

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

*\*\*Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form\*\**

*Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed. Please ONLY report on activities between July 1, 2019 and June 30, 2020 unless otherwise requested.*

**Part I: Contact Information**

Name of Municipality or Organization:

EPA NPDES Permit Number:

**Primary MS4 Program Manager Contact Information**

Name:  Title:

Street Address Line 1:

Street Address Line 2:

City:  State:  Zip Code:

Email:  Phone Number:

**Stormwater Management Program (SWMP) Information**

SWMP Location (web address):

Date SWMP was Last Updated:

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

## Part II: Self-Assessment

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 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
			<input type="button" value="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 2 Requirements

- Completed Phase I of system mapping
- Developed a written catchment investigation procedure and added the procedure to the SWMP
- Developed written procedures to require the submission of as-built drawings and ensure the long term operation and maintenance of completed construction sites and added these procedures to the SWMP
- Enclosed or covered storage piles of salt or piles containing salt used for deicing or other purposes
- Developed written operations and maintenance procedures for parks and open space, buildings and facilities, and vehicles and equipment and added these procedures to the SWMP
- Developed an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment and added this inventory to the SWMP
- Completed a written program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Developed written SWPPPs, included in the SWMP, for all of the following permittee owned or
- operated facilities: maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater

*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 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Rowley intends to complete mapping of its open channel conveyance systems as part of its outfall inspections. This work was intended to start in spring 2020 but was delayed due to COVID. Rowley has received proposals from two consultants and intends to begin this work in October 2020. Rowley also continues to locate and

map municipally-owned stormwater treatment structures.

### 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 outfall and interconnection inventory and priority ranking as needed

*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:

Due to COVID-19 in person IDDE training was not held this spring. Staff were unable to attend a regional training offered through an MS4 Assistance Grant but have circulated and reviewed an IDDE PowerPoint provided by the Merrimack Valley Stormwater Collaborative (September 2020).

### **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:

Rowley dog license renewals are processed beginning in March when COVID-19 stay at home orders were

issued. Due to this, educational materials Rowley intended to include with renewals were not distributed.

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

Health Department distributed septic maintenance information with all new permits issued and left additional information for residents in all town buildings.

### 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:

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: Resident Message - Stormwater pollution is trash, oil, cigarette butts, & dog waste**

Message Description and Distribution Method:

Think Blue Massachusetts "Fowl Water" video (<https://www.thinkbluemassachusetts.org/>)  
Advertisement on Facebook & YouTube.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

9,308 Facebook impressions and 7,918 YouTube Ad impressions for Rowley. Over 13 Million impressions across Massachusetts

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:

Social Media not proposed in NOI

#### **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:

Responsible Department/Parties:

Measurable Goal(s):

500 delivered to municipal staff October 2019, available online at [www.greenscapes.org/greenscapes-guide/](http://www.greenscapes.org/greenscapes-guide/)  
Guides placed in municipal buildings. Plan was to distribute at Town Meeting which was not held in the traditional format. Approximately 25 were distributed at town office buildings.

Message Date(s): October 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:

Originally to be distributed in FY19. Digital version made available Summer 2019.

**BMP: Greenscapes "Fall Calendar" Post**

Message Description and Distribution Method:

Social media post including an illustrated yard waste calendar and check list.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition & Conservation Department

Measurable Goal(s):

Shared with 75 municipal staff in Essex County in Sept 2019. Posted on GNSC Facebook May 2020.

Message Date(s): Sept 2019, May 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 "Keep Drains Clear" Post**

Message Description and Distribution Method:

Social media post describing the importance of keeping storm drains clear of yard debris and trash.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition & Conservation

Measurable Goal(s):

Shared with 75 municipal staff in Essex County in October 2019. Posted on GNSC Facebook May 2020

Message Date(s): October 2019, May 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 "Unflushables" Post**

Message Description and Distribution Method:

Social media post containing information on "what not to flush" and how to avoid common wastewater system issues.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition & Conservation

Measurable Goal(s):

Shared with 75 municipal staff in April 2020. Posted on GNSC Facebook May 2020.

Message Date(s): April 2020, May 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 101" Webinar & Videos**

Message Description and Distribution Method:

Greenscapes staff delivered a virtual presentation on residential stormwater management, the importance of natural solutions in combatting stormwater/water resource management, and made suggestions for at-home projects that interested residents could explore. Projects included using native grass species, converting a lawn into a water-friendly garden, and more. The webinar was recorded, and posted on the Greenscapes website.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

35 "attended" webinar. Recordings shared with 75 municipal staff June 6, 2020 and posted on Greenscapes website at [www.greenscapes.org/resources-videos/](http://www.greenscapes.org/resources-videos/)

Message Date(s): Webinar held 4-29-20. Recordings posted and shared June 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: 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:

Responsible Department/Parties:

Measurable Goal(s):

Presented at Pine Grove Elementary School in Rowley. GNSC worked with 73 students, 7 parents and 4 teachers

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:

**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:**

An opportunity for public comment on updates to the Stormwater Management Plan was provided at the Board of Selectmens meeting (virtual) on June 29, 2020 at 1 p.m.

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**:

Rowley participated in monthly meetings of the Merrimack Valley Stormwater Collaborative and in Greenscapes North Shore Coalition. In addition Rowley held the following events:  
Hazardous Waste Collection Day - November 16, 2019

### **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**

Below, check all that apply.

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

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

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

Town has received consultant proposals to finalize Phase I mapping. Rowley intended to complete this work in March of 2020 when town government was shut down due to COVID-19. Rowley continues to work on identifying municipally-owned stormwater treatment structures using assessors maps and municipal files. Prior to 1995, easements were not recorded and municipal ownership needs to be researched. This work continues. Rowley utilizes MVPC collector application to update mapping.

#### **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:

### **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:  gallons/day

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

Total number of illicit discharges identified:

Total number of illicit discharges removed:

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

### **Employee Training**

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

The Conservation Agent attended the following trainings:  
 1. EPA Permit for Construction Site Erosion Control and the Commission's Role  
 2. NPDES MS4 Permit: How are Municipalities Complying with Permit Requirements  
 The Highway Surveyor is sharing the IDDE PowerPoint training and reviewing all new O&Ms with staff (September 2020).

### **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:

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

New project requiring review in MS4 Area - Falcon Ridge (430 Whethersfield Street) - two separate permits for intersection and subdivision.

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

#### **Ordinance or Regulatory Mechanism**

*Below, select the option that describes your ordinance or regulatory mechanism progress.*

- Bylaw, ordinance, or regulations are updated and adopted consistent with permit requirements
- Bylaw, ordinance, or regulations are updated consistent with permit requirements but are not yet adopted
- Bylaw, ordinance, or regulations have not been updated or adopted

### **As-built Drawings**

Describe 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:

The Rowley Stormwater Management and Erosion Control Bylaw SECTION 11. FINAL REPORTS  
Upon completion of the work, the permittee shall submit a report (including certified as-built plan prepared and signed by a registered professional engineer (PE) or professional land surveyor (PLS), showing grading, stormwater facilities, and structures in areas subject to this Stormwater Management Permit. This as-built may be the originally submitted site plan with changes highlighted and explained.) from a registered professional engineer (PE) or registered professional land surveyor (PLS) certifying that all erosion and sedimentation control devices, and approved changes and modifications, have been completed in accordance with the conditions of the approved permit. Any discrepancies should be noted in the cover letter.

Regulations for Stormwater Management and Erosion Control Bylaw: PART IV. OPERATION AND MAINTENANCE PLANS and AGREEMENTS

#### A. Operation and Maintenance Plan Requirements

An Operation and Maintenance Plan (O&M Plan) is required at the time of application for all projects. The maintenance plan shall be designed to ensure compliance with the Permit and the Stormwater and Erosion Control Bylaw and that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. Once approved by Conservation Commission, the Operation and Maintenance Plan shall be recorded at the Registry of Deeds. The O&M Plan shall remain on file with the Conservation Commission and adherence to the O&M Plan shall be an ongoing requirement.

### **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:

In process to comply with year 4 permit requirements including those to meet sections 2.3.6 (b)

### **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:

In process to comply with year 4 permit requirements including those to meet sections 2.3.6 (c)

**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:

In process to comply with year 4 permit requirements including those to meet sections 2.3.6 (d)

**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:

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.*

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:

Has not occurred to date.

Note locations of catch basins within MS4 has to be refined our present data doesn't tag the locations in or out of MS4

**Street Sweeping**

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

Number of miles cleaned:

Volume of material removed:  [Select Units]

Weight of material removed:  [Select Units]

**O&M Procedures and Inventory of Permittee-Owned Properties**

*Below, check all that apply.*

The following permittee-owned properties have been inventoried:

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

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

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

### **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:

Rowley completed its SWPPP and presented it during the public meeting held to review the updated Stormwater Management Plan. The first inspection was conducted in September 2020.

## **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:

### **COVID-19 Impacts**

*Optional:* If any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

### **Activities Planned for Next Reporting Period**

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 3 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Inspect all outfalls/ interconnections (excluding Problem and Excluded outfalls) for the presence of dry weather flow
- Complete follow-up ranking as dry weather screening becomes available

### **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 uncurbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- 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



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

## Part V: Certification of Small MS4 Annual Report 2020

### 40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:  Title:

Signature:  Digitally signed by Brent Baeslack  
Date: 2020.09.28 15:19:41 -04'00' Date:

*[Signatory may be a duly authorized representative]*

*Note: When prompted during signing, save the document under a new file name.*

### Annual Report Submission

*Please submit the form electronically via email to both EPA and MassDEP by clicking on one of the links below or using the email addresses listed below. Please ensure that all required attachments are included in the email and not attached to this PDF.*

EPA: [stormwater.reports@epa.gov](mailto:stormwater.reports@epa.gov)

MassDEP: [laura.schifman@mass.gov](mailto:laura.schifman@mass.gov)

### Paper Signature:

*If you did not sign electronically above, you can print the signature page by clicking the button below.*

*Optional: If you did not sign electronically above, you may lock the form by clicking the "Lock Form" button below which will prompt you to save the locked version of the form. Save this locked version under a new file name.*