

Year 2 Annual Report
Massachusetts Small MS4 General Permit
New Permittees
Reporting Period: July 1, 2019-June 30, 2020

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, 2019 and June 30, 2020 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

*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
- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information for your self-assessment, and/or if any of the above year 2 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:

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? 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>

- Yes
 No

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

The Town has made significant progress towards locating, mapping, and inventorying MS4 outfalls and interconnections. In both Permit Year 1 and August 2020 (Permit Year 3), the Town's consultant completed desktop exercises to digitize drainage plans and completed field work to GPS-locate stormwater structures. However, receiving waters have not been identified yet, as this is due in Permit Year 5 for new permittees. The Town anticipates working with a consultant to assign receiving waters for MS4 outfalls and interconnections in Fall 2020.

Pepperell's NOI listed potential receiving waters based on the water quality limited waters within the Town's urbanized area. The list below identifies changes to the impairments for these receiving waters based on the final 2016 303(d) List. The Town's impairments and TMDLs will be refined once receiving waters have been assigned in the IDDE Plan, which is in progress and scheduled to be complete in Permit Year 3.

-Nashua River (MA81-06) which includes former segment Pepperell Pond (MA81167): Non-Native Aquatic Plants, Benthic Macroinvertebrates, and Nutrient/Eutrophication Biological Indicators impairments were added; Dissolved Oxygen, Phosphorus, Solids, Nutrients, and Noxious Aquatic Plants impairments were removed.

-Nashua River (MA81-07): Aquatic Macroinvertebrate Bioassessments impairment was added; Phosphorus, Solids, and Pathogens impairments were removed.

-Nissitissit River (MA81-21): Lack of a Coldwater Assemblage impairment was added.

Part IV: Minimum Control Measures

Part IV includes some of the metrics that will be required in upcoming annual reports. For this annual report, these metrics are optional for new permittees; please fill out any of the metrics below that you have started within this reporting period. Then, proceed to Part V.

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:Web Page

Message Description and Distribution Method:

Information regarding the MS4 Program and sources of stormwater pollution as well as with the Think Blue Massachusetts "Fowl Water" video were hosted on the Town's Stormwater webpage in Permit Year 2. The webpage also includes a presentation on Pepperell's Stormwater Program held during a Board of Public Works meeting in June 2020 and links to the SWMP, FAQs and a Notice to Residents about Pepperell's stormwater fee, the Northern Middlesex Stormwater Collaborative page, and MassDEP and EPA Stormwater and MS4 Program webpages. URL: <https://town.pepperell.ma.us/Stormwater>

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Links have been updated and stormwater information is available online for all audiences. The FY2020 Think Blue campaign resulted in a total of 35,232 social media impressions (19,346 Facebook/Instagram and 15,886 YouTube) from residents in Pepperell. Over 1.2 Million social media impressions from within the NMSC region.

Message Date(s):

Message Completed for: Appendix F Requirements Appendix H Requirements

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

If yes, describe why the change was made:

BMP:Brochures & Pamphlets - Septic Systems

Message Description and Distribution Method:

Educational information and materials regarding proper septic system maintenance are posted on the Town's Health Department and the DPW Stormwater, Hazards of Residential Runoff webpage.

Targeted Audience: Residents and Businesses & Institutions

Responsible Department/Parties: DPW/IT Director

Measurable Goal(s):

The septic webpage is available online for all residents but was not specifically tracked in Permit Year 2.

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:

Print materials have been limited to due to COVID-19 restrictions and limited access to Town Hall.

BMP: Brochures & Pamphlets - Pet Waste & Fertilizer

Message Description and Distribution Method:

Educational information and materials regarding stormwater pollution and surface water quality, proper fertilizer use, and pet waste management were compiled/customized in Permit Year 2 and are posted on the town's webpage. Dog Waste page: <https://www.town.pepperell.ma.us/691/Hazards-of-Dog-Waste>
Hazards of Residential Runoff Page: <https://www.town.pepperell.ma.us/692/Hazards-of-Residential-Runoff>

Targeted Audience: Residents and Businesses & Institutions

Responsible Department/Parties: DPW/IT Director

Measurable Goal(s):

The septic webpage is available online for all residents but was not specifically tracked in Permit Year 2.

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:

Print materials have been limited to due to COVID-19 restrictions and limited access to Town Hall.

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 Stormwater Management Plan (SWMP) was made publicly available on the Town's website.

Board of Public Works meetings were held on August 22, 2019 and September 19, 2019, to provide residents the opportunity to question the stormwater utility in the SWMP and its purpose. The Town educated the residents about the NPDES Permit requirements and the importance of adhering to all permit requirements. A presentation about Pepperell's stormwater program was held at a Board of Public Works meeting on June 18, 2020. Recordings of these meetings can be viewed on Pepperell Public Access TV or on the Town's website.

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 Pepperell Green-Up town-wide volunteer clean-up event was held from April 13, 2020 to May 3, 2020. The Highway Department provided garbage bags and picked up all collected trash from residents. Many other spring clean up events were cancelled or postponed due to the COVID-19 pandemic.

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:

Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified **since the effective date of the permit (July 1, 2018).**

Total number of SSOs identified:

Total number of SSOs removed:

MS4 System Mapping

Below, check all that apply.

The following elements of the Phase I map have been completed:

Outfalls and receiving waters

- Open channel conveyances
- Interconnections
- Municipally-owned stormwater treatment structures
- Waterbodies identified by name and indication of all use impairments
- Initial catchment delineations

Describe any additional progress you made on your map during this reporting period or provide additional status information regarding your map:

The Town has made significant progress on mapping the Phase I, Phase II, and some recommended mapping elements. Pepperell has worked with a consultant to digitize drainage plans to add outfalls, catch basins, manholes, pipes, swales, and BMPs to the GIS mapping. The Town anticipates identifying receiving waters, identifying additional Town-owned BMPs, and completing the initial catchment delineations in Fall 2020.

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.*

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

N/A

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

Number of outfalls screened:

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.*

- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

N/A

*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.

- The illicit discharge removal report is attached to the email submission
- The illicit discharge removal report can be found at the following website:

N/A

*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 if conducted **during this reporting period**:

Town staff participated in several Northern Middlesex Stormwater Collaborative meetings and workshops about the MS4 program, including the training held in Westford on August 14, 2019. During this training, communities were educated about the MS4 Permit Annual Report and shown how to test water quality at outfalls for the IDDE Program.

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:

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

Ordinance Development

Describe the status of the post-construction ordinance required to be complete by year 3 of the permit term:

The Town is in the process of reviewing existing bylaws and regulations and anticipates completing any needed updates or additions to meet the requirements of the General Permit in Permit Year 3. The Town participated in the Northern Middlesex Stormwater Collaborative (NMSC) "Capacity Building for Local Oversight of Development and Redevelopment Projects" project funded through a 2019-2020 MS4 Municipal Assistance Grant. Through this project, the Town plans to use the model Bylaw and Regulations to update local code in Permit Year 3 to meet General Permit requirements under MCMs 3, 4 & 5. The town participated in 3 workshops in Permit Year 2 & 3 (May 21, Aug. 13, and Aug. 27) and town staff met with the project consultant to discuss town-specific recommendations on Aug. 26.

As-built Drawings

Describe the status of the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites:

Under the Subdivision Rules & Regulations and Site Plan Review, the Town requires the submission of as-built plans and ensures long term operation and maintenance for certain projects. The Town will review existing bylaws and regulations and determine what updates or additions are needed to meet the requirements of the General Permit by the end of Permit Year 3.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment including any planned or completed changes to local regulations and guidelines:

Preparation for the Street Design and Parking Lots Report has not yet begun as this requirement is due in Permit Year 6.

Green Infrastructure Report

Describe the status of the green infrastructure report, including the findings and progress towards making the practice allowable:

Preparation for the Green Infrastructure Report has not yet begun as this requirement is due in Permit Year 6.

Retrofit Properties Inventory

Describe the status of the inventory of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

Preparation for the Retrofit Properties Inventory has not yet begun as this requirement is due in Permit Year 6.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

Catch Basin Cleaning Optimization Plan has not yet been developed and is due in Permit Year 3.

If complete, attach the catch basin cleaning optimization plan or the schedule to gather information to develop the optimization plan:

- The catch basin cleaning optimization plan or schedule is attached to the email submission
- The catch basin cleaning optimization plan or schedule can be found at the following website:

N/A

*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, if known.

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

Describe the status of the written procedures for sweeping streets and municipal-owned lots:

Preparation of written procedures for sweeping streets and municipal-owned lots has not yet begun as this requirement is due in Permit Year 3

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

- Number of miles cleaned:
- Volume of material removed: [Select Units]
- Weight of material removed: [Select Units]

If applicable:

For rural uncurbed roadways with no catch basins, describe the progress of the inspection, documentation, and targeted sweeping plan:

O&M Procedures and Inventory of Permittee-Owned Properties

Below, check all that apply.

The following permittee-owned properties have been inventoried:

- Parks and open spaces
- Buildings and facilities
- Vehicles and equipment

The following O&M procedures for permittee-owned properties have been completed:

- Parks and open spaces
- Buildings and facilities
- Vehicles and equipment

Winter Road Maintenance

Describe the status of the written procedures for winter road maintenance including the storage of salt and sand:

Pepperell stores deicing materials at 45 Lowell Road (Highway Facility) in sand and salt storage sheds and liquid deicer is covered. The Town has significantly reduced sand use. The Town will review existing winter road maintenance practices and establish written procedures by the end of Permit Year 4 in accordance with the General Permit schedule.

Stormwater Pollution Prevention Plan (SWPPP)

Describe the status of any SWPPP for permittee-owned or operated facilities including maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater:

The Town will identify properties and facilities in the MS4 that may require a site-specific SWPPP and

prepare these in accordance with the General Permit requirements by the end of Permit Year 4.

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

Number of site inspections completed:

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

N/A

O&M Procedures for Stormwater Treatment Structures

Describe the status of the written procedure for stormwater treatment structure maintenance:

Written procedures for operation and maintenance of stormwater treatment structures are not required to be completed until the end of Permit Year 4. The Town will review existing procedures for stormwater treatment structures and establish written procedures in accordance with the General Permit schedule.

Part V: 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):

<https://www.nashuariverwatershed.org/what-we-do/protect-water-and-land/river-water-quality-overview/wqm-data-historic.html>

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:

The Nashua River Watershed Association (NRWA) is an important partner in Pepperell's stormwater program and NRWA has been monitoring water quality in Pepperell's receiving waters for many years. Analysis includes dissolved oxygen, E.coli, conductivity, pH, and temperature. Historic water quality data and "Report Cards" from these efforts will help the Town prioritize MS4 program activities, particularly public education and IDDE Plan implementation.

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:

COVID-19 Impacts

Optional: If any of the above year 2 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 Northern Middlesex Stormwater Collaborative (NMSC) "Capacity Building for Local Oversight of Development and Redevelopment Projects" project funded through a 2019-2020 MS4 Municipal Assistance Grant was scheduled to be complete by June 30, 2020, however the schedule was extended into Permit Year 3 due to COVID-19 restrictions on meetings and closures of Town offices.

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

Yes, I agree

- Complete IDDE ordinance
- Complete Construction/ Erosion and Sediment Control (ESC) ordinance
- Develop written procedures for site inspections and enforcement of sediment and erosion control measures
- Develop written procedures for site plan review

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
- Continue public education and outreach program

Provide any additional details on activities planned for permit year 3 below:

The Town acknowledges the General Permit Year 3 requirements and will complete as many activities as possible based on funding and staff availability.

Part VI: Certification of Small MS4 Annual Report 2020

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:

Kenneth Kalinowski

Title:

Town Engineer/Director of DPW

Signature:



Date:

Sept 24, 2020

[Signatory may be a duly authorized representative]