

Year 6 Annual Report

Massachusetts Small MS4 General Permit

Reporting Period: July 1, 2023-June 30, 2024

*****Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form. Also ensure any websites included on this form are to publicly accessible sites*****

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2023 and June 30, 2024 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization: City of Somerville

EPA NPDES Permit Number: MAR041082

Primary MS4 Program Manager Contact Information

Name: Lucica S. Hiller

Title: Stormwater Program Manager

Street Address Line 1: 1 Franey Road

Street Address Line 2: Engineering Division

City: Somerville

State: MA

Zip Code: 02145

Email: lhiller@somervillema.gov

Phone Number: (617) 448-3716

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address): <https://www.somervillema.gov/sites/default/files/stormwater-management-plan-2020.pdf>

Date SWMP was Last Updated: 06/30/2020

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

Impairment(s)

- ☒ Bacteria/Pathogens
 ☒ Chloride
 ☐ Nitrogen
 ☒ Phosphorus
☒ Solids/ Oil/ Grease (Hydrocarbons)/ Metals

TMDL(s)

- In State:**
☐ Assabet River Phosphorus
 ☒ Bacteria and Pathogen
 ☐ Cape Cod Nitrogen
☒ Charles River Watershed Phosphorus
 ☐ Lake and Pond Phosphorus
Out of State:
☐ Bacteria/Pathogens
 ☐ Metals
 ☐ Nitrogen
 ☐ Phosphorus

Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

Annual Requirements

- ☐ Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
☒ Kept records relating to the permit available for 5 years and made available to the public
☒ The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
 - ☐ This is not applicable because we do not have sanitary sewer
 - ☒ This is not applicable because we did not find any new SSOs
 - ☐ The updated SSO inventory is attached to the email submission
 - ☐ The updated SSO inventory can be found at the following publicly available website:

- ☒ Updated system map due in year 10 with information from completed catchment investigations
☒ Provided training to employees involved in IDDE program within the reporting period
☒ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
☒ All curbed roadways were swept at least once within the reporting period
☒ Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
☒ Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities

- ☒ Updated inventory of all permittee owned facilities as necessary
- ☒ O&M programs for all permittee owned facilities have been completed and updated as necessary
- ☒ Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs
- ☒ Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- ☐ Inspected all permittee owned treatment structures (excluding catch basins)

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The SWMP is available on-line for residents to read and ask questions, and the Stormwater Management page is being updated with pertinent and permit-related items as they become available. All relevant reports (IDDE plan, system map, PCP and PSID) are published on the Stormwater Management page (<https://www.somervillema.gov/departments/programs/stormwater-management>). A draft public-facing SWMP report was completed early 2023, but has not been made available to the public during this reporting period because of staffing limitations and the focus toward CSO Control Planning. The City is currently waiting to finalize the public facing SWMP as EPA is developing the new Draft MS4 Permit.

The City has hired an Infrastructure GIS Coordinator in Spring 2024. With their help, the GIS schema for all our collection system assets has been updated and significant progress has been made toward year 10 system map. All City-owned stormwater control measures have been digitized and incorporated into the GIS database.

The City of Somerville relies on third party contractors to implement the IDDE Program, and City staff directly involved in the implementation of the IDDE program at this stage of dye testing residences is minimal. For these reasons, IDDE employee training this reporting period focused on hands-on in the-field training while performing dye testing of pipe connectivity under the supervision of the Stormwater Program Manager.

The City has put out to bid the annual inspection and cleaning of the MS4 catch basins for the next 3 permit years. This contract also includes the inspection and cleaning of recently identified hydrodynamic separators. A vendor was selected expected to start work Fall of 2024. Catch basin inspection and cleaning data from the past 2 permit years has been unreliable in determining percent full.

The City does not currently have any facilities in the MS4 area that require SWPPPs.

The City, like many other communities, is struggling to find staff for inspection, operation, and maintenance of our systems. We have started the inspection of city-owned treatment structures in June 2024 with the help of an engineering intern, and continued the inspection throughout July and August of 2024. The results of these inspections helped the City update the scope of work and specifications for a GSI O&M contract that we expect to bid late 2024. This reporting period, the City secured the necessary funds to proceed with the GSI O&M contract.

This reporting period, the City has continued CCTV cleaning and inspection of our stormwater pipes with the goal to have all the stormwater pipes inspected in the next few years while prioritizing the MS4 areas. Stormwater pipes in need of repairs and rehabilitation have been identified in West Somerville, and work started in June 2024 and expected to be completed in by the end of 2024. This work includes the construction

of two stormwater control measures (a subsurface infiltration trench and a stormwater bump out) in our MS4 area discharging to the Alewife Brook.

Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- ☒ Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☐ Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- ☐ Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria
 - ☒ This is not applicable because there are no septic systems present

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The City is still working to distribute information at the time of the licensing to supply dog owners with educational materials regarding the proper disposal of pet waste.

The City does not have any residences with septic systems so will not be distributing information regarding maintenance of septic systems.

Chloride

Annual Requirements

Public Education and Outreach

- Included an annual message in November/ December to private road salt applicators and commercial
- ☒ industrial site owners on the proper storage and application rates of winter deicing material, along with the steps that can be taken to minimize salt use and protect local waterbodies

The following type(s) of salt were applied **during this reporting period (year 6):**

- ☒ Sodium chloride
- ☐ Calcium chloride
- ☐ Potassium chloride
- ☒ Magnesium chloride
- ☒ Brine solution

Total amount of salt applied **during this reporting period (year 6) including units:**

3827 tons of salt

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Chloride is a new impairment for the Alewife Brook based on the Final 2018/2020 Integrated List of Waters (303(d) list) that was approved by EPA on February 2, 2022 . The City understands that we have three years

from 2022 to develop a Salt Reduction Plan. The Public Education Program has been updated to incorporate the chloride public education requirement.

The City uses a mixture of Sodium Chloride and treated ICEB'GONE MAGIG brand treated salt, which is Sodium Chloride treated with 22% Magnesium Chloride and 20% molasses. The amount of salt applied this reporting period is the amount that was applied city wide, not the amount applied to the Alewife MS4 area.

Phosphorus (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- ☒ Distributed an annual message in the spring (April/May) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers
- ☒ Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☒ Distributed an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- ☒ Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Structural BMPs

- ☐ Installed a structural BMP as a demonstration project within the drainage area of the water quality limited water or its tributaries. The type of BMP installed is (*e.g. biofiltration*):

Two structural BMPs have been designed and bid out for construction. One is a subsurface infiltration trench on Chetwyn Street and the other one is a stormwater bumpout on Fairfax Street. The construction of these systems was completed in September 2024.

- ☒ Any structural BMPs already existing or installed in the regulated area by the permittee or its agents was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. The BMP type, total area treated by the BMP, the design storage volume of the BMP, and the estimated phosphorus removed in mass per year by the BMP were documented.

- ☐ No BMPs were installed
- ☒ The above referenced BMP information is attached to the email submission
- ☐ The above referenced BMP information can be found at the following publicly available website:

Total estimated phosphorus removed in **lbs/year** from the installed BMPs: 15.7

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The City's MS4 area is small (approximately 10% of all city area) and opportunities for retrofit municipal parcels or buildings is limited, as detailed in the updated Phosphorus Source Identification Report. For these

reasons, the City is instead focusing on implementing structural BMPs in the right-of-way in our MS4 areas in conjunction with our sewer and drain rehabilitation work. These structural BMPs will prioritize phosphorus reduction.

The City has made significant progress identifying already installed structural BMPs citywide, not only in our MS4 area, and gathering the data to calculate phosphorus removal.

Solids, Oil and Grease (Hydrocarbons), or Metals

Annual Requirements

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- ☒ Increased street sweeping frequency of all municipal owned streets and parking lots to a schedule that targets areas with potential for high pollutant loads
- ☐ The street sweeping schedule is attached to the email submission
- ☒ The street sweeping schedule can be found at the following publicly available website:

<https://www.somervillema.gov/departments/sweeping>

- ☐ Prioritized inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Cleaned catch basins more frequently if inspection and maintenance activities indicated excessive sediment or debris loadings

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The City has an extensive street sweeping program and the existing street sweeping contract with a third party vendor is set for sweeping every public street every other week. The City is not currently considering further increasing the sweeping frequency in our MS4 area.

The City has 480 MS4 catch basins that are inspected and cleaned at least once a year using a third-party contractor. Data collected in the filed and submitted through the Survey123 form from the last two reporting periods shows that all our catch basin sumps are uniform in size and that 99% of the sumps are 100% full, which is inaccurate. With this unreliable data, the City was unable to correctly identify the catch basins with sumps more that 50 percent full for an additional cleaning. The plan is to inspect and clean all the MS4 catch basins in the Fall of 2024 with a new vendor.

Charles River Watershed Phosphorus TMDL

Below, calculate your current phosphorus export rate by first filling out the individual phosphorus loading components (labeled [A], [B], [C], and [D]) and then computing your current phosphorus export rate using the equation provided.

Baseline phosphorus export rate from PCP Area, as identified in Appendix F (lbs/year) [A]:	1,421
Total phosphorus reduction from all nonstructural controls implemented this reporting period (lbs/year) [B]:	26.78
Total phosphorus reduction from all structural controls installed this reporting period and all previous years (lbs/year) [C]:	0
Phosphorus load increase due to development incurred since 2005 in lbs/year [D]:	84

Phosphorus load increase due to development incurred since 2005 in

Current phosphorus export rate from the PCP Area in **lbs/year** [=A-(B+C)+D from above]:

1,478.22

I certify under penalty of law that all source control and treatment Best Management Practices being claimed for phosphorus reduction credit have been inspected, maintained and repaired in accordance

- ☒ with manufacturer or design specification. I certify that, to the best of my knowledge, all Best Management Practices being claimed for a phosphorus reduction credit are performing as originally designed.
- ☒ All municipally owned and maintained turf grass areas are being managed in accordance with Massachusetts Regulation 331 CMR 31 pertaining to proper use of fertilizers on turf grasses
- ☒ Implemented all nonstructural control measures **during this reporting period** and documented the measures and their phosphorus reduction. The nonstructural control measure information:
- ☐ is attached to the email submission
 - ☒ can be found at the following publicly available website:

<https://s3.amazonaws.com/somervillema-live/s3fs-public/somerville-phosphorus-control-plan.pdf>

- ☐ Documented the structural control measures implemented during **this reporting period and all previous years**, including location, phosphorus reduction in mass/year, and date of last completed maintenance and inspection for each control. The structural control measure information:

- ☐ is not applicable; no structural control measures were implemented
- ☐ is attached to the email submission
- ☐ can be found at the following publicly available website:

The Phase 1 PCP: (select one of the following options. If you submitted your PCP last year and have an updated website, please include the website below)

- ☐ was submitted in the Year 5 Annual Report
- ☐ is attached to the email submission
- ☒ can be found at the following publicly available website:

<https://s3.amazonaws.com/somervillema-live/s3fs-public/somerville-phosphorus-control-plan.pdf>

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

The PCP report has been completed as of September 28th, 2023, inclusive of the Legal Analysis and Funding Source Assessment.

The numbers presented above for A, B, C, D assume the entirety of the Charles River watershed area of the City is separated and discharging stormwater runoff in the Charles River or the Millers River. The City finds itself in a unique situation for the PCP and Phosphorus TMDL requirements for discharges into the Charles River because the stormwater flows are currently conveyed through a combined sewer system. By the end of

PCP Phase 1 implementation (Permit Year 10), the City will have completed sewer separation in areas tributary to the Charles River that will contribute phosphorus loads less than the allowable load amount stipulated in the MS4 Permit. The anticipated load of 518 pounds/year from these areas is below the Year 10 Allowable Load of 1,199 pounds/year, hence the City is in compliance with the Phase 1 PCP obligations. As other areas of the City are being separated, the City will continue to estimate the cost to comply with the next phases of the PCP.

The City is still the process of collecting as-built data and operation and maintenance logs for the already-installed structural BMPs to appropriately calculate phosphorus reductions and to apply for credits, which we expect in Permit Year 7.

The O&M Program for structural controls is implemented as a combination of City staff and third party contractors.

NON-TRADITIONAL AND TRANSPORTATION MS4s ONLY- municipalities please skip this section:

Describe the planned phosphorus reduction activities on site and coordination progress with the applicable municipality:

Optional: Use the box below to provide any additional information you would like to share as part of your self-assessment:

Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

☒ Yes

☐ No

If yes, describe below, including any relevant impairments or TMDLs:

The City has made changes to the list of receiving waters and impairments based on the Final 2018/2020 Integrated List of Waters (303(d) list) that was approved by EPA on February 2, 2022. Chloride is now an impairment in the Alewife Brook, segment MA71-20.

Part IV: Minimum Control Measures

Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.

MCM1: Public Education

Number of educational messages completed **during this reporting period:**

*Below, report on the educational messages completed **during this reporting period**. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.*

BMP: Be a Leaf Hero!

Message Description and Distribution Method:

Flyer distributed during Civic Day 2023.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Flyers distributed, although people prefer to scan the QR code and get the information on-line, instead of taking a piece of paper.

Message Date(s):

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ☒ No ☐

If yes, describe why the change was made:

The time of distribution was earlier in the year.

BMP: Be kind, don't leave poop behind.

Message Description and Distribution Method:

Flyer distributed during Civic Day 2023.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Flyers distributed, although people prefer to scan the QR code and get the information on-line, instead of taking a piece of paper.

Message Date(s): April 27, 2023

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP: Bag or compost your grass clippings!

Message Description and Distribution Method:

Flyer distributed during Civic Day 2023.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Flyers distributed, although people prefer to scan the QR code and get the information on-line, instead of taking a piece of paper.

Message Date(s): April 27, 2023

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

BMP: Flood Ready Somerville!

Message Description and Distribution Method:

Flyers distributed during Civic Day 2023 in multiple languages to educate residents on how they can protect their homes and basement in case of flooding and what to do in case they encounter flooding in the streets.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

One-on-one conversations with residents about areas in Somerville that are more prone to flooding, where to reports street or basement flooding, and where they can get more additional information.

Message Date(s): April 27, 2023

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☒ No ☐

If yes, describe why the change was made:

Flooding from precipitation has been identified as the main hazard and risk for residents and businesses in multiple areas of Somerville. Our goal is to continue to inform and educate on both the quantity and quality of stormwater we can expect to see as our climate is changing.

BMP: Adopt-a-Drain Campaign

Message Description and Distribution Method:

Encourage residents to adopt a catch basin and keep the grate clean from trash and leaves. The campaign was developed through grant funds by the Mystic River Watershed Associated for the Stormwater Collaborative. The Somerville Stormwater Management page was updated to include the Adopt-a-Drain campaign, followed by social media postings, and in-person events.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Numbers of catch basins adopted - 646 catch basins have been adopted,

Message Date(s): multiple throughout Fall 2023

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

This is a new campaign with the main goal to educate residents about stormwater in general and getting them to come to the Stormwater Management page to get more information about what the City is doing and what each individual can do to keep our water clean.

Add an Educational Message

MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) **during this reporting period:**

The City's SWMP is available on-line for residents to read and ask questions.

Was this opportunity different than what was proposed in your NOI? Yes ☒ No ☐

Describe any other public involvement or participation opportunities conducted during this reporting period:

The City hosted a number of public meetings in the during 2023 (Civic Day, Slice of the City) to educate and gather input from residents on flooding, water quality, and combined sewer overflow challenges. Stormwater management was a topic included in the presentations to the public.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

☐ This SSO section is NOT applicable because we DO NOT have sanitary sewer

Below, report on the number of SSOs identified in the MS4 system and removed during this reporting period.

Number of SSOs identified:

Number of SSOs removed:

MS4 System Mapping

Percent of Phase II map complete:

Optional: Provide additional status information regarding your map:

Screening of Outfalls/Interconnections

If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.

- ☐ No outfalls were inspected
- ☐ The above referenced outfall screening data is attached to the email submission
- ☒ The above referenced outfall screening data can be found at the following publicly available website:

<https://s3.amazonaws.com/somervillema-live/s3fs-public/DDE-plan-update-2024.pdf>

*Below, report on the number of outfalls/interconnections screened **during this reporting period**.*

Number of outfalls screened: 1

*Below, report on the percent of outfalls/interconnections screened **to date**.*

Percent of outfalls screened: 100

Optional: Provide additional information regarding your outfall/interconnection screening:

A new outfall has been identified this reporting year through coordination with DCR - outfall 14. This outfall has been screened during both dry and wet weather.

Catchment Investigations

If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.

- ☐ No catchment investigations were conducted
- ☐ The catchment investigation data is attached to the email submission
- ☒ The catchment investigation data can be found at the following publicly available website:

<https://s3.amazonaws.com/somervillema-live/s3fs-public/DDE-plan-update-2024.pdf>

*Below, report on the number of catchment investigations completed **during this reporting period**.*

Number of catchment investigations completed this reporting period: 1

*Below, report on the percent of catchments investigated **to date**.*

Percent of total catchments investigated: 98

Optional: Provide any additional information for clarity regarding the catchment investigations below:

Catchment investigations are continuing for the catchments in our MS4 that have been identified as having additional tributary area draining into MS4 outfalls - 14 and 32. Field investigations are ongoing and, as connectivity is confirmed, the City is updating the system map and continuing catchment investigations.

In April 2024, field investigations were completed to confirm the drainage configuration of Catchment 10 and Catchment 11. The catchment geometry was updated according to these findings. During the field investigations, an additional outfall (Outfall 14) was discovered. The PSIR was updated to include the newly identified Catchment 14.

IDDE Progress

If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.

- ☒ No illicit discharges were found
- ☐ The illicit discharge removal report is attached to the email submission
- ☐ The illicit discharge removal report can be found at the following publicly available website:

Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed **during this reporting period**.

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed **since the effective date of the permit (July 1, 2018)**.

Total number of illicit discharges identified:

Total number of illicit discharges removed:

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

The City is still awaiting a demolition permit from 1241 Broadway Street, and plans to conduct:

- confirmatory dye testing at this location at the time the Certificate of Occupancy is issued, and
- additional dye testing in the upstream and downstream sewer manholes to confirm that no additional illicit connections exist in that segment of the pipe

Employee Training

Describe the frequency and type of employee training conducted **during this reporting period**:

IDDE employee training this reporting period focused on hands-on field training with the Stormwater Program Manager and Sewer staff.

MCM4: Construction Site Stormwater Runoff Control

Below, report on the construction site plan reviews, inspections, and enforcement actions completed **during this reporting period**.

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

Optional: Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

Inspection was completed in June 2023 at the Clarendon Hill Redevelopment project and the following observation were made:

- The sediment and erosion controls at the site have not been maintained, which is obvious from the broken and degrading silt socks surrounding the perimeter and some of the full catch basin silt sacks.
- There is a clear erosion problem at the site, where the sloped areas are not being stabilized.
- There are no back-up erosion and sedimentation control materials on site (stone, silt sacks, silt socks, stakes, etc).
- The SWPPP report was not on site, as required by your NPDES GCP Permit.

The City has worked with the developer throughout the Summer of 2024 to correct the erosion and sedimentation issues at the site.

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3):

Website of ordinance or regulatory mechanism:

As-built Drawings

*Below, report on the number of as-built drawings received **during this reporting period**.*

Number of as-built drawings received:

Optional: Enter any additional information relevant to the submission of as-built drawings:

Street Design and Parking Lots Report

Below, describe any changes made or planned to be made to local regulations and guidelines based on the report completed in Year 4:

N/A

Green Infrastructure Report

Below, describe progress towards making green infrastructure practices allowable based on the report completed in Year 4:

N/A

Retrofit Properties Inventory

Below, list remaining permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (must maintain a minimum of 5 sites in inventory until less than 5 sites remain):

- Woodstock Street Playground, Alewife Brook Parkway, Catchment 4
- Vacant (Silver Parcel), Russel Road, Catchment 7
- Healy School Rear Parcel, Mount Vernon Avenue, Catchment 21
- Healy School, Meacham Street, Catchment 21
- Ten Hills Playground, Governor Winthrop Road, Catchment 26

Below, list all properties that have been modified or retrofitted with BMPs to mitigate impervious area that were inventoried as part of 2.3.6.d of the permit and the type of BMP(s) implemented. Non-MS4 owned properties that have been modified or retrofitted with BMPs to mitigate impervious area may also be listed, but must be indicated as non-MS4.

In PY5, the City evaluated opportunities for stormwater retrofits within municipal rights-of-ways. Planned structural control measures were prioritized in CCTV inspection and sewer rehabilitation areas within the MS4 catchments, as this presents an additional benefit of phosphorus load reduction on rights-of-way that are scheduled for construction. The areas assessed for stormwater retrofit opportunities are identified in Figure A-8 under Appendix A. Of these opportunity areas, the roadways within the West Somerville and Ten Hill neighborhoods were prioritized based on their anticipated construction schedule for sewer rehabilitation. Detailed desktop reviews and field investigations were completed throughout these neighborhoods to determine suitability of various locations for installing GSI. Two sites were selected to be incorporated into the West Somerville Sewer Rehabilitation project, which was designed in PY6 and is planned for construction in PY7. The first GSI site is a subsurface infiltration project at the intersection of Chetwynd Road and Adams Street. The second GSI installation is a non-infiltrating media filter system on Fairfax Street.

In the summer of 2023, one of the municipal flagged as a potential retrofit opportunity underwent redevelopment.. The Benjamin G. Brown School, located at 201 Willow Avenue, went through a redesign of the schoolyard, which included surface and subsurface drainage improvements in addition to a turf field replacing existing asphalt pavement. While this retrofit was originally noted as achieving impervious surface reduction, the turf field is not considered a pervious surface and, therefore, there are no phosphorus reductions associated with the project.

MCM6: Good Housekeeping

Catch Basin Cleaning

*Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins **during this reporting period**.*

Number of catch basins inspected:

Number of catch basins cleaned:

Total volume or mass of material removed from all catch basins:

Below, report on the total number of catch basins in the MS4 system.

Total number of catch basins:

If applicable:

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

The City has 480 MS4 catch basins that we inspect and clean at least once a year using a third-party contractor. Data collected in the filed and submitted through the Survey123 form show that all our catch basin sumps are uniform in size and that 99% of the sumps are 100% full, which is inaccurate. With this unreliable data, the City was unable to correctly identify the catch basins with sumps more than 50 percent full for an additional cleaning.

The City has put out to bid the annual inspection and cleaning of the MS4 catch basins for the next 3 permit years. This contract also includes the inspection and cleaning of recently identified hydrodynamic separators. A vendor was selected expected to start work Fall of 2024. Catch basin inspection and cleaning data from the past 2 permit years has been unreliable in determining percent full.

Street Sweeping

*Report on street sweeping completed **during this reporting period** using one of the three metrics below.*

☒ Number of miles cleaned:

☐ Volume of material removed:

☐ Weight of material removed:

Stormwater Pollution Prevention Plan (SWPPP)

*Below, report on the number of site inspections for facilities that require a SWPPP completed **during this reporting period**.*

Number of site inspections completed:

Describe any corrective actions taken at a facility with a SWPPP:

N/A as the City does not have any facilities in the MS4 area that require a SWPPP.

Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- ☒ Not applicable
- ☐ The results from additional reports or studies are attached to the email submission
- ☐ The results from additional reports or studies can be found at the following publicly available website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Additional Information

Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above.

Activities Planned for Next Reporting Period

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 7 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree ☒

- Complete investigations of catchments associated with Problem Outfalls
- Complete investigations of catchments where any information gathered on the outfall/interconnection identifies sewer input

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)
- Identify additional permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas so that the permittee maintains a minimum of 5 sites in their inventory, until such a time when the permittee has less than 5 sites remaining

Provide any additional details on activities planned for permit year 7 below:

The City will continue to plan and implement stormwater management strategies and controls, while waiting for the draft MS4 and RDA permits, and the MA Stormwater Handbook to be issued by EPA and DEP in permit year 7.

Part V: Certification of Small MS4 Annual Report 2024

40 CFR 144.32(d) Certification

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

Name:

Richard E. Raiche

Title:

Director of IAM

Signature:

Date:

09/30/24

*[Signatory may be a duly authorized
representative]*

Note: When prompted during signing, save the document under a new file name.

Annual Report Submission

Please submit the form electronically via email to both EPA and MassDEP by clicking on one of the links below or using the email addresses listed below. Please ensure that all required attachments are included in the email and not attached to this PDF.

EPA: stormwater.reports@epa.govMassDEP: Stormwater.DEP@mass.gov

Paper Signature:

If you did not sign electronically above, you can print the signature page by clicking the button below.

[Print Signature Page](#)

Optional: If you did not sign electronically above, you may lock the form by clicking the "Lock Form" button below which will prompt you to save the locked version of the form. Save this locked version under a new file name.

[Lock Form](#)