

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: Town of Sudbury

EPA NPDES Permit Number: MAR041224

Primary MS4 Program Manager Contact Information

Name: Dan Nason

Title: Director of Public Works

Street Address Line 1: 275 Old Lancaster Road

Street Address Line 2:

City: Sudbury

State: MA

Zip Code: 01776

Email: nasond@sudbury.ma.us

Phone Number: (978) 440-5421

Stormwater Management Program (SWMP) Information

SWMP Location (web address): <https://sudbury.ma.us/pcd/wp-content/uploads/sites/326/2020/09/Sudbury-Stormwater-Management-Program-Plan-2020.pdf?version=85687db85c9c2fe0b3012f3096db94a0>

Date SWMP was Last Updated: Jun 30, 2020

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)			
<i>In State:</i>	☐ Assabet River Phosphorus	☐ Bacteria and Pathogen	☐ Cape Cod Nitrogen
	☐ Charles River Watershed Phosphorus	☐ Lake and Pond Phosphorus	
<i>Out of State:</i>	☐ 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:

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:

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:

Solids, Oil and Grease (Hydrocarbons), or MetalsAnnual Requirements*Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

- ☒ Increased street sweeping frequency of all municipal owned streets and parking lots to a schedule that targets areas with potential for high pollutant loads
- ☐ Prioritized inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Cleaned catch basins more frequently if inspection and maintenance activities indicated excessive sediment or debris loadings

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:Don't Forget Your Septic System: Protect It and Inspect It

Message Description and Distribution Method:

The Town of Sudbury provided information regarding why it is important to maintain septic tanks, how to find a septic system, how to help maintain it, warning signs of a malfunction, and links to the MassDEP Title 5 webpage and to a list of septic haulers licensed in Sudbury in a posting on their website. The Town shared the link to this posting on their Facebook page. The Facebook post received 5 "likes" and was shared 2 times.

Targeted Audience:

Responsible Department/Parties:

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. This measurable goal has been met for messages targeted at residents on the topic of septic system management. The Town's Facebook page has 2,119 followers, which are Facebook users who actively choose to have the Town's posts appear in their newsfeed.

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:Do Your Doody Duty: Bag it and Trash it!

Message Description and Distribution Method:

The Town of Sudbury posted a handout to the Town's website describing the impacts of pet waste to human health and the environment, how pet waste can be transported via stormwater, and how residents can help prevent pet waste related stormwater pollution. The Town shared the link to this posting on their Facebook page. The Facebook post received 43 "likes," was commented on 11 times, and was shared 4 times.

Targeted Audience:

Responsible Department/Parties:

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. This measurable goal has been met for messages targeted at residents on the topic of pet waste management. The Town's Facebook page has 2,119 followers, which are Facebook users who actively choose to have the Town's posts appear in their newsfeed.

Message Date(s): September 12, 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:Help Needed to Keep Stormwater Drainage Working Properly

Message Description and Distribution Method:

The Town of Sudbury provided information regarding how leaf litter and snow/ice accumulation on top of catch basins can result in drainage problems throughout neighborhoods. The post includes ways residents can help keep catch basins clear of debris and snow/ice.

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. This measurable goal has been met for messages targeted at residents on the topic of leaf litter management.

Message Date(s): November 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:

BMP:Sudbury's Commitment to Clean Water

Message Description and Distribution Method:

The Town of Sudbury 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, facts about the Town's drainage system, and ways to prevent stormwater runoff pollution.

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. This measurable goal has been met for messages targeted at residents.

Message Date(s): November 16, 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: 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 Sudbury. 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:

The Town of Sudbury partners with Think Blue Massachusetts and the Minuteman Advisory Group on Interlocal Coordination and developed this partnership after the initial NOI filing. This message was considered to meet the Town's goal to distribute information on the impacts of pet waste on water quality. The Town Warrant/Tax Bill inserts as described in the NOI will be considered for use in Permit Year 3.

BMP:[Message name here]

Message Description and Distribution Method:

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Message Date(s):

Message Completed for: Appendix F Requirements ☐ Appendix H Requirements ☐

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

If yes, describe why the change was made:

Add an Educational Message

MCM2: Public Participation

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

The Town of Sudbury 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**:

On May 4, 2019, the Town of Sudbury partnered with the Great American Rain Barrel Company to provide residents the opportunity to purchase rain barrels to capture rainwater for lawn and garden use, while providing educational information about how capturing roof runoff helps reduce stormwater runoff and conserve water. This program was still active in Permit Year 2.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

- ☒ This SSO section is NOT applicable because we DO NOT have sanitary sewer

*Below, report on the number of SSOs identified in the MS4 system and removed **during this reporting period**.*

Number of SSOs identified:

Number of SSOs removed:

MS4 System Mapping

Below, check all that apply.

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

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

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

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 Sudbury's Department of Public Works staff attended a salt application course, developed and held internally by the Town. The course taught the staff about proper salt and brine application rates and techniques. A laminated chart was given to each truck driver.

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: 20

Number of inspections completed: 33

Number of enforcement actions taken: 4

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

The Town developed a Land Development Program Manual in Permit Year 1. The purpose of the manual is to describe the written procedures associated with managing stormwater runoff from new development and redevelopment construction sites in accordance with the MS4 Permit. The Manual provides general construction site inspection guidance for all projects required to obtain a federal Construction General Permit and a local Stormwater Management Permit, provides guidance to Town staff required to implement the Land Development Program, and can be used as a training tool for staff.

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 submission of as-builts and development of O&M plans and ongoing maintenance of post-construction stormwater controls are required by the Town of Sudbury's Stormwater Management Bylaw and Regulations. As-builts are required to be submitted prior to the issuance of Certificates of Occupancy and/or final sign off on site permits.

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: 2,735

Number of catch basins cleaned: 2,735

Total volume or mass of material removed from all catch basins: 709.21 tons

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

Total number of catch basins: 3,000

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 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:
- ☐ Volume of material removed: [Select Units]
- ☒ Weight of material removed: 175.33 tons

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:

SWPPPs developed in PY2. Inspections completed as part of SWPPP development and will be initiated in in

PY3.

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:

Henry L. Hayes, Jr.

Title:

Sudbury Town Manager

Signature:

Date:

9/23/2020

*[Signatory may be a duly authorized
representative]*