

Municipality/Organization: Massachusetts Department of Correction
MCI-Concord

EPA NPDES Permit Number: MAR 042016

MaDEP Transmittal Number: W-041203

Annual Report Number & Reporting Period: April 1, 2010 – March 31, 2011

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information


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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: Jeffrey J Quick, A.I.A.

Title: Director, Division of Resource Management

Date: 3/29/2012

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.

Each DOC operation was critically evaluated to determine what repairs were necessary. In summary, the storm drainage systems operated by the DOC are not combined system where sewer and storm water discharged.

Many of the milestones and goals have been met – most are still in progress. The major accomplishment is that the storm drains are being systematically cleaned. All of the catch basins have been stenciled at the facility but will require additional stenciling this coming year. Concerns have been expressed that labeling of the storm drains inside the secure part of the facility presents a security issue.

During the summer of 2010, a white discharge was noted coming into the Assabet River from the DOC stormwater outfall. Reports of trash and other debris at the outfall were noted. A 5 month investigation found that a storm drain near the kitchen was being used to discard milk and other cooking fluids – this practice was stopped immediately. Testing of the water from the outfall identified caffeine and other pharmaceuticals. Through extensive investigation, a break in a sewer line and cracked drains were found to be seeping into the storm drains. This problem has been corrected.

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 – Permit Year 8
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 training as funding is identified.
2 Revised No	Distribute Printed Materials	Div. of Res. Management	Create and Post Material	Provide written updates and progress reports to management staff.	Provide written updates and progress reports to management staff
3 Revised Yes/New	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.	Periodic updates as needed.
4 Revised No	Stenciling	Div. of Res. Management	Complete stenciling	100 % Stenciling completed	Selective Stenciling is in order but need to establish procedure department wide..
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 – Permit Year 8
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 to meet every two to three months
6 Revised No	Staff input	Div. of Res. Management	Solicit Input and Implement Ideas	Input has been received. Investigation and some locations prioritized. Repairs are necessary. Recently reviewed issues at Concord with our Fiscal to stress the need to be proactive with maintenance.	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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
7 Revised	Map Drain System	Div. of Res. Management	Complete Mapping	Mapping completed.	Additional information to be added that include other underground utilities as a result of river discharge.
8 Revised	Dry/Wet Weather Surveys	Div. of Res. Management	Document and Prioritize	Prioritize those catch basins that require repairs. Cleaning of catch basins at vehicle trap to be put on more frequent cleaning schedule.	Clean and inspect problematic catch basins.
9 Revised	Correct Problems	Div. of Res. Management	Make Repairs and Document	Limited budget prevented all repairs and improvement from being made.	Pending budget catch basin and piping repairs as needed
10 Revised	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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
11 Revised	Construction Management	Div. of Res. Management	As Necessary	None Planned	None Planned
Revised					
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
12 Revised	Post Construction Activities	Div. of Res. Management	As Required	PV system installation completed.. Surface is stabilized with gravel.	None Planned
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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
13 Revised	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	Execute O&M Plan	Div. of Res. Management		Limited funding did not allow all work to be completed, although some major maintenance and improvements made.	Review and Execute O&M Plan
15 Revised	Long Term Planning	Div. of Res. Management		Evaluated what is needed to implement O&M plan.	Modify as necessary

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 7 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 8
Revised Yes	Need to collect sample outfall.	DRM	Annual sample	Report of discharge into Assabet River.	Need to time sample collection with rainfall events.
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

The Concord and NECC Facilities has one outfall. The NECC facility discharges to a vegetated swale but doesn't have a connection with surface waters. The Concord facility discharges into the Assabet River. Several attempts have been made to collect samples for TMDL sampling. The DOC has not been able to time it when sample collection could take place with rainfall events. The limited number of drain lines and outfall have been well documented. The primary drainage system discharges into a detention basin on the property maintained by the DOC. The coming year will require new efforts for catch basin cleaning and other drain maintenance.

During the summer of 2010, a e discharge was noted coming into the Assabet River from the DOC stormwater outfall. A 5 month investigation found that a storm drain near the kitchen was being used to discard milk and other cooking fluids – this practice was stopped immediately. Testing of the water from the outfall identified caffeine and other pharmaceuticals. Through extensive investigation, a break in a sewer line and cracked drains were found to be seeping into the storm drains. This problem has been corrected.

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

No illicit connections were found.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

	Yes	Staffed by DRM
Stormwater management position created/staffed	Yes	
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	100%	DOC Staff
Stormwater management committee established	Yes	
Stream teams established or supported	No	
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 Prior to Phase II	Under Review	Drafted	Adopted
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control	X			
▪ Post-Development Stormwater Management				
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 %
Outfalls inspected/screened	10 %

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)	None
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	NA
Estimated volume of stormwater recharged	NA

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	None
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	NA
Total number of structures cleaned	2
	In year 5 of permit

Storm drain cleaned	None
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)	
Cost of screenings disposal	(\$)
Average frequency of street sweeping (non-commercial/non-arterial streets)	NA
Average frequency of street sweeping (commercial/arterial or other critical streets)	0/yr contract
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	NO

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	0% NaCl 0% CaCl ₂ 0% MgCl ₂ 0% CMA 0% Kac 0% KCl 0% Sand	Figures not available
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	

