

**Municipality/Organization:** North Andover, MA

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**EPA NPDES Permit Number:** MAR041214

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**MassDEP Transmittal Number:** W-034970

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**Annual Report Number & Reporting Period:** Year 7  
April 1, 2009 – March 31, 2010

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## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2010)

### Part I. General Information

**Contact Person:** Eugene P. Willis, P.E.      **Title:** DPW Director of Engineering

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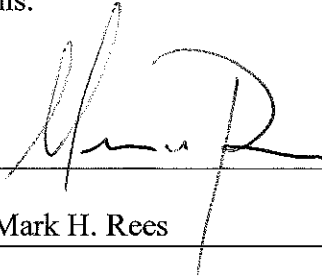
**Mailing Address:** 384 Osgood Street, North Andover, MA 01845

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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:** Mark H. Rees

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**Title:** Town Manager

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**Date:** \_\_\_\_\_

4-28-10

## Part II. Self-Assessment

As of the end of Year 7, the Town has achieved nearly all of the measurable goals for the BMPs selected in the 2003 Notice of Intent and those added in subsequent years to reflect unplanned stormwater activities by the Town.

Stormwater management activities to note include:

- Evaluated I/I program to identify additional sources of I/I and repaired defects.
- Currently replacing 21' sewer line with a 30" sewer line from Greene Street to Turnpike Street on Waverly Road. This project will relieve surcharging on the Shawsheen River.
- Implemented system modifications to reduce pumping to Lawrence during the March 2010 storms.
- Brookside Condominium storm drain maintenance.
  - This project involved cleaning 15 structures and 2 outfalls which were plugged solid after 30 years of no maintenance.
- Davis Street, East Water Street, Fountain Drive, Route 125 outfall cleanup and structure rehabilitation.
  - This project involved pipe cleaning/jet rodding and rehabilitation of outfalls in response to flooding in March 2010.
- The Town has established pet waste stations at the North Andover Beach at Stevens Pond in the Pleasant Street parking lot, Memorial Park, and Gallagher Field.
- Began development of a written Illicit Discharge Detection and Elimination (IDDE) Plan with a working group comprised of multiple Town departments. The plan is currently in draft form under review and establishes actions, procedures, and a timeline for IDDE activities to comply with both the 2003 General Permit and many of the anticipated 2010 North Coastal Small MS4 General Permit requirements.
- A dog park was proposed and approved by the Planning Department in Gallagher Field. Currently waiting Town approval.

Planned activities for the next permit term have not been designated unless a BMP under this permit was not completed or is still under progress for completion. Once the General Permit for the next five years is available from EPA, the Town will prepare and submit a Notice of Intent to MassDEP and EPA for compliance with the new General Permit.

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
1a Revised	Air stormwater messages on local cable	Division of Public Works	Air one new message for two weeks quarterly	The Town set up a list of 11 stormwater water messages to air on the local cable access channel. These 11 messages are broken down into 1-2 public service announcements which air throughout the day. The messages, which are targeted at homeowners, inform homeowners what they can do to prevent nonpoint source pollution.	Measurable goals for 2003 General Permit have been met.  The Town plans to continue airing the nonpoint source pollution public service announcements on the local cable access channel.
1b Revised	Add stormwater information to Town's website	Division of Public Works	Complete update by end of second permit year	Links to information about stormwater included on the Town website during Permit Year 1 were maintained throughout Permit Year 7. This information is directed at adults, educators, and kids, and also includes links to local watershed websites. Information about protecting lakes from nonpoint source pollution included during Permit Year 1 also remains on the Town website. The stormwater messages that were prepared for the local cable access channel and were added to the Town website in Year 3 were maintained throughout Year 7.	Measurable goals for 2003 General Permit have been met.
1c Revised	Distribute/post non-point source pollution posters	Division of Public Works	Post in all school and Town-owned buildings	Posters were distributed to and posted in the Town Library, Office of Community Development, Town Hall, and the Water Treatment Plant during Permit Year 1. No further activities were planned for subsequent years.	Measurable goals for 2003 General Permit have been met.

1d	Inform Residents of Town's recycling programs/schedules	Division of Public Works	Distribute information to all residents by website, mailings, etc.	The Town's website contains information on Town's recycling programs and schedules. Mixed stream, curbside pickup is now available throughout the Town. The DPW publishes a quarterly newsletter, <i>One Person's Trash</i> , which provides information on reducing, reusing and recycling.	Measurable goals for 2003 General Permit have been met.
Revised					

## 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
2a	Collect household hazardous waste from residents	Division of Public Works	Hold household hazardous waste collection day twice per year.	North Andover held Household Hazardous Waste Collection Days twice this year on April 19, 2009 and October 17, 2009 from 9am to 1pm at the DPW garage. The Town holds a general household hazardous waste collection day on the third Saturday of each month from 9am to noon.	The North Andover Household Hazardous Waste Collection Day was held on April 17, 2010 and will be held again in October 2010.
Revised					
2b	Collect & Recycle waste oil	Division of Public Works	Collect waste oil from residents twice per month	The DPW collects waste oil for recycling on the first and third Saturday of every month from 9am to noon at the DPW garage.	North Andover continues to collect waste oil from residents twice per month.
Revised					
2c	Develop Stormwater Hotline	Division of Public Works	Create phone number(s) & inform residents of hotline	The Town continued to have in place a stormwater hotline to track illegal dumping, with information included on the Town website. The Town wants residents to be able to call the hotline and obtain information, ask questions, provide feedback, and report illegal dumping.	Measurable goals for 2003 General Permit have been met. North Andover continues to use the stormwater hotline.
Revised					

2d Revised	Coordinate an annual, voluntary waterways cleanup day	Division of Public Work/Con Com	Hold waterways cleanup day once per year beginning in the Spring of 2005 (Permit Year 3)	North Andover held their 7th annual Town-wide Earth Day Clean-up on May 2, 2009 from 8:30am to 3:30pm. Residents volunteered to pick up litter and were allowed to focus their efforts in a part of Town of their choosing. In past events, over 700 volunteers have picked up 120 cubic yards of trash and litter.	Measurable goals for 2003 General Permit have been met.  The 8 <sup>th</sup> annual Town-wide Earth Day Clean-up will be held on May 1, 2010 from 8:30 am to 3:30 pm.
2e Revised	Make SWMP available for public review/comment	Division of Public Works	Post SWMP on Town website, in library, in DPW office	Copies of the SWMP created for the Town were placed in the Town Library, at the DPW office, and the SWMP was posted on the Town website during Permit Year 1. The SWMP remained available at these locations through Permit Year 5 and is still available on the Town's website.	Measurable goals for 2003 General Permit have been met.  The SWMP is available on the Town's website.

### 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
3a Revised	Map outfalls, receiving waters and storm drains	Division of Public Works	Complete mapping by end of fourth permit year	Outfall mapping in urbanized areas was completed in 2008.	Measurable goals for 2003 General Permit have been met.
3b Revised	Develop illicit discharge detection & elimination	Division of Public Works	Make recommendations for proposed plan	A draft IDDE plan has been developed by a working group comprised of multiple Town departments. The plan is currently under review and establishes actions, procedures, and a timeline for IDDE activities to comply with both the 2003 General Permit and many of the anticipated 2010 North Coastal Small MS4 General Permit requirements.	Final IDDE plan will be complete in May/June 2010.

3c	Review existing bylaws and regulations	Division of Public Works	Determine whether existing bylaws/regulations are adequate	The Town finished reviewing their existing regulations with regard to illicit discharge detection and elimination in the third permit year. No goals related to this item were planned for Permit Year 7.	Measurable goals for 2003 General Permit have been met.
Revised					
3d	Develop/modify general illicit discharge bylaw	Division of Public Works	If necessary, propose recommendation for bylaw updates.	The Town developed a general illicit discharge bylaw that meets USEPA requirements during the fourth permit year.	Measurable goals for 2003 General Permit have been met.
Revised					
3e	Present bylaw for Town meeting action	Division of Public Works	Make presentations for Town meeting action, if necessary.	The bylaw was passed by the Town Meeting on May 12, 2009. The Division of Public Works, the Conservation Commission and the Planning Department are currently developing the regulations.	Regulations will be finalized
Revised					

#### 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
4a	Review existing bylaws and regulations	DPW/Planning/ Con Com	Determine whether existing bylaws/regulations are adequate	The Town finished reviewing the relevant sections of their Rules and Regulations governing the Subdivision of Land and the Zoning Bylaws and is in the process of incorporating relevant information into a new bylaw governing the control of construction site stormwater runoff. North Andover adopted the Stormwater Management & Erosion Control Bylaw on May 12, 2009.	Measurable goals for 2003 General Permit have been met.
Revised					
4b	Develop/modify bylaws for construction site runoff	DPW/Planning/ Con Com	If necessary, propose recommendations for bylaw updates	In the fourth year of the permit, the Town completed the development of a bylaw for the control of construction site runoff. The Town adopted the Stormwater Management & Erosion Control Bylaw on May 12, 2009.	Measurable goals for 2003 General Permit have been met.
Revised					

4c	Present bylaw for Town meeting action	DPW/Planning/ Con Com	Make presentations for Town Meeting action, if necessary.	The Town adopted the Stormwater Management & Erosion Control Bylaw on May 12, 2009.	Measurable goals for 2003 General Permit have been met.
Revised					
4d	Review existing site inspection practices	DPW/Planning/ Con Com	Determine whether existing practices are adequate	During the fourth permit year, the Town completed the development of a bylaw for the control of construction site runoff.	Measurable goals for 2003 General Permit have been met.
Revised					
4e	Develop/modify site inspection practices	DPW/Planning/ Con Com	If necessary, make recommendations. for updating existing practices	During the fifth permit year, the Town made any necessary changes to their erosion/sedimentation control and drainage submittal requirements, as well as their site inspection practices.	Measurable goals for 2003 General Permit have been met.
Revised					

### 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
5a	Review existing bylaws and regulations	DPW/Planning/ Con Com	Determine whether existing bylaws/regs are adequate	The Town finished reviewing the relevant sections of their Rules and Regulations governing the Subdivision of Land and the Zoning Bylaws during the third permit year. No goals related to this item were planned for Permit Year 7.	Measurable goals for 2003 General Permit have been met.
Revised					
5b	Develop/modify bylaws for post-construction runoff	DPW/Planning/ Con Com	If necessary, propose recommen. for bylaw updates	During the fourth permit year, the Town developed a post-construction site runoff control bylaw that meets USEPA requirements and considers MA DEP Stormwater Management Policy Standard 3 (Recharge to Groundwater).	Measurable goals for 2003 General Permit have been met.
Revised					

5c Revised	Present bylaw for Town meeting action	DPW/Planning/ Con Com	Make presentations for Town meeting action, if necessary	During the fourth permit year, the post-construction site runoff control bylaw was presented for Town Meeting action. However, the bylaw did not pass. During the fifth permit year, the bylaw was revised and selected information was pulled out to include in a separate regulation. The bylaw was revised with input provided from the Planning Department and Conservation Commission. The Town adopted the Stormwater Management & Erosion Control Bylaw on May 12, 2009	Measurable goals for 2003 General Permit have been met.
5d Revised	Review existing site inspection practices	DPW/Planning/ Con Com	Determine whether existing practices are adequate	During the fourth permit year, the Town completed review of their existing site inspection and maintenance practices to determine whether they comply with USEPA's stormwater management plan requirements.	Measurable goals for 2003 General Permit have been met.
5e Revised	Develop/modify site inspection practices	DPW/Planning/ Con Com	If necessary, make recommendations, for updating existing practices	During the fifth permit year, the Town made any necessary changes to their existing site inspection and maintenance practices to bring them into compliance with the USEPA's stormwater management plan requirements.	Measurable goals for 2003 General Permit have been met.

### 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
6a Revised	Sweep streets	Division of Public Works	Sweep all Town streets once per year; Stevens Pond 2/yr.	During Permit Year 7, 290 lane miles of roadway were swept of winter sand and Stevens Pond was swept twice.	Continue to sweep all Town street once per year and Steven Pond tow times per year.



6b Revised	Clean catch basins	Division of Public Works	Develop & implement cleaning schedule; Stevens Pond 1/yr.	During Permit Year 7, approximately 300 catch basins were cleaned by machine or by hand. Material from the catch basin cleaning is disposed of at the Cyr Recycle Center on Sharpener's Pond Rd.	Continue to clean catch basins at least once per year/
6c Revised	Train municipal employees at each facility	Division of Public Works	Target all applicable municipal facilities	During the fourth permit year, the Town used information obtained from questionnaires sent to municipal facilities to gather information regarding their existing stormwater practices to develop a municipal employee-training program. The Town started to train employees at all applicable municipal facilities during the fourth permit year. During the fifth permit year, the Town completed the required training, which included holding a training session with municipal employees from the Fire Department, School Department, Department of Public Works, and Youth Services	Measurable goals for 2003 General Permit have been met.
6d Revised	Perform follow-ups to ensure required practices are met	Division of Public Works	Target all applicable municipal facilities	The Town is currently in the process of performing follow-ups with the Fire Department, School Department, Department of Public Works, and Youth Services to ensure that those items covered in the municipal employee training program are being adhered to.	The Town plans to periodically check with the Fire Department, School Department, Department of Public Works, and Youth Services to ensure that those items covered in the municipal employee training program are being adhered to.

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

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
TMDL-1 Revised	Check current impairments	Division of Public Works	Check current MA Integrated List of Waters each year for newly listed or delisted receiving waters in North Andover	<p>The Bacteria TMDL for the Shawsheen River Basin (MA83-01-2002-24) has been in effect since August 2002. See WLA Assessment below for BMPs that will reduce North Andover's bacteria contribution to the watershed.</p> <p>Other waters in North Andover listed as Category 5 on the proposed MA 2010 Integrated List of Waters include:</p> <ul style="list-style-type: none"> <li>• Salem Pond (turbidity)</li> <li>• Lake Cochichewick (metals)</li> <li>• Stevens Pond (metals)</li> <li>• Merrimack River (nutrients, pathogens, priority organics)</li> </ul>	<p>Measurable goals for 2003 General Permit have been met.</p> <p>The Town will continue to monitor the status of receiving waters and pursue projects that aid the reduction of pollutants of concern, particularly bacteria levels in the Shawsheen River.</p>

### 7b. WLA Assessment

The Report "Bacteria TMDL for the Shawsheen River Basin (MA83-01-2002-24; August 2002)" is final and was approved in 2002; there was only one monitoring station indicated for the Town of North Andover-SH17.8 The Shawsheen River just downstream of Massachusetts Avenue and had high fecal coliform counts during both dry & wet weather sampling in 1997.

TMDL sets allowable bacteria levels for urban runoff and point sources equivalent to the water quality standard; for sewer leaks, sanitary sewer overflows, illicit connections and failing septic systems are set equal to zero

The TMDL does not dictate or require any specific individual controls at a particular outfall or site in North Andover.

The following activities and BMPs will help reduce North Andover's bacteria contribution to the Shawsheen watershed and meet WLAs:

- Both the Infiltration/Inflow Evaluation and the Waverly Road Sewer Replacement Project will aid in reducing the bacteria levels in the Shawsheen River.
  - Evaluated I/I program to identify additional sources of I/I and repaired defects.
  - Currently replacing 21' sewer line with a 30" sewer line from Greene Street to Turnpike Street on Waverly Road. This project will relieve surcharging on the Shawsheen River.
  - Implemented system modifications to reduce pumping to Lawrence during the March 2010 storms.
- Brookside Condominium storm drain maintenance.
  - This project involved cleaning 15 structures and 2 outfalls which were plugged solid after 30 years of no maintenance.
- Davis Street, East Water Street, Fountain Drive, Route 125 outfall cleanup and structure rehabilitation.
  - This project involved jet rodding and rehabilitation of outfalls in response to flooding in March 2010.
- The Town has established pet waste stations at the North Andover Beach at Stevens Pond in the Pleasant Street parking lot, Memorial Park, and Gallagher Field.
- A dog park was proposed and approved by the Planning Department in Gallagher Field. Currently waiting Town approval.
- North Andover is in the process of developing a written IDDE Program to proactively find and disconnect illicit connections to the storm drain.

The following table summarizes the WLA for the Shawsheen River:

Fecal Coliform Wasteload Allocations (WLAs) and Load Allocations (LAs) for the Shawsheen River and Identified Tributary Streams		
Bacteria Source Category	WLA (organisms/100ml)	LA (organisms/100ml)
Point Source	Geomean ≤ 200 10% ≤ 400	
Sewer leaks	0	0
Sanitary Sewer Overflow	0	0
Illicit Sewer Connections	0	
Failing Septic Systems	0	0
Direct Wildlife		Geomean ≤ 200 10% ≤ 400
Urban Stormwater Runoff	Geomean ≤ 200 10% ≤ 400	Geomean ≤ 200 10% ≤ 400