05/04/2007

Municipality/Organization: Grafton

EPA NPDES Permit Number: MARO041119

MaDEP Transmittal Number: W-035459

Annual Report Number & Reporting Period: **No. 4: May 2006-May 2007**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Roger Hammond 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: Natalie Lashmit

Printed Name: Natalie Lashmit

Title: Town Administrator

Date: May 1, 2007

Part II. Self-Assessment

We have teamed with the Sudbury Assabet Concord Community Council's Water Quality / Water Quantity Sub-committee to provide these services. We were also had a 40-scale flight of our Town done to integrate into our Geographic Information System. This has allowed us to enhance our tracking of outfalls from what we had originally done for this permit.

Mass Highway and the Mass Turnpike Authority have filed a draft permit with EPA. Both of these facilities traverse the Town of Grafton and have a significant impact upon our receiving waters. We are hopeful that we can continue to foster a positive relationship with these entities.

The Highway Department has continued to expand our street sweeping program. During winter months, when our equipment is able to do so, we are sweeping throughout Town. We concentrate on industrial/commercial areas first and then move our way outward to roadways with major outfalls to brooks, streams and rivers.

The Conservation Commission has been aggressively pursuing contractors in regards to their stormwater management plans. Our existing town by-law's regarding sedimentation, in conjunction with regular inspections, has virtually made sedimentation issues non-existent.

We are finding that the implementation of a stormwater and illicit discharge/detection by-law is more in-depth and difficult than originally anticipated. This is the most onerous aspect of this first permit.

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
1B	Stormwater Lesson Plan for Fifth Graders	SUASCO & DPW	Completed	Were very successful integrating this into the 5th grade science curriculum.	Continue to use this lesson plan in future years
Revised					
1J	Stormwater Info on Town Website	DPW	Completed	Received very well.	Continue to add information, draft by-law's to site.
Revised					
1A	Stormwater Flyer for Residents	DPW, Town Clerk	On-Going	New Residents are given stormwater flyer as they come in to register to vote etc.	Continue program
Revised					
1I	Newspaper Articles	DPW	On-Going	With local newspaper, run article specific to stormwater on a quarterly basis.	Continue with current schedule.
Revised					
1D	Stormwater Flyer for Community Businesses	DPW/SUASCO/ BVHC	Completed		Continue this program.
Revised 09/05	*PowerPoint on stormwater*	DPW/SUASCO	Completed		
	Media Toolkit	DPW/SUASCO	Completed	Created Media Toolkit for distribution to local newspapers	Continue program
Revised					

1a. Additions

1K	Trees and their use for stormwater management	DPW, Tree Warden	On-going	As part of Tree City USA campaign, inform residents of trees and their benefits for stormwater management	Continue program. Pursue grants to further implement this program.

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
2B	Poster Contest for Fifth Graders	SUASCO & DPW	Completed	Done in conjunction with stormwater lesson plan	May continue. Lesson plan will continue to b taught. Depends on teacher involvement.
Revised					
2F	Annual Stormwater Public Hearing	DPW	On-Going	Continue to work with many boards and commissions.	Continue work with boards and commissions
Revised					
2G	Watershed Group Involvement	DPW & Local Groups	On-Going	Part of SUASCO Steering Committee, Mass Audubon and Blackstone Headwaters Coalition	Continue to expand local participation.
Revised					
2C	Stormwater Photo Contest for High Schoolers	DPW & SUASCO	Changed	Use PowerPoint as main information for summit in Town.	
Revised 10/05	*Stormwater Summit*	DPW & SUASCO			
	Stormwater Stenciling Program	DPW/SUASCO	On-going	Waiting for rains to stop	Continue working with community groups
Revised					
Revised					

2a. Additions

2I	Purchase lands for conservation	Town Meeting	On-Going	Completed purchase of 190 acres Hassanamessit Woods.	As lands are removed from CH 61A, Town pursues.

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
3A	Illicit Discharge Bylaw/Regulation	DPW, Planning, Conservation	Develop Draft By-Law	Continue to receive feed-back on draft	Get By-law passed
Revised					
3B	Storm Drain Map	DPW	Find, GPS Survey map outfalls at least 20%.yr.	Additional outfalls have been found and mapped on top of 100% done last year.	Review more
Revised					
3C	Illicit Discharge Detection and Elimination	DPW, Planning, Sewer, Bldg., Board of Health	Determine Priority areas. Screen outfalls during dry weather. 20%/yr	Working on illicit discharges	Pass By-Law for permit period
Revised					
3D	Illicit Discharge Education	SUASCO & DPW	Include in flyers	Flyers given to new residents	Continue program
Revised					
3E	Education for Municipal Employees	DPW	Included in Measure 6	D.O.T. Training to all employees	Train new employees.
Revised					
Revised					

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
4A	Construction Site Runoff Bylaw	Conservation & DPW	Develop draft by-law	Drafted	Pass ordinance at Town Meeting
Revised					
4B	BMP's for Construction Site Erosion, Sediment	Conservation & DPW	Prepare draft to include in draft by-law	On-going	On-going
Revised					
4C	Construction Site Plan Review Procedures	DPW, Conservation, Planning, Board of Health	Prepare draft to include in draft by-law	On-going	On-going
Revised					
4D	Construction Site Inspection and Enforcement Procedures	DPW, Conservation, Planning, Board of Health	Prepare draft to include in draft by-law	On-going	On-going
Revised					
4E	Response to Public Hotline	DPW, Conservation, Planning, Board of Health	Advertise and test hotline	On-going	On-going
Revised					
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
5A	Post Construction Site Runoff Bylaw/Regulatory Mechanism	DPW, Planning, Conservation	Develop bylaw, Involve and educate public municipal officials, developers, contractors	Drafted	Pass By-Law
Revised					
5B	Choose Structural and Non Structural BMP's	DPW, Planning, Conservation	Prepare to draft, include in draft bylaw	On-going	On-going
Revised					
5C	Long Term BMP Operation and Maintenance Procedures	DPW	Prepare to draft, include in draft bylaw	On-going	On-going
Revised					
5D	Structural BMP Implementation Procedures	DPW	Prepare to draft, include in draft bylaw	On-going	On-going
Revised					
Revised					
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6A	Employee Training to Prevent/Reduce Stormwater Pollution	DPW	Sample / Test Training	On-Going	Fully Implement Training
Revised					
6B	Maintenance/Inpsection of Storm Sewers and Structural/Non-Structural Controls	DPW	Develop Draft New/Improved Activities, Schedules and Procedures	Completed	Finalize maintenance activities, schedules and long-term inspection procedures
Revised					
6C	Pollutant Source Reduction/Elimination from Municipal facilities & Activities	DPW	Develop Draft BMPs	Completed	Finalizing BMPs
Revised					
6D	Waste Disposal Procedures from Storm Sewers&Municipal Facilities/Activities	DPW	Develop Draft Procedures	Completed	Finalizing Procedures
Revised					
Revised					
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
Revised					
Revised					
Revised					
Revised					
Revised					
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)	No
Annual program budget/expenditures	($)	$15,000 +

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	60 %
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Yes
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	10
▪ material collected	(tons or gal)	
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	(#)	
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	10 %
▪ GIS	(%)	90%
Outfalls inspected/screened	(# or %)	40 %
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	60%
% of population on septic systems	(%)	40%

Construction

Number of construction starts (>1-acre)	(#)	25
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	80%
Site inspections completed	(# or %)	50 +
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	$0
Complaints/concerns received from public	(#)	100'S

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	40 %
Site inspections completed	(# or %)	10
Estimated volume of stormwater recharged	(gpy)	n/a

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1/YR
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	2/YR
Total number of structures cleaned	(#)	+/- 2500
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	2000 TONS
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	($)	30,000

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	3-4 /yr

Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	3-4/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	2000 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost, landfill, Reuse
Cost of sweepings disposal	($)	$30/ton
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	No

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	50%
▪ Herbicides	(lbs. or %)	NA
▪ Pesticides	(lbs. or %)	90%

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	80 10
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N