

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

EPA NPDES Permit Number NHR041005

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:

Name: David Caron Title/Position: Town Administrator
Department: Town of Derry
Street Address: 14 Manning Street
City: Derry State: New Hampshire Zip Code: 03038
Email: davecaron@derrynh.org Phone Number: 603-432-6100

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 Town of Derry’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.derrynh.org/environmental/pages/derry-municipal-separate-storm-sewer-system-general-permit-ms4gp>

Date SWMP was Last Updated: Sept 2022

IDDE Program Plan: <https://www.derrynh.org/environmental/pages/derry-municipal-separate-storm-sewer-system-general-permit-ms4gp>

SSO Inventory: Attached to this report

Dry Weather Screening Data: No evidence of flows or illicit discharges from the Town's MS4 were identified at outfalls during the reporting period.

Inventory and Ranking of Outfalls/Interconnections: Updated tables attached to this report

Wet Weather Screening Data: No wet weather screening was performed during the reporting period due to extreme drought conditions.

Catchment Investigation Data: No further catchment investigations were completed this reporting period

Illicit Discharge Removal Report: Illicit Discharge complaints/Reports are attached to this report.

Phosphorus Source Identification Report:
<https://www.derrynh.org/environmental/pages/derry-municipal-separate-storm-sewer-system-general-permit-ms4gp>

Chloride Reduction Plan: <https://www.derrynh.org/environmental/pages/derry-municipal-separate-storm-sewer-system-general-permit-ms4gp> (included in SWMP)

Results from additional stormwater or receiving water quality monitoring reports or studies:
Attached to this report

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 type="checkbox"/> Nitrogen
<input checked="" type="checkbox"/> Phosphorus	<input type="checkbox"/> Solids/ Oil/ Grease (Hydrocarbons)/ Metals	
TMDL(s)		
<input checked="" type="checkbox"/> Bacteria and Pathogens	<input checked="" 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 Derry has made changes to the list of receiving waters, outfalls, or impairments since the NOI submission. The following impairments, TMDLs, and/or outfalls have been added or delisted:

Water Quality Impaired Waters: None

TMDL: None

Outfalls: Total number of outfalls decreased from 143 to 115 (includes those not discharging to surface waters). During inspections and mapping updates, 40 outfalls were removed while another 12 were added. Total number of outfalls discharging directly to impaired assessments units decreased from 94 to 65.

No

Derry 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:

Minimum Control Measures

MCM 1: Public Education

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

BMP: Grass and Fertilizer

Outreach Resources:

Green Grass & Clear Water Brochure:

https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/green_grass_and_clear_water_flyer_2019.pdf

Description:

Distribution and promotion of flyers produced by UNH Cooperative Extension and NH Sea Grant outlining simple recommendations to keep lawns healthy while reducing water quality impacts - including proper fertilizer techniques and disposal of grass clippings. The flyers were customized with Town contact information and distributed through the Derry Municipal Center kiosk, the Town of Derry website, and distributed to Beaver Lake Improvement Association and Big Island Pond Corporation for delivery to their membership via newsletter.

Targeted Audience:

Residential and/or Business and Institutions

Responsible Department/ Parties:

Public Works with assistance from Beaver Lake Improvement Association and Friends of Big Island Pond.

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 number of flyers taken from kiosks and the BLIA membership.

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

Year 4 = 252 distributed to Household Hazardous Waste Collection Event attendees (5/21/22), 12 taken from Town kiosk.

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

Year 4 =

Goal was achieved.

Message Date: 5/21/22 (HHW event), continuous at Town kiosk.

BMP: Grass and Fertilizer

Outreach Resources:

Landscaping for Water Quality Class

https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/green_grass_and_clear_water_flyer_2019.pdf

Description:

Landscaping for Water Quality Class (Originally rescheduled for March 30, 31, April 1, 2021)

The Town of Derry hosted and partnered with NHDES an UNH-T2 to hold 2-day class teaching participants how to use ecological concepts and landscape features such as rain gardens, vegetative buffers, and other green infrastructure to protect lakes, rivers, streams, and bays. The scheduled instructors were from universities, university extension, environmental agencies, municipalities, and private enterprise. The scheduled class was a mix of virtual classroom as well as in-person small groups held at Derry's Hood Pond Park which was used as an outdoor classroom for in-class water quality landscape design exercise. Derry Environmental Coordinator presented on Water Quality Around Derry. The class included a panel discussion consisting of representatives from Derry, Londonderry, and Bedford. Hood Pond is impaired for phosphorus and bacteria and the Town would consider implementing landscaping design ideas generated in the class by participants possible future site improvements.

The Town helped prepare classroom materials and shared mailing/notification responsibility by reaching out to companies in the immediate region while DES/UNH conducted state-wide outreach.

Targeted Audience:

Commercial -Landscape designers, contractors, maintenance professionals, and those who hire them; watershed groups; and municipal employees.

Responsible Department/ Parties:

Derry Public Works, UNH-T2, NHDES with assistance from Towns of Londonderry and Bedford.

Measurable Goal(s):

Attendees would be made aware of how landscaping activities affect stormwater runoff and adjacent surface waters and how to improve their practices to protect surface water quality. Lessons learned from the class would be implemented in addressing Hood Pond water quality issues (phosphorus and bacteria).

The Town of Derry mailed class announcements to 64 landscaping and groundskeeping companies in Derry and surrounding towns.

Goal was achieved.

Message Date: 11/3-4/21 (class)

BMP: Disposal of Leaf and Grass Clippings

Outreach Resources:

Rake It or Leave It Brochure:

https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/rakeitorleaveit-desyardwastebrochure-final_2.pdf

Description:

Distribute and promote informational brochure 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 flyers were customized with Town contact information messaging and distributed through the the Derry Municipal Center kiosk, the Town of Derry website, and distributed to Beaver Lake Improvement Association and Big Island Pond Corporation for delivery to their membership via newsletter.

Targeted Audience:

Residential and/or Business and Institutions

Responsible Department/ Parties:

Public Works with assistance from Beaver Lake Improvement Association and Friends of Big Island Pond.

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 number of flyers taken from kiosks and the lake associations membership.

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

Year 4 = 12 taken from the Town kiosk.

Goal was achieved.

Message Date: Continuous at Town kiosk, Fall through lake associations.

BMP: Pet Waste Disposal

Outreach Resources:

"Every Drop" flyer <https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/derry-scoopthepooppledge2020.pdf>

Description:

Distribution and promotion of "Every Drop" flyers with proper pet waste management, impacts of improper management, pet waste ordinance, and disposal requirements messaging. The flyer includes a pledge to pick up pet waste and is made available during dog registration and at kiosks at the Derry Municipal Center. Every Drop is a collaborative education effort with PREP, NHDES and other partners.

The flyer was also distributed dog-owners participating in Derry's Household Hazardous Waste (HHW) Collection Event.

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. 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 = No further pledges were recorded during the reporting period
98 flyers distributed at the HHW event

8 flyers collected from Town Kiosk

Goal was achieved.

Message Date: HHW Event May 21, 2022,
Town kiosk-continuous

BMP: Pet Waste Disposal

Outreach Resources:

Pet Waste Cleanup Signs

Description:

Permanent signs remain posted at locations where pet waste has previously been an issue. The signs state pet waste must be picked up per ordinance requirements.

Targeted Audience:

Residents - Pet Owners

Responsible Department/ Parties:

Department of Public Works

Measurable Goal(s):

Dog owners and/or dog walkers become aware of the ordinance and do not leave pet waste in problem areas.

Since first posting of the signs, the volume of pet waste picked up by town employees has decreased significantly and either remained low or has not been encountered during grounds maintenance.

Goal was achieved.

Message Date: Continuous

BMP: Septic System Maintenance

Outreach Resources:

- 1) *Get Pumped* - <https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/get-pumped-community-brochure.pdf>
- 2) *Do Your Part-Be SepticSmart-A simple guide to the proper care and maintenance of your*

septic system (EPA-832-B-12-003 September 2012)

[https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/septicmart short rack brochure_030915-edited.pdf](https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/septicmart_short Rack Brochure_030915-edited.pdf)

Description:

Brochures educating New Hampshire homeowners with septic systems on how to identify, locate and maintain those systems.

- 1) “*Get Pumped*” brochure is available on the Town’s website and available at Derry Municipal kiosk. Get Pumped NH is a collaborated effort between the New Hampshire Association of Septage Haulers (NHASH) and the New Hampshire Department of Environmental Services (NHDES).
- 2) The EPA brochure *Do You Part-Be Septic Smart* is available on the Town’s website and available at Derry Municipal Center kiosk.

Targeted Audience:

Septic System Owners - Residential and Commercial/Industrial

Responsible Department/ Parties:

Department of Public Works

Measurable Goal(s):

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

Following is the number of flyers that were distributed:

Year 4:

- 8 *Get Pumped* brochures taken from Municipal Center kiosk
- 5 *Do You Part-Be Septic Smart* brochures taken from Municipal Center kiosk

Goal was achieved.

Message Date: Continuous

BMP: Septic System Maintenance

Outreach Resources:

Public Notice: SepticSmart Week 2021

Description:

The Town issued a public notice and posted on its webpage about EPA’s annual SepticSmart week. Notice was shared with a local lake association, *Friends of Big Island Pond* (FBIP), whose residents are all on septic systems. FBIP shared with its membership through their webpage. (Public Notice and FBIP webpage excerpt attached)

Targeted Audience:

Septic System Owners - Residential and Commercial/Industrial, and those around surface water bodies.

Responsible Department/ Parties:

Department of Public Works

Measurable Goal(s):

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

Goal was achieved.

Message Date: September 2021 (Annually)

BMP: Sanitary Sewer Overflow and Backup Prevention

Outreach Resources:

“What’s Flushable?” Brochure

<https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/whats-flushable.pdf>

Description:

Distribute and promote brochure prepared by NHDES educating the public on what us and what should not be flushed down the drain, how these impact sewer systems and septic systems and can cause backups leading to water quality issues.

Targeted Audience:

All Residents (Homeowners with Septic Systems and anyone connected to municipal sewer.)

Responsible Department/ Parties:

Department of Public Works, Wastewater Division

Measurable Goal(s):

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

Year 4: 20 brochures were taken from the Derry Municipal Center kiosk. There were no sewer backups of the Town's sewer system due to blockages of any kind during the reporting period.

Goal was achieved.

Message Date: Continuous

BMP: Sanitary Sewer Overflow and Backup Prevention**Outreach Resources:**

"Derry Guide to Sump Pump Connections" Brochure

https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/sump_pump_connection_brochure_2011.pdf

Description:

Distribute and promote brochure prepared by the Town of Derry educating the public on the proper and legal method of installing sump pumps to prevent overloading of the municipal sewer that can lead to overflows or backups. Brochures are on display at Derry Municipal Center kiosk.

Targeted Audience:

Resident homeowners that are connected to municipal sewer and have sump pumps or are considering installing sump pumps.

Responsible Department/ Parties:

Department of Public Works, Wastewater Division

Measurable Goal(s):

Residents are aware of the regulations regarding sump pump connections, and the risk from illegally connecting to municipal sewer. Residents also become aware of how and where discharge from sump pumps is allowed or restricted.

Year 3: 14 Flyers taken from Municipal Center kiosk during the reporting period.

Goal was achieved.

Message Date: Continuous

BMP: Construction/Developers Outreach

Outreach Resources:

New 2022 Construction General Permit Information Sheet with Cover Letter (Template letter and information sheet attached)

Description:

Provide the Construction General Permit (CGP) 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. The Town reviewed all CGPs over the last few years that performed work in Derry to identify distribution.

Targeted Audience:

Construction/Developers and their engineering consultants

Responsible Department/ Parties:

Department of Public Works

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.

Year 4 = Sent to seven (7) construction, demolition, and engineering companies

Message Date: June 2022.

BMP: Commercial Landscapers/Developers Outreach

Outreach Resources:

Landscaping for Water Quality Class (rescheduled from March 2020 and March 2021)

Description:

The Town of Derry partnered with NHDES an UNH-Cooperative Extension to hold 2-day class teaching participants how to use ecological concepts and landscape features such as rain gardens, vegetative buffers, and other green infrastructure to protect lakes, rivers, streams, and bays. The scheduled instructors were from universities, university extension, environmental agencies, municipalities, and private enterprise as well as the Town of Derry. The rescheduled class was to be a mix of virtual classroom as well as in-person small groups to be held at Hood Pond Park in Derry using Hood Pond Park as an outdoor classroom for in-class

water quality landscape design exercise. A panel discussion consisting of representatives from Derry, Londonderry, and Bedford was scheduled. Hood Pond is impaired for phosphorus and bacteria and the Town would consider implementing landscaping design ideas generated in the class by participants possible future site improvements.

The Town helped prepare classroom materials and shared mailing/notification responsibility by reaching out to companies in the immediate region while DES/UNH conducted state-wide outreach.

Targeted Audience:

Commercial -Landscape designers, contractors, maintenance professionals, and those who hire them; watershed groups; and municipal employees.

Responsible Department/ Parties:

Department of Public Works, UNH-T2, NHDES

Measurable Goal(s):

Attendees would be made aware of how landscaping activities affect stormwater runoff and adjacent surface waters and how to improve their practices to protect surface water quality. Lessons learned from the class would be implemented in addressing Hood Pond water quality issues (phosphorus and bacteria).

Year 4 = The Town mailed Class Notices to 45 landscaping and groundskeeping companies in Derry and surrounding communities and posted on the Town’s webpage. UNH Cooperative Extension advertised on their website.

Message Date: October 2021 – Town mailings and postings.
November 3, 4, 2021 – Class held.

BMP: Restaurants and Food Service Establishments Outreach

Outreach Resources:

Stormwater Pollution Prevention for Restaurants and Food Service Establishments Brochure (attached)

Description:

In response to an illicit discharge from a restaurant, the Town of Derry created this new brochure for restaurants and other food service establishments. The brochure explains how pollution from food service industry poses a threat to water quality caused by improper disposal of grease, improperly maintained grease traps or handling or disposal of cleaning chemicals and trash can impact stormwater and the waterbodies it flows to. It also includes Do’s and Don’ts of restaurant waste management, and tips for managers to ensure employees and contractors practice good housekeeping.

Targeted Audience:

Commercial – Restaurant owners/managers, institutional kitchens, and food trucks.

Responsible Department/ Parties:

Department of Public Works, Health Department

Measurable Goal(s):

Restaurant/Food service managers and employees are aware of pollution risks from their business, decrease in stormwater carried pollutants, improved maintenance of grease traps, and elimination of sewer blockages.

Year 4 = The Health Department delivered 98 brochures to restaurants, institutions, and food truck owners during health Department inspections.

Message Date: Throughout the year during inspections by the health department.

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

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 Derry 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 remains available for public review and comment on the Town of Derry’s Webpage. Documents and records relating to the permit are retained and available for 5 years to the public at location at the Derry Municipal Center, Public Works Office.

Measurable Goal(s):

Input received from Friends of Big Island Pond reaching out to the town of Derry for development of watershed management plan for Big Island Pond.
Records are maintained.

Goal was achieved.

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

While public involvement or participation opportunities are ancillary to daily operations, The Town of Derry has conducted the following public involvement or participation opportunities.

BMP: Shoreline Cleanup

Description:

The Town promotes shoreline cleanup in conjunction with roadside cleanup. The Beaver Lake Improvement Association (BLIA) organizes two shoreline cleanup events each year, spring and fall. The events were advertised through the BLIA Beaver Lake Newsletters (attached). The Town provides all the trash bags and coordinates with BLIA to pickup of trash bags left by participants along the roads.

Participating Party:

Residents - Beaver Lake Improvement Association volunteers in cooperation with Public Works/Transfer Station.

Measurable Goal(s):

Fall and Spring Shoreline Cleanup was organized and conducted by volunteers from BLIA.

Activity Date:

- October 16, 2021 – BLIA members organized shoreline cleanup day
- April 16, 2022 – BLIA members organized shoreline cleanup day.

BMP: Roadside Cleanup**Description:**

The Derry Go Green Committee, which is made up of volunteers, with the assistance of the Town, conservation commission, and parks & Recreation Department, promotes roadside cleanups for residents to perform trash pickup in areas of their choosing. The Town provides all the trash bags and coordinates the pickup of trash bags left by participants along the roads.

Participating Party:

Residents – Volunteers in coordination with Public Works/Transfer Station

Measurable Goal(s):

Volunteers participate, roadsides cleaned.

Activity Dates:

- April 16, 2022– Coincides with the weeks surrounding Earth Day

BMP: Household Hazardous Waste Collection Events**Description:**

The Town sponsors and holds a household hazardous waste collection event each year in May. The event is open to residents of Derry and Londonderry. The Town of Londonderry reciprocates and sponsors and holds an event each year in November which is open to residents of Derry and Londonderry. These events are held at no charge to residents.

The Town also uses this opportunity to distribute outreach material to residents. During the May 2022 event, Pet Waste Management and Proper Yard Waste Disposal material was distributed to attendees.

Participating Party:

Residents – Derry and Londonderry, Sponsored by the Town of Derry.

Measurable Goal(s):

Derry HHW Event May 21, 2022:

- 252 vehicles (175 Derry, 77 Londonderry) representing 265 total Households.
- 17,894 lbs of HHW collected and kept out of the environment or solid waste wastestreams.

Londonderry HHW Event – November 13, 2021

- 144 cars representing 154 Derry households were represented at the Londonderry HHW event

Activity Date:

- November 13, 2021 (sponsored by and held in Londonderry)
- March Through May - Outreach included notices and announcements each televised Town Council meeting held twice per month and the Conservation Commission monthly meetings, reader board at entrance to Transfer Station, notice sent out to subscribers of the Town's ListServ, Derry's and Londonderry's newsletters, posts on several different webpages within Derry's and Londonderry's website, and posted on social media (Facebook) pages including *Town of Derry, Derry Transfer Station, Bringing Derry Together, and Londonderry NH* Facebook pages.
- Newspaper articles:
 - Nutfield News: *"Household Hazardous Waste Set for May 19, 2022"*,
- May 15, 2021 – Derry HHW collection event

BMP: Pet Waste Cleanup Signs

Description:

The apartment management company at an 849-unit apartment complex development consisting of 31 buildings continues to keep their own signs posted informing residents to clean up after their dogs to protect health and water quality. The signs include poop bags and barrels informing residents.

Targeted Audience:

Residents - Pet Owners

Measurable Goal(s):

The effort voluntarily made by the apartment management company to post the signs and provide bags and barrels.

Decrease in dog waste not cleaned up and the number of bags left on the ground (realized by the apartment management company).

Lack of bacteria problems in local watershed catchment.

Message Date:

- Continuous

BMP: Waterfowl/Water Quality Article

Description:

DES Says "Duck...Duck...Don't Feed the Goose!" Article in Nutfield News (attached)

The local newspaper, the Nutfield News, published an article prepared by NHDES regarding environmental and water quality impacts from geese,

Targeted Audience:

Residents, park visitors

Measurable Goal(s):

The Town is working to address an extensive goose population that takes up residence at Hood Pond Park every summer and contributing to phosphorus and bacteria impairments. Educating the public on the negative impacts caused by geese will help keep numbers down and condition the geese that humans are not a source of food for them.

Decrease in bacteria and phosphorus levels in Hood Pond.

Message Date:

- April 28, 2022

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

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:** 1

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

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 was updated in Year 2 and there were updates in Year 4. Going forward the 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.**
Note: Staff are trained to report any outfalls found flowing during regular maintenance or road work during dry weather. None were identified during the reporting period so no dry weather screening was performed.
- Dry weather outfall screening data can be found in submission **AND/OR** found at the following website

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 updated and the IDDE Program Plan was revised as a result. The revised inventory and ranking of outfalls/interconnections can be found in submission.

The inventory of outfalls/interconnections was updated during Year 4 because of updated and corrected mapping. Routine system inspections identified errors from the initial mapping conducted by others several years ago which also identified numerous discharge pipes as outfalls discharging to surface waters. The total number have decreased. Updated tables are attached.

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 **AND/OR** found at the following website **##website link**.

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

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

Catchment Investigations

The municipality should choose one of the following statements:

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

Catchment investigation data can be found in submission **AND/OR** found at the following website **##website link**.

Number of catchment investigations **during this reporting period**: 0

Percentage of total catchments investigated to date (Years 1 - Year 4): 0

IDDE Progress

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

The illicit discharges removal report can be found in this submission

Number of illicit discharges identified **during this reporting period**: 8 complaints

Number of illicit discharges removed **during this reporting period**: 8

Estimated gallons of flow removed **during this reporting period**: ~5 gallons/day

Total number of illicit discharges identified since the effective date of the permit (July 1, 2018):
13

Total number of illicit discharges removed since the effective date of the permit (July 1, 2018):
13

Note: All illicit discharges identified start as complaints regarding a discharge to ground even if not entering a storm drain system. All are retained due to potential to discharge to a storm drain system or a wetland or surface water.

Employee Training

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

Town of Derry held a IDDE training sessions for Highway Department, Water Department, and Wastewater Department staff in July 2021. In addition, 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. Training also included the following topics: overview of the MS4 program; responding to, cleaning up, and reporting spills (petroleum, battery acid, mercury), Best Management Practices for pollution prevention, and Housekeeping. Training logs are included in Appendix F of the IDDE report.

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

Trained Highway personnel identified and reported an illicit discharge from a restaurant during a storm drain cleaning project (Incident 2021-5).

Town personnel also attended the following trainings:

- Winter Operations Training – Highway Department and all staff involved in snow removal operations (Fall 2021) – Training included salt reduction BMPs.

- Landscaping for Water Quality (Nov 3&4, 2021)- Parks & Recreation Personnel - Sponsored by Town of Derry, UNH, and NHDES. Topics: BMPs for landscapers to improve water quality runoff and protect surface waters.
- Erosion Control Field Day (06/29/22) - Public Works Personnel - BMPs for Erosion Control, Soil Properties
- Stormwater Green Infrastructure Maintenance (3/16/22) - Public Works Personnel
UNH/APWA webinar

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*: 6

Number of inspections completed *during this reporting period*: 88

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

Town of Derry 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:

Procedures for inspection and enforcement of sediment and erosion control measures are included in the booklet at the link below. The booklet discusses procedures for observing construction of subdivisions and related activities being performed in the Town of Derry. The procedures are based upon the Town of Derry Zoning Ordinance, Subdivision Regulations, Site Plan Regulations, Utility Construction Specifications, and other pertinent Town Codes. It outlines the relationship between the Developer, the Developer's Contractor and Engineer and the Town of Derry.

Subdivision & Site Plan Construction Monitoring, Procedures & Checklist – January 2011

<https://www.derrynh.org/public-works/pages/forms-applications>

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

Ordinance or Regulatory Mechanism

- The Town of Derry has regulatory mechanism consistent with permit requirements 2.3.6.a.ii.

Date regulatory mechanism was adopted: 11/18/08, Updated 5/19/21

A Post-Construction Ordinance has not been drafted or adopted.

As-built Drawings

Number of as-built drawings received *during this reporting period*: 8

Retrofit Properties Inventory

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

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

- 4 Rollins Street - Hood Pond Park
- 28 Pierce Road - Alexander Carr Park
- 1 Municipal Drive - Derry Police Department
- 131 East Broadway - Derry Central Fire Station
- 38-53 Transfer Lane - DPW Facilities (Highway Garage Vehicle Maintenance)

Report can be viewed at: <https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/phosphorus-source-identification-report-derry-final.pdf>

- 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. The report is combined with the Green Infrastructure Feasibility Report and is available to view at: <https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/street-design-and-parking-lot-regulations-assessment-june2022-final.pdf> and:

- No updates were recommended.

Updates were recommended. The anticipated date or date of completion for updates

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. The report is combined with the Report Assessing Current Street Design and Parking Lot Guidelines as is available to view at:
<https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/street-design-and-parking-lot-regulations-assessment-june2022-final.pdf>, and:

No updates were recommended.

Updates were recommended. The anticipated date or date of completion for updates is NA

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:** 750

Number of catch basins cleaned **during this reporting period:** 750

Total volume or mass of material removed from all catch basins **during this reporting period:** 15 Cubic Yards

Total number of catch basins within the MS4 system: 3168 Town-Owned
(Note: Current mapping includes 577 private- and state-owned catch basins)

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events: The Town identified catchbasins in a curbed area of town that were overlooked and placed these as priority for cleaning during this reporting year.

A schedule for catch basin cleaning has been established but will be continually evaluated and modified as necessary with the goal of ensuring that a catch basin should not be more than 50% full.

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:** 94 (at least once)
80 curbed lane miles within urban compact – minimum once/year
12 arterial lane miles – twice/week (April-November)
1.6 lane miles (Transfer Station) – Biweekly during summer
2.9 Acres of municipal parking lots – twice/year

Volume of swept material **during this reporting period:** ~50 cubic yards

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***: 17

Vehicle Maintenance Facility – Quarterly

Highway Garage, Salt Storage Facility, Salt Spreader storage building– Quarterly

Water/Wastewater Facility – Quarterly

Transfer Station – Quarterly

Building & Grounds Storage building (unoccupied) – Once/year

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 4.

- 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 (*on-going, See note below*)
- 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:

The Town of Derry has completed many but not all inspections of stormwater treatment structures during the reporting period. Inspections are on-going and are anticipated to be completed this calendar year. Of note are historically older private developments that were later taken over by the Town.

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:

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 the SWMP at the following website: <https://www.derrynh.org/environmental/pages/derry-municipal-separate-storm-sewer-system-general-permit-ms4gp>.

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

Chloride impairments are addressed in combination with chloride TMDL which the Town implements Town-wide and not just within the urban compact or watershed areas subject to chloride impairment or TMDL.

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**

Or

- 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 at:
<https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/phosphorus-source-identification-report-derry-final.pdf>.

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:

The Town is still evaluating structural BMPs and is still early in the process of calculating cumulative phosphorous removal.

During the reporting period, the Town of Derry teamed up with the Big Island Pond Corporation to apply for a Clean Water State Revolving Loan Fund (CWSRF) for the purpose of developing a Watershed-based Management Plan for Big Island Pond (BIP) that meets Clean Water Action Section 319 Guidelines. Big Island Pond is located within the towns of Derry, Atkinson and Hampstead, all of which are MS4-permittees, and is impaired for phosphorus and bacteria. The Towns of Atkinson and Hampstead provided letters of support. The Town was successful in the application and the SRF was converted to an ARPA Grant.

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 with the SWMP at the following website: <https://www.derrynh.org/environmental/pages/derry-municipal-separate-storm-sewer-system-general-permit-ms4gp>

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

The Chloride Reduction Plan is being updated to reflect the change in regulatory requirements for private and commercial properties with 10 or more parking spaces to use a Certified Green SnowPro Contractor.

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:**

<https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/hoods-pond-derry-lpcp-scope-and-calculations.pdf>

Baseline Phosphorus = 1033 lbs/yr

Allowable Phosphorus Load = 248 lbs/yr

Phosphorus Reduction amount = 76%

Defined the scope of the Lake Phosphorus Control Plan (LPCP).

The LPCP scope is the urbanized area portion of our jurisdiction discharging to the impaired Waterbody ***during this reporting period***

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

During the reporting period, the Town of Derry applied for a Clean Water State Revolving Loan fund for the purpose of developing a Lake Phosphorus Control Plan and a Watershed-based Management Plan and that meets Clean Water Action Section 319 Guidelines for Hood Pond. Hood Pond has a TMDL for phosphorus. The Town was successful and will be awarded the CWSRF.

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 included in the attachments.

If 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:

Hood Pond Testing (NHLAK700061203-03-01)

The Town initiated a bacteria testing program to identify pollutant sources including testing of specific tributaries to Hood pond (Phosphorus and bacterial TMDL) for phosphorus and e-coli during dry and wet weather. Based on these results, select samples were tested using microbial source tracking (MST) to further differentiate the bacterial source. For Hood Pond, the testing initially evaluate samples for bacteria from humans, dogs, and Canadian geese. Testing will begin in fall 2021. The results identified elevated bacteria potentially associated with a groundwater seep and a nearby unnamed tributary (NHRIV700061203-45). MST testing did identify trace bacterioides associated with dog and human. The Town inspected a nearby sanitary sewer interceptor and performed a camera inspection for possible breaks or cracks. The sanitary sewer was intact without evidence of sewer discharge. Since the program began, Derry has experienced a significant to severe drought into 2022. As a result, no wet weather sampling occurred during the reporting period and no dry weather flow was observed in the associated catchment. Investigation of the catchment in ongoing.

Total phosphorus testing of parts of Hood Pond and tributaries entering Hood Pond was also performed to further establish baseline. Total phosphorus ranged from 0.010 to 0.023 mg/l in Hood Pond and associated tributaries which is significantly lower (50%) than originally estimated concentrations considered in development of the 0.012 mg/l TMDL. A slightly elevated concentration was observed in a groundwater seep from an adjacent wooded area which may be attributable to yardwaste disposal upgradient of the seep. This area will be evaluated further.

Sample were also analyzed for chloride to further assess salt impacts. All chloride samples were below the TMDL chronic criteria of 230 mg/l. The lowest concentrations were observed in Hood Pond and the Shields Brook tributary ranging from 55 to 66 mg/l. Elevated concentrations below the TMDL were detected in the unnamed tributary (HP-Trib) which collects.

A table summarizing the analytical results is attached to this report.

Beaver Brook Testing (NHRIV700061203-16)

Beaver Brook is tested periodically for chloride under a Groundwater Management and Discharge Permit associated with the Town's closed/capped landfill and wastewater treatment facility. All data is available in reports on the NHDES OneStop webpage. The results from the last 4 years is summarized in an attached table. Chloride concentrations ranged from 59 to 83 mg/l which is significantly below the chronic TMDL of 230 mg/l.

Description of Any Changes in Identified BMPs or Measurable Goals

The Town of Derry made changes as noted below to the following BMPs and/or measurable goals that were outlined in the permit and identified in the SWMP.

- Added BMP for outreach to all restaurants and food service establishments due to discovery of an illicit discharge. The goal is to distribute outreach material to every restaurant and food service establishment (including food trucks) operating in Derry. Brochures are distributed and facilities inspected by Health Officer during routine annual inspections.

COVID-19 Impacts

If any of the above Year 4 requirements could not be completed *during this reporting period* due to the impacts of COVID-19, please identify the requirement(s) that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

NA

Activities Planned for Next Reporting Period

The Town of Derry will continue to implement activities in accordance with the permit and SWMP.