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Municipality/Organization: Tewksbury, MA

EPA NPDES Permit Number: MA-041226

MaDEP Transmittal Number: W-035320

**Annual Report Number
& Reporting Period:** No. 9: March 11-March 12

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

Part I. General Information

Contact Person: Richard Montuori **Title:** Town Manager

Telephone #: 978-640-4300 **Email:** rmontuori@tewksbury-ma.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: Richard Montuori

Title: Town Manager

Date: 4/27/12

Part II. Self-Assessment

The Town of Tewksbury has continued to follow the guidelines for the NPDES Phase II Small MS4 General Permit as required for year nine. The Stormwater Committee consists of the Town Manager, Department of Public Works Superintendent, Community Development Director, Health Director, Town Engineer, Conservation Administrator and two engineering Project Managers. This committee has worked to comply with all requirements as given with the budgeting constraints.

The Town of Tewksbury has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions for year nine of the permit.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

The standard format from the previous permit years will not be used in this minimum control measure section as it does not seem applicable for permit year 9. The Town of Tewksbury had completed all the BMP's that were required within the original permit period.

The Stormwater Committee took this opportunity to be creative and reach out to the public in various ways. In April 2011, the Committee reached out to the community and the Tewksbury Garden Club to discuss rain gardens and their benefits to stormwater quality and groundwater recharge. This was held at the Town's Senior Center. In addition, two classes and two field trips were held for the Environmental Science class at the High School between the months of November and December 2011. These lectures were on stormwater, BMP's such as rain gardens and vegetated swales and their benefits. The field trips included testing catch basins for water quality analyses and soil sampling for possible ideal locations to install a rain garden. Further, flyers were mailed to residents in the Long Pond watershed area. These flyers were made to educate the public on non-point pollution and BMP's and to encourage involvement for upcoming BMP's installations during the spring and summer of 2012 in to help improve the water quality for Long Pond.

2. Public Involvement and Participation

The standard format from the previous permit years will not be used in this minimum control measure section as it does not seem applicable for permit year 9. The Town of Tewksbury had completed all the BMP's that were required within the original permit period.

In May 2011, the Stormwater Committee planted the Town's first rain garden which involved the residents of Tewksbury and Town staff.

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Town Engineer

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This effort additionally supported the public education and outreach that was described previously in the first minimal control measure.

3. Illicit Discharge Detection and Elimination

This minimum control measure section will stay the same as it has in the past permitted years.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 9
3A	Capital Planning/Budgeting	DPW	-Estimate costs for purchases and maintenance -Capital requests for future purchases	The DPW has continued to implement a Capital Improvement Plan (CIP) for fiscal planning for identification, funding and years for the implementation of various projects. During this permit period, the Town has made improvements ranging from \$3,425 - \$20,000 in construction costs. Two projects were completed this year at a total value of approximately \$20,925. This includes the replacement of a failed 12-inch reinforced concrete culvert on East Street and the replacement of a failed 12-inch reinforced concrete culvert on Livingston Street. In addition, DPW has ongoing projects in which annual maintenance and repairs were required town wide such as street sweeping, catch basin cleaning, cleaning of drain ditches, and repairs of catch basin and manhole structures at an annual cost of approximately \$25,800. Further, the Town has completed the internal plumbing work in the DPW building and garage and the final connection to the sewer. All work was completed by November 2011. Total value for engineering and construction was \$201,878.90.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9
3C & 3D	Mapping Known Stormwater Outfalls	Engineering and DPW Personnel	- Creation of a map with known outfalls. - Put data in an electronic format	In addition to the manually created outfall map, the Town was able to complete an electronic map by locating all 637 outfalls with a GPS unit and completing the GIS outfall layer for the Town. With the anticipation of the upcoming permit and utilizing the summer intern, the Town Engineer discussed and received approval from Thelma Murphy of the US EPA, Region 01 in New England / Office of Ecosystem Protection for NPDES permitting, to work on dry weathering sampling. It was noted that this would be able to count towards the upcoming draft permit. The Town moved forward and completed dry weather sampling for 51 out of the 637 outfalls that were noted with flow during the GPS exploration stage. From this, 24 out of the 31 residential outfalls samples had hits that need further investigation, and 3 out of the 11 industrial outfall samples had hits that need further investigation. 9 locations had no flow, were sand bagged multiple times and no flow was found. These 9 locations will be periodically observed but it is believed when flow was observed, there were higher groundwater conditions and may have been natural run-off. It is the Town's goal to begin tracking down the sources to the 27 illicit discharges and having them removed as soon as possible. The sampling, investigation and elimination program will begin in May 2012. See Attachment A for more details on the outfall testing. In addition, 53 unknown pipes were found connected into the Town's drainage system. Investigations were conducted, 9 were from residential sump pumps, 3 were plugged by the DPW, and the rest, upon further investigation and meetings with property owners, were determined to be roof drains, exterior foundation drains or French drains in resident yards. See Attachment B for more details on the Illicit Discharge Investigation to Town Owned Catch Basins. The 9 sump pump locations have been allowed to stay connected to the system based on a sampling program the Town has put together. The Town will annually test the water coming into the drainage system during wet weather periods and if the water is clean, the pipe can stay connected and if the water has any indicators for pollutants, the pipe will be immediately plugged. Prior to implementing the sump pump testing program, Town Engineer discussed and received approval from Thelma Murphy of the US EPA, Region 01 in New England / Office of Ecosystem Protection for NPDES permitting. Sump pump testing for the 9 locations is pending wet weather conditions for April/May 2012.

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BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) -- Permit Year 9
3E	Failing Septic Systems	Board of Health	- Review Title 5 Reports to identify problems - Use current reporting system to follow through with rectifying failed systems	Title 5 Inspection Reports are reviewed and tracked as submitted. When a failed septic system is identified, appropriate remediation action is taken to ensure repairs are performed in a timely manner and/or connection to municipal sewer system when available. Additionally, due to the completion of the Town's Master Sewer Program, fewer residents are on individual septic systems. The Town anticipates more residents tying into the municipal system in the future. A total of 141 properties connected into sewer in 2011.

4. Construction Site Stormwater Runoff Control

This minimum control measure section will stay the same as it has in the past permitted years.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) -- Permit Year 9
No ID # based on current permit.	SWPPPs and Land Disturbance Permits	DPW, Planning Board	- File with Site Plan Application	1 SWPPP has been filed and approved for development in Town. 4 Land Disturbance Permits has been filed and approved for development in Town.

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

This minimum control measure section will stay the same as it has in the past permitted years.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9
5E	Sub-Division Regulations	Planning Board	- Review Current by-laws - Draft and present; adjust until accepted - Directly connected impervious road surfaces in new development and redevelopment areas will be reduced by 20% (relative to the traditional scenario in which curbs and gutters are used) over the course of the 5 year permit.	This permit year, the DPW Engineering staff has completed a list and map of all the detention ponds on private developments and public properties in order to keep track of its maintenance efforts and good housekeeping operations. The Community Development Director drafted a Post-Construction Stormwater Bylaw that passed at Special Town Meeting in the Fall 2011. The DPW has been implementing a Driveway Permit town-wide to those who are creating or repaving a driveway/impervious surface. There has been a strong focus on the stormwater run-off from the driveways with an evaluation of the first inch of water from a storm to be redirected into the ground for recharge. Approximately 80 permits were distributed during 2011 and 10 to date for year 2012.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

This minimum control measure section will stay the same as it has in the past permitted years.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9
6A	CB/Drain System/Parking Lot Cleaning	DPW	- Clean 50% of Catch Basins annually - Clean 100% of parking lots annually - Clean 50% of streets annually	1% of all CB were cleaned this year due to budget reductions. 100% of all parking lots were cleaned this year. 73% of the streets out of 100% of the Town were cleaned this year due to budget reductions.
6B	Training of All Municipal Employees	DPW, Board of Health	- 80% of employees trained - Housekeeping activities successfully implemented	Administration and Engineering staff has attended various trainings through out the year.
6C	Capital Planning and Budgeting	DPW	- Capital planning for funds to purchase a tight tank for vehicle washing in Winter 2006	The Town connected the DPW building into Town Sewer during construction season 2011. Refer to BMP ID # 3A for more details.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9
6D	Stormwater Pollution Prevention Plan (SWPPP)	DPW	- Compliance with Town's SWPPP	The Town abides by our SWPPP on an ongoing daily basis.
6E	Housekeeping Policies	DPW	-Publication of housekeeping document -Performance of items in document	Components of a housekeeping document have been completed and are being implemented.
6F	Hazardous Material Storage	DPW	-Inspection Reports of Storage areas -Review of current storage procedures	All reports are kept in the DPW Superintendent's office and are in compliance with DEP regulations.
6G	Used Oil Recycling	DPW	-DPW will participate in Town recycling program -DPW will track amount of oil recycled	Due to budget restraints, the DPW can no longer offer this benefit. DPW's staff has made arrangements with local garages for residents to drop off their used oil.
6I	Road Salt Application and Storage	DPW	-Maintain Storage shed/area -Keep pile covered	Storage shed is maintained and utilized keeping the Town's road salt covered.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9
6J	Spill Response and Prevention	DPW	-Develop plans describing spill prevention and control procedures by the end of year 1 -Conduct annual spill prevention and response training sessions for all municipal employees	The Town of Tewksbury contracted CEI to prepare a Spill Prevention Control and Countermeasure (SPCC) Plan. The DPW has and will continue to perform training with the employees on this plan as needed.
6K	Illegal Dumping and Storage	Board of Health	-Investigate as reported	The Town continues to investigate and track complaints. Complaints of illegal dumping are investigated and appropriate action is taken.
6M	Hazardous Waste Collection	Board of Health	-Annual Collection Day, as funded -Record and track amount collected	The Town Manager's office is currently working with a regional planning group to investigate and establish regional Household Hazardous Waste Days for the immediate future.

Part IV. Summary of Information Collected and Analyzed

- A summary for the Residential and Industrial Outfall Water Quality Test Data can be found in Attachment A.
- A summary for the Illicit Discharge Investigation to Town Owned Catch Basins can be found in Attachment B.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures	(\$)	\$248,604 FY12

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	40%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	?
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	?
School curricula implemented	(y/n)	Y

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")				

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▪ Illicit Discharge Detection & Elimination				X	
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management				X	

Mapping and Illicit Discharges

Outfall mapping complete	(%)				100
Estimated or actual number of outfalls	(#)				637
System-Wide mapping complete	(%)				100
Mapping method(s)					
▪ Paper/Mylar	(%)				100
▪ CADD	(%)				100
▪ GIS	(%)				100
Outfalls inspected/screened	(%)				100
Illicit discharges identified *(27 from outfall investigation, 53 unknown connections into CB)	(#)				*80
Illicit connections removed **(See attachments for more details, considering connections into CB investigations that were identified and resolved)	(#) (est. gpd)				**53
% of population on sewer	(%)				~ 65
% of population on septic systems	(%)				~ 35

Construction

Number of construction starts (>1-acre)	(#)				1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)				100
Site inspections completed	(%)				100
Tickets/Stop work orders issued	(# or %)				~ 1
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	(%)				20
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Site inspections completed	(# or %)	4
Estimated volume of stormwater recharged	(gpy)	?

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	<1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	<1
Total number of structures cleaned	(#)	30
Storm drain cleaned	(LF or mi.)	400 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	3 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		recycle
Cost of screenings disposal	(\$)	NA
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	0.75
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	0.75
Qty. of sand/debris collected by sweeping	(lbs. or tons)	30 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost & road base
Cost of sweepings disposal	(\$)	NA
Vacuum street sweepers purchased/leased	(#)	1
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 %)	10
▪ Herbicides	(lbs. or %)	100
▪ Pesticides	(lbs. or %)	100

Anti-/De-Icing products and ratios		80 %
	% NaCl	
	% CaCl ₂	
	% MgCl ₂	
	% CMA	
	% Kac	
	% KCl	
	% Sand	20 %
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	N
Automatic or Zero-velocity spreaders used	(y/n)	Y
Estimated net reduction in typical year salt application	(lbs. or %)	NA
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N