Maine Turnpike Authority

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VIA EMAIL

September 24, 2014

Mr. Mike Mullen 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 2013 Annual Progress Report

Dear Don:

MTA is pleased to submit the 2013 Annual MOA Progress Report for your review. Please do not hesitate to contact me at (207) 871-7771 ext. 359 to discuss this report, should you have any questions.

Respectfully,

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John M. Branscom Environmental Services Coordinator Maine Turnpike Authority

Enclosure: 2013 Progress Report on Implementation of the Stormwater MOA

Cc:

Peter Merfeld, MTA Steve Tartre, MTA Bill Wells, MTA Brian Taddeo, MTA Lauren Carrier, MTA





MAINE TURNPIKE AUTHORITY

2013 PROGRESS REPORT ON IMPLEMENTATION OF THE STORMWATER MEMORANDUM OF AGREEMENT









Prepared by: Maine Turnpike Authority



Submitted: September 2014

clean water starts with you!

Stormwater Protection in Maine

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 summarizes MTA's compliance with the MOA requirements in 2013. Additional information and data on construction projects and activities (e.g., training, certification, etc.) accomplished in 2013; projects and activities anticipated in 2014; and a list of staff or designees who provided oversight with respect to erosion and sedimentation control and stormwater control are maintained on file at MTA.

II. 2013 CONSTRUCTION PROJECTS

As required by MTA General and Special Provision 656 – Temporary Soil Erosion and Water Pollution Control, all MTA construction projects with earth disturbance are required to install, maintain, inspect, and document erosion control requirements, which are tracked as part of MTA's Construction Project Environmental Compliance (CPEC) Program. Erosion control measures are selected from, and installed consistent with, the MaineDOT Best Management Practices (BMP) for Erosion and Sedimentation Control Manual.

In 2013, the majority of MTA construction efforts continued to focus on bridge repair/maintenance projects and pavement rehabilitation. Other small linear projects included tree cutting, slope culvert repairs, hydro seeding, and toll plaza upgrades. A list of 2013 construction projects is provided in **Table 1**.

Although Basic Standards apply to all of these projects, many of the bridge repair projects did not involve earth-disturbing activities. **Table 1** presents a summary of 2013 projects relative to MOA requirements, such as:

- In 2013, all MTA projects were located within an existing travel corridor;
- In 2013, two (2) of MTA's linear projects were located within Urban Impaired Stream (UIS) watersheds. One project was considered part of redevelopment and was not large enough to trigger General Standard's threshold requirements (as per MOA Section 3.B.1 and Chapter 500 Section 4.B.1 and Section 4.B.3.e). Contract 2013.07 Exit 80 Reconstruction is located within a UIS watershed (i.e. Hart Brook) in Lewiston and is expected to add 20,000 square feet or more of impervious area, however, this project is redevelopment of the existing impervious area which allows the project to quality for the exception in Chapter 500 Section 4(B)(3)(3) as per the MOA. Chapter 500 General Standards, including BMP requirements, have been incorporated into the final design of this project prior to construction; and
- In 2013, Maine Construction General Permit (MCGP) coverage was obtained for three sites with Limits of Disturbance (LOD) equal to or greater than 1 acre.

MTA maintains a list of other permanent stormwater BMPs installed as part of construction projects managed under the MOA in 2013, such as:

- Rip rap downspouts and/or slope stabilization for bridge rehabilitation projects; and
- Culvert inlet/outlet protection and/or stone ditch protection for the smaller linear projects, including pavement rehabilitation projects with drainage upgrades.

MTA's Highway Maintenance Department also completed several small construction projects as part of routine maintenance activities, which were only required to incorporate Basic Standards. An inventory of permanent BMPs installed on these projects is also maintained as part of MTA's CPEC Program, which includes inspections and tracking post-construction operations and maintenance (O&M).

III. MAINTENANCE OPERATIONS

MTA's Highway Maintenance Department continues to track O&M tasks accomplished in 2013 along MTA's right-of-way (ROW). The most common maintenance activities accomplished in 2013 included sweeping of paved (impervious) surfaces from Kittery to Augusta, including roadways, toll plazas, service plazas, crossovers, maintenance yards, and commuter parking lots. MTA continues annual inspections of the catch basins and associated pipeline outlets along the ROW; repairs and catch basin cleanouts are subsequently performed as needed within MTA ROW. Similar to previous years, between 50% and 70% of the catch basins required cleaning; sediments removed are managed in accordance with established DEP protocols for waste management and beneficial reuse.

Consistent with previous years, Highway Maintenance crews use weekly summary reports and transfer the data relating to stormwater or soil and erosion control activities to a quarterly O&M reports to document MOA compliance. The Environmental Services Coordinator conducts:

- A periodic review of the quarterly O&M reports at each Highway Maintenance Facility to track progress throughout the year;
- Joint quarterly inspections of each Highway Maintenance Facility to address stormwater and erosion control issues with the Foremen to supplement their monthly inspections;
- Audits of construction projects with Foremen to review the post-construction O&M Plan requirements for permanently installed BMPs as part of MTA's CPEC Program; and
- Annual training on stormwater, erosion/sedimentation control and spill prevention topics for both MTA's Highway Maintenance and Engineering personnel.

In addition to the daily maintenance operations completed by MTA's Highway Maintenance Department, a thorough inspection of MTA's ROW is conducted each year by an engineering contractor. 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, MTA receives a report that provides advice and recommendations as to the proper maintenance, repair, and operation of the Highway during the ensuing fiscal year.

In 2013, MTA continued to implement the CPEC program, which is a stormwater-based 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 from Project Development (e.g., planning, permitting, design, etc.) through Post-Construction, when projects are inspected by Highway Maintenance Foremen as part of the O&M Plans for recently completed projects. The CPEC Program helps to ensure compliance with not only Chapter 500/MOA requirements, but also Maine's Pollutant Discharge Elimination System (MEPDES) Program permits, such as the Municipal Separate Storm Sewer System (MS4) permit, the Maine Construction General Permit (MCGP) and other applicable permits.

IV. CONSTRUCTION PROJECTS PLANNED FOR 2014

As previously mentioned, MTA efforts in 2013 continued to focus on bridge repair/maintenance projects, pavement rehabilitation, and smaller scale linear projects with operations and maintenance components. In 2014, MTA will continue to primarily focus on bridge repair/rehabilitation and pavement rehabilitation/resurfacing with additional projects involving tree clearing. These projects that will be managed in accordance with the existing MOA are summarized in **Table 2**. As seen in **Table 2**, several 2013 projects are expected to continue into 2014 and all projects are located within an existing travel corridor and the majority are not expected to exceed the threshold triggers for impervious cover or developed area. The Exit 80 reconstruction is expected to continue in 2014 with the application of General standards during construction.

Implementation of the CPEC program is expected to continue in 2014 for these projects to ensure and document compliance with Chapter 500/MOA requirements and other environmental considerations. Post-construction O&M Plans will be prepared and implemented for newly installed BMPs to facilitate long term function and treatment.

MTA's Highway Maintenance Department has no specific plans to perform any new construction projects, which involve BMPs beyond the Chapter 500 Basic Standards. Any 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.

IV. STORMWATER MOA OVERSIGHT

Stormwater MOA compliance and oversight is provided by the following MTA personnel, most of which are professional engineers and/or certified by the DEP's Non-Point Source Training Program:

MTA Personnel	MTA Job Title					
John Branscom	Environmental Services Coordinator					
Peter Merfeld, P.E.	Chief Operations Officer					
MTA Engineering Personne	l					
Steve Tartre, P.E.	Director of Engineering and Building Maintenance					
Scott Warchol	0 0					
Jeff Nadeau, P.E.						
Ralph Norwood, P.E.	Project Manager					
Scott Lachance ROW/Engineering Tech						
J. Ryan Leavitt, P.E.	Senior Resident Engineer					
Scott McConihe	Inspector					
Gerry Ouellette Inspector						
Jody Dyke Inspector						
MTA Highway Maintenance	Personnel					
William Wells	Director of Highway & Equipment Maintenance					
Brian Taddeo, P.E.	Highway Maintenance Engineer					
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					

In addition to these MTA staff, several engineering consulting contractors provide additional technical and professional services to MTA regarding stormwater and erosion control maintenance, inspection, design, planning, permitting and compliance.

V. CONCLUSION

MTA continues to apply the same engineering design and building practices for construction projects to successfully meet the requirements of the current stormwater MOA. MTA management continues to be committed to post-construction operations and maintenance, and increased education for its employees. MTA carefully manages stormwater and erosion control issues to protect the environment and comply with the current MOA.

TABLES

Table 1 – Review of 2013 MTA Construction ProjectsTable 2 – Review of 2014 MTA Construction Projects

TABLE 1 **REVIEW OF 2013 MTA CONSTRUCTION PROJECTS** Based on MaineDOT ENV Ch 500/MOA Flowchart

Contract Number	Contract Type	Description of Work	Existing Corridor	Applicable Standards ¹	Limits of Disturbance (LOD)	Amount of New Impervious Cover (IC) or Developed Area	Located within UIS?	MOA Reportable ³	Other Stormwater Permits
2013.01	Resurfacing	York to Ogunquit Paving - MM 7-13 & Interchange 7 Pavement Rehabilitation	Yes	Basic ²	0.5 acres	No changes expected	No	No	None
2013.02	Resurfacing	Litchfield Paving MM 88 to 92.8 Mill & Fill Pavement rehabilitation & Guardrail upgrades MM 85 to 92.8	Yes	Basic ²	0.5 acres	No changes expected	No	No	None
2013.03	Resurfacing	Scarborough Interchange 44 Pavement Rehabilitation	Yes	Basic ²	0.95 acres	Less than 20,000 sq ft of new IC expected	Yes, partially in Red Brook	No	None
2013.04	Bridge Repair & Rehabilitation	 Saco River Bridge - lead paint removal, structural steel girder repairs, bearing replacement, concrete abutment and pier repairs, and application of protective coatings. Nonesuch River - concrete culvert repairs, epoxy injection crack repairs, and riprap installation. Potters Brook - concrete culvert repairs, epoxy injection crack repairs, and riprap installation. 	Yes	Basic ²	0.5 acres	No changes expected	No	No	MS4 - located in Urbanized Area (UA)
2013.05	Bridge Repair & Rehabilitation	Replacing the Old Lisbon Road bridge superstructure. Work includes concrete deck and steel girder replacement, concrete substructure modifications and repairs, approach work and paving, guard rail, and bridge rails.	Yes	Basic ²	2.17 acres	No changes expected	No	No	MCGP, MS4 UA
2013.06	Bridge Repair & Rehabilitation	Replacing the Snow Hill Road bridge superstructure. Work includes concrete deck and steel girder replacement, concrete substructure modifications and repairs, approach work and paving, guard rail, and bridge rails.	Yes	Basic ²	2.06 acres	Less than 1 acre of new IC expected	No	No	MCGP
2013.07	Other	Exit 80 - Lewiston Interchange NB&SB On-Ramp Reconstruction & NB&SB Off-Ramp Reconstruction.	Yes	Basic ² + General	31.2 acres	48,300 sq ft new IC and 156,800 sq ft new landscaped area = total of 205,100 sq ft of new developed area Yes (Hart Brook)		Yes	MCGP, MS4 UA
2013.08	Bridge Repair & Rehabilitation	Bridge Repairs at up to 10 bridges from York to West Gardiner - Replacing or repairing leaky or missing joint seals (possibly combine adjacent bridges with bridge or paving contracts)	Yes	Basic ²	0.1 acres	No changes expected	No	No	None
2013.09	Bridge Repair & Rehabilitation	Bridge Repair (2 bridges), Falmouth-Hurricane Rd over Piscataqua River wearing surface & substructure repairs and Hurricane Rd underpass wearing surface, substructure repairs & raising	Yes	Basic ²	0.9 acres	No changes expected No		No	None
2013.10	Bridge Repair & Rehabilitation	Androscoggin River Bridge, Auburn/ Lewiston- steel girder repairs & strengthening	Yes	Basic ²	0.1 acres	No changes expected	No	No	Portions MS4 UA
2013.11	Bridge Repair & Rehabilitation	Exit 52 Interchange, Falmouth- Bridge deck and substructre repairs, wearing surface, and ramp paving & Blackstrap Rd. Bridge, Falmouth - Bridge Rehabilitation including raising/approach work	Yes	Basic ²	4.33 acres	Less than 1 acre of new IC expected No		No	Portions MS4 UA
2013.12	Other	Tree cutting/logging MM 83 to MM 92.6, Lewiston to Litchfield.	Yes	Basic ²	-	No changes expected	No	No	Portions MS4 UA
2013.13	Other (Clearing)	Falmouth/Gray: Clearing MM 51.8 to MM 63.0	Yes	Basic ²	-	No changes expected	No	No	None
2013.53	Other	Slope culvert repair MM 52.2 & MM 54.9	Yes	Basic ²	0.8 acres	No changes expected	No	No	Portions MS4 UA
2013.56	Other	West Gardiner MM104 SB Overheight Detection System purchase & installation	Yes	Basic ²	-	No changes expected	No	No	None
2013.58	Other	New Gloucester Toll Plaza Cash Lane Conversion - Civil/Electrical Work	Yes	Basic ²	-	Less than 1 acre of new IC expected	No	No	None
2013.59	Other	Gray Maintenance	Yes	Basic ²	> 1.0 acres	No changes expected	No	No	None
2013.60	Other	Hydro seeding on clearing project	Yes	Basic ³	0 acres	No changes expected	No	No	None

NOTES:

1 - Applicable Standards refer to Chapter 500 Stormwater Management as it applies through MaineDOT's ENV OFFICE "DEP Stormwater Rule Compliance Flowchart" 2 - "Basic Standards" applies unless 1 acre or more of new impervious OR > 5 acres of developed area are anticipated.

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"Developed Area" excluding area that within one calendar year of being disturbed is returned to a condition with the same drainage pattern that existed prior to the disturbance and is revegetated, provided the area is not mowed more than once per year.

LOD = "Limits of Disturbance" greater than or equal to 1 acre may triggers Maine Construction General Permit (MCGP) coverage

TABLE 2 **REVIEW OF 2014 MTA CONSTRUCTION PROJECTS**

Based on MaineDOT ENV Ch 500/MOA Flowchart

Contract Number	Contract Type	Description of Work	Existing Corridor	Applicable Standards ¹	Limits of Disturbance (LOD)	Amount of New Impervious Cover (IC) or Developed Area	Located within UIS?	MOA Reportable ³	Other Stormwater Permits
	1	Previous Year's Construction Previous Yea	ojects Active	in 2014	[[
2013.02	Resurfacing	Litchfield: Paving MM 88 to 92.8 Mill & Fill Pavement rehabilitation & Guardrail upgrades MM 85 to 92.8	Yes	Basic ²	0.5 acres	No changes expected	No	No	None
2013.04	Bridge Repair & Rehabilitation	 Saco River Bridge - lead paint removal, structural steel girder repairs, bearing replacement, concrete abutment and pier repairs, and application of protective coatings. Nonesuch River - concrete culvert repairs, epoxy injection crack repairs, and riprap installation. Potters Brook - concrete culvert repairs, epoxy injection crack repairs, and riprap installation. 	Yes	Basic ²	0.5 acres	No changes expected	No	No	MS4 UA
2013.07	Other	Exit 80 - Lewiston Interchange NB&SB On-Ramp Reconstruction & NB&SB Off-Ramp Reconstruction.	Yes	Basic ² + General	31.2 acres	48,300 sq ft new IC and 156,800 sq ft new landscaped area = total of 205,100 sq ft of new developed area	Yes (Hart Brook)	Yes	MCGP, MS4 UA
2013.08	Bridge Repair & Rehabilitation	York to West Gardiner: Bridge Repairs at up to 10 bridges - Replacing or repairing leaky or missing joint seals	Yes	Basic ²	0.1 acres	No changes expected	No	No	None
2013.09	Bridge Repair & Rehabilitation	Falmouth: Bridge Repair (2 bridges), Hurricane Rd over Piscataqua River wearing surface & substructure repairs and Hurricane Rd underpass wearing surface, substructure repairs & raising	Yes	Basic ²	0.9 acres	No changes expected	No	No	None
2013.10	Bridge Repair & Rehabilitation	Auburn/Lewiston: Androscoggin River Bridge - steel girder repairs & strengthening	Yes	Basic ²	0.1 acres	No changes expected	No	No	Portions MS4 UA
2013.11	Bridge Repair & Rehabilitation	Falmouth: Exit 52 Interchange & Blackstrap Road Bridge - Bridge Rehabilitation including raising/approach work	Yes	Basic ²	4.33 acres	Less than 1 acre of new IC expected	No	No	Portions MS4 UA
2013.13	Other (Clearing)	Falmouth/Gray: Clearing MM 51.8 to MM 63.0	Yes	Basic ²	-	No changes expected	No	No	None
		Construction Projects Antio	cipated in 20	14					
2014.01	Resurfacing (Concrete Repairs)	Kennebunk/Arundel: Pavement Rehabilitation and Clear Zone Improvement MM 23.0 to MM 30.0 including concrete repairs at Mousam and Kennebunk Rivers	Yes	Basic ²	0.5 acres	No changes expected	No	No	None
2014.02	Other (Clearing)	Falmouth/Gray: Clearing MM 53.0-63.0	Yes	Basic ²	-	No changes expected	No	No	None
2014.03	Resurfacing	West Gardiner/Augusta: Pavement Rehabilitation MM 102.6-109.1	Yes	Basic ²	0.99 acres	No changes expected	No	No	None
2014.04	Bridge Repair & Rehabilitation	Saco/Biddeford: Saco River Bridge Repair Phase II (Painting)	Yes	Basic ²	0.52 acres	No changes expected	No	No	MS4 UA
2014.05	Bridge Repair & Rehabilitation	York/Kittery: York River Bridge Rehabilitation & Cutts Road Repair	Yes	Basic ²	2.95 acres	No changes expected	No	No	MS4 UA
2014.06	Bridge Repair & Rehabilitation	Litchfield: West Road Bridge Rehabilitation	Yes	Basic ²	2.4 acres	No new IC or developed area expected	No	No	MCGP
2014.07	Bridge Repair & Rehabilitation	Hallowell/Litchfield: Litchfield Road Bridge Rehabilitation, Vaughn and Potters Brooks Culvert Repairs	Yes	Basic ²	1.38 acres	No new IC or developed area expected	No	No	MCGP
2014.08	Resurfacing	Cumberland: Paving MM 57.0 to 59.0 (NB only) includes X-Overs For Bridge Project & Median Opening Relocation	Yes	Basic ²	1.93 acres	No changes expected	No	No	None
2014.11	Bridge Repair & Rehabilitation	Portland: Bridge Repairs (Stroudwater River and MCRR)	Yes	Basic ²	0.94 acres	No changes expected	Yes (Capisic Brook)	No	MS4 UA
2014.12	Bridge Repair & Rehabilitation	Falmouth/Lewiston/Sabattus: Bridge Repairs – North of Portland (W. Falmouth to Route 126)	Yes	Basic ²	0.8 acres	No changes expected	No	No	None
2014.13	Bridge Repair & Rehabilitation	Falmouth: Piscataqua River Bridge - Structural #28 & #31	Yes	Basic ²	0.84 acres	No changes expected	No	No	None
2014.14	Bridge Repair & Rehabilitation	Portland: Bridge Repairs (Riverside St and Forest Ave)	Yes	Basic ²	0.95 acres	No changes expected	Yes (Capisic Brook)	No	MS4 UA
2014.15	Bridge Repair & Rehabilitation	Falmouth - Falmouth Road underpass bridge repair, Gray - Center Street underpass bridge repair No Name River - Overpass culvert repair at Mile 82.5, West Gardiner - Lisbon Road underpass bridge repair	Yes	Basic ²	0.9 acres	No changes expected	No	No	MS4 UA

NOTES:

NOTES: 1 - Applicable Standards refer to Chapter 500 Stormwater Management as it applies through MaineDOT's ENV OFFICE "DEP Stormwater Rule Compliance Flowchart" 2 - "Basic Standards" applies unless 1 acre or more of new impervious OR > 5 acres of developed area are anticipated. 3 - "MOA Reportable" indicates that the project may require Ch 500 BMPs beyond Basic Standards (e.g., General Standards to the Extent Practicable with DEP Consultation) as per the current MOA and Flowchart above. MOA reportable projects included those projects with greater than 1 acre of new impervious cover (IC) or greater than 5 acres of developed area. UIS = "Urban Impaired Stream" as listed in Chapter 502; UA = "Urbanized Area" regulated by MEPDES MS4 permit "Developed Area" excluding area that within one calendar year of being disturbed is returned to a condition with the same drainage pattern that t existed prior to the disturbance and is revegetated, provided the area is not mowed more than once per year.