

Maine Turnpike Authority

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VIA E-MAIL

September 15, 2011

Mr. David Ladd
Stormwater Phase II Coordinator
Bureau of Land and Water Quality
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

SUBJECT: Maine Turnpike Authority (MTA)
Stormwater Program Management Plan (SPMP)
Maine DEP Permit # MER043001
Annual Report for Permit Year 3 (June 2010 through June 2011) (PY3)

Dear David:

On behalf of Maine Turnpike Authority, I am pleased to submit this Annual Summary Report for Permit Year 3 (PY3), which satisfies the requirements in Part IV(J) of the Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharges from Maine Department of Transportation (MaineDOT) and MTA Municipal Separate Storm Sewer Systems (MS4s).

This Annual Summary Report describes MTA's program of Best Management Practices (BMPs) accomplished and status of Measurable Goals (MGs) for each of the six Minimum Control Measures (MCMs) for PY3, which were originally presented in MTA's SPMP (dated December 2008). In short, MTA has successfully met the PY3 requirements as outlined in the SPMP.

A current copy of the SPMP is not included in this report, as it was submitted to the Maine Department of Environmental Protection (Maine DEP) in December 2008. The Plan remains unchanged and is still current and applicable with the exception that a small stretch of Urbanized Area (UA) was identified in the Town of Kittery during PY2. This minor update was addressed in **Table 1 – Summary of MTA Facilities and Other Features within UA**, as well as discussions relative to MCM 1 and 3 in the PY2 letter report.



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BACKGROUND

In accordance with Part IV(A) of the MPDES MS4 General Permit, MTA's SPMP was developed for the purpose of establishing, implementing and enforcing a stormwater management program to reduce the discharge of pollutants from MTA's roadways, drainage areas and facilities within UAs to the maximum extent practicable to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act (CWA). MTA's SPMP and accompanying Notice of Intent (NOI), which were submitted to the Maine DEP in December 2008, outline the program of BMPs and MGs that MTA has incorporated to meet the requirements of the following six MCMs:

1. Public education and outreach on stormwater impacts;
2. Public Involvement and Participation;
3. Illicit Discharge Detection and Elimination (IDDE);
4. Construction site stormwater runoff control;
5. Post-construction stormwater management in new development and redevelopment; and
6. Pollution prevention/good housekeeping for community/facility operations.

For each of the MCMs, MGs have been established to evaluate the designated BMPs. These MGs have been assigned an implementation schedule and/or milestones for implementation of applicable BMPs. Additionally, specific MTA personnel are delegated the responsibility for implementing each BMP. The work plan/implementation schedule, which summarizes the MCMs, MGs, applicable BMPs and the designated responsible party's name and job title as found in the SPMP, has been updated to include a summary of achievements and completed goals for PY3. This summary is included in this report as **Table 2 – Stormwater Program Management Plan (SPMP) Implementation Schedule**.

The following sections present a summary of achievements and completed goals for the third year of implementation (PY3) and evaluation of the SPMP requirements.

SUMMARY OF SPMP PERMIT YEAR 3 ACHIEVEMENTS AND COMPLETED GOALS

In accordance with the MPDES General Permit Part IV(J), this Annual Summary Report presents a summary of significant goals achieved during the third year (July 2010 through June 2011) of implementation of the MTA's SPMP including an evaluation of BMPs and MGs established for the six MCMs discussed above. Specifically, Part IV(J) of the permit requires the following annual documentation relative to the SPMP:

MPDES Part IV(J)(1) -- By September 15, 2009, and annually thereafter by September 15, the permittee shall submit a report for the Department's review and approval...The report must include the following:

- a. *The current copy of the Plan (including a detailed implementation schedule), status of compliance with permit conditions, an assessment of the appropriateness of identified BMPs and progress towards achieving identified measurable goals for each of the MCMs.*

The SPMP has not been modified or updated since its submittal to the Maine DEP on December 19, 2008. Therefore, a current copy of the SPMP is not included with this Annual Summary Report. However, the revised copy of **Table 1** has been included, which presents the UA within MTA's right-of-way (ROW) including the recently identified UA in the Kittery area. Furthermore, all of the MCMs,

MGs, and BMPs are summarized in the work plan/implementation schedule presented in **Table 2** of this report.

b. Results of information collected and analyzed, including monitoring data, if any, during the reporting period.

No water quality monitoring data, including field screening or laboratory analysis, was conducted during this reporting period (PY3). However, data relative to each BMP and MG are summarized in the section for each specific MCM. For example, some of the process and impact indicators evaluated for **MCM 1** are included in the narrative section for **MCM 1** (see below); the number and type of inspections conducted as part of the Illicit Discharge Detection and Evaluation (IDDE) program are included with the summary for **MCM 3**.

c. A summary of the stormwater activities the permittee intends to undertake pursuant to its Plan during the next reporting cycle.

d. A change in identified measurable goals that apply to the program elements.

No significant changes to the SPMP implementation schedule or MGs have been proposed for Permit PY3 or are anticipated for PY4. Although no Memorandum of Agreement (MOA) was developed in coordination with Maine DEP and MaineDOT (as originally indicated in the SPMP under **MCM 4 and 5**), MTA continues to enforce these MCMs through contract documents and has developed a Construction Project Environmental Compliance (CPEC) Program to ensure compliance with MS4 MGs and other stormwater requirements. The CPEC Program is summarized in **MCMs 4, 5 and 6**, but also includes **MCM 1** requirements (e.g., incorporating Stormwater Awareness and BMP Adoption Plans into project-specific documents for MTA contractors and employees alike). Please refer to **Table 2** copied directly from the SPMP for a listing of achieved MGs in PY1 through PY3 (in blue font) and proposed MGs for Permit Year 4 to 5 (in black font).

e. A summary describing the activities, progress, and accomplishments for each of the MCM #1 through #6 (including such items as status of education and outreach efforts, public involvement activities, stormwater mapping efforts, dry weather inspections, detected illicit discharges, detected illicit connections, illicit discharges that were illuminated, construction site inspections, number and nature of enforcement actions, post construction BMP status and inspections, and the status of the permittee's good housekeeping/pollution prevention program).

A summary of achievements and completed goals for PY3 is shown on attached **Table 2** and the primary or key results are also summarized for each MCM in the subsections below. As requested in correspondence received from Maine DEP on August 30, 2011 (included as **Attachment A**), additional supporting documentation has not been attached to this annual report, but can be made available to Maine DEP upon request.

MCM 1 – Public Education and Outreach on Stormwater Impacts: As shown on **Table 2**, the revised SPMP training program was conducted for MTA Maintenance personnel and Engineering inspectors to address pollution reduction in stormwater runoff. The stormwater training program, which is combined with Spill Prevention, Control and Countermeasures (SPCC) topics, as well as Erosion and Sedimentation Control (ESC) practices, was performed primarily in May 2011 by regulatory specialists from GZA GeoEnvironmental, Inc.

and MTA alike. The training was attended by approximately 93 MTA employees¹. Prior to conducting training, the combined SPCC/Stormwater/ESC training curriculum was updated circa April 2011 to reflect the following information:

- Requirements associated with erosion prevention and sedimentation control, including construction and post-construction BMPs, operation and maintenance (O&M), and inspections, including a review of the following topics that are applicable within and outside UA:
 - Quarterly forms to capture installation and maintenance of structural BMPs and non-structural BMPs (i.e., routine O&M) that are used to document data that is reported to Maine DEP in MTA's Annual MOA Report;
 - Maintenance and recertification requirements to ensure compliance with special permit conditions for sites with Site Law/Chapter 500 permit requirements;
 - CPEC Program post-construction O&M Plans including BMP inspection forms for maintenance activities;
 - Additional maintenance requirements to facilitate sheet flow from MTA's impervious areas (and avoid channelized flow) within the Long Creek watershed and other areas where watershed management plans (WMPs) are emerging; and
 - Prioritization of maintenance (e.g., sweeping, catch basin cleanouts, outfall inspections, etc.) within UIS watersheds as per MTA's MS4 UIS Strategy.
- Recent changes due to an evolving stormwater regulatory climate and changing regulatory policies, such as:
 - Overview of MSGP potential requirements (e.g., quarterly visual monitoring and inspection procedures), which were also addressed at monthly Supervisors meetings for Highway and Equipment Maintenance employees;
 - Summary of areas affected by MPDES Post-Construction Discharge of Stormwater in Long Creek Watershed (i.e., General Permit and Individual Permit requirements), as well as other areas where WMP efforts have been initiated (e.g., Hart Brook, Capisic Brook, Red Brook, etc.); and
 - Preview of additional changes expected in PY4 (e., Chapter 500, Maine Construction General Permit [MCGP], Statewide Total Maximum Daily Load [TMDL] for Impervious Cover [IC], Chapter 502).

In addition to these updates, MTA SPCC/Stormwater/ESC training sessions held in 2011 also re-emphasized the training updates from PY1 and PY2, which included (but were not limited to) the following:

- Revisions to the MPDES MS4 Permit requirements;
- Additional UA identified in York and Kittery (i.e., a summary of UA reviewed that is similar to **Table 1** of this report);

¹ Please note that in years past MTA has generally provided training for approximately 111 to 130 employees; the reason for the decrease in attendants in PY3 and PY2 is twofold. First, these training sessions are generally conducted throughout the month of May and in the past included the seasonal employees, who assist with winter plowing through April; however, seasonal employees were not working during training and therefore did not attend. Second, the training sessions for building maintenance staff were limited to spill prevention topics and did not address the full spectrum of stormwater management topics in PY3; therefore, MTA training efforts focused primarily on comprehensive training for personnel routinely involved in inspecting stormwater infrastructure, performing stormwater maintenance activities and conducting earthwork activities.

- Introduction of MTA’s MS4 UIS strategy, which identified Goosefare Brook and Hart Brook as MTA’s two designated highest priority watersheds with considerations of other UIS watersheds (e.g., Long Creek, Capisic Brook, Red Brook, etc.);
- MTA’s Mobile SPCC Plan, which includes procedures regarding refueling of mobile equipment, such as mowers, loaders and other heavy equipment (i.e., avoid and minimize refueling within UA and Urban Impaired Streams [UIS] watersheds); and
- Development and implementation of new MTA CPEC program.

Also as part of **MCM 1**, MTA has adopted an Awareness Plan and BMP Adoption Plan. Both of these Plans were provided as handouts during training and discussed to ensure that all MTA employees are aware of the three goals of this MCM in PY1 through PY3:

1. To raise awareness that polluted stormwater runoff is the most significant source of water quality problems in Maine’s waters;
2. To motivate people to use the BMPs which reduce polluted stormwater runoff; and
3. To reduce polluted stormwater runoff as a result of increase awareness and utilization of BMPs.

The training sessions described above, which included in-class test/examination and a workshop session, provided an opportunity to assess process and impact indicators associated with the Stormwater Awareness and BMP Adoption Plans drafted by MTA. The following summary of process and impact indicators has been prepared based on information collected during training sessions for MTA employees in attendance. *Comparisons to previous data collected in PY1 are presented in italic font.*

Process Indicators for PY3:

- Number of 3-hour training sessions conducted: **6** (*PY1 = 8 sessions²*)
 - One session at each of the following MTA maintenance facilities: York, Kennebunk, Crosby/South Portland, Gray, and Gardiner; and
 - One make-up session at MTA headquarters (HQ).
- Number of MTA employees attended: **93** (*PY1 = 111 employees³*)

Impact Indicators for PY3:

- Average test score for the SPCC/stormwater/ESC training sessions: **92%** (*PY1 = 92%*)
- Percentage of MTA employees able to identify the goals of the Stormwater Awareness and BMP Adoption Plans: **91.4% = 85 out of 93 attendees** (*PY1 = 90.9%*)
- Percentage of MTA employees able to identify (and differentiate between) a structural and non-structural BMP: **92.4% = 86 out of 93 attendees** (*PY1 = 87.5%*)

² In previous years, the number of sessions was eight (8). This number has been reduced since MTA employees from Auburn and Litchfield Maintenance Facilities now attend a combined training session at Gardiner Maintenance.

³ As previously mentioned, the decrease in the number of employees from previous years is due to the lack of seasonal employees and Building Maintenance employees attending the annual stormwater training.

- Percentage of MTA employees who demonstrated applied knowledge of BMP-specific information (i.e., silt fence must be installed prior to disturbing land, hay mulch must be placed at the end of each day, etc.): **75.3% = 70 out of 93 attendees** (PY1 = 82%)
- Percentage of MTA employees able to identify sources of stormwater pollution: **92% = 86 out of 93 attendees** (PY1 = 96%)

The impact indicators provide some insight into the progress and effectiveness of the annual stormwater training sessions. In general, the impact indicators in PY3 provide demonstrated data that MTA employees remain knowledgeable in stormwater and ESC practices, as evidenced by the consistency in the average test scores from PY1 to PY3.

With respect to the Stormwater Awareness and BMP Adoption Plans, it is also important to note that MTA's CPEC Program, which was developed in PY2, requires contractors conducting work on projects located within UA to receive and review a copy of both Plans, as well. More information on MTA's CPEC Program is included in summaries for **MCMs 4 through 6**.

With respect to MTA's continuation of education and outreach efforts from the previous 5-year permit cycle, MTA offers the following accomplished MGs:

- MTA personnel (or their designee) have attended and participated in multiple public meetings, seminars, and conferences, including at least eleven (11) Interlocal Stormwater Working Group (ISWG) meetings⁴.
- MTA also participated in several additional stormwater-related efforts including: (1) attending Watershed Management Plan Meetings for UIS watersheds within and outside of UA (i.e., Long Creek, Capisic Brook, Red Brook, etc.); (2) contributing to Maine DEP's "Think Blue Maine" media campaign (i.e., Ducky II public services announcement); (3) continuing a link from MTA's environmental website to the CCSWCD's yardscape program; and (4) participating in statewide salt management round table meeting and follow up discussions.
- MTA also requires, in contract documents and as part of the CPEC Program, all contractors to submit training certificates for the delegated on-site responsible party (OSRP) on MTA contracted projects to ensure they are adequately trained and knowledgeable in ESC from Maine DEP's Non-Point Source (NPS) Training Program or an equivalent program.

MCM 2 – Public Involvement and Participation: The MTA's public notice policy and scheduled public meetings during PY3 complied with the Maine Freedom of Access Act. MTA maintains a list of public meetings attended by MTA and/or their designees (e.g., counsel, consultants, etc.); MTA can provide a copy of the list of meetings to Maine DEP upon request.

MTA continues to maintain close communication with MS4 communities and their respective Stormwater Coordinators, primarily through participation in the Greater Portland Interlocal Stormwater Working Group (ISWG). Additionally, MTA has continued to be closely involved with the evolving management requirements of UIS watersheds both within and outside of UA:

⁴ MTA maintains a list of public meetings, seminars and conferences to demonstrate education and outreach opportunities. This list is available to Maine DEP upon request.

- Long Creek⁵ (outside UA in South Portland);
- Capisic Brook (within UA in Portland); and
- Red Brook (outside UA in Scarborough).

MTA also continues to communicate periodically with host municipalities regarding watershed management planning efforts within MTA's two priority watersheds:

- Hart Brook (within UA in Lewiston) - MTA continues to communicate periodically with the City of Lewiston's point of contact for the Hart Brook WMP (Jan Patterson) to remain abreast of developments within this priority UIS watershed. During PY3, MTA conducted a construction project at Exit 80; therefore, personnel from the City of Lewiston were consulted to ensure stormwater considerations were shared between MTA and the City.
- Goosefare Brook (within UA in Saco) - MTA communicates periodically with stormwater contacts/coordinators for the City of Saco through ISWG meetings; at this time, MTA is not aware of any watershed management planning efforts for Goosefare Brook.

In addition to these watershed-based efforts, MTA also was involved and participated in the following efforts in fulfillment of **MCM 2** in PY3 (that were mentioned in **MCM 1**):

- Contributed financially to Maine DEP's "Think Blue Maine" media campaign (i.e., Ducky II public service announcement);
- Continued to provide a link from MTA's website to CCSWCD's yardscape program; and
- Attended statewide salt management round table meeting in September 2010 and remains abreast of follow-up discussions and subcommittee activities.

MCM 3 – Illicit Discharge Detection and Elimination (IDDE): The UA within MTA's ROW was mapped during the previous MPDES Permit cycle using 2000 Census Bureau data. Furthermore, MTA's existing MS4 maps, which include unique identifiers and flow arrows for conveyances, is supplemented by a Microsoft® Office Access database (also developed in the previous 5-year MS4 permit cycle) that contains the construction information for each outfall and catch basin, as well as the proximate receiving surface waterbody. In PY2, an additional short stretch of UA along MTA's ROW near the Kittery/York Town Line was identified, mapped and inventoried consistent with MS4 requirements described above. In PY3, GPS locations were recorded and added to MTA's mapping of existing stormwater infrastructure for two additional UIS watersheds:

- Capisic Brook watershed within UA in Portland in the vicinity of Exit 48; and
- Red Brook watershed outside UA in Scarborough and South Portland in the vicinity of Exit 44.

MTA continues to use tracking forms to capture dry weather inspection and catch basin cleanout information, which are available upon request to Maine DEP. The data collected during outfall inspections and catch basin cleanouts is then managed using a Microsoft® Office Access database.

Although MTA operates seven Highway Maintenance facilities from Kittery to Augusta, only four of the MTA territories intersect with UA; these include Highway Maintenance facilities located in the following areas (see **Table 1** for more information on UA and MTA territories):

⁵ MTA participates in Governing Board and receives periodic updates from Long Creek Technical Committee.

- York Maintenance Facility
 - Inspects and maintains 1.1 linear miles of UA within Kittery and York
 - Includes approximately 16 catch basins (CBs) and 12 outfalls (OFs) within UA
 - PY2: each CB and OF mapped and inspected in PY2
 - PY3: active construction in this area did not allow for inspections and/or cleanout, but are anticipated in the coming months
- Kennebunk Maintenance Facility
 - Inspects and maintains UA within:
 - Saco (2.7 linear miles)
 - Biddeford (approximately 1 linear mile)
 - Goosefare Brook watershed (at Exit 36)
 - Includes approximately 82 CBs and 48 OFs
 - 100% of CBs and OFs inspected in PY3
 - Approximately 25% of each cleaned out during PY3
- South Portland at Crosby Farm
 - Inspects and maintains UA within:
 - Scarborough (0.4 linear mile)
 - Portland (approximately 5.2 linear miles)
 - Falmouth (approximately 2.6 linear miles)
 - Capisic Brook watershed (at Exit 48)
 - Includes approximately 129 CBs and 97 OFs in UA
 - 50% of CBs and OFs inspected in PY3⁶
 - Approximately 25% of each cleaned out during PY3
 - Inspects and maintains non-UA infrastructure within the watersheds of Red Brook⁷ and Long Creek
- Auburn Maintenance Facility
 - Inspects and maintains UA within:
 - Auburn (approximately 1.1 linear miles)
 - Lewiston (slightly less than 1 linear mile of UA, but MTA has mapped all apparent CBs and OFs within the municipal boundaries)
 - Sabattus (0.7 linear mile)
 - Hart Brook watershed (in the vicinity of Exit 80)

⁶ Several sections of MTA ROW within the Crosby territory were under construction and not able to be inspected and/or cleaned out in PY3.

⁷ Tracking forms for Crosby Maintenance Facility were updated in PY3 to include the stormwater infrastructure, CBs and OFs within MTA ROW, located within Red Brook watershed, a UIS watershed with a WMP.

- Includes approximately 51 CBs and 29 OFs:
 - 100% of CBs and OFs inspected in PY3
 - Approximately 25% of each cleaned out during PY3

MTA Highway Maintenance employees (who have been trained annually to identify, document and report all “discharges that do not consist entirely of stormwater” to MTA’s Environmental Services Coordinator) conducted inspections and cleanouts in PY3.

- Priority was given to conducting dry weather inspections of outfalls that discharge to the two highest priority watersheds (Hart Brook and Goosefare Brook) consistent with MTA’s Priority UIS strategy; additional watersheds outside UA that were inspected in PY3 include:
 - Long Creek watershed in South Portland (i.e., another 50 catch basins and 30 outfalls to the conveyances inspected and cleanouts tracked by MTA); and
 - Red Creek watershed in Scarborough (i.e., another 14 catch basins and 5 outfalls to the conveyances inspected and cleanouts tracked by MTA).
- No illicit discharges or non-stormwater discharges were identified, however, two spills within UA occurred in PY3, which were reported to Maine DEP and cleaned up immediately before potential illicit discharges were permitted to reach stormwater infrastructure or waters of the State.
 - July 19, 2010: A patron vehicle accident/rollover at Mile Marker (MM) 47 in Portland resulted in 15 gallons of fuel and transmission fluid being released to the pavement and gravel shoulder, which were promptly cleaned up and disposed of under the direction of the Maine DEP’s spill response personnel; and
 - January 27, 2011: A sand/salt hopper slid from the bed of a MTA plow truck releasing approximately 10 gallons of hydraulic fluid at MM 51 in Falmouth, which was promptly cleaned up and impacted materials were disposed of appropriately.
- Sediments were removed from catch basins with priority given to (1) those located within UIS watersheds, specifically Hart Brook and Goosefare Brook; and (2) those located within the median of MTA’s ROW, as sediments tend to accumulate more rapidly in these median conveyances. Sediments were disposed of in accordance with an existing Memorandum of Understanding with Maine DEP. Although MTA did not track the cubic yardage and/or tonnage of sediments removed from catch basins in PY3, MTA will ensure that procedures are in place and implemented by personnel to track this information in PY4 in response to Maine DEP correspondence received on August 30, 2011.

MCM 4 Construction Site Stormwater Runoff Controls: For many years, MTA has implemented MS4 elements to control stormwater runoff from construction sites (e.g., require contractors’ OSRP to be trained by Maine DEP’s NPS program and provide appropriate certification; inspect and document BMPs for construction performed by MTA employees; etc.). In PY3, MTA continues to maintain these requirements, as well as those construction-related requirements associated with Chapter 500 and the MOA, including the application of MaineDOT’s BMP/ESC Manual to all projects regardless of the one acre threshold thus often exceeding the requirements of this MS4 permit.

As you know, MTA reports annually to Maine DEP regarding construction projects and associated BMPs (structural and non-structural), as part of the Annual MOA report⁸. Although the MOA report is not limited to MTA ROW within UA, the five (5) active construction projects in PY3 that disturbed one acre or more within UA include the following:

- Contract 2010.01 Portland Paving
 - Municipality: Scarborough, South Portland and Portland
 - Watersheds: Red Brook (Scarborough), Long Creek (South Portland), Stroudwater River (Portland), Nasons Brook (Portland) and Capisic Brook (Portland)
- Contract 2010.03 Presumpscot River Bridge
 - Municipality: Falmouth
 - Watershed: Presumpscot River
- Contract 2010.07 York Paving Project
 - Municipalities: Kittery and York
 - Watersheds: Spruce Creek, Wilson Creek, Libby Brook, Dolly Gordon Brook, York River and Cider Hill Creek
- Contract 2011.02 Exit 48 Bridge Replacement
 - Municipality: Portland
 - Watershed: Capisic Brook
- Contract 2011.09 Exit 80 Interchange Modifications
 - Municipality: Lewiston
 - Watershed: Hart Brook

MTA continues to rely on binding contract language to ensure that contractors comply with the construction-related BMPs/requirements of (1) Chapter 500; (2) applicable portions of the MOA; (3) Maine Construction General Permit (CGP); and (4) the MS4 permit. MTA employees and contractors are trained extensively on construction site stormwater runoff controls and are required to conduct weekly inspections and maintain inspection documentation for review when performing construction that disturbs land (even less than one acre). Furthermore, in PY2 MTA implemented the CPEC Program, which required the projects listed above to be inspected as follows:

- Prior to construction (e.g., photographs taken, temporary BMPs in place, etc.);
- On a weekly basis during construction by a qualified MTA representative (e.g., Inspector or Engineer) along with the contractor's OSRP, who is appropriately trained;
- When transitioning from construction to post-construction (i.e., prior to submitting the Notice of Termination [NOT] for the CGP); and
- As part of CPEC Program audits.

⁸ MTA's Annual MOA Report was submitted to Maine DEP in June 2011.

The CPEC Program provides a mechanism to ensure that stormwater requirements and other environmental regulatory obligations, including inspections and corrective actions, are considered and documented during construction and appropriate actions are taken for reducing pollutants in stormwater from construction activities. Subsequently, no significant corrective actions were required for these projects where multiple Maine DEP permits may apply (i.e., MS4, CGP, and Ch500/MOA).

MCM 5 Post-construction Stormwater Management in New Development and Redevelopment: Similar to **MCM 4**, MTA has implemented many MS4 elements related to post-construction stormwater management for new development and redevelopment to minimize water quality impacts for many years (i.e., training employees on long term O&M practices, etc.). In PY3, MTA continues to maintain these requirements, as well as post-construction standards associated with Chapter 500 and the MOA throughout MTA ROW regardless of whether or not there is a direct discharge to the waters of the State. MTA provides a summary of these annual O&M practices to Maine DEP in the Annual MOA Report, which was most recently submitted to Maine DEP in June 2011.

To ensure that adequate long-term O&M is continued for newly constructed BMPs, MTA develops and implements an O&M schedule/plan for each project as part of the CPEC Program that is incorporated into the CPEC binder for each specific project. Highway Maintenance personnel have been certified by Maine DEP's NPS Program (as reported in MTA's Annual MOA Report); these qualified personnel are also trained internally to implement the CPEC Program, specifically these post-construction O&M plans. As mentioned, the O&M plans are maintained in the CPEC binder and are available to Maine DEP upon request.

MCM 6 – Pollution Prevention (P2) and Good Housekeeping for Community/Facility Operations: As discussed under **MCM 1**, MTA employees continued to be trained in stormwater P2 and ESC practices, as well as good housekeeping practices. MTA's training program also incorporates construction and post-construction inspection and O&M requirements.

Consistent with previous years, street sweeping was conducted within all UA. Consistent with previous years, in PY3 priority was given to sweeping as soon as possible after snow melt within the following UIS watersheds:

- Within UA: Hart Brook in Lewiston and Goosefare Brook in Saco; and
- Outside UA: Long Creek in South Portland and Red Brook in Scarborough.

Using MTA's new vacuum sweeper purchased in PY2, sweeping is conducted at least once each year on linear areas and multiple times each year in peripheral areas, such as interchanges, toll plazas, park-and-ride lots and other facilities. Specifics on sweeping and other P2/good housekeeping measures are also reported to Maine DEP each year in the Annual MOA Report⁹.

As mentioned in **MCM 3**, MTA continues to operate its annual CB cleanout and OF inspection program consistent with previous years, which ensures that CBs are cleaned out, OFs are inspected and collected sediments are disposed of appropriately. A list of maintenance to conveyances and structures is generated from these annual inspections within UA to supplement the comprehensive annual inspection of MTA's infrastructure that is conducted by a qualified engineer contractor.

Although MTA does not operate any vehicle maintenance facilities within UA, MTA continues to implement the following measures relative to the objectives of **MCM 6**:

⁹ The number of linear miles and ancillary facilities (e.g., service plazas, overhead bridges, interchanges, etc.) is included in Table 5 of the 2010 Annual MOA Report that was submitted to Maine DEP on June 6, 2011.

1. SPCC Plans with integrated Stormwater Pollution Prevention Measures for all MTA Highway/Equipment Maintenance Garages that address the proper use, storage and disposal of petroleum products, as well as non-petroleum products and other hazardous materials;
2. To supplement spill response and prevention measures in the facility-specific SPCC Plans, MTA has developed and implemented a Mobile SPCC Plan for all MTA ROW, and specifically addresses more stringent practices within UA;
3. The integrated stormwater pollution prevention measures incorporated in these SPCC and Pollution Prevention Plans address vehicle and equipment storage practices, maintenance and refueling;
4. Post-construction requirements have been developed and implemented for newly installed structural BMPs include an O&M schedule to ensure long-term maintenance;
5. Construction and post-construction inspection requirements have been implemented for all projects (even those less than 1 acre of disturbed area) in accordance with the Chapter 500 MOA; and
6. MTA maintains an existing road-killed wildlife policy.

If you have any questions concerning this Annual Summary Report of MTA's MS4 SPMP, please do not hesitate to call me at (207) 871-7771, ext. 359.

Respectfully,



John M. Branscom
Environmental Services Coordinator for
Maine Turnpike Authority

Attachments: Table 1 - Summary of MTA Facilities and Other Features within UA
Table 2 - Stormwater Program Management Plan (SPMP) Implementation Schedule
Attachment A - Correspondence from Maine DEP (dated August 30, 2011)

cc: Robyn Saunders; GZA GeoEnvironmental, Inc.

TABLES

TABLE 1-SUMMARY OF MTA FACILITIES AND OTHER FEATURES WITHIN UA

TABLE 2-STORMWATER PROGRAM MANAGEMENT PLAN (SPMP)
IMPLEMENTATION SCHEDULE

TABLE 1

Summary of MTA Facilities and Other Features within UA
Maine Turnpike Authority

REGULATED SMALL MS4 COMMUNITY	MILE MARKER DELINEATION ¹		LINEAR DISTANCE OF UA SEGMENT (Miles)	MTA FACILITY FEATURES ² WITHIN UA (Roadway and ROW assumed)	WATER BODIES	STREAMS ³
	Northern Boundary	Southern Boundary				
SABATTUS	MM 84.3 Lisbon Road Underpass	MM 83.6 Sabattus Town Line	0.7	None identified	None identified	None identified
LEWISTON intermittent contact (<0.1 mile) within Lewiston UA	MM 79.6 Goddard Road Overpass	MM 78.9 Androscoggin River	0.7	None identified	None identified	1 Hart Brook (also known as Dill Brook) ⁶ 2 Androscoggin River
	MM 81.4 Route 196 & MCRR Overpass		<0.1	None identified		
	MM 80.8 Ferry & Cottage Road Overpass		<0.1	Exit 80 Park and Ride (parking lot)		
AUBURN	MM 78.9 Androscoggin River	MM 78.4 Riverside Road	0.5	None identified	None identified	2 Androscoggin River
	MM 75.6 Washington Street Overpass	MM 75.0 Kitty Hawk Avenue Underpass	0.6	Exit 75 Interchange (ramp) Exit 75 Park and Ride (parking lot)		
FALMOUTH	MM 53.4 Mountain Road Underpass	MM 51.8 Presumpscot River	1.6	Exit 53 Interchange (ramp) Exit 53 Toll Plaza Exit 53 West Falmouth Park and Ride (parking lot)	None identified	3 Unnamed tributary of Presumpscot River (crosses Turnpike near Exit 53 NB on-ramp)
	Falmouth Spur midpoint between CNRR Overpass and Falmouth/Middle Road Overpass	Falmouth Spur Falmouth Road/Middle Road Overpass	-0.1	None identified		
	Falmouth Spur Presumpscot River	Falmouth Spur Portland/Falmouth Town Line	-0.9	None identified		
PORTLAND	Falmouth Spur Exit 52 Interchange	Falmouth Spur Portland/Falmouth Town Line	-0.1	Exit 52 Interchange (ramps and spur)	None identified	4 Presumpscot River
	MM 51.8 Presumpscot River	MM 46.7 Stroudwater River	5.1	Exit 52 Interchange (ramps and spur) Exit 48 Interchange (ramps) Exit 48 Toll Plaza Exit 47 Interchange (ramps) Exit 47 Toll Plaza Exit 47 Westbrook Park and Ride (parking lot)		
SCARBOROUGH	MM 42.0 Two Rod Road Underpass	MM 41.6 Unnamed tributary of Beaver Brook	0.4	Exit 42 Scarborough Park and Ride (parking lot)	None identified	10 Unnamed tributary of Beaver Brook (crosses Turnpike south of Two Rod Road underpass)
SACO	MM 35.7 Goosefare Brook	MM 33.0 Saco River	2.7	Exit 36 Interchange (ramps) Former Exit 36 Interchange (ramps) Saco Hotel and Conference Center Exit	None identified	11 Goosefare Brook ⁶ 12 Deep Brook 13 Cole Brook 14 Saco River
BIDDEFORD	MM 33.0 Saco River	MM 32.0 Thacher Brook	1	Exit 32 Biddeford Park and Ride (parking lot)	None identified	14 Saco River (including wetlands on southern bank along SB lanes) 15 Unnamed tributary of Saco River (crosses Turnpike south of South Street and runs parallel) 16 Thacher Brook
KITTERY NEW!!	MM 4.2 Kittery town line	MM 3.1 Cutts Road	1.1	Rest Area (Welcome Center)	None identified	17 Libby Brook (crosses Turnpike in two places near Welcome Plaza)
DOT territory	MM 2.2 Spruce Creek (End of Turnpike)	MM 0.0 Maine/New Hampshire State Line	2.2	Exit 1 Interchange Exit 2 Interchange Exit 3 Interchange		18 Spruce Creek 19 Chickering Creek 20 Piscataqua River

NOTES:

- 1.) Mile Marker (MM) designations for UA delineations should be considered approximate and will be confirmed and updated, as necessary and as more detailed mapping information is made available.
- 2.) MTA facility features identified within each host MS4 communities include the roadway (i.e., paved roads, bridges, etc.) and ROW (e.g., approximate 300-foot wide corridor along MTA roadway), as well as interchanges (i.e., approach ramps), spurs and toll plazas as indicated. "None identified" indicates that only MTA roadway and ROW are present within the UA delineation. This table will be updated as more detailed mapping information is made available and/or in the event that MTA facility features are constructed within UA delineations. Please note that none of the MTA maintenance facilities are located within UA.
- 3.) Streams were identified by using the corresponding 7.5-minute series topographic United States Geological Survey (USGS) quadrangle. Stream locations, as well as water body information, in this table will be updated as more detailed mapping is performed and made available.
- 4.) Urbanized areas (UA) along the Maine Turnpike's approximate 300-foot ROW within each of the regulated small MS4 municipalities were delineated using purple cross-hatching on the corresponding USGS maps that are included in the Part A NOI submittal that is included in this document as Appendix A. UA delineation is based on the UA maps provided for each regulated municipality on the Maine Department of Environmental Protection's (DEP's) website, which include "Automatically Designated MS4 Areas". (Reference: <http://www.state.me.us/dep/blwq/docstand/stormwater/maps/index.htm>)
- 5.) Copies of the corresponding UA maps and applicable portions of the USGS quadrangles are presented in the Part A NOI submittal that is included in this document as Appendix A.
- 6.) Maine DEP classifies several specific waterways within the state designed as Urban Impaired Streams (UIS). A number of these streams cross MTA's ROW in US as listed. These include: Dill Brook, Capisic Brook, Nasons Brook, and Goosefare Brook. The SPMP identifies Goosefare Brook and Dill Brook (i.e. Hart Brook) as the two priority watersheds within MTA's territory.

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #1 (MCM 1)

MPDES Permit Part IV(H) 1. Public education and outreach. The three goals of this minimum control measure are: 1. to raise awareness that polluted stormwater runoff is the most significant source of water quality problems in Maine's waters; 2. to motivate people to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and 3. to reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs. The permittee shall document changes in awareness and BMP adoption (behavior change) in target audiences.

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY	
<p><i>a (i) Raise Awareness (Goal 1); Beginning July 1, 2008, each permittee shall continue raising awareness of stormwater issues amongst employees and contractors.</i></p> <p><i>(1) Each permittee shall establish measurable goals. Progress on these goals must be reported annually for process indicators and in years 1 (background), 3 & 5 for impact indicators.</i></p> <p><i>(2) Each permittee shall include a review in its fifth year Annual Report. The review must include an analysis of the process indicators and impact indicators.</i></p>	<p>Urban Impaired Stream (UIS) Strategy: The Awareness Plan will place emphasis on raising awareness within MTA's two designated highest priority UIS watersheds (e.g., Hart Brook and Goosefare Brook).</p>	<p><i>The Awareness Plan's will raise awareness of polluted stormwater runoff issues and will provide for assessment of process and impact indicators.</i></p>	<p><i>Year 1:</i> Develop an Awareness Plan for employees and contractors</p>	Drafted an Awareness Plan for MTA employees and contractors	Maintain a copy of the Plan and associated documents (i.e., updated training, etc.)	Environmental Services Coordinator and/or Designated Consultant	
			<p><i>Year 2:</i> Implement BMPs associated with Awareness Plan for employees and contractors</p>	Increased awareness of polluted stormwater runoff issues by providing employees and contractors with MTA's Awareness Plan through employee training and/or the Construction Project Environmental Compliance (CPEC) program implemented for contracted projects in Permit Year (PY) 2	<p>Maintain a copy of the Plan and associated documents in the updated training curriculum and also in CPEC binder documents</p>		
			<p><i>Year 3:</i> Continue following the time line and implementation schedule in Awareness Plan</p>	Increased awareness of polluted stormwater runoff issues by providing employees and contractors with MTA's Awareness Plan through employee training and/or the Construction Project Environmental Compliance (CPEC) program implemented for contracted projects in Permit Year (PY) 3			
			<p><i>Years 4-5:</i> Continue following the time line and implementation schedule in Awareness Plan</p>				
			<p><i>Process indicators relate to the execution of the program (e.g., percent or number of employees attending training, additional information provided at a facility or job site).</i></p>	<p><i>Year 1-3:</i> Assess process indicators as part of the Annual Report</p>	<p>Year 1: A total of 111 MTA employees attended one of eight stormwater training sessions (each 3-hour sessions) conducted at each of the MTA highway maintenance facilities.</p> <p>Year 2: A total of 95 MTA employees attended a 3-hour stormwater training session conducted at each of the MTA highway maintenance facilities.</p> <p>Year 3: A total of 93 MTA employees attended a 3-hour stormwater training session conducted at each of the MTA highway maintenance facilities.</p> <p>The Awareness Plan was provided to MTA employees and reviewed during each training session.</p> <p>Each employee was tested on stormwater awareness topics (i.e., PY1: in-class exam; PY2: in-class "jeopardy" participation; PY3: in-class exam).</p>		<p>Maintain training documentation to assess process indicators, which include (but are not limited to) the following:</p> <ul style="list-style-type: none"> * training schedules, * sign-in/attendance rosters, * test/evaluations, and * other materials (e.g., database)
			<p><i>Impact indicators relate to the achievement of the goals and objectives of the program (e.g., changing behavior as a result of training/information).</i></p>	<p><i>Year 1:</i> Assess impact indicators as part of the Annual Report</p>	<p>The average test score for each of the 8 stormwater training sessions was 90% or higher (overall average: 92%).</p> <p>Please refer to the text of the annual progress report for an assessment of additional impact indicators.</p>		<p>Conduct an evaluation (i.e., exam, pop-quiz, etc.) following training to measure awareness of stormwater pollution, BMPs and/or runoff issues</p>
			<p><i>Impact indicators relate to the achievement of the goals and objectives of the program (e.g., changing behavior as a result of training/information).</i></p>	<p><i>Year 3:</i> Assess impact indicators as part of the Annual Report</p>	<p>The average test score for each of the 6 stormwater training sessions was 90% or higher (overall average: 92%).</p> <p>Please refer to the text of the annual progress report for an assessment of additional impact indicators.</p> <p>Please note that the reduction in the number of training sessions held in PY3 (i.e., 6 versus 8 in PY2) was because several sessions were combined (i.e., employees from Litchfield and Auburn Maintenance Facilities traveled to Gardiner Maintenance Facility for annual training on the same date).</p>		
			<p><i>Year 5:</i> Assess impact indicators as part of the Annual Report</p>				

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #1 (MCM 1) - continued

MPDES Permit Part IV(H) 1. Public education and outreach. The three goals of this minimum control measure are: 1. to raise awareness that polluted stormwater runoff is the most significant source of water quality problems in Maine's waters; 2. to motivate people to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and 3. to reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs. The permittee shall document changes in awareness and BMP adoption (behavior change) in target audiences.

<p><i>a (ii) Target BMP Adoption (Goal 2):</i> Beginning July 1, 2008, each permittee shall continue outreach efforts from the previous permit cycle while encouraging employees and contractors to utilize BMPs that minimize stormwater pollution.</p> <p><i>(1) Each permittee shall establish measurable goals. Progress on these goals must be reported annually for process indicators and in years 1 (background), 3 & 5 for impact indicators.</i></p> <p><i>(2) Each permittee shall include a review in its fifth year Annual Report. The review must include an analysis of the process indicators and impact indicators.</i></p>	<p>Develop a BMP Adoption Plan for employees and contractors to minimize stormwater pollution</p> <p>Urban Impaired Stream (UIS) Strategy: The BMP Adoption Plan will place emphasis on utilizing target BMPs within MTA's two designated highest priority UIS watersheds (e.g., Hart Brook and Goosefare Brook).</p>	<p>Identify target BMPs to be utilized by employees and contractors that minimize stormwater pollution</p>	Year 1:	Identify target BMPs to be	Drafted a BMP Adoption Plan for MTA employees and contractors	<p>Maintain compliance with Chapter 500 standards, MOA requirements and/or MaineDOT BMP Manual for MTA projects constructed and maintained</p>	<p>Environmental Services Coord'r and/or Designated Consultant</p>		
			Year 2-3:	Implement BMPs and continue to identify additional BMPs that minimize stormwater pollution	Implemented BMPs and continue to identify additional BMPs that minimize stormwater pollution as part of MTA operations: - BMPs are emphasized in CPEC program; and - Target BMPs are listed in MaineDOT's BMP Manual which is referenced in contract language for MTA projects.				
			Year 4-5:	Implement BMPs and continue to identify additional BMPs that minimize stormwater pollution					
			<p><i>Process indicators relate to the execution of the program</i></p>	Year 1-3:	Assess process indicators as part of the Annual Report			<p>Year 1: A total of 111 MTA employees attended one of eight stormwater training sessions (each 3-hour sessions) conducted at each of the MTA highway maintenance facilities.</p> <p>Year 2: A total of 95 MTA employees attended a 3-hour stormwater training session conducted at each of the MTA highway maintenance facilities.</p> <p>Year 3: A total of 93 MTA employees attended a 3-hour stormwater training session conducted at one of the MTA highway maintenance facilities where annual training was offered (i.e., York, Kennebunk Crosby/South Portland, Gray, Gardiner, or make up session at MTA HQ).</p> <p>The BMP Adoption Plan was provided to MTA employees and reviewed during each training session.</p> <p>Each employee was tested on BMP-specific topics (i.e., PY1: in-class exam; PY2: in-class "jeopardy" participation; PY3: in-class exam).</p>	<p>Conduct inspections of work sites to provide a baseline for future assessment of process indicators (i.e., as part of CPEC program implementation in Permit Year 2)</p>
				Year 4-5:	Assess process indicators as part of the Annual Report				
				<p><i>Impact indicators relate to the achievement of the goals and objectives of the program</i></p>	Year 1 & 3:			Assess impact indicators as part of the Annual Report	
Year 5:	Assess impact indicators as part of the Annual Report								

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #1 (MCM 1) - continued

MPDES Permit Part IV(H) 1. Public education and outreach. The three goals of this minimum control measure are: 1. to raise awareness that polluted stormwater runoff is the most significant source of water quality problems in Maine's waters; 2. to motivate people to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and 3. to reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs. The permittee shall document changes in awareness and BMP adoption (behavior change) in target audiences.

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY	
<p><i>a(iii) Compliance with this MCM will be based upon:</i> (1) Continued existing education and outreach efforts (existing efforts from previous 5-year Plan are indicated in blue text); (2) Reported process and impact indicators; and (3) Completed annual reports and a 5-year analysis of the plans.</p> <p>Urban Impaired Stream (UIS) Strategy: Information regarding MTA's two designated highest priority UIS watersheds will be incorporated into the existing education and outreach efforts continued from previous MS4 permit cycle..</p>	<p>a. Conduct training to address pollution reduction in stormwater runoff for MTA employees</p>	<p>Ensure MTA employees are educated and appropriately trained</p>	<p>Year 1: Continue Stormwater Training Program for MTA staff</p>	<p>A total of 111 MTA employees were trained as part of MTA's stormwater training program, which was continued and revised to include (but not limited to):</p> <ul style="list-style-type: none"> * Erosion prevention and sedimentation control, including construction and post-construction BMPs, O&M and inspection requirements; and * Information on priority UIS watersheds (e.g., Hart Brook, Goosefare Brook), as well as Long Creek (a non-UA watershed) 	<p>Maintain stormwater training schedule, rosters, quizzes, etc.</p>	<p>Environmental Services Coord'r and/or Public (Government and Community) Relations Office</p>	
			<p>Year 2:</p>	<p>A total of 95 MTA employees were trained as part of MTA's stormwater training program, which was continued and revised to include (but not limited to):</p> <ul style="list-style-type: none"> * Mobile refueling procedures in UA and UIS watersheds; * Additional UA identified in York and Kittery; * Development of Construction Project Environmental Compliance (CPEC) Program; * Erosion prevention and sedimentation control, including construction and post-construction BMPs, O&M and inspection requirements; and * A review of PY1 information, including MS4 permit revisions, priority UIS strategy and other UIS watershed considerations. 			
			<p>Year 3:</p>	<p>A total of 93 MTA employees were trained as part of MTA's annual SPCC/stormwater/ESC training program, which was continued and revised to include (but not limited to):</p> <ul style="list-style-type: none"> * Erosion prevention and sedimentation control, including construction and post-construction BMPs, O&M and inspection requirements; and * A review of PY1 and PY2 information, including MS4 permit revision, priority UIS strategy and other UIS watershed considerations, CPEC Program, mobile refueling procedures in UA and UIS watersheds, and erosion prevention and sedimentation control. <p>Additional information on MSGP potential requirements, such as quarterly visual monitoring procedures, was also provided in a separate training session for Highway Maintenance Supervisors.</p>			
			<p>Year 4-5: Continue Stormwater Training Program for MTA staff</p>				
		<p>b. Require contractors to maintain an on-site responsible party (OSRP) who is trained in erosion and sediment control</p>	<p>Ensure that OSRP has the authority to promptly remedy any deficient controls</p>	<p>Year 1-3: Continue to obtain Erosion and Sedimentation Control (ESC) certification from contractors' OSRP</p>	<p>MTA continues to require Contractors to submit training documentation for ESC certification (e.g., as part of CPEC program, during pre-construction meetings, etc.).</p> <p>Standard contract documents remain in place stipulating that a qualified OSRP is on-site and authorized to remedy ESCs appropriately.</p>		<p>Maintain ESC certification documents from contractors</p>
				<p>Year 4-5: Continue to obtain ESC certification from contractors' OSRP</p>			
		<p>c. Continue to coordinate with local groups as appropriate</p>	<p>Ensure that MTA continues to coordinate with the public, municipalities, MaineDOT, ISWG, etc. regarding stormwater information</p>	<p>Year 1-3: Address stormwater topics at meetings and on MTA website</p>	<p>MTA continues to coordinate with others on important stormwater issues (including MTA's two priority UIS watersheds) by:</p> <ul style="list-style-type: none"> (1) participating in the Greater Portland ISWG; (2) attending Watershed Management Planning meetings for UIS watersheds; (3) contributing to the DEP's "Think Blue" (i.e., Ducky II public service announcement) media campaign; (4) including information on stormwater in newsletters, internal and public meetings, etc.; and (5) maintaining an environmental link on the MTA website, including a link to the CCSWCD yardscape program. 		<p>Maintain log of meetings and update of website</p>
	<p>Year 4-5: Address stormwater topics at meetings and on MTA website</p>						

Italic font = MS4 permit language
 Blue font = MGs accomplished to date
 Red font = UIS Strategy
 Bold font = Goals achieved during current permit year

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #2 (MCM 2)

MPDES Permit Part IV(H) 2. Public involvement and participation. *The goal of this minimum control measure is to involve the permittee's community including various departments, bureaus or facilities, and when applicable involve regulated small MS4 communities in both the planning and implementation process of improving water quality and reducing quantity via the stormwater program. An active and involved participation process is crucial to the success of a stormwater management program because it allows for broader support, addition expertise and a conduit to other programs.*

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY	
<i>a(i) Public notice requirements. The permittee shall comply with applicable state and local Public Notice requirements using effective mechanisms for reaching the public, and comply with the public notice requirements of the Maine Freedom of Access Act, 1 M.R.S.A. 4401 et seq. ("FOAA") when the permittee involves stakeholders in the implementation of this general permit. The permittee shall document the meetings and attendance through the annual report as a way of measuring this goal.</i>	Ensure that appropriate public notice requirements are met when public meetings are held that address stormwater topics	Comply with applicable state and local Public Notice requirements using effective mechanisms for reaching the public, and comply with the public notice requirements of the Maine Freedom of Access Act, 1 M.R.S.A. 401 et seq. ("FOAA") when the permittee involves stakeholders in the implementation of this general permit. The permittee shall document the meetings and attendance through the annual report as a way of measuring this goal.	Year 1: Continue to ensure all public meetings that address stormwater meet FOAA requirements	Public notices continue to be executed in accordance with FOAA requirements. <i>A list of meetings, including a MTA Board Meeting on December 16, 2008 that was open to the public and included many stormwater topics, is presented as Attachment B to PY1 annual report.</i>	Maintain written public notice policy that complies with FOAA requirements, public notice announcements and a log of applicable meetings	Environmental Services Coord'r and/or Public (Government and Community) Relations Office	
			Year 2:	Public notices continue to be executed in accordance with FOAA requirements. <i>A list of meetings, including a MTA Board Meeting on December 17, 2009 that was open to the public and included stormwater topics, is presented as Attachment B to PY2 annual report.</i>			
			Year 3:	Public notices continue to be executed in accordance with FOAA requirements. A list of meetings (open to the public and/or included stormwater topics) is presented as Attachment B to this annual report.			
			Year 4-5:	Continue to ensure all public meetings that address stormwater meet FOAA requirements			
<i>a(ii) Coordinate with regulated communities. The permittee shall coordinate efforts by providing information on planned activities to Regulated Small MS4 municipal stormwater coordinators. The permittee shall develop a strategy to ensure involvement, mutual cooperation and coordination with the Regulated Small MS4 municipalities, and report on such efforts annually pursuant to Part IV(J) on joint efforts, meetings attended, projects and coordination.</i>	Coordinate with host MS4 communities, as well as MaineDOT, by sharing information on planned activities	Contact each host MS4 community to identify the respective stormwater coordinator	Year 1: Compile list of Stormwater Coordinators for host MS4 communities	A list of Stormwater Coordinators for host MS4 communities was developed based on participation in ISWG meetings and watershed management planning efforts attended by MTA.	Maintain list of Stormwater Coordinators for each host MS4 community	Environmental Services Coord'r and/or Public (Government and Community) Relations Office	
			Year 2-3: Communicate with host MS4 communities via the designated Stormwater Coordinator	MTA has maintained communications with host MS4 communities and their respective Stormwater Coordinators (i.e., Point of Contact) through numerous meetings, including those listed in Attachment B of this Annual Report.			Maintain documentation regarding communication and/or coordination with host MS4 communities
			Year 4-5:	Communicate with host MS4 communities via the designated Stormwater Coordinator	MTA continues to be closely involved with respect to evolving stormwater management requirements of UIS, in particular Hart Brook within UA (but also Long Creek, outside UA). Additionally, MTA participated in the DEP's "Think Blue" media campaign.		Summarize coordination in each annual report
			Year 1: Develop strategy for coordinating with host MS4s and document subsequent coordination	MTA continues to be closely involved with respect to evolving stormwater management requirements in UIS watersheds both within and outside of UA, in particular Long Creek, Capisic Brook and Red Brook in PY2 and PY3. MTA also communicates with host municipalities to stay abreast of WMP efforts in Hart Brook and Goosefare Book, MTA's two highest priority watersheds. MTA also continues to participate in DEP's "Think Blue" media campaign by contributing to the recent Ducky II public service announcement media campaign, and provides a link from MTA's website to CCSWCD's yardscape program.			
			Year 2-3:	Report annually on involvement, mutual cooperation and coordination with host MS4s	MTA continues to be closely involved with respect to evolving stormwater management requirements in UIS watersheds both within and outside of UA, in particular Long Creek, Capisic Brook and Red Brook in PY2 and PY3. MTA also communicates with host municipalities to stay abreast of WMP efforts in Hart Brook and Goosefare Book, MTA's two highest priority watersheds. MTA also continues to participate in DEP's "Think Blue" media campaign by contributing to the recent Ducky II public service announcement media campaign, and provides a link from MTA's website to CCSWCD's yardscape program.		
			Years 4-5:	Develop strategy for coordinating with host MS4s and document subsequent coordination	MTA continues to be closely involved with respect to evolving stormwater management requirements in UIS watersheds both within and outside of UA, in particular Long Creek, Capisic Brook and Red Brook in PY2 and PY3. MTA also communicates with host municipalities to stay abreast of WMP efforts in Hart Brook and Goosefare Book, MTA's two highest priority watersheds. MTA also continues to participate in DEP's "Think Blue" media campaign by contributing to the recent Ducky II public service announcement media campaign, and provides a link from MTA's website to CCSWCD's yardscape program.		

Italic font = MS4 permit language
 Blue font = MGs accomplished to date
 Red font = UIS Strategy
 Bold font = Goals achieved during current permit year

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #3 (MCM 3)

MPDES Permit Part IV(H) 3. Illicit Discharge Detection and Elimination (IDDE). Each permittee must develop, implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges, as defined in 06-096CMR521(9)(b)(2), except as provided in Part IV(H)3(b) of this permit.

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY	
a. (i) By June 30, 2013, each permittee shall develop a watershed-based storm sewer system infrastructure map of its respective MS4 within the UA showing all stormwater catch basins, connecting surface and subsurface infrastructure depicting the direction of in-flow and out-flow pipes, and the locations of all discharges from all outfalls operated by the permittee.	Develop watershed-based Storm Sewer System Infrastructure Maps for MTA Facility within UA Urban Impaired Stream (UIS) STRATEGY: Priority will be given to mapping of UIS watersheds within UA. For example, the MGs listed for PY1 through PY5 will be conducted in PY1 for CBs and OFs within UA. 	Each catch basin must be uniquely identified: -to facilitate control of potential illicit discharges, and -to ensure proper operation and maintenance of the structures. For each outfall, the following information must be included: -type, material, and size of conveyance; -outfall or channelized flow; -the name and location of the immediate surface waterbody or wetland to which the stormwater runoff discharges. If an outfall does not discharge directly to a named waterbody, identify the name and location of the nearest named waterbody to which the outfall eventually discharges.	Year 1: Review existing MS4 maps that were compiled as part of the previous MS4 permit	MTA maintains existing MS4 maps which were completed as part of previous MS4 permit. These maps were developed using 2000 Census data which is a requirement of the current MS4 permit.	Maintain inventory of maps for portions of MTA facility within UA	Environmental Services Coordinator and/or Designated Consultant	
			Identify potential updates to UA maps that must be made to meet these new IDDE requirements before June 2013	No potential updates to UA maps were identified during PY1. When MTA's MS4 maps and associated database were created, the specific information required (i.e., unique identifier, type/size of conveyance, immediate surface waterbody, etc.) was collected and is maintained in the database.	Maintain punchlist of potential upgrades to maps		
			Year 2: Ensure that maps include all CBs and subsurface infrastructure depicting flow directions	MTA already maintains MS4 mapping to include flow arrows depicting the flow directions between all MTA stormwater infrastructure. MTA also continues to maintain a comprehensive stormwater database that stores construction information for MTA outfalls located within UA.	Maintain updated maps that include: - uniquely identified CBs and associated surfaces - flow directions - outfall description (e.g., type, material, size)	Maintain updated maps that include addition from Year 2, plus the following: - connecting surfaces associated with CBs - receiving waterbodies for each outfall	Environmental Services Coordinator and/or Designated Consultant
			Ensure that maps include details pertaining to construction of each outfall	In PY 2, additional UA was identified in York and Kittery. The stormwater infrastructure (i.e. CBs and OFs) were identified, mapped and added to the existing database.			
			Year 3: Revise maps to include connecting surface associated with CBs Revise maps to include the name and location of immediate surface waterbody or wetland to which each outfall discharges	MTA already maintains MS4 mapping to include connecting surface associated with all MTA stormwater infrastructure. MTA already maintains MS4 mapping to include the name and location of immediate surface waterbody or wetland to which each outfall discharges. MTA also continues to maintain a comprehensive stormwater database that stores surface waterbody or wetland information for MTA outfalls located within UA.			
Year 4-5: Revise maps to identify receiving waters for outfalls that do not directly discharge to a named waterbody							
a. (ii) Each permittee shall develop and implement a prioritized dry weather outfall inspection plan based on drainage areas such as an urban impaired stream watershed, or based on a watershed or sub-watershed that the permittee has identified as having the greatest potential threat to the receiving water.	Develop prioritized dry weather inspection program Urban Impaired Stream (UIS) STRATEGY: Priority will be given in Year 1 to conducting dry weather inspections of outfalls that discharge to MTA's two highest priority watersheds. Although not located within UA, MTA will expand dry weather inspection of outfalls to include MTA right-of-way (ROW) that intersects with the Long Creek watershed. 	Develop a defined standard operating procedure (SOP), procedure and policy for identifying illicit discharges during dry weather inspections and the detailed steps to locate and eliminate the source Conduct dry weather inspection of outfalls within UIS watersheds in UA	Year 1: Review, develop and/or update the SOP, policy and protocol for identifying illicit discharges during dry weather inspections	MTA's IDDE SOP was reviewed and is being updated to ensure that the SOP is compliant with new MS4 permit requirements.	Retain written notification policy for consistently reporting suspected illicit discharges internally and externally	Environmental Services Coordinator and/or Designee	
			Year 2-3: Implement a defined SOP with detailed steps that must be taken to locate and eliminate the source of an illicit discharge when it is identified during these inspections	MTA continues to maintain an effective SOP for identifying illicit discharges during dry weather inspections that is periodically reviewed for effectiveness.	Maintain source location determinations, as well as corrective actions taken to eliminate the illicit connection/discharge		
			Year 4-5: Implement a defined SOP with detailed steps that must be taken to locate and eliminate the source of an illicit discharge when it is identified during these inspections				
			Year 1: Conduct a dry weather inspection of outfalls that discharge to the two highest priority watersheds (e.g., Hart Brook and Goosefare Brook)	Dry weather inspections of outfalls that discharge to the two highest priority watersheds (Hart Brook and Goosefare Brook) were conducted by highway maintenance personnel during PY1.	Document dry weather inspections within UIS watersheds	Environmental Services Coordinator and/or Highway Maintenance Supervisor	
			Year 2-3: Expand the dry weather inspection of outfalls to include any remaining UIS within UA	Dry weather inspections of outfalls that discharge to the two highest priority watersheds (Hart Brook and Goosefare Brook) and other UIS within UA were conducted by MTA during PY2 and PY3. In PY3, MTA conducted dry weather inspections of most outfalls within UA, plus those within the Long Creek, Red Brook, and Capisic watersheds outside of UA. Outfalls within UA in the York territory were not able to be inspected due to construction in the area.			
Year 4-5: Expand the dry weather inspection of outfalls to include any remaining UIS within UA							

Italic font = MS4 permit language
 Blue font = MGs accomplished to date
 Red font = UIS Strategy
 Bold font = Goals achieved during current permit year

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #3 (MCM 3) - continued

MPDES Permit Part IV(H) 3. Illicit Discharge Detection and Elimination (IDDE). *Each permittee must develop, implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges, as defined in 06-096CMR521(9)(b)(2), except as provided in Part IV(H)3(b) of this permit.*

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY
<i>a. (iii) By the end of permit year five, to the extent allowable under State or local law, MaineDOT/MTA shall develop and implement a strategy to detect any illicit discharges to their open ditch system within their two highest priority watersheds.</i>	Establish a strategy for addressing illicit discharges to open ditch systems within two highest priority watersheds (e.g., Hart Brook and Goosefare Brook)	Utilize existing mechanisms (e.g., IDDE Notification Form, Mobile SPCC Plan Spill Reporting, Highway Safety Incident Response, Annual Comprehensive Inspection conducted by construction contractor) to provide consistent protocol for internal reporting through an established chain-of-command, which establishes a central point of contact for MTA to notify state and municipal enforcement authorities	Year 1: Review for potential revisions to existing mechanisms to document any detected illicit discharges in open ditch system	MTA's Spill Report Form was updated to include illicit discharge detection information. Other existing mechanisms were evaluated during Permit Year 1 and will continue to be considered to ensure illicit discharges are eliminated from open ditch systems within UA.	Maintain source location determinations, as well as corrective actions taken to eliminate the illicit connection/discharge	Environmental Services Coordinator and/or Designated Consultant
			Year 2: Implement revisions to document illicit discharges detected in open ditch system within MTA's two highest priority watersheds, as necessary	MTA's IDDE SOP was reviewed in PY2 and PY3 to ensure that illicit discharge detection in open ditch systems will be implemented appropriately, not only in MTA's two highest priority UIS watersheds, but within MTA's UA.		
			Year 3: Continue to document illicit discharges detected in open ditch system within MTA's two highest priority watersheds, as necessary	Since MTA's highway maintenance personnel routinely inspect open ditch systems during mowing, brush clearing and other routine operations, they have been trained (annually since 2004) to report discharges "that do not consist entirely of stormwater" to MTA's Environmental Services Coordinator.		
			Year 4-5: Continue to document illicit discharges detected in open ditch system within MTA's two highest priority watersheds, as necessary			
<i>b. This permit authorizes non-stormwater discharges provided they do not contribute to a violation of water quality standards, as determined by the Department; these discharges must be addressed in the Plan if they are identified by the permittee as significant contributors of pollutants to the regulated small MS4.</i>	Modify this Plan, as necessary, to address non-stormwater discharges that are identified as significant contributors of pollutants to the MS4	Ensure that this SPMP addresses identified non-stormwater discharges that are considered significant contributors of pollutants to the regulated MS4	Year 1-3: Identify and document non-stormwater discharges as they are discovered during dry weather inspections, mapping, etc.	No non-stormwater discharges have been discovered during PY1, PY2 or PY3. MTA maintains a log of spills along MTA's right-of-way, including spills within UA. All spills are properly documented and remediated to avoid impacts to stormwater discharges and to eliminate the potential for contributing to an illicit discharge. Please refer to text on MCM#3 for more information on spills within MTA's UA.	Maintain log of identified non-stormwater discharges that potentially contribute to a violation of water quality standards	Environmental Services Coordinator and/or Designated Consultant
			Revise the SPMP and this implementation schedule as necessary	No non-stormwater discharges have been discovered during PY1, PY2 or PY3; therefore, no revisions to the SPMP are necessary at this time		
			Year 4-5: Identify and document non-stormwater discharges as they are discovered during dry weather inspections, mapping, etc.			
			Revise the SPMP and this implementation schedule as necessary			

MINIMUM CONTROL MEASURE #4 (MCM 4)

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #5 (MCM 5)
MPDES Permit Part IV(H) 5. Post-construction stormwater management in new development and redevelopment.

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY
<i>a. Required</i>						
<i>(i) Each permittee shall develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge directly to waters of the State other than groundwater.</i>	Develop and implement MEPDES MOA that establishes a program for new development and redevelopment that addresses stormwater runoff from projects that disturb one acre or more discharging directly to waters of the State. <i>This program must ensure that controls are in place that are designed to prevent or minimize water quality impacts.</i>	Development of a MEPDES MOA will provide permit coverage to MTA and MaineDOT associated with the duplicative requirements of the three MEPDES programs: MS4 GP, MCGP and MSGP. The proposed MOA will be reasonably consistent with the standards established by the DEP in MCMs #4 through #6 of this MS4 General Permit (GP), as well as the Maine Construction General Permit (MCGP) and DEP's Multi-Sector General Permit (MSGP).	Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT	Although a MEPDES MOA was not developed with DEP, MTA continues to address stormwater runoff from new development and redevelopment projects of all sizes, within UA and throughout MTA's ROW. However, there were no projects identified in Permit Year 1 that "discharge directly to waters of the State."	Maintain documentation associated with MOA development process with DEP	Environmental Services Coordinator and/or Designee
			Year 2: Finalize MEPDES MOA and identify specific requirements	Although a MEPDES MOA was not developed with DEP, MTA implemented a new environmental compliance program for new development and redevelopment that addresses stormwater runoff from all MTA projects, both during construction and post-construction. This program, known as the CPEC Program, was designed to ensure that appropriate controls are in place during all phases of construction to prevent or minimize water quality impacts from stormwater runoff.	Maintain a CPEC Program binder for each project to demonstrate compliance and to document MTA's efforts to minimize water quality impacts	
			Year 3: Implement MEPDES MOA and prepare annual MOA report	Although no MEPDES MOA was developed or adopted, MTA continues to implement the measures described above in PY2 to address stormwater runoff from new development and redevelopment projects of all sizes.	Maintain records for projects to be included in annual MOA report and associated records	
			Year 4-5: Implement MEPDES MOA and prepare annual MOA report			
<i>(ii) Each permittee shall develop and implement strategies that include a combination of structural and/or non-structural best management practices (BMPs) appropriate for its regulated small MS4.</i>	Develop and implement MEPDES MOA that addresses strategies that include appropriate structural and non-structural BMPs.		Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT	MTA continues to train employees internally to identify appropriate strategies that include both structural and non-structural BMPs, as well as rely on design engineers to meet Chapter 500 standards	Maintain documentation associated with MOA development process with DEP	Environmental Services Coordinator and/or Designee
			Year 2: Finalize MEPDES MOA and identify specific requirements	In addition to continuing the efforts described above in PY1, the CPEC program was developed in PY2 to address strategies that incorporate appropriate structural and non-structural BMPs into MTA projects.	Maintain a CPEC Program binder for each project to identify structural and non-structural BMPs to be maintained	
			Year 3: Implement MEPDES MOA and prepare annual MOA report	Although no MEPDES MOA was developed or adopted, MTA continues to implement the measures described above in PY1 and PY2 to address strategies that incorporate appropriate structural and non-structural BMPs into MTA projects.	Maintain records for projects to be included in annual MOA report and associated records	
			Year 4-5: Implement MEPDES MOA and prepare annual MOA report			
<i>(iii) To ensure adequate long-term operation and maintenance of post construction BMPs, each permittee shall develop, as part of its Stormwater Program Management Plan, an approved BMP inspection schedule that at a minimum stipulates that new BMPs are inspected at least once during the first year of installation.</i>	Develop and implement MEPDES MOA that includes guidelines for post-construction BMP inspections. <i>Post construction BMP inspections must determine if the BMP is adequately maintained and is functioning as intended or requires maintenance. If the post construction BMP requires maintenance, provide a record of the deficiency and corrective action(s) taken.</i>	<i>Each permittee shall include the following in their annual report:</i> -the cumulative number of post construction BMPs discharging directly into waters of the State other than groundwater or into their separate storm sewer system; -the number of sites with documented functioning post construction BMPs; and -the number of sites requiring routine maintenance or remedial action to ensure that the post construction BMP is functioning as intended.	Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT	MTA has developed an O&M schedule that incorporates annual inspection requirements for all newly installed structural BMPs. - No significant projects with BMPs were identified within UA in PY1 (even newly constructed MTA Headquarters is located outside UA). - Therefore, no development/redevelopment sites within UA were identified as discharging directly into waters of the State in PY1. - Although no sites were located within UA and/or identified during PY1, MTA continues to monitor ROW for existing BMPs that require maintenance to ensure that they function as intended.	Maintain documentation associated with MOA development process with DEP	Environmental Services Coordinator and/or Designee
			Year 2: Finalize MEPDES MOA and identify specific requirements	MTA continues to implement the O&M schedule described above in PY1 for newly installed BMPs. The CPEC program incorporates post-construction BMPs, as well as inspections and other O&M considerations, for all projects undertaken by MTA. The CPEC program provides a mechanism for ensuring that records are maintained on all inspections, maintenance activities, and corrective action(s) for new projects starting in PY3.	Maintain a copy of the established MEPDES MOA	
			Year 3: Implement MEPDES MOA and prepare annual MOA report	In PY3, MTA adopted and implemented a SOP for Post-Construction Activities to ensure BMPs, inspections, and other O&M considerations are incorporated for all projects undertaken by MTA. MTA continues to implement the O&M schedule described above in PY1 for newly installed BMPs. MTA also continues to implement the CPEC program described above in PY2 for all construction projects.		
			Year 4-5: Implement MEPDES MOA and prepare annual MOA report			

Italic font = MS4 permit language
 Blue font = MGs accomplished to date
 Red font = UJS Strategy
 Bold font = Goals achieved during current permit year

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #6 (MCM 6)

MPDES Permit Part IV(H) 6. Pollution prevention (P2)/good housekeeping in community/facility operations. *This MCM has the ultimate goal of preventing or reducing pollutant runoff from MaineDOT's/MTA's roads, other paved surfaces, infrastructure, and facilities through the development and implementation of an operation and maintenance (O&M) program. The O&M program must include the following:*

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY	
<i>a. Required</i>							
<i>i. By the end of permit year one, each permittee shall develop an inventory of potential pollutant sources and associated operations conducted in, on or associated with facilities, buildings, roads, travel ways including right-of-way owned or operated by the permittee that have the potential to cause or contribute to stormwater or surface water pollution. By the end of permit year two, the permittee shall develop written operation and maintenance procedures that include maintenance schedules and inspection procedures to ensure long term operation of structural and non-structural controls and reduce stormwater pollution to the maximum extent possible.</i>	Develop and implement MEPDES MOA that includes an O&M Plan that addresses potential pollutant sources and O&M procedures, such as: (1) proper use, storage and disposal of petroleum and non petroleum products, hazardous materials, waste materials, pesticides and fertilizers including minimizing the use of these products, and an alternative product analysis; (2) spill response and prevention; (3) vehicle and equipment storage, maintenance and fueling; (4) landscaping and lawn care including, where applicable and not subject to other federal regulations, an evaluation of reduced mowing frequencies, establishing and maintaining buffers, cutting vegetation within 100 feet of a stormwater conveyance or surface water; (5) erosion and sedimentation control; and (6) disposal of road-killed wildlife.	Development of a MEPDES MOA will provide permit coverage to MTA and MaineDOT associated with the duplicative requirements of the three MEPDES programs: MS4 GP, MCGP and MSGP. The proposed MOA will be reasonably consistent with the standards established by the DEP in MCMs #4 through #6 of this MS4 General Permit (GP), as well as the Maine Construction General Permit (MCGP) and DEP's Multi-Sector General Permit (MSGP).	Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT	MTA developed and implemented an O&M schedule for newly installed BMPs located throughout MTA's ROW, not just within UA, during Permit Year 1. MTA does not operate any of these newly installed BMPs and/or Maintenance Garages within UA. Furthermore, MTA does not anticipate that petroleum and/or non-petroleum products (e.g., potential pollutant sources) to be stored, used or disposed of within UA areas. However, MTA already maintains the following policies, procedures and plans: (1) Spill Prevention, Control and Countermeasures (SPCC) Plans with integrated Stormwater Pollution Prevention Measures for all MTA Highway/Equipment Maintenance Garages that address the proper use, storage and disposal of petroleum products, as well as non-petroleum products and other hazardous materials; (2) Spill response and prevention measures have been established at these facilities in the SPCC Plans, as well as in MTA's Mobile SPCC Plan that is implemented throughout all MTA ROW; (3) The integrated stormwater pollution prevention measures incorporated in these Plans address vehicle and equipment storage practices, maintenance and refueling; (4) Post-construction requirements for newly installed structural BMPs, including an O&M schedule for mowing and inspections in accordance with applicable Chapter 500 requirements, were developed during Permit Year 1; (5) Construction and post-construction inspection requirements have been implemented for all projects (even those less than 1 acre) have been implemented in accordance with the Chapter 500 MOA; and (6) Road-killed wildlife policy.	Maintain documentation associated with the O&M schedule and other existing documents relevant to implementing MCM 6	Environmental Services Coordinator and/or Designee	
			Year 2: Finalize MEPDES MOA and identify specific requirements	In addition to continuing the practices described above in PY1, MTA also implemented the new CPEC program to ensure appropriate documentation of these MTA policies, procedures, and plans are maintained in a centralized location for new projects.			Maintain a copy of the established MEPDES MOA
			Year 3: Implement MEPDES MOA and prepare annual MOA report	MTA continues to implement the practices described above in PY1 and PY2.			Maintain records for projects to be included in annual MOA report and associated records
			Year 4-5: Implement MEPDES MOA and prepare annual MOA report				
<i>ii. Using training materials that are available from the EPA, the State, regional stormwater groups or other organizations, Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine volumes 1 and 2, and the ThinkBlueMaine website, this program must include employee training to prevent and reduce stormwater pollution from permittee operations and facilities. The permittee shall report annually on the types of training presented, the number of employees and contractors that received training, the length of the training and training effectiveness.</i>	Develop Stormwater Pollution Reduction Training Program for contractors and MTA employees <div style="border: 1px solid red; padding: 2px; color: red; font-size: small;"> UIS Strategy: Revise Stormwater Training Program to include additional information pertaining to UIS watersheds and additional BMPs </div>	The existing training programs conducted for MTA employees will be reviewed and updated, as necessary, to include additional information pertaining to stormwater pollution prevention and ESC BMPs from the resources detailed in the GP. Because MTA does not conduct training for contractors, MTA will rely on contractors to become certified through the DEP's Non-Point Source Training Center or an equivalent program. Contractors will provide proof of certification to MTA as part of the Training Program	Year 1: Conduct existing training program that addresses stormwater pollution prevention, as well as erosion and sediment control	As previously detailed in MCM 1, MTA's SPCC training program was conducted in May and June 2009 and included stormwater pollution prevention, as well as erosion and sediment controls, construction and post-construction inspections and BMP requirements.	See MCM #1	See MCM #1	
			Revise existing training program to incorporate additional information from resources identified in GP	Training program was revised to include information and resources identified in the GP.			
			Review current files to ensure that contractors are certified by DEP in stormwater pollution prevention, as well as erosion and sediment control	MTA continues to rely on the DEP's NPS Training Program to certify contractors; but MTA obtains ESC certification from all contractor's OSRPs.			
			Include the required training information in the annual report	Completed training documentation is included as part of the PY1 Annual Report.			
			Year 2: Continue training program and annual reporting	As previously detailed in MCM 1, MTA's SPCC/Stormwater training program was conducted in May and June 2010 and included stormwater pollution prevention, as well as erosion and sediment control practices, construction and post-construction inspections and BMP requirements. Revisions to the SPCC/Stormwater training program are summarized in MCM 1 and copies included in Attachment A of the PY2 Annual Report.			
			Year 3: Continue training program and annual reporting	As previously detailed in MCM 1, MTA's SPCC/Stormwater training program was conducted in May to August 2011 and included stormwater pollution prevention, as well as erosion and sediment control practices, construction and post-construction inspections and BMP requirements. Revisions to the SPCC/Stormwater training program are summarized in MCM 1.			
Year 4-5: Continue training program and annual reporting							

Italic font = MS4 permit language
 Blue font = MGs accomplished to date
 Red font = UIS Strategy
 Bold font = Goals achieved during current permit year

TABLE 2
STORMWATER PROGRAM MANAGEMENT PLAN (SPMP) IMPLEMENTATION SCHEDULE
 Maine Turnpike Authority

MINIMUM CONTROL MEASURE #6 (MCM 6) - continued

MPDES Permit Part IV(H) 6. Pollution prevention (P2)/good housekeeping in community/facility operations. *This MCM has the ultimate goal of preventing or reducing pollutant runoff from MaineDOT's/MTA's roads, other paved surfaces, infrastructure, and facilities through the development and implementation of an operation and maintenance (O&M) program. The O&M program must include the following:*

MCM REQUIREMENT	BEST MANAGEMENT PRACTICES (BMPs)	METHODOLOGY/PURPOSE	MEASURABLE GOALS	ACHIEVEMENTS AND COMPLETED GOALS	DOCUMENTATION	RESPONSIBLE PARTY
<i>a. Required</i>						
<i>iii. Each permittee shall develop and implement a program to sweep all paved streets and parking lots maintained by the permittee at least once a year as soon as possible after snowmelt.</i>	Develop and implement MEPDES MOA that includes an O&M Plan that addresses sweeping of paved surfaces Continue existing annual sweeping program established under previous MS4 permit cycle UIS Strategy: Priority will be given to sweeping within two highest priority UIS watersheds as soon as possible after snowmelt.	Development of a MEPDES MOA will provide permit coverage to MTA and MaineDOT associated with the duplicative requirements of the three MEPDES programs: MS4 GP, MCGP and MSGP. The proposed MOA will be reasonably consistent with the standards established by the DEP in MCMs #4 through #6 of this MS4 General Permit (GP), as well as the Maine Construction General Permit (MCGP) and DEP's Multi-Sector General Permit (MSGP).	Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT	Although a MEPDES MOA was not developed, MTA continued to implement the existing annual sweeping program for the mainline and associated areas.	Maintain documentation associated with MOA development process with DEP	Environmental Services Coordinator and/or Designated Consultant
			Year 2: Finalize MEPDES MOA and identify specific requirements		Maintain a log of sweeping activities (provided to DEP in Annual MOA Report) Maintain records for projects to be included in annual MOA report and associated records	
			Year 3: Implement MEPDES MOA and prepare annual MOA report			
	Year 4-5: Implement MEPDES MOA and prepare annual MOA report		Sweeping was conducted within all UA with priority given to sweeping within UIS watersheds (Hart Book and Goosefare Brook) as soon as possible after snow melt.	Year 1-3: Continue to implement MTA's existing annual sweeping program	Maintain a copy of a memo regarding prioritized sweeping efforts from Director of Highway Maintenance Maintain O&M documents for sweeping program	Highway Maintenance staff
	Year 4-5: Continue to implement MTA's existing annual sweeping program			Highway Maintenance staff		
	Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT			MTA continues to clean out catch basins of accumulated sediments and debris on an annual basis. Removed sediments are disposed of in accordance with an existing Memorandum of Understanding (MOU) with DEP.	Year 2: Finalize MEPDES MOA and identify specific requirements	Maintain documentation associated with MOA development process with DEP Maintain documentation relative to sediment removal and disposal Maintain records for projects to be included in annual MOA report and associated records
Year 3: Implement MEPDES MOA and prepare annual MOA report						
Year 4-5: Implement MEPDES MOA and prepare annual MOA report						
Year 1-3: Continue to implement MTA's existing annual catch basin cleanout program	Catch basins were cleaned out and IDDE inspection and cleanout logs are maintained at each MTA highway maintenance facility.	Year 1-3: Continue to implement MTA's existing annual catch basin cleanout program	Maintain O&M documents for catch basin cleanout program Maintain O&M documents for catch basin cleanout program		Highway Maintenance staff	
Year 4-5: Continue to implement MTA's existing annual catch basin cleanout program		Highway Maintenance staff				
Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT		As part of the annual MS4 inspection and cleanout program already developed by MTA, any potential repairs are identified thus triggering the required repair, as needed. Furthermore, MTA's retains a construction contractor who conducts an annual inspection of MTA ROW and identifies necessary upgrades to conveyances not only in UA, but throughout all of MTA's ROW.	Year 2: Finalize MEPDES MOA and identify specific requirements		Maintain documentation associated with annual inspection programs conducted by MTA Highway Maintenance and hired construction contractor	Environmental Services Coordinator and/or Designated Consultant
Year 3: Implement MEPDES MOA and prepare annual MOA report						
Year 4-5: Implement MEPDES MOA and prepare annual MOA report						
Year 1-3: Continue to implement MTA's existing annual comprehensive inspection program of all infrastructure/operations	MTA's hired construction contractor continues to conduct an annual inspection of the MTA ROW, which is supplemented by dry weather inspections conducted by MTA's Highway Maintenance and/or Engineering departments.		Year 1-3: Continue to implement MTA's existing annual comprehensive inspection program of all infrastructure/operations	Maintain annual inspection report(s) with recommendations for upgrades and repairs Maintain annual inspection report with recommendations for upgrades and repairs	MTA Engineering Staff and/or Designee	
Year 4-5: Continue to implement MTA's existing annual comprehensive inspection program of all infrastructure/operations			MTA Engineering Staff and/or Designee			
Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT			Other than the proposed development of a MEPDES MOA with DEP, no action is required until Permit Year 2.	Year 2: Finalize MEPDES MOA and identify specific requirements	Maintain documentation associated with MOA development process with DEP No documentation needed	Environmental Services Coordinator and/or Designated Consultant
Year 3: Implement MEPDES MOA and prepare annual MOA report	MTA does not operate any vehicle maintenance facilities within UA					
Year 4-5: Implement MEPDES MOA and prepare annual MOA report		Maintain records for projects to be included in annual MOA report and associated records		Environmental Services Coordinator and/or Designated Consultant		
Year 1: Develop MEPDES MOA with DEP in a coordinated effort with MaineDOT	MTA does not operate any vehicle maintenance facilities within UA					
Year 2: Finalize MEPDES MOA and identify specific requirements		MTA does not operate any vehicle maintenance facilities within UA				
Year 3: Implement MEPDES MOA and prepare annual MOA report	MTA does not operate any vehicle maintenance facilities within UA					
Year 4-5: Implement MEPDES MOA and prepare annual MOA report		MTA does not operate any vehicle maintenance facilities within UA				

Italic font = MS4 permit language
 Blue font = MGs accomplished to date
 Red font = UIS Strategy
 Bold font = Goals achieved during current permit year

ATTACHMENT A

TRAINING DOCUMENTS

**MAINE TURNPIKE AUTHORITY REFRESHER TRAINING
FOR
SPILL PREVENTION, CONTROL AND COUNTERMEASURES (SPCC),
MOBILE SPCC,
STORM WATER POLLUTION PREVENTION (SWPP),
AND
EROSION AND SEDIMENTATION CONTROL (ESC)**

May 2011

AGENDA

7:30 AM CONVENE

7:30-9:00 SPCC TRAINING

Changes to facility SPCC Plans

Three Goals of SPCC Program

1. Spill Prevention
2. Spill Control
3. Spill Countermeasures

NEW SPCC TRIVIA GAME!

15 MINUTE BREAK

9:15-9:30 MOBILE SPCC TRAINING

Review Mobile SPCC Plan

9:30-11:15 STORMWATER AND ESC TRAINING

MS4 Best Management Practices at Maintenance Facilities

Requirements of MTA Stormwater Management Permit and Program

ESC Practices for Earthwork Projects

NEW STORMWATER AND ESC TRIVIA GAME!

11:15-11:30 TEST AND EVALUATION

11:30 ADJOURN

Maine Turnpike Authority
Stormwater/ESC Training
May 2011

MAINE TURNPIKE AUTHORITY
ANNUAL ENVIRONMENTAL
TRAINING

- OIL SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC)
- MOBILE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC)
- STORMWATER POLLUTION PREVENTION
- EROSION & SEDIMENTATION CONTROL

Prepared and conducted by
GZA GeoEnvironmental, Inc.



MAY 2011

REGULATORY BACKGROUND

EPA's Clean Water Act (40 CFR 122)
"...no one has the right to pollute the waters of the United States..."

- Authority under the National Pollutant Discharge and Elimination System (NPDES)
- Authority delegated to Maine DEP
 - Maine Pollutant Discharge and Elimination System (MPDES) permits and programs



REGULATORY BACKGROUND
AND ATMOSPHERE



Maine DEP MPDES Programs
"...regulate construction, industrial activities and municipal storm sewers..."

- Requirements under Maine DEP are changing...
 - Chapter 500 Stormwater Management for New Development and Redevelopment
 - Chapter 529 General Permit for the Discharge of Stormwater from MDOT/MTA Municipal Separate Storm Sewer Systems
 - Multi-Sector General Permit (MSGP) for Stormwater Discharges
 - Maine Construction General Permit (MCGP)
- Urban Impaired Streams (UIS) are developing Watershed Management Plans and Permitting requirements.



Maine Turnpike Authority Stormwater/ESC Training May 2011

REGULATORY ATMOSPHERE:
Anticipated changes

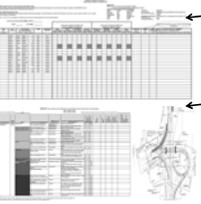


Regulatory Program	Requirements
Chapter 500/MOA (2011-2012)	<ol style="list-style-type: none"> 1. Additional BMPs constructed on projects 2. MOA may be renegotiated
Construction General Permit (CGP) (2011-2012)	<ol style="list-style-type: none"> 1. NOI/NOT threshold increased to 5 acres (versus 1 acre) of disturbance 2. EPA-required performance standards
MS4 (2013)	<ol style="list-style-type: none"> 1. Additional UA 2. Additional inspections (dry & wet weather) 3. Sampling and analytical monitoring requirements
Multi-Sector General Permit (MSGP) (2011-2012)	<ol style="list-style-type: none"> 1. Vehicle Maintenance facilities may be regulated 2. Sampling and analytical monitoring requirements 3. Annual comprehensive evaluations
Statewide TMDL for Impervious Cover (2011)	<ol style="list-style-type: none"> 1. Stormwater BMP retrofits may be required 2. Requirements (enforceable through existing permits) may be established by local watershed group(s)

OVERVIEW: Chapter 500/MOA

Regulatory Program	Requirements
Chapter 500/MOA/ Construction General Permit (CGP)	Use " <i>Quarterly MOA Report Form</i> " to track the following:
<p><i>Applicable to ALL projects:</i></p> <ul style="list-style-type: none"> • regardless of size • regardless of location 	<ul style="list-style-type: none"> • Earthwork (all land disturbances)
	<ul style="list-style-type: none"> • Repairs, such as slopes, ditches, culverts, downspouts, etc.
	<ul style="list-style-type: none"> • Maintenance, such as sweeping, litter picking, inspections, cleanouts, etc.
	<ul style="list-style-type: none"> • Construction of new BMPs, such as catch basins (CBs), culverts, buffers, check dams, etc.

OVERVIEW: MS4 Permit

Regulatory Program	Requirements
Municipal Separate Storm Sewer System (MS4) Permit <i>Applicable within:</i> <ul style="list-style-type: none"> • Urbanized Areas (UA) and • Urban Impaired Stream (UIS) 	<p>MCM #1 – Education and Outreach</p> <ul style="list-style-type: none"> • Attend training • Inspect stormwater BMPs <p>MCM #3 – Illicit Discharge Detection and Elimination (IDDE) Program</p> <ul style="list-style-type: none"> • Inspect CBs and outfalls (OFs) annually • Report and document "illicit discharges" <p>MCM #4 & 5 – Construction and Post-construction Controls</p> <ul style="list-style-type: none"> • Implement CPEC Program discussed at last Supervisor's Meeting (2/16/11) <p>MCM #6 – Pollution Prevention and Good Housekeeping</p> <ul style="list-style-type: none"> • Maintain "<i>Quarterly MOA Report Forms</i>"

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OVERVIEW: Long Creek Permits

Regulatory Program	Requirements
Long Creek General Permit (GP) <i>Fee applied to impervious areas (\$3,000/acre/year):</i> • Crosby (-3.5 acres) • Mainline (~20 acres)	Inspection and maintenance of paved surfaces and BMPs, including: • Sweeping as soon after snowmelt as possible • Inspecting and cleaning out CBs and OFs regularly Crosby – Continue joint quarterly inspections Mainline - Must achieve the following to <u>maintain fees for 20 acres</u> (i.e., versus 30+ acres): 1. Regularly sweep/vacuum edge of pavement to remove deposits and promote sheet flow off pavement 2. Reseed eroded gullies along edge of pavement to prevent channelized flow along pavement 3. Limit mowing to one-time per year
Long Creek Individual Permit (IP) <i>Applicable to MTA HQ</i>	Continue regular inspections and maintenance • Inspections by MTA HQ staff • Maintenance by MTA HM, as needed

Permit Requirements

DILEMMA FOR TRANSPORTATION SYSTEMS :

Subject to many duplicative requirements

For example, MS4 Requirements:

- Implement Awareness Plan
 - GOAL: raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems for Maine's waters
- Implement BMP Adoption Plan
 - GOAL: identify BMPs that reduce polluted stormwater runoff

REGULATORY BACKGROUND

TO SATISFY THE REGULATORY REQUIREMENTS, MTA HAS DEVELOPED....

- Storm Water Program Management Plan (SPMP) for all regulated UAs along Turnpike
 - 2008 New 5-year Plan!
 - Catch basin cleanout program
 - Outfall inspection program
 - Stormwater Awareness Plan
 - BMP Adoption Plan
- Storm Water Pollution Prevention Plan (SWPPP) elements are incorporated into facility SPCC Plans.
- Good housekeeping BMPs for all maintenance facilities
 - Regardless of location (e.g., UA or non-UA)
- Construction Project Environmental Compliance (CPEC) Program (i.e., inspection checklist for ALL projects)
 - Regardless of location and size

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*First:
IDENTIFY UA*

- "Urbanized Areas" Include:
 - Sabattus - Mile 83.6 to 84.3
 - Lewiston - "all of Lewiston"
 - Auburn - Mile 75.0 to 75.6 and 78.9 to 79.4
 - Falmouth - Mile 51.8 to 53.4 and Exits 52, 53
 - Portland - Mile 46.7 to 51.8, Exits 46, 47, 48
 - Scarborough - Mile 41.0 to 42.0
 - Saco - Mile 33.0 to 35.7, Exit 36 approach ramp
 - Biddeford - Mile 32.0 to 33.0
 - Kittery - Mile 3.1 to 4.2 and 0 to 2.2, Exits 1, 2, 3



*Second:
IDENTIFY UIS WATERSHEDS*

- "Urban Impaired Streams" include:
 - Thacher Brook (Exit 32)
 - Goosefare Brook (Exit 36)
 - Red Brook (Exit 44)
 - Long Creek (Exit 45 and 46)
 - Nasons Brook (Exit 47)
 - Capisic Brook (Exit 48)
 - Logan Brook (Exit 75)
 - Hart (Dill) Brook (Exit 80)
 - Stay tuned, list is expanding...

*SO...
is your Maintenance Facility located
within these areas?*

....MTA has implemented "good housekeeping" BMPs at all Maintenance Facility to minimize the potential for storm water pollution.

Because....



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 *DEP states:* 

"...the effect stormwater runoff has on the water quality of Maine waters is impacted by the level of effort put into the construction, operation, and maintenance of MTA's stormwater infrastructure. Polluted water entering the storm drain system and discharged untreated directly to waterbodies is used for drinking, fishing, and swimming, which impacts everyone in Maine."

BMPs at Maintenance Facilities

Many MTA Maintenance Facility Activities May Have the Potential To Impact Storm Water

- Equipment Storage
- Vehicle Maintenance and Washing
- Material Handling and Storage
 - Oil and Petroleum Products
 - Sand and Salt
 - Waste and Excess Material Storage
 - Painting

BMPs at Maintenance Facilities

To satisfy these permit requirements MTA needs YOUR HELP in:



- Implementing the required BMPs
- Tracking BMPs using the appropriate documentation

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Review of Stormwater BMPs

Two types of BMPs:

- Non-structural



- Operational and pollution-prevention type practices to prevent pollutants from entering stormwater runoff
 - Ex: Good housekeeping practices

- Structural



- Engineered and constructed systems designed to provide water quantity or quality control
 - Ex: Sedimentation trap

Sedimentation trap = Catch basin

*Review of Stormwater BMPs:
other sedimentation traps*



Review of Stormwater BMPs

Let's focus on Maintenance
Facilities first....

...Before we move on to the
mainline and construction...

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Review of Stormwater BMPs
Indoor sand and salt storage



Structural BMP?

Non-structural BMP?

Review of Stormwater BMPs
Indoor sand and salt storage



1

Review of Stormwater BMPs
Vehicle washing procedures



Only RINSE outside at designated rinse point!

Only WASH inside in designated wash bay!

1

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Review of Stormwater BMPs *Pavement Sweeping*

Is sweeping a BMP?



1

Review of Stormwater BMPs *Pavement Sweeping*

How often?

Don't forget to track your sweeping activities in the quarterly report!



Priority in Spring time

Priority near Urban Impaired Streams

Hart Brook (Dill Brook) and Goosefare Brook

More on sweeping on mainline...

Storm Water Pollution Prevention: BMPs at Maintenance Facilities

Solid waste management

What's wrong with this picture? →



What's right about this picture? →

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**Storm Water Pollution Prevention:
BMPs at Maintenance Facilities**
Capping Hydraulic Lines



1

**Storm Water Pollution Prevention:
BMPs at Maintenance Facilities**
Proper vehicle, equipment and materials storage

Use vegetated buffers for storing galvanized materials →



← Be mindful of hydraulic hoses and store equipment inside/under cover whenever possible

Review of Stormwater BMPs

Why is it important to maintain Stormwater BMPs at your Maintenance Facility?

- a.) Many materials can become pollutants in stormwater runoff
- b.) Many activities have the potential to impact stormwater runoff

c.) Both a.) and b.)

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Review of Stormwater BMPs
 What are some of the activities that have the potential to impact stormwater if BMPs are not in place?

Equipment Storage?

Refueling?

Vehicle Maintenance and Washing?

Painting Operations?

Others?

1

Review of Stormwater BMPs
 What are some of the materials that have the potential to impact stormwater if BMPs are not in place?

Sand and Salt

Petroleum products

Magnesium chloride and Salt Brine

Paint overspray

Others?

1

Preview of Stormwater Requirements to Come...

September 2010: Supervisor's Meeting
November 2010: Gubernatorial Election

April 2011: MSGP Finalized by DEP
April 2011: California Court Ruling (EPA)

BRIEF

TO: MTA Highway Maintenance Foremen and Supervisors
FROM: MTA Environmental Services Coordinator (ESC)
DATE: September 16, 2010
SUBJECT: Quarterly Storm Water Visual Monitoring Checklist

PURPOSE: The purpose of this memorandum is to establish guidelines for quarterly visual monitoring of stormwater discharges at Highway Maintenance Facilities. This memorandum was developed using the DEP "Standard Operating Procedure Guidelines for Visual Monitoring of Stormwater Discharges Associated with Industrial Activity" (see attached DEP Doc #DEP-10-10, dated April 29, 2010, located on attached to the DEP website).

GOAL: Foremen and Supervisors should conduct quarterly visual monitoring of stormwater discharges for monthly storm water treatment with industrial activity at MTA Highway Maintenance Facilities. Foremen and Supervisors should use the Storm Water Visual Monitoring Report Form to collect and document the information specified in the 2010 guidelines using the [MSGP Form #2010](#).

Water Sampling and/or Visual Monitoring Report
 FORM #2010

SECTION 1: GENERAL INFORMATION

Activity	Location	Date	Time	Weather	Wind	Temp	Humidity	Clouds	Visibility	Other

This form is to be used to document the information specified in the 2010 guidelines using the [MSGP Form #2010](#).

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Preview of Stormwater Requirements to Come...

STEP 1: Identify Facility Outfall(s)

According to Section 3.4 of the DEP guidelines, an outfall is "any location such as a ditch, rill, pipe or detention pond exit where shallow concentrated flow of stormwater leaves an industrial facility."

Stormwater outfall locations have been identified for Highway Maintenance Facilities with direct discharges. Each outfall is identified on a facility drainage plan. These plans, which are included as Figure 2 of the facility SPCC plan, are attached to this memorandum.



Preview of Stormwater Requirements to Come...

STEP 2: Assign Responsible Personnel

According to Section 4.3 of the DEP guidelines, the same "individual should perform the observations for consistency" and to provide a background of experience with storm water characteristics typical to the site.

Facility Foremen (and/or acting capacity foremen) act as the primary personnel responsible for conducting visual storm water monitoring.

- If a foreman is not available to conduct visual monitoring during a **Qualifying Storm Event** (see **STEP 3**), John Branscom, MTA's ESC, shall be notified immediately by the Foreman or Supervisor and the ESC will act as the secondary responsible personnel.
→ Call John Branscom, MTA's ESC at (207) 671-3487
- If neither the foreman nor the ESC are available to conduct visual monitoring, GZA, MTA's environmental consultants, will conduct the visual stormwater monitoring for that quarter.
→ Call Robyn Saunders/GZA at (207) 232-2844 or (207) 879-9190

Preview of Stormwater Requirements to Come...

STEP 3: Prepare for Qualifying Storm Event

In accordance with Section 3.5 and 5.2 of the DEP guidelines, stormwater samples are collected from a storm event that:

- Yields more than 0.1 inch of precipitation; and
- Occurs at least 72 hours (3 days) from the previous (greater than 0.1 inch) storm event.

Based on predicted weather forecasts, MTA's ESC or his designee will send email notifications to Foreman and Supervisors regarding a potential upcoming **Qualifying Storm Event**, as a reminder to prepare for these quarterly visual monitoring events (i.e., stormwater sampling) since the storm water samples must be collected as follows:

- Within the first 60 minutes (or as soon thereafter as practicable, but in no event later than 2.25 hours) of when the runoff or snowmelt begins discharging from the outfall(s); and
- Within normal daylight business hours.

Stormwater samples must be collected using the 8 ounce (250 mL) glass jars provided to each facility. The following procedures must be followed when preparing and cleaning the containers as per Section 5.4 of the DEP guidelines:

1. Wash containers in a non-phosphate detergent and tap water;
2. Thoroughly fill and rinse containers with tap water at least three times;
3. Store containers closed, and in an area free of dust and other potential sample contaminants; and
4. Label the containers with the outfall location prior to sampling, if more than one outfall.



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Preview of Stormwater Requirements to Come...

STEP 4: Collect Storm Water Sample from Each Outfall

In accordance with Section 5.4 of the DEP guidelines, the storm water sample for each outfall must be "collected by inserting a container under or downstream of a discharge with the container opening facing upstream, and with the opening of the container completely immersed under water, whenever possible."

Foreman and Supervisors collecting storm water samples shall also adhere to the following guidelines to ensure consistent quarterly visual monitoring results are collected:

1. Label the containers with the outfall location prior to taking samples, if sampling more than one outfall.
2. Take the sample from the center of the outfall to avoid stirring up sediments.
3. Avoid touching the inside of the container to prevent contamination; and
4. Make sure samples are securely capped until examination (see STEP 5).

Preview of Stormwater Requirements to Come...

STEP 5: Complete Visual Stormwater Examination

In accordance with Section 5.5 of the DEP guidelines, visual examination of stormwater samples must be "performed within the first sixty minutes (or as soon thereafter as practicable, but not to exceed 2.25 hours) of when the runoff or snowmelt begins discharging from the facility."

Foreman and/or Supervisors must collect storm water samples and bring them to a well lit indoor area for visual examination within these time constraints. Once indoors, the following procedures should be taken and recorded on the Storm Water Visual Examination Report, as indicated below:

1. Record the sample time;
2. Pour each sample into a separate Imhoff cone which will be provided to each Maintenance Facility (one per outfall);
3. Record the total sample volume to the nearest milliliter;
4. Examine the samples for the criteria listed on the form (e.g., color, odor, etc.);
5. Record the amount of settled solids in the bottom of the cone (to the nearest milliliter) one hour after pouring the sample into the cone; and
6. Record the amount of precipitation (i.e., rainfall in inches) and the amount of time since the prior storm event resulting in rainfall greater than 0.1 inches.



According to Section 4.5 of the DEP guidelines, all facilities performing visual monitoring "should have a rain gauge on site for measuring rainfall." If a rain gauge is not available for your facility, the Foreman or Supervisor should contact MTA's ESC for rainfall information based on local information, such as a subscription to a weather service.

Preview of Stormwater Requirements to Come...

STEP 6: Maintain Sample Data and Documentation

In accordance with Section 5.6 of the DEP guidelines, all sample data on the Storm Water Visual Examination Report must be maintained on site (e.g., in environmental files or SPCC Plan, etc.).

After examining and documenting the sample(s) for all of the criteria listed on the Storm Water Visual Examination Report, the Foreman or Supervisor must sign the form. Additionally, a copy of the completed Storm Water Visual Examination Report should also be forwarded to John Branscom, MTA's ESC.

As a reminder, if no Qualifying Storm Event occurs during any quarter, the Storm Water Visual Examination Report should still be signed and certified by checking the box on the bottom of the second page of the form. This completed form should also be maintained on site and forwarded to MTA's ESC.



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Review of Stormwater BMPs

Now, let's move on...



...to the mainline and other areas

NOW...
*what are the responsibilities outside
the Maintenance Facility?*

- Comply with requirements outlined in SPMP and Permit
 - Five-Year Permit Program addressing six Minimum Control Measures (MCMs)
 - Focused on Areas Where Maine Turnpike Passes Through "Urban Areas"
 - Recordkeeping and Annual Reporting required
 - Satisfy Six (6) MCMs...which are...

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**MINIMUM CONTROL
MEASURES**



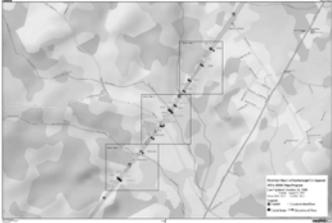
1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
 - CB cleanout and assessments
 - CB and Outfall inspections
4. Construction Storm Water Runoff Control
5. Post-Construction Storm Water Management
6. Pollution Prevention/Good Housekeeping



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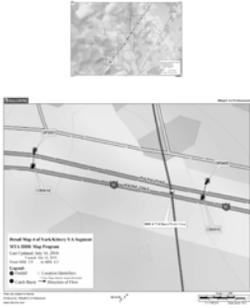
MTA IDDE PROGRAM

- IDDE Program has been implemented within all Urbanized Areas (UAs) over five years
 - Maps have been provided to each HM/EM Facility



MTA IDDE PROGRAM

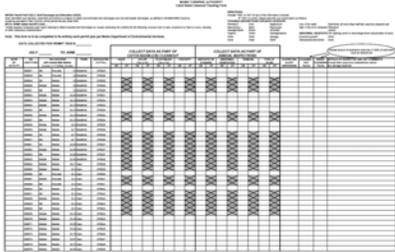
- Dry Weather Inspections of Storm Water Catch Basins and Outfalls within UAs
 - MTA Highway Maintenance will be doing dry weather inspections during the summer months
 - Always be looking for flow in periods where there has been little or no rainfall



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MTA IDDE PROGRAM

- Dry Weather Inspections of Storm Water Catch Basins and Outfalls within UAs



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***ILLICIT DISCHARGE DETECTION
AND ELIMINATION***

What does ILLICIT DISCHARGE mean?

"...any non-permitted discharge to...the waters of the State that does not consist entirely of stormwater or authorized non-stormwater discharges identified in Part IV(H)(3)(b)."

What's an example of an ILLICIT DISCHARGE?

But, there are also...

- Authorized non-stormwater discharges



1

***AUTHORIZED NON-
STORMWATER DISCHARGES***

- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water in filtration (as defined at 40 CFR 35.2005(20))
- Uncontaminated pumped ground water
- Uncontaminated flows from foundation drains
- Air conditioning and compressor condensate
- Irrigation water
- Flows from uncontaminated springs
- Uncontaminated water from crawl space pumps
- Uncontaminated flows from footing drains
- Lawn water runoff
- Flows from riparian habitats and wetlands
- Residual street wash water (where spills/leaks of toxics or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used)
- Hydrant flushing and fire fighting activity runoff
- Water line flushing and discharges from potable water sources

1

***ILLICIT DISCHARGE DETECTION
AND ELIMINATION***

What does ILLICIT DISCHARGE mean?

"...any non-permitted discharge to...the waters of the State that does not consist entirely of stormwater or authorized non-stormwater discharges identified in Part IV(H)(3)(b)."

If an ILLICIT DISCHARGE is identified, there is an SOP for notification (to be reviewed in 2011):

1. Documented using the IDDE notification form; and
2. Reported to the Environmental Services Coordinator right away

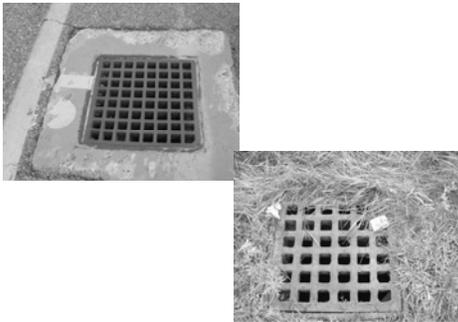
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TYPICAL OUTFALL:
What do you call this?



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ARE THESE OUTFALLS?



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*INTERCONNECTION
BETWEEN CATCH BASINS*



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*SO...
what else are we required to do?*

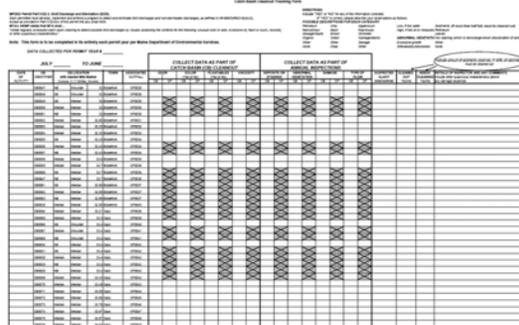
PERMIT REQUIREMENTS
MEPDES Permit Part IV(D) 3. Illicit Discharge Detection and Elimination (IDDE):
"Each permittee must...[conduct] dry weather inspections including training for locating illicit discharges..."

SPMP MEASURABLE GOALS
BMP: Assess content of catch basins during annual cleanout
Goal: Utilize regularly scheduled catch basin cleaning to detect possible illicit discharges by visually assessing the contents for the following:

- a) Unusual color or odor
- b) Excessive oil
- c) Viscosity
- d) Other suspicious characteristics

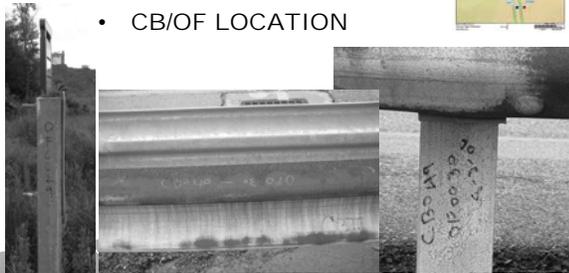


CATCH BASIN CLEANOUT TRACKING FORM



CATCH BASIN CLEANOUT TRACKING FORM

- DATE OF CLEANOUT
- CB/OF IDENTIFIER
- CB/OF LOCATION

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*CATCH BASIN CLEANOUT
TRACKING FORM*



- UNUSUAL ODOR/COLOR
- EXCESSIVE OIL
- FOAM OR SCUM
- VISCOUS
- INITIALS OF INSPECTOR

*CATCH BASIN CLEANOUT
TRACKING FORM*

- COMMENTS



*What type of comments
would you make here?*



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*What type of comments
would you make here?*



*What type of comments
would you make here?*





*But wait what if you are in
the Long Creek Watershed?*

- Additional mainline maintenance requirements

1. Maintain sheet flow!!



- Regular sweeping of edge of pavement to remove deposits
- Removal of mounded sediments deposited along the edge of pavement (and reseeded if necessary)
- Repair and revegetate edge of pavement to ensure no channelized flow parallel to roadway

UIS Watersheds are highly visible areas to public scrutiny...be more vigilant.

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 ***But wait what if you are in the Long Creek Watershed?***

- Additional mainline maintenance requirements
 2. Limited mowing of ROW
 3. No application of pesticides or fertilizers

These Long Creek requirements are good maintenance practices in other UIS Watersheds



 *Now...
let's talk about MCMS #4 & #5 by discussing Erosion and Sedimentation Control (ESC) Principles and BMPs*

- **SIX MINIMUM CONTROL MEASURES**
 1. Public Education and Outreach
 2. Public Involvement and Participation
 3. Illicit Discharge Detection and Elimination
 - CB cleanout and assessments
 - CB and Outfall inspections
 4. Construction Storm Water Runoff Control
 5. Post-Construction Storm Water Management
 6. Pollution Prevention/Good Housekeeping



EROSION & SEDIMENTATION CONTROL

 **There have been a number of rules involving earthwork projects:**

"What are the requirements that I need to be aware of in Highway Maintenance Operations?"



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QUARTERLY MOA REPORTING FORM

2010
QUARTERLY MOA REPORT FOR MTA

Reporting is by quantities completed for the year. MOA reports should include quantities as distances, areas, or number of items.

ACTIVITY DESCRIPTION	DATE	LOCATION	Length (ft)	Width (ft)	Area (sq ft)	Volume (cu yd)	Number of Items	Other
Stormwater ditch	3/24/10	Route 1, mile 1.2	100	4	400			1
Stormwater ditch	3/24/10	Route 1, mile 1.5	150	4	600			1
Stormwater ditch	3/24/10	Route 1, mile 1.8	200	4	800			1
Stormwater ditch	3/24/10	Route 1, mile 2.1	250	4	1000			1
Stormwater ditch	3/24/10	Route 1, mile 2.4	300	4	1200			1
Stormwater ditch	3/24/10	Route 1, mile 2.7	350	4	1400			1
Stormwater ditch	3/24/10	Route 1, mile 3.0	400	4	1600			1
Stormwater ditch	3/24/10	Route 1, mile 3.3	450	4	1800			1
Stormwater ditch	3/24/10	Route 1, mile 3.6	500	4	2000			1
Stormwater ditch	3/24/10	Route 1, mile 3.9	550	4	2200			1
Stormwater ditch	3/24/10	Route 1, mile 4.2	600	4	2400			1
Stormwater ditch	3/24/10	Route 1, mile 4.5	650	4	2600			1
Stormwater ditch	3/24/10	Route 1, mile 4.8	700	4	2800			1
Stormwater ditch	3/24/10	Route 1, mile 5.1	750	4	3000			1
Stormwater ditch	3/24/10	Route 1, mile 5.4	800	4	3200			1
Stormwater ditch	3/24/10	Route 1, mile 5.7	850	4	3400			1
Stormwater ditch	3/24/10	Route 1, mile 6.0	900	4	3600			1
Stormwater ditch	3/24/10	Route 1, mile 6.3	950	4	3800			1
Stormwater ditch	3/24/10	Route 1, mile 6.6	1000	4	4000			1
Stormwater ditch	3/24/10	Route 1, mile 6.9	1050	4	4200			1
Stormwater ditch	3/24/10	Route 1, mile 7.2	1100	4	4400			1
Stormwater ditch	3/24/10	Route 1, mile 7.5	1150	4	4600			1
Stormwater ditch	3/24/10	Route 1, mile 7.8	1200	4	4800			1
Stormwater ditch	3/24/10	Route 1, mile 8.1	1250	4	5000			1
Stormwater ditch	3/24/10	Route 1, mile 8.4	1300	4	5200			1
Stormwater ditch	3/24/10	Route 1, mile 8.7	1350	4	5400			1
Stormwater ditch	3/24/10	Route 1, mile 9.0	1400	4	5600			1
Stormwater ditch	3/24/10	Route 1, mile 9.3	1450	4	5800			1
Stormwater ditch	3/24/10	Route 1, mile 9.6	1500	4	6000			1
Stormwater ditch	3/24/10	Route 1, mile 9.9	1550	4	6200			1
Stormwater ditch	3/24/10	Route 1, mile 10.2	1600	4	6400			1
Stormwater ditch	3/24/10	Route 1, mile 10.5	1650	4	6600			1
Stormwater ditch	3/24/10	Route 1, mile 10.8	1700	4	6800			1
Stormwater ditch	3/24/10	Route 1, mile 11.1	1750	4	7000			1
Stormwater ditch	3/24/10	Route 1, mile 11.4	1800	4	7200			1
Stormwater ditch	3/24/10	Route 1, mile 11.7	1850	4	7400			1
Stormwater ditch	3/24/10	Route 1, mile 12.0	1900	4	7600			1
Stormwater ditch	3/24/10	Route 1, mile 12.3	1950	4	7800			1
Stormwater ditch	3/24/10	Route 1, mile 12.6	2000	4	8000			1
Stormwater ditch	3/24/10	Route 1, mile 12.9	2050	4	8200			1
Stormwater ditch	3/24/10	Route 1, mile 13.2	2100	4	8400			1
Stormwater ditch	3/24/10	Route 1, mile 13.5	2150	4	8600			1
Stormwater ditch	3/24/10	Route 1, mile 13.8	2200	4	8800			1
Stormwater ditch	3/24/10	Route 1, mile 14.1	2250	4	9000			1
Stormwater ditch	3/24/10	Route 1, mile 14.4	2300	4	9200			1
Stormwater ditch	3/24/10	Route 1, mile 14.7	2350	4	9400			1
Stormwater ditch	3/24/10	Route 1, mile 15.0	2400	4	9600			1
Stormwater ditch	3/24/10	Route 1, mile 15.3	2450	4	9800			1
Stormwater ditch	3/24/10	Route 1, mile 15.6	2500	4	10000			1
Stormwater ditch	3/24/10	Route 1, mile 15.9	2550	4	10200			1
Stormwater ditch	3/24/10	Route 1, mile 16.2	2600	4	10400			1
Stormwater ditch	3/24/10	Route 1, mile 16.5	2650	4	10600			1
Stormwater ditch	3/24/10	Route 1, mile 16.8	2700	4	10800			1
Stormwater ditch	3/24/10	Route 1, mile 17.1	2750	4	11000			1
Stormwater ditch	3/24/10	Route 1, mile 17.4	2800	4	11200			1
Stormwater ditch	3/24/10	Route 1, mile 17.7	2850	4	11400			1
Stormwater ditch	3/24/10	Route 1, mile 18.0	2900	4	11600			1
Stormwater ditch	3/24/10	Route 1, mile 18.3	2950	4	11800			1
Stormwater ditch	3/24/10	Route 1, mile 18.6	3000	4	12000			1
Stormwater ditch	3/24/10	Route 1, mile 18.9	3050	4	12200			1
Stormwater ditch	3/24/10	Route 1, mile 19.2	3100	4	12400			1
Stormwater ditch	3/24/10	Route 1, mile 19.5	3150	4	12600			1
Stormwater ditch	3/24/10	Route 1, mile 19.8	3200	4	12800			1
Stormwater ditch	3/24/10	Route 1, mile 20.1	3250	4	13000			1
Stormwater ditch	3/24/10	Route 1, mile 20.4	3300	4	13200			1
Stormwater ditch	3/24/10	Route 1, mile 20.7	3350	4	13400			1
Stormwater ditch	3/24/10	Route 1, mile 21.0	3400	4	13600			1
Stormwater ditch	3/24/10	Route 1, mile 21.3	3450	4	13800			1
Stormwater ditch	3/24/10	Route 1, mile 21.6	3500	4	14000			1
Stormwater ditch	3/24/10	Route 1, mile 21.9	3550	4	14200			1
Stormwater ditch	3/24/10	Route 1, mile 22.2	3600	4	14400			1
Stormwater ditch	3/24/10	Route 1, mile 22.5	3650	4	14600			1
Stormwater ditch	3/24/10	Route 1, mile 22.8	3700	4	14800			1
Stormwater ditch	3/24/10	Route 1, mile 23.1	3750	4	15000			1
Stormwater ditch	3/24/10	Route 1, mile 23.4	3800	4	15200			1
Stormwater ditch	3/24/10	Route 1, mile 23.7	3850	4	15400			1
Stormwater ditch	3/24/10	Route 1, mile 24.0	3900	4	15600			1
Stormwater ditch	3/24/10	Route 1, mile 24.3	3950	4	15800			1
Stormwater ditch	3/24/10	Route 1, mile 24.6	4000	4	16000			1
Stormwater ditch	3/24/10	Route 1, mile 24.9	4050	4	16200			1
Stormwater ditch	3/24/10	Route 1, mile 25.2	4100	4	16400			1
Stormwater ditch	3/24/10	Route 1, mile 25.5	4150	4	16600			1
Stormwater ditch	3/24/10	Route 1, mile 25.8	4200	4	16800			1
Stormwater ditch	3/24/10	Route 1, mile 26.1	4250	4	17000			1
Stormwater ditch	3/24/10	Route 1, mile 26.4	4300	4	17200			1
Stormwater ditch	3/24/10	Route 1, mile 26.7	4350	4	17400			1
Stormwater ditch	3/24/10	Route 1, mile 27.0	4400	4	17600			1
Stormwater ditch	3/24/10	Route 1, mile 27.3	4450	4	17800			1
Stormwater ditch	3/24/10	Route 1, mile 27.6	4500	4	18000			1
Stormwater ditch	3/24/10	Route 1, mile 27.9	4550	4	18200			1
Stormwater ditch	3/24/10	Route 1, mile 28.2	4600	4	18400			1
Stormwater ditch	3/24/10	Route 1, mile 28.5	4650	4	18600			1
Stormwater ditch	3/24/10	Route 1, mile 28.8	4700	4	18800			1
Stormwater ditch	3/24/10	Route 1, mile 29.1	4750	4	19000			1
Stormwater ditch	3/24/10	Route 1, mile 29.4	4800	4	19200			1
Stormwater ditch	3/24/10	Route 1, mile 29.7	4850	4	19400			1
Stormwater ditch	3/24/10	Route 1, mile 30.0	4900	4	19600			1
Stormwater ditch	3/24/10	Route 1, mile 30.3	4950	4	19800			1
Stormwater ditch	3/24/10	Route 1, mile 30.6	5000	4	20000			1
Stormwater ditch	3/24/10	Route 1, mile 30.9	5050	4	20200			1
Stormwater ditch	3/24/10	Route 1, mile 31.2	5100	4	20400			1
Stormwater ditch	3/24/10	Route 1, mile 31.5	5150	4	20600			1
Stormwater ditch	3/24/10	Route 1, mile 31.8	5200	4	20800			1
Stormwater ditch	3/24/10	Route 1, mile 32.1	5250	4	21000			1
Stormwater ditch	3/24/10	Route 1, mile 32.4	5300	4	21200			1
Stormwater ditch	3/24/10	Route 1, mile 32.7	5350	4	21400			1
Stormwater ditch	3/24/10	Route 1, mile 33.0	5400	4	21600			1
Stormwater ditch	3/24/10	Route 1, mile 33.3	5450	4	21800			1
Stormwater ditch	3/24/10	Route 1, mile 33.6	5500	4	22000			1
Stormwater ditch	3/24/10	Route 1, mile 33.9	5550	4	22200			1
Stormwater ditch	3/24/10	Route 1, mile 34.2	5600	4	22400			1
Stormwater ditch	3/24/10	Route 1, mile 34.5	5650	4	22600			1
Stormwater ditch	3/24/10	Route 1, mile 34.8	5700	4	22800			1
Stormwater ditch	3/24/10	Route 1, mile 35.1	5750	4	23000			1
Stormwater ditch	3/24/10	Route 1, mile 35.4	5800	4	23200			1
Stormwater ditch	3/24/10	Route 1, mile 35.7	5850	4	23400			1
Stormwater ditch	3/24/10	Route 1, mile 36.0	5900	4	23600			1
Stormwater ditch	3/24/10	Route 1, mile 36.3	5950	4	23800			1
Stormwater ditch	3/24/10	Route 1, mile 36.6	6000	4	24000			1
Stormwater ditch	3/24/10	Route 1, mile 36.9	6050	4	24200			1
Stormwater ditch	3/24/10	Route 1, mile 37.2	6100	4	24400			1
Stormwater ditch	3/24/10	Route 1, mile 37.5	6150	4	24600			1
Stormwater ditch	3/24/10	Route 1, mile 37.8	6200	4	24800			1
Stormwater ditch	3/24/10	Route 1, mile 38.1	6250	4	25000			1
Stormwater ditch	3/24/10	Route 1, mile 38.4	6300	4	25200			1
Stormwater ditch	3/24/10	Route 1, mile 38.7	6350	4	25400			1
Stormwater ditch	3/24/10	Route 1, mile 39.0	6400	4	25600			1
Stormwater ditch	3/24/10	Route 1, mile 39.3	6450	4	25800			1
Stormwater ditch	3/24/10	Route 1, mile 39.6	6500	4	26000			1
Stormwater ditch	3/24/10	Route 1, mile 39.9	6550	4	26200			1
Stormwater ditch	3/24/10	Route 1, mile 40.2	6600	4	26400			1
Stormwater ditch	3/24/10	Route 1, mile 40.5	6650	4	26600			1
Stormwater ditch	3/24/10	Route 1, mile 40.8	6700	4	26800			1
Stormwater ditch	3/24/10	Route 1, mile 41.1	6750	4	27000			1
Stormwater ditch	3/24/10	Route 1, mile 41.4	6800	4	27200			1
Stormwater ditch	3/24/10	Route 1, mile 41.7	6850	4	27400			

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CULVERT REPAIR & MAINTENANCE

Fish passage concerns, new regulations are forming statewide and in certain Municipalities.



Don't forget to log the number of your culvert repairs and maintenance in the Quarterly MOA Report form!

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CULVERT REPAIR & MAINTENANCE



How should we track outfall repairs?

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**PERMANENT SLOPE STABILIZATION:
RIPRAP DOWNSPOUTS**



Don't forget to log the number of your downspout work in the Quarterly MOA Report form!

What about maintenance?

72

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CATCH BASIN REPAIR & MAINTENANCE



Don't forget to log the number of your catch basins repairs and maintenance in the Quarterly MOA Report form!

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SLOPE AND RIGHT OF WAY REPAIRS



Don't forget to log your slope and ROW repairs and maintenance as lengths by widths in the Quarterly MOA Report form!

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SLOPE AND RIGHT OF WAY REPAIRS



Don't forget to log in the Quarterly MOA Report form!

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IMPERVIOUS AREA REDUCTION



More and more important to reduce impervious cover

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Review of Permit Requirements

How are your activities and projects tracked for meeting these reporting requirements?

- Complete quarterly MOA Report for MTA Maintenance Facilities
- Prepare project-specific Erosion and Sedimentation Control (ESC) Plans



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EROSION & SEDIMENTATION CONTROL PLANS

What is an Erosion and Sedimentation Control (ESC) Plan?

Dig Safe System, Inc.
It's Smart. It's Easy. It's the Law.



= Erosion and Sedimentation Control (ESC) Plan

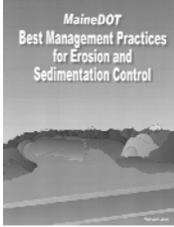
... a tool and resource for correct implementation and use of BMPs

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EROSION & SEDIMENTATION CONTROL PLANS

Resource for temporary ESC BMPs



...to install new structural BMPs

BMP Manual can be found in your Foreman's office or online
<http://www.state.me.us/mdot/environmental-office-homepage/2008bmpmanual.php>

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Review of Permit Requirements

How are your activities and projects tracked for meeting these reporting requirements?

- Complete quarterly MOA Report for MTA Maintenance Facilities
- Prepare project-specific Erosion and Sedimentation Control (ESC) Plans
- Complete Inspection Checklist for Construction Sites



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INSPECTION CHECKLIST FOR CONSTRUCTION

Inspections and Reporting

A daily inspection log must be kept for the duration of all construction projects.

- ❖ The inspections should include:
 - ❖ Disturbed and impervious areas
 - ❖ Erosion control measures
 - ❖ Materials storage areas exposed to precipitation
 - ❖ Vehicle entrances and exits



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BRIEF REVIEW OF COMMON BMPs

Implementing appropriate BMPs, as described in Maine DOT's Stormwater BMPs Manual, to all MTA related activities will help to minimize stormwater pollutants introduced to Maine's waterbodies.

Newly installed BMPs must be tracked and inspected in first year



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BRIEF REVIEW OF COMMON BMPs

- **MaineDOT BMP Manual is a good resource for:**
 - Details of structural BMPs
 - Summary of MOA, regulations and other background information
- **BMPs are more plentiful and more frequent**
 - Use a daily log to document earthwork
 - Must track all projects regardless of size and location
 - Implement SPCC measures

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**BRIEF REVIEW OF BMPs
VERY IMPORTANT!!**

Silt fence must be installed prior to any land disturbance
Silt fence must be installed downhill of all disturbed slopes

- ❖ Regardless of size or location
- ❖ Until area is **permanently stabilized**



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TYPICAL SILT FENCE DETAIL

See BMP Manual for updated specifications (Section III:41)

**BRIEF REVIEW OF BMPs
VERY IMPORTANT!!**

What's wrong with this picture?

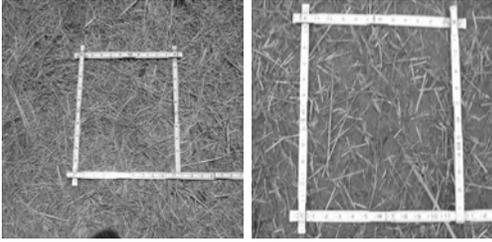
**BRIEF REVIEW OF BMPs
VERY IMPORTANT!!**

Mulch!
Newly disturbed earth shall be mulched or otherwise stabilized by the end of each workday.

- Mulch shall be maintained on a daily basis

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ADEQUATE MULCHING:
Will both of these mulch applications prevent erosion?



Hay and straw mulch applications are addressed in Section III:9 of the MaineDOT BMP Manual

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VERY IMPORTANT!!

Regardless of the time of year, take appropriate measures to prevent erosion or sedimentation from occurring AND to correct any existing problems



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OTHER REQUIREMENTS:
VERY IMPORTANT!!

Trained Personnel
All projects must have an On-Site Responsible Party (OSRP)

- ❖ OSRP has been trained through DEP'S Non-Point Source Training Center
- ❖ OSRP is knowledgeable in erosion and sediment control



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Review of Permit Requirements

How are your activities and projects tracked for meeting these reporting requirements?

- Complete quarterly MOA Report for MTA Maintenance Facilities
- Prepare project-specific Erosion and Sedimentation Control (ESC) Plans
- Complete Inspection Checklist for Construction Sites
- Perform monthly inspections of BMPs post-construction



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Post-Construction BMP Inspections

What about after construction? Do inspections stop and everything functions on it's own.....?

- Project likely part of CPEC Program
 - Post-construction Audit; and
 - Quarterly BMP inspection & maintenance
- WHAT IS THE CPEC PROGRAM?



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CPEC PROGRAM

MTA has developed a construction recording keeping program...

- Construction Project Environmental Compliance (CPEC) Binder
 - Contains all relevant materials for Stormwater and Erosion/Sedimentation Control permitting requirements
 - Control documentation for construction project compliance

How does this affect your Highway Maintenance Facilities?

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GZA

Post-Construction BMP Inspections



100

GZA

IMPORTANT POINTS:
As OSRP you should...

- **Be familiar with required ESCs**
- **Be familiar with MaineDOT BMPs**
- **Be prepared to document ESCs and BMPs**
 - Summaries used to complete the Annual Reports to DEP
- **Be conscious and vigilant if you are in a UIS Watershed**
- **More changes are on the way...**
 - UIS watershed management plans...

101

GZA

REMEMBER:

"...the effect stormwater runoff has on the water quality of Maine waters is impacted by the level of effort put into the construction, operation, and maintenance of MTA's stormwater infrastructure. Polluted water entering the storm drain system and discharged untreated directly to waterbodies is used for drinking, fishing, and swimming, which impacts everyone in Maine."

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Stormwater/ESC Training
May 2011



**Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011**

WHO SAID PERMIT	ARE YOU SURE THAT'S THE BEST	WHO SAID ILLICIT	IS IT STABLE	PAPER, PAPER, & MORE PAPER
<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>
<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>
<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>

[SAYS WHO?]

What does **MS4** acronym stand for?



ANSWER: Municipal Separate Storm Sewer Systems (MS4s)

[SAYS WHO?]

What does **UA** acronym stand for and who defines it?

ANSWER: Urbanized Areas (UA) and DEP defines it based on the US Census definition of urbanized areas. New US Census data available soon, likely to result in changes of these boundaries!



**Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011**

[SAYS WHO?]

Why are stormwater permits required?



ANSWER: Polluted water entering the storm drainage system and discharged untreated directly to waterbodies is used for drinking, fishing, and swimming, which impacts everyone in Maine.

[SAYS WHO?]

What are the new requirements proposed under the Multi-Sector General Permit (MSGP) for Stormwater Discharges?



ANSWER: Quarterly visual monitoring following a qualified rain event (10th of inch)



[SAYS WHO?]

What brand new permit was accepted last year that will affect MTA in a specific Watershed and has potential to in other areas?



ANSWER: Long Creek Watershed Management Plan and General Permit for Post Construction in Long Creek

Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011

[ARE YOU SURE THAT'S THE BEST?]

What are the two categories of BMPs?



- ANSWER:
1. **Structural** - engineered and constructed systems for water quantity and/or quality control
 2. **Non-structural** - operational and pollution prevention type practices to prevent pollutants from entering stormwater runoff

[ARE YOU SURE THAT'S THE BEST?]



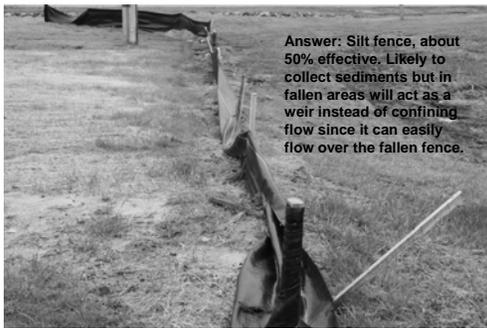
Can you name three MTA maintenance facility activities that have the highest potential for impacting stormwater.

- ANSWER:
- Equipment Storage
 - Vehicle Maintenance and/or washing
 - Material handling and storage



[ARE YOU SURE THAT'S THE BEST?]

What BMP is this and how effective is this one?



Answer: Silt fence, about 50% effective. Likely to collect sediments but in fallen areas will act as a weir instead of confining flow since it can easily flow over the fallen fence.



**Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011**

[ARE YOU SURE THAT'S THE BEST?]

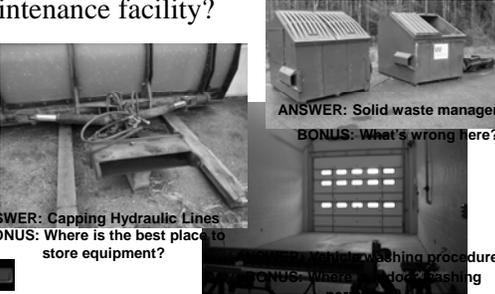
How effective is this catch basin in collecting flow? What concerns should we have about this area?



ANSWER: Likely captures 10% of flows. The lack of vegetation will generate erosion and sedimentation as seen with the channelized flow. No vegetation to dissipate flows and buffer pollutant loads. Covered CB is likely clogged internally also.

[ARE YOU SURE THAT'S THE BEST?]

Name the three non-structural BMPs shown here that are commonly used at every maintenance facility?



ANSWER: Capping Hydraulic Lines
BONUS: Where is the best place to store equipment?

ANSWER: Solid waste management
BONUS: What's wrong here?

ANSWER: Vehicle washing procedures
BONUS: Where is vehicle washing permitted?

[WHO SAID ILLICIT?]

What is the MS4 acronym IDDE stand for?



ANSWER: Illicit Discharge Detection and Elimination (IDDE)

Maine Turnpike Authority Stormwater/ESC Trivia Game May 2011

[WHO SAID ILLICIT?]

What do you do if you observe an illicit discharge? Who should you notify?



ANSWER: Document using the IDDE notification form; and Report to the Environmental Services Coordinator right away.

[WHO SAID ILLICIT?]

Which of the following are not “authorized non-stormwater discharges” listed in the MS4 permit?




- (A) Landscape irrigation
- (B) Diverted stream flows
- (C) Vehicle wash water
- (D) Air conditioning and compressor condensate
- (E) Uncontaminated flows from footing drains




[WHO SAID ILLICIT?]

What type of inspections are required as part of the IDDE program?

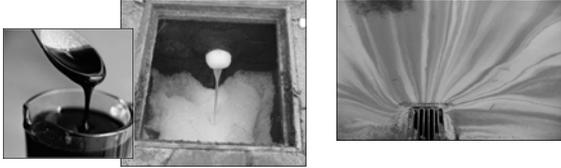



ANSWER: Dry weather inspections of outfalls and catch basin cleanout

**Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011**

[WHO SAID ILLICIT?]

What are the suspicious characteristics of sediments that must be documented during the annual catch basins clean-out?



ANSWER:

1. Unusual color or odor
2. Excessive oil
3. Viscosity
4. Other suspicious characteristics



[IS IT STABLE?]

What is the difference between erosion and sedimentation?

ANSWER:

Erosion = Movement of soil by action of water or wind.
Erosion is natural; but accelerated erosion is not!

Sedimentation = "settling out" of soil particle from the water.



[IS IT STABLE?]

What type of comments would you make on the CB clean-out form at this location?



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Stormwater/ESC Trivia Game
May 2011**

[IS IT STABLE?]

What is wrong with this picture?

BONUS: What temporary erosion and sedimentation control BMP must be installed before the end of the day wherever there is exposed soil?



ANSWER: Mulch

[IS IT STABLE?]

What type of comments would you make on the CB clean-out form at this location?



[IS IT STABLE?]

When should permanent slope stabilization measures be applied? Name three of the approved methods for permanent stabilization.

ANSWER: IMMEDIATELY and at least within one week of the last soil disturbance.

Approved Methods

- ❖ **Seeded areas:** 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.
- ❖ **Sodded areas:** Complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
- ❖ **Permanent Mulch:** Total coverage of the exposed area.
- ❖ **Riprap:** Stabilized slopes with appropriate backing of a well-graded gravel or approved geotextile.
- ❖ **Paved areas:** Placement of the compacted gravel subbase is completed.
- ❖ **Ditches, channels, and swales:** Channel is stabilized with a 90% cover of healthy vegetation, well-graded riprap lining, or with another non-erosive lining. No evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.



**Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011**

[PAPER, PAPER, AND MORE PAPER]

Who do you send all your stormwater related paperwork to?



ANSWER: John Branscom, Environmental Services Coordinator

BONUS: Where do you keep the originals?

ANSWER: In your on-site files



[PAPER, PAPER, AND MORE PAPER]

Where are these UA maps located at your facility?

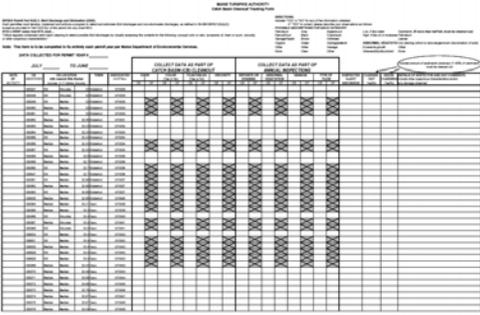


ANSWER: in your on-site environmental files



[PAPER, PAPER, AND MORE PAPER]

What is this form used for?



ANSWER: Catch basins cleanout and dry weather outfall inspections tracking



Maine Turnpike Authority

MS4 Stormwater Awareness Plan

Developing and implementing a Stormwater Awareness Plan is a requirement of the Maine Department of Environmental Protection's (DEP's) *General Permit for the Discharge of Stormwater from Maine Department of Transportation (MaineDOT) and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems (MS4s)*. Since MTA is subject to this MS4 permit and its six *Minimum Control Measures (MCMs)*, *Part IV(H)(1)(a)(i)* requires MTA to conduct Public Education and Outreach (MCM #1) efforts that *"continue raising awareness of stormwater issues amongst employees and contractors."*

1.0 PERMIT LANGUAGE

Part IV(H)(1) of the MS4 Permit establishes three goals for *MCM #1 - Public Education and Outreach on Stormwater Impacts*. These include the following:

- 1. To raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems for Maine's waters;*
- 2. To motivate staff and contractors to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and*
- 3. To reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs.*

In addition to continuing outreach efforts from the previous MS4 Permit (e.g., 5-year cycle)¹, MTA must satisfy these three goals by also continuing to raise awareness of stormwater among MTA employees and contractors. The progress and effectiveness of the Plan and associated efforts must then be evaluated and included in each annual report submitted to Maine DEP in accordance with *Part IV(J)* of the MS4 Permit. As part of this evaluation, MTA must include an assessment of process indicators and impact indicators to evaluate efforts in meeting these goals. In the fifth annual report, the BMP Adoption Plan shall be reviewed fully and include analysis of the process and impact indicators.

2.0 COVERAGE AREA

This plan has been developed for implementation by MTA to meet MS4 Permit requirements for Urbanized Areas (UAs) within MTA's right-of-way (ROW).

Process indicators are related to the execution of the program, such as (1) percent or number of employees who attend a training session; or (2) completion of a particular action item (e.g., distributing posters to employee work place and/or contractor job site).

Impact indicators are related to the achievement of the goals and objectives of the program, such as (1) observable/measurable effects on behavior; or (2) percent or number of employees to describe sources of storm water pollution, proper spill response, or maintenance of a BMP.

¹ Public education and outreach efforts continued from the previous MS4 permit cycle include (but are not limited to) conducting annual stormwater pollution prevention/spill prevention control and countermeasures (SPCC) training to MTA maintenance and engineering employees, as well as other Measurable Goals that can be found in MTA's Stormwater Program Management Plan (SPMP) dated December 2008.

3.0 OBJECTIVE

The objective of this Stormwater Awareness Plan is to raise awareness among MTA employees and contractors regarding stormwater issues. For example, stormwater runoff is one of the most significant sources of water quality problems for Maine's waters.

The goal of the Stormwater Awareness Plan is to provide information relative to stormwater impacts in an effort to raise awareness of MTA employees. For example, 100% of Highway Maintenance employees and Engineering Inspectors will attend training sessions at which stormwater issues and impacts will be addressed. Additionally, MTA will also work to raise awareness among MTA employees in other departments, such as Fare Collections by providing abbreviated Stormwater/Spill Prevention and Response training to supervisors and managers who will in turn inform additional employees regarding stormwater issues relative to MTA operations.

The goal of this Plan is to also raise awareness of contractors by providing this Plan, as well as the Targeted BMP Adoption Plan (which is designed to motivate employees and contractors to use BMPs to reduce polluted stormwater runoff), prior to starting work on MTA projects.

4.0 MESSAGE

The message MTA will strive to impart on employees and contractors will relate to the potential impacts their activities may have on stormwater runoff and water quality in Maine. The message statement is:

“The effect stormwater runoff has on the water quality of Maine waters is impacted by the level of effort put into the construction, operation, and maintenance of MTA’s stormwater infrastructure. Polluted water entering the storm drain system and discharged untreated directly to waterbodies is used for drinking, fishing, and swimming, which impacts everyone in Maine.”

In addition to the Stormwater Awareness Plan message, the target audience will be informed of authorized non-stormwater discharges allowed by the permit provided they do not contribute to a violation of water quality standards, as determined by the DEP. These include the following:

- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- Uncontaminated pumped ground water
- Uncontaminated flows from foundation drains
- Air conditioning and compressor condensate
- Irrigation water
- Flows from uncontaminated springs
- Uncontaminated water from crawl space pumps
- Uncontaminated flows from footing drains
- Lawn watering runoff
- Flows from riparian habitats and wetlands
- Residual street wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used)
- Hydrant flushing and fire fighting activity runoff
- Water line flushing and discharges from potable water sources

4.1 OUTREACH TOOL(S) AND DISTRIBUTION

This Stormwater Awareness Plan and message will be provided to each MTA employee at annual training sessions and also to each contractor before commencement of work, in addition to the Targeted BMP Adoption Plan.

MTA has established or will rely on a number of outreach tools including the following:

- Existing stormwater training programs
 - For MTA employees, the internal training program will be evaluated annually (and updated, as needed) to include storm water topics in order to assess process and impact indicators; and
 - For contractors, MTA continues to require an On-Site Responsible Party (OSRP) certified by DEP’s NPS Training Program to be knowledgeable of stormwater, specifically erosion prevention, sedimentation control and other potential impacts to water quality in Maine.
- Stormwater information packages to raise awareness and encourage utilization of targeted BMPs
 - For MTA employees, information will be provided during annual and supplemental training sessions. Informational packages may also be provided via MTA’s newsletters and memos posted to employee bulletin boards, as well as through employee meetings, including quarterly Environmental Health & Safety Committee meetings.
 - For contractors, MTA will continue to include contractual requirements provided in the standard contract language that establishes the anticipated expectations for performance and payment. Stormwater information will be discussed or provided to contractors prior to starting work (e.g., at Pre-Construction meetings).

4.2 TIMELINE AND IMPLEMENTATION SCHEDULE

The timeline and implementation schedule is determined by:

- The training schedule established each year for MTA employees; and
- The solicitation and project award notices each year.

MTA has established a representative training schedule for each year and is similar to the table below:

Date	Training Type
April	Erosion and Sediment Control (ESC) and Stormwater Pollution Prevention for highway maintenance Supervisors and Foremen
May - June	Spill Prevention Control and Countermeasures Plan (SPCC), Stormwater and Erosion and Sediment Control (ESC) for MTA maintenance and engineering employees.
October	Spill Prevention Control and Countermeasures Plan (SPCC) and Stormwater for Fare Collections

The training sessions are designed to meet the goal of increasing awareness, as well as encouraging utilization of targeted BMPs to reduce stormwater runoff and potential impacts. In addition to these training sessions, there may be supplemental training sessions as needed and/or new information posters about stormwater BMPs posted at MTA facilities. Newsletters including stormwater information may also be sent each year to employees.

For contractors, MTA’s requirement to have an OSRP certified by DEP’s NPS Program ensures that the contractor is aware of stormwater related issues. However, in Permit Year 2, MTA will begin distributing this Stormwater Awareness Plan to contractors.

4.3 RESPONSIBLE PARTY

The primary responsible party at MTA is the Environmental Services Coordinator, John Branscom. The Environmental Services Coordinator may also rely on the following:

- MTA Supervisors, Foremen, Inspectors and/or other personnel to inform MTA employees and contractors of the targeted BMPs to be utilized;
- An environmental consulting firm, such as GZA GeoEnvironmental, Inc, to ensure MTA's employees are trained as defined by the Plan; and
- A design engineering firm, such as HNTB, who administer construction contracts, to ensure the Plan is properly implemented by the contractors.

4.4 EVALUATION PROTOCOL

MTA training is documented with attendance sign-in sheets, exam scores, in-class workshops and evaluation forms. A training database is maintained with information gathered from employees during each training session.

Process Indicators: Assessment of the program execution will be included in the annual report. The following topics will be reported for MTA employees:

1. Number of employees that attended training; and
2. Average exam scores for attendees.

Impact Indicators: Gauging the achievement of goals and objectives of the program will be included in the annual report. These will be addressed by the following behavioral change questions:

1. Number or percentage of employees to identify the goals of MCM #1 correctly;
2. Number or percentage of employees to identify source(s) of storm water pollution;
3. Number or percentage of employees to identify and differentiate between structural and non-structural BMPs; and
4. Number or percentage of employees to demonstrate an applied knowledge of BMP-specific information.

Process and impact indicators for contractors will be tracked by documenting the pre-construction meetings when this Plan and the Targeted BMP Adoption Plan are provided to each contractor and the contractor, in turn, provides MTA with the certification for their OSRP for the project.

4.5 PLAN MODIFICATION

This Stormwater Awareness Plan may require modification if evaluation data shows that efforts are not effective. Should modifications be needed, the plan will be revised or a new plan will be developed.

Maine Turnpike Authority

MS4 Targeted BMP Adoption Plan

Developing and implementing a Best Management Plan (BMP) Adoption Plan is a requirement of the Maine Department of Environmental Protection's (DEP's) *General Permit for the Discharge of Stormwater from Maine Department of Transportation (MaineDOT) and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems (MS4s)*. Since MTA is subject to this MS4 permit and its six *Minimum Control Measures (MCMs)*, *Part IV(H)(1)(a)(ii)* requires MTA to conduct Public Education and Outreach (MCM #1) efforts that **encourage** "*employees and contractors to utilize BMPs that minimize stormwater pollution.*"

1.0 PERMIT LANGUAGE

Part IV(H)(1) of the MS4 Permit establishes three goals for *MCM #1 - Public Education and Outreach on Stormwater Impacts*. These include the following:

- 1. To raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems for Maine's waters;*
- 2. To motivate staff and contractors to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and*
- 3. To reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs.*

In addition to continuing outreach efforts from the previous MS4 Permit (e.g., 5-year cycle)¹, MTA must satisfy these three goals by encouraging employees and contractors to use BMPs that minimize stormwater pollution as part of this Targeted BMP Adoption Plan. The progress and effectiveness of the Plan and associated efforts must then be evaluated and included in each annual report submitted to Maine DEP in accordance with *Part IV(J)* of the MS4 Permit. As part of this evaluation, MTA must include an assessment of process indicators and impact indicators to evaluate efforts in meeting these goals. In the fifth annual report, the BMP Adoption Plan shall be reviewed fully and include analysis of the process and impact indicators.

2.0 COVERAGE AREA

This plan has been developed for implementation by MTA to meet MS4 Permit requirements for Urbanized Areas (UAs) within MTA's right-of-way (ROW).

Process indicators are related to the execution of the program, such as (1) percent or number of employees who attend a training session; or (2) completion of a particular action item (e.g., distributing posters to employee work place and/or contractor job site).

Impact indicators are related to the achievement of the goals and objectives of the program, such as (1) observable/measurable effects on behavior; or (2) percent or number of employees to describe sources of storm water pollution, proper spill response, or maintenance of a BMP.

¹ Public education and outreach efforts continued from the previous MS4 permit cycle include (but are not limited to) conducting annual stormwater pollution prevention/spill prevention control and countermeasures (SPCC) training to MTA maintenance and engineering employees, as well as other Measurable Goals that can be found in MTA's Stormwater Program Management Plan (SPMP) dated December 2008.

3.0 OBJECTIVE

The objective of this Targeted BMP Adoption Plan is to educate MTA's employees and contractors to use BMPs which reduce polluted stormwater runoff within UA.

The goal of the BMP Adoption Plan is to target BMPs in the MaineDOT BMP Manual to be utilized by employees and contractors that minimize stormwater pollution during construction activities, such as:

- (1) Installing silt fence prior to land disturbance; and
- (2) Ensuring that hay mulch is applied to soil at the end of each work day.

For MTA employees, focus will also be given to targeting BMPs relevant to transportation-related maintenance and good housekeeping activities, such as:

- (1) Regular sweeping of the mainline and peripheral facilities;
- (2) Annual catch basin clean-outs and sediment removal;
- (3) As needed ditch cleaning and repair;
- (4) On-going culvert maintenance and litter removal.

Contractors are also encouraged to utilize BMPs in accordance with standard construction contract language (e.g., Special Provision 656), as well as the MaineDOT BMP Manual.

4.0 MESSAGE

The message MTA will strive to impart on employees and contractors will relate to the impacts their activities have on stormwater runoff and the importance of BMPs. The message statement is:

“Implementing appropriate BMPs, as described in MaineDOT’s Stormwater BMPs Manual, to all MTA related activities will help to minimize stormwater pollutants introduced to Maine’s waterbodies.”

4.1 OUTREACH TOOL(S) AND DISTRIBUTION

Targeted BMPs are included in the MaineDOT BMP Manual that is available at each MTA maintenance facility and referenced in standard contract language for contractors.

MTA has established or will rely on a number of outreach tools including the following:

- Existing stormwater training programs
 - For MTA employees, the internal training program will be evaluated annually (and updated, as needed) to include storm water topics in order to assess process and impact indicators; and
 - For contractors, MTA continues to require an On-Site Responsible Party (OSRP) certified by DEP’s NPS Training Program to be knowledgeable in erosion prevention and sedimentation control.
- Existing standard contract language
 - Requires contractors to maintain a certified OSRP on-site who has authority to implement BMPs appropriately; and
 - Specifies that contractors must utilize MaineDOT’s BMP Manual, as well as other BMPs, to ensure construction site runoff is minimized.
- Stormwater information packages to raise awareness and encourage utilization of targeted BMPs
 - For MTA employees, information will be provided during annual and supplemental training sessions. Informational packages may also be provided via MTA’s newsletters

and memos posted to employee bulletin boards, as well as through employee meetings, including quarterly Environmental Health & Safety Committee meetings.

- For contractors, MTA will continue to include contractual requirements provided in the standard contract language that establishes the anticipated expectations for performance and payment. This Target BMP Adoption Plan will also be provided to contractors prior to starting work (e.g., at Pre-Construction meetings).

4.2 TIMELINE AND IMPLEMENTATION SCHEDULE

The timeline and implementation schedule is determined by:

- The training schedule established each year for MTA employees; and
- The solicitation and project award notices each year.

MTA has established a representative training schedule for each year and is similar to the table below.

Date	Training Type
April	Erosion and Sediment Control (ESC) and Stormwater Pollution Prevention for Highway Maintenance Supervisors and Foremen
May - June	Spill Prevention Control and Countermeasures Plan (SPCC), Stormwater and Erosion and Sediment Control (ESC) for MTA maintenance and engineering employees.

In addition to the training sessions above, there may be supplemental training sessions as needed and/or new information posters about stormwater BMPs posted at MTA facilities. Newsletters including stormwater information may also be sent each year to employees.

For contractors, targeted BMPs are already being implemented in accordance with contract language and the MaineDOT BMP Manual. However, in Permit Year 2, MTA will begin distributing this Targeted BMP Adoption Plan to contractors.

4.3 RESPONSIBLE PARTY

The primary responsible party at MTA is the Environmental Services Coordinator, John Branscom. The Environmental Services Coordinator may also rely on the following:

- MTA Supervisors, Foremen, Inspectors and/or other personnel to inform MTA employees and contractors of the targeted BMPs to be utilized;
- An environmental consulting firm, such as GZA GeoEnvironmental, Inc, to ensure MTA's employees are trained as defined by the Plan; and
- A design engineering firm, such as HNTB, who administer construction contracts, to ensure the Plan is properly implemented by the contractors.

5.0 EVALUATION PROTOCOL

MTA training is documented with attendance sign-in sheets, exam scores, in-class workshops and evaluation forms. A training database is maintained with information gathered from employees during each training session.

Process Indicators: Assessment of the program execution will be included in the annual report. The following topics will be reported for MTA employees:

1. Number of employees that attended training; and
2. Average exam scores for attendees.

Impact Indicators: Gauging the achievement of goals and objectives of the program will be included in the annual report. These will be addressed by the following behavioral change questions:

1. Number or percentage of employees to identify the goals of MCM #1 correctly;

2. Number or percentage of employees to identify source(s) of storm water pollution;
3. Number or percentage of employees to identify and differentiate between structural and non-structural BMPs; and
4. Number or percentage of employees to demonstrate an applied knowledge of BMP-specific information.

Process and impact indicators for contractors will be tracked and evaluated based on daily and/or weekly inspections conducted on-site.

6.0 PLAN MODIFICATION

This Targeted BMP Adoption Plan may require modification if evaluation data shows that efforts are not effective. Should modifications be needed, the plan will be revised or a new plan will be developed.

Memorandum

Date: March 31, 2011
To: Highway Maintenance Foremen and Supervisors/ Sweeper Operators
From: Bill Wells
RE: Sweeping

As you know, it is time to begin the sweeping operations for 2011. The preparation of the machines for a season of sweeping should begin (March) or well in advance so when the weather conditions have improved allowing the sweeping operations to begin it will be without unnecessary delays due to needed maintenance or repairs. All repairs shall be under the direct supervision of the Equipment Maintenance Supervisor or his designee. The goal of this memo is to provide guidance in identifying location priorities for environmental and operational concerns. Let's keep in mind that the goal is to stay ahead of the line striping operations. The order in which your scheduling is outlined below should be followed closely. To be efficient at what we do it is the expectation of the Director of Highway Maintenance that all of the coordination for the sweeping operation shall be under the direct supervision of the Highway Supervisor or their Designee.

I. Impaired Stream Crossings/Service Areas

- A. The designated highway (Schwarze) sweeper will be evaluated for its readiness by sweeping the Kennebunk NB & SB Service Areas including Exit 25. Next to the water shed areas at **Goosefare Brook** (MM 35.0 to MM36.6) and then up to **Long Creek/Red Brook** (MM44 to MM 46.4) area. The scope is to sweep all paved areas and left shoulders along the median then the outside shoulders within the outlined areas.
- B. The designated vacuum/sweeper is not typically assigned to sweep the mainline but the focus should be on evaluating its performance first sweeping a Service Plaza near the home base of the equipment then extend out to the **Hart Brook** water shed area (MM 78.9 to MM 83.6) all paved areas and left shoulders along the median and the outside shoulders once this is completed the sweeper should be directed to move to the remaining plaza locations from Mile 58.6 working to the north.

II. Mainline and Interchanges

- A. Upon the completion of the stream locations and the Kennebunk Service Plaza areas, the focus of the mechanical sweeper should be directed to the Spruce Creek in Kittery working north on the mainline of our highway working north section by section under the direction of the Highway Maintenance Supervisor or his designee until the sweeping is completed to MM 109 in Augusta.

Memorandum: Sweeping

- B. Upon completion of the Hart Brook Water shed area and the Northerly Service Plaza Locations the sweeper/vac machine should focus on all interchange ramps beginning at Exit 7 York working north until all locations are completed.

III. Overhead Bridges

- A. When the mainline and interchanges are done, the sweeping of all MTA owned overhead bridges should be started. Any bridges with a large amount of pedestrian traffic, especially schoolchildren, can be worked in as time allows while doing the mainline and interchanges.

IV. Parking Lots

- A. Parking lots are to be done next or when circumstances may prevent sweeping in other areas. It may be necessary to do some of the busier commuter lots on the weekend, such assignments need to be coordinated and discussed with the Director of Highway Maintenance in advance of setting such schedule.

Other Notes:

- I. Water Trucks should be set up as soon as possible using spare vehicles.
- II. Tractors with broom attachments should be hooked up and begin working as soon as possible.
- III. Any areas that require hand work should either be done prior to the arrival of the sweeper or at a later date. The sweepers should never be held up waiting for hand work to be done.
- IV. Again to be efficient in our operations it is of utmost importance that the supervisors and foremen work together coordinating the sweeping efforts between sections.

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) NOTIFICATION FORM

Maine Turnpike Authority

*This form shall be completed in the event that an illicit discharge is detected within the MTA right-of-way (ROW).
This form is also applicable for identifying any authorized non-stormwater discharges identified within MTA ROW.*

(Underlined terms are defined on Page 2 of this form)

INCIDENT DESCRIPTION

Was an Illicit Discharge Observed? Yes No

Was an Authorized Non-Stormwater Discharge Observed? (See list of authorized discharges on Page 2) Yes No

If Yes, What Type of Authorized Non-Stormwater Discharge Was Observed? _____

Location Where Observed (Mile Marker, Town): _____

Outfall or Catch Basin ID: _____

Date Inspected: _____

Time Inspected: _____ am pm

Weather conditions: _____

Observations? (check all that apply)

Flow Floatables Outfall or Catch Basin Damage Atmosphere

Odor Deposits, Staining, Algae/Bacterial Growth Turbidity Storm Sewer

Color Abnormal Vegetation Other (specify): _____

Detailed description of Observations: _____

Possible Source: _____

Corrective Action(s) Taken (Water Quality Testing, Visual/Video Inspections, Smoke/Dye Testing): _____

Inspection Checklist for Construction Sites to satisfy requirements of Chapter 500 Stormwater Management Rules, Maine Construction General Permit (CGP) and Municipal Separate Storm Sewer System (MS4) Permit as they apply to Maine Turnpike Authority

Project Name: _____

Project Location: _____

Name of OSRP*: _____

OSRP means on-site responsible party that is knowledgeable of erosion prevention and sedimentation control practices and has been certified by the DEP's NonPoint Source (NPS) Training Center or a similar training program.

Complete this column only if weekend work is conducted

**DAILY INSPECTION LOG
FOR THE WEEK OF:** _____

DAY	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
DATE						
INITIALS						

A. GENERAL SECTION

(1) Amount of On-site Precipitation

SOURCE OF INFORMATION (circle one)

- on-site weather station*
- website: _____*
- rain gauge*

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IMPORTANT: If there was rain, were the following areas inspected before and after the storm event...

<i>...disturbed and impervious areas?</i>	Y or N					
<i>...erosion control measures?</i>	Y or N					
<i>...material storage areas exposed to precipitation?</i>	Y or N					
<i>...locations where vehicles enter and exit the site?</i>	Y or N					
<i>...all deficiencies and corrective actions are noted below?</i>	Y or N					

(2) Air Temperature

SOURCE OF INFORMATION (circle one)

- on-site weather station*
- website: _____*
- thermometer*

--	--	--	--	--	--	--

B. EROSION CONTROL MEASURES

(1) Are erosion prevention and sedimentation controls...

- in place prior to land disturbance?*
- in place prior to embankment/excavation operations?*
- working effectively?*

If no, please describe failure and corrective actions in comments section below

Y or N						
Y or N						
Y or N						
Note #__						

(2) Is silt fence properly installed downhill of disturbed slopes?

If no, please describe failure and corrective actions in comments section below

Y or N						
Note #__						

(3) All newly disturbed earth is stabilized by applying mulch daily?

- If yes, is mulch maintained on-site on a daily basis?*
- If no, what other daily method of stabilization is being used?*

Y or N						
Y or N						

(4) All disturbed ditches are stabilized by the end of the workday?

If yes, what type of stabilization is being used and maintained on-site daily?

Y or N or NA						
--------------	--------------	--------------	--------------	--------------	--------------	--------------

(5) Permanent slope stabilization measures are applied...

- within one week of last soil disturbance?*
- If yes, identify area and date of last disturbance?*

Y or N or NA						
Note #__						

(6) Is the project site currently under an approved period of suspended work?

If yes, then has the daily inspection log been maintained current and up-to-date?

Y or N						
Y or N						

C. HOUSEKEEPING

(1) Are inspections conducted on a weekly basis to ensure that sedimentation and potential pollutants are minimized from...

- materials storage areas exposed to precipitation?*
- locations where vehicle enter and exit the site?*

If no, explain reason in comments section below

Y or N						
Y or N						
Note #__						

(2) Are inspections conducted daily to ensure that discharges do not impact receiving waters?

Y or N						
--------	--------	--------	--------	--------	--------	--------

COMMENTS:

NOTE #1.... _____

NOTE #2.... _____

NOTE #3.... _____

NOTE #4.... _____

APPENDICES -- BASIC PERFORMANCE STANDARDS

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APPENDIX A. Erosion and sedimentation control

This appendix applies to all projects.

A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S.A. § 480-B. Sediment control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken.

NOTE: The site must be maintained to prevent unreasonable erosion and sedimentation. See 38 M.R.S.A. § 420-C (in part). Other or additional standards than those provided in Appendix A may apply, under the Natural Resources Protection Act, to a project located in or adjacent to a protected natural resource.

NOTE: For guidance on erosion and sedimentation controls, consult "Maine Erosion and Sediment Control BMPs", Maine Department of Environmental Protection.

- 1. Pollution prevention.** Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable.

The discharge may not result in erosion of any open drainage channels, swales, upland, or coastal or freshwater wetlands.

NOTE: Buffers improve water quality by helping to filter pollutants in run-off both during and after construction. Minimizing disturbed areas through phasing limits the amount of exposed soil on the site through retention of natural cover and by retiring areas as permanently stabilized. Less exposed soil results in fewer erosion controls to install and maintain. If work within an area is not anticipated to begin within two weeks time, consider leaving the area in its naturally existing cover.

- 2. Sediment barriers.** Prior to construction, properly install sediment barriers at the edge of any downgradient disturbed area and adjacent to any drainage channels within the disturbed area. Maintain the sediment barriers until the disturbed area is permanently stabilized.
- 3. Temporary stabilization.** Stabilize with mulch or other non-erodable cover any exposed soils that will not be worked for more than 7 days. Stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.
- 4. Removal of temporary sediment control measures.** Remove any temporary sediment control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

NOTE: It is recommended that silt fence be removed by cutting the fence materials at ground level to avoid additional soil disturbance.

- 5. Permanent stabilization.** If the area will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, soil and moisture conditions; amend areas of disturbed subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established. If necessary, areas must be seeded and mulched again if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. One or more of the following may apply to a particular site.
- (a) Seeded areas. For seeded areas, permanent stabilization means a 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.
 - (b) Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
 - (c) Permanent Mulch. For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.
 - (d) Riprap. For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.
 - (e) Agricultural use. For construction projects on land used for agricultural purposes (e.g., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.
 - (f) Paved areas. For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed.
 - (g) Ditches, channels, and swales. For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.
- 6. Winter construction.** "Winter construction" is construction activity performed during the period from November 1 through April 15. If disturbed areas are not stabilized with permanent measures by November 1 or new soil disturbance occurs after November 1, but before April 15, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

NOTE: For guidance on winter construction standards, see the "Maine Erosion and Sediment Control BMPs", Maine Department of Environmental Protection.

- 7. Stormwater channels.** Ditches, swales, and other open stormwater channels must be designed, constructed, and stabilized using measures that achieve long-term erosion control. Ditches, swales, and other open stormwater channels must be designed to handle, at a minimum, the expected volume

of run-off. Each channel should be constructed in sections so that the section's grading, shaping, and installation of the permanent lining can be completed the same day. If a channel's final grading or lining installation must be delayed, then diversion berms must be used to divert stormwater away from the channel, properly-spaced check dams must be installed in the channel to slow the water velocity, and a temporary lining installed along the channel to prevent scouring. Permanent stabilization of channels is addressed under Appendix A(5)(g) above.

- 8. Roads.** Gravel and paved roads must be designed and constructed with crowns or other measures, such as water bars, to ensure that stormwater is delivered immediately to adjacent stable ditches, vegetated buffer areas, catch basin inlets, or street gutters.
- 9. Culverts.** Culverts must be sized to avoid unintended flooding of upstream areas or frequent overtopping of roadways. Culvert inlets must be protected with appropriate materials for the expected entrance velocity, and protection must extend at least as high as the expected maximum elevation of storage behind the culvert. Culvert outlet design must incorporate measures, such as aprons or plunge pools, to prevent scour of the stream channel. The design must take account of tailwater depth.
- 10. Parking areas.** Parking areas must be constructed to ensure runoff is delivered to adjacent swales, catch basins, curb gutters, or buffer areas without eroding areas downslope. The parking area's subbase compaction and grading must be done to ensure runoff is evenly distributed to adjacent buffers or side slopes. Catch basins must be located and set to provide enough storage depth at the inlet to allow inflow of peak runoff rates without by-pass of runoff to other areas.
- 11. Additional requirements.** Additional requirements may be applied on a site-specific basis.

APPENDIX B. Inspection and maintenance

This appendix applies to all projects. A project that is only required to meet basic standards (stormwater PBR) must meet the standards in Section 1. All other projects must meet standards in Sections 1 through 5.

See Appendix D(5) for additional maintenance requirements related to infiltration of stormwater.

1. During construction. The following standards must be met during construction.

- (a) Inspection and corrective action. Inspect disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections.
- (b) Maintenance. Maintain all measures in effective operating condition until areas are permanently stabilized. If best management practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (rainfall).
- (c) Documentation. Keep a log (report) summarizing the inspections and any corrective action taken. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

2. Post-construction. The following standards must be met after construction.

- (a) Plan. Carry out an approved inspection and maintenance plan that is consistent with the minimum requirements of this section. The plan must address inspection and maintenance of the project's permanent erosion control measures and stormwater management system. This plan may be combined with the plan listed in Section 2(a) of this appendix. See Section 8(C)(2) for submission requirements.
- (b) Inspection and corrective action. All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected. Areas, facilities, and measures other than those listed below may also require inspection on a specific site. Inspection

or maintenance tasks other than those discussed below must be included in the maintenance plan developed for a specific site.

NOTE: Expanded and more-detailed descriptions for specific maintenance tasks may be found in the Maine DEP's "Stormwater Management for Maine: Best Management Practices."

- (i) Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows. See permanent stabilization standards in Appendix A(5).
 - (ii) Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after heavy rains to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or sideslopes.
 - (iii) Inspect culverts in the spring, in late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.
 - (iv) Inspect and, if required, clean-out catch basins at least once a year, preferably in early spring. Clean-out must include the removal and legal disposal of any accumulated sediments and debris at the bottom of the basin, at inlet any grates, at any inflow channels to the basin, and at any pipes between basins. If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
 - (v) Inspect resource and treatment buffers at least once a year for evidence of erosion, concentrating flow, and encroachment by development. If flows are concentrating within a buffer, site grading, level spreaders, or ditch turn-outs must be used to ensure a more even distribution of flow into a buffer. Check down slope of all spreaders and turn-outs for erosion. If erosion is present, adjust or modify the spreader's or turnout's lip to ensure a better distribution of flow into a buffer. Clean-out any accumulation of sediment within the spreader bays or turn-out pools.
- (c) Regular maintenance
- (i) Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader. Grading of gravel roads, or grading of the gravel shoulders of gravel or paved roads, must be routinely performed to ensure that stormwater drains immediately off the road surface to adjacent buffer areas or stable ditches, and is not impeded by accumulations of graded material on the

road shoulder or by excavation of false ditches in the shoulder. If water bars or open-top culverts are used to divert runoff from road surfaces, clean-out any sediments within or at the outlet of these structures to restore their function.

- (ii) Manage each buffer's vegetation consistently with the requirements in any deed restrictions for the buffer. Wooded buffers must remain fully wooded and have no disturbance to the duff layer. Vegetation in non-wooded buffers may not be cut more than three times per year, and may not be cut shorter than six inches.

NOTE: Contact the department's Division of Watershed Management (Maine DEP) for assistance developing inspection and maintenance requirements for other drainage control and runoff treatment measures installed on the site. The maintenance needs for most measures may be found in the Maine DEP's "Stormwater Management for Maine: Best Management Practices."

- (d) Documentation. Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal.

The log must be made accessible to department staff and a copy provided to the department upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

- 3. **Maintenance contract.** Contract with a third-party or other qualified professional, as approved by the department, for the removal of accumulated sediments, oils, and debris within any proprietary devices and the replacement of any absorptive filters. The frequency of sediment clean-out and filter replacements must be consistent with the unit's storage capacity and the estimated pollutant load from the contributing drainage area. This clean-out frequency is usually established by the manufacturer of the proprietary system when sizing the device for the project.
- 4. **Re-certification.** Submit a certification of the following to the department within three months of the expiration of each five-year interval from the date of issuance of the permit.
 - (a) Identification and repair of erosion problems. All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) Inspection and repair of stormwater control system. All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system.
 - (c) Maintenance. The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained.

Municipalities with separate storm sewer systems regulated under the Maine Pollutant Discharge Elimination System (MPDES) Program may report on all regulated systems under their control as part of their required annual reporting in lieu of separate certification of each system. Municipalities not regulated by MPDES, but that are responsible for maintenance of permitted stormwater systems, may report on multiple stormwater systems in one report.

- 5. Duration of maintenance.** Perform maintenance as described and required in the permit unless and until the system is formally accepted by the municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the department stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with department standards. Upon such assumption of responsibility, and approval by the department, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.
- 6. Additional requirements.** Additional requirements may be applied on a site-specific basis.

APPENDIX C. Housekeeping

These performance standards apply to all projects.

- 1. Spill prevention.** Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- 2. Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.

See Appendix D for license by rule standards for infiltration.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

- 3. Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

NOTE: An example of the use of BMPs to control fugitive sediment and dust is as follows. Operations during wet months that experience tracking of mud off the site onto public roads should provide for sweeping of road areas at least once a week and prior to significant storm events. Where chronic mud tracking occurs, a stabilized construction entrance should be provided. Operations during dry months, that experience fugitive dust problems, should wet down the access roads once a week or more frequently as needed.

NOTE: Dewatering a stream without a permit from the department violates state water quality standards and the Natural Resources Protection Act.

- 4. Debris and other materials.** Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

- 5. Trench or foundation de-watering.** Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe

construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.

NOTE: For guidance on de-watering controls, consult the Maine Erosion and Sediment Control BMPs", Maine Department of Environmental Protection."

6. **Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges.
7. **Additional requirements.** Additional requirements may be applied on a site-specific basis.

POST-CONSTRUCTION PERMIT REQUIREMENTS
AND
INSPECTION/MAINTENANCE SCHEDULE FOR NEWLY INSTALLED BMPs
Maine Turfpike Authority
Kittery to Augusta, Maine

INSPECTIONS FOR CALENDAR YEAR: 2010

PROJECT DESCRIPTION/ APPLICABLE PERMIT NUMBER	TOWN/ MILE MARKER	PERMANENT STORMWATER MANAGEMENT FACILITIES	MAINTENANCE REQUIREMENTS	FREQUENCY	FOLLOW UP ACTIONS FOR MAINTENANCE REQUIREMENTS	Date of Inspection	Inspector's Initials	Is Stormwater Management Facility functioning as intended? (Yes or No)	Is follow up maintenance required as a result of this inspection? (Yes or No)	Date Maintenance Completed with Inspector's Initials (MM/DD/YYYY)	Follow-up Maintenance Conducted by whom & When? (Initials/Date)	When was paperwork forwarded to MTA's Environmental Services? (MM/DD/YYYY)
Kennebunk Service Plazas (Northbound & Southbound) On April 5, 2010 we replace Rip Rap from the parking lot to the Sediment on the So. Bound side Service Plaza	Kennebunk Exit 25	Stormwater Filters (Underdrained Soil filters = USF)	(1) Inspect and clean filters and forbays	Annually	Remove and properly dispose of sand, sediment, debris and floatable materials. <i>After annual cleaning of filter, USF must drain within 24 hours following a rain event.</i>			B	B	SB		
			(2) Inspect entire feature for debris or clogging	Following significant rain event	Remove and properly dispose of sand, sediment, debris and floatable materials. If water ponds for more than 72 hours, rework or replace top several inches of filter to reestablish filtration quality of soil to meet original construction specs.	January D. M. Yes Yes No No 1/29/2010 DM February D. M. Yes Yes No No 2/5/2010 DM March D. M. Yes Yes No No 03/03/2010 DM April D. M. Yes Yes No No 04/14/2010 DM May D. M. Yes Yes No No 5/27/2010 June D. M. Yes Yes No No 6/8/2010 July D. M. Yes Yes No No 7/6/2010 August D. M. Yes Yes No No 8/10/2010 September D. M. Yes Yes No No 9/2/2010 October D. M. Yes Yes No No 10/7/2010 November D. M. Yes Yes No No 11/10/2010 December D. M. Yes Yes No No 12/6/2010 First date: Second date:					3/29/2010 4/16/2010 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011	
		Pavement areas	(4) Inspect paved areas for debris and sediments	As part of routine maintenance (MONTHLY)	Remove surface litter from the site, including all swales, ditches, stormwater filters and other areas subject to rainfall/runoff.	January D. M. Yes Yes No No 1/29/2010 DM February D. M. Yes Yes No No 2/5/2010 DM March D. M. Yes Yes No No 03/03/2010 DM April D. M. Yes Yes No No 04/14/2010 DM May D. M. Yes Yes No No 5/27/2010 June D. M. Yes Yes No No 6/8/2010 July D. M. Yes Yes No No 7/6/2010 August D. M. Yes Yes No No 8/10/2010 September D. M. Yes Yes No No 9/2/2010 October D. M. Yes Yes No No 10/7/2010 November D. M. Yes Yes No No 11/10/2010 December D. M. Yes Yes No No 12/6/2010				MTA JS		3/29/2010 4/16/2010 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011
			(5) Inspect and clean catch basins	Annually	Remove and properly dispose of sand, sediment, debris and floatable materials.	January D. M. Yes Yes No No 1/29/2010 DM February D. M. Yes Yes No No 2/5/2010 DM March D. M. Yes Yes No No 03/03/2010 DM April D. M. Yes Yes No No 04/14/2010 DM May D. M. Yes Yes No No 5/27/2010 June D. M. Yes Yes No No 6/8/2010 July D. M. Yes Yes No No 7/6/2010 August D. M. Yes Yes No No 8/10/2010 September D. M. Yes Yes No No 9/2/2010 October D. M. Yes Yes No No 10/7/2010 November D. M. Yes Yes No No 11/10/2010 December D. M. Yes Yes No No 12/6/2010					1/29/2010 DM 1/29/2010 DM 2/5/2010 DM 03/03/2010 DM 04/14/2010 DM 5/27/2010 6/8/2010 7/6/2010 8/10/2010 9/2/2010 10/7/2010 11/10/2010 12/6/2010	
		Open pipes and ditches (e.g., stormwater conveyance)	(6) Inspect drainage structures and other BMPs, including closed drainage systems and open channels/ditches for debris, erosion and accumulated sediments	As part of routine maintenance (MONTHLY)	Remove and properly dispose of sand, sediment, debris, etc. NOTE: Accumulated sediment and debris shall be removed and disposed well before accumulation adversely impacts the performance of the drainage system and stormwater filters. Immediately repair any element(s) of the drainage system or stormwater feature that has been damaged, eroded or otherwise not functioning as intended.	January D. M. Yes Yes No No 1/29/2010 DM February D. M. Yes Yes No No 2/5/2010 DM March D. M. Yes Yes No No 03/03/2010 DM April D. M. Yes Yes No No 04/14/2010 DM May D. M. Yes Yes No No 5/27/2010 June D. M. Yes Yes No No 6/8/2010 July D. M. Yes Yes No No 7/6/2010 August D. M. Yes Yes No No 8/10/2010 September D. M. Yes Yes No No 9/2/2010 October D. M. Yes Yes No No 10/7/2010 November D. M. Yes Yes No No 11/10/2010 December D. M. Yes Yes No No 12/6/2010					3/29/2010 4/16/2010 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011 1/24/2011	
			(7) Inspect slopes and embankments for erosion and accumulated sediments	As part of routine maintenance (MONTHLY)	Immediately repair any element(s) of the drainage system or stormwater feature that has been damaged, eroded or otherwise not functioning as intended. Sediment removal, earth repair and/or reseeded shall be performed immediately upon identification of issue and the site restored to a stable condition.	January D. M. Yes Yes No No 1/29/2010 DM February D. M. Yes Yes No No 2/5/2010 DM March D. M. Yes Yes No No 03/03/2010 DM April D. M. Yes Yes No No 04/14/2010 DM May D. M. Yes Yes No No 5/27/2010 June D. M. Yes Yes No No 6/8/2010 July D. M. Yes Yes No No 7/6/2010 August D. M. Yes Yes No No 8/10/2010 September D. M. Yes Yes No No 9/2/2010 October D. M. Yes Yes No No 10/7/2010 November D. M. Yes Yes No No 11/10/2010 December D. M. Yes Yes No No 12/6/2010					1/29/2010 DM 2/5/2010 DM 03/03/2010 DM 04/14/2010 DM 5/27/2010 6/8/2010 7/6/2010 8/10/2010 9/2/2010 10/7/2010 11/10/2010 12/6/2010	
		All areas	(8) Inspect site conditions and monitor for erosion and accumulated sediments	As part of routine maintenance (MONTHLY)	Take appropriate corrective actions to maintain the system in good working condition, where when a problem is noted. Any areas or systems that are identified as having more frequent maintenance requirements than normal shall be monitored and inspected more frequently	January D. M. Yes Yes No No 1/29/2010 DM February D. M. Yes Yes No No 2/5/2010 DM March D. M. Yes Yes No No 03/03/2010 DM April D. M. Yes Yes No No 04/14/2010 DM May D. M. Yes Yes No No 5/27/2010 June D. M. Yes Yes No No 6/8/2010 July D. M. Yes Yes No No 7/6/2010 August D. M. Yes Yes No No 8/10/2010 September D. M. Yes Yes No No 9/2/2010 October D. M. Yes Yes No No 10/7/2010 November D. M. Yes Yes No No 11/10/2010 December D. M. Yes Yes No No 12/6/2010					1/29/2010 DM 2/5/2010 DM 03/03/2010 DM 04/14/2010 DM 5/27/2010 6/8/2010 7/6/2010 8/10/2010 9/2/2010 10/7/2010 11/10/2010 12/6/2010	

**MAINE TURNPIKE AUTHORITY
SPCC/STORMWATER TRAINING
May 2011
COMPLIANCE EXAM**

Name: _____ Date: _____

1. The MTA York and Crosby Maintenance facilities are subject to federal SPCC requirements because:
 - a. Governor Paul LePage stopped by and noticed the sites were messy.
 - b. Each facility has the capacity to store more than 1,320 gallons of oil in aboveground storage tanks.
 - c. Each facility has more than 42,000 gallons of underground oil storage.
 - d. MTA decided to enroll these facilities in a pilot program for spill prevention.

2. Employees discovering an oil spill must take immediate steps to:
 - a. Make a determination whether it is “incidental” or “non-incidental”
 - b. Stop the release if you can do so without risk to your personal safety
 - c. Take immediate steps to ensure their own and surrounding workers’ safety
 - d. Notify the Environmental Services Coordinator, and (when in doubt) contact the MTA Communications Center
 - e. All of the above

3. There are three goals in MTA’s SPCC Program. These goals to achieve include:
 - a. Spill milk, Spill coffee, but don’t Spill petroleum products
 - b. Spill Prevention, Spill Control and Spill Countermeasures
 - c. Train employees to cleanup all spills without help from Highway Maintenance, Environmental Services Coordinator and outside contractors
 - d. None of the above

4. The best definition for Countermeasures is:
 - a. Response and Cleanup Activities
 - b. Measurement of the countertops in the kitchen
 - c. Actions that cause a spill
 - d. \$700 billion bailout

5. An important initial step that may need to be taken in the event of a spill is to:
 - a. Make sure you look around to see who is nearby so you can blame it on them
 - b. Post your resume on monster.com
 - c. Pretend that it never happened
 - d. Cover/protect floor drains, catch basins, and drainageways to prevent the migration of oil toward or into navigable water

6. Following a spill, who should help complete the Spill Report Form:
 - a. Environmental Services Coordinator
 - b. On-duty Supervisor/Manager
 - c. Discoverer of the Spill
 - d. All of the above
 - e. None of the above

7. It is standard MTA policy to dump dirty mop water out the backdoor of the Utility Building instead down the drain.
 - a. TRUE
 - b. FALSE

8. Of the following considerations, which are the most important criteria when selecting a refueling site?
 - a. Quality of talk radio station reception
 - b. Proximity to a rest area or service plaza
 - c. Public Safety and protection of the environment
 - d. Number of UFO sighting in the area
 - e. All of the Above

9. It is MTA policy to avoid mobile refueling within or near "Urbanized Areas" and "Urban Impaired Streams."
 - a. TRUE
 - b. FALSE

10. What temporary erosion and sedimentation control BMP must be installed prior to disturbing the earth?
 - a. Check dam
 - b. Silt fence
 - c. Downspout
 - d. Hay mulch
 - e. All of the above
 - f. None of the above

11. What temporary erosion and sedimentation control BMP must be installed before the end of the day wherever there is exposed soil:
 - a. Check dam
 - b. Silt fence
 - c. Downspout
 - d. Hay mulch
 - e. All of the above
 - f. None of the above

12. MTA has drafted a Stormwater Awareness and BMP Adoption Plan as required under the MS4 Permit requirements. Which of the following is **NOT** one of the objectives of the plan(s):
- To reduce polluted stormwater runoff as a result of increased awareness
 - To motivate staff and contractors to use BMPs that reduce stormwater runoff
 - To raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems in Maine
 - To end all pollution as well as world hunger
 - All of the above
 - None of the above
13. Give an example of a structural BMP and an example of a non-structural BMP:
- STRUCTURAL BMP: _____
 - NON-STRUCTURAL BMP: _____
14. Which of the following are considered illicit discharges and should be documented using the appropriate notification and documentation immediately (**circle all that apply**):
- Fire hydrant flushings by the local fire department
 - Rain running off the paved shoulder to the vegetated ditch along the Turnpike
 - Vehicle fluids released from a patron vehicle that flow into a nearby catch basin at Exit 48
 - An outlet pipe discharging green glowing goo to the ditch along the Turnpike
 - Antifreeze spills from an automobile accident toward a storm drain
15. Which of the following could potentially become stormwater pollution?
- Sediments and sands that have collected along the mainline's shoulder or guardrails and have not been swept up in a timely manner
 - A release of hydraulic fluid spilled from equipment attached to a truck, such as a plow or attenuator
 - Pesticides and herbicides not applied properly
 - All of the Above
 - None of the Above
16. If you discover an illicit discharge, you should immediately
- Call the local news stations;
 - Notify the Environmental Services Coordinator and help fill out the IDDE log and spill report form;
 - Call the State Police;
 - Contact your supervisor and schedule your vacation right away; or
 - Both a. and d.

17. On your way to work as you are parking your car, you see that a shoulder slope has been washed out during last night's rain storm. Approximately 10 square feet of soil is exposed with no vegetative cover. What could you do to help MTA prevent erosion and comply with stormwater pollution prevention standards?
- a. Nothing, it's a small area of erosion so there's nothing to worry about
 - b. Send a seasonal employee to buy some sod or mulch at Home Depot to repair the ground surface
 - c. Call the Environmental Services Coordinator and/or Highway Maintenance Foremen to notify them of the erosion so that arrangements can be made to repair the area
 - d. Take pictures and send them to the DEP – they will handle it

EXTRA CREDIT: What is the nearest body of surface water to the facility where you work?

ATTACHMENT B

LOGS OF PUBLIC MEETINGS, NOTICES & OTHER EVENTS

MTA MS4 Annual Progress Report

Log 2 - Stormwater Meetings and Events Attended by MTA

<u>Date</u>	<u>Activity Attended and Location</u>	<u>Persons Attended</u>
8/11/2011	Long Creek Board Meeting and MTA Headquarters Conf. Room E	J.B.
8/8/2011	Post Construcion Site Audit - CPEC Binder Handoff Sabttus Bridge Project.	J.B. & B.F. & C.M.
7/19/2011	City of Portland Stormwater Utility Development coordination meeting	
7/14/2011	Env. Site Audit - Litchfield Academy Road Bridge Project	R.L. & J.D. & J.B.
7/13/2011	DEP Meeting regarding proposed statewide IC TMDL	R.S.
7/8/2011	Env. Site Audits - Auburn - Washington Streen, Falmouth - Presumpscot Bridge, Kennebunk - Eastern Trail Bridge	S.M. & S.W. & J.B. & T.H.
6/22/2011	CPEC Post Construction Env. Audit - Portland Paving Project.	J.B. & R.M.
6/22/2011	Statewide Salt Management meeting with DEP	R.S.
6/21/2011	Long Creek / Red Brook Exit 45 Site Walk Good Will Parking Lot	J.B. & R.S.
6/21/2011	City of Portland Stormwater Task Force meeting	
6/17/2011	Stormwater briefing for new MTA Executive Director	R.S., J.B., J.A
6/17/2011	Capisic Brook Watershed Management Plan (CBWMP) strategic stakeholders meeting	R.S.
6/16/2011	ILSWG Meeting - Westbrook Housing Authority Conf. Room	R.M. & R.S.
6/10/2011	Long Creek Board Meeting - Westbrook Housing Authority Conf. Room	J.B.
6/9/2011	Finance Team meeting for the Capisic Brook Watershed Management Plan (WMP)	R.S.
6/7/2011	CPEC Post Construction Env. Audit - Southern Paving Project. - MM13.3 - MM23.3	J.B. & B.F.
5/18/2011	Maintenance Supervisors Monthly Meeting - Discuss Stormwater Management Requirments	J.B. & B.W. & B.T. & R.D. & J.S. & D.C. & A.V. & A.P. & R.N. & G.M.
5/13/2011	Long Creek Board Meeting - Scarborough Library	J.B.
5/4/2011	CPEC Post Construction Env. Audit - York Paving Project - MM 2.2 - MM 6.8	J.B. & A.V.
4/29/2011	CPEC Binder Meeting - Design Construction Phase Binder Handoff - MTA HQ Conf. Room E - Academy Road Bridge Project.	J.B. & T.H. & R.L. & S.W.
4/28/2011	Red Brook Watershed Management Plan public meeting	R.S.
4/12/2011	Capisic Brook Finance Committee meeting	R.S.
4/8/2011	Design Construction Phase, CPEC Binder Handoff MM 13.3 - MM 23.3 Paving Project Handoff, and Preconstruction Meeting with Contractor	J.B. & B.F.
3/4/2011	Long Creek Board Meeting - South Portland Community Center	J.B.
2/24/2011	Long Creek Technical Committee meeting	R.S.
2/3/2011	Red Brook WMP meeting (i.e., technical/structural recommendations)	R.S.
1/20/2011	ILSWG Meeting - Westbrook Housing Authority Conf. Room	J.B.
1/19/2011	Long Creek Technical Committee meeting	R.S.
1/14/2011	Long Creek Board Meeting - MTA HQ Building Conf Room E	J.B.
9/22/2010	Red Brook WMP Land Use Workgroup meeting	R.S.
8/18/2010	Mtg in Augusta of DEP stakeholders/public for proposed revisions to Chapter 500	R.S.
7/29/2010	Capisic Brook WMP meeting	
6/23/2010	Long Creek Governing Board meeting	R.S.
5/18/2010	Mtg at Scarborough Town Office to kick off Red Brook WMP efforts	R.S.
5/7/2010	Mtg in Augusta of DEP stakeholders for proposed revisions to Chapter 500	R.S.
4/28/2010	Mtg with MaineDOT and MaineDEP to discuss alternative General Permit in Long Creek	MTA management plus J.B. & R.S.
4/22/2010	Capisic Brook WMP Policy and Planning Team meetings	R.S.
4/13/2010	Mtg with Long Creek Watershed Management District to discuss applicable credits and SILOP	R.S.
	Mtg in Augusta of DEP stakeholders for proposed revisions to Chapter 500	R.S.
4/1/2010	Capisic Brook WMP Policy and Planning Team meetings	
3/31/2010	Mtg with MaineDOT to discuss alternative General Permit in Long Creek	MTA management plus J.B. & R.S.

MTA MS4 Annual Progress Report

Log 2 - Stormwater Meetings and Events Attended by MTA

<u>Date</u>	<u>Activity Attended and Location</u>	<u>Persons Attended</u>
3/29/2010	In house CPEC binder training for MTA and HNTB personnel	
3/29/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
3/25/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
3/24/2010	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
3/16/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
3/3/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
2/26/2010	Mtg in Augusta of DEP stakeholders for proposed revisions to Chapter 500	R.S.
2/24/2010	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
2/19/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
2/17/2010	Mtg in Augusta of DEP stakeholders for proposed revisions to Chapter 500	R.S.
2/11/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
2/5/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
2/3/2010	In house mtg for CPEC development and coordination	J.B. & R.S. & S.L. & S.T. & R.D.
2/3/2010	Mtg in Augusta of DEP stakeholders for proposed revisions to Chapter 500	R.S.
1/28/2010	Kick off stakeholders meeting for Capisic Brook	R.S.
1/27/2010	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
1/7/2010	BEP hearing on Ch 521 (i.e., IP language)	R.S.
1/7/2010	Mtg at Scarborough Town Office for Red Brook Watershed Management Plan	R.S.
1/4/2010	Joint MTA/MaineDOT Environmental Meeting	MTA management plus J.B. & R.S.
12/10/2009	Capisic Brook kickoff meeting of "working group"	R.S.
	Webinar for transportation agencies regarding EPA's proposed Effluent Limitation Guidelines (ELGs) for construction projects (40 CFR 450)	R.S.
11/16/2009	Long Creek public meetings regarding the Participating Landowners Agreement (PLA)	J.A.
	DEP subcommittee meeting regarding proposed redevelopment standards in Chapter 500	R.S.
11/4/2009	Long Creek public meetings regarding the Participating Landowners Agreement (PLA)	J.A.
10/28/2009	Long Creek Assessment with DEP and CCSWCD	R.S. & J.A. & J.B.
10/14/2009	Mtg at PWD to discuss Long Creek PLA	R.S. & J.A. & J.B.
10/8/2009	Mtg at MaineDOT with DEP regarding Long Creek process and other topics relative to State transportation agencies	MTA management plus J.B. & R.S.
10/2/2009	Long Creek public meeting	J.A.
9/30/2009	Mtg at DEP for Chapter 500 Stakeholders	R.S.
9/29/2009	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
9/23/2009	Mtg at Fairchild Semiconductor for anticipated O&M requirements in Long Creek PLA	R.S. & J.A.
9/17/2009	Mtg at DEP for Chapter 500 Stakeholders	R.S.
9/16/2009	Mtg at PWD to discuss Long Creek PLA	R.S. & J.A.
9/10/2009	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
9/3/2009	Mtg at MTA with MaineDOT to discuss Long Creek PLA	R.H. & P.N. & J.A. & R.S.
8/27/2009	Mtg at Fairchild Semiconductor to discuss Long Creek PLA	J.A. & R.S. & P.N.
8/26/2009	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
8/13/2009	Mtg at MTA with MaineDOT to discuss Long Creek	J.A. & S.T. & R.S. & P.N. & R.H. & T.K.
8/12/2009	Mtg at PWD to discuss Long Creek PLA	J.A. & R.S. & P.N. & R.H.
8/7/2009	In house Environmental/Planning meeting	MTA management plus J.B. & R.S.
8/5/2009	Mtg at PWD to discuss Long Creek PLA	JA & JB & RS & RP & RH
8/5/2009	Mtg at MTA with MaineDOT to discuss Long Creek	JA & JB & RS & RP & RH
7/31/2009	Mtg at Sable Oaks to discuss Long Creek PLA	RS & TK & RP
7/16/2009	MTA Supervisors Mtg to discuss Post-Construction requirements	RS & JB & WJ & BW & Foremen
7/15/2009	DEP Public Meeting on Long Creek GP	JA & JB & RS
7/9/2009	Mtg at PWD to discuss Long Creek PLA	RS & JA
7/6/2009	In-house meeting to discuss Post-Construction requirements	RS & ST & PM & SL & BW
6/24/2009	Conf call w/MaineDOT re Long Creek permitting requirements	RS & SN & JB & PN & RH & RP
6/16/2009	Conf call w/DEP, MaineDOT and CCSWCD	JB & SN & RS & ST & TLP & DW
6/11/2009	Mtg at PWD for Long Creek Landowners	JB & SN & RS

MTA MS4 Annual Progress Report

Log 2 - Stormwater Meetings and Events Attended by MTA

<u>Date</u>	<u>Activity Attended and Location</u>	<u>Persons Attended</u>
6/9/2009	Mtg at DEP to discuss Long Creek stormwater requirements	JB & JA & ST & RS & SN & JD & DW
5/28/2009	Public Meeting for Town Councilors of Long Creek watershed	SN & RS & RH
5/24/2009	Site walk of MTA property in Long Creek w/DEP	JB & RS & JD
4/16/2009	Facilitated meeting at MM 23.2 Branch Brook Tour at Retention Basins (Wells/Kennebunk Water District)	J.B. & Southern Maine Source Water Protection & Collaboration Workshop
4/16/2009	MTA Supervisors Mtg to discuss annual MS4 IDDE inspections at Crosby Maintenance - refresher training on CB/Ofs Insp. & Cleaning	RS & JB & WJ & BW & Foremen
4/16/2009	MTA Board Meeting (address Long Creek)	JA & PM & ST
4/14/2009	Mtg at DEP to discuss Long Creek stormwater requirements	JB & SN & RS & ST & JA & DW & JD
4/3/2009	MTA Supervisors Meeting to review Ch 500/MOA and BMP requirements	JB & RS & WJ & BW & Foremen
3/31/2009	In-house MTA meeting to review contract language and BMPs	JB & RS & ST & RD
3/27/2009	Long Creek Steering Committee Meeting at PWD	SN & TLP
3/25/2009	DEP Meeting re: Long Creek watershed	SN & RS & JB & DW & TLP
3/18/2009	Long Creek Monitoring Committee Meeting	RS & PN & JD & DW & TLP
2/27/2009	In-house meeting to review draft MS4 Awareness and BMP Adoption Plans	JB & RS
2/11/2009	In-house meeting to review stormwater BMPs in Long Creek	JB & RS & SN & PM & ST & RD
1/30/2009	Long Creek Steering Committee Meeting at PWD	SN & JB & RS & DW & TLP
1/22/2009	Long Creek Stakeholders Meeting	JB & SN & RS & DW & TLP
12/18/2009	Long Creek Steering Committee Meeting	JB & RS & SN & DW & TLP
12/16/2008	Annual Environmental Briefing to MTA Authority BD.	J.B. & MTA Executive Mgm't & Auth. BD.
12/8/2008	M&O Committee Meeting	RS & PN & RH & DW & JD & TLP
11/21/2008	Long Creek M&O Committee meeting	RS & JB & SN & PN & JD & DW & TLP
11/20/2008	Supervisors Meeting to review IDDE MGs accomplished/to be accomplished	JB & RS & WJ & BW & Foremen
11/19/2008	In-house MTA meeting to review draft SPMP and MGs	JB & RS & SN & PM & ST & RD
11/5/2008	Mtg at MaineDOT w/DEP to discuss Long Creek and MEPDES MOA	JB & RS & SN & PN & RH & DW & DL & JD
10/29/2008	Conf call w/MaineDOT to discuss stormwater BMPs	JB & SN & RS & PN & RH
10/21/2008	Long Creek M&O Committee Meeting	JB & SN & RS & PN & RH & DW & TLP
9/17/2008	Long Creek M&O Committee Meeting	JB & SN & RS & PN & RH & DW & TLP
9/3/2008	Mtg at MaineDOT: Long Creek transportation infrastructure committee	JB & RS & PN & RH
8/14/2008	Long Creek M&O Committee Meeting	JB & SN & RS
8/8/2008	Conf call w/DEP re UIS watershed prioritization	SN & RS & DL
8/6/2008	Mtg at MaineDOT: Long Creek transportation infrastructure committee	JB & SN & RS & PN & RH
7/9/2008	Long Creek Technical Advisory Committee Meeting	JB & SN & RS & PN & RH & DW & TLP
6/24/2008	Hart Brook "DRAFT" Water Management Plan Meeting - Lewiston/Auburn	R.S., J.B.
6/24/2008	Stormwater Seminar - Lorman Ed. Services - Portland	J.B., R.S., S.N. & R.H
6/12/2008	Stormwater Utility Workshop - Portland Water District	R.S., S.N.
5/7/2008	Long Creek Watershed Management Meeting (Sable Oaks, S. Portland)	R.S., J.B.
5/2/2008	Long Creek Watershed Steering Committee Meeting (Sable Oaks, S. Portland)	R.S., J.B.
4/28/2008	IBTTA Conference - Presentation on Stormwater BMPs - Florida	J.B., W.J., S.T.,
4/25/2008	Long Creek Models & Outreach Committee(Fairchild, S. Portland)	J.B., S.N.
4/9/2008	Site Walk With Zak Henderson along Long Creek on MTA Property	J.B.
3/4/2008	Long Creek Steering Committee Meeting (S.Portland West Side Fire Station)	R.S.; J.B.
1/10/2008	Long Creek TAC Meeting(DEP,Portland)	J.B.

MTA MS4 Annual Progress Report

Log 2 - Stormwater Meetings and Events Attended by MTA

<u>Date</u>	<u>Activity Attended and Location</u>	<u>Persons Attended</u>
11/13/2007	Long Creek TAC Meeting(Sable Oaks,Portland)	J.B.
6/21/2007	Stormwater Seminar	J.B. & R.S.
6/20/2007	Long Creek Watershed Management Meeting (Convening Committee Meeting)	R.S., J.B.
6/11/2007	MOA Revision Meeting with DEP and DOT	R.S, S.N, S.T., J.B, W.F
5/22/2007	Long Creek Watershed Management Meeting (Preliminary Meeting)	R.S., J.B.
5/16/2007	DEP Stormwater Training for Public Works Facilities	M.A.
5/7/2007	Hart Brook Watershed Management Plan (Stakeholders Workshop)	R.S.
4/30/2007	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
4/5/2007	Hart Brook Watershed Management Plan (Public Meeting)	R.S.
3/15/2007	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
12/20/2006	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
6/15/2006	Chapter 500 Stakeholders Meeting	R.S. and S.N.
6/2/2006	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
5/30/2006	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
5/16/2006	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
5/3/2006	MOA Revision Meeting with DEP and DOT	R.S., S.N., S.T., R.D., W.F.
4/13/2006	DEP NPS Training for inspectors to control construction site runoff	R.S.
3/30/2006	Maine Chamber of Commerce Environmental Policy Meeting	R.S.
3/7/2006	Annual MOA Meeting with DEP and DOT	R.S., S.N., S.T., R.D.
4/25/2005	Conference L.I.D. Stormwater BMP's-Civic Ctr, Augusta, ME.	J.B. & S.T. & B.F.
4/8/2005	Mtg w/Scott Lachance on Year 2 Mapping and Inventory	J.B. & S.L.
4/7/2005	Mtg w/GZA to discuss Year 2 Progress Report	J.B. & R.S. & P.S.
10/21/2004	A.S.C.E. Meeting/Dinner: Low Impact Development	J.B. & P.M. & S.T. & B.F. & S.W.
8/24/2004	W.H. Shurtleff Erosion, Sediment & Stormwater Seminar, Portland	J.B. & B.T. & A.P. & B.W. & B.F.
4/6/2004	IDDE Workshop, MEDEP, PWD, Portland	J.B. & S.L. & P.S. & W.F.
11/19/2003	State Wide, DEP Educational Media Comp. Auburn	J.B & S.N & R.G
11/3-11/5/2003	Facilitated at Intl.Cold Climate SW Conf.	J.B
10/28/2003	Mtg w/ Mark Curtin, HNTB ref. SW Mapping & Invt	J.B
9/24/2003	In House Mtg on SWMP - Annex	J.B & S.L & S.T
9/11/2003	Getting-In-Step Wrk Shop, Augusta	R.S
9/10/2003	Interprogress review mtg at Annex	P.M & J.B &S.T & WJ & BW & JA & CR
8/13/2003	In House Mtg SWPll interprogress review, Annex	J.B & R.S & S.N
6/19/2003	Mtg with EER, Inc on SWPll, ref. Sabattus MSA & MTA	R.S & A.G
5/29/2003	Assist Software Trng- MENG Armory	R.S & A.G & J.B & S.N
5/6/2003	APWA - Case Studies in SWPll, Portland Pub. Works	A.G & R.S & J.B
5/2/2003	In House SWPll & Car Fire Accident MTG	J.B & R.S & C.R & B.W
4/10/2003	In House Mtg SWPll, Annex	S.N & J.B & P.M
4/4/2003	In House Mtg SWPll, Annex	S.N & J.B & P.M
3/20/2003	Assist Software Trng- SWPll, Augusta	A.G & R.S
3/10/2003	In House Mtg - SWPll, Pat Broid Plan	R.S & S.N & J.B
3/6/2003	In House No 1 Mtg- SWPll	R.S & J.B & A.G
1/30/2003	In House Mtg with Peter M.	JB & P.M
1/21/2003	Public Notice of Gen. Permit - Barron Ctr, PTLD	J.B
1/21/2003	Brighton Ctr, PTLD	J.B & S.N & W.J
11/19/2002	MTA/MDOT SW Pll - DOT HQ Winthrop	C.O & S.N & J.B
10/18/2002	MDEP/MTA/MDOT Interlocal Gp Mtg, Augusta	J.B &D.L &S.N & J.E
10/10/2002	P & F Office with DOT	C.O & P.N & S.N & J.B
6/27/2002	Mtg at MDEP w/MDOT & MTA Non Traditional	J.B & S.N & C.O & P.N & D.L
6/21/2002	Mtg at DOT to begin SW drafting - MDOT HQ	P.N & C.O & J.B

LEGEND:

AG		
AP	Amy Grace	MTA Environmental Specialist/Training Coordinator
AV	Andy Perry	MTA Highway Maintenance Supervisor
BF	Abel (Joe) Violette	MTA Highway Maintenance Foreman
BT	Bill Franklin	MTA Deputy Director, Engineering and Building Maintenance
BW or WW	Brian Taddeo	MTA Highway Maintenance Engineer
CM	Bill Wells	MTA Deputy Director, Highway and Equipment Maintenance

MTA MS4 Annual Progress Report

Log 2 - Stormwater Meetings and Events Attended by MTA

<u>Date</u>	<u>Activity Attended and Location</u>	<u>Persons Attended</u>
CO	Charlie Myers	HNTB Resident Engineer
DL	Chris Olson	Maine DOT
DW	David Ladd	Maine DEP
JA	Don Witherill	Maine DEP
JB	Jon Arey	MTA Staff Attorney
JD	John Branscom	MTA Environmental Services Coordinator
PM	Jeff Dennis	Maine DEP
PN	Peter Merfeld	MTA Chief Operations Officer
RD	Peter Newkirk	Maine DOT
RH	Bob Driscoll	HNTB
RL	Ryan Hodgman	Maine DOT
RP	Roland Levalle	HNTB Design Engineer
RS	Rhonda Poirier	Maine DOT
SL	Robyn Saunders	GZA GeoEnvironmental, Inc. Representating MTA
SN	Scott Lachance	MTA Right-Of-Way Specialist
ST	Sharon Newman	Preti & Flaherty, LLC. Representing MTA
SW	Steve Tartre	MTA Director, Engineer and Building Maintenance
TH	Scott Warshal	Engineering Contract Administrator
TK	Tianna Higgins	HNTB Design Engineer
TLP	Toni Kimmerle	Maine DOT
WJ	Tamara Lee Pinard	Cumberland County Soil & Water Conservation District (CCSWCD)
	Wes Jackson	MTA Director, Highway and Equipment Maintenance

ATTACHMENT C

STORMWATER COORDINATORS FOR SELECT HOST MS4 COMMUNITIES

ATTACHMENT C

Stormwater Coordinators for Select Host MS4 Communities

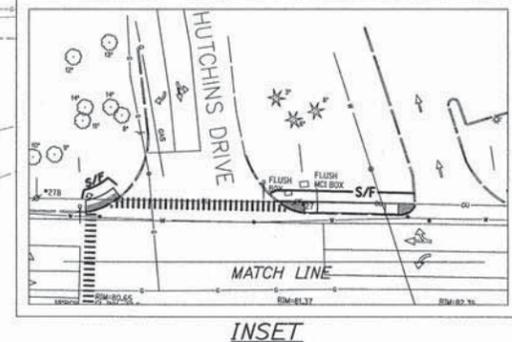
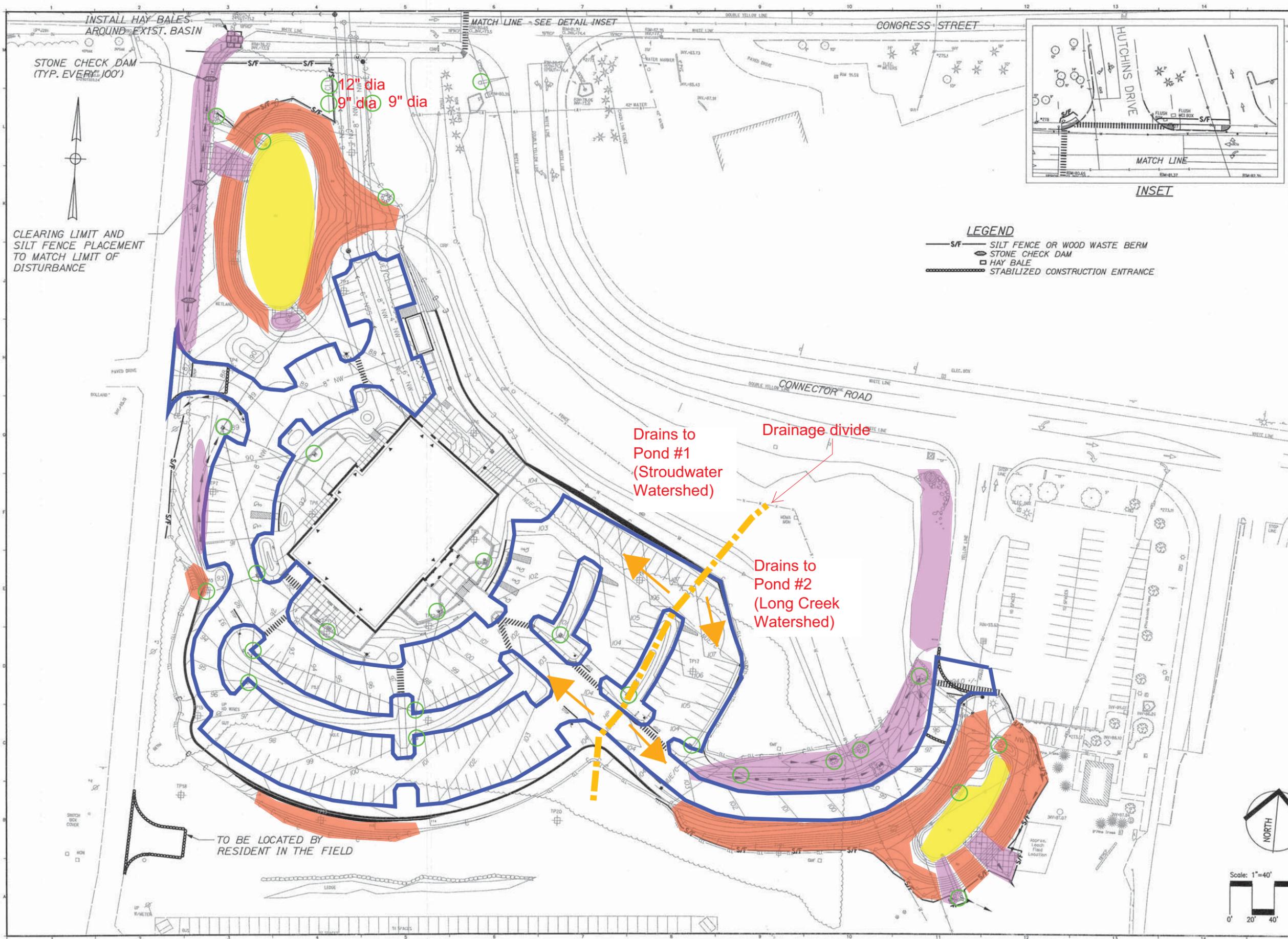
<u>Name</u>	<u>MS4 Community</u>
Sarah Wojocoski	Scarborough and Saco
Kathi Earley	Portland
Doug Roncarti	Portland
Angela Blanchette	Saco
Bob Malley	Cape Elizabeth
Tom Milligan	Biddeford
Fred Dillon	South Portland
Steve Johnson	Cumberland
Gary Lamb	Old Orchard Beach
Bob Burns	Gorham
Dave Thomes	South Portland
Al Presgraves	Freeport
Dan Jellis	Yarmouth
Doug Fortier	Windham
Mike Shaw	Scarborough
Mark Gallup	SMCC
Jay Reynolds	Falmouth
Jan Patterson	Lewiston
Ryan Hodgman	MaineDOT
Rhonda Poirier	MaineDOT

ATTACHMENT D

UPDATED IDDE FIELD SHEETS

ATTACHMENT E

O&M SCHEDULE
MTA ADMINISTRATION BUILDING

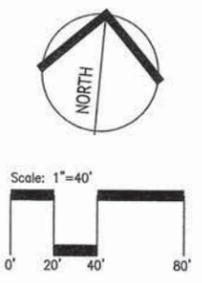


- LEGEND**
- S/F — SILT FENCE OR WOOD WASTE BERM
 - ◻ STONE CHECK DAM
 - ◻ HAY BALE
 - STABILIZED CONSTRUCTION ENTRANCE

Drains to Pond #1 (Stroudwater Watershed)

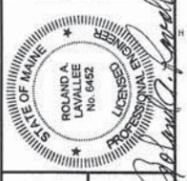
Drainage divide

Drains to Pond #2 (Long Creek Watershed)



PREPARED BY:
HNTB
 HNTB CORP.
 2 THOMAS DRIVE
 WESTBROOK, ME 04092

SM RT
 ARCHITECTURE ENGINEERING PLANNING
 SKRT
 144 Fore Street/P.O. Box 618
 Portland, Maine 04104
 Tel: (207) 772-3946
 Fax: (207) 772-1070



PROJECT TITLE:
**MAINE TURNPIKE AUTHORITY
 ADMINISTRATION BUILDING
 PORTLAND, MAINE**

**ISSUED FOR BIDDING/CONSTRUCTION
 7-9-07**

REV	DESCRIPTION	DATE
4	DCS FOR OWNER REVIEW	6-11-07
3	ISSUED FOR CITY REVIEW	5-03-07
2	100% OWNER REVIEW	3-23-07
1	ISSUED FOR PERMITTING	2-09-07
0	PRE-SUBMITTAL	1-16-07

GRAPHIC SCALE:
 0" 1"

SCALE: AS NOTED

PROJECT MANAGER: GAB
 JC/DRAWN BY: MPC
 A/E OF RECORD: GAB
 CAD FILE: X
 PROJECT NO: 2007.07
 DATE: 01/07

SHEET TITLE:
**EROSION AND
 SEDIMENT CONTROL
 PLAN**

SHEET No.
CS301

ATTACHMENT F

DEP CORRESPONDENCE



August 30 2011

John Branscom
Environmental Services Coordinator
Maine Turnpike Authority
2360 Congress Street
Portland, Maine 04102-1908

Dear John,

The Department has reviewed the Maine Turnpike Authority's ("MTA") Permit year ("PY") two annual report for the second MS4 permit cycle. Your General Permit number is MER043001. I have reviewed all the Minimum Control Measures ("MCMs"), my comments on MTA's annual report are as follows. DEP finds that MTA has met and in some cases exceeded the MS4 permit requirements.

Note: Thank you for the electronic annual reporting.

Minimum Measure	Status
1 - Education & Outreach	Exceeds/Outstanding
2 - Public Participation	Exceeds/Meets
3 - Illicit Discharge Detection & Elimination	Meets/Exceeds
4 - Construction Site Runoff Control	Meets/Exceeds
5 - Post-Construction Runoff Control	Meets
6 - Pollution Prevention/Good Housekeeping	Meets

Minimum Control Measure 1. Education & Outreach

BMP 1a., b. Stormwater Pollution Reduction Training: MTA continues to excel & do an excellent job implementing this BMP. MTA's supporting data for this BMP in Appendix/attachment B is perfect. MTA continues to do an excellent job ensuring that facility & construction site operators are properly qualified to perform such duties and have the authority to identify and correct deficiencies. I am very pleased with your training program and reporting!

1c. Collaboration: MTA has been a good partner with other regulated MS4s and has been an active participant in various meetings to improve efficiencies in Maine's MS4 stormwater program.

Minimum Control Measure 2. Public Participation/Involvement

2.1 Public Notice. MTA Complied with Maine Freedom of Access Act (“FOAA”).

2.2 Public involvement activities. MTA participated in many regional, State, and specific watershed meetings and workshops and has done a good job maintaining communication with other regulated MS4 municipalities for impaired water issues. MTA is also a “Think Blue Maine” partner.

Minimum Control Measure 3. Illicit Discharge Detection & Elimination

BMP 3a. Mapping/Prioritization: MTA continues to do a good job implementing this BMP.

BMP 3b. Dry Weather Inspections: Your report indicates that during the PY 2, 321 catch basins and 221 outfalls were inspected in the Hart Brook and Goose Fare Brook watersheds as part of the dry weather inspection program. This is an excellent effort but I need more specific data broken down for each watershed in subsequent annual reports. In your next year’s report please indicate: the total number of inspections for outfalls, catch basins, etc. per watershed; actions taken such as routine maintenance, emergency pumping of an illicit/illegal discharge, other activity, or no activity taken. *Example:* In PY 3 in the Hart Brook watershed MTA inspected 200 catch basins; 37 had sumps that were 50% or greater full and were scheduled for cleaning. Cleaning was completed on these CBs by *X date*. An inspection revealed that catch basin #XXY had a strong gasoline odor-then please describe the follow-up actions for this fictitious incident. The basic data should include the number of inspections, number of follow-up actions required & when follow-up actions were completed. I would also like the number of catch basins cleaned and the amount of material in cubic yards or tons removed from the catch basins.

The Department does acknowledge that MTA exceeded this BMP by implementing efforts outside of its regulated area. I have reviewed your outfall inspection forms and they are great, however I do not need them in subsequent annual reports. Please retain these data in case the Department needs to request any of that information/data.

Minimum Control Measure 4. Construction Site Runoff Control

MTA has done a good job applying appropriate engineering design and building practices for its construction projects. MTA has developed and implements a well thought out program to meet the requirements of this MCM. As I continue to look for ways to streamline the reporting process, I would request MTA in subsequent annual reports to indicate the following: How many activities and in which municipalities/UAs disturbed one or more acres; how many activities were in urban impaired stream (UIS) watersheds; how many inspections were conducted for each construction activity; and for sites that

were not in substantial compliance what actions were required, and the amount of time for the corrective action to be implemented. Additional details in the MOA can be referenced in the MS4 annual report. I like the CPEC program!

Minimum Control Measure 5. Post Construction Site Runoff Control

MTA has a good job complying with this MCM and providing supporting data in its annual report (attachment E).

Minimum Control Measure 6. Pollution Prevention/Good Housekeeping

BMP Training: MTA has done an excellent job developing and implementing its pollution prevention training programs.

BMP Street Sweeping: I am pleased that MTA has prioritized this on a watershed basis. Have you tried to evaluate the effectiveness of your sweeping program such that any identified hot spots may receive multiple sweepings per year?

Conclusion

MTA is doing a great job implementing its MS4 stormwater requirements. I believe that MTA has one of the best stormwater training programs of any regulated entity in the State. I appreciate your open communication to make this process more effective. I also appreciate your involvement with the ISWG and state-wide issues that relate to Maine's MS4 program. Thank you for the e-report; please work on reporting in 30 pages or less.

I have asked a few questions during my review of your PY five annual report. You may address these questions in your PY three report. If you have any questions do not hesitate to call me.

Sincerely,



David Ladd
Municipal and Industrial Stormwater Coordinator
Maine DEP
17 State House Station
Augusta, ME 04333-0017
(207) 287-5404
FAX: (207) 287-7826
[MAILTO:david.ladd@maine.gov](mailto:david.ladd@maine.gov)
Think Blue
Clean Water Starts With You!
Cc: File MER043001