

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 Waltham

EPA NPDES Permit Number: MAR041066

Primary MS4 Program Manager Contact Information

Name: Stephen A. Casazza

Title: City Engineer

Street Address Line 1: Arthur J Clark - Government Center

Street Address Line 2: 119 School Street, Room #10

City: Waltham

State: MA

Zip Code: 02451

Email: scasazza@city.waltham.ma.us

Phone Number: (781) 314-3830

Fax Number: na

Stormwater Management Program (SWMP) Information

SWMP Location (web address): <https://www.city.waltham.ma.us/clean-stormwater-initiative/pages/stormwater-management-plan>

Date SWMP was Last Updated: Sep 27, 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: 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)*

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)

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:

The City had planned to host a workshop to present draft SWMP and seek public comments and input; however, social media posts and announcements on the website as listed in Attachment B were used instead. The City has an internal Environmental Committee made up of representatives from various City departments and meets on a monthly basis to discuss various environmental issues related to City operations. The draft and final SWMP was developed with input from the Stormwater Management Program Team. A Stormwater Workshop was held on February 1, 2017 to summarize and prepare the City officials of the impending new NPDES MS4 Permit Requirements. The SWMP was posted to the City's Clean Stormwater Initiative website on June 30, 2019.

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: Stormwater Management for Residents

Message Description and Distribution Method:

A detailed stormwater management for residents was posted on the City's Clean Stormwater Initiative Webpage. Information on recycling and proper household hazardous waste disposal was also provided.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

The City's Recycling Website received 16,249 hits and the Clean Stormwater Initiative received 200 hits.

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:Pet Waste Brochure

Message Description and Distribution Method:

Copies of pet waste cleanup and disposal brochure was included in the water and sewer bill mailings to residential and commercial accounts. An updated flyer for pet waste disposal education was given to the City Clerk to distribute with issuance of dog licenses.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Approximately 15,000 copies of pet waste cleanup and disposal brochures were included in the quarterly residential water and sewer bills and 513 commercial monthly water and sewer bills.

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:

MCM2: Public Participation

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

The Stormwater Management Program was posted to the City's Clean Stormwater Initiative website for input on June 30, 2019.

The City had planned to host a workshop to present draft SWMP and seek public comments and input; however, social media posts and announcements on the website as listed in Attachment B were used. See Page 3 above for additional detail.

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 City of Waltham performed several storm water-related activities in collaboration with residents. Numerous volunteer cleanup activities along surface water bodies and educational walks/tours have been organized by the Waltham Land Trust. The City of Waltham through the Public Works Department organized Earth Day volunteer City-Wide cleanup on April 20, 2019.

The City continued with the hazardous waste/used oil collection days for the residents throughout the reporting period. The City also continued to offer the Rain Barrel Purchase Program for residents.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

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

Number of SSOs identified:

Number of SSOs removed:

Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified since 2013.

Total number of SSOs identified:

Total number of SSOs removed:

MS4 System Mapping

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

The City of Waltham has completed stormwater mapping and has made the following updates: Outfalls and receiving waters (updated 2018) Interconnections with other MS4s and other storm sewer systems Water bodies identified by name and indication of all use impairments initial catchment delineations.

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:

Sampling of outfalls discharging into Charles River along with municipal interconnections were conducted in 2008. See maps located at [https://www.city.waltham.ma.us/clean-stormwater-initiative/pages/initial outfall sampling](https://www.city.waltham.ma.us/clean-stormwater-initiative/pages/initial%20outfall%20sampling). The IDDE Plan is located at https://www.city.waltham.ma.us/sites/walthamma/files/uploads/waltham_idde_plan.pdf. Appendix C of this Plan shows the Stormwater Catchment Delineation, Stormwater Catchment Prioritization and Ranking.

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:

See Attachment C

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:

As summarized in Attachment C, a total estimate of 13.53 MGY of illicit flow has been removed between April 1, 2010 and July 2013. Additional illicit flow has been removed since July 2013 to-date and the City is compiling the information and will present it in the next annual report.

Employee Training

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

Employee training for City of Waltham employees is managed, handled and generally provided at the departmental level by each respective department head. Each City department head is responsible for and determines what training is necessary and/or desirable for each of their departmental employees based on his/her job responsibilities and duties and makes training available to his/her employees as appropriate. During the reporting period, various City employees received training in OSHA HazCom and other OSHA training, asbestos and other training necessary and appropriate for their job duties.

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: 18 NOIs

Number of inspections completed: 18 minimum

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:

The Stormwater ordinance is complete and is located at <https://ecode360.com/26936149>. Initial draft Rules and Regulations were modified to only affect developments of one acre or more. The City will plan to have the Rules and Regulations approved by the City Council during Permit Year 2 period.

As-built Drawings

Describe the status of the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites required to be complete in year 2 of the permit term:

The Stormwater Ordinance requires the submission of as-built drawings.

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:

A green infrastructure guidance document was prepared for the City's Embassy Parking Garage. This project was completed under the MassDEP 604 (b) Grant Program funding in association with the Charles River Watershed Association. Copy of the document is included in Attachment F.

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:

A green infrastructure guidance document was prepared for the City's Embassy Parking Garage. This project was completed under the MassDEP 604 (b) Grant Program funding in association with the Charles River Watershed Association. Copy of the document is included in Attachment F.

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:

The City owned parcels are compiled in the City's GIS database and are readily accessible. Vortex type particle separators with oil and grease and floatables traps have been installed at the City owned schools that are inspected and maintained on an annual basis. See Appendix G.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

The City's plan involves cleaning catch basins based on the ward/precincts approximately one fourth annually.

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:

The City is developing a catch basin inspection and data collection plan using GIS in 2020.

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:

This will be taken into account during the catch basin cleaning optimization plan. The City is also developing a GIS based field data collection system to log the inspections of catch basins and material removed.

Street Sweeping

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

The written procedures for Street Sweeping is located at https://www.city.waltham.ma.us/sites/walthamma/files/uploads/appendix_f_street_sweeping_procedures.pdf

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

Number of miles cleaned: 293.41 lane miles

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:

Not Applicable

Winter Road Maintenance

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

The written procedures for the winter road maintenance is complete and is available at https://www.city.waltham.ma.us/sites/walthamma/files/uploads/appendix_g_deicing_procedures.pdf

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:

This effort is significantly complete and will be finalized in year 2 of the permit term as planned.

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:

This effort is significantly complete and will be finalized in year 2 of the permit term as planned.

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 implements the SWPPP for the Rhodes Municipal Center and Consolidated Public Works (CPW) Yard located at 55-175 Lexington Street, Waltham, MA. The Waltham CPW Yard is used by various departments which are responsible for the cleaning, repair and maintenance of the City of Waltham's vehicles, streets, parks and open spaces, cemeteries, water and sewer systems, and storm water catch basins. The City of Waltham has over 150 miles of roads and streets with 2,300 catch basins which discharge into the Charles River and its tributaries. The Chester Brook, a tributary of the Charles River, flows through the CPW Yard strengthening the need for a comprehensive Storm Water 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:

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

No corrective actions. Standard Operating Procedures established in the SWPPP were implemented as required.

O&M Procedures for Stormwater Treatment Structures

Describe the status of the written procedure for stormwater treatment structure maintenance:

The SOP for stormwater treatment structures located throughout the City are included in Attachment G.

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:

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: Stephen A. CASAZZA Title: City Engineer

Signature:  Date: 9.30.19

[Signatory may be a duly authorized representative]