

Municipality/Organization: Town of Northbridge

EPA NPDES Permit Number: MAR041144

MaDEP Transmittal Number: W-040823

**Annual Report Number
& Reporting Period:** No. 4: March 06-March 07

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: 4/30/2007

Part II. Self-Assessment

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

Waste motor oil recycling: During calendar year 2006, the Town's Recycling Committee collected 1,750 gallons of used motor oil, which was sent for recycling. Additionally, 110 gallons of used antifreeze, 8 cubic yards of used paint products, approximately 900 of fluorescent tubes, various mercury bearing wastes, batteries containing heavy metals and nearly 15,000 pounds of electronic components were also collected and disposed of in environmentally responsible fashion.

Winter road sand reduction: The Town has essentially eliminated the use of sand for treating Town roads during the winter. Approximately 100 tons of sand was used during the winter of 2006-07 consisting mainly of what remained in our storage shed at the end of the prior year. 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. Based upon an average annual usage of 1,700 tons, we have reduced our usage of winter road sand by 95-percent. Our goal for next winter season is to completely eliminate the use of winter road sand. As we begin cleaning catch basins this spring we are finding a significant reduction in the amount of accumulated sand which is the expected result.

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.

Plans are being made for a Household Hazardous Waste Collection Event. We are awaiting award of a new contract by the state and hope to schedule such an event as soon as arrangements can be made. An extremely successful collection was conducted in April 2005.

Public Involvement and Participation: Cable TV notices have been posted soliciting volunteer involvement in various activities with limited response. Unfortunately, there has been little to no public response to our solicitations for volunteers.

Illicit Discharge Detection and Elimination: A final draft of an " " bylaw was presented to the Northbridge Board of Selectmen and was unanimously supported by that board. The Illicit Discharge By-law was adopted at the Fall 2005 Annual

Town Meeting and is now in full force. During the summer of 2006 an undergraduate Civil Engineering student was employed by the DPW and was used part time to identify undocumented catch basins and locate them using GPS equipment. Approximately 200 basins were located. No evidence of illicit discharges was observed. Plans to continue this effort in 2007 by documenting discharges from these newly identified drainage structures will likely be put on hold due to funding cuts in the new fiscal year beginning on July 1.

Construction Site Stormwater Runoff Control: There are currently 12 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: Development of local by-law governing post development stormwater management measures is in conceptual form and is being further researched. Anticipate that the finalized bylaw will be presented to Town Meeting for adoption in Spring/Fall 2007.

Pollution Prevention and Good Housekeeping in Municipal Operations: Efforts at applying “good housekeeping” standards at DPW continue following a massive cleanup in the Winter of 2005. Plans for design and construction of a new Public Works facility are on hold due to lack of funds and higher priorities. Funding for consultant services to review and update of our current SPCCP has been delayed. Informal training of employees is on-going.

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.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1-1 Revised	Business/industry contacts	DPW	Number of contacts	Slow start with no formal contacts made	Identify target business and make contacts
1-2 Revised	Community Organizations	DPW	Number of contacts	No progress due to lack of volunteers for this effort	Make contact with garden clubs and other organizations offering information from available sources
1-3 Revised	School contact	DPW	Number of student contacts	High school environmental group has been performing water testing and stream monitoring.	These programs are anticipated to end due to lack of funding within the School operating budget.
1-4 Revised	Storm drain stenciling	DPW	Number of drains stenciled	Cable TV solicitation for volunteers have been run without response.	Will re-evaluate this goal. No evidence found of dumping during cleaning of catch basins.
1-5 Revised	Household hazardous waste collection	DPW/Recycling Committee	Number of pounds collected	No collection event held.	Awaiting award of new state contract for Household Hazardous Waste Collection Events. Will arrange ASAP.

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.	Continue tips with seasonal themes using info from EPA web sites

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
2-1 Revised	Volunteer stream cleanup	DPW/Conservation Commission	Number of participants	No event this year.	Will plan an event for late spring of 2007.
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	Will make direct contact with Scout organizations and local watershed associations to solicit volunteers
2-3 Revised	Stormwater video	DPW/Conservation/ Cable TV	Complete Jan 2005	The video “After the Storm” was obtained and shown approximately 20 times on local cable TV during fall 04	Complete locally produced video by end of year
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
3-1 Revised	Storm sewer map	DPW	Completion by Dec 03	A GIS based map of the stormwater system has been prepared using available maps/plans and drawings. Approximately 80% of system	Updates will be made as new information is gathered. New subdivisions will be added as completed.
3-2 Revised	Map updates	DPW	Complete 2006	Portable GPS equipment has been procured.	This equipment will be used to locate and record undocumented outfalls and system components. Hope to use college intern.
3-3 Revised	Stormwater by-law	DPW/Conservation	Complete Jan 06		
3-4 Revised	Non-storm discharges	DPW	Complete Jan 06	Conservation Commission has been provided with a copy of the NOI. No formal meetings held to date	
	<i>Illicit connection by-law</i>	DPW	Complete June 06		
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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.	Continue development of local guidebook leading to completion and implementation by planned date.
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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5-1 Revised	Develop Guidebook	Building/Planning Depts.	Completion & Enforcement	Preliminary research has been conducted. Copies of program documents from other municipalities have been obtained and are under review.	Continue development of local guidebook leading to completion and implementation by planned date.
5-2 Revised	By-law Revisions	Building/Planning Depts.	Adoption	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.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
6-1 Revised	Employee Education	DPW	Number of man-hours of training	Informal training provided on an occasional basis	Develop standard operating instructions for various activities. Seek professional training from outside sources.
6-2 Revised	SPCCP Update	DPW	Completion July 2005 Completion Jul 2008	Funding not provided to complete update.	Seek funding for professional review.
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	Continue recycling activities.
6-4 Revised	Reduce winter sand use	DPW	Average tons per storm	Use of sand has been reduced by approximately 95% since this program began.	Expect to completely eliminate use of road sand in winter 2007-08.
6-5 Revised	Construct vehicle wash facility	DPW/Town Meeting	Complete Nov 2007 Complete 2010.	No progress due to lack of funding	Due to financial constraints, not optimistic that this will move forward within this decade..
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
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: September 15, 2004 Unknown	Lack of funding	Lack of funding
Revised					

7a. Additions

7b. WLA Assessment

No data available at this time.

Part IV. Summary of Information Collected and Analyzed

The town has completed a GIS based map of the stormwater collection system. Development of the map made use of existing record drawings and other documentation. It is estimated that approximately 80 percent of the system is covered by the new map. GIS locating equipment has been procured that will be used to locate undocumented stormwater collection system components. Particular emphasis will be placed on identifying outfalls not heretofore documented. It is anticipated that the Town will be completed in quadrants over the next two to three years and the system map will be updated periodically as information is gathered. At this point we need to obtain additional training on use of the GIS equipment and on how to update the maps.

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	No	
Stream teams established or supported	None	
Shoreline clean-up participation or quantity of shoreline miles cleaned	None	
Household Hazardous Waste Collection Days		
▪ days sponsored	Awaiting new State contract	Funds permitting will schedule another in Early fall 2007
▪ community participation	200 families	
▪ 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 draft bylaw)				x
▪ Erosion & Sediment Control		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)	

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>During winter 2006-07 we discontinued the use of sand for roadway treatment. Only the residual sand/salt mixed remaining from prior years was used.</i>	90% NaCl 5% CaCl ₂ 5% Sand	
Pre-wetting techniques utilized. <i>Liquid CaCl₂ 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	No	
<i>Estimated net reduction in typical year road sand application</i>	95%	