Municipality/Organization: Groton

EPA NPDES Permit Number: #ma041193

MaDEP Transmittal Number: W-041197

Annual Report Number
& Reporting Period: No. 4: March 07-March 08

P 5/15/08

NPDES PII Small MS4 General Permit
Annual Report

Part I. General Information

Contact Person: Robert T Delaney Jr Title: Highway Surveyor

Telephone #: 978-448-1162 Email: grotonhighway@prodigy.net

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: Robert T Delaney Jr

Title: Highway Surveyor
Date: 5/10/08

Part II. Self-Assessment

The Town Of Groton has completed its self assessment and has determined we are in compliance with the permit except for the following provisions.

Submission of report by May 1 2008

Groton currently has influence on two water bodies of concern which have a TMDL.

The Town of Groton has hired Comprehensive Environmental Inc. (CEI) to review TMDLs for the Nashua and Merrimack Rivers and to provide recommendations on the additional steps needed to comply with the TMDLs. CEI is in the process of conducting this review and will compare the TMDL implementation strategy components with the actions currently taken by the Town under the stormwater Phase II program and in general. The Town will use these recommendations to enhance its existing Stormwater Management Program as needed to be protective of impaired waters

NEW

The Town has received a 319 grant to improve water quality of James Brook.

Annual Town Meeting on April 28, 2008 adopted illicit discharge bylaw.

Annual Town Meeting on April 28, 2008 adopted updated LID regulations recommended by the state.

All outfalls have been located and have been sent for federally listed endangered species or critical habitat.

Permanently attached Drain markers being installed to catch basin grates, instead of stenciling. Labels read "only rain down the drain"

Combined Stormwater and earth removal committee to one called Earth removal stormwater advisory committee.

Established revolving fun for storm water committee for peer review of projects.

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
1a	Yearly flyer in tax bills	Tom Delaney/ highway	Reach all home owners	Complete River Awareness was the topic	Continue mailings with different themes
Revised	*Town wide mailing in corporation with NWRA*				
1b	Hazardous waste day	Board of Health/Recycling	Reduce waste	Fall 06 and spring 07 **regional** collection complete	Spring 08 **regional** scheduled for 4/3/08
Revised					
1c	Increase recycling efforts within the Town	Board of Health/ recycling	Reduce waste	Have gone to a pay as you throw system and increased recycling 10-15%	Continue efforts
Revised					
1d	Water conservation equipment	Water Department	Reduce water use	Department continues to distribute water saving devices.	Continue with program.
Revised					

1a. Additions

1e	Educational programming	Highway	Inform public of educational programming	Cable TV advertised and airing of Reining In The Storm	Continue to show Different Storm water videos
1f	Low Impact Development Workshop	Planning Board	Public and contractor education	Complete	Update as needed

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
2a	Stenciling	Tom Delaney/ Highway	Stencil Basins to Waterways	Searching for volunteers	Installing Drain Labels
Revised	*Drain markers on basin tops*	Tom Delaney/ Highway	Label basins as water only		
2b	Stream Cleaning and Ditch maintenance	Tom Delaney/ Highway	Increase water Flows	400+- feet of inlets and road side ditches cleaned and Rip Rapped	Continue to clean drop inlets and rip-rap all inlets and outfalls of all known pipes.
Revised					
2c	Increase cooperation with Nashua River Watershed Association	Tom Delaney/ Highway MRWA	Assist when we can to improve water quality	Continue to pickup debris from stream cleaning days.	Continue Cooperation with NWRA
Revised					

2a. Additions

2d	Installation of water crossing signs	Highway/NRWA	Mark streams that cross under roadways	Signage at all major perennial streams Major streams done and located on map and mailing.	All others to increase awareness
2e	Low Impact development Workshop	Planning Board/Highway	A move towards LID	Had Workshop and implemented Bylaw Fall 06	Updated bylaw on 4/28/08

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
3a	Visual inspection	Tom Delaney/ Highway	Detect illegal hookups	No hookups found	Monitor for illegal connections
3b	Bylaw prohibiting hookups into Town System	Tom Delaney/ Highway	Prohibit Discharge into MS4	Bylaw adopted	In place
3c	Mapping of Basins and Outfalls	Tom Delaney/ Highway	Map System	Create a program to link basins, manholes and outfalls together and put on Town GIS	inplace

3a. Additions

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
4a	Bylaw Subdivision Regulation	Planning Board	No net increase of water runoff from sites.	Bylaw in place	Revisit and make additions if and when necessary when our education of new and better requirements improve.
Revised					
4b	Town of Groton Wetlands Bylaw	Conservation Commission	Strict Regulations	50 foot no disturb bylaw in place and increased buffer to 200	In Place
Revised					
4c	Site Plan Review	Planning Board	Water Management in projects	Bylaws in place regarding any storm water management	In place
Revised					
4d	Erosion Control Bylaw	Planning Board	Sedimentation and erosion control.	Bylaws in place for erosion Control as well as an enforcement officer and a system in place for fines.	In place
Revised					
4e	Bylaw for open drainage in New construction LID	Planning Board/ Highway	Open drainage for ground water recharge	In place spring 06	In place
Revised	*Also long term maintenance addressed in new regulations.*				

4a. Additions

	New storm water committee	Selectman	Update Erosion committee to include Stormwater in scope	Spring 07	In place
	New Storm water Bylaw	Stormwater/erosion committee	Update regulations and maintance plan bylaw for new systems	Adopted town meeting spring 07	In place

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
5a	Subdivision Regulation	Planning Board	No net increase of water flows from new construction	In Place	In place
Revised					
5b	Site Plan Review	Planning Board	Storm Water Management Plan required for developments	In Place	In place
Revised					
5c	Erosion Control Bylaw	Earth removal Committee	Erosion and Sedimentation control	In Place	Inplace Update as needed
Revised					

5a. Additions

5d	Expanded Post construction Bylaw	Earth Removal Planning Board	Revise Bylaw to mimic state regulations	In place	Inplace Update as needed
5c	Updating regulations	Planning Board and Stormwater	All gegulations above to be reviewed and updated	Contract signed with CEI spring 07 to review and update all bylaws and regulations	Inplace Update as needed

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
6a	Environmental assessment	Tom Delaney/ Highway dept	Town facility assessment and environmental compliance	Completed	Inplace Update as needed
6b	Spill response	Tom Delaney/ Highway dept	Spill plan	In place	Inplace Update as needed
6c	Illegal Dumping Control	Tom Delaney/ Highway dept	Reduce illegal dumping	Many areas blocked and cleaned up. Signs installed and easier access for composting facility for public.	Continue as needed
6d	Oil Recycling	Tom Delaney/ Highway dept/ Transfer Station	Continue oil collection and Used oil heat technology	Continue with current uses	Continue
6e	Increased frequency of Street Sweeping	Tom Delaney/ Highway dept	Increase sweeping in environmentally sensitive areas	In Place	Continue

6a. Additions

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
7a	Increase Basin Cleaning	Tom Delaney/ Highway dept	Increase Cleanings in sensitive areas	In Place	Continue
Revised					
7b	Salt Spreader calibrations to reduce salt usage	Tom Delaney/ Highway dept	Reduce Salt use by 10%	In Place	Continue
Revised					
7c	Oil traps on Basins in Sensitive areas	Planning Board\ Tom Delaney/ Highway dept	Oil traps in New Subdivisions on all catch Basins	In Place	Continue
Revised					
7d	Conversion to Leaching Basins when Practical	Tom Delaney/ Highway dept	Recharge ground water when possible	0 Converted 3 built in west groton	Continue
Revised					

7a. Additions

Part IV. Summary of Information Collected and Analyzed

Year 1
Basin Inspections list is being compiled and will be integrated into the mapping phase of our Plan. Details will include if there was an illicit connection, type, condition, oil trap condition if present, dates cleaned, etc..
No other data to report at this time.
Year 2
Nothing new to report at this time. No illicit connections have been discovered during repairs, inspections and cleanings.
Year 3
All location of known manholes, basins, and outfalls have been GIS located and added to our base map system. No illicit discharges were located during mapping and inventory. Several LID workshops and public hearings and New LID and erosion control Bylaw have been approved at Town Meeting to encourage open drainage and LID. Several old as well as new videos were shown on local access channel relative to storm water as well as television interviews with Planning Administrator and Highway Surveyor relative to LID. Town wide mailing of river awareness flyers cosponsored by Nashua River Watershed Association
Year 4
Major components of permit complete.
Information left to obtain for species habitat is forthcoming.
Year 5
See Self assessment for new accomplishments.
Waiting to hear for federal listed species.
TMDL info and recommendations coming

Part V. Program Outputs & Accomplishments (OPTIONAL)
(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2006 through March 31, 2007)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures ** **INCLUDES INSPECTIONS**	($)	8600
Total program expenditures since beginning of permit coverage	($)	15K+_
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)	GENERAL	REVOLVING

Education, Involvement, and Training

Estimated number of property owners reached by education program(s **ELECTRIC COUSTEMORS**	(# or %)	100%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	10+
Shoreline cleaned since beginning of permit coverage	(mi.)	ANNUAL PROGRAM
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	2
▪ community participation **	(# or %)	20%
▪ material collected **	(tons or gal)	15k WORTH
School curricula implemented	(y/n)	N

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination **bylaw**					X
▪ Erosion & Sediment Control	X				X
▪ Post-Development Stormwater Management					X
Accompanying Regulation Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination **bylaw**					X
▪ Erosion & Sediment Control	X				X
▪ Post-Development Stormwater Management					X

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	251
System-Wide mapping complete (complete storm sewer infrastructure) **BASINS+MANHOLES**	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	0
▪ CADD	(%)	0
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	100%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	3
Illicit discharges identified (Since beginning of permit coverage)	(#)	3
Illicit connections removed **	(#); and (est. gpd)	3

Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	3
% of population on sewer	(%)	10%
% of population on septic systems	(%)	90%

Construction

	(Preferred Units)	Response
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 %)	2
Fines collected **	$	1@50
Complaints/concerns received from public **	(#)	MANY

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	AS NEEDED
Qty of structures cleaned **	(#)	30+

Qty. of storm drain cleaned **	(%, LF or mi.)	150 FEET
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	25 TON
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	COMPOST
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	GENERAL
• Hourly or per basin contract rate **	($/hr or $ per basin)	0
• Disposal cost**	($)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	0
• % Structures cleaned with clam shells **	(%)	100
• % Structures cleaned with vactor **	(%)	0

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	4+
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	250 TON
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	COMPOST
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	BUDGET
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	0
• Disposal cost**	($)	0
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	20%
▪ Herbicides	(lbs. or %)	NA
▪ Pesticides	(lbs. or %)	NA
Integrated Pest Management (IPM) Practices Implemented	(y/n)	N

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	60 10 0 0 0 0 40
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	20%-
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	0
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	NONE
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	NONE