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: Town of Medway

EPA NPDES Permit Number: MAR041132

Primary MS4 Program Manager Contact Information

Name: Stephanie Carlisle Title: Sustainability Coordinator

Street Address Line 1: 45 Holliston Street

Street Address Line 2:

City: Medway State: MA Zip Code: 02053

Email: scarlisle@townofmedway.org Phone Number: (508) 533-3275

Stormwater Management Program (SWMP) Information

SWMP Location (publicly available web address): https://www.townofmedway.org/stormwater-management/webforms/reports

Date SWMP was Last Updated: May 6, 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:

1. The DPW and GIS Coordinator are collecting GPS data for all outfalls, manholes, and catch basins. The catchment delineation calculations will reapplied with this updated spacial data. Pipe diameter, material type, and condition are being added to the stormwater map as well.
2. The DPW maintains all town properties including the school properties; therefore, training for the DPW employees has been the priority. O&M training for the other departments has not been developed at this time.
3. The DPW began an Asset Management Study for its stormwater infrastructure which includes a maintenance plan. The report will be completed in the fall of 2024.

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)*:

☒ 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:

Total estimated phosphorus removed in **lbs/year** from the installed BMPs: 20.11

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:
During Year 6, substantial progress was made on the designs for three biofiltration systems and a subsurface infiltrator at the Medway Middle School. Implementing these BMPs at a school offers an opportunity to demonstrate how BMPs function and educate the public on the services they provide. The designs will be completed and go out to bid during FY25.
Attachment A reports the existing structural controls that were maintained during Year 6.

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]**:	882
Total phosphorus reduction from all nonstructural controls implemented **this reporting period (lbs/year) [B]**:	14.93
Total phosphorus reduction from all structural controls installed this reporting period and all previous years **(lbs/year) [C]**:	20.11

Phosphorus load increase due to development incurred since 2005 in **lbs/year [D]**:	107.32
Current phosphorus export rate from the PCP Area in **lbs/year [=A-(B+C)+D** from above**]**:	954.28

☒ 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:

☒ 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:

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:

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:

We were unable to meet the nonstructural control street sweeping frequency as planned in our Phosphorus Control Plan. This is due in part to one of our street sweepers needed repairs. We also did not have the staff resources to dedicate an individual to sweep every roadway monthly. We were able to sweep the entire town twice and revisited several roadways multiple times throughout the year. We were also unable to implement the enhanced leaf litter credit as planned. We were aiming to sweep all high density residential, open space, forested, and commercial areas in town weekly. However, the second street sweeper was broken, and we did not have available staff to complete this measure. The nonstructural controls implemented during Year 6 are listed in Attachment B.

Attachment C lists the existing structural controls that were inspected and/or maintained during Year 6. Many BMPs require extensive maintenance and restoration, which the DPW intends on completing annually as resources allow. The phosphorus removal credits are only calculated for the structural controls that were maintained.

***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 DPW updated the outfall inventory to reflect new developments and additional information collected during the IDDE and catchment area investigations.

Chicken Brook (segment 72-34) and Hopping Brook (segment 72-35) were reclassified from Category 2 to Category 5 waters in 2016 List of Impaired Waters.

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**: 13

*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:Leaf Litter Management

Message Description and Distribution Method:

Excess phosphorus from leaf litter is a leading cause of toxic algae blooms in our waterways. Keep paved surfaces clear of leaf litter to prevent it from entering drainage systems and polluting our waterways. Message distributed through the DPW's Facebook page.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

1,460 people reached, 45 engagements, 7 likes, 0 comments, 6 shares, and 2,244 impressions.

Message Date(s): October 20, 2023

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:

We wanted to focus specifically on leaf litter management as it relates to phosphorus loading and flooding potential as opposed to general landscape management. By using the DPW's social media platforms, we are able to reach a large audience that can be shared among residents and groups.

BMP:Storms and Catch Basin Clearing

Message Description and Distribution Method:

Keep catch basins clear of snow and ice to prevent localized flooding. Message distributed through the DPW Facebook page.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

1,408 people reached, 8 engagements, 8 likes, 0 comments, 0 shares, and 280 impressions.

Message Date(s): January 9, 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:

This is additional messaging to help residents understand the relationship between the drainage system and flooding.

BMP:Pet Waste Management

Message Description and Distribution Method:

Notice of improperly disposing pet waste bags in a neighborhood detention basin. A letter was mailed to neighborhood residents and posted on the DPW Facebook page.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Facebook metrics: 5,824 people reached, 898 engagements, 6 likes, 16 comments, 21 shares, and 6,095 impressions. Letters mailed to 40 neighboring residents.

Message Date(s): March 25, 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:

The message did not change, but the distribution method is different than what was proposed in the NOI.

BMP:Pet Waste Management - National Scoop the Poop Week

Message Description and Distribution Method:

Message on health hazard and water contamination from pet wastes. Message posted on DPW Facebook page during National Scoop the Poop week.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):
85 people reached, 0 engagements, 9 likes, 0 comments, 0 shares, and 338 impressions.

Message Date(s): April 26, 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:
The message did not change, but the distribution method is different than what was proposed in the NOI.

BMP: Pet Waste Management - Dog License

Message Description and Distribution Method:
Distributed messaging to residents during dog license renewal.

Targeted Audience: Residents

Responsible Department/Parties: DPW, Town Clerk

Measurable Goal(s):
1,578 dog licenses issued.

Message Date(s): January 1 - March 31, 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:Lawn and Garden Care

Message Description and Distribution Method:
Lawn and garden tips to help curb stormwater pollution. Message distributed through the DPW Facebook page in preparation for the 4th of July holiday.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):
379 people reached, 46 engagements, 20 likes, 0 comments, 2 shares, and 618 impressions.

Message Date(s): June 28, 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:

The message did not change, but the distribution method is different than what was proposed in the NOI.

BMP: Building a Rain Garden

Message Description and Distribution Method:

Instructions on how to build a rain garden and use nature based solutions. Distributed through the Energy & Sustainability Committee seasonal newsletter

Targeted Audience: Residents

Responsible Department/Parties: Sustainability Coordinator

Measurable Goal(s):

32 Recipients, 27 opens, 4 clicks, 1 bounced, 14% clicks per unique opens.

Message Date(s): April 24, 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:Stormwater 101 and Phosphorus Pollution Awareness

Message Description and Distribution Method:

The DPW hosts a table at the annual Medway Pride Day event and shares information about stormwater with the public. Topics included best practices to prevent stormwater pollution, information on nature based solutions, nutrient pollution, and pet waste management. Lastly, we distributed Think Blue Massachusetts rubber ducks to children and adults to promote additional awareness.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Engaged with the public at Medway Pride Day event.

Message Date(s): May 18, 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: Stormwater 101

Message Description and Distribution Method:

Posters hang in the entryway and in the DPW main office. Topics included best practices to prevent stormwater pollution, visual of the water cycle, and statistics showing how 60% of water pollution comes from stormwater.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Residents are able to see the poster when they enter the building.

Message Date(s): July 1, 2023 through June 30, 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:

This is an additional method to reach the public.

BMP:Landscape Management

Message Description and Distribution Method:

Using the Think Blue Massachusetts graphics, we emailed 41 local landscape companies a brochure with information of best management practices. We requested read receipts to measure the number of people who opened the email.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: DPW

Measurable Goal(s):

Of the 40 companies emailed, 1 returned a read receipt and 2 email addresses were undeliverable.

Message Date(s): June 28, 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:

Distribution method is different than what was proposed in the NOI.

BMP:Caring for Your Septic System

Message Description and Distribution Method:

Intern hand delivered the "Caring for Your Septic System" brochure to residents with septic systems in town.

Targeted Audience: Residents

Responsible Department/Parties: DPW

Measurable Goal(s):

Fisher Street, Rockwood Road, Cedar Farms Road, Stone End Road, Ledgewood Road, Fawn Road, Deerfield Road, Pine Meadow Road, Curtis Lane, Skyline Drive, Algonquin Ave, Fairway Lane, Wildbrook Road, Summit Road, First Colony Road, Broken Tree Road, Saddle Hill Road, Juniper Road, Ivy Lane, Hunter Lane, Puddingstone Lane, and Birch Bark Road.

Message Date(s): July 11, July 12, July 17, July 18, July 31, August 1, and August 2, 2023.

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:

This is an additional message than what was proposed in the NOI.

BMP:Industrial Properties Best Management Practices

Message Description and Distribution Method:

Mailed a Think Blue Massachusetts flyer targeted to industrial properties to all industrially zoned properties in town. A letter referencing the Massachusetts Stormwater Handbook standards 3, 5 and 6 was also included.

Targeted Audience: Industrial facilities

Responsible Department/Parties: DPW

Measurable Goal(s):

Mailed to 100% of industrial zoned parcels.

Message Date(s): June 25, 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:Developers Best Management Practices

Message Description and Distribution Method:

Distributed a Think Blue Massachusetts flyer noting erosion control requirements, proper waste management, and low impact development to developers when they apply for a permits or approvals with the Building Department or Community and Economic Development Department.

Targeted Audience: Developers (construction)

Responsible Department/Parties: DPW, Community and Economic Development Department, Building Depart

Measurable Goal(s):

Distribute to developers at the time of permit application.

Message Date(s): ongoing

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**:

A link to leave public comments on the Stormwater Management Program is made available on the Town's Stormwater Management web page. Residents may also report a violation if observed. This opportunity is available to residents 24 hours a day, 7 days a week.

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 the monthly public meetings, the Medway Energy and Sustainability Committee discussed the Stormwater Management Plan, the Phosphorus Control Plan, and potential locations for new stormwater infrastructure.

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: 50

Optional: Provide additional status information regarding your map:

Catch basins, drain manholes and sewer manholes have been GPS located. During FY25, the DPW and GIS Coordinator will be GPS locating all outfalls. The catchment areas will be adjusted accordingly.

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: 0

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:
Dry weather outfall screening was completed during Year 3. Outfalls with sample results exceeding the Massachusetts Surface Water Quality Standards were investigated during Year 3, Year 4, and Year 5. Catchment investigations associated with 19 outfalls were completed during Year 6.

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: 19

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

Percent of total catchments investigated: 5

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

During Year 6, the DPW contracted an engineering firm to review our prior outfall and catchment rankings and assist with catchment investigations. Based on their analysis, we were able to reclassify some outfalls as high and low priority and learned we do not have any problem catchment areas. The Year 6 Catchment Investigation Report is included as Attachment D.

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: 56

Total number of illicit discharges removed: 18

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

Since the effective date of the permit, the town has inspected all 508 outfalls and completed dry weather sampling. 104 outfalls showed the presence of flow and were sampled for salinity, temperature, conductivity, pH, surfactants, chlorine, ammonia, E.coli, and phosphorus. During Year 3 and Year 4, samples from 57 outfalls showed the presence of at least one or more of the aforementioned pollutant indicators. During Year 5, 54 outfalls were re-sampled and 18 outfalls showed no sign of the pollutant indicator. The DPW conducted a second round of sampling on 5 of the 54 outfalls. No new illicit discharges were identified during Year 5 or Year 6.

Employee Training

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

IDDE training: 2/29/2024 hosted virtually by University of Massachusetts Amherst Transportation Center.

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: 9

Number of inspections completed: 93

Number of enforcement actions taken: 6

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

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

Ordinance or Regulatory Mechanism

Date update was completed (due in year 3): June 8, 2020.

Website of ordinance or regulatory mechanism:	https://www.townofmedway.org/sites/g/files/vyhlif12846/f/uploads/sw_bylaw_voted_nov._13_2023_tm_final_for_posting_0.pdf

As-built Drawings

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

Number of as-built drawings received: 6

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

The Stormwater Management and Land Disturbance Bylaw update was completed in June 2020. In May 2021, the Bylaw was amended to allow the Conservation Commission and Planning and Economic Development Board to promulgate rules and regulations for the Land Disturbance Permit.

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:

As the DPW plans for and completes repaving projects, we assess whether there is opportunity to narrow the roadway widths and incorporate green infrastructure. As part of the FY25 roadway work, we will be removing the impervious area in the center of two cul-de-sacs and implementing two biofiltration areas in its place.

In the Spring of 2024, the Community and Economic Development Department began revising the Subdivision Rules and Regulations so they align with the Site Plan and Land Disturbance Rules and Regulations as well as the Stormwater Management and Land Disturbance Bylaw.

Green Infrastructure Report

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

In November 2023, the Stormwater Management and Land Disturbance Bylaw was amended to include additional design requirements and guidance for low impact development with an emphasis on nature based solutions. Additionally, new and redevelopment projects are required to use the NOAA Atlas 14+ precipitation frequencies for the storm size designs.

As mentioned, the Subdivision Rules and Regulations are being reviewed for consistency with the town's design guidance and requirements for green infrastructure.

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):

Priority Parcels include:
45 HOLLISTON ST
9 LOVERING ST
76 OAKLAND ST
44 MILFORD ST
155 VILLAGE ST
16 CASSIDY LN
315 VILLAGE ST
26 HIGH ST
0 OAKLAND ST
0 VILLAGE ST
0 CROOKS ST
0 NORTH ST
88 SUMMER ST
46 MILFORD ST
123 HOLLISTON ST
13 CHESTNUT ST
6 FREEDOM TRAIL
18 TROTTER DR

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.

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: 2,143

Number of catch basins cleaned: 2,143

Total volume or mass of material removed from all catch basins: 750 cubic yards

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

Total number of catch basins: 2,663

If applicable:

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

Year 6 was the second year we measured how full the catch basins were and were able to compare it to the previous year. Of the 2,143 catch basins inspected and cleaned, only 257 were more than 50% full the second year. The DPW is monitoring these catch basins and looking to identify if land use changes in the surrounding area need to be made.

Street Sweeping

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

- (•) Number of miles cleaned: 1,625
- ( ) 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: 2

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

There were no corrective actions taken at the DPW Facility. We continue to follow the operations and maintenance plan as described in the 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 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:

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:

1. Continue to update the Stormwater Map including: GPS locations for all catch basins, manholes, outfalls; pipe diameter, age, material, condition; inverts; update septic system ownership layer, update catchment delineations; incorporate available seasonal high water table data.
2. Continue restoration of town-owned and town-managed BMPs.
3. Complete the Stormwater Asset Management Plan Phase I.
4. Continue catchment investigations and staff training.

5. Implement four BMPs at the Medway Middle School.
6. Implement two BMPs in the Laurelwood neighborhood.
7. Complete designs for Winter Street and 76 Oakland Street BMPs.
8. Continue revising the Subdivision Rules and Regulations.

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.

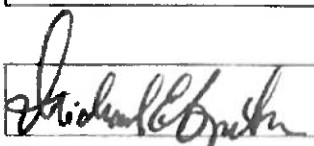
Name:	Michael E. Boynton	Title:	Town Manager
Signature:		Date:	

[Signatory may be a duly authorized representative]

Part V: Certification of Small MS4 Annual Report 2024

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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:	Michael E. Boynton	Title:	Town Manager
Signature:		Date:	9/26/2024

[Signatory may be a duly authorized representative]

State	MASSACHUSETTS
Municipality	MEDWAY
Permit Type	MS4
Permit Number	
Major Watershed	CHARLES
TP Load Reduction Target	N/A
TN Load Reduction Target	N/A
TSS Load Reduction Target	N/A

Table 1. Project Summary Credit for MEDWAY, MASSACHUSETTS

Project Type	Removed Phosphorus Load (lb/yr)	Removed Nitrogen Load (lb/yr)	Removed Sediment Load (lb/yr)
Structural	20.11	192.15	8935.30
Non-Structural	0	0	0
Land Use Conversion	0	0	0
Total	20.11	192.15	8935.30

Table 2. Structural Project Summary for MEDWAY, MASSACHUSETTS

Project ID	BMP Type	BMP Storage Capacity (ft^3)/ Filter Depth (in.)	Phosphorus BMP Efficiency (%)	Nitrogen BMP Efficiency (%)	Sediment BMP Efficiency (%)	Removed Phosphorus Load (lb/yr)	Removed Nitrogen Load (lb/yr)	Removed Sediment Load (lb/yr)	Impervious Area Treated (ac)	Runoff Depth (in.)
BMP-19-3	EXTENDED DRY DETENTION POND	13,888	14.00	23.13	49.00	0.33	5.36	327.16	1.02	
BMP-19-4	EXTENDED DRY DETENTION POND	17,900	14.00	23.13	49.00	0.04	0.76	40.80	0.01	
BMP-19-5	EXTENDED DRY DETENTION POND	30,124	14.00	23.13	49.00	0.04	0.66	35.34	0.01	
BMP-29-2	EXTENDED DRY DETENTION POND	65,017	14.00	23.13	49.00	1.16	16.72	885.71	4.28	2.91
BMP-29-3	INFILTRATION BASIN	5,065	97.79	100.00	100.00	2.03	17.58	440.04	1.17	1.2
BMP-31-1	EXTENDED DRY DETENTION POND	145,566	14.00	23.13	49.00	1.25	19.12	1248.82	5.48	
BMP-37-1	EXTENDED DRY DETENTION POND	4,072	14.00	23.13	49.00	0.07	1.00	53.07	0.29	3.91
BMP-42-2	INFILTRATION BASIN	44,930	98.80	100.00	100.00	1.76	13.36	755.65	1.15	10.76
BMP-42-5	GRASS SWALE (CONVEYANCE)	1,708	15.26	10.08	73.39	0.15	0.76	315.75	0.66	0.71

BMP-47-12	INFILTRATION TRENCH	308	96.36	99.12	100.00	0.12	0.90	51.96	0.08	1.06
BMP-48-1	EXTENDED DRY DETENTION POND	1,008	12.55	16.04	46.55	0.40	0.40	66.55	0.22	1.27
BMP-48-2	INFILTRATION BASIN	20,956	100.00	100.00	100.00	3.74	31.73	795.66	2.03	2.14
BMP-48-3	INFILTRATION TRENCH	210	52.60	81.02	74.95	0.20	2.29	118.38	0.24	0.24
BMP-48-5	EXTENDED DRY DETENTION POND	3,393	14.00	23.13	49.00	0.08	0.98	113.30	0.34	2.27
BMP-48-7	INFILTRATION BASIN	2,407	97.54	99.54	100.00	1.09	8.33	476.71	0.73	0.91
BMP-48-8	INFILTRATION BASIN	1,742	94.86	98.29	100.00	1.06	8.22	476.71	0.73	0.66
BMP-51-1	WET POND/CREATED WETLAND	750	8.96	5.76	19.19	0.53	2.92	243.92	3.23	0.06
BMP-51-2	INFILTRATION BASIN	19,640	98.80	100.00	100.00	4.09	35.13	880.75	2.26	
BMP-58-1	EXTENDED DRY DETENTION POND	4,100	13.64	21.56	48.29	0.15	2.04	114.47	0.62	
BMP-59-5	BIOFILTRATION	802	33.59	21.01	84.74	0.39	2.11	212.49	0.62	0.32
BMP-61-1	INFILTRATION BASIN	7,545	98.80	100.00	100.00	0.19	1.79	55.07	0.12	

BMP-62-8	EXTENDED DRY DETENTION POND	53,750	14.00	23.13	49.00	1.22	19.98	1227.00	4.05	

Table 3. Non-Structural Project Summary for MEDWAY, MASSACHUSETTS

There are no non-structural BMPs.

Table 4. Land Use Conversion Project Summary for MEDWAY, MASSACHUSETTS

There are no land use conversion projects.

PLER_Category	PLER_ExportRate	SUM_PLER_Acres	SUM_TP_Load	
Roadway (Impervious - Agriculture)	1.52	6.52	9.91	
Roadway (Impervious - Commercial)	1.95	12.25	23.89	
Roadway (Impervious - Forest)	1.52	44.00	66.87	
Roadway (Impervious - HDR)	1.95	27.01	52.67	
Roadway (Impervious - Industrial)	1.95	7.68	14.97	
Roadway (Impervious - LDR)	1.95	139.15	271.34	
Roadway (Impervious - MDR)	1.95	38.71	75.49	
Roadway (Impervious - Open Land)	1.95	9.76	19.04	
Roadway (Pervious - Agriculture)	1.52	2.05	3.11	
Roadway (Pervious - Commercial)	1.95	0.30	0.58	
Roadway (Pervious - Forest)	1.52	7.10	10.79	
Roadway (Pervious - HDR)	1.95	1.54	2.99	
Roadway (Pervious - Industrial)	1.95	0.79	1.54	
Roadway (Pervious - LDR)	1.95	11.53	22.49	
Roadway (Pervious - MDR)	1.95	2.70	5.27	
Roadway (Pervious - Open Land)	1.95	0.63	1.24	
	Total	311.72	582.20	
	impervious	285.09	**534.19**	(IA swept x PLER IC-Land use)
	pervious	26.64		

Phosphorus Credit $_{P\ sweeping}$ = IA $_{swept}$ x PLER $_{IC\ land\ use}$ x PRF $_{sweeping}$ x AF **(Equation 2-1)**

PRF	=	0.01	(2/year spring and fall) Mechanical Broom
AF	=	1.0	Year Round Sweeping.
Phosphorus Credit OPTION #1	=	**5.34**	lbs

PLER_Category	PLER_ExportRate	Townwide SUM_PLER_Acres	Townwide SUM_TP_Load	Catch Basin Drainage Area SUM_PLER_Acres	Catch Basin Drainage Area SUM_TP_Load
(Impervious - Agriculture)	1.52	29.03	44.13		
(Impervious - Commercial)	1.78	124.37	221.38		
(Impervious - Forest)	1.52	77.67	118.06		
(Impervious - HDR)	2.32	88.98	206.43		
(Impervious - Industrial)	1.78	76.89	136.86		
(Impervious - LDR)	1.52	407.03	618.69		
(Impervious - MDR)	1.96	104.12	204.08		
(Impervious - Open Land)	1.52	61.39	93.31		
(Pervious - Agriculture)	0.45	341.11	153.50		
(Pervious - Forest)	0.13	3734.69	485.51		
(Pervious - Commercial)		66.96	9.78		
(Pervious - HDR)		177.06	24.37		
(Pervious - Industrial)		55.36	4.88		
(Pervious - LDR)		1409.72	215.78		
(Pervious - MDR)		295.05	49.77		
(Pervious - Open Land)		362.28	48.37		
	Total	**7411.72**	**2634.90**	**1922.92**	**1086.72**

$$Credit_{PCB} = IA_{CB} \times PLER_{Land\ use} \times PRF_{CB}$$ **(Equation 2-3)**

PLER	=	1.95	Aggregate
PRF	=	0.01	Once per year
IA	=	491.59	Total Impervious CB Drainage Area
Phosphorus Credit	=	9.59	lbs

*I'm using the aggregate land use export rate
*I'm giving us partial credit for 1x per year cleaning
*I'm only using the impervious drainage area

PLER_Category	PLER_ExportRate	SUM_PLER_Acres	SUM_TP_Load		MAX Credit
Roadway (Impervious - Agriculture)	1.52	6.52	9.91	0.05	0.495383249
Roadway (Impervious - Commercial)	1.78	12.25	21.81	0.05	1.090505818
Roadway (Impervious - Forest)	1.52	44.00	66.87	0.05	3.343706507
Roadway (Impervious - HDR)	2.32	27.01	62.67	0.05	3.133355455
Roadway (Impervious - Industrial)	1.78	7.68	13.67	0.05	0.683403554
Roadway (Impervious - LDR)	1.52	139.15	211.51	0.05	10.57547465
Roadway (Impervious - MDR)	1.96	38.71	75.88	0.05	3.793987459
Roadway (Impervious - Open Land)	1.52	9.76	14.84	0.05	0.741948314
	TOTAL	**285.09**	**477.16**	**(la_{swept} x PLER $_{IC\text{-}Land\ use}$)**	23.857765
Roadway (Pervious - Agriculture)	1.52	2.05	3.11		
Roadway (Pervious - Commercial)	1.95	0.30	0.58		
Roadway (Pervious - Forest)	1.52	7.10	10.79		
Roadway (Pervious - HDR)	1.95	1.54	2.99		
Roadway (Pervious - Industrial)	1.95	0.79	1.54		
Roadway (Pervious - LDR)	1.95	11.53	22.49		
Roadway (Pervious - MDR)	1.95	2.70	5.27		
Roadway (Pervious - Open Land)	1.95	0.63	1.24		

$$\text{Credit}_{P\ leaf\ litter} = (IA_{leaf\ litter}) \times (\text{PLER}_{IC\text{-land use}}) \times (0.05) \qquad \textbf{(Equation 2-5)}$$

AF	=	0.05	September 1 through December 1
Phosphorus Credit	=	NA	lbs

Report	Report Date	MAINTENANCE PERFORMED	BMP P-LOAD	Asset Tag	Asset Description	City	Investigator(s)	Street	Tax Map number	To be deleted	Owner	Nearest House/Utility Pole	Temperature (°F)
878651619	2023-12-08 9:07:04 AM	N		BMP-10-1	BMP-10-1		CHAPIN, CHAD|FRANKEL, JACOB	Hickory Lane			Town - Managed		25
878651578	2023-12-08 8:54:20 AM	N		BMP-16-1	BMP-16-1		CHAPIN, CHAD|FRANKEL, JACOB	Hickory Lane			Town - Managed		24
878572552	2023-12-07 1:08:52 PM	N		BMP-18-1	BMP-18-1		CHAPIN, CHAD|FRANKEL, JACOB	Broad Acres			Town - Managed		30
878572574	2023-12-07 1:29:38 PM	N		BMP-19-1	BMP-19-1		CHAPIN, CHAD|FRANKEL, JACOB	Broad Acres			Town - Managed		31
878572563	2023-12-07 1:21:04 PM	N		BMP-19-2	BMP-19-2		CHAPIN, CHAD|FRANKEL, JACOB	Broad Acres			Town - Managed		31
878572712	2023-12-07 2:11:15 PM	Y	0.335	BMP-19-3	BMP-19-3		CHAPIN, CHAD|FRANKEL, JACOB	Newton Lane			Town - Managed		30
878572720	2023-12-07 2:04:59 PM	Y	0.044	BMP-19-4	BMP-19-4		CHAPIN, CHAD|FRANKEL, JACOB	Newton Lane			Town - Managed		30
878572701	2023-12-07 1:58:47 PM	Y	0.038	BMP-19-5	BMP-19-5		CHAPIN, CHAD|FRANKEL, JACOB	Newton Lane					30
878572678	2023-12-07 1:43:21 PM	N		BMP-19-7	BMP-19-7		CHAPIN, CHAD|FRANKEL, JACOB	Blueberry Hill			Town - Managed		30
878572302	2023-12-07 10:26:31 AM	N		BMP-27-1	BMP-27-1		CHAPIN, CHAD|FRANKEL, JACOB	Cedar Farm Road			Town - Managed		27
878572386	2023-12-07 10:38:10 AM	N		BMP-27-2	BMP-27-2		CHAPIN, CHAD|FRANKEL, JACOB	Cedar Farm Road			Town - Managed		27
880987169	2024-01-30 11:21:15 AM	N		BMP-29-1	BMP-29-1		CHAPIN, CHAD	Summer Street			Town		
880987102	2024-01-30 11:17:36 AM	Y	1.16	BMP-29-2	BMP-29-2		CHAPIN, CHAD	Summer Street			Town		
880987060	2024-01-30 11:14:28 AM	Y	0.26	BMP-29-3	BMP-29-3		CHAPIN, CHAD	Summer			Town		
880987031	2024-01-30 11:12:23 AM	Y		BMP-29-4	BMP-29-4		CHAPIN, CHAD	Summer Street			Town		
880987075	2024-01-30 11:16:23 AM	N		BMP-29-5	BMP-29-5		CHAPIN, CHAD	Summer			Town		
878651657	2023-12-08 9:20:48 AM	N		BMP-3-1	BMP-3-1		CHAPIN, CHAD|FRANKEL, JACOB	Fairway Lane			Town - Managed		28
878651503	2023-12-08 8:18:31 AM	N		BMP-3-2	BMP-3-2		CHAPIN, CHAD|FRANKEL, JACOB	Fairway Lane			Town - Managed		24
878651324	2023-12-01 9:00:02 AM	Y	1.25	BMP-32-1	BMP-32-1		CHAPIN, CHAD	Applegate Road			Town - Managed		41
880987223	2024-01-30 11:25:57 AM	Y	0.08	BMP-37-1	BMP-37-1		CHAPIN, CHAD	Summer Street			Town		
880987199	2024-01-30 11:22:19 AM	N		BMP-37-2	BMP-37-2		CHAPIN, CHAD	Summer Street			Town		
880987309	2024-01-30 11:30:47 AM	Y		BMP-38-1	BMP-38-1		CHAPIN, CHAD	Summer Street			Town		
880987353	2024-01-30 11:32:03 AM	Y		BMP-38-3	BMP-38-3		CHAPIN, CHAD	Summer Street			Town		
880987256	2024-01-30 11:26:19 AM	Y		BMP-38-4	BMP-38-4		CHAPIN, CHAD	Summer Street			Town		
878572758	2023-12-07 2:37:39 PM	N		BMP-39-2	BMP-39-2		CHAPIN, CHAD|FRANKEL, JACOB	Temple Street			Town - Managed		30
878651807	2023-12-08 10:38:46 AM	N		BMP-40-2	BMP-40-2		CHAPIN, CHAD|FRANKEL, JACOB	Appleton Way			Town - Managed		39
880987424	2024-01-30 11:35:03 AM	N		BMP-42-1	BMP-42-1		CHAPIN, CHAD	Summer Street			Town		
880987502	2024-01-30 11:36:58 AM	Y	1.87	BMP-42-2	BMP-42-2		CHAPIN, CHAD	Oakland Street			Town		
880987544	2024-01-30 11:41:09 AM	Y		BMP-42-3	BMP-42-3		CHAPIN, CHAD	Oakland Street			Town		
880987564	2024-01-30 11:42:01 AM	Y		BMP-42-4	BMP-42-4		CHAPIN, CHAD	Oakland Street			Town		
880987586	2024-01-30 11:43:25 AM	Y	0.15	BMP-42-5	BMP-42-5		CHAPIN, CHAD	Oakland Street			Town		
878572279	2023-12-07 10:16:05 AM	N		BMP-45-1	BMP-45-1		CHAPIN, CHAD|FRANKEL, JACOB	Lantern Lane			Town - Managed		27
878572526	2023-12-07 11:52:31 AM	N		BMP-46-3	BMP-46-3		CHAPIN, CHAD|FRANKEL, JACOB	Independence Lane			Town - Managed		29
878572513	2023-12-07 11:46:14 AM	N		BMP-47-1	BMP-47-1		CHAPIN, CHAD|FRANKEL, JACOB	Independence Lane			Town - Managed		29
880986754	2024-01-30 10:55:53 AM	Y	0.12	BMP-47-12	BMP-47-12		CHAPIN, CHAD	Oak			Town		
878572476	2023-12-07 11:39:27 AM	N		BMP-47-2	BMP-47-2		CHAPIN, CHAD|FRANKEL, JACOB	Independence Lane			Town - Managed		29
878572459	2023-12-07 10:58:12 AM	N		BMP-47-3	BMP-47-3		CHAPIN, CHAD|FRANKEL, JACOB	Freedom Trail			Town - Managed		28
880986903	2024-01-30 11:04:04 AM	Y	0.04	BMP-48-1	BMP-48-1		CHAPIN, CHAD	Oak			Town		
880986629	2024-01-30 10:48:21 AM	Y	3.74	BMP-48-2	BMP-48-2		CHAPIN, CHAD	Oak			Town		
880986771	2024-01-30 10:57:06 AM	Y	0.2	BMP-48-3	BMP-48-3		CHAPIN, CHAD	Oak			Town		
880986645	2024-01-30 10:49:38 AM	Y		BMP-48-4	BMP-48-4		CHAPIN, CHAD	Oak			Town		
880986874	2024-01-30 11:02:15 AM	Y	0.08	BMP-48-5	BMP-48-5		CHAPIN, CHAD	Oak			Town		
880986607	2024-01-30 10:44:50 AM	Y	0.57	BMP-48-7	BMP-48-7		CHAPIN, CHAD	Oak Street			Town		
880986614	2024-01-30 10:47:12 AM	Y	1.11	BMP-48-8	BMP-48-8		CHAPIN, CHAD	Oak			Town		
880986572	2024-01-30 10:39:33 AM	Y		BMP-48-9	BMP-48-9		CHAPIN, CHAD	Oak Street			Town		
880989467	2024-01-30 1:37:46 PM	Y	0.53	BMP-51-1	BMP-51-1		CHAPIN, CHAD	Broad Street			Town		
880989493	2024-01-30 1:38:41 PM	Y	4.14	BMP-51-2	BMP-51-2		CHAPIN, CHAD	Broad Street			Town		
878572141	2023-12-07 8:54:19 AM	N		BMP-53-1	BMP-53-1		CHAPIN, CHAD|FRANKEL, JACOB	Alder Street			Town - Managed		23
878651750	2023-12-08 10:04:45 AM	Y	0.15	BMP-58-1	BMP-58-1		CHAPIN, CHAD|FRANKEL, JACOB	Village Street			Town		37
880989421	2024-01-30 1:33:28 PM	Y	0.15	BMP-58-1	BMP-58-1		CHAPIN, CHAD	Village Street			Town		
880989435	2024-01-30 1:35:12 PM	Y		BMP-58-2	BMP-58-2		CHAPIN, CHAD	Campbell Street			Town		
878651727	2023-12-08 10:00:26 AM	Y		BMP-58-2	BMP-58-2		CHAPIN, CHAD|FRANKEL, JACOB	Campbell Street			Town - Managed		37
878651766	2023-12-08 10:21:18 AM	Y	0.66	BMP-59-5	BMP-59-5		CHAPIN, CHAD|FRANKEL, JACOB	Cassidy Lane			Town		38
880989357	2024-01-30 11:19:44 AM	Y	0.66	BMP-59-5	BMP-59-5		CHAPIN, CHAD	Cassidy Lane			Town		
878651377	2023-12-07 9:00:06 AM	Y		BMP-60-3	BMP-60-3		CHAPIN, CHAD	Winter Street			Town		41
878651878	2023-12-08 11:03:32 AM	Y		BMP-61-1	BMP-61-1		CHAPIN, CHAD|FRANKEL, JACOB	Grapevine Way			Town - Managed		41
878651464	2023-12-01 9:00:54 AM	Y	0.98	BMP-62-8	BMP-62-8		CHAPIN, CHAD	Candlewood Drive			Town - Managed		41
878557643	2024-01-04 12:51:36 PM	N		BMP-63-1	BMP-63-1		CHAPIN, CHAD|FRANKEL, JACOB	Alder Street			Town - Managed		20
878557694	2023-12-07 8:22:15 AM	N		BMP-63-2	BMP-63-2		CHAPIN, CHAD|FRANKEL, JACOB	Alder Street			Town - Managed		21
878572112	2023-12-07 8:46:45 AM	N		BMP-63-3	BMP-63-3		CHAPIN, CHAD|FRANKEL, JACOB	Alder Street			Town - Managed		23
878557733	2023-12-07 8:39:15 AM	N		BMP-63-4	BMP-63-4		CHAPIN, CHAD|FRANKEL, JACOB	Alder Street			Town - Managed		23
878572192	2023-12-07 9:15:00 AM	N		BMP-64-1	BMP-64-1		CHAPIN, CHAD|FRANKEL, JACOB	Daffodil			Town - Managed		25
878572167	2023-12-05 9:06:39 AM	N		BMP-64-2	BMP-64-2		CHAPIN, CHAD|FRANKEL, JACOB	Daffodil			Town - Managed		24
878572216	2023-12-07 9:51:28 AM	N		BMP-65-1	BMP-65-1		CHAPIN, CHAD|FRANKEL, JACOB	Tulip			Town - Managed		27
878572256	2023-12-07 9:56:09 AM	N		BMP-65-2	BMP-65-2		CHAPIN, CHAD|FRANKEL, JACOB	Tulip			Town - Managed		27

Rainfall (in.) Last 24 hours	Rainfall (in.) Last 48 hours	Northing	Easting	GPS Unit	GPS LMK number	Rim Elevation	Rim to Intlet Invert	Depth to Mid. Channel (in.)	Rim to Outlet Invert	Camera	Land Use in Drainage Area
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
											Commercial/Institutional
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
											Commercial/Institutional|Open Space
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional|Open Space
											Commercial/Institutional
											Commercial/Institutional
0	0										Industrial
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
											Commercial/Institutional
											Residential - Medium Density (1/4 to 1/2 acre lots)
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
0	0										Commercial/Institutional
											Commercial/Institutional
0	0										Residential - High Density (less than 1/4 acre lots
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Medium Density (1/4 to 1/2 acre lots)
0	0										Industrial
0	0										Industrial
0	0										Industrial
0	0										Industrial
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)
0	0										Residential - Low (1/2 acre lots or greater)

Structure Description	Structure Type	Maintenance	Up-Catchment	Down Catchment	Are the definitive plans dated after November 18, 1996?	Is Maintenance Required?	Flow Present	Flow Description
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Detention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Detention Basin					Yes		
	Detention Basin				Yes	No		
	Detention Basin				Yes	No		
	Detention Basin				Yes	No		
	Other				Yes	No		
	Detention Basin				Yes	No		
	Detention Basin					Yes		
	Detention Basin					Yes		
	Retention Basin				Yes	Yes		
	Detention Basin				Yes	No		
	Detention Basin				Yes	Yes		
	Detention Basin				Yes	Yes		
	Dry Well				Yes	No		
	Grass Swale				Yes	No		
	Retention Basin					Yes		
	Detention Basin					Yes		
	Detention Basin				Yes	No		
	Infiltration Basin				Yes	No		
	Dry Well				Yes	No		
	Dry Well				Yes	No		
	Grass Swale				Yes	Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Dry Well				Yes	No		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Detention Basin				Yes	Yes		
	Rain Garden				Yes	No		
	Grass Swale				Yes	No		
	Other				Yes	No		
	Detention Basin				Yes	No		
	Infiltration Basin				Yes	No		
	Deep Sump Catch Basin				Yes	No		
	Other				Yes	No		
	Retention Basin				Yes	No		
	Detention Basin				Yes	Yes		
	Retention Basin					Yes		
	Detention Basin				No	Yes		
	Detention Basin				No	No		
	Other					No		
	Other					No		
	Rain Garden				Yes	No		
	Rain Garden				Yes	Yes		
	Detention Basin				Yes	Yes		
	Infiltration Basin				Yes	Yes		
	Detention Basin				No	Yes		
	Detention Basin					Yes		
	Retention Basin					No		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		
	Detention Basin					Yes		
	Retention Basin					Yes		
	Retention Basin					Yes		

Are there any Structural Condition issues of concern?	Description of structural condition issues:	Maximum Slope	Is the BMP accessible with DPW equipment?	Is there a drainage easement?	Is access to the drainage easement obstructed?
No			Yes		No
No			Yes	Yes	No
No			Yes	Yes	No
Yes	per resident, blocked pipe		Yes	Yes	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	Yes	No
No			No	Yes	No
No			Yes	Yes	No
No			No	Yes	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	Yes	No
No			Yes		No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	No	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	No	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes		
No			Yes		
No			Yes	Yes	No
No			Yes	No	No
No			Yes	No	No
				Yes	
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes	Yes	No
No			Yes		No
No			Yes	Yes	No
No			No	Yes	Yes
No			Yes	Yes	No
No			No	Yes	No
No			No	Yes	No

Any illicit connections?	Mowing	Mowing Relative Severity Index	Trim Vegetation	Trim Vegetation Relative Severity Index	Tree Removal less 9"	Number of Trees	Dimensions (in.)	Submerged	COVER/FRAME	AREA AROUND DMH (PAVED)
			Yes	Moderate	Yes	30				
	Yes	Moderate	Yes	Moderate	Yes	5				
	No		Yes	Minimal	Yes	28				
	No		Yes	Minimal	Yes	30				
	No		Yes	Minimal	Yes	30				
	Yes	Minimal	Yes	Minimal	No					
	Yes	Minimal	Yes	Minimal	No					
	Yes	Moderate	Yes	Moderate	No					
	No		Yes	Moderate	Yes	30				
	No		Yes	Minimal	Yes	30				
	No		Yes	Minimal	Yes	30				
No										
No										
No										
No										
No										
	No		Yes	Substantial	Yes	30				
	Yes	Moderate	Yes	Moderate	Yes	30				
No	Yes	Moderate	Yes	Moderate	No					
No										
No										
No										
No										
No										
	No		Yes	Moderate	Yes	30				
	Yes	Minimal	Yes	Moderate	Yes	12				
No										
No										
No										
No										
No										
	No		Yes	Minimal	Yes	20				
	No		No		Yes	30				
	Yes	Moderate	Yes	Minimal	Yes	30				
No										
	No		Yes	Minimal	Yes	30				
	No		Yes	Minimal	Yes	2				
No										
No										
No										
No										
No										
No										
No										
No										
No										
No	Yes	Minimal	Yes	Minimal	No					
	No		Yes	Minimal	Yes	30				
	No		Yes	Moderate	Yes	4				
No										
No										
No	Yes	Moderate	Yes	Moderate	No					
No	Yes	Moderate	Yes	Moderate	No					
No	Yes	Minimal	Yes	Moderate	No					
	No		Yes	Moderate	Yes	51				
	No		No		Yes	30				
	No		Yes	Minimal	Yes	20				
	No		Yes	Minimal	Yes	2				
	Yes	Minimal	Yes	Minimal	Yes	2				
	No		Yes	Minimal	Yes	10				
	Yes	Minimal	Yes	Minimal	Yes	3				

AREA AROUND DMH (UNPAVED)	DROP MANHOLE	Shape	Size	Type	Material	Are Any Visual/Sensory Observations Present?	Indicator	Flow Source	Odor description	Color Description	Floatables	Flow RELATIVE SEVERITY INDEX

Odor RELATIVE SEVERITY INDEX	Color RELATIVE SEVERITY INDEX	Turbitdity RELATIVE SEVERITY INDEX	Floatables RELATIVE SEVERITY INDEX	Issues	Any Non-illicit Discharge Concerns?	Others	Tree Removal greater 9"	Number of Tree	Stump Removal
							No		
							No		
							Yes	2	
							No		
							No		
							No		
							No		
							No		
							No		
							No		
							No		
							No		
							No		
							No		
							Yes	50	
							Yes	50	
							Yes	30	
							No		
							No		
							No		
							Yes	2	
							No		
							Yes	2	
							No		
							No		
							No		
							No		
							No		
							No		
							No		
							Yes	0	
							No		
							No		
							No		
							Yes	2	

Number of Stumps	Comment	Litter and Debris	Litter and Debris amount	Grass, Brush, Leaf Dumping	Grass, Brush, Leaf amount	New Stone/Rip Rap	New Stone/Rip Rap amount	to be deleted 6	Mulch	to be deleted 5	Amount of Mulch needed
		No		No		No			No		
		No		Yes	Minimal	No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No	Substantial	No			No		
		No		No		No			No		
		Yes	Moderate	Yes	Minimal	No			No		
		Yes	Minimal	No		No			No		
		Yes	Minimal								
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		Yes	Moderate								
		No		No		No			No		
		No		No		No			No		
		Yes	Minimal	No		No			No		
		Yes	Moderate	No		No			No		
		No		No		No			No		
		No		No		No			No		
		No		No		No			No		
		Yes	Minimal	No		No			No		
		Yes	Minimal	No		No			No		
		No		No		No			No		
		No		No					No		
		No		No		No			No		
		No		No		No			No		

to be deleted 4	To be deleted 2	Excavating	Excavating severity	New Plantings	New Plantings description	Invasive Species	Invasive Species severity	Jet Line	Jet Line severity	Camera Investigation	Camera Investigation description	Clean Sump
		No		No		No		No		No		No
		No		No		No				No		No
		No		No		No		No		No		No
		No		No		No		No		No		No
		No		No		No		No

Clean Sump severity	Notes	Images
	standing water. vines/stick grass/ trees on embankment.	
	Resident has built bridges and pathways in the basin. Outfall seems to be disassociated with the BMP. Trees along embankment.	
	stick grass	
	standing water, stick grass, trees along embankment	
	stick grass and saplings	
	very wet	
	thick grasses	
	BMP is behind the houses. Stick grasses. Many trees on embankment	
	vines, trees, and grasses	
	Multiple piles of grass, brush, and leaf dumping.stick grass.	
	completed maintenance on 12/1/23	
	vines and heavy stick grasses	
	trees on embankment and some in center of basin	
	stick grasses and briars	
	stick grasses and briars	
	stick grass	
	hearty stick grassestrees along embankments	
	completed maintenance 12/1/2023	
	Infiltration port needs to be looked at and decided if it needs to be vacuumed.	
	completed maintenance 12/1/2023	
	vines and numerous trees and sapplings	
	vines, many saplings, one large tree at the edge by retaining wall	
	stick grassesone tree in middle	
	stick grasses	
	stick grassesmany trees along embankments	