

**Municipality/Organization:** City of Northampton, MA

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**EPA NPDES Permit Number:** MA041016

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**MassDEP Transmittal Number:** W-035904

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**Annual Report Number  
& Reporting Period:** No. 4: April 1, 2006 – March 31,  
2007

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## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2007)**

### **Part I. General Information**

Contact Person: Edward Huntley

Title: Director of Public Works

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Mailing Address: 125 Locust Street, Northampton, MA 01060

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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:

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Printed Name: Mary Clare Higgins

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Title: Mayor

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Date: April 30, 2007

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## **Part II. Self-Assessment**

**The City of Northampton has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.**

## 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	Stormwater Educational Brochure	DPW	General educational brochure developed and distributed by Fall 2004.	Text and graphics for the educational brochure have been developed and formatted.	The educational brochure will be printed and distributed in the next year.
Revised			General educational brochure developed by Spring 2004 and distributed by Fall 2007.		
1.2	Stormwater Educational Information on DPW Website	DPW	Information on the Stormwater Management Program and other public educational material on DPW website.	New information will continue to be put on the DPW web site.	New information will continue to be put on the DPW web site.
Revised					
1.3	Stormwater Educational Outreach to Community School Groups	DPW	Educational Materials Available for use in schools and community groups by Fall 2004	Lack of interest for stormwater related projects during 06/07 school year.	Work with schools in the Spring of 2007 to plan stormwater projects in schools during the 07/08 school year.
Revised			Stormwater information used in classrooms as determined by interest.		
1.4	Tributary Signage	DPW	Tributary signage on five bridges in 2005 and 2007	None to date.	Work with the Conservation Commission to designate locations for tributary signs and install signs by Spring of 2008.
Revised			Tributary signage on ten bridges in 2007/2008.		

1.5	Targeted Educational Material	DPW	Additional Educational Outreach as necessary. Press release distributed about successes of the stormwater program.	Continue to increase awareness of Pet Owners to dispose of pet waste properly. Signage installed at two City Parks—some improvement in pet waste clean up. DPW sponsored workshop on Healthy Lawns and Landscapes April 2006. DPW initiated program to sell Rain Barrels to Homeowners. 114 Rain Barrels sold in June and July 2006.	Increase awareness and use of LID practices for new developments and small scale improvements (i.e. rain gardens & rain barrels) Press release about successes of the stormwater program released same time as distribution of brochure.
Revised				Individual outreach to property owners, engineers, and developers on rain garden design and other LID techniques.	

## 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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
2.1 Revised	Public Advisory Committee	DPW	Regular Advisory Committee meetings.	The Board of Public Works (BPW) has served as the public advisory committee for the Stormwater Management Program.	Continue to utilize the Board of Public Works as a means for public participation.
2.2 Revised	Volunteer Water Quality Monitoring	DPW	Water quality monitoring and inspections throughout the City by volunteers. Water quality visual inspections by DPW employees.	Visual inspections of priority outfalls completed by DPW staff. Continued to look for community volunteers. Worked with the Conservation Commission and others to monitor outfall problems.	Continue water quality visual assessments at priority outfalls throughout the City. Continue to work on the formation of a Mill River Watershed group to organize volunteers to conduct water quality visual assessments at outfalls throughout the city.
2.3 Revised	Storm Drain Labels	DPW	Storm Drain labels on 15% of Catch Basins by Spring 2007	Volunteers labeled 150 catch basins (5%) throughout the City in 2004 but none in 2005 and 2006.	Work with volunteers and students to label another 15% of the catch basins by Spring of 2008.
2.4 Revised	Community Clean-Ups	DPW	Community Clean-Ups publicized and completed by Spring 2007.	Multiple downtown cleanups completed. Other neighborhood cleanups completed throughout the City and in the Meadows section of the City.	Continue to expand the number of neighborhood cleanups.

### 3. Illicit Discharge Detection and Elimination

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
3.1	Storm Sewer System Map	DPW	Complete storm sewer map and field verify by Spring 2005.	Storm sewer map completed and field verification 95% complete.	Continue to complete field verifications and updates to storm sewer map.
Revised					
3.2	Legal Prohibition and Enforcement	DPW	Illicit Connections and Discharges to the Municipal Storm Drain System Ordinance adopted by City Council.	Previously completed. (Illicit Connections and Discharge to the Municipal Storm Drain System Ordinance adopted by the City Council and signed by the Mayor June 17, 2004.)	Continue to enforce the Illicit Connections and Discharge to the Municipal Storm Drain System Ordinance.
Revised					
3.3	Illicit Discharge Detection and Elimination	DPW	Priority screening areas identified and targeted for inspections. Investigation and enforcement of illicit discharges and connections	Investigated various public complaints. Visual inspections of priority outfalls conducted. Enforcement actions for one illicit discharge. Visual Inspection of priority outfalls.	Continue to conduct visual inspections at priority outfalls. Investigation and enforcement of illicit discharges and connections as they are discovered.
Revised					
3.4	Targeted Educational Outreach	DPW	Conduct annual household hazardous waste collection. Outreach to the public on reporting illicit discharges.	Household Hazardous Waste Collection publicized and completed in April, May & June 2006. The May collection was targeted specifically for pesticide collection. 49 Northampton residents or businesses participated and a total of 960 gallons was collected.	Continue Household Hazardous Waste Collection. Continue educational outreach to the public for reporting illicit discharge to the storm drain system to the DPW. Continue to educate restaurants concerning illicit discharges to catch basins.

#### 4. Construction Site Stormwater Runoff Control

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
4.1	Erosion and Sediment Control Ordinance	DPW	Erosion & Sediment Control and Post Construction Stormwater Management Ordinance adopted by City Council.	Completed. (Erosion & Sediment Control and Post-Construction Stormwater Management Ordinance adopted by the City Council and signed by the Mayor June 17, 2004.)	Implement and Revise Erosion & Sediment Control and Post-Construction Stormwater Management Ordinance as necessary.
Revised					
4.2	Stormwater Site Plan Reviews	DPW	Procedures for site plan review implemented following adoption of Ordinance.	Reviewed all proposed development projects disturbing over 1 acre for compliance with the Erosion & Sediment Control and Post Construction Stormwater Management Ordinance. Issued stormwater management permits for 9 construction projects and reviewed all projects applying for planning board permits.	Continue to review all development projects for compliance with the Erosion & Sediment Control and Post Construction Stormwater Management Ordinance.
Revised					
4.3	Stormwater Site Inspections	DPW	Procedures for Site Inspections Implemented following adoption of Ordinance.	Conducted site inspections and responded to public complaints regarding construction sites. Issued 2 Notices of Violation for problems at construction sites.	Continue inspections as required for compliance with the Erosion & Sediment Control and Post Construction Stormwater Management Ordinance.
Revised					
4.4	Construction Site Public Participation	DPW	Procedures for receiving information submitted by the public in place following adoption of Ordinance.	Stormwater Management Permit application process coincides with Planning Board review so that the Planning Board meeting serves as the Public hearing for each project.	Conduct further outreach to the public on how to identify and report stormwater runoff problems at construction sites.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5.1	BMP Strategies	DPW	Adopt or change City regulations to create a consistent post-construction runoff control strategy.	Post-construction runoff control strategy defined and adopted as part of Erosion and Sediment Control and Post-Construction Stormwater Management Ordinance.	Continue to maintain a consistent post-construction runoff control strategy. Conduct outreach to developers to educate about preferred runoff control BMPs.
Revised					
5.2	Runoff Control Performance Standards	DPW	Post-Construction runoff control performance standards incorporated into an Ordinance.	Performance standards developed and incorporated into the Erosion and Sediment Control and Post-Construction Stormwater Management Ordinance, which was adopted in June 2004.	Enforce compliance with post-construction runoff control performance standards through site plan review and site inspections. Continue to define the preferred structural and non-structural BMPs.
Revised					
5.3	Structural BMP Inspection and Maintenance	DPW	Develop inspection schedules and a maintenance enforcement mechanism for structural stormwater controls throughout the city.	Updated existing structural BMP database. For development projects with approved Stormwater Management Permits, required legally binding Stormwater Operation, Maintenance, and Inspection agreements as a condition of the permits. For projects permitted prior to the adoption of the Stormwater Management Ordinance, continued to research existing Planning Board and Conservation Commission permit conditions to enforce maintenance of private stormwater BMPs as necessary.	Complete the structural BMP database and research designs of all BMP structures. Complete initial round of inspections of BMP structures and enforce maintenance requirements. Continue to push for adoption of amendments to the Erosion & Sediment Control and Post Construction Stormwater Management Ordinance to include BMP inspection requirements and a maintenance enforcement mechanism.
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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
6.1 Revised	Drainage System Operation & Maintenance Program	DPW	Operation and maintenance (O&M) program implemented.	Implemented O&M activities and set up a procedure to track maintenance. Purchase of a new clam for catch basin cleaning.	Continue to implement O&M activities and identify ways to further reduce pollutant runoff through the storm drain system.
6.2 Revised	Employee Training	DPW	Employee training completed	Completed in 2004	
6.3 Revised	Pollution Prevention BMPs	DPW	Pollution prevention BMPs identified and prioritized.	Constructed large storage structure at the DPW yard to store the salt/sand road de-icing mixture thereby eliminating all exposure of salt to the elements.	Identify additional pollution prevention BMPs for DPW properties and activities as well as other Municipal properties and parking lots.

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) \*Not Applicable\***

<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 4</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 5</b>
Revised					

**7a. Additions**


**7b. WLA Assessment**

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

none

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

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2006 through March 31, 2007)

##### Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Y
Annual program budget/expenditures **	(\$)	\$21,677
Total program expenditures since beginning of permit coverage	(\$)	\$80,000
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Revolving Fund from Permit Fees and General Fund

##### Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	5%
Stormwater management committee established	(y/n)	y
Stream teams established or supported	(# or y/n)	n
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	y
Shoreline cleaned since beginning of permit coverage	(mi.)	-
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	3 (regional collections)
▪ community participation **	(# or %)	49
▪ material collected **	(tons or gal)	960 gal.
School curricula implemented	(y/n)	n

## Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	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

(Preferred Units) Response

Outfall mapping complete	(%)	95%
Estimated or actual number of outfalls	(#)	232
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	-
▪ CADD	(%)	-
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	10%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	55%
Illicit discharges identified **	(#)	2
Illicit discharges identified (Since beginning of permit coverage)	(#)	5
Illicit connections removed **	(# ); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	1
% of population on sewer	(%)	55%
% of population on septic systems	(%)	45%

## Construction

(Preferred Units) Response

Number of construction starts (>1-acre) **	(#)	11
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	70
Tickets/Stop work orders issued **	(# or %)	2
Fines collected **	(# and \$)	\$200
Complaints/concerns received from public **	(#)	5

## Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	70%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	80%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1
Qty of structures cleaned **	(#)	3000
Qty. of storm drain cleaned **	(%, LF or mi.)	5%
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	63 tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$20,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	-
• Disposal cost**	(\$)	0
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	n
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vactor **	(%)	0

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	2,832 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$33,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	-
• Disposal cost**	(\$)	0
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	2
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	0
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized **	(y/n or %)	n
Manual control spreaders used **	(y/n or %)	n
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l <sub>n</sub> mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l <sub>n</sub> mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

## Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	n
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	n
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	0