

Year 5 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2022-June 30, 2023

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, 2022 and June 30, 2023 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address):

Date SWMP was Last Updated:

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 2 as necessary
- 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:

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:

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

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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:

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: 13

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: Elementary School Program - Keeping Water Clean

Message Description and Distribution Method:

Program engages 5th grade students in several activities designed to raise their stormwater and water conservation awareness. Students learn about watersheds, stormwater, ground water, waste water, how we impact these systems, and how they should be protected/maintained.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

2374 students
450 teachers and parents
40 schools

Message Date(s): September 2022 - June 2022

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: Print Material/Rack Card - "What Not to Flush"

Message Description and Distribution Method:

Distributed a two sided rack card highlighting what can and cannot be flushed down toilets to avoid blockages. The card illustrates that it is important to only flush toilet paper and biological waste, whether you have a septic or sewer system. All rack cards can be found on the Greenscapes website under the resources tab: <https://greenscapes.org/resources-rackcards/>

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

500 copies to each Greenscape community; Distributed at community events

[Empty text box]

Message Date(s): Various dates between September 2022 - June 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:

[Empty text box]

BMP: Print Material/Rack Card - Pet Waste

Message Description and Distribution Method:

Distributed a two sided rack card highlighting the importance of picking up pet waste. All rack cards can be found on the Greenscapes website under the Resources tab: <https://greenscapes.org/resources-rackcards/>

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

500 copies to each Greenscapes community; Distributed at community events

Message Date(s): Various dates between September 2022 - June 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:

[Empty text box]

BMP: Print Material/Magazine - Greenscapes Guide

Message Description and Distribution Method:

The Greenscapes Guide is a 26 page magazine that covers sustainable landscaping, stormwater management, and water conservation for residents. These guides were distributed at each school program Greenscapes conducted this year and at public events. A digital version can be found on our website: <https://greenscapes.org/greenscapes-guide/>

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

2400 Greenscapes Guides distributed at school programs; Distributed

Message Date(s): Various dates between September 2022 - June 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: "Greenscapes Guide to Green Infrastructure and Maintenance"

Message Description and Distribution Method:

This guide details different types of green infrastructure and their associated maintenance requirements: <https://greenscapes.org/wp-content/uploads/2023/06/Guide-to-Green-Infrastructure.pdf>

Targeted Audience: Developers, Residents +

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

Posted to the Greenscapes website as a resource for developers

Message Date(s): Posted on June 27th, 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: Web Based Tools - Model Bylaw Toolkit

Message Description and Distribution Method:

Created by the Greenscapes Coalition to help municipal staff find best language for their community's bylaws/ordinances. <https://mvpc.org/greenscapes-model-bylaw-toolkit/>

Targeted Audience: Municipal Staff

Responsible Department/Parties: Merrimack Valley Planning Commission & Greenscapes Coalition

Measurable Goal(s):

Sent to 80 municipal staff

Message Date(s): June 21st, 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: Web Based Toolkit - LID Toolkit

Message Description and Distribution Method:

Greenscapes updated the existing LID Toolkit to search for regional LID projects easily. It is intended to be a research tool for communities to see different LID projects throughout Massachusetts and their associated costs and potential funding opportunities: app.mvpc.org/LIDViewer

Targeted Audience: Municipal staff

Responsible Department/Parties: Merrimack Valley Planning Commission & Greenscapes Coalition

Measurable Goal(s):

Sent to 80 municipal staff

Message Date(s): June 21st, 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: Social Media - What Not to Flush

Message Description and Distribution Method:

Social media content highlighting the importance of being septic safe. Shows what should not be flushed down drains and where water goes once it leaves resident sewer pipes. Media content is available on the Greenscapes website: <https://greenscapes.org/resources-socialmedia/>

Targeted Audience: Residents +

Responsible Department/Parties: Greenscapes Coalition and municipal staff

Measurable Goal(s):

36 post impressions on Greenscapes Facebook
44 accounts reached on Greenscapes Instagram

Message Date(s): Posted on November 18th, 2022

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:Social Media - Sidewalk Salt Application

Message Description and Distribution Method:

Social media content related to roadway salt and the negative impact it has on aquatic habitats. Suggests alternatives to road salt. Media content is available on the Greenscapes website: <https://greenscapes.org/resources-socialmedia/>

Targeted Audience: Residents +

Responsible Department/Parties: Greenscapes Coalition and municipal staff

Measurable Goal(s):

119 post impressions on Greenscapes Facebook
81 accounts reached on Greenscapes Instagram

Message Date(s): February 1st, 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:Social Media - Fertilizer Use & Permeable Pavement

Message Description and Distribution Method:

Social media content related to fertilizer use, proper application, and how to reduce use. Included information on retaining stormwater in rain barrels and through the use of permeable pavement. Media content is available on the Greenscapes website: <https://greenscapes.org/resources-socialmedia/>

Targeted Audience: Residents +

Responsible Department/Parties: Greenscapes Coalition and municipal staff

Measurable Goal(s):

707 impressions on Greenscapes Facebook

Message Date(s): May 30th, 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: Social Media - Erosion & Sediment Control Plan

Message Description and Distribution Method:

Social media content related to erosion and sediment control plans for building planners and construction workers. Highlights proper protocol at construction sites to reduce erosion, off site sediment contamination, and illicit discharge. Media content is available on the Greenscapes website: <https://greenscapes.org/resources-socialmedia/>

Targeted Audience: Developers (construction)

Responsible Department/Parties: Greenscapes Coalition and municipal staff

Measurable Goal(s):

23 impressions on Greenscapes Facebook

Message Date(s): May 31st, 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: Public Lectures - Essex County Highway Association

Message Description and Distribution Method:

Spring Technical Meeting presentation to municipal staff, DPW, and planners on LID maintenance.

Targeted Audience: Municipal staff & industry professionals

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

200 participants

Message Date(s): April 11th, 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:

Additional event

BMP: Greenscapes Stormwater Mitigation Toolkit Showcase

Message Description and Distribution Method:

Event hosted for Greenscapes members community staff to review the updated LID viewer and the interactive Model Bylaw Toolkit

Targeted Audience: Municipal staff

Responsible Department/Parties: Greenscapes Coalition

Measurable Goal(s):

80 participants

Message Date(s): June 21st, 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:

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 SWMP is hosted on the Town website.
<https://www.northreadingma.gov/public-works-department/pages/storm-water-management>
The Town has a Water and Wastewater Working Group which reviews stormwater issues.

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:

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

Optional: Provide additional status information regarding your map:

The Town has completed drain system mapping and maintains a GIS map. As needed new structures are added to the GIS

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:

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

Number of outfalls screened:

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

Percent of outfalls screened:

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

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:

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

Number of catchment investigations completed this reporting period:

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

Percent of total catchments investigated:

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

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:

Five illicit connections have been located and are waiting for Health Department inspection to require removal. Additional details can be found in the attached MS4 Sampling and IDDE tracking worksheet.

Employee Training

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

The Department of Public Services, Sewer and Drain Division, have been working closely with drain inspectors for many years and are aware of the signs of illicit connections. Additionally, a training video developed by the Central Massachusetts Regional Stormwater Coalition, has been provided to the Department of Public Services to allow additional training.

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:

[Empty text box for optional information]

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: 0

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:

Subdivision and site plan review regulations are under review, with problematic elements identified. A draft of the subdivision regulations is being worked on, though exact areas for revision and new language are in progress and have not been formally changed. New design guidelines for parking lots is something that has not yet been looked at as part of this process but should be this year.

Green Infrastructure Report

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

No updates have been made.

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):

Fire/Police Complex
Town Hall
Senior Center
Library

Parks and Recreation Compound

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. 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.

[Empty box for listing properties]

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: 1,670

Number of catch basins cleaned: 1,670

Total volume or mass of material removed from all catch basins: 400 cubic yards

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

Total number of catch basins: 1,866

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 inspection information collected for catch basin cleaning is recorded by the catch basin cleaning contractor in the City's ESRI GIS map and used to guide additional cleaning efforts where needed.

Street Sweeping

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

Number of miles cleaned: 81

Volume of material removed: [Select Units]

Weight of material removed: [Select Units]

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: 0

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

[Empty text box for corrective actions]

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):

[Empty text box for 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:

[Empty text box for description]

Additional Information

Optional: 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. If any of the above year 5 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

[Empty text box for optional information]

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 6 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

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 6 below:

Part V: Certification of Small MS4 Annual Report 2023

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:

Michael P. Gilleberto

Title:

Town Administrator

Signature:



Date:

09/28/23

[Signatory may be a duly authorized representative]