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Municipality/Organization: Tyngsborough

EPA NPDES Permit Number: MAR051229

MaDEP Transmittal Number: X229153

Annual Report Number & Reporting Period: No. 5 : March 08 -March 09

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: Rosemary Cashman

Title: Town Administrator

Date: July 13, 2009

Part II. Self-Assessment

Two thousand eight was another year of cutbacks, both financially and in personnel for the Town of Tyngsborough. The Department of Planning and Community Development was dissolved in 2003, all duties set forth in the original permit application. The Department of Planning and Community Development have been absorbed by the Conservation Department and personnel have been decreased significantly this year and will be further reduced in FY09. Despite personnel and fiscal constraints, the Town of Tyngsborough accomplished almost all of the proposed activities set forth in the permit application.

1. *Public Education and Outreach:* The Town was unable to successfully complete BMPs 1 and 2. A stormwater management plan will be developed in Permit Year 4 with distribution through tax bills to reach all residents. The Conservation Department will develop and execute a stormwater poster design program in Year 4. Only two articles on stormwater management were published this year due to reduction in personnel. The Board of Health will distribute pamphlets on household waste disposal and guides for homes, schools, and restaurants on stormwater management. The Highway Department was able to stencil another 146 catch basin this year, totaling 262 out of the total 408 basins in Town. In addition to the public education components proposed in our permit, the Conservation Department has integrated an educational program on stormwater management on the cable access channel. This program continues with a summer video series for local cable access.
2. *Public Involvement and Participation:* The Board of Selectmen has not held any public meetings regarding stormwater management this year. The Board of Health held their regularly scheduled Hazardous Waste Day on May 14th. The Conservation Department is in the process of developing a water quality monitoring program and stream clean-up days for implementation in Year Five.
3. *Illicit Discharge Detection and Elimination:* The Town contracted with NMCOG to map catch basins and other public drainage structures. This mapping is complete. All departments have fulfilled BMP #14 employee training for spill prevention. A comprehensive Hazardous Materials Release Plan for the Town has been previously completed. The Highway Department has continued wet and dry weather inspections of catch basins. An I&I Study, completed in May 2002, showed very minor infiltration of stormwater into the sewer system. The Sewer Department did not perform camera inspections, however there will be an I/I study performed in Year 4 in areas of sensitive receptors (lakes). They have also developed and distributed a pamphlet for sewer owners regarding illicit connections to the sewer system, especially pertaining to sump pumps. The pamphlet is routinely included in the sewer bills. There also has been a comprehensive CWMP completed in 2008. The Board of Health has provided a 24/7 hotline for detection of failed septic systems.

4. *Construction Site Stormwater 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 stormwater pollution prevention plan for during construction, as well as, for long-term maintenance of the stormwater 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 stormwater, 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 Stormwater Management Policy Standards and Best Management Practices. 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.
5. *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 Stormwater and Illicit Connections, Obstructions and Illegal Discharges to the Storm Sewer System", was adopted. The By-Law addresses issues to minimize negative impacts of stormwater on water quality, control of runoff during and after development, as well as enhanced erosion control. NMCOC, under contract to the Town, assisted the Town with the development of this By-Law.
6. *Pollution Prevention and Good Housekeeping in Municipal Operations:* All BMPs for this requirement have been satisfactorily completed.

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 5 (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.
2 Revised	Develop stormwater poster design program	Stormwater Committee, Conservation Department	Annual contest by students	The school dept held a poster contest	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.	Due to personnel and budgetary cuts only two articles were published this year.	Will continue with quarterly articles on related topics.
6 Revised	Health Fair	Board of Health	Annual booth on Stormwater	Completed. Information also distributed by Conservation Director at Earth Day Celebration.	Will display stormwater 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	Will continue stenciling program as new basins are installed.

Revised						
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1a. Additions

7A	Stormwater video on cable access.	Conservation Department	Play a few times throughout the year	Played during Year 5	Will continue to develop more programming.
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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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
8 Revised	Public hearings on SWMP with annual review and comment	Selectmen, Stormwater Committee	One public meetings on SWMP.	No meetings held. Due to personnel turnover.	Plan is in place and on website.
9 Revised	Create Stormwater Advisory Committee	Selectmen, Stormwater Committee	Meet twice annually for review of program.	Due to funding cutbacks, Committee did not meet.	Meet annually to review program.
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 45	Develop and implement water quality monitoring program for additional water bodies
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	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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 4
13 Revised	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.
14 Revised	Employee training on spill prevention	School, Water, Highway, Sewer Depts.	Annual Training	Completed	Training will continue on spill prevention.
15 Revised	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
16 Revised	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.

17 Revised	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.
18 Revised	Monitor illicit discharges into sewer & stormwater 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.
19 Revised	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.

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.
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4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
20 Revised	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.

21 Revised	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 Stormwater Management Policy Standards and Best Management Practices.	Completed and Continue Implementation
22 Revised	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.
23 Revised	Revise site plan & subdivision regulations	Planning Board, Conservation Commission, Selectmen	Regulations including inspection and enforcement in Bond amount	Completed	Implementation
24 Revised	Revise site plan & subdivision regulations	Planning Board, Conservation Commission, Selectmen	Regulations including signed affidavit that conditions will be met.	Completed	Implementation
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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
25 Revised	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
26 Revised	Modify site plan & subdivision regulations for maintenance	Planning Board, Conservation Commission, Selectmen	Regulations including long term maintenance of stormwater	Completed	Implementation
27 Revised	Modify site plan & subdivision regulations for water quality	Planning Board, Conservation Commission, Selectmen	Regulations including minimizing impacts to water quality	Draft By-law under consideration	To review for Fall Town Meeting
Revised					
Revised					
Revised					
Revised					

5a. Additions

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
28	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
Revised					
29	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.
Revised					
30	Catch basin cleaning	Highway	Annual cleaning of basins	Catch basin cleaning began the third week in March- total of 1431 cleaned to date this year	Will continue to clean catch basin first chance in the spring
Revised					
31	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.
Revised					
32	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
Revised					
33	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 IT 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.
Revised					
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 he 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 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
Revised					
Revised					
Revised					
Revised					
Revised					

Revised							
Revised							

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

No sampling was performed this year.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater 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 %)	75 %
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.)	NO
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	Under	Drafted	Adopted
	Prior to	Review		
	Phase II			
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	(#)	100

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	(#)	1,431
Storm drain cleaned	(LF or mi.)	200 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%
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