

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: City of Woburn, MA

EPA NPDES Permit Number: MAR041073

Primary MS4 Program Manager Contact Information

Name: John (Jay) Duran III, P.E.

Title: DPW Superintendent

Street Address Line 1: Department of Public Works

Street Address Line 2: 50 North Warren Street

City: Woburn

State: MA

Zip Code: 01801

Email: jduran@cityofwoburn.com

Phone Number: (781) 897-5980

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Stormwater Management Program (SWMP) Information

SWMP Location (web address): <https://www.woburnma.gov/government/engineering/stormwater/epa-stormwater-requirements/>

Date SWMP was Last Updated: May 2019

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://www.woburnma.gov/government/engineering/stormwater/epa-stormwater-requirements/>

- 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:

Once finalized, the ranking will be available on the City's website at <https://www.woburnma.gov/government/engineering/stormwater/epa-stormwater-requirements/>

- 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)*

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 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

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:

IDDE Plan and Outfall Ranking: We have a draft IDDE protocol and a draft written IDDE plan including an outfall ranking and procedures for screening and sampling outfalls that is being updated and finalized to match the 2016 MS4 General Permit requirements and reflect the significant outfall inventory and screening work completed through our Engineering Department's intern program over the recent years.

Written procedures for inspection and review are not yet available and require substantial inter-departmental coordination to develop.

Inspection of all stormwater treatment structures has not yet been completed as mapping of structural BMPs and stormwater treatment structures is not due until Permit Year 2. Therefore, identification of all BMPs is not yet complete.

All structural BMPs have not yet been mapped or identified as this requirement is not due until the end of Permit Year 2. Therefore, BMPs have not been tracked or estimated for phosphorus removal. The City intends to begin a tracking program during Permit Year 3, after all City-owned structural BMPs and treatment structures have been identified and mapped as part of Phase I mapping efforts.

Employees directly involved in IDDE program are informally trained to complete outfall inventories and sampling, however, not all City staff involved in potentially observing illicit discharges have formally been trained.

There are very few septic systems in the City of Woburn as the majority of properties discharge to the sanitary sewer system. Information is posted online for these property owners.

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:

On-going continuous refinement of GIS data including correcting public/private status of drainage structures including some outfalls. There are no changes to the list of receiving waterbodies and therefore no adjustments to 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:1A Make the Rain Work for You!

Message Description and Distribution Method:

Web site and social media post about positive aspects of using a rain barrel in a home garden.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

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:1A Washing Your Car Without Polluting

Message Description and Distribution Method:

Web and social media posts about suggested methods and materials to wash your car at home while reducing runoff and using low/no phosphate detergents.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

Message Date(s): May 30, 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:

Message posted earlier than intended as it was spring and felt more likely to have an impact at that time of year given the subject matter.

BMP:1A Calling All Dog Owners!

Message Description and Distribution Method:

Web and social media messages focusing on proper disposal of pet waste. This was used to satisfy the annual summer messaging requirement per Appendix H for discharges to waters impaired for phosphorus and bacteria and pathogens.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

Message Date(s): August 27, 2018 and June 26, 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:

Message posted earlier than intended as it was summer and felt more likely to have an impact at that time of year given the subject matter.

BMP:1A, 1B, 1C, 1D Stormwater in Woburn

Message Description and Distribution Method:

General video message aimed at all audiences about stormwater in Woburn, produced for the City by the Mystic River Watershed Association. Includes interview with the Mayor and other City staff. Shared via web and social media. <https://youtu.be/kh6-ATAjqwI>

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Engineering

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

Message Date(s): September 27, 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:1A, 1B, 1C, 1D Keep our Waterways Clean-Bag your leaves!

Message Description and Distribution Method:

Web and social media post about the importance of keeping fall leaves out of waterways and stormwater structures. This was used to satisfy the annual fall messaging requirement per Appendix H for discharges to waters impaired for phosphorus.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Engineering

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

Message Date(s): November 8, 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: 1A, 1B, 1C, 1D Lower Your Phosphorous Footprint!

Message Description and Distribution Method:

Web and social media post about limiting lawn fertilizer use. This was used to satisfy the annual spring messaging requirement per Appendix H for discharges to waters impaired for phosphorus.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Engineering

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

Message Date(s): May 9, 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: 1A, 1B, 1C, 1D Clean up your car wash!

Message Description and Distribution Method:

Web and social media post about using phosphate-free car wash detergents.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Engineering

Measurable Goal(s):

Distribute a minimum of two (2) educational messages spaced at least a year apart.

Message Date(s): May 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:

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:

The draft SWMP was presented to the City Council at an open, public meeting on June 4, 2019. The draft plan was made available on the City's Stormwater web page and a request for public comments was made via social media.

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:

The Conservation Commission sponsors Conservation Day, which is a cleanup around Horn Pond. Conservation Day was on May 4, 2019 and takes place the first Saturday in May every year.

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 (phase I map due in year 2):

All known structures are identified and located in the GIS mapping system and are identified as being city-owned, state-owned, or private. Phase I mapping elements are complete except for City-owned stormwater treatment structures. Many Phase II mapping elements are complete, including manholes, catch basins, and most connectivity. Structures are added, deleted or updated as needed based on field investigations, new construction, etc.

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:

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:

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: [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:

Total number of illicit discharges removed:

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

Employee Training

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

Employees directly involved in the outfall inventory and sampling are informally trained on completing those procedures.

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:

Title 13 Article IV of the City of Woburn code is planned to be reviewed during permit year 2 to confirm compliance with requirements of the permit.

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:

As built drawings are provided to various Departments, Boards, and Commissions as required by the Planning Board Rules and Regulations. Long-term operation and maintenance is included in Conservation Commission Orders of Conditions.

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:

Preparation of the Street Design and Parking Lots Report has not yet begun as this requirement is due in Permit 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:

Preparation of the Green Infrastructure Report has not yet begun as this requirement is due in Permit 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:

Preparation of the Retrofit Properties Inventory has not yet begun as this requirement is due in Permit Year 4.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

Woburn uses People Forms to track catch basin cleaning, which is further described in the written SWMP.

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://www.woburnma.gov/government/engineering/stormwater/epa-stormwater-requirements/>

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:

Catch basins that fill more than 50% of sump in a single calendar year are cleaned twice per year instead of once per year.

Street Sweeping

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

The City's current Street Sweeping Program is available online at <https://www.woburnma.gov/government/public-works/street-sweeping/>. The procedures will be reviewed and updated as part of the process to develop written Operation & Maintenance Procedures for municipal activities in Permit Year 2.

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:

N/A

Winter Road Maintenance

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

The City of Woburn has a road deicing policy. A copy is included in the SWMP. DPW stores all road salt inside an 8,000 square foot covered shed that is set atop a base of non-permeable bituminous concrete. The

procedures will be reviewed and updated as part of the process to develop written Operation & Maintenance Procedures for municipal activities during Permit Year 2.

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:

Our City GIS includes an initial inventory of City-owned properties. This will be reviewed and updated in Permit 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:

The City has not yet begun work on this task as it is not required to be completed until the end of Permit 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:

The City has not yet begun work on this task but has hired a consultant to assist with this effort during Permit 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:

The City intends to develop procedures as part of the process to develop a written Operation & Maintenance plan for infrastructure in Permit Year 2.

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:

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:

The City intends to comply with the General Permit Year 2 requirements listed above pending staffing and funding availability.

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: Title:

Signature: Date:

[Signatory may be a duly authorized representative]