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May 4, 2020

Maine Department of Environmental Protection
Attn: Mark Stebbins
17 State House Station
Augusta, ME 04333-0017

**RE: Maine Turnpike Authority
2019 Progress Report Stormwater Memorandum of Agreement**

Dear Mark:

Enclosed please find Maine Turnpike Authority's (MTA) Stormwater Memorandum of Agreement Progress Report for 2019. The enclosed report identifies MTA construction projects subject to the *Memorandum of Agreement for Stormwater Management Between the Maine Department of Transportation, Maine Turnpike Authority and Maine Department of Environmental Protection* (Stormwater MOA) that were initiated or ongoing in 2019, and will continue or initiate in 2020. Maine Turnpike Authority's progress report also describes alternative stormwater measures that were implemented, projects where Maine Stormwater Management Law Chapter 500 General Standards were applicable and how those were met, and MTA staff responsible for compliance with the Stormwater MOA.

The MTA projects identified in the enclosed progress report include those with more than one acre of disturbed area that are also authorized under the Maine Construction General Permit (Maine CGP). Since Part VI.(E) of the Maine CGP provides that MTA construction projects conducted pursuant to the Stormwater MOA are authorized under the Maine CGP, MTA typically does not file a Maine CGP Notice of Intent (NOI). However, for larger construction projects (typically those over five acres in disturbed area) MTA generally files a NOI as a courtesy notice to Maine DEP. In 2020 MTA anticipates the submittal of one Maine CGP NOI for the Portland Area Widening & Safety Improvements Project.

If you have any questions regarding MTA's 2019 progress report, or need additional information, please contact me at sdonohue@maineturnpike.com or 207-482-8275.

Sincerely,

Maine Turnpike Authority

Sean Donohue, CSS
Permitting Coordinator/Environmental Liaison

cc: Peter Merfeld, MTA
Steve Tartre, MTA



STORMWATER MEMORANDUM OF AGREEMENT 2019 ANNUAL PROGRESS REPORT

I. INTRODUCTION

This Annual Progress Report has been prepared to satisfy the requirements of the *Memorandum of Agreement for Stormwater Management Between the Maine Department of Transportation, Maine Turnpike Authority and Maine Department of Environmental Protection* (MOA), dated June 2017 as adopted by the Maine Department of Environmental Protection (DEP), Maine Department of Transportation (MaineDOT) and Maine Turnpike Authority (MTA).

In accordance with the 2017 MOA, MTA has included a list of projects subject to the requirements of the MOA that started construction within the last calendar year (2019) and that are scheduled to start in the next calendar year (2020). Also included is a description of alternative stormwater management measures installed and their performance, if known; a description of instances where the General Standards were not fully applied because it was not practicable to do so and the extent to which the General Standards were not met; and a list of staff or designees who provided oversight on stormwater or erosion and sedimentation control.

II. 2019 CONSTRUCTION PROJECTS

In 2019, MTA initiated four contracted construction projects involving one acre or more of soil disturbance that were subject to the MOA. Construction activities included bridge repair/maintenance projects, ramp improvements, interchange reconstruction, and transmission line relocation. A list of these 2019 construction projects is attached as **Table 1**. In 2019, two ongoing MTA construction projects (Contract 2016.08 Interchange 44 Barrier Toll Plaza Open Road Tolling Conversion and 2018.19 Cummings Road Bridge Replacement), and four initiated projects (Contract 2019.04 West Gardiner Open Road Tolling; Contract 2019.09 MCRR and Stroudwater Bridges; Contract 2019.10 Warren Avenue Bridge; and Contract 2019.13/14 Exit 45 Preload Contract) required post-construction treatment of stormwater in accordance with the MOA.

In addition, in 2019 one ongoing construction project (2018.20 York Toll Plaza Replacement) and one initiated construction project (2019.02 Exit 25 Paving & Kennebunk Service Plazas) authorized under MTA's Site Location of Development Law (Site Law) General Permit also comprised more than one acre of soil disturbance and required post-construction stormwater treatment. However, the MOA does not apply to projects requiring a permit pursuant to Site Law, so these two projects are not addressed further in this annual report.

In 2019 MTA also initiated 11 additional projects involving less than one acre of soil disturbance, and routine highway operation and maintenance work. These smaller projects are not listed in Table 1, as they disturbed less than one acre of ground or constituted routine maintenance activities, and did not trigger MOA applicability. None required post-construction stormwater management, although as a standard MTA requirement all projects involving soil disturbance adhere to Chapter 500 Basic Standards. Activities included garage bay extensions, paving, bridge repairs, emergency vehicle ramp construction, culvert repairs, guide sign installation, tree and shrub planting, and underground storage tank removal.

III. 2020 CONSTRUCTION PROJECTS

In 2020, the MTA has initiated (or anticipates) two contracted construction projects involving one acre or more of soil disturbance. These include highway widening (2020.03 Portland Area

Widening & Safety Improvements) and construction of a new mechanic's garage (2019.12 New Mechanics Garage, Litchfield Maintenance Yard). The ongoing and initiated/ anticipated projects for 2020 are summarized in **Table 2**. Only the Portland Area Widening & Safety Improvements Project requires post-construction treatment of stormwater following the MOA, because the New Mechanics Garage Project included only 2,700 square feet of new impervious area.

In 2020 MTA also expects to initiate nine additional projects involving less than one acre of soil disturbance, and other routine highway operation and maintenance work. These smaller projects are not listed in Table 2 as they will disturb less than one acre of ground or constitute routine maintenance, and do not trigger MOA applicability or post-construction stormwater management. All projects involving soil disturbance in 2020 will adhere to Chapter 500 Basic Standards per standard MTA requirements. Activities will include fuel system replacement, building renovations, paving, toll system improvements, emergency vehicle ramps, bridge repairs, and underground storage tank removal.

IV. ALTERNATIVE STORMWATER MANAGEMENT MEASURES

In 2019 MTA did not initiate construction of any new projects utilizing alternative stormwater treatment measures. Contract 2018.19 Cummings Road Bridge Replacement was previously initiated and ongoing in 2019, and did include the construction of alternative stormwater management measures. This project included the installation of two proprietary esplanade box filters and associated drainage system improvements (gutters, curbs, sheet flow, catch basins, and riprap downspouts). Construction of this project is not yet complete, and the performance of the esplanade box filters will be monitored and documented when the project moves from construction to operation.

V. INSTANCES WHERE THE GENERAL STANDARDS WERE REQUIRED

In 2019, four initiated projects required compliance with the General Standards:

- **Contract 2019.04: West Gardiner Open Road Tolling (MM 103)**
 - This project included approximately 6.59 acres of new linear and non-linear impervious cover and 0.84 acres of new non-linear developed area in a non-urban impaired stream watershed. Of the 6.59 acres of new impervious, 0.31 acres was non-linear.
 - The project was located within the existing travel corridor. Linear components of the project were exempt from the General Standards, and non-linear portions of the project were required to comply with the General Standards, as follows:
 - 95% treatment of new non-linear impervious and 80% treatment of new non-linear developed area. The project met the General Standards by treating 100% (0.31 acres) of new non-linear impervious area and 100% (0.84 acres) of new non-linear developed area.
 - Two gravel treatment wetlands were designed as post-construction stormwater treatment measures. Construction is currently ongoing.
- **Contract 2019.09: MCRR and Stroudwater Bridges (MM 46.7 and MM 47.9)**
 - This linear project included approximately 3.28 acres of new impervious cover between two bridge sites. Of this, 1.53 acres was associated with improvements to the MCRR Bridge in the urban impaired stream watershed of Nason's Brook. Both bridges are located in the existing travel corridor.

- New impervious associated with the Stroudwater Bridge project was not required to meet the General Standards because it is in the existing travel corridor and is not located in the watershed of an urban impaired stream or the watershed of a lake most at risk from new development.
- New impervious associated with the MCRR Bridge was required to meet the General Standards to the extent practicable as determined through consultation with, and agreement by DEP, as follows:
 - 75% treatment (1.14 acres) of new linear impervious. The project was able to treat 71.3% (1.09 acres) of impervious area through the use of two under drained soil filters. Treatment of 75% of the new impervious area was not achievable due to site limitations including wetlands, a stream, 2:1 side slopes, and right-of-way constraints.
- Construction of this project is ongoing.
- **Contract 2019.10: Warren Avenue Bridge (MM 49.0)**
 - This linear project included approximately 2.7 acres of new impervious cover split between the Capisic Brook urban impaired stream watershed and the Presumpscot River watershed.
 - The project is located in the existing travel corridor. Under the MOA, the 1.7 acres of new linear impervious cover located in the Presumpscot River watershed was not required to meet the General Standards. The one acre of new impervious cover in the Capisic Brook watershed was required to comply with the General Standards to the extent practicable as determined through consultation with, and agreement by DEP, as follows:
 - 75% treatment (0.75 acres) of new linear impervious. The project was able to treat 54% (0.54 acres) of the new linear impervious area using an under drained soil filter swale. It was not feasible to fully meet the General Standards due to shallow groundwater at the site, the presence of wetlands and streams, setback requirements, very flat gradients, and right-of-way space limitations.
 - Construction of this project is ongoing.
- **Contract 2019.13/14: Exit 45 Preload Contract (MM 44.9)**
 - This linear project included approximately 3.48 acres of new impervious cover split between two urban impaired stream watersheds (Red Brook and Long Creek).
 - The project is located partially in the existing travel corridor and was required to comply with the General Standards to the extent practicable as determined through consultation with, and agreement by DEP, as follows:
 - 75% treatment (2.61 acres) of new linear impervious. The project was able to treat 84% (2.93 acres) of impervious area with three under drained soil filters and four meadow buffers.
 - Construction of this project is ongoing.

VI. STORMWATER MOA OVERSIGHT

MTA conducts annual stormwater and erosion and sedimentation control (ESC) training, which includes a discussion of the MOA. Stormwater MOA compliance and oversight is provided by the following MTA personnel:

MTA Personnel	MTA Job Title
Sean Donohue, CSS	<i>Permitting Coordinator/ Environmental Liaison</i>
John Branscom	<i>Environmental Services Coordinator</i>
Peter Merfeld, P.E.	<i>Chief Operations Officer</i>
<i>MTA Engineering Personnel</i>	
Steve Tartre, P.E.	<i>Director of Engineering and Building Maintenance</i>
Scott Warchol	<i>Construction Program Manager</i>
Jeff Nadeau, P.E.	<i>Resident Engineer</i>
Ralph Norwood, P.E.	<i>Project Manager</i>
J. Ryan Leavitt, P.E.	<i>Senior Resident Engineer</i>
Scott McConihe	<i>Inspector</i>
Gerry Ouellette	<i>Inspector</i>
Jody Dyke	<i>Inspector</i>
<i>MTA Highway Maintenance Personnel</i>	
John Cannell, P.E.	<i>Director of Highway & Equipment Maintenance</i>
Brian Taddeo, P.E.	<i>Highway Maintenance Engineer</i>
Roger Mathews	<i>Highway Division Supervisor</i>
Andy Perry	<i>Highway Division Supervisor</i>
Jeff Stevens	<i>Foreman at Gardiner and Litchfield Highway Maintenance Facility</i>
Nicole Chase	<i>Foreman at Auburn Highway Maintenance Facility</i>
Cliff O'Brien	<i>Foreman at Gray Highway Maintenance Facility</i>
Bill Thompson	<i>Foreman at South Portland (Crosby) Highway Maintenance Facility</i>
Jim Sotir	<i>Foreman at Kennebunk Highway Maintenance Facility</i>
Joe Violette	<i>Foreman at York Highway Maintenance Facility</i>

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

TABLES

Table 1 – Review of 2019 MTA Construction Projects

Table 2 – Review of 2020 MTA Construction Projects

**TABLE 1
REVIEW OF 2019 MTA CONSTRUCTION PROJECTS SUBJECT TO THE STORMWATER MEMORANDUM OF AGREEMENT**

Contract Number	Project Type	Description of Work	Limits of Disturbance (LOD)	Linear or Non-Linear	Soil Disturbance in a Chapter 502 Listed Watershed?	Amount of New Impervious Cover (IC) or Developed Area ¹	Within Existing Corridor	Applicable Standards ²	Post-Construction Stormwater BMPs
2016 & 2018 Stormwater MOA Construction Projects Active in 2019³									
2016.08	Other (Toll Upgrades)	Scarborough: Interchange 44 Barrier Toll Plaza Open Road Tolling Conversion (MM 44.3)	17.35 acres	Linear	17.35 acres in Red Brook Watershed	3.34 acres of New Impervious Cover (Net Increase)	Yes	Basic, General	720' Underdrain Treatment Swale and Berm
2018.02	Interchange Paving	Portland: Paving, lane widening, slope repairs, guardrail adjustments (MM 47.3)	1.29	Linear	1.29 acres partially in Nasons Brook Watershed	0.15 acres of New Impervious Cover	Yes	Basic	None
2018.05	Bridge Repair & Rehabilitation	West Gardiner: Exit 103 I-295 SB Underpass Reconstruction (MM 103)	3.76	Linear	No	0.29 acres of New Impervious Cover	Yes	Basic	None
2018.15	Bridge Repair & Rehabilitation	Gardiner/ Litchfield: Cobbosseecontee Stream Bridge Rehabilitation (MM 99.2)	1.56	Linear	No	0.2 acres of New Impervious Cover	Yes	Basic	None
2018.17	Ramp Slope Repairs	Auburn: Exit 75 Toll System-Slope Repairs (MM 75.3)	3.94	Linear	No	No change	Yes	Basic	None
2018.18	Service Plaza Fuel System Replacement	Kennebunk: Kennebunk Service Plaza Fuel System Replacement (MM 25.5)	4.26	Non-Linear	No	No change	Yes	Basic	None
2018.19	Bridge Repair & Rehabilitation	Scarborough: Cummings Road Bridge Replacement (MM 44.6)	5.5	Linear	5.5 acres split between Red Brook and Long Creek Watersheds	0.88 acres of New Impervious Cover	Partially	Basic, General	Two Proprietary Esplanade Box Filters
Stormwater MOA Construction Projects Initiated in 2019³									
2019.04	Toll Plaza Reconstruction	West Gardiner: West Gardiner Open Road Tolling (MM 103)	41.38	Linear and Non-linear	No	6.59 acres of New Impervious Cover and 0.84 acres of New Developed Area	Yes	Basic, General	Two gravel treatment wetlands
2019.09	Bridge Rehabilitation	Portland: MCRR and Stroudwater Bridges (MM 46.7 and MM 47.9)	15.29	Linear	15.29 acres partially in Nason's Brook Watershed	3.28 acres of New Impervious Cover	Yes	Basic, General	Two underdrained soil filters
2019.10	Bridge Rehabilitation	Portland: Warren Avenue Bridge (MM 49.0)	11.26	Linear	11.26 acres partially in Capisic Brook Watershed	2.7 acres of New Impervious Cover	Yes	Basic, General	One underdrained soil filter swale
2019.13/14 2021.07	Bridge Rehabilitation, Toll Plaza Reconstruction, Ramp Reconstruction, Transmission Line Relocation	Scarborough and South Portland: Exit 45 (MM 44.9)	24.12	Linear	24.12 acres split between Long Creek and Red Brook	3.48 acres of New Impervious Cover and 3.6 acres of New Developed Area	Yes	Basic, General	Three underdrained soil filters and four meadow buffers

NOTES:

1 - 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 twice per year.

2 - Applicable Standards refer to Chapter 500 Stormwater Management as it applies through the Stormwater Memorandum of Agreement between Maine DEP, MaineDOT, and MTA.

3 - Two projects requiring post-construction stormwater treatment and authorization under MTA's Site Location of Development Law General Permit (2018.20 York Toll Plaza Reconstruction, and 2019.02 Exit 25 Paving and Kennebunk Service Plazas) are not reported in this table, because the MOA is not applicable to projects requiring Site Location of Development Law authorization.

**TABLE 2
REVIEW OF ANTICIPATED 2020 MTA CONSTRUCTION PROJECTS SUBJECT TO THE STORMWATER MEMORANDUM OF AGREEMENT**

Contract Number	Project Type	Description of Work	Limits of Disturbance (LOD)	Linear or Non-Linear	Soil Disturbance in a Chapter 502 Listed Watershed?	Amount of New Impervious Cover (IC) or Developed Area ¹	Within Existing Corridor	Applicable Standards ²	Post-Construction Stormwater BMPs
2018 and 2019 Construction Projects Active in 2020³									
2018.05	Bridge Repair & Rehabilitation	West Gardiner: Exit 103 I-295 SB Underpass Reconstruction (MM 103)	3.76	Linear	No	0.29 acres of New Impervious Cover	Yes	Basic	None
2018.15	Bridge Repair & Rehabilitation	Gardiner/ Litchfield: Cobbosseecontee Stream Bridge Rehabilitation (MM 99.2)	1.56	Linear	No	0.2 acres of New Impervious Cover	Yes	Basic	None
2018.17	Ramp Slope Repairs	Auburn: Exit 75 Toll System-Slope Repairs (MM 75.3)	3.94	Linear	No	No change	Yes	Basic	None
2018.19	Bridge Repair & Rehabilitation	Scarborough: Cummings Road Bridge Replacement (MM 44.6)	5.5	Linear	5.5 acres split between Red Brook and Long Creek Watersheds	0.88 acres of New Impervious Cover	Partially	Basic, General	Esplanade Box Filters
2019.04	Toll Plaza Reconstruction	West Gardiner: West Gardiner Open Road Tolling (MM 103)	41.38	Linear and Non-linear	No	6.28 acres of New Impervious Cover and 0.84 acres of New Developed Area	Yes	Basic, General	Two gravel treatment wetlands
2019.09	Bridge Rehabilitation	Portland: MCRR and Stroudwater Bridges (MM 46.7 and MM 47.9)	15.29	Linear	15.29 acres partially in Nason's Brook Watershed	3.28 acres of New Impervious Cover	Yes	Basic, General	Two underdrained soil filters
2019.10	Bridge Rehabilitation	Portland: Warren Avenue Bridge (MM 49.0)	11.26	Linear	11.26 acres partially in Capisic Brook Watershed	2.7 acres of New Impervious Cover	Yes	Basic, General	One underdrained soil filter swale
2019.13/14 2021.07	Bridge Rehabilitation, Toll Plaza Reconstruction, Ramp Reconstruction, Transmission Line Relocation	Scarborough and South Portland: Exit 45 (MM 44.9)	24.12	Linear	24.12 acres split between Long Creek and Red Brook	3.48 acres of New Impervious Cover and 3.6 acres of New Developed Area	Yes	Basic, General	Three underdrained soil filters and four meadow buffers
Anticipated Construction Projects 2020³									
2020.03	Highway Widening	Scarborough, Portland, South Portland: Portland Area Widening & Safety Improvements (MM 43.0 to MM 46.4)	56	Linear	56 acres split between Red Brook and Long Creek	10.23 acres of New Impervious Cover and no New Developed Area	Yes	Basic, General	Six underdrained soil filters and one meadow buffer
2019.12	Garage Construction	Litchfield: New Mechanics Garage, Litchfield Maintenance Yard (MM 92.7)	1.5	Non-Linear	No	2,700 square feet of New Impervious Cover and no New Developed Area	No	Basic	None

NOTES:

1 - 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 twice per year.

2 - Applicable Standards refer to Chapter 500 Stormwater Management as it applies through the Stormwater Memorandum of Agreement between Maine DEP, MaineDOT, and MTA.

3- Two projects requiring post-construction stormwater treatment and authorization under MTA's Site Location of Development Law General Permit (2018.20 York Toll Plaza Reconstruction, and 2019.02 Exit 25 Paving and Kennebunk Service Plazas) are not reported in this table, because the MOA is not applicable to projects requiring Site Location of Development Law authorization.