

Municipality/Organization: Worcester State College

EPA NPDES Permit Number: MAR042022

MassDEP Transmittal Number: W-040406

Annual Report Number  
& Reporting Period: April 1, 2008 – March 31, 2009

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2009)

### Part I. General Information

Contact Person: Robert Daniels Title: Environ. Health and Safety Officer

Telephone #: 508-929-8099 Email: : rdaniels@worchester.edu

Mailing Address: 486 Chandler Street, Worcester, MA 01602

#### 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: Kathleen Eichelroth

Printed Name: Kathleen M Eichelroth

Title: V.P. – Administration and Finance

Date: 4-28-09

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

Worcester State College has completed a Self Assessment of the Storm Water Management Plan. The College reviewed and revised the SWMP in May 2008, will provide updated training in May 2009 and continues to meet the requirements of the 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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
100.1 (2005)	Distribution of Educational Materials	Robert Daniels	Design a SW Management information page on campus web-site that will be accessible by all students, faculty, administrators and general public.	Keep web-page updated.	Keep web-page updated.
Revised					
100.2 2006	Distribution of Educational Materials	Robert Daniels	Designed a pamphlet for contractors to explain the expectations WSC has for contractors working on-site	Continue to distribute pamphlet to contractors.	Continue to distribute pamphlet to contractors.
Revised					
Revised					

**1a. Additions**

100.3 2007	Distribution of Educational Materials	Robert Daniels	Download EPA's "After the Storm" pamphlet.	Pamphlet posted on the web-site.	Pamphlet posted on the web-site.
------------	---------------------------------------	----------------	--	----------------------------------	----------------------------------

100.4 2008	Distribution of Educational Materials	Robert Daniels	"Focus the Nation" Presentation-nationally recognized teaching program-January 2008	Included SW as topic in a presentation that reviewed WSC's sustainability program. This was broadcasted over the web and was viewed by over 700 people on campus	
100.5 2009	Distribution of Educational Materials	Robert Daniels	"National Teach-In on Global Warming" Presentation-nationally recognized teaching program-February 2009	Included SW as topic in a presentation that reviewed WSC's GHG emissions, water conservation projects and SW management program. This was broadcasted over the web and was viewed by over 700 people on campus	

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
200 Revised	Storm Drain Stenciling	Robert Daniels	Restencil drains by September 2007	Restencilled in July 2008	Will restencil where necessary by July 2009, will ensure new storm stains are stenciled near Admin Building
200.1 Revised	Campus Clean-up Day	Rich Korcez	Annually in April-May	Due to Spring weather conditions, this event was postponed twice and the work was completed by WSC grounds crew	Similar activities and will be coordinated with Earth Day activities
Revised 200.2 2006	Lake Ellie Beautification	Peter Fenuccio/Bob Daniels	Dredge Lake Ellie by summer of 2007	Due to major construction projects on campus and site logistics, the Beautification project has been postponed and will be incorporated into Future Campus Greening Projects.	Due to level funding this project will likely not happen in 2009.
200.3 2007 Revised	Clean up of Moore Brook	WSC Grounds Crew and work study students	Clean brook	Reinspected and cleaned in Fall 2008	Reinspect and clean by fall 2009.

## 2a. Additions

200.4 2008	“In Business for the Blackstone”	Robert Daniels	Become member of the organization	Did not join “In Business for the Blackstone”	Will consider joining “In Business for the Blackstone”.
---------------	----------------------------------	----------------	-----------------------------------	---	---

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
300.2 Revised	Dry Weather Inspections	Robert Daniels	Semiannual Inspections	On-going inspections-in July 2008	On-going inspections- WSC will plan on spring and fall inspections to get back on track. Revising current schedule of a summer/winter schedule since it is not practical to obtain a dry weather inspection in December.
Revised					
Revised					

### 3a. Additions

300.4	New SW Site Plans-as part of Campus Utilities Plans	Sandra Olson	New SW Site Plan	In FY 08, the BSI –Subsurface Utility Engineering plan was updated to include any storm water system modifications as a result of construction.	In FY 09, the BSI –Subsurface Utility Engineering plan will be updated to include any storm water system modifications as a result of Administration Building construction..
-------	---	--------------	------------------	---	--

#### 4. Construction Site Storm Water Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
400.1 Revised	Develop Construction Site Run Off Plan	Robert Daniels	Update Construction Run-off Program	Construction Run-off Program reviewed in Spring, no changes necessary.	None required
400.2 Revised	Construction Run-Off Plan Training	Robert Daniels	Implementation of periodic training	WSC will provide retraining in Spring 2009.	WSC will provide retraining in Spring 2010.
400.3 2006 Revised	Develop an enforcement strategy when construction inspections and BMPs are not being implemented	Robert Daniels and Facilities Department	Document all Stop Work notices that are generated	There were no Stop Work orders issued.	If necessary, Stop Work orders will be issued.

#### 4a. Additions

400.4 2007	SW Review with Construction Site Personnel and MSCBA/DCAM	Robert Daniels	Meet with construction company and MSCBA before and during construction projects	As part of weekly construction meetings for the Administration Building, WSC discussed SW management issues with construction company and DCAM.	Will continue to interact with construction companies and DCAM/MSBCA for all DCAM/MSBCA projects that affect SW.
400.5 2007	Construction Site Inspections	Robert Daniels	Periodic construction site inspections	Conducted periodic inspections of the Admin Building.	Will inspect new Dowden construction area in 2009.

### 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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 7
500 Revised	Develop a Post Construction Storm Water Management Plans an appendix to Storm Water Management Plan	Robert Daniels	Update Post Construction SWM Plan	None required	Correct SWMP to delete 4/2 Stormceptor duplication in Appendix J. Add annual inspection of sand/salt pile cover.
500.1 Revised	Implement training for Post Construction SWM	Robert Daniels	Implementation of periodic training	WSC will provide retraining in Spring 2009.	WSC will provide retraining in Spring 2010.
500.2 2006 Revised	Research alternatives to sand/road salt for road and walkway deicing.	Robert Daniels	Get prices and do a cost benefit analysis	Expanded use of Magic salt in Winter 2008-2009-used 13.5 tons	Will continue and expand use of Magic Salt use in Winter 2009-2010.

### 5a. Additions

500.3 2007	Catch basin clean out	Robert Daniels	Clean catch basins	Cleaned out catch basins and Vortech units by September 2008	Will clean out catch basins by June 2009 and Vortech Units by September 2009.
500.4 2007	Soil stabilization for Parking Garage construction site	Consigli Construction	Stabilized soil in project area	Evaluated the effectiveness of stabilization vegetation near garage and it performed as designed.	Will evaluate the effectiveness annually and replace stabilization vegetation as necessary.



**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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 7
600 2007 Revised	Develop a training program for Facility Personnel	Robert Daniels	Implementation of periodic training	WSC will provide retraining in Spring 2009.	WSC will provide retraining in Spring 2010.
Revised					
Revised					
Revised					
Revised					
Revised					
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
	NA				
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions


7b. WLA Assessment

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

**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, 2007 through March 31, 2008)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

**Education, Involvement, and Training**

Estimated number of property owners reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
<ul style="list-style-type: none"> <li>▪ days sponsored **</li> <li>▪ community participation **</li> <li>▪ material collected **</li> </ul>	(#)	
School curricula implemented	(# or %)	
	(tons or gal)	
	(y/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					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					
Accompanying Regulation Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

**Mapping and Illicit Discharges**

	(Preferred Units)	Response
Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

**Construction**

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

**Post-Development Stormwater Management**

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

**Operations and Maintenance**

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

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**		(\$)
• Hourly or per basin contract rate **		(\$/hr or \$ per basin)
• Disposal cost**		(\$)
<u>Cleaning Equipment</u>		
• Clam shell truck(s) owned/leased		(#)
• Vacuum truck(s) owned/leased		(#)
• Vacuum trucks specified in contracts		(y/n)
• % Structures cleaned with clam shells **		(%)
• % Structures cleaned with vector **		(%)

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

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 **	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	
Pre-wetting techniques utilized **	(y/n or %)
Manual control spreaders used **	(y/n or %)
Zero-velocity spreaders used **	(y/n or %)
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)
% of salt/chemical pile(s) covered in storage shed(s)	(%)
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)

**Water Supply Protection**

Storm water outfalls to public water supplies eliminated or relocated	# or y/n
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n

	# or y/n
• Treatment units induce infiltration within 500-feet of a wellhead protection area	