

APR 30 2009

Municipality/Organization: **GRAFTON**

EPA NPDES Permit Number: **MAR0041119**

MADEP Transmittal Number: **W- 035459**

Annual Report Number
& Reporting Period: **No. 6: May 2008-April 2009**

NPDES PH Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: **Toma Duhani, P.E.** Title: **Director of Public Works**

Telephone #: **(508) 839-5335 x124** Email: **duhanit@town.grafton.ma.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: **Timothy P. McInerney**

Title: **Town Administrator**

Date: **April 29, 2009**

Part II. Self-Assessment

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

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

The Department of Public Works has continued to expand the street sweeping program. During winter months, when snow permitting, we are sweeping the entire Town twice. We concentrate on industrial/commercial areas first and then move outward to roadways with major outfalls to brooks, streams and rivers.

The Department of Public Works has developed a proposed storm water bylaw which was approved by the Board of Selectmen to be brought before Town Meeting for approval in May 2009.

The Conservation Commission has developed a proposed illicit discharge bylaw which was approved by the Board of Selectmen to be brought before Town Meeting for approval in May 2009.

The Department of Public Works has outfitted their trucks with automated computerized spreader/dispensers for dispensing of deicing materials. The Department has also discontinued the use of sand for winter operations. This has improved storm water quality in Town by minimizing sand deposits from Town roadways and catch basins. A benefit realized from this program is a shorter street sweeping timeline resulting in less material ending up in the catch basins to be removed and disposed.

The Town has completed to purchase the 154 acre Pell Property and preserved 140 of those acres aside for

To remove trash from the roadside and keep it from the watershed the Town supports the Grafton Garden Club Land Trust's Clean-Up Day. The club itself provides food and activities after the clean-up while the Town provides and removes the filled bags from the roadsides and provides a spruce seedling for each participant. The clean-up is held on the Saturday after Earth Day and has been a great activity to raise community awareness of environmental issues.

Part HI. 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 6 (Reliance on non-municipal partners indicated, if any)	
1B	Stormwater Lesson Plan for Fifth Graders	SUASCO & DPW	Ongoing Program	We were successful at integrating this into the 5 th grade science curriculum on an annual basis	
1A	Stormwater Flyer for Residents	DPW, Town Clerk	On-Going Program	New Residents are given storm water flyer as they come in to register to vote etc.	
II	Newspaper Articles	DPW	On-Going Program	Continue with current schedule	
ID	Stormwater Flyer for Community Businesses PowerPoint on Stormwater Media Toolkit	DPW/SUASCO/ BVHC DPW/SUASCO	Completed Completed	Continue with this program	
		DPW/SUASCO	Completed	Created Media Tool Kit for distribution to local newspapers	

1a. Additions

1K	Trees and their use for storm water management	DPW, Tree Warden	On-going	Recognized Tree City for the eighth year in a row. As part of Tree City USA inform residents of trees and their benefits for storm water management	Continue program. Pursue grants to further implement this program.
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2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) — Permit Year 6 (Reliance on non-municipal partners indicated, if any)	
2B	Poster Contest for Fifth Graders	SUASCO & DPW	Completed	Done in conjunction with storm water Science curriculum	
2F	Annual Stormwater	DPW	On-Going Program	Established a storm water display at the DPW Office for public viewing	
2G	Watershed Group Involvement	DPW & Local Groups	On-Going Program	Part of SUASCO Steering Committee, Mass Audubon and Blackstone Headwaters Coalition	
2C	Stormwater Photo Contest for High Schoolers <i>Stormwater Summit</i>	DPW & SUASCO	On-going Program	Use PowerPoint as main information for a summit in Town.	
	Stormwater Stenciling Program	DPW/SUASCO	On-going Program	Continue to work with community groups and personnel from the Sheriff's Department Work Program for the installation of stenciling	
21	Purchase lands for conservation	Town Meeting Conservation Commission	On-Going	As land is removed from CH 61A, Town pursues as funding is available	

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) — Permit Year 6 (Reliance on non-municipal partners indicated, if any)	
3A	Illicit Discharge Bylaw/Regulation	DPW, Planning, Conservation	Develop Draft By-Law	Bylaw drafted and approved by the Board of Selectmen pending Town Meeting approval in May 09 for implementation	
3B	Storm Drain Map	DPW	Find, GPS Survey map outfalls at least 20%.yr.	Solicited proposals for documenting location and condition of outfalls.	
3C	Illicit Discharge Detection and Elimination	DPW, Planning, Sewer, Bldg., Board of Health	Determine Priority areas. Screen outfalls during dry weather.	Bylaw drafted and approved by the Board of Selectmen pending Town Meeting approval in May 09 for implementation	
3D	Illicit Discharge Education	SUASCO & DPW	Media used to educate	Flyers will be given to new residents Newspaper and cable access to be used to raise awareness June 09	
3E	Education for Municipal Employees	DPW	Completed	D.O.T. Training to all employees new employees are trained as they are hired	

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 6 (Reliance on non-municipal partners indicated, if any)	
4A	Construction Site Runoff Bylaw	Conservation & DPW	Developed draft by-law	Bylaw drafted as part of the storm water bylaw and approved by the Board of Selectmen pending Town Meeting approval in May 09	
4B	BMP's for Construction Site Erosion, Sediment	Conservation & DPW	Included in draft by-law	Bylaw drafted and approved by the Board of Selectmen pending Town Meeting approval in May 09	
4C	Construction Site Plan Review Procedures	DPW, Conservation, Planning, Board	Included in draft by-law	Bylaw drafted and approved by the Board of Selectmen pending Town Meeting approval in May 09	
4D	Construction Site Inspection and Enforcement	DPW, Conservation, Planning, Board of Health	Included in draft by-law	Bylaw drafted and approved by the Board of Selectmen pending Town Meeting approval in May 09	
4E	Response to Public Hotline	DPW, Conservation, Planning, Board of Health	On-going Program	Public utilizes the line to report violations	

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 6 (Reliance on non-municipal partners indicated, if any)	
5A	Post Construction Site Runoff Bylaw/Regulatory Mechanism	DPW, Planning, Conservation	Developed bylaw, involve and educate public municipal officials, developers, contractors . Drafted proposed driveway regulations	Bylaw drafted and approved by the Board of Selectmen pending Town Meeting approval in May 09 Driveway regulations under review by the Board of Selectmen.	
5B	Choose Structural and Non Structural BMP 's	DPW, Planning,	Included in draft bylaw and subdivision regs.	In Process	
5C	Long Term BMP Operation and Maintenance Procedures	DPW, Planning,	Prepare to draft, and subdivision regs.	In Process	
5D	Structural BMP Implementation Procedures	DPW, Planning,	Prepare to draft, and subdivision regs.	In Process	

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 6 (Reliance on non-municipal partners indicated, if any)	
6A Revised	Employee Training to Prevent/Reduce Stormwater Pollution	DPW	Annual Awareness Education	Completed	
6B Revised	Maintenance/Inspection of Storm Sewers and Structural/Non-Structural Controls	DPW	Developed Draft New/Improved Activities, Schedules And Procedures for annual street sweeping and catch basin cleaning	Completed and Implemented. Finalized maintenance activities, schedules and long term inspection procedures	
6C Revised	Pollutant Source Reduction/Elimination from Municipal facilities	DPW	Develop Draft BMPs	Completed and implemented Finalize BMPs	
6D	Waste Disposal Procedures from Storm Sewers & Municipal	DPW	Disposal procedures in place	Completed and Implemented	

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b.					

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 %)	70 %
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)	10 tons estimated
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	(%)	70
Estimated or actual number of outfalls	(#)	500
System-Wide mapping complete	(%)	80
Mapping method(s)		
■ Paper/Mylar	(%)	
■ CADD	(%)	15 %
■ GIS	(%)	85%
Outfalls inspected/screened	(# or %)	10 %
Illicit discharges identified	(#)	none
Illicit connections removed	en (est. gpd)	none
% of population on sewer	(%)	70%
% of population on septic systems	(%)	30%

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 storm water control	(%)	40 %
Site inspections completed	(# or %)	10
Estimated volume of storm water 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	(#)	+/- 2100
Storm drain cleaned	(LF or mi.)	100
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	583 TONS
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	14,300

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1-2 /yr
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Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr) (lbs. or tons)	1-2/yr 300 tons est.
Qty. of sand/debris collected by sweeping	(location)	Compost, landfill, Reuse
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(\$)	\$30/ton
Cost of sweepings disposal	(#)	no
Vacuum street sweepers purchased/leased	(y/n)	No
Vacuum street sweepers specified in contracts		

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
■ Fertilizers	(lbs. or %)	30%
■ Herbicides	(lbs. or %)	NA
■ Pesticides	(lbs. or %)	90%

Anti-/De-Icing products and ratios		% NaCl 80
	% CaCl ₂	20
	% MgCl ₂	
	% CMA	
	% K _{ac}	
	% KCl	
	% Sand	
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	35
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N