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Municipality/Organization: Tyngsborough

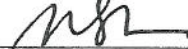
EPA NPDES Permit Number: MAR051229

MaDEP Transmittal Number: X238182

Annual Report Number
& Reporting Period: No. 7 : April 10- April 11

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Matthew Marro  Title: Director of Conservation

Telephone #: 978-649-2300 ext. 116 Email: mmarro@tyngsboroughms.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: Michael Gilberto

Title: Town Administrator

Date: April 22, 2010

Part II. Self-Assessment

Two thousand ten was another year of cutbacks, financially for the Town of Tyngsborough however, hours were restored 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 Department whose budget was satbilized in 2011 and is on course to be further stabilized in fy 2011. Despite personnel turnover still occurring and 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 unable to successfully complete BMPs 1 and 2. A stormwater pamphlet will be developed in Permit Year 4 with distribution through tax bills to reach all residents. Additionally, the school department has developed and executed a storm water poster design program in Year 4, still ongoing. Only two articles regarding storm water management were published this year due to authoring and implementation of regulations promulgated under by-law. However, the Town Conservation Director taped two local cable access specials on storm water and is working on making a monthly series. 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 Department 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 has not held any public meetings regarding stormwater management this year. The Board of Health held their regularly scheduled Hazardous Waste Day on May 15, 2010 The Conservation Department is in the process of developing a water quality monitoring program and establishment of stream clean-up days for implementation in Year Six having started to form an alliance with the Merrimack River Watershed Council which has started collecting baseline data on the Merrimack River and to date is continuing to examine results in anticipation of the next NPDES permit phase.
- 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 1&1 Study, completed in May 2002, 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. 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 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. 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 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 summer of 2010 and are implemented and ongoing.
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 7 (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 indicated, if any | 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- stencils inspected by Conservation Director . | Will continue stenciling program as new basins are installed. |

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| 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 7 | Will continue to develop more programming. |
|----|-----------------------------------|-------------------------|--------------------------------------|----------------------|--|

2. Public Involvement and Participation

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 7 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 8 |
|---------------|--|---------------------------------|---|---|--|
| 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. Meetings on local regulations will commence once draft is completed in 2010 |
| 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 Mascouppic, programs for other waterways will be developed in Year 7 | Develop and implement water quality monitoring program for additional water bodies. Alliance with the Merrimack River Watershed Council has been formed. |
| 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 Attachment | Annual Hazardous Waste Day |

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| Revised | | | | | | | |
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2a. Additions

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3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 7 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 8 |
|----------|---|---|---|---|--|
| 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. |
| 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 | | | | | |

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|---------------|--|--|--|---|--|
| 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. Regulations under the by-law currently being drafted. |
| 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

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|-----|--|------------------|------------------------------------|---------------------------|--|
| 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 7 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 8 |
|---------------|---|---|--|---|--|
| 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. Revisions on flood plain by-laws proposed and worked on with FEMA approved and now being implemented. |

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| 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

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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 7 (Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 8 |
|---------------|--|--|---|---|------------------------------------|
| 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

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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 7 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 8 |
|---------------|---|---|--|--|--|
| 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 |
| 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- total of 1430 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. |

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| Revised | | | | | | |
| 35 Revised | 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 | |

6a. Additions

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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 7 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 8 |
|----------|-----------------|-------------------------------|--------------------|--|------------------------------------|
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |

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| Revised | | | | | | | |
| Revised | | | | | | | |

7a. Additions

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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 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 | (#) | |
| % of population on sewer | (est. gpd) | |
| % of population on septic systems | (%) | 30% |
| | (%) | 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 | (#) | 50 |
| | | |
| | | |

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 | (#) | 1,430 |
| 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 | 33% |
| | % CaCl ₂ | |
| | % MgCl ₂ | |
| | % CMA | |
| | % Kac | |
| | % KCl | 67% |
| | % Sand | |
| 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 |
| | | |
| | | |