

**Year 3 Annual Report**  
**Massachusetts Small MS4 General Permit**  
**Reporting Period: July 1, 2020-June 30, 2021**

*\*\*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, 2020 and June 30, 2021 unless otherwise requested.*

**Part I: Contact Information**

Name of Municipality or Organization:

EPA NPDES Permit Number:

**Primary MS4 Program Manager Contact Information**

Name:  Title:

Street Address Line 1:

Street Address Line 2:

City:  State:  Zip Code:

Email:  Phone Number:

**Stormwater Management Program (SWMP) Information**

SWMP Location (web address):

Date SWMP was Last Updated:

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

## Part II: Self-Assessment

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

<b>Impairment(s)</b>			
<input checked="" type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Chloride	<input type="checkbox"/> Nitrogen	<input type="checkbox"/> Phosphorus
<input type="checkbox"/> Solids/ Oil/ Grease (Hydrocarbons)/ Metals			
<b>TMDL(s)</b>			
<i>In State:</i>	<input type="checkbox"/> Assabet River Phosphorus	<input checked="" type="checkbox"/> Bacteria and Pathogen	<input type="checkbox"/> Cape Cod Nitrogen
	<input type="checkbox"/> Charles River Watershed Phosphorus	<input type="checkbox"/> Lake and Pond Phosphorus	
<i>Out of State:</i>	<input type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Metals	<input type="checkbox"/> Nitrogen
			<input type="checkbox"/> 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 3 Requirements

- Inspected and screened all outfalls/interconnections (excluding Problem and Excluded outfalls)
- Updated outfall/interconnection priority ranking based on the information collected during the dry weather inspections as necessary
- Post-construction bylaw, ordinance, or other regulatory mechanism was updated and adopted consistent with permit requirements

*Optional:* If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above year 3 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 bylaw was passed on May 3, 2021 by Town meeting and approved by the State Attorney on August 17, 2021. The bylaw is currently published awaiting codification.

### Annual Requirements

- Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
- Kept records relating to the permit available for 5 years and made available to the public
- The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
  - This is not applicable because we do not have sanitary sewer
  - This is not applicable because we did not find any new SSOs

- The updated SSO inventory is attached to the email submission
- The updated SSO inventory can be found at the following website:

- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- Provided training to employees involved in IDDE program within the reporting period
- All curbed roadways were swept at least once within the reporting period
- Updated system map due in year 2 as necessary
- 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, provide any additional information, and/or if any of the above annual 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 is currently making an inventory of treatment structures and confirming ownership.

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

Annual Requirements

*Public Education and Outreach\**

- Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

*\* Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

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

*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:

## 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: 0

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 Flyer**

Message Description and Distribution Method:

informational flyer on the importance of dog waste getting properly disposed of.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Flyer is posted on town site here: [https://www.marblehead.org/sites/g/files/vyhlif4661/f/uploads/scoop\\_the\\_poop.pdf](https://www.marblehead.org/sites/g/files/vyhlif4661/f/uploads/scoop_the_poop.pdf), A dog waste letter was also sent out to certain neighborhoods that saw high amounts of dog waste found catch basins. A copy of this letter is available upon request.

Message Date(s): 7/1/2020-6/30/2021

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:Sustainable Marblehead Ocean Week Table**

Message Description and Distribution Method:

Sustainable Marblehead hosted a tabling event in front of shubie's grocery store to educate the residents on stormwater and promote the adopt-a-drain program.

Targeted Audience: Residents

Responsible Department/Parties: Sustainable Marblehead/DPW

Measurable Goal(s):

The table was set up for four hours and passed out informational flyers on what should not go down the storm drain and adopt-a-drain applications available here: <https://www.sustainablemarblehead.org/working-groups/>

harbor

Message Date(s): 06/7/21

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:

Recently developed a working relationship with sustainable Marblehead to promote stormwater education

**BMP:Greenscapes Guide**

Message Description and Distribution Method:

Comprehensive 24 page magazine, describing sustainable landscaping practices, DIY residential stormwater management projects, native plant suggestions and more

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Greenscapes North Shore Coalition has their guides in the DPW available to the public and available online at [www.greenscapes.org/greenscapes-guide/](http://www.greenscapes.org/greenscapes-guide/)

Message Date(s): July 2020-June 2021

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:Greenscapes "Water for People" Post**

Message Description and Distribution Method:

Social Media about getting a lawn sign for "Save our rivers and streams Water for people, not grass"

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Posted on Greenscapes North Shore Coalition facebook on July 22, 2020

Message Date(s): July 22, 2020

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: EPA "Do Your Part, Be Septic Smart" Post**

Message Description and Distribution Method:

Social media post containing information and tips for proper septic system maintenance.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Posted on Greenscapes North Shore Coalition facebook throughout the year

Message Date(s): August 26, 2020, March 3, 2021

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:EPA "Protect it and Inspect it" Post**

Message Description and Distribution Method:

Social media post containing information and resources about how to protect and maintain you septic systems

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Posted on Greenscapes North Shore Coalition facebook on September 16, 2020

Message Date(s): September 16, 2020

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:

[Empty text box]

**BMP:Greenscapes "Fall Landscaping" Post**

Message Description and Distribution Method:

Social media post about fall yard maintenance to protect water resources

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Posted on Greenscapes North Shore Coalition facebook on September 30, 2020

Message Date(s): September 30, 2020

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:

[Empty text box]

**BMP:Greenscapes "keep storm drain clear" Post**

Message Description and Distribution Method:

Social media post containing information the importance of keep storm drains clear of debri

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Posted on Greenscapes North Shore Coalition facebook on November 2020

Message Date(s): November 24, 2020

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: Greenscapes "winter reminder" Post**

Message Description and Distribution Method:

Social media post about the alternatives to road salt and de-icers

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Posted on Greenscapes North Shore Coalition facebook on January 2021

Message Date(s): January 8, 2021

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: Flow n Go newsletter - sump pump information**

Message Description and Distribution Method:

quarterly newsletter from the water and sewer commission informing residents of the RESUMP Program which encourages residents to check sump pump connections are legally installed into the drainage system and not the sewer system. If homeowners cannot connect to the drainage system, they must ensure their sump pump doesn't drain in such a manner so as not to cause any hazard or potential hazard on a roadway.

Targeted Audience: residents

Responsible Department/Parties: Water and Sewer Commission and DPW

Measurable Goal(s):

Sent with water bill to every resident.

Message Date(s): February 2021

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:

[Empty text box for describing changes]

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:**

In the Spring of 2021, the DPW partnered with Sustainable Marblehead in their "Adopt-A-Drain" program. The goal of this program is to educate and encourage citizens to keep the catch basins free of debris and contact DPW when they suspect illicit discharges or structure damage. The DPW also participated in an outreach event sponsored by Sustainable Marblehead in June 2021.

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 DPW also held an informal open office hours on June 29, 2021 for any residents to stop by and ask questions about the drainage system.

### 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 MS4 is fully mapped on GIS, in the past year extensive efforts have been made to update any incorrect information. This is done through CCTV and dye testing.

### **Screening of Outfalls/Interconnections**

*If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.*

- No outfalls were inspected
- The outfall screening data is attached to the email submission
- The outfall screening data can be found at the following website:

The outfall data can also be found on the drain department website: <https://www.marblehead.org/drain-department>

*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:

The Town continuing to review historical admissions and update data as required. To date a total of 427 structures including outfalls, catch basins and manholes have been screened for illicit discharges.

### **Catchment Investigations**

*If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.*

- No catchment investigations were conducted
- The catchment investigation data is attached to the email submission
- The catchment investigation data can be found at the following website:

Catchment area information and priority list can be found on the drain department website: <https://www.marblehead.org/drain-department>

*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 areas have been designated and prioritized. The Riverhead Beach catchment and Stramski Beach catchment areas are currently being investigated and the Town is working to identify illicit discharges any potential illicit discharges.

**IDDE Progress**

*If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.*

- No illicit discharges were found
- The illicit discharge removal report is attached to the email submission
- The illicit discharge removal report can be found at the following website:

*Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed during this reporting period.*

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed:  gallons/day

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

Total number of illicit discharges identified:

Total number of illicit discharges removed:

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

Since 2011, four illicit discharges have been identified and removed. No illicit discharges were identified or removed in year 3.

**Employee Training**

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

The employees of the DPW and various department heads were trained on June 15, 2021 by Bobrek Engineering and Construction. The training included a one hour presentation on how to identify stormwater pollutants and best practices. See SWPPPs for more information

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed during this reporting period.*

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

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

Inspected sump pump connections to the drainage system.

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

#### **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:

As-built drawings were received for sump pump connections.

#### **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:

The assessment is in progress and will be completed by Year 4.

#### **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:

The report is in progress and will be completed by Year 4.

[Empty text box]

**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:

The inventory is in progress and will be completed by Year 4.

**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: 1,669

Number of catch basins cleaned: 1,650

Total volume or mass of material removed from all catch basins: 43,267.2 cubic feet

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

Total number of catch basins: 2,054

*If applicable:*

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

No action needed.

**Street Sweeping**

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

Number of miles cleaned: 160

Volume of material removed: [Select Units]

Weight of material removed: [Select Units]

**Stormwater Pollution Prevention Plan (SWPPP)**

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

Number of site inspections completed:

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

The DPW performed 8 inspections at the DPW Yard, Parks and Recreation Garage, Light Department and Transfer Station. Parks Garage obtained a paint storage container as recommended and Transfer Station is aware of the concern over their waste oil tank and is evaluating the options.

### **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:

The link above includes results from the Salem Sound Coastwatch. From June to August, water samples are taken from streams and outfall pipes as they empty out on to our coastal beaches. All samples are tested for Enterococcus. Like the more familiar E. coli, enterococci are part of the normal intestinal flora of humans and animals but are also important pathogens that are responsible for serious infections. US EPA has determined that the Enterococcus group is a better indicator of potential public health risk of waterborne disease than fecal coliform bacteria in marine waters.

#### **Additional Information**

*Optional:* Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

The Town of Marblehead (Town) transitioned staff responsibilities for this reporting in 2020, transitioning the Drain Department and stormwater related operations previously under the Water and Sewer Commission to the Department of Public Works (DPW).

#### **COVID-19 Impacts**

*Optional:* If any of the above year 3 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:

### **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 4 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

### **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)

Provide any additional details on activities planned for permit year 4 below:

The Town is currently assessing, designing, and procuring drainage improvements. The Town will report all drainage updates in Year 4.

