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April 1, 2022

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

**RE: 2021 Progress Report
Stormwater Memorandum of Agreement**

Dear Mark:

Enclosed please find Maine Turnpike Authority's (MTA) Stormwater Memorandum of Agreement Progress Report for 2021. 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 2021, and will continue or initiate in 2022. 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 usually 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 2022 construction of the Saco Interchange Improvements Project (Exits 35 & 36) may begin, and MTA will file a NOI for this work before construction starts. No additional NOI submittals are anticipated in 2022.

If you have any questions regarding MTA's 2021 progress report, or need additional information, please contact me at sdonohue@maineturnpike.com or 207-482-8275.

Sincerely,

Maine Turnpike Authority

Sean Donohue, LSS
Permitting Coordinator/ Environmental Liaison

cc: Peter Mills, MTA
Peter Merfeld, MTA
Steve Tartre, MTA
Ryan Barnes, MTA



STORMWATER MEMORANDUM OF AGREEMENT 2021 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 (2021) and that are scheduled to start in the next calendar year (2022). 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. 2021 CONSTRUCTION PROJECTS

In 2021, MTA initiated two new contracted projects involving one acre or more of soil disturbance that were subject to the MOA. New and ongoing construction activities in 2021 included bridge rehabilitation and reconstruction projects, toll plaza reconstruction, interchange reconstruction, ramp improvements and reconstruction, highway widening, and paving. A list of these 2021 construction projects is attached as **Table 1**. In 2021, five ongoing MTA construction projects (Contract 2018.19 Cummings Road Bridge Replacement; Contract 2019.04 West Gardiner Open Road Tolling; Contract 2019.10 Warren Avenue Bridge; Contracts 2019.13/14 & 2021.07 Exit 45 Reconstruction; and Contract 2020.03 Portland Area Widening & Safety Improvements) and one initiated construction project (Contract 2021.08 Portland Area Widening & Safety Improvements II) required post-construction treatment of stormwater in accordance with the MOA. One initiated construction project (Contract 2021.01 MM 30-35.5 Paving and Southbound Off Ramp Improvements) did not trigger post-construction treatment of stormwater under the MOA.

In addition, in 2021 two ongoing construction projects (2018.20 York Toll Plaza Replacement/2021.05 York Toll Demo MM 7.3; and 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 and are not listed in Table 1.

In 2021 MTA also initiated or continued ten 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 1, as they disturbed less than one acre of ground or constituted routine maintenance activities. These projects did not trigger MOA applicability for post-construction stormwater treatment, although all MTA projects involving soil disturbance adhere to Chapter 500 Basic Standards. Activities included water line and utility vault reconstruction, bridge repairs, paving, parking lot improvements, service plaza repairs, slope repairs, and building demolition.

III. INSTANCES WHERE THE GENERAL STANDARDS WERE REQUIRED FOR 2021 PROJECTS

In 2021, one initiated construction project required compliance with the General Standards:

- **Contract 2021.08: Portland Area Widening & Safety Improvements II (MM 46.4 to MM 49.3)**
 - This project is the second contracted phase of the Portland Area Widening & Safety Improvements Project. Together Phase I and Phase II of the project include approximately 8.41 acres of new linear impervious cover and no new developed area across four urban impaired stream watersheds (Red Brook, Long Creek, Nasons Brook, and Capisic Brook), and 2.12 acres of new linear impervious cover and no new developed area in the Stroudwater River watershed.
 - The project is located within the existing travel corridor. Linear components of the project are required to comply with the General Standards to the extent practicable, as follows:
 - 75% treatment of new linear impervious cover in urban impaired stream watersheds. The project will meet the General Standards to the extent practicable by treating 79% (6.62 acres) of linear impervious area in total across the four urban impaired stream watersheds.
 - Six underdrained soil filters and one meadow buffer are incorporated into the project design. The six underdrained soil filters will be constructed adjacent to urban impaired streams to ‘disconnect’ impervious area where possible. Construction of the six underdrained soil filters is currently ongoing as part of Phase I of the project. The stormwater meadow buffer will be constructed as part of Phase II of the project initiated in 2021.

IV. ALTERNATIVE STORMWATER MANAGEMENT MEASURES IMPLEMENTED IN 2021

In 2021 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 2021, and did include the construction of alternative stormwater management measures. This project included the installation of three proprietary esplanade box filters and associated drainage system improvements (gutters, curbs, sheet flow, catch basins, and riprap downspouts). Project construction was completed in 2021, and the performance of the esplanade box filters will be monitored and documented when the project moves from construction to operation. To date no problems have been noted with the three proprietary esplanade box filters.

V. 2022 CONSTRUCTION PROJECTS

In 2022, MTA plans to initiate five new contracted construction projects involving one acre or more of soil disturbance. These include:

- Contract 2022.02 – Saco Interchange Paving and Safety Improvements;
- Contract 2022.06 – Superstructure Replacement Richmond Road (Route 197) Underpass;
- Contract 2022.07 – Saco Interchange Improvements (Exits 35 & 36);
- Contract 2022.08 – Litchfield 8-Bay Garage Replacement; and,
- Contract 2022.11 – Emergency Vehicle Ramps Littlefield Road.

As identified in **Table 2** under “Anticipated Construction Projects 2022” of these five new projects only Contract 2022.07 Saco Interchange Improvements (Exits 35 & 36) triggers the General

Standards based on the new area of impervious surface cover associated with the project. The other four projects do not include enough new impervious surface cover to trigger the General Standards. Three other previously initiated and ongoing construction projects in 2022 are also summarized in **Table 2**.

In 2022 MTA also expects to initiate six 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 treatment. All projects involving soil disturbance in 2022 will adhere to Chapter 500 Basic Standards per standard MTA requirements. Anticipated activities include garage construction, installation of electric vehicle charging stations, paving, pipe end maintenance, bridge repairs, slope repairs, and ramp maintenance.

VI. STORMWATER MOA OVERSIGHT

MTA conducts annual staff stormwater and erosion and sedimentation control (ESC) and best management practice maintenance 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
Peter Merfeld, P.E.	<i>Chief Operations Officer</i>
Sean Donohue, LSS	<i>Permitting Coordinator/ Environmental Liaison</i>
John Branscom	<i>Environmental Services Coordinator</i>
<i>MTA Engineering Personnel</i>	
Steve Tartre, P.E.	<i>Director of Engineering and Building Maintenance</i>
Kristi Van Ooyen, P.E.	<i>Engineering Program Manager</i>
Ryan Barnes, P.E., CPESC	<i>Project Manager</i>
Scott Warchol	<i>Construction Program Manager</i>
Jamie Mason, P.E.	<i>Construction Project Manager</i>
J. Ryan Leavitt, P.E.	<i>Senior Resident Engineer</i>
Jeff Nadeau, P.E.	<i>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>
Ralph Norwood, P.E.	<i>Deputy Director of Highway & Equipment Maintenance</i>
Brian Taddeo, P.E.	<i>Highway Maintenance Engineer</i>
Clifford O'Brien	<i>Highway Division Supervisor</i>
Jeff Stevens	<i>Highway Division Supervisor</i>
Steve Benson	<i>Foreman at Gardiner & Litchfield Highway Maintenance</i>
Nicole Chase	<i>Foreman at Auburn Highway Maintenance</i>
Ron Andrews	<i>Foreman at Gray Highway Maintenance</i>
Steve Benson	<i>Foreman at South Portland (Crosby) Highway Maintenance</i>
Jim Sotir	<i>Foreman at Kennebunk Highway Maintenance</i>
Richard Macdonald	<i>Foreman at York Highway Maintenance</i>

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

TABLES

Table 1 – Review of 2021 MTA Construction Projects

Table 2 – Review of 2022 MTA Construction Projects

**TABLE 1
REVIEW OF 2021 MTA CONSTRUCTION PROJECTS SUBJECT TO THE STORMWATER MEMORANDUM OF AGREEMENT**

Contract Number	Project Type	Description of Work	Limits of Disturbance (LOD) (Acres)	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
Ongoing 2018, 2019, & 2020 Stormwater MOA Construction Projects Active in 2021³									
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	Three Proprietary Esplanade Box Filters
2019.04	Toll Plaza Reconstruction	West Gardiner: West Gardiner Open Road Tolling (MM 103)	41.38	Linear and Non-linear	No	6.59 acres of New Impervious Cover and 0.84 acres of New Developed Area	Yes	Basic, General	Two gravel treatment wetlands
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)	35.98	Linear	35.98 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
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	10.53 acres of New Impervious Cover and no New Developed Area	Yes	Basic, General	Six underdrained soil filters
Stormwater MOA Construction Projects Initiated in 2021³									
2021.01	MM 30-35.5 Paving and Ramp Improvements	Biddeford: Maintenance Paving; Addition of a Deceleration Lane to Exit 32 Southbound Off Ramp	1.6	Linear	1.6 acres in Thatcher Brook Watershed	0.36 acres of (15,682 square feet) New Impervious Cover and no New Developed Area	Yes	Basic	None
2021.08	Highway Widening	Portland: Portland Area Widening & Safety Improvements II (MM 46.4 to MM 49.3)	42.8	Linear	42.8 acres partially within Nasons Brook and Capisic Brook	See 2020.03 above. Same project, split into two contracts.	Yes	Basic, General	One meadow buffer
<p>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.</p>									

**TABLE 2
REVIEW OF ANTICIPATED 2022 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
Ongoing 2019, 2020, and 2021 Construction Projects Active in 2022³									
2019.13/14 2021.07	Bridge Rehabilitation, Toll Plaza Reconstruction, Ramp Reconstruction, Transmission Line	Scarborough and South Portland: Exit 45 (MM 44.9)	35.98	Linear	35.98 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
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
2021.08	Highway Widening	Portland: Portland Area Widening & Safety Improvements II (MM 46.4 to MM 49.3)	42.8	Linear	42.8 acres partially within Nasons Brook and Capisic Brook	See 2020.03 above. Same project, split into two contracts.	Yes	Basic, General	One meadow buffer
Anticipated Construction Projects 2022³									
2022.02	Paving, Safety Improvements, and Maintenance	Saco: Saco Interchange Paving (MM 36)	1.99	Linear	1.99 acres within Goosefare Brook	0.22 acres (9,583 square feet) of New Impervious Cover and no New Developed Area	Yes	Basic	None
2202.06	Bridge Repair and Rehabilitation	Litchfield: Supersructure Replacement Richmond Road (Route 197) Underpass (MM 93.3)	3.15	Linear	No	0.28 acres of New Impervious Cover and no New Developed Area	Yes	Basic	None
2022.07	Interchange Improvements	Saco: Interchange Improvements (Exits 35 and 36)	43	Linear and Non Linear	43 acres partially within Goosefare Brook	10.23 acres of New Impervious Cover and 1.01 acres of New Developed Area	Partially	Basic, General	Four underdrained soil filters
2022.08	Garage Reconstruction and Paving	Litchfield: 8-Bay Garage Replacement (MM 92.7)	1.75	Non Linear	No	3,730 square feet of New Impervious Cover and no New Developed Area	Yes	Basic	None
2022.11	Emergency Vehicle Ramp Construction	Wells: Emergency Vehicle Ramps Littlefield Road (MM 17.3)	2.46	Linear	No	4,951 square feet of New Impervious Cover and 0.82 acres New Developed Area	Yes	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.