

Year 5 Annual Report

New Hampshire Small MS4 General Permit

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

City of Dover

EPA NPDES Permit Number NHR041037

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:	J. Michael Joyal, Jr	
Title:	City Manager	
Signature:	<i>J. Michael Joyal, Jr.</i>	Date: 9/20/2023

Primary MS4 Program Manager Contact Information:

Name: Gretchen Young, PE	Title/Position: Environmental Project Manager	
Department: Community Services		
Street Address: 288 Central Ave		
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Email: g.young@dover.nh.gov	Phone Number: (603) 674-8633	

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 City of Dover’s 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: https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/
Date SWMP was Last Updated: June 2023
IDDE Program Plan: https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/
Updated System Map – Dover Stormwater Utility (arcgis.com)
Progress on Completion of System Map: Always updating
Updated SSO Inventory: N/A
Updated Inventory and Ranking of Outfalls/Interconnections: see attached submission
Dry Weather Screening Data: see attached from year 4 – no dry weather screening in year 5
Wet Weather Screening Data: see attached submission
Catchment Investigation Data: no catchment investigation required in year 5
Illicit Discharge Removal Report: https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/

Results from additional stormwater or receiving water quality monitoring reports or studies: <https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/>

Salt Reduction Plan: <https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/>

Annual Salt Usage Report: see attached submission

Updated Nitrogen Source Identification Report: <https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/>

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 type="checkbox"/> Bacteria/Pathogens	<input checked="" type="checkbox"/> Chloride	<input checked="" type="checkbox"/> Nitrogen
<input 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 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

Dover is using the most current 2020/2022 303d list, see attached submission of Dover 303d list.

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

N/A

Minimum Control Measures

MCM 1: Public Education

Total number of all MS4 related educational efforts completed *during this reporting period*: 5

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

No

Yes. City of Dover made changes in order to freshen up and stay current with messaging.

BMP: Grass and Fertilizer

Description: As part of the ongoing discussion around the Stormwater and Flood Resiliency Utility, staff are providing a comprehensive outreach effort to educate the public about the importance of stormwater and nutrient loading. This includes loading from grass and fertilizers.

Targeted Audience: Residential and/or Business

Responsible Department/Parties: Environmental Projects Manager

Measurable Goal(s): Host one outreach meeting.

Message Date: Spring

Goal was achieved.

BMP: Pet Waste Disposal

Description: Distribute Every Drop pet waste card with each dog license issued.

Targeted Audience: Pet Owners

Responsible Department/Parties: City Clerk

Measurable Goal(s): Send out 2000 messages

Message Date: April

Goal was achieved.

BMP: Disposal of Leaf and Grass Clippings

Description: Pass out leaf and debris brochures and information promoting the use of curbside yard waste collection program at the Apple Harvest Day event. Raffle off a rain-barrel for residents committing to property yard maintenance.

Work with local partner to develop a City of Dover compost facility. Facility is privately owned but receives all yard waste from residents who bring to the City Recycling Center.

Targeted Audience: Residential &/or Business

Responsible Department/Parties: Environmental Projects Manager

Measurable Goal(s): 100 raffle entries

Message Date: Fall

Goal was achieved.

BMP: Industrial Outreach

Description: Mail information to all NHDES registered industrial sites in the city.

Targeted Audience: Industrial

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Provide information to all NHDES registered industrial sites in the city.

Message Date: February 2023

Goal was achieved.

BMP: Industrial Outreach

Description: Septic Smart Week messaging, provided by NHDES included in the City of Dover’s, Dover Download. Dover Download is a weekly message to residents that includes pertinent information for the week.

Targeted Audience: Septic System Owners

Responsible Department/Parties: Community Services Department

Measurable Goal(s): Count the number of folks receiving and reading the Dover Download messaging set out.

Message Date: September 2022

Goal was achieved.

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 City of Dover 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 May 2023 meeting of the Dover Utilities Commission. Documents and records relating to the permit are retained and available on the public website.

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

No

Yes.

Measurable Goal(s):

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

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

N/A

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...

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

Number of SSOs identified **during this reporting period**: 3 instances of sewer overflows occurred during this period:

- River Street PS – 1/26/23 – 60,000 gallons
- Int Mast Rd & Mathis Hill Drive – 11/19/22 – 1,000 gallons
- Crosby Road, x-country sewer – 8/5/22 – 33,000 gallons

Number of SSOs removed **during this reporting period**: all of the issues were corrected. They were isolated incidents and not ongoing issues.

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

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 submission **and/or** at the following website.

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

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

Percent of total known outfalls/interconnections screened **to date (Year 1 – Year 5)**: 100

The inventory and ranking of outfalls/interconnections for the purposes of dry weather screening was not updated during Year 5 because outfalls/interconnections were not inspected.

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 submission

Number of outfalls screened **during this reporting period:** 40

Percent of total known outfalls/interconnections screened **to date (Year 1 – Year 5):** %12.5

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.
- Catchment investigations were conducted and data can be found in submission **and/or** at the following website.

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 as a result of wet weather findings **to date (Year 1 - Year 5):** 0% of total investigated, however, there have been no indications of Illicits found during wet weather sampling.

IDDE Progress

- No illicit discharges were found **during this reporting period.**
- Illicit discharges were found but not removed **during this reporting period.**
- Illicit discharges were removed **during this reporting period** and the illicit discharges removal report can be found in submission **and/or** at the following website.

Number of illicit discharges identified *during this reporting period*: 0

Number of illicit discharges removed *during this reporting period*: 0

Estimated gallons of flow removed *during this reporting period*: 0 gallons/day

Total number of illicit discharges identified *since the effective date of the permit (July 1, 2018 – June 30, 2023)*: 0

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

There has only been one actual illicit connection that was removed as a result of the IDDE program. There have been occurrences of construction mistakes where sewer was released, reported, and fixed, but those are not true illicit connections to the drainage system.

Employee Training

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

City of Dover staff intern was 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 Program Plan.

In addition, The City of Dover 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:

N/A

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**: 10 site reviews were conducted as part of the Planning Board site plan review process. Many other projects such as driveway work, were also reviewed during this reporting period.

Number of inspections completed **during this reporting period**: 100% of all sites under construction are inspected a minimum of one time, but typically many more times if not daily by City of Dover Engineering Technician and other City Staff.

Number of enforcement actions taken **during this reporting period**: 0; city staff works closely with contractors to address environmental concerns for the least environmental impact in a way that is proactive and avoids after-the-fact enforcement actions.

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

N/A

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

Ordinance or Regulatory Mechanism

- City of Dover 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 document can be found at: www.dover.nh.gov/government/city-charter-code/

As-built Drawings

Number of as-built drawings received *during this reporting period*: 6

Street Design and Parking Lots Report

- During Year 4**, The City of Dover 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.
- No updates were recommended to the **Assessment Report** *during this reporting period*.
- No updates were made or planned to be made to **local regulations and/or guidelines** *during this reporting period*.

Green Infrastructure Reports

- During Year 4**, City of Dover 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.
- No updates were made *during this reporting period* because no updates were required as a result of 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**:

- The City of Dover began construction on the Waterfront Development Project which will include a network of various best management practices.
- The City of Dover progressed two street reconstruction projects through design. These roadway reconstruction projects include the implementation of various best management practices.
- The City of Dover continued work on a new water treatment plant. Sitework includes the construction of a best management practice.

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

N/A

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:
 - No actions were taken because no catch basin sumps were more than 50% full during two consecutive routine inspections/cleaning events.

Number of catch basins inspected **during this reporting period**: 1548 (note that staff are always looking at catch basins as part of the daily work, this number only includes formal inspection at the time of cleaning)

Number of catch basins cleaned **during this reporting period**: 1548

Total volume or mass of material removed from all catch basins **during this reporting period**: 1,440 CY (estimate based on assuming 4' diameter with a 4' sump that is 50% full)

Total number of catch basins within the MS4 system: 3396

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**: 271+

Volume of swept material **during this reporting period**: 1,000+ CY

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**: 8

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 as a result of SWPPP inspections, staff regularly maintain building and sites as part of ongoing maintenance program

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:

Note that a formal BMP inspection program is underway as part of creating a Stormwater Utility, however, as outlined in the SWMP, all BMP's are informally inspected routinely throughout the year and are addressed when any erosion, flooding or other damage occurs.

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:

N/A

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 at the following: <https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/>
 - 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. 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:

N/A

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 at <https://www.dover.nh.gov/government/city-operations/community-services/stormwater-management/>
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.

- 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:

N/A

Phosphorus Impairment (Appendix H)

- Permittee **does not** have a phosphorus impairment.

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**. The City of Dover street sweeping schedule can be found in the SWMP.

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

N/A

Chloride TMDL (Appendix F)

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

Lake and Pond Phosphorus TMDL (Appendix F)

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

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 at the following website:
[State of Our Estuaries | Home](#)

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

The Piscataqua Regional Estuaries Partnership published their 5-year state of the estuaries report for the Great Bay. The City of Dover discharges to the Great Bay. The report found some positive and some cautionary indicators as well as some negative indicators.

Description of Any Changes in Identified BMPs or Measurable Goals

The City of Dover 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

The City of Dover will continue to implement activities in accordance with the permit and SWMP.