

Municipality/Organization: Town of Canton

EPA NPDES Permit Number: MA 0410311

MassDEP Transmittal Number: W-03622

Annual Report Number **Year 8**
& Reporting Period: **April 1, 2010 – March 31, 2011**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2011)

Part I. General Information

Contact Person: Michael Trotta Title: Superintendent 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: _____

Printed Name: William Friel

Title: Town Administrator

Date: April 27, 2011

Part II. Self-Assessment

The Town of Canton has completed its annual report as summarized below:

1. Public Education and Outreach

- Mailed landscaping and outdoor water use brochures as part of Spring water bills
- Discussed storm water program at Canton Conversation Committee on local cable TV

2. Public Involvement and Participation

- Labeled catch basins as part of Canton Police Public Service Program
- Identified labeling as part of Boy Scout Eagle project
- Working with Neponset River Valley Watershed Association on BMP development

3. Illicit Discharge Detection and Elimination

- Developed in house testing with Public Works Water Division staff
- Completed second round inspections
- Sampled 119 outfall sites

4. Construction Site Storm Water Runoff Control

- Continue plan review, permitting, and site inspection

5. Post Construction Storm Water Management

- Under MA DEP 604 B Grant with NRVWA hired CEI Consulting Engineers to develop BMP design
- Partnered with Neponset River Valley Watershed Association to review and site BMP's

6. Good Housekeeping in Municipal Operations

- Continue catch basin cleaning and street sweeping programs
- Held Household Hazardous Waste Day

7. BMP's for Meeting TMDL

- Began third round of Outfall inspections

- Sampled and tested 55 of 95 dry weather inspections
- Sampled and tested 64 of 85 wet weather inspections

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
1-1 Revised	Design Distribute Brochures	DPW	Spring	Outside watering tips mailed in spring water bills. Strom water brochure distributed at DPW Office and Con Comm. meetings	Reassess activity under new MS4 permit
1-2 Revised	CATV	DPW	On going	Town Engineer discussed storm water with Con Comm.	Town Engineer to develop PSA for Canton Cable
1-3 Revised	Strom Water Comm.	Con Comm. DPW	On going	Committee met Winter 10 to discuss new MS4 permit	Review maintenance program
1-4 Revised	Label Catch Basins	DPW	On going	Labeled catch basin in subdivisions in SE Canton along and off Pleasant St.	Continue activity as Boy Scout project
1-5 Revised	High School Educ.	Con Comm.		No action	Review BMP
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
2-1 Revised	Storm Water Comm.	SWC	On going	Presented Outfall maintenance NOI and program to Canton Con Comm.	Assist in preparation of next MS4 General Permit
2-2 Revised	Label Catch Basins	DPW	On going	Label CB as part of Canton Police Public Service Program	Continue activity as Boy Scout project
2-3 Revised	Technical Comm.		On going	Worked with NRVWA to develop and review BMP	Define and site useful BMP with NRVWA and CEI
2-4 Revised	Review General Permit	DPW	On going	Prepared annual report	Prepare new MS4 General Permit
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
3-1 Revised	Drainage System Map	DPW	On Going	Completed review of Drain Map	Review map requirements of new MS4 General Permit
3-2 Revised	Article XVI By-Law		Completed		
3-3 Revised	Enforce By-Law	Con Comm. DPW	On going	Reviewed site and subdivision storm water and grading plans	Continue activity
3-4 Revised	Train Staff	DPW	On going	Engineering Staff worked with Water Division to develop in house testing	Attend seminars and view web casts
3-5 Revised	Dry Weather Outfall Inspection	DPW	Complete 50% Second Round Inspection	Completed Outfall Inspections Sampled and Tested 55 Locations	Continue activity
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
4-1 Revised	Draft Erosion / Sediment By-Law	Con Comm.	Completed		
4-2 Revised	Erosion / Sediment By-Law	Con Comm.	Article XX TOC By-Law	On going review	On going review
4-3 Revised	Procedures for Site Waste	Con Comm.	Article XX TOC By-Law	On going review	On going review
4-4 Revised	Procedure for Site Plan Review	Con Comm.	Article XX TOC By-Law	On going review	On going review
4-5 Revised	By-Law Enforcement	Con Comm.	Article XX TOC By-Law	On going enforcement	On going enforcement
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
5-1 Revised	Storm Water Management Policy	Building DPW Con Comm.	On going	Review Drain Connection Permits. Site plan reviews and follow up inspections.	Continue activity
5-2 Revised	Review Storm Water BMP's	DPW SWC	Fall / Winter 2010	Partnered with NRVWA to select CEI to develop BMP	Review BMP's with Neponset River Valley Watershed
5-3 Revised	Review Long Term O&M	DPW SWC	On going	Reviewed Site Inspection procedures with Building Inspector	Assess needs required by new MS4 General Permit
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6-1 Revised	Catch Basin Cleaning	DPW	Clean 1100 / Year	Cleaned 936 catch basins	Continue activity
6-2 Revised	Street Sweeping	DPW	Complete Spring and Fall Sweeps	Completed 2 full sweeps of all streets. Swept CBD twice monthly. Swept low areas after .5” rain.	Continue activity
6-3 Revised	Hazard Waste Materials	DPW	Yearly Collection	Held HHW Day May 15, 2010	Hold HHW Day May 14, 2011
6-4 Revised	Procedure for Catch Basin Cleanings	DPW	Yearly	Recycle sweepings and catch basins with compost or gravel fill	Continue activity
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
7-1 Revised	Identify and Categorize Outfalls	DPW	Spring and Fall 2011	Completed second round inspection Fall 2010	Continue third round inspections
7-2 Revised	Test Outfalls	DPW	Test 50% of Outfalls	55 Dry Weather Sample and Test 64 Wet Weather Sample and Test	Continue activity
7-3 Revised	Identify Illicit Drainage Source	DPW Con Comm.	Sample as needed	None Identified	Continue Activity
7-4 Revised	Eliminate Illicit Drainage Source	DPW Con Comm.	Sample as needed	None Identified	Continue Activity
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)	N
Annual program budget/expenditures **	(\$)	167,000
Total program expenditures since beginning of permit coverage	(\$)	
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 %)	6100
Stormwater 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.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	May 15, 2010
▪ community participation **	(# or %)	157 Cars
▪ material collected **	(tons or gal)	
School curricula implemented	(y/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					X
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100
Estimated or actual number of outfalls	(#)	270
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100
Outfalls inspected/screened ** Apr 1, 2010 to Mar 31, 2011	(# or %)	180
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	457
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	0
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	0
% of population on sewer	(%)	75
% of population on septic systems	(%)	25

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100
Site inspections completed **	(# or %)	8
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	1

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
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)	2
Qty of structures cleaned **	(#)	936
Qty. of storm drain cleaned **	(%, LF or mi.)	1900 lf
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	1170 T
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	34000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1 Owned
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	100
• % Structures cleaned with vector **	(%)	

	(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)	14
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	365 T
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial Use
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	120,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1 Owned
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of:
 (“N/A” = never used; “100%” = elimination)

▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Y

	(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	80 20
Pre-wetting techniques utilized **	(y/n or %)	N
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 %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	
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	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	

Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	
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