

TOWN OF MILTON

DEPARTMENT OF PUBLIC WORKS
629 RANDOLPH AVENUE
MILTON, MA 02186
www.townofmilton.org

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Engineering Department/GIS

April 30, 2014

Glenda Velez-CIP
U.S. Environmental Protection Agency- Region 1
5 Post Office Square – OEP06-01
Boston MA 02109 - 3912

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

RE: NPDES Phase II Small MS4 General Permit
Town of Milton, Massachusetts Annual Reports 10
EPA Permit Number MAR041079
MADEP Transmittal No. W-039893

To Whom It May Concern:

The Town of Milton, Massachusetts is pleased to provide you with the attached National Pollutant Discharge Elimination System (NPDES) Phase II Small MS4 General Permit Annual Report 11 for the period from March 2013 to April 1, 2014. The Town has developed the stormwater management program and will continue to implement activities in accordance with regulatory requirements and as available funding permits. Should you have any questions, please do not hesitate to call me at (617) 898-4870.

Sincerely,



Dale Horsman,
Civil Engineer

cc: Annemarie Fagan, Town Administrator
Joseph Lynch, Director of Public Works
John Thompson, Town Engineer

Via: USPS certified mail w/ enclosures

Municipality/Organization: TOWN OF MILTON, MA

EPA NPDES Permit Number: MAR041079

MassDEP Transmittal Number: W-039893

Annual Report Number

& Reporting Period: Year 11

April 1, 2013 - March 31, 2014

NPDES PII Small MS4 General Permit Annual Report

(Due: May 1, 2014)

Part I: General Information

Contact Person: Dale A Horsman

Title: CIVIL ENGINEER

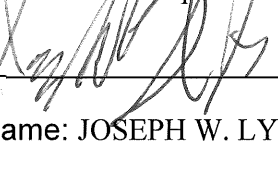
Telephone #: 617 898-4870

Email: dhorsman@townofmilton.org

Mailing Address: Milton DPW, 629 RANDOLPH AVENUE, MILTON, MA, 02186

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:

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 (Notice of Intent) 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 1.8: Show two cable programs or PSAs on the importance of stormwater management. The Town plans to publish press releases in the permit year 12 to educate the public about the new permit regulations.
- 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 taken great efforts by establishing and implementing a stormwater by-law that continues to permit and incorporate stormwater controls and management into all construction and post-construction activities within the Town.

The creation of a 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 aided in tracking illicit discharges. The Town continues to refine the databases and maps through research, field survey, and television inspection.

During the prior permit year, The Boston Water Sewer Commission (BWSC) and The Town of Milton entered into an agreement on January 23, 2013 to enumerate their respective responsibilities and coordinate reporting on pollution prevention from new development and re-development, maintenance of roadways, reduction of illicit discharges through collection activities (used motor vehicle fluid, household hazardous waste, seasonal leaf and grass) and review of construction site discharges, spill prevention and response, use of pesticides, herbicides and fertilizers, public education and cooperation in sharing information with respect to improving storm water quality in the City of Boston and Town of Milton. This permit year, the BWSC and the Town of Milton have been working together to identify illicit discharges.

The Town has also worked with building owners to perform video inspection of old mill sewer services on Eliot Street to rule out cross connections with the stormwater system as part of ongoing illicit discharge investigations.

The Planning Board, the Zoning Board of Appeals, and the Board of Selectmen have drafted a Cluster Development Plan proposing to amend zoning by-laws to allow for cluster development. This plan is slated to be enacted at the Town Meeting in May 2014. The Town continues to support and encourage low impact development in all new construction proposals.

This year, the Town setup a stormwater education table at the Annual DPW Day which attracts thousands of residents to the DPW for an Open House and a cookout. This event also provides an opportunity for residents to view vehicles, equipment, and everyday job functions of department personnel. The table provided flyers, children activities, and posters to increase education on stormwater pollution and prevention. The Town is also partners with Sustainable Milton, a non-profit organization that promotes environmental awareness and sustainability. Sustainable Milton also provided information on many environmental issues including stormwater during this event.

The Town continues to have 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.

The Town of Milton with the assistance of NepRWA secured funding through Water Quality Management Planning Grant 604(b) Program for a project, which used 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 is in the process of developing conceptual designs for BMPs at three sites. The designs will be used to secure funding through 319 TMDL Implementation Grants to outfit one of these sites with BMPs.

Additionally, NepRWA, the Metropolitan Area Planning Council (MAPC), and the 10 watershed member communities (including the Town of Milton) secured a Community Innovation Challenge Grant to develop a Neponset Valley Regional Stormwater Collaborative. As part of this Collaborative, the Town of Milton was selected as a pilot municipality to utilize a Stormwater Financing / Utility Kit developed by the MAPC to help municipalities establish a stable long-term source of funding by creating a stormwater utility to implement a Stormwater Management Plan.

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 11	Planned Activities- Permit Year 12
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. Set up stormwater education booth at annual DPW day.	Continue to post Palm card on website annually. Provide educational material for booth at DPW day
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	Mutt mitt stations are routinely inspected and maintained	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	The Town has set up a stormwater education table which provides multiple handouts and activities at the Milton DPW held annually in May	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 11	Planned Activities- Permit Year 12
2.1	Comply with state public notification guidelines	Town Clerk	Post notice as required	No public hearings were required or 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 April 27, 2013	Schedule Town-wide clean-up in spring 2014
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 with nepRWA and 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	Continue support of the stream team that samples to indicate possible 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 11	Permit Year 12	
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 for 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 updates maps and databases 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 8 of the 10-year capital plan	To secure funding to complete sewer rehabilitation for Year 9 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 11	Planned Activities- Permit Year 12
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	-Accomplished- Enforced the By-law that passed in May 2006	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	Enforced the Regulatory mechanism 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	All site plans were reviewed as part of DPW Permitting Process	All site plans will be 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	-Accomplished- By-law adopted at Town Meeting in May 2006	None
4.5	Inspection erosion and sediment controls at construction sites involving wetlands	Conservation Commission	Number of Inspections conducted	28 inspections (this includes duplicate visits to sites)	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 11	Planned Activities- Permit Year 12
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	-Accomplished- Bylaw adopted at Town Meeting in May 2006	None
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	Continue to 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	-Accomplished- Bylaw adopted at Town Meeting in May 2006	None
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	The Town drafted a Cluster Development Plan to amend zoning by-laws	Enact Cluster Development Plan at Town Meeting.

6. Municipal Good Housekeeping

BMP ID#	BMP Description	Responsible Dept.	Measurable Goal(s)	Progress on Goal(s)-		Planned Activities-
				Permit Year 11	Permit Year 12	
6.1	Identify sensitive receptors within Town	Public Works	Develop list of sensitive receptors; notify staff	Accomplished	Accomplished	
6.2	Funding to develop employee training program	Public Works	Keep DPW staff informed on importance of stormwater management	Conducted DPW staff training for proper maintenance, inspection and record keeping of the Town's Drainage system	Continue to provide stormwater management training to the staff and extend to other departments	
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 monthly. 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	4686 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	1217 catch basins cleaned in Permit Year 11. The Town cleaned 35% of its basins in permit year 11.	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)-	
				Permit Year 11	Permit Year 12
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 2013. Tire and batteries were collected throughout the year	HHW Day will be held in Fall 2014
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	12 trees planted from March 13-March 14; Town awarded Tree City, USA status; Did not meet goal due to a cut in funding	Re-apply for Tree City USA status;
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	-Accomplished- Continued to follow the Litter Management Program	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 inter-connections 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, 2013 through March 31, 2014)

Programmatic

(Preferred Units) Response

Stormwater management position created/staffed	Y/N	NO
Annual program budget	(\$)	\$300,000
Total program expenditures since beginning of permit coverage	(\$)	\$3,347,000
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)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Yes
Shoreline cleaned since beginning of permit coverage	(mi.)	8.0
Household Hazardous Waste Collection Days		
▪ days sponsored**	(#)	1
▪ community participated**	(# or %)	811
▪ material collected**	(tons or gal)	5.375 tons & 448 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)**	(#)	4
Estimated percentages of construction starts adequately regulated for erosion and sediment control**	(%)	100
Site inspections completed**	(#)	28
Tickets/Stop work orders issued**	(# or %)	0
Fines collected**	(# and \$)	1/\$1500
Complaints/concerns received from public**	(#)	5

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)	Y

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	(#)	3482
Qty. of storm drains cleaned**	(%,LF or mi.)	10,000 LF
Qty. of screenings/debris removed from storm sewer infrastructure**	(lbs. or tons)	2340T(est)
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.)**	(location)	Onsite stockpile to landfill

Basin Cleaning Costs		
• Annual budget/expenditure(labor & equipment)**	(\$)	18,081
• Hourly or per basin contract rate**	(\$/hr or \$ per basin)	16 per basin
• Disposal cost**	(\$)	42 per ton
Cleaning Equipment		
• Clam shell truck(s) owned	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified contracts	(y/n)	0
• % Structures cleaned with clam shells **	(%)	100
• % Structures cleaned with vector**	(%)	0

(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)	32X
Qty. of sand/debris collected by sweeping**	(lbs. or tons)	1000T
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 \$ In 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**	%	0
• % Roads swept with vacuum sweepers**	%	100

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/lb mi. or %)	NA
Estimated net reduction or increase in typical year sand application rate**	(± lbs/lb 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