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Municipality/Organization: TOWN OF MILTON, MA

EPA NPDES Permit Number: MAR041079

MassDEP Transmittal Number: W-039893

Annual Report Number

& Reporting Period: Year 9

April 1, 2011 - March 31, 2012

**NPDES PII Small MS4 General Permit Annual
Report
(Due: May 1, 2012)**

Part I: General Information

Contact Person: Dale A Horsman

Title: CIVIL ENGINEER

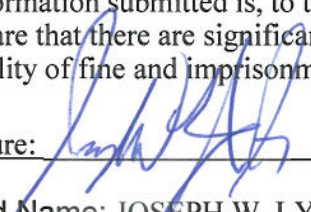
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Certification:

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: JOSEPH W. LYNCH

Title: DIRECTOR OF PUBLIC WORKS

Date: April 27, 2012.

Part II: Self-Assessment Narrative

The Town of Milton, Massachusetts has completed the required self-assessment and has determined that our municipality has been working towards full compliance as submitted to EPA and approved as Milton's NOI to the General Permit issued to Massachusetts under Phase II of the Regulations. All best management practices (BMPs) met the Town's measurable goals set forth in the NOI except for:

- BMP 1-7: Develop two press releases per year describing importance of stormwater management. The Town plans to publish press releases in the permit year 9 to educate the public about the new permit regulations.
- BMP 1.8: Show two cable programs or PSAs on stormwater importance of stormwater management. The Town plans to publish press releases in the permit year 9 to educate the public about the new permit regulations.
- BMP 5-4: Develop a draft zoning bylaw that allows and/or encourages use of low-impact development (LID). A bylaw is currently being considered that encourages use of low-impact development but at this time has not been incorporated.
- BMP 6-10 Plant a new tree to replace every tree removed each year. Funding has been cut for tree plantings in recent years to be able to be in compliance with this BMP.

Since the NPDES permit inception, the Town has made great efforts by establishing and implementing a stormwater bylaw that continues to permit and incorporate stormwater controls and management into all construction and post-construction activities within the Town.

The creation of detailed GIS databases and maps of the Towns' utilities and waterways has provided a valuable tool for the Town to keep track of maintenance and a more efficient tool to update the Town's infrastructure and resources. GIS has proved to be a valuable tool in tracking illicit discharges. The Town continues to refine the databases and maps.

The Town continued a successful partnership with the Neponset River Watershed Association (NepRWA) which together have undertaken a stormwater education program, a stormwater sampling program, illicit discharge detection and elimination program, and have completed construction of bio-retention cells along Pine Tree Brook and the installation of tree filter boxes as part of the 319 TMDL Implementation Grants. The Town continues to maintain the bio-retention cells and tree filter boxes.

Furthermore, The Town of Milton with the assistance of NepRWA have secured funding through Water Quality Management Planning Grant 604(b) PROGRAM for a project, which will use a mobile GIS based strategy to survey subwatersheds to identify suitable sites for retrofitting with structural stormwater BMPs that address pathogens and other pollutants of concern as recommended in applicable TMDLs and EEA Watershed Action Plan. In addition, the project will develop conceptual designs for BMPs at three or more sites and less detailed cost estimates at an additional seven sites.

The following table is a complete list of the Town's BMPs, the actions the Town has committed to perform, the progress on the goals, and projected activities for the upcoming year.

PART III: BEST MANAGEMENT PRACTICES

1. Public Education and Outreach

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)- Permit Year 9	Planned Activities-Permit Permit Year 10
1.1	Educate dog owners about picking up dog waste	Public Works	Develop and print collateral piece on pet waste	Posted Palm card on website	Continue to post Palm card on website annually
1.2	Prioritize areas in Town that have pet waste problems; install up to three mutt mitt stations	Public Works	Prioritize list of mutt mitt installation sites	Some existing mutt mitt stations defaced	Keep mutt mitt stations functioning and free from graffiti
1.3	Develop a draft by-law that requires dog owners to clean up after their dogs. Present to Town Meeting.	Town Counsel	Draft by-law; present to Town Meeting	None	None
1.4	Update stormwater section of Town website 3x a year	Public Works	Update stormwater section of the Town website 3x per year	Updated stormwater section continues to be posted on website	Update stormwater section
1.5	Inspect signs that identify water bodies within town & contact DCR/MHD for repairs	Public Works	Inspect signs	Locate and inspected DCR/MHD signs	Inspect all signs
1.6	Provide update of SWMP at Selectmen's meeting	Public Works	Present annual update of SWMP at Selectmen's meeting	No update requested by Selectmen	Present update to Selectmen (if requested)
1.7	Develop two press releases per yr describing importance of stormwater management	Public Works	Publish two newspaper articles/press releases describing importance of SWMP	No press releases were published	Educate public on new stormwater regulations through two articles or press releases
1.8	Show two cable programs or PSAs on stormwater importance of stormwater management	Public Works	Two programs or PSA's on local cable TV	No programs were televised on public access television.	Educate public on new stormwater regulations by airing related PSAs on cable TV.

2. Public Participation and Involvement

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)- Permit Year 9	Planned Activities- Permit Year 10
2.1	Comply with state public notification guidelines	Town Clerk	Post notice as required	No public hearings held	Will post notice as required if public hearing is held
2.2	Provide trash pickup on Milton Pride Day	Public Works	Trash pickup required each year	Town-wide cleanup in May, 2011	Schedule Town-wide clean-up in spring 2012
2.3	Provide support for the nepRWA 319 TMDL Implementation Grant	Public Works	Assist with wetland projects as requested by NepRWA	Maintained bio-retention cells and tree filter boxes	Continue to maintain bio-retention cells and tree filter boxes.
2.4	Outreach to Milton school teachers on stormwater issues	Public Works	Increased awareness among Milton families about stormwater issue	The Town has teamed up on multiple occasions with Sustainable Milton to increase stormwater awareness in the classroom.	Continue to assist Sustainable Milton and Schools with stormwater information for environmental curriculums
2.5	Work with nepRWA on Uniquity Brook outreach	Public Works	Secure funding to examine flow patterns and possible septic tank leakage into Uniquity Brook	Entire length of Uniquity Brook was inspected for illicit discharges	Continue to work with nepRWA and Milton Conservation Commission on Uniquity Brook outreach

3. Illicit Discharge Detection and Elimination

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)-		Planned Activities-Permit
				Permit Year 9	Permit Year 10	
3.1	Remove sewer underdrains if found during routine maintenance	Public Works	Document number of underdrains found and removed	None found		Remove as needed
3.2	Map stormwater outfalls and receiving waters; identify outfalls and other structures owned by other entities; evaluate structures on state-owned Town roads	Public Works	Create Map	Continued to update and edit GIS drainage map initially completed in fall, 2005		Continue to use map in day-to day stormwater-related activities
3.3	Digitize stormwater collection system in a GIS-compatible format	Public Works	None	GIS map completed in fall 2005. Full-time GIS operator hired to make updates on a continual basis		Continue to use map in day-to day stormwater-related activities
3.4	Develop and implement a plan to identify and remove non-stormwater discharges to the MS4	Public Works	Create Map	Continued to work and support nepRWA by investigating illicit discharges by using optical brightener testing at various outfalls		Continue ongoing illicit discharge detection & elimination. Follow up with results from optical brightener report to track illicit discharges
3.5	Develop bylaw requiring inspection of new construction for correct connection to the sanitary sewer	Town Counsel	Develop bylaw requiring inspection of new construction for correct connection to the sanitary sewer	Sewer regulations and permit requirements revised and implemented in 4/03		Continue to enforce by-law
3.6	Conduct a Town-wide sewer rehabilitation program	Public Works	Implement program	Funding secured; sewer rehabilitation completed for Year 7 of the 10-year capital plan		To secure funding to complete sewer rehabilitation for Year 8 of the 10-year capital plan

4. Construction Site Runoff Control

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)- Permit Year 9	Planned Activities- Permit Year 10
4.1	Develop a Construction Site Erosion & Sediment Control bylaw for all construction sites requiring a building permit (7500 sq. ft or over)	Public Works	Pass the By-law	By-law passed	Continue to enforce By-law
4.2	Require a waste management plan at construction sites 1-5 acres	Conservation Commission; Building Dept., Public Works	Implement regulation or by-law requiring a waste management plan at construction sites 1-5 acres	Regulatory mechanism in place for requiring a waste management plan for all construction sites	Continue to enforce
4.3	Review Site Plans not already subject to Conservation Commission or Planning Board review	Conservation Commission, Public Works (Engineering)	Implement protocol for site plan review	Site plans reviewed as part of DPW Permitting Process	All site plans are reviewed by the Engineering Department
4.4	Consider public input for new construction sites not subject to the jurisdiction of Conservation Commission or Planning Board	Planning Board, Conservation Commission	Discuss plan for public input	By-law adopted at Town Meeting in May 2006	Continue to Enforce
4.5	Inspection erosion and sediment controls at construction sites involving wetlands	Conservation Commission	Number of Inspections conducted	45 inspections(this includes duplicate visits to one site)	Continue inspections as needed

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

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)- Permit Year 9	Planned Activities- Permit Year 10
5.1	Develop a draft bylaw to apply Standards 2,3,4 and 7 of MSP to entire Town; present bylaw to Town Meeting	DPW	Develop bylaw and present to Town Meeting until passed	Bylaw adopted at Town Meeting in May 2006	Continue to enforce Bylaw
5.2	Specify a stormwater BMP manual to be used for consistent design and performance standards	DPW	Select BMP manual	MA DEP and CZM "Stormwater Management, Vol 2: Stormwater Technical Handbook" selected	Research useful BMP's and add to reference list in anticipation if new permit regulations.
5.3	Develop a draft bylaw that ensures long-term maintenance of private structural BMPs	DPW	Include in stormwater bylaw and present to Town Meeting	Bylaw adopted at Town Meeting in May 2006	Continue to enforce Bylaw
5.4	Develop a draft zoning bylaw that allows and/or encourages use of low-impact development (LID)	Planning Board	Draft bylaw developed and presented to Town Meeting	Not considered this year	Revisit in anticipation of new permit regulations

6. Municipal Good Housekeeping

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)-		Planned Activities-
				Permit Year 9		Permit Year 10
6.1	Identify sensitive receptors within Town	Public Works	Develop list of sensitive receptors; notify staff	Accomplished	Accomplished	Accomplished
6.2	Funding to develop employee training program	Public Works	Keep DPW staff informed on importance of stormwater management	Conducted staff training for proper maintenance, inspection and record keeping of the Town's Drainage system	Continue to provide stormwater management training to the staff.	
6.3	Sweep all streets once every spring & fall	Public Works	Percent of streets swept twice per year	100% of street swept once a year. Arterial streets swept twice a year. Business districts swept weekly.	Continue to on-going street sweeping programs	
6.4	Continue existing road salting procedures	Public Works	Maintain documentation of de-icer amount used	1085 tons of salt used	Continue to maintain documentation of de-icer amount used	
6.5	Minimize impacts from vehicle maintenance	Public Works	Build containment area for vehicle washing; switch to phosphate-free biodegradable soap	Continued to use environmental friendly soap products	Revisit equipment wash practice, implement good housekeeping procedures	
6.6	Minimize impacts from vehicle maintenance	Public Works	Hold employee training	Vehicle maintenance area workers aware of good maintenance protocol	Continue to train and improve good housekeeping practices	
6.7	Maintain storm drain system	Public Works	Clean all catch basins once every 3 years; inspect & clean drain pipes as needed; keep daily record of catch basin residuals volumes; prioritize large volume catch basins for more frequent cleaning	1036 catch basins cleaned in Permit Year 9. Identified 300 basins originally included in the Town's inventory that are in the State's jurisdiction and under a separate MS4 permit.	Continue to use revamped inspection and record keeping procedures to meet measurable goals.	

6. Municipal Good Housekeeping(continued)

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)-		Planned Activities-
				Permit Year 9	Permit Year 10	
6.8	Train staff to minimize chemical applications in recreational areas	Public Works	Hold training; minimize use of chemical pesticides, fertilizer & herbicides; keep maintenance records	Kept records of all DPW chemical applications	Coordinate with other town departments on proper use of pesticides, fertilizer & herbicides.	
6.9	Hold biennial HHW Day	Public Works	Hold at least one HHW Day every other year; hold one tire and battery collection per year	Annual HHW Day was held in September of 2011. Tire and batteries were collected throughout the year	HHW Day will be held in Fall 2012	
6.10	Plant a new tree to replace every tree removed each year	Public Works, Tree Warden	Plant more trees than are cut down every year	26 trees planted from March 11-March 12; Town awarded Tree City, USA status; Did not meet goal due to a cut in funding	Apply for MA ReLeaf grant in fall 2012; re-apply for Tree City USA status; implement current MA ReLeaf grant	
6.11	Pursue cooperative agreements with Milton garden clubs to implement litter management program	Public Works	Work with Milton Garden Club and Amateur Gardeners of Milton to raise funds for litter vac purchase; develop litter management program	Milton clubs successfully raised money to help purchase litter vac; litter management program developed	Continue to use litter vacuum from early Spring to late Fall.	
6.12	Identify stormwater outfalls within Milton owned by other entities and inform them of their management responsibility	Public Works	Outfalls assessed; state agencies notified	Accomplished	Re-evaluate stormwater interconnections in anticipation of new permit regulations	

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2010 through March 31, 2011)

Programmatic

(Preferred Units) Response

Stormwater management position created/staffed	Y/N	NO
Annual program budget	(\$)	\$500,000
Total program expenditures since beginning of permit coverage	(\$)	\$2,547,000
Funding mechanism(s)(General Fund, Enterprise, Utility, etc)		GEN FUND &Capital Borrowing

Education, Involvement, and Training

Estimated number of property owners reached by education programs(s)	(# or %)	9800
Stormwater management committee established	(y/n)	NO
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y
Shoreline cleaned since beginning of permit coverage	(mi.)	7.0
Household Hazardous Waste Collection Days		
▪ days sponsored**	(#)	1
▪ community participated**	(# or %)	260
▪ material collected**	(tons or gal)	1200 gal
School curricula implemented	(y/n)	NO

Legal/Regulatory

	In place prior to Phase II	In Review by Existing Authority	Drafted	Draft in Review	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

Construction

Number of construction starts (>1-acre)**	(#)	6
Estimated percentages of construction starts adequately regulated for erosion and sediment control**	(%)	100
Site inspections completed**	(# or %)	100
Tickets/Stop work orders issued**	(# or %)	2
Fines collected**	(# and \$)	2
Complaints/concerns received from public**	(#)	2

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections (for proper BMP installation & operation) completed**	(# or %)	100
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	N
Low-impact development (LID) practices permitted and encouraged	(y/n)	N

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial /non-arterial streets) **	(times/yr)	1/3 PER YR
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)**	(times/yr)	1/3 PER YR
Qty of storm drains structures	(#)	3650
Qty. of storm drains cleaned**	(%,LF or mi.)	40800 LF
Qty. of screenings/debris removed from storm sewer infrastructure**	(lbs. or tons)	612T(est)
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.)**	(location)	

Basin Cleaning Costs		
• Annual budget/expenditure(labor & equipment)**	(\$)	16,800
• Hourly or per basin contract rate**	(\$/hr or \$ per basin)	16 per basin
• Disposal cost**	(\$)	26 per basin
Cleaning Equipment		
• Clam shell truck(s) owned	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified contracts	(y/n)	1
• % Structures cleaned with clam shells **	(%)	70
• % Structures cleaned with vector**	(%)	30

(Preferred Units) Response

Average Frequency of street sweeping (non-commercial/non-arterial streets)**	(times/yr)	1X
Average frequency of sweeping (commercial/arterial or other critical streets)**	(times/yr)	20X
Qty. of sand/debris collected by sweeping**	(lbs. or tons)	580T
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)**	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure(labor & equipment)**	(\$)	84,000
• Hourly or lane mile contract rate**	(\$/hr or \$ ln mi.+)	\$36 PER HOUR
• Disposal cost**	(\$)	NA
Sweeping Equipment		
• Rotary brush street sweepers owned	(#)	1
• Vacuum street sweepers owned/leased	(#)	1
• Vacuum street sweepers specified in contracts	(y/n)	1
• % Roads swept with rotary brush sweepers**	%	30
• % Roads swept with vacuum sweepers**	%	70

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" =never used;"100%" = elimination)		
▪ Fertilizers	(lbs. or %)	NA
▪ Herbicides	(lbs. or %)	NA
▪ Pesticides	(lbs. or %)	NA
Integrated Pest Management (IPM)Practices Implemented	(y/n)	N

Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	%NaCl	95
	% CaCl ₂	5
	% MgCl ₂	
	% CMA	
	% Kac	
	% KCl	
	% Sand	Trace
Pre-wetting techniques utilized**	(y/n or %)	Y
Manual control spreaders used**	(y/n or %)	Y
Zero-velocity spreaders used**	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(± lbs/l _n mi. or %)	NA
Estimated net reduction or increase in typical year sand application rate**	(± lbs/l _n mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	NA
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	NA
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	NA
•Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	NA