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. 10: March 2012-March 2013**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Bob Campbell Title: Town Engineer

Telephone #: 781-794-8012 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: 

Printed Name: Robert P. Campbell, P.E.

Title: Town Engineer

Date: May 1, 2013

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, 2013

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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.

As part of PP 3 we were to implement Poster Contests for Fourth-Graders, but that proved to be unworkable.

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
PE 1	**Partner w/ local organization**	***Peter Lapolla – Planning/ConCom***	Continue to work with partners	The Planning & Community Development Department works regularly on environmental issues with the East Braintree Civic Association, Sustainable Braintree and the environmental club at Thayer Academy. Recent stormwater related activities include a clean up along the Fore River in fall, 2012, including storm drain outfall areas.	Continue to work with partners
Revised					
PE 2	**Develop public education brochures/press releases**	***John McMahon - DPW***	Promote Sunset Lake project	Informational signage on rain gardens and pervious pavers posted at Sunset Lake kiosk.	Include brochures in water department annual mailings
Revised					
PE 3	**Classroom instruction**	***Peter Lapolla – Planning/ ConCom***	Work with schools to incorporate into curriculum	A copy of the EPA DVD "Reduce Runoff: Slow it Down, Spread it Out, Soak it In!" was sent to Braintree School Superintendnet for inclusion in the appropriate grade level curriculum.	Work with schools to incorporate into curriculum
Revised					
PE 4	**Develop web page**	***Mike Steen - MIS***	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
Revised					

PE 5 Revised	**Cable Access TV Show**	***John McMahon -DPW***		Sent DVD to BCAM for intermittent broadcast.	Continue to supply storm- water topic information to local cable broadcasters.

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
PP 1, PP 2	**Partner w/ local organization**	***/ Peter Lapolla – Planning/ConCom***	Continue partnerships	The Town-sponsored annual beautification day included planting rain gardens at Sunset Lake as clean-ups throughout Town. Various civic groups and residents participated.	Continue focus on Sunset Lake rain gardens
Revised					
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	Town Councilors will annually incorporate stormwater hearing into one of their meetings.
Revised					
PP 5	**Town Departments Involved**	***John McMahon - DPW***	Continue to involve departments	Stormwater management continues to be a frequent topic at the DPW Department weekly meetings. Also, The DPW and other departments work on rain-garden projects, "Beautify Braintree Day"and the overall stormwater program.	Continue to involve departments
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
ID 1	**Develop a comprehensive Storm Drain Map for the Town**	*John McMahon- DPW*	Continue to update and infill data, integrate into GIS	Devoted much greater effort into integration of stormwater system information, revealing need for even mor.	Continue to update and infill data, integrate into GIS
Revised					
ID 2	**Implement a Town Bylaw**	*Peter Lapolla - Planning/ ConCom*	Reevaluate the need for a distinct IDDE bylaw	Several Town Departments (Engineering, Highway and Planning & Community Development) and the Town's consultant re-evaluated the adequacy of the exisiting regulations relative to illicit discharge. The departments decided to recommend the Town adopt a distinct IDDE ordinance.	Propose IDDE ordinance for Council and Mayoral approval.
Revised					
ID 3	**Perform an illicit discharge detection campaign**	*John McMahon - DPW*	Continue	Discussed with consultant (W&S) re: assisting in setting up illicit discharge detection program as part of new MS4 requirements.	Develop a proactive, written plan for inspection and sampling, particularly dry weather discharges. Tweak with results of public meeting. Check once a year.
Revised					
ID 4	**Correct Illicit Discharges**	*John McMahon - DPW*	Continue	No illicit discharges were confirmed.	Fix illicit discharges confirmed in accordance with plan, and in public view / forums, to promote awareness.
Revised					
ID 5	**Educate Citizens**	*John McMahon - DPW*	Re-distribute fliers	Discussed with consultant (W&C) re: assisting in finding different ways to educating citizens about illicit discharges	Edit DCR brochure, put it on web site, place at library and Town Hall
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
CS 1	**Implement by-law related to construction runoff control**	***Peter Lapolla –Planning/ ConCom***	Continue to implement	The Town continues to review its ability to regulate construction site runoff. The Town has existing authority to adequately regulate sites of one-acre or more through either the Planning Board conditions or the Conservation Commission's conditions, or both. The Planning Board also administers a Grading Permit program.	Continue to implement
Revised					
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
Revised					
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
Revised					
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
Revised					

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
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
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
Revised					
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
Revised					
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 detention basins.	Continue inspection procedure
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
GH 1	**Audit of Town Facilities**	*John McMahon - DPW*	Hired consultant (W&C)	Discussed with consultant (W&C) re: assisting in setting up audit of Town Facilities	Update materials stored, secondary containment, floor drains, traps, SOP's
Revised					
GH 2	**Operation and Maintenance Program**	*John McMahon - DPW*	Continue to implement	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 to implement
Revised					
GH 3	**Employee Training Programs**	*John McMahon - DPW*	Continue to implement	Discussed with consultant (W&C) re: assisting with setting up additional employee training programs	Continue to implement
Revised					
GH 4	**Recycling Program**	*John McMahon - DPW*	Monitor and enhance recycling program	The Single Stream recycling has made it easier to recycle in every home in town. Participation is growing.	Monitor and enhance recycling program
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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

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

	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 90%
Estimated or actual number of outfalls	(#)	247
System-Wide mapping complete (*As detail is added more omissions apparent.)	(%)	97% *
Mapping method(s)		
▪ Paper/Mylar	(%)	85
▪ CADD	(%)	90%*
▪ GIS	(%)	90%*
Outfalls inspected/screened	(# or %)	5%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	99
% of population on septic systems	(%)	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 %)	numerous
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 %)	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