

Municipality/Organization: Town of Braintree, MA

EPA NPDES Permit Number: [MAR041029]

MaDEP Transmittal Number: W- 041000 (for No.1)

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

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Bob Campbell

Title: Town 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: Robert P. Campbell, P.E.

Title: Town Engineer

Date:

5/15/08

Part II. Self-Assessment

The Town of Braintree is committed to protection of our water resources and is in compliance with all permit conditions, except for the following provisions:

As part of PE 2 we were to distribute brochures at the July 4th Town Fair. The Town Fair is no longer held.

The instruction anticipated in PE 3 is still being pulled together.

Other duties and unfamiliarity with stormwater management issues left our DPW Director unable to accomplish several of his goals, including PE-5 (stormwater cable access program), PP-3 (Poster Contest), and GH-3 (Good Housekeeping Workshop at DPW.)

1. Public Education and Outreach

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Measurable Goals		
		Year 4 (March 2006 to March 2007)	Annual Report Status	Year 5 (March 2007 to March 2008)
PE 1	Partner w/ local organization/ <i>Peter Lapolla – Planning/ConCom</i>	-	Partnership activities with the Fore River Watershed Association continued as noted last year.	Continue partnership
PE 2	Develop public education brochures/press releases/ <i>John McMahon - DPW</i>	Distribute fliers to abutters of pavement projects to address SSO issues. Brochure distribution at July 4 th Town Fair	Continued practice of handing out fliers to abutters of roadway reconstruction projects alerting them to drainage work being done and to avail themselves of the opportunity to remove sump pump connections from sewer lines. This reduces flow in the sewers and diminishes the likelihood of sewer surcharges to the rivers and wetlands. Didn't do. July 4th Town Fair is no longer held.	Distribute fliers to abutters of pavement projects to address SSO issues. Brochure distribution at July 4 th Town Fair
PE 3	Classroom instruction/ <i>Peter Lapolla – Planning/ConCom</i>	Present storm water education	Although it was noted in last year's report that a storm water education program would be included in Pond Meadow Summer Camp programming, this did not occur. Conservation Planner Kelly Phelan will pull together materials this spring and meet with Sean Cleaves of the Braintree / Weymouth Regional District to discuss the materials' inclusion in the camp activities. There is a commitment to include this educational component during the camp session.	Present storm water education
PE 4	Develop web page/ <i>Mike Steen - MIS</i>	Maintain and update webpage	The Wetlands Protection Act and local regulations are posted and updated on the Town's web site. Results of water quality testing at Town beaches are also posted and maintained	Maintain and update webpage
PE 5	Cable Access TV Show/ <i>John McMahon - DPW</i>	Finalize outline and text for cable access episode	Not done	1 Cable access episode devoted to Storm Water

2. Public Involvement and Participation

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Measurable Goals		
		Year 4	Annual Report Status	Year 5
		March 2006 to March 2007)		(March 2007 to March 2008)
PP 1, PP 2	Partner w/ local organization/ <i>Peter Lapolla</i> – <i>Planning/ConCom</i>	Continue stenciling program	Conservation Planner Phelan will work with scouting and other organizations to implement the storm drain stencilling program this year. MA Dept. of Conservation and Recreation staff will loan us the appropriate stencils.	Continue partnership through financial contribution
PP 3	Poster Contest/ <i>John McMahon</i> – <i>DPW</i>	Modify and continue contest		Modify and continue contest
PP 4	Organize public meetings and panels/ <i>John McMahon</i> – <i>DPW</i>	Discussion of storm water at one public meeting and broadcast on cable	Stormwater management is a frequent topic of discussion in many of the televised meetings of the Braintree Planning Board.	Discussion of storm water at one public meeting and broadcast on cable
PP 5	Town Departments Involved/ <i>John McMahon</i> - <i>DPW</i>	Continue to involve departments	The Highway Department and Water & Sewer Department frequently speak with residents about stormwater mangement issues.	Continue to involve departments

3. Illicit Discharge Detection and Elimination

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Measurable Goals		
		Year 4 March 2006 to March 2007)	Annual Report Status	Year 5 (March 2007 to March 2008)
ID 1	Develop a comprehensive Storm Drain Map for the Town/ John McMahon- DPW	GPS locate 20% drainage system & outfalls Input existing plans to GIS map	GPS location and map updating continued on schedule.	GPS locate 20% drainage system & outfalls Update map with any drainage additions
ID 2	Implement a Town Bylaw / Peter Lapolla - Planning/ConCom	Evaluate effectiveness of stormwater regulations and ordinances.	Two years ago the Town had determined that the development of additional ordinances or regulations was not warranted at that time. We continue to monitor the effectiveness of the regulations in place as we prepare for the change in form of government.	Review effectiveness of ordinances
ID 3	Perform an illicit discharge detection campaign/ John McMahon - DPW	-	-	-
ID 4	Correct Illicit Discharges/ John McMahon - DPW	Enforce By-Law	No illicit discharges were confirmed in the area.	
ID 5	Educate Citizens/ John McMahon - DPW	-		Re-distribute fliers

4. Construction Site Stormwater Runoff Control

BMP ID#	Best Management Practice/ <i>Responsible Dept. – Contact</i>	Measurable Goals		
		Year 4	Annual Report Status	Year 5
CS 1	Implement by-law related to construction runoff control/ <i>Peter Lapolla –Planning/ConCom</i>	Review by-law and enhance if necessary	The Departments of Conservation & Planning, Engineering, and Inspections, with applicant's engineering firms continue to fine tune ordinances and site plan designs with emphasis on maintaining clean water environments.	-
CS 2	Incorporate sanctions into By-Law to ensure compliance/ <i>Peter Lapolla –Planning/ConCom</i>	Noticeable efforts made to ensure compliance		-
CS 3	Site Plan Review/ <i>Peter Lapolla –Planning/ConCom</i>	-		-
CS 4	Site inspection and enforcement of control measures/ <i>Peter Lapolla –Planning/ConCom</i>	Review inspection guidelines. Enhance if necessary.	Procedures now in place continue to meet our needs, but will be monitored for long term effectiveness.	Measurable decrease in violations since start of inspections.
CS 5	Establish procedures to record and address public inquiries or concerns / <i>Peter Lapolla –Planning/ConCom</i>	-		-

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID#	Best Management Practice/ <i>Responsible Dept. – Contact</i>	Measurable Goals		
		Year 4	Annual Report Status	Year 5
PC 1	Evaluate, enhance and implement zoning requirements / <i>Peter Lapolla –Planning/ConCom</i>	-		-
PC 2	Develop regulations requiring specific structural storm water controls/ <i>Peter Lapolla –Planning/ConCom</i>	-		-
PC 3	Develop review and inspection procedures for private storm water systems <i>Peter Lapolla –Planning/ConCom</i>	Develop and implement an inspection procedure	Conditions of approval on all special permits, site plan reviews and subdivision decisions require the applicant or their successors to provide and continually implement a stormwater management plan. Special permits require monthly (or more often) inspections and detailed cleanliness standards for paved areas, stormwater structures and pipes, and detention basins. The Town recommends contracting with professional maintenance companies.	-

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID#	Best Management Practice/ <i>Responsible Dept.</i> – <i>Contact</i>	Measurable Goals		
		Year 4	Annual Report Status	Year 5
GH 1	Audit of Town Facilities/ <i>John McMahon – DPW</i>	Assessment of Filtration Plant	Notes from the daily visits to each of our Sewage Pumping Stations have been evaluated and formed the basis of a program to update the pumping stations. Jefferson Street Pumping Station is scheduled to be replaced in fy2008.	-
GH 2	Operation and Maintenance Program/ <i>John McMahon - DPW</i>	-		-
GH 3	Employee Training Programs/ <i>John McMahon – DPW</i>	-		-
GH 4	Recycling Program/ <i>John McMahon - DPW</i>	Monitor recycling program and enhance if necessary	The Department of Public Works, along with paid and volunteer recycling activists continue to fine tune policies and procedures of solid waste recycling with emphasis on preventing migration of trash toward water environments. Re-use of collected storm water for watering landscape areas is encouraged through site plan reviews, etc. and through prohibitions on using Town-supplied water in outdoor watering.	-

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures	(\$)	Not tracked

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	1000
Stormwater management committee established	(y/n)	Not per se
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	0.5 - 1.0 mi.
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	Small
▪ material collected	(tons or gal)	Unknown
School curricula implemented	(y/n)	N

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	(%)	About 95%
Estimated or actual number of outfalls	(#)	247+
System-Wide mapping complete	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	85
▪ CADD	(%)	95%
▪ GIS	(%)	95%
Outfalls inspected/screened	(# or %)	227
Illicit discharges identified	(#)	7
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	99
% of population on septic systems	(%)	1

Construction

Number of construction starts (>1-acre)	(#)	3
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(# or %)	numerous
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	5-10

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	Not tracked

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	0.43 /year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	0.43/year
Total number of structures cleaned	(#)	2300
Storm drain cleaned	(LF or mi.)	1400 lf
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	Unknown
Disposal or use of screenings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	compost	
Cost of screenings disposal	(\$)	0

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)	2
Qty. of sand/debris collected by sweeping	(lbs. or tons)	2700 t/yr
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost site
Cost of sweepings disposal	(\$)	0
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	Can't compare
▪ Herbicides	(lbs. or %)	Can't compare
▪ Pesticides	(lbs. or %)	Can't compare

Anti-/De-Icing products and ratios	% NaCl	72%
	% CaCl ₂	
	% MgCl ₂	
	% CMA	0%
	% Kac	
	% KCl	
	% Sand	28%
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 %)	Can't compare
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N