

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: Town of Billerica, MA

EPA NPDES Permit Number: MAR041182

Primary MS4 Program Manager Contact Information

Name: Kelley Conway, PE

Title: Town Engineer

Street Address Line 1: DPW - Engineering Division

Street Address Line 2: 365 Boston Road

City: Billerica

State: MA

Zip Code: 01821

Email: kconway@town.billerica.ma.us

Phone Number: (978)-671-1300

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address): <https://www.town.billerica.ma.us/214/Stormwater-Management>

Date SWMP was Last Updated: October 2022

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.

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:

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.

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:

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 5):**

- ☐ Sodium chloride
- ☐ Calcium chloride
- ☐ Potassium chloride

☐ Magnesium chloride

☐ Brine solution

Total amount of salt applied **during this reporting period (year 5) including units:**

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:

Per the 2022 Integrated List of Waters, chloride was added as an impairment for Concord River (MA82A-08). The requirements of Appendix H, Part IV are now applicable for Billerica within the Concord River Watershed. In accordance with Appendix H, Part IV.2 and Part IV.3, the Town shall develop a Salt Reduction Plan and begin tracking the above information within three years (by June 30, 2026), and fully implement the Plan within the watershed within five years (by June 30, 2028).

As part of the Town's robust public education program, multiple messages were posted to the DPW Facebook page in January and February 2023 regarding the proper use and application of road salt. Additionally, proper use of salt was a topic featured on the bulletin board in Town offices during the winter months.

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

- ☒ Completed the evaluation of all permittee owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under permit part 2.3.6.d or identified in the Phosphorus Source Identification Report, including: *(select the items of the evaluation that have been completed below)*
 - ☒ Next planned infrastructure, resurfacing, or redevelopment activity planned for the property (if applicable) OR planned retrofit date
 - ☒ Estimated cost of redevelopment or retrofit BMPs
 - ☒ Engineering and regulatory feasibility of redevelopment or retrofit BMPs
- ☒ Completed a listing of planned structural BMPs and a plan and schedule for implementation
 - The BMP list and implementation schedule is attached to the email submission

- ☐ The BMP list and implementation schedule can be found at the following publicly available website:

- ☒ 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:

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 Phosphorus Source Identification Report was updated to include new BMP retrofit opportunities within the Concord River watershed identified in Permit Year 5 and the BMP implementation schedule, see enclosed report.

BMP phosphorus removal calculations for the Katie Durand Memorial Park and Peggy Hannon-Rizza Recreation Complex (completed in Permit Year 5) are enclosed.

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:

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 changes to the impairments and/or receiving waters based on the final 2018/2020 303(d) List and the analysis was submitted with the Town's Permit Year 4 Annual Report and is available in the Town's SWMP.

The Town has evaluated changes to the impairments and/or receiving waters based on the final 2022 303(d) List and the analysis is included as an attachment with this report. Per the 2022 Integrated List, chloride and E. Coli were added as impairments for Concord River (MA82A-08). The requirements of Appendix H, Part IV and Appendix H, Part III are now applicable for Billerica within the Concord River Watershed. In accordance with Appendix H, Part IV.2 and Part IV.3, the Town shall develop a Salt Reduction Plan within three years (by June 30, 2026), and fully implement the Plan within the watershed within five years (by June 30, 2028).

The Town updates the drainage system mapping, including outfall ownership, as needed as field work is completed and discrepancies are found. In Permit Year 5, 11 outfalls were removed from the inventory as they were found to not exist and 10 outfalls were added from the inventory as they were discovered during other IDDE field work or based on record drawings. The changes described do not add, remove, or change any receiving waters.

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

Message Description and Distribution Method:

The Town's Facebook page and the Town's DPW Facebook page provided several posts that gave information on how resident's lawn care can affect stormwater pollution. Posts such as "Don't 'P' on your lawn" and "Fertilizer doesn't belong in our waterways" encourage the public to purchase phosphorus-free fertilizer and be cautious of their fertilizer use.

The DPW and the Town's Facebook pages posted an infographic entitled "Protect Our Waterways" which provides information to the general public, encouraging them to partake in proper yard waste disposal techniques.

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 also mailed directly to residents.

The DPW Facebook page reposted a CMRSWC message regarding the importance of native plants and their lesser need for fertilizer use. The DPW page also posted gardening tips, how to properly apply fertilizer, and the benefits of zero-phosphorus fertilizers.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

The Facebook posts had a total of 4,843 impressions.

"Don't 'P' on your lawn" Facebook post received 4 likes and 2 shares.

"Fertilizer doesn't belong in our waterways" Facebook post received 2 likes.

"Protect Our Waterways" Facebook post received 1 comment, 1 like, and 1 share.

The Waste Management Collection Guide was mailed to all residents and is available to all visitors of the Town's Trash & Recycling webpage.

CMRSWC message received 4 likes.

Fertilizer and gardening tips post received 8 likes and 2 shares.

Message Date(s):

"Don't 'P' on your lawn" Facebook Post: April 4, 2023.

Fertilizer and gardening tips post: May 12, 2023.

CMRSWC message: June 6, 2023.

"Fertilizer doesn't belong in our waterways" Facebook Post: June 29, 2023.

"Protect Our Waterways" Facebook Post: October 4, 2022.

Waste Management Collection Guide: Mailed in June 2023, ongoing online

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:

13 unique messages about leaf removal and proper disposal were shared on Facebook. To highlight a few: A post announcing the beginning of Yard Waste Collection was advertised on the Town's Facebook page. The post also included the dates for the Town's fall yard waste collection and information related to proper handling.

Another post reminded residents of the last week for collection. The DPW Facebook page also advertised three posts about spring yard waste collection discussing collection dates and what are acceptable items to dispose of as yard waste.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

The Facebook posts had a total of 17,315 impressions.

Fall Leaf Litter Disposal & Yard Waste Collection Facebook post received 20 likes, 3 comments and 9 shares. Final Week Reminder of Fall Leaf Litter Disposal & Yard Waste Collection Facebook post received 2 likes, 5 comments and 8 shares.

Spring Yard Waste Day DPW Facebook post received 6 comments and 11 shares.

"Two More Weeks of Yard Waste Collection" DPW Facebook post received 5 likes and 4 shares.

"Keep Grass Clippings and Yard Debris Away from Storm Drains" combined with a reminder of "One More Week of Collection" DPW Facebook post received 5 likes and 2 shares.

Fall Leaf Litter Disposal & Yard Waste Collection Facebook post: October 26, 2022.

Final Week Reminder of Fall Leaf Litter Disposal & Yard Waste Collection Facebook post: November 28, 2022.

Spring Yard Waste Day DPW Facebook post: April 14, 2023.

Message Date(s): "Two More Weeks of Yard waste Collection" DPW Facebook post: May 5, 2023.

"Keep Grass Clippings and Yard Debris Away from Storm Drains" combined with a reminder of "One More Week of Collection" DPW Facebook post: May 13, 2023.

Additional posts: October 4, 2022, October 20, 2022, October 22, 2022, June 25, 2023, April 10, 2023, April 28, 2023, November 7, 2023, and November 21, 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: Education 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 most up-to-date Stormwater Management Program and an overview the Town's compliance efforts. The Town provides links to the Permit Year 4 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 many helpful links.

Throughout the year, the Town's Water Resource Recovery Facility Superintendent posts educational messages on LinkedIn, including summaries of their many educational programs, and discussing how stormwater is discharged into the environment untreated and common sources of stormwater pollution.

The Town's Stormwater Engineer posts on LinkedIn about her efforts to educate the students on stormwater pollution.

Targeted Audience: All Audiences

Responsible Department/Parties: DPW

Measurable Goal(s):

Stormwater Management webpage received 275 unique page views during Permit Year 5.
LinkedIn Post received 405 overall impressions.

Message Date(s): Stormwater Management webpage: Ongoing
LinkedIn posts: January 2023, April 2023Message 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:

Educational bulletin boards are in the Town Hall to educate residents on proper pet waste disposal. 3 messages were posted on Facebook containing information about the harmful effects of pet waste on stormwater. 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. The brochure also discusses fines related to failure to remove pet waste.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Proper pet waste disposal methods on webpage are available to all visitors to the website.
The bulletin board is available to all visitors of the Town Hall.
Total Facebook impressions: 3,131
Approximately 2,400 brochures were distributed with dog licenses.

Message Date(s): Proper waste disposal methods on webpage: Ongoing.
Town Hall Bulletin Boards: Ongoing.
Brochures: Ongoing
Facebook messages were posted on the following dates: Aug 26, 2022, June 2, 2023, and December 12, 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:

Educational bulletin boards are in the Town's Engineering Hall at Town Hall to educate residents on septic system maintenance tips.
The DPW Facebook account posted photos of these boards with a message regarding the information available on the boards at Town Hall.
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 2022 Water Quality Report, which included a link to EPA's Septic webpage.

Targeted Audience: All Audiences

Responsible Department/Parties: Engineering

Measurable Goal(s):

The Facebook posts received a total of 2,270 impressions.
The bulletin board is available to all visitors of the Town Hall.
Additional educational information is available to all visitors of the Board of Health webpage.
The 2022 Water Quality Report was distributed to all Town properties.

Message Date(s): Septic Systems Bulletin Board DPW Facebook post: July 12, 2023.
Town Hall Bulletin Boards: Ongoing.
Board of Health webpage: Ongoing.
2022 Water Quality Report: April 28, 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: Education and Outreach to Residents: Town Hall Bulletin Board

Message Description and Distribution Method:

The Town Hall has a bulletin board posted highlighting 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, construction erosion control, safe carwash tips, smart de-icer use, eutrophication and yard waste collection details. This is also where the stormwater posters are displayed that were created by the 5th graders who participated in annual stormwater lessons.

Targeted Audience: All Audiences

Responsible Department/Parties: Engineering

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:

BMP: Education and Outreach to Residents: Stormwater Pollution Prevention and Salt Use

Message Description and Distribution Method:

Facebook posts from the DPW provided information regarding proper use and disposal of various substances to prevent stormwater pollution. The posts relating to stormwater pollution prevention were "Chlorinated Water Belongs in Pools", a valentines-themed post titled "Roses are Red, Salt is White, Please Stop Over Salting..." reminding residents of the proper uses of road salt, "Know Your Risk Zone" providing information about early applications of de-icer, and "Help Prevent Stormwater Pollution at Work and Home" providing information on snow melt. In addition, Facebook messages also included education regarding soap, oil, car maintenance, and proper disposal of cigarette butts.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

"Chlorinated Water Belongs in Pools" DPW Facebook post received 3 likes.

"Roses are red, Salt is white, please stop over salting..." DPW Facebook post received 5 likes and 1 share.

"Know Your Risk Zone" DPW Facebook post received 5 likes and 1 share.

Overall impressions: 3,275 impressions for messages about de-icers, 1,673 impressions for messages about pools, 3,345 impressions for messages about car maintenance, 1,589 impressions for messages about cigarette butts.

Message Date(s): "Chlorinated Water Belongs in Pools" DPW Facebook post: June 23, 2023.
"Roses are Red, Salt is White, Please Stop Over Salting..." DPW Facebook post: February 14, 2023.
"Know Your Risk Zone" DPW Facebook post: January 12, 2023.
"Help Prevent Stormwater Pollution at Work and Home" DPW Facebook post: January 22, 2023.
Additional dates of Facebook posts: December 19, 2022, January 15, 2023, February 15, 2023, March 31, 2023, and June 23, 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: Stormwater Asset Management Project - Public Messaging

Message Description and Distribution Method:

The Town completed a Stormwater Asset Management Project in Permit Year 5, which included MS4 field work such as drainage system assessments (catchment investigations) and culvert assessments. Messages were sent to the public via the Town's DPW Facebook page, Twitter, and the Town website's News Flash to let residents know about the stormwater work. Messages also mentioned yard work best practices for the spring.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

The Facebook post on March 16 received 6 likes.
The Twitter post on March 16 received 1 retweet and 2 likes.

Message Date(s): March 16, 2023; May 5, 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: Education and Outreach for Industry, Businesses, and Contractors

Message Description and Distribution Method:

The Town shared numerous messages were shared on Facebook regarding trash and dumpster maintenance,

erosion control, and construction best practices such as stockpiles and sweeping.

Targeted Audience: Industrial facilities/Businesses, Contractors

Responsible Department/Parties: Engineering and DPW

Measurable Goal(s):

The Facebook posts received a total of 1,416 impressions.

Message Date(s): Dates of Facebook posts: Sept 16, 2022 , March 7, 2023 , May 31, 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 Education and Outreach: Water Quality Report

Message Description and Distribution Method:

The Town's 2022 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, and EPA's septic website for those who want additional information on the discussed topics.

Targeted Audience: All Audiences

Responsible Department/Parties: DPW

Measurable Goal(s):

Approximately 17,000 Water Quality Reports were distributed to all Billerica addresses that receive a water bill. Copies of the report are available to all visitors of municipal offices.

Message Date(s): Water Quality Report was mailed on April 28, 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 available for public review and input on the Town's Stormwater Management 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 February 6, 2023 where public input was solicited. The updates focused on transferring authority from the Board of Health to the DPW in the Bylaw. Unfortunately, the updated Bylaw was struck from the 2023 Annual Town Meeting warrant. The Engineering Division continues to strive toward implementing changes to update the Bylaw and Regulations.

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 Town of Billerica hosted the annual 'Clean Up, Green Up' event occurred on April 22, 2023. The residents and volunteers collected more than two large dumpsters full of trash that were disposed of by the DPW. The First Parish Church crew hauled out 80 tires, a TV, car parts and 21 bags of trash. These events were attended by residents of all ages.

The Town's Engineering staff completed a school education program and visited the 5th grade classrooms in both middle schools to discuss water quality and stormwater pollution. They use an Enviroscope model, which demonstrates how pollutants may reach waterways in stormwater runoff. Classroom visits were completed in April 2023. 350 students participated in the lessons. They were also asked to design a stormwater poster to help others learn more about the importance of keeping stormwater clean.

Two summer interns in the Engineering Division, who are also residents of Billerica, helped to place over 100 plastic storm drain markers along the parade route prior to the Yankee Doodle Parade, which takes place the third weekend of September. The Parade hosts hundreds of people. The message on the drain markers was "Don't Pollute, Drains To Waterways".

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 24 - December 2, 2022 and April 24 - May 19, 2023). Waste Management accepted Christmas tree disposal drop off the week after Christmas and disposal was offered during the regular curbside collection from January 9-13, 2023.

Household hazardous waste (HHW) events were hosted on October 15, 2022, February 18, 2023 (specifically for motor oil), and May 20, 2023. Approximately 7 tons of HHW were collected on October 15, 2022 and approximately 14 tons were collected May 20, 2023.

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 in Billerica along the Concord River. This past year it took place over September 16-18, 2022. It was the cleanup's 36th annual event where they picked up litter and debris.

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. This was also updated as part of the Town's Stormwater Asset Management Plan completed in Permit Year 5. GPS units are used to collect missing data, especially over the summer when the Town has interns helping with stormwater field work and BMP inspections.

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:

To date, more than 600 of the Town's MS4 outfalls have been inventoried and screened. In Permit Year 5, 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. Screening data for the outfalls investigated in Permit Year 5 is attached. 3 were noted to have dry weather flow; water quality screening was not completed at the time of inspection and sampling will be completed in Permit Year 6. Field work to locate and screen the

remaining MS4 outfalls continues in Permit Year 6.

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:

Catchment investigations were conducted as part of the Town's IDDE Program implementation and Stormwater Asset Management Plan completed in Permit Year 5, and will continue in 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 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:

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 June 22, 2023 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. Many Town employees attended the training, including representatives from Engineering, Schools, and the DPW.

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: 13

Number of inspections completed: 305

Number of enforcement actions taken: 0

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. Corrective actions, when needed, are communicated to developers at the time of inspection. No formal enforcement was necessary in Permit Year 5.

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3): December 2021

Website of ordinance or regulatory mechanism: <https://www.town.billerica.ma.us/246/Stormwater-Bylaws>
<https://www.town.billerica.ma.us/175/Rules-Regulations>

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:

The local code assessment was completed June 27, 2022 by Tighe & Bond consultants, and has been instrumental while revising the current Billerica Subdivision Regulations. The Planning Board, in conjunction with the various divisions of the DPW, are proposing significant changes to the Subdivision Regulations. These changes incorporate new street design and parking lot standards to be in line with the Stormwater priorities. These changes will be voted on by the Planning Board this Fall 2023.

Green Infrastructure Report

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

The local code assessment was completed June 27, 2022 by Tighe & Bond consultants, and has been instrumental while revising the current Billerica Subdivision Regulations. The Planning Board, in conjunction with the various divisions of the DPW, are proposing significant changes to the Subdivision Regulations. These changes incorporate additional green infrastructure allowances within design standards. This will be in line with Stormwater priorities. These changes will be voted on by the Planning Board this Fall 2023.

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):

The Town's BMP Retrofit Assessment and Concord River watershed Phosphorus Identification Report was completed in June 2022 and updated in June 2023, which identified 16 sites in Town for potential BMP retrofits, 8 of which are located within the Concord River watershed and are considered high priority sites.

- Middlesex Turnpike from Crosby Drive/Plank Street in Bedford to Manning Road in Billerica (construction in progress)
- Boston Road (Route 3A) from Simmons Lane to River Street (construction in progress)
- Town Hall, 365 Boston Road
- New DPW Facility, 270 Treble Cove Road
- Webb Brook and Allen Road neighborhoods

- Nashua Road and Concord Road neighborhoods at southern town line
- Lexington/Glad Valley Intersection Improvements
- Sheridan Street River Access

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.

- Broadleaf Street - Completed
- Middlesex Sheriffs Training Facility (Old Ditson School), 793 Boston Road - Completed
- Vining Elementary School, 121 Lexington Road - Completed
- Pinehurst Fire Station, 832 Boston Road- Completed
- Billerica Memorial High School, 35 River Street - Completed
- Howe School (Billerica Access Television), 390 Boston Road - Completed
- Peggy Hannon-Rizza Recreation Complex, 1 Ed Hayes Way- Completed
- Katie Durand Memorial Park - 8 Carter Ave - Completed in Permit Year 5 and serves as the Town's "demonstration BMP" under the Concord River Watershed Phosphorus requirements. Signage was installed to explain stormwater management and the BMP.

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 Town is still collecting data during catch basin cleaning and improving on the process each year so it is more streamlined. The Town currently has 541 basins that were noted to be over 50% full during the Permit Year 5 catch basin cleaning work. These catch basins were cleaned in Permit Year 5 and will continue to be prioritized during future cleaning efforts.

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:

Due to staffing constraints, the quarter 1 inspection was missed. The detention basin was mowed, however the excessive rain caused changes in the rip rap at the outfall. The Highway department replaced the rip rap at the outfall discharge to the 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 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

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:

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 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:

The Town acknowledges the General Permit Year 6 requirements and will complete as many activities as possible based on funding and staff availability.

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:

Fred Russell

Title:

Director of Public Works

Signature:


[Signatory may be a duly authorized representative]

Date:

09/27/2023