

Year 6 Annual Report

New Hampshire Small MS4 General Permit

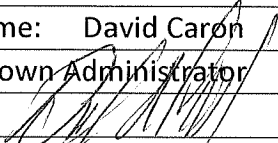
Reporting Period: July 1, 2023 - June 30, 2024

Derry, NH

EPA NPDES Permit Number NHR041005

Certification of Small MS4 Year 6 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: David Caron	
Title: Town Administrator	
Signature: 	Date: 9/27/24

Authorized Representative:

The authorization letter is:

Attached to this document (document name listed below):

Authorized Representative Under Derry MS4 Permit
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Publicly available at the website:

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Primary MS4 Program Manager Contact Information:

Name: Michael Fowler	Title/Position: Director of Public Works		
Department: Department of Public Works			
Street Address: 14 Manning Street			
City: Derry	State: New Hampshire	Zip Code: 03053	
Email: mikefowler@derrynh.org	Phone Number: 603-432-6144		

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, 2023, through June 30, 2024**, 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 Program Plan (SWMP) and Illicit Discharge Detection and Elimination (IDDE) Plan. Those documents and other pertinent Year 6 information can be found in submission or at the following websites, and will be referred to throughout this report:

SWMP: https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/derrynh-swmp-2022-final.pdf
Date SWMP was Last Updated: September 2022
IDDE Program Plan: https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/idde-plan_2019-derry-rev2019dec.pdf
Updated System Map https://www.derrynh.org/environmental/pages/stormwater-infrastructure-map-2022
Progress on Completion of System Map: The map is updated as changes occur or construction projects are completed. The Town continues to map Town and state-owned BMPs and drainage easements.
Updated SSO Inventory: See attached updated table
Updated Inventory and Ranking of Outfalls/Interconnections: see attached (no updates)
Dry Weather Screening Data: No data available
Wet Weather Screening Data: New data available attached to this submission
Catchment Investigation Data: No catchment investigations conducted this reporting period
System Vulnerability Factors: No catchment investigations. All outfalls considered high priority and no changes.
Illicit Discharge Removal Report: see attached
Results from additional stormwater or receiving water quality monitoring reports or studies: See attached submissions

PTAP 2024 Nutrient Reduction Report: See attached PTAP report

Salt Reduction Plan: https://www.derrynh.org/sites/g/files/vyhliif3026/f/pages/derry_crp_2022september-final.pdf

Annual Salt Usage Report: attached

Updated Nitrogen Source Identification Report: Not Applicable

PTAP 2024 Nutrient Reduction Report: N/A

Nutrient Tracking Program Report: N/A

Updated Phosphorus Source Identification Report:

<https://www.derrynh.org/sites/g/files/vyhliif3026/f/pages/phosphorus-source-identification-report-derry-final.pdf>

PTAP 2024 Nutrient Reduction Report: See attached submission

Derry Nutrient Tracking Program Report: See attached submission

Street Sweeping Schedule: See MCM#6 of this report for street sweeping schedule

Chloride Reduction Plan: https://www.derrynh.org/sites/g/files/vyhliif3026/f/pages/derry_crp_2022september-final.pdf

Annual Salt Usage Report: attached

Lake Phosphorus Control Plan: Not Completed. See Phosphorus TMDL section of this report for explanation.

PTAP 2024 Nutrient Reduction Report: See attached submission for PTAP report

Derry Nutrient Tracking Program Report: See attached submission for PTAP report

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 6 reporting period and can be found on the [New Hampshire Department of Environmental Services \(NHDES\) webpage](#).

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

Impairment(s)		
<input checked="" type="checkbox"/> Bacteria/Pathogens	<input 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 there been any changes to your lists of **receiving waters or impairments** since the NOI was submitted?

No

There have been no changes to the lists of **receiving waters or impairments** since the NOI submission.

Have there been any changes to your **list of outfalls** since the NOI was submitted?

No

The Town of Derry has not made changes to the **list of outfalls** 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

Minimum Control Measures

MCM 1: Public Education

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

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

No.

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):

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

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

Year 6 = 20 of flyers taken from Derry Town Hall kiosk.

Goal was achieved.

Message Date: Throughout the year at the Derry Municipal Center kiosk.

BMP: Pet Waste Disposal

Outreach Resources:

Pet waste flyer:

"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.

Targeted Audience:

Residents - Pet Owners

Responsible Department/Parties:

Department of Public Works and Town Clerk

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 6 = 15 total pledges this reporting period

- 13 residents pledged online through "Every Drop" website
- 2 pledges were mailed back to the Town

And

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

Year 6 = 25 flyers taken from Town Hall kiosk

Year 6 = ~3000 flyers were mailed out by the Town Clerk with dog registration reminders

Goal was achieved.

Message Date: Dog Registration – February through May
Town Hall Kiosk – Continuous throughout the year

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/Dog walkers

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 the 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: 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 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 and distributed to attendees at the Joint

Derry/Londonderry Household Hazardous Waste Collection Event in Derry.

AND

The Town has had an on-going composting program that allows the residents to drop off compostable materials at the Town's transfer station free of charge. The material is composted for beneficial reuse.

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):

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

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

Year 6 = 25 Brochures taken from Town Hall kiosk throughout the year

Year 6 = 366 brochures were distributed to attendees of the household hazardous waste collection event (253 to Derry residents and 111 to Londonderry residents)

The Town collected in excess of 100 cubic yards of yardwaste **during this reporting period.** The actual volume varies depending on woody material (limbs, logs, branches) versus compostable material (leaves, grass, trimmings, kitchen scraps). Composted material is reused to make topsoil for town projects.

Goal was achieved.

Message Date: June 8, 2024 - household hazardous waste collection event

Flyers available throughout year at Town Hall kiosk

Yardwaste can be dropped off at the transfer station throughout the year

BMP: Septic System Maintenance

Outreach Resources:

- 1) *Get Pumped* - <https://www.derrynh.org/sites/g/files/vyhlif3026/f/uploads/get-pumped-community-brochure.pdf>
- 2) Press Release "*Derry Residents Urged to be "Septic Smart"*" – Shared on Town website and with lake association (attached)
- 3) *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)* customized with Town Contacts

https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/septicmart_short_rack_brochure_030915-edited.pdf

Description:

Distribution and promotion of *Get Pumped NH* and customized *Be Septic Smart* brochures along with the press release for *EPA's Septic Smart* educates New Hampshire homeowners with septic systems on how to identify, locate and maintain those systems. Get Pumped NH is a collaborated effort between the New Hampshire Association of Septage Haulers (NHASH) and the NHDES.

Targeted Audience:

Septic System Owners

Responsible Department/Parties:

Department of Public Works

Measurable Goal(s):

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

Following are the number of brochures distributed and outreach outlets **during this reporting period:**

Year 6 = 25 "Get Pumped" brochures taken from Town Hall kiosk

Year 6 = 25 "Septic Smart" brochures taken from Town Hall kiosk

Year 6 = Big Island Pond Corporation and Friends of Big Island Pond included the Town's press release on their webpages reaching 300+ homeowners on Big Island Pond in the towns of Derry, Hampstead, and Atkinson. (Copies of their outreach Attached)

Goal was achieved.

Message Date: Get Pumped Brochure – Continuous at Town Hall kiosk
Septic Smart Brochure – Continuous at Town Hall kiosk
"Derry Residents Urged to be "Septic Smart" Press Release - 09/15/23

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 6: 25 brochures were taken from the Derry Municipal Center kiosk.

25 brochures were taken from the DPW/Code Enforcement office kiosk.

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 6: 15 Flyers taken from Municipal Center kiosk during the reporting period.

Goal was achieved.

Message Date: Continuous

BMP: Stormwater Pollution

Document Name and/or Web Address:

"After the Storm: A Citizen's Guide to Understanding Stormwater"

https://www.derrynh.org/sites/g/files/vyhlf3026/f/uploads/cu_after_the_storm_rev_0.pdf

Description:

Distribution of editable USEPA guide explaining stormwater runoff, why it is a problem, the effects of polluted runoff, and general overview of stormwater pollution solutions for residential, commercial, agricultural, construction, and automotive facility sites.

Targeted Audience:

Residents

Measurable Goal(s):

Year 6 = 366 brochures were distributed to attendees of the household hazardous waste collection event in June 2024 (253 to Derry residents and 111 to Londonderry residents)

Goal was achieved.

Message Date:

- June 8, 2024 at Household Hazardous Waste Collection Event
- Flyer posted on website (see link above)

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 during a prior reporting year, 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 and grease management, and tips for managers to ensure employees and contractors practice good housekeeping. Due to observed at the Town's WWTF influent pump station and periodic grease blockages, the Town continued with this outreach effort.

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 6 = The Health Department delivered over 50 brochures to new or existing restaurants, institutions, and food truck owners during health Department inspections.

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

BMP: Winter Salt Reduction for Commercial, Industrial, and Multi-Unit Residential

Outreach Resources:

Mailing: *Winter Salt Reduction Requirements for Protection of Water Quality with Green SnowPro* brochure (attached)

Description:

The Town prepared a mail-merge letter and Green SnowPro Brochure to owners or operators of commercial and institutional properties and multi-unit residential properties (condominiums and apartment buildings) that had 10 or more parking spaces and are located within the Beaver Brook Watershed which is subject to a chloride TMDL. The letter referenced Derry's *Stormwater Ordinance Chapter 131-7 Compliance with Best Management Practices and NH Title LII, Chapter 508 Section 508:22 Liability Limited for Winter Maintenance*.

Targeted Audience:

Commercial, industrial, and multi-unit residential properties with 10 or more parking spaces within chloride TMDL areas.

Responsible Department/Parties:

Department of Public Works

Measurable Goal(s):

Property owners and management companies of properties with 10 or more parking spaces are made aware of salt reduction requirements as specified in the permit and required by Town ordinance.

Following is the number of property owners/mailings that were sent ***during this reporting period:***

Year 6 = 205 letters sent.

- Only two (2) out of 205 were returned as undeliverable.
- Three (3) property owners contacted the town directly regarding the outreach to ask questions or report they are already using Green SnowPro Contractors.
- NHDES (Steve Landry) of the Watershed Bureau contacted the Town to inquire about the Town's outreach as they received five (5) inquiries from contractors/property owners in Derry regarding the Green Snow Pro Program.

Goal was achieved.

Message Date: November 2023

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

Not Applicable.

MCM 2: Public Participation

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

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

- No.

Measurable Goal(s):

Continued input received from Big Island Pond Corporation volunteers during the ongoing development of the Big Island Pond Watershed Management Plan. 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 following public involvement or participation opportunities and activities occurred during the reporting period.

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 Email 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:

- September 20, 2023 – BLIA members organized shoreline cleanup day (Email newsletter attached)
- April 27, 2024 – BLIA members organized shoreline cleanup day. (Email newsletter attached)

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, trail and park cleanups for residents to perform trash pickup in areas of their choosing.

Participating Party:

The Town provides all the trash bags through the Derry transfer station and Derry Public Library. Department of Public Works coordinates the pickup of trash bags left by participants along the roads and rail trail.

Volunteers consisting of individuals, neighborhood groups, Derry Rail Trail Alliance, and Girl and boy scout troops.

Measurable Goal(s):

Numerous Volunteer groups participated in cleaning up roadsides, parks, and the rail trail.

See *Derry Earth Day Cleanup!* Facebook page for photos posted by volunteer groups:

<https://www.facebook.com/groups/559896645807956/>

Activity Dates:

- Week of April 13-21, 2023– 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 the spring. 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 June 2024 event, workers handed out the following to all attendees:

Rake it or Leave It (proper yard waste disposal)

After The Storm: A Citizen's Guide to Understanding Stormwater brochure.

Participating Party:

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

Measurable Goal(s):

Derry HHW Event June 8, 2024:

- 366 vehicles (253 Derry, 111 Londonderry) representing 366 total Households.
- 28,350 lbs of HHW collected and kept out of the environment or solid waste waste-streams.

Londonderry HHW Event – November 18, 2023

- 129 vehicles from Derry representing 139 households attended this event.

Activity Date:

- November 18, 2023 (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.
- June 8, 2024 – Derry HHW collection event

BMP: Pet Waste Cleanup Signs

Description:

Various businesses and residents in Derry have posted pet waste cleanup signs including the following:

- The apartment management company at The Fairways, 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.
- Parkland Hospital posted signs around their facility where walking paths and trails are located. The sign included poop bags and a barrel (photo attached)
- Several residents along Michael Ave posted pet waste signs on their mailboxes (Photo attached)

Targeted Audience:

Residents - Pet Owners/dog walkers

Measurable Goal(s):

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

Decrease in dog waste left and the number of bags left on the ground that could pose a water quality issue.

Lack of bacteria problems in local watershed catchment.

Message Date:

- Continuous

BMP: School Tours and Environmental Education

Description:

The Town continues to have staff available for local educational institutions for tours of the Town’s wastewater treatment plant (WWTP) and to promote environmental education.

The Town worked with Pinkerton Academy to provide a tour of the WWTP and explain how wastewater is treated.

Participating Party:

Town of Derry wastewater operators and Pinkerton Academy high school students and Science Teacher.

Measurable Goal(s):

Schools (teachers/students) participate in tours and environmental programs:

- Tour of Wastewater Treatment Facility

Message Date:

- WWTF Tour – April 16, 2024

BMP: Big Island Pond Watershed Management Plan

Description:

During the prior reporting period, the Town of Derry initiated work on the development of the Big Island Pond Watershed-based Management Plan (WMP) 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.

During the reporting period, the volunteers from Big Island Pond Corporation (BIPC) participated in the first 6 tasks of the Scope of Services including formal kickoff and follow-up meetings with NHDES present, development of water quality goals, and conducting shoreline assessment surveys. The Shoreline assessment surveys included data collection on observed areas of

erosion, opportunities for improved vegetated buffers, potential stormwater management improvements, septic system information, and other categories based on collaboration with the Town and BIPC.

Friends of Big Island Pond (FBIP) participates in the VLAP program and performs lake monitoring in coordination with NHDES. Data collected will be used in the development of the WMP. FIBP also coordinates with students from local schools and Pinkerton Academy to educate them on water quality issues.

Participating Party:

Town of Derry and volunteers from Big Island Pond Corporation involved in data collection and development of the WMP.

Measurable Goal(s):

Volunteer involvement from Big Island Pond Corporation and Friends of Big Island Pond. Volunteers completed 197 shoreline assessment surveys of waterfront properties. Draft Lake Loading Response Model, Water Quality Goal Setting, and slide presentations are available at the following link: <https://www.derrynh.org/environmental/pages/big-island-pond-watershed-management-plan>

Activity Date:

August 3, 2023 – BIP WMP kickoff meeting
November 29, 2023 – Shoreline survey training
January 25, 2024 – Lake Loading Response Model meeting
March 2024 to present – Shoreline Assessment Surveys conducted

BMP: NH Lakes LakeSmart Program Participation by Beaver Lake Resident

Description:

A waterfront property owner on Beaver Lake participated in the NH Lakes Program. The voluntary program conducts a LakeSmart Audit to understand how to prevent runoff and onshore pollutants from contaminating the lake by planting and creating natural and artificial buffers. The resident is in the process of transforming 100-foot shoreline into a barrier against runoff an erosion through various plantings and converting the lawn from grass to clover to reduce or eliminate fertilizer use. The resident hopes this example will be a catalyst for more involvement.

Participating Party:

Resident waterfront property owner.

Measurable Goal(s):

Voluntary participation by resident

Message Date:

- Union Leader article June 13, 2023 (attached)

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)

- The SSO inventory has been updated, including the status of mitigation and corrective measures implemented or was addressed and can be found attached to this submission

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

Number of SSOs identified **during this reporting period:** 1

Number of SSOs removed **during this reporting period:** 1

MS4 System Mapping

- Updated **Phase 1** 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. Starting in 2023, the Town began mapping recorded drainage easements as a separate GIS layer.

- Updated **Phase 2** system map (due in Year 10):

Percent of Phase 2 map completed: 0 percent of Phase 2 mapping completed as of June 30, 2024.

Provide additional status information regarding your map:

Map of storm sewer system, catchments, and related elements is continually updated to incorporate findings and changes from catchment investigations.

Screening of Outfalls/Interconnections

Dry Weather Screening

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

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 6)**: 100

- The inventory and ranking of outfalls/interconnections was not updated during Year 6 because outfalls/interconnections were not inspected.

Wet Weather Screening

- Wet weather outfall/interconnection screening data can be found attached to this submission

Number of outfalls screened **during this reporting period**: 10

Percent of total known outfalls/interconnections screened **to date (Year 1 – Year 6)**: 12%

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**: No (0) catchment investigations were conducted as outlined in Part [2.3.4.8](#). of the permit and include investigations associated with Problem, High Priority, and Low Priority Outfalls and Interconnections within the MS4 regulated area.

Percentage of total catchments investigated **to date (Year 1 - Year 6)**: 0

IDDE Progress

Illicit discharges were removed **during this reporting period** and the illicit discharges removal report can be found in this attachment to this 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**: 0 gallons/day

Total number of illicit discharges identified **since the effective date of the permit (July 1, 2018 – June 30, 2024)**: 17 (including complaints)

Total number of illicit discharges removed **since the effective date of the permit (July 1, 2018 – June 30, 2024)**: 17

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. Complaints investigated that did not result in identification of an actual illicit discharge are included here.

Employee Training

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

IDDE Training – March 28, 2024 – The Town of Derry held a formal IDDE training session for Highway Division staff. In addition, The Town of Derry 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. Training logs are included in Appendix F of the IDDE Program Plan.

Derry staff routinely attend other environmental and stormwater training throughout the year including the following:

- Installation & Maintenance of Culverts–UNH Tech Transfer Ctr (6/11/24): 3 Staff
- Source Water Protection Workshop-NHDES (5/16/24): 1 Staff
- How to Fix Lake Erosion with Bioengineered Living Shorelines-Solitude Lake Management (3/10/24): 1 Staff
- Hazardous Waste Coordinator Refresher Training-NHDES (2/14/24): 1 Staff
- Environmental Regulatory Conference – NHDES/BIA (9/12/23): 1 Staff

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

Not Applicable.

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:** 9 (1 residential, 7 commercial, 1 mixed-use)

Number of inspections completed **during this reporting period:** 96

Number of enforcement actions taken **during this reporting period:** 2

The 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/sites/g/files/vyhlf3026/f/uploads/construction_monitoring_2011.pdf

Enforcement Actions

57.5 Frost Road-Inner Circle LLC (Complaints and orders attached)

8/09/2023 – Town engineer discovered that construction began on a proposed subdivision without proper Town approvals, State permitting (no Alteration of Terrain Permit) or erosion and sediment controls.

8/21/2023 – Town Engineer filed complaint with NHDES Land Resources Management Program

8/31/2023 – NHDES issued request for information

2/12/2024 – Derry Code Enforcement issued Cease Order

3/5/2024 – NHDES conducted inspection of site.

3/19/2024 – NHDES letter ordering, with deadlines, installation/maintenance of temporary erosion and sediment controls, retention of a NH engineer to prepare an "after-the-fact" of Alteration of Terrain permit and preparation of Stabilization Plan for NHDES approval, halting earth moving activities, and weekly monitoring with reports.

Drew Road (58-64) – Shade Tree Farm subdivision (Complaints and orders attached)

8/16-22/2023 – Town engineer discovered unauthorized disturbance, impacted wetlands, and lack of erosion and sediment control. Town engineer spoke with workers onsite to remedy situation. A follow-up inspection 2 and 6 days later found limited effort to address issues. Town withholding building permit.

9/12/23 – Town Engineer filed complaint with NHDES Land Resources Management Program

3/5/2024 – NHDES conducted inspection of site.

5/31/2024 – NHDES letter ordering, with deadlines, installation/maintenance of temporary erosion and sediment controls, retention of a NH engineer to prepare an “after-the-fact” of Alteration of Terrain permit and preparation of Stabilization Plan for NHDES approval, halting earth moving activities, weekly monitoring with reports, retention of a NH certified Wetland Scientist to prepare a Wetland Restoration plan for NHDES approval and implementation.

8/16/2024 – NHDES issues Temporary Restoration Plan Approval with restrictions.

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

Ordinance or Regulatory Mechanism

- The Town of Derry has a regulatory mechanism(s) consistent with permit requirements.

Date regulatory mechanism(s) was adopted: 11/18/08, Updated 5/19/21.

The regulatory document can be found at: <https://ecode360.com/7626031> Land Development Control Regulations

As-built Drawings

Number of as-built drawings received *during this reporting period*: 2

Street Design and Parking Lots Report

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

Green Infrastructure Reports

- The **Assessment Report** was evaluated and no updates were recommended *during this reporting period*.
- No updates were made *during this reporting period* because all required **Local Regulation** updates have been made to make green infrastructure practices allowable as outlined in the Assessment Report.

Retrofit Properties Inventory

- The Town of Derry has identified the remaining permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and of which are included in the list below:

List of MS4 Properties:

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

Note: 131 East Broadway - Derry Central Fire Station REMOVED. Town is constructing new Fire Station with structural stormwater BMPs. The disposition of the current Central Fire Station is under discussion.

Report can be viewed at:

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

List of Non-MS4 Properties: None

- ☒ The Town of Derry has modified or retrofitted the following MS4 properties with BMPs to mitigate impervious area that were inventoried as part of 2.3.6.e of the permit. Following is a list of the properties that were modified or retrofitted as well as the type of BMP(s) that were implemented:

List of MS4 Properties: No new permittee-owned properties within the MS4 regulated area were modified or retrofitted during this reporting period.

The following permittee-owned properties within the MS4-regulated area already have BMPs implemented.

- Veteran’s Hall/Derry Parks and Recreation Offices – Implemented in previous reporting year. Installation of an infiltration catchbasin to capture runoff from the roof and a section of the parking lot that drained into the road causing icing issues during winter. The BMP eliminated the need for excess deicers (salt) and captured phosphorus.
- Derry Fire Station at English Range Road -Stormwater Detention Pond implemented during construction of fire station
- Derry Municipal Center (DMC) – Stormwater Detention Pond implemented during construction of DMC (2004)
- Derry Transfer Station – Facility already equipped with Stormwater Detention Ponds, vegetated treatment swales with check dams at time of construction.
- Derry Wastewater Treatment facility – Facility already equipped with a vegetated treatment/retention swale.
- Collettes Grove near Big Island Pond –Underground stormwater infiltration structure (2019)

List of Non-MS4 Properties: None.

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

Hood Park, 4 Rollins St – No retrofits – As reported in prior reporting year, the Town of Derry issued a Request for Proposals for Hood Park Improvements which included design and installation of stormwater BMPs and a pond fountain with the park improvements. At the time the RFP closed on April 14, 2023, there were no bidders. The Town has postponed the improvements until a decision is made to either rebid the project or have the Town act as its own general contractor.

Derry Central Fire Station/New Fire Station – No retrofits – A new Central Fire Station is being constructed at an alternate location. The new Central Fire Station includes full stormwater treatment that meets current stormwater BMP requirements and regulations. Once vacated, any redevelopment of the former Central Fire Station will require stormwater BMPs installed that meet current code requirements.

Derry Police Department. 1 Municipal Drive – No Retrofits – The new Exit 4A connector road to Interstate 93 will impact the Derry Police Department property with a partial property taking and a new police department access road yet to be configured and designed. The original Exit 4A Engineering Design was at 90% design as of March 2024 and includes numerous five (5) stormwater BMPs along the connector road in the form of extended detention ponds and a treatment swale. The project has already gone out to bid and construction is anticipated to begin before the end of 2024.

Collettes Grove near Big Island Pond – Not previously reported. This is a parcel taken by town by tax deed. In 2019, the Town installed an underground stormwater infiltration structure on the vacant parcel and installed catchbasins along road to reduce flooding, erosion, and treat stormwater.

As described in the Town’s retrofit inventory report, several remaining Town-owned properties are already equipped with stormwater BMPs or have minimal impervious surface such as recreation fields that follow operational BMPs including use of non-phosphorus fertilizer.

MCM 6: Good Housekeeping

Catch Basin Cleaning

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

A schedule for catch basin cleaning has been established with the goal of ensuring that a catch basin should not be more than 50% full. Select catchbasins in specific areas and in the urban compact are now included in regular cleanings.

Some catchbasin which were found to be more than 50% full during the reporting period was due to failing metal culvert pipe or due to structural issue of the catchbasin. This was not due to excessive sediment run-off. Repairs and upgrades are being scheduled.

Number of catch basins inspected **during this reporting period:** 750 (basic inspection during cleaning)

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:** 145 cubic yards

Total number of catch basins within the MS4 system: 3168

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.

All curbed roadways were swept at least once **during this reporting period.**

Number of (lane) miles swept **during this reporting period:** 94

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 – once/week (April-November)
- 1.6 lane miles (Transfer Station) – weekly 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)

- The Town of Derry has 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*: 7

Inspections are performed by the environmental Coordinator accompanied by the specific facility crew chief.

- Vehicle Maintenance Facility - 3
- Highway Garage - 3
- Buildings & Grounds (unmanned facility) - 1

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 6.
 - 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:

The Town of Derry inspect permittee-owned treatment structures on a rotating basis. The Town does inspect several throughout each year and performs maintenance as needed.

Appendix F and H: Water Quality Limited Waters & TMDLs

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

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

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

Not Applicable

Chloride Impairment (Appendix H)

Permittee **has** a chloride impairment.

Fully implemented Salt Reduction Plan which can be found at the following website:

https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/derry_crp_2022september-final.pdf

The Municipal Green SnowPro Certification Program's (Program) rules and regulations were approved and adopted in 2024. The Program anticipates they will be ready to accept voluntary applications from municipalities in fall of 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 attached to this 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:

Not Applicable.

Nitrogen Impairment (Appendix H)

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

Phosphorus Impairment (Appendix H)

- Permittee **has** a phosphorus impairment.
 - Distributed an annual message that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release fertilizers **during this reporting period.**
 - Distributed an annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate **during this reporting period.**
 - Distributed an annual message encouraging the proper disposal of leaf litter **during this reporting period.**
 - Increased street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.d.iii to a minimum of two times per year (spring and fall) **during this reporting period.**
 - Increased street sweeping frequency of all municipal owned curbed streets and parking lots subject to Permit part 2.3.7.d.iii to a minimum of one time per year (spring) and implemented a fall leaf litter collection program in lieu of post-drop street sweeping **during this reporting period.**

Phosphorus Source Identification Report- Update

Structural BMPs

- The Phosphorus Source Identification Report was reviewed and there were no updates required **during this reporting period** because there were no revisions. The Phosphorus Source Identification Report can be found at the following website:
<https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/phosphorus-source-identification-report-derry-final.pdf>.
- The Town of Derry has installed a minimum of one structural BMP(s) as a demonstration project within the drainage area of the water quality limited water or its tributaries **by the end of this reporting period.** The type of structural BMP(s) that was installed was a

subsurface infiltration system. Information regarding the installed BMP(s) can be found in *Section 2: Potential Structural BMPs Report (Year 5) in Part II.1.c.iii* of the Phosphorus Source Identification Report.

- ☒ Structural BMP(s) listed in Attachment 3 to Appendix F already existing or installed in the regulated area by the Town of Derry or its agents was tracked and the phosphorus removal by the BMP(s) was estimated consistent with Attachment 3 to Appendix F. The BMP(s) type, total area treated by the BMP(s), the design storage volume of the BMP(s), and the estimated phosphorus removed in mass per year by the BMP(s) were documented in **PTAP 2024 Nutrient Reduction Report** in the attached submission. The total estimated phosphorus removed from the installed BMP(s) is 0.76 lbs/year.

The Town of Derry is utilizing the Pollutant Tracking and Account Project, better known as PTAP, to track nutrient reductions associated with stormwater structural and non-structural best management practices. PTAP was developed by the University of New Hampshire Stormwater Center and New Hampshire Department of Environmental Services utilizing the EPA Region 1 approved performance curves, to provide New Hampshire communities with a way to track their nutrient reductions. PTAP allows the Town of Derry the benefit of utilizing a uniform, defensible and consistent method for tracking reductions so that a common, weight-of-evidence based approach can be shared with other entities including EPA, NHDES, and other MS4 communities and interest groups. The consistent and systematic tracking and accounting framework also allows for routine updates when improved science becomes available.

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

The Town of Derry applied for and received a Clean Water grant for the development of a Watershed-Based Management Plan for Big Island Pond which is impaired for phosphorus. The Town of Derry took the lead as the applicant and fiscal agent on behalf of the Big Island Pond Corporation and the Towns of Hampstead and Atkinson in which the pond is also located. To date, there have been several meetings, preparation of a site-specific project plan, draft Lake Loading Response Model and water quality goal setting, and completion of 197 shoreline assessment surveys by volunteers which will be used to identify target areas for outreach and shoreline stabilization projects. Information regarding the Big Island Pond WMP development can be found at the following website: <https://www.derrynh.org/environmental/pages/big-island-pond-watershed-management-plan>

The Town conducts street sweeping on town-owned curbed streets twice per year within the phosphorus-impaired and phosphorus TMDL watersheds.

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

Permittee **does not** have a solids, oil and grease, or metals impairment(s).

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 **has** a chloride TMDL.

Fully implemented Chloride Reduction Plan which can be found at the following website:

https://www.derrynh.org/sites/g/files/vyhlf3026/f/pages/derry_crp_2022september-final.pdf

Municipal Green SnowPro Certification Program’s (Program) rules and regulations were approved and adopted in 2024. The Program anticipates they will be ready to accept voluntary applications from municipalities in fall of 2024.

Reported amount of salt applied to all municipally-owned and maintained surfaces by completing the New Hampshire DES Annual Salt Usage reporting form, submitting it to NHDES, and can be found attached to this 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:

During the current and previous reporting periods, the Town of Derry implemented activities to evaluate sources of chloride import into the TMDL watershed and target outreach for salt reduction in Derry. This included chloride analysis for all surface water samples collected as part of the Hood Pond Watershed Management Plan development, outreach to commercial/industrial/multi-unit residential property owners/managers, and inquiries to NHDES and NHDOT regarding NHDOT salt usage within Derry.

The Town of Derry observed noticeable differences in the amount of salt applied to state-maintained roads compared to municipally-maintained roads where higher amounts of salt is applied to state-maintained roads. Through a formal FOIA request, the Town requested information from NHDES regarding annual salt use reporting by NHDOT. That FOIA request was submitted to NHDES on February 22, 2024, for all records of salt use by NHDOT for the winter seasons of fall 2018 through spring 2023. NHDES responded that there are NO RECORDS of salt use reporting by NHDOT for the reporting periods. The Town then reached out directly to NHDOT District #5 via email requesting total salt usage for each of four (4) Patrol Sheds (Shed #528, 508, 513, and 514) that perform winter maintenance in Derry, total lane miles treated for each shed, and the NHDOT’s Winter Severity Index for each of the winter seasons of fall 2019 through Spring 2023. As of the date of this report, the Town of Derry has not received a response from NHDOT.

As reported in the BMP section of this report (BMP: Winter Salt Reduction for Commercial, Industrial, and Multi-Unit Residential), the Town prepared a mail-merge letter with Green SnowPro Brochure to owners or operators of commercial and institutional properties and multi-unit residential properties (condominiums and apartment buildings) that had 10 or more parking spaces and are located within

the Beaver Brook Watershed which is subject to a chloride TMDL. The letter referenced Derry's *Stormwater Ordinance Chapter 131-7 Compliance with Best Management Practices* and *NH Title LII, Chapter 508 Section 508:22 Liability Limited for Winter Maintenance*. The letter was sent to owners of 205 properties. The town received direct inquiries from three (3) property owners and NHDES indicated they received five (5) inquiries in response to the Town's outreach letters.

The chloride monitoring data is included with the Hood Pond surface water sampling information attached to this submittal.

Then Town of Derry performs annual surface water monitoring for chloride in Beaver Brook Assessment Unit NHRIV700061203-16 under a NHDES-issued Groundwater Management Permit. Current and limited historical results are attached. All chloride results are well below the TMDL and chronic and acute NHDES standards for chloride.

Lake and Pond Phosphorus TMDL (Appendix F)

Permittee **has** a lake and pond phosphorus TMDL.

Year 5 Lake Phosphorus Control Plan Reporting Requirements

The Town of Derry has **not fully completed the Year 5 requirements** of the written Lake Phosphorus Control Plan **during this reporting period**. The partially completed plan can be found at the following link: <https://www.derrynh.org/environmental/pages/hoods-pond-watershed-based-management-plan-and-lake-phosphorus-control-plan> The Lake Phosphorus Control Plan will be available to the public at the Derry Municipal Center, Department of Public Works Office. The Town of Derry has completed the following sections of the written Lake Phosphorus Control Plan **during this reporting period**:

- Description of Planned Non-structural Controls
- Description of Planned Structural Controls
- Description of Operation and Maintenance (O&M) Program
- Implementation Schedule
- Cost and Funding Source Assessment

The Town of Derry plans to complete the outstanding items noted above during the next reporting period with a goal of completion by December 31, 2024.

Year 6 Lake Phosphorus Control Plan Reporting Requirements

Baseline phosphorus export rate required from LPCP Area (lbs/year)[A]: 1033.6

Total phosphorus reduction from all implemented nonstructural controls **during this reporting period** (lbs/year) [B]: 6.49

Total phosphorus reduction from all structural controls installed **during this reporting period and all previous years** (lbs/year) [C]: 0.76

Phosphorus load increase due to development incurred since baseline loading was calculated in lbs/year [D]: 0

The Town of Derry is utilizing the resources developed by the New Hampshire Stormwater Coalition. Resources have been developed but the **phosphorus load increase due to development incurred since baseline loading** was not calculated **during this reporting period**. The New Hampshire Stormwater Coalition is in the process of calculating the **phosphorus load increase due to development incurred since baseline loading** and will be available during Year 7. The Town of Derry will provide an update on the progress in the Year 7 Annual Report.

Current phosphorus export rate from the LPCP Area in lbs/year [=A-(B+C)+D from above]:
1026.3

Non-Structural Controls

- The Town of Derry has implemented all selected Lake Phosphorus Control Plan **non-structural control measure(s) during this reporting period** and documented the measure(s) and their phosphorus reductions. The **non-structural control measure(s)** will be noted within the Derry's written Lake Phosphorus Control Plan upon completion.

The Town of Derry is utilizing the Pollutant Tracking and Account Project, better known as PTAP, to track nutrient reductions associated with non-structural best management practices. PTAP was developed by the University of New Hampshire Stormwater Center and New Hampshire Department of Environmental Services utilizing the EPA Region 1 approved performance curves, to provide New Hampshire communities with a way to track their nutrient reductions. PTAP allows Derry the benefit of utilizing a uniform, defensible and consistent method for tracking reductions so that a common, weight-of-evidence based approach can be shared with other entities including EPA, NHDES, and other MS4 communities and interest groups. The consistent and systematic tracking and accounting framework also allows for routine updates when improved science becomes available.

Structural Controls

- ☒ The Town of Derry has **not** installed any **structural control measure(s)** within the Lake Phosphorus Control Plan area **during this reporting period or during previous reporting periods**. Therefore, the Town of Derry has not documented the location, phosphorus reduction in mass/year, and date of last completed maintenance and inspection for each installed control within the written Lake Phosphorus Control Plan.

The Town of Derry is utilizing the Pollutant Tracking and Account Project, better known as PTAP, to track nutrient reductions associated with structural best management practices. PTAP was developed by the University of New Hampshire Stormwater Center and New Hampshire Department of Environmental Services utilizing the EPA Region 1 approved performance curves, to provide New Hampshire communities with a way to track their nutrient reductions. PTAP allows the Town the benefit of utilizing a uniform, defensible and consistent method for tracking reductions so that a common, weight-of-evidence based approach can be shared with other entities including EPA, NHDES, and other MS4 communities and interest groups. The consistent and systematic tracking and accounting framework also allows for routine updates when improved science becomes available.

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 not finished the Lake Phosphorus Control Plan (LPCP) for Hood Pond. During the prior reporting year, the Town applied for and was awarded a Clean Water State Revolving Loan Fund of \$100,000 to prepare a Watershed-Based Management Plan (WMP) and the Lake Phosphorus Control Plan. Following a Qualification Based Selection Process, Comprehensive Environmental Inc. was selected. The SRF Loan Agreement was approved and received by the Town of Derry on September 1, 2023. It is the Town's goal to complete the WMP and the LPCP by December 2024.

The Site-Specific Project Plan (SSPP) for the WMP and LPCP was approved by NHDES and USEPA in November 2023. A Draft Water Quality Goal Memo and Draft Lake Loading Response Model modelling memo were prepared February 9, 2024 and discussed with meetings with NHDES. The SSPP and draft WQ and LLRM memos can be found at the following link:

<https://www.derrynh.org/environmental/pages/hoods-pond-watershed-based-management-plan-and-lake-phosphorus-control-plan>

The Hood Pond phosphorus TMDL was developed using 2 limited samples collected in 1997 and 2011. The Town initiated surface water sampling of Hood Pond and selected tributaries in MAY 2023 that would mirror the VLAP program and to aid in developing Hood Pond's first baseline monitoring. Sampling was conducted monthly from May through September (Years 5 and 6) and included field testing for pH, conductivity, dissolved oxygen and saturation, turbidity, temperature, and clarity (deep spot secchi disc measurement) and laboratory analysis of total phosphorus, chloride, e-coli

(count), and chlorophyll-a (deep spot only). During the program, the Town extended surface water sampling up certain tributaries segments to provide additional data and identify problem tributaries and catchments. Data collected during the reporting period is attached to this submittal.

The Town reached out to NHDES VRAP and VLAP programs but, due to lack of volunteers to sample with the Town throughout the summer, support from NHDES was not provided. The Town reached out to Next Charter School and Pinkerton Academy for student volunteers. Next Charter School would not have students available for the summer and no Pinkerton Academy students came forward for summer 2023. The Town hired a University of New Hampshire student to intern with the Town in summer 2023 (years 5 and 6) to assist with the data collection.

The Town continued to focus its wet weather outfall sampling in the Hoods Pond Watershed. This will help identify primary problems areas that are contributing to surface water phosphorus impairments and evaluate areas that will be addressed by the Interstate 93 Exit 4A connector road. The new Exit 4A connector road will bisect the Hood Pond watershed a short distance upstream of Hood Pond. The Town of Derry has already contributed \$5M to the project. A 90% design as of March 2024 has been completed by NHDOT contractor and includes no less than six stormwater BMP (extended wet detention pond, detention ponds, and treatment swales) in the immediate upstream watershed catchments of Hood Pond. A summary of five (5) proposed BMPs is discussed in the Water Quality Review memo regarding Exit 4 Section 13065B prepared by McFarland Johnson, Inc to NHDOT dated 12/15/2023 (attached). The project location currently has 323,342 square feet of impervious surface that receives no stormwater treatment. The project will increase impervious surface to 576,729 sf., all of which will be directed to structural stormwater BMPs designed to meet or exceed phosphorous and total suspended solids removal requirements. These structural BMPs are being incorporated into the LPCP.

Upon completion of the project, the Town will take ownership and operation & maintenance responsibilities for these BMPs. The 90% Design Plan is attached to this submittal. At least four of the Town's outfall catchments where stormwater discharges occur upstream of Hoods Pond without treatment will be rerouted to a new Exit 4A stormwater BMP wet detention Ponds. The scheduled for construction is as follows: Project bidding - completed August 2024, Project construction anticipated to start spring 2025.

Non-structural controls were implemented including targeting catchbasin cleaning within the Hood Pond watershed and areas of highest pollutant load. Street sweeping is also occurring in curbed streets within high pollutant load areas. The catchbasin cleaning and street sweeping program within the Hood Pond direct watershed will be incorporated into the LPCP.

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:

- The results from additional reports or studies are in this 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:

The Big Island Pond Corporation conduct VLAP monitoring at Big Island Pond. The most recent data and VLAP assessment report are attached.

Then Town of Derry performs annual surface water monitoring for chloride in Beaver Brook Assessment Unit NHRIV700061203-16 under a NHDES-issued Groudwater Management Permit. Current and limited historical results are attached. All chloride results are well below the TMDL and chronic and acute NHDES standards for chloride.

Description of Any Changes in Identified BMPs or Measurable Goals

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

Annual Report Submission

Your completed Annual Report and all associated documents must be sent to EPA by **September 30, 2024**. It is optional to send your completed Annual Report to NHDES as well.

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

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