

Municipality/Organization: Massachusetts Highway Department

EPA NPDES Permit Number: MAR043025

MaDEP Transmittal Number: W040919

Annual Report Number
& Reporting Period: No. 1: March 03-March 04

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Mr. Henry Barbaro

Title: Supervisor of Wetlands & Water Resources

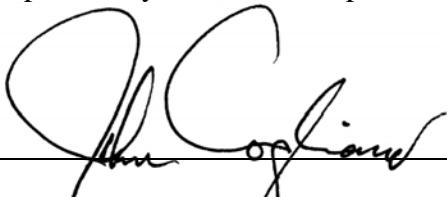
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Certification:

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: John Cogliano

Title: MassHighway Commissioner

Date: April 23, 2004

Part II. Self-Assessment

MassHighway has completed the required self-assessment and has determined that the MS4 is in compliance with all permit conditions, except for the following provisions:

I.B.2(e)(vi) MassHighway's permit eligibility with regard to the Endangered Species Act was pending at the time of our NOI submission. Until discharges are located as part of the mapping program, MassHighway can not request review from the National Marine Fisheries Service. MassHighway is not currently aware of any discharges which are impacting federal or state-listed endangered species habitat. As discharges are identified as part of the drainage inventory they will be reviewed for compliance with the endangered species program.

I.B.2(g) MassHighway's permit eligibility with regard to the National Historic Preservation Act was pending at the time of our NOI submission. Until discharges are located as part of the mapping program, MassHighway can not request review from the State Historic Preservation Officer. MassHighway is not currently aware of any discharges which are impacting historic properties. As discharges are identified as part of the drainage inventory they will be reviewed for compliance with protection of historic properties.

MassHighway received a letter dated February 3, 2004 indicating that the SWMP received was administratively deficient with regard to the three following items:

1. the requirements for preparation of a storm sewer system map that minimally shows the location of all outfalls and the names of receiving waters.
2. the requirement for a regulatory mechanism to effectively prohibit illicit discharges; and
3. the NOI certification signature (i.e., must be signed by the MassHighway Commissioner).

MassHighway is currently reviewing the proposed Storm Sewer Mapping BMP (BMP 3A) and will provide EPA/DEP with an expanded/ revised narrative regarding the proposed activities in that BMP and a revised schedule. MassHighway is currently completing the development of a Drainage Tie-In Standard Operating Procedure (SOP) which includes prohibition of illicit discharges. Once the Storm Sewer Mapping BMP is revised, a revised NOI will be submitted with the MassHighway Commissioner's signature.

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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|--|-------------------------------|--|---|--|
| 1A | MassHighway Training Assistance Program (MTAP) | MTAP | Continue MTAP Program | <p>Existing program that continues to provide training programs for MassHighway.</p> <p>MTAP sponsored a seminar titled "Urban Drainage Design" in September 2003. Approximately 30 MassHighway employees attended the Worcester seminar. The training agenda included storm drain systems, detention ponds and storm water management.</p> | Continue to provide training programs. |
| 1B | Baystate Roads | Baystate Roads | Continue Baystate Roads Program | <p>Existing program that continues to provide training programs for MassHighway.</p> <p>Baystate Roads sponsored a "Snow & Ice Control" Training Seminar on 10/28/03. The training agenda included: spreader calibration, deicing materials, plowing, and the effects of sanding on the environment. The following number of MassHighway employees attended from each District:</p> <ul style="list-style-type: none"> District 1 – 24 attendees District 2 – 31 attendees District 3 – 28 attendees District 4 – 52 attendees District 5 – 76 attendees | Continue to provide training programs. |
| 1C-1 | MassHighway Web Site | IT/ Environmental | Add Environmental Division web page to MassHighway web site. | The Environmental Division's web page has been added to the MassHighway web site. | Measurable goal complete. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|---|-------------------------------|--|---|--|
| 1C-2 | MassHighway Website | IT/ Environmental | Solicit public input and publicize storm water related initiatives using web page. | N/A | DEP and EPA have requested that MassHighway add a spot for the public to comment on storm water related activities, such as the SWMP and NOI, on the web site. |
| 1E | Construction Industries Article | Construction Division | Prepare and submit article re: Phase II requirements and MassHighway compliance procedures. | <i>MassHighway is requesting approval for a substitution for the BMP originally proposed. Several notices and brief articles on the NPDES Construction General Permit were published by the editors of CIM prior to the final issuance of the CGP for Massachusetts on August 4, 2003. It was determined that another article would be redundant.</i> | Revised measurable goal complete. |
| Revised | <i>Educational Seminars for CIM members</i> | Construction Division | <i>Provide educational seminars for CIM members on CGP Permit coverage and environmental compliance.</i> | <i>In place of the Journal article, MassHighway conducted two educational seminars for CIM members on CGP Permit coverage and environmental compliance. A presentation was made to the Environmental Committee of CIM on January 15, 2004. The presentation was made by Abby Swaine of EPA Region One and Patricia Trombly, MassHighway. The presentation covered the requirements of the NPDES CGP for Massachusetts and the MassHighway construction contract specification and requirements for compliance with the CGP. A second seminar was offered to all CIM member construction firms on February 12, 2004. This seminar was presented by Abby Swaine, EPA Region 1, Thomas Maguire, MA Department of Environmental Protection (MA DEP), Marielle Stone, MA DEP, and Patricia Trombly, MassHighway. This seminar expanded the presentation from January 15 and included more in depth information on compliance and BMPs.</i> | |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|--|-------------------------------|--|---|--|
| 1F | MassHighway/ Municipal Tie-In Review Process | Environmental/ Districts | Develop communication mechanism re: MassHighway drainage that discharges to a local MS4. Develop review process for addressing those concerns. Notify other MS4s of process. | MassHighway is in the process of updating the Drainage Tie-In Standard Operating Procedure (SOP). | Once the Drainage Tie-In SOP is completed, the sub-committee that prepared the SOP will begin to develop a program for working with the municipalities when an existing discharge from a MassHighway drainage system to a municipal system (or vice-versa) is identified. MassHighway will identify a contact person within each District and notify the municipalities of the new program and contact person. |

1a. Additions

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|--|--------------|--|--|--|--|
| | No additions | | | | |
|--|--------------|--|--|--|--|

2. Public Involvement and Participation

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|---|-------------------------------|--|---|--|
| 2A | Project Related Public Notification and Public Participation Requirements | Adopt-a-Highway | Continue to support program. | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 2C | Project Clean | Project Clean | Continue to support Project Clean. | MassHighway continues to support this program. During Permit Year 1, MassHighway responded to 2,200 citizen calls regarding debris pick-up. | MassHighway will continue to support this program. |
| 2D-1 | MassHighway Web Site | IT/ Environmental | Post Storm Water Management Plan (SWMP) to web site. | SWMP has been posted to the Environmental Division's webpage for public access. | Measurable goal complete. |
| 2D-2 | MassHighway Web Site | IT/ Environmental | Post annual reports to the web site. | N/A | The Permit Year 1 annual report will be posted to the Environmental Division web page for public access. |

2a. Additions

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|--|--------------|--|--|--|--|
| | No 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|----------------------------|-------------------------------|--|--|--|
| 3A-1 | Inventorying Pilot Project | Environmental Division | Identify pilot project and boundaries. | MassHighway has identified the Cambridge Reservoir watershed as the study area for this pilot project. | Complete identification of scope of pilot project and boundaries. |
| 3A-2 | Inventorying Pilot Project | Environmental Division | Meet with internal staff to develop inventory database specifications. | MassHighway has begun to develop a study plan for the overall pilot project including development and implementation of the drainage inventory database. | Complete identification of scope of pilot project and boundaries. |
| 3A-3 | Inventorying Pilot Project | Environmental Division | Prepare storm water inventory map and associated database for pilot project area. | N/A | Begin to prepare storm water inventory map and associated database for Cambridge Reservoir watershed. |
| 3A-4 | Inventorying Pilot Project | Environmental Division | Sample discharges with dry weather flows identified during inspection or indicated by District staff as potential illicit connections. For those discharges with constituents exceeding expected ground water values (i.e., potential illicit connections), MassHighway will conduct further investigation and prepare a corrective action plan. | N/A | Work with District staff to identify any potential illicit connections. Begin to sample discharges with dry weather flows identified during inspections or indicated by District staff as potential illicit connections. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|--|--------------------------------------|---|--|---|
| 3D | Drainage Inventory | Construction/Planning/Environmental | Include in the annual report a summary of discharges identified during the year including identification of discharges which drain to water quality impaired waterways (303d listed), public swimming beaches, stressed basins, water supply resource areas, public drinking water supplies, public swimming beaches, ORWs, shell fishing areas, and cold water fisheries. The discharge will also be reviewed for impact to endangered species, historic properties and waters with final TMDLs. | No discharges have currently been identified. | Include summary of discharges identified during the pilot project in the Permit Year 2 annual report. |
| 3E | Rest Area Leases | Environmental/Right-of-Way | Develop language, which require submission of drainage information in electronic formation, for incorporation in Rest Area lease agreements. | Submission of drainage information is now a standard condition on all new MassHighway Rest Area leases. | Measurable goal complete. |
| 3F | Drainage Tie-In Standard Operation Procedure (SOP) | Environmental | Prepare an internal draft of a revised drainage tie-in SOP. Submit to Chief Engineer. | MassHighway has begun to prepare an internal draft of a revised Drainage Tie-In SOP. The revised SOP includes language to prohibit illicit connections and discharges. | Complete revised Drainage Tie-In SOP and submit to Chief Engineer for signature and issuance to Department. |

3a. Additions

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|--|--------------|--|--|--|
| | No additions | | | |
|--|--------------|--|--|--|

4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|---|---------------------------------------|--|--|--|
| 4A | MassHighway Department Highway Design Manual | Environmental/ Construction/ Projects | Continue to comply with erosion and sediment control requirements indicated in manual. | All MassHighway projects continue to be designed in compliance with this manual. MassHighway is currently beginning the process of updating this manual. As part of this update, a separate Drainage Manual, which references the MassHighway Storm Water Handbook, will be prepared. | All MassHighway projects will continue to be designed in compliance with this manual. Continue preparation of a Drainage Manual separate from the Highway Design Manual. MassHighway anticipates that the Drainage Manual will be completed during Permit Year 3. |
| 4B | MA DEP Stormwater Management Policy | Environmental/ Construction/ Projects | Continue to meet criteria in Policy for projects subject to Wetlands Protection Act (WPA). | MassHighway designs continue to comply with the Stormwater Management Policy when projects are subject to the WPA or within urbanized areas. | MassHighway designs will continue to comply with the Stormwater Management Policy when projects are subject to the WPA or within urbanized areas. |
| 4C | NPDES Construction General Permit | Construction | Comply with general permit requirements. | For projects which were underway on August 4, 2003 and which have not achieved final stabilization, NOIs are being filed and SWPPPs are being developed as necessary through a consultant contract. For construction contracts which had not been awarded as of August 4, 2003, a Special Provision/Pay Item was included to cover the preparation of the SWPPP by the contractor. | NOIs will continue to be filed and SWPPPs created for new projects. A Special Provision/ Pay Item will be included in all new construction contracts to cover the preparation of the SWPPP by the contractor. |
| 4D | Other state environmental regulations or policy | Environmental/ Construction/ Projects | MassHighway projects will continue to be designed and constructed in accordance with all applicable state and federal environmental regulations or policy (e.g. Wetlands Protection Act, 404). | The Environmental Division reviews all projects at the 25% design stage to determine what environmental permits are required. The District Environmental Engineer or equivalent District construction staff person attends all pre-construction meetings with the selected contractor to review permit requirements for the project. | The process of design review and pre-construction coordination will continue. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|--|---------------------------------------|---|--|---|
| 4E | MassHighway Storm Water Handbook | Environmental/ Construction/ Projects | Design projects in urbanized areas in compliance with Handbook | MassHighway requires that all new construction and redevelopment activities undertaken by MassHighway, or by others that are funded in whole or in part by MassHighway, comply with the Handbook. | MassHighway will require that all new construction and redevelopment activities undertaken by MassHighway, or by others that are funded in whole or in part by MassHighway, comply with the Handbook. |
| 5A | MassHighway Storm Water Handbook | Environmental | Secure DEP ratification for MassHighway Storm Water Handbook. | The Environmental Section is working with DEP to secure ratification of the Handbook. DEP and MassHighway are currently in discussions about the few remaining issues. | MassHighway anticipates that DEP ratification of the MassHighway Storm Water Handbook will be secured during Permit Year 2. |
| 4F | Standard Specification for Highway and Bridges | Environmental/ Construction/ Projects | Continue to include erosion and pollution prevention controls in construction contracts. | Inclusion of such controls is standard practice for construction contracts issued by MassHighway. | Such controls will continue to be included in construction contracts issued by MassHighway. |
| 4G | MassHighway Research Needs Program | Environmental/ Construction | Continue support of the NETC research committees. Continue to pursue applicable research projects. | MassHighway continues to support this program and be an active member on two research committees: <ol style="list-style-type: none"> 1. Measuring Pollutant Removal Efficiencies of Stormwater Treatment Units 2. Wood Fiber Attenuation of Roadway Runoff | MassHighway will continue to support this program and remain active with research committees. |
| 4H | NPDES Phase II Notice | Construction Division | Develop and distribute a Notice from the MassHighway Chief Engineer to all pre-qualified Construction Contractors regarding the NPDES Phase II Construction Requirements. | The Notice has been drafted and is under review. | The notice will be completed and distributed. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|---|---------------------------------------|--|---|--|
| 4I | Contract Bid Item and Special Provision for Storm Water Pollution Prevention Plans (SWPPPs) | Construction Division/ Contracts | Prepare a Contract Bid Item and Special Provision for inclusion in construction contracts to be advertised for bid which exceed the one-acre disturbance threshold. | The Special Provision/Pay Item has been written for development of a SWPPP and requisite compliance activities under the CGP. This Provision is included in contracts where the work triggers the one-acre or more CGP threshold. | No further work required – measurable goal has been met. |
| 4J | Field Guide on Erosion Prevention and Sediment Control | Construction Division/ Chief Engineer | Prepare field guide and issue to Resident Engineers | The Field Guide has been drafted and is undergoing final review by the MassHighway Construction Division. It is expected to undergo broader review internally by summer, 2004. The BMP is proceeding in accordance with the proposed SWMP schedule. | Finalize field guide, including broader review internally, and issue to Resident Engineers. |
| 4K | Storm Water Pollution Prevention Plan (SWPPP) Template | Construction Division/ Districts | Prepare a SWPPP template for use by Contractors on MassHighway construction projects. Implement use of the template on all appropriate MassHighway projects. Once contractors begin to use the template, it may be revised if necessary to address input received internally and from agencies. Ultimately the template will be converted into a computer program. | Development of a template for a standardized SWPPP for MassHighway projects was initiated in 2003. By the end of Permit Year 1, the template was approximately 50% complete. | It is anticipated that the final draft will be completed and circulated for internal MassHighway review by August 2004. Based on that schedule, the SWPPP template is expected to be issued and implemented on MassHighway construction projects by January 2005. The BMP is proceeding in accordance with the proposed SWMP schedule. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 | | | | | | | | | | |
|-----------------|------------------------------|--------------------------------------|---|--|--|---------|------------|---------|--|------------------------------|------------|---------|------------|---------|---|
| 4L-1 | Training | Construction Division | Conduct annual Erosion Prevention and Sediment Control Training for MassHighway Construction Personnel. | <p>The Environmental and Construction Divisions conducted awareness training on the MS4 Permit and the proposed Construction General Permit to MassHighway Upper Management, including all District Highway Directors and District Construction Engineers in January, 2003. The Construction Division conducted training in Erosion and Sediment Control and the NPDES Construction General Permit to District Construction Resident Engineers and field staff in January and February, 2004. A total of 221 engineers attended this training.</p> <table> <tr> <td>District 1</td> <td>2/12/04</td> </tr> <tr> <td>District 2</td> <td>1/27/04</td> </tr> <tr> <td></td> <td>2/25 & 2/27/04³¹</td> </tr> <tr> <td>District 4</td> <td>2/17/04</td> </tr> <tr> <td>District 5</td> <td>2/24/04</td> </tr> </table> <p>63 55 50 22</p> | District 1 | 2/12/04 | District 2 | 1/27/04 | | 2/25 & 2/27/04 ³¹ | District 4 | 2/17/04 | District 5 | 2/24/04 | <p>MassHighway will include training on Erosion Prevention and Sediment Control in the annual training seminars given each winter. The training will also include updates on the MS4 permit and the Construction General Permit and MassHighway's new programs/requirements which have been developed in the previous year.</p> |
| District 1 | 2/12/04 | | | | | | | | | | | | | | |
| District 2 | 1/27/04 | | | | | | | | | | | | | | |
| | 2/25 & 2/27/04 ³¹ | | | | | | | | | | | | | | |
| District 4 | 2/17/04 | | | | | | | | | | | | | | |
| District 5 | 2/24/04 | | | | | | | | | | | | | | |
| 4N | Construction Bulletins | Construction Division | Issue annual construction bulletins to each District regarding storm water issues. | <p>A Bulletin was issued to all District Construction Engineers on March 4, 2003 reviewing the status of the proposed Construction General Permit (CGP) and the Construction Division's Plans to address the CGP requirements.</p> <p>Several e-mail updates were also provided through August, 2003 to update the District Construction Engineers on the status of the CGP issuance.</p> <p>A Memorandum was issued by the Deputy Chief of Construction to all District Highway Directors and District Construction Engineers on April 9, 2004 providing guidance on the review of SWPPPs and the information requirements of the CGP.</p> | <p>Issue annual construction bulletin.</p> | | | | | | | | | | |

4a. Additions

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|--|--------------|--|--|--|--|
| | No 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|--|---------------------------------------|---|---|---|
| 5A | MassHighway Storm Water Handbook | Environmental | Secure DEP ratification for MassHighway Storm Water Handbook. | The Environmental Division is working with DEP to secure ratification of the Handbook. DEP and MassHighway are currently in discussions about the few remaining issues. | MassHighway anticipates that DEP ratification of the MassHighway Storm Water Handbook will be secured during Permit Year 2. |
| 4E | MassHighway Storm Water Handbook | Environmental/ Construction/ Projects | Design projects in urbanized areas in compliance with Handbook | MassHighway requires that all new construction and redevelopment activities undertaken by MassHighway, or by others that are funded in whole or in part by MassHighway, comply with the Handbook. | MassHighway will require that all new construction and redevelopment activities undertaken by MassHighway, or by others that are funded in whole or in part by MassHighway, comply with the Handbook. |
| 5B-1 | MassHighway Roadway Maintenance Program | Maintenance | Continue to implement MassHighway maintenance program. | MassHighway continues to conduct maintenance on its roadways. | MassHighway will continue to conduct maintenance on its roadways. |
| 5C | Technology Acceptance and Reciprocity Partnership (TARP) | Environmental | Continue to participate in TARP program | MassHighway continues to participate in this program. | MassHighway will continue to participate in this program. |
| 5D | Stormwater Innovative Technology Evaluators (SITEs) | Environmental | Continue to participate in SITEs Committee which evaluates innovative BMPs. | MassHighway continues to participate in this program. | MassHighway will continue to participate in this program. |
| 5E | Highway Runoff Contaminant Model | Env. Div. Consultant | Develop and calibrate contaminant loading model. | MassHighway is currently in the process of securing funding for this project. A funding request has been submitted to the Federal Highway Administration (FHWA). | Once funding is secured, MassHighway will authorize its consultant to begin the development of the loading model. |

5a. Additions

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|--|---------------|--|--|--|
| | No 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|-----------------|-------------------------------|---|---|---|
| 6A-1 | Source Control | Project Clean/Operations | Continue to support Project Clean. | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 6A-2 | Source Control | Adopt-a-Highway/Operations | Continue to support Adopt-a-Highway program. | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 6A-3 | Source Control | Environmental/Districts | Continue to support Deicing and Reduced Salt Areas Programs. | MassHighway continues to support these programs. During 2003, MassHighway personnel have spent significant time updating the Generic Environmental Impact Report (GEIR) for deicing practices. | MassHighway will continue to support the Deicing and Reduced Salt Areas Programs. MassHighway anticipates that the revised GEIR for deicing practices will be submitted to MEPA in Permit Year 2. |
| 6A-4 | Source Control | HELP/Operations | Continue to support Highway Emergency Locator Program (HELP). | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 6A-5 | Source Control | Environmental | Continue development of Vegetation Management Plan (VMP) | MassHighway completed a revised statewide VMP in June 2003, which supports the spraying program. The VMP presents guidelines for herbicide applicators and application methods, as well as conventions for identifying and protecting sensitive areas. As of the growing season of 2004, approximately 60 municipalities are designated for spraying. | Measurable goal complete. |
| 6A-6 | Source Control | Planning | Continue to support MassHighway HOV program. | MassHighway continues to support this program | MassHighway will continue to support this program. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|------------------------|--------------------------------------|--|---|---|
| 6A-7 | Source Control | Planning | Continue to support alternative transportation through technical funding and assistance. | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 6A-8 | Source Control | Highway Design | Continue to support highway safety through safety design standards, hazard signage and electronic variable message signs, and rumble strips. | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 6A-9 | Source Control | Environmental | Continue support of Toxics Use Reduction (TURA) program. | MassHighway continues to support this program. | MassHighway will continue to support this program. |
| 6B-1 | Employee Training | MTAP/ Baystate Roads | Continue to support MTAP and Baystate Roads program. | MassHighway continues to support these programs. Specific programs sponsored by these programs are discussed in BMP 1A and 1B. | MassHighway will continue to support these programs. |
| 6B-2 | Employee Training | Environmental | Continue Facility Handbook Training | MassHighway provided annual "Environmental Awareness Training" to maintenance facility personnel regarding spill prevention and good housekeeping practices (e.g., proper storage and handling of materials, O&M of drainage systems, and snow and ice control). These trainings were conducted in October and November 2003. The following number of MassHighway employees attended from each district District 1 = 51 attendees District 2 = 50 attendees District 3 = 42 attendees District 4 = 126 attendees District 5 = 85 attendees | MassHighway will again provide annual training to maintenance facility personnel regarding good housekeeping practices and spill prevention in Permit Year 2. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|------------------------|--------------------------------------|--|--|--|
| 6B-3 | Employee Training | Highway Operations | Continue Snow and Ice Program Training. | MassHighway provided annual training internally and through MTAP programs on the latest techniques, equipment and material available for snow and ice removal. These trainings were conducted in the Fall of 2003 by the District Snow and Ice Engineers. Topics discussed included: deicing materials, including liquid CaCl ₂ , specifications for materials, equipment types (state and hired), spreader rates and calibration, weather services and information, and snow and ice control methods for reduced salt areas. | MassHighway will again provide annual training internally and through MTAP programs on the latest techniques, equipment and material available for snow and ice removal. |
| 6B-4 | Employee Training | Highway Operations | Continue Equipment and Vehicle Safety Training. | These topics are included in the other training programs including the “Environmental Awareness Training” discussed in BMP 6B-2 above. Therefore, MassHighway requests that this BMP be deleted from the SWMP program. | N/A |
| 6C-1 | Maintenance | Districts | Continue maintenance activities for storm water system. | MassHighway continued to maintain the highway system through catch basin cleaning contracts, street sweeping and regular drainage system maintenance. | MassHighway will continue to maintain the highway system through catch basin cleaning contracts, street sweeping and regular drainage system maintenance |
| 6C-2 | Maintenance | Districts | Continue maintenance activities and practices discussed in Environmental Facility Handbooks for maintenance/ material storage yards. | MassHighway continues to maintain environmental compliance at their maintenance facilities by employing MassHighway’s EMS system and in accordance with each facility’s Environmental Facility Handbook. | MassHighway will continue to maintain environmental compliance at their maintenance facilities by complying with each facility’s Environmental Facility Handbook. |
| 6D | Waste Disposal | Districts | Continue proper waste disposal practices. | MassHighway and its contractors continue to properly dispose of waste. | MassHighway and its contractors will continue to properly dispose of waste. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|--|--------------------------------------|---|--|--|
| 6E-1 | Good Housekeeping/ Pollution Prevention Program Evaluation | Environmental | Evaluate existing Good Housekeeping/ Pollution Prevention Programs to determine additional or revised activities which would increase effectiveness and usefulness of the programs. Year 1: Training Programs (MTAP, Baystate Roads, Facility Handbook, Snow and Ice Program, and Equipment and Vehicle Safety) | <p>MTAP – MassHighway Environmental Division met with personnel from MTAP. MTAP indicated that they are receptive to sponsoring storm water related training. Potential topics include MassHighway Storm Water Handbook and/or NPDES SWMP. Seminars would potentially be conducted in Winter 2005 or 2006.</p> <p>Baystate Roads – MassHighway Environmental Division met with personnel from Baystate Roads. Baystate Roads indicated that they are receptive to sponsoring storm water related training if requested by DPW Training Committee.</p> <p>Facility Handbook – The training seminar was updated in the Fall of 2003. Discussions with personnel responsible for Facility Handbook training indicated that it follows the EMS approach and improvements are not needed.</p> <p>Snow and Ice Program – The training seminar was updated in Fall of 2003. In discussions with personnel responsible for the Snow and Ice Program Training, they indicated that the training could be enhanced with additional information regarding storm water issues.</p> | <p>MTAP – Continue to work with MTAP to develop a seminar on either the Storm Water Handbook or NPDES SWMP for Permit Year 2 or 3.</p> <p>Baystate Roads – Meet with DPW Training Committee to discuss possible training opportunities in this arena.</p> <p>Facility Handbook – Annual training seminar will continue as discussed in BMP6B-2.</p> <p>Snow and Ice Program – Meet with personnel responsible for training prior to Winter 2005 training to develop additional information regarding storm water, if applicable.</p> |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|--|---------------------------------------|--|--|--|
| 6E-2 | Good Housekeeping/ Pollution Prevention Program Evaluation | Environmental | Evaluate Source Control Programs - litter and chemical use reduction (Project Clean, Adopt-a-Highway, Deicing and Reduced Salt Areas, VMP, Toxics Use Reduction) to determine additional or revised activities which would increase effectiveness and usefulness of the programs in regards to storm water and good housekeeping measures. | N/A | Personnel from MassHighway's Environmental Division will meet with personnel from Project Clean, Adopt-a-Highway, Deicing and Reduced Salt Areas, VMP, Toxics Use Reduction. The purpose of the meetings will be to determine if there are opportunities for improving or revising program activities regarding storm water or MS4 related issues. |
| 6F-1 | Catch Basin Inspection and Maintenance Record System | Environmental/ Maintenance/ Districts | Collect data for three years on the accumulation of debris for representative areas, and determine if the current inspection and cleaning schedule should be altered for particular areas. The schedule will target areas that are in greatest need of cleaning. | MassHighway has begun to develop a work plan for this study. | MassHighway will implement a data collection program and begin monitoring. |

6a. Additions

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|--|--------------|--|--|--|--|
| | No 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 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|----------|---|-------------------------------|--|---|---|
| 7A | Wetland Protection Act (WPA) Compliance | Environmental | MassHighway will continue to comply with MESA as required by the Wetland Protection Act. | MassHighway continues to comply with the WPA. | MassHighway will continue to comply with the WPA. |
| 7B | 401 Water Quality Certification | Environmental | MassHighway will continue to comply with MA 401 Water Quality Certification that includes review of the project by MA Natural Heritage program and US Fish and Wildlife if endangered species habitat is mapped in the project vicinity. | MassHighway continues to comply with 401 Water Quality Certification. | MassHighway will continue to comply with 401 Water Quality Certification. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|------------------------|--------------------------------------|---|--|--|
| 7C | CE Checklist | Environmental | <p>MassHighway coordinates with the Massachusetts NH&ESP at 25% Design for all projects that are proposed within designated habitats, as identified in the Program's Natural Heritage Atlas.</p> <p>MassHighway projects that include federal funds must complete this checklist at 75% Design stage. The checklist includes determining if the site is in an area where there are federally listed endangered species or critical habitat.</p> | Projects with federal funds continue to complete and submit this checklist. | Projects with federal funds will continue to complete and submit this checklist. |

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) - Permit Year 1 (Reliance on non-municipal partners indicated, if any) | Planned Activities - Permit Year 2 |
|-----------------|------------------------------|--------------------------------------|--|--|---|
| 7D | Environmental Site Data Form | Environmental/Construction | MassHighway has prepared this form to review potential impacts of a project to a variety of resource areas as part of compliance with the NPDES Construction and MS4 general permit. This form includes review of discharges for potential impact to state or federally listed endangered species or critical habitat, historic properties, water quality impaired waterways and waterbodies with approved TMDLs. The form also reviews discharges which drain to public swimming beaches, stressed basins, ORWs (including surface drinking water supplies), shell fish growing areas and cold water fisheries. | The information needed to complete the SWPPP overlaps with the environmental impact information that MassHighway currently envisions will be included in the Site Data Form. Therefore, completion of this form has been delayed in order to explore ways of either coordinating completion of these two forms or creating one form that would be submitted at the 25% Design Stage. | A final form will be completed in 2004 and implemented on new projects. The form will be submitted at the 25% Design stage. |
| 8A | Cultural Resources Review | Cultural Resources/Environmental | Reviews all projects for impacts to historic properties at the 25% Design stage. | Projects are reviewed by MassHighway's Cultural Resources Unit at the 25% Design stage, in accordance with the Engineering Directive for Early Environmental Coordination (E-02-005). This directive provides for required information earlier in the design process and facilities coordination with communities. | Projects will continue to be reviewed by MassHighway's Cultural Resources Department at the 25% Design stage. |

7a. Additions

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|--|--------------|--|--|--|--|
| | No additions | | | | |
|--|--------------|--|--|--|--|

7b. WLA Assessment

Projects within a watershed with an approved TMDL are most likely subject to the Wetlands Protection Act (WPA). MassHighway projects which are subject to the WPA strive to meet the WPA's Stormwater Policy to the greatest extent possible. Meeting the requirements of the Stormwater Policy should provide sufficient water quantity and quality controls to reduce pollutant loading to the impaired waterbodies. In accordance with the SWMP implementation schedule, programs will be developed to allow MassHighway to track the projects within approved TMDL watersheds and summarize the controls implemented to meet the TMDL requirements. Subsequent permit year annual reports will provide additional detail regarding waste load allocation compliance for MassHighway projects.

Part IV. Summary of Information Collected and Analyzed

MassHighway did not implement any programs which collect or analyze information during Permit Year 1.

Part V. Program Outputs & Accomplishments (OPTIONAL)

MassHighway's accomplishments during the first permit year are summarized in Part 1- 4 of this annual report.