

Municipality/Organization: Tyngsborough

EPA NPDES Permit Number: MAR051229

MaDEP Transmittal Number: X270590

**Annual Report Number
& Reporting Period: [No. 13 : April 2015-2016](#)**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Matthew Marro

Title: Director of Conservation

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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: Curt Bellevance

Title: Town Administrator

Date: April 29, 2016

Part II. Self-Assessment

Two thousand Sixteen was a very busy year for the Town of Tyngsborough working hours have been maintained at current levels to the personnel resulting in increased implementation and enforcement . As the Department of Planning and Community Development was dissolved in 2003, all duties set forth in the original permit under the Department of Planning and Community Development have been absorbed by the Conservation Commission whose budget was maintained in 2013 and is on course to be further stabilized in FY 2017. Despite fiscal constraints, the Town of Tyngsborough accomplished almost all of the proposed activities set forth in our permit application.

1. ***Public Education and Outreach:*** The Town was successfully complete BMPs 1 and 2. An updated storm water pamphlet is under development and will be ready for Permit Year 14 with distribution through tax bills to reach all residents for permit year 14. Additionally, the school department has developed and executed a storm water poster design program in Year 4, and is still ongoing. Articles regarding storm water management were published this outlining the implementation of regulations promulgated under by-law and home owner prevention tips. The Town Conservation Director ran two local cable access specials on storm water and is about to implement a monthly series starting in July 2016 which will involve the appearance of local personalities and officials. The start has been delayed due to turnovers of staff in the town video department which have since been resolved. The Board of Health continued to distribute pamphlets on household waste disposal and guides for homes, schools, and restaurants on grease traps. In addition to the public education components proposed in our permit, the Conservation Commission has integrated an educational program on storm water management on the cable access channel as stated above.
2. ***Public Involvement and Participation:*** The Board of Selectmen have worked with the Conservation Commission on storm water permit approvals through its public meetings regarding storm water management this year. The Board of Health held their regularly scheduled Hazardous Waste Day in May 2015. The Conservation Commission is in the process of developing a water quality monitoring program with the North Middlesex Storm Water Collaborative and established stream clean-up days implemented this year having in anticipation of the next NPDES permit phase. The North Middlesex Storm Water Collaborative is also working on regional brochures for each participating community as well as holding training days for local officials and board members on storm water issues. In this past year as well, mindful of upcoming requirements for a new storm water permit, the Town in cooperation with the Northern Middlesex Council of Governments (NMCOG) has updated our aerial data base and the Town continued to explore any regional solutions with NMCOG as the Merrimack River is a shared and vital regional resource. This is all a result from, the town is now participating with NMCOG in a northeast regional storm water collaborative.
- 3.

4. ***Illicit Discharge Detection and Elimination:*** The Town contracted with NMCOG to map catch basins and outfalls and other public drainage structures. This mapping is complete and maintained. All departments have fulfilled BMP #14 requiring employee training for spill prevention. IN- house training has been comprehensive and been kept up to date. A comprehensive Hazardous Materials Release Plan for the Town was previously completed. The Highway Department has continued wet and dry weather inspections of priority outfalls. I and I studies completed in 2002 and 2009 showed very minor infiltration of storm water into the sewer system. This year the Sewer Department did not perform camera inspections, however I/I still continues to be watched though outfalls. They have also developed and distributed a pamphlet for sewer users regarding illicit connections to the sewer system, especially pertaining to sump pumps. The pamphlet is routinely distributed with the sewer bills. There also has been a comprehensive CWMP completed in 2008. This CWMP is being followed and updated as fiscal constraints allow. The Board of Health continues to provide a 24/7 hotline for detection of failed septic systems.

5. ***Construction Site Storm water Runoff Control:*** The Conservation Commission has revised their rules and regulations requiring all filings involving a new storm drain system or connection to an existing storm drain system provide the Commission with a detailed storm water pollution prevention plan for during construction, as well as, for long-term maintenance of the storm water system. This plan shall specify detailed construction methods for erosion control, identify responsible parties and shall include a signed affidavit that all conditions of the pollution prevention plan shall be met. The discharge of any substances into the storm drain system, other than storm water, is strictly prohibited. The Planning Board has revised their Subdivision Rules and Regulations for construction site runoff control to conform to the Massachusetts Department of Environmental Protection Storm water Management Policy Standards and Best Management Practices. The Conservation Commission has implemented and currently holds local storm water permit hearings complete with a local permit form issued to applicants. The Commission also has instituted a fee structure based on promulgated regulations to aid in funding for inspections and the running of the Conservation office. Additionally the Planning Board has instituted construction phasing and bonding schedules to minimize adverse impacts to water quality. These revisions were implemented in 2007 as outline in item 5.

6. ***Post-construction Stormwater Management in New Development and Redevelopment:*** At the October 2007 town meeting, a By-Law entitled "By-law for the Management of Storm water and Illicit Connections, Obstructions and Illegal Discharges to the Storm Sewer System", was adopted. The By-Law addresses issues to minimize negative impacts of storm water on water quality, control of runoff during and after development, as well as enhanced erosion control. NMCOG, under contract to the Town, assisted the Town with the development of this By-Law. Regulations to promulgate under this by-law were completed in the October of 2010 and are implemented and ongoing.

7. *Pollution Prevention and Good Housekeeping in Municipal Operations:* All BMPs for this requirement have been satisfactorily completed. The Board of Selectmen have recently obtained approvals for the rehabilitation of a very long stretch of road on Mascuppic Trail that borders a very sensitive Lake Mascuppic. This approval targeted specifically improving storm water as a part of the road rehabilitation project. The current condition of the road is areas of broken pavement due to flooding and runoff and areas where the road has worn away into the lake. The improvements incorporate a variety of storm water improvements ranging from the use of bio-swales and deep sump catch basins to the use of vortex separators. This proposal was well received and has broad public support!

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Future years
1 Revised	Develop pamphlet on stormwater	Stormwater Committee, Conservation Department	Distribute with water, sewer, tax bills	Completed. Distributed with sewer bills	Continued dispersal with tax bills. Regional pamphlets under development.
2 Revised	Develop stormwater poster design program	Stormwater Committee, Conservation Department,	Annual contest by students	The school dept held a poster contest One student had his presentation exhibited on earth day.	Annual contest.
3 Revised	Develop pamphlet on household waste disposal	Board of Health	Distribute with Hazardous Waste collection info	Completed	Continued distribution at Health Fair and Hazardous Waste Day.
4 Revised	Guide for home, school, restaurant for grease traps.	Board of Health	Distribute at Health Fair, with septic approvals and inspections.	Completed	Continue distributing.
5 Revised	Articles in newsletter	Conservation Agent	Quarterly articles on related topics.	Articles were published this year.	Will continue with bi annual articles on related topics.
6 Revised	Health Fair	Board of Health	Annual booth on Storm water	Completed. Information also distributed by Conservation Director at Earth Day Celebration.	Will display storm water information at Health Fair next year and Earth Day.
7	Catch basin stencil program	Highway Department	Stencil catch basins over three years.	ALL BASINS STENCILED- stencils inspected by Conservation Director .	Will continue stenciling program as new basins are installed and older

Revised					ones are maintained.
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1a. Additions

7A	Storm water video on cable access.	Conservation Department	Play a few times throughout the year	Played during Year 13	Ready to implement commencing yr 14
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2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
8 Revised	Public hearings on SWMP with annual review and comment	Selectmen, Conservation Commission	One public meetings on SWMP.	Two meetings held.	Plan is in place and on website.
9 Revised	Create Storm water Advisory Committee	Selectmen, Storm water Committee	Meet twice annually for review of program.	Due to funding cutbacks, Committee did not meet.	Conservation Commission is assuming roll and continues to administrate this role through regulation and the public meeting process.
10 Revised	Volunteer water quality monitoring program	Conservation Department	Develop program Year 2, annual testing thereafter	A water quality monitoring program has been initiated for Lake Mascuppic, programs for other waterways will be developed in Year 13	Develop and implement water quality monitoring program for additional water bodies. Currently working with storm water collaborative for regional lab services bid
11 Revised	Volunteer stream clean-up days	Conservation Department	Annual cleanup of selected streams	Adopt-a-stream program has been initiated.	Implement adopt-a-stream program.
12 Revised	Hazardous Waste Collection Day	Board of Health	Annual collection of hazardous materials	Completed See Attachement	Annual Hazardous Waste Day

Revised					
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2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
13	GIS mapping of outfalls and receiving waters	Conservation Department, Highway Department	Portions of Town to be done annually	Completed	New basins or outfalls will be mapped and stenciled. GIS programs and orthos updated.
Revised					
14	Employee training on spill prevention	School, Water, Highway, Sewer Depts.	Annual Training	Completed	Training will continue on spill prevention.
Revised					
15	Response plan for hazardous spills	Local Emergency Management Committee	Develop and implement plan for employees and public	A Comprehensive Hazardous Materials Release Plan for the Town has been completed.	Implementation, as needed
Revised					
16	Wet & dry weather inspections for priority outfalls	Highway and Conservation Director	Identify likely areas, perform annually	Continue performing wet and dry inspections	Continue sampling program.
Revised					

17	Modify bylaws to prohibit dumping into storm systems	Planning Board, Conservation Commission, Selectmen	Develop bylaw for town meeting vote.	New By-law adopted in 2007	Implement and revise as necessary. Regulations under the by-law currently being drafted.
Revised					
18	Monitor illicit discharges into sewer & storm water systems	Sewer	Identify likely portions of town and monitor annually.	The Sewer Superintendent has identified areas of concern and monitors continually	Continued to monitor and eliminate illicit connections to the sewer systems.
Revised					
19	Detection of failed septic systems	Board of Health	Provided Hotline for public	Two telephone lines are connected to the Board of Health office 24 hours a day with voice mail.	Continue to provide hotline.
Revised					

3a. Additions

19A	Pamphlet developed and distributed regarding illicit connections to sewer system	Sewer Commission	Distribute yearly with sewer bills	Developed and Distributed	Continue to distribute with sewer bills. Place on website.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13	Planned Activities – Permit Year 14
20	Enhance zoning for sediment and erosion control	Planning Board, Conservation Commission	Prepare zoning bylaw for town meeting vote	New By-law adopted in 2007.	Continue to implement. Revisions on flood plain by-laws proposed and worked on with FEMA approved and now being implemented.
Revised					

21	Revise site plan, subdivision, conservation regulations	Planning Board, Conservation Commission	Revise to require stormwater pollution prevention plan.	The Conservation Commission and Planning Board implemented regulations requiring conformance with the Massachusetts Department of Environmental Protection Storm water Management Policy Standards and Best Management Practices.	Completed and Continue Implementation
Revised					
22	Develop regulations for erosion and sedimentation	Conservation, Planning Board, Selectmen,	Regulations including control of waste & portable toilets	The Planning Board and Conservation Commission have developed regulations regarding erosion and sedimentation.	Planning Board to develop regulations regarding control of waste and portable toilets. Commission implements erosion and sediment controls through local regulations and the public meeting process.
Revised					
23	Revise site plan & subdivision regulations	Planning Board, Conservation Commission, Selectmen	Regulations including inspection and enforcement in Bond amount	Completed	Implementation
Revised					
24	Revise site plan & subdivision regulations	Planning Board, Conservation Commission, Selectmen	Regulations including signed affidavit that conditions will be met.	Completed	Implementation
Revised					
Revised					

4a. Additions

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
25	Modify zoning for control of post development runoff	Planning Board, Highway	Prepare zoning bylaw for town meeting vote	New By-law adopted in 2007	Implementation
Revised					
26	Modify site plan & subdivision regulations for maintenance	Planning Board, Conservation Commission, Selectmen	Regulations including long term maintenance of stormwater	Completed	Implementation
Revised					
27	Modify site plan & subdivision regulations for water quality	Planning Board, Conservation Commission, Selectmen	Regulations including minimizing impacts to water quality	Revisions to By-law under consideration	Implementation.
Revised					
Revised					
Revised					
Revised					

5a. Additions

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6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
28 Revised	Training program for town employees	School, Water, Highway, Sewer, Emergency Management Committee	Annual training for fertilizer, snow, dumping, maintenance and waste	Completed	Continue annual training Working on specialized training sessions with North Middlesex Storm water Collaborative for employees and Board members both elected and appointed.
29 Revised	Street Sweeping	Highway	Annual sweeping of streets	Street sweeping began the first week in April.	Will continue to sweep streets first chance in the spring.
30 Revised	Catch basin cleaning	Highway	Annual cleaning of basins	Catch basin cleaning began the third week in March 2015- total of 1,358 cleaned to date this year	Will continue to clean catch basin first chance in the spring
31 Revised	Water main flushing with dechlorination	Water	Annual flushing after street sweeping	Completed after street sweeping completed	Will continue to flush water main first chance in spring after street sweeping completed.
32 Revised	Spill kits at municipal facilities	All Depts.	Annual Training	All municipal buildings have spill kits. Fire, Highway, Board of Health, Conservation, and most of the Police Dept. have had HAZMAT 1 st Response Awareness training.	ongoing
33 Revised	TV or inspect all sewer lines in 20 years	Sewer, Highway	Develop plan in five years	Sewer Department purchased a camera package to inspect sewer lines. There will be further I/I studies in calendar 2009	Initiate inspection of possible illegal connections and propose dye testing this summer along with using the camera to insure that all connections are approved and tested for discharge parameters.

34	Develop salt alternatives for sensitive areas	Highway	Develop and purchase in two years	Researching alternatives. Uses reduced salt/sand mixture in sensitive areas.	Will continue to research alternatives.
Revised					
35	Inspect and maintain salt shed	Highway	Annual inspection	Deicing materials storage facility continually monitor with close scrutiny at the end and beginning of each season	Continued monitoring
Revised					

6a. Additions

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 11
Revised					
Revised					
Revised					
Revised					

Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Flood Plain to River revised per MassDOT major road realignment and Bridge Repair Project. All Storm water utilities updated to bring Major Intersection of Rtes 113, 3A and the River to up-to-date specifications. All information and calculations and planting plans on file. Flood Plain local regulations revised with FEMA Advice in 2013

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Storm water management position created/staffed	(y/n)	NO
Annual program budget/expenditures	(\$)	0

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	70 %
Stormwater management committee established	(y/n)	YES
Stream teams established or supported	(# or y/n)	NO
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	yes
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	10%
▪ material collected	(tons or gal)	See enclosure
School curricula implemented	(y/n)	YES

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	(#)	138
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	
▪ GIS	(%)	100
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	30%
% of population on septic systems	(%)	70%

Construction

Number of construction starts (>1-acre)	(#)	50
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	60

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%

Estimated volume of stormwater recharged	(gpy)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1/yr
Total number of structures cleaned	(#)	1358
Storm drain cleaned	(LF or mi.)	350 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	Not weighed
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Screened for loam
Cost of screenings disposal	(\$)	Free

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	Not weighed
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Screened for loam
Cost of sweepings disposal	(\$)	None
Vacuum street sweepers purchased/leased	(#)	None
Vacuum street sweepers specified in contracts	(y/n)	No

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	100 lbs.
▪ Herbicides	(lbs. or %)	4 gals.
▪ Pesticides	(lbs. or %)	N/A

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	33% 67%
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	Yes
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	No