

Municipality/Organization: Worcester State College

EPA NPDES Permit Number: MAR042022

MassDEP Transmittal Number: W-040406

Annual Report Number

& Reporting Period: April 1, 2007 – March 31, 2008

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5/1/08

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2008)

### Part I. General Information

Contact Person: Robert Daniels

Title: Environ. Health and Safety Officer

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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: Sandra K. Olson

Title: Director of Facilities

Date: April 29, 2008

## **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 September 2007, provided updated training in March 2008 and continues to meet the requirements of the 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 5</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 6</b>
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.	Launch SW information page by July 2007. Keep the 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	Review and if needed update pamphlet.	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.	Distribute the pamphlet during the campus clean-up day which will take place in May 2007 and posted on web-site. (Cancelled because of weather)	
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100.4 2008	Distribution of Educational Materials	Robert Daniels	"Focus the Nation" Presentation-nationally recognized teaching program	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	
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## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
200 Revised	Storm Drain Stenciling	Robert Daniels	Re-stencil drains by September 2007	Research additional signage to say “Only Rain Down the Drain”.  Re-stenciling completed by September, 2007.	Will not implement.  Will re-stencil where necessary by September 2008
200.1 Revised	Campus Clean-up Day	Rich Korcez	Annually in April-May	Student involvement cancelled due to weather. However grounds keepers cleaned up campus.	Will not implement.
Revised 200.2 2006 Revised	Lake Ellie Beautification	Peter Fenuccio/Bob Daniels	Dredge Lake Ellie by summer of 2007	Dredging did not occur in 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
200.3 2007 Revised	Clean up of Moore Brook	WSC Grounds Crew and work study students	Clean brook	Implemented in Fall of 2007	Re-inspect and clean by fall 2008.

### 2a. Additions

200.4 2008	“In Business for the Blackstone”	Robert Daniels	Become member of the organization	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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
300.2	Dry Weather Inspections	Robert Daniels	Semiannual Inspections	On-going inspections in August 2007	On-going inspections
Revised					
Revised					
Revised					

#### 3a. Additions

300.4	New SW Site Plans-as part of Campus Utilities Plans	Sandra Olson	New SW Site Plan	<p>In FY 07, the BSI –Subsurface Utility Engineering plan will be updated to include any storm water system modifications as a result of construction.</p> <p>An underground heating loop which contained only water, no chemicals, was leaking into ground. The leak was investigated and repaired.</p> <p>One SW drain which was discharging to city sewer was redirected.</p>	In FY 08, the BSI –Subsurface Utility Engineering plan will be updated to include any storm water system modifications as a result of construction.
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#### 4. Construction Site Storm Water Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
400.1 Revised	Develop Construction Site Run Off Plan	Robert Daniels	Update Construction Run-off Program	Construction Run-off Program reviewed in September 2007, no changes necessary.	None required
400.2 Revised	Construction Run-Off Plan Training	Robert Daniels	Implementation of periodic training	WSC provided training in March 2008.	WSC will provide retraining in Spring 2009.
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	In order to protect SW quality on campus, WSC Facilities Department will have the power to issue Stop Work Notices if the Construction Site Operators are not complying with the BMPs included in their SWP3. No Stop Work orders were issued.	If necessary, Stop Work orders will be issued.

#### 4a. Additions

400.4 2007	SW Review with Construction Site Personnel and MSCBA	Robert Daniels	Meet with construction company and MSCBA before and during construction projects	Continued meetings with construction company and MSCBA, as needed for the parking garage.	Parking garage construction project completed.
400.5 2007	Construction Site Inspections	Robert Daniels	Periodic construction site inspections	Continued inspection through the completion of the garage construction project	Parking garage construction project completed.

## 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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
500	Develop a Post Construction Storm Water Management Plans an appendix to Storm Water Management Plan	Robert Daniels	Update Post Construction SWM Plan	Updated Post Construction SWM Plan in September 2007	None required
Revised					
500.1	Implement training for Post Construction SWM	Robert Daniels	Implementation of periodic training	WSC provided training in March 2008.	WSC will provide training in Spring 2009.
Revised					
500.2 2006	Research alternatives to sand/road salt for road and walkway deicing.	Robert Daniels	Get prices and do a cost benefit analysis	Used Magic salt (Rock salt sprayed with magnesium chloride) around the LRC, Student Center and Administration Village in winter 2007-2008	Will continue and expand use of Magic Salt Use in Winter 2008-2009.
Revised				Upgraded spreader for the Magic salt.	

### 5a. Additions

500.3 2007	Catch basin clean out	Robert Daniels	Clean catch basins	Cleaned out catch basins and Vortechnic units by September 2007	Will clean out catch basins by June 2008 and Vortechnic Units by September 2008.
500.4 2007	Soil stabilization for Parking Garage construction site	Consigli Construction	Stabilized soil in project area	Soil in area of Parking Garage construction site was stabilized with vegetation at the end of the project.	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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 6
600 2007	Develop a training program for Facility Personnel	Robert Daniels	Implementation of periodic training	WSC provided training in March 2008. -----	WSC will provide training in Spring 2009. -----
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					

**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		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

**Legal/Regulatory**

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
<b>Regulatory Mechanism Status (indicate with "X")</b>					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					
<b>Accompanying Regulation Status (indicate with "X")</b>					
▪ 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)	(%)	
<b>Mapping method(s)</b>		
▪ 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**	(\$)	
Cleaning Equipment		
• 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)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• 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 ** (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 %)	
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	

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