

Town of Derry
"Derry, New Hampshire's Place to Be"

DEPARTMENT OF PUBLIC WORKS,
Michael Fowler, P.E., Director
Thomas A. Carrier, Deputy Director

PW13-183

VIA EMAIL: stormwater.reports@epa.gov

April 26, 2013

Glenda Velez
USEPA OEP06-01
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Jeffrey G. Andrews, PE
NHDES
Wastewater Engineering Bureau
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

RE: **NPDES Small MS4 General Permit Number NHR041005
Year 10 Annual Report**

Dear Ms. Velez,

Enclosed please find the Town of Derry's NPDES Small MS4 General Permit Year 10 Annual Report for period of April 1, 2012 through March 31, 2013.

If you have any questions, please contact Craig Durrett or me at (603) 432-6144

Very truly yours,



Michael A. Fowler, P.E.
Director of Public Works

Cc/att: Craig Durrett, Derry Public Works

/csd

Municipality/Organization: Town of Derry, NH

EPA NPDES Permit Number: NHR041005

MaDEP Transmittal Number: W-

Annual Report Number

& Reporting Period: No. 10: April 1, 2012-March 31, 2013

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Michael A. Fowler P.E.

Title: Director of Public Works

Telephone #: (603) 432-6144

Email: mikefowler@ci.derry.nh.us

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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.

Signature: 

Printed Name: Michael A Fowler P.E.

Title: Director of Public Works

Date: April 17, 2013

Part II. Self-Assessment

General

The Town of Derry (The Town), through the Department of Public Works (DPW), continues to make progress in improving the quality of storm water run-off within the Town under the NPDES Phase II MS4 Storm Water Program. The Town continues to implement, encourage, and require the use of Best Management Practices established at the onset of the program, as well as new or revised BMPs throughout the term of the permit. The Town continues to receive support from the residents of Derry since the inception of the program as well as from prospective developers interested in incorporating recommendations from Derry's adopted Stormwater Ordinance. Its principles are being followed and incorporated into projects managed by town, commercial, and private entities. There remains sincere interest and enthusiasm by diverse groups of people in Derry including lake and watershed groups, academia, and residents, to maintain or improve the environmental health of the Town including storm water quality in the water ways and teach others about the importance of eliminating non-point source pollution and overall pollution prevention.

All goals identified in the last permit continue to be met and when feasible, improved upon as of this reporting period.

Due to the extension of the permit renewal by USEPA, all measurable goals and planned activities are subject to change based on the contents and requirements of the new MS4GP. The Town of Derry experienced additional cuts to its budgets across all departments due to the current state of the economy and currently in budget review for the next fiscal year. The Town expects significant impacts on DPW's ability to conduct all planned activities and reach all measurable goals in a timely manner. In addition, the Town does not foresee being able to conduct the majority of the proposed requirements or meet any of the deadlines included in USEPA's Draft 2013 MS4 permit.

Catch Basin Cleaning and Street Sweeping

In the 2012 construction season, 750 catch basins were cleaned. The catch basin cleaning program is set up to schedule higher priority catch basins on a more frequent cleaning schedule. Basins that pick up little debris are cleaned less often. The Town had 750 catchbasins identified for cleaning based on regularly scheduled basis. The Town has budgeted to clean an additional 750 catch basins during the next reporting period.

Street sweeping of the urban areas of town begins in March each year and continues through the fall. Street sweeping for 2013 commenced in March. Approximately 40 miles of roads within the urban compact and nearby roads with closed drainage systems are cleaned each spring. From spring through fall, approximately 6 miles of main roads (urban closed drainage system) are cleaned on a weekly basis.

Drain Stenciling

Catch basin stenciling program is still a popular activity for various groups. The Town's Public Works Department continued to provide the stencils for any group interested in participating in these activities. The Town's stencils have wording stating "No Dumping, Drains to Lake" or "No Dumping, Drains to Wetland".

In 2012, the Town provided a new community group with stencils, paint and safety vests. As of the writing of this report, the Town has not been able to reach members of this group to retrieve our stencils or find out how many catch basins were stenciled. In prior years, the Town has provided stencils and paint to the Beaver Lake Improvement Association (BLIA) and local Boy Scout and Girl Scout Troops.

Public Outreach and Participation

The Town continues to use events such as BLIA meetings and Town-wide Derry Fest, as a means of outreach to the public. Through partnership and open communication with organizations such as BLIA, Conservation Commission, and Recreation Department, the Town was able to distribute information on stormwater pollution prevention BMPs, household hazardous waste, pet waste management, and pharmaceutical disposal and take back initiatives.

The summer 2012 Stream Teams focused on eight stream reaches that flow directly into Beaver Lake. However, all of the tributaries that are included in the Beaver Lake Watershed will affect the water quality of Beaver Lake, so it is important that all of the streams are in good condition in order to maintain a productive ecosystem in Beaver Lake. The teams were able to test eight different reaches. Stream Teams tested reaches in Manter Brook, Jenney Dickey Brook, Cat-O Brook tributaries, and a section of the main part of Cat-O Brook, which has never been tested before by Stream Teams. Overall, the streams in Derry are in good condition. Almost all of the reaches scored a 'Good' rating according to the NHRSAT ranking system. The NHRSAT ranking system incorporates many aspects of testing stream health including erosion indicators, biological indicators, and chemical and physical indicators such as temperature, stream flow, etc.

The Town continues to sponsor Derry Clean Up week during the week of Earth Day and has had broad participation from the public and various groups in this program including the Beaver Lake Improvement Association (BLIA) and local Boy and Girl Scout troops. BLIA has already scheduled its The Beaver Lake Watershed Partnership (BLWP) continues to work diligently within Derry as well as Auburn and Chester to improve water quality within the Beaver Lake Watershed. Many of the Partnerships goals parallel the goals set for the Town of Derry in our MS4GP, benefiting the Town. The Town Environmental Engineer is currently assisting the BLIA president with related articles for the BLIA e-newsletter. The most recent is a discussion on protecting water quality through the use of non-phosphorus fertilizer, hiring knowledgeable landscapers, and proper management of yard waste.

The town often gives tours of the Town Hall to students and youth groups (cub scouts, girl scouts). When available or requested the Director of Public Works and/or Environmental Engineer will give short presentations on the town environmental responsibility and distributes age appropriate literature to participants. Historically, these tours and presentations has resulted in groups contacting us in order to participate in storm drain stenciling, and to brain storm on other volunteer opportunities. Town representatives also conduct outreach to children with presentations on recycling and water pollution at area schools.

Derry remains active in the Manchester area inter-community storm water group with participation in monthly to quarterly meetings and attendance by NHDES representatives. USEPA representatives have attended these meetings in previous years. Although EPA continues to be invited to these meetings, EPA did not attend any over the last year. The meetings include discussion of ongoing stormwater issues, sharing of experiences, presentations by outside environmental and regulatory agency speakers, and site visits to tour stormwater projects. Attendance at these meetings has

grown to include communities from the Nashua, Concord, and seacoast regions.

The Town is involved in two household hazardous waste (HHW) collection events per year cosponsored with the Town of Londonderry. Derry conducts active outreach with public notice and stormwater handouts to Derry residents at our Transfer Station and other town venues. Aggressive outreach and advertising continues to generate a respectable participation by Derry residents and volume of HHW collected even though the Town returned to its regular 3-hour collection time for the scheduled May 2011 event held in Derry. The Town's next event is scheduled for May 11, 2013.

In 2012, the Department of Justice, through local law enforcement, continued with an annual pharmaceutical take-back day. The Town Departments, including Public Works and the Derry Police Department (DPD) along with the Community Alliance for Teen Safety (CATS) conducted public outreach on the proper disposal of pharmaceuticals, not only in the interest of reducing the likelihood of prescription drug abuse, but in the interest of protecting groundwater and surface water by eliminating disposal practices such as the flushing of medications into septic systems or throwing out with household garbage. Additional outreach included posting of information on the Town's website, display of literature at the Town kiosks, and public notices in the local newspaper (Nutfield News). The next Pharmaceutical Take Back Day is scheduled for April 27, 2013.

During the prior reporting period, the Town produced two (2) cable television segments which air on Derry Local Cable Access stations C17 and D23. The first was *Protecting Our Water with the Department of Public Works* (August 2011) which focuses on how residents can reduce non-point stormwater pollution and take advantage of household hazardous waste events. It has aired 66 times since it was produced. The second is *Reducing Road Salt Use, Protecting NH Waters* (October 2011) which included personnel from Derry Public Works, NHDES, and UNH Technology Transfer (T2) Center and focused on how home owners and commercial entities can reduce the amount of deicing materials through implementation of Best Management Practices. It has aired sixty (99) times since it was produced.

In April 2012, the town mailed to 405 water supply customers in the Rand-Shepard-Hill and Woodland Community Water systems. The mailing focused on protecting drinking water through best management practices for the homeowner and included outreach material such as "*The Dos and DON'Ts for maintaining clean Drinking Water*", "*Best Management Practices for Groundwater Protection*", and the announcement for Derry's May 19, 2012 Household Hazardous Waste Collection Event.

Training and Environmental Organizational Team Meetings

One or more Public Works Employees (including the Environmental Engineer, Superintendent of Operations, and Crew Chiefs) participate throughout the year in various training opportunities or live streaming webcasts related to stormwater pollution prevention, waste management including the following:

- NHDES Drinking Water Source Protection Workshop (Surface Water Track, and discussion panel member), Concord, NH (5/2/12)
- 23rd Annual Non-Point Source Pollution Conference, Sponsored by NEIW/PCC Portsmouth, NH (5/15-16/12)
- NEIGC Conference, Flooding Impacts and Stream Restoration Field Trips (10/12-14/12)
- Business and Industry Association/NH Dept. of Environmental Services (BIA/DES) 2012 New Hampshire Water Symposium, Manchester, NH (11/9/12)
- Private Well Protection Webinar Series (January-February 2013)

- Draft 2013 Small MS4 Stormwater General Permit Presentation with USEPA (3/1/13) and Public Hearing (3/18/13)
- Upper Merrimack River Watershed Meeting w/Southern NH Planning Commission/USEPA/NHDES/Corp of Engineers (11/29/12 & 4/19/13)
- Regional Stormwater Team Meetings (9/25/12, 11/13/12, 1/22/13, 2/26/13, 3/13/13, 4/2/13, 4/8/13) – Held jointly with Manchester, Londonderry, Goffstown, Auburn, Bedford, Plaistow, Nashua, Merrimack, Pembroke, Hooksett, and Amherst)

SALT REDUCTION PROGRAM

The Town of Derry hosted the location and participated in the Salt Reduction Workgroup Meetings. These meetings are attended by representatives from Derry, Londonderry, Windham, Salem, NHDES, NHDOT, UNH T2 Center, USEPA, Rockingham Planning Commission, Jeffrey H. Taylor & Associates and occasionally the Conservation Law Foundation. During this reporting period, the Town has been involved in the following activities or events:

Salt Reduction Work Group Meetings:

- Salt Reduction Workgroup Meetings – 5/8/12, 10/18/12,
- Salt Reduction Outreach Meeting w/DES – 9/18/12
- Legislative: Derry hosted a public meeting with NHDES and NH State Representatives and Senators to discuss pending Salt Applicator Certification Bill – 1/4/13

Training Hosted: The Town of Derry provided the training facility for the following training sessions. New employees with Derry Highway Department and any new Derry plowing contractors are required to participate in the training.

- *Green SnowPro Certification: Salt Reduction for Parking Lots & Roads* by UNH-T2 – 4/25/12, 10/30/12, 11/8/12, 12/6/12,

Salt Reduction Equipment and BMPs

The Town Council approved funding for money in FY13 for two new snow removal trucks to be equipped with groundspeed control, prewetting brine system, and bottom scraper. This is in addition to the one truck approved during the prior fiscal year. The matching funds have been approved by Federal Highway Administration with administration of the funds by NHDOT. During this reporting period, the Town finally took delivery of its first truck in January, and two additional trucks in February 2013. The new trucks showed improved snow removal efficiency in subsequent snow events. However, the Town had not been able to use the prewetting brine system as agreement to purchase brine from the nearby NHDOT shed was not in place yet. The Town is currently evaluating the installation of its own brine storage system.

Cable Television Show

- **Reducing Road Salt Use, Protecting NH Waters** - A public service announcement (PSA) video has been collaboratively produced by Derry and Londonderry, in partnership with NHDES and the T² Center. The show was filmed in Derry by Derry's Cable Television Department and has aired 60 times since October 2011.

Other Programs

Soak Up The Rain NH Work Group Meeting (11/30/12):

Derry was asked to participate in this workgroup made up of representatives from NHDES, select municipalities, watershed and conservation groups, and landscape/garden center industry.

Potable Water Work Group Meeting:

Derry has been asked to participate in a Potable Water Workgroup with NHDES and other municipalities. The first meeting was scheduled for April 3, 2013.

Pervious Pavement

During the prior reporting period, the town gave conditional approval for the installation of pervious pavement associated with a parking lot expansion at the Overlook Medical Office Park. Approval is based on a stormwater management design based on an absence of pervious pavement in case it should fail due to factors associated with climate or maintenance issues. This would have been the first pervious pavement installation in Derry; however construction has not started yet.

Construction on the Route 28 Widening Project started in March 2012. During 2012, approximately 5600 feet of pervious pavement sidewalk (2800 feet on each side of the road) was installed.

Illicit Discharges and Stormwater Violations: Investigations and Response

There were no reports or discoveries of illicit discharges or stormwater violations during the reporting period.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
1.1	Document & Continue Existing Programs	Public Works	Review public education programs that are already in place that may be utilized as mechanisms to distribute storm water information. Prepare written documentation that summarizes existing programs in place that may be used in conjunction with the Phase II storm water program.	Goals Met: The Town of Derry continued to distribute information through kiosks located at the Municipal Center, Transfer Station, and Derry public buildings throughout town. The Town website is updated as needed in regard to environmental protection, pollution prevention, recycling of universal wastes, and storm water programs. The Town distributed and posted information on proper disposal of pharmaceuticals and personal care products in conjunction with the second annual pharmaceutical take-back day and provided outreach material to Derry PD and EMS and the Community Alliance for Teen Safety.	The Town intends to continue distributing information through the venues that it has established. We will continue to improve and expand the Town's website to further highlight environmental programs including storm water management, household hazardous waste, recycling, and PPCP disposal. A fourth Pharmaceutical Take-Back Day is scheduled for Saturday April 27, 2013.
Revised					
1.2	Coordinate Public Educators	Public Works	Organize Town employees, educators, volunteers, etc. to work together to develop materials to be distributed to the public and school systems regarding Phase II storm water.	Goals Met: The Town has had the opportunity to reach many of the same students through existing volunteer organizations that have worked closely with the town on the stenciling program. In previous years, Pinkerton Academy Biology Faculty were involved in the Beaver Lake Water Shed Partnership and had students in their biology courses conducting assessment of segments of streams that are tributaries to Beaver Lake. Once again, the teams were led this year in the field by the same college intern as in 2011. Students obtained real life experience in environmental science while performing a valuable service to the community. As in previous years, the Students for Environmental Action (SEA) at Pinkerton Academy participated in a clean up day last April and cleaned up several miles of roadway throughout Derry. The Town provided the equipment and supplies and participated in meetings and field training.	The Town intends to continue to work closely with the School Department to incorporate storm water education as well as other environmental programs into the regular curriculum. We will also continue to support efforts by volunteers as well as paid interns to speak at local youth organizations and schools.
Revised					

1.3	Coordinate information and Program Distribution within School Network	Public Works	Prepare brochures or fact sheets to be distributed to the public by direct mailings. Provide information on the Town's website. Begin developing curriculum to be used to educate students about storm water issues. Contact 50% of the schools located within the Town.	Goals Met: Direct mailings of Notices of the Household Hazardous Waste Collection events and Stormwater Pollution Prevention are regularly included with "Drinking Water Consumer Confidence Reports". In April 2012, a direct mailing to 405 community water system customers included information on pollution prevention and protection of groundwater as well as the notification of the May 2012 HHW event. The Public Works Department continues to distribute informational brochures and fact sheets at the annual "Town Fair" Derryfest and to participants at the Household Hazardous Waste Collection event. The Town contacts public schools including Pinkerton Academy through their biology department.	The Town will continue to work with the public schools and Pinkerton Academy to distribute information.
Revised					

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
2.1	Create Task Committee	Public Works	Task committee is established. The task committee will be responsible for organizing volunteers, etc., to assist the Town with the implementation requirements for the Phase II Storm Water Program. Document meeting minutes.	Discontinued in previous years. See annual report for 2004-2005. Redundant due to other groups already established.	N/A
Revised	<i>The Town of Derry has determined that a task committee is not necessary to achieve the goals set forth in the Storm Water Management Plan. Therefore, this BMP has been eliminated from the plan.</i>				
2.2	Conduct Public Meeting/Acquire Public Input	Public Works & Town Administration	Public Meeting. Phase II Storm Water Program information to be presented. Document meeting minutes.	Goals Met: All actions were completed in the previous reporting period as follows: Public meeting held on the Storm Water Ordinance and Stormwater System Design Regulations. The Public Works Department continues to encourage public input into the Storm Water Program. The Town is in contact with the Beaver Lake Improvement Association (BLIA) on a routine basis and has provided input on newsletter articles.	The Public Works Department will continue to strive to educate the public in storm water. Specific public meetings are not scheduled. Instead public input is solicited through public event displays and working through non-government organizations.
Revised					
2.3	Establish Storm Water Information Display at Major Town Events	Public Works	Phase II Storm Water information display at one town event per year.	Goals Met: This task was completed with a display set up at Derryfest and public meetings.	Displays will again be set up at Derryfest events this year. Youth Groups have also expressed interest in helping with these events for public education as community service projects.
Revised					

2.4	Storm Drain Stenciling/Community Clean-up Day	Public Works	50% of storm drains stenciled using volunteers or school students. Community clean-up day held once a year using volunteers and/or students.	Goals Met: Storm Drain stenciling is periodically conducted by various groups including Boy Scouts, Girl Scouts, and Beaver Lake Improvement Association (BLIA). Numerous groups participate each year in Derry Cleanup Day. Additional interest in these activities is voiced regularly. During this reporting period, the Town provided stencils and paint to a the Londonderry Church of the Nazarene in the spring of 2012. At this time, the Town has been unable to reach the organization to retrieve the materials loaned to them or document their activities during the reporting period.	The storm drain stenciling program will be an ongoing program as the paint will wear off and need to be touched up or as roads are repaved.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
3.1	Map Outfalls and Receiving Waters	Public Works & IT Department	Produce a map showing outfalls and receiving waters	Goals Met: The Town of Derry has completed mapping the outfalls and receiving waters. Follow-up inspection during dry weather conditions continued with remapping, repairs, and stream cleaning projects.	The Town of Derry will strive to keep the database up to date by adding any new storm water collection systems to the base map. Revisions and corrections to the data base will be made as errors or old infrastructure previously missed are discovered. Additional inspections will occur during the next reporting period as permitted and resources allow to confirm flow directions and construction.
3.2	Evaluate Need for Storm Sewer Ordinance; Develop if Necessary	Public Works, through a consultant.	Complete review of existing local regulations and ordinances to determine what mechanisms are already in place. Prepare a Storm Sewer Ordinance for adoption by the Town.	Goals Met: The Derry Town Council adopted the stand-alone Storm Water Ordinance and Stormwater System Design Regulations during a previous reporting period.	Continue to implement and enforce the Storm Water Ordinance and Stormwater System Design Regulations if required. Prepare revisions if necessary.
3.3	Train Volunteers in Illicit Discharge Identification	Public Works	Complete a training document. Complete volunteer training for illicit discharge identification. This must include information related to the hazards associated with illegal discharges and improper waste disposal.	Goals Met: The Town uses the illicit discharge report form to be used by Town employees and volunteers if/when illicit discharges are suspected or identified. Any reports that are made to the Code Enforcement Office or Public Works Department are investigated.	The Town will meet with BLIA for refresher training on illicit discharge identification. Continue to train and work with the BLIA stream and lake monitoring volunteers on illicit discharge detection.
Revised					

3.4 Revised	Dry Weather Screening of Outfalls	Public Works	Utilize trained volunteers and/or students to complete dry-weather screening of outfalls. Complete dry-weather screening forms for inspection. Document findings of screening. Identify outfalls requiring further follow-up.	Goals Met: Limited dry weather screening of outfall continued through 2012 as catch basins were cleaned or maintenance was conducted. No specific illicit discharges were identified during the screening.	Limited dry weather screening of outfalls will continue, dependent upon availability of funding and other budget constraints. In addition, volunteers working with the Beaver Lake Watershed Partnership are encouraged to become involved in this process.
3.5 Revised	Develop System of Identifying Illicit Discharges and Initiate Program to Eliminate Them	Public Works	Complete Plan outlining system for eliminating illicit discharges. Initiate elimination program. Eliminate the majority of identified illicit discharges.	Goals Met: The Town of Derry utilizes an illicit discharge form to note any potential illicit discharges discovered during catch basin cleaning. Any reports from the public are placed on work orders and investigated by the Environmental Engineer, Supt. of Operations, or the Code Enforcement Officer. The Town also relies on the public as the eyes and ears for possible violations and to report them to that the Town can respond.	Continue with existing program and practices of identifying and investigating illicit discharges. Step up enforcement if necessary.
3.6 Revised	Identify Magnitude of Effort to Continue Mapping Storm Sewer System.	Public Works	Complete a review of the storm sewer system mapping in Town. Prepare an assessment of the effort required to continue this mapping.	Goals Met: All new additions to the Public Storm Sewer system are added to the Town's Geographic Information System. However, data gaps exist within catchments. The Public Works and IT Departments met to evaluate additional mapping capabilities and additional ArcView license. A new GPS unit was purchased and basic training provided to select employees.	Continue updates as available. Due to continued budget constraints and reductions through the next year, plans to conduct catchment mapping and delineation over the next year may once again be postponed. Mapping will be conducted as time and budget allows. If feasible, the Town will begin more detailed mapping during the 2013 construction season.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
4.1	Document Existing Programs and Expand Them as Required	Public Works	Complete Review of Existing Local regulations pertaining to construction site runoff control. Complete written summary of existing requirements. This may require additional assessment of potential water quality impacts. Complete necessary additions to existing documents/ordinances for establishing water quality benchmarks, site inspection procedures, etc. Ordinance revisions will be accompanied by appropriate public notice and comment opportunities. The regulations will ultimately address areas of concern noted above.	Goals Met: The Town is routinely checking to verify that an NOI has been submitted to the EPA for all sites over one acre in disturbance. We continue to use a Construction Site Run-off Control Inspection form when inspecting sites through our engineering division to ensure the SWPPP for a construction site is being adhered to. During the reporting period, there were 7 reported ongoing construction projects requiring 8 CGPs. The Walmart Supercenter (2 CGPs) is formally completed. The Town's Route 28 expansion is nearing completion. Both projects had continual oversight by Town engineers, employed stormwater controls, and installed significant stormwater control and treatment BMPs.	Continue to be vigilant in the enforcement of construction site erosion control, ensuring SWPPP are present on site and adhered to, continue random cross-checking of CGP NOIs filed against projects in town.
Revised					

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
5.1	Document and Enhance Procedures for MS4 Storm Sewer System	Public Works	Complete review of existing MS4 maintenance procedures. Complete formal procedures manual for conducting MS4 maintenance, including record keeping forms, BMPs related to development, etc. Regulations and ordinances will be expanded, as appropriate, to incorporate measures to address the areas of concern noted above.	Goals Met: The Town continues to keep records of the locations and number of catch basins cleaned using its Geographic Information System. The crosschecks the EPA's eNOI database to ensure that NOIs and NOTs have been filed. All site plan review include a review by the Environmental Engineer which includes a focus on construction and post-construction stormwater management. The Town routinely encourages new development to consider BMPs that go beyond the minimum regulatory requirements.	Continue keeping records on areas cleaned. Upon completion, the Town will develop a schedule based on historical amounts of debris removed from specific catch basins.
Revised					
5.2	Incorporate Best Management Practices into Town Master Plan	Public Works & Planning Department	Complete update of Town's Master Plan to include Best Management Practices.	Goals Met: State and nationally recognized BMPs are included by reference in the Town's storm water ordinance and Storm Water System Design Regulations. The Town developed and began implementing a Salt Reduction Plan which was approved by USEPA, FHWA, and NHDES. The Plan incorporates winter road maintenance and snow removal BMPs, including calibration of salt spreaders and conducting snow removal based on winter severity conditions and forecasts. The Town prepared and adopted a Source Water Protection Plan in January 2012 which was incorporated into the Master Plan.	Follow BMPs in Town activities and projects. Make copies of BMPs available to public. Update BMPs as revisions occur.
Revised	<i>The updates to the Town's Master Plan is delayed until 2008-2009 time period. Instead, BMPs will be Incorporated into the draft Storm Water Ordinance currently being revised.</i>		Incorporate BMPs into Storm Water Ordinance and Storm water System Design Regulations.		

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
6.1 Revised	Document and Enhance Employee Training Procedures	Public Works	Complete review of existing training programs. Complete formal employee training manual.	Goals Met: DPW continues to have employees trained and provide employees with informational literature. Lessons learned and training received is transferred to other employees through on the job training and dialogue with employees. The Town continued to host several salt reduction training sessions and GreenPro certification for winter snow removal and deicing operations. Training was given by UNH Technology Transfer Center for the public works plow truck operators and Town contracted plow truck drivers. In addition, numerous commercial and private plow truck operators have taken the training. Goals Met: Pesticides and herbicide are applied only by licensed applicators for any substantial projects. Fertilizer application on recreational fields is contracted to licensed commercial applicators who are required to use only low phosphorus, slow-release nitrogen fertilizer. The Town is involved in the regional Salt Reduction Workgroup with USEPA, NHDES, NHDOT, FHWA, and UNH-T2. Meetings include development of Salt Reduction Plans, sector allocation, and evaluation of BMPs. The Town developed an evolving Salt Reduction Plan which was approved by USEPA, FHWA, and NHDES.	Training and/or refreshers on SWPPPs, housekeeping, spill response, salt reduction, and erosion control will be conducted periodically as needed.
6.2 Revised	Evaluate the Use of Pesticides, Sand and Salt	Public Works	Complete review of existing procedures. Complete formal manual for handling and use of pesticides, sand, and salt.		Continue with existing practices, participation in Salt Reduction Committee, and providing Town facilities for regional training initiatives. Conduct outreach to public. The Town will continue to look at better technology to reduce the salt and sand usage.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) << if applicable >>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Year
Revised	Implement BMPs for reduction of chloride and phosphorus input into impaired surface waters	Public Works	Develop Salt Reduction Plan and implement BMPs, collect useful data to complement state's data. Meet TMDL for chloride in the Beaver Brook Watershed	The state has developed a chloride TMDL for Beaver Brook. The town has continued its involvement in Salt Reduction workgroup meetings with NHDES and other stakeholders, and hosted meetings and training sessions at the Derry Town Hall. As part of our own evaluation, the town initiated a data sharing of chloride monitoring with NHDES. The town realized a net reduction in the 5-year and 10-year running average over the last 5 years. The allocation per year will be based on the reported Weather Severity Index (WSI). The WSI for the 2012-2013 season is not available at this time. The Town Council approved funding for two (2) additional trucks for FY13. In total three (3) new snow removal trucks equipped with groundspeed control, prewetting brine system, and bottom scraper were taken possession of in January (1) and February (2) of 2013. Due to limited resources, the Town was unable to conduct random chloride or phosphorus testing during the reporting season.	The Town will continue to include chloride reduction education in its outreach efforts and evaluate the purchase of new technology for reduced volumes of deicing chemicals applied within the Town. The Town will continue to host Salt Reduction meetings and Salt Applicator Certification Training workshops. The Town hopes to apply for additional funding to set up its own brine storage equipment prior to the next winter season. Pending staff and funding resources, the Town hopes to begin periodic phosphorus testing of Hood Pond and associated tributaries to evaluate for potential sources.

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	Yes
Annual program budget/expenditures	(\$)	\$70,000 est.

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	20,000 est.
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y, ~2 miles
Household Hazardous Waste Collection Days		
days sponsored	(#)	2
community participation	(%)	(see comment)
material collected	(tons or gal)	17 Tons
School curricula implemented	(y/n)	Yes

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
Illicit Discharge Detection & Elimination				X
Erosion & Sediment Control	X			X
Post-Development Stormwater Management	X			X
Accompanying Regulation Status (indicate with "X")				

▪ Illicit Discharge Detection & Elimination					X
▪ Erosion & Sediment Control		X			X
▪ Post-Development Stormwater Management		X			X

Mapping and Illicit Discharges

Outfall mapping complete		(%)			100%
Estimated or actual number of outfalls	(*Includes road crossings)	(#)			1289*
System-Wide mapping complete		(%)			100%
Mapping method(s)					
▪ Paper/Mylar		(%)			
▪ CADD		(%)			100%
▪ GIS		(%)			100%
Outfalls inspected/screened		(# or %)			50%
Illicit discharges identified		(#)			0
Illicit connections removed		(#)			
		(est. gpd)			
% of population on sewer		(%)			~50%
% of population on septic systems		(%)			~50%

Construction

Number of construction starts (>1-acre)	(#)	7
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public <i>(*Specific to stormwater, erosion, or sediment control on sites > 1-acre)</i>	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	Unknown

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Once/4yrs
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Once/yr
Total number of structures cleaned	(#)	750 (this period)*
Storm drain cleaned	(LF or mi.)	unknown
Qty. of screenings/debris removed from storm sewer infrastructure <i>(*estimated)</i>	(tons)	500*
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Beneficial use
Cost of screenings disposal	(\$)	Unknown

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/year
Average frequency of street sweeping (commercial/arterial or other critical streets) <i>(weekly April-Nov.)</i>	(times/yr)	35/year
Qty. of sand/debris collected by sweeping (*estimated)	(tons)	750
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Beneficial use
Cost of sweepings disposal	(\$)	unknown
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	n
Mechanical street sweepers contracted out		

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
■ Fertilizers (Commercial application to recreational/athletic fields)	(lbs. or %)	Unknown
■ Herbicides (mandatory by NHDES-Commercial application on waste water lagoons embankment)	(lbs. or %)	Unknown
■ Pesticides	(lbs. or %)	Unknown

Anti-/De-Icing products and ratios (*Average for season based on total purchased. Actual ratios vary based on weather conditions. The 2012-2013 winter season was unusually severe compared to the typical historic winter weather conditions, especially compared to 2011-2012 winter season which was unusually mild.)	(3818 Tons)	99%*
	% NaCl	
	% CaCl ₂	
	% MgCl ₂	
	% CMA	
	% Kac	
	% KCl	1%*
	% Sand	
	(25 Tons)	
Pre-wetting techniques utilized – (*Equipment recently purchased and working on brine storage capabilities.)	(y/n)	No* (see note)
Manual control spreaders used	(y/n)	Yes (9)
Automatic or Zero-velocity spreaders used	(y/n)	Yes (5)
Estimated net reduction in typical year salt application *This is a 13% reduction from the average during a severe winter.	(lbs. or %)	13%*
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	NA*
*New storage and loading facility completed in 2008		