Joseph C. Sullivan, Mayor

BRAINTREE DEPARTMENT OF PUBLIC WORKS

Engineering Division

Robert P. Campbell, PE, PTOE, Town Engineer
rcampbell@braintreema.gov
John J. Morse, Assistant Town Engineer
jmorse@townofbraintreegov.org

February 17, 2011

Glenda Velez - CIP
U. S. Environmental Protection Agency – Region 1
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Fred Civian
Massachusetts Department of Environmental Protection
One Winter Street – 5th Floor
Boston, MA 02108

RE: MAR041029 (W-041000)

Enclosed please find our NPDES Phase II Small MS4 General Permit Annual Report Number 7, covering the period of March of 2009 to March of 2010.

Very truly yours,

Robert P. Campbell, P. E.
Town Engineer

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 February 17, 2011

Robert P. Campbell P.E., Town Engineer

90 Pond Street, Braintree, MA 02184 Telephone: 781-794-8254 Fax: 781-843-8285

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. 7: March 2009-March 2010**

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: February 17, 2011

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 3 we were to continue our stormwater education program but we were unable to get to it this cycle.

PART III. Summary of Minimum Control Measures.

1. Public Education and Outreach

BMP ID#	Best Management Practice/*Responsible Dept. – Contact*	Year 6 (March 2008 to March 2009)	Annual Report Status	Year 7 (March 2009 to March 2010)	Annual Report Status
PE 1	**Partner w/ local organization/** ***Peter Lapolla – Planning/ConCom***	Continue partnership	Continued partnership with Fore River Watershed Association and worked closely with the Division of Marine Fisheries on river herring restoration study.	Continue partnership	Watershed Association not active. Worked with Sustainable Braintree on rain barrel promotion with message about reducing stormwater runoff.
PE 2	**Develop public education brochures/press releases/** ***John McMahon - DPW***	Send out press release	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.	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: Commercial St., Cleveland Ave., Circuit Rd., Bradley Rd., Coolidge Ave., Harrison Ave., Townsend Ave., Cabot Ave., Putnam Ave., Harding Ave., Storrs Ave., Abbott St., West St., Walnut St.
PE 3	**Classroom instruction/***Peter Lapolla –Planning/ConCom*	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.	Continue stormwater education program	Competing demands for staff time prevented stormwater education during this cycle.
PE 4	**Develop web page/***Mike Steen - MIS*	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 5	**Cable Access TV Show/***John McMahon - DPW*	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 6 (March 2008 to March 2009)	Annual Report Status	Year 7 (March 2009 to March 2010)	Annual Report Status
PP 1, PP 2	**Partner w/ local organization/** ***Peter Lapolla –Planning/ConCom***	Continue partnerhsip	Partnered with several neighborhood groups to stencil stormdrains in spring and summer of 2008. Approximately 30% of town drains were stenciled.	Continue partnership	Worked with Sustainable Braintree on rain barrel promotion with message on reducing stormwater runoff.
PP 4	**Organize public meetings and panels/** ***John McMahon – DPW***	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/** ***John McMahon - DPW***	Continue to involve departments	The DPW Department institued weekly meetings, stormwater mangement is a frequent topic.	Continue to involve departments	The DPW Department instituted weekly meetings, stormwater mangement is a frequent topic.

3. Illicit discharge detection and elimination

BMP ID#	Best Management Practice/*Responsible Dept. – Contact*	Year 6 (March 2008 to March 2009)	Annual Report Status	Year 7 (March 2009 to March 2010)	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
ID 2	**Implement a Town Bylaw /** *Peter Lapolla - Planning/ConCom*	Continue to evaluate current bylaws	The Town has detemined 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 detemined 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			
ID 4	**Correct Illicit Discharges/** ***John McMahon - DPW***	Continue		Continue	No illicit discharge were confirmed in the area
ID 5	**Educate Citizens/** ***John McMahon - DPW***			Re-distribute fliers	Fliers were included with water bills

4. Construction Site Stormwater Runoff Control

BMP ID#	Best Management Practice/*Responsible Dept. – Contact*	Year 6 (March 2008 to March 2009)	Annual Report Status	Year 7 (March 2009 to March 2010)	Annual Report Status
CS 1	**Implement by-law related to construction runoff control/** ***Peter Lapolla –Planning/ConCom***	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/** ***Peter Lapolla –Planning/ConCom***	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/** ***Peter Lapolla –Planning/ConCom***	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/** ***Peter Lapolla –Planning/ConCom***	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 /** ***Peter Lapolla –Planning/ConCom***	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 6 (March 2008 to March 2009)	Annual Report Status	Year 7 (March 2009 to March 2010)	Annual Report Status
PC 1	**Evaluate, enhance and implement zoning requirements / *Peter Lapolla –Planning/ConCom***	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/ *Peter Lapolla –Planning/ConCom***	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 *Peter Lapolla –Planning/ConCom***	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. Conditons require regular inspections and detailed cleanliness standards for paved areas, stormwater structures and pipes, and detenion 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. Conditons 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 6 (March 2008 to March 2009)	Annual Report Status	Year 7 (March 2009 to March 2010)	Annual Report Status
GH 1	**Audit of Town Facilities/** ***John McMahon – DPW***				
GH 2	**Operation and Maintenance Program/** ***John McMahon - DPW***			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.
GH 3	**Employee Training Programs/** ***John McMahon – DPW***				
GH 4	**Recycling Program/** ***John McMahon - DPW***	Monitor and enhance recycling program	The July 08 recycling rate was 162 tons/month and March 09 rate was 178 tons/month.	Monitor and enhance recycling program	The July 09 recycling rate was 188 tons/month and the March 2010 rate was 206 tons.

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	(#)	1
▪ community participation	(%)	Fair
▪ material collected	(tons or gal)	Not available
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 98%
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 %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (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)	0.43 /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 % $CaCl_2$ % $MgCl_2$ % 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