

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>

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 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:

Challenges to funding due to COVID-19 delayed the implementation of several tasks. FY21 funding has been secured for these tasks and the written O&M procedures, a comprehensive municipal inventory, a written program for MS4 infrastructure maintenance, and SWPPPs for the Department of Public Works facility and

the Town's Transfer Station will be developed in Permit Year 3, with a goal of completion by December 2020 with updates posted to the Town's SWMP.

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:

The Town of Hudson will be providing SWPPP training to their Department of Public Works staff members in Permit Year 3.

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:

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

Annual Requirements

*Public Education and Outreach**

- Distributed an annual message in the spring (April/May) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers
- Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Distributed 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

- Increased 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 already existing or installed in the regulated area by the permittee or its agents

- was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. 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 were documented.
 - The BMP information is attached to the email submission
 - The BMP information can be found at the following website:

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:

Lake and Pond Phosphorus TMDL

- Completed Legal Analysis

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:

A legal analysis to identify existing regulatory mechanisms available to the Town of Hudson and describe any changes to regulatory mechanisms or local policy that may be necessary to effectively implement the entire

LPCP will be completed in Permit Year 3.

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

The Town of Hudson has developed a strategy for implementation of its basic and targeted education requirements and anticipates initiating the program in Permit Year 3.

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:** 4

*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: Hudson's Commitment to Clean Water

Message Description and Distribution Method:

The Town of Hudson posted a digital, double-sided handout to the Town's website and DPW Facebook page. This handout describes the Town's ongoing efforts to improve their waterways, obligations for drainage investigations under the MS4 General Permit, a graphic explaining what an MS4 system is, facts about the Town's sewer and drainage systems, ways to prevent stormwater runoff pollution, and information for the proper disposal of fats, oils, and greases.

On Facebook, this posting was "liked" 9 times and shared 6 times. 1,268 Facebook users currently "follow" the page and can view the Town's postings in their newsfeed.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Post educational messages on the Town website. Maintain educational content throughout the Permit term.
Permit section reference: 2.3.2.c

Message Date(s): January 16, 2020

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

[Large empty box for writing]

BMP: Toilet Paper Only

Message Description and Distribution Method:

At the start of the COVID-19 pandemic, the Town of Hudson posted a graphic warning residents to only flush toilet paper. The graphic states that wipes, facial tissues, paper towels, disposable feminine hygiene products, and diapers must be thrown away, even if they are labeled "flushable," as they are harmful to sewer systems.

This posting was "liked" 13 times and shared 27 times. 1,268 Facebook users currently "follow" the page and

can view the Town's postings in their newsfeed.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Post educational messages on the Town website. Maintain educational content throughout the Permit term.

Permit section reference: 2.3.2.c

Message Date(s): March 20, 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: Consumer Confidence Report Insert

Message Description and Distribution Method:

The Town of Hudson included a blurb in the 2019 Consumer Confidence Report titled "How You Can Help Us Keep Hudson's Waterways Clean." This blurb included information on where Hudson's drainage systems ultimately discharge, ways residents can help prevent stormwater runoff pollution, and ways the Town is working to prevent stormwater runoff pollution.

Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities, Industrial Facilities

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Distribute a minimum of 1 additional educational message to each of the 4 target audiences (missing the construction target audience). Permit section reference: 2.3.2.c

Message Date(s): Spring 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: Think Blue Massachusetts "Fowl Water" Campaign

Message Description and Distribution Method:

Think Blue Massachusetts, on behalf of the Minuteman Advisory Group on Interlocal Coordination, ran a regional education advertising campaign targeting communities in the coalition, including Hudson. The

campaign consisted of an educational video advertisement helping viewers visualize how pollution from pet waste, motor oil and trash become stormwater pollution. This advertisement was run from May 16th-June 5th, 2020 on Facebook, Instagram, and YouTube, and was targeted to coalition residents through account information and IP addresses.

Think Blue Massachusetts "Fowl Water" video (<https://www.thinkbluemassachusetts.org/>)

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Per the Notice of Intent, the measurable goal for this BMP was to deliver these messages seasonally and annually by posting to the Web. Because this advertisement campaign was run online, this measurable goal has been met for the topic of pet waste.

Message effectiveness was assessed with a survey conducted at the close of the advertising campaign of Massachusetts residents in the areas where the campaign ran:

- 17% of survey respondents recalled seeing the video (up from 8% in 2018 and 15% in 2019)
- Those who recalled seeing the video were more likely to correctly answer that stormwater pollution ends up in local waterways (comparable to 2018 and 2019)
- Those who recalled seeing the video rated polluted runoff as a more serious threat to waterways than those who didn't recall seeing the video (Comparable to 2018 and 2019)

Message Date(s): May 16 to June 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: To be Delivered in Permit Year 3

Message Description and Distribution Method:

In Permit Year 3:

Education and outreach notices will be distributed to four target audiences: residents, commercial, construction, and industrial and will include discussion of phosphorus and bacterial/pathogens issues (Hudson's receiving water impairments). Outreach to the four target audiences will be distributed through the Consumer Confidence Report. Erosion and Sediment Control brochures will be provided on an ongoing basis to water, sewer, and drainage contractors that must be licensed with the Town. The Health Department will provide septic outreach via brochures and the Town Clerk's Office will provide brochures during dog licensing.

The phosphorus and bacterial/pathogens notices will be distributed seasonally as noted below:

Annual Notices:

By the end of Permit Year (PY) 3, a minimum of one educational message will be directed to each of the four

target audiences (residents, commercial, construction, industrial) and a minimum of one additional educational message by the end of PY 5. These messages will be posted on the Town website, in the Consumer Confidence Report, and continued throughout the Permit term. In addition, the Town must provide annual educational materials to owners of septic systems for areas that discharge into bacteria/pathogen impaired water bodies about proper maintenance.

Seasonal Notices:

For areas that discharge to bacteria/pathogen or phosphorus impaired water bodies, the Town will provide educational outreach according to the timeline below and via internet postings:

- March & April: For areas that discharge to waterbodies with a Total Phosphorus impairment, distribute one educational message to proper disposal of grass clippings and fertilizer use.
- June & July: For areas that discharge to waterbodies with a Total Phosphorus and/or Bacteria impairment, distribute one educational message that pertains to proper pet waste management (also covered in continuous dog licensing outreach).
- August, September, & October: For areas that discharge to waterbodies with a Total Phosphorus impairment, distribute one educational message that pertains to proper disposal of leaf litter.

Targeted Audience: Residents, Businesses, Institutions and Commercial Facilities, Industrial Facilities, and De

Responsible Department/Parties: Multiple

Measurable Goal(s):

Message Date(s): To be delivered Permit Year 3

Message Completed for: Appendix F Requirements Appendix H Requirements

Was this message different than what was proposed in your NOI? Yes No

If yes, describe why the change was made:

[Add an Educational Message](#)

MCM2: Public Participation

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

The Town of Hudson had their SWMP available for review and comment at the Department of Public Works and posted on their website.

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: 0

Number of SSOs removed: 0

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:

Screening of Outfalls/Interconnections

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

- The outfall screening data is attached to the email submission

The outfall screening data can be found at the following website:

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

Number of outfalls screened:

Catchment Investigations

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

The catchment investigation data is attached to the email submission
 The catchment investigation data can be found at the following website:

*Below, report on the number of catchment investigations completed **during this reporting period**.*

Number of catchment investigations completed this reporting period:

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

Percent of total catchments investigated:

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

Catchment investigations to begin following Permit Year 3 outfall screening and reprioritization activities.

IDDE Progress

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

The illicit discharge removal report is attached to the email submission
 The illicit discharge removal report can be found at the following website:

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

Number of illicit discharges identified:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

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

Total number of illicit discharges identified:

Total number of illicit discharges removed:

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

To be conducted in future permit years upon verification of an illicit discharge.

Employee Training

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

The Town of Hudson will be providing additional IDDE training to their Department of Public Works staff members in Permit Year 3.

MCM4: Construction Site Stormwater Runoff Control

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

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

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

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:

As-built drawings are currently required under the Town of Hudson's Regulations Regarding the Subdivision of Land.

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 developed in future permit 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:

To be developed in future permit 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:

To be developed in future permit years.

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: 56

Number of catch basins cleaned: 12

Total volume or mass of material removed from all catch basins: 7 tons

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

Total number of catch basins: 3,400

If applicable:

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

If necessary, schedule adjustments will be made to prioritize catch basins located at known problem areas (low spots) and near construction activities (roadway construction, residential, commercial, or industrial development). If inspections and maintenance activities indicate excessive sediment and debris loading (i.e. the sump is more than 50% full during two consecutive routine inspections//cleanings), these catch basins will be marked for more frequent cleaning. Where necessary, street sweeping will be utilized to aid in minimizing catch basin sediment loading.

Street Sweeping

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

- Number of miles cleaned: 96
- Volume of material removed: [Select Units]
- Weight of material removed: [Select Units]

O&M Procedures and Inventory of Permittee-Owned Properties

Below, check all that apply.

The following permittee-owned properties have been inventoried:

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

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

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

Stormwater Pollution Prevention Plan (SWPPP)

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

Number of site inspections completed: 0

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

N/A. The Town of Hudson will be developing SWPPPs for the Department of Public Works facility and the Transfer Station in Fall 2020.

Additional Information

Monitoring or Study Results

Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.

- Not applicable
- The results from additional reports or studies are attached to the email submission
- The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

Additional Information

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

COVID-19 Impacts

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

Activities Planned for Next Reporting Period

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

Yes, I agree

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

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- Keep records relating to the permit available for 5 years and make available to the public
- Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- Annual training to employees involved in IDDE program
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue public education and outreach program
- Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all uncurbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary

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

Part V: Certification of Small MS4 Annual Report 2020

40 CFR 144.32(d) Certification

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

Name:	<input type="text" value="Eric M Ryder"/>	Title:	<input type="text" value="Director of Public Works"/>
Signature:		Date:	<input type="text" value="9/16/2020"/>
<i>[Signatory may be a duly authorized representative]</i>			