

Municipality/Organization: Tewksbury, MA

EPA NPDES Permit Number: MA-041226

MaDEP Transmittal Number: W-035320

Annual Report Number

& Reporting Period: No. 12: March 14-March 15

NPDES Phase II Small MS4 General Permit Annual Report

(Due: May 1, 2015)

Part I. General Information

Contact Person: Richard Montuori

Title: Town Manager

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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: Richard Montuori

Title: Town Manager

Date:

5-1-2015

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 twelve. 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 eleven 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 12. The Town of Tewksbury had completed all the BMP's that were required within the original permit period. The following identifies the various ways the Town has reached out to the public with education in stormwater this permit year;

- The Tewksbury Department of Community Development and Department of Public Works have been actively conducting public education and outreach this permit year with the Long Pond 319 Non-Point Source Pollution Grant. Through grant funding received from the EPA, and a match from the Community Preservation Committee, the Town has been able to utilize this funding to aid an ongoing Town wide effort to prevent Long Pond, one of the Town's most important natural resources, from reaching a hyper-eutrophic state. This grant funding has been used to educate the residents on non-point source pollution and how it negatively impacts the Pond. Brochures were made and distributed. Educational brochures were also made on Best Management Practices that can be used to help prevent non-point source pollution. The grant was to be used to design and construct 15 rain gardens and 8 swales in various locations within the Long Pond watershed. A yearlong extension to the original contract was issued so that the Town could address certain stormwater requirements presented by MassDEP. This project is currently under construction and is expected to be completed in May 2015.
- In addition, a stormwater article drafted by the Tewksbury Engineering Division was enclosed with the 2014 Consumer Confidence Report distributed by Tewksbury Water Treatment Department to all the residents in Town. This article emphasized on healthy household habits residents can achieve with lawn and garden maintenance.
- As a result of 12 enforcement orders given out by the Conservation Commission within a short period of time, the Conservation Commission decided to establish an Educational Subcommittee in hopes to better inform the public on the negative consequences that can result from their actions on the environment. A letter was sent to every residential home in Town informing the Owner to contact the Conservation Commission before conducting certain projects on their property. The letter emphasizes on protecting the Town's vital resources. Since this letter has been sent out the Conservation Agent in town receives calls every week with questions in regards to filing proper permits. In addition to the letter, the Subcommittee set up a booth on Earth Day in the Town Center and handed out

informational pamphlets on BMP's and answered questions residents had related to conservation matters.

- The Town of Tewksbury is part of the Northern Middlesex Council of Governments (NMCOG) which was previously awarded a Community Innovation Challenge (CIC) Grant to implement a Stormwater Collaborative throughout the Northern Middlesex Region. The Collaborative was established during a previous permit year and has developed many programs including public outreach and education, stormwater mapping activities, regional procurement, and workshops and training sessions for municipal staff, boards and officials. Currently the Collaborative consists of a total of 13 member communities. The Collaborative has completed a regional GIS map of stormwater infrastructure for the partner communities. This mapping is a compilation of the available GIS information data for each community and is available online to the member communities. As part of the grant, brochures have been created on various stormwater topics. These brochures are available for use by the member communities and can be easily tailored to a specific community. The Collaborative has subcontracted Nobis Engineering to develop joint procurement program. The purpose of this program is to reduce the costs associated with stormwater infrastructure maintenance by obtaining combining maintenance programs for several communities under one contract. The goal is to obtain lower pricing based on an increased scope of work. Currently subcontracts have been established for catch basin cleaning and laboratory services.

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 12. The Town of Tewksbury had completed all the BMP's that were required within the original permit period. The following identifies the various ways the Town has involved the public with education in stormwater this permit year;

- As part of the Long Pond 319 Non-Point Source Pollution Grant, signage is being developed that will be posted at each of the constructed BMPs. The signage will include place to hold the Long Pond pamphlets to provide residents with additional information on the stormwater BMPs around the pond.
- Approximately 9 residential property owners previously showed interest in the installation of these BMP's on their land. The Town has successfully constructed 7 BMPs on residents' property.
- The Conservation Commission was been working with the Eagle Boy Scouts to help remove trash from environmentally degraded areas.

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 12
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 to identify, fund and schedule implementation of various projects. During this permit period, the Town has made \$78,000 worth of expenditures and improvements. Details of this past year's improvements can be reviewed in the BMP section of this report for Good House Pollution Prevention and Good Housekeeping in Municipal Operations, Capital Planning and Budgeting. In the previous permit year the DPW utilized an outside consultant to perform an assessment of the Stormwater GIS database. This assessment evaluated the existing stormwater management system information and provided guidance on development of a town-wide GIS stormwater mapping. This assessment was performed in anticipation of the upcoming task in the pending Interstate, Merrimack and South Coastal Watershed (IMS) Small MS4 NPDES Permit. The DPW has been in contact with a GIS consultant who is preparing to create a detailed Stormwater GIS database from the Town's existing paper and electronic data. The DPW hired a full time GIS Project Manager in September of 2014. The duties of the GIS Coordinator include maintaining and expanding the Town's GIS database, collection of field data, validation of existing data, and establishment of a Town-wide GIS database.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12
3C & 3D	Mapping Known Stormwater Outfalls	Engineering and DPW Personnel	- Creation of a map with known outfalls. -Put data in an electronic format	Previously the Town completed an electronic map of all 637 outfalls and completed the GIS outfall layer for the Town. With the anticipation of the upcoming permit and utilizing summer intern staff, 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 move forward 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. The following is a time line of events: 1. 2010 - 637 outfalls were located throughout Town. 51 outfalls had flow during dry weather. 2. 2011- Dry weather testing was complete on 51 outfalls. 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. 3. 2012 – Further investigation was completed on 27 outfalls. Both camera investigation and water quality testing was done. See Attachment A for further details. In summary, some of the outfalls were eliminated based on the Fluoride level's the Town was using for indicators. Other sources were determined to be over fertilization of the neighborhood. From these test results, 220 letters were sent to educate the residents in these neighborhoods about the effects of over-fertilization and referred them to further educational resources. The Town plans on retesting these outfalls in the future to see if the letters were effective. 4. 2013 – The DPW has continued to investigate outfalls as needed. 5. 2014 – One of the DPW Project Managers attended training for wet-weather outfall sampling in preparation for the anticipated tasks in the Small MS4 Overall, the Town has been actively testing and investigating outfalls as needed.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12
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 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 170 properties connected into sewer in 2014 and so far a total of 14 properties connected in 2015.

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 12
No ID # based on current permit.	SWPPPs and Land Disturbance Permits	DPW, Planning Board	- File with Site Plan Application	4 SWPPP have been filed and approved for development in Town. No Land Disturbance Permits have 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 12
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.	Previously, the DPW Engineering staff 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. Last permit year the Town's Conservation Agent has been continued to review the O&M's for these BMP's to determine the requirements were being met. This permit year Conservation Agent and Town Engineer are in the process of compiling the information outlined above to develop an overall O&M plan for the publicly owned detention ponds for use by the DPW. Included in this process is a cost estimate for the work needed to maintain the town-owned basins. This cost estimate will be used to determine necessary funding. 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 92 permits were distributed during 2014 and 13 to date for year 2015. During previous permit years, the Planning Board approved a large private townhouse development and one small commercial development with the installation of porous pavement to aid in groundwater recharge and low impact design. The town house development is currently under construction. During the current permit year a second phase for the large private townhouse development was approved by the Planning Board along with a large commercial development. Both of these projects utilize porous pavement. An Open Space Residential Development (OSRD) was approved by the Planning Board. This project utilized smaller lots with reduced frontage. The advantage of this project was a consolidation of the development area and the creation of Open Space while maintaining the same number of residential units as a conventional subdivision. This style of development is aimed at reducing environmental impacts such as stormwater pollution.

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 12
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	The annual catch basin cleaning contract was executed but the cleaning activities did not begin until April 2015. 100% of all parking lots were cleaned this year. Many of the parking lots were cleaned twice. 100% of the streets in Town were cleaned during this permit year. Due to the extreme winter, spring street sweeping began in late April and will continue on a full time basis until all streets in Town have been swept.
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 throughout the year. Training included the following: • Stormwater BMP Technology Demonstration Workshop • Performance and Capacity of Compost Biofilters • Green Infrastructure/BMP Training • NEIWPCC Stormwater Utility Workshop • Stormwater Sampling Training

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12
6C	Capital Planning and Budgeting	DPW	- Capital planning for funds to purchase a tight tank for vehicle washing in Winter 2006	The DPW has continued to 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 \$78,000 worth of expenditures and improvements. This includes repairs on approximately 50 catch basins throughout Town and the purchase of miscellaneous drainage infrastructure supplies. As part of the Long Pond 319 Non-Point Source Pollution Grant, 23 BMPs are under construction in various locations around the Long Pond Watershed within public property. These BMPs will be completed in the spring of 2015. The DPW will be responsible for the maintenance of most of the BMPs. The Town is working with volunteer groups who are interested in adopting BMPs, which they will be responsible for maintaining. May 2012 Annual Town Meeting, the DPW received funding approval for \$46,000 to use in consulting services to generate Operation and Maintenance Manuals and Stormwater Pollution Prevention Plans for municipal buildings. This task is one of the upcoming requirements in the pending IMS Small MS4 NPDES Permit. The new O&M Plan, SWPPP, and SPCC Plan were completed in November 2013 and training was held with DPW staff on December 19, 2013. This training consisted of a classroom based session at the Police Station as well as field training at the subject facilities. An additional SWPPP was developed for the Parks Department facility on Livingston Street in February 2015.
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.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12
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, this program was discontinued by the DPW in 2012. The DPW's staff has made arrangements with a local garage for residents to drop off their used oil. The DPW has followed up with the local garage and found out that this drop-off service is being used by the residents on a consistent basis.
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. Planning and construction of a new storage shed, to supplement the existing shed, are scheduled for FY16.
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 AECOM to prepare an updated Spill Prevention Control and Countermeasure (SPCC) Plan. This Plan was finalized in November of 2013 and training was held for DPW staff in December 2013. The DPW implements the SPCC Plan on an ongoing basis.
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. The Town has installed a surveillance camera at the former dog pound, which has been an area of previous infractions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12
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 to investigate and establish regional Household Hazardous Waste Days.

Part IV. Summary of Information Collected and Analyzed

- No data was collected during this permit year.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	N
Annual program budget/expenditures	(\$)	\$78,000 FY14 & 15

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	100%
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.)	N
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	0
▪ community participation	(%)	N/A
▪ material collected	(tons or gal)	N/A
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	(#)	637
System-Wide mapping complete	(%)	100
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	100
▪ GIS	(%)	100
Outfalls inspected/screened	(%)	100
Illicit discharges identified	(#)	1
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	~ 67
% of population on septic systems	(%)	~ 33

Construction

Number of construction starts (>1-acre)	(#)	5
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	(#)	>10

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	20
Site inspections completed	(# or %)	>10
Estimated volume of stormwater recharged	(gpy)	Unknown

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	(#)	<20
Storm drain cleaned	(LF or mi.)	0
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	Unknown
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	Unknown
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1
Qty. of sand/debris collected by sweeping	(lbs. or tons)	300 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	\$3,200
Vacuum street sweepers purchased/leased	(#)	0
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	80 % 20 %
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	Y in some trucks
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