

# 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: Belmont, MA

EPA NPDES Permit Number: MAR040000

#### Primary MS4 Program Manager Contact Information

Name: Jason Marcotte

Title: Director of Public Works

Street Address Line 1: 19 Moore Street, 1st Floor

Street Address Line 2:

City: Belmont

State: MA

Zip Code: 02478

Email: jmarcotte@belmont-ma.gov

Phone Number: (617) 993-2680

Fax Number: (617) 993-2681

#### Stormwater Management Program (SWMP) Information

SWMP Location (web address): <https://www.belmont-ma.gov/stormwater-management-program-swmp>

Date SWMP was Last Updated: October 2003

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:☒ 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:☒ 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

**Nitrogen** (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 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 Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the

☐ nitrogen 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 nitrogen removed in mass per year by the BMP in each each annual report

## **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

## **Solids, Oil and Grease (Hydrocarbons), or Metals**

### Annual Requirements

#### *Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

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

## **Charles River Watershed Phosphorus TMDL**

- ☐ Begin Phase 1 Phosphorus Control Plan (PCP)

## **Lake and Pond Phosphorus TMDL**

- ☐ Begin Phase 1 Lake Phosphorus Control Plan (LPCP)

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:

- Public Education and Outreach - The Town has different education/outreach programs for each department. Centralizing all education/outreach programs to one location is in progress and will be completed in year 2.
- Sediment and erosion control procedures - The Town conducts site inspection and enforcement for sediment and erosion control and is discussed in the stormwater management by-law. Specific written procedures will be clarified in year 2.
- Site Plan Review - The Town conducts site plan reviews and is discussed in the stormwater management by-law. Specific written procedures will be clarified in year 2.
- SWMP public participation - Upon updating the SWMP the Town will provide an opportunity for the public to provide input into the SWMP. The Town will follow the state public notice requirements.
- The Town is in progress on including/providing educational materials to dog owners at the time of issuance or renewal of dog license
- The Town is in progress of providing information to the Town website about proper about septic systems and proper maintenance in any catchment that discharges to a water body impaired for bacteria.
- Phosphorus public education and outreach is in progress and will be conducted in permit year 2.
- Phosphorus structural BMPs will be documented and evaluated in permit year 2.
- Phosphorus Control Plan is in progress.

### **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:[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:

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**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:

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## MCM2: Public Participation

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

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: 0

Total number of SSOs removed: 0

### **MS4 System Mapping**

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

The Town of Belmont has 100% of the drainage system (piping, manholes and catch basins) mapped in GIS.

### **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:

All samples were conducted in dry weather conditions (no precipitation within 48 hours).

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

Number of outfalls screened: 34

*Below, report on the percent of total outfalls/ interconnections screened to date.*

Percent of total outfalls screened: 100

### **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: 4

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

Percent of total catchments investigated: 13%

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

The Town is currently under an EPA Order on Consent starting in 2017. Attached to the submission are the compliance progress reports submitted to date. Investigations are still ongoing and will be reported on annually.

### **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:

Refer to the EPA Compliance Progress Reports.

*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:

*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:

Total number of illicit discharges removed:

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

Additional comprehensive rehabilitation (mainline and lateral CIPP lining) in several neighborhoods with elevated levels of E. coli is currently being scoped out for design.

### **Employee Training**

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

Stantec (Town Consultant) has IDDE work experts on staff that conduct and report on illicit connection investigations for Belmont and other Clients. Stantec's staff also works with vendors and sub-contractors that conduct IDDE investigation work. The Town also has senior staff experienced in investigating and reporting on IDDE work. Stantec and the Town work in conjunction with each other during these investigations.

## **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: 15

Number of inspections completed: 15

Number of enforcement actions taken: 1

## **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:

Will be completed in 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:

Will be completed in year 2.

### **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:

Will be completed by year 4.

### **Green Infrastructure Report**

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

Will be completed by year 4.

**Retrofit Properties Inventory**

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

Will be completed by year 4.

**MCM6: Good Housekeeping****Catch Basin Cleaning**

Describe the status of the catch basin cleaning optimization plan:

The Town does not have an optimization plan. The Town hires a Contractor dedicated to catch basin cleaning

*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:

*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: 2009

Number of catch basins cleaned: 2009

Total volume or mass of material removed from all catch basins: 1,200 Tons

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

Total number of catch basins: 2009

*If applicable:*

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

All CB's that are inspected are cleaned if any debris is identified in the CB sump and completed annually.

**Street Sweeping**

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

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

☐ Number of miles cleaned: 97

☐ Volume of material removed: [UNITS]

☒ Weight of material removed: 500 Tons

*If applicable:*

For rural uncurbed roadways with no catch basins, describe the progress of the inspection, documentation, and targeted sweeping plan:

Not Applicable

**Winter Road Maintenance**

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

Written procedures is on going.

**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:

Will be completed in 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:

Will 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:

Will 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:

Stormwater treatment structures have been identified and a written procedures are in progress.

**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):

The EPA Order on Consent Compliance Progress Reports have included and mentioned above.

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:

The EPA Order on Consent was in effect in the spring of 2017 for the Mystic River Watershed drainage area of Belmont. Investigation are still on going. Investigations included outfall and catchment area sampling, identification and elimination of illicit connection sources.

### **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:

Jason Marcotte

Title:

Director of Public Works

Signature:

Date:

09/30/19

*[Signatory may be a duly authorized representative]*

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

### **Annual Report Submission**

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

EPA: [stormwater.reports@epa.gov](mailto:stormwater.reports@epa.gov)MassDEP: [frederick.civian@mass.gov](mailto:frederick.civian@mass.gov)

### **Paper Signature:**

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

[Print Signature Page](#)

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

[Lock Form](#)