3/17/08 P

Municipality/Organization: Tyngsborough

EPA NPDES Permit Number: MAR051229

MADEP Transmittal Number: W214120

Annual Report Number & Reporting Period: No. 4: March 07-March 08

NPDES PII Small MS4 General Permit
Annual Report

Part I. General Information

Contact Person: Rosemary Cashman Title: Town Administrator

Telephone #: 978-649-2300, ext. 100 Email: rcashman@tyngsboroughma.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: Rosemary Cashman

Printed Name: Rosemary Cashman

Title: Town Administrator

Date: March 17, 2008

Part II. Self-Assessment

Two thousand seven was another year of fiscal cutbacks for the Town of Tyngsborough. 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 Department. A Conservation Agent was hired in the past year. In addition, the Town is currently advertising for a part time Town Engineer. Despite the fiscal constraints, the Town of Tyngsborough accomplished all of the proposed activities set forth in our permit application except: BMPs 2.9, 2.10, 2.11 and 6.34, which will be completed in the next couple of months. (Please see the "progress on goals" in the table below.)

1. ***Public Education and Outreach*: The Town successfully completed BMP 1 through the development of a stormwater pamphlet that has been distributed with the tax bills. BMP 2 was implemented with the help of the school department which developed and executed a stormwater poster design program in Year 4. Only one article regarding stormwater management was published this year due to fiscal constraints. However, the town has started to develop an educational program on integrated stormwater management, and will utilize the cable access channel to disseminate the information. The Board of Health continued to distribute pamphlets on household waste disposal and guides for homes, schools, and restaurants on grease traps. The Town contracted with Northern Middlesex Council of Governments (NMCOG), the Town's regional planning agency, to complete the stenciling of all public catch basins. That work is complete. The annual Health Fair was cancelled this year due to budget cutbacks.**

2. ***Public Involvement and Participation*: The Board of Selectmen held one public meeting regarding stormwater management in July, at which time the Stormwater Management Plan was presented and discussed. The Board of Health held their regularly scheduled Hazardous Waste Day in 2007. The Conservation Department will develop a water quality monitoring program and establish stream clean-up days for implementation in the next year. (See BMPs 10 & 11.).**

3. ***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. All departments have fulfilled BMP #14 requiring employee training for spill prevention. 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. An I&I Study, completed in May 2002, showed very minor infiltration of stormwater into the sewer system. This year the Sewer Department did camera inspect the following locations: Autumn St., Jefferson St., and Beverly St. A significant I&I problem was found on Jefferson Street and the problem has been corrected. 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. The Board of Health continues to provide a 24/7 hotline for detection of failed septic systems.**

4. ***Construction Site Stormwater Runoff Control:* The Conservation Commission previously revised their rules and regulations, requiring all filings involving a new storm drain system or connection to an existing storm drain system to provide the Commission with a detailed stormwater pollution prevention plan, for use during construction, as well as for long-term maintenance of the stormwater system. This plan must specify detailed construction methods for erosion control, identify responsible parties and include a signed affidavit that all conditions of the pollution prevention plan are**

met. The discharge of any substances into the storm drain system, other than stormwater, is strictly prohibited. The Planning Board 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 instituted construction phasing and bonding schedules to minimize adverse impacts to water quality. These revisions were implemented and enforced during 2007. See item 5 below.

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. NMCOG, 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

7. **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	Develop pamphlet on stormwater	Stormwater Committee, Conservation Department	Distribute with water, sewer, tax bills	Completed. Developed stormwater pamphlet which was distributed with the tax bills.	Continue dispersal with tax bills.
Revised					
2	Develop stormwater poster design program	Stormwater Committee, Conservation Department, School Dept.	Annual contest by students	The School Department held a Stormwater Poster Contest	Annual contest.
Revised					

3	Develop pamphlet on household waste disposal	Board of Health	Distribute with Hazardous Waste collection info	Completed	Continue distribution at Health Fair and Hazardous Waste Day.
Revised					
4	Guide for home, school, restaurant for grease traps.	Board of Health	Distribute at Health Fair, with septic approvals and inspections.	Completed	Continue distributing.
Revised					
5	Articles in newsletter	Conservation Agent	Quarterly articles on related topics.	Due to budgetary constraints, only one article was published this year.	Will use cable access to publicize information on the stormwater management issues facing the town. Work underway on developing this vehicle.
Revised					
6	Health Fair	Board of Health	Annual booth on Stormwater	Health Fair was cancelled in 2007 due to budget cutbacks.	Will display stormwater information at Health Fair next year.
Revised					
7	Catch basin stencil program	Highway Department	Stencil catch basins over three years.	Have stenciled all of the 2,503 located public catch basins in Town. Stenciling completed by NMCOG under contract with the Town	Will stencil any new public catch basins that are installed.
Revised					

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.

8. **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 – Future Years
8	Public hearings on SWMP with annual review and comment	Selectmen, Stormwater Committee	One public hearing on SWMP.	Public hearing held by Board of Selectmen on July 9, 2007.	Plan will be placed on website within the year.
Revised					
9	Create Stormwater Advisory Committee	Selectmen, Stormwater Committee	Meet twice annually for review of program.	Due to funding cutbacks, the Committee did not meet over the past year.	The Committee is being organized and will convene over the upcoming year.
Revised					
10	Volunteer water quality monitoring program	Conservation Department	Develop program Year 2, annual testing thereafter	A water quality monitoring program was instituted for Lake Mascuppic. The Town will be contacting the Merrimack River Watershed Council to investigate using volunteers to monitor water quality in the Merrimack River.	Develop and implement water quality monitoring program for additional water bodies.
Revised					
11	Volunteer stream clean-up days	Conservation Department	Annual cleanup of selected streams	Adopt-a-stream program has been initiated previously. The Town will be contacting the Merrimack River Watershed Council to investigate using volunteers to clean-up the Merrimack River	Implement adopt-a-stream program.
Revised					
12	Hazardous Waste Collection Day	Board of Health	Annual collection of hazardous materials	Completed	Annual Hazardous Waste Day

9. **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 – Future Years
13	GIS mapping of outfalls and receiving waters	Conservation Department, Highway Department	Portions of Town to be done annually	Complete under contract with NMCOG.	Stenciling and mapping of additional catch basins and outfalls installed in the future.
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 was previously completed. Implementation continued during 2007, as needed.	Implementation, as needed.
Revised					
16	Wet & dry weather inspections for priority outfalls	Highway	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.	A new by-law on Illicit Discharges was developed and adopted by the Town Meeting in October 2007.	Implement and revise if necessary
Revised					
18	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 continues to monitor.	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.

10. **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 – Future Years**
20	Enhance zoning for sediment and erosion control	Planning Board, Conservation Commission	Prepare zoning bylaw for town meeting vote	A new by-law on Illicit Discharges, which contains provisions for erosion and sedimentation control, was developed and adopted by the Town Meeting in October 2007	Implement and revise if necessary
Revised					
21	Revise site plan, subdivision, conservation regulations	Planning Board, Conservation Commission	Revise to require stormwater pollution prevention plan.	Complete. The Conservation Commission and Planning Board previously implemented regulations requiring conformance with the Massachusetts Department of Environmental Protection Stormwater Management Policy Standards and Best Management Practices.	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.
Revised					
23	Revise site plan & subdivision regulations	Planning Board, Conservation Commission, Selectmen	Regulations including inspection and enforcement	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					

11. **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 – Future Years**
25	Modify zoning for control of post development run-off	Planning Board, Highway	Prepare zoning bylaw for town meeting vote	A new by-law on Illicit Discharges, which contains provisions for post development run-off, was developed and adopted by the Town Meeting in October 2007	Implement and revise if necessary
Revised					
26	Modify site plan & subdivision regulations for maintenance	Planning Board, Conservation Commission, Selectmen	Regulations including long term maintenance of stormwater facilities	Completed	Implementation

Revised					
27	Modify site plan & subdivision regulations for water quality	Planning Board, Conservation Commission, Selectmen	Regulations including minimizing impacts to water quality	Town contracted with NMCOG to provide assistance with this task. Draft By-Law submitted to the Town.	Finalize for Fall 2008 Town Meeting
Revised					

12. **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 – Future Years**
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 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 in early Spring.	Will continue to clean catch basin first chance in the spring
Revised					
31	Water main flushing with dechorination	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 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 1st Response Awareness training.	Ongoing
33 Revised	TV or inspect all sewer lines in 20 years	Sewer, Highway	Develop plan in five years	The Sewer Department camera inspected the following locations: Jefferson Street, Beverly Street and Autumn Street. Corrected I&I problem on Jefferson Street.	Initiate inspection of possible illegal connections and propose dye testing along with using the camera to insure that all connections are approved and tested for discharge parameters.
34 Revised	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.
35 Revised	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

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) NA

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)	1,500 gal (estimated)
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	(%)	100
Mapping method(s)	GPS	
▪ Paper/Mylar	(100%)	
▪ CADD	(0%)	
▪ GIS	(%)	100
Outfalls inspected/screened	(#)	
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)	(#)	64
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	5
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	110

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	(#)	1,457
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% 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

TOWN OF TYNGSBOROUGH
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Tyngsborough, MA 01879
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March 17, 2008

Ann Herrick
U.S. Environmental Protection Agency
1 Congress Street
Boston, MA 02114-2023

EPA NPDES Permit Number: MAR051229
MADEP Transmittal Number: W214120

Dear Ms. Herrick:

Enclosed please find a copy of:
1) Annual Report for NPDES PII Small MS4 General Permit.

If you need additional information, please let me know.

Sincerely,

Rosemary Cashman
Town Administrator