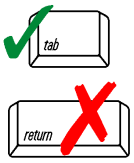
Massachusetts Department of Environmental Protection
Bureau of Water Resources – Wastewater Management Program
Combined Sewer Overflow Final Public Notification Plan

1. Facility Information

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



City of Fitchburg
Name of Permittee (Facility or System)

Mark McNamara	MMcNamara@fitchburgma.gov	978-829-1931
Permittee Contact Name	Email Address	Phone number

301 Broad Street, Fitchburg MA 01420
Permittee Mailing Address

MA0100986
NPDES Permit #

System contains (check all that apply):

☒ Collection system ☒ Pump station(s) above 1MGD ☒ Wastewater treatment plant

Location of WWTP discharge, if applicable: North Nashua River - 24 Lanides Lane, Fitchburg, MA 01420

☒ **Attach** a map with locations of discharges and affected waterbodies. Include other supporting information as needed.

2. Identification of Environmental Justice Populations

Are there Environmental Justice (EJ) populations that would potentially be affected by your wastewater treatment plant discharge(s) or a combined sewer overflow? See the Instructions file for more detail. ☒ Yes ☐ No

If there are EJ populations that would potentially be affected, do 25% or more of households lack English-language proficiency, and at least 5% of the population self-identify as "do not speak English very well"? See the Instructions file for more detail. ☒ Yes ☐ No

Provide a list of all languages that notifications will be translated into:

Spanish

Attach a description of how translations of public advisory notification and signage required by these regulations will be provided to EJ populations in the languages listed above. Include:

☒ A description of the third party or internal resource used to produce the translations

☒ A description of how the translation will be accessed by a public advisory notification recipient

☒ A description of how the translation will be accessed by someone reading the signage at CSO outfalls and public access points

3. Discharges, Overflows, and Public Notification Content

When public notification is required: (check box to affirm)

☒ Permittee is aware that all events covered under 314 CMR 16.03(1)(a-e) require a public notification.

Required content of public notification: (check box to affirm)

☒ Permittee is aware of all required information for public notifications under 314 CMR 16.04(10)

Attach a description of how the permittee will meet the requirements under 314 CMR 16.04(10), including the following:

- ■ How the permittee will determine or discover that an event has occurred
- ■ How the permittee will estimate the volume of discharges or overflows
- ■ How the permittee will estimate the commencement times, cessation times, and duration of discharges or overflows
- ■ A list of the waters and land areas affected by the permittee's discharges or overflows

Permittee can meet all requirements of 314 CMR 16.04(10) ■ Yes ☐ No

If no, please describe in detail which components the permittee is not able to meet and the measures needed to comply. Include a schedule for compliance.

Components that cannot be met

Schedule for compliance

4. Discovery and Required Timeline for Notification Following Discharge or Overflow

Requesting approval of an alternative method:

Is the permittee requesting approval to use a method other than metering to detect a discharge? (Requires approval of MassDEP Commissioner) ☐ Yes ■ No

- ☐ If yes, **attach** additional information on the method to detect a discharge
- ☐ If yes, **attach** a letter to the Commissioner with the approval request

Discovery of a Discharge or Overflow:

■ **Attach** a description of the steps the permittee will take to determine or discover that a discharge or overflow from its outfall or sewer system is occurring

Can the permittee discover an event under 314 CMR 16.04(5)(a), (b) & (c) within the required timeline? ■ Yes ☐ No

- ☐ If no, **attach** a description specifying the limitations to meeting these requirements and potential remedies. Include and a schedule for implementing potential remedies.

Issuance of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(4) to notify as soon as possible, but no later than two hours after discovery. ■ Yes ☐ No

- ☐ If no, **attach** a description specifying the limitations, potential remedies, and a schedule for implementing potential remedies.
- ☐ If no, **attach** a letter to the Commissioner requesting approval for a longer time period for notification.

Continuation of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(7) to issue an update 8 hours after the public advisory notification, if the initial notification does not indicate that the event has ceased. ■ Yes ☐ No

☐ If no, **attach** a description of which requirement cannot be met, what measures are needed for compliance, and a schedule for compliance.

Cessation of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(8) to continue issuing 8 hour updates for ongoing events, and notify within 2 hours of when the event ceases or is projected to cease. ■ Yes ☐ No

☐ If no, **attach** a description of which requirement cannot be met, what measures are needed for compliance, and a schedule for compliance.

Retraction of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(9) to issue a retraction if the permittee becomes aware within 48 hours of issuing the public advisory notification that no discharge or overflow actually occurred. ■ Yes ☐ No

☐ If no, **attach** a description of which requirement cannot be met, what measures are needed for compliance, and a schedule for compliance.

5. CSO Permittee Website

Does the permittee/sewer authority have an existing website or web page where relevant information is posted? ■ Yes ☐ No

If yes, provide the URL:

http://www.ci.fitchburg.ma.us/1002/CSO-Notification

Describe the subscriber-based system where the public can sign up to receive your notifications.

Fitchburg uses a notification system called CivicPlus that is linked to the CSO Notification Website. See Attachment 1.

Permittee's website is able to meet the requirements under 314 CMR 16.04(3) ■ Yes ☐ No

Permittee's website is able to meet the requirements under 314 CMR 16.05(1)(a-e) ■ Yes ☐ No

If any website requirements can not be met, specify limitations to meeting these requirements, potential remedies, and a schedule for compliance:

■ **Attach** a description of how the Permittee will update the website with requirements under 314 CMR 16.04(3) and 314 CMR 16.05(1)(a-e)

6. Signage

Permittee has consulted with the Board of Health/Health Departments in municipalities affected by their discharges for public access sign location points as required by 314 CMR 16.05(3)? ■ Yes ☐ No

■ **Attach** a list of locations where signs will be installed and dates when signs will be installed.

Permittee is able to meet the signage requirements under 314 CMR 16.05(2)? ■ Yes ☐ No

If no, specify limitations to meeting these requirements, potential remedies, and a schedule for compliance:

Permittee is able to meet the signage requirements under 314 CMR 16.05(3)? ■ Yes ☐ No

If no, specify limitations to meeting these requirements, potential remedies, and a schedule for compliance:

7. Public Notification Recipients

Media Outlets

List the two media outlets serving the area near the discharge or outfall that the permittee will contact to provide a public notification. Include name of organization, name of contact, and contact's email address or fax number.

Fitchburg Sentinel and Enterprise

Name of media outlet #1

Worcester Telegram & Gazette

Name of media outlet #2

If permittee has determined that an EJ population could potentially be affected by a discharge or overflow, which of these media outlets serves the EJ population? If neither does, then provide at least one additional news organization that primarily serves the EJ population(s) within the impacted municipalities. (Include name of organization, name of contact, and contact's email address or fax number.)

Vocero Hispano

Name of additional media outlet serving EJ population if neither media outlet above serves EJ population

■ **Attach** a description explaining how the identified media outlets serve potentially affected EJ populations.

See Instructions for list of **Required Public Notification Recipients** (314 CMR 16.04(4)(a)).

■ **Attach** a list of your required contacts.

8. Detection method maintenance

If metering is used, will the Permittee perform the requirements in 314 CMR 16.06(2)(b) below?

Calibrate metering equipment on an annual basis, at minimum ■ Yes ☐ No

Properly maintain metering equipment ■ Yes ☐ No

If models are used and approved, will the Permittee perform the following requirements in 314 CMR 16.06(2)(d) below?

Review and update the model input data as needed	☐ Yes	☐ No
Maintain any data collection equipment providing critical input to the model	☐ Yes	☐ No
Assess model predictions annually, at a minimum	☐ Yes	☐ No
Provide a description of actions taken in writing on or before March 1st of each year	☐ Yes	☐ No

9. Public Notice

Submit a public notice to the Environmental Monitor at the same time this plan is submitted to MassDEP. Indicate below that the permittee will submit the public notice as follows:

■ Email the public notice to MEPA@mass.gov at the same time the plan is submitted to MassDEP

■ Include in the body of the email, "Please publish the attached public notice as 'Notice of Combined Sewer Overflow (CSO) Final Public Notification Plan.'"

■ Attach the public notice to the email as a PDF

■ Permittee will place a public notice in at least one media outlet that serves the EJ population(s) in the municipalities impacted by the discharge. Indicate media outlet(s) below:

Vocero Hispano

Include the following in the Public Notice, required under 314 CMR 16.06(2):

■ A statement that a CSO Public Notification Plan has been prepared and submitted to the Department

■ A link to a website where an interested party can review the plan

■ A statement that written comments on the plan can be submitted to MassDEP and the permittee for a period of 30 days after the date of publication in the Environmental Monitor or media outlet, whichever date is later. Explicitly list the end date for submission of public comments

■ Translations of the Public Notice in languages most appropriate for neighborhoods within the impacted municipalities that are identified as environmental justice populations due to lacking English language proficiency

Certification

I attest that I have examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certifying statement. The information contained in this submittal is, to the best of my knowledge, true, accurate, and complete. I am fully authorized to make this attestation on behalf of the facility.

Mark McNamara	Deputy Commissioner of Wastewater
Print Name	Title
Signature	3-23-2023 Date

Attachments

- Attachment 1 – Final CSO Notification Plan Supporting Documentation
- Attachment 2 – CSO Regulator and Outfall Locations Figure
- Attachment 3 – CSO Regulator and Outfall Locations Table
- Attachment 4 – Easterly Wastewater Treatment Facility Bypass Schematic
- Attachment 5 – Easterly Wastewater Treatment Facility Bypass Procedure
- Attachment 6 – CSO Regulator and Outfall Existing Signage
- Attachment 7 – CSO Regulator and Outfall Secondary Signage
- Attachment 8 – City of Leominster Signage Coordination Correspondence
- Attachment 9 – CSO Discharge Detection and Notification Procedure
- Attachment 10 – CSO Alarming Matrix
- Attachment 11 – Structure Discharge vs. Historical Rainfall

Attachment 1

Final CSO Notification Plan Supporting Documentation

CITY OF FITCHBURG, MASSACHUSETTS
CSO NOTIFICATION PLAN SUPPORTING DOCUMENTATION

SECTION 1: FACILITY INFORMATION

Please see the attached figure and table (Attachments 2 and 3, respectively) for discharge locations and affected waterbodies. The decommissioned Westerly Wastewater Treatment Facility (WWTF), which functions as a pump station, is upstream of all combined sewers in the City and is not impacted by combined sewer flow.

SECTION 2: IDENTIFICATION OF ENVIRONMENTAL JUSTICE POPULATIONS

314 CMR 16.00 includes requirements for providing additional information to Environmental Justice Populations lacking English language proficiency that would potentially be affected by treatment plant discharges or combined sewer overflows. Environmental Justice Populations falling under the English language isolation criteria are defined as communities with both 25% or more households that lack English language proficiency and at least 5% of the population that identifies as not speaking English very well. According to the Massachusetts Environmental Justice Populations document, updated November 2022, Block Group 1 in Census Tract 7097 in Leominster is listed as an English isolation Environmental Justice Population and is located directly adjacent to the North Nashua River with Spanish listed as the language that will require translation from English. Spanish language signage has been installed at the North Nashua River access point in this neighborhood with instructions for receiving discharge/overflow notifications.

Additionally, Block Group 3, Census Tract 7102 located in Fitchburg is an English language isolation Environmental Justice Population with Spanish listed as the language that will require translation from English. Although this block group is not located with direct access to CSO discharge locations, Spanish language signage providing instructions for receiving discharge/overflow alerts has been installed at every CSO outfall discharge location in the City.

The Spanish language signs direct readers to the City's CSO notification webpage which provides access to Spanish language public health notifications for discharge/overflow events. Translation of the CSO Notification Webpage is provided using the Google Translate attachment shown on the bottom right of the City webpage. Instructions for using the translation tool are provided in Spanish immediately following the first paragraph on the webpage. The translation tool provides a fully translated version of the City's Webpage allowing users who are not fluent in English to access information and alerts regarding CSO discharges and overflows.

SECTION 3: DISCHARGES, OVERFLOWS, AND PUBLIC NOTIFICATION

Determination of Combined Sewer Overflow Event or Blended Effluent Discharge

Fitchburg utilizes ADS Triton+ flow meters to measure overflow data in each CSO regulator in the City. An additional ADS Triton+ meter has been installed in the bypass flume of the Easterly Wastewater Treatment Facility (EWWTF) to monitor secondary system bypasses resulting in blended wastewater effluent discharging through the treatment facility's outfall to the North Nashua River. Overflows occur when water levels in CSO structures rise above a certain threshold. These overflow thresholds are specific to each structure and are included in Attachment 10. Flow meters have been programmed to trigger automatic alerts when water levels in CSO structures and the EWWTF bypass reach overflow thresholds.

When flow meters detect water levels above overflow thresholds, the system reviews data within the 2-hour discovery period for consecutive readings above the overflow threshold to confirm that an overflow event is occurring. An alert is triggered by the flow meter if there are consecutive readings above the overflow threshold. This review process lowers the chance of false positive alerts.

Estimation of Commencement, Cessation, and Duration of Discharges and Overflows

The Triton+ meters have been set up to record the times of commencement and cessation of CSO discharges/bypass events occurring at each CSO regulator and the EWWTF bypass by monitoring water levels and recording beginning and end times for water levels exceeding the overflow threshold in each structure.

Determination of Sanitary Sewer Overflow

Fitchburg currently maintains a 24-hour hotline to report sewage spills or backups. The number for the 24-hour hotline is 978-829-1900. In the event of a notification from the public regarding a potential SSO, the City will mobilize to confirm the SSO and determine if it meets the minimum requirements of 314 CMR 16.03 for public notification. The City's decommissioned Westerly Wastewater Treatment Facility functions as a pump station and meets the peak design flow requirements of 314 CMR 16.00. The pump station is currently monitored using both a SCADA system and daily in-person visits from DPW staff.

If the City receives notification of a suspected SSO through the public hotline, alerts from the SCADA system, or reports by DPW staff, confirmation of the SSO will be completed within four hours from the time the notification is received as required by 314 CMR 16.04. If the City is unable to confirm whether an overflow has occurred after four hours, it shall be presumed that an overflow has occurred.

Easterly Wastewater Treatment Facility Secondary System Bypass

During normal operation at the EWWTF, influent travels through aerated grit tanks, mechanical bar screens, primary settling tanks, and undergoes coagulation via ferric chloride before passing through the primary effluent flow meter.

After passing through the primary effluent flow meter, bypassed flow immediately travels through the bypass flowmeter, which the City operates to record volumes for NPDES permit reporting. After passing through the bypass flowmeter, diverted flow travels directly through chlorine contact tanks before being dechlorinated and ultimately discharged.

During peak flow events, if the flow at the EWWTF exceeds the daily treatable limit as measured by the primary effluent flowmeter (varies per season, but is currently 20 MGD during the winter NPDES period and 25 MGD during the summer NPDES period), flow will be diverted to the secondary system bypass as shown in Attachment 4. Flow is automatically diverted to the secondary system bypass when flow exceeds the daily treatable limit as entered into the EWWTF SCADA system.

Even in the event of a secondary system bypass, flow up to the daily treatable limit (varies per season, but is currently 20 MGD during the winter NPDES period and 25 MGD during the summer NPDES period) will receive secondary treatment. Flow exceeding the daily treatable limit that is diverted to the secondary system bypass will not receive secondary treatment. All effluent from the EWWTF, including flow that enters the secondary system bypass, undergoes the following treatment: removal of solids via aerated grit tanks, mechanical bar screens, coagulation using ferric chloride, disinfection of pathogens via chlorine contact tanks, and dechlorination.

In order to comply with CSO Notification regulations, an ADS Triton+ band flow meter was installed in the secondary system bypass to provide automated alerts through the City's notification system and website. An additional downlooking sensor was installed in the bypass for redundancy.

A flow schematic of the secondary system bypass with the location of the primary effluent flowmeter, secondary bypass flowmeter, and layout of treatment processes is provided as Attachment 4. The Easterly Wastewater Treatment Facility standard operating procedure in the event of a secondary system bypass is provided in Attachment 5. The procedure does not include information regarding public notification as the flow meter system will automatically trigger notifications.

Preliminary Discharge Volume Estimates using Historical Data

314 CMR 16.04 requires that permittees issue public advisory notifications no later than two hours after discovery of a discharge, and that public advisory notifications shall include "estimated volume of the discharge or overflow from data reported to the Department and/or EPA for the prior three calendar years, taking into consideration historical information for the projected rainfall event".

Fitchburg has been providing volumes for CSO discharge events and associated rainfall depths to MassDEP and EPA since 2013 as required under the City's Consent Decree with MassDEP and EPA. The City has been continually monitoring and calibrating their meters to ensure that accurate data is provided to MassDEP and EPA each year. This data is provided annually in the City's "Yearly CSO Monitoring Report".

In order to provide a preliminary estimate of overflow volume as required under 314 CMR 16.04, the City used data from their 2020-2022 CSO Monitoring Reports to estimate an average CSO discharge volume per inch of rain for every CSO outfall and EWWTF bypass. These values are used to provide estimated CSO discharge volumes based on projected rainfall depth for public notification within the timeline specified in 314 CMR 16.04. This methodology was developed with the goal of being an easy way for the public to compare weather forecasts to estimated CSO discharge volumes. These historical discharge volume per inch of rain values are included in Attachment 11. As previously stated, the historical values are used for the notification process only. Calculations for actual estimated discharge volumes for each event are discussed below.

Following the CSO Notification process, meter-reported estimated discharge volumes are calculated using the formulas listed in the following section. These updated discharge volume estimates are then included in monthly summaries posted on the City's CSO Webpage and reported to MassDEP.

Moving forward the City will continue to report CSO discharge volumes and rainfall data to MassDEP. Each year, the City will update the data used to calculate preliminary estimated discharge volumes with data from the last 3 years (for example, 2023 discharge estimates are calculated using historical data from 2020, 2021, and 2022, and no longer include data from 2019).

Calculation of Meter-Reported Discharge Volumes

The City of Fitchburg has been actively performing volume calculations for CSO discharge events as part of their CSO Monitoring Reports since 2013. Overflow data in each CSO regulator is measured by ADS Triton+ meters before being transmitted to ADS' PRISM website where it is used to calculate CSO discharge volumes.

As shown in Attachment 10, ADS Triton+ meters use weir, mannings, continuity, or flume equations to calculate discharge/bypass volumes. These equations are defined below.

Weir Equation:

$$V = .003472 * Q = .003472 * KLH^{1.5}$$

Where:

.003472 = Conversion Factor from Flow Rate to Volume
Q = Flow Rate
K = Constant
L = Weir Length
H = Water Lever in Regulator – Weir Height = Depth of Flow Above Weir

The regulators that utilize the weir equation and their associated weir heights are shown in the table below. The meters at these locations calculate overflow volumes using downlooking sensors to measure total water level in regulator structures.

Location	Weir Height (in)
CSO 004	38.38
CSO 010	37.75
CSO 032	19.5
CSO 041	37
CSO 045	33
CSO 064	40

Mannings Equation:

$$V = .003472 * Q$$

Where:

.003472 = Conversion Factor from Flow Rate to Volume
Q = Flow Rate (measured in band)

This equation is used to calculate discharge volumes for CSO 076. The meter in this structure is located in the overflow pipe and measures flow rate directly.

Continuity Equation:

This equation is used to calculate discharge volumes for CSO 083. The meter in this structure is located in the overflow pipe and measures flow rate directly. Any positive flow measured is used to directly calculate discharge volume using the measured flow rate and duration of discharge event.

Flume Equation:

$$V = .003472 * Q$$

Where:

.003472 = Conversion Factor from Flow Rate to Volume
Q = Flow Rate (measured in flume)

This equation is used to calculate discharge volumes for the EWWTF secondary bypass (EWWTF-BPF(2)). If the depth in the flume exceeds the standing water level of 1.5 inches and a positive flow rate is recorded, the recorded flow rate is used to calculate the discharge volume.

List of Impacted Waters, Lands, and Municipalities

The following waterbodies directly receive CSO discharges from outfalls and therefore are directly impacted by CSO discharges in the City:

- Birch Brook
- Unnamed Tributary downstream of abandoned Falulah Canal (near CSO 041)
- North Nashua River

The North Nashua River is also directly impacted by secondary system bypasses (resulting in blended wastewater effluent) at the EWWTF as the outfall is located on the river.

In addition to the waterbodies listed above, there are additional waterbodies located in close proximity to areas of the wastewater collection system that may be at risk of a capacity related SSO event:

- Notown Reservoir
- Baker Brook
- Monoosnoc Brook
- Punch Brook

The decommissioned Westerly Wastewater Treatment Facility (WWTF), which functions as a pump station/force main designed to convey peak flows of one million gallons per day or greater, is also located adjacent to the North Nashua River.

The City of Leominster, Massachusetts was determined to be directly impacted by CSO discharges from the City of Fitchburg due to Leominster's proximity to the North Nashua River and its tributaries. Leominster is located downstream of all CSO outfalls and the Easterly Wastewater Treatment Facility.

Per MassDEP request following their review, the Town of Lancaster was contacted regarding public access sign location points along the North Nashua River because Lancaster is located downstream of Leominster. The Town of Lancaster did not request any public access signage but requested to be added to the list of public notification recipients.

SECTION 4: DISCOVERY AND REQUIRED TIMELINE FOR NOTIFICATION

Combined Sewer Overflow and EWWTF Bypass Notifications

Meters located in CSO regulators and the EWWTF bypass flume are programmed to communicate alerts in response to high-water levels indicating CSO and bypass events. When a CSO or bypass event occurs, the flow meter will send out an alert which will automatically trigger a notification to be distributed via the City's existing public notification system (CivicPlus). Confirmation of CSO discharges, as discussed in Attachment 9, will be completed within two hours of meter notification in accordance with the discovery and notification requirements in 314 CMR 16.04. Public notification will subsequently be provided within two hours from the time of confirmation of a discharge from a CSO outfall.

Public notification of a discharge of partially treated wastewater from the EWWTF resulting from a treatment bypass will be automatically issued within 2 hours of the beginning of the bypass. With the Triton+ flow meter installed in the EWWTF bypass, the issuance of automated public notifications will follow the same process as with the CSO outfall structures.

Notification in the Event of Failure at EWWTF

If a discharge of partially treated wastewater from the EWWTF results from a failure within the treatment process, and not a treatment bypass, a public notification will be manually issued within 2 hours of the discovery of the failure. Volume of untreated effluent discharged will be measured using the Parshall Flume located prior to the secondary treatment processes, which measures all flow entering the facility. This is a mechanical meter that continues to function even during a system failure.

Sanitary Sewer Overflow Notifications

As previously stated, the City maintains a 24-hour hotline to record sewage spills or backups and monitors the pump station located at the site of the decommissioned WWTF using a SCADA system and site visits. The City's 24-hour staff will continue to promptly respond to notifications of potential SSOs and will prepare and distribute public notifications. Potential SSOs will be confirmed within 4 hours from when the City is made aware of the potential SSO. Public notification will be manually issued within 2 hours following confirmation of any SSO requiring public notification as specified in 314 CMR 16.04. These notifications will be manually posted CSO Notification webpage, distributed via CivicPlus to subscribers, and provided to all other parties requiring notification.

If the SSO meets the reporting requirements under 314 CMR 16.03, the City will manually draft the notification message with all information required under 314 CMR 16.04(10) and distribute the message using their existing public notification system (CivicPlus).

Public Advisory Notification Updates

Public advisory notification updates will be issued 8 hours after each initial public notification. These updates will indicate whether or not the discharge or overflow is ongoing. If the event is ongoing, the update will outline any information that has changed since the initial public advisory notification. If the discharge or overflow event has ceased, the duration and time of cessation will be provided. Additional public advisory notification updates will be issued every 8 hours until the cessation of the discharge event. Updates will be provided to all parties listed in Section 7 for notification.

Verification and Retractions

The City will follow the steps outlined in the Detection and Notification Standard Operating Procedures, included as Attachment 9, to verify CSO discharges reported by the Triton+ meters. If it is determined that a meter reported discharge has not actually occurred, the City will issue a retraction within 48 hours of the initial notification.

Notifications by City Board of Health

Additionally, the Board of Health has been informed of the notification requirements under Section 16.09 of the regulations. These requirements include issuing public health warnings upon receipt of a CSO public advisory notification for: CSO/bypass discharges lasting longer than two hours, CSO/bypass discharges determined by the board of health to require public health warnings regardless of duration, or any SSOs for which public advisory notification is required. These public health warnings will include the location, date, and time of the discharge, a recommendation that the public avoid contact with affected water bodies for at least 48 hours, and translations of the warning for access by environmental justice populations lacking English proficiency.

SECTION 5: CSO PERMITTEE WEBSITE AND PUBLIC NOTIFICATION SYSTEM

CSO Notification Webpage

The City maintains an existing website utilized by several City Departments including the Wastewater Division. In order to comply with 314 CMR 16.04 and 16.05, the City has set up a CSO Notification Webpage under the Wastewater Division section, located at: http://www.ci.fitchburg.ma.us/1002/CSO-Notification. The CSO Notification Webpage includes the following:

- A map showing the locations and outfall numbers of the City's remaining CSO outfalls,
- A link to the City's full CSO Long-Term Control Plan as submitted to MassDEP in May 2019 and CSO monitoring reports from 2020, 2021, and 2022,
- A link to the City's existing public notification system (CivicPlus) where the public can sign up to receive public notifications,
- The status of the City's ongoing sewer separation program,
- A link at the top of page for the City's "Wastewater Alert Center" providing overflow alerts updated automatically by Triton+ Flow meters installed in each of the City's active CSO outfalls
- A compilation of discharge data for every public advisory event in a month posted by the 15th of the following month, and
- A tool providing translation of the full webpage to multiple languages including Spanish

In the event of a discharge, the information recorded by the meters is automatically posted under the CSO Notification Events section of the City's CSO Notification webpage. Public advisory notifications regarding CSO discharge events will be visible to the public no later than 2 hours after the discovery of a discharge or overflow as required in section 16.04 (4) (a). Posted discharge data from each of the City's CSO outfalls and the Easterly Wastewater Treatment Facility includes total rainfall, start time, end time, duration, volume discharged, and treatment for each event.

This information will be posted to the DEP online portal within 18 hours of public notification for each event. A data set for each month shall be posted by the 15th of the following month. This information will also be reported to the DEP for each month by the 15th of the following month using the specified electronic reporting system. The City shall issue any updates or corrections to the DEP by February 1st for data reported in the previous calendar year in accordance with 16.07 (3) of the regulations.

Public Notification System

The City utilizes public notification platform CivicPlus to distribute notifications and alerts to residents. When the installed Triton+ Meters detect CSO overflows or discharges, the data gathered by the meters is automatically formatted into notifications that are relayed to the CSO Notification Webpage and to subscribers via email and text. Any member of the public can subscribe to receive automated notifications of overflow or bypass events by clicking on the underlined "Wastewater Alert Center" link shown immediately after the first paragraph on the City's CSO Notification page. This link will bring the user to the alert center where the user can choose to be notified automatically via email or text.

SECTION 6: SIGNAGE

The City currently maintains signage at every CSO Outfall in accordance with EPA's Nine Minimum Controls. The signage meets the requirements under 314 CMR 16.05 and includes the following information:

- The existence of an outfall,
- The Permittee (City of Fitchburg),
- Information about wet weather events that may cause a discharge, and
- A warning of the potential threat to public health caused by recreating in, or using waters affected by the discharge.

All additional required information has been provided on installed secondary signage at each outfall location, including:

- Information for the public to subscribe to public notifications about discharges.
- An indicator that a Spanish translation is available on the City's website for public notification messages.

Fitchburg's Wastewater Division has reached out to the Fitchburg Health Department regarding any additional locations that may require signage. The City has installed additional signage at the following locations:

- Adjacent to the North Nashua River near the end of Battles Street, Fitchburg MA.
- Adjacent to the outfall at the Easterly Wastewater Treatment Facility near 24 Lanides Lane, Fitchburg MA.

After coordination with the City of Leominster, it was determined that Battles Street is the only location with access to the North Nashua River in Leominster that would require signage. Battles Street is a dead-end road beginning Leominster and ending with a river access point located in Fitchburg. Pictures of installed signage are included in Attachments 6 and 7. A transcript of correspondence with the City of Leominster regarding signage requirements is provided in Attachment 8.

Per MassDEP request following their review, the Town of Lancaster was also contacted regarding public access sign location points along the North Nashua River. The Town of Lancaster did not request any public access signage but requested to be added to the list of public notification recipients.

SECTION 7: PUBLIC NOTIFICATION RECIPIENTS

Automated alerts will be sent to any members of the public who opt in to receive notifications via the City's CSO Notification Webpage. Alerts will also be sent out to the following news organizations and local and state governmental officials in accordance with Section 16.04 (4) of the regulations.

As required in Section 16.04 (5), public advisory notifications must be provided to a news organization primarily serving the local environmental justice population. Research regarding newspapers that service the local community was performed and Vocero Hispano was listed as the newspaper serving the local community in Spanish at the Fitchburg Public Library.

News Organizations:

- Fitchburg Sentinel and Enterprise
    - Contact: Amanda Stamas – legals@mediaonene.com
- Worcester Telegram & Gazette
    - Contact: Anoushka Dalmia – adalmia@gannett.com
- Vocero Hispano
    - Contact: Department of News and Public Relations – News@VoceroHispano.com

The news organizations will receive the automated notifications triggered by meter overflow/discharge notification. If any of the above contact information changes, the City will update the notification list with the proper contact information. In addition, the following parties are listed as required public notification recipients and will receive notifications in the event of an overflow/bypass:

Public Agencies:

- Massachusetts Department of Environmental Protection
    - Massdep.sewagenotification@mass.gov
- United States Environmental Protection Agency
    - R1.EPANotifications@epa.gov
- Massachusetts Department of Public Health
    - DPHToxicology@mass.gov
- Fitchburg Health Department
    - scurry@fitchburgma.gov
- Leominster Health Department
    - jstephens@leominster-ma.gov
- Lancaster Board of Health
    - jefflbohpaster@gmail.com
- Public Water Suppliers
    - Notown Reservoir – City of Leominster Public Works Department
        - rracine@dpw.leominster-ma.gov
- Department of Fisheries and Wildlife
    - doug.cameron@mass.gov
- Any person subscribed to receive notifications

SECTION 8: DETECTION METHOD MAINTENANCE

The Triton+ meters will be properly maintained and calibrated on an annual basis and as needed as required by Section 16.06 (2) (b) of the regulations. The City currently has an ongoing annual on-call services contract with ADS to service City's flow meters and plans to continue this program moving forward.

SECTION 9: PUBLIC NOTICE

A public notice has been drafted based on language provided by MassDEP and has been issued at the official time of submittal of the CSO Notification Plan to the Department. This public notice was provided to the Environmental Monitor and Vocero Hispano. Information was provided allowing the public to view the CSO Notification Plan and provide comments to MassDEP and the City of Fitchburg for a period of 30 days after publication of the public notice.

Attachment 2

CSO Regulator and Outfall Locations Figure

ASHBY
TOWNSEND
LUNENBURG
LEOMINSTER
Fitchburg Reservoir
Wrights Ponds
Lovell Reservoir
Falulah Reservoir
Scott Reservoir
Greens Pond
Sheldon Pond
Overlook Reservoir
Putnam Pond
Mirror Lake
McTaggards Pond
Snows Millpond
James Pond
Goodfellow Pond
Simonds Pond
Pierce Pond
Sawmill Pond
Notown Reservoir
Baker Brook
Phillips Brook
Punch Brook
Birch Brook
Monoosnuc Brook
North Nashua River
Flag Brook
Faulah Brook
Rindge Road
Mayo Road
Richardson Road
Scott Road
Crocker Hill Road
Old Northfield Road
Fitchburg State Road
Mill Creek Road
Page Road
Wares Road
Taylor Road
Stewart Road
Vision Pond Road
New Fitchburg Road
Bayberry Lane
Old City Road
West Townsend Road
Howard Street
Chase Road
Old Stage Coach Road
Northfield Road
Caswell Road
Ashby West Road
Kinsman Road
High Rock Road
Etonian Parkway
Pearl Hill Road
Stoneybrook Road
Kendall Road
Fisher Road
Billings Road
Ash-how Farm Road
Ashby State Road
Gibson Road
Bennett Road
Sheldon Road
Williams Road
Ashburnham Hill Road
Mcintire Road
Alpine Road
Stickney Road
Bigelow Road
Whitehorse Street
Will Thompson Way
John Fitch Highway
Rinnock Road
Marshall Road
Macintosh Lane
Flat Rock Road
Burbank Street
Marshall Street
Nichols Road
View Street
Caldwell Street
Bond Street
Goddard Street
Ryefield Road
Apple Tree Hill
Mount Vernon Street
Blossom Street
Ross Street
Lincoln Street
Townsend Street
Edlee Street
Pearl Street
Shawna Street
Buttrick Avenue
Klondike Avenue
Simonds Street
Academy Street
Broad Street
Leighton Street
Boulder Drive
Kimball Street
Franklin Street
Laurel Street
Nashua Street
Sawyer Passway
Pine Street
Everett Street
Ellis Street
Seneca Street
Drake Road
Eastern Avenue
South Street
Pratt Road
Causeway Street
Vine Street
Laurel Avenue
Mascomo Lane
Connors Street
Carey Street
Airport Road
Falulah Street
Beacon Street
Rodman Avenue
Patton Street
Crawford Street
Heritage Lane
Industrial Road
Keystone Drive
Fairview Street
Tolman Avenue
Beal Street
Massachusetts Avenue
Maple Parkway
White Street
Richard's Way
Upland Avenue
Hollis Road
Electric Avenue
Buttonwood Place
Prospect Street
Lakefront Road
Main Street
Whalom Road
Youngs Road
Summer Street
Graham Street
Craven Drive
Norwood Avenue
Sargent Avenue
Stuart Avenue
King Avenue
North Street
Starr Street
Valleyview Road
Mack Road
Intervale Road
Bemis Road
Arden Mills Way
Valley Street
Normandy Road
Levis Road
Belmont Street
Canton Street
Albee Street
Newton Street
Heywood Street
Milk Street
Walton Street
Warren Street
Burnap Street
Cane Street
Saint Bernard Street
Harrison Avenue
Lawrence Street
Atlantic Avenue
Kelley Avenue
Upham Street
Ashburnham Street
Highview Street
Castle Road
Bishop Road
Kimball Road
Wallace Road
Almount Road
Senna Road
Westminster Hill Road
Saint Jude Boulevard
Loiselle Avenue
Hemlock Drive
Parker Hill Drive
Temple Street
Phillips Street
Seaborn Street
Ballic Lane
Burma Road
Fairmount Street
Leroy Street
Depot Street
Reingold Avenue
Exeter Street
Hurd Street
Clarendon Street
Daniels Street
Beech Street
Plymouth Street
Newtonville Avenue
Clearview Avenue
York Avenue
Ohio Avenue
Central Avenue
Cascade Street
Southwick Street
Hope Street
Theresa Street
Shea Street
Lee Avenue
Alice Avenue
Jane Avenue
Gloria Avenue
Cathy Street
Bel Air Drive
Miami Street
Parker Street
Hollywood Street
Brittany Lane
Anita Drive
Eleanor Street
Tibbett Circle
Caspian Way
Rollstone Road
Pepper Road
Sarah Lane
Oak Hill Road
Princeton Road
Newark Way
Franklin Road
Authority Drive
Old Princeton Road
Sawmill Pond Road
Fifth Massachusetts Turnpike
Bunker Hill Road
Palmer Road
Mount Elam Road
Fitchburg Road
Hillyer Road
Merriam Avenue
Olde Tavern Road
Cumberland Road
Old Farm Road
Country Lane
Helena Street
Granite Street
Constitution Drive
Colonial Drive
Kingman Road
Exchange Street
Revolution Drive
Pleasant Run Circle
Elm Street
Chestnut Street
Pleasant Street
Wanoosnoc Road
Swan Avenue
Olin Avenue
Damon Road
Penn Street
State Street
Monarch Street
Eastman Avenue
Austin Street
Dillon Street
Posco Avenue
Maple Avenue
West Street
Lindell Avenue
Fruit Street
Nelson Street
Hamilton Street
River Street
Priest Street
Allen Street
Grand Street
Green Street
Hawe Street
Highland Avenue
Abbott Avenue
Arlington Street
Grove Avenue
Hall Street
Smith Street
Willow Street
Pratt Street
John Street
Otis Street
Pierce Avenue
Forest Street
Electric Avenue
Route 2
2A
13
12
31
CSO 010
CSO 032
CSO 045
CSO 083
CSO 004
CSO 076
CSO 064
CSO 041
UNNAMED TRIBUTARY DOWNSTREAM OF ABANDONED FALULAH CANAL
N
1,500 0 1,500
Scale In Feet

Legend

- Regulator Manhole
- CSO Outfall
- Regulator Manhole to Outfall
- Birch Brook Drain Line
- Punch Brook Drain Line
- River, Stream, Brook
- Dam
- Open Water
- Wetland
- Building
- Easterly Wastewater Treatment Facility
- Decommissioned Westerly Wastewater Treatment Facility (Pump Station)
- Right of Way

FIGURE 1

CITY OF FITCHBURG, MASSACHUETTS
CSO PUBLIC NOTIFICATION PLAN

CSO REGULATOR AND OUTFALL LOCATIONS

MARCH 2023 SCALE: NOTED

Weston & Sampson

Path: \\wse03\actfile\Projects\MA\Fitchburg\102023\CSO Notification Plan\Planning\CSO Notification Plan Figures and Charts\Public Notification Plan Figure 1.mxd User: hmayberry Saved: 6/30/2023 9:53:34 AM Created: 6/30/2023 11:47:14 AM

Attachment 3

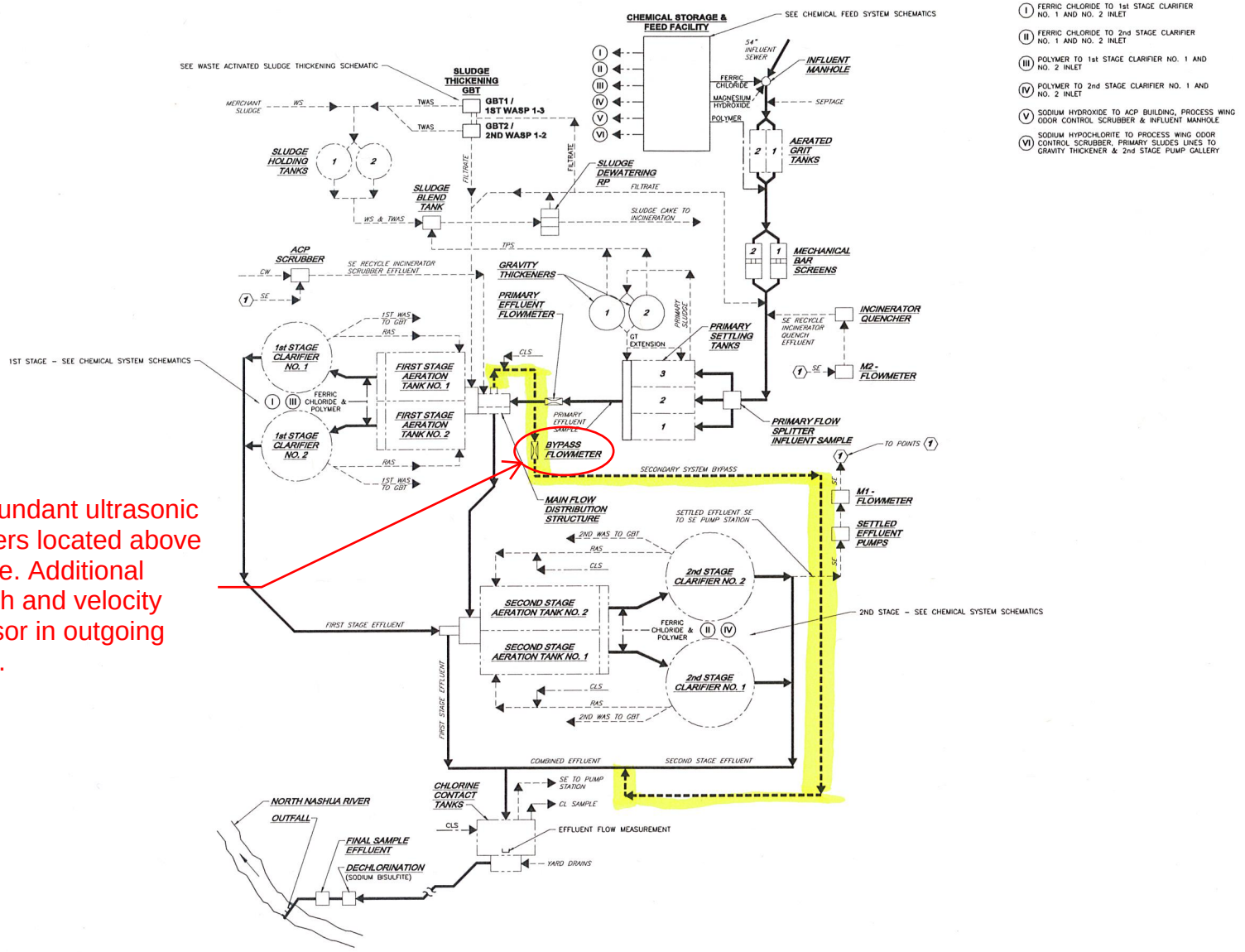
CSO Regulator and Outfall Locations Table

CSO Regulator and Outfall Locations
City of Fitchburg, Massachusetts

CSO Regulator	CSO Regulator Location	CSO Outfall Number	CSO Outfall Location	Receiving Waterbody
CSO 004	Cleghorn Street at Oak Hill Road	CSO 004	Under South Side of Oak Hill Road Bridge near intersection of Oak Hill Road and River Street	North Nashua River
CSO 010	Main Street at River Street	CSO 010	Under River Street Bridge near intersection of River Street and Main Street	North Nashua River
CSO 032	543 Main Street at Post Office	CSO 032	Under Northeast Side of Circle Street Bridge	North Nashua River
CSO 041	Benson Street at Falulah Street	CSO 041	Abandoned Falulah Canal near 69 Benson Street	Unnamed Tributary Downstream of Falulah Canal
CSO 045	Main Street at Oliver/Putnam Street	CSO 045a (Abandoned Punch Brook Culvert near 88 Boulder Drive via Putnam Street)	Opposite Riverfront Park off of Boulder Drive (via abandoned Punch Brook Culvert)	North Nashua River
		CSO 045b (Abandoned Punch Brook Culvert near 88 Boulder Drive via Main Street)		
CSO 064	Water Street Easement behind 672/678 Water Street	CSO 064	Water Street Easement behind 672/678 Water Street	North Nashua River
CSO 076	Birch Street at Heywood Street	CSO 076	In woods southeast of intersection of Water Street and John T Cetrino Memorial Drive	Birch Brook
CSO 083	Main Street at Prichard Street	CSO 083	Opposite Riverfront Park off of Boulder Drive (via abandoned Punch Brook Culvert)	North Nashua River
Easterly Wastewater Treatment Facility Bypass	Easterly Wastewater Treatment Facility (24 Lanides Lane, Fitchburg, MA)	Easterly Wastewater Treatment Facility Outfall	North Nashua River near 24 Lanides Lane, Fitchburg, MA	North Nashua River

Attachment 4

Easterly Wastewater Treatment Facility Bypass Schematic



Redundant ultrasonic meters located above flume. Additional depth and velocity sensor in outgoing pipe.

THESE RECORD DRAWINGS (WP, RCD) PREPARED, IN PART, ON THE BASIS OF THE INFORMATION FURNISHED BY OTHERS. WRIGHT-PIERCE DOES NOT WARRANT THAT SUCH INFORMATION IS CORRECT OR CURRENT AND THIS DOCUMENT AS A RESULT.

CITY OF FITCHBURG, MASSACHUSETTS
EASTERLY WASTEWATER TREATMENT FACILITY
CEPT UPGRADE

PROCESS FLOW DIAGRAMS AND SCHEMATICS I

DRAWING PR-2

WRIGHT-PIERCE
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888.621.8156 | www.wright-pierce.com

NO	SUBMISSIONS/REVISIONS	APP'D	DATE
	RECORD DRAWINGS		3/15

DRAWN BY: BRB
CHECKED BY: DMS
DATE: 10/14/2011
APPROVED BY: DFT
DATE: 10/14/2011
SCALE: NOTED
PROJECT NO. 11063N
SCALE AS NOTED

LAST SAVED BY: SARALACHARITE 3/3/2015 7:37 AM
G:\DWGS\MA\FITCHBURG\11063-CEPT UPGRADE\11063-RD\PRO\11063N-PR-PRO-FLOW.DWG | Layout1 | 1:1 | ---- | 3/26/2015 4:15:49 PM | RCB

Attachment 5

Easterly Wastewater Treatment Facility Bypass Procedure

BYPASS PROCEDURE

1. Bypass Limit is set utilizing the State Point Analysis.
2. 2 hrs Prior to a bypass event put the answering machine to Message #2 “No septage allowed”.

When a Bypass occurs

3. MAKE SURE THAT THE BOOSTER INFLUENT FERRIC PUMP TURNS ON (They BOTH SHOULD BE IN AUTO).
4. Adjust the blowers for the Grit Chambers.
5. IF THE FLOW IS “BOUNCING AROUND” THEN PLACE BAR RACKS INTO *HAND*.
6. PLACE THE SECOND MAGNESIUM PUMP INTO AUTO.
7. MONITOR THE EFFLUENT pH CAREFULLY. Turn on Caustic pump if needed.
8. MONITOR SECONDARY CLARIFIER BLANKETS CLOSELY. IF THE BLANKETS GET WITHING 3 FEET OF THE SURFACE, LOWER THE STATE POINT NUMBER BY 2 MGD. Check hourly for any adjustments.
9. Make sure the hourly blanket level sheet is completed.
10. See the sheet for the Chlorine about the proper setting for bypass settings (2.7 ppm).
11. AS SOON AS THE BY-PASS STOPS
    a. If the caustic pump was turned on then place it back to previous setting.
    b. Turn second Magnesium pump off.
    c. ENSURE THAT THE BOOSTER INFLUENT FERRIC PUMP (#3 OR #4) TURNS BACK OFF.
    d. Place Grit Chamber blowers back to normal.
    e. Place Bar racks back to auto.
    f. Put Chlorine back to normal (1.5 ppm)
12. If there is no more rain forecasted for the day then you may put the answering machine back to “Accepting Septage”.
13. PLEASE FILL OUT THE BY-PASS LOG COMPLETELY AND CORRECTLY. IF ANYTHING OUT OF THE USUAL OCCURS LEAVE ME A NOTE ON THE SENIOR OPERATOR CHECK LIST SHEET.

Attachment 6

CSO Regulator and Outfall Existing Signage

CSO Outfall and Discharge Signage Locations
City of Fitchburg, Massachusetts

CSO Regulator	CSO Regulator Location	Outfall Signage Location
CSO 004	Cleghorn Street at Oak Hill Road	South Side of Oak Hill Road Bridge at Street Level
CSO 010	Main Street at River Street	North Side of River Street Bridge at Street Level
CSO 032	543 Main Street at Post Office	North Side of Circle Street Bridge at Street Level
CSO 041	Benson Street at Falulah Street	1) Parking Lot of 70 Benson Street Near North Nashua River Access Point 2) End of Battles Street at North Nashua River Access Point 3) Just Past the End of Battles Street Near River Access
CSO 045 and CSO 083 (shared outfall)	Main Street at Oliver Street Main Street at Prichard Street	1) In Parking Lot East of 92 Boulder Drive 2) On Concrete Wall above CSO Discharge
CSO 064	Water Street Easement behind 672/678 Water Street	On Twin Cities Rail Trail behind 672 Water Street
CSO 076	Birch Street at Heywood Street	On Twin Cities Rail Trail by 480 Water Street
EWWTF	Easterly Wastewater Treatment Facility (24 Lanides Lane, Fitchburg, MA)	South Side of Hamilton Street Bridge

INSTALLED SIGNAGED AT CSO OUTFALL LOCATIONS

CSO 004

CSO 010

INSTALLED SIGNAGED AT CSO OUTFALL LOCATIONS

CSO 032

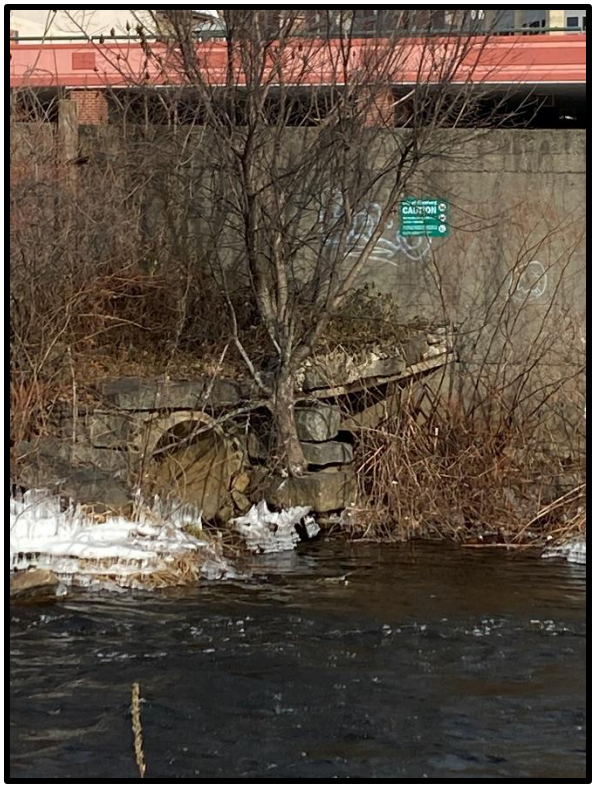
CSO 041 (1 - 70 Benson Street)

INSTALLED SIGNAGED AT CSO OUTFALL LOCATIONS

CSO 041 (2 – End of Battles Street)

CSO 041 (3 – Past End of Battles Street)

INSTALLED SIGNAGED AT CSO OUTFALL LOCATIONS



CSO 045/083 (1 – Above CSO Discharge)

CSO 045/083 (2 – Boulder Drive)

INSTALLED SIGNAGED AT CSO OUTFALL LOCATIONS

CSO 064

CSO 076

INSTALLED SIGNAGED AT CSO OUTFALL LOCATIONS

EWWTF DISCHARGE

Attachment 7

CSO Regulator and Outfall Secondary Signage

CAUTION! AVOID CONTACT WITH WATER – MAY CAUSE ILLNESS

Visit the website for more information or to subscribe to public notifications of discharges. Either type the URL into your internet browser, or search for “City of Fitchburg CSO Notification”.

Visite el sitio web para obtener más información. Escriba la URL en su navegador de Internet o busque “City of Fitchburg CSO Notification”.

www.fitchburgma.gov/1002/CSO-Notification

City of Fitchburg

CAUTION

Wet Weather Sewage Discharge

North Nashua River Access Point at Battles Street

Outfall locations upstream may discharge rainwater mixed with untreated sewage during or following rainfall and can contain pathogens that can cause illness.

If you see a discharge during dry weather: Please Call 978-829-1900

Visit the website for more information or to subscribe to public notifications of discharges. Either type the URL into your internet browser, or search for “City of Fitchburg CSO Notification”.

Visite el sitio web para obtener más información. Escriba la URL en su navegador de Internet o busque “City of Fitchburg CSO Notification”.

www.fitchburgma.gov/1002/CSO-Notification

City of Fitchburg

CAUTION

Wet Weather Sewage Discharge

Easterly Wastewater Treatment Facility Blended Effluent Discharge

This outfall may discharge rainwater mixed with untreated sewage during or following rainfall and can contain pathogens that can cause illness.

If you see a discharge during dry weather: Please Call 978-829-1900

Visit the website for more information or to subscribe to public notifications of discharges. Either type the URL into your internet browser, or search for “City of Fitchburg CSO Notification”.

Visite el sitio web para obtener más información. Escriba la URL en su navegador de Internet o busque “City of Fitchburg CSO Notification”.

www.fitchburgma.gov/1002/CSO-Notification

Attachment 8

City of Leominster Signage Coordination Correspondence

From: Jeffrey Stephens <jstephens@leominster-ma.gov>
Sent: Tuesday, June 21, 2022 3:46 PM
To: Cotton, Patrick <cottonp@wseinc.com>
Cc: Dulmaine, Jason <JDulmaine@fitchburgma.gov>; Leblanc, Jean Francois <JLeBlanc@fitchburgma.gov>; Curry, Steve <SCurry@fitchburgma.gov>; nerickson <nerickson@fitchburgma.gov>; Mark McNamara <MMcNamara@fitchburgma.gov>; kdupont@fitchburgma.gov; Occhipinti, Frank <occhipif@wseinc.com>; Houghton, Matthew <houghtonm@wseinc.com>
Subject: Re: CSO - Signage Requirements Update Request

That is the only spot in Leominster. Thank you

Sent from my iPhone

On Jun 21, 2022, at 3:42 PM, Cotton, Patrick <cottonp@wseinc.com> wrote:

Hi Jason,

Just following up on the email below regarding additional signage information and locations:
* Adjacent to the North Nashua River and "unnamed tributary" at the end of Battles Street (EJC area lacking English Proficiency) – Open area that provides access to the North Nashua River
* Adjacent to the outfall at the Easterly Wastewater treatment Facility at 24 Lanides Lane – Outfall that requires signage under 314 CMR 16.00.

We plan to use the same messaging and design as the existing CSO Outfall signage (see attached signage), and also include the two additional items that are required to meet 314 CMR 16.00.

Jeff – The only signage we plan to have in Leominster is at the end of Battles Street. Are there any other locations with access to the North Nashua River in Leominster that would require signage?

Jason/Steve - Please let us know if there are any additional Fitchburg locations that require signage, and if you have any questions/comments.

Thanks,

Pat

Patrick M. Cotton
Team Leader
office: 978-532-1900
cell: 978-852-1927
Weston & Sampson
427 Main Street, Suite 400 | Worcester, MA 01608
tel: 508-762-1676

From: Houghton, Matthew
Sent: Monday, May 2, 2022 12:00 PM
To: Dulmaine, Jason <JDulmaine@fitchburgma.gov<mailto:JDulmaine@fitchburgma.gov>>
Cc: Leblanc, Jean Francois <JLeBlanc@fitchburgma.gov<mailto:JLeBlanc@fitchburgma.gov>>; Curry, Steve <SCurry@fitchburgma.gov<mailto:SCurry@fitchburgma.gov>>; jstephens@leominster-ma.gov<mailto:jstephens@leominster-ma.gov>; nerickson <nerickson@fitchburgma.gov<mailto:nerickson@fitchburgma.gov>>; Mark McNamara <MMcNamara@fitchburgma.gov<mailto:MMcNamara@fitchburgma.gov>>; Cotton, Patrick <cottonp@wseinc.com<mailto:cottonp@wseinc.com>>; Occhipinti, Frank <occhipif@wseinc.com<mailto:occhipif@wseinc.com>>
Subject: RE: CSO

Jason,

Please see the attached excerpt from the City's 2019 response to an EPA Audit regarding the City's existing signage locations, and images of each sign. A map of the outfall locations has also been attached for your convenience. Please note that since 2019, the City has successfully closed CSO 007 and CSO 039, and expect to close CSO 048 in the next two months. As a result signage for these outfalls is no longer required unless, these locations need to be regarded as a "public access location".

The existing signage meets all requirements under 314 CMR 16.00 with the exception of two items (listed below). we are proposing to add an additional sign underneath each existing sign to address the two items and achieve compliance with the new 314 CMR 16.00 regulation. The additional signage will include the following:

* Information for the public to subscribe to public notifications about discharges. This will be conveyed with a sentence and web address or QR code.
* An indicator that a Spanish translation is available on the City's website for public notification messages, and a link to the website (as stated above). Per MassDEP requirements, the signage is required to "provide access" to a translation in an EJC lacking English language proficiency (see below). There is currently 1 location in Leominster adjacent to Battles Street qualifies as an EJC lacking English language proficiency. Since the majority of the signage is already in place, we are proposing a link to the website for the Spanish translation rather than an additional sign in Spanish.
* "For discharges directly affecting neighborhoods identified as environmental justice populations due to lacking English language proficiency, signage posted at public access points shall provide access to translations in the language(s) most appropriate for those neighborhoods and shall utilize universal symbols."

We will provide a draw up of the additional sign that contains these two requirements once created.

In addition, we are recommending the installation of signage at the following locations:
* Adjacent to the North Nashua River and "unnamed tributary" at the end of Battles Street (EJC area lacking English Proficiency) – Open area that provides access to the North Nashua River

* Adjacent to the outfall at the Easterly Wastewater treatment Facility at 24 Lanides Lane – Outfall that requires signage under 314 CMR 16.00.

We plan to use the same messaging and design as the existing CSO Outfall signage, and also include the two additional items that are required to meet 314 CMR 16.00.

Please let us know if there are any additional locations that require signage, and if you have any questions/comments.

Thanks!

Matthew Houghton, P.E.
PROJECT ENGINEER
direct: 508-502-7034
cell: 774-644-6560
Weston & Sampson
427 Main Street | Suite 400 | Worcester, MA 01608
tel: 978-532-1900

From: Dulmaine, Jason <JDulmaine@fitchburgma.gov<mailto:JDulmaine@fitchburgma.gov>>
Sent: Friday, April 29, 2022 3:30 PM
To: Houghton, Matthew <houghtonm@wseinc.com<mailto:houghtonm@wseinc.com>>
Cc: Leblanc, Jean Francois <JLeBlanc@fitchburgma.gov<mailto:JLeBlanc@fitchburgma.gov>>; Curry, Steve <SCurry@fitchburgma.gov<mailto:SCurry@fitchburgma.gov>>; jstephens@leominster-ma.gov<mailto:jstephens@leominster-ma.gov>
Subject: CSO

Hello Matthew,

Sorry for the delayed response. Any chance we could give get a list of where there are currently signs and also a draw up of the sign you are proposing for EJC area. I imagine that would be in Spanish? This all sounds good but I would like a little more information before I give a thumbs up with my name on it.

I have also attached Director Stephens from the Leominster Health Department on this email. As It looks like you wanted to connect with him as well.

Jay

From: Houghton, Matthew <houghtonm@wseinc.com>
Sent: Friday, April 22, 2022 2:30 PM
To: scurry@fitchburgma.gov
Cc: nerickson <nerickson@fitchburgma.gov>; Mark McNamara <MMcNamara@fitchburgma.gov>; jhillman@fitchburgma.gov; kdupont@fitchburgma.gov; Occhipinti, Frank <occhipif@wseinc.com>; Cotton, Patrick <cottonp@wseinc.com>
Subject: Upcoming Regulations Regarding CSO Notification - 314 CMR 16.00

Steve,

Weston & Sampson is currently in the process of finalizing the City's Preliminary Combined Sewer Overflow (CSO) Notification Plan for submittal to MassDEP. The preliminary plan is due May 1st, and the regulations become active July 6th. As part of the preliminary notification plan, we require consultation with the City Health Department regarding the location of signage to alert the public regarding CSO discharges to the North Nashua River.

Currently, the DPW has existing signage near the outfalls of all CSO regulators that will be used as part of the public notification effort. In addition, we are proposing the addition of a sign at the end of Battles Street near the Leominster and Fitchburg City lines, due to the presence of an Environmental Justice Community that lacks English proficiency, and the easy access to the North Nashua River.

Are there any additional locations that the Health Department would want to have signage? We have no other known access points to the waterbody in the City that do not already have a CSO Outfall sign. In addition, is there a contact in the Leominster Health Department that would be able to provide potential locations as well? We can set up a meeting with both you and the Leominster Health Department early next week to discuss further.

Also, we will need to determine the contact information for both health departments where automated CSO alerts will be directed and provide that contact information in the Preliminary CSO Notification Plan.

Thank you and have a great weekend!

Matthew Houghton, P.E.
PROJECT ENGINEER
direct: 508-502-7034
cell: 774-644-6560
Weston & Sampson
427 Main Street | Suite 400 | Worcester, MA 01608
tel: 978-532-1900

Attachment 9

Detection and Notification Standard Operating Procedure

CSO Discharge Detection and Notification Standard Operating Procedure

CSO Outfall and EWWTF Bypass Discharge Notification Procedure

1. Triton+ flow meter(s) indicate(s) a discharge of combined sewer into surface waters when high water level is detected in CSO outfall structure or EWWTF bypass flume.
2. CSO Notification System identifies the high water level and monitors for consecutive high water level readings during the 2-hour discovery period to confirm the presence of a CSO discharge.
3. CSO Notification System sends automated email to required recipients (see Attachment 1).
4. Automated public alert is posted to City CSO Notification Webpage through CivicPlus from the CSO Notification System with details including start time and estimated volume of discharge. Automated email and text alerts are sent to subscribers through CivicPlus.
5. Triton+ meters continue to monitor water levels in CSO outfall structures. If event ceases after 8 hours, automated notifications indicating cessation are sent through CivicPlus to CSO Notification Webpage and to subscribers via email and text. Updated automated emails are sent to required recipients (See Attachment 1) via the CSO Notification System.
6. If event is ongoing 8 hours after initial notification, an automated notification is sent through CivicPlus to CSO Notification Webpage and subscribers with information regarding the ongoing discharge event. Updated automated emails are sent to required recipients via the CSO Notification System.
7. Notifications continue to be automatically distributed every 8 hours if the discharge is ongoing.
8. Upon event cessation, an automated notification is distributed to subscribers and CSO Notification Webpage through CivicPlus indicating event cessation. Updated automated emails are sent to required recipients (See Attachment 1) via the CSO Notification System.
9. Manually submit report containing all information in public notification to MassDEP via online portal within 18 hours of issuing public notification.
    a. Update existing reports in the MassDEP online portal as required if discharges are continuing after the 18 hour period.
    b. If a retraction is required, submit retraction to MassDEP via online portal within 48 hours of the initial notification.
10. Confirm discharge within 48 hours of commencement of rain event.
    a. Perform topside inspection of CSO Regulator to determine if a CSO has occurred.
    b. Check wooden blocks placed in regulator structures between channels conveying sewer flow and overflows discharging into surface waters. Confirm positive discharge if block has been washed from section conveying sewer flow into the surface water discharge.
    c. If no overflow has occurred, issue retraction on website, to CivicPlus subscribers, and to required notification recipients through CivicPlus within 48 hours of the initial notification.

Notes:

1) Issue manual notification adhering to above timeline in the event of a discharge resulting from a failure at the EWWTF.
2) EWWTF Bypass Procedure included as Attachment 5.
3) See Attachment 1 Section 7 for list of required notification recipients.

SSO Discharge Detection and Notification Standard Operating Procedure

SSO Notification Procedures for Overflows Regulated Under 314 CMR 16.00

1. Alert of potential SSO is received via public notification hotline, DPW site visit, or West WWTF SCADA system
2. Mobilize City staff to confirm discharge. Confirm within 4 hours of receiving initial alert
3. Manually draft public notification. Post to CSO Notification Webpage and distribute to subscribers via CivicPlus and required notification recipients within 2 hours of positive confirmation of discharge
4. If event ceases within 8 hours, post update to CSO Notification Webpage and distribute to subscribers via CivicPlus and required notification recipients
5. If event is ongoing 8 hours after initial notification, post update manually to CSO Notification Webpage and distribute to subscribers via CivicPlus and required notification recipients. Post/distribute updates to all parties every 8 hours while event is ongoing
6. When the discharge has ceased, post manual notification to CSO Notification Webpage and manually distribute to subscribers via CivicPlus and required notification recipients within 2 hours indicating that the discharge has ceased
7. Submit report containing all information in public notification to MassDEP via online portal within 18 hours of issuing public notification

Notes:

1) This procedure is applicable to any SSO that:
    a. discharges through a wastewater outfall, either directly or indirectly, to a surface water of the Commonwealth;
    b. flows into a surface water of the Commonwealth and is the result of the sanitary sewer system surcharging under high flow conditions when peak flows cannot be conveyed to a POTW due to capacity constraints; or
    c. flows into a surface water of the Commonwealth and is the result of failure of a wastewater pump station or associated force main designed to convey peak flows of 1 MGD or greater
2) Follow standard SSO notification procedure if overflow does not fall into one of the above categories
3) Include the following in manually drafted public notification: Description of overflow location and outfall number(s) if applicable; Approximate date and time the overflow began, and its duration; Estimated volume of discharge; Identity of permittee; Whether, at the time of notification, the overflow has ceased, and if so, the approximate time and date that the overflow ended; Waters and land areas, including water body and municipality names, affected or potentially affected by overflow; Precautionary measures to be taken by the public, including the following language: “avoid contact with these water bodies for 48 hours after the discharge or overflow ceases due to increased health risks from bacteria and other pollutants. See website for more information on whether specific resource areas, such as bathing beaches, are affected”; Link to City website for additional information; A statement that the overflow consists of untreated sewage and waste

Attachment 10

CSO Alarming Matrix

Attachment 10
CSO Alarming Matrix

Location	Overflow Method	Sensor	High High Alarm threshold (in.)	Prism Equation	
CSO-004	Weir	CS4	38.38	if(H> 38.38, 0.0034722*3.10*2.152*POW((H-38.38)/12, 1.5), 0)	
CSO-010(2)	Weir	LRD	37.75	if(H> 37.75, 0.0034722*5.25*2.152*POW((H-37.75)/12, 1.5), 0)	
CSO-032	Weir	LRD	19.5	if(H> 19.5, 0.0034722*1.375*2.152*POW((H-19.5)/12, 1.5), 0)	
CSO-041	Weir	LRD	37	if(H> 37, 0.0034722*3.17*2.152*POW((H-37)/12, 1.5), 0)	
CSO-045	Weir	LRD	33	if(H> 33, 0.0034722*2.25*2.152*POW((H-33)/12, 1.5), 0)	
CSO-064	Weir	CS4	40	if(H> 40, 0.0034722*2.0*2.152*POW((H-40)/12, 1.5), 0)	
CSO-076	Manning	LRD	24	if(H>24,(Q-.2)*.0034722,0)	
CSO-083	Manning	LRD	59	if(D>59,(Q-.10)*.0034722,0)	Stop on 11/1/22 ADS revised sensor configuration
CSO-083(2)	Continuity	CS4	1.5	Positive flow = overflow	Begins 11/1/22
EWWTF-BPF	Continuity	CS4	2		
EWWTF-BPF(2)	Flume	LRD	1.5	if(Depth >1.5 and Q>0,Q*.0034722,0)	

* Notes

Weir equation $Q=KLH^{1.5}$

H = Head (depth in feet above the weir)

K = Constant for units (2.152 is MGD)

L = weir length in feet

.003472 converts 5 min flow rate to flow volume

Manning Equations

H = Head (Depth in inches from sewer level)

Q= Manning flow rate minus flow to the WWTP - Roughness .015 and slope estimated at 2%

.003472 converts 5 min flow rate to flow volume

Attachment 11

Structure Discharge vs. Historical Rainfall

Attachment 11

CSO/EWWTF Structure Discharge vs. Historical Rainfall from Last 3 Years

CSO Outfall or EWTF Bypass	CSO Regulator Location	CSO Outfall Location	Estimated Discharge Volume (gallons) per 1-Inch of Rainfall	Treatment	Receiving Waterbody
CSO 004	Cleghorn Street and Oak Hill Road	under the South Side of Oak Hill Road Bridge near the intersection of Oak Hill Road and River Street	8,600		North Nashua River
CSO 010	Main Street and River Street	under the River Street Bridge near the intersection of River Street and Main Street	69,100		North Nashua River
CSO 032	543 Main Street (Post Office)	under the Northeast Side of the Circle Street Bridge	20,000		North Nashua River
CSO 041	Benson Street and Falulah Street	at the abandoned Falulah Canal near 69 Benson Street	3,800		unnamed tributary downstream of Falulah Canal
CSO 045	Main Street and Oliver/Putnam Street	opposite Riverfront Park off of Boulder Drive (via abandoned Punch Brook Culvert)	291,100		North Nashua River
CSO 064	The Water Street easement behind 672/678 Water Street	at the Water Street Easement behind 672/678 Water Street	212,300		North Nashua River
CSO 076	Birch Street and Heywood Street	in the woods southeast of the intersection of Water Street and John T Cetrino Memorial Drive	7,200		Birch Brook
CSO 083	Main Street and Prichard Street	opposite Riverfront Park off of Boulder Drive (via abandoned Punch Brook Culvert)	33,500		North Nashua River
Easterly Wastewater Treatment Facility Bypass	The Easterly Wastewater Treatment Facility (24 Lanides Lane, Fitchburg, MA)	at the North Nashua River near 24 Lanides Lane, Fitchburg, MA	1,097,000	Removal of solids via aerated grit tanks, mechanical bar screens, and coagulation using ferric chloride, and disinfection of pathogens through chlorine contact tanks followed by dechlorination.	North Nashua River