

CITY OF SOMERVILLE, MASSACHUSETTS
KATJANA BALLANTYNE
MAYOR
DEPARTMENT of INFRASTRUCTURE & ASSET MANAGEMENT
ENGINEERING DIVISION



RICHARD E. RAICHE, PE, PMP
DIRECTOR OF INFRASTRUCTURE & ASSET MANAGEMENT

BRIAN POSTLEWAITE, PE
DIRECTOR OF ENGINEERING

April 15, 2022

Re: Somerville Draft Combined Sewer Overflow Preliminary Public Notification Plan

Dear Somerville Board of Health members,

The City of Somerville is required to submit to MassDEP by May 1, 2022 a Combined Sewer Overflow Preliminary Public Notification Plan, which includes all the requirements detailed in *314 CMR 16.00 Notification Requirements to Promote Public Awareness of Sewage Pollution*.

The Engineering Division of the IAM Department, in collaboration with City departments (Department of Human and Health Services, Communications Department, Department of Public Works, Water and Sewer Department, and Mayor's Office), the City of Cambridge, and the Massachusetts Water Resources Authority (MWRA), has developed a Draft Combined Sewer Overflow Preliminary Public Notification Plan (the Plan).

For your information, we are including the Plan, along with Attachment A, to the agenda for the Board of Health meeting on April 21, 2022. No action is required by the Board of Health regarding this Plan.

If you have any questions, please contact me at 617-448-3716 or lhiller@somervillema.gov.

Regards,

Lucica Hiller

Lucica S. Hiller, EIT
Stormwater Program Manager

Attachment: *Somerville Draft Combined Sewer Overflow Preliminary Public Notification Plan and Attachment A*

cc: Rich Raiche, City of Somerville
Brian Postlewaite, City of Somerville





**Massachusetts Department of Environmental Protection
Bureau of Water Resources – Wastewater Management Program
Combined Sewer Overflow Preliminary 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 Somerville - Engineering Department

Name of Permittee (Facility or System)
Lucica S. Hiller

Permittee Contact Name
1 Franey Road, Somerville, MA

Permittee Mailing Address
MA0101982

NPDES Permit # (only for system with a wastewater treatment plant)

System contains (check all that apply):
 Collection system
 Pump station(s)
 Wastewater treatment plant

Location of WWTP discharge, if applicable:

ihiller@somervillema.gov
617-448-3716

Please attach a map with locations of discharges and affected waterbodies.

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? 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 has speakers who self-identify as "do not speak English very well"? Yes No

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

Haitian Creole, Nepali, Spanish, Portuguese, Arabic, Amharic. See Attachment A, Section 2 for details.

Does your municipality provide translation of municipal documents in the languages listed above? Yes No

If you answered "yes" above, does your municipality's staff provide translation of municipal documents, or are translation services outsourced?

Municipal Staff Outsourced

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)

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. Attach a schedule for compliance.

Components that cannot be met

Schedule for compliance



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

4. Discovery and Required Timeline for Notification

Is the permittee requesting approval to use a method other than metering to detect a discharge?
(Requires approval of MassDEP Commissioner)

Attach additional information on method to detect a discharge. Yes No

Discovery of a Discharge or Overflow:

Permittee can discover an event under 314 CMR 16.04(5)(a), (b) & (c) within the required timeline? Yes No

If no, specify limitations to meeting these requirements and potential remedies, e.g., method of detection does not allow for discovery within specified timeframe, staffing, etc.:

Issuance of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(4) Yes No

If no, why and what measures are needed for compliance?

Website updates outside City business hours, see See Attachment A, Section 4.

Continuation of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(7) Yes No

If no, which requirement cannot be met and what measures are needed for compliance?

Website updates outside City business hours, see See Attachment A, Section 4.

Cessation of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(8) Yes No

If no, why, and what measures are needed for compliance?

Website updates outside City business hours, see See Attachment A, Section 4.

Retraction of Public Notification:

Permittee can meet the notification requirements in 314 CMR 16.04(9) Yes No

If no, which requirement cannot be met and what measures are needed for compliance?



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

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:

<https://www.somervillema.gov/departments/alewife-brook-combined-sewer-overflow-cso-control>

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

See Attachment A, Section 5.

Permittee has a website and is able to meet the requirements under 314 CMR 16.05(1)(a-e)? Yes No

If no, specify limitations to meeting these requirements and potential remedies:

6. Signage

Permittee has consulted with the Board of Health/Health Departments in municipalities affected by their discharges for public access sign location points? 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 and potential remedies:

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

If no, specify limitations to meeting these requirements and potential remedies:

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.

The Boston Globe

Name of media outlet #1

The Somerville Times

Name of media outlet #2



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

7. Public Notification Recipients (cont.)

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.)

See Appendix A, Section 7.

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

See Instructions for list of **Required Public Notification Recipients** (314 CMR 16.04(4)(a)). Please attach list of your required contacts.

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.

Print Name

Title

Signature

Date



Somerville Combined Sewer Overflow Preliminary Public Notification Plan: Attachment A

Section 1: Facility Information

The City of Somerville has two (2) combined sewer overflow outfalls (CSO):

- CSO outfall SOM001A, which discharges untreated combined sewage into the Alewife Brook, is permitted to the City of Somerville.
- CSO outfall SOM007A/MWRA205A, which discharges treated combined sewage in the Mystic River, is permitted both to Somerville and MWRA.

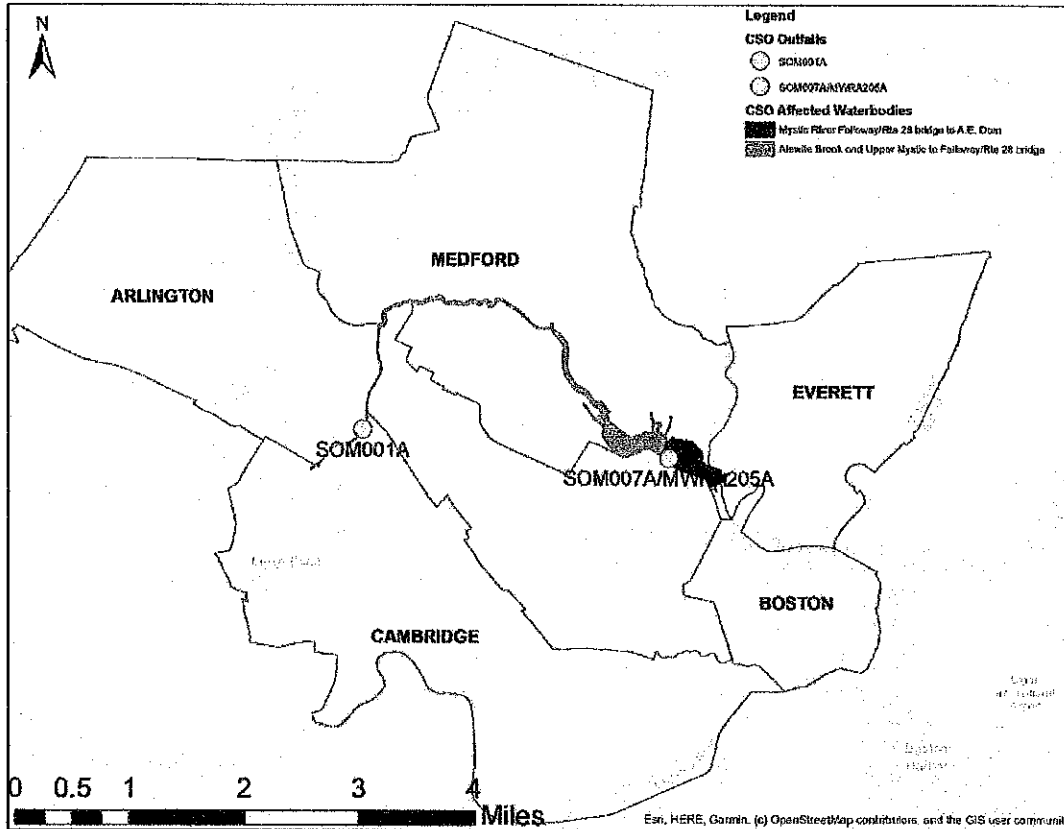


Figure 1. Somerville CSO Outfalls Locations



Section 2: Identification of Environmental Justice Populations

Somerville identified the following six (6) languages that meet the criteria specified in the regulations: Amharic, Arabic, Haitian Creole, Nepali, Portuguese, and Spanish (see **Table 1**).

The public advisory notifications send through email will include translations of all the information required to be included in 314 CMR 16.04 (10) in the six (6) languages identified.

Exclusion from translations: Numbers, such as for volume, date, time, and duration, will not be translated into Amharic, Arabic, and Nepali, as the City does not employ translators and language coordinators that are working 24/7.

Somerville also utilized Google Translate on all its public website pages, including the Somerville CSO web page. The public will be able to select the language of their choice and read the available information regarding combined sewer overflows (CSO) and sanitary sewer overflows (SSO).

Table 1: EJ Languages for Translations of Somerville’s CSO Public Advisory Notifications

| Municipality | 25% EJ Criteria | 5% “do not speak English very well” | Somerville Municipal Staff Translations |
|--------------|-----------------|---|--|
| Cambridge | E | Amharic | No, outsourced to vendor |
| Arlington | None | None | N/A |
| Somerville | E | Portuguese, Nepali, Spanish | Yes |
| Medford | E | Arabic, Spanish, Portuguese | No (Arabic), outsourced to vendor Yes (Spanish, Portuguese) |
| Everett | E | Spanish, Portuguese, French Creole (Haitian Creole) | Yes |



Section 3: Discharges, Overflows, and Public Notification Content

CSO outfall SOM007A/MWRA205A, which discharges in the Mystic River, is permitted both to Somerville and MWRA. Activations and volumes will be reported by MWRA, and Somerville will include a link to the MWRA's web page on our Somerville CSO web page.

CSO outfall SOM001A, which discharges into the Alewife Brook, is permitted to the City of Somerville. Somerville will include in the public advisory notifications for this outfall all the required information from 314 CMR 16.04 (10). The public advisory notifications will be sent via email to all the required entities and the subscribers.

Somerville will estimate the volume of overflow by using overflow and rain data from the prior three (3) calendar years as follows:

1. Each overflow volume will be normalized by the rain amount for that event to determine the Normalized Overflow [gallons/inch].
2. All three years' worth of Normalized Overflows will be averaged as a simple mean – Average of Normalized Overflows [gallons/inch]
3. The rain events will be averaged using a simple mean – Average of Rain Events [inch]
4. The Estimated Volume of Overflow will be calculated as:

$$\text{Estimated Volume of Overflow [gallons]} = \text{Average of Normalized Overflows} \left[\frac{\text{gallons}}{\text{inch}} \right] * \text{Average of Rain Events [inch]}$$

The waters affected by Somerville's CSO and SSO discharges and overflows are:

- The Alewife Brook, and
- The Mystic River
 - SOM001A – from confluence of Alewife Brook into the Mystic River to Fellsway/RT28 bridge.
 - SOM007A – from the Fellsway/RT 28 bridge to the Amelia Earhart Dam.

The City's two CSO outfalls directly discharge into these two waterbodies and the two CSO outfalls are the only two wastewater outfalls where SSOs can potentially discharge into the two waterbodies.

The land areas potentially affected by discharges and overflows from our two CSO outfalls are land areas abutting the two rivers in the following municipalities: Cambridge, Arlington, Somerville, Medford, and Everett. To determine the extent of the potentially affected land areas, Somerville used results of the receiving water quality modeling for the Alewife Brook/Mystic River that MWRA developed for their LTCP and best professional judgement.



For SSOs discharges, potentially affected land areas are in the municipalities abutting the two receiving waterbodies:

- For potential discharges into the Alewife Brook: Cambridge, Somerville, and Arlington.
- For potential discharges into the Mystic River: Medford, Somerville, and Everett.

Section 4: Discovery and the Required Timeline or Notification Following Discovery of a Discharge or Overflow

Somerville's procedure for discovering CSO discharges and overflows events at SOM001A are:

- City staff receives email and text alerts from the monitoring software system (PRISM) when the flow meter installation reads that the height of water in the pipe exceeds the height of the weir. The flow metering installation at this location record data every five (5) minutes.
- The list of City staff that receives these alerts includes Stormwater Program Manager, Director of Engineering, Director of Infrastructure and Asset Management, Construction Liaison, and Communication Liaison.
- The Stormwater Program Manager has direct responsibility to discover the CSO activations and to send the public advisory notifications.
- When the alert notifications are received, the City will take no more than four (4) hours to log into PRISM and verify that the meter is operational and review the meter data. Note: Somerville does not have staff working 24 hours a day 7 days a week.
- After the CSO activation is discovered, the City will take no more than two (2) hours to send the initial public advisory notification via email.
- In total, the City will take no more than four (4) hours from the alert notification is received to send the initial public advisory notification via email.
- The City maintains an updated internal procedure that includes information on the steps City staff need to take once an alert is received, log in information to the software we use to send the public notifications, and a template email of the notifications. This internal procedure is used when directly responsible staff is not available.
- The City, through the Communications Department, will issue public health warnings via email using our emergency notification system to all Somerville residents for discharges as required by CMR 16.09 (1) (a) – (c). These public health warnings will be issued as soon as possible during City's business hours.

MWRA employs a flow meter at CSO SOM007A/MWRA205A and will discover discharges or overflow events as detailed in their CSO Preliminary Public Notification Plan. Activations and volumes will be reported by MWRA, and Somerville will include a link to the MWRA's web page on our Somerville CSO web page.



Somerville's procedure for discovering SSO discharges and overflows are:

- City staff in the Water and Sewer Department receive alerts through our current work order system from any residents that notice SSOs, and Water and Sewer Department staff identify SSOs during their filed investigation during heavy rains.
- Water and Sewer Department staff are mobilized as soon as the alert is received to identify the root cause of the overflow, estimate the volume of discharge, and treat and contain the discharge. An email and text with this information will be sent to the Stormwater Program Manager no more that four (4) hours after the alert is received.
- The email and text to the Stormwater Program Manager will constitute the time of discovery.
- After the SSO is discovered, the City will take no more than two (2) hours to send the initial public advisory notification via email.

Request for waiver of notification requirements in 314 CMR 16.04(4), (7), and (8):

The only requirement that the City of Somerville cannot meet is the requirement to post the public notifications on the Somerville CSO web page at the same time as the public notifications are issued via email, when these emails are issued outside of City's business hours. The City does not currently employ, nor does it plan to employ, webmasters that work 24 hours a day 7 days a week.

When public notifications emails are issued outside City's business hours (8 am to 4 pm, Monday through Friday), the public notifications will be posted on the website as soon as possible, and no later than 1:00pm, the next business day.

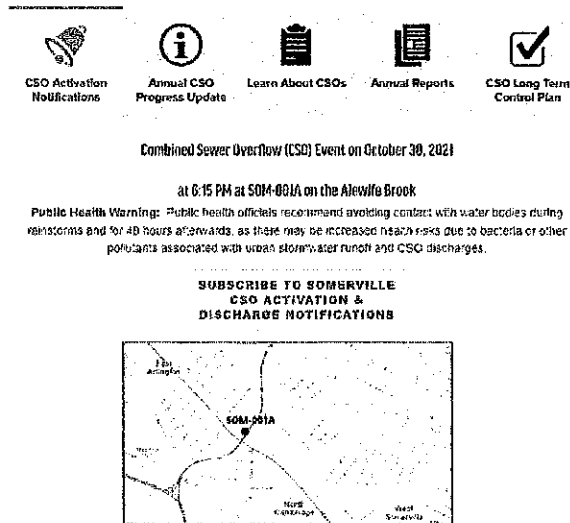
To facilitate the access to the information included in the public notifications, the public notifications issued through emails will include translations of all the information into the six EJ languages.

When public notifications emails are issued during City's business hours (8 am to 4 pm, Monday through Friday), the public notification information will be posted on the website within one (1) hour.



Section 5: CSO Permittee Website

Somerville has been maintaining a CSO web page that can be accessed at the following address:
<https://www.somervillema.gov/departments/alewife-brook-combined-sewer-overflow-cso-control>



This website is currently being updated to include additional information that will meet the requirements of the regulations as detailed in 314 CMR 16.05 (1) (a) –(e) by July 6th, 2022.

The public has been able to subscribe to our notification system since December 31, 2020, by clicking the ‘Subscribe to Somerville CSO Activation & Discharge Notifications’ button, as shown in *Figure 2*, and filling out a form with name and email address. Somerville currently uses Google Groups to maintain the list of contacts for both the subscribers and the required contacts.

Figure 2. Somerville CSO Website Subscriber Button

Section 6: Signage

- Outfall Signage – Somerville has previously installed signs at each of our CSO outfall. Photographs of these signs are included in the figure 3 and 4.

Figure 3 – SOM001A sign (to be added)

Figure 4 – SOM007A sign (to be added)

- Public access signs
 - Somerville has been coordinating with other metropolitan CSO permittees and affected communities, including boards of health and health departments, to identify the public access points where these signs need to be installed. Proposed locations of the signs are included in *Table 2*, along with the proposed dates when the signs will be installed.
 - Proposed signs at public access points along the Alewife Brook and the Mystic River will be installed as a collaborative effort between MWRA, Cambridge, and Somerville, and will require coordination with DCR. The intent is to install the permanent signs before the 2023 recreational season.



Table 2: Proposed Public Access Sign Locations and Installation Dates

| Public Access Point | Municipality | Estimated Date for Installation |
|---|---------------------|--|
| RT. 16 and Mass Ave intersection ⁽¹⁾ | Arlington/Cambridge | May 2023 |
| Condon Shell/Paddle Boston ⁽¹⁾ | Medford | May 2023 |
| South Street – public boat launch site | Medford | May 2023 |
| Behind McGlynn School – public kayak/canoe launch | Medford | May 2023 |
| Blessing of the Bay boathouse and park ⁽¹⁾ | Somerville | May 2023 |

Note: (1) Existing location of educational sign required by the 2019 Alewife Brook/Mystic River CSO Variance



Section 7: Public Notification Recipients

Somerville's electronic submittal required contacts are:

- the Department; massdep.sewagenotification@mass.gov, james.barsanti@mass.gov, Kevin.Brandner@mass.gov,
- the U.S. Environmental Protection Agency; R1.EPANotifications@epa.gov, borci.todd@epa.gov,
- the Massachusetts Department of Public Health; DPHToxicology@mass.gov
- the municipal board of health or the health department where the outfall or overflow is located;
 - Cambridge (slipson@challiance.org)
 - Somerville (boh@somervillema.gov, nbacci@somervillema.gov)
 - Arlington (NWaden@town.arlington.ma.us)
 - Medford (moconnor@medford-ma.gov)
- the board of health or the health department and shellfish constables (if applicable) for any municipality directly impacted by the discharge or overflow
 - N/A Somerville's CSOs do not have the potential to affect beaches or shellfish beds.
- the Massachusetts Department of Conservation and Recreation when its water recreation properties may be affected; MEMA.StateControl@mass.gov
- the Massachusetts Division of Fisheries and Wildlife when its boat ramps and fishing piers may be affected; doug.cameron@mass.gov
- Operators of any potentially affected bathing beaches, as defined in 105 CMR 445.00: *Minimum Standards for Bathing Beaches (State Sanitary Code: Chapter VII)*
 - N/A Somerville's CSOs do not have the potential to affect beaches or shellfish beds
- Mystic River Watershed Association: andrew.hrycyna@mysticriver.org, catherine.pedemonti@mysticriver.org
- Any person who subscribed to receive such public advisory notifications by email or text messaging.
 - Somerville maintains in Google Groups a list of subscribers that receive the public notifications via email.



Somerville identified the following media outlets that serve the EJ populations identified in Section 2.

Table 3: Media Outlets for EJ Populations Potentially Affected by CSO and SSO Discharges from Somerville

| EJ Language | Name of Media Organization | Name of Contact | Contact Email Address |
|----------------|----------------------------|------------------|--|
| Spanish | El Planeta | | editor@elplaneta.com |
| Portuguese | Brazilian Times | Liliane Paiva | lilianenyc@gmail.com |
| Haitian Creole | Boston Haitian Reporter | William P. Forry | newseditor@dotnews.com |
| Nepali | TBD | | |
| Arabic | TBD | | |
| Amharic | TBD | | |