

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. 9: March 2011-March 2012

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@braintreema.gov

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, P.E.

Title: Town Engineer

Date: May 1, 2012

ATTACHMENT

DECLARATION

I declare under penalty of perjury that I am Robert P. Campbell, P.E., the Town Engineer of the Town of Braintree, Massachusetts, that I am authorized to respond on behalf of the Town and that the foregoing is a complete, true and correct response.

Executed on May 1, 2012

A handwritten signature in cursive script, reading "Robert P. Campbell", is written over a horizontal line.

Robert P. Campbell P.E., Town Engineer

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 1 we were to continue our partnership with the Watershed Association, but the association has become inactive.

PART III. Summary of Minimum Control Measures.

1. Public Education and Outreach

BMP ID#	Best Management Practice/Responsible Dept. - Contact	Year 8 (March 2010 to March 2011)	Annual Report Status	Year 9 (March 2011 to March 2012)	Annual Report Status
PE 1	Partner w/ local organizational/ Peter Lapolla - Planning/ConCom	Continue partnership	Watershed Association not active.	Continue partnership	Watershed Association not active.
PE 2	Develop public education brochures/press releases/ John McMahon - DPIW	Include stormwater information in water and sewer department mailing.	Distribute fliers to abutters of water and paving projects to address SSO issues, fliers distributed at Academy St., Azel Road, Brow Ave., Devon Rd., Elm lawn Rd., Elmwood Ave., Fabiano Dr., Hayward Ave., Highland Ave., Hobart Ave., Jay St., Jefferson St., King Hill Rd., Lakeview Ave., Marshfield Rd., Morrison Rd., Middle St., Plymouth Ave., Ray Ln., Rome Dr., Sumner Ave., Town St and Winthrop Ave.	Include stormwater information in water and sewer department mailing.	Distribute fliers to abutters of water and paving projects to address SSO issues, fliers distributed at Elm lan Rd. and Perry Rd.
PE 3	Classroom instruction/Peter Lapolla -Planning/ConCom	Continue stormwater education program	Competing demands for staff time prevented stormwater education during this cycle.	Hired consultant (Woodward and Curran)	
PE 4	Develop web page/Mike Stuen - M/S	Maintain and update webpage	An educational webpage on stormwater was posted to the Town website and can be viewed at http://www.townofbraintreegov.org/Stormwater.htm 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	An educational webpage on stormwater was posted to the Town website and can be viewed at http://www.townofbraintreegov.org/Stormwater.htm 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 5	Cable Access TV Show/John McMahon - DPIW				

2. Public Involvement and Participation

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 8 (March 2010 to March 2011)	Annual Report Status	Year 9 (March 2011 to March 2012)	Annual Report Status
PP 1, PP 2	Partner w/ local organization/ <i>Peter Lapolla</i> – <i>Planning/ConCom</i>	Continue partnership	Worked with local community to plan BMP's to be implemented at Sunset Lake recreation area and High School grounds.	Continue partnership	Continued to work with residents to implement BMP's to be implemented at Sunset Lake recreation area.
PP 4	Organize public meetings and panels/ <i>John McMahon</i> – <i>DPW</i>	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	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 DPW Department instituted weekly meetings, stormwater management is a frequent topic.	Continue to involve departments	Stormwater management continues to be a frequent topic at the DPW Department weekly meetings. Also, The DPW and other departments began the process of working with our consultant (W&C) to improve the overall stormwater program.

3. Illicit Discharge Detection and Elimination

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 8 (March 2010 to March 2011)	Annual Report Status	Year 9 (March 2011 to March 2012)	Annual Report Status
ID 1	Develop a comprehensive Storm Drain Map for the Town/ John McMahon- DPW	GPS locations that may have been missed.	GPS location and map updating continued. Continue to add detail to drain map and database.	Continue to update drainage map	Used summer help to locate existing drainage (w/GPS) in last few years water/roadway improvement areas
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.	Hired consultant (W&C)	Discussed with consultant (W&C) re: reviewing existing regulations and bylaws.
ID 3	Perform an illicit discharge detection campaign/ John McMahon - DPW	Continue		Hired consultant (W&C)	Discussed with consultant (W&S) re: assisting in setting up illicit discharge detection program as part of new MS4 requirements.
ID 4	Correct Illicit Discharges/ John McMahon - DPW	Continue	No illicit discharges were confirmed.	Continue	No illicit discharges were confirmed.
ID 5	Educate Citizens/ John McMahon - DPW	Re-distribute fliers	Fliers were included with water bills	Hired consultant (W&C)	Discussed with consultant (W&C) re: assisting in finding different ways to educating citizens about illicit discharges

4. Construction Site Stormwater Runoff Control

BMP ID#	Best Management Practice/Responsible Dept. – Contact	Year 8 (March 2010 to March 2011)	Annual Report Status	Year 9 (March 2011 to March 2012)	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 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/ <i>Responsible Dept.</i> – <i>Contact</i>	Year 8 (March 2010 to March 2011)	Annual Report Status	Year 9 (March 2011 to March 2012)	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 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 8 (March 2010 to March 2011)	Annual Report Status	Year 9 (March 2011 to March 2012)	Annual Report Status
GH 1	Audit of Town Facilities/ <i>John McMahon – DPW</i>			Hired consultant (W&C)	Discussed with consultant (W&C) re: assisting in setting up audit of Town Facilities
GH 2	Operation and Maintenance Program/ <i>John McMahon – DPW</i>	Develop new standard details to enhance protection of receiving waters	New Town standard frame & grate has "dump no waste...drains to waterway" cast into grate. The new grates are being installed at all road reconstruction projects and anywhere that catchbasins are being repaired.	Continue	New Town standard frame & grate has "dump no waste...drains to waterway" cast into grate. The new grates are being installed at all road reconstruction projects and anywhere that catchbasins are being repaired.
GH 3	Employee Training Programs/ <i>John McMahon – DPW</i>			Hired consultant (W&C)	Discussed with consultant (W&C) re: assisting with setting up employee training programs
GH 4	Recycling Program/ <i>John McMahon – DPW</i>	Monitor and enhance recycling program	The new Single Stream recycling has made it easier to recycle in every home in town. Last year's recycling was 2300 tons plus 4500 tons of yard wastes. MSW "trash" was 12,800 tons.	Monitor and enhance recycling program	The new Single Stream recycling has made it easier to recycle in every home in town.

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 %)	10-12%
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	(#)	2
▪ community participation	(%)	4% (very good)
▪ material collected	(tons or gal)	9 tons
School curricula implemented	(y/n)	N

Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II			Under Review		Drafted	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

Outfall mapping complete		(%)		About 99%
Estimated or actual number of outfalls		(#)		247
System-Wide mapping complete		(%)		97%
Mapping method(s)				
▪ Paper/Mylar		(%)		85
▪ CADD		(%)		95%
▪ GIS		(%)		95%
Outfalls inspected/screened		(# or %)		2%
Illicit discharges identified		(#)		0
Illicit connections removed		(#)		0
		(est. gpd)		
% of population on sewer		(%)		99
% of population on septic systems		(%)		1

Construction

Number of construction starts (>1-acre)	(#)	4
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	(#)	1

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)	0.33 /year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	0.33/year
Total number of structures cleaned	(#)	770
Storm drain cleaned	(LF or mi.)	~2000 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 % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	82% 10%(~3700Gal) 0% 8%
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