MAR043002

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PHASE II
GENERAL PERMIT FOR SMALL MS4 OPERATORS

3RD ANNUAL REPORT

Submitted By:

Massachusetts Turnpike Authority
Environmental Engineering
668 South Avenue
Weston, MA 02493

Matthew J. Amorello, Chairman

Submitted To:

United States Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, MA 02114

MA Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, MA 01608

Reporting Period - May 1, 2005 - May 1, 2006
MaDEP Transmittal Number: W 040658
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3rd Annual Report - NPDES General Permit

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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.

Rick McCullough — 5/01/06
Printed Name — Date

Signature – Rick McCullough, Director of Environmental Engineering

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Massachusetts Turnpike Authority – Self-Assessment

The Massachusetts Turnpike Authority (MTA) has completed the required self-assessment for reporting Year 3. 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 3, the MTA continued with its effort to improve the storm water quality through the implementation of Best Management Practices (BMPs) for the six minimum control measures. The progress to date is detailed in this progress report. Since the outset of the phase II storm water program, the MTA has been successful in developing and implementing many of the available Best Management Practices (BMPs). Implementation of the BMPs requires balancing the priority of available resources, given limited personnel, budgeting, changing priorities due to emergencies, and consistently keeping abreast of the daily unforeseen circumstances.

Overall, the MTA is satisfied with the BMPs that were chosen and the revised schedule that was previously submitted with the Annual Report for Year 1. This includes successfully implementing the BMPs within and on the three leased service areas. In summary, the MTA believes that reasonable progress was achieved implementing the Best Management Practices outlined in the Notice of Intent and will not be requesting any changes or modifications.

Massachusetts Turnpike Authority

Letter of Transmittal

Weston Engineering
668 South Street
Weston, MA 02493

Date: May 1, 2006

To: **U.S. EPA**
Water Technical Unit
1 Congress Street - Suite 1100
Boston, MA 02114

To: **MA DEP**
Div. of Watershed Management
627 Main Street
Worcester, MA 01608

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3rd Annual Report
NPDES Phase II

Paul Welch 5/1/06 1:58 P.M.

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Rick McCullough
Director of Environmental Engineering
MASSACHUSETTS TURNPIKE AUTHORITY

Section 3 Storm Water Management Program Time Frames

MASS PIKE

***Revised* Storm Water Manage**

Minimum Control	BMP ID	Description of BMP	Measureable Goals	Permit Year 5 April 1, 07 - May 1, 08				
				Summer 07	Fall 07	Winter 07	Spring 08	Summer 08
No. 1 - Public Education / Outreach Program	1A	Educational Displays	One display in 2 service areas Year 2, One display in 1 service area per year in Y					
	1B	Massachusetts Turnpike Authority Website	Post DEP link Year 1, Post stormwater educational information on MTA website t year 2, Update in Years 3-5					
	1C	Informational Pamphlet	Supplied once per year (fall) at service areas, Years 2, 3 and 5					
No. 2 - Public Involvement Participation	2A	Trash Pick-Up	Roadside trash pick-up on a regular basis Years 1-5, Report volume twice per ye					
	2B	Storm Drain Stenciling	Stencil catch basins located at service areas, implement Years 2-5.					
No. 3 - Illicit Discharge Detection and Elimination	3A	Mapping Stormwater Outfalls	Compile map of stormwater outfalls Year 1, Field inspect / verify 25% each year,					
	3B	Non-Stormwater Discharge Program	Evaluate existing non-stormwater discharges, Year 1. Prepare revised program, plan for adoption, Year 3. Implement Yrs 3-5.					
	3C	Develop Illicit Discharge Program	Evaluate exising revuew procedures Year 2, Submit draft plan and propose for ad Implement Years 3-5					
	3D	Video Inspection	Inspect storm drain pipes as needed to follow up on illicit discharge detection prog					
No. 4 - Construction Site Runoff Control	4A	Construction Runoff Plan	Evaluate existing protection methods Year 1, Prepare draft program Year 2, Prop Year 3, Implement Years. 3-5					
	4B	Construction Plan review	Continue with current review process Years 1 and 2, Adopt new review program Implement Years. 3-5					
No. 5 - Post-Constructruction Stormwater Mgmt.	5A	Post Construction Runoff Program	Evaluate existing protection methods Year 1, Prepare draft program Year 2, Prop Year 3, Implement Years. 3-5					
	5B	Site Plan Review	Continue with current review process Years 1 and 2, Adopt new site plan review p Implement program Years 3-5					
	5C	Stormwater System Maint. Plans	Continue with current process Years 1 and 2, Adopt new stormwater system maint program Year 3, Implement program Years 3-5					
No- 6 - Good Housekeeping	6A	Training of Employees	Train emplyees in new and existing good housekeeping practices Year 1, Annual 2-5					
	6B	Catch Basin Cleaning Program	Develop program for catch basin cleaning Year 1, Identify target areas Year 2, Con					
	6C	Street Sweeping	Sweep all streets once per year in Years 1-5.					
	6D	Pest Control / Landscaping and Lawn Care	Evaluate use of herbicides Years 1-5					

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 of the MTA is to educate the motoring public and web surfers about stormwater related practices that they are able to implement to help improve the quality, and potentially reduce the quantity, of stormwater discharge. The MTA will achieve this by placing stormwater related pamphlets and educational displays at some of the leased service areas and Tourist Information Centers. Over a half million visitors stop at the service areas and Tourist Information Centers each year.

The MTA has recently updated it's website to include a number of links to websites with a great deal of stormwater related information. MTA's IS Department estimates that approximately 200,000 web surfers visit the site per month. The MTA will update the newly created Environmental Information link as required.

BMP Progress

1A Educational Display – For Year 3, the MTA proposed placing one display at one Service Area. Instead, the MTA placed multiple posters at two of the Service Areas. The posters displayed were prepared by the 8th grade class from the Groton-Dunstable Regional Middle School. The MTA is satisfied with the progress made in Year 3.

1B MTA Website – Several new stormwater related links and informational pages were posted on the MTA website including a new section devoted to Environmental Information. The MTA is satisfied with the progress made in Year 3.

1C Informational Pamphlets – The MTA purchased a template of stormwater informational pamphlets from the Washington State Puget Sound Action Team. The pamphlets were modified to reflect the local environment and were stocked in the brochure racks at two of the MTA Tourist Information Centers. The brochure racks were replenished with pamphlets as needed. The MTA is satisfied with the progress made in Year 3.

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 roadway, it is not possible to measure the impact of the MTA's efforts. However, it is anticipated that the information provided to the public will have a positive effect in the participating publics' home and neighboring communities.

Summary of Activities for Year 4

In the fall of Year 4, the MTA will increase the proposed number of educational displays from one display in one Tourist Information Center to one display in two Tourist Information Centers and one display in two Service Areas. Additionally, the Authority will continue to provide stormwater related educational pamphlets in the Tourist Information Centers although this was not proposed in Year 4. In Year 4 additional and updated stormwater related information will be posted on the Authority's website.

Best Management Practices Changes

The MTA is satisfied with the BMPs and is not proposing any changes at this time.

Minimum Control Measure 1 – Public Education and Outreach on Stormwater Impacts BMPs: 1A Educational Display, 1B MTA Website, 1C Informational Pamphlet, (con't)

Relying on Other Entities

Given that the three service areas in the "urbanized areas" are leased properties, the MTA does rely on other entities to provide a location for the educational displays and stormwater pamphlets.

The MTA maintains a strong working relationship with its' tenants and the tenants have welcomed the displays and pamphlets into these areas. The MTA does not rely on other entities to update the MTA website.

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

Overview and Objectives

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 the Turnpike. The MTA continues to have a presence at public hearings in many of the approximately 32 communities that the Turnpike travels through. Public input, as well as direction from local governing authorities, is evaluated and considered during the design and permitting phases.

The MTA takes great pride in presenting and maintaining a clean road. The Turnpike has eight maintenance depots that have responsibility for trash pick-up beginning at the New York border and ending in East Boston, for a total of approximately 135 miles of road. The MTA collects roadside trash 24/7/365. Maintenances' diligence in trash pick-up aides in minimizing the amount of trash collecting in and traveling through the drainage infrastructure. The MTA has devised and implemented a tracking method for quantifying roadside trash pick-up and has trained personnel at each maintenance depot in using this tracking method. The data will continue to be collected, reviewed, and used to evaluate how best to achieve cleaner outfalls.

Storm drain stenciling is required to take place on three of the leased service areas. During Year 3, the MTA and the service area tenants met with Clearwater Technology to test their Ultra-Drain Marker. The product is a heavy duty plastic construction, scratch resistant storm drain marker that claims to have a life span of 7 – 10 years. The tenants purchased the makers and labeled the storm drains at each location as required. The MTA will remain intimately involved in the oversight of storm drain stenciling within the service areas.

BMP Progress

2A Trash Pick-up – Road side trash pick-up in the urbanized areas was performed and recorded according to schedule. Approximate volume of road side trash removed has been calculated. The MTA is satisfied with the progress made in Year 3.

2B Storm Drain Stenciling – Catch basins at the three service areas were stenciled in Year 3. The MTA is please that long-lasting stencils were placed as opposed to painted stencils.

Data Results

At this time, roadside trash pick-up data has been collected for nearly 3 years. The maintenance depots have reported, according to schedule, the total volume of roadside trash removed. We have quantified the volume of trash removed from the roadside for the last 3 years to be approximately 160 tons. The MTA will continue to collect and evaluate data.

There is no collected data for catch basin stenciling at this time.

Minimum Control Measure 2 – Public Involvement/Participation
BMPs: 2A Trash Pick-up, 2B Storm Drain Stenciling (con't)

Summary of Activities for Year 4

Trash pick-up will remain as scheduled for Year 4. In Year 4 the MTA will identify priority areas and will be targeting clean-up efforts in these areas. The MTA anticipates inspecting drainage outfalls in priority areas and will begin to establish and analyze quantifiable measurements for these areas.

In Year 4 the MTA anticipates that storm drain stenciling will not be needed given that the long life plastic stencils were placed. We will, at a minimum, inspect the stencils and repair or replace as needed.

Best Management Practices Changes

The MTA is satisfied with the Trash Pick-up BMP and Storm Drain Stenciling BMP and is not requesting any changes.

Relying on Other Entities

The three service areas requiring storm drain stenciling are leased and therefore the MTA relies on other entities to fulfill this requirement. The MTA will continue to work with the Real Estate, Patron Services and Legal Departments to assure that the tenants follow through with the required effort to install and maintain storm drain stenciling.

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination
BMPs: 3A Mapping Stormwater Outfalls, 3B Non-Stormwater Discharge Program
3C Develop Illicit Discharge Plan, 3D Video Inspection

Overview and Objectives

The MTA proposed to map and field verify the stormwater infrastructure by the end of Year 5. Every 3 years, the MTA inspects and reports on the condition of the stormwater drainage infrastructure. Ultimately, the MTA's objective is to achieve the creation of a cohesive CAD/GIS database of all MTA urbanized areas. The MTA has approximately 135 miles of road of which more than half is within an urbanized area, a multitude of interchanges, buildings, leased facilities, bridges, vent buildings and tunnels

The Environmental Engineering Department has obtained from the Real Estate Department, an inventory of all MTA properties including leased properties. During Year 2 the MTA sorted through the inventory list and identified more closely, based on interpolated urbanized area lines, properties that are within the regulated areas. Due to the magnitude of this task, the MTA anticipates continuing to work on this task throughout the permit period. Once the information is established, the MTA will be identifying areas that have the greatest potential for illicit discharges. The Environmental Engineering Department reviews all design plans for projects that are to be constructed on MTA property or tie into MTA infrastructure. At that time, proposed connections are reviewed and evaluated for compliance with state and federal regulations. In addition, the MTA has created a design review check list that addresses non-allowable, non-stormwater discharge. As for the existing stormwater infrastructure, target areas that are more likely to have illicit discharges will be identified.

The objective of this effort is to provide the data for the Illicit Discharge program and the priority analysis.

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination BMPs: 3A Mapping Stormwater Outfalls, 3B Non-Stormwater Discharge Program 3C Develop Illicit Discharge Plan, 3D Video Inspection, (con't)

BMP Progress

3A Mapping Stormwater Outfalls – At least 75% of the drainage infrastructure in the urbanized areas has been field verified. The MTA is satisfied with the progress made during Year 3.
3B Non-Stormwater Discharge Program – This BMP will be addressed under BMP 3C in the future as it is closely tied to the Illicit Discharge Plan BMP. Combining these two BMPs makes sense from a resource allocation perspective. The MTA is satisfied with the progress made during Year 3.
3C Develop Illicit Discharge Plan – The program has been prepared. Subsequent training, information sessions and distribution will take place. The MTA is satisfied with the progress made during Year 3.
3D Video Inspection – Performed on an "as needed" basis. Portions of the drainage infrastructure in the Back Bay of Boston were video taped. The MTA is satisfied with the progress made during Year 3.

Data Results

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

Summary of Activities for Year 4

In Year 4, the MTA will work towards completing the field verification requirement. However, completion of this task is dependant upon budget and personnel availability.

The MTA has prepared an Illicit Discharge Detection and Elimination Program. The program addresses all tasks required of the Illicit Discharge Plan and the Non-Stormwater Discharge Program. In Year 4, the MTA intends to adopt and implement the program as the MTA's Illicit Discharge Detection and Elimination Program. Training sessions will also supplement the distribution of the program.

Best Management Practices Change

The MTA is satisfied with the BMPs and is not requesting any changes at this time.

Relying on Other Entities

The MTA does not rely on other entities to achieve implementation of these BMPs.

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 is to minimally impact stormwater runoff during construction projects having land disturbance of 1 acre or greater. The Authority strives to have MTA construction sites operate safely and efficiently, while raising awareness of the importance of proper erosion control. As part of the Construction Runoff Program, the MTA anticipates educating its' personnel, and contractors' personnel, on the importance of installing and maintaining proper erosion control. Depending upon the funds available, the MTA anticipates either purchasing existing erosion control handbooks, or creating handbooks that will be distributed at pre-construction meetings. Currently, all MTA construction sites are staffed with an MTA construction inspector that monitors the everyday activities of the project. All state and local environmental permits for the project are included in the Contract Documents.

Minimum Control Measure 4 – Construction Site Stormwater Runoff Control BMPs: 4A Construction Runoff Program, 4B Construction Plan Review, (con't)

Overview and Objectives, (con't)

In conjunction with educating field personnel, the Environmental Engineering Department will continue to expand its role during the design review process. Although no projects in Year 3 met the criteria for implementing the Construction Site Storm Water Run-Off Guideline, Environmental Engineering did review new projects and implemented sedimentation and erosion control requirements. Additionally, several sections in the Authority's specifications were significantly upgraded to require more stringent stormwater best management practices for all MTA projects. The Authority will continue to update the specifications sections pertaining to stormwater management as the opportunity arises.

BMP Progress

4A Construction Runoff Program – The Construction Site Stormwater Run-Off Guideline was implemented in Year 3. The MTA is satisfied with the progress made during Year 3.
4B Construction Plan Review – No projects met the 1 acre or greater requirement thereby needing to implement the Construction Plan Review. The MTA is satisfied with the progress made during Year 3.

Data Results

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

Summary of Activities for Year 4

The Construction Site Stormwater Run-off Control Guideline will continue to be used during Year 4. A supplemental design checklist entitled "Environmental Engineering Coordination Design Checklist" has been drafted. The draft will be issued to the necessary departments for review and comment and it is anticipated that this checklist will be used on all Authority projects. The Environmental Engineering Department will continue to be included in the initial and key design phases and will use the checklist as a tool to help ensure environmental compliance. Low Impact Development will be considered where and when feasible. The Environmental Engineering staff will continue to review, expand and revise the Authority's specifications. The Run-off Control Guideline will be evaluated and revised accordingly as needed.

Best Management Practices Changes

The MTA is satisfied with the BMPs that were chosen and is not proposing any changes.

Relying on Other Entities

For projects meeting this criteria, in some instances, the MTA will rely on other entities to achieve implementation of these BMPs. For construction projects meeting this criteria, either by lease or permit, the MTA intends to hold the lessee to the same standard and guideline that the MTA has committed to. The MTA is an integral part of the design review process for construction on leased properties.

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

The Environmental Engineering Department will review all design plans. Projects with land disturbance of 1 acre or greater will be reviewed to ensure that long-term structural and or non-

Minimum Control Measure 5 – Post-Construction Stormwater Runoff BMPs: 5A Post-Construction Runoff Program, 5B Site Plan Review, 5C Stormwater System Maintenance Plan, (con't)

Overview and Objectives, (con't)

structural stormwater control BMPs are considered in the design process. The Environmental Engineering Department will evaluate current methods for monitoring post-construction stormwater runoff and improve upon where needed. The MTA will strive to ensure that the BMPs that were identified in the design plan are properly constructed, inspected, maintained and or operated.

The MTA will continue to review plans and require erosion control protection where needed. The Engineering Department will also consult various publications, such as: The MA Erosion and Sediment Control Guidelines for Urban and Suburban Areas, Mass Highway Field Guide on Erosion Prevention and Sediment Control and Mass Highway Storm Water Handbook. The MTA's long-term objective is to ensure that construction projects with land disturbance of 1 acre or greater, have the minimum impact on the stormwater runoff quantity while improving the quality of stormwater runoff. Construction Inspectors are assigned to each construction project and monitor the site conditions, ensuring that resource areas are protected and are a priority. Upon review of projects that meet these criteria, the MTA is committed to preparing and implementing an operation and maintenance plan for these BMPs.

BMP Progress

5A Post-Construction Runoff Program – The Post-Construction Stormwater Run-Off Program Guideline was adopted and implemented in Year 3. This guideline addresses the needs of BMP 5A, and 5B and 5C listed below. There were no projects meeting the 1 acre or greater criteria during Year 3. The MTA is satisfied with the progress made during Year 3.

5B Site Plan Review – The Post-Construction Stormwater Run-Off Program Guideline was adopted and implemented in Year 3. There were no projects meeting the 1 acre or greater criteria during Year 3. The MTA is satisfied with the progress made during Year 3.

5C Stormwater System Maintenance Plan – The Post-Construction Stormwater Run-Off Program Guideline was adopted and implemented in Year 3. There were no projects meeting the 1 acre or greater criteria during Year 3. The MTA is satisfied with the progress made during Year 3.

Data Results

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

Summary of Activities for Year 4

In Year 2, the Environmental Engineering Department prepared a Post-Construction Storm water Run-Off Guideline that was distributed for review and comment. During Year 3, the guideline was finalized, adopted and implemented although no projects warranted its use. The guideline identifies BMP needs and the responsible party for successfully implement BMPs 5A, 5B, and 5C. As a requirement of the guideline, the Environmental Engineering department has created an Environmental Engineering Coordination Design Checklist. The checklist is in draft form and will be issued to the necessary departments for review and comment. It is anticipated that this checklist will be used on all Authority projects.

Minimum Control Measure 5 – Post-Construction Stormwater Runoff
BMPs: 5A Post-Construction Runoff Program, 5B Site Plan Review, 5C Stormwater System Maintenance Plan, (con't)

Summary of Activities for Year 4, (con't)

CA/T Project Post-Construction Stormwater Management Plan

The following information relates to the Best Management Practices (BMPs) to be implemented by the Massachusetts Turnpike Authority (MTA) to minimize the impacts of the Central Artery /Tunnel Project drainage discharges to waters of the Commonwealth, including the Charles and Millers Rivers and Boston Harbor. The BMPs described are based on commitments made in the Central Artery/ Tunnel Project's Final Supplemental Environmental Impact Statement/Report (FSEIS/R), Part I, Chapter 13, November 1990 and the development of these commitments through the final design of the drainage systems discharges in each area of the Project. The Central Artery/Tunnel Project, then under management of the Massachusetts Highway Department, prepared and submitted to DEP, the Post Construction Stormwater Management Plan in July 1997. Substantial completion of the CA/T Project highway elements was attained in January 2006. The DEP-approved capital cost-BMPs have included installation of deep-sump, hooded catch basins, precast water quality control structures (Stormceptors), trash racks for certain stormwater pump stations, and "Don't Dump" signage at storm drain inlets.

Ongoing activities include 24/7 staffing of the Project's Operations Control Center in South Boston, as described in the post construction management plan. Post-construction Stormceptor studies in the Charles River-Millers River area, also approved by DEP, are proceeding and will continue through 2006.

Best Management Practices Changes

The MTA is satisfied with the BMPs that were chosen and is not proposing any changes.

Relying on Other Entities

For projects meeting this criteria, in some instances, the MTA will rely on other entities to achieve implementation of these BMPs. Projects meeting this criteria, either by lease or permit, will be expected to meet the standards established by the Authority. The MTA is already involved in, and will remain involved in, the design review process for construction on leased properties.

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. The MTA is very conscientious about providing a clean and safe environment for the motoring public. Catch basin cleaning and street sweeping occurs regularly throughout the year on the Turnpike. Since these two BMPs are performed regularly, a tracking program was created and implemented to measure the volumes collected in both operations. The method used to gather data and measure the effect of the clean-up work will be evaluated and revised as needed.

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)

Overview and Objectives, (con't)

Two of the BMPs, catch basin cleaning and street sweeping, must also be practiced at the three leased service areas in addition to MTA properties. The MTA will continue to work with the Patron Services and Legal Departments to ensure that these required tasks are also successfully performed at leased properties within the regulated areas. In order to see this goal to fruition, the MTA anticipates working with the previously mentioned departments to create new language that is specific to these NPDES requirements to be included in future leases.

The Environmental Engineering Department will continuously review the Authority's training programs and ensure that stormwater BMPs get addressed. When training is performed by the Environmental Engineering Department, good housekeeping practices will also be covered in the training session as time allows.

The MTA does not use herbicides on the Turnpike or leased properties, therefore the MTA does not evaluate this need on a continuous basis, but will evaluate on an "as needed" basis.

BMP Progress

6A Training of Employees – Due to limited resources, the Environmental Engineering Department didn't conduct routine training sessions in Year 3, although some training of employees did occur. Prior to the onset of the winter season, annual refresher meetings were held on the Snow and Ice Policy at the MTA Maintenance Depots. Also, presentations of new and innovative stormwater best management practices and products were given by several stormwater product vendors. The presentations were attended by maintenance, engineering, and environmental engineering staff. Members of the Environmental Engineering staff also attended various seminars and training sessions on stormwater BMP. The MTA will strive to make available, more environmental awareness and good housekeeping training in the future.

6B Catch Basin Cleaning Program - Catch basin cleaning was performed throughout the Turnpike and on leased properties. The MTA is satisfied with the progress made during Year 3.

6C Street Sweeping – Street sweeping was performed throughout the Turnpike and on leased properties. The MTA is satisfied with the progress made during Year 3.

6D Landscaping and Lawn Care – Herbicide spraying is not performed on the Turnpike or leased properties.

Data Results

At this time, street sweeping and catch basin cleaning data has been collected for nearly 3 years. The maintenance department has reported, according to schedule, the approximate total volume of street sweepings and catch basin cleanings removed from Authority property. We have calculated the volume of street sweepings removed to be approximately 1300 tons and volume of catch basin cleanings removed to be approximately 450 tons. The MTA will continue to collect and evaluate data and report the benefits of these BMPs. The MTA will continue with efforts identifying priority areas and will modify maintenance priorities as needed to best suite this BMP.

Summary of Activities for Year 4

MTA maintenance employees will receive an annual refresher training class or a memorandum presenting environmental awareness and good housekeeping. Additionally, under the direction of the Authority's Environmental Engineering Director, environmental awareness training will be performed by the Authority's environmental engineering consultant this year. The maintenance

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)

Summary of Activities for Year 4, (con't)

schedule for street sweeping and catch basin cleaning, and subsequent reporting of these tasks to the Environmental Engineering Department will continue as planned. In Year 4, the MTA will continue to refine the priority areas list.

The MTA doesn't anticipate keeping data on landscaping practices since it is the MTA's current policy not to use herbicides.

Best Management Practices Changes

The MTA is satisfied with the BMPs that were chosen and is not proposing any changes.

Relying on Other Entities

Two of the BMPs, catch basin cleaning and street sweeping also occurs at the three leased service areas. Therefore, the MTA does rely on other entities to perform these tasks.

The MTA does not rely on other entities to achieve implementation of the training program.