

Year 4 Annual Report

Massachusetts Small MS4 General Permit

Reporting Period: July 1, 2021-June 30, 2022

****Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form****

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, 2021 and June 30, 2022 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 (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)			
<i>In State:</i>	☐ Assabet River Phosphorus	☒ Bacteria and Pathogen	☐ Cape Cod Nitrogen
	☐ Charles River Watershed Phosphorus	☐ Lake and Pond Phosphorus	
<i>Out of State:</i>	☐ 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.

Year 4 Requirements

- Developed a report assessing current street design and parking lot guidelines and other local
- ☒ requirements within the municipality that affect the creation of impervious cover, made it available as part of the SWMP, and:

- ☐ No updates were recommended
- ☒ Updates were recommended. The anticipated date or date of completion for updates is/was:

Anticipated by July 2025 for Subdivision Regulations and July 2026 for Zoning Bylaw

- Developed a report assessing local regulations to determine the feasibility of making green
- ☒ infrastructure practices allowable when appropriate site conditions exist, made it available as part of the SWMP, and:

- ☐ No updates were recommended
- ☒ Updates were recommended. The anticipated date or date of completion for updates is/was:

Anticipated by July 2025 for Subdivision Regulations and July 2026 for Zoning Bylaw

- ☒ Identified a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover

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

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 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:

The Town-wide "Good Housekeeping and Pollution Prevention Operations and Maintenance Plan" developed in Permit Year 2 includes maintenance procedures for Town facilities and MS4 infrastructure, which are implemented to the maximum extent practicable.

The Town conducted inspections on April 4, 2022 at high priority municipal BMPs. The inspection included a general condition assessment and noted any maintenance needs. The Town hired a contractor to perform maintenance on two of the high priority BMPs in Permit Year 4. Following the April 4, 2022 inspection efforts, Town interns inspected and mapped with a GPS all detention basins over the past summer (Permit Year 4/Permit Year 5).

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

** 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:

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)

Phosphorus Source Identification Report

- ☒ Completed the Phosphorus Source Identification Report

- ☒ The Phosphorus Source Identification Report is attached to the email submission
- ☐ The Phosphorus Source Identification Report can be found at the following website:

Potential structural BMPs

- ☒ 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.

- ☐ The BMP information is attached to the email submission
- ☒ The BMP information can be found at the following website:

N/A

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:

Phosphorus Source Identification Report: The Phosphorus Source Identification Report for the Concord River watershed was completed in Permit Year 4. The work completed is documented in the attached Retrofit Assessment and Phosphorus Source Identification Report and associated Outfall Inventory & Phosphorus Data spreadsheet. Note that the report is considered a draft while it is undergoing final review. The Town anticipates further assessing the plan and schedule for BMP retrofits in accordance with the Appendix H General Permit requirements, and will update the final report accordingly.

Potential Structural BMPs: In Permit Year 4, the Town identified a few municipal BMPs that were installed by the Highway Division within the Concord River watershed since the Permit issuance date, however design plans and stormwater reports were not developed as part of the installation and therefore phosphorus removal by BMP cannot be determined. Phosphorus removal information will be tracked for new BMPs constructed within the Concord River watershed moving forward based on stormwater reports and design calculations (if available).

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:

Billerica's NOI listed water quality impairments and TMDLs for the Town's receiving waters based on the 2014 303(d) List. In Permit Year 2, the Town evaluated changes to the impairments and/or receiving waters based on the final 2016 303(d) List and the analysis was submitted with the Town's Permit Year 2 Annual Report and is available in the Town's SWMP.

In Permit Year 4, the Town evaluated any changes to the impairments and/or receiving waters based on the final 2018/2020 303(d) List and the analysis is included as an attachment with this report. The changes described herein do not add, remove, or change any receiving waters or Appendix H impairments as listed in the NOI, Permit Year 2 receiving water update, and Permit Year 3 annual report.

The Town updates the drainage system mapping, including outfall ownership, as needed as field work is completed and discrepancies are found.

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: Education and Outreach to Residents: Lawn Care, Yard Waste, and Fertilizer Use

Message Description and Distribution Method:

The Town's Facebook page provided several posts that gave information on how resident's lawn care can affect stormwater pollution. "Grass Clippings and Storm Drains Do Not Mix" and "Stormwater Pollution & Yard Waste" posts on the Town's DPW Facebook page address these topics. The posts provided information on grass clipping and yard waste disposal.

The DPW posted an infographic on their Facebook page entitled "Buying Fertilizer?" which encourages purchasing of phosphorous-free fertilizer and discusses the water quality impacts of phosphorus runoff from lawns.

The Town's Trash & Recycling webpage provides a link to a "collection guide" by Waste Management. The guide provides information for proper waste disposal and the schedule for yard waste collection. The guide was mailed directly to residents.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

"Grass Clippings and Storm Drains Do Not Mix" Facebook post received 28 likes, 5 shares, and 2,457 people were reached.

"Stormwater Pollution and Yard Waste" Facebook post received 1 share and 564 people were reached. The Waste Management Collection Guide is available to all visitors of the Town's Trash & Recycling webpage.

"Buying Fertilizer?" Facebook post received 7 likes, 1 comment, 3 shares, and 982 people were reached. 16,300 Waste Management Collection Guides were mailed to residents.

Message Date(s):

"Grass Clippings and Storm Drains Do Not Mix" Facebook post: April 22, 2022
 "Stormwater Pollution and Yard Waste" Facebook post: April 13, 2022
 Waste Management Collection Guide: Ongoing
 "Buying Fertilizer?" Facebook post: April 19, 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: Education and Outreach to Residents: Leaf Litter and Yard Waste Collection

Message Description and Distribution Method:

A post with information on the importance of raking leaves, proper leaf disposal, and keeping ponds and waterways clean of debris was advertised on the Town's DPW Facebook page. The post also included the dates for the Town's fall yard waste collection and information related to proper handling. The DPW posted three additional posts reminding residents of fall yard waste collection. The DPW Facebook page also advertised two posts about spring yard waste collection discussing collection dates and what are acceptable items to dispose of as yard waste.

The Town's DPW Facebook page provided information on not feeding ducks bread. The rotting bread can pollute waterways, cause algae growth and odor, and kill fish. It serves as a reminder on the importance of keeping waterways clean.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Fall Leaf Litter Disposal & Yard Waste Collection Facebook post reached 1,171 people and received 3 likes and 2 shares.

"Yard waste collection! Starts October 25" Facebook post reached 756 people and received 4 likes and 3 shares.

"Two more weeks of curbside yard waste collection in Bellerica" Facebook post reached 3,216 and received 15 likes and 2 shares.

"Reminder: Last week for yard waste pick up" Facebook post reached 809 and received 1 like and 2 comments.

April 8, 2022 Spring Yard Waste Collection Facebook post reached 1,902 people and received 17 likes, 5 comments, and 13 shares.

May 2, 2022 Spring Yard Waste Collection Facebook post reached 2,046 people and received 10 likes and 6 shares.

April 27, 2022 "Clean Water Begins at Home" Facebook post reached 3,240 people and received 56 likes and 26 shares.

Message Date(s): 19, 2021

Fall Leaf Litter Disposal & Yard Waste Collection Facebook post: October 1, 2021
 "Yard waste collection! Starts October 25" Facebook post: October 21, 2021
 "Two more weeks of curbside yard waste collection in Billerica" Facebook post: November 19, 2021
 "Reminder: Last week for yard waste pick up" Facebook post: November 29, 2021
 Spring Yard Waste Collection Facebook posts: April 8, 2021 and May 2, 2021
 "Clean Water Begins at Home" Facebook post: April 27, 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: Education & Outreach to Residents, Businesses, Industrial Facilities: 2021 Water Quality Report**Message Description and Distribution Method:**

The Town's 2021 Drinking Water Quality report addressed stormwater management and how residents, business, and industrial facilities can help reduce stormwater pollution. The report explained what stormwater is and the importance of preventing stormwater pollution. Additional topics addressed in the Water Quality Report include an overview of the NPDES MS4 program and Billerica's stormwater management program; best practices for residents, businesses, and institutions for leaf litter and yard waste disposal and proper fertilizer use; a targeted message for industrial facility stormwater management responsibilities; information regarding proper septic system maintenance; and best practices for proper pet waste management, including a reference to the Town's Animals By-Law. The report includes links to the Town's stormwater webpage, Yard Waste webpage, ThinkBlue Industrial website, and EPA's septic website for those who want additional information on the discussed topics.

Targeted Audience: Residents, Businesses, institutions and commercial facilities, and Industrial facilities

Responsible Department/Parties: DPW

Measurable Goal(s):

The 2021 Water Quality Report was distributed to all Billerica addresses that receive a water bill (17,036 reports mailed to residents and businesses). Copies of the report were also available to visitors of municipal offices.

Message Date(s): The 2021 Water Quality Report was mailed on May 11, 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: Education and Outreach to All Audiences: Stormwater Webpage and LinkedIn**Message Description and Distribution Method:**

The Town's Stormwater Management webpage discusses several topics related to stormwater. The webpage includes the Town's Stormwater Management Program and an overview the Town's compliance efforts. The Town provides links to the Permit Year 3 Annual Report, the SWMP, NOI, stormwater bylaws and regulations, the Think Blue MA "Fowl Water" video, and an educational guide for developers on stormwater management and green development. Additionally the webpage includes tips for reducing stormwater pollution (including pet waste management, lawn care, and automobile maintenance) and other stormwater-related documents (including lawn maintenance and phosphorus free fertilizer use). The webpage includes links to additional educational resources discussing yard waste and how lawn care can affect a watershed.

Throughout the year, the Town's Water Resource Recovery Facility Superintendent posts educational messages on LinkedIn, including summaries of their World Water Day and classroom educational programs,

and discussing how stormwater is discharged into the environment untreated and common sources of stormwater pollution.

Targeted Audience: All Audiences

Responsible Department/Parties: DPW

Measurable Goal(s):

Stormwater Management webpage received 245 unique page views on the webpage during Permit Year 4. Linked In post received 33 likes and 7 comments.

Message Date(s): Stormwater Management webpage: Ongoing
LinkedIn post: February 3, 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: Education and Outreach to Residents: Pet Waste Education

Message Description and Distribution Method:

A message and a link to a Youtube video regarding proper disposal of pet waste was posted on the DPW Facebook page. A message was also posted on the DPW Twitter and Facebook page about pet waste disposal and why it is important to ensure the waterways are kept clean.

A brochure discussing proper pet waste management are distributed with dog licenses. Additionally, the brochure is available for the public to view at the Town Clerk's counter and the Engineering office in Town Hall.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Facebook video post reached 1,063 people and received 19 likes and 2 shares.
Twitter pet waste disposal post received 2 likes.
Facebook pet waste disposal post reached 775 people and received 8 likes.
Approximately 2,400 brochures were distributed with dog licenses.

Message Date(s): Facebook video post: June 16, 2022
Twitter & Facebook pet waste disposal post: August 31, 2021
The brochures are ongoing.

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:Education and Outreach to Residents: ThinkBlue Messaging

Message Description and Distribution Method:

The Town is a member of the Northern Middlesex Stormwater Collaborative (NMSC), which participated in the Think Blue Massachusetts educational advertisement campaign during Permit Year 4. Think Blue Massachusetts shared a "Fowl Water" video across social media to raise awareness to stormwater runoff and educate the public. Impressions and surveys from residents of member Towns were accounted for to analyze the effectiveness of the campaign. The video depicts the pathway of pet waste, oil, and litter in stormwater.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

In 2022, the post-campaign survey indicated that 56% of the viewers recalled seeing the "Fowl Water" video and were more likely to know that stormwater pollution ends up in local waterways. The 2022 ad campaign for the Town received a total of 43,786 impressions including 24,874 Facebook and Instagram impressions, 12,763 Youtube Ad impressions, and 6,149 Spanish Language impressions.

Message Date(s): May 31st to June 17th 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:Education and Outreach to Residents: Septic System Maintenance

Message Description and Distribution Method:

The DPW posted about the requirements for septic system maintenance on Facebook. The post addressed the importance of not flushing wipes.

The Board of Health Frequently Asked Questions webpage includes information on proper septic system maintenance. It is available for the public to view at any time.

A dedicated message about proper septic system maintenance was included in the 2021 Water Quality Report, which included a link to EPA's Septic webpage.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Facebook post reached 1,008 people and received 6 likes and 2 shares.

Additional educational information is available to all visitors of the Board of Health webpage.

Message Date(s): Facebook post: August 4, 2021
Board of Health webpage: Ongoing

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: Education and Outreach to Residents: Town Hall Bulletin Board

Message Description and Distribution Method:

The Town Hall has a bulletin board posted that addresses various stormwater related topics. The bulletin board provides information on pet waste disposal, septic system maintenance, benefits of rain gardens, not to feed ducks, lawn care, yard waste, fertilizer use, leaf litter, and yard waste collection details.

Targeted Audience: All Audiences

Responsible Department/Parties: DPW

Measurable Goal(s):

The board is available to all visitors of the Town Hall.

Message Date(s): Ongoing

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 available for public review and input on the Town's website.

As part of development of the updated Board of Health Rules and Regulations for stormwater management, a Board of Health public meeting was held on December 6, 2021 where public input was solicited and the

updated Regulations were adopted.

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:**

OARs is a local organization that protects, improves and preserves the Assabet, Sudbury, and Concord Rivers and their watersheds. The organization holds an annual cleanup that is held in Billerica along the Concord River. This past year it took place over September 17-19, 2021. It was the cleanup's 35th annual event where they picked up litter and debris. More than 70 volunteers participated in the cleanup.

The Town of Billerica hosted two additional cleanup events in Permit Year 4. Billerica's annual 'Clean Up, Green Up' event occurred on April 23, 2022. The residents and volunteers collected two large dumpsters full of trash that were disposed of by the DPW. The second clean up was held by the Town's Beautify Billerica group around the Locke Middle School on June 5, 2022. These events were attended by residents of all ages.

Yard waste collection by Waste Management occurred in the spring and fall. Residents could dispose of yard waste along with normal curbside trash and recycling removal (October 25 - December 3, 2021 and April 25 - May 20, 2022). Waste Management accepted Christmas tree disposal drop off the week after Christmas and disposal was offered during the regular curbside collection from January 10 - 14, 2022. Household hazardous waste (HHW) drop-off events were hosted on October 16, 2021 and May 21, 2022. Approximately 14.6 tons of HHW was collected from the two drop off events. The Town holds monthly waste oil drop off days on the 3rd Saturday of every month from 9 AM to 1 PM. In Permit Year 4, a total of approximately 700 gallons of waste oil was dropped off from a total of 105 residents on the monthly drop off days.

Marshall Middle School and Locke Middle School's 5th grade class in Billerica were given stormwater pollution lessons in May and June 2022. The Town's Engineering staff presented information on stormwater pollution and used a watershed model to demonstrate how water flows and can pick up pollutants. These lessons were given to approximately 400 students in the 5th grade.

The Town held the 14th Annual World Water Monitoring Day event at Nuttings Lake in Billerica. Staff from the Billerica Water Resource Recovery Facility (WRRF), Engineering Division, and consultant engineers accompanied 44 students from the local elementary school to test the water for pH, D.O., temperature, and turbidity. In April 2022, the Billerica WRRF Superintendent visited 14 classrooms to educate students on the water cycle, water pollution, and the process of water sampling.

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 continues to refine the MS4 GIS mapping as the IDDE Program is implemented and field investigations are completed.

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 outfall screening data is attached to the email submission
- ☐ The outfall screening data can be found at the following 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:

To date, more than 600 of the Town's MS4 outfalls have been inventoried and screened. In Permit Year 4, Engineering Division staff continued efforts to locate and screen the remaining mapped MS4 outfalls that have proved to be difficult to field verify in previous permit years. This year, 9 additional MS4 outfalls were successfully screened with no flow observed; outfall monitoring results are attached. Field work to locate and screen the remaining MS4 outfalls continues in Permit Year 5.

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 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:

Billerica began catchment investigations in Permit Year 3, including dry weather key junction manhole inspections and wet weather outfall sampling. In Permit Year 4, the Town continued catchment investigations and conducted wet weather outfall sampling at four outfalls in June 2022; outfall monitoring results are attached. Dry weather key junction manhole inspections were completed in July 2022 (Permit Year 5) and therefore results will be included in the Permit Year 5 annual report. The Town intends to continue catchment investigations in Permit Year 5 and future Permit Years.

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 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:

Employee Training

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

The Northern Middlesex Stormwater Collaborative (NMSC) held a training on May 19, 2022 for member communities. The training topics included an IDDE Program refresher on identifying illicit discharges, dry weather screening data, and catchment investigations; municipal good housekeeping practices and common challenges; and oil spill prevention, control, and countermeasures. 14 Town employees attended the training,

including representatives from DPW, Engineering, Parks and Trees Division, WWTF, and Schools.

Representatives from the Town also attended other NMSC and statewide stormwater coalition meetings held in Permit Year 4. Engineering staff attended "Going Green for Good: Long-Term Considerations for Operations and Maintenance of Green Infrastructure" workshop on April 28, 2022. Additionally, Engineering staff attended "Stormwater Asset Management: Letting Your Green Infrastructure Assets Work for You" training on June 14, 2022.

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:

Billerica utilizes outside consultants for stormwater review and site inspections. No formal enforcement actions were necessary.

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3):

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:

Retrofit Properties Inventory

Below, list the permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (at least 5):

The Town's BMP Retrofit Assessment was completed in June 2022 which identified 14 sites in Town for potential BMP retrofits, 9 of which are located within the Concord River watershed and are considered high priority sites. Of the 14 sites (see list below), the Town has already completed BMP retrofits at 6 of the sites, has construction in progress for BMP retrofits at 2 of the sites with anticipated completion in 2022/2023, and has bidding phase in progress for 2 of the sites with construction anticipated to begin in 2023. For the remaining 4 sites, design is either in progress or planned to begin in future years. See the attached Retrofit Inventory and Phosphorus Source Identification Report for more information.

- Broadleaf Street
- Middlesex Sheriffs Training Facility (Old Ditson School), 793 Boston Road
- Vining Elementary School, 121 Lexington Road
- Pinehurst Fire Station, 832 Boston Road
- Billerica Memorial High School, 35 River Street
- Howe School (Billerica Access Television), 390 Boston Road
- Peggy Hannon-Rizza Recreation Complex, 1 Ed Hayes Way
- Middlesex Turnpike from Crosby Drive/Plank Street in Bedford to Manning Road in Billerica
- Boston Road (Route 3A) from Simmons Lane to River Street
- Katie Durand Memorial Park (Carter Avenue)
- Town Hall, 365 Boston Road
- New DPW Facility, 273 Treble Cove Road
- Webb Brook and Allen Road neighborhoods
- Nashua Road and Concord Road neighborhoods at southern town line

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:

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: [Select Units]
- ☒ 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:

The detention basin located on site was mowed. The Highway department removed and replaced rip rap at an outfall that discharges to a tributary to the Concord River.

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 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

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:

The Central Massachusetts Mosquito Control Project and the Town work together for the for restoration and maintenance of approximately 8,400 feet of wetlands and ditches, as well as cleaning 68 culverts. During this maintenance brush, tires, litter, and other accumulated debris were removed from culverts and streams. Efforts also included insertion of larvicides into 2,154 Town catch basins.

COVID-19 Impacts

Optional: If any of the above year 4 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:

The Town has experienced staffing shortages due to COVID-19, which impacts the implementation of the stormwater management program and routine DPW operations.

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 5 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 5 below:

The Town acknowledges the General Permit Year 5 requirements and will complete as many activities as possible based on funding and staff availability.

Part V: Certification of Small MS4 Annual Report 2021**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:

Fred Russell

Title:

Director of Public Works

Signature:



Date:

09/28/22

[Signatory may be a duly authorized representative]