

Year 5 Annual Report
New Hampshire Small MS4 General Permit

Reporting Period: July 1, 2022 - June 30, 2023

Town of Merrimack, NH

EPA NPDES Permit Number NHR041018

Certification of Small MS4 Year 5 Annual Report

"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 gathered and evaluated 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, 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."

Printed Name:	Leo Laviolette
Title:	Deputy DPW Director / Environmental
Signature:	
	Date: 9/28/2023

Authorized Representative:

The authorization letter is:

Attached to this document (document name listed below):

Attachment 1 - Authorization

Publicly available at the website:

N/A – Available at the Town Hall Public Works Administration Office

Primary MS4 Program Manager Contact Information:

Name:	Leo Laviolette	Title/Position:	Deputy DPW Director / Environmental
Department:	Department of Public Works, Administration/Engineering Division		
Street Address:	6 Baboosic Lake Road		
City:	Merrimack	State:	New Hampshire
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	Phone Number: 603-424-5137		

Small MS4 Authorization

The following annual report, which serves as a self-assessment, is intended to document the activities undertaken over the **reporting period from July 1, 2022, through June 30, 2023**, in accordance with the Permit.

The Notice of Intent (NOI) can be found at the following (document name or web address):

<https://www.epa.gov/npdes-permits/regulated-ms4-new-hampshire-communities>

Compliance activities have been identified and described in the Town of Merrimack Stormwater Management Program Plan (SWMP) and Illicit Discharge Detection and Elimination (IDDE) Plan. Those documents and other pertinent Year 5 information can be found in submission or at the following websites, and will be referred to throughout this report:

SWMP: Located at Town Hall 6 Baboosic Lake Road, Merrimack, NH and here:

https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/1_swmp.pdf

Date SWMP was Last Updated: 6/30/2020 (SWMP will be formally updated in Year 6)

IDDE Program Plan: See Attachment 2

Updated System Map: See <https://www.merrimackgis.org/app/> For more information, please contact the Merrimack Department of Public Works Administration/ Engineering Division

Progress on Completion of System Map <https://www.merrimackgis.org/app/> the system map is GIS based and updated periodically throughout the year. Currently all known features are located, but due to accuracy issues, we are only confident on approximately 80% of the system. Our field crews are able to record and log changes that are observed and upload to the GIS administrator for system updates.

Updated SSO Inventory: Not Applicable – No Combined Sewer

Updated Inventory and Ranking of Outfalls/Interconnections: See Attachments 4A – Inventory of Outfalls Priority Ranking and Attachment 4B – Inventory of Outfalls System Vulnerability Factors.

Dry Weather Screening Data: See Attachment 3

Wet Weather Screening Data: See Attachment 4C – Wet Weather Sampling Results

Catchment Investigation Data: Not Applicable – No illicit discharges under investigation during this period.

Illicit Discharge Removal Report: See Attachment 10

Results from additional stormwater or receiving water quality monitoring reports or studies: Not Applicable

Salt Reduction Plan: Not Applicable

Annual Salt Usage Report Not Applicable

Updated Nitrogen Source Identification Report: Not Applicable to the Town of Merrimack

Updated Phosphorus Source Identification Report: See Attachment 6 – Phosphorous Source Identification Report

Street Sweeping Schedule: <https://www.merrimacknh.gov/highway-maintenance/news/annual-street-sweeping-2023> (Spring Sweeping April 10th through April 27th of 2023 shown as Complete)

Chloride Reduction Plan: Not Applicable

Annual Salt Usage Report Not Applicable

Lake Phosphorus Control Plan: See Page 30 for more detail

Lake Phosphorus Control Plan (Items 1-4): See Page 30 for more detail

Self-Assessment

Select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the 2020/2022 EPA approved Section 303(d) Impaired Waters List which was used for the Year 5 reporting period and can be found on the [NHDES webpage](#).

All **Appendix F and H requirements** can be found under “Appendix F and H: Water Quality Limited Waters & TMDLs” section of this report.

Impairment(s)		
<input checked="" type="checkbox"/> Bacteria/Pathogens	<input type="checkbox"/> Chloride	<input type="checkbox"/> Nitrogen
<input checked="" type="checkbox"/> Phosphorus	<input checked="" type="checkbox"/> Solids/Oil/Grease (Hydrocarbons)/Metals	
TMDL(s)		
<input checked="" type="checkbox"/> Bacteria and Pathogens	<input type="checkbox"/> Chloride	<input checked="" type="checkbox"/> Lake and Pond Phosphorus

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

The Town of Merrimack has made changes to the list of receiving waters, outfalls, or impairments since the NOI submission. The following impairments have been added or delisted:

Water Quality Impaired Waters:

Pennichuck Brook – Witches Brook (2022) (added)

Muskrell Brook (2021)

Baboosic Brook (McQuade) Various impairments added and/or delisted from existing impaired water bodies as shown in Attachment 7.

TMDL: N/A

No

The Town of Merrimack has not made changes to the list of receiving waters, outfalls, or impairments since the NOI submission.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Please see Attachment 7 for the comparison to date of the water quality impairments from the NOI in 2018 to the 2020/2022 303d Water Quality Report. Original data is in black, added data is in red and de-listed impairments are in green.

Minimum Control Measures

MCM 1: Public Education

Total number of all MS4 related educational efforts completed ***during this reporting period:*** 12 educational events/resources.

Were any of the messages below different than what was proposed in your NOI?

No

Yes. Merrimack has added an erosion and sediment control flyer to be distributed to contractors during preconstruction meetings.

BMP: Grass and Fertilizer

Outreach Resources:

Grass and fertilizer related flyers, mailers, postcards, videos, and social media posts found on the Town of Merrimack website:

https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/green_grass_clear_water.pdf .

Description:

Distribution and promotion of “Green Grass and Clear Water” municipally created flyers. “Green Grass and Clear Water” materials were produced by UNH Cooperative Extension, NH Sea Grant, and NHDES outlining simple recommendations to keep lawns healthy while reducing water quality impacts - including proper fertilizer techniques and disposal of grass clippings.

Targeted Audience:

Residential and Business

Responsible Department/Parties:

Department of Public Works

Measurable Goal(s):

Residents that are lawn care enthusiasts understand the potential water quality impacts from fertilizer and improper disposal of grass clippings and are aware of the proper lawn care management techniques for reducing those impacts. Measurement includes quantity of materials distributed.

Following are the number of flyers that were distributed ***during this reporting period:***

Year 5 = approximately 100 flyers

The flyers were displayed and available for residents to take at the Town Clerks office, Public Works Highway Division and DPW Administrations office as well as posted on the Town of

Merrimack website:

https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/green_glass_clear_water.pdf.

Flyers were also given out during Town events such as Touch-a-Truck, etc. ***during this reporting period.***

And

Low impact fertilizing methods were discussed at Town Council Meeting on June 16, 2022, at Town Hall and televised on Merrimack TV, approximately 20 attendees at physical address and unknown amount of viewers. During this presentation, the UNH fertilization workshop was referenced and sent to the Town Council on July 6, 2022.

Goal was achieved.

Message Date: 7/06/2022

BMP: Pet Waste Disposal

Outreach Resources:

Pet waste related flyers found on the Town of Merrimack website:

https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/dog_waste_brochure.pdf

Description:

Distribution and promotion of “Every Drop” municipally created brochures with educational information about proper pet waste management, impacts of improper management, pet waste ordinance, and disposal requirements messaging.

The brochures were distributed with pet licenses at the Town Clerks Office. Additionally, a video infomercial was created by and aired by Merrimack TV, which was also aired during programming periodically this year.

Targeted Audience:

Residents - Pet Owners

Responsible Department/Parties:

Department of Public Works

Measurable Goal(s):

Dog owners and/or dog walkers are aware of the potential water quality impacts from pet waste, local pet waste ordinances, and how to dispose of pet waste properly.

Following are the number of brochures that were distributed ***during this reporting period:***

Year 5 = 4,500 brochures were distributed with dog licenses.

Goal was achieved.

Message Date: Time of License Update

BMP: Disposal of Leaf and Grass Clippings

Outreach Resources:

Leaf and grass clippings related brochures found on the Town of Merrimack website:

https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/yard_waste.pdf

Description:

Distribution and promotion of municipally created brochures with messaging about impacts from yard waste to waterbodies, alternatives to dumping yard waste, and laws against dumping yard waste near or in waterbodies.

The Town of Merrimack has implemented a composting effort/program by supplying the composting bins for at a reduced rate, and allowing the public to drop off compostable materials at the Town Solid Waste Transfer Station. The Town of Merrimack also provides educational materials on the water quality benefits of composting, located at the Town Hall.

Targeted Audience:

Residential, Business and Institutions

Responsible Department/Parties:

Department of Public Works Administration and Solid Waste Division

Measurable Goal(s):

Residents are aware of the water quality impacts of yard waste dumping near or in water bodies and safe alternatives for yard waste disposal.

Following are the number of brochures, and door hangers that were distributed ***during this reporting period:***

Year 5 = approximately 50 brochures passed out at Town Hall.

And

Merrimack's Composting Campaign include onsite composting at the transfer station of approximately 3000 Cubic yards of yard waste per year and the sales of 8 composting bins ***during this reporting period.***

Goal was achieved.

Message Date: May 13, 2023 (last sold compost bin in Year 5)

BMP: Septic System Maintenance

Outreach Resources:

Septic system related brochures found on the Town of Merrimack website:

https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/ge_pumped_community_brochure.pdf

Description:

Distribution and promotion of the Get Pumped NH brochures, located on the Town of Merrimack website and distributed at the Wastewater Treatment Facility, educating New Hampshire homeowners with septic systems on how to identify, locate and maintain those systems. Get Pumped NH is a collaborated effort between the New Hampshire Association of Septage Haulers (NASH) and the New Hampshire Department of Environmental Services (NHDES).

Additionally, separate messages regarding septic system maintenance were posted on the Town Website and Town social media during NHDES Septic Smart Week.

Targeted Audience:

Septic System Owners

Responsible Department/Parties:

Department of Public Works Administration

Measurable Goal(s):

Residents are aware of water quality impacts from septic systems, the importance of maintaining septic systems, and how to maintain them.

Following are the number of brochures and letters that were distributed ***during this reporting period:***

Year 5 = Unknown number of brochures as they available to septage haulers for customer distribution, however the number of brochures actually distributed is unknown.

Following is the number of impressions the social media posts received (September 21, 2022 Facebook <https://www.facebook.com/MerrimackDPW/> posts on flushable wipes, and Septic Smart Tips 1 through 4), ***during this reporting period:***

Year 5 = 4 impressions

Goal was achieved.

Message Date: September 21, 2022

BMP: Industrial Outreach

Outreach Resources:

Industrial facilities related letter and fact sheets found on Town of Merrimack website:
https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/stormwater_business.pdf

Description:

- Merrimack does not have any industrial facilities located within the NH MS4 regulated area that are permitted under the NPDES Multi-Sector General Permit. This has been documented

in Merrimack's NOI and SWMP that this audience is absent from the municipality. No education or outreach efforts were conducted ***during this reporting period*** for the industrial audience as a result.

- Provided an outreach letter and Industrial Facilities Fact Sheet to the permittees that fall under the Multi-Sector General Permit and whose facilities are located within the NH MS4 regulated area (and outside of the NH MS4 regulated area) to educate them on both the new and updated requirements within the EPA 2021 Multi-Sector General Permit, and the 2017 NH MS4 General Permit.

Targeted Audience:

Industrial facilities regulated under the Multi-Sector General Permit located within the regulated NH MS4 area and outside of the NH MS4 regulated area.

Responsible Department/Parties:

Department of Public Works Administration

Measurable Goal(s):

Operators and managers of industrial facilities are made aware of the updates and changes made to the EPA 2021 Multi-Sector General Permit including the requirements to additional monitoring, updated benchmark thresholds and monitoring schedules, monitoring of impaired waters, and specific additional monitoring depending on the industry sector. In addition, noted the overlapping requirements with the NH MS4 General Permit.

Following are the number of outreach letters **and/or** fact sheets that were distributed to municipal or local organizations ***during this reporting period***:

Year 5 = 7 letters

Year 5 = 7 fact sheets

Goal was achieved.

Message Date: 6/6/2023

BMP: Construction/Developers Outreach

Outreach Resources:

Commercial Contractors working in town receive an erosion control brochure during all pre-construction meetings held with the Department of Public Works.

Description:

Provides a brochure to the contractor/permittees that fall under the General Construction Permit and whose facilities are located within the NH MS4 regulated area (and outside of the NH

MS4 regulated area) to educate them on both the new and updated requirements within the EPA 2022 Construction General Permit, and the 2017 NH MS4 General Permit.

Targeted Audience:

Contractors disturbing greater than 20,000 square feet of soil and regulated under the Construction General Permit located within the regulated NH MS4 area and outside of the NH MS4 regulated area.

Responsible Department/Parties:

Department of Public Works Administration/Engineering

Measurable Goal(s):

Contractors are made aware of the updates and changes made to the EPA 2022 Construction General Permit including the local threshold of 20,000 square feet of land disturbance and requirements to additional monitoring, updated benchmark thresholds and monitoring schedules, monitoring of impaired waters, and specific additional monitoring depending on the industry sector. In addition, noted the overlapping requirements with the NH MS4 General Permit.

Following are the number of outreach brochures that were distributed to local contractors:

Year 5 brochures = 3

Goal was achieved.

Message Date: 6/30/2023

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

MCM 2: Public Participation

- Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements as described in the Town of Merrimack SWMP.
- Kept records relating to the permit available for 5 years and made available to the public.

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

Description:

The Stormwater Management Program (SWMP) was publicly reviewed at the annual Town Council Meeting (September 22, 2022). The Town Councilors and the public were given opportunity to ask questions and comment on the plan. Documents and records relating to the permit are retained and available to the public at Merrimack Town Hall and on the website(<https://www.merrimacknh.gov/node/2186/minutes/2022>).

Was this opportunity different than what was proposed in your NOI?

- No
- Yes. Merrimack made the following changes: N/A.

Measurable Goal(s):

Input was received and records are maintained. **Goal was achieved.**

Describe any other public involvement or participation opportunities conducted ***during this reporting period:***

Public involvement or participation opportunities are ancillary to daily operations.

And

The Town of Merrimack has conducted the following public involvement or participation opportunities

Hazardous Waste Collection Day – The Town of Merrimack participates in the Nashua Region Soil Waste Management District (NRSWMD) Household Hazardous Waste Program. This is a program funded by municipal assessments, user fees, and a grant received by the Nashua Regional Planning Commission from the NHDES. (4/22/2023, 6/1/2023)

Adopt A Road – Adopt-a-Road allows individuals, organizations, or businesses to “adopt” all or parts of Town roads for the purpose of litter pick-up. Sponsors are asked to perform their roadside litter clean-up every spring and fall. This effort helps to keep litter and debris from the town stormwater system.

Eversource Freon Event – Through a partnership with Eversource (Power Company) and New Hampshire Saves, Merrimack was able to offer resident's free disposal of Freon based appliances (refrigerators, air conditioners, de-humidifiers, freezers, etc.). Eversource covered the costs for the items and the event took place on October 15, 2022 at the Town's Solid Waste Facility.

Rain Barrel Sales through DPW Solid Waste Division – Residents are encouraged to collect and re-use stormwater on their properties that would otherwise flow to into the drainage system. Rain barrels are for sale to the public at the DPW Solid Waste Facility.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

- This SSO section is NOT applicable because we DO NOT have sanitary sewer.
- This SSO section is NOT applicable because we DID NOT find any new SSOs.
- The SSO inventory has been updated, including the status of mitigation and corrective measures implemented or was addressed and can be found in Attachment 10. *NOTE: As this SSO was detected near a catch basin in the area, it was reported both as a SSO and illicit discharge.*

Below, report on the number of SSOs identified in the MS4 system and removed:

Number of SSOs identified ***during this reporting period:*** 1 SSO's identified

Number of SSOs removed ***during this reporting period:*** 1 SSO's removed

MS4 System Mapping

- Updated system map due in Year 2 as necessary:

Provide additional status information regarding your map:

Map of storm sewer system and associated outfalls are continually updated to reflect findings and changes.

Screening of Outfalls/Interconnections

Dry Weather Screening

- No outfalls were inspected for dry weather screening ***during this report period.***
- Outfalls were inspected for dry weather screening ***during this report period*** and data can be found in Attachment 3 Dry Weather Screening Data 2023.

Below, report on the number of outfalls screened in the MS4 system:

Number of outfalls/interconnections screened ***during this reporting period:*** 11

Percent of total known outfalls/interconnections screened ***to date (Year 1 – Year 5):*** 94.7%

The inventory and ranking of outfalls/interconnections was updated in Year 5 and the IDDE Program Plan was revised as a result. The revised inventory and ranking of outfalls/interconnections can be found in Attachment 4A – Inventory of Outfalls Priority Ranking

Wet Weather Screening

- No outfalls/interconnections were inspected for wet weather screening ***during this report period.***
- Wet weather outfall/interconnection screening data can be found in Attachment 4C – Wet Weather Sampling Results. *NOTE: Data attached was received outside of the reporting period therefore did not generate a Catchment Investigation for this period.*

Number of outfalls screened *during this reporting period:* 2

Percent of total known outfalls/interconnections screened *to date (Year 1 – Year 5):* 2.44%

Catchment Investigations

- No catchment investigations were conducted ***during this report period.*** Catchment investigations include investigations associated with Problem, High Priority, and Low Priority Outfalls/Interconnections within the MS4 regulated area. *NOTE: Data attached was received outside of the reporting period therefore did not generate a Catchment Investigation for this period. Additionally an SSO even occurred during the reporting period that qualified as an event, but not a Catchment Investigation (see Attachment 10).*
- Catchment investigations were conducted and data can be found in: N/A.

Number of catchment investigations ***during this reporting period***: 0 Catchment Investigations were conducted as outlined in Part [2.3.4.8.](#) of the permit and include investigations associated with Problem, High Priority, and Low Priority Outfalls and Interconnections within the MS4 regulated area.

Percentage of total catchments investigated ***to date (Year 1 - Year 5)***: 3.7%

IDDE Progress

- No illicit discharges were found ***during this reporting period***.
- Illicit discharges were found but not removed ***during this reporting period***. 0
- Illicit discharges were removed ***during this reporting period*** and the illicit discharges removal report can be found: in Attachment 10

Number of illicit discharges identified ***during this reporting period***: 1

Number of illicit discharges removed ***during this reporting period***: 1

Estimated gallons of flow removed ***during this reporting period***: 1.5 gallons total

Total number of illicit discharges identified ***since the effective date of the permit (July 1, 2018 – June 30, 2023)***: 2 illicit discharge identified.

Total number of illicit discharges removed ***since the effective date of the permit (July 1, 2018 – June 30, 2023)***: 2 illicit discharge removed.

Employee Training

- ☒ Provided training to employees involved in IDDE program ***during the reporting period:***

Merrimack held an IDDE training session for municipal staff (VDOT video) on 7/21/2022. The Public Works Highway Division reviewed the VDOT training video on recognizing and reporting illicit discharges. In addition, Merrimack routinely provides IDDE materials and training, including information on how to identify illicit discharges and SSOs are made available to applicable employees in accordance with IDDE Program Plan. Additionally three Highway Division personnel completed the EPA General Permit Site Inspector Training.

In addition, Merrimack routinely provides IDDE materials and training, including information on how to identify illicit discharges and SSOs are made available to applicable employees in accordance with IDDE Program Plan.

Describe progress made on any **incomplete requirements** listed above or optionally provide any additional relevant details, in the box below:

The illicit discharge referenced above was due to a grease trap blockage that was discovered and removed immediately upon the sewer line overflow. Because the overflow was detected near a catch basin, it was considered an illicit discharge and an overflow and reported twice. Because it was discovered and remedied immediately, it did not trigger any outfall sampling results.

There was an investigation conducted to determine where the grease was coming from and the extent of the release. There were three restaurants upstream in the sanitary sewer system that needed to clean their grease traps. The remedy was to clean and inspect the grease traps more often. Additionally, the Waste Water Division of the DPW reinstated the Grease Trap Inspections Program that was shuttered during Covid-19. The program requires all grease traps to be inspected at least twice per year. This program is now back in place and will continue in the future to prevent SSOs due to grease trap blockages.

MCM 4: Construction Site Stormwater Runoff Control

The following tasks are in progress in accordance with the permit:

Number of site plan reviews completed ***during this reporting period***: 20

Number of inspections completed ***during this reporting period***: 265

Number of enforcement actions taken ***during this reporting period***: 0

Merrimack works closely with contractors to address environmental concerns for the least environmental impact.

Describe progress made on any **incomplete requirements** listed above or optionally provide any additional relevant details, in the box below:

Additional Details:

Merrimack requires that all contractors for sites in town that disturb 20,000 sq ft or more, submit a SWPPP and provide weekly inspection reports and inspection reports after every 0.25 rain event. These are not included in the numbers above. The numbers shown above are only for Town personnel performed site inspections.

In addition DPW Administration/Engineering staff visit each site on a regular basis (weekly when possible). Highway Division crews are trained in erosion and sediment control, and asked to report to DPW Administration/Engineering when issues are observed.

The Town of Merrimack works hard to prevent issues from arising to the point of enforcement. Before issues arise, the Town identifies potential areas of improvement and works with the contractor to prevent minor issues from becoming major issues or compliance failure. By communicating with the contractors and having a regular presence on sites, minor issues are quickly resolved preventing major issues.

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

Ordinance or Regulatory Mechanism

- Merrimack has a regulatory mechanism(s) consistent with permit requirements 2.3.6.a.ii.
Date regulatory mechanism was adopted: Prior to July 1st 2021. The regulatory documents can be found at:
https://www.merrimacknh.gov/sites/g/files/vyhlif3456/f/uploads/stormwater_management_standards.pdf
- Merrimack has not drafted or adopted a Post-Construction Ordinance.

As-built Drawings

Number of as-built drawings received ***during this reporting period***: Five

Street Design and Parking Lots Report

- During Year 4**, Merrimack developed a report assessing current street design and parking lot regulations to determine the feasibility of making low impact design options allowable when appropriate site conditions exist and made it available as part of the SWMP in 2023.
- No updates were recommended to the **Assessment Report *during this reporting period***.
- Updates were recommended to the **Assessment Report *during this reporting period***. Following are the recommended updates: Site Plan and Subdivision Regulation and Construction Standards are currently being revised to include more MS4 required reporting and green building methods. The anticipated date or date of completion for updates is August 2024.
- No updates were made ***during this reporting period*** because all required updates have been made to make low impact designs allowable as outlined in the **Assessment Report**.
- No updates were made or planned to be made to **local regulations and/or guidelines *during this reporting period***.
- Updates were recommended and/or planned to be made to **local regulations and/or guidelines *during this reporting period***. Following are the recommended updates: Site Plan and Subdivision Regulation and Construction Standards are currently being revised to include more MS4 required reporting and green building methods. The anticipated date or date of completion for updates is August 2024

- No updates were made ***during this reporting period*** because all required **local regulation and/or guideline** updates have been made to make low impact designs allowable as outlined in the Local Regulations Assessment Report.

Green Infrastructure Reports

- During Year 4**, Merrimack developed a report assessing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist and made it available as part of the SWMP.
- During this reporting period***, Merrimack developed a report assessing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist, made it available as part of the SWMP.
- No progress was made ***during this reporting period*** towards making green infrastructure practices allowable as outlined in the **Assessment Report**.
- Progress was made ***during this reporting period*** as outlined in the **Assessment Report**. Merrimack has made progress on Green Roofs, Infiltration Practices, **and/or** Water Harvesting. Progress includes updating the ordinance, regulation, code.
- No updates were made ***during this reporting period*** because all required updates have been made to make green infrastructure practices allowable as outlined in the **Assessment Report**.
- No updates were made or planned to be made to **local regulations** ***during this reporting period***.
- Updates were made to the **local regulations** ***during this reporting period***.
- No updates were made ***during this reporting period*** because all required **local regulation** updates have been made to make green infrastructure practices allowable as outlined in the **Assessment Report**.

Retrofit Properties Inventory

- Identified permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover in **Year 4**. The following was completed ***during the reporting period***:
- Identified permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover ***during this reporting period*** because Merrimack did not complete this requirement during Year 4. The following was also completed ***during the reporting period***:

Merrimack has identified the remaining permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and of which are not included in the list below:

List of MS4 Properties: See Attachment 5 – Inventory and Priority Ranking Hot Spots
Merrimack

List of Non-MS4 Properties: Not Applicable

Merrimack has modified or retrofitted the following MS4 **and/or** Non-MS4 properties with BMPs to mitigate impervious area that were inventoried as part of 2.3.6.e as part of the permit in Year 4 **or** Year 5. Following is a list of the properties that were modified or retrofitted **during this reporting period**:

List of MS4 Properties: N/A

List of Non-MS4 Properties: N/A

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

An inventory and priority ranking sheet (Attachment 5) was developed for the Town owned properties, however no new properties were added to the list and no BMPS added to the existing properties to change the priority levels. This will be further developed in Year 6. This will dependent upon tax payer funding. However projects for retrofitting have been placed into the Town Capital Improvements Plan to obtain funding in future years.

MCM 6: Good Housekeeping

Catch Basin Cleaning

- Stored and disposed of catch basin cleanings so they did not discharge to receiving waters.
- Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

A schedule for catch basin cleaning has been established with the goal of ensuring that a catch basin should not be more than 50% full.

Number of catch basins inspected ***during this reporting period:*** 683

Number of catch basins cleaned ***during this reporting period:*** 683

Total volume **or** mass of material removed from **all** catch basins ***during this reporting period:*** 362 Tons

Total number of catch basins within the MS4 system: 683

Street Sweeping

- Stored and disposed of street sweepings so they did not discharge to receiving waters.
- All curbed roadways were swept at least once within the reporting period.

Number of (lane) miles swept ***during this reporting period:*** 362

Mass of swept material ***during this reporting period:*** 864 Tons

Stormwater Pollution Prevention Plan (SWPPP)

- Implemented SWPPPs for all permittee owned or operated maintenance garages, public works yards, transfer stations, and other waste handling facilities, that are not currently covered under another NPDES Permit.

Number of site inspections completed for ***during this reporting period:*** 2

Number of corrective actions taken ***during this reporting period:*** 0

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

No corrective actions necessary.

Operations and Maintenance (O & M) Programs

- O&M programs for all permittee owned facilities have been completed and/or updated as noted below:

- Implemented all maintenance procedures for permittee owned facilities in accordance with O&M programs.
- Updated inventory of all permittee owned facilities as necessary.

All permittee owned facilities, including an inventory, are included in our SWMP. There were no changes to report during Year 5.
- Implemented program for MS4 infrastructure maintenance to reduce the discharge of pollutants as outlined in the SWMP.
- Inspected all permittee owned treatment structures (excluding catch basins) as outlined in the SWMP.
- Enclosed all road salt storage piles or facilities and implemented winter road maintenance procedures to minimize the use of road salt as outlined in the SWMP.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

Appendix F and H: Water Quality Limited Waters & TMDLs

Bacteria/Pathogens Impairment (Appendix H) AND TMDL (Appendix F)

- Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate ***during this reporting period***.
- Permittee or its agent(s) disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time ***during this reporting period***.
- Provided information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria ***during this reporting period***.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

Chloride Impairment (Appendix H)

- Permittee **does not** have a chloride impairment.
- Permittee **has** a chloride impairment.
 - Fully implemented Salt Reduction Plan ***during this reporting period*** and can be found in N/A.

The Municipal Green SnowPro Certification Program bill was passed during the 2021 legislation session. NHDES developed rules and regulations ***during this reporting period***. Final approval of the rules and regulations is anticipated in 2023/2024.

- Reported amount of salt applied to all municipally-owned and maintained surfaces by completing the New Hampshire DES Annual Salt Usage reporting form and submitting it to NHDES, and can be found in submission **and/or** at the following website. The UNH Technology Transfer Center online tool is non-functional and has been for several years.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

Nitrogen Impairment (Appendix H)

- Permittee **does not** have a nitrogen impairment.
- Permittee **has** a nitrogen impairment.
 - Distributed an annual message that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers ***during this reporting period.***
 - Distributed an annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate ***during this reporting period.***
 - Distributed an annual message encouraging the proper disposal of leaf litter ***during this reporting period.***
 - Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.d.iii to a minimum of two times per year (spring and fall) ***during this reporting period.***
 - Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.d.iii to a minimum of one time per year (spring) and implemented a fall leaf litter collection program in lieu of post-drop street sweeping ***during this reporting period.***

Nitrogen Source Identification Report- Update

Structural BMPs

- The Nitrogen Source Identification Report can be found in submission **and/or** at the following website.

The updates to the Nitrogen Source Identification Report can be found in *Section 2: Potential Structural BMPs Report (Year 5)* and include the following:

 - 1.) Completed the evaluation of all permittee-owned properties identified as presenting retrofit opportunity or areas for structural BMP installation under permit part 2.3.6.d as identified in the Nitrogen Source Identification Report update that are within the drainage area of the impaired water or its tributaries. The report includes the next planned infrastructure, resurfacing, or redevelopment activity planned for the property (if applicable) or planned project; Estimated cost of redevelopment or retrofit BMPs, and; Engineering and regulatory feasibility of redevelopment or retrofit BMPs.
 - 2.) Completed a listing of planned structural BMPs and a plan and schedule for implementation.
 - 3.) Method of tracking and accounting for nitrogen, and metrics associated with individual BMPs.

- Structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated area by Merrimack or its agents was tracked and the nitrogen 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 nitrogen removed in mass per year by the BMP were documented in *Section 2: Potential Structural BMPs Report (Year 5)* of the Nitrogen Source Identification Report. The total estimated nitrogen removed from the installed BMP(s) is 0 lbs/year.
- No BMPs were installed ***during this reporting period***. The implementation schedule is outlined in *Section 2: Potential Structural BMPs Report (Year 5)* of the Nitrogen Source Identification Report. The total estimated nitrogen removed from the installed BMP(s) is 0 lbs/year.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

Phosphorus Impairment (Appendix H)

- Permittee **does not** have a phosphorus impairment.
- Permittee **has** a phosphorus impairment.
 - Distributed an annual message that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers ***during this reporting period***.
 - Distributed an annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate ***during this reporting period***.
 - Distributed an annual message encouraging the proper disposal of leaf litter ***during this reporting period***.
- Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.d.iii to a minimum of two times per year (spring and fall) ***during this reporting period***.
- Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.d.iii to a minimum of one time per year (spring) and implemented a fall leaf litter collection program in lieu of post-drop street sweeping ***during this reporting period***.

Phosphorus Source Identification Report- Update

Structural BMPs

- The Phosphorus Source Identification Report was updated during this reporting period and can be found in Attachment 6 - Phosphorus Source Identification Report. The updates to the Phosphorus Source Identification Report can be found in *Section 2: Potential Structural BMPs Report (Year 5)* and include the following:
 - 1.) Completed the evaluation of all permittee-owned properties identified as presenting retrofit opportunity or areas for structural BMP installation under permit part 2.3.6.d as identified in the Phosphorus Source Identification Report update that are within the drainage area of the impaired water or its tributaries. The report includes the next planned infrastructure, resurfacing, or redevelopment activity planned for the property (if applicable) or planned project; Estimated cost of redevelopment or retrofit BMPs, and; Engineering and regulatory feasibility of redevelopment or retrofit BMPs.
 - 2.) Completed a listing of planned structural BMPs and a plan and schedule for implementation.*
 - 3.) Method of tracking and accounting for phosphorus, and metrics associated with individual BMPs.
- Structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated area by Merrimack 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 in *Section 2: Potential Structural BMPs Report (Year 5)* of the Phosphorus Source Identification Report. The total estimated phosphorus removed from the installed BMP(s) is 0 lbs/year.
- No BMPs were installed ***during this reporting period***. The implementation schedule is outlined in *Section 2: Potential Structural BMPs Report (Year 5)* of the Phosphorus Source Identification Report. The total estimated phosphorus removed from the installed BMP(s) is 0 lbs/year.

Describe progress made on any **incomplete requirements** listed above or optionally provide any additional relevant details, in the box below:

Merrimack has applied for and received a loan from the Clean Water State Revolving Fund (CWSRF) to complete the design of the Pine Knolls Shores catchment area along Baboosic Lake. Therefore, the complete list of structural BMPs and a schedule for implementation has not be developed for this and other water bodies. Merrimack implemented stormwater investigation efforts at Horseshoe Pond and will complete a CWSRF loan application for the design of stormwater handling & treatment in 2023/2024.

Solids, Oil and Grease (Hydrocarbons), or Metals Impairment(s) (Appendix H)

- Permittee **does not** have a solids, oil and grease, or metals impairment(s).
- Permittee **has** a solids, oil and grease, or metals impairment(s).
 - Increased street sweeping frequency of all municipal owned streets and parking lots to a schedule that targets areas with potential for high pollutant loads ***during this reporting period.*** Merrimack street sweeping schedule can be found in submission **and/or** at <https://www.merrimacknh.gov/highway-maintenance/news/annual-street-sweeping-2023> .

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Due to budget constraints the second street sweeping was not performed in the fall of 2022. Going forward, extra funds needed will be asked for in the next budget cycle, however funding will be dependent upon approval of the Town Taxpayers on the proposed budget.

Merrimack would like to point out that sand for snow and ice control is no longer used, which has contributed to a significant decrease in swept material from the roads and collected from catch basins. Year 4 swept material was 2360 tons collected from 360 miles of roads. Year 5 swept material was 864 tons collected over 362 miles of roads. Additionally, the Town has also begun to implement a brining system which will further reduce chlorides (by reducing the total amount of salt used) in the MS4 system.

Chloride TMDL (Appendix F)

Permittee **does not** have a chloride TMDL.

Permittee **has** a chloride TMDL.

Fully implemented Chloride Reduction Plan ***during this reporting period.***

The Municipal Green SnowPro Certification Program bill was passed during the 2021 legislation session. NHDES developed rules and regulations ***during this reporting period.*** Final approval of the rules and regulations is anticipated in 2023/2024.

Reported amount of salt applied to all municipally-owned and maintained surfaces by completing the New Hampshire DES Annual Salt Usage reporting form, submitting it to NHDES, and can be found in submission **and/or** at the following website. The UNH Technology Transfer Center online tool is non-functional and has been for several years.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

Not Applicable.

Lake and Pond Phosphorus TMDL (Appendix F)

- Permittee **does not** have a lake and pond phosphorus TMDL.
- Permittee **has** a lake and pond phosphorus TMDL.

- During Years 1-4**, Merrimack completed the following items 1-4 of the Lake Phosphorus Control Plan and as outlined in Appendix F, Table F-3: 1.) Legal analysis*, 2.) Funding source assessment*, 3.) Define LPCP scope (LPCP area), and, 4.) Calculated baseline phosphorus, allowable phosphorus load and phosphorus reduction requirement. The documents can be found in Attachment 9 –LPCP Priority Ranking and Scope & Calculations

Merrimack is utilizing the resources developed by the New Hampshire Stormwater Coalition. Resources have been developed but the written Lake Phosphorus Control Plan template was not available **during this reporting period**. The New Hampshire Stormwater Coalition is in the process of finalizing the written Lake Phosphorus Control Plan template during the summer of 2023 and is offering a workshop on August 21, 2023, for permittees to obtain information on how to fill out the template and associated spreadsheets. Merrimack will complete a written Lake Phosphorus Control Plan during Year 6 and provide an update on the progress in the Year 6 Annual Report. Merrimack 's plan will be available to the public once it is completed at the Town of Merrimack Town Hall.

Describe progress made on any **incomplete requirements** listed above **or** optionally provide any additional relevant details, in the box below:

*The Town of Merrimack has completed portions of the items in the LCPC requirements but do not have a completed items for each of the two waterbodies in town that have TMDLs: Baboosic Lake and Horseshoe Pond.

Water quality improvements for Baboosic Lake have been evaluated and will be entering into the next phase of design. Funding to complete the design has just been secured (9/23), but implementation has not yet been funded. Legal requirements cannot be determined until the final design is in place.

Water quality improvements for Horseshoe Pond are also in the preliminary conceptual planning stage and the requirements for the LCPC Items 1-4 are incomplete at this time.

Merrimack intends on completing these items required for Year 6 and will be completed as funding and resources allow.

Additional Required Information

Monitoring or Study Results

Results from all stormwater or receiving water quality monitoring or studies conducted ***during the reporting period*** and ***not otherwise mentioned above***, where the data is being used to inform permit compliance or permit effectiveness is:

- Not applicable.
- The results from additional reports or studies are not applicable.
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:

Not Applicable.

Description of Any Changes in Identified BMPs or Measurable Goals

Merrimack has implemented activities in accordance with the permit and outlined in the SWMP. All BMPs and measurable goals outlined in the SWMP are appropriate.

Activities Planned for Next Reporting Period

Merrimack will continue to implement activities in accordance with the permit and SWMP.

Annual Report Submission

Your completed Annual Report and all associated documents must be sent to EPA by September 28, 2023. It is optional to send your completed Annual Report to NHDES as well.

Your Annual Report can be submitted either by email or mail:

Submittal Method	EPA	NHDES (Optional)
Email (preferably in pdf with all attachments as separate documents)	stormwater.reports@epa.gov	Deborah.Loiselle@des.nh.gov
Mail (postage)	Newton Tedder US EPA- 06-4 5 Post Office Square, Suite 100 Boston, MA 02109	Deborah Loiselle Watershed Management Bureau 29 Hazen Drive; PO Box 95 Concord, NH 03302-0095