

**Municipality/Organization:** Town of North Reading, MA

**EPA NPDES Permit Number:** MAR041215

**MassDEP Transmittal Number:** W-041239

**Annual Report Number  
& Reporting Period:** Year 12: April 1, 2014 – March 31, 2015

## NPDES Small MS4 General Permit Annual Report (Due: May 1, 2015)

### Part I. General Information

**Contact Person:** Michael P. Soraghan, P.E. **Title:** Town Engineer

**Telephone #:** 978-357-5226 **Email:** msoraghan@northreadingma.gov

**Mailing Address:** Town of North Reading, 235 North Street, North Reading, MA 01864

#### 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:** Michael P. Gilleberto

**Printed Name:** Michael P. Gilleberto

**Title:** Town Administrator

**Date:** 4/17/2015

## Part II. Self-Assessment

The Town of North Reading has completed the required self-assessment and determined that our municipality is in compliance with all permit conditions.

Last year, the Town began a program to clean and conduct CCTV inspection of drain structures, pipes and culverts located under roadways scheduled for paving projects. Installed storm drainage in an area prone to erosion, replaced 6 catch basins and sliplined a failing culvert. In addition, the Town Initiated Pre-Disaster Mitigation Plan update.

The Town is continuing its efforts to reduce sediments by conducting street sweeping on all streets, cleaning out all catchbasins and hiring a vactor service to clean out all stormceptors each year.

The Town held a successful Hazardous Waste Day on September 13, 2014. A Special Waste Collection Day was held on June 7, 2014. This included propane tanks, tires, and car batterers as well as rigid plastic disposal. A paper shredding event was held on May 10, 2014. Curbside metal collection was also held on May 17, 2014. Stormwater brochures and Pet waste "Scoop it" rack cards provided through the Greenscapes Program were put out at Town Hall.

The Town has completed a complete GPS survey of all drainage structures in the Town. Building upon the locational data collected in the previous "windshield survey" each structure is opened and inspected. Information collected includes cover condition, rim to invert depth, size and shape, material, condition, presence of debris or illicit connection, surcharge evidence, as well as size and material, and condition of connecting pipes. A report of all field conditions as observed during the survey has been provided to the Town Engineer. GIS layers developed during the study have also been made available to the Town Engineer. The Town has already begun acting on recommendations in the report such as structure repairs, raising of paved manholes and additional catchbasin and manhole cleaning.

The Town is continuing research into the installation of sanitary sewer in key areas of the Town. Several Town meetings have been held to review the findings of the Comprehensive Wastewater Management Plan, developed by Weston and Sampson, and community input on the possible installation of sanitary sewer in the town.

The Town, along with Martins Pond Association volunteers has now installed ten (10) residential rain gardens. The North Reading Garden Club and the Friends of the North Reading Council on Aging designed and installed a rain garden to collect roof runoff from the Third Meeting House. They also held events throughout the year educating the public through library displays, in schools, and demonstrations at the North Reading Fishing Derby.

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In 2013, The Town installed two ground water recharge locations, deep sump catchbasins with outlets to drywells, funded through settlement payment from Benevento Concrete lawsuit.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 11</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities Permit Year 12</b>
1A	Two meetings with Town	DPW/ M. Soraghan	Hold a meeting on stormwater in Town	Held several public meetings with the Town that including pubic involvement from Martins Pond Association.	Continue to hold meetings with the Town that includes public involvement from Martins Pond Association.
Revised					
1B	Develop plan for public education	DPW/ M. Soraghan	Identify and develop public education programs.	Coordinated with Martins Pond Association to install Library and Town Hall displays and displays at public events.	Continue to coordinate with existing Town agencies and non-profit groups.
Revised					

## 2. Public Involvement and Participation

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 11</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities Permit Year 12</b>
2A	Two meetings with Town	DPW/ M. Soraghan	Number of meetings held.	Held several meetings with Town that including public involvement from Wastewater Planning Advisory Committee and Martins Pond Association.	Continue meetings with Town that include public involvement from Wastewater Planning Advisory Committee and Martins Pond Association.
Revised					
2B	Public Participation Plan	DPW/ M. Soraghan	Number of programs developed.	The Town along with Martins Pond Assoc. volunteers, installed 5 rain gardens and held informative public demonstrations about stormwater at the Apple Festival and Lowell National Historic Park	Continue to coordinate with existing Town agencies/groups including the Martins Pond Association Reading/North reading Stream Team, and the Ipswich River Watershed Association to implement current grant projects.
Revised					

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 12
3A	Illicit Connection Identification	DPW/ M. Soraghan	# of dry weather outfalls assessed.	In permit year 7 screening occurred at 24 outfalls.	Measureable goals for 2003 permit have been met.
Revised					
3B	Illicit Source Identification	DPW/ M. Soraghan	# of illicit sources investigated.	In permit year 7 screening occurred at 24 outfalls.	Measureable goals for 2003 permit have been met.
Revised					
3C	Ordinance development to prohibit non-storm water flows	DPW/ M. Soraghan	Bylaw/Ordinance adopted by Town.	Storm Water Management Bylaw was approved and became effective in Permit Year 4.	Measureable goals for 2003 permit have been met.
Revised					
3D	Storm Water map development	DPW& Planning M. Soraghan	Map completed showing outfalls.	Completed mapping of storm water system that included outfalls, drainage piping, catch basins, and manholes in Permit Year 3. Conducted windshield survey Permit Year 9 in order to update drainage map for any new construction or redevelopment since previous mapping was completed. Completed GPS survey of drain system in Year 10. Includes opening and inspection of all structures.	Measureable goals for 2003 permit have been met.
Revised					

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 12
4A	Ordinance development for waste control	DPW/ M. Soraghan	Recommend ordinance/ bylaw language at Town Meeting.	Storm Water Management Bylaw was approved and became effective in Permit Year 4.	Measureable goals for 2003 permit have been met.
Revised					
4B	Formalize site plan review procedures	DPW/ M. Soraghan	Site plan review procedures document complete.	Storm Water Management Bylaw was approved and became effective in Permit Year 4. Rules and Regulations adopted in Permit Year 8.	Measureable goals for 2003 permit have been met.
Revised					
4C	Revised ordinance to address storm water pollution	DPW/ M. Soraghan	Recommend ordinance/bylaw language at Town Meeting.	Storm Water Management Bylaw was approved and became effective in Permit Year 4.	Measureable goals for 2003 permit have been met.
Revised					
4D	BMP Manual	DPW/ M. Soraghan	Handbook completed and adopted by Town.	The Town of North Reading's BMP Manual was reviewed and finalized in Permit Year 3. Manual is referenced in Rules and Regulations adopted in Permit Year 8.	Measureable goals for 2003 permit have been met.
Revised					
4E	Formalize Inspection Procedures	DPW/ M. Soraghan	Standard operating procedures on inspection complete.	Storm Water Management Bylaw was approved and became effective in Permit Year 4. Rules and Regulations adopted in Year 8 include inspection requirements.	Measureable goals for 2003 permit have been met.
Revised					

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

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 11</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities Permit Year 12</b>
5A	Procedures for long term O& M	DPW/ M. Soraghan	Adoption of procedures by Town.	Storm Water Management Bylaw was approved and became effective in Permit Year 4. Rules and Regulations have been adopted by the Town in Permit Year 8.	Measureable goals for 2003 permit have been met.
Revised					
5B	Site plan review procedures for water quality impacts	DPW/ M. Soraghan	Adopt procedures.	Storm Water Management Bylaw was approved and became effective in Permit Year 4. Rules and Regulations have been adopted by the Town in Permit Year 8.	Measureable goals for 2003 permit have been met.
Revised					
5C	BMP Handbook	DPW/ M. Soraghan	BMP Handbook	The Town of North Reading’s BMP Manual was reviewed and finalized in Permit Year 3. Manual is referenced in Rules and Regulations adopted by the Town in Permit Year 8.	Measureable goals for 2003 permit have been met.
Revised					
5D	Revise ordinance to address storm water pollution	DPW/ M. Soraghan	Recommend ordinance/bylaw language at Town Meeting.	Storm Water Management Bylaw was approved and became effective in Permit Year 4.	Measureable goals for 2003 permit have been met.
Revised					

**6. Pollution Prevention and Good Housekeeping in Municipal Operations**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 11</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities Permit Year 12</b>
6A	Employee Training	DPW/ M. Soraghan	# of employees trained.	Conducted Storm Water Management workshop with Town departments including the DPW in Permit Year 2. Eighteen (18) employees were trained	Measureable goals for 2003 permit have been met.
Revised					
6B	Prioritized Street Sweeping	DPW/ M. Soraghan	Schedules and prioritized street sweeping	The Town purchased a mechanical sweeper in 2005 and has since increased street sweeping on a more frequent basis in prioritized areas.	Measureable goals for 2003 permit have been met.
Revised					
6C	Spill Response and Prevention	DPW/ M. Soraghan	Develop procedures.	At Storm Water Management Workshop discussed proper spill response and prevention BMP's in Permit Year 2.	Measureable goals for 2003 permit have been met.
Revised					
6D	Prioritized Catch Basin Cleaning	DPW/ M. Soraghan	Schedules and prioritizes cleaning.	Outlined recommendations in the Town's Storm Water Capital Improvement Program Report that includes modification to the Town's current catch basin cleaning program in Permit Year 3. Considered changes to the catch basin cleaning program based on prioritization and cleaning equipment recommendations.	Measureable goals for 2003 permit have been met.
Revised					

#### Part IV. Summary of Information Collected and Analyzed

A Town-wide survey of the drain system had been completed and installed on both the Director of Public Works and Town Engineer's computer. This GIS Survey involved opening and inspecting all structures located in the previous "windshield survey" and collecting data including the material and condition of each structure and connecting pipes. As part of the project the Town has initiated increased cleaning of 77 catchbasins and 34 manholes which were found to have high levels of sediment.

The Town has begun a program to clean and CCTV drain structures in areas scheduled to be paved. This will enable the Town to address any maintenance needs before paving.