5/18/11

P

Municipality/Organization: **Tewksbury, MA**

EPA NPDES Permit Number: **MA-041226**

MaDEP Transmittal Number: **W-035320**

Annual Report Number & Reporting Period: **No. 7: March 10-March 11**

NPDES PII Small MS4 General Permit Annual Report

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: Richard A. Montuori

Printed Name: Richard Montuori

Title: Town Manager

Date: 4/27/11

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 eight. The Stormwater Committee consists of the Town Manager, Department of Public Works Superintendent, Community Development Director, Health Director, Town Engineer, Conservation Administrator, Chief Operation Engineer for Water Treatment Plant, and two engineering Project Managers. This committee has worked to comply with all requirements as given with the budgeting constraints.

The Stormwater Committee used their resourcefulness to create various and effective ways to engage, educate and reach out to the community. As this detailed permit will indicate, the Town of Tewksbury is very active in the goal to improve our waterways and environment.

As for the Town's financial challenges, the Committee recognizes the need to find an alternative funding source for its stormwater programs. The Committee has been reaching out to the various boards in Town to explain stormwater importance as well as future requirements with their associated financial cost demands expected with the next 5 year permit. At this time, it has been determined by the Town to not push a new fee based on a Stormwater Utility due to current economics. That being said, the following section of this report entails the Town of Tewksbury's Minimum Control Measure goals achieved during the eighth year of our permit. The Town feels it has achieved and complied with all required control measures for year 8.

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 8. 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. Five approaches where used to reach out and educate the public on Stormwater. First, on May 6, 2010, the Health Director had an educational session on Dumpster Maintenance and Stormwater. This session was held during one of the Public Board of Health Meetings that was also recorded live on the Town's Cable Television Channel. Second, a postcard was sent by the Town Engineer town-wide to inform residents of engineering staff investigating outfalls and looking for illicit discharges. This generated many phone calls from the residents with questions as to what is stormwater, outfalls and illicit discharges. Third, the Conservation Administrator published an article in the local newspaper in regards to fertilizing lawns and stormwater. Fourth, the Community Development Director held an educational session on December 16, 2010 with local developers. This session was on Stormwater Management and Erosion Control. The Community Development Director also took this opportunity to explain the new Land Use Disturbance Permit approved by the Planning Board for areas of disturbance greater than 0.5 acres and less than 1.0 acres. Fifth, the Town Engineer presented a PowerPoint presentation to the Conservation Commission and the Board of Selectman during the month of March 2011. This PowerPoint presentation was to educate the public on stormwater, the NPDES MS4 Permit, and the upcoming requirements being proposed for the next permit. This presentation was recorded live on the Town's Cable Television Channel and has been posted on the Town's website. This presentation had a followed up with articles in the local newspapers.

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 8. The Town of Tewksbury had completed all the BMP's that were required within the original permit period.

This year, the Town's engineering staff continued participation with the Tewksbury High School Senior Environmental Class. Two spring 2010 class groups were involved in this effort, approximately 40 students participated. The groups went into the field with the engineering staff to GPS approximately 50 outfalls and drainage structures, took water samples, drafted a report and presented it to the Board of Selectman at the end of the semester. By educating and involving the students, our intentions were to excite the students

and bring active communication within their families and among the student body. The student's presentations to the Board of Selectman had drawn the residents and public official's attention to stormwater awareness as well as increased their involvement and participation.

In addition, the Stormwater Committee has been planning a rain garden installation involving the senior residents of Tewksbury. A brief presentation was performed on April 13, 2011 to the seniors on rain gardens, their benefits to stormwater and a proposed design location at a low elevation near the entrance of the Senior Center. The plan was well received. The committee is currently planning a date in May to install the rain garden at the senior center property.

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 8
3A	Capital Planning/Budgeting	DPW	-Estimate costs for purchases and maintenance - Capital requests for future purchases	The DPW has implemented 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 $3,000-$81,000 in construction costs. Five projects were completed this year at a total value of approximately $131,000. The first project was on Overlook Drive. Approximately 180 LF of 12" PVC drainage pipe was installed with the addition of a catch basin all connecting into the existing drainage system in the roadway. Second project was on East and North Street. This consisted of the installation of approximately 70 LF of a 4" trench drain and a 220 gallon infiltration storage chamber underneath the North Street shoulder. Third project was on Roper Lane. The Town installed approximately 160 LF of 12" PVC drainage pipe with the addition of a catch basin all connecting into the existing drainage system in the roadway. Fourth project involved the cleaning of 6 outfalls located on the Tewksbury Memorial High School property and the replacement of a failed 18" CMP drainage culvert underneath Pleasant Street with a new 18" RC drainage pipe. Fifth project was on East Street between Karen Lee Drive and Royal Crest Circle. This was the replacement of a failed 24" CMP drainage culvert with a new 24" DI pipe. Approximate length of pipe replaced was 50 LF. In addition, DPW has ongoing projects in which annual maintenance and repairs are 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 $135,000. Further, the Town contracted the design for the internal plumbing work in the DPW building and garage and final connection to the sewer. This design was completed in late winter 2010 and was put out to bid. Contracts are being finalized for early summer 2011 construction.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8
3C & 3D	Mapping Known Stormwater Outfalls	Engineering and DPW Personnel	- Creation of a map with known outfalls. -Put data in an electronic format	The outfall map was created manually. The Town is continuing to work on inputting this data as well as all our drainage structures electronically through our GIS/GPS program. A college intern was hired over the summer of 2010 to GPS outfalls and drainage structures throughout the Town. In addition, the Town was fortunate to receive the assistance of the EPA interns for two weeks during the summer for the GIS/GPS program.
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.
3F	Sampling Programs	Board of Health	- Up to 24 stations sampled 3 times/year	The Stormwater Discharge Bylaw was approved at the 2010 Annual Town Meeting on May 2010. This allowed staff to have the legal right to locate, identify and sample outfalls through out Town as well as identify illicit discharges and have them properly removed. Two illicit discharges were identified and are in the process of being disconnected. In addition, equipment was purchase to test outfalls for the IDDE program.

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 8
4H	Spill Prevention Plans	Board of Health/DPW, Planning Board	- File with Site Plan Application	Community Development began issuing Land Use Disturbance Permits for areas of disturbance between greater than 0.5 acres and less than 1.0 acres. Anything greater than 1.0 acres of disturbance will require the Planning Boards approval prior to any permits being issued. Local developers were educated on this topic as stated previously in the permit.

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 8
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 Conservation Administrator has been compiling a list in an effort to map and locate 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 is being presented for approval at Special Town Meeting in 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 84 permits were distributed during 2010 and 7 to date for year 2011.

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 8
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. 76% 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 is planning on connecting the DPW building into Town Sewer. 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 8
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 8
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

The Town of Tewksbury has completed the construction for the sewer expansion project. As the as-built plans are completed, more and more of the Town's drainage structures and outfalls are being electronically located in AutoCAD. In addition, with the enactment of the Municipal Stormwater Discharge By-law, staff have been able to locate, map and eventually test all outfalls and eliminate illicit discharges as discovered. Our current map shows approximately 800 outfall locations not including catch basins, drain manholes, culverts, retention ponds inlets, and swales located throughout the Town. Water outfall samples were taken by engineering staff and the Tewksbury High School Environmental Students at various outfalls this year through the Merrimack River Watershed.

The Town continues to collect Stormwater Pollution Prevention Plans from developers and engineers for new projects constructed in Town. These plans are used to formulate each individual stormwater inspection for the construction site. Individual inspection checklists are created using the project's SWPPP submittal as a guide.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures	($)	$30,600 FY11

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	60%
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**")				
▪ 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	(#)	~ 800
System-Wide mapping complete	(%)	~ 100
Mapping method(s)		
▪ Paper/Mylar	(%)	~ 100
▪ CADD	(%)	80
▪ GIS	(%)	80
Outfalls inspected/screened	(%)	~ 800
Illicit discharges identified	(#)	2
Illicit connections removed	(#) (est. gpd)	2 pending
% of population on sewer	(%)	~ 60
% of population on septic systems	(%)	~ 40

Construction

Number of construction starts (>1-acre)	(#)	8
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(%)	100
Tickets/Stop work orders issued	(# or %)	~ 12
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	?

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	20
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	(#)	40
Storm drain cleaned	(LF or mi.)	800 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	4 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		compost
Cost of screenings disposal	($)	NA
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	0.5
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	0.5
Qty. of sand/debris collected by sweeping	(lbs. or tons)	30 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Compost & road base
Cost of sweepings disposal	($)	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	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	65 % 35 %
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 %)	0 %
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N