MAINE TURNPIKE AUTHORITY

2011 PROGRESS REPORT
ON IMPLEMENTATION OF THE STORMWATER
MEMORANDUM OF AGREEMENT

Prepared by:
Maine Turnpike Authority

Submitted on:
July 2012

think blue
clean water starts with you!

Stormwater Protection in Maine

Maine Turnpike Authority
2360 Congress Street
Portland, Maine 04102

VIA USPS MAIL – RETURN RECEIPT REQUESTED

July 9, 2012

Mr. Don Witherill
Bureau of Land and Water Quality
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

SUBJECT: Maine Turnpike Authority (MTA)
Memorandum of Agreement (MOA) for Storm Water Management
2011 Annual Progress Report

Dear Don:

MTA is pleased to submit the 2011 Annual MOA Progress Report for your review. A total of one (1) hard copy with five (5) digital CD copies have been enclosed for distribution to appropriate Department personnel.

Please do not hesitate to contact me at (207) 871-7771 ext. 359 to discuss this report, should you have any questions.

Respectfully,

John M. Branscom
Environmental Services Coordinator
Maine Turnpike Authority

Enclosure: 2011 Progress Report on Implementation of the Stormwater MOA

Cc: Steve Tibbetts, Maine Department of Transportation (MaineDOT)
Peter Merfeld, MTA
Steve Tartre, MTA
Bill Wells, MTA
Brian Taddeo, MTA
Lauren Carrier, MTA
Bob Driscoll, HNTB
Robyn Saunders, GZA

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I. INTRODUCTION

The purpose of this Progress Report is to comply with the requirements in the Stormwater Memorandum of Agreement (MOA) currently dated November 14, 2007 and adopted by the Maine Department of Environmental Protection (DEP), Maine Department of Transportation (MaineDOT) and Maine Turnpike Authority (MTA). This report includes information and data on construction projects and activities accomplished in 2011; projects and activities anticipated in 2012; and a list of staff or designees who provided oversight with respect to erosion and sedimentation control and stormwater control.

The intent of the MOA is to achieve stormwater quantity and quality controls reasonably consistent with the standards set out by the DEP in Chapter 500 – Stormwater Management Rules, and the requirements of the Maine Pollutant Discharge Elimination System (MEPDES) General Permit for Construction Activity issued pursuant to 06-096 CMR 529 (2)(a)(2)(i) and Part IV (D)(6) and (7) of the General Permit for the Discharge of Storm Water from MaineDOT and MTA Municipal Separate Storm Sewer Systems (MS4s).

The MOA reflects the specific technical concerns associated with linear transportation projects undertaken by or under the supervision of MaineDOT and MTA, and specifies the stormwater quantity and quality standards that apply to those projects. As part of the conditions established under the MOA, MaineDOT and MTA are not obligated to (1) obtain a permit; or (2) obtain DEP approval under Chapter 500 for linear projects undertaken by MTA. A copy of the current Stormwater MOA is located in **Appendix A**. The MOA was updated in November 2007 with a significant coordinated effort among MTA, MaineDOT, and DEP. These changes to the MOA and associated operating criteria are reflected in this 2011 annual report.

II. ACTIVITIES ACCOMPLISHED

a. Training

MTA in-house highway maintenance supervisors and foremen, as well as engineers, consultants, and contractors who are certified by the Maine Department of Environmental Protection's (DEP) Nonpoint Source Program (NPS) or are Professional Engineers (PEs) experienced with stormwater requirements are listed in **Table 1** of **Appendix B**.

In 2011, MTA continued to place a high priority on stormwater training for employees in several internal departments which include:

- Highway & Equipment Maintenance. MTA's Highway Maintenance Supervisors and Foremen are certified through the DEP's Nonpoint Source (NPS) Program in 2011; and
- Engineering & Building Maintenance. MTA's Engineering Staff (e.g., inspectors and managers) are either professional engineers or certified through the DEP's NPS Program in 2011, as well.

Turnpike staff continued to attend DEP and MaineDOT training sessions and workshops through 2011, and plan to continue to attend joint training and workshop sessions in 2012 in order to learn and share knowledge on erosion and sediment control practices and promote multi-agency interaction. In 2010, MTA updated the internal stormwater training program to focus on permit requirements including Chapter 500, MS4 minimum control measures (MCMs), Maine Construction General Permit (MCGP), Long Creek Post-Construction Stormwater Discharges, and other Urban Impaired Stream (UIS) watershed considerations. These recent changes were reinforced and emphasized again during internal training sessions held in 2011.

b. Contracted Projects

In 2011, MTA construction efforts continued to focus on bridge repair/maintenance projects, pavement rehabilitation and other small linear projects. As seen in **Table 2** of **Appendix B**, MTA awarded a total of thirteen (13) linear construction projects (i.e., 9 contracts and 4 solicitations) while four (4) construction projects remain active from 2010 and 2009. Although MOA applicability and subsequent reporting is required for all of these linear projects, many of the projects did not involve earth-disturbing activities. Subsequently, **Table 3** of **Appendix B** presents a summary of the permanent stormwater Best Management Practices (BMPs) installed as part of construction projects managed under the MOA in 2011; permanent stormwater BMPs installed in 2011 are primarily associated with upgrades to existing infrastructure (e.g., catch basins, slope stabilization, etc.) and involved bridge rehabilitations that required:

- Rip rap downspouts (i.e., Lisbon Street\Route 196, Presumpscot River Bridge & Auburn Street Bridge, Washington Street\Route 202, Eastern Trail Pedestrian Bridge, and Exit 48 Bridge);
- Slope stabilization (i.e. Presumpscot River Bridge & Auburn Street Bridge, Washington Street\Route 202, and Kitty Hawk and railroad bridges); and/or
- Culvert and stone ditch protection (i.e. Eastern Trail Pedestrian Bridge, and Exit 48 Bridge).

c. MTA Highway Maintenance Department Construction Projects

MTA's Highway Maintenance Department completed three (3) small construction projects which incorporated permanent BMPs. **Table 4** of **Appendix B** provides a summary of MTA Highway Maintenance Department construction projects with an inventory of permanent BMPs completed in 2011.

d. Post Construction Maintenance and Inspection

Operations & Maintenance (O&M)

A summary of the O&M tasks accomplished in 2011 along MTA right-of-way (ROW) is presented in **Table 5** of **Appendix B**. The most common maintenance activities accomplished by MTA's Highway Maintenance Department in 2011 included sweeping

of paved (impervious) surfaces, such as roadways, toll plazas, service plazas, crossovers, maintenance yards, and commuter parking lots. MTA continues annual inspections of 100% of the catch basins and associated culverts (i.e., outfalls); repairs and catchment cleanouts are subsequently performed as needed within MTA ROW. Similar to previous years, approximately 67% of the catch basins contained enough sediment to require cleaning.

Consistent with previous years, Highway Maintenance crews use weekly summary reports and transfer the data relating to storm water or soil and erosion control activities to a quarterly O&M Summary Table similar to the format of **Table 5**. The Environmental Services Coordinator conducts a periodic review of the O & M Summary Tables at each Highway Maintenance Facility to track progress throughout the year.

Inspections of ROW

In 2011, HNTB (MTA's primary construction contractor) conducted a thorough inspection of the Turnpike. This inspection (generally referred to as the "Annual Inspection") covers pavement, cut sections, embankments, bridges, roadway lighting, drainage structures, signs, pavement markings, toll plazas, utility buildings, service areas, maintenance areas and other facilities. Upon completion of the inspection, HNTB submits to MTA a report that provides advice and recommendations as to the proper maintenance, repair, and operation of the Turnpike during the ensuing fiscal year. Subsequently, a detailed Annual Inspection Report was transmitted to the Authority's Executive Director in October 2011. Below is a summary of information contained within the Annual Inspection Report relative to storm water quality and quantity control.

> *The roadway surface drainage system, consisting of drainage ditches, catch basins and cross culverts, was inspected and found to be in fair-to-good condition. Catch basin repair is typically included as part of the pavement rehabilitation projects. This practice appears to be adequate to maintain the catch basins in fair-to-good condition. Routine ditch and side slope repairs are required for proper upkeep of the highway. Turnpike maintenance forces routinely clear debris from drainage ditches and regrade the surrounding areas as necessary. All ditches will continue to be evaluated and recommendations for reconstruction will be made as required.*
>
> *Numerous rivers and streams pass under the turnpike through box culverts and culvert pipes. All box culverts and pipes 60 inches in diameter or greater are inspected every year. Pipes 36 to 54 inches in diameter are inspected on a five year cycle and were last inspected in 2008. All box culverts and all pipes 60 inches in diameter and larger were inspected in 2011 (a total of 89 individual culvert ends), and were found to be in satisfactory condition.*
>
> *The Maine Turnpike periodically issues contracts to address erosion or drainage issues that are not able to be addressed by the Authority's maintenance forces due to their location and the type of equipment required to cost effectively complete the repair.*

2012 Recommendations: *HNTB identified several areas of significant erosion under the Mousam River Overpass and the Presumpscot River Overpass. HNTB recommends that these areas be repaired as part of 2012 scheduled bridge rehabilitation projects. We also recommend that the areas noted in the detailed inspection report be monitored on a yearly basis.*

In addition to the HNTB inspections and surveys in 2011, MTA continued implementing its Stormwater Program Management Plan (SPMP) as required by the NPDES Phase II Municipal Separated Storm Sewer System (MS4) Permit/Program. This SPMP identifies the municipalities and receiving waters to which MTA may discharge within approximately 17.8 miles of Urbanized Areas (UAs). In support of the SPMP's six minimum control measures (MCMs), MTA continues to make progress with the measurable goals established in MTA's SPMP, which include (but are not limited to) implementing an illicit discharge detection and elimination (IDDE) program; developing a storm sewer system map of all outfalls within UA; conducting annual dry weather and opportunistic inspections; and assessing the contents during clean out of catch basins. In addition to the 17.8 miles of ROW within UA, MTA continued to voluntarily apply the MS4 MCMs to document post-construction activities (e.g., documenting catch basin and outfall inspections/cleanout, prioritizing sweeping, etc.) within several UIS watersheds in 2011 (i.e., Long Creek in South Portland, Red Brook in Scarborough and Hart Brook in Lewiston).

In 2011, MTA continued to implement the Construction Project Environmental Compliance (CPEC) program, a stormwater compliance program established by MTA in 2010 to ensure stormwater related activities and other environmental considerations are documented and filed in a single binder for each construction project. This compliance program separates all construction projects into three separate phases: (1) Project Development (e.g., planning, permitting, design, etc.); (2) Active Construction; and (3) Post-Construction requirements (i.e., long-term O&M and inspection). Subsequently, Post-Construction O&M Plans were developed for projects completed in 2011 (e.g., Eastern Trail Pedestrian Bridge in Kennebunk, Exit 48 reconstruction in Portland, etc.).

Each CPEC binder includes regulatory checklists that identify applicable requirements and activities for each project undertaken by MTA, such as the weekly Erosion Control Report (ECR) with corrective actions, Erosion and Sedimentation Control (ESC) Plans, as well as Construction General Permit (CGP) documents (e.g., Notice of Intent to comply [NOI], Notice of Termination [NOT], etc.) and other environmental/permitting information.

III. ACTIVITIES AND CONSTRUCTION PROJECTS PLANNED FOR 2012

a. Training

In addition to continuing to maintain certification for key employees with the DEP's NPS Training Program in 2011, MTA will continue to operate a Storm Water Pollution Reduction Training Program for MTA employees. This training program complies with MTA's NPDES Phase II MS4 Stormwater Program Management Plan (SPMP) for two Minimum Control Measures (MCMs) to include Public Education and Outreach, and Pollution Prevention (P2)/Good Housekeeping for Municipal Operations.

As seen in the representative training curricula included in **Appendix C**, a revised training program was performed for MTA Maintenance personnel and Engineering inspectors. The stormwater training program, which is combined with SPCC topics, was performed in May and June 2011 by regulatory specialists from GZA GeoEnvironmental, Inc. (GZA) and MTA alike. The training was attended by approximately 104 MTA employees from Engineering, Highway and Equipment Maintenance, as well as Fare Collection Supervisors. MTA will continue to train employees in the following areas:

- Applicable requirements of the MPDES MS4 Permit, including non-stormwater discharges, job-specific responsibilities, indicators and notification procedures of illicit discharges/connections, dry weather/opportunistic inspection procedures, good housekeeping and other MS4 BMPs;
- MTA's two designated highest priority watersheds and other urban impaired stream watersheds/considerations;
- Typical ESC BMPs from the MaineDOT BMP Manual and associated requirements, including construction and post-construction BMPs, operation and maintenance (O&M), and inspections; and
- In April 2012, revisions were also made to the 2012 curriculum to reflect recent changes to MTA's IDDE SOP to include inspection of open ditch systems.

b. Contracted Projects

As previously mentioned, MTA efforts in 2011 continued to focus on bridge repair/maintenance projects, pavement rehabilitation, and smaller scale linear projects with operations and maintenance components, as opposed to the larger Turnpike Widening effort that was completed in 2004. In 2012, MTA will continue to primarily focus on bridge projects (i.e., repair, maintenance, rehabilitation and/or replacement), with additional projects involving pavement rehabilitation, drainage improvements, interchange modifications, toll plaza modifications at New Gloucester and other small scale linear projects. These projects that will be managed in accordance with the existing MOA are summarized in **Table 6** of **Appendix B.** The development and implementation of the CPEC program in 2011 will continue in 2012 for all of these projects to ensure compliance with Chapter 500/MOA and other environmental considerations, including post-construction O&M plans.

c. MTA Highway Maintenance Department Projects

MTA has no specific plans to perform any new construction projects, which involve permanent BMPs along the Turnpike (such as installation of sediment traps/catch basins, permanent check dams, etc.). Anticipated construction projects to be performed by MTA Highway Maintenance are likely to be improvements to existing infrastructure and are anticipated to have limited land disturbance at the existing facilities. In addition, implementation of the CPEC program will be continue to be applied relative to proposed projects in 2012 thus facilitating the inspections and overall recordkeeping process for MTA Highway Maintenance Foremen and Supervisors for these small scale construction projects involving permanent BMPs within their territory.

d. Operations & Maintenance

MTA will continue to contract one or more outside engineering firms to perform the Annual Inspection of MTA ROW, which includes infrastructure (e.g., bridges, buildings, roadways, shoulders, culverts, etc.) as well as permanently installed BMPs (e.g., drainage structures, vegetated buffers and other erosion control measures).

MTA's Highway Maintenance Department employees' primary focus is to perform routine and as-needed O&M BMPs. Consistent with previous years, the proposed BMPs for 2012 (shown in **Table 7**) will include routine sweeping and removal of sand from guard rails and other ancillary facilities (e.g., parking lots, median crossovers, toll facilities, etc.), as well as post-construction O&M inspections.

IV. STORMWATER MOA OVERSIGHT

Stormwater MOA compliance and oversight is provided for the Turnpike by the following MTA and HNTB personnel:

MTA Management Staff:

Peter Merfeld, P.E., *Chief Operations Officer*
Steve Tartre, P.E., *Director of Engineering and Building Maintenance*
William Franklin, *Deputy Director of Engineering and Building Maintenance*
Scott Warchol, *Project Administrator*
Scott McConihe, *Inspector*
Gerry Ouellette, *Inspector*
Jody Dyke, *Inspector*
William Wells, *Director of Highway & Equipment Maintenance*
Roger Mathews, *Highway Division Supervisor*
Andy Perry, *Highway Division Supervisor*
Dale Cook, *Foreman at Gardiner and Litchfield Highway Maintenance Facility*
Rick Dionne, *Foreman at Auburn Highway Maintenance Facility*
Gary Montague, *Foreman at Gray Highway Maintenance Facility*
Bill Thompson, *Foreman at South Portland (Crosby) Highway Maintenance Facility*
Jim Sotir, *Foreman at Kennebunk Highway Maintenance Facility*
Joe Violette, *Foreman at York Highway Maintenance Facility*
John Branscom, *Environmental Services Coordinator*
J. Ryan Leavitt, *Senior Resident Engineer*
Brian Taddeo, *Project Engineer*

HNTB, Inc.

Greg Blake, P.E.
Roland Lavallee, P.E
Bob Driscoll, P.E.
Lori Driscoll, P.E.
Tim Cote, P.E.
Charles Myers, P.E.
Clayton Hoak, P.E.
Walter Fagerlund, P.E.
Donald Ettinger, P.E.
Lauren Meek, P.E.
Dale Mitchell, P.E.
Mitch Elliot, P.E.
Trevin Cobb
Mark Desenberg
Bruce Munger
Tianna Higgins
Jamie Waugh

V. CONCLUSION

MTA will continue to apply the appropriate engineering design and building practices for construction projects to successfully meet the requirements of the current Stormwater MOA. MTA management is committed to post-construction operations and maintenance, and increased education for its employees. MTA will carefully manage stormwater and erosion control issues to protect the environment and comply with the current MOA.

APPENDIX A

STORMWATER MOA

MEMORANDUM OF AGREEMENT FOR STORMWATER MANAGEMENT BETWEEN THE MAINE DEPARTMENT OF TRANSPORTATION, MAINE TURNPIKE AUTHORITY AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

The Maine Department of Environmental Protection (hereinafter DEP), the Maine Department of Transportation (hereinafter MaineDOT), and the Maine Turnpike Authority (hereinafter MTA) agree as follows:

WHEREAS, projects involving state transportation systems developed by or under the supervision of the MaineDOT or MTA must meet the storm water requirements set forth in a Memorandum of Agreement between the DEP, MaineDOT and MTA; and

WHEREAS, DEP, MaineDOT and MTA recognize the unique characteristics, benefits and impacts of state transportation systems, including without limitation roads and railroads; and

WHEREAS, DEP, MaineDOT and MTA agree that the intent of this Memorandum of Agreement is to achieve stormwater quality and quantity controls reasonably consistent with the standards set out by the DEP in Chapter 500 Stormwater Management Rules; and

WHEREAS, those objectives will be achieved by a comprehensive stormwater management program that applies to any project developed, administered, supervised, or overseen by MaineDOT or MTA which otherwise would have required a stormwater permit or been subject to the standards of Chapter 500, but for the exemption in 38 M.R.S.A. §420-D(7)(G), and that applies to all other MaineDOT and MTA projects located in the organized territory which would not have required a storm water permit or not have been subject to the standards of Chapter 500; and

WHEREAS, comprehensive stormwater management as part of MaineDOT and MTA projects in the organized territory will result in substantial environmental benefits for all

watersheds and in particular those direct watersheds of lakes most at risk from new development or urban impaired streams.

NOW, THEREFORE, MaineDOT and MTA will adopt the following requirements for stormwater management,

1. Applicability.

This Memorandum of Agreement (MOA) applies to MaineDOT and MTA projects that would be required to meet the requirements of the Stormwater Management Law if not for the exemption in Title 38 MRSA §420-D(7)(G). It does not apply to projects requiring a permit pursuant to the Site Location of Development Law.

This MOA addresses the specific technical issues associated with state transportation system projects undertaken by or under the administration, supervision, or oversight of MaineDOT and MTA, and specifies the storm water quality and quantity standards which will apply to those projects. MaineDOT and MTA have agreed to adopt standards that are based on the type of project and the project location with respect to direct watersheds of lakes most at risk from new development and urban impaired streams, as set forth in Chapters 500 and 502 of the Maine Stormwater Management Rules.

No state transportation system project constructed pursuant to the requirements of this MOA is required to get a permit or DEP approval pursuant to the Maine Stormwater Management Law.

2. Definitions.

A. Roads. All roads, highways, bridges, bike paths, interchanges and intersections.

B. Construction site operator. The contractor's designated on-site supervisor or MaineDOT or MTA's designated on-site supervisor if there is no outside

contractor.

C. State transportation system. 1) (a) MaineDOT and MTA administered or supervised state or state aid highways along with associated sidewalks, paths, trails and/or bridges; (b) MaineDOT administered or supervised marine highways, airports, and rail lines along with associated sidewalks, paths, trails and/or bridges, and 2) any associated facilities essential to the safe and efficient operation of those state transportation systems, including but not limited to highway maintenance facilities, transit/rail stations, toll plazas, ferry terminals, cargo ports, intermodal transportation centers, weigh stations, rest areas, visitor information centers, service plazas, and park-and-ride lots as well as parking lots and other infrastructure serving those facilities.

D. Linear portion of a project. All rail lines, roads, highways, bridges, or similar transportation corridors, along with associated interchanges, scenic turnouts, access ramps, airport runways and taxiways, weigh stations, toll facilities, intersections, sidewalks, trails, paths and similar associated facilities including associated parking and building area of up to 5,000 square feet.

E. Non-linear portion of a project. All portions of a state transportation system that are not linear. Examples of a non-linear portion of a project include, but are not limited to, maintenance facilities, intermodal transportation centers, transit/rail stations, and airport terminals, hangers and aprons.

3. Specific Provisions to Comply with Chapter 500 Standards.

All state transportation system projects undertaken by or under the administration, supervision, or oversight of MaineDOT and MTA shall comply with the requirements of Chapter 500 and 502 as follows.

A. Basic Standards. All projects shall meet the Basic Standards described in Section

4(A) of Chapter 500, through implementation of best management practices described in the MaineDOT's Best Management Practices for Erosion and Sedimentation Control (hereinafter the MaineDOT BMP Manual) as may be updated from time to time.

B. General Standards. For projects that are large enough to trigger the General Standard threshold in Chapter 500:

(1) A linear portion of a project located in the direct watershed of a lake most at risk from new development or in the watershed of an urban impaired stream, shall meet the General Standards to the extent practicable as determined through consultation with and agreement by DEP, except that redevelopment of existing impervious area may qualify for the exception in Section 4(B)(3)(e).

(2) A linear portion of a project associated with an existing travel corridor constructed prior to July 19, 2007,[1] and not located in either the direct watershed of a lake most at risk from new development or in the watershed of an urban impaired stream, shall not be required to meet the General Standards.

(3) A linear portion of a project that is not associated with an existing travel corridor shall meet the General Standards to the extent practicable as determined through consultation with and agreement by DEP.

(4) A non-linear portion of a project shall meet the General Standards, except that redevelopment of existing impervious area may qualify for the exception in Section 4(B)(3)(e) of Chapter 500.

C. Phosphorus standard. Projects triggering the Phosphorus standard shall instead apply the General Standards in accordance with Section 3(B) of this MOA.

[1] July 19, 2007 is the date the first MOA with this language became effective.

D. Urban impaired stream standard. A linear or non-linear portion of a project that is not associated with an existing travel corridor, is located within the watershed of an urban impaired stream, and triggers the Urban Impaired Stream Standard, shall meet the Urban Impaired Stream Standard in Chapter 500, Section 4(D), to the extent practicable as determined through consultation with and agreement by DEP. MaineDOT and MTA may use mitigation credit measures within the same watershed as that portion of a project in order meet the requirements of Chapter 500, Section 4(D).

E. Flooding standard. For a state transportation system project that triggers the thresholds of the Flooding Standard, MaineDOT and MTA shall apply design and engineering measures to the extent practicable such that project drainage avoids adverse impacts to offsite property resulting from project-related peak flow.

The following additional requirements of Chapter 500 shall be met through review, reporting and recordkeeping undertaken by MaineDOT and MTA pursuant to Section 4 of this MOA: project notification and submittal requirements of Ch. 500(7)(B), Ch. 500(7)(E)(1-6), Ch. 500(8)(C)(1 through 3), Ch. 500(8)(D)(1-6), and Ch. 500(8)(E)(1-2); the pre-application meeting requirements of Ch. 500(8)(A); the recording requirements of Ch. 500(11); and the re-certification requirements of Ch. 500, Appendix B(4). DEP agrees that MaineDOT and MTA have demonstrated the qualifications of their respective staff to perform the maintenance activities required pursuant to Ch. 500, Appendix (B)(3) and therefore, meet the intent of that requirement without contracting with third-parties.

4. Interagency Review.

As part of the annual Interagency Review MaineDOT and MTA agree to provide DEP with a list of all projects started in the 12 months since the last Interagency Review meeting and a list of projects anticipated for the next 12 months. The DEP, MaineDOT

and MTA also agree to hold interagency meetings as necessary, but at least annually, to identify, discuss and resolve any issues which may have arisen regarding interpretation and implementation of the MOA. MaineDOT and MTA each shall keep records of their projects that would otherwise trigger the stormwater rules requirements, including: the project location; a description of other work done in the watershed; a description of any alternative stormwater management measures installed and their relative performance, if known; a description of each instance where, pursuant to Section 3(B)(1) and 3(D) of this MOA, the General Standards were not fully applied because it was determined to not be practicable to do so and the extent to which the General Standards were not met; a list of facilities or state transportation systems that have undergone site inspections; and a list of staff or designees who provided oversight with respect to erosion and sedimentation control and stormwater control. As part of this annual review MaineDOT and MTA shall provide DEP with a report on maintenance surveys and activities.

Dated: 10/31/07

By: _____
David A. Littell, Commissioner
Maine Department of Environmental Protection

Dated: 11/06/07

By: _____
David Cole, Commissioner
Maine Department of Transportation

Dated: 11/14/07

By: _____
Gerard P. Conley, Sr., Chairman
Maine Turnpike Authority

APPENDIX B

MOA TABLES 1 – 7

TABLE 1 - LIST OF TRAINED PERSONNEL

Maine Turnpike Authority

This table provides a list of all MTA trained personnal provided for 2011 to employees providing stormwater and sedimentation control oversight on projects. In addition, the table lists employees who are NPS certified or are PE's experienced with stormwater requirements.

NAME (LAST, FIRST)	COMPANY	MAINE P.E. with STORMWATER EXPERIENCE	MDEP EROSION CONTROL CERTIFIED	OTHER TRAINING ATTENDED [1]
IN-HOUSE PERSONNEL				
BRANSCOM, JOHN	MTA		Y	Pollution Prevention (SPCC/Stormwater Phase II) Chapter 500 Stormwater Management Rules
COOK, DALE	MTA			Pollution Prevention (SPCC/Stormwater/ESC)
DIONNE, RICK	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
DYKE, JODY	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
FRANKLIN, BILL	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
LaCHANCE, SCOTT	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
LEAVITT, J. RYAN	MTA	Y		Pollution Prevention (SPCC/Stormwater/ESC)
MATHEWS, ROGER	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
McCONIHE, SCOTT	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
MERFELD, PETER	MTA	Y		
MONTAGUE, GARY	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
OUELLETTE, GERRY	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
PERRY, ANDY	MTA		Y	
SOTIR, JAMES	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
TADDEO, BRIAN	MTA	Y		Pollution Prevention (SPCC/Stormwater/ESC)
TARTRE, STEPHEN	MTA	Y	Y	
THOMPSON, BILL	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
VIOLETTE, JOE	MTA		Y	Pollution Prevention (SPCC/Stormwater/ESC)
WARCHOL, SCOTT	MTA		Y	
WELLS, BILL	MTA		Y	
PRIMARY CONTRACTOR PERSONNEL				
BLAKE, GREG	HNTB	Y		
COBB, TREVIN	HNTB		Y	
COTE, TIM	HNTB	Y		
DESENBERG, MARK	HNTB		Y	
DRISCOLL, BOB	HNTB	Y		
DRISCOLL, LORI	HNTB	Y		
ELLIOT, MITCH	HNTB	Y		
ETTINGER, DONALD	HNTB	Y		
FAGERLUND, WALTER	HNTB	Y		
HIGGINS, TIANNA	HNTB		Y	
HOAK, CLAYTON	HNTB	Y		
LAVALLEE, ROLAND	HNTB	Y		
MEEK, LAUREN	HNTB	Y		
MITCHELL, DALE	HNTB	Y		CPESC
MUNGER, BRUCE	HNTB		Y	
MYERS, CHARLES	HNTB	Y		
WAUGH, JAMIE	HNTB		Y	

[1] *Pollution Prevention training includes (1) Spill Prevention, Control & Countermeasures (SPCC) topics, (2) Stormwater management requirements from both Chpter 500 & Phase II MS4 Permit; and (3) Erosion & Sedimentation Control (ESC) topics. A copy of the training is included in Appendix C.*

TABLE 2 - LIST OF ACTIVE CONSTRUCTION PROJECTS

Maine Turnpike Authority

This table provides a summary of construction contracts and solicitations issued in 2011.

CONTRACT NUMBER	APPROXIMATE LOCATION	DESCRIPTION	LINEAR or NON-LINEAR PROJECT	MOA APPLIES
2009.03	Lewiston	Bridge Rehabilitation (Route 196-Lisbon Street)	Linear	Yes

CONTRACT NUMBER	APPROXIMATE LOCATION	DESCRIPTION	LINEAR or NON-LINEAR PROJECT	MOA APPLIES
2010.03	Portland and Falmouth	Bridge Rehabilitations	Linear	Yes
2010.04	Auburn	Bridge Rehabilitation	Linear	Yes
2010.06	Kennebunk	Eastern Trail Pedestrian Bridge	Linear	Yes

CONTRACT NUMBER	APPROXIMATE LOCATION	DESCRIPTION	LINEAR or NON-LINEAR PROJECT	MOA APPLIES
2011.01	York / Ogunquit / Wells	2011 Pavement Rehabilitation (Mile 13.3 to 23.3)	Linear	Yes
2011.02	Portland	Exit 48 Bridge Replacement	Linear	Yes
2011.03	Litchfield	Bridge Rehabilitation & Bridge Repair	Linear	Yes
2011.04	Falmouth	Exit 53 Bridge Rehabilitation	Linear	Yes
2011.05	South Portland / Falmouth	Bridge Repair & Culvert Repair	Linear	Yes
2011.06	New Gloucester	Toll Plaza modifications	Linear	Yes
2011.07	Auburn	Bridge Repairs	Linear	Yes
2011.08	Auburn	Interchange Modifications	Linear	Yes
2011.09	Lewiston	Interchange Modifications	Linear	Yes

CONTRACT NUMBER	APPROXIMATE LOCATION	DESCRIPTION	LINEAR or NON-LINEAR PROJECT	MOA APPLIES
S2011.50	Auburn	Bridge Repair	Linear	Yes
S2011.51	Falmouth	Bridge Repair	Linear	Yes
S2011.52	Portland	Bridge Repair	Linear	Yes
S2011.53	Falmouth	Bridge Repair	Linear	Yes

Note: Contract 2011.111 awarded in late December 2011. No work completed by MTA until 2012.

TABLE 3 - BMPs ASSOCIATED WITH PROJECTS IN 2011

Maine Turnpike Authority

This table is an inventory of permanent BMPs installed by the MTA contracts and solicitations in 2011 (listed by project).

CONTRACT NUMBER	PROJECT LOCATION/DESCRIPTION	YEAR of INSTALLATION	SEDIMENT TRAP	RIP RAP DOWNSPOUT	CULVERT INLET PROTECTION (STONE)	CULVERT OUTLET PROTECTION (STONE)	SLOPE STABALIZTION (x1000SF)	VEGETATED BUFFER (x1000 SF)	STONE DITCH PROTECTION (x1000 SF)	PERMANENT STONE CHECK DAM	CATCH BASIN or HOLDING TANK [1]	OTHER	DESCRIPTION
2009.03	Bridge Rehabilitation (Route 196-Lisbon Street)	2011		7								5	Stone splash pads
2010.03	Bridge Rehabilitations (Presumpscot River & Auburn Street)	2011		5		3	27			1		1	Rip Rap Swale
2010.04	Bridge Rehabilitation (Washington Street\Route 202)	2011		3		2	4						
2010.06	New Bridge (Eastern Trail Pedestrian Bridge)	2011		3	1	1			1				
2011.01	Pavement Rehabilitaiton[1]	2011									120		
2011.02	Exit 48 Bridge Replacement	2011		2	2	10			11		5		
2011.07	Bridge Repairs (Kitty Hawk and SLARR)	2011					3						
	PROJECTS TOTALS:			**20**	**3**	**16**	**34**		**12**	**1**	**125**	**6**	

[1] *Contract 2011.01 - catch basins are existing and to be adjusted or modified, no new installations*

TABLE 4 - INVENTORY OF PERMANENT BMP's

Maine Turnpike Authority

This table is a summary of MTA Highway Maintenance Department new construction/installation projects accomplished in 2011.

APPROXIMATE LOCATION	PROJECT DESCRIPTION	SEDIMENT TRAPS/CATCH BASINS (Qty #)	RIP RAP DOWN SPOUT (Qty #)	CULVERT INLET PROTECT (STONE) (Qty #)	SLOPE STABALIZTION (# SF)	VEGETATION BUFFER (x1000SF)	PERM. CHECK DAM (Qty #)	OUTER PERIMETER BARK GRINDINGS BARRIER (# LF)
SOUTH PORTLAND (CROSBY MF)	Maintenance Yard BMP Retrofits	2						400
FALMOUTH SPUR FS2	Median Opening Installation			3				
KENNEBUNK MM 30.3 NB	Culvert Installation			1	675			

TABLE 5 - SUMMARY OF MTA HIGHWAY MAINTENANCE DEPARTMENT 2011 O&M

Maine Turnpike Authority

This table is a summary of MTA Highway Maintenance Department and Engineering department Operations and Maintenance (O&M) accomplished in 2011.

HIGHWAY MAINTENANCE FACILITY	LOCATION	REPAIR/REDO DITCHING (Total Linear Miles)	CULVERT/DOWNSPOUT REPAIR/MAINTENANCE (Qty. #)	CATCH BASIN REPAIR/MAINTENANCE (Qty. #)	REMOVE SAND from GUARD RAILS (# of Linear Miles)	SLOPE and/or ROW REPAIR/MULCHING (# SF)	INSPECT CATCHMENTS [1] (Total # inspected)	CATCHMENTS CLEANED OUT (Total # cleaned out)	STREET SWEEPING (# of Linear Miles)	SWEEPING of ANCILLARY FACILITIES [2] (# of Facilities/Year)	LITTER PICKING (# of Miles)
YORK MF	Kittery to Wells	0	0	0	40	0	241	150	45	64	170[4]
KENNEBUNK MF	Wells to Saco	1	0	0	30	4,500	229	200	85	39	102
SOUTH PORTLAND (CROSBY MF)	Saco to Falmouth	0	0	61	97	800	179	107	48	21	140
GRAY MF	Falmouth to New Gloucester	0	0	0	28	0	152	84	28	28	62
AUBURN MF	New Gloucester to Sabattus	0	2	1	40	152,064[5]	329	155	115	33	221
LITCHFIELD & GARDINER MF	Sabattus to Augusta	23	ALL[3]	3	45	530	256	230	45	70	184
TOTALS:	**Kittery to Augusta**	**24**	**2**	**65**	**279**	**5,830**	**1,386**	**926**	**366**	**255**	**709**

[1] Catchments include catch basins, sediment traps, vegetated swales, detention ponds, etc.

[2] Ancillary facilities include parking lots, median crossovers, interchanges, service plazas, maintenance yards, etc.

[3] All culverts from mile marker 26 to mile marker 36 northbound were cleared of debris, etc.

[4] Frequently conducted litter picking of MDOT (MM 2.5-4.2) and Kennebunk (MM 15.2-20.4) territories of Turnpike.

[5] Auburn MF reported 14.4 miles of slope repair during 2011.

TABLE 6 - ANTICIPATED CONSTRUCTION CONTRACTS FOR 2012

Maine Turnpike Authority

This table is a summary of anticipated construction contracts to be issued in 2012.

CONTRACT NUMBER	APPROXIMATE LOCATION	DESCRIPTION
2012.01	Biddeford / Saco	Mainline Pavement Rehabilitation & Saco River Bridge Repair
2012.02	Litchfield	Mainline Pavement Rehabilitation
2012.03	Sabattus	Bridge Rehabilitiation
2012.04	New Gloucester	Bridge Rehabilitiation
2012.05	Falmouth	Bridge Rehabilitiation
2012.06	Various	Bridge Repairs
2012.07	Various	Bridge Painting
2012.08	Various	Bridge Repairs
2012.09	Auburn	Interchange Improvements
2012.10	Lewiston	Interchange Improvements
2012.11	Lewiston	Interchange Improvements
2012.13	New Gloucester	Toll Plaza Improvements
2012.14	Gray	Maintenance Improvements
2012.15	Portland / Falmouth	Bridge Repair
2012.17	Scarborough / South Portland	Mainline Pavement Rehabilitation and Interchange Pavement Rehab

TABLE 7 - SUMMARY OF PROPOSED O&M FOR INSTALLED BMPs

Maine Turnpike Authority

This table is a summary of the proposed O&M of permantently installed BMPs throughout MTA for 2011.

PROJECT ID	LOCATION	REPAIR/REDO DITCHING (#Miles Linear Total)	CULVERT REPAIR (Qty. #)	CATCH BASINS TO BE REPAIRED (Qty.#)	REMOVE SAND FROM GUARD RAILS (# Linear Miles)	SLOPE and/or ROW REPAIR/MULCHING (#SF total)	INSPECT CATCH BASINS, SEDIMENT TRAPS, VEG. SWALES, and DETENTION PONDS (Total % to be Inspected)	CATCH BASINS, SEDIMENT TRAPS, VEG. SWALES, and DETENTION PONDS TO BE CLEANED OUT (% of Total)	STREET SWEEPING (# linear Miles)	SWEEP PARKING LOT, MAINTENANCE YARDS, MEDIAN CROSS-OVERS, TOLL PLAZAS, INTERCHANGES, SERVICE PLAZAS, and MISC. (# Times Swept/Year)	LITTER PICKING (# Miles)
MEDIAN & MAINLINE NB & SB; & FACILITIES	Kittery to Augusta	1-2	25-50	50-75	180-200	As Needed*	100%	50 - 60%	180-200	1-2	223

Note: Includes O&M performed by both MTA Highway Maintenance and contractors (e.g., HNTB)

APPENDIX C

REPRESENTATIVE STORMWATER TRAINING CURRICULUM (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

Maine Turnpike Authority
SPCC 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

TRAINING OVERVIEW:

- Spill Response procedures and notifications
- Mobile SPCC requirements
- Review changes to MTA's Plans and BMPs
- Review new stormwater management requirements
- Erosion and Sedimentation Control (ESC) requirements for all MTA projects

Trivia Games to challenge your level of knowledge on each topic!!

Let's start with SPCC requirements first....

SPCC Regulatory Background

- **Federal Regulations set standard**
  - **EPA's Oil Pollution Prevention Regulations (40 CFR 112)**
- **Supplemental State Rules**
  - **CMR Chapter 800 and 801 -- Identification and Remediation of Oil and Hazardous Matter**

SPCC Regulatory Background

ENFORCEMENT OF REGULATIONS

- **EPA conducts unannounced inspections and may assess penalties up to $27,500* per day**
  - **Aggressive Enforcement Program!!**
- **DEP may also inspect facilities**

** EPA increasing to $37,500/day*

SPCC Regulatory Background

- **WHO IS REGULATED BY SPCC MANAGEMENT RULES?**
  - **Facilities that store more than 1,320 gallons oil (petroleum products) in aboveground storage are subject to**
    - ***QUESTION: Can you think of which MTA Facilities STORE MORE THAN 1,320 GALLONS of petroleum products?***
- **WHO HAS THE POTENTIAL TO SPILL PETROLEUM?**
  - **MTA has developed SPCC Plans for all maintenance facilities as a best management practice (BMP)**

UPDATING SPCC PLAN: Table of Contents

New Sections...

CERTIFICATION BY REGISTERED PROFESSIONAL ENGINEER

9.0 NON-STORM WATER DISCHARGE
10. 0 Certification Of The Applicability Of The Substantial Harm Criteria
11. 0 Applicable State, Tribal Or Local Requirements
12.0 COMPREHENSIVE SITE COMPLIANCE EVALUATION
13. 0 Maintaining An Updated Plan
14. 0 Signatures and Making Plans Available
15.0 ADDITIONAL REQUIREMENTS FOR FACILITIES SUBJECT TO EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT 313 REPORTING REQUIREMENTS
16.0 ADDITIONAL REQUIREMENTS FOR SALT STORAGE PILES
17.0 MONITORING REQUIREMENTS AND NUMERIC LIMITATIONS
18. 0 Retention of Records

UPDATING SPCC PLAN:
Table of Contents
Remain the same...

TABLES
- TABLE 1 INVENTORY OF POTENTIAL POLLUTANT SOURCES
- TABLE 2 POLLUTION PREVENTION TEAM
- TABLE 3 SPILL RESPONSE EQUIPMENT
- TABLE 4 SPILL HISTORY
- TABLE 5 DRAINAGE AREA DESCRIPTIONS
- TABLE 6 POTENTIAL POLLUTANT SOURCES / RISK IDENTIF.
- TABLE 7 POTENTIAL SPILL PREDICTIONS
- TABLE 8 BMP SUMMARY AND IMPLEMENTATION SCHEDULE

FIGURES
- FIGURE 1 LOCUS PLAN
- FIGURE 2 SITE PLAN

UPDATING SPCC PLAN:
Table of Contents
New Sections...

- APPENDIX B
  - NOTICE OF INTENT; MPDES MSGP COMMON AND SECTOR AD SPECIFIC SECTIONS
- APPENDIX D
  - STORMWATER VISUAL EXAMINATION REPORTS
- APPENDIX E
  - NON-STORMWATER DISCHARGE ASSESSMENT AND CERTIFICATION FORM
- APPENDIX K
  - CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA (40 CFR 112.20)

Today's Training:
MOST IMPORTANT PARTS OF SPCC PLAN

- FIGURE 2
  - Oil Storage Locations
  - Drainage Features (described in Table 5)
- APPENDIX B THROUGH APPENDIX F
  - App C – Spill Report Form
  - App F – Emergency Spill Info (see Table 3)
  - App G – Notification Info
  - App H – Inspection Forms

THIS FACILITY SPECIFIC INFORMATION IS PROVIDED IN TRAINING HANDOUTS FOR REFERENCE TODAY!!!

OIL STORAGE LOCATIONS:

TWO QUESTIONS:

#1 Where are quantities of oil stored or handled at your Maintenance Facility?
USE FIGURE 2 HANDOUT TO CHECK YOUR ANSWER(S)

Now

#2....What if there was a release from these locations, where would the spill go?

LET'S FIND OUT...

OUTSIDE?
EXTERIOR DRAINAGE FEATURES

Direct Discharge: Storm Drains, catch basins, etc.

Indirect Discharge: Surface drainage to nearby streams or wetland

How close to OIL STORAGE LOCATIONS?

INSIDE?
INTERIOR DRAINAGE FEATURES

Are there any INTERIOR DRAINAGE FEATURES are present at your Maintenance Facility?

Floor drains: WHERE DOES THE LIQUID GO?

INSIDE?
INTERIOR DRAINAGE FEATURES

Holding tank wastewater pumped and disposed as industrial wastewater
- contamination - additional disposal $$$
- may change in hazardous waste generator status

$$$$$$$$$$$$$$$$$$$$$$$$

BE CAREFUL OF WHAT GOES DOWN THE DRAINS!!!

$$$$$$$$$$$$$$$$$$$$$$$$

INTERIOR DRAINAGE FEATURES:
Cleanup = $$$$

INTERIOR DRAINAGE FEATURES:
Discharge outside?

1

DRAINAGE FEATURES:
Potential Spill Pathways

"Why is it so important to identify all oil storage locations and drainage features?"

...because oil can enter the "navigable waters" by one or more of the following potential spill pathways:

1. Direct spillage into drainage system
2. Spillage into a floor drain or other conduit that discharges into the streams
3. Overland flow to streams

DRAINAGE FEATURES:
Potential Spill Pathways

Do you have any areas where direct spillage into drainage system could occur?

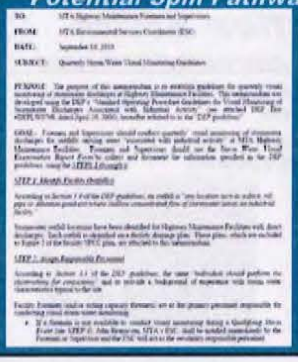
DRAINAGE FEATURES:
Potential Spill Pathways

any direct conduits to the environment?

DRAINAGE FEATURES:
Potential Spill Pathways

Any areas where overland flows may be directed to a stream, wetland or other waterbody?

DRAINAGE FEATURES:
Potential Spill Pathways



In the coming year, new regulatory requirements likely to include Quarterly Stormwater Visual Monitoring.

POSSIBLE SPILL SCENARIOS

At your facility, what are the most common types of spills?

What was the last spill at your facility?

POSSIBLE SPILL SCENARIOS

- **On the mainline, what are the most common types of spills?**
- **When was the last spill you responded to on mainline?**

SPCC PROGRAM GOALS

THREE GOALS

1. **SPILL PREVENTION**
   - **Prevent spills before they happen**
2. **SPILL CONTROL**
   - **Control spills before they reach the environment**
3. **SPILL COUNTERMEASURES**
   - **Establish response procedures in the event of a spill**

SPCC PROGRAM GOALS

How do we achieve the three (3) SPCC Goals?

1. **SPILL PREVENTION**
   - **Installation of required equipment/systems**
   - **Preventive and routine maintenance**
   - **Secuity**
   - **Best management practices for oil storage/handling**
   - **Training**
   - **Inspection and corrective action**
2. **SPILL CONTROL**
3. **SPILL COUNTERMEASURES**

Spill Prevention BMPs

TANK MONITORING AND ALARM SYSTEMS

- **Level alarms and overfill protection on ASTs, USTs, and holding tanks**
- **Routine checks and preventive maintenance on monitoring/warning systems**

Spill Prevention BMPs

Spill Prevention BMPs

LOADING/UNLOADING PROCEDURES –

NOTICE FOR DELIVERY DRIVERS

Spill Prevention/Control BMPs

BMPS RELATING TO OIL STORAGE AND HANDLING

Spill Prevention BMPs

- **ANNUAL TRAINING**
  - **Initial training - 2002**
  - **Annual updates and reviews for significant changes (e.g., new tank installation)**
  - **New employees or changes in job duties**

Spill Prevention BMPs

INSPECTIONS – REQUIRED MONTHLY*

- **Tanks/Containers/Equipment are checked for the following:**
  - **signs of spills or leakage**
  - **good condition (i.e., not rusted, dented, etc.)**
  - **properly closed**
  - **fuel lines not leaking**
  - **containers or equipment are placed for easy access**
  - **proper labeling of drums, tanks, containers**
  - **secondary containment in good condition**
  - **accumulation of material within secondary containment**

CORRECTIVE ACTIONS MUST BE NOTED ON THE INSPECTION FORM

RECORDS MUST BE MAINTAINED ON-SITE IN SPCC PLAN

SPCC PROGRAM GOALS

How do we achieve the three (3) SPCC Goals?

SPILL PREVENTION

2. SPILL CONTROL
   - Secondary containment
   - Monitoring of leak detection systems

SPILL COUNTERMEASURES

Achieving Spill Control

- Respond immediately to alarms.
- Provide secondary containment for all tanks and containers:
  - Oil drums/containers are stored on "spill pallets".
- Perform regularly scheduled tests on monitoring systems to ensure that they are operational, including leak detection and overfill protection.
- Employ temporary containment systems during transfers.
- Report all spills and unusual observations to Supervisor

Spill Control BMPs

- Leak detection systems
- Monitoring and inspections
- Secondary containment
- Spill response equipment and supplies
- Security (e.g. lighting, locked, etc.)
- Careful attention during transfers and operations with high spill potential

Spill Control
Secondary Containment

Remember no Gasoline waste can be put in waste barrels, notify your Supervisor for proper disposal.

Spill Control
Spill Response Materials

Spill Control
Spill Response Materials

- Spill materials include:
  - Absorbent pads and Spill Magic
  - Pig Co ® 65 gallon Overpak Spill Kit containing the following equipment/material:
    - 10-48 in. Socks; 6-10 ft. Socks; 6-Pillows; 56-Wipers; 40 PIG® Mat Pads; 6-Disposal bags & ties; 6-Tamper Proof Labels; 1-Emergency Response Guidebook; 1-Instruction Manual
  - Spill mats for covering catch basins/floor drains
  - Protective Gloves/Suits and Safety Glasses/Goggles
  - Caution tape for securing spill area
  - Shovels and bags for collection of clean-up material

Spill Control
Spill Response Materials

- Located at or near each tank and container storage location

Spill Control
Security

Spill Control
BMPs during oil transfers

How does these help control spills?

SPCC PROGRAM GOALS

How do we achieve the three (3) SPCC Goals?

1. SPILL PREVENTION
2. SPILL CONTROL
3. SPILL COUNTERMEASURES
   - Quick spill response activities/drills
   - Spill control equipment and materials
   - Emergency response assistance

Spill Countermeasures
Steps in an Oil Spill

1. Contact Site Emergency Coordinator
2. Assess the risk
3. Extinguish all sources of ignition
4. Select personal protective equipment (PPE)
5. Confine the spill / protect receptors
6. Stop the source
7. Evaluate the incident and implement cleanup
8. Decontaminate
9. Complete required reports
10. Conduct incident analysis

- REMEMBER: Personal safety is top priority!!! You should attempt to contain the spill only if you and others are not endangered by doing so.
- SEE HANDOUT of Appendix F

Spill Countermeasures

Response to spill will vary depending on type of spill.

- Incidental spills:
  - MTA employees can respond
- Non-Incidental spills:
  - Certified contractor will respond

Spill Countermeasures

What is an incidental spill?

- Incidental spills: "Incidental spills" are considered those spills:
  - in which personnel are familiar with the hazards associated with the spilled material; and
  - containment and response do not pose potential safety or health hazards;
  - can be controlled in the immediate release area; and
  - which do NOT reach the environment; and
  - which are less than 5 gallons.

Spill Countermeasures

For Incidental Spills ONLY

1. Contact your site Emergency Coordinator
2. Assess the spill situation (source, material, quantity, limits).

   REMEMBER: Personal safety is top priority!!! Attempt to contain spill only if you can do so without risk!
3. Extinguish all source of ignition.
4. Use personal protective equipment (PPE) as appropriate for hazards of the spilled material and your level of training

Spill Countermeasures

For Incidental Spills ONLY

5. Protect potential receptors/cut off migration pathways
6. STOP THE LEAK and CONTAIN THE SPILL!!!
7. Evaluate the incident and implement cleanup
8. Decontaminate the site, personnel, and equipment.
9. Assist with Spill report and any follow up as requested
10. Conduct incident analysis

Spill Countermeasures

For Non-Incidental Spills ONLY

Enact Steps 1-3 of Appendix F...

1. Contact your site Emergency Coordinator
2. Assess the spill situation (source, material, quantity, limits).

   REMEMBER: Personal safety is top priority!!! attempt to contain spill only if you can do so without risk!
3. Extinguish all source of ignition.

...but remember...

Spill Countermeasures

For Non-Incidental Spills ONLY

Enact Steps 1-3 of Appendix F...but remember

- Personal safety is top priority!!!
- Cover/protect floor drains & CBs, *if you can without risk.*
- Evacuate and secure the spill area.
- Immediately report spill to SPCC Emergency Coordinator (EC)
- EC will notify MTA Communications Center and John Branscom, MTA Environmental Coordinator, and decide whether outside assistance is needed
- If required, MTA Communication Center will contact emergency response agencies and Maine DEP.
- Provide as much information as possible about the spill (e.g., nature of spill, location and quantity of oil released).
- Remain close to the site to direct responders to the spill location (as long as you are in a safe position).

Spill Countermeasures

Where are Emergency Contact Lists (ECL) located?

Review ECL handout

Spill Countermeasures

Document ALL spills:

- **SPILL REPORT FORM should be:**
  - **completed,**
  - **reviewed with affected parties,**
  - **signed and filed in SPCC Plan/files and with MTA Environmental Services Coordinator**
- **Discuss what must be done to prevent another occurrence**
  - **Was the response quick and effective?**
  - **Should anything be done to enhance the prevention, control and/or response system?**

Spill Countermeasures

- **VERY IMPORTANT!**
  - **Restock Spill Kits with replacement items and additional items, if necessary.**

QUESTIONS

SPILL PREVENTION, CONTROL OR RESPONSE

51

Maine Turnpike Authority
SPCC Trivia Game
May 2011

SPCC TRIVIA GAME

SAYS WHO	OOPS DID I DO THAT	CATCH IT BEFORE IT FALLS	CONTROL, CONTROL, CONTROL	I SEE INTO THE FUTURE
10	10	10	10	10
20	20	20	20	20
30	30	30	30	30
40	40	40	40	40
50	50	50	50	50

[SAYS WHO?]

Why and when does MTA "force" you to attend this exciting SPCC training sessions?

ANSWER:
- Required annual training
- Review updates and reviews for significant changes (e.g., new tank installation)
- Include new employees or changes in job duties

BONUS: What year did SPCC training start at MTA?

ANSWER: 2002

[SAYS WHO?]

Who is regulated by SPCC management rules?

ANSWER: Facilities that store more than 1,320 gallons oil (petroleum products) in aboveground storage are subject to SPCC management rules

BONUS: Which MTA Facilities STORE MORE THAN 1,320 GALLONS of petroleum products?

ANSWER: York MF, Auburn MF, Crosby MF

MTA has developed SPCC Plans for all maintenance facilities as a best management practice (BMP)

[SAYS WHO?]

What would you do if a regulator showed up to inspect your facility?

ANSWER: Follow SOP for unannounced inspections by regulators which should be posted plainly at all facilities

BONUS: How much is the Aggressive Enforcement Program penalty fee per day if the EPA conducts an unannounced inspection and finds an infraction?

ANSWER: Up to $27,500 per day

[SAYS WHO?]

What is the difference between a direct discharge and an indirect discharge?

ANSWER:
- Direct discharges (i.e. point source) are surface drainage directed to a stormwater collection device (e.g. storm drain, catch basin, drainage ditch, etc.)
- Indirect discharges (non-point source) are surface drainage that flows freely to nearby water body (e.g. wetlands, stream, etc.)

[SAYS WHO?]

Why is it so important to identify all oil storage locations and drainage features?

ANSWER: because oil can enter the "navigable waters" by one or more of the following potential spill pathways
1. Direct spillage into drainage system
2. Spillage into a floor drain or other conduit that discharges into the streams
3. Overland flow to streams

Maine Turnpike Authority
SPCC Trivia Game
May 2011

[OOPS DID I DO THAT?]

What are the two types of spills that determine who should respond to the spill?

ANSWER:
1. Incidental spills: MTA employees can respond
2. Non-Incidental spills: Certified contractor will respond

[OOPS DID I DO THAT?]

What is an incidental spill? Can you name three of the five criteria that define an incidental spill?

ANSWER: Incidental spills are considered those spills, which satisfy all five (5) criteria:
- in which personnel are familiar with the hazards associated with the spilled material; and
- containment and response do not pose potential safety or health hazards;
- can be controlled in the immediate release area; and
- which do NOT reach the environment; and
- which are less than 5 gallons.

[OOPS DID I DO THAT?]

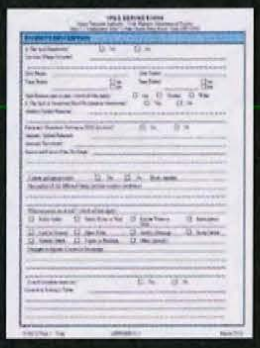
Where should the Emergency Contact Lists (ECL) be located?

ANSWER: In a highly visible place at your facility

[OOPS DID I DO THAT?]

What must be completed, reviewed with affected parties, signed and filed in the SPCC Plan and with MTA Environmental Service Coordinator?

ANSWER: Document ALL spills by completing the SPILL REPORT FORM



[OOPS DID I DO THAT?]

What are some questions you should ask yourself during the Incident Analysis to improve spill response and prevent a future spill?

ANSWER:
1. Was the response quick and effective?
2. Should anything be done to enhance the prevention, control and/or response system?

BONUS: What shouldn't you forget to do after a spill cleanup is completed?

ANSWER: Restock Spill Kits with replacement items and additional items, if necessary

[CATCH IT BEFORE IT FALLS]

What does Countermeasures mean?

ANSWER: Spill response activities

Maine Turnpike Authority
SPCC Trivia Game
May 2011

[CATCH IT BEFORE IT FALLS]

How many steps are there in an Oil Spill response?

ANSWER:
10 Steps listed in Appendix F of the SPCC Plan (see your handout)

[CATCH IT BEFORE IT FALLS]

What is the highest priority during a spill response?

a) Environment
b) Cost
c) Your personal safety

ANSWER: Personal safety is top priority!!! You should attempt to contain the spill only if you and others are not endangered by doing so.

[CATCH IT BEFORE IT FALLS]

What procedures should you take for an incidental spill?

HINT: Look at Appendix F of the SPCC Plan handout.

ANSWER:
1. Contact Site Emergency Coordinator
2. Assess the risk
3. Extinguish all sources of ignition
4. Select personal protective equipment (PPE)
5. Confine the spill / protect receptors
6. Stop the source
7. Evaluate the incident and implement cleanup
8. Decontaminate
9. Complete required reports
10. Conduct incident analysis

Personal safety is top priority!!!

[CATCH IT BEFORE IT FALLS]

What procedures should you take for an NON-incidental spill?

HINT: Look at Appendix F of the SPCC Plan handout.

ANSWER: STEPS 1-3 from Appendix F, but remember...
- Personal safety is top priority!!!
- Cover/protect floor drains & catch basins, if you can do so without risk.
- Evacuate and secure the spill area.
- Immediately report the spill to SPCC Emergency Coordinator (EC)
- EC will notify MTA Communications Center and John Branscom, MTA Environmental Coordinator, and decide whether outside assistance is needed
- If required, MTA Communication Center will contact emergency response agencies and Maine DEP.
- Provide as much information as possible about the spill (e.g., nature of spill, location and quantity of oil released).
- Remain close to the site to direct responders to the spill location (as long as you are in a safe position).

[CONTROL, CONTROL, CONTROL]

What are two types of Spill Control?

ANSWER:
1. Secondary containment
2. Monitoring of leak detection systems

[CONTROL, CONTROL, CONTROL]

Can you name three of the six spill control BMPs?

ANSWER:
1. Leak detection systems
2. Monitoring and inspections
3. Secondary containment
4. Spill response equipment and supplies
5. Security (e.g. lighting, locks, etc)
6. Careful attention during transfers and operations with high spill potential

BONUS: Should both incidental and non-incidental spills be reported to your **Supervisor?**

ANSWER: YES!

Maine Turnpike Authority
SPCC Trivia Game
May 2011

[CONTROL, CONTROL, CONTROL]

What security measures do you have at your facility?

ANSWERS:
- Fencing
- Locks (e.g. gate locks, pump locks, key pads, etc.)
- Lighting
- Communication devices

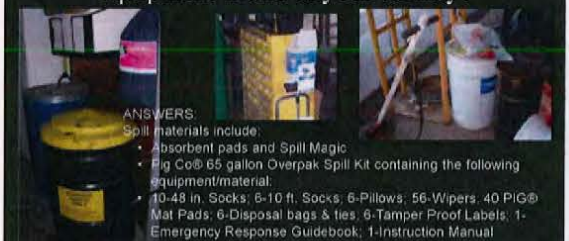
[CONTROL, CONTROL, CONTROL]

Are spills being controlled in all of these photos?

ANSWER: No, not here. There is no spill potential.

[CONTROL, CONTROL, CONTROL]

What are at least five types of spill response equipment found at your facility?



ANSWERS:
Spill materials include:
- Absorbent pads and Spill Magic
- Pig Co® 65 gallon Overpak Spill Kit containing the following equipment/material:
- 10-48 in. Socks; 6-10 ft. Socks; 6-Pillows; 56-Wipers; 40 PIG® Mat Pads; 6-Disposal bags & ties; 6-Tamper Proof Labels; 1-Emergency Response Guidebook; 1-Instruction Manual
- Spill mats for covering catch basins/floor drains
- Protective Gloves/Suits and Safety Glasses/Goggles
- Caution tape for securing spill area
- Shovels and bags for collection of clean-up material

[I SEE INTO THE FUTURE]

What are the three goals of the SPCC Program?

ANSWER
1. SPILL PREVENTION - Prevent spills before they happen
2. SPILL CONTROL - Control spills before they reach the environment
3. SPILL COUNTERMEASURES - Establish response procedures in the event of a spill

[I SEE INTO THE FUTURE]

What are these devices used for?

ANSWER:
- Inventory monitoring
- Leak detection
- Level alarms and overfill protection on ASTs, USTs, and holding tanks

DON'T FORGET routine checks and preventive maintenance on monitoring/warning systems ensure these systems are functioning properly!

[I SEE INTO THE FUTURE]

Name three Spill Prevention methods used at your facility.

ANSWERS:
1. Installation of required equipment/systems
2. Preventive and routine maintenance
3. Security
4. Best management practices for oil storage/handling
5. Training
6. Inspection and corrective action

Maine Turnpike Authority
SPCC Trivia Game
May 2011

[I SEE INTO THE FUTURE]

Can you list two things shown on the Notice To Oil/Fuel Delivery Truck Drivers sign?

ANSWERS:

1. Authorization from a trained MTA facility representative must be obtained prior to beginning unloading activities.
2. An SPCC-trained MTA facility representative must be present during all unloading activities.
3. Drivers are required to remain present at all times during unloading activities.
4. Check to be sure all valves and vehicle outlets are closed and hoses disconnected before moving your truck away.
5. Spill response equipment is located at the fuel pump island.

[I SEE INTO THE FUTURE]

When are SPCC inspections of tanks, containers, etc. required? Can you name five things required during inspection?

ANSWER: **PART A: MONTHLY**

PART B:

1. signs of spills or leakage
2. good condition (i.e., not rusted, dented, etc.)
3. properly closed
4. fuel lines not leaking
5. containers or equipment are placed for easy access
6. proper labeling of drums, tanks, containers
7. secondary containment in good condition
8. accumulation of material within secondary containment
9. CORRECTIVE ACTIONS TO BE NOTED ON INSPECTION FORM

BONUS: Where should the inspection records be kept?

ANSWER: Records to be maintained on-site in SPCC plan

Maine Turnpike Authority
Mobile Spill Prevention Control and Countermeasures (SPCC) Training
May 2011

MOBILE OIL SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

Training Prepared By:
GZA GeoEnvironmental, Inc.
Training Prepared For:
MAINE TURNPIKE AUTHORITY
May 2011

1

MOBILE OIL SPCC PLAN APPLICATIONS

2

MOBILE SPCC PLAN: TRAINING PROGRAM OVERVIEW

- Introduction
  - Purpose and Scope
- Review Mobile SPCC Plan
  - Spill Prevention Measures
    - Transportation
    - Selecting a Refueling Site
    - Setting Up The Refueling Operation
    - Good Operating Practices in Refueling
    - Closing the Refueling Site
    - Storage/Parking for MRTs
  - Spill Response Procedures and Equipment
  - Emergency Contact Information
  - Notification and Reporting

3

MOBILE SPCC PLAN: INTRODUCTION

- Purpose and Scope
  - Prevent and respond to oil discharges from Mobile Refueling Trucks
  - Provide format for MTA policies
    - Best management/operating practices for MRTs
    - Spill response and emergency contact information
  - Compliance with applicable regulations
    - USDOT Regs (49 CFR 130.31)
    - Stormwater Regs (MPDES SWMP and EPA's Clean Water Act)
    - Materials of Trade exemption (49 CFR 171.6 and 171.8)

4

MOBILE SPCC PLAN: COMPLIANCE

- Compliance with applicable regulations
  - USDOT Regs (49 CFR 130.31)
    - Establish response procedures
    - Consider maximum potential discharge
    - Identify personnel and agencies to notify in the event of a spill
    - Identify contractors available to assist, if needed
    - Identify the available spill response equipment

5

MOBILE SPCC PLAN: COMPLIANCE

- Compliance with applicable regulations
  - Materials of Trade exemption (49 CFR 171.6 and 171.8)
    - Only certain classes of hazardous materials are eligible for MOT exemption
      - For example, Hazard Class 1 (explosives) and Hazard Class 7 (radioactives) are not eligible
    - Only certain amounts of hazardous materials are eligible for MOT exemption
      - For example, diesel is restricted to 440 pounds (54 gallons) while gasoline is restricted to 8 gallons

Questions:

(1) What do you store in your MRT?

(2) How big is the MRT on your Foreman's truck?

6

MOBILE SPCC PLAN: COMPLIANCE

- Compliance with applicable regulations
  - Stormwater Regs (MPDES SWMP and EPA's Clean Water Act)
    - Refrain from refueling in Urbanized areas
  - "Urbanized Areas" Include:
    - Sabattus - Mile 83.6 to 84.3
    - Lewiston – Mile 78.9 to 79.6 and 80.8, 81.4
    - 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

7

MOBILE SPCC PLAN: COMPLIANCE

- Compliance with applicable regulations
  - Stormwater Regs (MPDES SWMP and EPA's Clean Water Act)
    - Refrain from refueling in near Urban Impaired Streams
  - "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)

8

MOBILE SPCC PLAN: PROGRAM GOALS

- COMPLIANCE with applicable regulations
- SAFE HANDLING of petroleum fuels
- POLLUTION PREVENTION by keeping oil off the ground and out of navigable waters
- SOUND OPERATING PRACTICES to minimize the potential for release and migration of oil
- TRAINING in procedures, equipment and support systems that address a release
- DOCUMENTATION of all spills
- NOTIFICATION of all spills

9

MOBILE REFUELING TRUCKS (MRTs)

10

MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT :

- COMBUSTIIBLE WARNING/NO SMOKING SIGNS

See Appendix B of Mobile SPCC Plan for other Spill Response Supplies for MRT

11

TO OPERATE THIS VEHICLE, YOU MUST:

- Have a current drivers license with required certifications
- Have current SPCC, stormwater and hazardous waste training
- Inspect MRT for leaks or damage to refueling equipment
- Verify that there is 50 gallons or less of diesel within the MRT

12

MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT:

- NON-SPARKING SHOVEL

13

MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT:

- FIRE EXTINGUISHER

14

MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT:

- 5-GALLON BUCKET
- SPILL KIT

15

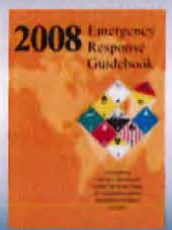
MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT:

- SPILL KIT CONTENTS INCLUDE
  - CAUTION TAPE
  - ABSORBENT MATERIALS (e.g., socks, booms, pads)
  - PLASTIC BAGS FOR WASTE (e.g., bucket liners)
  - LABELS
  - PPE (e.g., safety glasses, rubber gloves)
  - EMERGENCY RESPONSE GUIDEBOOK

16

MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT:

- EMERGENCY RESPONSE GUIDEBOOK



17

MRT VEHICLES SHOULD HAVE THE FOLLOWING EQUIPMENT:

- "ON" SWITCH FOR MRT FUEL PUMP IS IN THE ENGINE COMPARTMENT

18

SELECTING AND SETTING UP A REFUELING SITE

- SAFETY AND THE ENVIRONMENT must be considered!!
- AVOID ENVIRONMENTALLY SENSITIVE AREAS
  - LAKES STREAMS OR OTHER WATER BODIES
  - STORM DRAINS, CATCH BASINS, DITCHES OR DRAINAGE FEATURES
  - DRINKING WATER OR WATER SUPPLY WELLS
  - WETLANDS AND ANIMAL HABITAT
  - LIVING AND DINING AREAS
- REFUEL ON A FLAT IMPERVIOUS SURFACE, WHERE POSSIBLE
  - IF NO FLAT SURFACE IS AVAILABLE, CHOOSE SITE TO DIRECT SPILLS AWAY FROM DRAINAGE FEATURES TOWARD A NATURAL PIT OR COLLECTION POINT
- CONSIDER SAFETY ALWAYS
  - SITE SHOULD BE FREE OF DEBRIS AND HAZARDS
  - EASILY ACCESSIBLE TO BOTH VEHICLES
  - IN A LOW-TRAFFIC AREA IF POSSIBLE

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SELECTING AND SETTING UP A REFUELING SITE

- POSTING SIGNS
  - Ensure that signs are posted and visible
  - "NO SMOKING WITHIN 50 FEET"
  - "FLAMMABLE"

20

SELECTING AND SETTING UP A REFUELING SITE

- MAKE SURE VEHICLE IS SHUT OFF AND WHEELS ARE CHOCKED

21

SELECTING AND SETTING UP A REFUELING SITE

- USE DRIP PANS AND SORBENT PADS TO CONTAIN INCIDENTAL FUEL DRIPS AND LEAKS

22

REFUELING PRECAUTIONS

Before proceeding, extinguish all sources of ignition, open flames, etc. and do not use any sparking (i.e., metal) tools.

1. Check all drains, outlets, valves, lines, fittings and around the tank area for leaks before, during, and after all fueling operations. Equipment failure (i.e., high-pressure line break, loose/broken fittings or valves, supply or vent line rupture, a vehicle accident, overfilling) is the primary spill danger during refueling.
2. Ensure that the vehicle is turned off and that no one remains in it during refueling and other fuel transfer operations
3. Carefully open hatches, vents, valves, etc. as pressure may have built up within the system.
4. Ensure that the fuel attendant stays within 25 feet of the MRT and keeps an unobstructed view of the hoses, connections, and vehicle being refueled.
5. Never perform refueling or other fuel transfer operations when electrical storms threaten.
6. Leave at least 1% of headspace in every flammable or combustible liquid tank or compartment for content expansion when the temperature rises.

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TYPES OF VEHICLES TO BE REFUELED

- A PROPERLY SET-UP MOBILE REFUELING OPERATION
- TRACTORS, MOWERS, CONSTRUCTION VEHICLES ETC.

24

CLOSING A REFUELING SITE

- INSPECT REFUELING AREA
  - Any leaks, stains, smells?
  - If yes, notify Supervisor and ESC immediately
- DISMANTLE TEMPORARY CONTAINMENT STRUCTURES
  - Return absorbents to Spill Kit, if clean
  - Level and spread any earthen berms
- RESTORE SITE
  - Containerize and label wastes (sorbent pads etc)
  - Excavate and containerize any stained/contaminated soil
  - Deliver to nearby MTA maintenance facility for proper storage and disposal as oily waste

25

...Oily waste container/receptacle

26

SPILL NOTIFICATION – IN CASE OF EMERGENCY – APPENDIX A

In the event of any emergency (fire, explosion, ruptured pipe, etc.), or a chemical/oil spill or release, the person discovering the emergency is to

IMMEDIATELY CONTACT
MTA Communications Center
at (207) 871-7771 *(option 4)*,
also
contact one of the following personnel,
in the order presented below:

Emergency Response Coordinators

FOR SPILLS ALONG NORTHERN MTA ROWs

- Andy Perry (Northern Highway Supervisor)
  Work: (207) 582-6350 Cell: (207) 831-5813 Pager: (207) 759-0721

FOR SPILLS ALONG SOUTHERN MTA ROWs

- Roger Mathews (Southern Highway Supervisor)
  Work: (207) 985-3506 Cell: (207) 776-0874 Pager: (207) 471-0077

OR AS AN ALTERNATE FOR BOTH NORTHERN AND SOUTHERN REGIONS

- Bill Wells
  Cell: (207) 831-5812 Work: (207) 871-7771, ext. 128

Environmental Services Coordinator

- John Brassaccio
- Work: (207) 871-7771 ext 358 Cell: (207) 871-3457 Pager: (207) 471-0581

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SPILL REPORTING & DOCUMENTATION

- MTA Communications Center and EC are responsible for external spill notification and follow-up
- Follow-up notification requirements based on nature of release (e.g., sheen of surface water body, persons injured, amount of oil released).
- SPILL REPORT FORM - Appendix C (BACK FLAP POCKET) of Mobile SPCC Plan (attached) - must be completed by MRT operator in its entirety following each spill.
- Completed SPILL REPORT FORMS must be filed and copied to MTA Environmental Services Coordinator.

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QUESTIONS?

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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

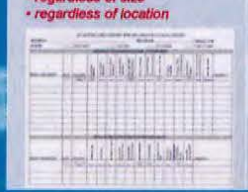
- "regulate construction, industrial activities and municipal storm sewers"
- ***Requirements under Maine DEP are changing...***
  - ***Chapter 500 Stormwater Management for New Development and Redevelopment***
  - ***Chapter 529 General Permit for the Discharge of Stormwater from MDOT/MTA Municipal 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.***

REGULATORY ATMOSPHERE: Anticipated changes

Regulatory Program	Requirements
Chapter 500/MOA (2011-2012)	1. Additional BMPs constructed on projects 2. MOA may be renegotiated
Construction General Permit (CGP) (2011-2012)	1. NOI/NOT threshold increased to 5 acres (versus 1 acre) of disturbance 2. EPA-required performance standards
MS4 (2013)	1. Additional UA 2. Additional inspections (dry & wet weather) 3. Sampling and analytical monitoring requirements
Multi-Sector General Permit (MSGP) (2011-2012)	1. Vehicle Maintenance facilities may be regulated 2. Sampling and analytical monitoring requirements 3. Annual comprehensive evaluations
Statewide TMDL for Impervious Cover (2011)	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) *Applicable to **ALL** projects:* *• regardless of size* *• regardless of location*	Use "*Quarterly MOA Report Form*" to track the following: • Earthwork (all land disturbances) • Repairs, such as slopes, ditches, culverts, downspouts, etc. • Maintenance, such as sweeping, litter picking, inspections, cleanouts, etc. • 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 *Applicable within:* *• Urbanized Areas (UA) and* *• Urban Impaired Stream (UIS)*	MCM #1 – Education and Outreach • Attend training • Inspect stormwater BMPs MCM #3 – Illicit Discharge Detection and Elimination (IDDE) Program • Inspect CBs and outfalls (OFs) annually • Report and document "illicit discharges" MCM #4 & 5 – Construction and Post-construction Controls • Implement CPEC Program discussed at last Supervisor's Meeting (2/16/11) MCM #6 – Pollution Prevention and Good Housekeeping • Maintain "*Quarterly MOA Report Forms*"

OVERVIEW: Long Creek Permits

Regulatory Program	Requirements
Long Creek General Permit (GP) *Fee applied to impervious areas ($3,000/acre/year):* • *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 maintain fees for 20 acres *(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) *Applicable to MTA HQ*	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

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

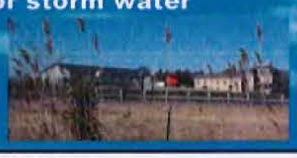
Second: IDENTIFY UIS WATERSHEDS

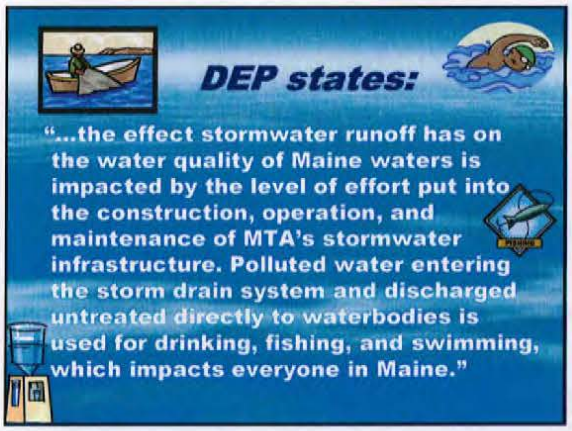
- **"Urban Impaired Streams" include:**
  - Thacher Brook (Exit 32)
  - Goosefare Brook (Exit 36)
  - Red Brook (Exit 44)
  - Long Creek (Exit 45 and 46)
  - Nasons Brook (Exit 47)
  - Capisic Brook (Exit 48)
  - Logan Brook (Exit 75)
  - Hart (Dill) Brook (Exit 80)
  - **Stay tuned, list is expanding...**

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....

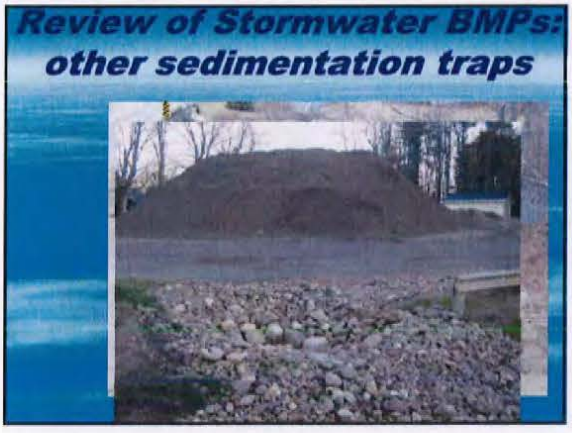



DEP states:
"...the effect stormwater runoff has on the water quality of Maine waters is impacted by the level of effort put into the construction, operation, and maintenance of MTA's stormwater infrastructure. Polluted water entering the storm drain system and discharged untreated directly to waterbodies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

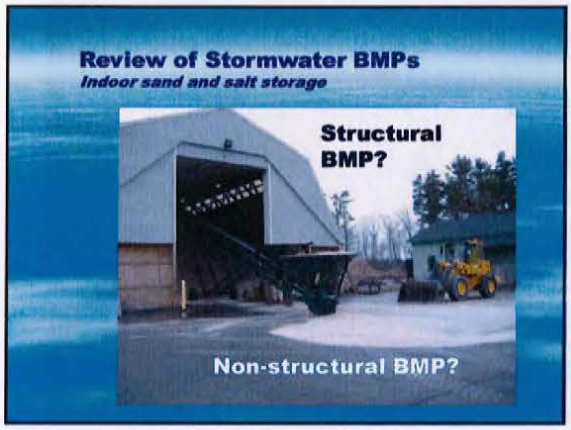

BMPs at Maintenance Facilities
Many MTA Maintenance Facility Activities May Have the Potential To Impact Storm Water
- Equipment Storage
- Vehicle Maintenance and Washing
- Material Handling and Storage
  - Oil and Petroleum Products
  - Sand and Salt
  - Waste and Excess Material Storage
  - Painting

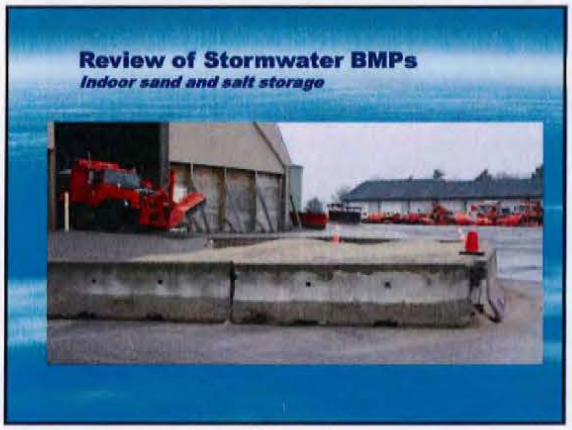

BMPs at Maintenance Facilities
To satisfy these permit requirements MTA needs YOUR HELP in:
- Implementing the required BMPs
- Tracking BMPs using the appropriate documentation

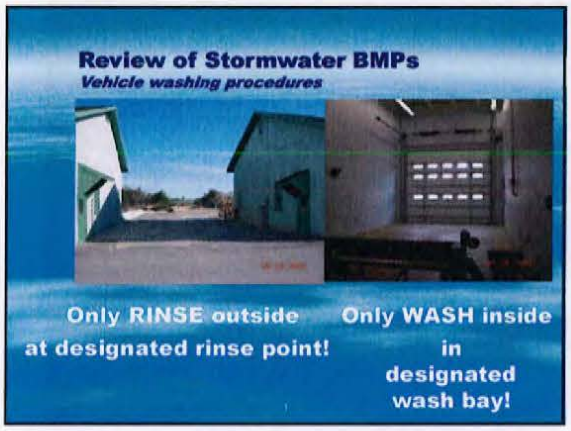

Review of Stormwater BMPs
Two types of BMPs:
- Non-structural
  - Operational and pollution-prevention type practices to prevent pollutants from entering stormwater runoff
    - Ex: Good housekeeping practices
- Structural
  - Engineered and constructed systems designed to provide water quantity or quality control
    - Ex: Sedimentation trap
Sedimentation trap = Catch basin

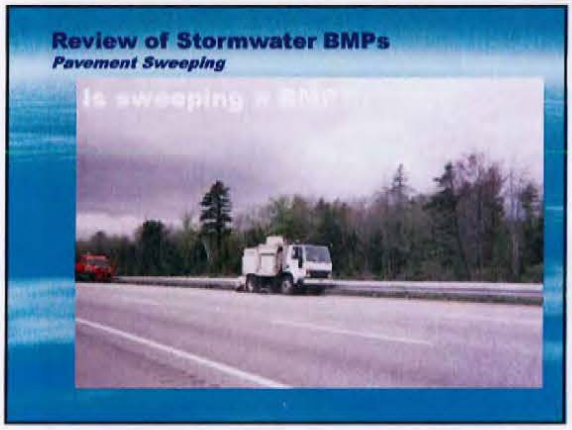

Review of Stormwater BMPs:
other sedimentation traps

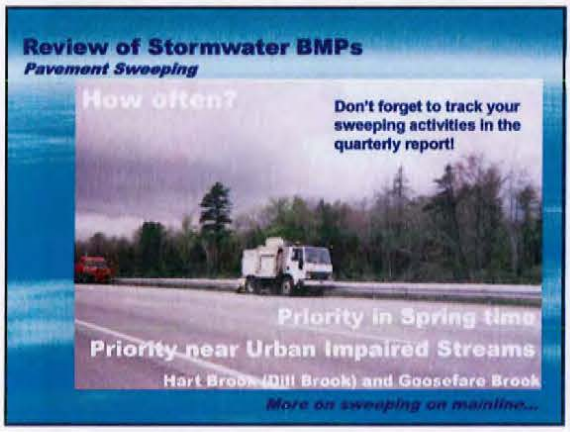

Review of Stormwater BMPs
Let's focus on Maintenance Facilities first....
...Before we move on to the mainline and construction...

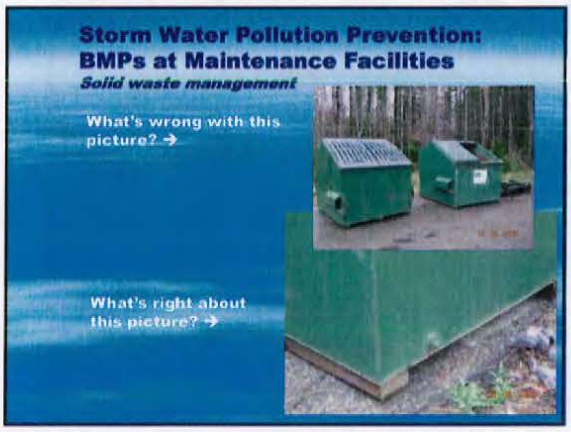

Review of Stormwater BMPs
Indoor sand and salt storage
Structural BMP?
Non-structural BMP?


Review of Stormwater BMPs
Indoor sand and salt storage


Review of Stormwater BMPs
Vehicle washing procedures
Only RINSE outside at designated rinse point!
Only WASH inside in designated wash bay!


Review of Stormwater BMPs
Pavement Sweeping


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?

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

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.)

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?

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

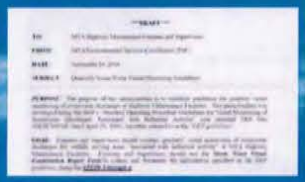
Paint overspray

Others?

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)



Maine Turnpike Authority
Stormwater/ESC Training
May 2011

Preview of Stormwater Requirements to Come…

STEP 1: Identify Facility Outfall(s)

According to *Section 3.1* 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 Branconi, MTA's ESC, shall be notified immediately by the Foreman or Supervisor and the ESC staff act as the secondary responsible personnel.
  - ➔ **Call John Branconi, MTA's ESC at (207) 671-2407**
- 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 Foremen 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 30 minutes (or as soon thereafter as practicable, but no more 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 5.3.b* of the *DEP guidelines*:

1. Wash containers in a nonphosphate 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.

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."*

Foremen 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."*

Foremen and/or Supervisors must collect storm water samples and bring them to a staff to initiate stormwater 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 in 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 Foremen 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 Foremen or Supervisor must sign the form. Additionally, a copy of the completed ***Storm Water Visual Examination Report*** should also be forwarded to John Branconi, 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.

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...

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

MTA IDDE PROGRAM

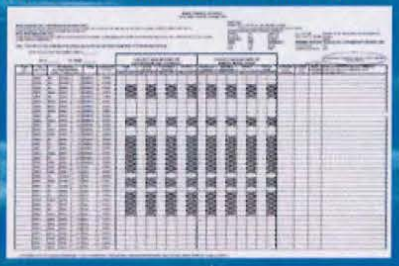
- IDDE Program has been implemented within all Urbanized Areas (UAs) over five years
  - Maps have been provided to each HM/EM Facility

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

MTA IDDE PROGRAM

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



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

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

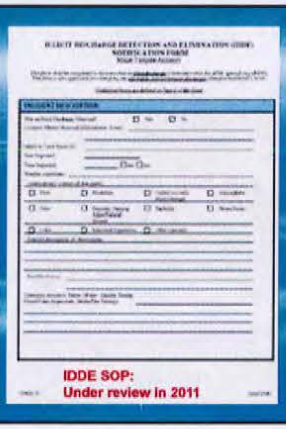
ILLICIT DISCHARGE DETECTION AND ELIMINATION

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



IDDE SOP:
Under review in 2011

IDDE NOTIFICATION:

IDDE DETECTION

Stormwater permit requires that a strategy for the detection of illicit discharges in MTA's open ditch system is given priority to areas within the Hart Brook and Goosefare Brook watersheds.

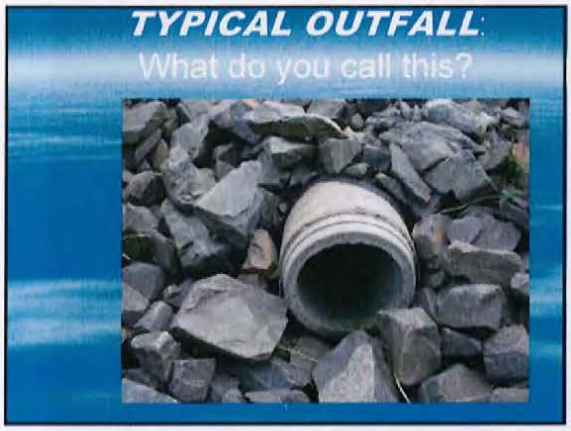
What illicit discharge has the highest potential to contaminate the turnpike's open ditch system?

A spill from a wreck.

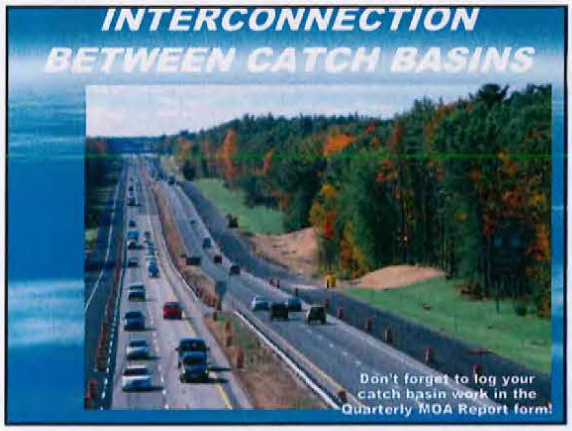
In response, MTA has developed the following programs:

- IDDE Notification Form
- Mobile SPCC
- Highway Safety Incident response
- Annual Comprehensive Inspection

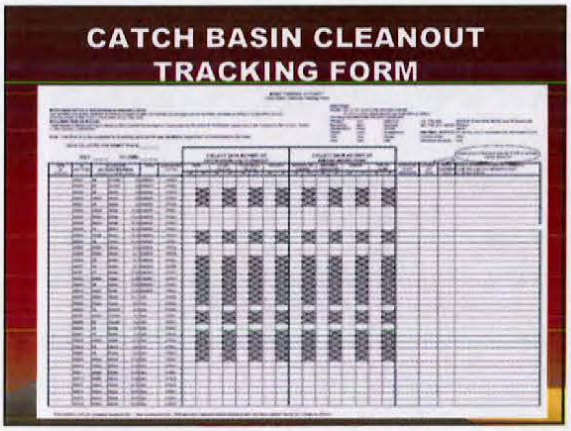
Don't forget to log your ditch repairs in the Quarterly MOA Report form!


TYPICAL OUTFALL:
What do you call this?


ARE THESE OUTFALLS?


INTERCONNECTION
BETWEEN CATCH BASINS
Don't forget to log your catch basin work in the Quarterly MOA Report form!


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 INDENTIFIER
CB/OF LOCATION

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?

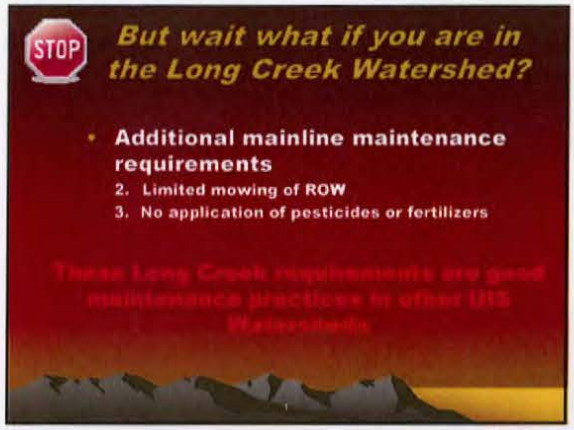
What type of comments would you make here?

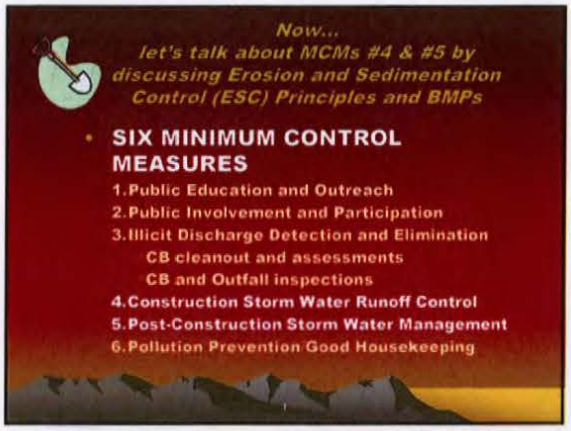
What type of comments would you make here?

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

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

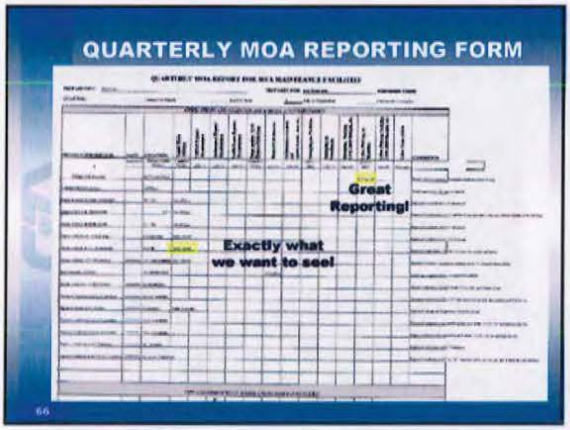

But wait what if you are in the Long Creek Watershed?
Additional mainline maintenance requirements
2. Limited mowing of ROW
3. No application of pesticides or fertilizers
These Long Creek requirements are good maintenance practices in other UIS Watersheds


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

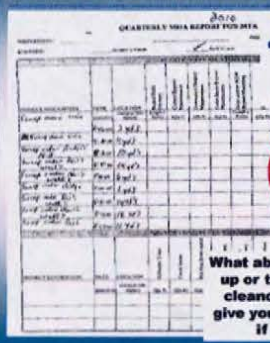

There have been a number of rules involving earthwork projects:
"What are the requirements that I need to be aware of in Highway Maintenance Operations?"


Review of Permit Requirements
MTA and MaineDOT are required to report annually to DEP regarding:
MaineDOT Best Management Practices for Erosion and Sedimentation Control
All projects undertaken
All BMPs
Structural – installed
Non-structural – completed O&M
Inspections


Review of Permit Requirements
How are your activities and projects tracked for meeting these reporting requirements?
Complete quarterly MOA Report for MTA Maintenance Facilities


QUARTERLY MOA REPORTING FORM
Great Reporting!
Exactly what we want to see!

QUARTERLY MOA REPORTING FORM



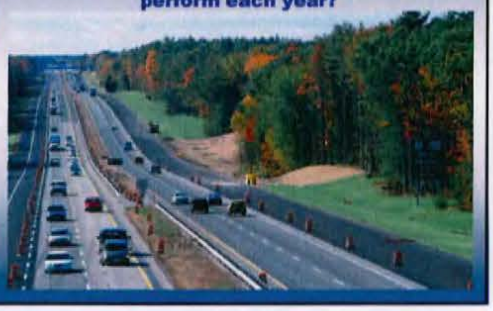
Reporting is by quantities completed for the year. MOA reports should include quantities as distances, areas, or number of items.

What about the miles of litter pick-up or the number of catch basin cleanouts performed? We can't give you credit for your hard work if it's not documented.

67

ANNUAL ACTIVITIES

What are some common projects you perform each year?



68

REPAIRING OR REDOING DITCHES

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

69

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!

70

CULVERT REPAIR & MAINTENANCE

How should we track outfall repairs?

71

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

CATCH BASIN REPAIR & MAINTENANCE

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

73

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!

74

SLOPE AND RIGHT OF WAY REPAIRS

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

75

IMPERVIOUS AREA REDUCTION

More and more important to reduce impervious cover

76

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**

77

EROSION & SEDIMENTATION CONTROL PLANS

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

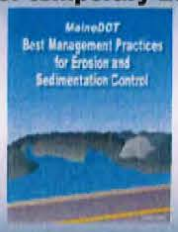
= **Erosion and Sedimentation Control (ESC) Plan**

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

78

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**

80

INSPECTION CHECKLIST FOR CONSTRUCTION

Inspections and Reporting

A daily inspection log must 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**

81

INSPECTION CHECKLIST FOR CONSTRUCTION

82

CONSTRUCTION REQUIREMENT

Winter Stabilization

Temporary winter stabilization must be used between November 1st and April 1st or outside of said time period if the ground is frozen or snow covered.

- Cover all disturbed soils and seeded ground

83

OTHER REQUIREMENTS

Pollution Prevention

Pollution prevention measures must be in place prior to construction activities

- Protect natural buffers
- Control activities within construction boundaries
- Protect groundwater supplies by preventing infiltration contamination
- Prevent debris and hazardous materials from entering waterbodies
- SPCC Plan

Fun Fact: Did you know that "any potatoes or any part or parts of potatoes" are not permitted to be discharged into any water body within the state of Maine.

84

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

85

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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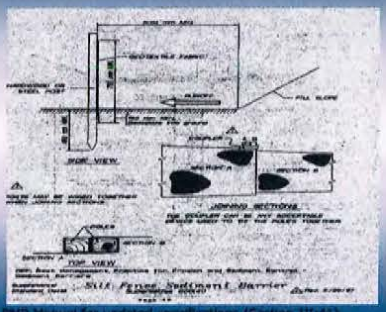
BRIEF REVIEW OF BMPs VERY IMPORTANT!!

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**

87

TYPICAL SILT FENCE DETAIL



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

88

BRIEF REVIEW OF BMPs VERY IMPORTANT!!

What's wrong with this picture?

89

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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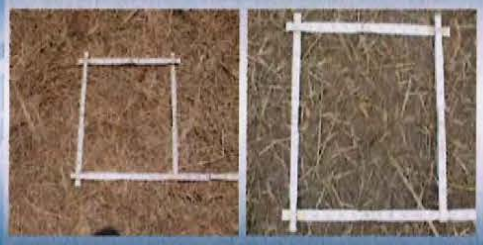
ADEQUATE MULCHING:

Will both of these mulch applications prevent erosion?



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

91

VERY IMPORTANT!!

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

92

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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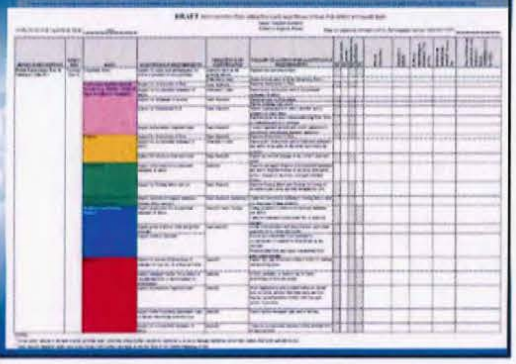
CPEC PROGRAM O&M PLAN



97

CPEC PROGRAM O&M PLAN

Exit 48 O&M Plan

98

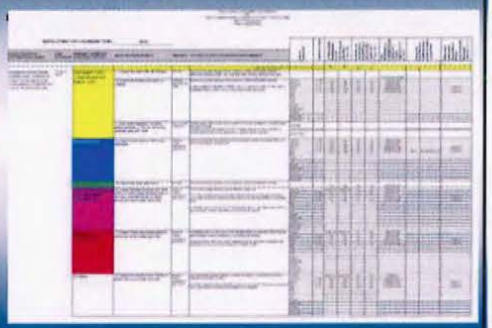
Post-Construction BMP Inspections

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

- **Project could trigger Chapter 500 Permitting**
  - **Monthly BMP inspection & maintenance recording requirements. Currently at the following facilities:**
    - **Gardiner Service Plaza**
    - **MTA Headquarters building**
    - **Kennebunk SB and NB Service Plazas**

99

Post-Construction BMP Inspections



100

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

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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Thank You
...and keep up the
GREAT WORK!!
103

Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011

SW TRIVIA GAME

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

[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!

[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

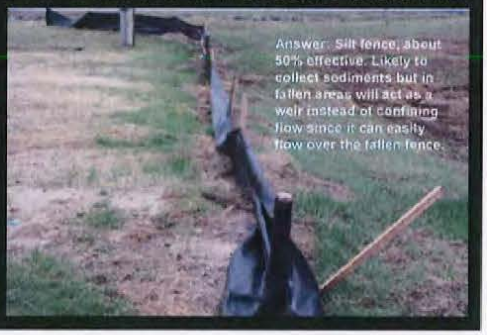
[ARE YOU SURE THAT'S THE BEST?]

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.

[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 indoor washing permitted?

[WHO SAID ILLICIT?]

What is the MS4 acronym IDDE stand for?

ANSWER: Illicit Discharge Detection and Elimination (IDDE)

Maine Turnpike Authority
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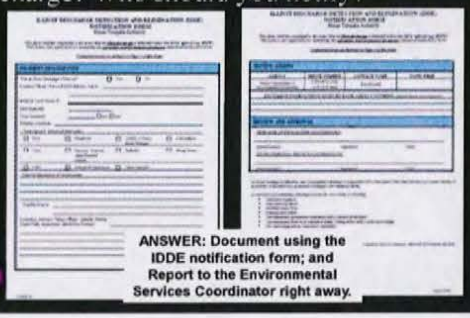
[WHO SAID ILLICIT?]

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

[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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[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 lease 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

[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

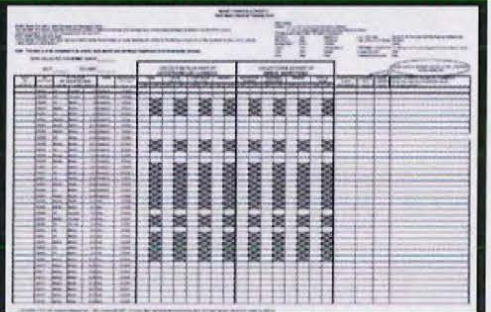
[PAPER, PAPER, AND MORE PAPER]

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

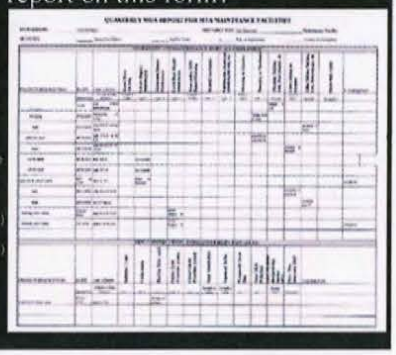
Maine Turnpike Authority
Stormwater/ESC Trivia Game
May 2011

[PAPER, PAPER, AND MORE PAPER]

What do you report on this form?

ANSWER: MOA Reporting

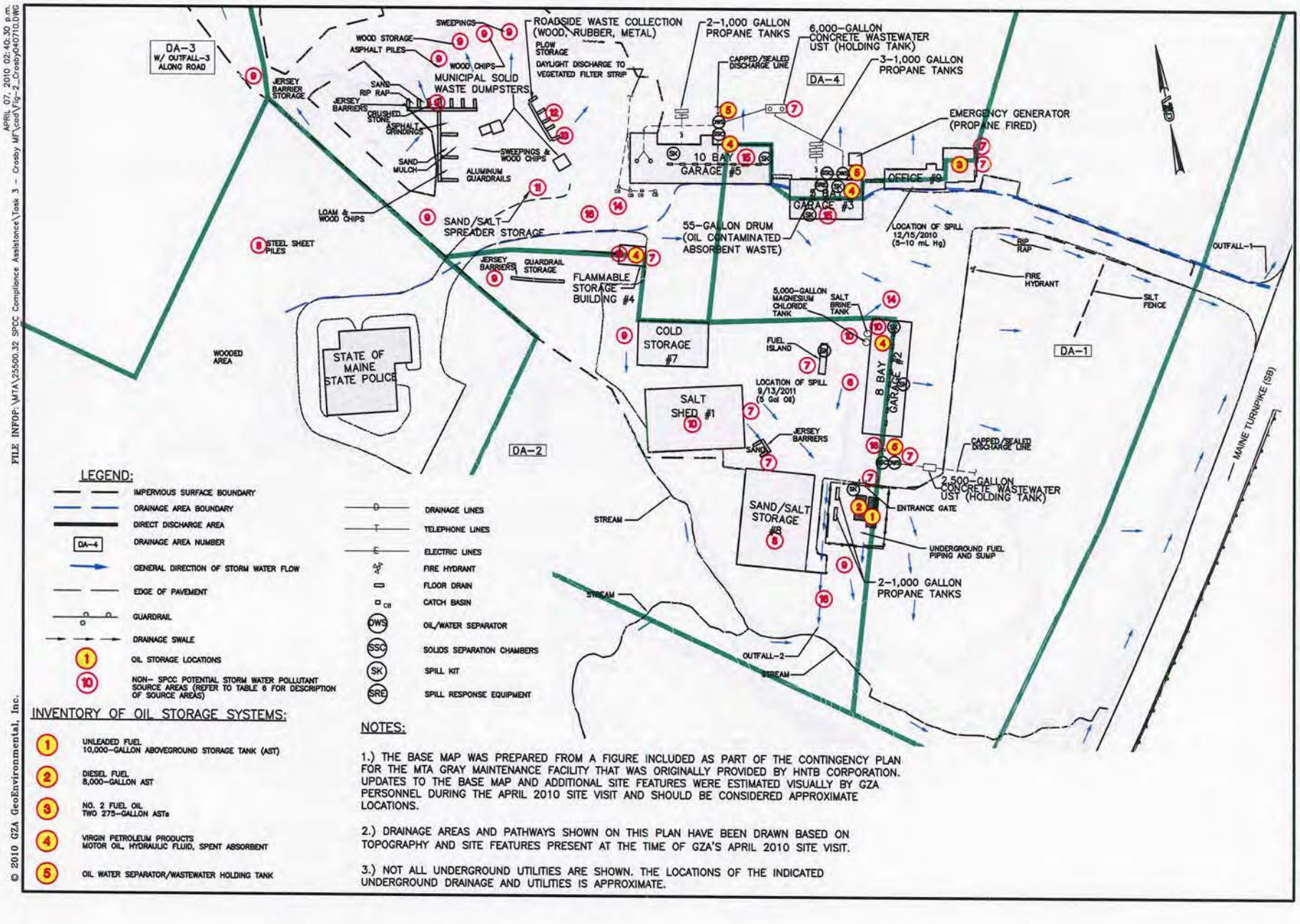
- Repairs/redo of ditching (miles)
- Repair/ maintenance of Culvert/Downspout (#)
- Repair/ maintenance of CBs (#)
- Removal of sand from guard rails (miles)
- Repaired/mulched of slope and/or ROW (length x width)
- Inspected catchments (#)
- Cleanout of catchments (#)
- Swept streets (miles)
- Swept ancillary facilities (#)
- Picking of Litter (miles)



[PAPER, PAPER, AND MORE PAPER]

What do you use this form for?

ANSWER:
Daily construction log form – to be used during earthwork construction projects. During post construction – inspect the construction project site and document your inspection using the construction log form at least once per week until the site is permanently vegetated and stabilized.



NOTES:

1.) THE BASE MAP WAS PREPARED FROM A FIGURE INCLUDED AS PART OF THE CONTINGENCY PLAN FOR THE MTA GRAY MAINTENANCE FACILITY THAT WAS ORIGINALLY PROVIDED BY HNTB CORPORATION. UPDATES TO THE BASE MAP AND ADDITIONAL SITE FEATURES WERE ESTIMATED VISUALLY BY GZA PERSONNEL DURING THE APRIL 2010 SITE VISIT AND SHOULD BE CONSIDERED APPROXIMATE LOCATIONS.

2.) DRAINAGE AREAS AND PATHWAYS SHOWN ON THIS PLAN HAVE BEEN DRAWN BASED ON TOPOGRAPHY AND SITE FEATURES PRESENT AT THE TIME OF GZA'S APRIL 2010 SITE VISIT.

3.) NOT ALL UNDERGROUND UTILITIES ARE SHOWN. THE LOCATIONS OF THE INDICATED UNDERGROUND DRAINAGE AND UTILITIES IS APPROXIMATE.

INTEGRATED SPILL PREVENTION, CONTROL, AND COUNTERMEASURE AND STORMWATER POLLUTION PREVENTION PLAN
MTA - CROSBY HIGHWAY MAINTENANCE FACILITY
SOUTH PORTLAND, MAINE
SITE PLAN

DES'D BY : G.M.G.
CHK'D BY : R.L.S.
APP'D BY : R.A.B.
DRAWN BY : M.J.D
SCALE : 1" = 100'
DATE : APRIL 2010

GRAPHIC SCALE 0' 100' 200'

GZA GeoEnvironmental, Inc.
Engineers and Scientists
4 FREE STREET
PORTLAND, MAINE 04101
(207)879-9190

PROJECT No.: 25700.30
FIGURE No.: 2

FILE INFO: M:\MTA\25500.32 SPCC Compliance Assistance\Task 3 - Crosby MF\cad\Fig-2_Crosby040710.DWG APRIL 07, 2010 02:40:30 p.m.

EMERGENCY CONTACT LIST
CROSBY MAINTENANCE FACILITY

EMERGENCY RESPONSE COORDINATORS **Discoverer shall contact one of the following in the order presented**		
Primary Emergency Response Coordinator	Bill Thompson, Highway Maintenance Supervisor	Office: (207) 871-7728 Cell phone: (207) 838-6825 Pager: (207) 759-8502
First Alternate Emergency Response Coordinator	Roger Mathews, Highway Division Manager	Office: (207) 985-3506 Cell phone: (207) 776-0974 Pager: (207) 471-0077
Second Alternate Emergency Response Coordinator	Bill Wells, Director of Highway & Equipment Maintenance	Office: (207) 871-7771 ext. 125 Cell phone: (207) 831-5812 If no answer, contact Radio Room

OTHER MTA CONTACTS **Discoverer or ERC shall contact each of the following as soon as possible**	
MTA Communications Center/Radio Room	(207) 871-7771 ext. 4
Arlo Pike, Safety Coordinator	(207) 871-7771 ext. 358; cell: (207) 423-5994
John Branscom, Environmental Services Coordinator	(207) 871-7771 ext. 359; cell: 671-3487; pg: 471-0881

OTHER AGENCIES EMERGENCY CONTACT **(EMERGENCY DIAL 911 – other numbers for reference, if needed)**	
South Portland Fire Department	**911** or (207) 799-3314
Maine State Police	(800) 482-0730
Maine Department of Environmental Protection **Spill Hotline** Central Office	 **(800) 482-0777** (207) 287-7688
Maine Emergency Management Agency (MEMA)	(207) 287-4080
Maine State Emergency Response Commission	(800) 452-4464
Centers for Disease Control	(800) 311-3435
National Response Center	(800) 424-8802
EPA Region 1	(617) 223-7265 (24 hours)

SPILL RESPONSE CONTRACTORS **ERC will contact if spill recovery and/or cleanup assistance is required**	
Petroleum/Fuel Suppliers: Diesel & Gasoline Fuel: C.N. Brown & Co. No. 2 Fuel Oil: Union Oil Co. Propane: Downeast Energy Motor & Lubricating Oils: Maine Lubrication Service	 (207) 743-9212 -or- (800) 442-6330 (207) 799-1521 (207) 799-5585 (207) 772-6513
Clean Harbors Environmental Services	(207) 799-8111
Environmental Projects, Inc. (EPI)	(207) 786-7390
ENPRO Services, Inc.	(207) 799-0850

SPILL REPORT FORM

Maine Turnpike Authority - Crosby Highway Maintenance Facility
Mile 45.8 Southbound
South Portland, Maine 04106

INCIDENT DESCRIPTION

Is The Spill Reportable? ☐ Yes ☐ No

Location Where Occurred: _____

_____

Date Began: _____ Date Ended: _____

Time Began: _____ ☐ am ☐ pm Time Ended: _____ ☐ am ☐ pm

Spill/Release onto or into: (*check all that apply*) ☐ Air ☐ Ground ☐ Water

Is The Spill A Suspected Illicit Discharge to Stormwater? ☐ Yes ☐ No

Material Spilled/Released: _____

_____

Extremely Hazardous Substance (EHS) Involved? ☐ Yes ☐ No

Amounts Spilled/Released: _____

Amounts Recovered: _____

Source and Cause of the Discharge: _____

_____

_____

Is more spillage possible? ☐ Yes ☐ No **If yes**, amount: _____

Description of All Affected Media (*include weather conditions*): _____

_____

_____

What resources are at risk? (*check all that apply*)

☐ Public Safety ☐ Public Water or Well ☐ Private Water or Well ☐ Atmosphere

☐ Land or Ground ☐ Open Water ☐ Surface Drainage ☐ Storm Sewer

☐ Sanitary Sewer ☐ Vapors in Building ☐ Other (*specify*): _____

Damages or Injuries Caused by Discharge: _____

_____

_____

_____

Is an Evacuation necessary? ☐ Yes ☐ No

Corrective Action(s) Taken: _____

_____

_____

_____

SPILL REPORT FORM

Maine Turnpike Authority - Crosby Highway Maintenance Facility
Mile 45.8 Southbound
South Portland, Maine 04106

NOTIFICATIONS (To be made by MTA Communications Center if spill is reportable)

AGENCY	PHONE NUMBER	CONTACT NAME	DATE/ TIME	REPORTING CRITERIA
South Portland Fire Department	911 or 799-3314			If aid is needed to evacuate area
Maine State Police/State Emergency Response Commission (SERC)	1-800-482-0730			If aid is needed to evacuate or respond to spill
Maine Department of Environmental Protection				If spill is >5 gal. or visible sheen is present on surface water
SPILL HOTLINE **Central Office**	1-800-482-0777 287-7688			
Local Municipal Agency				If aid is needed to assess an illicit discharge (see IDDE SOP)
Maine Emergency Management Agency (MEMA)	287-4080			If aid is needed to evacuate or respond to spill
National Response Center (NRC)	1-800-424-8802			If visible sheen is present on surface water

OTHER EMERGENCY TELEPHONE NUMBERS (for reference, if needed):	
Environmental Protection Agency, Region 1	1-617-565-3590
Clean Harbors Environmental Services	1-207-799-8111
Environmental Projects, Inc. (EPI)	1-207-786-7390
ENPRO Services, Inc.	1-207-799-8600
Maine Medical Center, Portland, ME	1-207-871-2381
Poison Control Center	1-800-562-8236

DOCUMENT INSTRUCTIONS GIVEN BY EACH AGENCY NOTIFIED: *(attach sheets as necessary)*

REVIEW AND APPROVAL

PREPARER OF SPILL REPORT (MTA Site Supervisor/Foreman):

(printed name) (signature) (date)

CONTRACTOR SITE SUPERVISOR (if cleanup contractor involved):

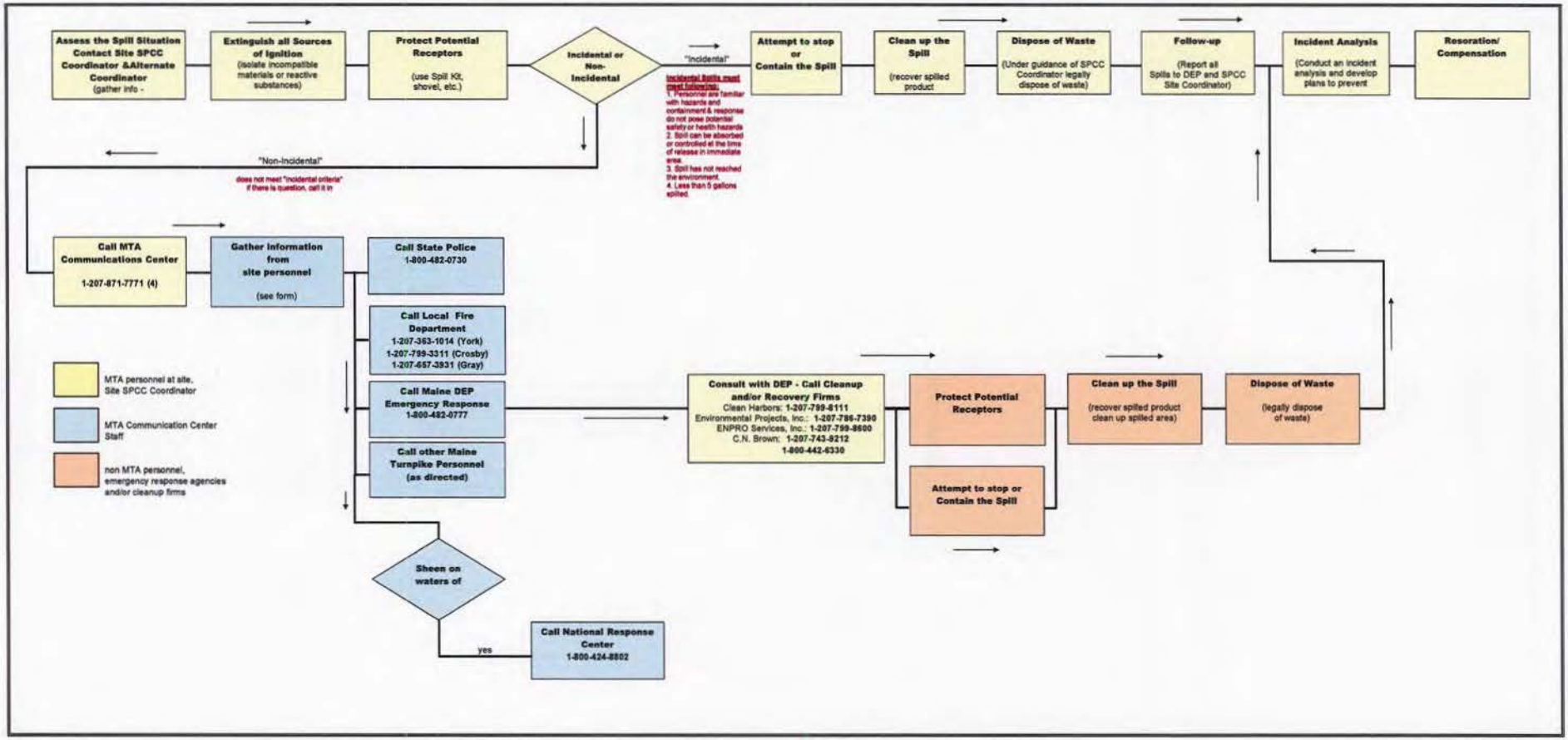
(printed name) (signature) (date)

MTA ENVIRONMENTAL SERVICES COORDINATOR:

(printed name) (signature) (date)

NOTE: In the event of a spill, Table 4 of this Plan should be updated; a copy of this *Spill Report* **must** be retained in Appendix D. A *BMP Incident and Corrective Actions Report* (see Appendix F-2) may also need to be completed and retained as part of this Plan.

APPENDIX F - STEPS IN AN OIL SPILL CHART



When a spill strikes.....

1. Contact Site Emergency Coordinator

If not present when the spill is initially observed the Emergency Coordinator or Alternate Coordinator should be immediately contacted. The Coordinator shall then direct actions at the site relative to the spill.

2. Assess the risk:

From the moment a spill occurs and throughout the response, determine the risks that may affect human health, the environment, and property. Always put safety FIRST. If possible, identify the spilled material, its source, and determine how much was spilled. Identify potential receptors (drains, etc). Determine if spill is minor, "Incidental" or "Non-incidental". If "Non-incidental" report immediately to MTA Communication Center. Com Center will contact emergency response agencies. Consider need to evacuate area where spill has occurred.

3. Extinguish all sources of ignition

Assess potential fire hazards. Extinguish or remove sources of flame or spark.

4. Select personal protective equipment (PPE):

If spill is " Incidental" and will be cleaned up by site personnel, choose the appropriate PPE to safely respond to the spill. Consult Material Safety Data Sheets (MSDS) and literature from chemical and PPE manufacturers for the best recommendations. If you are uncertain of the danger and the material is unknown, allow outside response agencies to respond to the incident.

5. Confine the spill / protect receptors:

SPEED COUNTS! Limit the spill area by blocking, diverting, or confining the spill. Use contained absorbents including the Socks, Booms and Mats found in spill kits. Stop the flow of the liquid before it has a chance to contaminate a water source. Spill kits are designed to facilitate a quick, effective response.

6. Stop the source:

After the spill is confined, stop the source of the spill. This may simply involve turning a container upright, or plugging a leak from a damaged drum or container. Transfer liquids from the damaged container to an appropriate new one.

7. Evaluate the incident and implement cleanup:

Once the spill is confined and the leak has been stopped, it is time to reassess the incident and develop a plan of action for implementing the spill cleanup. Spills are commonly absorbed. Pillows, mat pads, and absorbent can be used to absorb the remainder of the spill. Simply place the pillows and pads throughout the spill area. Once the absorbents are saturated with solvent, etc., they may be considered hazardous waste and should be disposed of as such. Oil soaked absorbents should be double bagged and shipped to an incinerator. Contact ME DEP or ME Dept of Public Safety to report the spill (if hasn't already been reported by the Communication Center).

8. Decontaminate:

Decontaminate the site, personnel, and equipment by removing or neutralizing the hazardous materials that have accumulated during the spill. This may involve removing and disposing of contaminated media, such as soil, that was exposed during spill incident.

9. Complete required reports

Complete all notifications and paperwork required by local, state, and federal guidelines for reporting spill incidents. Failure to do so can result in penalties. Coordinate with the MTA's Environmental Services Coordinator.

10. Conduct incident analysis

The Environmental Services Coordinator will conduct an incident analysis and develop plans to prevent recurrence.

APPENDIX H
ROUTINE FACILITY INSPECTION REPORTS

INSTRUCTIONS FOR MTA'S HIGHWAY MAINTENANCE FACILITY'S SPCC INSPECTION PROGRAM:

MONTHLY

1. Complete inspection items #1 through #5 on
Appendix H - Inspection Checklist
(If any issues present during inspection, complete
Appendix H-2 - BMP/PM Incident and Corrective Action Report).

2. Inventory Spill Equipment using pages 5 through 7 of **Inspection Checklist.**

3. Submit completed **Inspection Checklist**
(*and any **Corrective Action Reports**, if necessary*)
to the Environmental Services Coordinator for review and certification.

4. Maintain copies of the completed **Inspection Checklists**
in the facility's environmental file located in the Foreman's office.

QUARTERLY

1. In addition to the Monthly procedures listed above,
complete inspection items #6 through #15 on
Appendix H - SPCC/SWPPP Inspection Checklist
(If any issues present during inspection, complete
Appendix H-2 - BMP/PM Incident and Corrective Action Report).

2. Inventory Spill Equipment using pages 5 through 7 of **Inspection Checklist.**

3. Submit completed **Inspection Checklist**
(*and any **Corrective Action Reports**, if necessary*)
to the Environmental Services Coordinator for review and certification.

4. Maintain copies of the completed **Inspection Checklists**
in the facility's environmental file located in the Foreman's office.

APPENDIX H-2
BMP/PM INCIDENT AND CORRECTIVE ACTION REPORT

Instructions:	This worksheet is to be completed when evidence of pollutants entering the storm water system or ineffective BMPs/PMs are identified. When complete, this report should be attached to the activity record that initiated this corrective action.

Report Initiated by: ☐ Monthly SPCC Inspection ☐ Quarterly Stormwater Inspection ☐ Other_____

Date:	Time:	Potential Pollutant Source Number (if applicable):

Report Completed by:

1. Observations:

2. Are additional BMPs/Pms appropriate? If any changes are necessary including repair or maintenance, describe change needed and date completed below:

Change/Activity	Date Completed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Reviewed By:_____
Authorized Signature

Date:_____

p:\mta\25500.32 spcc compliance assistance\task 3 - crosby mf\spcc plan -april 2010\appendix h (bmpincidentform).doc

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]
1. Unleaded Fuel / Aboveground storage tank (AST) **Eastern side of Building #8 - SWPPP SPCC**		
- Inspections of the AST fill port area, piping, and surrounding ground surfaces confirm the absence of spills or leaks.	Monthly	Yes ☐ No ☐
- Signs are posted at the fill port that warns the driver to disconnect the filling hose and inspect the vehicle for leakage before departure.	Quarterly	Yes ☐ No ☐
- Spill response equipment is located proximate to petroleum storage areas and is available for use during an accidental release.	Monthly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
2. Diesel Fuel / AST **Eastern side of Building #8 - SWPPP SPCC**		
- Inspections of the AST fill port area, piping, and surrounding ground surfaces confirm the absence of spills or leaks.	Monthly	Yes ☐ No ☐
- Signs are posted at the fill port that warns the driver to disconnect the filling hose and inspect the vehicle for leakage before departure.	Quarterly	Yes ☐ No ☐
- Spill response equipment is located proximate to petroleum storage areas and is available for use during an accidental release.	Monthly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
3. No. 2 Fuel Oil / ASTs **Basement of Building #9 (Office) - SWPPP SPCC**		
- Inspections of the AST fill port area and surrounding ground surfaces confirm the absence of spills or leaks.	Monthly	Yes ☐ No ☐
- Post a sign at the fill port that warns the driver to disconnect the filling hose and inspect the vehicle for leakage before departure.	Monthly	Yes ☐ No ☐
- Spill response equipment (see Table 3) is located inside Building #3 (5 Bay Garage) and is available for use during an accidental release.	Monthly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Monthly	Yes ☐ No ☐
4. Virgin Petroleum Products / Motor oil, Hydraulic fluid, Spent absorbent **55-gallon drums and other misc. containers located in Bldgs #2, #3, #4, and #5 - SWPPP SPCC**		
- All containers are maintained in good condition, compatible with its contents and stored indoors within appropriate secondary containment.	Monthly	Yes ☐ No ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]
4. Virgin Petroleum Products / Motor oil, Hydraulic fluid, Spent absorbent 55-gallon drums and other misc. containers located in Bldgs #2, #3, #4, and #5 - SWPPP SPCC		
- All containers are properly and plainly labeled.	Monthly	Yes ☐ No ☐
- Areas where petroleum products are stored are inspected for evidence of spill or other pollutants discharged or contacting storm water as part of the facility's inspection program.	Monthly	Yes ☐ No ☐
- Spill response equipment (see Table 3) is located proximate to petroleum storage areas and is available for use during an accidental release.	Monthly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Monthly	Yes ☐ No ☐
5. Oil Water Separators/ Wastewater Holding Tanks / Oil Water Separators and Holding Tanks for Buildings #2, #3, and #5 - SPCC		
- Absorbent socks are placed in the floor drains to minimize the volume of oil sent to the oil water separator. The socks are checked weekly and replaced as needed.	Monthly	Yes ☐ No ☐
- Absorbent sump socks are placed into the oil water separator to absorb any residual oil. The sump socks are inspected at least monthly and replaced if needed.	Monthly	Yes ☐ No ☐
- All personnel that work in this area are trained annually regarding oil handling/management procedures and general good housekeeping procedures established at CHMF.	Monthly	Yes ☐ No ☐
- The area is inspected for evidence of spills or other pollutants discharged or contacting storm water as part of the facility's routine inspection program (and also prior to collection truck departure).	Monthly	Yes ☐ No ☐
- The area is maintained in clean and orderly condition.	Monthly	Yes ☐ No ☐
6. Magnesium Chloride / 5,000 Gallon AST/ East of Building #2 -		
- All containers are properly and plainly labeled.	Monthly	Yes ☐ No ☐
- Signs are posted at the fill port that warns the driver to disconnect the filling hose and inspect the vehicle for leakage before departure.	Monthly	Yes ☐ No ☐
- Spill response equipment is located proximate to bulk storage areas and is available for use during an accidental release.	Monthly	Yes ☐ No ☐
- Work areas are maintained in a clean and orderly condition.	Monthly	Yes ☐ No ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]
7. Loading and Unloading Areas / Diesel, Gasoline, and other petroleum products loaded/unloaded by delivery trucks -		
- Loading/unloading areas are inspected for evidence of spills or other pollutants discharged of contacting storm water as part of the facility's routine inspection program (and also prior to delivery truck departure).	Monthly	Yes ☐ No ☐
- Loading/unloading areas are maintained in a clean and orderly condition.	Monthly	Yes ☐ No ☐
8. Sandpiles (Indoor Storage) / Sand Stockpiled within Bldg #8 (Sand/Salt Storage) - SWPPP		
- Absorbents are available in the Sand/Salt Storage Builing in the even that there is a leak or spill.	Monthly	Yes ☐ No ☐
- The area surrounding indoor sand stockpiles is inspected for evidence of spills or other pollutants contacting storm water as part of the facility's quarterly storm water inspection program.	Quarterly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
9. Outside Material Storage / Gravel Fill Stockpiles, Metal Guardrails, etc. Northwestern corner of the facility, west of Bldg #5 (10-bay garage) - SWPPP		
- Areas of outdoor material sorage and equipment storage are inspected for evidence of spills or other pollutants contacting stormwater, as well as erosion, as part of the facility's quarterly storm water inspection program.	Quarterly	Yes ☐ No ☐
- Garbage and waste materials are picked up and disposed of on a routine basis.	Quarterly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
10. Salt Piles (Indoor Storage) / Salt Stockpiled within Bldg #1 (Salt Shed) - SWPPP		
- Absorbents are located inside the Salt Storage Building in the event that there is a leak or spill.	Quarterly	Yes ☐ No ☐
- Salt piles are inspected for evidence of spills or pollutants, such as salt potentially contacting storm water as part of the facility's quarterly storm water inspection program.	Quarterly	Yes ☐ No ☐
- Salt piles are inspected for evidence of spills or pollutants, such as salt, that may potentially contact storm water as part of the facility's quarterly storm water inpection program.	Quarterly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]
11. Outdoor Materials and Equipment Storage / Signs, guardrails, arrow and message board trailers, plows, salt racks, tires, etc. stored outdoors around yard - SWPPP		
- Areas of outdoor material and equipment storage are inspected for evidence of spills or pollutants contacting storm water as part of the facility's quarterly storm water inspection program.	Quarterly	Yes ☐ No ☐
- Garbage and waste materials are picked up and disposed of on a routine basis.	Quarterly	Yes ☐ No ☐
- Outdoor storage areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
12. Outdoor Storage of Scrap Materials/Waste Debris / Rubber, wood, metal and concrete debris Stockpiled outdoors in the northwestern portion of CHMF beside Building #5 (10 Bay Garage) - SWPPP		
- Areas where outdoor storage of scrap materials and waste debris is accumulated and/or stored are inspected for evidence of spills or other pollutants discharged or contacting storm water as part of the facility's routine inspection program	Quarterly	Yes ☐ No ☐
- Outdoor storage areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
13. Municipal Solid Waste (MSW) / Municipal solid waste dumpster Located beside Bldg #5 (10-bay garage) - SWPPP		
- MSW containers are inspected for evidence of spills or other pollutants discharged or contacting storm water as part of the facility's regular inspection program.	Quarterly	Yes ☐ No ☐
- The MSW container and the surrounding area are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
14. Vehicle Parking Awaiting Maintenance / Vehicles (e.g., trucks) and equipment (e.g., tractor) parked around yard outside - SWPPP		
- Areas where vehicle/equipment parking occurs are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
- Drip pans are inspected for leaks and potential overflow and all liquids are properly disposed of.	Quarterly	Yes ☐ No ☐
- Drip pans are placed under leaking stationary equipmetn until the leak is repaired.	Quarterly	Yes ☐ No ☐
- Exterior vehicle parking areas at CHMFare inspected for evidence of spills, leaks, etc. as part of the facility's regular inspection program.	Quarterly	Yes ☐ No ☐
15. Vehicle and Equipment Washing Areas / Rinsing performed at designated points outside of Building #2 (8-bay garage) - SWPPP		
- Designated vehicle wash and rinse areas are inspected on a regular basis for evidence of spills, leaks or pollutants that may have the potential to contact storm water.	Quarterly	Yes ☐ No ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]
15. Vehicle and Equipment Washing Areas / Rinsing performed at designated points outside of Building #2 (8-bay garage) - SWPPP		
- Excessive sediments, sand and gravel are swept and removed from the area on a regular basis.	Quarterly	Yes ☐ No ☐
- Work areas are maintained in clean and orderly condition.	Quarterly	Yes ☐ No ☐
16. Significant Dust or Particulate / Sand and Gravel piles/unpaved areas - SWPPP		
- Areas susceptible to erosion are inspected as part of the facility's regular inspection program. Inspection in this area includes identifying any evidence of erosion or evidence of spills or pollutants discharged or contacting storm water.	Quarterly	Yes ☐ No ☐
- Sweeping of impervious areas at CHMF is conducted on a regular basis.	Quarterly	Yes ☐ No ☐
17. Authorized Non-Storm Water Discharge / Air condition condensate Window-mount AC units in office area of Bldg #9 - SWPPP		
- Areas where air conditioning condensate may be discharged are inspected as part of the facility's routine inspection program.	Quarterly	Yes ☐ No ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]

SPILL EQUIPMENT USED AT THIS FACILITY:

(If Tamper Device is present, no further inspection is required)

Spill Kit-01

Location: Building #3 (5 Bay Garage) - In addition to the contents of the 65-gal overpack drum listed, there are two boxes of sorbent pads stored in Building #3 and also a wall-mounted "Spill Magic ABSORBENT" spill kit station in this area with the following materials: 1-gal plastic jug; 1 roll of plastic bags; and one hand sweep with dustpan.

Contents:	*Present?*
Sorbent Wiper Pads (56)	Y ☐ N ☐
Sorbent Pillows (6)	Y ☐ N ☐
PIG Mat Pads (white)	Y ☐ N ☐
Instruction Manual	Y ☐ N ☐
Disposal bag and ties (6)	Y ☐ N ☐
48" Socks (10)	Y ☐ N ☐
2000 Emergency Response Guide	Y ☐ N ☐
10' Socks (6)	Y ☐ N ☐

Spill Kit-02

Location: Building #3 (5 Bay Garage)

Contents:	*Present?*
Acid Spill Kit	Y ☐ N ☐

Spill Kit-03

Location: Building #2 (8 Bay Garage) - In general, there are two boxes of absorbent pads and also a wall-mounted "Spill Magic ABSORBENT" Spill kit in this area.

Contents:	*Present?*
Spill Magic Absorbent (1-gallon)	Y ☐ N ☐
Plastic bags (1 roll)	Y ☐ N ☐
Hand-broom and dustpan	Y ☐ N ☐
Box of sorbent pads (2)	Y ☐ N ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]

Spill Kit-04

Location: Building #2 (8 Bay Garage)

Contents: *Present?*

Acid Spill Kit Y ☐ N ☐

Spill Kit-05

Location: Building #5 (10 Bay Garage) - In general, there are two boxes of absorbent pads and also a wall-mounted "Spill Magic ABSORBENT" Spill Kit in this area.

Contents: *Present?*

Spill Magic Absorbent (1-gallon) Y ☐ N ☐

Plastic bags (1 roll) Y ☐ N ☐

Hand-broom and dustpan Y ☐ N ☐

Box of sorbent pads (2) Y ☐ N ☐

Spill Kit-06

Location: Buiing #5 (10 Bay Garage)

Contents: *Present?*

Acid Spill Kit Y ☐ N ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]

Spill Kit-07

Location: Fuel Pump Island (in shed) - This spill kit is readily available for use at fuel pump island and also at unloading/fuel delivery area.

Contents:	*Present?*
Splash-guard Safety Goggles (1 pair)	Y ☐ N ☐
PIG Mat Pads (white)	Y ☐ N ☐
PIG Mat Pads (Gray)	Y ☐ N ☐
Non-Hazardous Waste Label (1)	Y ☐ N ☐
Nitrile gloves (4 pair)	Y ☐ N ☐
MEDEP Guide to "Responding to Oil & Haz. Mat'ls Spills"	Y ☐ N ☐
Hazardous Waste Label (1)	Y ☐ N ☐
Disposal bag and ties (6)	Y ☐ N ☐
48" Blue Socks (4)	Y ☐ N ☐
2000 Emergency Response Guide	Y ☐ N ☐

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

APPENDIX F
SPCC/SWPPP INSPECTION CHECKLIST

Date: _____ Inspection Completed By: _____ Wet or Dry Weather: _____

POLLUTANTS ENTERING DRAINAGE SYSTEMS

Is there any evidence of pollutants entering the storm water conveyance systems from the following areas?

SOURCE # / AREA INSPECTED / INSPECTION ITEMS – REGULATORY PROGRAM	INSPECTION FREQUENCY	YES / NO (Check Box)[1]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Reviewed by (John Branscom, Environmental Services Coordinator): _____ Date: _____

(1) If the answer is "No" to any of the inspection items, identify the specific conditions observed for each source on the reverse side of this page, and initiate corrective actions. Document corrective actions using the "BMP INCIDENT AND CORRECTIVE ACTION REPORT."

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 w**ater 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.

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 brides 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/Baterial 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*): _____

_____

_____

_____

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) NOTIFICATION FORM

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

NOTIFICATIONS

AGENCY	PHONE NUMBER	CONTACT NAME	DATE/ TIME
Maine Department of Environmental Protection	1-800-452-1942 (207) 287-5404	David Ladd	

DOCUMENT INSTRUCTIONS GIVEN BY EACH AGENCY NOTIFIED: *(attach sheets as necessary)*

REVIEW AND APPROVAL

PREPARER OF IDDE NOTIFICATION REPORT:

(printed name) (signature) (date)

ENVIRONMENTAL SERVICES COORDINATOR:

(printed name) (signature) (date)

An illicit discharge is defined as "any non-permitted discharge to a regulated MS4 or the waters of the State that does not consist entirely of stormwater or authorized non-stormwater discharges (see definition below).

An authorized non-stormwater discharge includes the one or more of following:

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

QUARTERLY MOA REPORT FOR MTA MAINTEANCE FACILITIES

PREPARED BY: _____ **PREPARED FOR:** _____ **Maintenance Facility**

QUARTER: _____ January to March _____ April to June _____ July to September _____ October to December

OPERATION AND MAINTENANCE BMPs ACCOMPLISHED

PROJECT DESCRIPTION	DATE	LOCATION	Repair/Redo Ditching	Culvert Repair/ Maintenance	Downspout Repair/ Maintenance	Catch Basin Repair/ Maintenance	Slope and/or ROW Repair/Mulching	Inspect Catchments	Catchments cleaned out (specify if pond, swale, etc.)	Sweeping on Mainline	Sweeping on Overheads	Sweeping Parking Lots, Interchanges, etc.	Litter Picking on Mainline	Litter Picking Parkling Lots, Interchanges, etc.	Other Misc. O&M	COMMENTS
	(MM/DD/YY)	(Station or Mile Marker)	(Length x Width)	(Qty #)	(Qty #)	(Qty #)	(Length x Width)	(Qty. #)	(Qty. #)	(MM to MM)	(Qty. #)	(Specify)	(MM to MM)	(Specify)	(Describe)	

NEW CONSTRUCTION: PERMANENT BMPS INSTALLED

PROJECT DESCRIPTION	DATE	LOCATION	Sediment Traps	Catch basins	Rip Rap Down spout	Culvert Inlet Protection (stone)	Culvert Outlet Protection (stone)	Slope Stabilization	Vegetated Buffer	Permanent Check Dam	Stone Ditch Protection	Outer Perimeter Barkgrindings Barrier (#LF)	Other Misc. Structural BMP	COMMENTS
	(MM/DD/YY)	(Station or Mile Marker)	(Qty. #)	(Qty. #)	(Qty. #)	(Qty. #)	(Qty. #)	(Length x width)	(Length x width)	(Qty. #)	(Qty. #)	(Linear Feet)	(Describe)	

QUARTERLY MOA REPORT FOR MTA MAINTEANCE FACILITIES

PREPARED BY: J. Sotir **PREPARED FOR:** John Branscom **Maintenance Facility** Kennebunk Maint.

QUARTER: X January to March ___ April to June ___ July to September ___ October to December

OPERATION AND MAINTENANCE BMPs ACCOMPLISHED

PROJECT DESCRIPTION	DATE	LOCATION	Repair/Redo Ditching	Culvert Repair/ Maintenance	Downspout Repair/ Maintenance	Catch Basin Repair/ Maintenance	Slope and/or ROW Repair/Mulching	Inspect Catchments	Catchments cleaned out (specify if pond, swale, etc.)	Sweeping on Mainline	Sweeping on Overheads	Sweeping Parking Lots, Interchanges, etc.	Litter Picking on Mainline	Litter Picking Parkling Lots, Interchanges, etc.	Other Misc. O&M	COMMENTS
	(MM/DD/YY)	(Station or Mile Marker)	(Length x Width)	(Qty #)	(Qty #)	(Qty #)	(Length x Width)	(Qty. #)	(Qty. #)	(MM to MM)	(Qty. #)	(Specify)	(MM to MM)	(Specify)	(Describe)	
Picking	02/18/2010 3/8,	Saco Spur Median & Shoulders												6 Miles on Spur		
Sink Hole	2/18/2010	MM 32NB	4' x 4'												Wash out	1/2 Yd of bank run gravel and 1/4 bale of hay
Pick Median	3/11/2010	MM 20 to MM 37											20 to 37			Picked Median
Pick Service Plaza's	3/8, 9/2010	Service Plaza's & Ramps at Exit 25												25.5		Pick Both Plaza's
Biddeford Toll Plaza	3/10/2010	Exit 32												Bidd. Park n Ride & all the Ramps		Picking Litter
Saco Toll	3/12/2010	Exit 36												Picked al the Ramps		
Picked Mainline	3/16/2010	Biddeford											MM32 to MM33			
Sweep Paved Median	03/18/2010 3/19/2010	MM37 to MM35.5 MM35.5 to MM34.6								10 yds Sand						
Sweep Paved Median	3/22/2010	MM34.6 to MM34								5yds Sand						
Cleaned out Bins	3/24/2010	Maint Yard											25 3			Empty Wood & Steel Bins
Swept Sevice Plaza's	3/23/2010	Exit 25										3yd				

PROJECT DESCRIPTION	DATE	LOCATION	Sediment Traps	Catch basins	Rip Rap Down spout	Culvert Inlet Protection (stone)	Culvert Outlet Protection (stone)	Slope Stabilization	Vegetated Buffer	Permanent Check Dam	Stone Ditch Protection	Outer Perimeter Barkgrindings Barrier (#LF)	Other Misc. Structural BMP	COMMENTS
	(MM/DD/YY)	(Station or Mile Marker)	(Qty. #)	(Qty. #)	(Qty. #)	(Qty. #)	(Qty. #)	(Length x width)	(Length x width)	(Qty #)	(Qty. #)	(Linear Feet)	(Describe)	

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 knowledgable 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.

DAILY INSPECTION LOG FOR THE WEEK OF: _____

	DAY	Monday	Tuesday	Wednesday	Thursday	Friday	Complete this column only if weekend work is conducted: 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

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

	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
...disturbed and impervious areas?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...erosion control measures?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...material storage areas exposed to precipitation?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...locations where vehicles enter and exit the site?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...all deficiencies and corrective actions are noted below?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N

(2) Air Temperature

SOURCE OF INFORMATION (circle one)

on-site weather station

website: _____ _____

thermometer

B. EROSION CONTROL MEASURES

	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
(1) Are erosion prevention and sedimentation controls....						
in place prior to land disturbance?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
in place prior to embankment/excavation operations?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
working effectively?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, please describe failure and corrective actions in comments section below	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__
(2) Is silt fence properly installed downhill of disturbed slopes?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, please describe failure and corrective actions in comments section below	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__
(3) All newly disturbed earth is stabilized by applying mulch daily?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If yes, is mulch maintained on-site on a daily basis?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, what other daily method of stabilization is being used?						
(4) All disturbed ditches are stabilized by the end of the workday?	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA
If yes, what type of stabilization is being used and maintained on-site daily?						
(5) Permanent slope stabilization measures are applied...						
within one week of last soil disturbance?	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA
If yes, identify area and date of last disturbance?	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__
(6) Is the project site currently under an approved period of suspended work?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If yes, then has the daily inspection log been maintained current and up-to-date?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N

C. HOUSEKEEPING

	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
(1) Are inspections conducted on a weekly basis to ensure that sedimentation and potential pollutants are minimized from...						
materials storage areas exposed to precipitation?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
locations where vehicle enter and exit the site?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, explain reason in comments section below	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__
(2) Are inspections conducted daily to ensure that discharges do not impact receiving waters?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N

COMMENTS:

NOTE #1.... _____

NOTE #2.... _____

NOTE #3.... _____

NOTE #4.... _____

APPENDICES -- BASIC PERFORMANCE STANDARDS

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 Turnpike 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)
					Underdrain Soil Filter (USF) >>>	>>>>>>>>>>>>>>	>>>>>>	B		NB	SB				
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. *After annual cleaning of filter, USF must drain within 24 hours following a rain event.*							Sump Socks Changed			
			(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			3/29/2010
						April	D. M.	Yes	Yes	No	No	04/14/2010 DM			4/16/2010
						May	D. M.	Yes	Yes	No	No	5/27/2010			1/24/2011
						June	D. M.	Yes	Yes	No	No	6/8/2010			1/24/2011
						July	D. M.	Yes	Yes	No	No	7/6/2010			1/24/2011
						August	D. M.	Yes	Yes	No	No	8/10/2010			1/24/2011
						September	D. M.	Yes	Yes	No	No	9/2/2010			1/24/2011
						October	D. M.	Yes	Yes	No	No	10/7/2010			1/24/2011
						November	D. M.	Yes	Yes	No	No	11/10/2010			1/24/2011
						December	D. M.	Yes	Yes	No	No	12/6/2010			1/24/2011
			(3) Mow grass vegetation, including wetland grasses, in filter bed and along detention area side slopes	Semi-annually (maximum)	Wetland grass in filter bed should be mowed no more than 2x/season to maintain height less than 12 inches. *Harvesting and pruning excessive growth, including weeding to control unwanted or invasive plant species, will be performed on a periodic basis, if required*	First date:									
						Second date:									
		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			3/29/2010
						April	D. M.	Yes	Yes	No	No	04/14/2010 DM	MTA	JS	4/16/2010
						May	D. M.	Yes	Yes	No	No	5/27/2010			1/24/2011
						June	D. M.	Yes	Yes	No	No	6/8/2010			1/24/2011
						July	D. M.	Yes	Yes	No	No	7/6/2010			1/24/2011
						August	D. M.	Yes	Yes	No	No	8/10/2010			1/24/2011
						September	D. M.	Yes	Yes	No	No	9/2/2010			1/24/2011
						October	D. M.	Yes	Yes	No	No	10/7/2010			1/24/2011
						November	D. M.	Yes	Yes	No	No	11/10/2010			1/24/2011
						December	D. M.	Yes	Yes	No	No	12/6/2010			1/24/2011
		Catch Basins	(5) Inspect and clean catch basins	Annually	Remove and properly dispose of sand, sediment, debris and floatable materials.			Yes	Yes	No	No	1/29/2010 DM			
		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		Snow Cov.	Snow Cov.	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			3/29/2010
						April	D. M.	Yes	Yes	No	No	04/14/2010 DM			4/16/2010
						May	D. M.	Yes	Yes	No	No	5/27/2010			1/24/2011
						June	D. M.	Yes	Yes	No	No	6/8/2010			1/24/2011
						July	D. M.	Yes	Yes	No	No	7/6/2010			1/24/2011
						August	D. M.	Yes	Yes	No	No	8/10/2010			1/24/2011
						September	D. M.	Yes	Yes	No	No	9/2/2010			1/24/2011
						October	D. M.	Yes	Yes	No	No	10/7/2010			1/24/2011
						November	D. M.	Yes	Yes	No	No	11/10/2010			1/24/2011
						December	D. M.	Yes	Yes	No	No	12/6/2010			1/24/2011
		Slopes and embankments	(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 reseeding shall be performed immediately upon identification of issue and the site restored to a stable condition.	January		Snow Cov.	Snow Cov.	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			3/29/2010
						April	D. M.	Yes	Yes	No	No	04/14/2010 DM			4/16/2010
						May	D. M.	Yes	Yes	No	No	5/27/2010			1/24/2011
						June	D. M.	Yes	Yes	No	No	6/8/2010			1/24/2011
						July	D. M.	Yes	Yes	No	No	7/6/2010			1/24/2011
						August	D. M.	Yes	Yes	No	No	8/10/2010			1/24/2011
						September	D. M.	Yes	Yes	No	No	9/2/2010			1/24/2011
						October	D. M.	Yes	Yes	No	No	10/7/2010			1/24/2011
						November	D. M.	Yes	Yes	No	No	11/10/2010			1/24/2011
						December	D. M.	Yes	Yes	No	No	12/6/2010			1/24/2011
		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		Snow Cov.	Snow Cov.	No	No	1/29/2010			
						February	D. M.	Yes	Yes	No	No	2/5/2010 DM			
						March	D. M.	Yes	Yes	No	No	03/03/2010 DM			3/29/2010
						April	D. M.	Yes	Yes	No	No	04/14/2010 DM			4/16/2010
						May	D. M.	Yes	Yes	No	No	5/27/2010			1/24/2011
						June	D. M.	Yes	Yes	No	No	6/8/2010			1/24/2011
						July	D. M.	Yes	Yes	No	No	7/6/2010			1/24/2011
						August	D. M.	Yes	Yes	No	No	8/10/2010			1/24/2011
						September	D. M.	Yes	Yes	No	No	9/2/2010			1/24/2011
						October	D. M.	Yes	Yes	No	No	10/7/2010			1/24/2011
						November	D. M.	Yes	Yes	No	No	11/10/2010			1/24/2011
						December	D. M.	Yes	Yes	No	No	12/6/2010			1/24/2011