

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

Part I: Contact Information

Name of Municipality or Organization: New Hampshire Department of Transportation
EPA NPDES Permit Number: NHR043001

Primary MS4 Program Manager Contact Information:

Name:	Mark Hemmerlein
Title:	Water Quality Program Manager
Street Address:	7 Hazen Drive
City, State, Zip Code:	Concord, NH 03301
Email:	mark.hemmerlein@dot.nh.gov
Phone Number:	(603) 271-1550

Stormwater Management Program (SWMP) Information:

SWMP Location (web address): <https://www.dot.nh.gov/about-nh-dot/divisions-bureaus-districts/environment/water-quality>

Date SWMP was Last Updated: July 1, 2024

Part II: Self-Assessment

The New Hampshire Department of Transportation (Department) continues to be committed to implementing a program to reduce the discharge of pollutants from the Department's regulated Small MS4s to the maximum extent practicable. The goal remains to protect water quality and satisfy the water quality requirements of the Clean Water Act and State Water Quality Standards, while providing a safe and efficient transportation system for the public.

This year, the focus has been to continue implementing the effluent limitations and control measure in the 2020 modified permit and update the stormwater treatment facilities dashboard. The Department has completed this self-assessment and has determined that the agency is in general compliance with all permit conditions and completing measurable goals set out in the Notice of Intent. Going forward, the Department will have to evaluate the Sackett decision and its effect on the breath of the permit. This report represents permit compliance based on the pre-Sackett decision on WOTUS.

Part III: Receiving Waters/Impaired Waters/TMDL

The Department updates its waters list each year. We are currently reporting on the 2020 EPA approved NH 303(d)/305(b) list.

Part IV: Minimum Control Measures

MCM1: Public Education

Impaired and TMDL Waters

For Waters listed as Bacteria Impaired or Bacteria TMDL

The Department maintains dog walking stations at Seabrook Welcome Center which has MS4 discharges to the CAINS BROOK - UNNAMED BROOK (NHRI600031004-10).

For Waters Listed as Nitrogen or Phosphorous Impaired or with a nutrient related TMDL

The Department continues to educate the ACEC consulting engineers on optimizing nutrient removal when designing structural stormwater treatment facilities, specifically for the Exit 4A project where bio-retention swales are proposed at the east end of the project which has MS4 discharges to BEAVER LAKE (NHLAK700061203-02-01) and gravel wetlands that discharge to various estuaries along the seacoast.

The Department's Monthly New Employee Orientation

The Department provides monthly training to new employees to include its Environmental Policy, emphasizing its commitment to operating in compliance with all environmental regulations, policies, procedures, and instructions; minimizing the waste generated from its

ongoing operations; minimizing impacts to the environment; and continuous environmental improvement. The Department also provided trainings on the management of regulated substances at NHDOT facilities (patrol sheds, garages, storage facilities, etc.). This training discussed storage requirements, inspection requirements, spill response procedures, and spill notification requirements for the different types of chemicals and petroleum products used by the Department. Employees were provided the opportunity to ask questions and discuss the issues to better understand their roles and responsibilities in avoiding environmental impacts.

The Department's Stormwater Outreach Program

The Stormwater Outreach Table was used to discuss water quality issues and demonstrate how stormwater pollutants can impact water resources at four events from September 2023 to May 2024. The four events attended have been continually successful annual events, excepting 2020 and 2021 due to public safety and health restrictions associated with the COVID-19 pandemic. The NH Construction Career Days event was held in September, 2023, and is a two-day job-fair style event with approximately 2,000 students in Grades 10-12 in attendance. This continues to be an excellent opportunity for the Program to reach out to the upcoming young workforce and expand their knowledge of potential careers, as well as to network with other professionals in the industry. The NH Fish and Game Discover Wild NH Day in April was extremely successful with almost 10,000 members of the public in attendance. This is a family event with vendors from around the State devoted to educating the public about our many wonderful natural resources and how to enjoy and protect them, which well suits the mission of the Program. The Lebanon School District Watershed Congress was held in May and the NHDES Drinking Water Festival was held in June, both were very successful, with teachers, students and presenters participating in a hands-on educational opportunity designed to match into the school curriculums. As the Bureau of Environment has continued to on-board new hires, the Program continues to focus on training new employees to expand the team of staff members capable of attending outreach events. During all presentations, the students and members of the public remained engaged and interested in discussing stormwater pollutants generated by and/or found at the areas listed above, and the various impacts that they have on our communities, the environment and drinking water resources, as well as potential solutions and strategies for addressing water quality issues on a watershed size scale.



MCM2: Public Participation

The Department has posted the Stormwater Management plan at <https://www.dot.nh.gov/about-nh-dot/divisions-bureaus-districts/environment/water-quality>

in the Bureau of Environment section. Also included is a map viewer showing all the catchments the Department operates. No related comments have been received to date.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Impaired and TMDL Waters

For Waters listed as Bacteria Impaired or Bacteria TMDL

The Department has identified 13 outfalls that discharge to bacteria TMDL waters and identified them as High Priority locations to screen. They have all been screened and there are no indicators of illicit discharges.

MS4 System Mapping

MS4 mapping effort is an ongoing effort by the Department. The Department has mapped approximately 1,700 MS4 catchments within the Urbanized Area. Each catchment can be comprised of stormwater flow within pipes, ditches, channels, stormwater treatment facilities and along curb and gutters. This effort has allowed the Department to assess our entire system and provide statistics on Waste Load and Load estimates to various Waters of the United States. It also provided information on existing treatment efforts. See the [NHDOT MS4 Interactive Map](#).

Screening of Outfalls/Interconnections Catchment Investigations

The Department suspended its IDDE program in 2021 due to workforce issues.

IDDE Progress

There has been no Illicit Discharges identified or removed to date.

MCM4: Construction Site Stormwater Runoff Control

The Department is fully staffed with three (3) Environmental Coordinators overseeing nine (9) active projects within the Urbanized Area that require coverage under the Construction General permit, comprising 154-point source discharges.

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

Impaired and TMDL Waters

For Waters listed as Nitrogen Impaired, and/or as Phosphorous Impaired or Phosphorous related TMDLs

The Department has completed a Nitrogen and Phosphorus Source Identification Report completed in 2022 for discharges to:

- BELLAMY RIVER SOUTH (NHEST600030903-01-04)
- BELLAMY RIVER SOUTH CLEMENT POINT (NHEST600030903-01-03)
- OYSTER RIVER (NHEST600030902-01-03)
- SQUAMSCOTT RIVER SOUTH (NHEST600030806-01-01)
- UPPER SAGAMORE CREEK (NHEST600031001-03)

- COBBETTS POND (NHLAK700061204-01-01)

For Waters listed as Solids, Oil, Grease and Metals (SOGM) Impaired

The Department is constructing a project which discharges to HARRIS POND (NHLAK700061001-04-01) and BOWERS POND (NHLAK700061001-04-02) in Nashua. Shut off gates will be added to the stormwater facility designs.

Green Infrastructure Report

The Department currently has approximately 22 projects in various stages of design within the urbanized area. These projects are being engineered in accordance with Part 2.3.6 of the permit and will include appropriate stormwater treatment facilities.

MCM6: Good Housekeeping

Impaired and TMDL Waters

For Waters listed as Chloride Impaired or Chloride TMDL

The Department has implemented best management practices as described in the Salt Management plan for discharges to the following waterbodies:

- STEVENS POND (NHLAK700060803-02)
- PARKMAN BROOK (NHRIV600030806-04)
- LOWER HODGSON BROOK (NHRIV600031001-04)
- UPPER HODGSON BROOK (NHRIV600031001-05)
- BORTHWICK AVE TRIBUTARY (NHRIV600031001-09)
- DORRS POND INLET BROOK (NHRIV700060802-13)
- HUMPHREY BROOK (NHRIV700060803-15)
- SOUTH PERIMETER BROOK (NHRIV700060804-12)
- POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)
- UNNAMED BROOK - TO HARRIS BROOK (NHRIV700061102-21)
- UNNAMED BROOK TO WESTERN EMBAYMENT (NHRIV700061102-23)
- BEAVER BRKs (NHRIV700061203-09, NHRIV700061203-11, NHRIV700061203-16)
- DINSMORE BROOK (NHRIV700061204-01)

For Waters Listed as Nitrogen or Phosphorous Impaired or with a nutrient related TMDL

The Department has finished its catchment mapping, which includes curb and gutters that discharge to various nutrient impaired and nutrient TMDL waters. The Department has implemented best management practices as described in the Operations and Maintenance plan for discharges to the following waterbodies:

- BELLAMY RIVER SOUTH (NHEST600030903-01-04)
- BELLAMY RIVER SOUTH CLEMENT POINT (NHEST600030903-01-03)
- OYSTER RIVER (NHEST600030902-01-03)

- SQUAMSCOTT RIVER SOUTH (NHEST600030806-01-01)
- UPPER SAGAMORE CREEK (NHEST600031001-03)
- COBBETTS POND (NHLAK700061204-01-01)

For Waters listed as Solids, Oil, Grease and Metals (SOGM) Impaired

The Department has finished its catchment mapping, which includes curb and gutters that discharge to various Solids, Oils, Grease and Metals (SOGM) impaired waters. The Department has implemented best management practices as described in the Operations and Maintenance plan for discharges to the following waterbodies:

- SQUAMSCOTT RIVER SOUTH (NHEST600030806-01-01)
- UPPER SAGAMORE CREEK (NHEST600031001-03)
- TAYLOR RIVER REFUGE POND (NHLAK600031003-02)
- HARRIS POND (NHLAK700061001-04-01)
- COCHECO RIVER (NHRIV600030603-06)
- GRAFTON DITCH (NHRIV600031001-06)
- BORTHWICK AVE TRIBUTARY (NHRIV600031001-09)
- SOUTH PERIMETER BROOK (NHRIV700060804-12)
- POLICY BROOK - PORCUPINE BROOK (NHRIV700061102-18)
- BEAVER BROOK (NHRIV700061203-16)

Inventory of Permittee-Owned Properties

The Department has finished its facility Stormwater Pollution Prevention Plans and has implemented effluent limitations as described for discharges from the following Patrol Sheds to their respective receiving waterbodies:

- Derry 528, BEAVER BROOK (NHRIV700061203-16)
- Dover 835, UNNAMED WETLAND
- Epping 608, UNNAMED WETLAND
- Hooksett 825, UNNAMED WETLAND
- Londonderry 512, LITTLE COHAS BROOK (NHRIV700060804-04)
- Manchester 527, UNNAMED BROOK TO MASSABESIC (NHRIV700060702-04)
- Merrimack 820, UNNAMED WETLAND
- North Hampton 612, WINNICUT RIVER (NHRIV600030901-07)
- Bedford 511, SEBBINS BROOK - POINTER CLUB BROOK (NHRIV700060804-01)
- Rochester 840, UNNAMED WETLAND
- Salem 514, HITTYTITY BROOK - UNNAMED BROOK (NHRIV700061102-32)

The Department has also finalized the [Operations and Maintenance Plan](#) and has been implementing the effluent limitations within.

Catch Basin Cleaning

The Department recorded approximately 4,815 catch basin inspections and cleanout events last year for the Patrol Sections servicing highways within the Urbanized Area. As necessary in accordance with the permit and Department's work instructions, the sediment was removed, and transported to Street Waste Storage yards for recycling.

Street Sweeping

The Department updated its sweeping maps in 2023 to incorporate the new 2020 303(d) list. Sweeping was completed along approximately 1,547 miles of highway within the Patrol Sections servicing highways within the Urbanized Area. Volume and weight of material removed from catch basins and curb lines was not recorded in FY 2024. However, the material was transported to our Limited Reuse Soils / Street Waste storage yards where it will be recycled for various highway uses. The Department is currently researching new technologies to improve and streamline the process for collecting, tracking, and reporting of permit-specific data since some of the street waste is comingled with material from outside the Urbanized Area.

Salt Management

The Department continually evaluates and utilizes proven technologies to address recognized concerns raised about adverse impacts that maintenance operations may have on the environment. This includes working to minimize the salt treatment used during winter maintenance operations. The Department has upgraded the winter maintenance fleet by adding telematics to plow trucks that allow the Department to track salt usage and delivery of material with more accuracy. The Department is also expanding and tracking the use of more flexible plow blades where possible to improve snow removal during plowing operations. While safety for the traveling public is of primary importance, accomplishing this in an environmentally friendly manner is also goal of the Department.

Stormwater Treatment Facilities

The Department continues to have approximately 285 stormwater treatment facilities in the MS4 Stormwater Management Program. The Department was able to inspect some facilities in 2024. Vegetation management continues to be the greatest challenge to maintain these facilities.



An example of a well-maintained forebay to a treatment facility in Bedford NH, which discharges to BOWMAN BROOK.

The Department has or will continue to complete and/or formulate corrective actions to increase the condition rating for all these facilities.

Part V: Certification of Small MS4 Annual Report 2019

40 CFR 144.32(d) Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: William J. Cass, PE

Title: Commissioner

Signature: 

Date: [November 4, 2024](#)