

**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: City of Gloucester

EPA NPDES Permit Number: MAR041192

**Primary MS4 Program Manager Contact Information**

Name: Michael Hale, AICP

Title: Director of Public Works

Street Address Line 1: 28 Popular Street

Street Address Line 2: na

City: Gloucester

State: MA

Zip Code: 01930

Email: mhale@gloucester-ma.gov

Phone Number: (978) 325-5600

Fax Number: na

**Stormwater Management Program (SWMP) Information**

SWMP Location (web address): <http://gloucester-ma.gov/index.aspx?nid=19>

Date SWMP was Last Updated: May 14, 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

*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:
- 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:
- 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)*

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:

### 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 the reporting period: 16+

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:RAIN GARDEN BROCHURE**

##### Message Description and Distribution Method:

Informational brochure on the function and importance of Rain Gardens and stormwater filtration. Construction instructions and plant suggestions also included.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

##### Measurable Goal(s):

500 made available in City Hall. Distributed by Salem Sound Coastwatch and Ipswich River Watershed Association at many community events. PDF available for download at [www.greenscapes.org/resources-brochures/](http://www.greenscapes.org/resources-brochures/)

Message Date(s): November 18

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:LID WORKSHOP**

##### Message Description and Distribution Method:

Workshop/Seminar reintroduced the basics of low impact development and its importance. MS4 requirements, as they relate to LID were discussed and Fred Civian (MassDEP) provided tips for designing and passing municipal ordinances to promote LID.

Targeted Audience: Developers (via municipal planners, conservation comm. members and DPW workers)

Responsible Department/Parties: Greenscapes North Shore Coalition

##### Measurable Goal(s):

Attended by 35 people. Presentation PDF and "Tip Sheet" sent to municipal contacts and was temporarily

available on Greenscapes website.

Message Date(s): January 17, 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:NEW GREENSCAPES GUIDE**

Message Description and Distribution Method:

A revised version of the comprehensive Greenscapes Guide. A new 24 page magazine (PDF) outlining the importance of small-scale stormwater management and sustainable landscaping. Project ideas, plant suggestions and best practices included.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on Website

Message Date(s): Published on website 6-30-19

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:KEEPING WATER CLEAN SCHOOL PROGRAM**

Message Description and Distribution Method:

Program engages 5th grade students in several activities designed to raise their stormwater and water conservation awareness. Students learn about what a watershed is, what stormwater, groundwater and wastewater are, how they can negatively or positively impact these water systems, along with more details about each system and how it should be protected/maintained.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Gloucester School System

Measurable Goal(s):

Conducted KWC at 27 different schools, reaching 2002 5th grade students and 300 adults across the North

Shore.

Message Date(s): 27 programs conducted Sept '18 - June '19.

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 MANAGEMENT" POST**

Message Description and Distribution Method:

Social media post describing the best ways to properly dispose of leaf litter and yard waste, keeping your yard clean and our water resources safe. Composting leaves, leaving them on the lawn for nutrient deposition, or having them picked up by the city are described as good options.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on Website

Message Date(s): Created October 2018

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:"ROAD SALT" POST**

Message Description and Distribution Method:

Social media post describing many alternatives to traditional road salting practices. The use and benefits of coffee grounds, pickle brine, kitty litter, ashes, sugar beet juice and/or sand were discussed.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on Website

Message Date(s): Created December 2018

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:"UN-FLUSHABLES" POST**

Message Description and Distribution Method:

Social media post warning residents of the harm caused by flushing "unflushables" such as q-tips, feminine hygiene products, oil, grease, "flushable" wipes, and more in their wastewater systems. The post clearly states that those items belong in the trash!

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on Website

Message Date(s): Created January 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:"SCOOP THE POOP" POST**

Message Description and Distribution Method:

Social media post educating residents on the harmful bacterial impacts that pet waste can have on our waterways and our health, if not properly disposed of.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on Website

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:"RAIN GARDENS" POST**

Message Description and Distribution Method:

Social media post describing the many important benefits rain gardens can have on our waterways by retaining and filtering stormwater as it travels through our watershed(s).

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on website

Message Date(s): Created February 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:"CAREFUL LAWN CARE" POST**

Message Description and Distribution Method:

Social media post describing many different sustainable and earth-friendly landscaping practices. Soil testing, mowing routines, watering routines, proper fertilization timing and suggested products are discussed.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Department of Public Works

Measurable Goal(s):

Hosted on Website

Message Date(s): Created April 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:

[Empty text box for describing changes]



### MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) during the reporting period:

The SWMP is hosted on the City 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:

See Click Fix website allows public to report on stormwater issues throughout the community.

### 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: 6

Number of SSOs removed: 6

*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: 15

Total number of SSOs removed: 15

**MS4 System Mapping**

Describe the status of your MS4 map, including any progress made during the reporting period:

The City has mapped its drain and drain system in GIS format. The data has been loaded into a Utility Cloud so all departments can access it.

**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:

\_\_\_\_\_

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

Number of outfalls screened: \_\_\_\_\_

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

Percent of total 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:

\_\_\_\_\_

*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:

*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:  [UNITS]

*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:

The City Public Works Department works closely with the drain inspectors and a plan is in progress to hold annual meetings in March.

**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:

Research has begun into any updates that will need to be made to current ordinance.

### **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:

Research has begun into any updates that will need to be made to current ordinance.

### **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:

Research is planned to determine if any updates that will need to be made to current rules and regulations.

### **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:

Research is planned to determine if any updates that will need to be made to current rules and regulations.

### **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:

Work has not begun on this aspect of the permit.

### MCM6: Good Housekeeping

#### **Catch Basin Cleaning**

Describe the status of the catch basin cleaning optimization plan:

See below, overflow box not working.

*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:

The Public Works Department has coordinated a contract for catch basin cleaning to ensure every basin is cleaned yearly. The data collected by the contractor is loaded into the City's Utility Cloud will be analyzed to ensure that if a basin is found to be more than 50% full of debris more frequent cleaning be completed. Due to bidding and delayed start by the contractor only Public Works has cleaned catchbasins in the time covered by this permit. The contractor began cleaning all the city owned catchbasins on September 23, 2019

*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: 123

Number of catch basins cleaned: 123

Total volume or mass of material removed from all catch basins: 15 tons

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

Total number of catch basins: 1822

*If applicable:*

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

[Empty text box for reporting actions taken]

#### **Street Sweeping**

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

All streets in the City as well as municipal lots and school lots are swept on a yearly basis.

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

Number of miles cleaned: 240

Volume of material removed: [UNITS]

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:

The salt pile is completely covered in a structure. A written salting procedure plan is being developed.

**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:

Work on this year 2 requirement is starting soon.

**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:

Work on this year 2 requirement is starting soon.

**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:

Work on this year 2 requirement is starting soon.

*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:

**O&M Procedures for Stormwater Treatment Structures**

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

**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:

**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

- Complete system mapping Phase I
- Begin investigations of catchments associated with Problem Outfalls
- Develop or modify an ordinance or other regulatory mechanism for post-construction stormwater runoff from new development and redevelopment
- Establish and implement written procedures to require the submission of as-built drawings no later than two years after the completion of construction projects
- Develop, if not already developed, written operations and maintenance procedures
- Develop an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; review annually and update as necessary
- Establish a written program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained in a timely manner
- Develop and implement a written SWPPP for maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater
- Enclose or cover storage piles of salt or piles containing salt used for deicing or other purposes
- Develop, if not already developed, written procedures for sweeping streets and municipal-owned lots
- Develop, if not already developed, written procedures for winter road maintenance including storage of salt and sand
- Develop, if not already developed, a schedule for catch basin cleaning
- Develop, if not already developed, a written procedure for stormwater treatment structure maintenance
- Develop a written catchment investigation procedure (*18 months*)

**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 in the last 5 years
- 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 uncurbed streets at least annually

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

## 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:  Title:

Signature:  Date:

*[Signatory may be a duly authorized representative]*