



Haverhill

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March 31, 2025

Enforcement and Compliance Assurance Division
U.S. EPA New England – Region 1 (Mail Code: 04-4)
5 Post Office Square
Boston, MA 02109-3912
Attn: Ms. Solanch S. Pastrana-Del Valle

Subject: City of Haverhill, MA NPDES Permit #MA 0101621
Consent Decree Submittal (Civil Action No. 16-11698-IT)
2024 Annual Combined Sewer Overflow Report

Dear Ms. Pastrana-Del Valle:

In accordance with Part I.F. 1 through 5 of the City of Haverhill's NPDES Permit and the Consent Decree item VII.M.51, we are providing this annual report for the 2024 calendar year.

If you require additional information, please call me at (978) 374-2382.

Sincerely,

Robert E. Ward
DPW Director

Enclosure

cc:

Isaiah Lewis, WWTP Facility Manager, ilewis@HaverhillMa.gov



City of Haverhill

**Department of Public Works
Wastewater Division**

Annual Combined Sewer Overflow Report

Calendar Year 2024

NPDES Permit No. MA 0101621

Purpose

This report was prepared to meet the requirements of Part I, Section F (1 to 5) of the National Pollutant Discharge Elimination System (NPDES) Permit No. MA0101621 issued to the City of Haverhill by the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP). The permit authorizes the City to discharge stormwater/wastewater during wet weather from thirteen combined sewer overflow (CSO) outfalls located along the Merrimack and Little Rivers. The report also satisfies the requirements of Item VII.M.51 of the Consent Decree (Civil Action No. 16-11698-IT) between the United States Department of Justice, EPA, the Commonwealth of Massachusetts, and the City of Haverhill.

As required by the NPDES permit, this report includes:

- Locations of CSO outfalls
- A summary of activities and volumes
- Status and progress of CSO abatement work
- Contacts for additional information on CSO's and water quality
- Daily precipitation information, including total precipitation, peak intensity, and average intensity.
- Certification that monthly inspections were completed, results recorded, and records maintained.
- Information related to compliance with the Nine Minimum Controls (NMC)
- Information pertaining to each combined sewer overflow outfall including the monthly total volume discharged, the total duration of discharges for each month, and the monthly number of CSO discharge events.

The Consent Decree requires information related to each combined sewer overflow event for each outfall including date and time the overflow started and stopped, the volume of the overflow for each event, the amount of precipitation associated with each overflow event, the total volume discharged from each outfall for the year, and the total volume discharged for the year.

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.



Robert E. Ward
DPW Director
City of Haverhill

3-31-2025
(date)

CSO Outfalls and Regulators

CSO discharges from the CSO outfalls are controlled by CSO regulator structures located upstream from the CSO outfalls. During dry weather, sanitary wastewater flow conveyed to CSO regulator structures is directed to the interceptor system and eventually to the WWTP for treatment. During wet weather events, the regulator structures divert the flow that exceeds the capacity of the downstream piping system from the collection system to a CSO outfall that discharges into the Little River or Merrimack River.

Haverhill currently has fifteen (15) CSO regulators/structures which are connected to thirteen active CSO outfalls. Of the thirteen (13) active outfalls, five (5) discharge to the Little River, and eight (8) discharge to the Merrimack River. As part of Haverhill's CSO abatement program, the City has closed thirteen CSO outfalls. Table 1 lists Haverhill's CSO outfalls and regulators along with their open or closed status and Figure 1 shows the open outfall locations.

Two (2) CSO outfalls have two (2) regulator structures that discharge to them. High Street Diversion has regulator structures at Broadway and High Street, and Winter Street and Hale Street has regulator structures at Winter Street/Hale Street and Winter Street. Some of Haverhill's CSO outfalls and regulators also function as part of a flood protection system for the downtown area. Table 2 notes which outfalls and regulators are part of the flood control system.

During periods of high levels in the Merrimack River and Little River, five CSO regulator structures function as flood diversion structures. To provide flood protection and emergency relief to the collection system, sluice gates within the regulator structures close to divert flow from the collection system to the associated CSO outfall. Unless the city is under a river flood condition, these sluice gates remain fully open.

Table 1
CSO Outfalls and Regulators

NPDES Outfall ID	CSO Outfall Name	CSO Regulator Names	Receiving Waters	Status
Upper Siphon System				
025	Beach Street		Merrimack River	Closed
024	Upper Siphon - Varnum Street		Merrimack River	Open
023	266 River Street		Merrimack River	Closed
022	Railroad Bridge		Merrimack River	Closed
Middle Siphon System				
021H	Winter Street and Hale Street	Winter Street at Hale Street (021H) Winter Street (021G)	Little River	Open
038	High Street Diversion	Broadway (037) High Street (038)	Little River	Open
021B	Emerson Street		Little River	Open
021E	Little River South (Locke Street South)		Little River	Closed
021M	Marginal Pump Station		Little River	Closed
021D	Little River North (Locke Street North)		Little River	Closed
021F	Center Barrel - Locke Street		Little River	Open
021A	Middle Siphon - Essex Street		Little River	Open
Lower Siphon System				
019	Main Street North		Merrimack River	Open
016	Fire Station		Merrimack River	Closed
040	Bethany Avenue		Merrimack River	Open
041	Chestnut Street		Merrimack River	Open
013	Lower Siphon - Buttonwoods Avenue		Merrimack River	Open
010	Boardman Street		Merrimack River	Closed
001	Bates Bridge		Merrimack River	Closed
Bradford System				
031	Front Street		Merrimack River	Closed
032	Bradford Avenue		Merrimack River	Open
033	South Prospect Street		Merrimack River	Closed
034	Middlesex Street		Merrimack River	Open
035	South Main Street		Merrimack River	Closed
036	Ferry Street		Merrimack River	Closed
039	South Webster St.	(042) Colby St./ Salem St.	Merrimack River	Open

FIGURE 1 Open CSO Outfalls

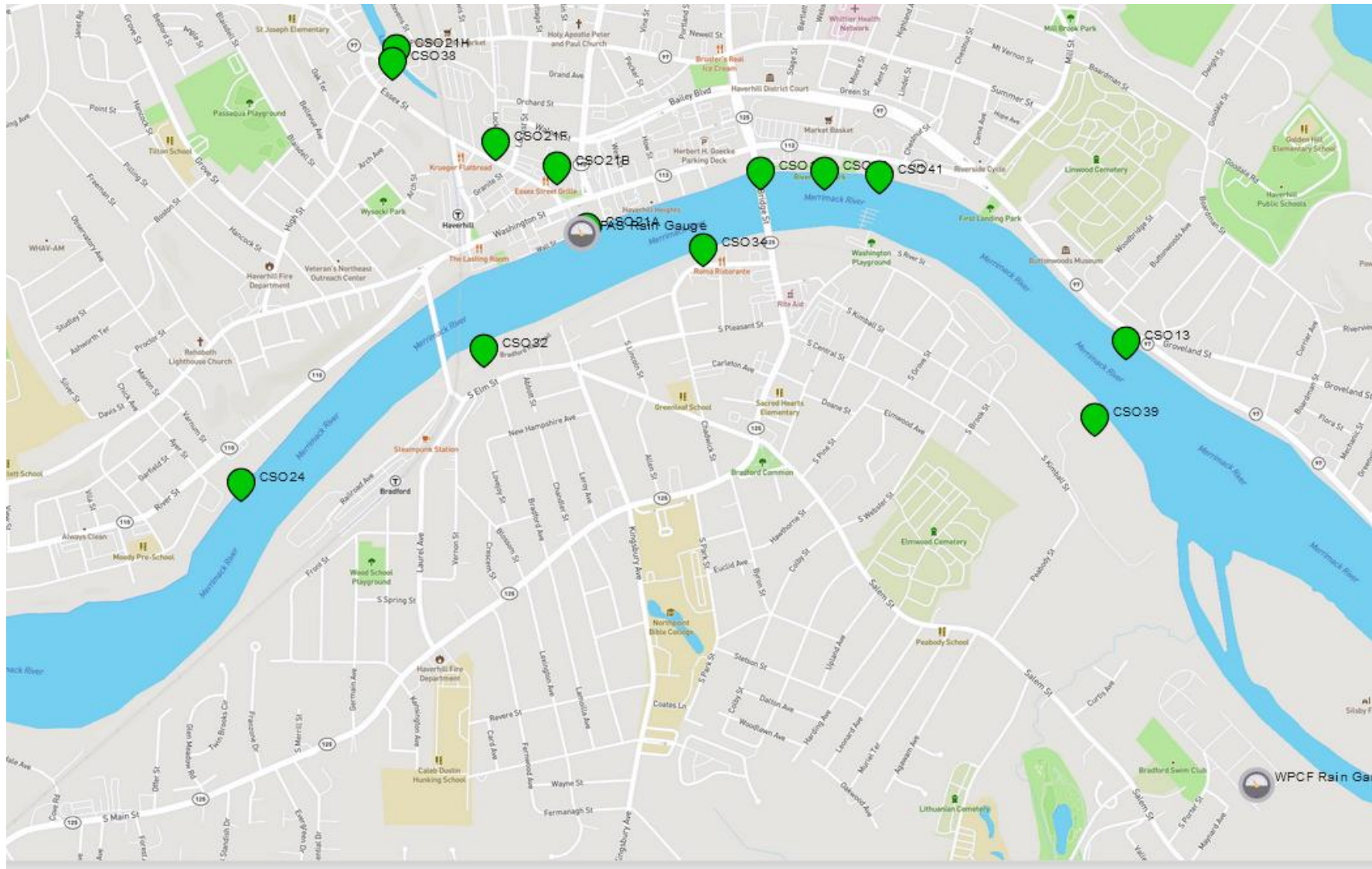


Table 2
CSO Outfalls and Regulators

Outfall ID	CSO Outfall Name	CSO Regulator Names	CSO Monitoring and Volume Measurement Method
Upper Siphon System			
024	Upper Siphon –Varnum Street	Depth/Sluice Gate Opening - Orifice Equation	Depth/Sluice Gate Opening - Orifice Equation
Middle Siphon System			
021H	Winter Street and Hale Street (F)	Winter Street/Hale Street (021H) (F) Winter Street (021G) (F)	Depth at Weir Depth at Weir
038	High Street Diversion (F)	Broadway (037) (F) High Street (038) (F)	Depth at Weir Depth at Weir
021B	Emerson Street (F)		Depth at Weir
021F	Center Barrel - Locke Street		Depth at Weir
021A	Middle Siphon - Essex Street		Depth at Weir and Depth / Velocity in Outfall
Lower Siphon System			
019	Main Street North		Depth at Weir and Depth / Velocity in Outfall
040	Bethany Avenue		Depth at Weir and Depth / Velocity in Outfall
041	Chestnut Street		Depth at Weir and Depth / Velocity in Outfall
013	Lower Siphon – Buttonwoods Avenue		Depth/Sluice Gate Opening - Orifice Equation
Bradford System			
032	Bradford Avenue		Depth at Weir and Depth/Velocity in Outfall
034	Middlesex Street		Depth at Weir
039	South Webster Street	(042) Colby Street/ Salem Street	Depth at Weir and Depth/Velocity in Outfall

Note: (F) Indicates CSO regulators and outfalls used in the flood protection system.

CSO Discharge Monitoring

Since 2014, each of the City's CSO outfalls has been monitored by a depth measuring device at the weir and/or a depth/velocity meter in the CSO outfall pipe, as indicated in Table 2. All CSO regulators were monitored by a depth gauge located at the CSO weir (some are ultrasonic meters, and some have both ultrasonic and transducer gauge). Six of the CSO regulators also have a depth/velocity gauge in the CSO outfall (measuring the depth and velocity of the CSO flow through the outfall pipe).

The flow metering equipment is maintained by a contractor, Flow Assessment Services (FAS). FAS sends alert emails to Haverhill Wastewater Staff when CSOs start and stop. FAS is responsible for the analysis of the meter information to make sure accurate flow data is collected. Flow Data from FAS is sent to the City's Historian Database. Another third party contractor, Aquasight Inc, maintains the CSO Public website and initiates public notification emails.

CSO flow computations at the CSO weir are estimated using a depth of flow over a weir calculation. The depth/velocity gauges utilize an area-velocity equation to estimate flow in the outfall pipe. In some cases, the depth/velocity meters could not be installed in the outfall pipe because flow measurements were hydraulically affected by river backwater conditions and/or downstream backwater gates (gravity flap gates).

As previously mentioned, two (2) CSO outfalls have two (2) regulators that share the outfall. To accurately record CSO volumes, flow is measured at each regulator structure. CSOs for the High Street Diversion (NPDES Outfall ID 038) outfall are measured and reported under Broadway 037 and the High Street 038 regulators. CSOs for the Winter Street and Hale Street (NPDES Outfall ID 021H) outfall are measured and reported under the Winter Street/Hale Street 21H and Winter Street 021G regulators.

CSO volumes at Upper and Lower Siphon outfalls are now calculated by the City using an orifice equation that reflects the typically surcharged (but variable) CSO gate opening. Each regulator has radar units record the depths in the influent sewer, downstream of the CSO gates (river conditions), and downstream of the flow inlet gate to the siphons (to evaluate the backwater condition of the Bradford Interceptor).

Working with CDM Smith, the City developed appropriate computations to calculate flow through the variable orifice sluice gate openings. The City uses these equations to calculate CSO volumes discharged at the Upper and Lower Siphon outfalls. CDM Smith added these flow calculations into the City's SCADA system in 2019. The City can now view real-time flows from Upper and Lower Siphons during storm events. The CSO gate positions are connected to the City's SCADA system. The CSO flow calculations are stored in HachWims Historian database that is queried to produce this annual report.

In November 2022, the City contracted with AutoMatech to acquire all Flow Assessment meter and rain gage data. In 2023 Automatech completed this task and the City finalized the HachWIMS CSO report.. The City uses HachWIMS reporting software for all CSO reporting.

The City's CSO meters are a complex method to accurately record each CSO event. The City nor the City's vendor can guarantee 100% data communication between the meter and HachWims. The City can only report the available information. Errors or omissions will be documented to the best of our abilities.

2024 CSO Outfall Activations

Activation frequency and flow characteristics are measured by the FAS meters, as discussed above. FAS provides monthly and yearly flow data, including volume, from their meters. Except for the Upper and Lower Siphon Outfalls, FAS analyzes flow data on a monthly basis to assure that accurate flow data is being measured and reported. For the Upper and Lower Siphons, the City uses the data downloaded from the SCADA system.

Table 3 summarizes the total CSO volume discharged and the number of activations for each outfall/regulator for 2024.

Table 3**CSO Summary by Regulator**

Outfall ID	CSO Name	Number of Activations	Total Volume (gals.)
13	Lower Siphon	5	4,921,514
19	Main Street North	0	0
021A	Middle Siphon	8	6,566,035
021B	Emerson Street	0	0
021F	Center Barrel Locke Street	32	3,597,080
021H	Winter/ Hale Street	25	1,993,021
24	Upper Siphon	4	2,124,383
32	Bradford Avenue	3	69,569
34	Middlesex Street	10	3,853,253
38	High Street	1	1,080
39	South Webster Street	2	17,670
40	Bethany Avenue	6	121,021
41	Chestnut Street	6	59,927
Total			23,324,553

Appendix A shows the date, rainfall, and CSO volumes for the days with CSO activations.

Appendix B provides information required by the City's NPDES permit, including monthly total flow, duration of overflow, and the number of discharges for the month.

Appendix C provides 2024 CSO activation information required by the Consent Decree, including start and stop times, the amount of precipitation, and overflow volume.

Appendix D provides daily rainfall statistics from Lawrence Airport, Middle Siphon Rain Gage (Flow Assessment), and rain gage at the City's Wastewater treatment plant.

2024 Precipitation

The City collects rain data using three (3) rain gauges: a tipping bucket rain gauge at the Wastewater Treatment Facility (WWTF) ASPW building, a NOAA supplied rain gage at the Lawrence Municipal airport and a tipping bucket rain gauge at the Marginal Pumping Station CSO21A. The gauge at the Marginal Pumping Station is the closest gauge to eleven (11) of the CSO outfalls and their tributary areas. The other two (2) outfalls, 013 and 039, and their tributary areas are closer to the gauges at the WWTF.

The data from the tipping bucket rain gauge at the WWTF ASPW building, is connected to SCADA and HachWIMS and is automatically pulled into a report created by the City. This report summarizes total daily rain in inches and 15-minute peak rain intensities.

The tipping bucket rain gauge at the Marginal Pumping Station is owned and maintained by FAS. Rain data from this gauge, such as daily totals and 15-minute peak intensities, is transmitted to the FAS website where wastewater staff can view it at any time.

We are also including rain data from the nearest National Weather Station, which is located at the Lawrence Municipal Airport. The current location is elevation 149 feet, Latitude 42.7172° W, Longitude -71.1239° W.

The rainfall totals for 2024 for each gauge is shown in Table 4 along with annual average rainfall from the City's rainfall records. The 2024 total precipitation was slightly higher than the average rainfall since the City began recording totals in 1895.

Table 4 Annual Rainfall

Rain Gage Location	Total Annual Rain (in.)
Lawrence Municipal Airport National Weather Service	33.44
Tipping bucket rain gage at the Middle Siphon	36.06
Tipping bucket rain gage at the WWTF ASPW building	42.29
Operations staff rain gauge	44.67

Appendix D shows total daily rainfall (in inches), peak intensity (highest 15-minute sample multiplied by four to convert to inches per hour), storm duration, and average intensity. It should be noted that some storm durations continue overnight and into another day.

Haverhill's CSO Abatement Program

Since 2002, the city has been implementing its CSO Long Term Control Planlanning, design and construction have been completed for various projects aimed at reducing CSO Volumes and occurrences. To view the City's progress since 2002 please see the 2023 CSO Annual Report, available at [https://www.cityofhaverhill.com/departments/public_works_department/water_wastewater/wastewater/wastewater_collection_system/combined_sewer_overflows_\(cso\)/index.php](https://www.cityofhaverhill.com/departments/public_works_department/water_wastewater/wastewater/wastewater_collection_system/combined_sewer_overflows_(cso)/index.php)

In 2024, the City continued to move forward with the preliminary design of the Locke Street Sewer Separation Project. The phase 1 design is complete and includes sewer separation with infiltration rehabilitation and installing new storm drains and outfalls for the 10-year, 24-hour design storm. The City is waiting for a grant of easement from MBTA railroad to begin Phase 1 construction. The City received an extension to begin construction of Phase 1 by June 30, 2025. Currently CSO phase 1 is projected to cost over \$9-million. The City has already spent over \$8.2-million installing separate drain pipes and upgrading sewers in the collection system see CSO Annual report for 2023 for complete details.

On August 8, 2023, the City received intense rainfall of 4.62 inches/hour. This caused a 24-inch brick sewer to collapse. During this remediation repair the City investigated and found that an existing 24-inch separate storm drain connection into this sewer could be separated. This 24-inch drain was separated at a

cost of \$202,000. This is the area for the Upper Siphon NPDES#024.

Nine Minimum Controls (NMC)

The following is a summary of activities during the calendar year 2024 relating to compliance with the Nine Minimum Controls (NMC).

1. Proper operation and regular maintenance programs for the sewer system and CSO outfalls

The City continued to use its Computerized Maintenance Management System (CMMS) CityWorks to track and manage the maintenance of their combined sewer system, including inspection and cleaning of sewers, drains, pumping stations, CSO regulators, and CSO outfalls. Sewer segments with recurring problems are added on a preventative maintenance schedule in CityWorks.

The City continued to inspect its sewer pumping stations daily for stations with a flow greater than 100,000 gallons per day and weekly for all the other stations. The City completes preventive maintenance quarterly at each of the stations. Collection system personnel perform monthly inspections of the CSO regulators and outfalls. In addition, CSO regulators are monitored by flow meters that notify wastewater staff when activations occur.

2. Maximize the use of the collection system for storage

The City's CSO regulators are controlled by weirs and by automatically controlled sluice gates at the Upper and Lower Siphon CSO structures. Weirs at the regulators have been raised periodically to reduce CSO discharges based on recommendations in the LTCPs. The City has closed thirteen (13) CSO outfalls, which effectively increases the use of the collection system for wet weather storage.

The automated real-time control system (instrumentation, depth monitoring, and modulated flow control gates operated by automated programming) installed at the Upper and Lower Siphon CSO structures is designed to utilize the interceptor storage upstream of each regulator structure to allow more flow from the Middle CSO to be conveyed to the Bradford Interceptor, and ultimately to the WWTF, to maximize the use of interceptor storage for wet weather flows and to reduce CSO discharges. The City continued to fine-tune this real-time flow control system to optimize the use of the interceptor piping system for wet weather storage.

3. Review and modification of pretreatment program to assure CSO impacts are minimized

The Industrial Pretreatment Program (IPP) was established to help minimize the impacts of discharges in the combined sewer system from non-domestic sources during wet weather events. The IPP Coordinator monitors significant industrial users (SIU) that discharge to the City's sewer system.

The City's sewer use ordinance prohibits any discharge to the collection system that may be detrimental to the wastewater treatment process or the receiving water. These regulations establish limits for pollutant loads that can be discharged to the sewer system. All industrial discharges to the City's sewer system are required to adhere to the requirements of the City's IPP Program. Inspections of these dischargers are performed by City staff.

The WWTP influent fats, oil, and grease (FOG) has decreased significantly since the improvements to its IPP program. Since FOG loadings have been reduced, WWTP staff have been able to maintain low secondary blanket levels and exceptional sludge settling.

The IPP Coordinator continues to maintain the FOG program via annual inspections. These inspections include checking pump out receipts of all grease traps and interceptors, inspecting and measuring FOG using a modified sludge judge in all the grease traps and interceptors, ensuring owners have the proper maintenance schedules and ensuring proper waste grease disposal. The City hired a contractor to inspect all food service establishments using the procedures and protocols established by the IPP Coordinator. In 2024, the City's third-party vendor did not fulfill its contractual obligations. As a result, very few devices were inspected. The City has contracted with a new vendor and all FOG devices will be inspected in the next reporting period.

In 2018, the City hired Hoyle and Tanner to review and revise the City's Local Limits. A sampling plan was submitted to EPA and approved by EPA. The Local Limits study was completed by Hoyle and Tanner in June of 2021 and was submitted to the EPA. EPA has completed their review of the Local Limit Study and the City anticipates to present the study, along with some other updates to the sewer use ordinance, to Council for approval in the next reporting period.

The City implemented a permitting software (ViewPoint) for all business occupancy permits, site plan applications, and wastewater discharge permits. Wastewater employees (currently the Collection System Supervisor and Pretreatment Coordinator) review applications and issue permits as applicable. This system allows the City to improve tracking of wastewater discharged to the City's collection system.

4. Maximization of flow to the publicly owned treatment works (POTW) for treatment.

The City continues to implement measures to maximize flow to the WWTP, including raising weirs and adding CSO control gates that will allow real-time control to reduce CSO discharges. WWTP staff prioritize the maintenance and repair of equipment at the plant and South Mill Street Pumping Station to maximize flow to the plant during wet weather. For example, staff monitor the influent pumps at South Mill Street Pumping Station, perform scheduled preventative maintenance, and perform any needed corrective maintenance on the pumps as a high priority.

. WWTP staff operate and maintain the plant process to ensure the plant is capable of maximizing wet weather flow and treatment during wet weather.

The city has implemented artificial intelligence software that assists operations with important process decisions that help maximize flow to the WWTP.

In 2024, the City along with its consultant Wright-Pierce, began preliminary design on the secondary treatment/South Mill Pumping Station upgrade project. Maximizing flow to the treatment plant is considered with all upgrade recommendations. Piping replacement is planned for the station and the pump condition will be assessed. Total estimated construction cost for the project is approximately \$58 million with more than \$6 million in South Mill Pumping station upgrades.

5. Prohibition of CSOs during dry weather overflows

Dry weather overflows (DWOs) from the CSO discharge outfalls are prohibited under the NPDES permit. Wastewater staff inspect all the CSO outfalls/regulators monthly. As discussed previously in this report, CSO regulators are continuously monitored. If there is a CSO

activation during dry weather, collection system operators are dispatched to investigate and resolve the issue as quickly as possible. In 2024 there were no known dry weather overflows.

6. *Control of solid material and floatable materials in CSOs*

Under the Wet Weather System Maximization/CSO Structure Modifications project, the City is maximizing its capture of wet weather flow for eventual treatment at the WWTP, which maximizes floatables control. The City has also raised weirs to capture more wet weather flow, and floatables in the first flush, during storm events.

As part of the Integrated LTCP, CDM Smith evaluated other potential solids and floatables controls options that could be implemented at the CSO regulators. It was determined that there are no cost-effective approaches to capturing solids and floatables at the City's CSO regulators for a variety of reasons including the constrained space within the regulators to install new screens, trash racks, or baffles, the lack of available land (most of the outfalls are situated directly on the river with no reasonable room for inline screens along the outfall pipe), and river/flow conditions that would preclude outfall technologies (like booms or netting systems).

The City relies on regular cleaning of catch basins and street sweeping near CSO regulators as a preventive measure for the reduction of grit and floatables to its combined system and receiving waters. The City is increasing the frequency of catch basin cleaning and street sweeping, which will improve its floatables capture.

In 2024, the City continued its catch basin cleaning program. An outside contractor cleaned approximately 1600 catch basins.

The City removed approximately 300 tons of debris, some of which are floatables, at an approximate cost of \$70,000. The City also uses its Vac-truck to clean debris from the sewer system and budgets \$60,000 annually for street sweeping.

7. *Pollution prevention programs to reduce contaminants in CSOs*

Haverhill has adopted City ordinances that prohibit litter and debris from being deposited on the street and within the watershed areas. The City also performs regular cleaning of catch basins and street sweeping as a preventive measure for the reduction of pollutants into the combined system. Additionally, the FOG program already discussed in this document helps minimize pollutants in the City's CSOs.

The City has created brochures, including stormwater pollution prevention for residents, FOG education for residents, FOG education for businesses, pet waste education, and education about flushable wipes for residents. These brochures are located on the City's website and available to the public at multiple City-owned buildings. Flyers are also distributed to problem areas.

The City also holds household hazardous waste collection days twice a year, waste oil drop-offs once a month, curbside leaf/grass pickups twice a year, and electronics recycling twice a year. The City also operates a recycling and yard waste facility at the Highway garage.

8. *Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.*

The City maintains a CSO webpage on the City's website to provide information about CSOs to

the public. The web page also has links to prior years CSO reports.

Within two hours of the discovery of a CSO occurrence, an email notification is sent to downstream communities, local Boards of Health, Harbor Masters, local drinking water authorities and any members of the public who subscribe to the notifications. Appendix D shows the current list of those notified within two hours of the discovery of a CSO occurrence.

Each of Haverhill's CSO outfalls has signage that identifies the CSO outfall in English and Spanish.

In 2024, the city's revised CSO notification plan, was reviewed by MaDEP and approved. The updated plan includes a CSO Impact Study performed by CDM. This study revealed the CSO impact from Haverhill reaches 9.1 miles downstream. The plan also features real time notifications and preliminary CSO volumes displayed on a map on the city's website. The CSO map can be viewed at the site below: https://external.aquasight.io/bc4d3929-4468-4122-921f-e65b6b232476/cso-notification?selectedClient=chh_us&selectedCommunity=chh_ma_us

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

In 2014, the City contracted with a flow metering company to install and maintain depth and depth/velocity meters at each of its CSO regulators. This program is discussed previously in this report. The flow monitoring program continued throughout 2024.

End of Report

APPENDIX A

SUMMARY OF CSO REGULATOR ACTIVATION

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
1/1/2024	.00	.00	.00	.00	.31	.08	18.25		0	0	0		0		0	0	0	0	0	0	0
1/2/2024	.00	.00	.00	.00	.22	.08	18.08		0	0	0		0		0	0	0	0	0	0	0
1/3/2024	.00	.00	.00	.00	.00		17.98		0	0	0		0		0	0	0	0	0	0	0
1/4/2024	.00	.00	.00	.00	.00		18.70		0	0	0		0		0	0	0	0	0	0	0
1/5/2024	.00	.00	.00	.00	.00		17.55		0	0	0		0		0	0	0	0	0	0	0
1/6/2024	.02	.01	.00	.00	.00		17.65		0	0	0		0		0	0	0	0	0	0	0
1/7/2024	.53	.05	.00	.00	.00		17.34		0	0	0		0		0	0	0	0	0	0	0
1/8/2024	.13	.11	.19	.36	.22	.08	17.88		0	0	0		0		0	0	0	0	0	0	0
1/9/2024	.70	.15	.58	.36	1.01	.16	45.50		0	0	684		0		0	0	0	0	0	0	684
1/10/2024	1.74	.64	1.42	1.44	1.84	.12	65.00	1,452,111	3,864,028	0	1,522,191	989,528	0	3,485,500	0	24,420	12,177	49,913	1,604,726	10,538	13,015,132
1/11/2024	.00	.00	.00	.00	.00		39.17		0	0	0		0		0	0	0	0	0	0	0
1/12/2024	.00	.00	.00	.00	.00		37.68		0	0	0		0		0	0	0	0	0	0	0
1/13/2024	1.18	.23	1.03	.48	1.20	.12	65.00		467,726	0	439,764	85,528	0	363,719	0	0	0	0	271,062	0	1,627,799
1/14/2024	.02	.02	.00	.00	.01	.04	37.67		0	0	0		0		0	0	0	0	0	0	0
1/15/2024	.00	.00	.00	.00	.00		32.37		0	0	0		0		0	0	0	0	0	0	0
1/16/2024	.28	.05	.00	.00	.00		27.12		0	0	0		0		0	0	0	0	0	0	0
1/17/2024	.00	.00	.00	.00	.08	.08	24.61		0	0	0		0		0	0	0	0	0	0	0
1/18/2024	.00	.00	.00	.00	.00		22.67		0	0	0		0		0	0	0	0	0	0	0
1/19/2024	.00	.00	.00	.00	.00		23.51		0	0	0		0		0	0	0	0	0	0	0
1/20/2024	.00	.00	.00	.00	.00		19.88		0	0	0		0		0	0	0	0	0	0	0
1/21/2024	.00	.00	.00	.00	.00		19.19		0	0	0		0		0	0	0	0	0	0	0
1/22/2024	.00	.00	.00	.00	.10	.08	19.57		0	0	0		0		0	0	0	0	0	0	0
1/23/2024	.02	.02	.02	.12	.00		20.37		0	0	0		0		0	0	0	0	0	0	0
1/24/2024	.42	.09	.51	.12	.68	.08	39.33		0	0	0		0		0	0	0	0	0	0	0
1/25/2024	.09	.04	.13	.12	.19	.08	36.87		0	0	0		0		0	0	0	0	0	0	0
1/26/2024	.67	.19	.66	.36	.80	.08	62.40		0	0	24,889		0		0	0	0	0	0	0	24,889
1/27/2024	.00	.00	.00	.00	.03	.04	26.84		0	0	0		0		0	0	0	0	0	0	0
1/28/2024	.45	.06	.46	.12	.63	.08	39.86		0	0	0		0		0	0	0	0	0	0	0
1/29/2024	.06	.02	.19	.12	.18	.08	28.85		0	0	0		0		0	0	0	0	0	0	0
1/30/2024	.00	.00	.00	.00	.00		23.87		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
1/31/2024	.00	.00	.00	.00	.00		25.21		0	0	0		0		0	0	0	0	0	0	0
2/1/2024	.00	.00	.00	.00	.00		22.09		0	0	0		0		0	0	0	0	0	0	0
2/2/2024	.00	.00	.00	.00	.00		21.24		0	0	0		0		0	0	0	0	0	0	0
2/3/2024	.00	.00	.00	.00	.00		25.27		0	0	0		0		0	0	0	0	0	0	0
2/4/2024	.00	.00	.00	.00	.00		19.44		0	0	0		0		0	0	0	0	0	0	0
2/5/2024	.00	.00	.00	.00	.00		20.89		0	0	0		0		0	0	0	0	0	0	0
2/6/2024	.00	.00	.00	.00	.00		18.21		0	0	0		0		0	0	0	0	0	0	0
2/7/2024	.00	.00	.00	.00	.00		19.21		0	0	0		0		0	0	0	0	0	0	0
2/8/2024	.00	.00	.00	.00	.00		17.20		0	0	0		0		0	0	0	0	0	0	0
2/9/2024	.00	.00	.00	.00	.00		18.44		0	0	0		0		0	0	0	0	0	0	0
2/10/2024	.00	.00	.00	.00	.00		18.12		0	0	0		0		0	0	0	0	0	0	0
2/11/2024	.00	.00	.00	.00	.00		18.23		0	0	0		0		0	0	0	0	0	0	0
2/12/2024	.00	.00	.00	.00	.00		17.78		0	0	0		0		0	0	0	0	0	0	0
2/13/2024	.08	.04	.13	.24	.23	.08	22.93		0	0	0		0		0	0	0	0	0	0	0
2/14/2024	.00	.00	.00	.00	.00		17.21		0	0	0		0		0	0	0	0	0	0	0
2/15/2024	.00	.00	.00	.00	.00		16.15		0	0	0		0		0	0	0	0	0	0	0
2/16/2024	.00	.00	.00	.00	.05	.04	16.70		0	0	0		0		0	0	0	0	0	0	0
2/17/2024	.01	.01	.00	.00	.00		16.10		0	0	0		0		0	0	0	0	0	0	0
2/18/2024	.00	.00	.00	.00	.00		17.71		0	0	0		0		0	0	0	0	0	0	0
2/19/2024	.00	.00	.00	.00	.00		17.64		0	0	0		0		0	0	0	0	0	0	0
2/20/2024	.00	.00	.00	.00	.00		15.96		0	0	0		0		0	0	0	0	0	0	0
2/21/2024	.00	.00	.00	.00	.00		17.83		0	0	0		0		0	0	0	0	0	0	0
2/22/2024	.00	.00	.00	.00	.00		16.05		0	0	0		0		0	0	0	0	0	0	0
2/23/2024	.16	.05	.12	.12	.31	.08	24.35		0	0	0		0		0	0	0	0	0	0	0
2/24/2024	.00	.00	.00	.00	.00		16.57		0	0	0		0		0	0	0	0	0	0	0
2/25/2024	.00	.00	.00	.00	.00		14.83		0	0	0		0		0	0	0	0	0	0	0
2/26/2024	.00	.00	.00	.00	.00		16.13		0	0	0		0		0	0	0	0	0	0	0
2/27/2024	.02	.02	.01	.12	.03	.04	14.78		0	0	0		0		0	0	0	0	0	0	0
2/28/2024	.18	.12	.26	.24	.24	.12	40.21		0	0	0		0		0	0	0	0	0	0	0
2/29/2024	.00	.00	.02	.12	.04	.04	17.90		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
3/1/2024	.00	.00	.00	.00	.00		14.76		0	0	0		0		0	0	0	0	0	0	0
3/2/2024	.93	.26	.96	.72	.89	.12	59.91		0	0	48,160	30,392	0		0	0	0	0	0	0	78,552
3/3/2024	.09	.02	.12	.12	.43	.12	59.16		0	0	10,139	16,781	0		0	0	0	0	0	0	26,920
3/4/2024	.00	.00	.00	.00	.01	.04	19.55		0	0	0		0		0	0	0	0	0	0	0
3/5/2024	.19	.07	.22	.12	.31	.08	38.92		0	0	0		0		0	0	0	0	0	0	0
3/6/2024	.00	.00	.32	.36	.29	.08	43.29		0	0	4,844		0		0	0	0	0	0	0	4,844
3/7/2024	.00	.00	1.12	.48	1.45	.12	63.24		347,663	0	271,208	37,271	0	146,985	0	0	0	0	278,830	0	1,081,957
3/8/2024	.00	.00	.00	.00	.00		23.98		0	0	0		0		0	0	0	0	0	0	0
3/9/2024	.00	.00	.21	.24	.19	.08	43.13		0	0	0		0		0	0	0	0	0	0	0
3/10/2024	.00	.00	.94	.36	1.63	1.36	63.93		721,045	0	238,788	55,552	0	463,323	0	0	0	0	1,264,458	0	2,743,167
3/11/2024	.00	.00	.00	.00	.00		33.07		0	0	0		0		0	0	0	0	0	0	0
3/12/2024	.00	.00	.00	.00	.00		23.81		0	0	0		0		0	0	0	0	0	0	0
3/13/2024	.00	.00	.00	.00	.00		22.22		0	0	0		0		0	0	0	0	0	0	0
3/14/2024	.00	.00	.00	.00	.00		19.61		0	0	0		0		0	0	0	0	0	0	0
3/15/2024	.00	.00	.11	.12	.18	.08	23.69		0	0	0		0		0	0	0	0	0	0	0
3/16/2024	.00	.00	.00	.00	.00		19.06		0	0	0		0		0	0	0	0	0	0	0
3/17/2024	.00	.00	.05	.12	.08	.08	18.77		0	0	0		0		0	0	0	0	0	0	0
3/18/2024	.00	.00	.00	.00	.00		18.80		0	0	0		0		0	0	0	0	0	0	0
3/19/2024	.00	.00	.00	.00	.00		17.98		0	0	0		0		0	0	0	0	0	0	0
3/20/2024	.00	.00	.00	.00	.03	.04	17.78		0	0	0		0		0	0	0	0	0	0	0
3/21/2024	.00	.00	.00	.00	.00		18.13		0	0	0		0		0	0	0	0	0	0	0
3/22/2024	.00	.00	.00	.00	.00		17.89		0	0	0		0		0	0	0	0	0	0	0
3/23/2024	.00	.00	2.15	.60	2.23	.12	61.05	75,837	523,736	0	303,010	82,910	0	461,987	0	0	0	0	276,604	0	1,724,084
3/24/2024	.00	.00	.00	.00	.00		43.27		0	0	0		0		0	0	0	0	0	0	0
3/25/2024	.00	.00	.00	.00	.00		22.04		0	0	0		0		0	0	0	0	0	0	0
3/26/2024	.00	.00	.03	.12	.05	.04	22.42		0	0	0		0		0	0	0	0	0	0	0
3/27/2024	.12	.07	.16	.24	.22	.08	37.02		0	0	0		0		0	0	0	0	0	0	0
3/28/2024	1.30	.18	1.32	.24	1.27	.08	60.61		0	0	36,326		0		0	0	0	0	0	0	36,326
3/29/2024	.45	.09	.40	.12	.61	.08	57.83		0	0	0		0		0	0	0	0	0	0	0
3/30/2024	.00	.00	.00	.00	.34	.08	28.48		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
3/31/2024	.00	.00	.00	.00	.08	.08	34.73		0	0	0		0		0	0	0	0	0	0	0
4/1/2024	.00	.00	.00	.00	.00		27.86		0	0	0		0		0	0	0	0	0	0	0
4/2/2024	.00	.00	.00	.00	.00		33.47		0	0	0		0		0	0	0	0	0	0	0
4/3/2024	.68	.12	.84	.24	.55	.08	58.43		0	0	0		0		0	0	0	0	0	0	0
4/4/2024	1.09	.14	1.76	.24	.74	.08	64.60		0	0	48,014		0		0	0	0	0	0	0	48,014
4/5/2024	.06	.03	.13	.12	.94	.08	49.22		0	0	0		0		0	0	0	0	0	0	0
4/6/2024	.14	.05	.12	.12	.62	.08	45.53		0	0	0		0		0	0	0	0	0	0	0
4/7/2024	.00	.00	.00	.00	.08	.08	33.03		0	0	0		0		0	0	0	0	0	0	0
4/8/2024	.00	.00	.00	.00	.64	.12	40.67		0	0	0		0		0	0	0	0	0	0	0
4/9/2024	.00	.00	.00	.00	.00		26.42		0	0	0		0		0	0	0	0	0	0	0
4/10/2024	.13	.05	.15	.12	.24	.08	38.76		0	0	0		0		0	0	0	0	0	0	0
4/11/2024	.09	.02	.08	.12	.16	.08	26.81		0	0	0		0		0	0	0	0	0	0	0
4/12/2024	.66	.21	.55	.72	.85	.12	62.61		0	0	26,153	54,514	0		0	0	0	0	0	0	80,667
4/13/2024	.00	.00	.00	.00	.00		28.27		0	0	0		0		0	0	0	0	0	0	0
4/14/2024	.04	.02	.03	.12	.06	.08	34.30		0	0	0		0		0	0	0	0	0	0	0
4/15/2024	.00	.00	.00	.00	.00		25.77		0	0	0		0		0	0	0	0	0	0	0
4/16/2024	.00	.00	.00	.00	.00		25.56		0	0	0		0		0	0	0	0	0	0	0
4/17/2024	.00	.00	.00	.00	.00		21.79		0	0	0		0		0	0	0	0	0	0	0
4/18/2024	.10	.05	.10	.12	.20	.08	25.39		0	0	0		0		0	0	0	0	0	0	0
4/19/2024	.00	.00	.00	.00	.01	.04	21.54		0	0	0		0		0	0	0	0	0	0	0
4/20/2024	.33	.20	.29	.24	.38	.20	43.71		0	0	0		0		0	0	0	0	0	0	0
4/21/2024	.00	.00	.00	.00	.00		19.10		0	0	0		0		0	0	0	0	0	0	0
4/22/2024	.00	.00	.00	.00	.00		18.55		0	0	0		0		0	0	0	0	0	0	0
4/23/2024	.00	.00	.00	.00	.00		17.90		0	0	0		0		0	0	0	0	0	0	0
4/24/2024	.04	.02	.04	.24	.10	.08	19.80		0	0	0		0		0	0	0	0	0	0	0
4/25/2024	.00	.00	.00	.00	.00		16.24		0	0	0		0		0	0	0	0	0	0	0
4/26/2024	.00	.00	.00	.00	.00		17.75		0	0	0		0		0	0	0	0	0	0	0
4/27/2024	.00	.00	.00	.00	.00		16.90		0	0	0		0		0	0	0	0	0	0	0
4/28/2024	.01	.01	.01	.12	.00		16.40		0	0	0		0		0	0	0	0	0	0	0
4/29/2024	.00	.00	.00	.00	.00		17.30		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
4/30/2024	.13	.05	.20	.36	.18	.08	36.42		0	0	0		0		0	0	0	0	0	0	0
5/1/2024	.23	.06	.18	.12	.28	.08	20.27		0	0	0		0		0	0	0	0	0	0	0
5/2/2024	.04	.02	.14	.48	.20	.12	40.94		0	0	3,208		0		0	0	0	0	0	0	3,208
5/3/2024	.00	.00	.00	.00	.00		15.84		0	0	0		0		0	0	0	0	0	0	0
5/4/2024	.00	.00	.00	.00	.00		16.94		0	0	0		0		0	0	0	0	0	0	0
5/5/2024	.36	.09	.34	.12	.46	.08	37.81		0	0	0		0		0	0	0	0	0	0	0
5/6/2024	.09	.05	.01	.12	.05	.04	17.56		0	0	0		0		0	0	0	0	0	0	0
5/7/2024	.00	.00	.00	.00	.00		15.84		0	0	0		0		0	0	0	0	0	0	0
5/8/2024	.49	.26	.53	.84	.61	.12	60.52		0	0	23,920	24,194	0		0	0	0	0	0	0	48,115
5/9/2024	.00	.00	.00	.00	.00		15.79		0	0	0		0		0	0	0	0	0	0	0
5/10/2024	.00	.00	.00	.00	.00		16.48		0	0	0		0		0	0	0	0	0	0	0
5/11/2024	.00	.00	.00	.00	.00		15.77		0	0	0		0		0	0	0	0	0	0	0
5/12/2024	.00	.00	.00	.00	.00		15.55		0	0	0		0		0	0	0	0	0	0	0
5/13/2024	.00	.00	.00	.00	.00		15.76		0	0	0		0		0	0	0	0	0	0	0
5/14/2024	.00	.00	.00	.00	.00		13.79		0	0	0		0		0	0	0	0	0	0	0
5/15/2024	.02	.02	.05	.12	.01	.04	15.68		0	0	0		0		0	0	0	0	0	0	0
5/16/2024	.28	.06	.17	.12	.26	.08	18.41		0	0	0		0		0	0	0	0	0	0	0
5/17/2024	.00	.00	.00	.00	.00		15.06		0	0	0		0		0	0	0	0	0	0	0
5/18/2024	.07	.05	.11	.12	.25	.08	16.73		0	0	0		0		0	0	0	0	0	0	0
5/19/2024	.00	.00	.04	.12	.06	.08	13.93		0	0	0		0		0	0	0	0	0	0	0
5/20/2024	.00	.00	.00	.00	.00		16.11		0	0	0		0		0	0	0	0	0	0	0
5/21/2024	.00	.00	.30	1.20	.15	.08	60.58		0	0	12,451	115,951	0		0	15,906	4,559	0	0	0	148,868
5/22/2024	.00	.00	.00	.00	.08	.08	13.76		0	0	0		0		0	0	0	0	0	0	0
5/23/2024	.00	.00	.00	.00	.00		15.69		0	0	0		0		0	0	0	0	0	0	0
5/24/2024	.00	.00	.00	.00	.00		16.04		0	0	0		0		0	0	0	0	0	0	0
5/25/2024	.00	.00	.00	.00	.00		12.01		0	0	0		0		0	0	0	0	0	0	0
5/26/2024	.10	.06	.12	.36	.23	.08	19.56		0	0	0		0		0	0	0	0	0	0	0
5/27/2024	.40	.34	.28	.72	.07	.08	56.33		0	0	39,090	22,615	0		0	906	271	0	2,882	0	65,764
5/28/2024	.07	.07	.03	.12	.13	.08	53.58		0	0	0		0		0	0	0	0	0	0	0
5/29/2024	.00	.00	.00	.00	.02	.08	12.67		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
5/30/2024	1.25	.34	1.20	.36	.01	.04	58.38		46,927	0	114,823	1,747	0		0	0	0	0	61,465	0	224,962
5/31/2024	.00	.00	.00	.00	.03	.08	14.39		0	0	0		0		0	0	0	0	0	0	0
6/1/2024	.00	.00	.00	.00	.03	.08	15.01		0	0	0		0		0	0	0	0	0	0	0
6/2/2024	.00	.00	.00	.00	.00		13.36		0	0	0		0		0	0	0	0	0	0	0
6/3/2024	.00	.00	.00	.00	.03	.08	13.80		0	0	0		0		0	0	0	0	0	0	0
6/4/2024	.00	.00	.00	.00	.00		14.39		0	0	0		0		0	0	0	0	0	0	0
6/5/2024	.00	.00	.00	.00	.00		13.71		0	0	0		0		0	0	0	0	0	0	0
6/6/2024	.00	.00	.00	.00	.02	.08	14.40		0	0	0		0		0	0	0	0	0	0	0
6/7/2024	.00	.00	.00	.00	.00		14.62		0	0	0		0		0	0	0	0	0	0	0
6/8/2024	.00	.00	.01	.12	.00		15.08		0	0	0		0		0	0	0	0	0	0	0
6/9/2024	.24	.11	.22	.24	.00		35.85		0	0	0		0		0	0	0	0	0	0	0
6/10/2024	.00	.00	.00	.00	.00		13.68		0	0	0		0		0	0	0	0	0	0	0
6/11/2024	.00	.00	.00	.00	.00		12.34		0	0	0		0		0	0	0	0	0	0	0
6/12/2024	.00	.00	.01	.12	.00		13.95		0	0	0		0		0	0	0	0	0	0	0
6/13/2024	.00	.00	.00	.00	.00		13.03		0	0	0		0		0	0	0	0	0	0	0
6/14/2024	.25	.12	.14	.36	.00		35.84		0	0	0		0		0	0	0	0	0	0	0
6/15/2024	.04	.04	.02	.12	.00		13.13		0	0	0		0		0	0	0	0	0	0	0
6/16/2024	.00	.00	.00	.00	.00		10.66		0	0	0		0		0	0	0	0	0	0	0
6/17/2024	.00	.00	.00	.00	.00		13.88		0	0	0		0		0	0	0	0	0	0	0
6/18/2024	.00	.00	.00	.00	.02	.04	11.80		0	0	0		0		0	0	0	0	0	0	0
6/19/2024	.00	.00	.00	.00	.03	.04	13.09		0	0	0		0		0	0	0	0	0	0	0
6/20/2024	.39	.22	.81	2.28	.70	.24	65.00	151,899	164,979	0	42,281	131,389	0		0	20,392	10,351	13,205	38,069	7,132	579,698
6/21/2024	.02	.02	.00	.00	.04	.04	24.02		0	0	0		0		0	0	0	0	0	0	0
6/22/2024	.10	.07	.14	.36	.11	.08	36.15		0	0	0		0		0	0	0	0	0	0	0
6/23/2024	.10	.07	.07	.36	.29	.08	23.22		0	0	0		0		0	0	0	0	0	0	0
6/24/2024	.12	.10	.16	.48	.23	.12	35.89		0	0	0		0		0	0	0	0	0	0	0
6/25/2024	.00	.00	.00	.00	.02	.04	15.14		0	0	0		0		0	0	0	0	0	0	0
6/26/2024	.00	.00	.05	.24	.02	.04	11.72		0	0	0		0		0	0	0	0	0	0	0
6/27/2024	.13	.08	.04	.12	.15	.12	12.01		0	0	0		0		0	0	0	0	0	0	0
6/28/2024	.00	.00	.02	.24	.00		11.14		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM						
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon		Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway		Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street		Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24		021A	021B	021F	021H	38		13	19	40	41		32	34	39	
6/29/2024	.05	.02	.03	.12	.05	.08	11.19			0	0	0		0			0	0	0		0	0	0	0
6/30/2024	.00	.00	.00	.00	.02	.04	11.43			0	0	0		0			0	0	0		0	0	0	0
7/1/2024	.00	.00	.40	1.56	.49	.12	60.97			0	0	10,903	9,128	0			0	4,003	8,736		0	0	0	32,771
7/2/2024	.00	.00	.00	.00	.06	.08	10.16			0	0	0		0			0	0	0		0	0	0	0
7/3/2024	.00	.00	.00	.00	.02	.08	10.36			0	0	0		0			0	0	0		0	0	0	0
7/4/2024	.00	.00	.00	.00	.02	.08	9.16			0	0	0		0			0	0	0		0	0	0	0
7/5/2024	.02	.02	.15	.24	.03	.04	36.18			0	0	0		0			0	0	0		0	0	0	0
7/6/2024	.00	.00	.02	.12	.02	.08	9.87			0	0	0		0			0	0	0		0	0	0	0
7/7/2024	.10	.05	.04	.36	.03	.04	11.77			0	0	0		0			0	0	0		0	0	0	0
7/8/2024	.00	.00	.00	.00	.02	.04	13.39			0	0	0		0			0	0	0		0	0	0	0
7/9/2024	.00	.00	.00	.00	.01	.04	10.42			0	0	0		0			0	0	0		0	0	0	0
7/10/2024	.00	.00	.00	.00	.02	.04	12.26			0	0	0		0			0	0	0		0	0	0	0
7/11/2024	.00	.00	.00	.00	.02	.04	10.12			0	0	0		0			0	0	0		0	0	0	0
7/12/2024	.00	.00	.00	.00	.00		12.48			0	0	0		0			0	0	0		0	0	0	0
7/13/2024	.13	.13	.10	.60	.08	.08	27.23			0	0	0		0			0	0	0		0	0	0	0
7/14/2024	.00	.00	.00	.00	.02	.04	10.12			0	0	0		0			0	0	0		0	0	0	0
7/15/2024	.00	.00	.00	.00	.01	.04	11.75			0	0	0		0			0	0	0		0	0	0	0
7/16/2024	.74	.52	.28	.60	.13	.12	52.57			0	0	26,406	3,326	0			0	0	0		0	0	0	29,733
7/17/2024	.17	.13	.18	.96	.03	.08	55.84			0	0	8,604	24,823	0			0	0	0		0	0	0	33,427
7/18/2024	.03	.02	.01	.12	.04	.08	10.56			0	0	0		0			0	0	0		0	0	0	0
7/19/2024	.00	.00	.00	.00	.00		9.48			0	0	0		0			0	0	0		0	0	0	0
7/20/2024	.00	.00	.00	.00	.02	.08	9.82			0	0	0		0			0	0	0		0	0	0	0
7/21/2024	.00	.00	.00	.00	.00		10.21			0	0	0		0			0	0	0		0	0	0	0
7/22/2024	.00	.00	.00	.00	.00		9.94			0	0	0		0			0	0	0		0	0	0	0
7/23/2024	.27	.25	.00	.00	.00		10.65			0	0	0		0			0	0	0		0	0	0	0
7/24/2024	.00	.00	.00	.00	.01	.04	10.40			0	0	0		0			0	0	0		0	0	0	0
7/25/2024	.00	.00	.00	.00	.00		11.16			0	0	0		0			0	0	0		0	0	0	0
7/26/2024	.00	.00	.00	.00	.00		11.28			0	0	0		0			0	0	0		0	0	0	0
7/27/2024	.00	.00	.00	.00	.02	.04	9.70			0	0	0		0			0	0	0		0	0	0	0
7/28/2024	.00	.00	.00	.00	.00		10.21			0	0	0		0			0	0	0		0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
7/29/2024	.42	.38	.12	.48	.08	.08	34.83		0	0	0		0		0	0	0	0	0	0	0
7/30/2024	.00	.00	.00	.00	.02	.08	11.03		0	0	0		0		0	0	0	0	0	0	0
7/31/2024	.21	.10	.06	.24	.02	.04	23.17		0	0	0		0		0	0	0	0	0	0	0
8/1/2024	.00	.00	.00	.00	.02	.04	9.65		0	0	0		0		0	0	0	0	0	0	0
8/2/2024	.33	.31	.70	2.40	.02	.08	64.93	444,536	429,931	0	14,174	225,375	1,080		0	55,392	23,833	6,451	52,875	0	1,253,647
8/3/2024	.05	.02	.02	.12	.04	.04	9.42		0	0	0		0		0	0	0	0	0	0	0
8/4/2024	1.38	1.08	.54	1.20	.02	.04	61.91		0	0	59,104	1,458	0		0	0	0	0	0	0	60,562
8/5/2024	.00	.00	.00	.00	.02	.08	10.54		0	0	0		0		0	0	0	0	0	0	0
8/6/2024	.44	.20	.68	.60	.06	.12	61.76		0	0	41,149	7,764	0		0	0	0	0	0	0	48,913
8/7/2024	.67	.16	.40	.24	.03	.08	65.00		0	0	15,618	8,118	0		0	0	0	0	0	0	23,736
8/8/2024	.19	.08	.17	.24	.01	.04	26.58		0	0	0		0		0	0	0	0	0	0	0
8/9/2024	.24	.17	.21	.96	.00		46.21		0	0	21,410	3,358	0		0	0	0	0	0	0	24,767
8/10/2024	.26	.14	.24	.60	.03	.08	29.16		0	0	0		0		0	0	0	0	0	0	0
8/11/2024	.00	.00	.00	.00	.01	.04	10.24		0	0	0		0		0	0	0	0	0	0	0
8/12/2024	.00	.00	.00	.00	.03	.08	12.98		0	0	0		0		0	0	0	0	0	0	0
8/13/2024	.00	.00	.00	.00	.00		11.56		0	0	0		0		0	0	0	0	0	0	0
8/14/2024	.00	.00	.00	.00	.02	.08	12.34		0	0	0		0		0	0	0	0	0	0	0
8/15/2024	.42	.40	.37	1.32	.00		65.00		0	0	15,458	37,378	0		0	0	0	0	2,281	0	55,118
8/16/2024	.00	.00	.00	.00	.02	.08	12.88		0	0	0		0		0	0	0	0	0	0	0
8/17/2024	.00	.00	.00	.00	.03	.08	9.97		0	0	0		0		0	0	0	0	0	0	0
8/18/2024	.23	.14	.21	.36	.00		42.12		0	0	0		0		0	0	0	0	0	0	0
8/19/2024	.78	.46	.54	1.32	.02	.08	62.30		0	0	11,823	1,958	0		0	0	0	0	0	0	13,781
8/20/2024	.00	.00	.00	.00	.00		11.83		0	0	0		0		0	0	0	0	0	0	0
8/21/2024	.00	.00	.05	.36	.01	.04	12.29		0	0	0		0		0	0	0	0	0	0	0
8/22/2024	.00	.00	.00	.00	.00		10.92		0	0	0		0		0	0	0	0	0	0	0
8/23/2024	.00	.00	.00	.00	.00		11.59		0	0	0		0		0	0	0	0	0	0	0
8/24/2024	.00	.00	.00	.00	.03	.08	10.02		0	0	0		0		0	0	0	0	0	0	0
8/25/2024	.00	.00	.00	.00	.00		10.34		0	0	0		0		0	0	0	0	0	0	0
8/26/2024	.22	.20	.00	.00	.02	.08	10.80		0	0	0		0		0	0	0	0	0	0	0
8/27/2024	.00	.00	.00	.00	.00		10.93		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM						
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon		Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway		Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street		Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24		021A	021B	021F	021H	38		13	19	40	41		32	34	39	
8/28/2024	.00	.00	.00	.00	.02	.04	10.84			0	0	0		0			0	0	0		0	0	0	0
8/29/2024	.00	.00	.00	.00	.00		9.86			0	0	0		0			0	0	0		0	0	0	0
8/30/2024	.00	.00	.00	.00	.03	.08	10.08			0	0	0		0			0	0	0		0	0	0	0
8/31/2024	.06	.06	.04	.24	.00		9.57			0	0	0		0			0	0	0		0	0	0	0
9/1/2024	.00	.00	.00	.00	.00		13.16			0	0	0		0			0	0	0		0	0	0	0
9/2/2024	.00	.00	.00	.00	.00		11.18			0	0	0		0			0	0	0		0	0	0	0
9/3/2024	.00	.00	.00	.00	.00		11.70			0	0	0		0			0	0	0		0	0	0	0
9/4/2024	.00	.00	.00	.00	.00		10.71			0	0	0		0			0	0	0		0	0	0	0
9/5/2024	.00	.00	.00	.00	.00		10.14			0	0	0		0			0	0	0		0	0	0	0
9/6/2024	.00	.00	.00	.00	.00		10.01			0	0	0		0			0	0	0		0	0	0	0
9/7/2024	.00	.00	.00	.00	.04	.08	9.46			0	0	0		0			0	0	0		0	0	0	0
9/8/2024	.00	.00	.00	.00	.00		9.89			0	0	0		0			0	0	0		0	0	0	0
9/9/2024	.00	.00	.00	.00	.00		9.88			0	0	0		0			0	0	0		0	0	0	0
9/10/2024	.00	.00	.00	.00	.00		10.33			0	0	0		0			0	0	0		0	0	0	0
9/11/2024	.00	.00	.00	.00	.00		10.39			0	0	0		0			0	0	0		0	0	0	0
9/12/2024	.00	.00	.00	.00	.00		9.55			0	0	0		0			0	0	0		0	0	0	0
9/13/2024	.00	.00	.00	.00	.00		9.65			0	0	0		0			0	0	0		0	0	0	0
9/14/2024	.00	.00	.00	.00	.00		10.24			0	0	0		0			0	0	0		0	0	0	0
9/15/2024	.00	.00	.00	.00	.00		11.11			0	0	0		0			0	0	0		0	0	0	0
9/16/2024	.00	.00	.00	.00	.00		11.17			0	0	0		0			0	0	0		0	0	0	0
9/17/2024	.00	.00	.00	.00	.00		9.88			0	0	0		0			0	0	0		0	0	0	0
9/18/2024	.00	.00	.00	.00	.00		10.10			0	0	0		0			0	0	0		0	0	0	0
9/19/2024	.00	.00	.00	.00	.00		9.86			0	0	0		0			0	0	0		0	0	0	0
9/20/2024	.03	.02	.00	.00	.03	.04	10.68			0	0	0		0			0	0	0		0	0	0	0
9/21/2024	.58	.09	.48	.12	.55	.08	26.68			0	0	0		0			0	0	0		0	0	0	0
9/22/2024	.07	.05	.00	.00	.13	.08	13.07			0	0	0		0			0	0	0		0	0	0	0
9/23/2024	.00	.00	.00	.00	.00		10.15			0	0	0		0			0	0	0		0	0	0	0
9/24/2024	.00	.00	.00	.00	.00		10.12			0	0	0		0			0	0	0		0	0	0	0
9/25/2024	.00	.00	.00	.00	.00		10.09			0	0	0		0			0	0	0		0	0	0	0
9/26/2024	.49	.15	.12	.12	.39	.08	43.21			0	0	0		0			0	0	0		0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
9/27/2024	.00	.00	.00	.00	.17	.08	15.31		0	0	0		0		0	0	0	0	0	0	0
9/28/2024	.00	.00	.00	.00	.03	.08	9.55		0	0	0		0		0	0	0	0	0	0	0
9/29/2024	.00	.00	.00	.00	.00		9.79		0	0	0		0		0	0	0	0	0	0	0
9/30/2024	.00	.00	.00	.00	.00		10.02		0	0	0		0		0	0	0	0	0	0	0
10/1/2024	.00	.00	.00	.00	.00		10.44		0	0	0		0		0	0	0	0	0	0	0
10/2/2024	.00	.00	.00	.00	.00		10.21		0	0	0		0		0	0	0	0	0	0	0
10/3/2024	.00	.00	.00	.00	.00		9.91		0	0	0		0		0	0	0	0	0	0	0
10/4/2024	.00	.00	.00	.00	.00		11.40		0	0	0		0		0	0	0	0	0	0	0
10/5/2024	.01	.01	.00	.00	.01	.04	10.04		0	0	0		0		0	0	0	0	0	0	0
10/6/2024	.00	.00	.00	.00	.00		9.92		0	0	0		0		0	0	0	0	0	0	0
10/7/2024	.36	.17	.24	.12	.41	.16	36.90		0	0	0		0		0	0	0	0	0	0	0
10/8/2024	.00	.00	.00	.00	.00		11.02		0	0	0		0		0	0	0	0	0	0	0
10/9/2024	.00	.00	.00	.00	.00		9.36		0	0	0		0		0	0	0	0	0	0	0
10/10/2024	.00	.00	.00	.00	.00		9.79		0	0	0		0		0	0	0	0	0	0	0
10/11/2024	.00	.00	.00	.00	.00		12.31		0	0	0		0		0	0	0	0	0	0	0
10/12/2024	.00	.00	.00	.00	.00		10.00		0	0	0		0		0	0	0	0	0	0	0
10/13/2024	.14	.05	.00	.00	.20	.08	13.15		0	0	0		0		0	0	0	0	0	0	0
10/14/2024	.08	.05	.00	.00	.16	.12	20.98		0	0	0		0		0	0	0	0	0	0	0
10/15/2024	.00	.00	.00	.00	.00		9.72		0	0	0		0		0	0	0	0	0	0	0
10/16/2024	.00	.00	.00	.00	.00		9.87		0	0	0		0		0	0	0	0	0	0	0
10/17/2024	.00	.00	.00	.00	.00		10.96		0	0	0		0		0	0	0	0	0	0	0
10/18/2024	.00	.00	.00	.00	.00		10.94		0	0	0		0		0	0	0	0	0	0	0
10/19/2024	.00	.00	.00	.00	.00		9.12		0	0	0		0		0	0	0	0	0	0	0
10/20/2024	.00	.00	.00	.00	.00		9.70		0	0	0		0		0	0	0	0	0	0	0
10/21/2024	.00	.00	.00	.00	.00		9.86		0	0	0		0		0	0	0	0	0	0	0
10/22/2024	.00	.00	.00	.00	.00		11.37		0	0	0		0		0	0	0	0	0	0	0
10/23/2024	.00	.00	.00	.00	.00		10.43		0	0	0		0		0	0	0	0	0	0	0
10/24/2024	.00	.00	.00	.00	.00		10.88		0	0	0		0		0	0	0	0	0	0	0
10/25/2024	.00	.00	.00	.00	.00		11.20		0	0	0		0		0	0	0	0	0	0	0
10/26/2024	.00	.00	.00	.00	.00		11.09		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
10/27/2024	.00	.00	.00	.00	.00		9.96		0	0	0		0		0	0	0	0	0	0	0
10/28/2024	.00	.00	.00	.00	.00		12.47		0	0	0		0		0	0	0	0	0	0	0
10/29/2024	.01	.01	.00	.00	.01	.04	10.94		0	0	0		0		0	0	0	0	0	0	0
10/30/2024	.25	.10	.12	.12	.29	.08	26.14		0	0	0		0		0	0	0	0	0	0	0
10/31/2024	.00	.00	.00	.00	.00		10.09		0	0	0		0		0	0	0	0	0	0	0
11/1/2024	.00	.00	.00	.00	.00		9.93		0	0	0		0		0	0	0	0	0	0	0
11/2/2024	.00	.00	.00	.00	.00		10.64		0	0	0		0		0	0	0	0	0	0	0
11/3/2024	.00	.00	.00	.00	.00		9.39		0	0	0		0		0	0	0	0	0	0	0
11/4/2024	.00	.00	.00	.00	.00		10.27		0	0	0		0		0	0	0	0	0	0	0
11/5/2024	.00	.00	.00	.00	.00		10.08		0	0	0		0		0	0	0	0	0	0	0
11/6/2024	.00	.00	.00	.00	.00		9.93		0	0	0		0		0	0	0	0	0	0	0
11/7/2024	.00	.00	.00	.00	.00		10.57		0	0	0		0		0	0	0	0	0	0	0
11/8/2024	.00	.00	.00	.00	.00		11.12		0	0	0		0		0	0	0	0	0	0	0
11/9/2024	.00	.00	.00	.00	.00		10.06		0	0	0		0		0	0	0	0	0	0	0
11/10/2024	.02	.01	.06	.12	.09	.08	10.42		0	0	0		0		0	0	0	0	0	0	0
11/11/2024	.08	.03	.07	.12	.19	.08	9.83		0	0	0		0		0	0	0	0	0	0	0
11/12/2024	.00	.00	.00	.00	.00		10.65		0	0	0		0		0	0	0	0	0	0	0
11/13/2024	.00	.00	.00	.00	.00		11.24		0	0	0		0		0	0	0	0	0	0	0
11/14/2024	.00	.00	.00	.00	.00		11.62		0	0	0		0		0	0	0	0	0	0	0
11/15/2024	.00	.00	.00	.00	.00		13.39		0	0	0		0		0	0	0	0	0	0	0
11/16/2024	.00	.00	.00	.00	.00		12.17		0	0	0		0		0	0	0	0	0	0	0
11/17/2024	.00	.00	.00	.00	.00		10.92		0	0	0		0		0	0	0	0	0	0	0
11/18/2024	.00	.00	.00	.00	.00		11.50		0	0	0		0		0	0	0	0	0	0	0
11/19/2024	.00	.00	.00	.00	.00		11.20		0	0	0		0		0	0	0	0	0	0	0
11/20/2024	.00	.00	.00	.00	.00		11.89		0	0	0		0		0	0	0	0	0	0	0
11/21/2024	.00	.00	.63	.24	.77	.12	36.55		0	0	0		0		0	0	0	0	0	0	0
11/22/2024	.32	.12	.97	.48	1.07	.12	55.44		0	0	11,483		0		0	0	0	0	0	0	11,483
11/23/2024	.53	.08	.46	.12	.62	.08	34.31		0	0	0		0		0	0	0	0	0	0	0
11/24/2024	.00	.00	.00	.00	.00		11.71		0	0	0		0		0	0	0	0	0	0	0
11/25/2024	.00	.00	.00	.00	.00		11.57		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM			
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon	Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway	Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street	Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24	021A	021B	021F	021H	38	13	19	40	41	32	34	39	
11/26/2024	.28	.09	.32	.24	.38	.08	33.88		0	0	0		0		0	0	0	0	0	0	0
11/27/2024	.00	.00	.00	.00	.01	.04	11.88		0	0	0		0		0	0	0	0	0	0	0
11/28/2024	.67	.14	.73	.24	1.06	.08	56.26		0	0	0		0		0	0	0	0	0	0	0
11/29/2024	.00	.00	.00	.00	.00		13.21		0	0	0		0		0	0	0	0	0	0	0
11/30/2024	.00	.00	.00	.00	.00		11.68		0	0	0		0		0	0	0	0	0	0	0
12/1/2024	.00	.00	.00	.00	.00		11.99		0	0	0		0		0	0	0	0	0	0	0
12/2/2024	.00	.00	.00	.00	.00		11.71		0	0	0		0		0	0	0	0	0	0	0
12/3/2024	.00	.00	.00	.00	.00		12.21		0	0	0		0		0	0	0	0	0	0	0
12/4/2024	.04	.04	.04	.12	.07	.08	11.57		0	0	0		0		0	0	0	0	0	0	0
12/5/2024	.20	.04	.22	.12	.33	.08	15.48		0	0	0		0		0	0	0	0	0	0	0
12/6/2024	.00	.00	.00	.00	.02	.04	12.15		0	0	0		0		0	0	0	0	0	0	0
12/7/2024	.00	.00	.00	.00	.00		12.19		0	0	0		0		0	0	0	0	0	0	0
12/8/2024	.02	.01	.00	.00	.04	.08	13.23		0	0	0		0		0	0	0	0	0	0	0
12/9/2024	.44	.07	.38	.24	.41	.08	38.17		0	0	0		0		0	0	0	0	0	0	0
12/10/2024	.03	.02	.03	.12	.17	.08	14.50		0	0	0		0		0	0	0	0	0	0	0
12/11/2024	2.20	.20	1.42	.60	1.59	.12	65.00		0	0	86,549	17,306	0		0	0	0	0	0	0	103,854
12/12/2024	.00	.00	.01	.12	.20	.08			0	0	0		0		0	0	0	0	0	0	0
12/13/2024	.00	.00	.00	.00	.19	.08	15.00		0	0	0		0		0	0	0	0	0	0	0
12/14/2024	.00	.00	.00	.00	.19	.08	14.00		0	0	0		0		0	0	0	0	0	0	0
12/15/2024	.00	.00	.00	.00	.15	.08	14.14		0	0	0		0		0	0	0	0	0	0	0
12/16/2024	.00	.00	.01	.12	.04	.04	13.80		0	0	0		0		0	0	0	0	0	0	0
12/17/2024	.17	.07	.09	.12	.25	.08	21.77		0	0	0		0		0	0	0	0	0	0	0
12/18/2024	.06	.06	.16	.12	.28	.08	35.55		0	0	0		0		0	0	0	0	0	0	0
12/19/2024	.08	.04	.03	.12	.20	.08	23.73		0	0	0		0		0	0	0	0	0	0	0
12/20/2024	.09	.05	.00	.00	.00		13.36		0	0	0		0		0	0	0	0	0	0	0
12/21/2024	.00	.00	.00	.00	.00		14.94		0	0	0		0		0	0	0	0	0	0	0
12/22/2024	.00	.00	.00	.00	.00		14.57		0	0	0		0		0	0	0	0	0	0	0
12/23/2024	.00	.00	.00	.00	.00		14.17		0	0	0		0		0	0	0	0	0	0	0
12/24/2024	.02	.02	.02	.12	.00		15.45		0	0	0		0		0	0	0	0	0	0	0
12/25/2024	.00	.00	.00	.00	.00		14.94		0	0	0		0		0	0	0	0	0	0	0

							Upper Siphon		MIDDLE SIPHON SYSTEM					LOWER SIPHON SYSTEM				BRADFORD SYSTEM						
	Lawrence Airport Rain Gauge		Middle Siphon Rain Gauge		WWTF Rain Gauge			Upper Siphon		Middle Siphon	Emerson Street	Center Barrel Locke Street	Winter and Hale Street	High Street Broadway		Lower Siphon	Main Street North	Bethany Avenue	Chestnut Street		Bradford Avenue	Middlesex Street	South Webster	TOTAL
Date	Total Rain (in)	Peak Rain (in/ hr)	Total Rain (in)	Peak Rain (in/hr)	Total Rain (in)	Peak Rain (in/hr)	Max Flow WWTF (mgd)	24		021A	021B	021F	021H	38		13	19	40	41		32	34	39	
12/26/2024	.00	.00	.00	.00	.07	.08	14.93			0	0	0		0			0	0	0		0	0	0	0
12/27/2024	.00	.00	.00	.00	.00		14.56			0	0	0		0			0	0	0		0	0	0	0
12/28/2024	.04	.02	.04	.12	.05	.04	15.85			0	0	0		0			0	0	0		0	0	0	0
12/29/2024	.00	.00	.01	.12	.03	.04	14.71			0	0	0		0			0	0	0		0	0	0	0
12/30/2024	.59	.27	.51	.72	.59	.08	61.58			0	0	64,455	4,656	0			0	0	0		0	0	0	69,111
12/31/2024	.00	0	0	0	.00	0	0			0	0	0	0	0		0	0	0	0		0	0	0	0
Volume TOTALS								2,124,383		6,566,035	0	3,597,080	1,993,021	1,080		4,921,514	0	121,021	59,927		69,569	3,853,253	17,670	23,324,553
Number of Activations								4		8	0	32	25	1		5	0	6	6		3	10	2	

APPENDIX B
CSO MONTHLY ACTIVATION

UPPER SIPHON SYSTEM			MIDDLE SIPHON SYSTEM							LOWER SIPHON SYSTEM				BRADFORD SYSTEM		
						Outfall 21H		Outfall 38								
Monthly Parameters	Outfall#	024	021A	021B	021F	021G	21 H	037	038	013	019	040	041	032	034	039
	CSO Outfall	Upper Siphon	Middle Siphon	Emerson St.	Locke St	Winter St.	Winter St. Hale St.	Broadway	High St.	Lower Siphon	Main St. North	Bethany Ave.	Chestnut St.	Bradford Ave.	Middlesex St.	South Webster
	Latitude	42.77	42.77	42.77	42.78		42.78		42.78	42.77	42.77	42.77	42.77	42.77	42.77	42.77
	Longitude	71.09	71.08	71.08	71.08		71.09		71.09	71.06	71.08	71.07	71.07	71.09	71.08	71.07
	Receiving Water	Merrimack River	Little River	Little River	Little River	Little River	Little River	Little River	Little River	Merrimack River	Merrimack River	Merrimack River	Merrimack River	Merrimack River	Merrimack River	Merrimack River
January, 2024	Total Flow	1,452,111	4,331,754	-	1,987,528	1,976	1,073,080	-	-	3,849,219	-	24,420	12,177	49,913	1,875,788	10,538
	Total Hrs	3.58	15.00		21.41	.17	14.25			5.42		.42	.42	.42	14.83	
	# Events	1.00	2.00	.00	4.00	1.00	2.00	.00	.00	2.00	.00	1.00	1.00	1.00	2.00	2.08
February, 2024	Total Flow		-	-	-	-	-	-	-		-	-	-		-	-
	Total Hrs															
	# Events	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00
March, 2024	Total Flow	75,837	1,592,444	-	912,476	-	223,896	-	-	1,072,295	-	-	-		1,819,892	-
	Total Hrs	.75	6.00		23.50		7.08			2.58					5.33	
	# Events	1.00	3.00	.00	7.00	.00	5.00	.00	.00	3.00		.00	.00	.00	3.00	.00
April, 2024	Total Flow		-	-	74,167	-	54,514	-	-		-	-	-		-	-
	Total Hrs				6.00		3.33									
	# Events	.00	.00	.00	2.00	.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
May, 2024	Total Flow		46,927	-	193,493	69	164,437	-	-		-	16,813	4,830		64,347	-
	Total Hrs		.75		4.75	.08	1.17					.16	.16		.83	
	# Events	.00	1.00	.00	5.00	1.00	1.17	.00	.00	.00	.00	2.00	2.00	.00	2.00	.00
June, 2024	Total Flow	151899.00	164979.00	.00	42281.00	920.00	130469.00	.00	.00		.00	20392.00	10351.00	13205.00	38069.00	7132.00
	Total Hrs	.58	.33		.58	.17	.50					.17	.17	.08	.25	.17

UPPER SIPHON SYSTEM			MIDDLE SIPHON SYSTEM							LOWER SIPHON SYSTEM				BRADFORD SYSTEM		
						Outfall 21H		Outfall 38								
Monthly Parameters	Outfall#	024	021A	021B	021F	021G	21 H	037	038	013	019	040	041	032	034	039
	CSO Outfall	Upper Siphon	Middle Siphon	Emerson St.	Locke St	Winter St.	Winter St. Hale St.	Broadway	High St.	Lower Siphon	Main St. North	Bethany Ave.	Chestnut St.	Bradford Ave.	Middlesex St.	South Webster
	# Events	1.00	1.00	.00	1.00	1.00	1.00	.00	.00	.00	.00		1.00	1.00	1.00	1.00
July, 2024	Total Flow		-	-	45,913	-	37,278	-	-		-	4,003	8,736		-	-
	Total Hrs				.67		.33					3.17	3.17			
	# Events	.00	.00	.00	3.00	.00	3.00	.00	.00	.00	.00	1.00	1.00	.00	.00	.00
August, 2024	Total Flow	444,536	429,931	-	178,736	1,965	283,444	-	1,080		-	55,392	23,833	6,451	55,156	-
	Total Hrs	.33	.42		20.75	.25	17.74		.08			.17	.25	.08	.41	
	# Events	1.00	1.00	.00	7.00	2.00	7.00	.00	1.00		.00	1.00	1.00	1.00	2.00	.00
September, 2024	Total Flow		-	-	-	-	-	-	-		-	-	-		-	-
	Total Hrs															
	# Events	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00	.00
October, 2024	Total Flow		-	-	-	-	-	-	-		-	-	-		-	-
	Total Hrs															
	# Events	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
November, 2024	Total Flow		-	-	11,483	-	-	-	-		-	-	-		-	-
	Total Hrs				.50											
	# Events	.00	.00	.00	1.00	.00		.00	.00	.00	.00	.00	.00	.00		.00
December, 2024	Total Flow		-	-	151,004	-	21,962	-	-		-	-	-		-	-
	Total Hrs				18.83		16.83									
	# Events	.00	.00	.00	2.00	.00	.17		.00	.00	.00	.00	.00	.00	.00	.00

Blank NO

DISCHARGE

APPENDIX C

ACTIVATION PER STORM EVENT

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
1/9/2024	13	LOWER SIPHON					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	19	Main St North					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	24	UPPER SIPHON					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	32	Bradford Ave					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	34	Middlesex St					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	39	South Webster					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	38	High St.					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	40	Bethany Ave					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	41	Chestnut St					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	021A	Middle Siphon					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	021B	Emerson Street					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	021F	Locke St	01/09/2024 23:55	01/09/2024 23:55	684	.08	.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
1/9/2024	021H	Winter St. Hale st					.70	.15	6.00	.12	.58	.36	3.92	.15	1.01	.16	5.00	.20
			STORM	TOTALS:	684													
1/10/2024	13	LOWER SIPHON	01/10/2024 01:50	01/10/2024 05:45	3,485,500	3.92	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	19	Main St North					1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	24	UPPER SIPHON	01/10/2024 02:10	01/10/2024 05:45	1,452,111	3.58	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	32	Bradford Ave	01/10/2024 03:30	01/10/2024 03:55	49,913	.42	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	34	Middlesex St	01/10/2024 01:55	01/10/2024 13:30	1,604,726	11.58	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	38	High St.					1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	39	South Webster	01/10/2024 03:30	01/10/2024 05:35	10,538	2.08	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	40	Bethany Ave	01/10/2024 03:30	01/10/2024 03:55	24,420	.42	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	41	Chestnut St	01/10/2024 03:30	01/10/2024 03:55	12,177	.42	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	021A	Middle Siphon	01/10/2024 01:55	01/10/2024 13:30	3,864,028	11.58	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	021B	Emerson Street					1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	021F	Locke St	01/10/2024 00:00	01/10/2024 13:45	1,522,191	13.75	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
1/10/2024	021H	Winter St. Hale st	01/10/2024 01:10	01/10/2024 09:10	989,528	8.00	1.74	.64	8.00	.22	1.42	1.44	6.00	.24	1.84	.12	8.50	.22
			STORM	TOTALS:	13,015,132													
1/13/2024	13	LOWER SIPHON	01/13/2024 07:45	01/13/2024 09:15	363,719	1.50	1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	19	Main St North					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	24	UPPER SIPHON					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	32	Bradford Ave					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	34	Middlesex St	01/13/2024 08:00	01/13/2024 11:15	271,062	3.25	1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
1/13/2024	38	High St.					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	39	South Webster					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	40	Bethany Ave					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	41	Chestnut St					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	021A	Middle Siphon	01/13/2024 08:00	01/13/2024 11:25	467,726	3.42	1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	021B	Emerson Street					1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	021F	Locke St	01/13/2024 04:55	01/13/2024 11:30	439,764	6.58	1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
1/13/2024	021H	Winter St. Hale st	01/13/2024 05:00	01/13/2024 11:15	85,528	6.25	1.18	.23	10.00	.12	1.03	.48	5.83	.18	1.20	.12	8.00	.15
			STORM	TOTALS:	1,627,799													
1/26/2024	13	LOWER SIPHON					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	19	Main St North					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	24	UPPER SIPHON					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	32	Bradford Ave					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	34	Middlesex St					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	38	High St.					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	39	South Webster					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	40	Bethany Ave					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	41	Chestnut St					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	021A	Middle Siphon					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	021B	Emerson Street					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	021F	Locke St	01/26/2024 07:00	01/26/2024 08:00	24,889	1.00	.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
1/26/2024	021H	Winter St. Hale st					.67	.19	9.00	.07	.66	.36	4.33	.15	.80	.08	8.50	.09
			STORM	TOTALS:	24,889													
3/2/2024	13	LOWER SIPHON					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	19	Main St North					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	24	UPPER SIPHON					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	32	Bradford Ave					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	34	Middlesex St					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	38	High St.					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	39	South Webster					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	40	Bethany Ave					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	41	Chestnut St					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	021A	Middle Siphon					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	021B	Emerson Street					.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	021F	Locke St	03/02/2024 22:45	03/02/2024 23:55	48,160	1.17	.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
3/2/2024	021H	Winter St. Hale st	03/02/2024 23:45	03/02/2024 23:55	30,392	.17	.93	.26	9.00	.10	.96	.72	5.50	.17	.89	.12	8.50	.10
			STORM	TOTALS:	78,552													
3/3/2024	13	LOWER SIPHON					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	19	Main St North					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
3/3/2024	24	UPPER SIPHON					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	32	Bradford Ave					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	34	Middlesex St					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	38	High St.					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	39	South Webster					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	40	Bethany Ave					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	41	Chestnut St					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	021A	Middle Siphon					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	021B	Emerson Street					.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	021F	Locke St	03/03/2024 00:00	03/03/2024 00:10	10,139	.17	.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
3/3/2024	021H	Winter St. Hale st	03/03/2024 00:00	03/03/2024 00:05	16,781	.08	.09	.02	5.00	.02	.12	.12	1.00	.12	.43	.12	4.00	.11
			STORM	TOTALS:	26,920													
3/6/2024	13	LOWER SIPHON					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	19	Main St North					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	24	UPPER SIPHON					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	32	Bradford Ave					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	34	Middlesex St					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	38	High St.					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	39	South Webster					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	40	Bethany Ave					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	41	Chestnut St					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	021A	Middle Siphon					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	021B	Emerson Street					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	021F	Locke St	03/06/2024 23:50	03/06/2024 23:55	4,844	.08	.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
3/6/2024	021H	Winter St. Hale st					.00	.00	.00		.32	.36	2.00	.16	.29	.08	3.50	.08
			STORM	TOTALS:	4,844													
3/7/2024	13	LOWER SIPHON	03/07/2024 02:10	03/07/2024 02:45	146,985	.58	.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	19	Main St North					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	24	UPPER SIPHON					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	32	Bradford Ave					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	34	Middlesex St	03/07/2024 02:15	03/07/2024 03:50	278,830	1.58	.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	38	High St.					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	39	South Webster					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	40	Bethany Ave					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	41	Chestnut St					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	021A	Middle Siphon	03/07/2024 02:15	03/07/2024 03:55	347,663	1.67	.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	021B	Emerson Street					.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
3/7/2024	021F	Locke St	03/07/2024 00:00	03/07/2024 03:55	271,208	3.92	.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
3/7/2024	021H	Winter St. Hale st	03/07/2024 01:20	03/07/2024 03:25	37,271	2.08	.00	.00	.00		1.12	.48	5.42	.21	1.45	.12	13.50	.11
			STORM	TOTALS:	1,081,957													
3/10/2024	13	LOWER SIPHON	03/10/2024 03:45	03/10/2024 04:45	463,323	1.00	.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	19	Main St North					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	24	UPPER SIPHON					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	32	Bradford Ave					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	34	Middlesex St	03/10/2024 01:50	03/10/2024 04:10	1,264,458	2.33	.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	38	High St.					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	39	South Webster					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	40	Bethany Ave					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	41	Chestnut St					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	021A	Middle Siphon	03/10/2024 01:50	03/10/2024 04:15	721,045	2.42	.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	021B	Emerson Street					.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	021F	Locke St	03/10/2024 00:55	03/10/2024 03:55	236,108	3.00	.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
3/10/2024	021H	Winter St. Hale st	03/10/2024 01:00	03/10/2024 03:35	55,552	2.58	.00	.00	.00		.94	.36	4.50	.21	1.63	1.36	8.00	.20
			STORM	TOTALS:	2,740,486													
3/23/2024	13	LOWER SIPHON	03/23/2024 19:55	03/23/2024 20:55	461,987	1.00	.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	19	Main St North					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	24	UPPER SIPHON	03/23/2024 20:10	03/23/2024 20:55	75,837		.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	32	Bradford Ave					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	34	Middlesex St	03/23/2024 18:55	03/23/2024 20:20	276,604	1.42	.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	38	High St.					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	39	South Webster					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	40	Bethany Ave					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	41	Chestnut St					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	021A	Middle Siphon	03/23/2024 19:00	03/23/2024 20:55	523,736	1.92	.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	021B	Emerson Street					.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	021F	Locke St	03/23/2024 17:35	03/23/2024 21:00	303,010	3.42	.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
3/23/2024	021H	Winter St. Hale st	03/23/2024 17:55	03/23/2024 20:05	82,910	2.17	.00	.00	.00		2.15	.60	11.17	.19	2.23	.12	12.25	.18
			STORM	TOTALS:	1,724,084													
3/28/2024	13	LOWER SIPHON					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	19	Main St North					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	24	UPPER SIPHON					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	32	Bradford Ave					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	34	Middlesex St					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	38	High St.					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
3/28/2024	39	South Webster					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	40	Bethany Ave					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	41	Chestnut St					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	021A	Middle Siphon					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	021B	Emerson Street					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	021F	Locke St	03/28/2024 05:45	03/28/2024 17:30	36,326	11.75	1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
3/28/2024	021H	Winter St. Hale st					1.30	.18	21.00	.06	1.32	.24	10.08	.13	1.27	.08	17.50	.07
			STORM	TOTALS:	36,326													
4/4/2024	13	LOWER SIPHON					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	19	Main St North					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	24	UPPER SIPHON					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	32	Bradford Ave					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	34	Middlesex St					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	38	High St.					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	39	South Webster					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	40	Bethany Ave					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	41	Chestnut St					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	021A	Middle Siphon					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	021B	Emerson Street					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	021F	Locke St	04/04/2024 11:50	04/04/2024 14:15	48,014	2.42	1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
4/4/2024	021H	Winter St. Hale st					1.09	.14	21.00	.05	1.76	.24	13.50	.13	.74	.08	14.50	.05
			STORM	TOTALS:	48,014													
4/12/2024	13	LOWER SIPHON					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	19	Main St North					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	24	UPPER SIPHON					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	32	Bradford Ave					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	34	Middlesex St					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	38	High St.					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	39	South Webster					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	40	Bethany Ave					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	41	Chestnut St					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	021A	Middle Siphon					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	021B	Emerson Street					.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	021F	Locke St	04/12/2024 05:10	04/12/2024 08:45	26,153	3.58	.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
4/12/2024	021H	Winter St. Hale st	04/12/2024 05:15	04/12/2024 08:35	54,514	3.33	.66	.21	8.00	.08	.55	.72	2.67	.21	.85	.12	10.00	.09
			STORM	TOTALS:	80,667													
5/2/2024	13	LOWER SIPHON					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	19	Main St North					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	24	UPPER SIPHON					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	32	Bradford Ave					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
5/2/2024	34	Middlesex St					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	38	High St.					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	39	South Webster					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	40	Bethany Ave					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	41	Chestnut St					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	021A	Middle Siphon					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	021B	Emerson Street					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	021F	Locke St	05/02/2024 17:55	05/02/2024 18:00	3,208	.08	.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
5/2/2024	021H	Winter St. Hale st					.04	.02	3.00	.01	.14	.48	.58	.24	.20	.12	1.25	.16
			STORM	TOTALS:	3,208													
5/8/2024	13	LOWER SIPHON					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	19	Main St North					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	24	UPPER SIPHON					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	32	Bradford Ave					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	34	Middlesex St					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	38	High St.					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	39	South Webster					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	40	Bethany Ave					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	41	Chestnut St					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	021A	Middle Siphon					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	021B	Emerson Street					.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	021F	Locke St	05/08/2024 09:35	05/08/2024 11:15	23,920	1.67	.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
5/8/2024	021H	Winter St. Hale st	05/08/2024 09:40	05/08/2024 09:55	24,194	.25	.49	.26	5.00	.10	.53	.84	2.25	.24	.61	.12	4.00	.15
			STORM	TOTALS:	48,115													
5/21/2024	13	LOWER SIPHON					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	19	Main St North					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	24	UPPER SIPHON					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	32	Bradford Ave					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	34	Middlesex St					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	38	High St.					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	39	South Webster					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	40	Bethany Ave	05/21/2024 18:35	05/21/2024 18:40	15,906	.08	.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	41	Chestnut St	05/21/2024 18:35	05/21/2024 18:40	4,559	.08	.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	021A	Middle Siphon					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	021B	Emerson Street					.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	021F	Locke St	05/21/2024 18:30	05/21/2024 18:55	12,451	.42	.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
5/21/2024	021H	Winter St. Hale st	05/21/2024 18:35	05/21/2024 18:55	115,951	.33	.00	.00	.00		.30	1.20	.42	.72	.15	.08	1.75	.09
			STORM	TOTALS:	148,868													

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
5/27/2024	13	LOWER SIPHON					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	19	Main St North					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	24	UPPER SIPHON					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	32	Bradford Ave					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	34	Middlesex St	05/27/2024 22:35	05/27/2024 22:35	2,882	.08	.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	38	High St.					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	39	South Webster					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	40	Bethany Ave	05/27/2024 22:35	05/27/2024 22:35	906	.08	.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	41	Chestnut St	05/27/2024 22:35	05/27/2024 22:35	271	.08	.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	021A	Middle Siphon					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	021B	Emerson Street					.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	021F	Locke St	05/27/2024 22:40	05/27/2024 23:00	39,090	.33	.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
5/27/2024	021H	Winter St. Hale st	05/27/2024 22:40	05/27/2024 22:50	22,615	.17	.40	.34	3.00	.13	.28	.72	1.08	.26	.07	.08	1.00	.07
			STORM	TOTALS:	65,764													
5/30/2024	13	LOWER SIPHON					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	19	Main St North					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	24	UPPER SIPHON					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	32	Bradford Ave					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	34	Middlesex St	05/30/2024 10:15	05/30/2024 11:00	61,465	.75	1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	38	High St.					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	39	South Webster					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	40	Bethany Ave					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	41	Chestnut St					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	021A	Middle Siphon	05/30/2024 10:15	05/30/2024 11:00	46,927	.75	1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	021B	Emerson Street					1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	021F	Locke St	05/30/2024 08:30	05/30/2024 10:45	114,823	2.25	1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
5/30/2024	021H	Winter St. Hale st	05/30/2024 09:25	05/30/2024 09:50	1,747	.42	1.25	.34	9.00	.14	1.20	.36	6.00	.20	.01	.04	.25	.04
			STORM	TOTALS:	224,962													
6/20/2024	13	LOWER SIPHON					.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	19	Main St North					.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	24	UPPER SIPHON	06/20/2024 20:10	06/20/2024 20:45	151,899	.58	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	32	Bradford Ave	06/20/2024 19:15	06/20/2024 19:15	13,205	.08	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	34	Middlesex St	06/20/2024 19:10	06/20/2024 19:25	38,069	.25	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	38	High St.					.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	39	South Webster	06/20/2024 19:10	06/20/2024 19:20	7,132	.17	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	40	Bethany Ave	06/20/2024 19:10	06/20/2024 19:20	20,392	.17	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
6/20/2024	41	Chestnut St	06/20/2024 19:10	06/20/2024 19:20	10,351	.17	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	021A	Middle Siphon	06/20/2024 19:10	06/20/2024 19:30	164,979	.33	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	021B	Emerson Street					.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	021F	Locke St	06/20/2024 19:05	06/20/2024 19:40	42,281	.58	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
6/20/2024	021H	Winter St. Hale st	06/20/2024 19:05	06/20/2024 19:35	131,389	.50	.39	.22	4.00	.10	.81	2.28	2.08	.39	.70	.24	3.75	.19
			STORM	TOTALS:	579,698													
7/1/2024	13	LOWER SIPHON					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	19	Main St North					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	24	UPPER SIPHON					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	32	Bradford Ave					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	34	Middlesex St					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	38	High St.					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	39	South Webster					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	40	Bethany Ave	07/01/2024 11:55	07/01/2024 15:05	4,003	3.17	.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	41	Chestnut St	07/01/2024 11:55	07/01/2024 15:05	8,736	3.17	.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	021A	Middle Siphon					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	021B	Emerson Street					.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	021F	Locke St	07/01/2024 12:10	07/01/2024 12:15	10,903	.08	.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
7/1/2024	021H	Winter St. Hale st	07/01/2024 12:05	07/01/2024 12:10	9,128	.08	.00	.00	.00		.40	1.56	.67	.60	.49	.12	5.50	.09
			STORM	TOTALS:	32,771													
7/16/2024	13	LOWER SIPHON					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	19	Main St North					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	24	UPPER SIPHON					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	32	Bradford Ave					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	34	Middlesex St					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	38	High St.					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	39	South Webster					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	40	Bethany Ave					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	41	Chestnut St					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	021A	Middle Siphon					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	021B	Emerson Street					.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	021F	Locke St	07/16/2024 20:20	07/16/2024 20:35	26,406	.25	.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
7/16/2024	021H	Winter St. Hale st	07/16/2024 20:25	07/16/2024 20:30	3,326	.08	.74	.52	3.00	.25	.28	.60	1.08	.26	.13	.12	1.50	.09
			STORM	TOTALS:	29,733													
7/17/2024	13	LOWER SIPHON					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	19	Main St North					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	24	UPPER SIPHON					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
7/17/2024	32	Bradford Ave					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	34	Middlesex St					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	38	High St.					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	39	South Webster					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	40	Bethany Ave					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	41	Chestnut St					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	021A	Middle Siphon					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	021B	Emerson Street					.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	021F	Locke St	07/17/2024 18:55	07/17/2024 19:15	8,604	.33	.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
7/17/2024	021H	Winter St. Hale st	07/17/2024 19:00	07/17/2024 19:10	24,823	.17	.17	.13	2.00	.09	.18	.96	.58	.31	.03	.08	.50	.06
			STORM	TOTALS:	33,427													
8/2/2024	13	LOWER SIPHON					.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	19	Main St North					.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	24	UPPER SIPHON	08/02/2024 18:15	08/02/2024 18:35	444,536	.33	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	32	Bradford Ave	08/02/2024 17:25	08/02/2024 17:30	6,451	.08	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	34	Middlesex St	08/02/2024 17:20	08/02/2024 17:40	52,875	.33	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	38	High St.	08/02/2024 17:20	08/02/2024 17:20	1,080	.08	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	39	South Webster					.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	40	Bethany Ave	08/02/2024 17:20	08/02/2024 17:30	55,392	.17	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	41	Chestnut St	08/02/2024 17:20	08/02/2024 17:35	23,833	.25	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	021A	Middle Siphon	08/02/2024 17:20	08/02/2024 17:45	429,931	.42	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	021B	Emerson Street					.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	021F	Locke St	08/02/2024 17:30	08/02/2024 17:55	14,174	.42	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
8/2/2024	021H	Winter St. Hale st	08/02/2024 17:20	08/02/2024 17:50	225,375	.50	.33	.31	2.00	.17	.70	2.40	.58	1.20	.02	.08	.25	.08
			STORM	TOTALS:	1,253,647													
8/4/2024	13	LOWER SIPHON					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	19	Main St North					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	24	UPPER SIPHON					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	32	Bradford Ave					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	34	Middlesex St					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	38	High St.					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	39	South Webster					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	40	Bethany Ave					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	41	Chestnut St					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	021A	Middle Siphon					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	021B	Emerson Street					1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
8/4/2024	021F	Locke St	08/04/2024 13:25	08/04/2024 14:25	59,104	1.00	1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
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8/4/2024	021H	Winter St. Hale st	08/04/2024 13:50	08/04/2024 13:55	1,458	.08	1.38	1.08	4.00	.35	.54	1.20	1.67	.32	.02	.04	.25	.08
			STORM	TOTALS:	60,562													
8/6/2024	13	LOWER SIPHON					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	19	Main St North					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	24	UPPER SIPHON					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	32	Bradford Ave					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	34	Middlesex St					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	38	High St.					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	39	South Webster					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	40	Bethany Ave					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	41	Chestnut St					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	021A	Middle Siphon					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	021B	Emerson Street					.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	021F	Locke St	08/06/2024 07:05	08/06/2024 23:55	41,149	16.83	.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
8/6/2024	021H	Winter St. Hale st	08/06/2024 07:10	08/06/2024 23:55	7,764	16.75	.44	.20	8.00	.06	.68	.60	3.25	.21	.06	.12	.50	.12
			STORM	TOTALS:	48,913													
8/7/2024	13	LOWER SIPHON					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	19	Main St North					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	24	UPPER SIPHON					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	32	Bradford Ave					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	34	Middlesex St					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	38	High St.					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	39	South Webster					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	40	Bethany Ave					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	41	Chestnut St					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	021A	Middle Siphon					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	021B	Emerson Street					.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	021F	Locke St	08/07/2024 00:00	08/07/2024 01:05	15,618	1.08	.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
8/7/2024	021H	Winter St. Hale st	08/07/2024 00:00	08/07/2024 00:05	8,118	.08	.67	.16	7.00	.10	.40	.24	2.58	.15	.03	.08	.50	.06
			STORM	TOTALS:	23,736													
8/9/2024	13	LOWER SIPHON					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	19	Main St North					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	24	UPPER SIPHON					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	32	Bradford Ave					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	34	Middlesex St					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	38	High St.					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	39	South Webster					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	40	Bethany Ave					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	41	Chestnut St					.24	.17	4.00	.06	.21	.96	.83	.25			.00	

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
8/9/2024	021A	Middle Siphon					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	021B	Emerson Street					.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	021F	Locke St	08/09/2024 03:35	08/09/2024 03:50	21,410	.25	.24	.17	4.00	.06	.21	.96	.83	.25			.00	
8/9/2024	021H	Winter St. Hale st	08/09/2024 03:45	08/09/2024 03:45	3,358	.08	.24	.17	4.00	.06	.21	.96	.83	.25			.00	
			STORM	TOTALS:	24,767													
8/15/2024	13	LOWER SIPHON					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	19	Main St North					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	24	UPPER SIPHON					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	32	Bradford Ave					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	34	Middlesex St	08/15/2024 14:35	08/15/2024 14:35	2,281	.08	.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	38	High St.					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	39	South Webster					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	40	Bethany Ave					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	41	Chestnut St					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	021A	Middle Siphon					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	021B	Emerson Street					.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	021F	Locke St	08/15/2024 14:30	08/15/2024 14:45	15,458	.25	.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
8/15/2024	021H	Winter St. Hale st	08/15/2024 14:30	08/15/2024 14:40	37,378	.17	.42	.40	3.00	.14	.37	1.32	.75	.49			.00	
			STORM	TOTALS:	55,118													
8/19/2024	13	LOWER SIPHON					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	19	Main St North					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	24	UPPER SIPHON					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	32	Bradford Ave					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	34	Middlesex St					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	38	High St.					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	39	South Webster					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	40	Bethany Ave					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	41	Chestnut St					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	021A	Middle Siphon					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	021B	Emerson Street					.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	021F	Locke St	08/19/2024 11:40	08/19/2024 12:35	11,823	.92	.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
8/19/2024	021H	Winter St. Hale st	08/19/2024 11:40	08/19/2024 11:40	1,958	.08	.78	.46	7.00	.11	.54	1.32	1.83	.29	.02	.08	.25	.08
			STORM	TOTALS:	13,781													
11/22/2024	13	LOWER SIPHON					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	19	Main St North					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	24	UPPER SIPHON					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	32	Bradford Ave					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	34	Middlesex St					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12

s							Lawrence Airport NOAA Rain Gauge				Marginal Pumping Station Rain Gauge				ASPW Rain Gauge			
DATE	CSO Outfall No.	CSO Outfall Name	Overflow Start	Overflow End	CSO Volume (gals.)	CSO Duration (hr.)	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)	"Rain Total (in.)"	"Peak Hour Depth Intensity (in./hr.)"	"Storm Duration (hr.)"	"Daily Avg. Intensity (in./hr.)"	Rain Total (in.)	Peak Hour Depth Intensity (in./hr.)	Storm Duration (hr.)	Daily Avg. Intensity (in./hr.)
11/22/2024	38	High St.					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	39	South Webster					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	40	Bethany Ave					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	41	Chestnut St					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	021A	Middle Siphon					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	021B	Emerson Street					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	021F	Locke St	11/22/2024 02:25	11/22/2024 02:55	11,483	.50	.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
11/22/2024	021H	Winter St. Hale st					.32	.12	5.00	.06	.97	.48	6.33	.15	1.07	.12	9.25	.12
			STORM	TOTALS:	11,483													
12/11/2024	13	LOWER SIPHON					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	19	Main St North					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	24	UPPER SIPHON					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	32	Bradford Ave					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	34	Middlesex St					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	38	High St.					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	39	South Webster					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	40	Bethany Ave					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	41	Chestnut St					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	021A	Middle Siphon					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	021B	Emerson Street					2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	021F	Locke St	12/11/2024 05:10	12/11/2024 23:05	86,549	17.92	2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
12/11/2024	021H	Winter St. Hale st	12/11/2024 05:20	12/11/2024 22:00	17,306	16.67	2.20	.20	24.00	.09	1.42	.60	8.92	.16	1.59	.12	17.75	.09
			STORM	TOTALS:	103,854													
12/30/2024	13	LOWER SIPHON					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	19	Main St North					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	24	UPPER SIPHON					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	32	Bradford Ave					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	34	Middlesex St					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	38	High St.					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	39	South Webster					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	40	Bethany Ave					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	41	Chestnut St					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	021A	Middle Siphon					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	021B	Emerson Street					.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	021F	Locke St	12/30/2024 08:00	12/30/2024 08:55	64,455	.92	.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
12/30/2024	021H	Winter St. Hale st	12/30/2024 08:05	12/30/2024 08:15	4,656	.17	.59	.27	6.00	.10	.51	.72	2.25	.23	.59	.08	7.25	.08
			STORM	TOTALS:	69,111													

APPENDIX D
YEARLY RAINFALL DATA

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
1/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.31	0.08	3.25	0.10
1/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.22	0.08	3.00	0.07
1/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	0.10
1/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/5/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/6/2024	0.02	0.01	2.00	0.01	0.00	0.00	0.00		0.00		0.00	
1/7/2024	0.53	0.05	18.00	0.03	0.00	0.00	0.00		0.00		0.00	
1/8/2024	0.13	0.11	2.00	0.07	0.19	0.36	1.42	0.13	0.22	0.08	2.25	0.10
1/9/2024	0.70	0.15	6.00	0.12	0.58	0.36	3.92	0.15	1.01	0.16	5.00	0.20
1/10/2024	1.74	0.64	8.00	0.22	1.42	1.44	6.00	0.24	1.84	0.12	8.50	0.22
1/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/13/2024	1.18	0.23	10.00	0.12	1.03	0.48	5.83	0.18	1.20	0.12	8.00	0.15
1/14/2024	0.02	0.02	1.00	0.02	0.00	0.00	0.00		0.01	0.04	0.25	0.04
1/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/16/2024	0.28	0.05	13.00	0.02	0.00	0.00	0.00		0.00		0.00	
1/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.08	0.08	0.75	0.11
1/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.10	0.08	1.50	0.07
1/23/2024	0.02	0.02	1.00	0.02	0.02	0.12	0.17	0.12	0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
1/24/2024	0.42	0.09	13.00	0.03	0.51	0.12	4.25	0.12	0.68	0.08	7.75	0.09
1/25/2024	0.09	0.04	5.00	0.02	0.13	0.12	1.08	0.12	0.19	0.08	2.75	0.07
1/26/2024	0.67	0.19	9.00	0.07	0.66	0.36	4.33	0.15	0.80	0.08	8.50	0.09
1/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.04	0.50	0.06
1/28/2024	0.45	0.06	14.00	0.03	0.46	0.12	3.83	0.12	0.63	0.08	8.75	0.07
1/29/2024	0.06	0.02	4.00	0.02	0.19	0.12	1.58	0.12	0.18	0.08	3.00	0.06
1/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
1/31/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/3/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
2/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/5/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/6/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/10/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/13/2024	0.08	0.04	4.00	0.02	0.13	0.24	0.92	0.14	0.23	0.08	3.25	0.07
2/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.05	0.04	0.75	0.07

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
2/17/2024	0.01	0.01	1.00	0.01	0.00	0.00	0.00		0.00		0.00	
2/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/23/2024	0.16	0.05	9.00	0.02	0.12	0.12	1.00	0.12	0.31	0.08	5.25	0.06
2/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/26/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
2/27/2024	0.02	0.02	1.00	0.02	0.01	0.12	0.08	0.12	0.03	0.04	0.75	0.04
2/28/2024	0.18	0.12	5.00	0.04	0.26	0.24	2.08	0.12	0.24	0.12	2.25	0.11
2/29/2024	0.00	0.00	0.00		0.02	0.12	0.17	0.12	0.04	0.04	0.50	0.08
3/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/2/2024	0.93	0.26	9.00	0.10	0.96	0.72	5.50	0.17	0.89	0.12	8.50	0.10
3/3/2024	0.09	0.02	5.00	0.02	0.12	0.12	1.00	0.12	0.43	0.12	4.00	0.11
3/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04
3/5/2024	0.19	0.07	8.00	0.02	0.22	0.12	1.83	0.12	0.31	0.08	4.50	0.07
3/6/2024	0.00	0.00	0.00		0.32	0.36	2.00	0.16	0.29	0.08	3.50	0.08
3/7/2024	0.00	0.00	0.00		1.12	0.48	5.42	0.21	1.45	0.12	13.50	0.11
3/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/9/2024	0.00	0.00	0.00		0.21	0.24	1.50	0.14	0.19	0.08	1.50	0.13
3/10/2024	0.00	0.00	0.00		0.94	0.36	4.50	0.21	1.63	1.36	8.00	0.20
3/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
3/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/15/2024	0.00	0.00	0.00		0.11	0.12	0.92	0.12	0.18	0.08	2.50	0.07
3/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/17/2024	0.00	0.00	0.00		0.05	0.12	0.42	0.12	0.08	0.08	1.25	0.06
3/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.04	0.50	0.06
3/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/23/2024	0.00	0.00	0.00		2.15	0.60	11.17	0.19	2.23	0.12	12.25	0.18
3/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
3/26/2024	0.00	0.00	0.00		0.03	0.12	0.25	0.12	0.05	0.04	1.00	0.05
3/27/2024	0.12	0.07	4.00	0.03	0.16	0.24	1.25	0.13	0.22	0.08	3.50	0.06
3/28/2024	1.30	0.18	21.00	0.06	1.32	0.24	10.08	0.13	1.27	0.08	17.50	0.07
3/29/2024	0.45	0.09	12.00	0.04	0.40	0.12	3.33	0.12	0.61	0.08	12.00	0.05
3/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.34	0.08	5.75	0.06
3/31/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.08	0.08	1.75	0.05
4/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/3/2024	0.68	0.12	10.00	0.07	0.84	0.24	6.50	0.13	0.55	0.08	7.50	0.07
4/4/2024	1.09	0.14	21.00	0.05	1.76	0.24	13.50	0.13	0.74	0.08	14.50	0.05

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
4/5/2024	0.06	0.03	4.00	0.02	0.13	0.12	1.08	0.12	0.94	0.08	14.50	0.06
4/6/2024	0.14	0.05	8.00	0.02	0.12	0.12	1.00	0.12	0.62	0.08	10.75	0.06
4/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.08	0.08	1.25	0.06
4/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.64	0.12	4.00	0.16
4/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/10/2024	0.13	0.05	5.00	0.03	0.15	0.12	1.25	0.12	0.24	0.08	3.25	0.07
4/11/2024	0.09	0.02	7.00	0.01	0.08	0.12	0.67	0.12	0.16	0.08	2.75	0.06
4/12/2024	0.66	0.21	8.00	0.08	0.55	0.72	2.67	0.21	0.85	0.12	10.00	0.09
4/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/14/2024	0.04	0.02	3.00	0.01	0.03	0.12	0.25	0.12	0.06	0.08	1.00	0.06
4/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/18/2024	0.10	0.05	3.00	0.03	0.10	0.12	0.83	0.12	0.20	0.08	2.75	0.07
4/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04
4/20/2024	0.33	0.20	4.00	0.08	0.29	0.24	1.83	0.16	0.38	0.20	3.00	0.13
4/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/23/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/24/2024	0.04	0.02	3.00	0.01	0.04	0.24	0.25	0.16	0.10	0.08	1.50	0.07
4/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/26/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/28/2024	0.01	0.01	1.00	0.01	0.01	0.12	0.08	0.12	0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
4/29/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
4/30/2024	0.13	0.05	6.00	0.02	0.20	0.36	1.33	0.15	0.18	0.08	2.75	0.07
5/1/2024	0.23	0.06	6.00	0.04	0.18	0.12	1.50	0.12	0.28	0.08	4.75	0.06
5/2/2024	0.04	0.02	3.00	0.01	0.14	0.48	0.58	0.24	0.20	0.12	1.25	0.16
5/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/5/2024	0.36	0.09	9.00	0.04	0.34	0.12	2.83	0.12	0.46	0.08	6.75	0.07
5/6/2024	0.09	0.05	2.00	0.05	0.01	0.12	0.08	0.12	0.05	0.04	1.00	0.05
5/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/8/2024	0.49	0.26	5.00	0.10	0.53	0.84	2.25	0.24	0.61	0.12	4.00	0.15
5/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/10/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/15/2024	0.02	0.02	1.00	0.02	0.05	0.12	0.42	0.12	0.01	0.04	0.25	0.04
5/16/2024	0.28	0.06	8.00	0.04	0.17	0.12	1.42	0.12	0.26	0.08	4.25	0.06
5/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/18/2024	0.07	0.05	3.00	0.02	0.11	0.12	0.92	0.12	0.25	0.08	3.50	0.07
5/19/2024	0.00	0.00	0.00		0.04	0.12	0.33	0.12	0.06	0.08	1.00	0.06
5/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/21/2024	0.00	0.00	0.00		0.30	1.20	0.42	0.72	0.15	0.08	1.75	0.09
5/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.08	0.08	1.50	0.05

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
5/23/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
5/26/2024	0.10	0.06	3.00	0.03	0.12	0.36	0.67	0.18	0.23	0.08	3.75	0.06
5/27/2024	0.40	0.34	3.00	0.13	0.28	0.72	1.08	0.26	0.07	0.08	1.00	0.07
5/28/2024	0.07	0.07	1.00	0.07	0.03	0.12	0.25	0.12	0.13	0.08	2.00	0.07
5/29/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
5/30/2024	1.25	0.34	9.00	0.14	1.20	0.36	6.00	0.20	0.01	0.04	0.25	0.04
5/31/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.25	0.12
6/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.50	0.06
6/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.25	0.12
6/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/5/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/6/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
6/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/8/2024	0.00	0.00	0.00		0.01	0.12	0.08	0.12	0.00		0.00	
6/9/2024	0.24	0.11	5.00	0.05	0.22	0.24	1.75	0.13	0.00		0.00	
6/10/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/12/2024	0.00	0.00	0.00		0.01	0.12	0.08	0.12	0.00		0.00	
6/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/14/2024	0.25	0.12	3.00	0.08	0.14	0.36	0.83	0.17	0.00		0.00	
6/15/2024	0.04	0.04	1.00	0.04	0.02	0.12	0.17	0.12	0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
6/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
6/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.50	0.04
6/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.04	0.50	0.06
6/20/2024	0.39	0.22	4.00	0.10	0.81	2.28	2.08	0.39	0.70	0.24	3.75	0.19
6/21/2024	0.02	0.02	1.00	0.02	0.00	0.00	0.00		0.04	0.04	0.75	0.05
6/22/2024	0.10	0.07	2.00	0.05	0.14	0.36	0.83	0.17	0.11	0.08	1.50	0.07
6/23/2024	0.10	0.07	2.00	0.05	0.07	0.36	0.33	0.21	0.29	0.08	4.75	0.06
6/24/2024	0.12	0.10	2.00	0.06	0.16	0.48	1.08	0.15	0.23	0.12	2.00	0.12
6/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.50	0.04
6/26/2024	0.00	0.00	0.00		0.05	0.24	0.33	0.15	0.02	0.04	0.25	0.08
6/27/2024	0.13	0.08	3.00	0.04	0.04	0.12	0.33	0.12	0.15	0.12	2.00	0.08
6/28/2024	0.00	0.00	0.00		0.02	0.24	0.08	0.24	0.00		0.00	
6/29/2024	0.05	0.02	4.00	0.01	0.03	0.12	0.25	0.12	0.05	0.08	1.00	0.05
6/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.25	0.08
7/1/2024	0.00	0.00	0.00		0.40	1.56	0.67	0.60	0.49	0.12	5.50	0.09
7/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.06	0.08	0.75	0.08
7/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
7/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
7/5/2024	0.02	0.02	1.00	0.02	0.15	0.24	0.75	0.20	0.03	0.04	0.25	0.12
7/6/2024	0.00	0.00	0.00		0.02	0.12	0.17	0.12	0.02	0.08	0.25	0.08
7/7/2024	0.10	0.05	2.00	0.05	0.04	0.36	0.17	0.24	0.03	0.04	0.50	0.06
7/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.50	0.04
7/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
7/10/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.25	0.08
7/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.00	
7/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/13/2024	0.13	0.13	1.00	0.13	0.10	0.60	0.42	0.24	0.08	0.08	1.25	0.06
7/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.25	0.08
7/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04
7/16/2024	0.74	0.52	3.00	0.25	0.28	0.60	1.08	0.26	0.13	0.12	1.50	0.09
7/17/2024	0.17	0.13	2.00	0.09	0.18	0.96	0.58	0.31	0.03	0.08	0.50	0.06
7/18/2024	0.03	0.02	2.00	0.02	0.01	0.12	0.08	0.12	0.04	0.08	0.25	0.16
7/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
7/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/23/2024	0.27	0.25	3.00	0.09	0.00	0.00	0.00		0.00		0.00	
7/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04
7/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/26/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.50	0.04
7/28/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
7/29/2024	0.42	0.38	3.00	0.14	0.12	0.48	0.58	0.21	0.08	0.08	1.50	0.05
7/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
7/31/2024	0.21	0.10	4.00	0.05	0.06	0.24	0.42	0.14	0.02	0.04	0.25	0.08
8/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.50	0.04
8/2/2024	0.33	0.31	2.00	0.17	0.70	2.40	0.58	1.20	0.02	0.08	0.25	0.08

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
8/3/2024	0.05	0.02	4.00	0.01	0.02	0.12	0.17	0.12	0.04	0.04	0.50	0.08
8/4/2024	1.38	1.08	4.00	0.35	0.54	1.20	1.67	0.32	0.02	0.04	0.25	0.08
8/5/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
8/6/2024	0.44	0.20	8.00	0.06	0.68	0.60	3.25	0.21	0.06	0.12	0.50	0.12
8/7/2024	0.67	0.16	7.00	0.10	0.40	0.24	2.58	0.15	0.03	0.08	0.50	0.06
8/8/2024	0.19	0.08	5.00	0.04	0.17	0.24	1.33	0.13	0.01	0.04	0.25	0.04
8/9/2024	0.24	0.17	4.00	0.06	0.21	0.96	0.83	0.25	0.00		0.00	
8/10/2024	0.26	0.14	6.00	0.04	0.24	0.60	1.42	0.17	0.03	0.08	0.50	0.06
8/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04
8/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.25	0.12
8/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
8/15/2024	0.42	0.40	3.00	0.14	0.37	1.32	0.75	0.49	0.00		0.00	
8/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.08	0.25	0.08
8/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.25	0.12
8/18/2024	0.23	0.14	2.00	0.12	0.21	0.36	1.00	0.21	0.00		0.00	
8/19/2024	0.78	0.46	7.00	0.11	0.54	1.32	1.83	0.29	0.02	0.08	0.25	0.08
8/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/21/2024	0.00	0.00	0.00		0.05	0.36	0.25	0.20	0.01	0.04	0.25	0.04
8/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/23/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.50	0.06
8/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/26/2024	0.22	0.20	3.00	0.07	0.00	0.00	0.00		0.02	0.08	0.25	0.08

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
8/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/28/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.50	0.04
8/29/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
8/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.25	0.12
8/31/2024	0.06	0.06	1.00	0.06	0.04	0.24	0.17	0.24	0.00		0.00	
9/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/5/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/6/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.04	0.08	0.75	0.05
9/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/10/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
9/20/2024	0.03	0.02	2.00	0.02	0.00	0.00	0.00		0.03	0.04	0.50	0.06
9/21/2024	0.58	0.09	16.00	0.04	0.48	0.12	4.00	0.12	0.55	0.08	9.50	0.06
9/22/2024	0.07	0.05	3.00	0.02	0.00	0.00	0.00		0.13	0.08	2.00	0.07
9/23/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/26/2024	0.49	0.15	9.00	0.05	0.12	0.12	1.00	0.12	0.39	0.08	6.25	0.06
9/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.17	0.08	2.75	0.06
9/28/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.03	0.08	0.25	0.12
9/29/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
9/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/5/2024	0.01	0.01	1.00	0.01	0.00	0.00	0.00		0.01	0.04	0.25	0.04
10/6/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/7/2024	0.36	0.17	6.00	0.06	0.24	0.12	2.00	0.12	0.41	0.16	4.50	0.09
10/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/10/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/11/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/13/2024	0.14	0.05	7.00	0.02	0.00	0.00	0.00		0.20	0.08	3.50	0.06

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
10/14/2024	0.08	0.05	4.00	0.02	0.00	0.00	0.00		0.16	0.12	2.75	0.06
10/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/23/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/26/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/28/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
10/29/2024	0.01	0.01	1.00	0.01	0.00	0.00	0.00		0.01	0.04	0.25	0.04
10/30/2024	0.25	0.10	6.00	0.04	0.12	0.12	1.00	0.12	0.29	0.08	4.00	0.07
10/31/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/4/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/5/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/6/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
11/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/8/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/9/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/10/2024	0.02	0.01	2.00	0.01	0.06	0.12	0.50	0.12	0.09	0.08	1.50	0.06
11/11/2024	0.08	0.03	5.00	0.02	0.07	0.12	0.58	0.12	0.19	0.08	2.25	0.08
11/12/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/16/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/17/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/18/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/19/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/20/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/21/2024	0.00	0.00	0.00		0.63	0.24	5.00	0.13	0.77	0.12	9.75	0.08
11/22/2024	0.32	0.12	5.00	0.06	0.97	0.48	6.33	0.15	1.07	0.12	9.25	0.12
11/23/2024	0.53	0.08	11.00	0.05	0.46	0.12	3.83	0.12	0.62	0.08	9.50	0.07
11/24/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/26/2024	0.28	0.09	6.00	0.05	0.32	0.24	2.58	0.12	0.38	0.08	4.50	0.08
11/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.01	0.04	0.25	0.04
11/28/2024	0.67	0.14	11.00	0.06	0.73	0.24	5.50	0.13	1.06	0.08	12.75	0.08
11/29/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
11/30/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
12/1/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/2/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/3/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/4/2024	0.04	0.04	1.00	0.04	0.04	0.12	0.33	0.12	0.07	0.08	1.00	0.07
12/5/2024	0.20	0.04	10.00	0.02	0.22	0.12	1.83	0.12	0.33	0.08	6.00	0.06
12/6/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.02	0.04	0.25	0.08
12/7/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/8/2024	0.02	0.01	2.00	0.01	0.00	0.00	0.00		0.04	0.08	0.50	0.08
12/9/2024	0.44	0.07	8.00	0.06	0.38	0.24	3.08	0.12	0.41	0.08	6.50	0.06
12/10/2024	0.03	0.02	2.00	0.02	0.03	0.12	0.25	0.12	0.17	0.08	3.50	0.05
12/11/2024	2.20	0.20	24.00	0.09	1.42	0.60	8.92	0.16	1.59	0.12	17.75	0.09
12/12/2024	0.00	0.00	0.00		0.01	0.12	0.08	0.12	0.20	0.08	4.00	0.05
12/13/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.19	0.08	3.50	0.05
12/14/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.19	0.08	3.50	0.05
12/15/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.15	0.08	2.50	0.06
12/16/2024	0.00	0.00	0.00		0.01	0.12	0.08	0.12	0.04	0.04	0.50	0.08
12/17/2024	0.17	0.07	5.00	0.03	0.09	0.12	0.75	0.12	0.25	0.08	3.25	0.08
12/18/2024	0.06	0.06	1.00	0.06	0.16	0.12	1.33	0.12	0.28	0.08	3.50	0.08
12/19/2024	0.08	0.04	3.00	0.03	0.03	0.12	0.25	0.12	0.20	0.08	2.50	0.08
12/20/2024	0.09	0.05	3.00	0.03	0.00	0.00	0.00		0.00		0.00	
12/21/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/22/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/23/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/24/2024	0.02	0.02	1.00	0.02	0.02	0.12	0.17	0.12	0.00		0.00	

	Lawrence Airport				Middle Siphon Rain Gage				WWTF Rain Gage			
Date	Rain Total (in.)	Peak hour intensity (in/hr.)	Storm Duration (hours)	Daily Avg. Intensity (in/hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)	Rain Total (in.)	Peak Hour Intensity (in./hr.)	Storm Duration (hours)	Daily Avg. Intensity (in./hr.)
12/25/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/26/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.07	0.08	1.25	0.06
12/27/2024	0.00	0.00	0.00		0.00	0.00	0.00		0.00		0.00	
12/28/2024	0.04	0.02	3.00	0.01	0.04	0.12	0.33	0.12	0.05	0.04	0.75	0.07
12/29/2024	0.00	0.00	0.00		0.01	0.12	0.08	0.12	0.03	0.04	0.75	0.04
12/30/2024	0.59	0.27	6.00	0.10	0.51	0.72	2.25	0.23	0.59	0.08	7.25	0.08
12/31/2024	0.00	0.00	0.00			0.00	0.00		0.00			
Total	33.44				36.06				42.29			
Average	0.09	0.04	1.61	0.05	0.10	0.11	0.59	0.17	0.12	0.08	1.35	0.08
Maximum	2.20	1.08	24.00	0.35	2.15	2.40	13.50	1.20	2.23	1.36	17.75	0.22
Minimum		0.00	0.00	0.00		0.00	0.00	0.00		0.04		

APPENDIX E
CSO EMAIL NOTIFICATION

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