

Municipality/Organization:
EPA NPDES Permit Number:
MA DEP Transmittal Number:
Annual Report Number &
Reporting Period:

Town of Braintree, MA
MAR 041029
W-041000 (for No. 1)
No. 5 March 2007- March 2008

**NPDES PII SMALL MS4 GENERAL PERMIT
ANNUAL REPORT**

Part I. General Information

Contact Person: Bob Campbell Title: Town Engineer
Telephone #: 781 794-8010 Email: rcampbell@beld.net

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: Robert P. Campbell

Printed Name: Robert P. Campbell

Title: Town Engineer

Date: March 2, 2010

Part II. Self-Assessment Year 5 March 2007 to March 2008

The Town has continued to struggle with implementing the items in the Phase II Permit application but has made progress. Connections with the Fore River Watershed Association have been strengthened and the Association has been an important ally in implementing monitoring efforts.

On the regulatory side of things, we have observed that current Planning Board and Conservation Commission review catches all substantial development and definitely catches all development which disturbs more than one acre.

1. Public Education and Outreach

BMP ID#	Best Management Practice/Responsible Dept. - Contact	Year 5 (March 2007 to March 2008)	Annual Report Status	Year 6 (March 2008 to March 2009)	Annual Report Status
PE 1	Partner w/ local organization/ Peter Lapolla - Planning/ConCom	Continue partnership	Continued partnership. A volunteer from the Fore River Watershed Association walked several streams to monitor for illicit discharges. A sewage discharge into the Monaquot River was identified and corrected.	Continue partnership	Continued partnership with Fore River Watershed Association and worked closely with the Division of Marine Fisheries on river herring restoration study.
PE 2	Develop public education brochures/press releases/John McMahon - DPIW	Distribute fliers to abutters of pavement projects to address SSO issues.			A press release was sent to the local papers in summer of 2008 on stormwater issues and to identify volunteers for the storm drain stenciling program. Several neighborhood groups volunteered to stencil stormdrains. The Planning Department provided the stencils and the volunteers provided the paint. Approximately 20% of the Town's storm drains were stenciled.
		Brochure distribution at July 4 th Town Fair			
PE 3	Classroom instruction/Peter Lapolla - Planning/ConCom	Present storm water education	Conservation staff implemented a stormwater education program for middle school age students. The lesson included a discussion of stormwater pollution and an exercise using the Town storm drain map to see where stormwater runoff ends up. Water quality sampling at two locations (near a roadway and in an undeveloped area) was also incorporated.	Continue stormwater education program	Conservation staff implemented a stormwater education program for middle school age students. The lesson included a discussion of stormwater pollution and an exercise using the Town storm drain map to see where stormwater runoff ends up. Water quality sampling at two locations (near a roadway and in an undeveloped area) was also incorporated.
		Maintain and update webpage	The Wetlands Protection Act and local regulations are posted and updated on the Towns web site. Results of water quality testing at Town beaches are also posted and maintained.	Maintain and update webpage	The Wetlands Protection Act and local regulations are posted and updated on the Towns web site. Results of water quality testing at Town beaches are also posted and maintained.
PE 4	Develop web page/Mike Steen - MIS				
PE 5	Cable Access TV Show/John McMahon - DPIW	1 Cable access episode devoted to Storm Water		Cable access programming on stormwater	After the Storm, a program co-produced by EPA and The Weather Channel on stormwater pollution issues, was broadcast several times throughout the year on the cable access station.

2. Public Involvement and Participation

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 5 (March 2007 to March 2008)	Annual Report Status	Year 6 (March 2008 to March 2009)	Annual Report Status
PP 1, PP 2	Partner w/ local organization/ <i>Peter Lapolla</i> – <i>Planning/ConCom</i>	Continue partnership through financial contribution	Conservation Planner will work with scouting and other organizations to implement the storm drain stencilling program this year.	Continue partnership	Partnered with several neighborhood groups to stencil stormdrains in spring and summer of 2008. Approximately 30% of town drains were stenciled.
PP 3	Poster Contest/ <i>John McMahon</i> – <i>DPW</i>	Modify and continue contest			Contest is being eliminated from action plan.
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 and meetings of the Conservation Commission	Discussion of stormwater at public meeting	Stormwater management is a frequent topic of discussion in many of the televised meetings of the Braintree Planning Board and meetings of the Conservation Commission
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 management issues.	Continue to involve departments	The DPW Department instituted weekly meetings, stormwater management is a frequent topic.

3. Illicit discharge detection and elimination

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 5 (March 2007 to March 2008)	Annual Report Status	Year 6 (March 2008 to March 2009)	Annual Report Status
ID 1	Develop a comprehensive Storm Drain Map for the Town/ John McMahon- DPW	GPS locate 20% drainage system & outfalls			
ID 2	Implement a Town Bylaw / Peter Lapolla - Planning/ConCom	Continue to evaluate current bylaws	The Town has determined that the development of additional ordinances or regulations is not warranted. We continue to monitor the effectiveness of the regulations in place.	Continue to evaluate current bylaws	The Town has determined that the development of additional ordinances or regulations is not warranted. We continue to monitor the effectiveness of the regulations in place.
ID 3	Perform an illicit discharge detection campaign/ John McMahon - DPW	Continue	A volunteer from the Fore River Association walked several streams to monitor for illicit discharges. A sewage discharge into the Monatiquot River was identified.	Continue	
ID 4	Correct Illicit Discharges/ John McMahon - DPW	Continue	A sewage discharge to the Monatiquot River was identified by a Fore River Watershed Association volunteer. The Water and Sewer Department required the property owner to remedy the situation.	Continue	
ID 5	Educate Citizens/ John McMahon - DPW	Re-distribute fliers			

4. Construction Site Stormwater Runoff Control

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 5 (March 2007 to March 2008)	Annual Report Status	Year 6 (March 2008 to March 2009)	Annual Report Status
CS 1	Implement by-law related to construction runoff control/ <i>Peter Lapolla –Planning/ConCom</i>	Continue to implement	The vast majority of construction site runoff is regulated through either the Planning Board conditions or the Conservation Commission's conditions, or both.	Continue to implement	The vast majority of construction site runoff is regulated through either the Planning Board conditions or the Conservation Commission's conditions, or both.
CS 2	Incorporate sanctions into By-Law to ensure compliance/ <i>Peter Lapolla –Planning/ConCom</i>	Continue to implement	The Conservation Commission has authority to issue fines for non compliance under its local wetland bylaw.	Continue to implement	The Conservation Commission has authority to issue fines for non compliance under its local wetland bylaw.
CS 3	Site Plan Review/ <i>Peter Lapolla –Planning/ConCom</i>	Continue to implement	The Planning Board continues to require applicants to comply with stormwater standards during the site plan review or special permit processes.	Continue to implement	The Planning Board continues to require applicants to comply with stormwater standards during the site plan review or special permit processes.
CS 4	Site inspection and enforcement of control measures/ <i>Peter Lapolla –Planning/ConCom</i>	Continue to implement	The Conservation Commission and Planning Board continue to inspect and enforce on stormwater and erosion control issues.	Continue to implement	The Conservation Commission and Planning Board continue to inspect and enforce on stormwater and erosion control issues.
CS 5	Establish procedures to record and address public inquiries or concerns / <i>Peter Lapolla –Planning/ConCom</i>	Continue to implement	The Planning and Community Development Department and Engineering Department respond to any public inquiries or concerns they receive.	Continue to implement	The Planning and Community Development Department and Engineering Department respond to any public inquiries or concerns they receive.

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

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 5 (March 2007 to March 2008)	Annual Report Status	Year 6 (March 2008 to March 2009)	Annual Report Status
PC 1	Evaluate, enhance and implement zoning requirements / <i>Peter Lapolla</i> – <i>Planning/ConCom</i>	Continue to implement	The Planning Board continues to apply grading provisions of zoning bylaw.	Continue to implement	The Planning Board continues to apply grading provisions of zoning bylaw.
PC 2	Develop regulations requiring specific structural storm water controls/ <i>Peter Lapolla</i> – <i>Planning/ConCom</i>	Continue to implement	The Conservation Commission and Planning Board continue to require adherence to the DEP's stormwater standards. Said standards require achieving specific standards through the use of a menu of Best Management Practices and structures.	Continue to implement	The Conservation Commission and Planning Board continue to require adherence to the DEP's stormwater standards. Said standards require achieving specific standards through the use of a menu of Best Management Practices and structures.
PC 3	Develop review and inspection procedures for private storm water systems <i>Peter Lapolla</i> – <i>Planning/ConCom</i>	Continue inspection procedure	Conditions of approval on all special permits, site plan reviews and subdivision decisions and Conservation Commission Orders of Conditions require the applicant or their successors to provide and continually implement a stormwater management plan. Conditions require regular inspections and detailed cleanliness standards for paved areas, stormwater structures and pipes, and detention basins.	Continue inspection procedure	Conditions of approval on all special permits, site plan reviews and subdivision decisions and Conservation Commission Orders of Conditions require the applicant or their successors to provide and continually implement a stormwater management plan. Conditions require regular inspections and detailed cleanliness standards for paved areas, stormwater structures and pipes, and detention basins.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID#	Best Management Practice/Responsible Dept. — Contact	Year 5 (March 2007 to March 2008)	Annual Report Status	Year 6 (March 2008 to March 2009)	Annual Report Status
GH 1	Audit of Town Facilities/ <i>John McMahon – DPW</i>				
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>	Enhance recycling program	Single stream recycling was implemented on June 30, 2008 as part of a new regional contract with neighboring towns for trash and recycling collection. Recycling rates continue a steady increase. The July 07 rate was 147 tons/month while the March 08 rate was 159 tons/month.	Monitor and enhance recycling program	The July 08 recycling rate was 162 tons/month and March 09 rates was 178 tons/month.

Year 5 March 2007 to March 2008

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 %)	2%
Stormwater management committee established	(y/n)	n
Stream teams established or supported	(# or y/n)	n
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	1 mi
Household Hazardous Waste Collection Days		
• days sponsored	(#)	1
• community participation	(%)	2.5%
• material collection	(tons or gal)	9241 lbs 550 gallons
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 Detention & Elimination	X			
• Erosion & Sediment Control				X
• Post Development Stormwater Control				X
Accompanying Regulation Status (indicate with "X")				
• Illicit Discharge Detention & Elimination	X			
• Erosion & Sediment Control				X
• Post Development Stormwater Control				X

Mapping and Illicit Discharges

Outfall mapping complete	(%)	
Estimated number of outfalls	(#)	
System-wide mapping complete	(%)	
Mapping methods		
• Paper/Mylar	(%)	
• CADD	(%)	
• GIS	(%)	
Outfalls inspected/screened	(# or %)	40%
Illicit discharges identified	(#)	1
Illicit connections removed	(#) (est gpd)	1
% of population on sewer	(%)	99
% of population on septic	(%)	1

Construction

Number of construction starts (> 1 acre)	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(# or %)	6
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	1
Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	60%
Average frequency of catch basin cleaning (commercial/arterial or other streets)	(times/yr)	60%
Total number of structures cleaned	(#)	3100
Storm drain cleaned	(LF or mi.)	2100
Qty. of screenings/debris removed from storm	(lbs or tons)	unknown
Disposal or use of screenings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	(location)	Compost site
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 streets)	(times/yr)	2

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

Reduction in application on public land of:		
• fertilizers	(lbs or %)	
• herbicides	(lbs or %)	
• pesticides	(lbs or %)	

Anti/De-icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac %KCl % Sand	-40% 30%
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 salt application	(lbs or %)	
Salt piles covered in storage shed(s)	(y/n)	y
Storage shed(s) in design or under construction	(y/n)	n