

Year 1 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: May 1, 2018-June 30, 2019

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.

Part I: Contact Information

Name of Municipality or
Organization:

Town of Mashpee

EPA NPDES Permit Number: *MAR041129*

Primary MS4 Program Manager Contact Information

Name: *Catherine Laurent*

Title: *Department of Public Works Director*

Street Address Line 1: *350 Meetinghouse Road*

Street Address Line 2:

City: *Mashpee*

State: *MA*

Zip Code: *02649*

Email: *claurent@mashpeema.gov*

Phone Number: *(508) 539-1420*

Fax Number: *(508) 539-3894*

Stormwater Management Program (SWMP) Information

SWMP Location (web address): *<https://www.mashpeema.gov/public-works/stormwater-management-program>*

Date SWMP was Last Updated: *June 2019*

If the SWMP is not available on the web please provide the physical address and an explanation of why it is not posted on the web:

Part II: Self Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4.

Impairment(s)

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

TMDL(s)

- In State: ☐ Assabet River Phosphorus
 ☒ Bacteria and Pathogen
 ☒ Cape Cod Nitrogen
☐ Charles River Watershed Phosphorus
 ☐ Lake and Pond Phosphorus

- Out of State: ☐ Bacteria/Pathogens
 ☐ Metals
 ☐ Nitrogen
 ☐ Phosphorus

Clear Impairments and TMDLs

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

Year 1 Requirements

- ☒ Develop and begin public education and outreach program
- ☐ Identify and develop inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years
 - ☐ The SSO inventory is attached to the email submission
 - ☐ The SSO inventory can be found at the following website:

The Town of Mashpee does not have a sewer system, therefore, this requirement is not applicable.
- ☒ Develop written IDDE plan including a procedure for screening and sampling outfalls
- ☒ IDDE ordinance complete
- ☒ Identify each outfall and interconnection discharging from MS4, classify into the relevant category, and priority rank each catchment for investigation
 - ☐ The priority ranking of outfalls/interconnections is attached to the email submission
 - ☒ The priority ranking of outfalls/interconnections can be found at the following website:

<https://www.mashpeema.gov/public-works/stormwater-management-program>
- ☒ Construction/ Erosion and Sediment Control (ESC) ordinance complete
- ☒ Develop written procedures for site inspections and enforcement of sediment and erosion control measures
- ☒ Develop written procedures for site plan review
- ☒ Keep a log of catch basins cleaned or inspected
- ☐ Complete inspection of all stormwater treatment structures

Annual Requirements

- ☒ Annual opportunity for public participation in review and implementation of SWMP
- ☒ Comply with State Public Notice requirements
- ☒ 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
- ☒ All curbed roadways have been swept a minimum of one time per year

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

Annual Requirements

*Public Education and Outreach**

- ☒ Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☒ Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- ☒ Provide 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)*

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

Annual Requirements

*Public Education and Outreach**

- ☒ Distribute an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers
- ☒ Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☒ Distribute 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

- ☐ Increase 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 (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

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

- ☒ Distribute 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

- ☐ Increase 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)

Potential structural BMPs

Any structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus

- ☐ removal by the BMP consistent with Attachment 1 to Appendix H. Document 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 in each annual report

Use the box below to input additional details on any unchecked boxes above or any additional information you would like to share as part of your self assessment:

The Town has no municipal sewer system and therefore the SSO inventory requirement is not applicable.

The Town has identified but not yet mapped stormwater treatment structures as this is not required until the end of Permit Year 2. The Town intends to undertake a program to inspect all stormwater treatment structures beginning in Permit Year 3 once they have been mapped under the Phase I mapping requirements.

The Town sweeps all municipal streets and parking areas once per year and targets priority watersheds and problem areas for a second sweeping of municipal streets and parking areas as budget allows.

Structural BMPs and stormwater treatment structures have not yet been mapped as this requirement is not due until the end of Permit Year 2. Therefore, BMPs have not been tracked or estimated for phosphorus removal. The Town intends to begin tracking during Permit Year 3, after Town-owned structural BMPs and treatment structures have been mapped as part of Phase I mapping efforts.

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:

During Permit Year 1, mapping of outfalls has been updated for accuracy. The outfall inventory has been updated from 37 to 43 outfalls based on recent field efforts. The updated map showing the outfall locations is posted online at: <https://www.mashpeema.gov/public-works/stormwater-management-program>

The list of Receiving Waterbodies and relevant impairments and TMDLs have not changed from the NOI.

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 the reporting period:

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

BMP: Multi-media Methods for Residents

Message Description and Distribution Method:

The Town of Mashpee maintains a stormwater webpage with educational information for residents. Educational topics include the proper use of slow-release fertilizers, pet waste management, and proper care. These materials were used to meet the requirements per Appendix H for discharges to waters impaired for phosphorus and discharges to waters impaired for bacteria and Nitrogen.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

The Town posted an electronic survey online to determine a baseline for measuring the effectiveness of public education and outreach efforts. The survey will be distributed again during the permit term to determine if public education and outreach efforts have made an impact on behavior.

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: Multi-media methods for Businesses

Message Description and Distribution Method:

The Town of Mashpee maintains a stormwater webpage with educational information for businesses on topics such as managing grease waste, cleaning up spills, preventing pollution, and winter de-icing.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

The Town posted an electronic survey online to determine a baseline for measuring the effectiveness of public

education and outreach efforts. The survey will be distributed again during the permit term to determine if

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Message Date(s): June 2019

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:Multi-media Methods for Construction Developers

Message Description and Distribution Method:

The Town of Mashpee maintains a stormwater webpage with educational information for construction developers on erosion and sediment control and BMP maintenance.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Department of Public Works/Environmental Oversight Committee

Measurable Goal(s):

The Town posted an electronic survey online to determine a baseline for measuring the effectiveness of public education and outreach efforts. The survey will be distributed again during the permit term to determine if public education and outreach efforts have made an impact on behavior.

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Message Date(s): June 2019

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:Multi-media methods for Industrial Facilities

Message Description and Distribution Method:

The Town of Mashpee has very few industrial facilities. However, the Town maintains a stormwater webpage with educational information for automotive facilities on practicing good housekeeping and pollution prevention.

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Targeted Audience: Industrial facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The Town posted an electronic survey online to determine a baseline for measuring the effectiveness of public education and outreach efforts. The survey will be distributed again during the permit term to determine if public education and outreach efforts have made an impact on behavior.

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Message Date(s):

June 2019

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 the reporting period:

A draft of the SWMP was presented to the Board of Selectmen at a public meeting on September 24, 2018, where public comments and feedback were solicited. The SWMP was made publicly available 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 the reporting period:

- *The Stormwater Management Task Force met on September 11, 2018, to discuss and finalize the SWMP.*
- *The Town of Mashpee sponsored a Hazardous Waste Day on August 17, 2018.*

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

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 2013.

Total number of SSOs identified:

Total number of SSOs removed:

MS4 System Mapping

Describe the status of your MS4 map, including any progress made during the reporting period (phase I map due in year 2):

The Town has a MS4 map showing: all known outfalls and receiving waterbodies, as well as portions of Phase I and Phase II mapping requirements (e.g., catch basins, drainage manholes, pipe connectivity, etc.). A summary of outfall investigation was added to the SWMP and the revised plan posted on the Town's website.

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:

<https://www.mashpeema.gov/public-works/stormwater-management-program>

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

Number of outfalls screened: 43

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

Percent of total outfalls screened: 100%

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:

Not applicable

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

Number of catchment investigations completed this reporting period: 0

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

Percent of total catchments investigated: 0

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

No catchment investigations were completed in Permit Year 1 as investigations of problem catchments are not required to begin until Permit Year 2. Additionally, the Town has not identified any problem catchments.

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:

Not applicable (note - the above box was checked by accident and can not be un-checked)

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:

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.

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 the reporting period:

IDDE and SPCC Training was held on June 28, 2019. The training reviewed the overall purpose and scope of the IDDE program, including how to recognize an illicit discharge, along with IDDE program responsibilities. Town staff were trained to look for the presence of illicit discharges during regular Department operations activities.

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 in year 2 of the permit term:

Complete. During Permit Year 2, the Town will review existing regulations and determine whether updates or additions are needed to meet the requirements of the General Permit.

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 required to be complete in year 2 of the permit term:

The required submission of as-built drawings to ensure long term operation and maintenance of completed construction sites is not required to be completed until the end of Permit Year 2. The Town will review existing bylaws and regulations and determine where updates or additions are needed to meet the requirements of the General Permit.

Street Design and Parking Lots Report

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

Preparation of the Street Design and Parking Lots Report has not yet begun as this requirement is due in Permit Year 4 by June 30, 2022.

Green Infrastructure Report

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

Preparation of the Green Infrastructure Report has not yet begun as this requirement is due in Permit Year 4 by June 30, 2022.

Retrofit Properties Inventory

Describe the status of the inventory, due in year 4 of the permit term, 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 of the Retrofit Properties Inventory has not yet begun as this requirement is due in Permit Year 4 by June 30, 2022.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

The catch basin cleaning optimization plan is in progress. See page 15 for additional information.

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:

Plan is described on page 15.

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:

Written procedures for street sweeping are not required to be completed until the end of Permit Year 2. The Town will review existing street sweeping practices and establish written procedures as part of an overall infrastructure O&M plan.

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

☒ Number of miles cleaned: 167 lane miles

☐ Volume of material removed: 30 CY

☐ Weight of material removed: [UNITS]

If applicable:

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

Winter Road Maintenance

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

Written procedures for winter road maintenance are not required to be completed until the end of Permit Year 2. The Town will review existing winter road maintenance practices and establish written procedures as part of an overall infrastructure O&M plan.

Inventory of Permittee-Owned Properties

Describe the status of the inventory, due in year 2 of the permit term, of permittee-owned properties, including parks and open spaces, buildings and facilities, and vehicles and equipment, and include any updates:

The Town has prepared an initial list of Town-owned properties to be included in the inventory. The Town will complete the inventory by June 30, 2020.

O&M Procedures for Parks and Open Spaces, Buildings and Facilities, and Vehicles and Equipment

Describe the status of the operation and maintenance procedures, due in year 2 of the permit term, of permittee-owned properties (parks and open spaces, buildings and facilities, vehicles and equipment) and include maintenance activities associated with each:

As the Town prepares the Inventory of Town-Owned Properties, they will concurrently prepare O&M procedures associated with the properties included in the inventory. This will be completed by June 30, 2020.

Stormwater Pollution Prevention Plan (SWPPP)

Describe the status of any SWPPP, due in year 2 of the permit term, 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 what properties and facilities are in need of a SWPPP and will prepare these in

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:

Not applicable.

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 2. The Town will review existing operations and maintenance procedures for stormwater treatment structures and establish written procedures as part of an overall infrastructure O&M plan.

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:

Regarding MCM #4: Inspections of "50 Curb Cuts" and 900 building permits was completed during Permit Year 1. All numbers presented under MCM 4 reflect all development and redevelopment, not just projects one or more acres in disturbance.

Regarding MCM #6: Mashpee currently cleans all catch basins annually. The DPW is planning to use a volumetric average to estimate the total amount of material removed from catch basins and confirm that it, on average, is less than 50% of the catch basin sump volume. These estimates will be tracked from year to year and the program or tracking methods will be adjusted as needed.

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

Yes, I agree ☒

Annual Requirements

Provide any additional details on activities planned for permit year 2 below:

The Town acknowledges the Permit Year 2 requirements listed above and will complete as many activities as possible based on funding and staff availability.

Part V: Certification of Small MS4 Annual Report 2019

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.

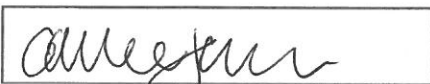
Name:

Catherine Laurent

Title:

Department of Public Works Direct

Signature:



Date:

9-26-19

[Signatory may be a duly authorized representative]