

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

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**EPA NPDES Permit Number: MAR042008**

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**MassDEP Transmittal Number: W-041046**

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**Annual Report Number  
& Reporting Period: #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: G. Terence Garrahan

Title: Environmental Engineer

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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: G. Terence Garrahan

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Title: Environmental Engineer

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Date: April 29., 2007

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## **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**

<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>
PE01 Revised	Stencil Storm Drains	ESHO	Job	The Environmental Safety & Health Office performed an annual inspection of storm drain stenciling.	ESHO continue annual inspection of stenciling, and submit funding request for re-stenciling requirements.
PE02 Revised	Website Posting	ESHO	Job	Spill response information posted on website letting employees know that should a release of hazardous materials occur, prompt notification and cleanup actions must be taken to minimize environmental impacts and reduce cleanup cost.	Spill response information will continue to be posted on the ESHO website. Public Works activities will be assessed under on-going NEPA review activities (Records of Environmental Consideration (RECs) and Environmental Assessments for compliance with MS4 storm water regulations.
PE03 Revised	Post Notices via website/email	ESHO	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.	Annual environmental compliance training provided to laboratory and industrial proponents will include emphasis about permit restrictions concerning discharges to drainage systems.
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
PP01 Revised	Establish an NPDES Storm Water Coordinator	ESHO/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	ESHO	Projects	Construction projects are reviewed to ensure proper coordination with the local Natick Conservation Commission. Environmental Assessments have been posted on website that can be viewed by public and regulators. Local officials are notified about EA availability.	The facility will continue to coordinate with the Natick Conservation Commission and notify/make available Environmental Assessments for public review.
Revised	Training	ESHO/Terry Garrahan	Training provided	NPDES Coordinator receives recurring environmental compliance training on an annual basis. Facility-wide, annual training is provided for laboratory and industrial personnel. Training includes response measures needed to prevent spills, and contingency actions taken should a release occur.	NPDES Coordinator and facility personnel will continue to receive annual compliance training including storm water management.
Revised					
Revised					
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
ID01 Revised	Update storm water drain map	PWD/ESHO	Updated map	Site plans have been updated to include latest oil water separator installation.	Storm water maps will be updated to keep current.
ID02 Revised	Detect and address non storm water discharges	ESHO	Number outfalls inspected.	All eight (8) outfalls have been inspected during the past year, and no illicit discharges detected.	Continue to perform annual, dry-weather inspections of outfalls. Oil Water Separators have alarm systems installed, alarm conditions will be responded to promptly.
Revised	Illicit discharge/illegal dumping hotline	ESHO	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 reduces impacts should a spill occur.
Revised					
Revised					
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
CS01 Revised	Construction Site Storm Waste Control	ESHO/PWD	Projects	U.S. Army CORP of Engineers (COE) procedures are followed which include standard construction storm water controls. ESHO representatives participate in pre-design/construction meetings providing environmental compliance review.	Comply with Army National Environmental Protection Act (NEPA) regulation 32 CFR 651, and review proposed facility projects to ensure compliance with Storm Water regulations.
Revised					
Revised					
Revised					
Revised					
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
Revised	Post-Construction Storm Water Management	ESHO/PWD/COE	Follow-up inspections	Oil water separators (which have been installed throughout the facility are monitored by ESHO and contractor support to ensure that alarm systems work properly. Bulk oil equipment is inspected monthly.	Continue to perform inspections of outdoor bulk storage areas monthly and properly maintain leak detection alarm systems (i.e. Oil Water Separators)
Revised					
Revised					
Revised					
Revised					
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
GH0GH01 Revised	Pesticide Management Plan	ESHO/PWD	Annual Update	The Pesticide Management Plan (PMP) is reviewed often. 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 Coordinator recently received refresher training	Maintain an updated PMP and ensure that applicator's licenses are current and coordinators receive refresher training. Continue to be proactive in reducing the amount pesticides, including using short-term active ingredients. Follow DoD mandated program requiring compliance with local, state and federal programs.
GH02 Revised	Maintenance of Oil Water Separators (OWS)	ESHO/PWD	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	ESHO/PWD	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	PW	Annual parking lot, street sweep.	PWD has swept roads and parking areas this past year.	Annual facility sweep cleaning.
Revised					
Revised					

**6a. Additions**


**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if 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					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

**7a. Additions**


**7b. WLA Assessment**

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

No additional information to add then what is already discussed in other sections of this annual report.



**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)	
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
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 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	
<ul style="list-style-type: none"><li>• Treatment units induce infiltration within 500-feet of a wellhead protection area</li></ul>	# or y/n	