

**Municipality/Organization:** Tewksbury, MA

4/30/10  
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**EPA NPDES Permit Number:** MA-041226

**MaDEP Transmittal Number:** W-035320

**Annual Report Number & Reporting Period:** No. 7: March 09-March 10

APR 22 2010

## 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:** 

**Printed Name:** Richard Montuori

**Title:** Town Manager

**Date:** 4/16/10

## Part II. Self-Assessment

The Town of Tewksbury continued to follow the guidelines for the NPDES Phase II Small MS4 General Permit as required for year seven. The Stormwater Committee consists of the Town Manager, DPW Superintendent, Community Development Director, Health Director, Town Engineer, Conservation Administrator, Chief Operation Engineer for Water Treatment Plant, and two engineering Project Managers. This strong committee has worked to comply with all requirements as given with the budgeting constraints. In addition to the Committee adhering to the permit requirements and ensuring all tasks are being met, further thought was given to how the Town could continue to reach out to the public, informing the Community what stormwater is and how it affects the residents and the larger regional population. Although there were budget restraints, creativity was achieved to create various and effective ways to approach the community, educate and reach out. As this detailed permit will indicate, the Town of Tewksbury is very active playing a part in the goal to improve our waterways and environment. Ideas have been generated, grants have been applied for, and elbows have been greased. The Town's self assessment is positive looking forward to a continued path in the future.

As for the solution to the Town's financial struggles, the Committee recognizes the need to find an alternative funding source for this program. We are exploring the implementation of a Stormwater Utility Fee. The goal is to thoroughly research and investigate all of the options, develop a Master Plan, inform and teach our community as to why the stormwater utility is needed and what will result from it and finally present it at a future Town Meeting for a positive vote. In order for this proposed utility to pass, it is important this plan is well thought out and implemented correctly.

Being said, the following section of this report entails the Town of Tewksbury's Minimum Control Measure goals achieved during the seventh year of our permit. The Town feels we have achieved and complied with all our required control measures for year 7.

Michele Stein, P.E.  
Town of Tewksbury  
Town Engineer

### **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 7. The Town of Tewksbury had completed all the BMP's that were required within the original permit period. Examples of activities that were continued this year that were equal to what was done in the past years were as follows; (1) distribution of postcards throughout the municipal building locations such as Department of Public Works, Town Hall, Town Hall Annex, Police Department, Library, Tewksbury School Administrative Building, and the Community Development center, (2) stormwater ads posted on the town's official website, (3) the local cable network played stormwater ads before Board of Selectman Meetings on a quarterly basis, (4) stormwater awareness ads published in the local newspaper on a quarterly basis, (5) engineering staff worked with the High School Senior Environmental class specifically on GPSing outfalls and stormwater importance.

In addition, the Stormwater committee wanted to approach the public in different ways for education and outreach that we felt were innovated and effective. A lot of time was spent researching and planning a Stormwater/DPW Day. However, due to funding restrictions this was not an option for this permit period. From this learning experience internally, the committee was charged with ways to educate and reach out to the public in such possibilities that were within our financial constraints. Through the committee's investigation, a strong relationship was made with the Merrimack River Water Shed Council, Inc. The Town and the MRWC are motivated to work together for future planning events both for clean-up, testing, education and outreach.

Further, it was determined that a training session would be held every quarter by a different member of the committee to a distinct targeted audience. The first quarter period was January through March, 2010. The trainer was the Health Director and her focus was on residential and commercial complex dumpsters. The training took place during a Board of Health meeting that was held at the Town Hall and broadcasted on the local cable channel. This being the first outreach performed from the group had resulted in a great success in attendance, education and affordability for the Town.

The second quarter will be between April and June, 2010. This will be implemented by our Chief Operating Engineer of the Water Treatment through his Consumer Confidence Report that is sent to the entire Town of Tewksbury. The third and fourth quarter will be more applicable for the following permit year. For informational purposes, this will be taught by the Conservation Administrator and the Community Development Director with their targeted educational subjects and audiences on landscaping and developers.

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## **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 7. 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. The class went into the field with the engineering staff to GPS 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. The youth 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 continued researching the opportunity to have a Stormwater Utility Fee. We have attended seminars held by consultants and SuAsCo, as well as discussed options with various communities to gather information and develop a plan. It is our goal to approach the community with this option once the Town is comfortable with a strategy and feels the residents are fully educated and understand the need for such a utility.

### 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 7
3A	Capital Planning/Budgeting	DPW	<ul style="list-style-type: none"> <li>-Estimate costs for purchases and maintenance</li> <li>- Capital requests for future purchases</li> </ul>	<p>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 we have made improvements ranging from \$25,000-\$290,000 in construction costs.</p> <p>Three projects were completed this year at a value of approximately \$400,000. The first project was the replacement of 10 ft by 5 ft twin box culverts at East Street and Strongwater Brook. Second project was adding an 18-inch reinforced concrete culvert on Pinnacle Street and connecting six new catch basins (CB) into the newly installed drainage pipes to relieve a flooded neighborhood. One of the CB's leading into the culvert had a stormceptor inside to remove pollutants prior to reaching its outfall into the wetlands. The third project was replacing a 12-inch ductile iron culvert on Cobbett Street.</p> <p>In addition, DPW has minor ongoing projects in which annual maintenance and repairs are required town wide such as street sweeping, catch basin cleaning, cleaning of drain ditches, and installation of drain pipe and structures to meet resident's requests when possible at an annual cost of approximately \$150,000.</p> <p>Further, the Town's article submitted for the Annual Town Meeting in 2009 was approved to raise the appropriation, specifically \$300,000, for the internal plumbing work in the building and garage and final connection to the sewer. RFQ was issued in February of 2010, proposals were received and currently a contract is being negotiated. The current schedule is for design to begin in May and construction by September. The building should be connected into sewer prior to the next permit period.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7
3B	DPW Employee Training	DPW, Town Engineer	- 80% of employees trained each year	Administration and Engineering staff have attended various trainings through out the year on the following but not limited to low impact design, sustainability, stormwater utilities, and BMP's.
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. These efforts include the Town in collaboration with the High School, to attempt to locate and map drainage structures on the streets along the Shawsheen River. In addition, a high school intern was hired over the summer of 2009 to GPS CB's through out the Town.
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 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.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7
3F	Sampling Programs	Board of Health	- Up to 24 stations sampled 3 times/year	This portion was taken over by engineering this year. From various trainings online and at seminars, it was realized the Town lacked a IDDE Program and a Municipal Stormwater Discharge By-law. Through research and with the assistance of the Illicit Discharge Detection and Elimination Manual developed by the Center of Watershed Protection, the Town was able to draft a By-law and create an IDDE program. An article has been submitted for the 2010 Annual Town Meeting this May to accept this By-law. Once this has been approved, staff will have full access to locate, identify and sample outfalls through out Town as well as identify illicit discharges and have them properly removed. This will be a major accomplishment for the program if approved.

Michele Stein, P.E.  
Town of Tewksbury  
Town Engineer

#### 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 7
4H	Spill Prevention Plans	Board of Health/DPW, Planning Board	- File with Site Plan Application	On January 14, 2010, the Planning Board approved the regulations to include Stormwater Pollution Prevention Plan (SPPP) in site plan reviews and the application permit for land disturbance.



### 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 7
5E	Sub-Division Regulations	Planning Board	<ul style="list-style-type: none"> <li>- Review Current by-laws</li> <li>- Draft and present; adjust until accepted</li> <li>- 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.</li> </ul>	<p>This permit year, the Conservation Administrator has been compiling a list in an effort to map and locate all the detention ponds on private and public developments in order to keep track of its maintenance efforts and good housekeeping operations.</p> <p>In reviewing the Town's NPDES Permit, there is an indication for a Post Construction By-law to be created. While the board believes that there is an adequate measures in place under existing by-laws, regulations, permits and procedures, the board is considering a consolidation of post construction stormwater management into one by-law.</p>

## 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 7
6A	CB/Drain System/Parking Lot Cleaning	DPW	<ul style="list-style-type: none"> <li>- Clean 50% of Catch Basins annually</li> <li>- Clean 100% of parking lots annually</li> <li>- Clean 50% of streets annually</li> </ul>	<p>1% of all CB were cleaned this year due to budget reductions.</p> <p>100% of all parking lots were cleaned this year.</p> <p>50% of the streets were cleaned this year due to budget reductions.</p>
6B	Training of All Municipal Employees	DPW, Board of Health	<ul style="list-style-type: none"> <li>- 80% of employees trained</li> <li>- Housekeeping activities successfully implemented</li> </ul>	Administration and Engineering staff have attended various trainings throughout the year.
6C	Capital Planning and Budgeting	DPW	<ul style="list-style-type: none"> <li>- Capital planning for funds to purchase a tight tank for vehicle washing in Winter 2006</li> </ul>	The Town is planning on connecting the DPW building into Town Sewer by the next permit period. 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 7
6D	Stormwater Pollution Prevention Plan (SPPP)	DPW	- Compliance with Town's SPPP	The Town abides by our SPPP 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 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, this DPW can no longer offer this benefit. DPW 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.

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BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 7
6J	Spill Response and Prevention	DPW	<ul style="list-style-type: none"> <li>-Develop plans describing spill prevention and control procedures by the end of year 1</li> <li>-Conduct annual spill prevention and response training sessions for all municipal employees</li> </ul>	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	<ul style="list-style-type: none"> <li>-Annual Collection Day, as funded</li> <li>-Record and track amount collected</li> </ul>	The Assistant to the Town Manager 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. Through a grant that was received by the Department of Housing and Community Development, technical training was developed internally to transfer this AutoCAD data into the GIS Map. This expertise will greatly help the progress of transferring our Stormwater/Drainage map to electronic format. In addition, with the passing of the proposed Municipal Stormwater Discharge By-law this May 2010 Town Meeting, staff will be allowed to finish locating, mapping and testing all outfalls and eliminating illicit discharges as discovered. Our current map shows approximately 700 locations including catch basins, drain manholes, culverts, retention ponds inlets, swales, and outlets located throughout the Town. Water outfall samples were taken at various outlets this year through the Merrimack River Watershed, Shawsheen River Watershed, engineering staff and the Tewksbury High School Environmental Students.

Ongoing, 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	(\$)	\$300k proposed at ATM 2010

**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
<b>Regulatory Mechanism Status (indicate with "X")</b>				
▪ Illicit Discharge Detection & Elimination				X
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management	X			
<b>Accompanying Regulation Status (indicate with "X")</b>				
▪ 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	(#)	~ 210
System-Wide mapping complete	(%)	~ 100
Mapping method(s)		
▪ Paper/Mylar	(%)	~ 100
▪ CADD	(%)	60
▪ GIS	(%)	20
Outfalls inspected/screened	(%)	20
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% 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	(%)	95
Site inspections completed	(# or %)	~50
Tickets/Stop work orders issued	(# or %)	2
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	10

**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	(#)	640
Storm drain cleaned	(LF or mi.)	600 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	4 tons
Disposal or use of screenings (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