

**Municipality/Organization:** Massachusetts Department of Correction  
MCI-Shirley Complex

---

**EPA NPDES Permit Number:** MAR042006

---

**MADEP Transmittal Number:** W-041201

---

**Annual Report Number & Reporting Period:** April 1, 2012 – March 31, 2013

---

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Jeffrey J. Quick, A.I.A. **Title:** Director, Division of Resource Management

---

**Telephone #:** (508) 541-5301 x11 **Email:** [JJQuick@doc.state.ma.us](mailto:JJQuick@doc.state.ma.us)

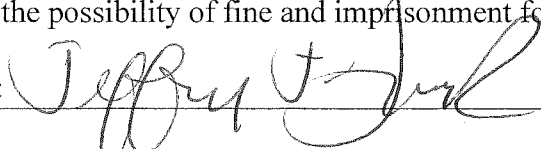
---

**Mailing Address:** 21 Needham Street, Norfolk, MA 02056

---

#### 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: Jeffrey J Quick, A.I.A.

---

Title: Director, Division of Resource Management

---

Date: 29 APRIL 2013

---

## Part II. Self-Assessment

The Department of Correction (DOC) received correspondence from the Environmental Protection Agency (EPA) on May 28, 2004 determining the Notice of Intent (NOI) submission was administratively complete. From the time the NOI's were prepared and before they were submitted the DOC began a prioritization list of areas for investigation including but not limited to:

- Entry Points into the storm drainage system(s) maintained by the DOC.
- Documentation of discharges points on and off the DOC property.
- Coordination with Town(s) that are also MS4s
- Illicit connections identification (None were found).
- Investigation of infrastructure and identification of problem drainage areas.

The storm drainage system at this location maintained by the DOC are not a combined system - storm water discharge is separate from sewer.

The DOC has held training sessions with the DOC executive board, the Directors of Engineering and Environmental Health and Safety Staff. Ongoing and informal training has continued more on a case by case basis.

Many of the permit milestones and goals have been met - others are still in progress due to financial issues. Facility utilized inmate labor to sweep streets, parking areas and picking up trash.

In FY 2011 funding was proved to repave major portions of the facility and install catch basins were chronic flooding was documented. Paving of the facility included over 145,000 square feet of existing roadways and paving. Eight existing catch basins were repaired and rebuilt. Were possible, curbing was removed and sheet flow is now allowed to discharge to grass areas.

Lastly, a full utility of map of the facility was completed.

**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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
1 Revised No	Publicize/Present SW Program to staff	Div. of Res. Management	Publicize and Present Program to	Conduct facility specific training with maintenance staff and other stakeholders in this program.	Continue with additional formal training as funding has been identified.
2 Revised No	Distribute Printed Materials	Div. of Res. Management	Create and Post Material	Provide written updates and progress reports to management staff. Quarterly newsletter distributed.	Provide progress reports to management staff
3 Revised Yes	Intranet Posting Preparation of Newsletter	Div. of Res. Management	Post Materials	Completed separate Intranet page. In addition, a newsletter that highlighted the Stormwater Phase II program was completed and distributed.	Intranet page within the DOC was completed. Periodic updates
4 Revised No	Stenciling	Div. of Res. Management	Complete stenciling	Stenciling was not completed due to security concerns	Selective Stenciling is in order but need to establish procedure department wide. Still need to complete
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
5 Revised No	Form Stormwater Committee	Div. of Res. Management	Form Committee	Formed Stormwater Committee that is part of the DOC's State Sustainability Council	Committee needs to meet once per year.
6 Revised No	Staff input	Div. of Res. Management	Solicit Input and Implement Ideas	Input has been received. Investigation and some locations prioritized. Few repairs are necessary.	Continue with staff education
Revised					
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
7 Revised No	Map Drain System	Div. of Res. Management	Complete Mapping	Mapping completed. Outfall locations sent to EPA during NOI submittal. Began work mapping outfalls with GIS software.	Mapping is complete.
8 Revised No	Dry/Wet Weather Surveys	Div. of Res. Management	Document and Prioritize	Relining of sewer had occurred in 2000 for Shirley. Wet weather survey did not identify piping problem.	System wide inspection to be completed.
9 Revised No	Correct Problems	Div. of Res. Management	Make Repairs and Document	No areas identified area that need immediate repair.	With new paving more routine inspections
10 Revised No	Policy for Enforcement	Div. of Res. Management	Prepare Policy	Stormwater Committee to be charged with preparation of policy. Policy in place that ties in sustainable practices with this BMP.	Update policy as needed. Review for improvements.
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
11 Revised	Construction Management	Div. of Res. Management	As Necessary	Installation of Greensand Filter and building and associated force main. Work is complete	
Revised				Evaluate Paving for trouble areas	
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
12	Post Construction Activities	Div. of Res. Management	Annual Inspection	Paving of roadways	Monitor and correct as needed.
Revised					
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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 10
13 Revised No	Develop O&M Plan	Div. of Res. Management		Worked on plan that has catch basins cleaned every 12 to 18 months.	Continue with evaluation of program
14 Revised No	Execute O&M Plan	Div. of Res. Management		With new paving O&M activities incorporated in to routine inspections major maintenance and improvements made.	Review and Execute O&M Plan
15 Revised No	Long Term Planning	Div. of Res. Management		Evaluated what is needed to implement O&M plan.	Modify as necessary
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
	NA				
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions


7b. WLA Assessment

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

At the Shirley Complex, the location of the drain lines and outfall have been identified. The DOC has a very good understanding on the drainage system and has taken the necessary steps to prevent pollution from entering the drain system. The complex does have program utilizing inmate labor to clean up trash and road sand. The upcoming year will require an inspection of the drainage system and evaluate efforts for street sweeping, catch basin cleaning, repairs and other drain maintenance.

Greensand Filter construction project completed and areas have been stabilized.

Currently inmate labor is used to pick up litter and other road side debris several times per year.

No illicit connections were found.

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

**Programmatic**

Stormwater management position created/staffed	YES	Staff by DRM
Annual program budget/expenditures	(\$)5,000	

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	100%	DOC Staff only
Stormwater management committee established	Yes	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	NA	
Household Hazardous Waste Collection Days	NA	
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	NA	

### Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place	Under	Drafted	Adopted
	Prior to Phase II	Review		
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management		X		
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination		X		
▪ Erosion & Sediment Control		X	X	X
▪ Post-Development Stormwater Management		X		

### Mapping and Illicit Discharges

Outfall mapping complete	100%		
Estimated or actual number of outfalls	(One (1))		
System-Wide mapping complete	(100%)		
Mapping method(s)			
▪ Paper/Mylar	100 %		
▪ CADD	0%		
▪ GIS	80 %		Draft of Map
Outfalls inspected/screened	100 %		
Illicit discharges identified	Zero (0)		
Illicit connections removed	NA		
% of population on sewer	(100 %)		
% of population on septic systems	(0%)		

**Construction**

Number of construction starts (>1-acre)	One	paving
Estimated percentage of construction starts adequately regulated for erosion and sediment control	NA	
Site inspections completed	NA	
Tickets/Stop work orders issued	NA	
Fines collected	NA	
Complaints/concerns received from public	None	

**Post-Development Stormwater Management**

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	NA - 0%	
Site inspections completed	1	
Estimated volume of stormwater recharged	NA	

**Operations and Maintenance**

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	1 time / year	In permit yr. 9
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	NA	
Total number of structures cleaned	12	8
Storm drain cleaned	6	4
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	2 cy
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		X
Cost of screenings disposal	(\$)	\$2000

Average frequency of street sweeping (non-commercial/non-arterial streets)	NA
Average frequency of street sweeping (commercial/arterial or other critical streets)	TBD
Qty. of sand/debris collected by sweeping	(lbs. or tons)
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)
Cost of sweepings disposal	(\$)
Vacuum street sweepers purchased/leased	Contracted Services
Vacuum street sweepers specified in contracts	TBD

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)	
▪ Fertilizers	NA
▪ Herbicides	NA
▪ Pesticides	NA

Anti-/De-Icing products and ratios	10% NaCl 0% CaCl <sub>2</sub> 0% MgCl <sub>2</sub> 0% CMA 0% Kac 0% KCl 90% Sand
Pre-wetting techniques utilized	-
Manual control spreaders used	-
Automatic or Zero-velocity spreaders used	-
Estimated net reduction in typical year salt application	TBD
Salt pile(s) covered in storage shed(s)	Yes
Storage shed(s) in design or under construction	NA