

**Municipality/Organization:** Town of Northbridge

**EPA NPDES Permit Number:** MAR041144

**MaDEP Transmittal Number:** W-040823

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

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

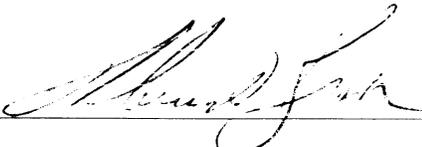
**Contact Person:** Richard R. Sasseville Title: Director of Public Works

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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:** Theodore D. Kozak

**Title:** Town Manager

**Date:** APR 29 2010

## Part II. Self-Assessment

The following are highlights of the major accomplishments during the prior twelve-month period:

**Waste motor oil recycling:** Since 2008, waste oil recycling has been conducted on a weekly basis (January and February excluded) by the Blackstone Valley Regional Recycling Center operated by the Town of Douglas and located behind the Northbridge Main Fire Station at 93 Main Street. As this activity is no longer conducted by the Town of Northbridge and is operating on a regional basis, this activity will no longer be reported on our annual report.

**Winter road sand reduction:** The somewhat milder winter of 2009-10 combined with good availability of road salt enabled us to significantly reduce the amount of winter road sand spread on the Town's roadways. Only 361 tons of sand were used during winter 2009-10 compared to approximately 1,450 tons of sand that was used during the winter of 2008-09. The total amount used in 2002-2003 was 2,231.12 tons compared to 1,045.80 tons during the winter of 2003-04. During winter 2004-2005, 2,065 tons of sand was used on Town roads. During winter 2005-2006, 1,432 tons of sand was used on Town roads. Approximately 100 tons of sand was used during winter 2006-07. We continue to pursue the goal of completely eliminating the use of winter sand.

**Public Education and Outreach:** This element of the program has primarily made use of cable TV notices posted on the Town's local access channel. Notices have provided tips on lawn care including use of fertilizers and other lawn products, car washing, proper disposal of pets' wastes, proper disposal of motor oils and solvents, maintenance of storm drains and detention basins and similar environmentally responsible practices. These cable notices run continuously throughout the year and are seasonally adjusted for the time of year. In addition, the Town has partnered with the Blackstone River Watershed Association to post links to the association's educational information. The following publications are available:

[A Homeowner's Guide to Protecting Water Quality in the Blackstone River Watershed](#)

[A Small Farm Owner's Guide to Protecting Water Quality in the Blackstone River Watershed](#)

[A Horse Owner's Guide to Protecting Water Quality in the Blackstone River Watershed](#)

**Household Hazardous Waste Collection Event:** As a result of reduce budgets we were unable to schedule a Household Hazardous Waster Collection during 2009. An article on the warrant for the May 4, 2010 Town Meeting proposes to fund a collection event in fall 2010 using funds generated by past recycling programs conducted by the Northbridge Recycling Committee. If the Town Meeting article passes a collection even would be scheduled in September or October 2010.

**Public Involvement and Participation:** During 2009-10 the environmental awareness group at the Northbridge Middle School conducted a clean up along the Mumford River and Arcade pond. The Town assisted by picking up and disposing of the trash and refuse that had been collected.

**Illicit Discharge Detection and Elimination:** No reports were received and no evidence of illicit discharges was observed. Periodic checks along stretches of the Blackstone and Mumford Rivers revealed no signs of discharges.

**Construction Site Stormwater Runoff Control:** There remain a number of active projects in the Town. Particular emphasis has been given to insure that the various projects are aggressively complying with the erosion control provisions of their project approvals. Frequent site visits are conducted by the Planning Department, DPW and Town consultants, particularly during and following storm events to insure that all erosion control and stormwater measures are in place. When problems have been identified contact has been made with appropriate project management to relate deficiencies and seek corrections. The Planning Board utilizes outside consultants to perform periodic inspections and document compliance with requirements. We are requiring compliance with the “General Construction Permit” and require that developers submit a copy of their Notice of Intent required under the General Permit. Additionally, we are requiring them to submit an erosion control operations and maintenance plan prior to start of work on the project.

**Post Construction Stormwater Management in New Development and Redevelopment:** A local Stormwater Management by-law, developed by the Northbridge Planning Board was adopted by the Town at the spring annual town meeting on May 6, 2008. This by-law establishes a local Stormwater Authority. The Stormwater Authority is now finalizing implementing regulations which will implement the program. This has been a multi-year effort which is now rapidly approaching completion. Additionally, the Planning Board is presently considering Post-Construction Stormwater Management provisions and Stormwater Management Disturbance Bylaws, which shall be ready for local adoption for the Fall Town Meeting.

A Best Development Practices Guidebook has been developed for the Town of Northbridge (December 2009) –this guidebook describes required and preferred design, construction & maintenance practices relating to stormwater management, erosion and sediment controls, landscape design, and site planning aimed to improve the quality of development and oversight.

**Pollution Prevention and Good Housekeeping in Municipal Operations:** Planning for construction of a new DPW facility was halted in 2009 when Town Meeting voted not to support additional funding for site investigation and facility design. Town is now proposing to purchase an existing facility and modify same for use as a DPW facility. Requires Town meeting approval (May 2010) followed by special election to authorize debt exclusion to cover cost of borrowing.

**General Comments and Observations:** This program requires a significant level of effort for the Town. No additional resources have been provided to meet the requirements of the program. Reliance on volunteers, both individual and in the form of existing and new committees is a major component of the effort. There is a level of technical expertise required to review program requirements and analyze data. Some communities have chosen to contract for that expertise, in tight financial circumstances it is beyond the resources of many localities. Within existing constraints, the Town is fully committed to meeting the terms of the NPDES permit and implementing the Stormwater Management Plan. During 2009, the Board of Selectmen established a Stormwater Advisory Committee to assist in developing policies and seek funding for stormwater activities. The Committee will consist of representatives of the Board of Selectmen, DPW, Planning Dept, Building Dept, Board of Assessors, Finance Committee, Board of Health and a member at large. Formative meeting is planned for summer 2010. Focus of the committee will be the proposed new stormwater discharge permit.

**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 7</b> (Reliance on non-municipal partners indicated, if any)	
1-1 Revised	Business/industry contacts	DPW	Number of contacts		
1-2 Revised	Community Organizations	DPW	Number of contacts	Local watershed association has been active with river and stream cleanup efforts.	
1-3 Revised	School contact	DPW	Number of student contacts	High school environmental group has been performing water testing and stream monitoring.	
1-4 Revised	DELETED				
1-5 Revised	Household hazardous waste collection	DPW/Recycling Committee	Number of pounds collected	Currently seeking funding for HHW collection in fall 2010	

**1a. Additions**

1-6	Pollution Prevention Tips on Cable TV	DPW	Number of notices per year: Notices run continuously. Approximately 10 notices rotate.	DPW has posted pollution prevention tips on local cable channel. Various tips, seasonally appropriate are run on cable year round.	

## 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)	
2-1 Revised	Volunteer stream cleanup	DPW/Conservation Commission	Number of participants	Middle school environmental performed river and pond clean u in fall 2009	
2-2 Revised	Volunteer stream monitoring	DPW/Conservation Commission	Number of volunteer hours partnership with BRWA	Cable TV solicitation for volunteers have been run without response. No direct organizational contact made to date	
2-3 Revised	Stormwater video	DPW/Conservation/ Cable TV	Complete Jan 2005	The video “After the Storm” has been shown on local cable tv several times.	
Revised					

### 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 7 (Reliance on non-municipal partners indicated, if any)	
3-1 Revised	Storm sewer map	DPW	Completion by Dec 10	New aerial photography completed in 2009. Stormwater structures were marked prior to photography. Data will be used to update maps.	
3-2 Revised	Map updates	DPW	Complete 2009	Undocumented drainage structures have been marked for easy identification/location following aerial photography in spring 2009.	
3-3 Revised	Stormwater by-law	Planning/DPW	Complete Jan 06 Completed May 08		
3-4 Revised	Non-storm discharges <i>Illicit connection by-law</i>	DPW DPW	Complete Jan 06 Completed June 06	I	
Revised					

#### 3a. Additions


#### 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)	
4-1 Revised	Sedimentation & Erosion Control Guide	Building/Planning Depts.	Completion Spring 2008 Adoption & Compliance	Existing Erosion Control Zoning By-Law to be reviewed and amended. Copies of similar documents from other municipalities have been obtained and are under review.	
4-2 Revised	Erosion Control By-law	Building/Planning Depts.	Update -Spring 2008 Adoption & Compliance	Existing by-law has been reviewed and identified for update and revision.	Prepare by-law revisions and updates for Town Meeting action. Seek technical assistance from regional planning commission.
4-3 Revised	Inspection & Enforcement	Building/Planning Depts.	Number of inspections	Most project sites are inspected on a weekly basis or more often as conditions warrant. Inspections done by Planning Dept., Building Dept, consultant, Conservation Commission.	Continue site inspections, documenting conditions and directing corrective actions as needed.
Revised					

#### 4a. Additions


**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 7</b> (Reliance on non-municipal partners indicated, if any)	
5-1 Revised	Develop Guidebook	Building/Planning Depts/ConCom/DPW/BoH.	Completion & Enforcement		Guidebook completed
5-2 Revised	By-law Revisions	Building/Planning Depts.	Adoption	Stormwater Management bylaw has been adopted by Town Meeting looking to adopt Post-Construction Stormwater Management provisions and Stormwater Management Disturbance Bylaws.	
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 7 (Reliance on non-municipal partners indicated, if any)	
6-1 Revised	Employee Education	DPW	Number of man-hours of training	Development of standard operating procedures begun.	
6-2 Revised	SPCCP Update	DPW	Completion July 2005 Completion Jul 2008	Funding not provided to complete update.	
6-3 Revised	Motor oil recycling	DPW	Number of gallons Approx 110 Gal	All used motor oil from Department activities has been recycled. Has been added to oil collected by the Recycling Committee	
6-4 Revised	Reduce winter sand use	DPW	Average tons per storm	Total use of sand nearly halved since last winter	Winter 08-09 Salt: 3178 tons Sand: 633 tons Winter 09-10 2535 tons 361 tons
6-5 Revised	Construct vehicle wash facility	DPW/Town Meeting	Complete Nov 2007 Complete 2010.	Funding for preliminary study approved at spring 2008 town meeting. Design of this facility will be included in new DPW facility	Funding not received to complete design of new facility. Town proposing to buy and modify an existing property.
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 7 (Reliance on non-municipal partners indicated, if any)	
7-1 Revised	Stream monitoring	DPW/Conservation/BoH	Completion date: Two times per year	No volunteers have come forward.	
7-2 Revised	Locate MS4 discharges	DPW	Completion date:: January 1, 2004 July 2006	Summer 2006 located approximately 200 additional drainage structures	This effort will be included in 3-2 above.
7-3 Revised	Survey agricultural activities	DPW/Conservation	Completion date: September 15, 2004 July 1, 2005	Contact made with 8 agricultural property owners. No replies to date.	Will provide follow up information on improving agricultural activity impact on stormwater.
7-4 Revised	Septic system survey	DPW/Board of Health	Completion Date: N/A	Board of Health relies on Title V inspection guidelines	
Revised					

**7a. Additions**


**7b. WLA Assessment**

No data available at this time.

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

The town is currently working with the Central Massachusetts Regional Planning Agency to update the GIS based mapping of stormwater collection system. During 2009 an aerial survey of the Town was conducted and will be used to located currently undocumented components of the stormwater collection system. Once completed the Town will move forward with locating undocumented outfall structures

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**Programmatic**

Stormwater management position created/staffed	No	
Annual program budget/expenditures	No fixed amount.	

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s). <i>Primarily by Cable TV notices</i>	70%	
Stormwater management committee established	yes	
Stream teams established or supported	None	
Shoreline clean-up participation or quantity of shoreline miles cleaned	None	
Household Hazardous Waste Collection Days		
▪ days sponsored	Collection event held in September 2007	Seeking Town Meeting funding for fall 2010.
▪ community participation	200 families	2007
▪ material collected	N/A	
School curricula implemented	No	

## 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		To be revised	
▪ Post-Development Stormwater Management		x		
Accompanying Regulation Status (indicate with “X”)				
▪ Illicit Discharge Detection & Elimination (included in bylaw)				x
▪ Erosion & Sediment Control	X	X		
▪ Post-Development Stormwater Management		X		

## Mapping and Illicit Discharges

Outfall mapping complete	80%	
Estimated or actual number of outfalls ( <i>Estimated</i> )	134	
System-Wide mapping complete	80%	
Mapping method(s)		
▪ Paper/Mylar		
▪ CADD		
▪ GIS. <i>Paper maps and record drawings used to develop stormwater map.</i>	80%	
Outfalls inspected/screened	None	
Illicit discharges identified	None	
Illicit connections removed	None	
% of population on sewer ( <i>estimated</i> )	75%(9,900)	
% of population on septic systems ( <i>estimated</i> )	25%(3,325)	

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### Construction

Number of construction starts (>1-acre)	12	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	90%	
Site inspections completed. <i>On the average all sites are inspected weekly.</i>	100%	
Tickets/Stop work orders issued	0	
Fines collected	0	
Complaints/concerns received from public	9	

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control.	N/A	
Site inspections completed	N/A	
Estimated volume of stormwater recharged	N/A	

### Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	1/yr	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	1/yr	
Total number of structures cleaned ( <i>Approximate number</i> )	750	
Storm drain cleaned ( <i>Not documented</i> )	N/A	
Qty. of screenings/debris removed from storm sewer infrastructure	150CY	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	Stockpiled awaiting beneficial use decisions.	
Cost of screenings disposal	N/A	


Average frequency of street sweeping (non-commercial/non-arterial streets)	1/yr	
Average frequency of street sweeping (commercial/arterial or other critical streets)	3/yr	
Qty. of sand/debris collected by sweeping	N/A	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)		
Cost of sweepings disposal	N/A	

Anti-/De-Icing products and ratios. <i>Significant reduction in use of sand versus last year. Approximately 50% less than prior year</i>	75% NaCl 5% CaCl <sub>2</sub> 20% Sand	
Pre-wetting techniques utilized. <i>Liquid CaCl<sub>2</sub> applied at spinner discharge of spreader</i>	Yes	
Manual control spreaders used	Yes	
Automatic or Zero-velocity spreaders used	No	
Estimated net reduction in typical year salt application	None	
Salt pile(s) covered in storage shed(s). <i>Mixed sand/salt in working pile uncovered</i>	Yes	
Storage shed(s) in design or under construction. <i>Will be included in design of new Public Works facility.</i>	No	
<i>Estimated net reduction in typical year road sand application (5 year average)</i>	75%	