Municipality/Organization: Town of Merrimack, NH

EPA NPDES Permit Number: NHR041018

Annual Report Number & Reporting Period: **No. 2: March 04-April 05**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: David C. Lent, P.E. Title: Deputy Director of Public Works

Telephone #: (603) 424-5137 Email: merhwy@isone.com

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: David C. Lent

Printed Name: David C. Lent

Title: Deputy Director of Public Works

Date: April 30, 2005

Part II. Self-Assessment

The Town of Merrimack has performed a self-assessment and has determined that our municipality continues to work toward the goals set forth in our NOI. Major accomplishments during the past year include awarding a contract for new aerial photography and mapping of the Town which will provide the basis for the Town's GIS which will in turn facilitate a stormwater management plan. Additionally, the Merrimack Planning Board has hosted both the Souhegan River Local Advisory Committee and the Lower Merrimack River Local Advisory Committee at public, televised sessions to discuss water quality monitoring and watershed protection; the Merrimack Planning Board, Conservation Commission and Board of Selectmen have continued to negotiate with developers to expand the Town's greenbelt; and the Public Works Department's annual storm drain cleaning program has been expanded to include a condition assessment and written log of each structure as it is cleaned as well as painting a "Don't Dump" message at each catch basin. Monitoring of water quality in the major surface waters continues by the local watershed associations coordinated through the Nashua Regional Planning Commission (NRPC). Town staff actively participates in the NRPC's Regional Stormwater Coalition whereby member communities share the methods they are using to meet their goals and those communities that share surface waters have an opportunity to work together to establish and meet regional goals.

The Town will contact the EPA this year to discuss the Town's responsibility for meeting TMDL's as listed in Item 7 of Part III.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1.1	Informational Brochures for Trash Management and Disposal of Hazardous Waste.	DPW	Develop brochure by Spring of 2004, distribute to all residents by fall of 2004.	Draft of informational brochure completed. Currently being edited prior to printing.	The Public Works Department has developed a partnership with the Merrimack Village District, the Town's water supplier, and will expand the brochure to include protection of source water as well
Revised					
1.2	Classroom Education	DPW	Have guided tour program of the WWTF & Highway Garage available to students by end of year 1.	The Highway Division continued its annual student tour of the Town Garage and added a section on storm drains and water supply protection. Tours of the WWTF are available to the schools.	The Public Works Dept. currently speaks to middle school students on the use of anti-icing chemicals and their impact on the environment and will suggest expanding that topic to include stormwater issues.
Revised					
1.3	Advertisements promoting BMP's to air on local cable station	DPW	Create sleds and secure airtime by fall of 2004. Advertisements to run monthly at a minimum.	Information on Household Hazardous Waste disposal airs regularly on the Town's public access station.	Expand announcements to include stormwater collection and discharge awareness.
Revised					
1.4	Educational pamphlets provided to new residents.	DPW	Distribution of educational materials to begin by end of year 1 and be continuous.	See item 1.1 above.	Distribute pamphlets.
Revised					
1.5	Storm water information provided on website	DPW	Develop website information, implement fall 2004	Household Hazardous Waste disposal information has been added to the front page of the Town's website.	The Town is presently planning a major upgrade of its website for the next fiscal year. Links will be added to EPA, State and regional agencies which include stormwater information as well as developing Merrimack specific topics.
Revised					

1a. Additions

					Conservation Commission has scheduled Wetland Protection programs

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
2.1	Storm Drain Stenciling.	DPW	Stencil designed by year 1, 80% catch basins stenciled by end of year 2, stencil program to run annually.	The Highway Division purchased six stencils "NOTHING BUT RAIN GOES DOWN THE DRAIN – DON'T DUMP" and began stenciling at catch basins.	The Highway Division will continue its stenciling program as catch basins are cleaned. The DPW will establish a partnership with community organizations (scouts, etc.) to assist.
Revised					
2.2	Volunteer program for stream cleanup and water quality monitoring.	Community Development	Work of Souhegan & Lower Merrimack local advisory committees to be monitored by the Town. Monitoring Data to be included in annual report to EPA.	Conservation Commission and Watershed Association volunteers monitored dry weather flows on the Souhegan River. Data is available at the Merrimack Library for public inspection.	Continue to solicit volunteers to monitor other locations. Collect data from volunteers.
Revised					
2.3	Greenbelt Program.	Community Development	Greenbelt program is included in master plan, the Town is actively encouraging private participation.	Through the joint efforts of the Town's boards, a developer donated 70 acres of a 90 acre tract to the Town for conservation purposes. The land connects with other Town open space and includes major wetlands areas that will remain protected. Tax deeded parcels are evaluated by the Conservation Commission for value as surface water and wetland protection prior to assist in the Town's decision to retain or sell the parcels.	Continue to encourage private participation.
Revised					
2.4	Support Watershed Organization.	Community Development	Town will continue to solicit applicants for appointment with the local watershed organizations.	Continued solicitation of volunteers through web site postings and media.	Continue solicitation.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
2.5	Develop system for public communication.	DPW	Appoint contact person and establish communication methods by fall 2004.	The contact person in the Town's Community Development Department has taken an active role in contacting developers and their contractors to create a greater awareness of erosion control BMP's prior to construction.	Develop public communication of contact procedure.
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

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
3.1	Preparation of Master Drainage Map (delineation of municipal storm sewer system, drainage basins, outfalls & receiving waters).	DPW	Master Drainage Map is prepared by end of year 4. Map is modified as needed annually.	The Public Works Department solicited proposals for aerial mapping received bids and awarded a contract. The Town was "flown" this spring and the Contractor is beginning to develop base maps.	It is anticipated that base mapping will be available this fall. DPW plans to purchase hardware and software to link its stormwater infrastructure database to the mapping.
Revised					
3.2	Storm sewer bylaw.	DPW	Storm sewer bylaw in place by year 3.	The Community Development and Public Works Departments meet weekly to discuss land development related issues. Discussion of stormwater collection and disposal is among the items discussed,	Add a storm water ordinance to the Town Code.
Revised					
3.3	Qualitative observation of discharge at outfalls.	DPW	100% major outfalls from developed areas are screened for pollutants by end of year 2.	The river advisory committees have continued their screening programs.	. Collect and assemble data.
Revised					
3.4	Dry weather screening of outfalls.	DPW	100% major outfalls from developed areas are screened for dry weather flows pollutants by end of year 1.	See 3.3 above	Screen outfalls as described.
Revised					
3.5	Develop program for the elimination of illicit discharges, if applicable.	DPW	Eliminate all known illicit discharges by end of Year 5, first permit period.	No illicit discharges have been identified at this time.	Tabulate any illicit discharges identified in 3.3 and 3.4 above. Work towards identifying sources.
Revised					

3a. Additions

4. Construction Site Storm water Runoff Control

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
4.1	Implement by fall of 2005.	Community Development	Preparation of Town Ordinance to address: BMP erosion & sediment controls for all new construction, preparation of SWPPPs for land disturbances greater than 1 acre, building setbacks from waters of the state and disposal of discarded building materials	The Community Development Department (CDD) has contracted with a consultant to update BMP's required for new construction. While the ordinance is being developed CDD and DPW have implemented plan review procedures for new development that have tightened control of potential erosion and sedimentation issues.	Continue developing ordinance.
Revised					
4.2	Implement by fall of 2005.	Community Development	Develop procedures for Site Inspection, enforcement and penalties for non-compliance	Community Dev. Dept. and DPW jointly inspect erosion control on new construction and work with violators to make corrections. CDD inspector reports a 30% increase in site visits and a proactive approach in avoiding potential erosion and sedimentation problems.	Continue monitoring and enforcement.
Revised					
4.3	Appoint contact person and establish communication methods by fall of 2005.	Community Development	Develop system for public communication (for reporting violations)	Communications contact is developed at preconstruction meetings on new construction projects.	Add procedure for residents to report violations to upgraded Town website.
Revised					

4a. Additions

5. Post-Construction Storm water Management in New Development and Redevelopment

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
5.1	Revision to Town Site Plan and Subdivision review regulations to address: Structural BMP's for land disturbances greater than 1 acre, and perpetual maintenance of BMP's.	Community Development	Regulations to be revised and adopted by fall of 2004.	A complete revision has not been formally adopted; however plan review staff are requiring implementation of proposed revisions as soon as possible.	Adopt appropriate revisions.
Revised					
5.2	Develop procedures for review of structural BMP's	Community Development	To be part of revised regulations by fall 2004.	Review of development plans submitted to the Planning Board are thoroughly reviewed by a Consulting Engineer as well as Town staff for inclusion of appropriate BMP's.	Continue review and include any revised regulations.
Revised					
5.3	Promote open drainage systems and groundwater recharge through infiltration systems.	Community Development	To be part of revised regulations by fall 2004.	Town staff are reviewing data being developed by CSTEV at UNH as well as anticipating data from a pilot project to be built at Pennichuck Square in Merrimack prior to making recommendations related to groundwater recharge.	Revisions of the Town's site plan and subdivision regulations will continue as appropriate data becomes available to support the changes.
Revised			Wait for results of ongoing research and pilot projects before amending regulations.		
5.4	Develop procedures for site inspection and enforcement.	Community Development	Internal inspection procedures in place by fall of 2004.	Inspection by staff is on going.	Develop a written policy.
Revised					

5a. Additions

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6.1	Prepare Operation and Maintenance program for storm sewer system		33% of structures are cleaned and inspected each year. O&M plan developed by end of year 3. Plan to be revised as necessary.	The Highway Division continued to clean catch basins and log conditions. As problems are noted, a foreman assigns work crews for corrective action.	Continue cleaning and logging procedure. Explore hiring a summer intern to input data to database program to be linked to GIS.
Revised					
6.2	Implement Employee Training Program to include: vehicle maintenance, building maintenance, oil recycling policy, calibration of salt spreaders, hazardous material storage, spill response and prevention, and erosion control for new construction.		Employee Training program to be developed by end of year 1, and conducted annually for all DPW employees.	Completed annual training program for employees at the Highway Garage. At the Department's request, the training consultant developed a site specific training program. An EPA inspection this spring found minimal compliance issues.	Continue annual training.
Revised					

6a. Additions

7. BMPs for Meeting Total Maximum Daily Load (TMDL) (Souhegan River, Merrimack River and Baboosic Lake)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7.1	Qualitative Observation of Outfall Discharge	DPW	Determine Outfall Locations & Screen for pollutants by year 1	No further action taken this year	Merrimack DPW will contact EPA this year to discuss compliance with this section.
Revised					
7.2	Dry Weather Screening of Outfall	DPW	Screen outfall during dry weather flows by end of year 1	Item not completed this year.	Same as 7.1
Revised					
7.3	Develop Program for elimination of illicit discharges within drainage area of outfall, if applicable	DPW	Eliminate illicit discharge, if found and if applicable	No action this year.	Same as 7.1
Revised					

7a. Additions

Part IV. Summary of Information Collected and Analyzed

The DPW is working with NRPC and the Local Advisory Committees to collect and centralize available data and to develop a program to fill any gaps in monitoring.

Part V. Program Outputs & Accomplishments (OPTIONAL)

The Town has not compiled some of this data to report at this time.

Programmatic

Storm water management position created/staffed	(y/n)	
Annual program budget/expenditures	($)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Storm water management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	

Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

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

Mapping and Illicit Discharges

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	

Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and $)	
Complaints/concerns received from public	(#)	

Post-Development Storm water Management

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

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	

Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

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

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	

Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	