

Massachusetts Department of Transportation

Letter of Transmittal

Environmental Engineering
668 South Street
Weston, MA 02493

Date: April 29, 2010

To: **US EPA - Region 1**

5 Post Office Square – OEP06-01

Boston, MA 02109-3912

Attention: Glenda Velez -CIP

To: **MA DEP**

One Winter Street - 5th Floor

Boston, MA 02108

Attention: Fred Civian

Sending

- ☐ Estimates
- ☐ Plans
- ☐ Shop Drawings
- ☐ Copy of Letter

- ☐ Proposals
- ☐ Prints
- ☐ Samples
- ☐ Change Order

☒ Report

7th Annual Report
NPDES Phase II

Sending 1 hard copy to each of the above and 1 electronic copy to stormwater.reports@epa.gov

These Are Transmitted:

- ☐ For Approval
- ☐ For Your Use
- ☒ As Required
- ☐ For Review & Comment


Rick McCallough
Director of Environmental Engineering
Massachusetts Department of Transportation

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PHASE II
GENERAL PERMIT FOR SMALL MS4 OPERATORS
7TH ANNUAL REPORT**

Submitted By:
**Former Massachusetts Turnpike Authority
Environmental Engineering
668 South Avenue
Weston, MA 02493**

Submitted To:

US Environmental Protection Agency - Region 1
5 Post Office Square – OEP06-01
Glenda Velez
Boston, MA 02109-3912

MA Department of Environmental Protection
One Winter Street - 5th Floor
Fred Civian
Boston, MA 02108

and to
stormwater.reports@epa.gov

**Reporting Period - May 1, 2009 - May 1, 2010
MaDEP Transmittal Number: W 040658
Permit Number: Pending**

7th Annual Report - NPDES General Permit

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Summary of Transportation Reform and it's impact to the Former Massachusetts Turnpike Authority

Senate No. 2087 - Chapter 25 of the Acts of 2009, An Act Modernizing the Transportation Systems of the Commonwealth was passed by the House and Senate on June 18th, 2009 and subsequently signed by the governor into law on June 25th, 2009. On November 1st, 2009, the new transportation entity known as Massachusetts Department of Transportation was enabled to exercise its powers under chapter 6C and other provisions of this act. In summary, this law merged the former Massachusetts Turnpike Authority, former Massachusetts Highway Department, the Massachusetts Port Authority's Maurice J. Tobin Memorial Bridge, and various Department of Conservation parkways, vehicular bridges and underpasses into the highway division of the newly created Massachusetts Department of Transportation.

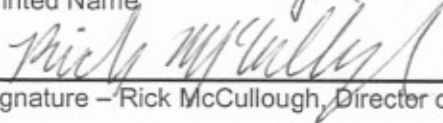
Given that MTA, MHD, DCR and MassPort have all previously filed independent Notice of Intents for the 2003 Small MS4 General Permit, there is now much work to be done to combine these independent efforts/applications into one. Therefore, this annual report is prepared and submitted on behalf of the former Massachusetts Turnpike Authority, for the period of its existence within this reporting timeframe, with the foreknowledge that a new Notice of Intent will be jointly filed. As a result, this report will not include comments on future goals, scheduling, etc.

Section 1 Certification

Massachusetts Turnpike Authority
668 South Avenue
Weston, MA 02493

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, I certify that 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.

<u>Rick McCullough</u>	<u>4/29/10</u>
Printed Name	Date
<u></u>	
Signature - Rick McCullough, Director of Environmental Engineering	

Additional Information For

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Storm Water Management Program Time Frames

Minimum Control	BMP ID	Description of BMP	Measureable Goals	Responsible Dept	Permit Years			
No. 1 - Public Education / Outreach Program								
No. 2 - Public Involvement Participation								
No. 3 - Illicit Discharge Detection and Elimination			Schedule has intentionally been left blank as a result of legislation passed on July 1, 2009 entitled Chapter 25 of the Acts of 2009 AN ACT MODERNIZING THE TRANSPORTATION SYSTEMS OF THE COMMONWEALTH effective November 1, 2009. This legislation combined several Massachusetts transportation agencies into one entity now referred to as Massachusetts Department of Transportation.					
No. 4 - Construction Site Runoff Control								
No. 5 - Post-Construction Stormwater Mgmt.								
No. 6 - Good Housekeeping								

Self-Assessment

The Massachusetts Turnpike Authority (MTA) has completed the required self-assessment for reporting Year 7. The Massachusetts Turnpike (Interstate 90) has urbanized areas in all, or a portion of the following communities: Russell, Westfield, West Springfield, Chicopee, Ludlow, Wilbraham, Palmer, Sturbridge, Charlton, Oxford, Auburn, Millbury, Grafton, Weston, Westborough, Hopkinton, Southborough, Framingham, Natick, Wayland, Weston, Newton, and Boston. Some of the regulated entities within the urbanized areas include interchange facilities, maintenance depots, state police barracks, tunnels, stormwater pump stations, and various leased properties. The receiving waters of the stormwater discharge include: brooks, streams, ponds, rivers, reservoirs, Boston Inner Harbor, and unnamed and or isolated ponds, tributaries, wetlands and streams.

For permit Year 7, the MTA continued with its effort to improve storm water quality through the implementation of Best Management Practices (BMPs) for the six minimum control measures. Due to transitioning into the Massachusetts Department of Transportation, (MassDOT) self assessment is limited. Please refer to the Summary located at the beginning of this report for further explanation.

Minimum Control Measure 1 – Public Education and Outreach on Stormwater Impacts BMPs: 1A Educational Display, 1B MTA Website, 1C Informational Pamphlet

Overview and Objectives

The goal is to educate the motoring public and internet users about stormwater related practices that they are able to implement to help improve the quality, and potentially reduce the volume, of stormwater discharge.

MTA website is replaced by MassDOT's site - <http://www.MassDOT.state.ma.us/Highway/>.

BMP Progress

1A Educational Display – MTA closed its Tourist Information Centers where displays were to be.

1B MTA Website – A new website for Massachusetts Department of Transportation was available beginning in November, 2009.

1C Informational Pamphlets - MTA closed its Tourist Information Centers where pamphlets were to be available.

Data Results

The benefits of these BMPs are quantified in terms of direct or indirect measures. Given that the information provided to the public can not be implemented by the public on the MTA interstate highway, it is not possible to measure the impact of the MTA's efforts.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

Relying on Other Entities

To be addressed in the MassDOT NOI.

Minimum Control Measure 2 – Public Involvement/Participation BMPs: 2A Trash Pick-up, 2B Storm Drain Stenciling

Overview and Objectives

Overview and Objectives, (con't)

Although the intent of this Minimum Control Measure is to encourage the public's participation, there are limitations with regard to the public's actual physical involvement/participation within and on I-90.

The MTA had employees dedicated to trash pick up and maintaining a clean road. The MTA devised and implemented a tracking method for quantifying roadside trash pick-up. This information will be shared with MassDOT.

Storm drain stenciling takes place at three of the leased service areas. Several years ago, the service area tenants labeled the storm drains with Clearwater Technology Ultra-Drain Markers. The product is scratch resistant and claims to have a life span of 7 – 10 years. The tenants inspect and replace the makers as needed.

BMP Progress

2A Trash Pick-up – Road side trash pick-up in the urbanized areas was performed according to schedule and sporadically recorded.

2B Storm Drain Stenciling – The stencils were inspected during the semi-annual catch basin cleaning and replaced if necessary.

Data Results

The MTA maintenance depot personnel continuously pick up trash along the roadway, in service areas, around building structures and landscaped areas. Historical data will be shared with MassDOT.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

Relying on Other Entities

To be addressed in the MassDOT NOI.

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

BMPs: 3A Mapping Stormwater Outfalls, 3B Non-Stormwater Discharge Program

3C Develop Illicit Discharge Plan, 3E Educate Public and Employees

Overview and Objectives

The MTA looks forward to combining efforts with the former MHD, DCR and MassPort with regard to devising a comprehensive and cohesive objective for this minimum control measure.

BMP Progress

3A Mapping Stormwater Outfalls – The MTA's field verification and mapping was nearly 100% complete before the merger that caused original property boundaries to be eradicated and new boundaries to be established. The MTA made significant progress in updating their base mapping. Urbanized Area limits taken from The Bureau of Census and all applicable resource area data layers available on MassGIS were successfully transported into the MTA's mapping data base.

3B Non-Stormwater Discharge Program – This BMP is addressed under BMP 3C.

3C Develop Illicit Discharge Plan – The MTA recognizes that progress on full implementation of the IDDE plan has not been obtained. Given the magnitude of this task in terms of quantity and location of structures, the MTA was unable to commit the manpower and resources needed to fully implement.

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

**BMPs: 3A Mapping Stormwater Outfalls, 3B Non-Stormwater Discharge Program
3C Develop Illicit Discharge Plan, 3E Educate Public and Employees (con't)**

3E Educate Public and Employees - As required by the General Permit, in 2006 we proposed voiding BMP 3D and replacing it with this one. The MTA implemented this BMP via their website which has now been replaced with the MassDOT website.

Data Results

No new data acquired.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

Relying on Other Entities

To be addressed in the MassDOT NOI.

Minimum Control Measure 4 – Construction Site Stormwater Runoff Control

BMPs: 4A Construction Runoff Program, 4B Construction Plan Review

Overview and Objectives

The MTA's objective was to minimally impact stormwater runoff during construction projects having land disturbance of 1 acre or greater. As part of the Construction Runoff Program, the MTA would educate its' personnel, and contractors' personnel, on the importance of installing and maintaining proper erosion and sedimentation control. Staff members from the Environmental Engineering Department were a part of the design review process and the pre-construction meeting. The MTA staffed MTA construction sites with an inspector that monitored the everyday activities of the project. All federal, state and local environmental permits for each project were included in the Contract Documents.

For future contracts, state specifications will be adopted.

BMP Progress

4A Construction Runoff Program – A staff member for the Environmental Engineering department would review design plans and attend pre-construction meetings for projects that had environmental permitting.

4B Construction Plan Review – During Year 7, the Environmental Engineering staff reviewed projects that required federal, state, and local environmental permitting or had the potential to impact stormwater runoff. Sediment and erosion control measures were added to the projects and also incorporated into the Contract Specifications.

Data Results

No data has been collected at this time that can be analyzed or quantified.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

Minimum Control Measure 4 – Construction Site Stormwater Runoff Control

BMPs: 4A Construction Runoff Program, 4B Construction Plan Review, (con't)

Relying on Other Entities

To be addressed in the MassDOT NOI.

Minimum Control Measure 5 – Post-Construction Stormwater Runoff

BMPs: 5A Post-Construction Runoff Program, 5B Site Plan Review, 5C Stormwater System Maintenance Plan

Overview and Objectives

Previous to the merger, the Environmental Engineering Department would review most design plans. Projects with land disturbance of 1 acre or greater were reviewed to ensure that long-term structural and or non-structural stormwater control BMPs were considered in the design process. It is anticipated that, although, the transition is still ongoing, a standardized design review will be implemented and modified as needed.

BMP Progress

5A Post-Construction Runoff Program – The implementation phase of this Program has not been completed to date.

5B Site Plan Review – Several projects were reviewed for environmental compliance in 2010.

5C Stormwater System Maintenance Plan – Storm water maintenance of the Authority's roadway and tunnels is an ongoing, regular and continuous process that occurs primarily for safety of the motoring public as well as structural integrity and other reasons.

Data Results

No data exists at this time that can be analyzed or quantified.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

Relying on Other Entities

To be addressed in the MassDOT NOI.

Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations

BMPs: 6A Training of Employees, 6B Catch Basin Cleaning Program, 6C Street Sweeping, 6D Landscaping and Lawn Care

Overview and Objectives

The overview for this particular MCM, is to employ good housekeeping practices in the field and educate employees about good housekeeping practices. Catch basin cleaning and street sweeping occurred regularly throughout the year on I-90. Since these two BMPs were performed regularly, a tracking program was created and implemented to measure the volume of cleanings removed in both operations. Additionally, catch basin cleaning and street sweeping, were implemented at the three leased service areas. Historical data will be shared with MassDOT. The MTA resumed herbicide spraying in 2007.

Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations

BMPs: 6A Training of Employees, 6B Catch Basin Cleaning Program, 6C Street Sweeping, 6D Landscaping and Lawn Care, (con't)

BMP Progress

6A Training of Employees – The MTA trained employees when able.

6B Catch Basin Cleaning Program - Catch basin cleaning was performed on I-90 and on leased properties according to schedule and sporadically recorded. Historical data will be shared with MassDOT.

6C Street Sweeping – Street sweeping was performed on I-90 and on leased properties according to schedule and sporadically recorded. Historical data will be shared with MassDOT.

6D Landscaping and Lawn Care – Herbicide spraying was performed on the I-90 right-of-way in accordance with the Authority's approved Vegetative Management Plan (VMP). Spraying of herbicides was done by qualified Authority personnel and was kept to a minimum. Herbicides that are DAR approved for sensitive area spraying were used. Proper permitting was obtained.

Data Results

The data hasn't been analyzed at this time.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

Relying on Other Entities

To be addressed in the MassDOT NOI.

Minimum Control Measure 7 – TMDL

Overview and Objectives

The goal of the MTA was to discharge storm water run off that is compliant with Total Maximum Discharge Limits where established. Priority areas were established, data layers depicting impaired water bodies and drainage basin limits were acquired.

BMP Progress

The MTA identified and mapped impaired waterways along I-90. A list of pollutants was created for each waterway. The goal was partially met and progress was limited due to reduced resources and manpower.

Data Results

At this time, with the exception of discharge into the Charles River, no TMDL data has been collected along the roadway.

Summary of Activities for Following Year

To be addressed in the MassDOT NOI.

Best Management Practices Changes

To be addressed in the MassDOT NOI.

END