

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

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form. Also ensure any websites included on this form are to publicly accessible sites

Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2022 and June 30, 2023 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

Impairment(s)

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

TMDL(s)

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

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

Clear Impairments and TMDLs

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

Annual Requirements

- ☐ Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
☒ Kept records relating to the permit available for 5 years and made available to the public
☒ The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
- ☐ This is not applicable because we do not have sanitary sewer
☐ This is not applicable because we did not find any new SSOs
☒ The updated SSO inventory is attached to the email submission
☐ The updated SSO inventory can be found at the following publicly available website:
- ☒ Updated system map due in year 2 as necessary
☒ Provided training to employees involved in IDDE program within the reporting period
☒ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
☒ All curbed roadways were swept at least once within the reporting period
☒ Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
☐ Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities

- ☒ Updated inventory of all permittee owned facilities as necessary
- ☐ O&M programs for all permittee owned facilities have been completed and updated as necessary
- ☐ Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs
- ☐ Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- ☐ Inspected all permittee owned treatment structures (excluding catch basins)

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

The Town does not have any maintenance garages, DPW yards, or transfer stations in the MS4 mapped area.
The Town does have a new WWTF that will require a SWPPP that will be created in the upcoming year.

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:

Nitrogen (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) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release 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 Nitrogen 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 listed in Attachment 3 to Appendix F already existing or installed in the regulated area by the permittee or its agents was tracked and the nitrogen removal by the BMP was estimated

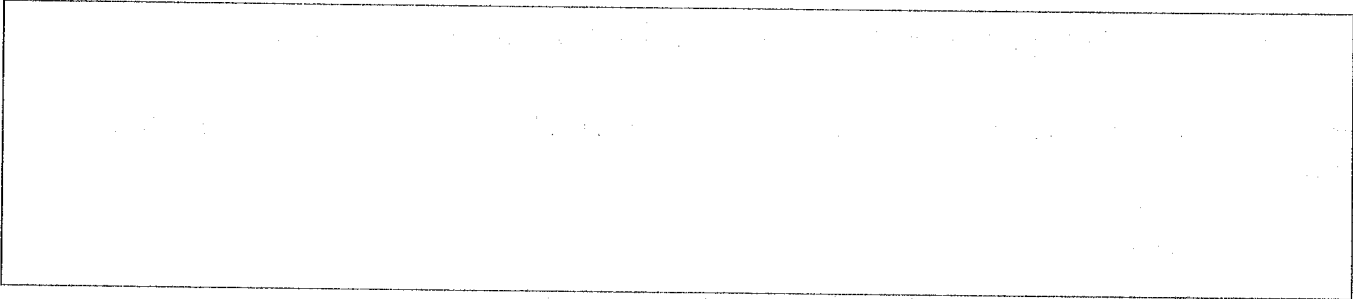
- ☐ consistent with Attachment 3 to Appendix F. The BMP type, total area treated by the BMP, the design storage volume of the BMP, and the estimated nitrogen removed in mass per year by the BMP were documented.

- ☒ 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 nitrogen removed in lbs/year from the installed BMPs: 0

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

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



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:

Megansett-Squeteague Harbor TMDL for Nitrogen. The Town seems to meet the requirements according to our draft CWMP at this time.

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: 5

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: Dog Waste

Message Description and Distribution Method:

The Town continues to supply residents with dog waste bags and pamphlets. During dog licensing a pamphlet is attached as well as passed out at Annual Town Meeting.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Positive feedback and people using all of them in order for us to order more.

Message Date(s): Year round with Town Meetings in Fall and Spring also.

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: Erosion Controls

Message Description and Distribution Method:

Erosion and Sedimentation Control pamphlet describing runoff during the construction period.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Building Permitting and Enforcement

Measurable Goal(s):

LESS VIOLATIONS. This has been important to the Town. During the pre-construction stormwater meeting with contractors staff is able to communicate the severity of sedimentation control during construction as it can be one of our biggest issues with our drainage system.

Message Date(s): Year Round

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:Yard waste & runoff

Message Description and Distribution Method:

Educational pamphlets for removing grass and leaves from your property. Also pamphlets on fertilizer controls and effects on the environment.

Targeted Audience: Residents and Businesses

Responsible Department/Parties: Conservation Committee

Measurable Goal(s):

None besides positive feedback

Message Date(s): Year round

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:Septic Maintenance

Message Description and Distribution Method:

Pamphlet on the importance of septic maintenance with the Board of Health permits

Targeted Audience: Residents

Responsible Department/Parties: Health Department

Measurable Goal(s):

Septic O&M reports

Message Date(s): Year Round

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 Town has made the SWMP available online and discussed input during the CWMP planning process. The CWMP plan has made reference to the SWMP and installation of structural BMPs will be apart of the CWMP processes.

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 Wastewater Advisory Committee (WAC) was created during the CWMP process to discuss Alternatives and the WAC, partly based on the SWMP, decided Stormwater structural BMPs was one of two of the best alternatives to officially include in our CWMP.

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: 0

Number of SSOs removed: 0

MS4 System Mapping

Optional: Provide additional status information regarding your map:

Mapping has been ongoing in Bourne. As our PeopleGIS mapping is populated with inspections, our interconnections get better every year. We are mostly complete with the piping and are 99% complete with outfalls and inlets.

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: 181

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

Percent of outfalls screened: 56

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

Buzzards Bay National Estuary Program (BBNEP) has done an incredible service to the Town of Bourne and surrounding towns. Our MOA has them doing IDDE, mapping, and inspections. Work is attached.

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: 27

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

Percent of total catchments investigated: 30

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

See BBNEP statistics attached in "Bourne Summary" attachment

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: 1

Number of illicit discharges removed: 1

Estimated volume of sewage removed: 10 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: 4

Total number of illicit discharges removed: 4

Optional: Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

This year was a sump pump discharging basement drainage to a catchbasin on a Town road.

Employee Training

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

The Town received training from PeopleGIS for stormwater mapping while using the vac-truck. Catch basin cleaning has been a focus as we redesign several outfalls and drainage components in Town. Staff has also done Stormwater One training to broaden the greater understanding of GSI as well as erosion and sedimentation.

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: 36

Number of inspections completed: 1,221

Number of enforcement actions taken: 35

Optional: Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

The Planning Board oversees a formal Site Plan Review (SPR) process for large commercial projects. Staff also does internal SPR for projects requiring complicated multi-departmental review during monthly regulatory meetings.

The Town had an increase in enforcement due to compliance with FEMA Region 1. Non-floodplain violations was 17.

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3): May 1, 2021

Website of ordinance or regulatory mechanism: https://www.townofbourne.com/sites/g/files/vyhlf7346/f/pages/zoning_bylaw_2022_for_website.pdf

As-built Drawings

Below, report on the number of as-built drawings received during this reporting period.

Number of as-built drawings received: 0

Optional: Enter any additional information relevant to the submission of as-built drawings:

Multiple projects requiring as-builts during Year 5 were still under construction. The Town has since implemented pre-construction drainage meetings for discussion of erosion and sedimentation during construction. As Bourne saw an influx in projects during COVID-19, many projects will come to completion this year.

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:

None yet. Planning Board to discuss in the upcoming Winter.

Green Infrastructure Report

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

The Town has not taken steps to make GSI practices more allowable. The Town has focused on the development of Town owned GSI projects at this time. GSI review will be included in the Planning Board review of street design and parking lot design.

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):

Beach Access Rd off Squeteague Harbor Rd Squeteague Harbor Infiltrative BMP TBD
 Barlows Landing Beach Pocasset Harbor Infiltrative BMP TBD
 Circuit Ave at Outfall 86 Pocasset Harbor Infiltration chamber system
 End of Massasoit Ave Pocasset Harbor Infiltration chamber system
 Old Head of the Bay Rd at Head of Bay Rd Buttermilk Bay/Little Buttermilk Bay Infiltration chamber system

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.

None at this time.

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: 170

Number of catch basins cleaned: 170

Total volume or mass of material removed from all catch basins: 650 tons

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

Total number of catch basins: 2,000

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 has problem areas and the Vacuum truck operator visits these yearly and as-needed. We have new staff operating this equipment and trained on PeopleGIS inspection/cleanout software. We have collected all inspections digitally.

Street Sweeping

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

☐ Number of miles cleaned: 200

☐ Volume of material removed: 74 cubic yards

☐ Weight of material removed: 90 tons

Stormwater Pollution Prevention Plan (SWPPP)

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

Number of site inspections completed: 0

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

The Town is currently in the process of hiring a consultant to inventory town facilities and create SWPPP's as necessary.

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):

<https://www.savebuzzardsbay.org/bay-health/bourne/>

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:

Buzzards Bay Coalition (BBC) with support from the Town of Bourne, monitors water quality in Bourne's embayments. We will be using this data to get a general sense of water quality but is not specifically tied to stormwater.

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 was not required to use as much sand during snow operations as in the years past. This trend was almost identical to last year. This was apparent during the calculations of removal.

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 MS4 budget is already obligated to be spent. \$55,000 will be spent on BBNEP for IDDE, mapping, and inspections, PeopleGIS for mapping, and Environmental Partners will be inventorying our BMPs and helping with O&M issues. The Town will be hiring a new DPW Director to hopefully progress the operations forward. The Town will put an emphasis on design of retrofits of identified projects within the annual report. Several grant funded entities have been looking to work with the Town on other stormwater projects that can also be identified next year.

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.

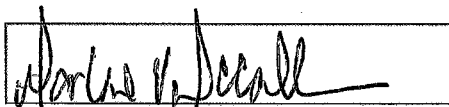
Name:

Marlene McCollem

Title:

Town Administrator

Signature:



Date:

9/27/23

[Signatory may be a duly authorized representative]

