

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:

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:

Fax 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 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

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 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:

<https://andoverma.gov/306/Stormwater-Management: Appendix B of IDDE Plan> 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:

<https://andoverma.gov/306/Stormwater-Management: Appendix C of IDDE Plan> 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)*

Chloride

Annual Requirements

Public Education and Outreach

Include an annual message in November/ December to private road salt applicators and commercial

- industrial site owners on the proper storage and application rates of winter deicing material, along with the steps that can be taken to minimize salt use and protect local waterbodies

Phosphorus (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- Distribute an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release and phosphorus-free fertilizers
- Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

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

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

- Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

Potential structural BMPs

- Any structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus
- removal by the BMP consistent with Attachment 1 to Appendix H. Document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP in each each annual report

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:

Catch Basin Cleaning Log - The Town keeps tracks of all catch basin inspections based on complaints generated on MaintStar and responses by personnel. The Town also tracks which basins are cleaned, but does not keep a log.

BMP Inspections - The Town inventoried town-owned BMPs and began inspections in Year 1. The Town will be performing annual inspections of all BMPs moving forward.

IDDE Training - An employee IDDE Training program will be developed during Year 2, with annual training to be performed starting in Year 2. Training will correspond with the start of outfall inspection activities.

Public Education - The Town is part of the Greenscapes Massachusetts North Shore Coalition, which handles the public education requirements under the MS4 Permit. In addition to the Greenscapes outreach listed, Andover displays stormwater information at the Water Treatment Plant and occasionally posts information on the DPW website and other social media outlets.

Potential Structural BMPs - Existing BMPs will be reviewed further for potential phosphorus removal amounts for inclusion in future annual reports where applicable.

The Town also logs complaints and resolutions pertaining to dumping, releases, etc. in its MaintStar System. When the Town receives a complaint, it performs an investigation to determine the necessary actions required.

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:

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:

Responsible Department/Parties:

Measurable Goal(s):

Distributed by Salem Sound Coastwatch and Ipswich River Watershed Association at many community events. PDF available for download at www.greenscapes.org/resources-brochures/

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: 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:

Responsible Department/Parties:

Measurable Goal(s):

Attended by 35. Presentation PDF and "Tip Sheet" 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: "Soak Up the Rain" Presentation

Message Description and Distribution Method:

Public presentation held at Nahant Life Saving Station, sponsored by Nahant SWIM, hosted by Greenscapes. Presentation conducted by Greenscapes representative, Barbara Warren, executive director of Salem Sound Coastwatch. Barbara shared natural ways to slow the flow of rainwater, including the planting of gardens designed to capture and absorb rainwater. In these times of unusually high rates of rainfall, small-scale stormwater management, such as a rain garden, is very important for all our communities to help reduce pollution and flooding of our basements, land, driveways and streets.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Attended by 35

Message Date(s): March 6, 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:

Not described in NOI proposal.

BMP: Greenscapes 101 & Water Talk Presentation

Message Description and Distribution Method:

Public presentation hosted by the Lynnfield Conservation Commission and Planning Department. Presenters included the Lynnfield Water District and Lynnfield Center Water District directors and Kristen Grubbs, Greenscapes representative and Environmental Planner for the Ipswich River Watershed Association. Topics included a general water conservation and stormwater overview, discussion of the watershed's issues and concerns, followed by solutions – including homeowner greenscaping practices and municipal solutions.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Attended by 30

Message Date(s): May 15, 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:

Not described in NOI proposal.

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, Municipal Contacts

Measurable Goal(s):

Available at www.greenscapes.org/greenscapes-guide/

Message Date(s): Published on Greenscapes website on June 30, 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:

Revised guide does not include messaging about sewer/septic maintenance. This information will be delivered in other Greenscapes materials and messaging.

BMP: "Keeping Water Clean" Elementary 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

Measurable Goal(s):

Conducted KWC at 27 different schools, reaching 2002 5th grade students and 300 adults across the North Shore. Four of the 27 schools are in Andover.

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 town are described as good options.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greescapes.org/resources-social-media/

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: Keep Drains Clear Post

Message Description and Distribution Method:

Social media post describing the importance of keeping storm drains clear of leaf debris and litter.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

Message Date(s): Created November 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 Alternatives 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, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

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: What Not to Flush 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, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

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. Andover also distributes the Greenscapes Pet Waste rack card at the Town Clerk's office where dog licenses are issued.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

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: Rain Garden 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, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

Message Date(s): Created March 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, ThinkBlue MA, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

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:

BMP: Water Smart Post

Message Description and Distribution Method:

Social media post highlighting the importance of thoughtful watering practices such as watering deeply and only when the lawn/plants are "thirsty", which can conserve our supply of clean water, which is a limited resource.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Municipal Contacts

Measurable Goal(s):

Posted on partner social media platforms (Facebook & Twitter) and available at www.greenscapes.org/resources-social-media/

Message Date(s): Created July 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: Rain Barrel Sale

Message Description and Distribution Method:

Greenscapes North Shore Coalition hosted a rain barrel sale and created associated advertisements that promoted water conservation and described how using a rain barrel can greatly reduce a resident's household water use as well as mitigating roof run-off. The barrel sale was open to all residents on the North Shore.

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition, Municipal Contacts

Measurable Goal(s):

Press release sent to 20 local and regional newspapers, 300 "engagements" with post on Salem Sound Coastwatch Facebook, 520 "engagements" on IRWA Facebook, 20 rain barrels sold.

Message Date(s): Social media ad/press release created May 2019. Barrel sale held June 22, 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:

Not described in original NOI

BMP: ThinkBlueMA Fowl Water Video

Message Description and Distribution Method:

Think Blue Massachusetts "Fowl Water" video defines stormwater and explains the impact that pollution like trash, oil, cigarettes and dog poop can have on stormwater and our waterways. Video available at <https://www.thinkbluemassachusetts.org/> and spread as an advertisement on Facebook, Instagram, & YouTube

Targeted Audience: Residents

Responsible Department/Parties: ThinkBlue MA, Greenscapes North Shore Coalition, Municipal Contacts

Measurable Goal(s):

Outreach "# of impressions" was evaluated in 9 out of 23 Greenscapes Communities. Results claimed that 121,520 impressions were made on Facebook or Youtube. 10,552 impressions from Andover. The video is available on the ThinkBlue website and the Greenscapes website at www.greenscapes.org/resources-videos/.

Message Date(s): Spread by ThinkBlue June 23 - June 30, 2019. Shared further July 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:

Not described in original NOI

BMP: Miscellaneous Greenscapes Tabling Events

Message Description and Distribution Method:

Informational table with Greenscapes demonstrations and materials at local community and school events, including: Grow Spring Expo, Essex STEM Night, Middleton Earth Day, STEAM Night Beverly, Ipswich Garden Club Plant Sale, MassAudubon Nature Fest, Cape Ann Farmer's Market, Rowley Farmer's Market, Beverly Farmer's Market, North Reading Farmer's Market, Billerica Farmer's Market, Waldorf School at Moraine Farm, Wilmington Farmer's Market, Underwater in Salem Sound Lecture Series, Beverly Public Library Lecture Series

Targeted Audience: Residents

Responsible Department/Parties: Greenscapes North Shore Coalition

Measurable Goal(s):

Miscellaneous.

Message Date(s): Events held September '18 - May '19. Farmers markets held weekly in the spring/summer.

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:

Not described in original NOI

BMP: Protecting Your Water Supply

Message Description and Distribution Method:

In the summer of 2018, a public health intern completed a dash-board survey of the Town's drinking watershed to identify potential threats to the drinking water supply. An educational brochure was developed and mailed to properties in the watershed. The brochure contains tips to prevent contamination (i.e., lawn maintenance, pet waste, trash disposal, vehicle maintenance, managing yard waste) and septic safety.

Targeted Audience: Residents

Responsible Department/Parties: Health Department

Measurable Goal(s):

Brochures mailed to all properties in the Haggetts Pond watershed.

Message Date(s): Summer 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:

The Town wanted public outreach that focused on protection of the water supply.

Add an Educational Message

MCM2: Public Participation

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

SWMP Plan for Download - The Town has posted the SWMP Plan on Town website.

A revision to the Pesticide Use Policy for the Town of Andover was finalized and approved by the BOH in 2017. It was a collaborative effort of many departments and citizens.

Stormwater Call Directory - The Town has implemented a new service request application on the Town website or over the phone. It can be used for construction complaints 24 hours a day.

Classroom education is performed by Greenscapes as outlined under MCM1.

Watershed Organization Involvement - Conservation Director has partnered with the Shawsheen River Watershed Association (SRWA) and the Shawsheen Greenway/Andover Trails collective, and the Merrimack River Watershed Council. Conservation Director meets with Watershed groups and discusses stormwater concerns. Volunteers from the Shawsheen River Watershed Association and other groups check outfalls into the river and work to pinpoint areas not in compliance. These areas are investigated by the Conservation staff.

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:

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:

Number of SSOs removed:

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:

Total number of SSOs removed:

MS4 System Mapping

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

The Town has mapped all of its known stormwater outfalls, interconnection, open channels, receiving waters including impairments and most of the storm drain infrastructure (e.g., pipes, manholes, catch basins). Initial catchment delineations have also been mapped using available system data and topographic information. The Town will continue to update mapping as new information becomes available.

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:

N/A - none completed to date

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:

N/A - not started yet

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: N/A

Estimated volume of sewage removed: N/A [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: 0

Total number of illicit discharges removed: N/A

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

N/A

Employee Training

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

An employee IDDE Training program will be developed during Year 2, with annual training to be performed starting in Year 2 to correspond with the start of IDDE investigation work.

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:

The Town has a Stormwater Management and Erosion Control bylaw and regulations that address construction and post-construction requirements for developments and redevelopments greater than or equal to 1 acre. This will be updated to meet MS4 Permit requirements in Permit Year 2.

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:

The Town's regulations require the submission of as-built plans detailing the actual stormwater management system as installed before the surety has been released. The regulations also require Responsible Parties to submit an annual report by September 1st to the Planning Board documenting the inspection and maintenance of the BMPs for which they are responsible.

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:

No work completed in Year 1. To be completed in future years.

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:

No work completed in Year 1. To be completed in future years.

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:

No work completed in Year 1. To be completed in future years.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

A plan for optimizing catch basin cleaning was completed and included as Appendix G to the SWMP. The Plan

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:

<https://andoverma.gov/306/Stormwater-Management: Appendix G of SWMP>

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, if known.

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:

Not yet applicable. Pending the collection of sediment depth data.

Street Sweeping

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

The Town developed a street sweeping map showing sweeping requirements throughout Town based on the location of impaired waters. A street sweeping SOP was also developed and will be included as part of a larger comprehensive Operation and Maintenance (O&M) Plan during Year 2 that covers other facilities and stormwater infrastructure.

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

Number of miles cleaned:

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:

DPW personnel observe all regulated town-owned roadways for maintenance needs, including street sweeping, during routine operations. Personnel also observe suspect trouble areas, such as large-scale construction projects or projects with substantial land disturbance, for evidence of runoff-laden sediment onto roadways that may require more frequent sweeping in addition to that outlined under the Street Sweeping SOP. Should areas in need of additional sweeping be observed, the Town will document these areas and schedule additional sweeping as needed. Inspections of rural uncurbed roadways conducted to date have not yet observed any needs for additional sweeping within regulated urbanized area roadways.

Winter Road Maintenance

Describe the status of the written procedures for winter road maintenance including the storage of salt and sand:

The Town developed an SOP for winter road maintenance during Year 1. The SOP will be included as part of a larger comprehensive Operation and Maintenance (O&M) Plan during Year 2 that covers other facilities and stormwater infrastructure.

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:

An inventory of permittee-owned properties was performed under the 2003 MS4 Permit and included in the 2003 SWMP. This inventory will be reviewed and updated by the end of Year 2.

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:

No work completed in Year 1. To be completed in Year 2.

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:

No work completed in Year 1. To be completed in Year 2.

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:

Andover has a SOP for inspecting and maintaining stormwater BMPs. The SOP will be updated as needed.

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:

N/A

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: Andrew Flanagan Title: Town Manager

Signature:  Date: 9/30/19

[Signatory may be a duly authorized representative]