

Municipality/Organization: Grafton

EPA NPDES Permit Number: MAR0041119

MassDEP Transmittal Number: W-035459

Annual Report Number & Reporting Period: Year 7
April 1, 2009 – March 31, 2010

MAR - 2 2011

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2010)

Part I. General Information

Contact Person: Brian Szczurko Title: Assistant Engineer

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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: 

Printed Name: Timothy McInerney

Title: Town Administrator

Date: 2-28-11

Part II. Self-Assessment

We have teamed with the Sudbury Assabet Concord Community Council's Water Quality / Water Quantity Sub-committee to provide some of these services. In 2006, the Town had a 40-scale flight done to integrate into our Geographic Information System. This allowed the Town to map most of its outfalls from what could be seen from the air. The DPW has since secured funding to have all the outfalls mapped through GPS, integrated into the GIS system, and also have the outfalls sampled for illicit discharges.

Mass Highway Department and the Mass Turnpike Authority have combined into Mass DOT, and will file a joint NOI with EPA. Mass DOT 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 Department of Public Works has continued the street sweeping program. During the spring, we sweep the entire Town. We concentrate on industrial/commercial areas first and then move our way out to the remaining roadways.

The Department of Public Works proposed a storm water bylaw, which was approved by the Board of Selectmen, and was approved by Town Meeting vote in May 2009.

The Conservation Commission proposed an illicit discharge bylaw, which was approved by the Board of Selectmen, and was approved by Town Meeting vote in May 2009.

The Department of Public Works has continued with the policy of using only salt for winter road clearing operations. This has significantly improved storm water quality in Town by minimizing sand deposits entering resource areas from roadways and catch basins.

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1B Revised	Stormwater Lesson Plan for 5 th Graders	DPW/SUASCO	Ongoing program	Curriculum was successfully implemented then dropped when science teacher retired two years ago.	Reintegrate the lesson plan by working with the school department.
1A Revised	Stormwater Flyer for Residents	DPW/Town Clerk	Ongoing Program	Stormwater fliers are given to residents as they visit the Town offices.	Continue with this program.
1C Revised	Stormwater Flyer for Community Businesses	DPW/SUASCO	Ongoing Program	Flyers were sent to all businesses in Town	
1G Revised	Business Education	DPW/Planning Dept.	Ongoing Program	Coordinate with businesses conducting work in Town when permits are sought.	Continue as necessary.
1K Revised	Trees and their use in stormwater management	DPW/Tree Warden	Ongoing Program	Recognized as Tree City for the 9 th year in a row. School children are given trees to plant and the Tree Warden speaks to them as to the importance of trees in the environment.	Seek additional funding to expand this program.
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2A Revised	Stormwater Traveling Display	DPW	Ongoing Program	Continued sending display to different locations for public view.	Continue with Program.
2B Revised	Poster Contest for 5 th Graders	SUASCO/DPW/ School Dept.	Ongoing Program	Curriculum was incorporated into science class, but when teacher retired, it was abandoned.	Coordinate with new science teacher to reestablish program.
2C Revised	Stormwater Photo Contest for High School Students	SUASCO/DPW/ School Dept.	Implement Program	Contact SUASCO to get information as to how to establish in H.S. Science curriculum.	
2I Revised	Purchase land for Conservation	ConComm / Townpeople	Ongoing Program	Town pursues purchasing Chapter 61A land as availability and funding dictate.	Continue with Program.
Revised					
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3A Revised	Illicit Discharge Bylaw	DPW	Develop Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Implement Bylaw
3B Revised	Storm Sewer Map	Engineering	Map the outfalls	Funding has been approved. Bid in near future.	
3C Revised	Illicit Discharge Detection and Elimination Plan	DPW/Sewer/ Building/ Planning Depts.	Develop Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Implement Bylaw
3E Revised	Education for Municipal Employees	DPW	Ongoing Program	All Highway employees are D.O.T. trained.	New employees are trained as they are hired.
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4A Revised	Construction Site Runoff Bylaw	ConComm/ DPW	Develop Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Implement Bylaw
4B Revised	BMP's for Construction Site Controls	ConComm/ DPW	Include in Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Implement Bylaw
4C Revised	Construction Site Plan Review Procedures	ConComm/ DPW/Planning	Include in Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Implement Bylaw
4D Revised	Construction Site Inspection and Enforcement	ConComm/ DPW/Planning/ BOH	Include in Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Try to pass non-criminal disposition so as to have enforcement power
Revised					
Revised					

4a. Additions

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5A Revised	Post-Construction Site Runoff Bylaw	ConComm/ DPW/Planning	Develop Bylaw	Bylaw was approved by Town Meeting vote in May 2009	Implement Bylaw
5B Revised	Choose Structural & Non-Structural BMP's	DPW/Planning	Ongoing	Subdivision Rules and Regulations require MassDEP Guideline BMP's	Continue this requirement
5C Revised	Long Term BMP O&M Procedures	DPW/Planning	Ongoing	Subdivision Rules and Regulations require MassDEP Guideline BMP's	Continue this requirement
5D Revised	Structural BMP Implementation Procedures	DPW/Planning	Ongoing	Subdivision Rules and Regulations require MassDEP Guideline BMP's	Continue this requirement
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6A Revised	Employee Training to Reduce/Prevent Stormwater Pollution	DPW	Annual Training	All current DPW staff have been trained	Continue training as opportunity arises
6B Revised	Maintenance/Inspection of Storm Sewers & Structural/Non-Structural Controls	DPW	Ongoing Program	Catch Basins are cleaned and streets are swept annually	Continue with this program
6D Revised	Waste Disposal Procedures from Storm Sewers & Municipal Facilities/Activities	DPW	Ongoing Program	Materials collected are properly disposed of by a licensed 3 rd party	Continue with this program
Revised					
Revised					

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised					
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)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2009 through March 31, 2010)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	no
Annual program budget/expenditures **	(\$)	\$17,000±
Total program expenditures since beginning of permit coverage	(\$)	\$120,000±
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	25%
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
Shoreline cleaned since beginning of permit coverage	(mi.)	0.5
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	10%
▪ material collected **	(tons or gal)	10 tons (Est.)
School curricula implemented	(y/n)	yes

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
▪ 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

	(Preferred Units)		Response
	(%)	(#)	
Outfall mapping complete	(%)		70%
Estimated or actual number of outfalls	(#)		500
System-Wide mapping complete (complete storm sewer infrastructure)	(%)		80%
Mapping method(s)			
▪ Paper/Mylar	(%)		15%
▪ CADD	(%)		
▪ GIS	(%)		85%
Outfalls inspected/screened **	(# or %)		0
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)		0
Illicit discharges identified **	(#)		0
Illicit discharges identified (Since beginning of permit coverage)	(#)		0
Illicit connections removed **	(#); and (est. gpd)		0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)		0
% of population on sewer	(%)		60%
% of population on septic systems	(%)		40%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	0
Site inspections completed **	(# or %)	>100
Tickets/Stop work orders issued **	(# or %)	2
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	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	5
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	No
Low-impact development (LID) practices permitted and encouraged	(y/n)	Yes

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)	1/yr
Qty of structures cleaned **	(#)	2300±
Qty. of storm drain cleaned **	(%, LF or mi.)	75 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	275 Tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	\$4,675
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	No
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vacor **	(%)	0%

(Preferred Units)		Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1/yr
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1/yr
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	875 Tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	\$14,875
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	no
• % 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 %)	70%
■ Herbicides	(lbs. or %)	N/A
■ Pesticides	(lbs. or %)	90%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	no

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	80% 20%
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)		
Pre-wetting techniques utilized **	(y/n or %)	yes
Manual control spreaders used **	(y/n or %)	no
Zero-velocity spreaders used **	(y/n or %)	yes
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	30% reduction
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	100% reduction
% of salt/chemical pile(s) covered in storage shed(s)	(%)	90%
Storage shed(s) in design or under construction	(y/n or #)	No
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	no

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	No
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	No
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	No