██████████ ✓
HURON	WEDNESDAY	██████████ ✓

4/14/2011

I

INGLESIDE	MONDAY	██████████ EAST SIDE EVEN NUMBERED ✓
INGLESIDE	THURSDAY	██████████ WEST SIDE ODD NUMBERED ✓
IRVING	TUESDAY	██████████ ✓
ISABELLA	WEDNESDAY	██████████ ✓
IVY	MONDAY	██████████ ✓

4/14/2011

J

JAMES	MONDAY	██████████ ✓
JARVIS	MONDAY	██████████ ✓
JEANNE DR	THURSDAY	██████████ ✓
JEFFERSON	TUESDAY	██████████ ✓
JOANNE	TUESDAY	██████████ ✓
JONES FERRY	MONDAY	██████████ ✓
JUDITH	WEDNESDAY	██████████ ✓

4/14/2011

K

KANE	THURSDAY		✓
KEFFE	WEDNESDAY		✓
KENNEDY	MONDAY		✓
KEYES	TUESDAY		✓
KING	WEDNESDAY		✓
KNOLLWOOD CR	THURSDAY		✓

4/14/2011

L

LACUS	MONDAY		✓
LABRIE	TUESDAY		✓
LADD	WEDNESDAY		✓
LARKIN	THURSDAY		✓
LAURA LN	TUESDAY		✓
LAUREL ST	THURSDAY		✓
LAWLER	THURSDAY		✓
LAMAY	TUESDAY		✓
LENOX	TUESDAY		✓
LEXINGTON	TUESDAY		✓
LIBERTY	TUESDAY		✓
LINCOLN	MONDAY		✓
LINDBURGH	TUESDAY		✓
LINDEN	WEDNESDAY		✓
LINDOR HEIGHTS	MONDAY		✓
LINE	TUESDAY		✓
LOCUST	WEDNESDAY		✓
LOG POND	MONDAY		✓
LONGFELLOW	TUESDAY		✓
LONGWOOD	THURSDAY		✓
LOMMIS	TUESDAY		✓
LORRAINE	WEDNESDAY		✓
LOWER WESTFLD	THURSDAY		✓

4/14/2011

L

LYMAN
LYMAN

MONDAY
FRIDAY

[REDACTED] CANAL TO CANAL / FLATS ✓
[REDACTED] HIGH TO PINE ✓

LYNCH

THURSDAY

[REDACTED] ✓

LYNN ANN

THURSDAY

[REDACTED] ✓

LYNWOOD

WEDNESDAY

[REDACTED] ✓

Maple St. - Friday

4/14/2011

M

MACINTOSH	THURSDAY	████████	✓
MACKENZIE	WEDNESDAY	████████	✓
MADISON	TUESDAY	████████	✓
MADISON WEST	TUESDAY	████████	✓
MAGINNIS	TUESDAY	████████	✓
MAGNOLIA	WEDNESDAY	████████	✓
MAIN	MONDAY	████████	BERKSHIRE TO WSPLFD LINE ✓ N CANAL TO S CANAL ✓
MAIN	FRIDAY	████████	
MARLBORO	TUESDAY	████████	✓
MARTIN	THURSDAY	████████	✓
SO MARTIN	THURSDAY	████████	✓
MASON	THURSDAY	████████	✓
MAYER	THURSDAY	████████	✓
SO MAYER	THURSDAY	████████	✓
MCGRADY	THURSDAY	████████	✓
MCLELLAN	THURSDAY	████████	✓
MCPAHON	THURSDAY	████████	✓
MEADOW	MONDAY	████████	✓
MEADOW BROOK	THURSDAY	████████	✓
MEADOWVIEW	TUESDAY	████████	✓
MEGGISON	TUESDAY	████████	✓
MEMORIAL DR	WEDNESDAY	████████	✓
MEMORIAL CR	WEDNESDAY	████████	✓
MERKEL	WEDNESDAY	████████	✓

4/14/2011

M

MERRICK	WEDNESDAY		✓
MICHIGIN	WEDNESDAY		✓
MONROE	WEDNESDAY		✓
MONTGOMERY	TUESDAY		✓
MORGAN	TUESDAY		✓
MOSHER	MONDAY		✓
MOSS	WEDNESDAY		✓
MOUNTAIN PARK	TUESDAY		✓
MOUNTAIN RD	TUESDAY		✓
MOUNTAINVIEW	TUESDAY		✓
MOWERY	MONDAY		✓
MOUNT TOM	TUESDAY		✓
MUELLER	TUESDAY		✓
MYRTLE	THURSDAY		✓

4/14/2011

N

NORTH BRIDGE	MONDAY	██████████	✓
NORTH CANAL	MONDAY	██████████	✓
NORTH EAST	MONDAY	██████████	✓
NORTH SUMMER	MONDAY	██████████	✓
NEWTON	FRIDAY	██████████	✓
NICHOLLS	MONDAY	██████████	✓
NONOTUCK	MONDAY	██████████	HAMPDEN TO FAIRFIELD ✓
NONOTUCK	TUESDAY	██████████	FAIRFIELD TO MADISON ✓
NORTHHAMPDEN	MONDAY	██████████	DWIGHT TO FAIRFIELD ✓ BROOKWOOD TO CTY LINE
NORTHAMPTON	TUESDAY	██████████	HAMPDEN TO WYCKOFF ✓
NORTHAMPDEN	WEDNESDAY	██████████	BEECH TO DWIGHT ✓
NORTHAMPDEN	THURSDAY	██████████	WHITINGS FARMS TO ✓ MACINTOSH
NORWOOD TERR	WEDNESDAY	██████████	✓

Northampton -
Highway
Rte 5

4/14/2011

O

O'CONNELL	THURSDAY		✓
O'CONNOR	MONDAY		✓
OAK	WEDNESDAY		✓
OAKWOOD	THURSDAY		✓
OGDEN	WEDNESDAY		✓
OLD ANNIVSERY	MONDAY		✓
OLD BASSET	MONDAY		✓
OLD EASTHAMP	MONDAY		✓
OLD JARVIS	MONDAY		✓
OLD ROCKVALLEY	TUESDAY		✓
OLIVE	MONDAY		✓
ONTARIO	WEDNESDAY		✓
ORCHARD	WEDNESDAY		✓
OSCAR	MONDAY		✓
OVERLOOK DR	MONDAY		✓
OWENS	MONDAY		✓
OXFORD	TUESDAY		✓

4/14/2011

P

PAPINEAU	MONDAY	[REDACTED] ✓
PARK AVE	WEDNESDAY	[REDACTED] ✓
PARK SLOPE	TUESDAY	[REDACTED] ✓
PARKVIEW TERR	THURSDAY	[REDACTED] ✓
PARKER	MONDAY	[REDACTED] ✓
PEARL	MONDAY	[REDACTED] HAMPDEN TO FAIRFIELD ✓
PEARL	TUESDAY	[REDACTED] FAIRFIELD TO DINGLE ✓
PEARSON	THURSDAY	[REDACTED] ✓
PELTIAH	MONDAY	[REDACTED] ✓
PHEASANT	TUESDAY	[REDACTED] ✓
PHILIP	MONDAY	[REDACTED] ✓
PINE west side	WEDNESDAY	[REDACTED] ✓
PINE east side	FRIDAY	[REDACTED] ✓
PINEHURST	WEDNESDAY	[REDACTED] ✓
PLEASANT	MONDAY	[REDACTED] DWIGHT TO YALE ✓
PLEASANT	TUESDAY	[REDACTED] YALE TO RIVER TERR ✓
PROVIDENCE TERR	THURSDAY	[REDACTED] ✓
PORTLAND	WEDNESDAY	[REDACTED] ✓
PREW	MONDAY	[REDACTED] ✓
PRIMROSE	THURSDAY	[REDACTED] ✓
PRINCETON	TUESDAY	[REDACTED] ✓
PYNCHON	THURSDAY	[REDACTED] ✓

4/14/2011

Q

QUEEN WEDNESDAY [REDACTED] ✓

QUIRK THURSDAY [REDACTED] ✓

QUIN THURSDAY (BLUE)

4/14/2011

R

RADCLIFF TUESDAY [REDACTED] ✓

RAYMOND WEDNESDAY [REDACTED] ✓

RENE MONDAY [REDACTED] ✓

RESERVATION MONDAY [REDACTED] ✓

RESNIC BLVD FRIDAY [REDACTED] ✓

RHODE ISLAND THURSDAY [REDACTED] ✓

RICHARD EGER THURSDAY [REDACTED] ✓

RIDGEWAY WEDNESDAY [REDACTED] ✓

RIDGEWOOD WEDNESDAY [REDACTED] HILL ✓
RIDGEWOOD WEDNESDAY [REDACTED] FLAT ✓

RIVER TERR TUESDAY [REDACTED] ✓

ROBERT DR TUESDAY [REDACTED] ✓

ROCK VALLEY TUESDAY [REDACTED] ✓

ROLAND THURSDAY [REDACTED] ✓

ROOSEVELT WEDNESDAY [REDACTED] ✓

ROSS TUESDAY [REDACTED] ✓

ROYAL WEDNESDAY [REDACTED] ✓

RUGBY WEDNESDAY [REDACTED] ✓

4/14/2011

S

SAMOSETT	MONDAY		✓
SARGEANT	WEDNESDAY		BEECH TO NORTHAMPTON ✓
SARGEANT	THURSDAY		MAIN TO CANAL ✓
SARGEANT	FRIDAY		BEECH TO COMMERCIAL ✓
SCHOOL	MONDAY		✓
SCOTT HOLLOW	MONDAY		✓
SEQUOIA	TUESDAY		✓
SHAWMUT	WEDNESDAY		✓
SHEEHAN DR	WEDNESDAY		✓
SHEPARD	TUESDAY		✓
SHERWOOD TERR	THURSDAY		✓
SOUTH ST	THURSDAY		✓
SOUTH BRIDGE	THURSDAY		✓
SOUTH CANAL	THURSDAY		✓
SOUTH EAST	THURSDAY		✓
SOUTH ELM	THURSDAY		✓
SOUTHAMPTON	TUESDAY		✓
SPRINGDALE AVE	MONDAY		✓
SAINT JAMES	WEDNESDAY		✓
SAINT JEROME	WEDNESDAY		✓
SAINT VINCENT	MONDAY		✓
SKY VIEW	MONDAY		✓
STANFORD	TUESDAY		✓

4/14/2011

S

STIEGER	TUESDAY	[REDACTED]	✓
STERLING	THURSDAY	[REDACTED]	✓
STEVEN	MONDAY	[REDACTED]	✓
STRATFORD	TUESDAY	[REDACTED]	✓
SUFFOLK	WEDNESDAY	[REDACTED]	PINE TO APPLETON ✓
SUFFOLK	FRIDAY	[REDACTED]	HIGH TO PINE ✓
SUMMIT	WEDNESDAY	[REDACTED]	✓
SUNVALLEY	TUESDAY	[REDACTED]	✓
SUNSET	THURSDAY	[REDACTED]	✓
SUPERIOR	WEDNESDAY	[REDACTED]	✓
SYCAMORE	WEDNESDAY	[REDACTED]	✓
SYDNEY	WEDNESDAY	[REDACTED]	✓
SYLVIA	MONDAY	[REDACTED]	✓

4/14/2011

T

TAYLOR	MONDAY		✓
TEMPLE	MONDAY		✓
THOMAS	WEDNESDAY		✓
THORPE	MONDAY		✓
TIMBER LN	MONDAY		✓

4/14/2011

U

UPLAND	THURSDAY		✓
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4/14/2011

V

VADNAIS	TUESDAY		✓
VALLEY HEIGHTS	MONDAY		✓
VASSAR CR	TUESDAY		✓
VERMONT	THURSDAY		✓
VERNON	MONDAY		✓
VIEW	THURSDAY		✓
VILLAGE	THURSDAY		✓

4/14/2011

W

WALL	TUESDAY	████████	✓
WALDO	MONDAY	████████	✓
WALNUT	FRIDAY	████████	✓
WASHINGTON	THURSDAY	████████	✓
WAYNE CT	MONDAY	████████	✓
WEDGEWOOD	THURSDAY	████████	✓
WELLESLEY	TUESDAY	████████	✓
WELLS	MONDAY	████████	✓
WEST	MONDAY	████████	✓
WESTERN VIEW	TUESDAY	████████	✓
WEST CHERRY	TUESDAY	████████	✓
WEST FRANKLIN	WEDNESDAY	████████	✓
WEST GLEN	THURSDAY	████████	✓
WEST KING	MONDAY	████████	✓
WESTMEADOW VW	TUESDAY	████████	✓
WESTFIELD RD (Homestead to County)	TUESDAY	████████	✓
WESTFIELD RD (Northampton to Homestead)	WEDNESDAY	████████	North side ✓
WESTFIELD RD (Northampton to Homestead)	THURSDAY	████████	South side ✓
WHITE BIRCH WAY	TUESDAY	████████	✓
WHITING	WEDNESDAY	████████	✓
WHITNEY	THURSDAY	████████	✓

Whiting
Garms - Thurs
Green

4/14/2011

W

WHITTIER CR	TUESDAY	████████	✓
WILLIAMS	MONDAY	████████	✓
WINCHESTER	WEDNESDAY	████████	✓
WINTERBERRY	TUESDAY	████████	✓
WINTHROP	WEDNESDAY	████████	✓
WOLCOTT	THURSDAY	████████	✓
WOODBINE	TUESDAY	████████	✓
WOODBIDGE	TUESDAY	████████	✓
WOODLAND	THURSDAY	████████	✓
WOODS AVE	WEDNESDAY	████████	✓
WYCKOFF AVE	TUESDAY	████████	✓

Willow
Green w/c
Thurs

4/14/2011

Y

YALE	TUESDAY	████████	✓
YALE ST EXT	TUESDAY	████████	✓
YORK	THURSDAY	████████	✓

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