Year 6 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2023-June 30, 2024

Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form. Also ensure any websites included on this form are to publicly accessible sites

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, 2023 and June 30, 2024 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization: Dedham

EPA NPDES Permit Number: MAR041033

Primary MS4 Program Manager Contact Information

Name: Jason L. Mammone, P.E. Title: Director of Engineering

Street Address Line 1: 55 River Street

Street Address Line 2:

City: Dedham State: MA Zip Code: 02026

Email: jmammone@dedham-ma.gov Phone Number: (781) 751-9352

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address): https://www.dedham-ma.gov/departments/engineering/municipal-stormwater-ms4

Date SWMP was Last Updated: June 2024

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.*

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 publicly available website:

☒ Updated system map due in year 10 with information from completed catchment investigations

☒ Provided training to employees involved in IDDE program within the reporting period

☒ Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters

☒ All curbed roadways were swept at least once within the reporting period

☒ 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 or provide any additional details, please use the box below:

Bacteria/ Pathogens (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

☒ Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

☒ Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time

☒ Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

☐ This is not applicable because there are no septic systems present

** 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)

Structural BMPs

☐ Installed a structural BMP as a demonstration project within the drainage area of the water quality limited water or its tributaries. The type of BMP installed is (*e.g. biofiltration)*:

Bioretention Area at 34 Milton Road - Design was completed during Permit Year 6; Construction planned for Permit Year 7 in Fall 2024.

☒ 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.

- ○ No BMPs were installed
- ○ The above referenced BMP information is attached to the email submission
- ◉ The above referenced BMP information can be found at the following publicly available website:

https://www.dedham-ma.gov/departments/engineering/municipal-stormwater-ms4

Total estimated phosphorus removed in **lbs/year** from the installed BMPs: 150.94

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 Town of Dedham currently utilizes their existing stormwater regulations to require the construction of stormwater BMPs as part of private development even beyond current MS4 permit required land disturbance thresholds to promote water quality. In addition, the Town has been proactive in incorporating stormwater BMPs as part of capital improvements on municipal property. Constructed structural BMPs have resulted in the phosphorus reductions outlined in Table 1-6, which are further detailed in Appendix D, of the Town's Phosphorus Control Plan developed for land area within the Charles River Watershed during Permit Year 5. Dedham performed additional baseline phosphorus load calculations in Permit Year 6, which incorporated updated impervious area data that was developed by the Charles River Watershed Association through an MS4 Grant. The baseline phosphorus load included in the PCP was updated during Permit Year 6 to reflect this updated calculation.

The phosphorus reductions are presented as a high-level summary, and calculations were performed consistent with the requirements in Attachment 3 to Appendix F of the 2016 MS4 Permit. These BMPs are being maintained to function as designed. Phosphorus reduction credit is provided for structural BMPs constructed as part of redevelopment projects on private property as well as BMPs that the Town has installed as part of roadway or site improvements. The Town has developed nutrient tracking worksheets for private properties that have installed stormwater BMPs, which track the overall removal of phosphorus and nitrogen for each BMP. These sheets help track phosphorus removal associated with private BMPs that are identified in the Charles River Phosphorus Control Plan, and provide an inventory of BMPs that should be inspected and maintained by the private entity. Existing structural and semi-structural BMPs have contributed to an annual phosphorus load reduction of 150.94 lbs/year.

During Permit Year 6, the Town completed the required Performance Evalutation that assesses the Town's

PCP progress through Year 6. Based on this year's evaluation, Dedham has successfully reduced phosphorus by 183.24 lbs/yr, and an additional 30.76 lbs/yr is required to meet the Phase 1 milestone reduction of 214 lbs/yr. Based on this evaluation, the Town of Dedham is on track to meet the Year 8 milestone of achieving a 20% phosphorus load reduction. To meet this milestone, the Town has to continue to implement BMPs to achieve additional credits of 7.69 lbs/yr annually based on the updated implementation schedule outlined in Section 9 of of the Town's Phosphorus Control Plan.

Moving forward, Dedham plans to incorporate stormwater BMP retrofits as part of roadway improvements under their annual road program. All streets within the Town's current road reconstruction program plan are within the Charles River Watershed to support implementation of the Town's Phosphorus Control Plan, but in the future, streets in the Mother Brook Watershed will be considered and prioritized, if possible, for BMP retrofit as part of the road program. During Permit Year 6, the Town completed the design of various stormwater BMP retrofits, including infiltration trenches, mainline perforated drainage pipe replacements, and biortention areas. The project was bid during Permit 6, and construction of retrofits will be completed during Permit Year 7.

The Town is currently working separately on the design of a BMP Retrofit at 34 Milton Road which is located within a high phosphorus loading catchment within the Mother Brook Watershed. This BMP retrofit project is identified in Phases 1 and 2 of the Town's Phosphorous Source Identification Reports for Mother Brook, and has been identified as the Town's demonstration project. This project is also highlighted in the Town's BMP Retrofit Inventory Report. The design was completed in Permit Year 6, and construction of this BMP retrofit project is planned for Fall 2024.

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

- ○ The street sweeping schedule is attached to the email submission
- ◉ The street sweeping schedule can be found at the following publicly available website:

https://www.dedham-ma.gov/departments/engineering/municipal-stormwater-ms4

☒ 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 Town developed a Catch Basin Cleaning Optimization Plan in Permit Year 6 using data collected during annual catch basin cleaning from 2019 through 2024. The plan includes provisions to prioritize areas that discharge to water bodies impaired for solids, oil, grease, or metals. The Town also employs a tablet-based catch basin cleaning inspection form to more easily identify catch basins that are filling up more quickly and require more frequent cleaning. The Town developed a list of catch basins for supplemental cleaning in 2024 to ensure that no sump is ever more than 50 percent full.

Charles River Watershed Phosphorus TMDL

Below, calculate your current phosphorus export rate by first filling out the individual phosphorus loading components (labeled [A], [B], [C], and [D]) and then computing your current phosphorus export rate using the equation provided.

Baseline phosphorus export rate from PCP Area, as identified in Appendix F **(lbs/year) [A]**:	890.7
Total phosphorus reduction from all nonstructural controls implemented **this reporting period (lbs/year) [B]**:	32.3
Total phosphorus reduction from all structural controls installed this reporting period and all previous years **(lbs/year) [C]**:	150.94
Phosphorus load increase due to development incurred since 2005 in **lbs/year [D]**:	-35
Current phosphorus export rate from the PCP Area in **lbs/year [=A-(B+C)+D** from above**]**:	672.46

☒ I certify under penalty of law that all source control and treatment Best Management Practices being claimed for phosphorus reduction credit have been inspected, maintained and repaired in accordance with manufacturer or design specification. I certify that, to the best of my knowledge, all Best Management Practices being claimed for a phosphorus reduction credit are performing as originally designed.

☒ All municipally owned and maintained turf grass areas are being managed in accordance with Massachusetts Regulation 331 CMR 31 pertaining to proper use of fertilizers on turf grasses

☒ Implemented all nonstructural control measures **during this reporting period** and documented the measures and their phosphorus reduction. The nonstructural control measure information:

- ○ is attached to the email submission
- ◉ can be found at the following publicly available website:

https://www.dedham-ma.gov/departments/engineering/municipal-stormwater-ms4

☒ Documented the structural control measures implemented during **this reporting period and all previous years**, including location, phosphorus reduction in mass/year, and date of last completed maintenance and inspection for each control. The structural control measure information:

- ○ is not applicable; no structural control measures were implemented
- ○ is attached to the email submission
- ◉ can be found at the following publicly available website:

https://www.dedham-ma.gov/departments/engineering/municipal-stormwater-ms4

The Phase 1 PCP: (*select one of the following options. If you submitted your PCP last year and have an updated website, please include the website below)*

- ○ was submitted in the Year 5 Annual Report
- ○ is attached to the email submission
- ◉ can be found at the following publicly available website:

https://www.dedham-ma.gov/departments/engineering/municipal-stormwater-ms4

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:

Dedham performed additional baseline phosphorus load calculations in Permit Year 6, which incorporated updated impervious area data that was developed by the Charles River Watershed Association through an MS4 Grant. The baseline phosphorus load included in the PCP was revised during Permit Year 6 to reflect this updated calculation.

NON-TRADITIONAL AND TRANSPORTATION MS4s ONLY- *municipalities please skip this section:*

Describe the planned phosphorus reduction activities on site and coordination progress with the applicable municipality:

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:

The list of outfalls/interconnections and their receiving waters was updated during Permit Year 3 upon completion of dry weather outfall screening and sampling. The Town updated this list again in Permit Year 4 to reflect minor changes in their drainage system. The Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle and the Final Massachusetts Integrated Lits of Wateres for the Clean Water Act 2022 Reporting Cycle both included minor changes to some of the Town's impaired waters. However, the specific impairments/changes have not changed sampling requirements for any of the Town's outfalls or interconnections. The updated list of receiving waters and outfalls is included in Section 1 of the Town's SWMP.

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**: 11

*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: Dog Waste Flyers

Message Description and Distribution Method:

The Town distributed a flyer entitled "There's no such thing as the poop fairy" with dog license issuances and renewals during Permit Year 6. These flyers were distributed both in-person and via email. These flyers were also maintained on the Town website throughout the permit year.

Targeted Audience: Residents

Responsible Department/Parties: Town Clerk/Environmental Department

Measurable Goal(s):

The Town distributed 1435 dog waste flyers with dog license issuances and renewals during the reporting period.

Message Date(s): Permit Year 6

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: Leaf Littering Message

Message Description and Distribution Method:

The Town posted and maintained information provided by the Neponset River Watershed Partnership regarding proper disposal of leaf litter to the home page of its website throughout the permit year. As part of the full campaign, the Town also shared the information to the "DedhamThrives" Instagram, and the "Town of Dedham" Twitter page in October 2023.

Targeted Audience: Residents

Responsible Department/Parties: Engineering Department, DPW

Measurable Goal(s):

By posting the informational slide to the home page of the Town's website, Dedham ensured that it would be

accessible to as many residents as possible. The Neponset River Watershed reported 41,140 impressions from the Town of Dedham for their Fall Leaf Campaign.

Message Date(s): Permit Year 6

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

Message Description and Distribution Method:

The Town posted and maintained information provided by the Neponset River Watershed Partnership regarding the use of slow release/phosphorus free fertilizers to the home page of its website throughout the permit year. As part of the full campaign, the Town also shared the information to the "DedhamThrives" Instagram, and the "Town of Dedham" Twitter page in April 2024.

Targeted Audience: Residents

Responsible Department/Parties: Engineering Department, DPW

Measurable Goal(s):

By posting the informational slide to the home page of the Town's website, Dedham ensured that it would be accessible to as many residents as possible. The Neponset River Watershed reported 46,478 impressions from the Town of Dedham for their Spring Fertilizer Campaign.

Message Date(s): Permit Year 6

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 Message

Message Description and Distribution Method:

The Town posted and maintained information provided by the Neponset River Watershed Partnership regarding pet waste management to its website throughout the permit year. As part of the full campaign, the Town also shared the information to the "DedhamThrives" Instagram, and the "Town of Dedham" Twitter page in July 2023.

Targeted Audience: Residents

Responsible Department/Parties: Engineering Department, DPW

Measurable Goal(s):

By posting the informational slide to the home page of the Town's website, Dedham ensured that it would be accessible to as many residents as possible. The Neponset River Watershed reported 50,656 impressions from the Town of Dedham for their Summer Pet Waste Campaign.

Message Date(s): Permit Year 6

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: Septic System Message

Message Description and Distribution Method:

The Town posted and maintained information provided by the Neponset River Watershed Partnership regarding septic system maintenance to its website throughout the permit year. As part of the full campaign, the Town also shared the information to the "DedhamThrives" Instagram, and the "Town of Dedham" Twitter page in September 2023.

Targeted Audience: Residents

Responsible Department/Parties: Health Department, Engineering Department

Measurable Goal(s):

By posting the informational slide to the home page of the Town's website, Dedham ensured that it would be accessible to as many residents as possible.

Message Date(s): Permit Year 6

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: Regional Outreach Mailer

Message Description and Distribution Method:

The Neponset River Watershed Association mailed out an informational flyer to all residents in Dedham. The flyer covered rain barrels, dog waste management, fertilizer use, and other topics related to stormwater management.

Targeted Audience: Residents

Responsible Department/Parties: Neponset Stormwater Partnership

Measurable Goal(s):

The flyer was mailed to all residents in Dedham.

Message Date(s): June 2024

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: Outreach Message

Message Description and Distribution Method:

The Neponset River Watershed Association mailed out an informational flyer to all businesses, institutions, and commercial facilities in Dedham. The flyer covered rain barrels, dog waste management, fertilizer use, and other topics related to stormwater management.

Targeted Audience: Businesses, Institutions, and Commercial Facilities

Responsible Department/Parties: Engineering Department

Measurable Goal(s):

By maintaining the flyer on the Town's website as well as making social media posts, Dedham ensured that it would be accessible to as many businesses as possible.

Message Date(s): Permit Year 6

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: Outreach Message

Message Description and Distribution Method:

Two public education flyers were created targeting developers. One flyer focused on reducing stormwater runoff during construction, and a second flyer focused specifically on sediment and erosion control for developers. Both flyers were distributed to developers by the Planning, Zoning & Natural Resources Department, Building Department and Engineering Department when they submit for applications and permits.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Planning Zoning and Natural Resources Department, Engineering Dept

Measurable Goal(s):

The Engineering Department distributed a total of 18 flyers to licensed drainlayers in the Town of Dedham. The Planning, Zoning, and Natural Resources Department distributed a total of 27 flyers. Electronic copies are also posted on the Town website under the Planning Board, Zoning Board of Appeals, and Design Review Advisory Board form menus, as well as on the main Stormwater Management page.

Message Date(s): May 2024

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: Outreach Message

Message Description and Distribution Method:

A stormwater prevention guide flyer, which focused on stormwater management related to industrial facilities, was mailed to industrial facilities within the Town.

Targeted Audience: Industrial facilities

Responsible Department/Parties: Engineering Department

Measurable Goal(s):

By maintaining the flyer on the Town's website as well as making social media posts, Dedham ensured that it would be accessible to as many industrial facilities as possible.

Message Date(s): Permit Year 6

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: Educational Presentation

Message Description and Distribution Method:

The Town provided two visits to 5th grade classrooms across Dedham Public Schools with one visit covering stormwater-related topics and the other focusing on water conservation.

Targeted Audience: Residents

Responsible Department/Parties: Engineering Department

Measurable Goal(s):

Three classrooms at Greenlodge Middle School were visited on February 26, 2024 and March 1, 2024, three classrooms at Avery Middle School were visited on March 19, 2024 and March 20, 2024, two classrooms at Oakdale Middle School were visited on May 4, 2024 and May 5, 2024, and two classrooms were visited at Riverdale Middle School on June 3, 2024 and June 10, 2024.

Message Date(s): Spring 2024

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: Winter Deicing Message

Message Description and Distribution Method:

The Town posted and maintained information provided by the Neponset River Watershed Partnership regarding the importance of salt alternatives as a form of ice melt to its website throughout the permit year. As part of the full campaign, the Town also shared the information to the "DedhamThrives" Instagram, and the "Town of Dedham" Twitter page in Decemeber 2023.

Targeted Audience: Residents

Responsible Department/Parties: Engineering Department

Measurable Goal(s):

By posting the informational slide to the home page of the Town's website, Dedham ensured that it would be accessible to as many residents as possible.

Message Date(s): Permit Year 6

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

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

If yes, describe why the change was made:

Add an Educational Message

MCM2: Public Participation

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

The Town posted the updated SWMP, dated June 2024, to its website at the end of Permit Year 6. The SWMP was made available for public comment. In addition, Annual Reports for Permit Year 1, 2, 3, 4, and 5 were also made available on the Town's website throughout Permit Year 6.

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**:

During Permit Year 6, on October 21, 2023, Dedham held a Household Hazardous Waste Collection Day. Every third Saturday throughout the permit term, the Town held their Cardboard Recycling Day. The Town held a daily clean-up event series from April 20th - 27th at various parks and open spaces around Dedham. As a part of this series, clean-up events were also held every third Saturday from May to June of 2024 during the permit term.

During Permit Year 6, the Town held several public meetings where revisions to the Stormwater Management Bylaw and Stormwater Management Rules & Regulations were discussed. Public meetings were held on August 3, 2023, August 18, 2023, and on September 7, 2023.

During Permit Year 6, the Town was the recipient of a second two-year Municipal Vulnerability Preparedness (MVP) Action Grant from the Executive Office of Energy and Environmental Affairs (EEA) for the Regional Project which continued to further refine the watershed-wide flood model previously developed for the Neponset River Watershed. As part of the regional project, two public meetings were held for residents within the Neponset River watershed to provide updates on the project. These meetings were held virtually on April 11, 2024 and June 11, 2024. During Permit Year 6, the Town was also the recipient of an MVP Action Grant from EEA for the Manor Neighborhood Flood Resilience Project which focused on flood mitigation strategies, including a 25% design concept. In Permit Year 6, the Town held two public meetings with residents of Dedham’s Manor Neighborhood on February 29, 2024, and on April 25, 2024, where information was presented on the use of green infrastructure practices to mitigate flooding, while also providing water quality benefits.

During Permit Year 6, the Wigwam Pond Advisory Committee held several public meetings. On August 15, 2023, the Committee held a public meeting to discuss the draft final report for the Access Study. There was no direct discussion of the Wigwam Pond Watershed Management Plan, although that plan informed the Access Study. On October 11, 2023, the Town’s consultant presented the Wigwam Pond Access and Recreation Plan to the Planning Board. The Plan includes some information on water quality, but the overall purpose was to present access options.

Rain barrels were made available for purchase to residents from the Dedham-Westwood Water District (DWWD) and composting bins were made available for purchase through the Conservation Department. During Permit Year 6, 17 discounted rain barrels were sold by DWDD to Dedham Residents and 110 discounted compost bins were sold by the Town to residents.

Dedham continued to participate in the Neponset River Watershed Association which ran an educational advertising campaign through ThinkBlue Massachusetts from May to June, 2024. Facebook and Instagram sponsored videos and Youtube pre-roll ads were used to help viewers visualize how trash, pet waste, and motor oil become stormwater pollution. This video was also distributed in Spanish. The ad campaign was followed by a survey of residents in all targeted communities - those who remembered seeing the ad were more likely to know that stormwater pollution ends up in local waterways and more likely to consider polluted runoff a serious environmental threat. The Neponset River Watershed reported 50,656 ad impressions from Dedham for the summer pet waste campaign, 41,140 ad impressions from Dedham for the fall leaf campaign, and 46,478 ad impressions from Dedham for the spring fertilizer campaign, for a grand total of 138,274 ad impressions from Dedham in Permit Year 6.

The Town continued its Citizens Water Monitoring Network, an initiative organized through the Neponset River Watershed Association, during the reporting period. Resident volunteers collected quarterly samples at the Mother Brook at Washington Street station, testing for E.coli, total phosphorus, pH, dissolved oxygen, temperature, ortho-phosphate, total nitrogen, and ammonia.

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: 0

Number of SSOs removed: 0

MS4 System Mapping

Percent of Phase II map complete: 100

Optional: Provide additional status information regarding your map:

The MS4 map will continue to be updated as necessary as there are updates to existing drainage infrastructure and as new drainage infrastructure is constructed. Updates to the Town's MS4 system mapping were performed during Permit Year 6 to include these changes. The most recent version of the MS4 map is included with the SWMP and is also available at the following location: https://gis-dedham.hub.arcgis.com/

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 above referenced outfall screening data is attached to the email submission

○ The above referenced outfall screening data can be found at the following publicly available website:

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

Number of outfalls screened: 28

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

Percent of outfalls screened: 100

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

Wet weather outfall screening was completed for a total of 28 outfalls during Permit Year 6. The Town previously completed dry weather screening for all their outfalls in Permit Year 3, as reflected in the 100% noted above.

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 publicly available website:

*Below, report on the number of catchment investigations completed **during this reporting period**.*

Number of catchment investigations completed this reporting period: 27

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

Percent of total catchments investigated: 37.2

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

Per the permit, the Town is only reporting that catchment investigations are complete in catchments where outfalls/ interconnections have been screened during dry weather, where key junction manholes in these catchments have been screened, and where wet weather sampling has been completed, and where all results indicated no likely sewer input based on field observations and sampling.

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 publicly available 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: 0

Number of illicit discharges removed: 0

Estimated volume of sewage removed: 0 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: 0

Total number of illicit discharges removed: 0

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

The Town's Catchment Prioritization Matrix has not been updated since Permit Year 4, as updates were not warranted this year. It was attached to the e-mail with the Annual Report submission during Permit Year 4.

Employee Training

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

Employee training was conducted in June 2024 of the reporting period.

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: 5

Number of inspections completed: 10

Number of enforcement actions taken: 0

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

The number of site plan reviews, inspections, and enforcement actions taken is for all projects where there was at least one acre or more of disturbance.

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3): May 31, 2021

Website of ordinance or regulatory mechanism: https://www.dedham-ma.gov/departments/conservation/stormwater-management-2601

As-built Drawings

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

Number of as-built drawings received: 8

Optional: Enter any additional information relevant to the submission of as-built drawings:

The number of as-builts received is for all projects, even those where there was less than an acre of disturbance. Of the as-built drawings received, 6 were related to stormwater permits, and 2 were related to wetland-only permits.

Street Design and Parking Lots Report

Below, describe any changes made or planned to be made to local regulations and guidelines based on the report completed in Year 4:

During Permit Year 4, the Town developed their Street Design and Parking Lot Report, which assessed current street design and parking lot guidelines and other local requirements that affect the creation of impervious cover. Regulatory mechanisms were reviewed to determine if changes to existing design standards could be made to support low impact design options and, where appropriate, proposed recommendations to incorporate policies and standards to minimize impervious cover in parking areas and street designs.

The report was appended to the Town's SWMP during Permit Year 4. A meeting with the Planning Board was held on January 25, 2023 to introduce the recommended updates, and with the Conservation Commission on February 2, 2023. The Town continues to work with their consultant to develop updated regulatory language for future adoption.

Green Infrastructure Report

Below, describe progress towards making green infrastructure practices allowable based on the report completed in Year 4:

During Permit Year 4, the Town developed a Green Infrastructure Report, which assessed existing local regulatory mechanisms to determine the feasibility of making the following practices allowable when appropriate site conditions exist:

- Green roofs
- Infiltration practices such as rain gardens, curb extensions, planter gardens, porous and pervious pavements, and nature-based stormwater management practices
- Water harvesting devices such as rain barrels and cisterns, and the use of stormwater for non-potable uses
- Open space preservation or cluster development practices

The report was appended to the Town's SWMP during Permit Year 4. A meeting with the Planning Board was held on January 25, 2023 to introduce the recommended updates, and with the Conservation Commission on February 2, 2023. The Town continues to work with their consultant to develop updated regulatory language for future adoption.

During Permit Year 6, several updates were approved to the Town's Stormwater Management Bylaw and associated Rules & Regulations. Changes to the Stormwater Management Bylaw included transferring authority over local Stormwater Management Permits from the Conservation Commission to the Town's Stormwater Manager. This change also effectively made Stormwater Management Permitting an administrative process. As this was a bylaw change, it had to be discussed and voted upon at Town Meeting. A Designation Agreement that allowed the Conservation Commission to immediately designate the Stormwater Manager (through the Town Manager) to act on stormwater permitting matters. This was used as an interim measure to allow the Stormwater Manager to review and issue permits while awaiting the Town Meeting vote and Attorney General approval on the formal bylaw change. Bylaw updates were approved at Town Meeting on November 13, 2023.

Updates to the Stormwater Management Rules & Regulations including increasing the required phosphorus removal on permitted sites to 65% (100% for land uses that were listed as forest, wetland, orchard, forested wetland, or brush land/successional land in the 2005 land use data set). An additional requirement was added for permittees to provide phosphorus and nitrogen loading and removal calculations according to the 2016 MS4 Permit methodology with their permit application. Additional modifications included administrative changes regarding the permitting process, thresholds, and submission requirements. On 8/3/2023, 8/17/2023, and 9/7/2023, the Conservation Commission held a public hearing to discuss proposed updates to the Stormwater Management Rules and Regulations. In a meeting held on 9/7/2023, updates to the Stormwater Management Rules and Regulations were approved.

Retrofit Properties Inventory

Below, list remaining permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas (must maintain a minimum of 5 sites in inventory until less than 5 sites remain):

1) Avery Elementary School
2) Dedham High School
3) 34 Milton Street
4) Dedham Public Works
5) 37 Brookside Avenue

Below, list all properties that have been modified or retrofitted with BMPs to mitigate impervious area that were inventoried as part of 2.3.6.d of the permit and the type of BMP(s) implemented. Non-MS4 owned properties that have been modified or retrofitted with BMPs to mitigate impervious area may also be listed, but must be indicated as non-MS4.

The design of a bioretention area BMP at 34 Milton Street was completed during Permit Year 6. Construction

of this BMP is planned for the Fall of 2024 during Permit Year 7.

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: 201

Number of catch basins cleaned: 191

Total volume or mass of material removed from all catch basins: 2,926 cubic feet

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

Total number of catch basins: 1,961

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 basin cleaning for CY24 started at the end of June 2024. The majority of catch basin cleaning for CY24 will be reported in the Year 7 annual report.

Street Sweeping

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

- (●) Number of miles cleaned: 1,041
- ( ) Volume of material removed: [Select Units]
- ( ) Weight of material removed: [Select Units]

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: 4

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

Quarterly SWPPP inspections at the DPW Facility during Permit Year 6 were performed by the Town, one of which occurred during wet weather. Design & permitting were completed for structural improvements at the DPW Facility during Permit Year 5. This includes the design of three (3) subsurface in-line hydrodynamic separators to remove trash and debris, sediment, floatables and other larger pollutants. It also includes the design of a double catch basin and a plunge pool at the rear of the site. These features provide erosion control and keep existing vegetation intact in an effort to slow down the rate of runoff to Mother Brook and allow stormwater to infiltrate and/or naturally be filtered by the existing vegetation. Construction of these improvements is planned for Permit Year 7.

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 publicly available 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:

The Neponset River Watershed Association has been collecting water quality data in Dedham and throughout the Neponset River Watershed since 1996. Samples are collected by volunteers through the Community Water Monitoring Network and by the Neponset River Watershed Association staff. The data is used to track the health of the Neponset River and its tributaries, and to locate pollution sources for follow-up sampling. There is one permanent monitoring station in Dedham located on Mother Brook. The station is tested for E.coli, total phosphorus, pH, dissolved oxygen, and temperature once per month between May and October. Recommendations related to phosphorus and E.coli levels were identified in the 2023 Water Quality Report, which is attached to the e-mail submission with this Annual Report. The Town will utilize this data, when warranted, during future MS4 compliance initiatives.

Additional Information

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.

Year 7

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

Yes, I agree ☒

- Complete investigations of catchments associated with Problem Outfalls
- Complete investigations of catchments where any information gathered on the outfall/interconnection identifies sewer input

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)
- Identify additional permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious areas so that the permittee maintains a minimum of 5 sites in their inventory, until such a time when the permittee has less than 5 sites remaining

Provide any additional details on activities planned for permit year 7 below:

Part V: Certification of Small MS4 Annual Report 2024

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 L. Mammone, PE	Title:	Director of Engineering
Signature:	Jason Mammone Digitally signed by Jason Mammone Date: 2024.09.25 09:35:06 -04'00'	Date:	

[Signatory may be a duly authorized representative]