

Year 3 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2020-June 30, 2021

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, 2020 and June 30, 2021 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

Impairment(s)

Bacteria/Pathogens
 Chloride
 Nitrogen
 Phosphorus
 Solids/ Oil/ Grease (Hydrocarbons)/ Metals

TMDL(s)

In State:

Assabet River Phosphorus
 Bacteria and Pathogen
 Cape Cod Nitrogen
 Charles River Watershed Phosphorus
 Lake and Pond Phosphorus

Out of State:

Bacteria/Pathogens
 Metals
 Nitrogen
 Phosphorus

Clear Impairments and TMDLs

Next, check off all requirements below that have been completed. **By checking each box you are certifying that you have completed that permit requirement fully.** If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.

Year 3 Requirements

- Inspected and screened all outfalls/interconnections (excluding Problem and Excluded outfalls)
- Updated outfall/interconnection priority ranking based on the information collected during the dry weather inspections as necessary
- Post-construction bylaw, ordinance, or other regulatory mechanism was updated and adopted consistent with permit requirements

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 3 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:

Records indicate that all outfalls have been screened to date, many have been screened and sampled more than once. The Inventory/Ranking list has not been updated with the most recent data. A Stormwater Ordinance is in effect, and regulations associated with the Ordinance are complete and are scheduled to be adopted this winter (2021/2022). The event that has impacted this work the most is the loss of the staff (Penny Anotonoglou). Her position has not been filled, but the City of Medford intends to fill the position as soon as possible.

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:

SSO's were reported for July 2, 2021, which is in the next reporting period.

- 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 system map due in year 2 as necessary
- Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- Updated inventory of all permittee owned facilities as necessary
- O&M programs for all permittee owned facilities have been completed and updated as necessary
- Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Inspected all permittee owned treatment structures (excluding catch basins)

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:

Per records and reporting, no training was performed this reporting period. A SWPPP is implemented for the public works yard. O&M programs include BMP inspection forms and protocols; however, implementation is not complete. Not all treatment structures have been inspected; however, staffing and resources have made progress difficult. COVID-19 has added to the challenges as it has further impacted available staff.

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 Metals

Annual 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:

The DPW Highway Division reports that all City catch basins are inspected and maintained at least once per year, and all streets are swept at least twice per year with main collectors swept more frequently.

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: "Fowl Water" Advertisement

Message Description and Distribution Method:

On behalf of the Mystic River Watershed Stormwater Education Collaborative, Think Blue Massachusetts ran an educational advertising campaign that helps viewers visualize stormwater pollution from motor oil, pet waste, and trash. The campaign was launched on Facebook and Instagram sponsored video and YouTube pre-roll advertisements.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Distribute 2 messages over the permit term.
23,595 Facebook and Instagram impressions, 17,691 YouTube Ad Impressions, 10,089 Spanish language impressions.

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: Keep Grass Clippings off the Streets!

Message Description and Distribution Method:

Shared post from Think Blue Massachusetts reminding residents to keep lawn clippings out of the streets, driveways, and sidewalks posted on <https://www.facebook.com/GoGreenMedford>.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Distribute 2 messages over the permit term.

Facebook: <https://www.facebook.com/GoGreenMedford> 1 like, 2 engagements, 99 people reached.

Message Date(s): June 1, 2021

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: Grass Clippings Disposal

Message Description and Distribution Method:

Video PSA on how to dispose of grass clippings properly and the harmful effects they have in our water system posted on <https://www.facebook.com/MedfordMAofficial> and <https://www.facebook.com/GoGreenMedford>.

Targeted Audience: Residents

Responsible Department/Parties: Office of Planning, Development, and Sustainability

Measurable Goal(s):

Distribute 2 messages over the permit term.

Facebook: <https://www.facebook.com/MedfordMAofficial> 3 likes, 1 share, 137 video views.

Message Date(s): May 21, 2021

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: Fertilizer

Message Description and Distribution Method:

Infographic and text describing how fertilizers can harm our water systems and suggesting healthier alternatives. Reminder that if residents are using fertilizers they should be using slow-release. Posted on <https://www.facebook.com/GoGreenMedford>

Targeted Audience: Residents

Responsible Department/Parties: Office of Planning, Development, and Sustainability

Measurable Goal(s):

Distribute 2 messages over the permit term.

Facebook: <https://www.facebook.com/GoGreenMedford> 1 like, 12 engagements, 1 share, 299 people reached

Message Date(s): April 7, 2021

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: Catch Basin Cleaning

Message Description and Distribution Method:

Infographic and text describing how catch basins are cleaned and the importance of cleaning them regularly. Posted on <https://www.facebook.com/GoGreenMedford>.

Targeted Audience: Residents

Responsible Department/Parties: Office of Planning, Development, and Sustainability

Measurable Goal(s):

Distribute 2 messages over the permit term.

Facebook: <https://www.facebook.com/GoGreenMedford> 1 like, 3 engagements, 0 shares, 91 people reached

Message Date(s): February 24, 2021

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: Deicer and Salt Use

Message Description and Distribution Method:

Infographic and text explaining that residents should switch salt with deicer and use deicer sparingly to keep our waterways healthy as snow washes away. Posted on <https://www.facebook.com/GoGreenMedford>

Targeted Audience: Residents

Responsible Department/Parties: Office of Planning, Development, and Sustainability

Measurable Goal(s):

Distribute 2 messages over the permit term

Facebook: <https://www.facebook.com/GoGreenMedford> 3 likes, 5 engagements, 0 shares, 79 people reached

Message Date(s): January 26 & 27, 2021

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: Frequent Shoveling

Message Description and Distribution Method:

Infographic and text explaining that residents should shovel frequently to avoid heavy salt or de-icer use. Also posted in Spanish. Posted on <https://www.facebook.com/GoGreenMedford>

Targeted Audience: Residents

Responsible Department/Parties: Office of Planning, Development, and Sustainability

Measurable Goal(s):

Distribute 2 messages over the permit term.
Facebook: <https://www.facebook.com/GoGreenMedford> 1 like, 3 engagements, 1 share, 146 people reached.
Twitter: <https://twitter.com/GoGreenMedford> 2 likes, 4 engagements, 243 people reached.

Message Date(s): December 24 & 30, 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:

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:**

SWMP is posted on the City's website and environmental-specific page. City contact information is provided for any comments or questions. A hardcopy of the SWMP is available in the Engineering Division for review.

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**:

The City provided public access to paint disposal shed at DPW and to Household Hazardous Waste Disposal Facility; posted drop off schedules to DPW website. Through Medford's social media, the City supported and publicized Mystic River Fall clean up events. Through their partnership with Medford, the Mystic River Watershed Associated conducted virtual classroom visits with 4 classes of Andrews Middle School 7th grade students (76 students total). Education focused on trash with stormwater as the conduit to rivers/oceans. Medford's Office of Planning, Development and Sustainability created and developed a new Adopt-a-Drain program (launched August 14th, 2021) which will provide residents with the opportunity to care for a local storm drains, improve stormwater health, and educate the public on stormwater.

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

Optional: Provide additional status information regarding your map:

Map updated with locations of infiltration BMP's from projects completed in the City, both private and public sites.

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. Please also include the updated inventory and ranking of outfalls/interconnections based on monitoring results.

- No outfalls were inspected
- 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 outfalls/interconnections screened to date.

Percent of outfalls screened:

Optional: Provide additional information regarding your outfall/interconnection screening:

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.

- No catchment investigations were conducted
- 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:

The scope of work for catchment investigation included updating and expanding the City's GIS mapping based on findings from the investigation effort, providing a summary of results for updating the City's outfall/ Interconnection Inventory and Ranking, and recommendations for future catchment investigation and potential illicit discharge removal.

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.

- No illicit discharges were found
- 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:

5 illicit connections were removed during the reporting period by a City contract. These were identified in the Winter Brook catchment. Locations include Main Street, Bow Street and Albion Street.

Employee Training

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

Engineering Division received training on Phosphorous Alternative TMDL during this reporting period. Webinar on 11/2/2020 hosted by EPA and DEP. Other information sessions attended regarding this topic as well.

MCM4: Construction Site Stormwater Runoff Control

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

Number of site plan reviews completed:

Number of inspections completed:

Number of enforcement actions taken:

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

16 site plan reviews include projects from small single family home projects to larger site developments under Planning Board or Zoning Board authorities. Inspections typically performed to confirm utility installations. Not all projects are built; however, final inspections performed in coordination with as-built review. No enforcement actions beyond verbal field warnings issued during reporting period.

MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

As-built Drawings

*Below, report on the number of as-built drawings received **during this reporting period.***

Number of as-built drawings received:

Optional: Enter any additional information relevant to 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:

Local stormwater regulations are complete; the Planning Board is currently in the process of revising regulations; and the City Council is currently revising the Zoning ordinance. No other updates at this time, but we intend to continue progress.

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:

No update available at this time. We intend to continue progress.

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:

No update available at this time. We intend to continue progress.

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:

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.

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:

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:
- Weight of material removed:

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:

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

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:

DPW repair list attached.

COVID-19 Impacts

Optional: If any of the above year 3 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:

COVID-19 impacts pulled Engineering Division and other DPW divisions staffing and resources from typical duties to assisting other departments, primary the Health Department, with COVID-19 compliance. We were able to continue our work required under our permit; however, we were challenged in further advancing O&M implementation in order to minimize person to person contacts. Other conditions that impacted the progress of our work were varying levels of office and field staff capacity either as a result of quarantines, positive cases, higher numbers of sick days, and staggered remote working.

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 4 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Develop a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover
- Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
- Identify a minimum of 5 permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas

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 curbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities
- 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
- Review O&M programs for all permittee owned facilities; update if necessary
- Implement all maintenance procedures for permittee owned facilities in accordance with O&M programs
- Implement program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Enclose all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt
- Review as-built drawings for new and redevelopment to ensure compliance with post construction bylaws, regulations, or regulatory mechanism consistent with permit requirements
- Inspect all permittee owned treatment structures (excluding catch basins)

Provide any additional details on activities planned for permit year 4 below:

Continue IDDE plan progress including addressing recommendations from catchment investigations and wet weather sampling.

Part V: Certification of Small MS4 Annual Report 2021

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]