

# 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><u>Impairment(s)</u></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><u>TMDL(s)</u></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
			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:

Phase 1 mapping: During this reporting period, the Town contracted with a consultant to map the entire drainage system (including all Phase 1 requirements). This work began on June 28th of this reporting period and at the time of this report submission 90% of the mapping data has been collected. Once mapping is complete and reviewed, catchment delineations will be added and outfall screening will begin.

The operations and maintenance procedures, inventory and SWPPPs for Town facilities has not yet been completed. During this reporting period there was turnover and replacement of the Director of Public Works which caused a delay in addressing these requirements. A new director was hired in July and will address these tasks as soon as possible.

### 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:

Update Outfall and Interconnection inventory and priority ranking: No new information was obtained during this reporting period that would warrant an update to the inventory and ranking. Drainage mapping (including interconnects and outfall screening is currently ongoing. Once complete the inventory and ranking will be updated accordingly.

**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:**

*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: Pump It! It's SepticSmart Time**

Message Description and Distribution Method:

The North and South Rivers Watershed Association (NSRWA) created this post for distribution on social media platforms such as Facebook and Instagram for communities in the program to share with town residents. This post highlights the importance of proper septic system use and the disadvantages and issues to be aware of with improper maintenance procedures.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

A press release to went out to the town, The Globe, the Patriot Ledger, Wicked Local, and the Hull Times. A Facebook post was boosted in September with a \$50 ad targeted to all WaterSmart towns with a reach of 27,648 people and 656 engagements, and a \$50 ad targeted to Hull with a reach of 2,818 people and 188 engagements.

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: School Program: Stormwater and Conservation Messaging**

Message Description and Distribution Method:

Curriculum on groundwater modeling, watershed modeling and cleaning dirty water were taught to elementary school students and parent volunteers in the school program. The event was distributed through school curriculum, programs, press release, and social media posts.

Targeted Audience:

Responsible Department/Parties:

## Measurable Goal(s):

Due to the COVID-19 pandemic, the school program went virtual. Environmental Educator Brian Taylor created videos on the school program content that teachers used with their students. The teachers also had the Watershed Jeopardy game to play with the students. All of the teachers were also given a packet of supplemental materials to go with the program. A press release went out to the town, The Globe, the Patriot Ledger, Wicked Local, and the Hull Times. There were 535 views on the school program web page. The program was also posted on the NSRWA Facebook page with a reach of 884 people and 83 engagements. In a sample survey, 85% of the students and 85% of the parents reported having a greater understanding of where their water comes from AFTER the program, 85% of the students and 80% of the parents reported having a greater understanding of the importance of conserving water AFTER the program, and 85% of the students and 80% of the parents reported having a greater understanding of how pollutants and runoff affect the quality of water AFTER the program.

Message Date(s): February 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: Regional Rain Barrel Sale**

## Message Description and Distribution Method:

Education about water conservation and the reduction of stormwater from impervious surfaces. Information about the sale was distributed through press release, social media posts, flyers, and the NSRWA and Town of Hull web pages.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

## Measurable Goal(s):

A press release went out to the town, The Globe, the Patriot Ledger, Wicked Local, and the Hull Times. Facebook posts were made on the NSRWA page and town connect pages. Information about the sale went out in the NSRWA E-newsletter to 7,800+ subscribers. There were 60 rain barrels sold with 7 sold to residents of Hull.

Message Date(s): March 5, 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: Gardening Green Expo**

**Message Description and Distribution Method:**

This event was for NSRWA communities, which provided information on how residents could reduce stormwater pollution from improved landscaping practices. This event was conducted through videos due to the COVID-19 pandemic.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

**Measurable Goal(s):**

Due to the COVID-19 pandemic, the Gardening Green Expo went virtual. Speaker videos were uploaded online (including videos from last year) and the site achieved 2,399 web page views. Rain barrels were sold and downloadable water saving plant lists were available online. Also a drawing for a custom water saving garden design was available for people interested and 38 people registered for that drawing.

Message Date(s): March 12, 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:

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**BMP: Greenscapes Guide****Message Description and Distribution Method:**

This is a digital download of landscaping techniques that reduce stormwater pollutants (fertilizers, pesticides, and herbicides)

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

**Measurable Goal(s):**

Due to the COVID-19 pandemic, the Greenscapes Guide could not be distributed at the Gardening Green Expo. The downloadable Greenscapes Guide was promoted online and on the NSRWA Facebook page. It was also promoted on the Hull Happenings and Today in Hull Facebook pages. There were 2 downloads from Hull. A How to Build a Rain Garden Zoom webinar was held with 25 attendees.

Message Date(s): Posted online for the duration of the year.

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: Fertilizer for May**

## Message Description and Distribution Method:

This Facebook message highlights the legality and harm behind adding fertilizer containing phosphorus. The post urges users to read more tips on the NSRWA website to become a more informed and responsible lawn caretaker.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

## Measurable Goal(s):

A fertilizer message was posted on the NSRWA Facebook page in June. The fertilizer message had a reach of 23,001 people and 2,183 engagements. It was also posted to the Hull Happenings and Today in Hull Facebook pages. The Facebook post was boosted in June with a \$50 ad targeted to Hull with a reach of 1,960 people and 239 engagements. There were also 19 page views on the Know Before You Mow! web page, 106 page views on the Best Mowing Practices web page, and 172 page views on the Stormwater web page. A Zoom webinar on Stormwater was held in May with 17 attendees.

Message Date(s): May and 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: Grass Clippings in June**

## Message Description and Distribution Method:

This Facebook ad encourages homeowners to leave grass clippings on the yard instead of bagging them in order to help mitigate the issues of algal blooms in local lakes, ponds, and streams due to the high nutrient levels (nitrogen and phosphorus) in the grass clippings.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

## Measurable Goal(s):

A grass clippings message was posted on the NSRWA Facebook page in June with a reach of 119,638 people and 24,325 engagements. It was also posted to the Hull Happenings and Today in Hull Facebook pages. The Facebook post was boosted in June with a \$50 ad targeted to Hull with a reach of 13,554 people and 655 engagements. There were also 19 page views on the Know Before You Mow! web page, 106 page views on the Best Mowing Practices web page, and 172 page views on the Stormwater web page.

Message Date(s): June 16, 2020 and September 5, 2020 (boosted)

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:

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**BMP: Pet Waste Education**

Message Description and Distribution Method:

This media post emulates the concern of improper disposal of pet waste on the South Shore. As a result, the NSRWA encourages community members to read more about proper pet waste handling on the NSRWA website.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

Measurable Goal(s):

Due to the COVID-19 pandemic, the Pet waste Scoop It cards were not distributed to town clerk's offices, vets and businesses. An article was written on The Problem of Dog Waste on the South Shore. This was sent to The Globe, the Patriot Ledger, Wicked Local, and the Hull Times. It was posted on the NSRWA Facebook page with a reach of 67,503 people and 10,088 engagements, and on the Hull Happenings and Today in Hull Facebook pages. The Facebook post was boosted with a \$50 ad targeted to Hull with a reach of 7,726 people and 177 engagements. There were also 453 page views on The Problem of Dog Waste on the South Shore web page, 22 page views on the Pet Waste Education page, 202 page views on the Addressing the Elephant in the Room - Dog Waste on the South Shore web page.

Message Date(s): June 2, 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:

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**BMP: DON'T BLOW IT!**

Message Description and Distribution Method:

This message explains the issues of blowing, sweeping, or dumping grass and yard waste into street and/or storm drains. This message was distributed through social media posts.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

Measurable Goal(s):

A message about leaf litter was posted on the NSRWA Facebook page in October 2019. The Facebook post was boosted in October with a \$50 ad targeted to all WaterSmart towns with a reach of 25,444 people and 1,492 engagements, and a \$50 ad targeted to Hull with a reach of 1,697 people and 226 engagements. There were also 106 page views on the Best Mowing Practices web page, and 172 page views on the Stormwater web page.

Message Date(s): October 18, 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:

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### **BMP: Proper Sediment and Erosion Control Management**

Message Description and Distribution Method:

A Stormwater Pollution Prevention Guide was created to inform developers of proper construction practices to limit the impact of developments around existing stormwater infrastructure. These brochures were printed and distributed to permittees in town.

Targeted Audience: Developers (Construction)

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

Measurable Goal(s):

A brochure entitled Construction Stormwater Pollution Prevention Guide was created and delivered to all of the town departments who issue permits, including Building and Board of Health. These brochures will be handed to the person when they receive their permit. There were 500 distributed to the Town of Hull.

Message Date(s): January 10, 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:

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### **BMP: Video Contest**

Message Description and Distribution Method:

Video submissions by community members are to be uploaded by the the NSRWA and WaterSmart website page and on social media to educate the public on either stormwater pollution and how to prevent it or of ways to conserve water resources. Harbor Media provided the ground rules for cash prize winners.

Targeted Audience: Residents

Responsible Department/Parties: North and South Rivers Watershed Association as part of the WaterSmart reg

**Measurable Goal(s):**

We are holding a WaterSmart Video Contest. Submissions will be a 1-3 minute videos to help educate the public by creating a fun video that highlights either stormwater pollution and how to prevent it, or ways to conserve water. The NSWRA partnered with Harbor Media for the contest and they provided the guidelines as well as a cash prize for the 1st place winner. All of the videos will be shared on the NSRWA and WaterSmart website pages and on social media following the August 31, 2020 deadline.

Message Date(s): August 31, 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:

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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 SWMP is posted to the Town website with contact information for questions/comments.

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:**

## **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: 8

Number of SSOs removed: 8

### **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:

Phase 1 mapping: During this reporting period, the Town contracted with a consultant to map the entire drainage system (including all Phase 1 requirements). This work began on June 28th of this reporting period and at the time of this report submission 90% of the mapping data has been collected. Over the next two months, mapping will be reviewed and catchment delineations and interconnections added.

### **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: 0

### **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: 0

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

Percent of total catchments investigated: 0

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

No catchment investigations were performed during this reporting period, see attachment for CCTV work performed on drainage infrastructure.

### **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: 0

Number of illicit discharges removed: 0

Estimated volume of sewage removed: 0 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: 0

Total number of illicit discharges removed: 0

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

No illicit discharges were identified in this reporting period.

### **Employee Training**

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

IDDE TRAINING was conducted on October 24, 2019 at the Town Hall with the audience consisting of 10 members of Town Staff who are responsible for implementation of different aspects of the stormwater management program. The goals of the presentation were to help the audience understand the difference between what is and is not an illicit discharge and to teach them how to report a potential illicit discharge.

PRESENTATION consisted of Power Point given by BETA Group that included the following:

- The Problem: Brief explanation and history of pollution in stormwater runoff and issues as it is directed to waters of the United States. Short video from <https://www.thinkbluemassachusetts.org/>
- The Permit: Brief summary of MS4 Permit focusing on IDDE program and reporting
- The Practicals: Detailed discussion of what is and is not an illicit discharge. Discussed and provided photos of illicit discharge indicators Discussed how to (and to whom) report a suspected illicit discharge using Illicit Discharge Reporting Form, Discussed how to disseminate this information to field staff

HANDOUTS included a packet with the following:

- Acronyms and Definitions
- Lists of illicit and non-illicit discharges
- Illicit Discharge Reporting Form

### **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: 50

Number of inspections completed: 29

Number of enforcement actions taken: 14

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

### **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 Town has stormwater regulations that meet these requirements. Planning Board and Conservation Commission require as-built drawings and long term operation and maintenance through their permitting processes.

### **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:

To be completed in 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:

To be completed in year 4.

### **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:

To be completed in 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: 1,701

Number of catch basins cleaned: 1,440

Total volume or mass of material removed from all catch basins: 300 cubic yards

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

Total number of catch basins: 1,440

*If applicable:*

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

Increased inspection/frequency for catch basins with sump more than 50% full as required. The Town performed routine inspection and cleaning of catch basins throughout town. In addition, the Town's engineering consultant inspected 261 catch basins during roadway reconstruction work to evaluate condition.

### **Street Sweeping**

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

☒ Number of miles cleaned: 55

☐ Volume of material removed: 189 cubic yards

☐ 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: 0

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

### **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:

As part of roadway reconstruction projects, 23,473 LF of CCTV was performed on drain pipe to evaluate condition. Attached is a table identifying the locations where this CCTV work was done. Drainage improvements were completed on Nantasket Ave from H St to Y St including replacement of 4 catch basins with sumps where sumps did not previously exist.

This past year the Town developed a stormwater bylaw consistent with the permit requirements. The bylaw was approved at Town Meeting June 13th, 2020. It currently resides with the attorney general for final approval.

#### **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:

Due to the COVID-19 pandemic, public education and outreach methods were modified as outlined in MCM1 descriptions above.

Due to COVID-19 some staff have been working in split shifts to provide for social distancing protocols. The work they are doing is strictly immediate need based on the very limited capacity. MS4 related field work for mapping, outfall screening and catchment investigation had to be put on hold due to these restrictions and Town requirements to limit outside contractors/consultants from working in town.

Due to COVID-19 restrictions to limit staffing and turnover in the Director of Public Work position, the operations and maintenance procedures, inventory and SWPPPs for Town facilities has not yet been completed. A new director was hired in July and the plan is to address these tasks as soon as possible.

### **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:

Phil Lemnios

Title:

Town Manager

Signature: See attachment  
for signature page

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.*

## Town of Hull MS4 Year 2 Annual Report Attachments

### List of Attachments

1. Signature Page
  - *Hull MS4 Yr 2 Sig Page\_Town Manager*
2. Sanitary Sewer Overflows
  - *SSO Inventory List through June 30, 2020*
3. Additional Information
  - *Summary Table of Drainage CCTV Work*

Attachment 1: Signature Page  
*MS4 Yr 2 Sig Page\_Town Manager*

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

### 40 CFR 144.32(d) Certification

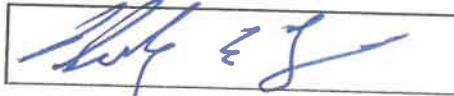
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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:

Phil Lemnios

Title: Town Manager

Signature:



*[Signatory may be a duly authorized representative]*

Date:

9/23/20



## Attachment 2: Sanitary Sewer Overflows

*SSO Inventory List through June 30, 2020*

SANITARY SEWER OVERFLOWS (SSOs) INVENTORY

Location (Approximate street crossing/address and receiving water, if any)	Discharge Statement (Clear statement of whether the discharge entered a surface water directly or indirectly)	Date & Time of Event		Estimated Volume (gal)	Description (indicate known or suspected cause)	Mitigation Completed (include dates)	Mitigation Planned (indicate schedule)
		Start	Stop				
25 Main Street	Ground surface no release to surface water	2/19/2016 9:15 am	2/19/16 11:15 am	5 to 10 gallons on surface area	Blockage in lateral from house to main	Repair completed on 2/22/16	
13 Rockland Circle Pump Station #3	Ground surface no release to surface water	3/15/16 10:15 am	3/15/16 10:16 am	2 gallons to ground surface, 8 gallons in valve box	Valve exercising for the force main isolation valve that was stuck open	Applied lime to area around the gate box and gate box was vacuumed – valve closed 3/15/16	
28 Winthrop Ave	Backup in basement of home	3/29/16 1:27 pm	3/29/16 1:27 pm	25 to 50 gallons in basement	An inspection of manholes showed MH 20169 had debris in it that may have inhibited flow from residence	Manhole cleaned out by Rosano Davis 3/29/16	
1111 Nantasket Ave – Treatment Plant	Ground surface no release to surface water	4/16/16 8:30 am	4/16/16 8:32 am	50 to 75 gallons	Planned separation of piping that had been rented for emergency back-up pumping from influent wetwell to primary box	Release was immediately stopped by raising up pipes. Called in vector truck to assist with disassemble and draining of pipes	
510-538 Nantasket Ave	Back up in basement – leaking grease interceptor and sump pump in floor was pumping to the outside	5/14/16 2:30 pm	5/14/19 3:00 pm	20 to 30 gallons	Grease and debris blockage in owner’s sewer line	Owner had Mr Drain clean the building sewer line	
35 Elm Ave	Ground surface no release to surface water	6/5/16 possible – reported to the sewer dept 6/7/16 11:56 am	6/7/16 2:00 pm	unknown	Electrical failure of control panel to the owners grinder pump	Electrical panel replaced on 6/8/16	
1111 Nantasket Ave Treatment Plant	Ground surface no release to surface water	7/26/16 10:00 am	7/26/16 10:02 am	Less than 20 gallons	Operator error. While exercising large influent pumps that discharge to the 16-force main, wetwell go too high and multiple pumps came on which caused the overflow	Developed SOP for this daily task	
194-206 Atlantic Ave.	Discharge entered two storm drains which flow to Straits Pond.	12/19/16 8:54 am	12/19/16 10:15am	250 gallons	8-inch gravity sewer line blockage due to grease	Pump out of sewer manhole to stop overflow, then jetted 700 ft of sewer line	

Town of Hull

26 Western Ave	Ground surface no release to surface water	12/30/16 12:30 pm	12/30/16 at approximately 4:00pm	Estimated 360 gallons – all contained within the garage	Sewer line blockage just downstream of the lateral connection – grease and debris	Sewer line was excavated and blockage cleared. Sewer line was repaired and a cleanout was added. [1/5/17]	
76 Atlantic Ave	Ground surface no release to surface water	Reported on 3/8/17	3/8/2017 2:00 pm	Unknown – no means to determine how there has been an issue	Backup into property – back up was on to the ground from a failed Fernco rubber coupling	Pipe replacement on 3/9/17	
1111 Nantasket Ave Treatment Plant	Ground surface and to catch basis adjacent to the chlorine contact tanks	4/1/17 2:00 pm	4/1/17 4:45 pm	Estimated 10,000 to 15,000 gallons	Rain Event and high storm tide levels/surge caused the capacity of the gravity outfall to decrease below the effluent flow pumped to the chlorine contact tank –	Spilled wastewater was fully treated	
1111 Nantasket Ave Treatment Plant	Ground Surface – Initially to surrounding ground and then floweed toward Duck Lane and the two catch basins	5/31/17 2:30 pm	5/31/17 2:40 pm	700 Gallons	Plant influent flow surge from upstream cleaning plug removal caused slug of flow to WWTF. With both primary clarifiers off line, the allowable flow through the structure was exceeded and the D-box level rose above the grating and sewerage spilled over	Influent pump flow rate was immediately decreased to stop the overflow. A vactor truck immediately clean out nearby catch basins	
262 Atlantic Ave manhole	Ground surface no release to surface water	12/15/17 11:30 am	12/15/17 12:00 pm	Less than 10 gallons	Manhole surcharged due to grease	Manhole pumped out	
36 J Street	Ground surface no release to surface water	1/25/18 1:50 pm	1/25/18 5:00 pm	Less than 25 gallons	Back up into home caused by blocked manhole	Vactor truck jetted and vacuumed up debris and cleared the sewer line	
1111 Nantasket Ave Treatment Plant	Ground surface and to adjacent catch basins	3/3/18 12:00 pm	3/3/2018 4:03 pm	25,000 gallons	Rain event and astronomical high tides and tidal surge caused the capacity of the gravity outfall to decrease below the effluent flow pumped to the chlorine contact tank –	New head works/influent isolation gate was throttled down to reduce flow Spilled wastewater was fully treated	
83 Main Street	Catch basin to Receiving Waters	3/5/18 5:00pm	3/6/18 10:30 am	Less than 50 gallons	Leak due to blockage from lateral cleanout on the side of Main Street	Blockage cleared by drain cleaning company	
42 Valley Beach – Pump Station	Ground surface no release to surface water	3/13/18 7:15 pm	3/13/18 7:18 pm	Less than 100 Gallons	Station power loss issue – while pumping down with portable trash pump the	Coordinated for another portable generator from rental company	

Town of Hull

					discharge hose on the pump broke apart.		
24 Meade Ave	Ground surface no release to surface water	4/20/18 8:15 am	4/20/18 9:15 am	Less than 20 gallons	Blockage due to rocks, brick fragments and debris in line/manhole	Vactor truck vacuum and cleaned lines	
24 E Street	Ground surface no release to surface water	5/3/18 7:37 am	5/3/19 10:15am. Unknown, since no access to home	Reported as zero, since contained in shower, and extremely small volume that had receded.	Back up into downstairs shower at property. Found a blockage at MH 20283 – L street playground	Cleared line – homeowner rinsed and cleaned shower	
Newton/Main Street	Ground surface no release to surface water	5/26/18 12:30	5/26/18 7:45 pm	Less than 75 Gallons	Combination of blockage, clay VP pipe break and roots caused the backup	Clay pipe replaced with new PVC.	
Pump Station A Valley Beach Rd	Ground surface no release to surface water	6/12/18 8:00 am	6/12/18 8:30 am	Less than 50 Gallons	Broken drain back valve that broke during valve exercise	Contractor made repair	
10-12 Rockaway	Ground surface	7/30/18 10:45am	7/30/18 11:35am	Less than 40 gallons	E1 Grinder pump failed – pump chamber contained a lot of solids, grease and plastics	Pump chamber pumped out and new replacement pump was installed	
1111 Nantasket Ave – Treatment plant	Ground surface – asphalt driveway	8/8/18 8:10 am	8/8/18 8:11 am	30 gallons	Operator error – truck driver was monitoring filling of truck using the truck's sight glass, which did not indicate adequately how full the tanker truck was.	Sludge pump turned off – sandbags were set up to contain contents, material was vacuumed up	
121 Nantasket Ave	Catchbasin to receiving water ground surface, direct to receiving water, backup into basement	9/18/18 12:25 pm	9/18/18 1:25 pm	Estimated 600 gallons	Rain Event 2.93 inches Surcharged manhole, pump station Backup into property	Water dissipated	
Pump Station 4 – marginal road	Ground Surface	5/15/19 6:43 pm	5/15/19 9:00 pm	Estimated 500 gallons	Force main Pipe Collapse	SSO was immediately stopped by shutting the pump station pumps off and draining the force main back into the wetwell. Emergency response plan initiated for repairs, bypass pumping and clean up All failed piping and fitting replaced with new components	
407 Nantasket Ave	Ground Surface	6/7/19 11:00 am	6/8/19 9:00 am	1,000 gallons	Blockage of the sewer lateral at the sewer main connection caused by Rags and wipes	New service connection made and cleanout installed	

Town of Hull

7 Douglas Ave	Ground Surface	7/14/19 1:00 pm	7/14/2019 2:30 pm	5 to 10 gallons	Blockage in 3" sewer lateral connected to small manhole	Pumped out manhole to stop leakage on 7/14 – line cleaned on 7/15.	
Pump Station 1 – 157 Atlantic Ave.	Ground Surface – no release to surface water	8/26/19 1:00 pm	8/28/19 9:00 am	Less than 100 gallons at time of excavation	8-inch force main pipe rotted very close to building. Sewage was leaking back into the building pump room	Plant staff saw very small leak as early as Thursday 8/22 but unconfirmed source through 8/25. Monitored pump station daily [several times] and surrounding area with no breakout seen. The Force main was shut down, while emergency repairs made by Aqualine Utility on Wed 8/28. A new 12-foot HDPE pipe section was installed to replace the corroded ductile iron pipe. Pumping and hauling was done while the pump station was shut off. Follow up sampling of Straits Pond conducted with no indication of pollution from this incident.	
710 Nantasket Ave / E Street	Ground surface and to adjacent catch basins. No release to surface water.	8/29/19 2:25 pm	8/29/19 2:30 pm	Less than 50 gallons	Contractor's vactor/Jeter-Green Mountain Pipeline Services. Safety ball check valve got stuck open causing release to asphalt pavement	Street washed down and adjacent catch basins on Nantasket Ave and E Street vacuumed/washed out	
714 Nantasket Ave / F Street	Ground surface and to adjacent catch basins. No release to surface water.	12/9/19 4:45 pm	12/9/19 4:55 pm	7000 gallons	The temporary wastewater bypass piping was struck at the discharge location by a tractor trailer truck. The spillage did not make it's way to the receiving waters, as the catch basin in the area appeared to be leaching basin.	Sandbags were in place within 10-minutes after the spill directing the wastewater to the sewer manhole. The Contractor vactored the affected catch basin and the affected street area was washed down and vactored up as well.	
1111 Nantasket Ave – Treatment plant	Ground surface – asphalt driveway. No release to surface water.	4/14/20 12:00 pm	4/14/20 12:01 pm	Less than 20 gallons	Discharge from Wind River Environmental WRE vactor truck muffler assembly on truck vacuum system, due to malfunctioning truck hopper high level shut-off.	Operation immediately stopped. Small liquid spill vacuumed up. Washed down area and equipment and that liquid vacuumed up with a	

					Discharged liquid sprayed onto adjacent equipment and ground.	pump truck that was also there.	
29 Roosevelt Ave.	Ground surface and to adjacent catch basin. No release to surface water.	5/16/20 2:15 pm	5/16/20 4:30 pm	1 to 2 gallons	Back up of lateral sewer into property due to blockage at property line, due to a broken pipe.	A silt sack/filter fabric installed under the CB grate, until digsafes completed and contractor work completed. A trickle of flow was seen to be coming out of the ground from 2:15pm to 4:30pm, and then it stopped. The estimated quantity of leak was based upon this observation No additional leakage was seen until the contract work started at approximately 8pm. Contractor repairs completed by 11:59pm 05/16/20. The source of the pipe collapse was determined and sewer lateral repaired. All areas cleaned up by contractor. A call was made for a vactor truck on Sunday 5/17 and scheduled in at 7AM on Monday 5/18 to pump out and washdown/clean the down gradient catch basin. There was no rain during the period from Saturday evening to Monday morning, and the catch basin had no standing water in it.	
1111 Nantasket Ave – Treatment plant	Ground surface and to adjacent catch basins. No release to surface water.	6/2/20 11:00 am	6/2/20 11:15 am	85 gallons estimated	The Town's Contactor (Green Mountain Pipeline) temporary wastewater bypass failed due to leaking ball valve on road ramp (source of 5 gallons) and defective HDPE joint weld (75 gallons). Temporary wastewater bypass was in place bypass headworks in order to line 36" DI influent pipe.	The on-site staff was able to act quickly and install magnetic catch basin covers to prevent wastewater from entering the MS4 system. The contractor utilized their vacuum truck to washdown the roadway and clean out each catch basin in the area. Roadway ramp ball valve was closed and the HDPE pipe	

						joint that had leaked was re-welded.	
1111 Nantasket Ave – Treatment plant	Ground surface and asphalt driveway. No release to surface water.	6/11/20 11:20 am	6/11/20 11:30 am	75 gallons estimated	Treatment facility treatment unit mechanical failure - diffused aeration system plastic diffuser header pipe broke apart causing mixed liquor to spray up and out of tank.	Aeration blower was immediately shut down, upon notification. Area dirt was mounded up to contain and limit flow from area. A magnetic spill blocking pad was placed on the nearby catch basin. Liquid was contained to immediate area and a vacuum truck working at the plant was summoned to assist with clean up. All areas washed down and lime applied to ground. No liquids reached nearby catch basins.	

Attachment 3: Additional Information  
*Summary Table of Drainage CCTV Work*



Town of Hull, MA

MS4 Year 2 Annual Reporting Log – Summary of Drain Inspection Work

Reporting Period: July 1, 2019 – June 30, 2020

CBs inspected during our inspection contract = 261

Feet of pipe CCTV'd under our inspection contract = 23,473 ft

<b>Street Name</b>	<b>From</b>	<b>To</b>
Atlantic House Road	Atlantic Avenue	School Street
Nantasket Avenue	Fitzpatrick Way	Fitzpatrick Way
Nantasket Avenue	Y Street	Q Street
Nantasket Avenue	Rockland House Road	Hingham Town Line
Rockland House Road	Nantasket Avenue	G. Washington Blvd.
School Street	Atlantic Avenue	Nantasket Avenue
X Street	Nantasket Avenue	Y Street/End
Y Street	W Street	End
Central Avenue	Q Street	A Street
Kenberma Street	Newport Road	Beach Avenue
L Street	Central Street	Nantasket Avenue
N Street	Central Street	Nantasket Avenue
Bay Street	Nantasket Avenue	G. Washington Blvd.
Nantasket Avenue	A Street	Kenberma Street
Revere Street	Beach Avenue	Newport Road
Andrew Avenue	Highland Avenue	Main Street
Highland Avenue	Main Street	Main Street
Mt. Pleasant Avenue	James Avenue	Highland Avenue
Newton Street	Main Street	Highland Avenue
Vautrinot Avenue	Main Street	Highland Avenue
Western Avenue	Highland Avenue	Main Street
Farina Road	Nantasket Avenue	Farina Road
Newport Road	Nantasket Avenue	Vernon Avenue
Berkley Road	Nantasket Avenue	Rockland House Road
Park Avenue	Nantasket Avenue	Rockland House Road