Municipality/Organization: Town of Derry, NH

EPA NPDES Permit Number: NHR041005

MaDEP Transmittal Number: W-

Annual Report Number & Reporting Period: No. 4: April 1, 2006-March 31, 2007

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Michael A. Fowler P.E. Title: Director of Public Works

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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: Michael A. Fowler

Printed Name: Michael A Fowler P.E.

Title: Director of Public Works

Date: April 18, 2007

Part II. Self-Assessment

The following goals for this reporting period are being adjusted to the next reporting period.

- Storm Water Ordinance - The Town anticipated having its storm water ordinance adopted during this reporting period. The Town is considering additional revisions along with the incorporation of illicit discharge reference within its ordinance.
- Update Master Plan – The Master Plan update is postponed 1-2 years. Instead, the Town will focus on revising and adopting the draft stormwater and illicit discharge ordinance and will evaluate incorporating the ordinance in the Master Plan by reference at the time updates occur.

The Department of Public Works (DPW) has continued to make additional progress on the NPDES Phase II Storm Water Program with the Town of Derry well on its way to improving the quality of its storm water run-off. The Town of Derry continues to strive to implement, encourage, and require the use of Best Management Practices established at the onset of the program. The Town is encouraged by the support that it has received from the residents of Derry since the inception of the program. There is a sincere interest and enthusiasm by a diverse group of people in Derry to improve the storm water quality in the water ways and teach others about the importance of eliminating non-point source pollution.

The DPW once again earmarked a summer intern that is a civil engineering student to complete the compilation of the Town's storm water collection system comprehensive data base and assist with the catch basin cleaning company. The intern kept records of areas cleaned, inspected the structures for signs of illicit discharge. The Town is pleased to report that no evidence of illicit discharge was noted during the reporting period. Data collected by the intern was entered into ArcView file for tracking of catch basins cleaned in a particular year. In the 2006 construction season, an additional 1000 catch basins were cleaned. Once a full cleaning cycle of all catch basins is completed, the Town will be able to better track catch basins that fill up more quickly with sand and debris and may need more frequent cleaning. Basins that pick up little debris will be cleaned less often. The Town has budgeted to clean an additional 500 catch basins during the next reporting period. The intern also stenciled catch basins with "No Dumping, Drains to Wetlands". The catch basin stenciling program continues to be very popular with many groups throughout the Town including the local Rotary club and schools.

The Town also created and funded a new position for an Environmental Engineer to centralize and manage all of its environmental management, compliance, permitting, and hazardous waste site cleanup projects. This position was filled in November 2006 and the new environmental engineer has become involved in the Town's storm water program. Derry continues to be active in the Manchester area inter-community storm water group known as SWAT (Storm Water Assessment Team). The Superintendent of Operations was a panel member at the first annual NH Statewide Regional Stormwater Conference on May 9 speaking on the use of interns for mapping of storm water systems.

The Town continues to sponsor Derry Clean Up day during the week of Earth Day and has had broad participation from the public in this program as well. 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. Town representatives involved in the partnership meetings throughout the year include the Superintendent of Operations, Community and Economic Development Director, Code Enforcement Officer, Environmental Engineer, and Chairman of the Conservation Commission. On January 10, 2007, the BLWP presented a "First Look" at the Beaver Lake Watershed Management Plan public meeting at which Town representatives made presentations in support of the BLWP.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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.	The Town of Derry continued to distribute information through kiosks located at the Municipal Center as well as other public buildings throughout town. The Town continues to maintain a website with storm water information.	The Town intends to continue distributing information through the venues that it has established. We will also expand the Town's website to highlight environmental programs including storm water management, household hazardous waste, and recycling.
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.	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. Pinkerton Academy Biology Faculty remain involved in the Beaver Lake Water Shed Partnership and had students in their biology courses testing streams and ponds for pollutants. This is very exciting because it gives the students 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 in April and cleaned up several miles of roadway throughout Derry.	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.	The Public Works Department continues to disseminate informational brochures and fact sheets at the annual "Town Fair" Derryfest. The Town contacted all the public schools including Pinkerton Academy through their biology department.	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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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 year. See annual report for 2004-2005. Redundant due to other groups already established.	N/A
Revised	*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.*				
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.	The Public Works Department continues to encourage public input into the Storm Water Program. The Town completed the requirement of a public meeting in during a previous reporting period. The stenciling program occasionally results in feedback from the public that is encouraged to call the Public Work Department with questions and concerns.	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.
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.	This task was completed with a display set up at Derryfest.	A display will be set up at Derryfest again this fall. The Town will also set up a display and distribute information regarding pet waste management at the "Derry Doggie Days" event this year.
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.	The Public Works Department has purchased additional stencils due to the high demand for stencils. The stenciling program has been a huge success. Several groups of Boy Scouts, Girl Scouts, and the local Rotary Club spearheaded by the Chairman of the Town Council have taken on the task of stenciling catch basins throughout town.	The Stenciling program will be an ongoing program as the paint will wear off and need to be touched up. With the help of volunteers, we anticipate having most of the Town stenciled by the end of Year 5.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3.1	Map Outfalls and Receiving Waters	Public Works & IT Department	Produce a map showing outfalls and receiving waters	The Town of Derry has completed mapping the entire storm water collection system including the outfalls.	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. Make any necessary revisions and corrections to the data base as errors or old infrastructure previously missed are discovered.
Revised					
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.	The Town of Derry has developed a draft storm water ordinance through a private consultant. The Town's attorney has reviewed it and recommended revisions which have been incorporated. The actual adoption by Town Council has not yet been completed. Subsequent review by the Town has identified additional required edits	The Storm Water Ordinance will be reviewed to consider addition of a section on illicit discharges. Upon revision, the revised ordinance will be presented to the Town Council for consideration and adoption in the next reporting period.
Revised					
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.	The Town has an illicit discharge report form to be used by Town employees and volunteers. Any reports that are made to the Code Enforcement Office or Public Works Department are investigated.	Continue with training on illicit discharge. Develop a page on the Town's website with information on identifying and reporting illicit discharges.
Revised					
3.4	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.	Dry weather screening of outfall were not routinely completed during this period because the intern was focusing on completing the mapping of the system and working with the contractor cleaning the catch basins. While routine screening was not performed, the intern was instructed to report any suspect illicit discharges to the Supt. of Operations. None were identified.	Dry weather screening of outfalls will be performed through a summer intern over the upcoming summer. In addition, volunteers working with the Beaver Lake Watershed Partnership are encouraged to become involved in this process.
Revised					

3.5	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.	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 inspected by the Supt. of Operations or the Code Enforcement Officer. None were reported over the last year.	Using the illicit discharge form which the Town utilizes, any suspect illicit discharges will be noted during catch basin cleaning and will be reported to the Public Works office for follow up investigation. Confirmed illicit discharges will be turned over to the Code Enforcement Office for further legal measures. Develop a page on the Town's website with information on identifying and reporting illicit discharges.
Revised					
3.6	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.	The Town continued mapping of the Storm Sewer System using interns and/or engineering staff. All new additions to the Public Storm Sewer system are added to the Town's Geographic Information System.	Continue updates as required.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4.1	Document Existing Programs and Expand Them as Required	Public Works	Complete Review of Existing Location 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.	The Town is periodically checking to verify that an NOI has been submitted to the EPA for all sites over one acre in disturbance. We have also started using a Construction Site Run-off Control Inspection form when inspecting sites through our engineering division to make sure the SWPPP for a construction site is being adhered to.	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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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, Best Management Practices related to development, etc. Regulations and ordinances will be expanded, as appropriate, to incorporate measures to address the areas of concern noted above.	The Town continues to keep records of the locations and number of catch basins cleaned using its Geographic Information System. The Town of Derry is also crosschecking the EPA database to ensure that NOTs have been filed following completion and stabilization of sites.	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.	Since the Master Plan will not be updated in 2007 originally planned, this measurable goal is delayed until such time as the Master Plan is updated, currently anticipate for the 2008-2009. time frame. Instead, BMPs are being considered for inclusion in the draft storm water ordinance currently being revised.	Complete the draft of the storm water ordinance incorporating BMPs. Submit draft ordinance to Planning Board for adoption. Work with Council to adopt ordinance into Master Plan by reference.
Revised	*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.*				

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6.1	Document and Enhance Employee Training Procedures	Public Works	Complete review of existing training programs. Complete formal employee training manual.	The Public Works Department has continued to provide employees with literature produced by the EPA and has training and dialogue with employees regarding storm water and illicit discharge.	The Town is evaluating the possibility of holding informal "Brown-Bag" lunch time environmental education series for town employees at the Derry Municipal Center.
Revised					
6.2	Evaluate the Use of Pesticides, Sand and Salt	Public Works	Complete review of existing procedures. Complete formal procedures manual for handling and use of pesticides, sand, and salt.	The Town of Derry has installing ground speed control devices to regulate sand and salt usage on new and replacement vehicles in the fleet In addition, pesticides are applied only by licensed applicators for any substantial projects. The Town has also consulted with the Agricultural Office of the UNH Cooperative Extension in Brentwood to evaluate alternative herbicides and pesticides.	The Town will continue to look at better technology to reduce the salt and sand usage including storage and handling operations. The Town anticipates this facility being moved within the next 2 years. BMPs will be considered in the design of the new facility.
Revised					

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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
Revised					

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	($)	$60,000 est.

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	11,000 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, ~3 miles
Household Hazardous Waste Collection Days		
▪ days sponsored ***(Twice/year cosponsored with Town of Londonderry)***	(#)	2
▪ community participation ***(estimate 263 Derry households represented)***	(%)	**(see comment)**
▪ material collected	(tons or gal)	Unknown
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			
▪ Post-Development Stormwater Management	X			
Accompanying Regulation Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination			X	
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management	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 %)	25%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	~50%
% of population on septic systems	(%)	~50%

Construction

Number of construction starts (>1-acre)	(#)	9
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 ***(*Specific to stormwater, erosion, or sediment control)***	(#)	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 ***(*~1500 to date, ~50% complete)***	(#)	1000 (this period)*
Storm drain cleaned	(LF or mi.)	0
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	unknown
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) *(weekly April-Nov.)*	(times/yr)	35/year
Qty. of sand/debris collected by sweeping	(lbs. or tons)	unknown
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)	0
Mechanical street sweepers contracted out		

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	Unknown
▪ Herbicides	(lbs. or %)	Unknown
▪ Pesticides	(lbs. or %)	Unknown

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	80% 20%
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes (12)
Automatic or Zero-velocity spreaders used	(y/n)	Yes (2)
Estimated net reduction in typical year salt application	(lbs. or %)	None
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	NA