

Municipality/Organization: U.S. Army Soldier Systems Center

EPA NPDES Permit Number: MAR042008

MassDEP Transmittal Number: W- 041046

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

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2010)

Part I. General Information

Contact Person: Terence Garrahan

Title: Environmental Engineer


Telephone #: 508-233-5993

Email: Terry.Garrahan@us.army.mil

Mailing Address: U.S. Army Soldier Systems Center, 15 Kansas Street, Natick, MA 01760-5049

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: Terence Garrahan

Title: Environmental Engineer

Date: April 29., 2010

Part II. Self-Assessment

U.S. Army Soldier Systems Center appears to be 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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
PE01 Revised	Mark Drains	Environmental Office	Job	During Year 7 a number of parking lots were resurfaced. Locations were re-labeled with warning concerning draining to lake.	May 2010 – A number of drain warnings need to be replaced due to winter snow plowing damage to discs. Some have already been replaced during facility wide spring clean-up on April 30, 2010.
PE02 Revised	Website Posting Stormwater Drain Awareness	Environmental Office	Job	The Environmental Office website bulletin board includes a number of environmental awareness issues including warnings about not pouring chemicals into drains.	The Environmental Management System (EMS) requires employees to complete online training to help increase environmental awareness. EMS awareness will continued to be offered to new employees.
PE03 Revised	Communication	Environmental Office	Job	No illicit storm water incidents occurred during past year requiring that a special notice be posted on the website or an email be sent to workforce.	Continue to educate workforce about preventive measures such as good housekeeping, proper storage and handling of oil/chemicals to prevent release into stormwater. Review spill prevention control procedures with personnel involved with bulk delivery of oil at boiler plant and roads & grounds tank areas. Conduct Earth Day celebration events and conduct voluntary facility wide clean-up.
Revised					
Revised					

Revised						
---------	--	--	--	--	--	--

1a. Additions

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)	Planned Activities
PP01 Revised	Establish an NPDES Storm Water Coordinator	Environmental/Terry Garrahan	Appointment	Current coordinator has been responsible for submitting NPDES and storm water reports to State and EPA regulators.	Update Storm Water Coordinator appointment as necessary.
Revised	Meet with local conservation commission	Environmental	Projects	Coordination local conservation office has taken place for activities along lake including trimming brush near outfalls. Local state park managers have been contacted also. Brush around outfall was trimmed Fall 2009. A Master Plan A draft Environmental Assessment is being prepared by the Army COE.	The facility will continue to coordinate with the Natick Conservation Commission and notify/make available draft Master Plan EA for public review when document is available.
Revised	Training	Environmental/Terry Garrahan	Training provided	A consultant was hired in 2009 to assist with further developing best management practice. A guide was prepared to assist with complying with new MS4 Massachusetts stormwater permit which will require submitting a new Notice of Intent to EPA and state for approval.	NPDES Coordinator will attend EPA and/or state sponsored seminars/website training to learn greater detail about new MS4 stormwater regulations.
Revised					
Revised					

3a. Additions

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)	Planned Activities
ID01 Revised	Update storm water drain map	PWD/ Environmental Office	Ensure map remains updated	Map locations were reviewed during permit year 7 time period relative to updating facility-wide Oil and Hazardous Waste Contingency Plan. Outfalls have been identified in color.	A review of current drawings and maps will be conducted in preparation of submitting a new Notice of Intent which will be required to obtain approval under the new Massachusetts MS4 General Stormwater Permit. In the past some drawings concerning oil water separators and outfalls have number locations differently. Number system will be reviewed and revised as necessary.
ID02 Revised	Detect and address non storm water discharges	Environmental Office	Number outfalls inspected.	All outfalls were inspected during the past year, and no illicit discharges detected. A dry weather inspection of outfalls was completed August 8, 2010 and no illicit discharges identified. Environmental Office performs monthly inspections of outfalls..	Continue to perform annual, dry-weather inspections of outfalls. Oil Water Separators have alarm systems installed, alarm conditions will be responded to promptly. Monthly inspections of outfall locations planned.
Revised	Illicit discharge/illegal dumping hotline	Environmental Office	Establish Hotline	Spill Prevention response plans and emergency notification cards/flyers have contact numbers for HAZMAT Team Support and if spill is large enough, outside contractor support will supplement, to respond quickly to an incident. Notification requirements are an integral part of our HAZMAT plan. Personnel responsible for bulk petroleum product delivery received on-the-job training concerning bulk petroleum delivery procedures.	Routine update of our response plans will include updating emergency response numbers for contacting response personnel immediately to help reduce impacts should a spill occur.

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)	Planned Activities
CS01 Revised	Construction Site Storm Waste Control	PWD/Environmental	Projects	<p>U.S. Army CORP of Engineers (COE) procedures are followed which include standard construction storm water controls. Environmental Office representative participates in pre-design/construction meetings providing environmental compliance review. A parking lot upgrade project was completed in phases, with the earlier phase in 2008 and the later phase 2009. Construction company was required by the Environmental Office to obtain EPA permit in 2008, and permit was re-obtained for 2009 work. Contractor developed and submitted a stormwater management plan for Environmental Office review and approval</p>	<p>Comply with Army National Environmental Protection Act (NEPA) regulation 32 CFR 651, and review proposed facility projects to ensure compliance with Storm Water regulations. Army COE at the request of the Environmental Office is currently preparing a Best Management Plan in 2010. COE representative already has completed a site April 2010 in preparation of BMP plan which will be used to help prepare Notice of Intent (NOI) submission in 2010 to obtain MS4 general stormwater permit approval. Construction BMP plan will be included and/or referenced by a new MS4 Stormwater Management Plan to be prepared in 2010.</p>

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised	Post-Construction Storm Water Management	Environmental/PWD/COE	Follow-up inspections	Oil water separator (OWS) cleaning contract was awarded June 2009 for contractor to clean OWS located near buildings 14, 19 & 77	Continue to perform inspections of outdoor bulk storage areas monthly and properly maintain leak detection alarm systems (i.e. Oil Water Separators)
Revised	Outfall/drain inspections	Environmental Office	Monthly Inspection	Monthly inspections include looking for impacts that may result from construction.	Continue monthly inspection of outfalls, and at one dry weather inspection annually of each outfall location concerning impacts to may have resulted due to construction projects.
Revised					
Revised					
Revised					
Revised					
Revised					

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)	Planned Activities
GH0GH01 Revised	Pesticide Management Plan Review	PWD/Environmental	Annual Update	The Pesticide Management Plan (PMP) is reviewed annually. Usage quantities recorded, and amounts compared to previous years to show how effectively the facility is reducing chemicals. The PMP requires pesticide minimization and application. PMP reports are submitted to higher headquarter levels for review thru the Environmental Quality database and other Pest Management reporting requirements.	Maintain an updated PMP and ensure that applicator's licenses are current and coordinators receive refresher training. New coordinators will be required to complete training in accordance with Army regulations and/or policy. Follow DoD mandated program requiring compliance with local, state and federal programs.
GH02 Revised	Maintenance of Oil Water Separators (OWS)	PWD/Environmental	Annual Inspections	All OWS have been inspected during the past year.	All OWS were inspected and have been adequately maintained.
GH03 Revised	Inspect and clean out catch basins	PWD/Environmental	Annual Inspection	Catch basins were inspected during the past year.	Continue annual inspections and clean out as needed.
GH04 Revised	Sweep streets and parking lots	PWD	Annual parking lot, street sweep.	PWD has swept roads and parking areas this past year.	Annual facility sweep cleaning.
GH05 Revised	Voluntary Facility-wide Clean-up Day	PWD	Annual Clean-up days	Facility has traditionally conducted clean-up days around April/Earth Day Observance time frame. During 2009 a Fall Clean-up day took place with active involvement of workforce.	On April 30, 2010, a facility-wide clean-up day took place. This helps keeps are tidy and prevents unwanted items from getting into nearby lake.
GH05 Revised	HAZMAT Training	Environmental Office	Annual training Exercise	August 2009, HAZMAT boat/boom deployment drill.	Conduct additional HAZMAT team exercise. Next refresher scheduled for May 2010.

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)	Planned Activities
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed
 No additional comments beyond those already provided in Part III

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, 2009 through March 31, 2010)

	(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"> ▪ days sponsored ** ▪ community participation ** ▪ material collected ** 	(#)	
	(# or %)	
	(tons or gal)	
School curricula implemented	(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**	(\$)
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 vacor **	(%)

(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 ₂ % MgCl ₂ % 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/In mi. or %)
Estimated net reduction or increase in typical year sand application rate **	(±lbs/In 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

	# or y/n	
Storm water outfalls to public water supplies eliminated or relocated		
Installed or planned treatment BMPs for public drinking water supplies and their protection areas		
<ul style="list-style-type: none"> • Treatment units induce infiltration within 500-feet of a wellhead protection area 		