

**Year 4 Annual Report**  
**New Hampshire Small MS4 General Permit**  
**Reporting Period: July 1, 2021 - June 30, 2022**  
**University of New Hampshire**

EPA NPDES Permit Number NHR041000

# Certification of Small MS4 Year 4 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

Title

Signature  Date

## Authorized Representative:

The authorization letter is:

- Attached to this document (document name listed below):

- Publicly available at the website:

**Primary MS4 Program Manager Contact Information:**

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## 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, 2021 through June 30, 2022** 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 University of New Hampshire’s Stormwater Management Plan (SWMP) and Illicit Discharge Detection and Elimination Plan (IDDE). Those documents and other pertinent Year 4 information can be found in submission or at the following websites, and will be referred to throughout this report:

SWMP: <https://www.unh.edu/facilities/about/energy-utilities/storm-water-management>

Date SWMP was Last Updated: 06/18/2022

IDDE Program Plan: <https://www.unh.edu/facilities/about/energy-utilities/storm-water->

SSO Inventory: See IDDE Plan

Dry Weather Screening Data: See IDDE Plan

Inventory and Ranking of Outfalls/Interconnections: See IDDE Plan

Wet Weather Screening Data: See IDDE Plan

Catchment Investigation Data: See ATTACHED PDF

Illicit Discharge Removal Report: ATTACHED PDF

Salt Reduction Plan: <https://www.unh.edu/facilities/about/energy-utilities/storm-water->

Nitrogen Source Identification Report: <https://www.unh.edu/facilities/about/energy-utilities/storm-water-management>

# Self-Assessment

Select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the 2018 EPA approved Section 303(d) Impaired Waters List which was used for the Year 4 reporting period and can be found here:

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/2018-epa-approval-20200225.pdf>.

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

University of New Hampshire has made changes to the list of receiving waters, outfalls, or impairments since the NOI submission. The following impairments and/or TMDLs have been added or delisted:

Water Quality Impaired Waters:

TMDL:

No

University of New Hampshire 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:

Not Applicable
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# Minimum Control Measures

## MCM 1: Public Education

Total number of all MS4 related educational efforts completed **during this reporting period**: Three(3)

### **BMP: Grass and Fertilizer**

#### **Outreach Resources:**

Green Grass & Clear Water Brochure: [https://www4.des.state.nh.us/nh-ms4/?page\\_id=54](https://www4.des.state.nh.us/nh-ms4/?page_id=54).

#### **Description:**

Distribution and promotion of flyers and social media posts 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/or Business and Institutions

#### **Responsible Department/ Parties:**

UNH Facilities

#### **Measurable Goal(s):**

Lawn care enthusiast residents 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 is the number of flyers that were distributed **during this reporting period**:

Year 4 = 100

Following is the number of impressions the social media posts received **during this reporting period**:

Year 4 = N/a

## **BMP: Pet Waste Disposal**

### **Outreach Resources:**

"Every Drop" post cards or flyer [https://www4.des.state.nh.us/nh-ms4/?page\\_id=54](https://www4.des.state.nh.us/nh-ms4/?page_id=54)

### **Description:**

Distribution and promotion of "Every Drop" post cards or flyers with proper pet waste management, impacts of improper management, pet waste ordinance, and disposal requirements messaging. May include pledge to pick up pet waste to be made available during dog registration and other events or venues (veterinarians, dog training, groomers, etc.). Every Drop is a collaborative education effort with PREP, NHDES and other partners.

### **Targeted Audience:**

Residents - Pet Owners

### **Responsible Department/ Parties:**

UNH Facilities

### **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. If pledges are signed, there will be an increase of dog owners committed to picking up pet waste.

Following is the number of residents that pledged through the PREP "Every Drop" website *during this reporting period:*

Year 4 = 0

**Goal was achieved.**

**Message Date:** Late summer; beginning of school year.

## **BMP: Disposal of Leaf and Grass Clippings**

### **Outreach Resources:**

**Leaf and Yard Waste Brochure** [https://www4.des.state.nh.us/nh-ms4/?page\\_id=54](https://www4.des.state.nh.us/nh-ms4/?page_id=54)

### **Description:**

Distribute and promote informational flyers, pledge cards, and/or door hangers, with messaging about impacts from yard waste to waterbodies, alternatives to dumping yard waste and laws against dumping yard waste near or in waterbodies.

**Targeted Audience:**

Residential &/or Business and Institutions

**Responsible Department/ Parties:**

UNH Facilities

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

Year 4 = 100

**Goal was achieved.**

**Message Date:** Fall; Uday September 22nd

**BMP: Septic System Maintenance**

**There are no septic systems on the UNH, Durham campus.**

**BMP: Construction/Developers Outreach**

**Outreach Resources:**

**Construction General Permit outreach letter and brochure**

[https://www4.des.state.nh.us/nh-ms4/?page\\_id=54](https://www4.des.state.nh.us/nh-ms4/?page_id=54)

**Description:**

Provide the Construction General Permit outreach letter and brochure to developers, construction contractors, and other municipal or local organizations to educate them on both the new and updated requirements within the EPA 2022 Construction General Permit.

Review the construction checklist with developers and construction contractors prior to the beginning of construction projects (pre-construction) to identify responsible parties, erosion control practices, other best management practices, and requirements for the EPA Construction General Permit as appropriate.

**Targeted Audience:**

Construction/ Developers

**Responsible Department/ Parties:**

UNH Facilities

**Measurable Goal(s):**

Contractors, developers, and municipal or local organizations are made aware of the updates and changes made to the EPA 2022 Construction General Permit including the requirement that those who wish to be considered a qualified person to conduct inspections must meet EPA training standards. Contractors and developers are also made aware of the need for proper erosion control practices during construction work.

All pre-construction meetings, for projects on the UNH campus, include distribution of these materials to site contractors. This represents 100% of projects that received approval and began construction **during this reporting period. Goal was achieved.**

**Message Date:** Ongoing.

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 University of New Hampshire 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 within the University’s Facilities, GIS, and Campus Planning departments. The UNH Eco Task Force – Watershed Subcommittee also provides the community with an opportunity for public involvement. Documents and records relating to the permit are retained and available for 5 years to the public at <https://www.unh.edu/facilities/about/energy-utilities/storm-water-management>

**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.

The University has conducted the following public involvement or participation opportunities: University Day materials distribution, Eco Task Force Watershed Subcommittee, materials made available at the library.

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 submission.

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

Number of SSO's identified **during this reporting period: 0**

Number of SSO's removed **during this reporting period: 0**

### **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 is continually updated to reflect findings and changes.

### **Screening of Outfalls/Interconnections**

- No outfalls were inspected for dry weather screening **during this report period.**
- Dry weather outfall screening data can be found in submission.

### **Dry Weather Screening**

Number of outfalls screened **during this reporting period: 0**

Percent of total known outfalls screened to date **during this reporting period: 0**

*The inventory and ranking of outfalls/interconnections was not updated during Year 4 because outfalls/interconnections were not inspected.*

## Wet Weather Screening

No outfalls were inspected for wet weather screening *during this report period*.

Wet weather outfall screening data can be found in submission.

Number of outfalls screened *during this reporting period*: 0

Percent of total outfalls screened to date *during this reporting period*: 0

## Catchment Investigations

No catchment investigations were conducted *during this report period*.

Catchment investigation data can be found in submission.

Number of catchment investigations *during this reporting period*: 1

Percentage of total catchments investigated to date (Years 1 - Year 4): 2%

## IDDE Progress

No illicit discharges were found *during this reporting period*.

The illicit discharges removal report can be found in submission.

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*: 67,850 gal (one day annually)

Total number of illicit discharges identified since the effective date of the permit (July 1, 2018):  
1

Total number of illicit discharges removed since the effective date of the permit (July 1, 2018): 1

## Employee Training

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

University staff were trained using IDDE training videos and a written IDDE SOP created by

UNH, the City of Dover, and NHDES. Video topics included collecting data and water samples in the field, analyzing for pertinent parameters as identified in the permit, how to identify an illicit discharge, and general IDDE sampling protocols. Training logs are included in Appendix F of the IDDE report.

In addition, as a routine, IDDE materials and training, including information on how to identify illicit discharges and SSOs are made available to applicable employees in accordance with IDDE plan.

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

Not Applicable
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## 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: 4**

Number of inspections completed **during this reporting period: 74**

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

UNH works closely with contractors to minimize any potential negative environmental impact.

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

## Ordinance or Regulatory Mechanism

The University has a regulatory mechanism consistent with permit requirements 2.3.6.a.ii.

Date regulatory mechanism was adopted: Prior to July 1<sup>st</sup> 2021

## As-built Drawings

Number of as-built drawings received **during this reporting period**: 9

## Retrofit Properties Inventory

Identified permittee-owned properties that could potentially be modified or retrofitted with BMPs to reduce impervious cover

The University has identified the following permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas:

- Gables Lot
- S Lot
- Mast Rd Lot
- Molies Lot
- Lot M
- 6 Leavitt Ln
- Mill Road Lot
- Contractor Lot
- Strafford Lot
- Fairchild Dairy
- 9 Leavitt Ln
- PBS Back Lot
- Lot F
- Woodsides Access Loop
- Forestry Building
- Farm Machinery
- Grounds & Events Yard

- Thompson Sawmill
- Hamel Rec Lot
- Mathes Lot
- Fire Station Courtyard
- Edgewood Visitor Lot
- Lot T
- O’Kane Satellite Loop
- Horse Stables Lot
- Barton/Cole Lot
- Forestry Building Driveway
- Old Dairy Barn Driveway
- PBS Driveway
- Horticulture Farm
- Grounds & Events Lot
- Lot P
- Waterworks Lot
- Scott/Smith Lot
- Nesmith Lot
- Field House North Lot
- Field House West Lot
- Ritzman Lot
- Putnam Lot
- Whittemore Service Rd
- Chase O.E Service Rd
- Leewood Orchards
- Printing Services

Developed a report assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover, made it available as part of the SWMP, and:

No updates were recommended.

Updates were recommended. The anticipated date or date of completion for updates is 3/31/2023

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, and:

No updates were recommended.

Updates were recommended. The anticipated date or date of completion for updates is **N/a**.

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

Not applicable

# MCM 6: Good Housekeeping

## Catch Basin Cleaning

- Properly 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:

Number of catch basins inspected **during this reporting period:** 510

Number of catch basins cleaned **during this reporting period:** 178

Total volume of material removed from all catch basins **during this reporting period:** 21 yd<sup>3</sup>

Total number of catch basins within the MS4 system: 966

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 at any time.

## Street Sweeping

- Properly 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:** 97 miles

Volume of swept material **during this reporting period:** 38 yd<sup>3</sup>

## 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

Number of site inspections completed for *during this reporting period*: 36

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

A review of all permittee owned facilities was completed and the inventory has been updated. The SWMP has been updated to reflect this and includes the following additional facilities:

Not applicable

- 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:

There are no septic systems on the University of New Hampshire Campus in Durham.

## Chloride Impairment (Appendix H)

- Permittee does not have a chloride impairment
- Updated Salt Reduction Plan as necessary *during this reporting period* and can be found in submission found at the following website:

<https://www.unh.edu/facilities/about/energy-utilities/storm-water-management>

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
- 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*

## Nitrogen Source Identification Report

- The Nitrogen Source Identification Report can be found in submission.

## Potential Structural BMPs

The tracking and accounting elements associated with the NH MS4 permit are ongoing, adaptive and are consistent with Attachment 3 of Appendix F of the permit. Currently there is emergent utilization of a new database tracking system called the Pollutant Tracing and Accounting Program (PTAP) supported by NHDES and a select number of municipalities. Coalition communities understand the importance of this effort and are committed to continuing to work towards better tracking and accounting strategies for both structural and non-structural BMPs. PTAP theoretically has limitless expansion capacity in the region and is already integrated with the EPA Region 1 supported BMP Accounting and Tracking Tool (BATT). This emerging collaboration will be a large component of future implementation efforts. While BMP tracking and accounting programs are not fully functional, these integrated planning tools provide a comprehensive solution to successful tracking and accounting metrics now and moving forward in the future.

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
- 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

- The Phosphorus Source Identification Report can be found in submission

## Potential Structural BMPs

The tracking and accounting elements associated with the NH MS4 permit are ongoing, adaptive and are consistent with Attachment 3 of Appendix F of the permit. Currently there is emergent utilization of a new database tracking system called the Pollutant Tracing and Accounting Program (PTAP) supported by NHDES and a select number of municipalities. Coalition communities understand the importance of this effort and are committed to continuing to work towards better tracking and accounting strategies for both structural and non-structural BMPs. PTAP theoretically has limitless expansion capacity in the region and is already integrated with the EPA Region 1 supported BMP Accounting and Tracking Tool (BATT). This emerging collaboration will be a large component of future implementation efforts. While BMP tracking and accounting programs are not fully functional, these integrated planning tools provide a comprehensive solution to successful tracking and accounting metrics now and moving forward in the future.

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

Not Applicable

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

- Permittee does not have 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**

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

Not applicable

### **Chloride TMDL (Appendix F)**

- Permittee does not have a chloride TMDL
- Updated Chloride Reduction Plan as necessary **during this reporting period** and can be found in submission

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
- Calculated baseline phosphorus, allowable phosphorus load, and phosphorus reduction requirement **during this reporting period**
- Defined the scope of the Lake Phosphorus Control Plan (LPCP).

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

Not applicable

# 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 in submission

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

University of New Hampshire 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

University of New Hampshire will continue to implement activities in accordance with the permit and SWMP.