

**Municipality/Organization:** Massachusetts Department of Correction  
MCI-Concord

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**EPA NPDES Permit Number:** MAR 042016

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**MaDEP Transmittal Number:** W- 041203

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**Annual Report Number & Reporting Period:** April 1, 2007 – March 31, 2008

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5/15/08

## 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

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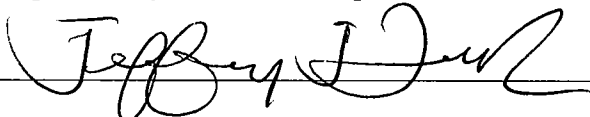
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#### Certification:

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: Jeffrey J Quick, A.I.A.

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Title: Director, Division of Resource Management

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Date: 5/09/2008

## **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.**

**The DOC has held numerous training sessions with the DOC executive board, the Directors of Engineering and Environmental Health and Safety Staff. Training will continue through the summer and in the later part of the current fiscal year and next fiscal year as funding becomes available. Training included an introduction of the program, the importance of the program and goals that were set for the first 5 years of the permit program.**

**Many of the milestones and goals have been met - others 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.**

**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><br>(Reliance on non-municipal partners indicated, if any)   | <b>Planned Activities – Permit Year 6</b>                        |
|-------------------------|---|--------------------------------------|----------------------------------|--|--|
| 1<br>Revised<br>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<br>Revised<br>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<br>Revised<br>Yes/New | Intranet Posting<br>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<br>Revised<br>No      | Stenciling                                    | Div. of Res. Management              | Complete stenciling              | 100 % Stenciling completed .   | Upkeep will be required.   |
| Revised                 |   |                                      |                                  |  |  |
| Revised                 |   |                                      |                                  |  |  |

**1a. Additions**

|  |  |  |  |  |  |
|--|--|--|--|--|--|
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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<br>(Reliance on non-municipal partners indicated, if any)  | Planned Activities – Permit Year 6          |
|------------|---------------------------|-------------------------------|-----------------------------------|--|---|
| 5          | 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 |
| Revised No |                           |                               |                                   |  |   |
| 6          | 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 No |                           |                               |                                   |  |   |
| Revised    |                           |                               |                                   |  |   |
| Revised    |                           |                               |                                   |  |   |
| Revised    |                           |                               |                                   |  |   |
| Revised    |                           |                               |                                   |  |   |

### 2a. Additions

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### 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  |
|---------------|-------------------------|-------------------------------|---------------------------|--|---|
| 7<br>Revised  | Map Drain System        | Div. of Res. Management       | Complete Mapping          | Mapping completed.   | Annual inspections and update as needed.  |
| 8<br>Revised  | Dry/Wet Weather Surveys | Div. of Res. Management       | Document and Prioritize   | Two storm drains require minor repairs. Funding limited ability to make any repairs.   | Prioritize those catch basins that require repairs in FY2009. Cleaning of catch basins at vehicle trap to be scheduled. |
| 9<br>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<br>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

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#### 4. Construction Site Stormwater Runoff Control

| BMP ID #      | BMP Description         | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 5<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 6   |
|---------------|-------------------------|-------------------------------|--------------------|---|--|
| 11<br>Revised | Construction Management | Div. of Res. Management       | As Necessary       | No Activity   | Installation of Photovoltaic system on site will require erosion control plan. |
| Revised       |                         |                               |                    |   |  |
| Revised       |                         |                               |                    |   |  |
| Revised       |                         |                               |                    |   |  |
| Revised       |                         |                               |                    |   |  |
| Revised       |                         |                               |                    |   |  |

#### 4a. Additions

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**5. Post-Construction Stormwater Management in New Development and Redevelopment**

| <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<br/>(Reliance on non-municipal partners indicated, if any)</b> | <b>Planned Activities – Permit Year 6</b>   |
|-----------------|------------------------------|--------------------------------------|---------------------------|---|---|
| 12              | Post Construction Activities | Div. of Res. Management              | As Required               | No Activity   | <b>Installation of Photovoltaic system on site will require erosion control plan.</b> |
| Revised         |                              |                                      |                           |   |   |
| Revised         |                              |                                      |                           |   |   |
| Revised         |                              |                                      |                           |   |   |
| Revised         |                              |                                      |                           |   |   |
| Revised         |                              |                                      |                           |   |   |
| Revised         |                              |                                      |                           |   |   |

**5a. Additions**

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**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<br>(Reliance on non-municipal partners indicated, if any)                  | Planned Activities – Permit Year 6  |
|---------------|--------------------|-------------------------------|--------------------|--|-------------------------------------|
| 13<br>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<br>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<br>Revised | Long Term Planning | Div. of Res. Management       |                    | Evaluated what is needed to implement O&M plan.  | Modify as necessary                 |
| Revised       |                    |                               |                    |  |                                     |
| Revised       |                    |                               |                    |  |                                     |
| Revised       |                    |                               |                    |  |                                     |

**6a. Additions**

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**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 5<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 6                   |
|----------------|---------------------------------|-------------------------------|--------------------|---|--|
| Revised<br>Yes | Need to collect sample outfall. | DRM                           | Annual sample      | Dry spell during the permit year limited opportunities to sample.                             | Need to time sample collection with rainfall events. |
| Revised        |                                 |                               |                    |   |  |
| Revised        |                                 |                               |                    |   |  |
| Revised        |                                 |                               |                    |   |  |
| Revised        |                                 |                               |                    |   |  |
| Revised        |                                 |                               |                    |   |  |
| Revised        |                                 |                               |                    |   |  |

**7a. Additions**

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**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.

A sewer overflow that resulted from a blockage in the piping occurred in April and May 2007 that was reported to DEP. The sewer overflow did in fact enter the storm drain system. The exact quantity is not known but is estimated at several hundred gallons. Most of the sewage overflow was contained to the ground surface.

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**

|  |      |                |
|--|------|----------------|
| Stormwater management position created/staffed | Yes  | Staffed by DRM |
| 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

|  | In Place<br>Prior to<br>Phase II | Under<br>Review | Drafted | Adopted |
|--|----------------------------------|-----------------|---------|---------|
| Regulatory Mechanism Status (indicate with "X")    |                                  |                 |         |         |
| ▪ 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                                  | 0 %      |  |
| 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 3 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<br>0% CaCl <sub>2</sub><br>0% MgCl <sub>2</sub><br>0% CMA<br>0% Kac<br>0% KCl<br>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  |  |