



**VIA E-MAIL**

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**SUBJECT: Maine Turnpike Authority  
Stormwater Program Management Plan  
Maine DEP Permit # MER043001  
Annual Report for Permit Year Nine (July 1, 2021 through June 30, 2022)**

Ms. Keen:

On behalf of Maine Turnpike Authority (MTA), we are pleased to submit this Annual Report for Permit Year Nine (PY9, defined as July 1, 2021 through June 30, 2022). This report is intended to satisfy the requirements in **Part IV(J)** of the 2013 Maine Pollutant Discharge Elimination System (MEPDES) General Permit for Stormwater Discharges from Maine Department of Transportation (MaineDOT) and MTA Municipal Separate Storm Sewer Systems (MS4s).

This Annual Report describes the status of MTA's Best Management Practices (BMPs) and Measurable Goals (MGs) program for each of the six Minimum Control Measures (MCMs) presented in MTA's Stormwater Program Management Plan (SPMP) (dated December 2, 2013) for PY9.

**BACKGROUND**

MTA's SPMP was developed in accordance with **Part IV(A)** of the MPDES MS4 General Permit for the purpose of establishing, implementing and enforcing a stormwater management program to reduce the discharge of pollutants from MTA's roadways, drainage areas and facilities located within Urbanized Areas (UAs). For each MCM established in the SPMP, MGs have been established to evaluate the effectiveness of the designated BMPs. A schedule with milestones for implementation of applicable BMPs have been established for these goals. The SPMP has not been modified or updated since its initial submittal to the Maine Department of Environmental Protection (Maine DEP); therefore, a copy of the SPMP is not included with this report.

In accordance with **Part IV(J)(1)** of the MPDES MS4 General Permit, this Annual Report provides a summary of activities that demonstrate MTA's compliance status with respect to the MS4 permit conditions and progress toward the achievement of the goals identified for each MCM in the subsections below. No monitoring or other data collection activities were required by the MS4 permit in PY9. PY9 is the final year of reporting under the 2013 MEPDES General Permit for Stormwater Discharges from MaineDOT and MTA MS4s, and MTA's associated SPMP. Future annual reporting will be completed under a new (2021) MEPDES General Permit and new MTA

SPMP, effective beginning July 1, 2022. No changes have been made to measurable goals identified in the SPMP during PY9. The subsections below describe the activities, progress, and accomplishments for each of the MCMs.

MTA enforces certain MCMs through construction contract specifications and has developed the Construction Project Environmental Compliance (CPEC) Program to document compliance with MS4 MGs and other stormwater requirements. Relevant elements of the CPEC Program are summarized in **MCMs 1, 4, 5 and 6**. The CPEC Program was not modified in PY9.

## **MCM 1 - PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS**

### ***Goals:***

- 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 through increased awareness and utilization of BMPs.*

### **BMP 1.1 CONTINUE RAISING AWARENESS OF STORMWATER ISSUES AMONGST EMPLOYEES AND CONTRACTORS**

MTA's annual stormwater training program was conducted for highway operations personnel and construction project resident engineers and inspectors to address pollution reduction in stormwater runoff. The highway operations personnel stormwater training program, which is combined with Spill Prevention, Control and Countermeasures (SPCC) and Erosion and Sedimentation Control (ESC) practices training, was completed in May and June 2022 by MTA staff and regulatory specialists from GZA GeoEnvironmental, Inc. (GZA).

As part of MTA's Annual Resident Engineer and Construction Inspector Training on March 4, 2022, MTA's construction program managers also provided a review of MTA's erosion and sediment control contract specifications and MTA's standards for implementation on MTA construction projects.

MTA SPCC/ Stormwater/ ESC training sessions held in PY9 emphasized the following:

- Stormwater pollution prevention BMPs for highway operations facilities, including structural and non-structural BMPs, and best practices for equipment storage/ maintenance, vehicle rinsing and washing, and materials handling and storage;
- MTA's Spill Prevention, Control, and Countermeasure (SPCC) Refresher Training, including regulatory background, SPCC/Stormwater Facility Plans and potential sources, Spill Prevention and Control BMPs, spill response procedures and notifications;
- MTA's Mobile SPCC Plan, which includes procedures for refueling of mobile equipment, such as mowers, loaders, and other heavy equipment, and to avoid/ minimize refueling in environmentally sensitive areas, such as within UA and UIS watersheds;
- Erosion and sedimentation control BMPs for construction sites, including maintaining limits of disturbance, erosion control barriers and other structural BMPs, BMP inspection and maintenance, mulch application, winter construction requirements, street sweeping, and appropriate re-establishment of vegetation cover;
- Stormwater regulations applicable to MTA, and MS4 Permit obligations and recordkeeping requirements;
- Illicit discharge identification and response requirements; and,

- Post-construction stormwater BMP inspection obligations and maintenance practices for highway operations staff.

These training topics were selected to help ensure that MTA highway operations staff, and construction site resident engineers and inspectors are aware of their roles in achieving the goals of MTA’s Stormwater Awareness Plan. Additionally, MTA’s CPEC Program requires that contractors performing work on projects located within MTA’s UA or an UIS watershed receive, review, and sign a copy of this plan. By signing the plan, the contractor is acknowledging that they have read, understand, and will disseminate the information in the plan to individuals working on the project.

Process Indicators for PY9 are as follows:

- Number of employee training sessions: **6**
  - Five in-person training sessions were completed at each of the following MTA highway maintenance facilities: York, Kennebunk, Crosby/ South Portland, Gray, and Litchfield/ West Gardiner; and,
  - One in-person resident engineer/ construction inspector training was held at MTA headquarters (HQ) on March 4, 2022, which included an overview of erosion and sediment control requirements on contracted construction projects.
- Number of MTA employees trained: **92 highway operations staff, 5 management staff, and 6 construction residents/ inspectors**
- Number of contracted resident engineers and construction inspectors trained: **13**
- Number of contractors provided a copy of MTA’s Stormwater Awareness Plan: **4**

Impact indicators are not required for PY9.

#### BMP 1.2 CONTINUE ENCOURAGING EMPLOYEES AND CONTRACTORS TO UTILIZE BMPs THAT MINIMIZE STORMWATER POLLUTION

In PY9, MTA maintained and implemented the existing BMP Adoption Plan that identifies target BMPs to be utilized by employees and contractors that are designed to minimize stormwater pollution. As part of the urban impaired stream (UIS) strategy associated with this MCM, the BMP Adoption Plan places emphasis on utilizing target BMPs within MTA’s two designated highest priority watersheds. Best Management Practice implementation at MTA construction sites was reviewed during the employee training as described in **BMP 1.1** (above) to ensure that all MTA employees are aware of their roles in achieving the goals of the Targeted BMP Adoption Plan.

Process Indicators for PY9 are discussed under **BMP 1.1**. Impact indicators are not required for PY9.

#### BMP 1.3 CONTINUATION OF EXISTING EDUCATION AND OUTREACH EFFORTS

MTA has continued the existing education and outreach efforts established during the previous MS4 permit cycle. MTA requires all contractors to submit training certificates for the delegated On-Site Responsible Party (OSRP) on MTA contracted projects, regardless of the size or location of the project, to ensure they are adequately trained and knowledgeable in ESC from Maine DEP’s Non-Point Source (NPS) Training Program or an equivalent program.

Process Indicators for PY9 are as follows:

- Number of completed or ongoing construction projects within the UA disturbing one acre or more: **4**
- Number of initiated construction projects within the UA disturbing one acre or more: **4**

- Number of contractors required to review and sign copies of MTA’s Stormwater Awareness Plan and Targeted BMP Adoption Plan in PY9: **4**

Impact indicators are not required for PY9.

Additionally, MTA was a bronze level sponsor of Maine’s Envirothon, which is a natural resource problem-solving competition where high school students are tested, in an outdoor setting, in five natural resource areas: aquatics, forestry, soils, wildlife, and a current nationwide environmental issue.

## **MCM 2 – PUBLIC INVOLVEMENT AND PARTICIPATION**

### ***Goals:***

*Involve MTA’s community including various departments or facilities, and when applicable, involve regulated small MS4 communities, in both the planning and implementation process of improving water quality and reducing quantity via the stormwater program.*

### **BMP 2.1 PUBLIC NOTICE REQUIREMENT**

MTA maintains a written public notice policy and complies with the Maine Freedom of Access Act. In PY9, MTA did not host any public meetings involving MS4 stakeholders in the implementation of this General Permit. In PY9, as part of MTA’s Notice of Intent (NOI) for authorization to discharge stormwater under the new 2021 MEPDES General Permit for Stormwater Discharges from MaineDOT and MTA MS4s, MTA did complete public noticing required as part of the NOI filing. This included public notice on MTA’s website, published in the Portland Press Herald, and written electronic notice to nested municipal MS4 managers.

### **BMP 2.2 COORDINATE WITH REGULATED COMMUNITIES**

In PY9, the MTA maintained close communication with MS4 communities and their respective Stormwater Coordinators, primarily through participation in the Greater Portland Interlocal Stormwater Working Group (ISWG) and the Southern Maine Stormwater Working Group (SMSWG). Community coordination is also a component of MTA’s CPEC program, which includes project development phase communication with host municipalities that addresses planned construction and maintenance activities. Additionally, MTA complies with stormwater management requirements of UIS watersheds both within and outside of the UA. MTA communicates periodically, through participation in local stormwater group meetings and involvement as a stakeholder with host municipalities regarding watershed management planning efforts within MTA’s right-of-way (ROW). MTA participated in the following efforts in fulfillment of **MCM 2** in PY9:

- MTA personnel have attended and participated in numerous public meetings related to stormwater management, including four ISWG meetings, four SMSWG meetings, two Goosefare Brook Steering Committee Meetings, and one transportation MS4/ Departments of Transportation New England regional working group meeting. MTA personnel maintained contact with the Lewiston-Auburn MS4 cluster through ISWG meetings and individual correspondence;
- Maintained a position on the Long Creek Watershed Management District (LCWMD) Governing Board. MTA personnel attended and participated in five LCWMD Governing Board meetings in PY9; and,
- Coordinated with the City of Portland MS4 Manager in April 2022 to provide information on recent and planned stormwater treatment BMPs in MTA’s ROW in the urban impaired stream watersheds of Nasons Brook and Capisic Brook.

### **MCM 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION**

***Goals:***

*Develop, implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges in MTA’s stormwater systems.*

#### **BMP 3.1 GROUND VERIFY WATERSHED-BASED MS4 INFRASTRUCTURE MAP**

The UA within MTA’s ROW was mapped during the previous MS4 permit cycle using 2000 Census Bureau data. In PY1, MTA completed the process of identifying the additional UA that required stormwater infrastructure mapping as a result of the 2010 Census Bureau data. PY2 ground verification of infrastructure in the two highest priority watersheds identified a data gap in MTA’s infrastructure mapping at bridge structures associated with intersecting local roads (i.e., over/underpasses). During PY3, MTA began mapping the drainage infrastructure at bridge structures associated with intersecting local roads (i.e., over/underpasses) and continued this effort in PY4, PY5, and PY6. In PY7, 8, and 9, MTA also completed a comprehensive update of MTA’s MS4 infrastructure mapping based on desktop review of recently completed major construction projects, and MS4 infrastructure identified as part of coordinated municipal inspections (see BMP 3.2).

MTA maintains its stormwater infrastructure mapping data in an ArcGIS Server geodatabase that is not publicly available on the MTA website. A copy of the geodatabase and/or pdf maps can be made available to Maine DEP or other interested parties upon request. As noted above, MTA updates these maps annually to reflect modifications in infrastructure (e.g., infrastructure removal/installation, more accurate mapping data, etc.). Maps and tracking forms are provided to each maintenance facility every spring to facilitate catch basin cleaning and dry weather inspections.

#### **BMP 3.2 CONDUCT DRY WEATHER INSPECTIONS OF OUTFALLS AND IMPLEMENT A COORDINATED INSPECTION PROGRAM**

MTA’s dry weather inspection program includes inspection and cleanout, as needed, of catch basins (CBs), CB outlets, and outfalls (OFs) within the UA and UIS watersheds. Priority is given to the Goosefare Brook and Hart Brook watersheds; however, maintenance crews also inspect and cleanout, as needed, the remaining stormwater infrastructure in the UA every year as a proactive measure. MTA continues to use tracking forms to capture dry weather inspection and catch basin cleanout information, which are summarized in **BMP 6.4** and available to Maine DEP upon request.

As part of MTA’s prioritized dry weather inspection program, MTA staff conducted inspections at approximately 579 sites in PY9. Of the inspected sites, 43 constituted outfalls as defined by the MS4 permit. No illicit discharges were identified. In PY9 MTA cleaned approximately 25 catch basins in the UA. Large scale construction projects such as the Portland Area Widening, Exit 45 Reconstruction, Old York Toll Plaza Demolition, and others are underway within the MS4 permit area, making certain sites inaccessible for inspection or clean out. As part of construction, additional catch basins within the project areas will be cleaned. Once construction is completed, normal inspection of currently inaccessible sites will resume.

In PY9, MTA worked with MS4 Stormwater Coordinators in Lewiston and Auburn to evaluate stormwater outfalls and discharges. A summary of those activities is provided below.

## Auburn

On June 22, 2022 Maine Turnpike Authority completed an inspection of MTA's MS4 drainage system at MTA's Washington Street Bridge in Auburn to validate MTA's existing MS4 mapping, identify maintenance needs and potential interconnections with the municipal MS4 system, and identify potential illicit discharges. The City of Auburn did not attend the inspection, but the results of the inspection were shared as part of MTA's coordinated outfall inspection program with nested MS4 municipalities such as Auburn. Findings of the inspection are summarized below.

### *West Side of Washington Street*

Drainage from the MTA bridge joints on the west side of Washington Street have resulted in some minor erosion of bridge slopes. The slopes drain to a riprap pad and swale located behind the bridge piers on the west side of Washington street where the eroded materials have been deposited. No evidence offsite transport of sediment into waters of the state or the municipal MS4 system was observed. MTA highway operations has been notified of the minor erosion for further evaluation and corrective action. The observed stormwater drainage system (deck drains and riprap downspouts) was found to be consistent with MTA's MS4 mapping. No potential illicit discharges were identified.

### *Washington Street Median*

The observed stormwater drainage system (deck drains and riprap splash pads) was found to be consistent with MTA's MS4 system mapping. No erosion or sediment control concerns or potential illicit discharges were identified.

### *East Side of Washington Street and Maine Central Rail Road Bridge Crossing*

The observed stormwater drainage system (deck drains, riprap splash pads, and riprap downspouts) was found to be consistent with MTA's MS4 system mapping, with the exception of two bridge deck drains that were identified in the field and that were unmapped. MTA will make these additions to its MS4 system map as part of its 2022 update. A small potential stream or flowing ditch not shown on MTA's mapping was noted in the vegetated area between Washington Street and the MCCR railroad. MTA will update its mapping. No erosion or sediment control concerns or potential illicit discharges were identified.

## Lewiston

MTA contacted the Lewiston MS4 Stormwater Coordinator to review potential MS4 interconnections, shared outfall locations, and stormwater treatment BMP locations at the Turnpike crossings of River Road and Goddard Road, and the Exit 80 vicinity. Site inspections were completed on June 22, 2022. Findings of the inspections at each of these sites are summarized below.

### *Crossing of River Road and Hart Brook*

MTA and the City of Lewiston compared site observations against their respective MS4 maps and confirmed the existing mapping was accurate. MTA noted a minor ditch drainage direction change along the east side of River Road, which will be incorporated as part of MTA's annual MS4 map updates in 2022. During the site visit, MTA and the City of Lewiston observed the metal pipe outlet to MTA median catch basin CB0223 is currently unobstructed and free flowing, but could be improved during future maintenance cycles by MTA with outlet stabilization riprap and replacement of the metal pipe end. MTA has noted this for future maintenance.

No potential illicit discharges or erosion or sedimentation problems in need of corrective action were observed at the Turnpike crossing of River Road and Hart Brook. Runoff from the Turnpike bridge over River Road and Hart Brook is directed into bridge deck drains, which then deliver runoff into wooden troughs located under the bridge and that are lined with ice and water shield before discharging into Hart Brook. The drainage troughs were constructed by the Turnpike several years ago to convey highway runoff down the western bridge approach slope into Hart Brook to address potential slope erosion beneath the bridge. The troughs are in good condition and have been effective in meeting this goal. The City of Lewiston suggested that when the bridge is ready for broader rehabilitation as part of its maintenance cycle, construction of non-wooden drainage troughs should be evaluated as part of the scope, as well as additional permanent mulch or riprap beneath the bridge.

During the July 1, 2022 to June 30, 2027 MS4 permit cycle, MTA plans to evaluate and install two BMPs in the Hart Brook watershed. During the site visit, MTA discussed with the City of Lewiston the possibility of a small USF or bio-retention BMP on the east side of River Road within MTA's right-of-way where it intersects with the municipal road. Based on the preliminary field evaluation, MTA and the City of Lewiston agreed a BMP at this location was conceptually feasible pending further engineering evaluations. If MTA opts to construct a BMP at this location, MTA will coordinate further with the City of Lewiston regarding MS4 interconnections, drainage, right-of-way, etc.

#### *Crossing of Goddard Road*

MTA and the City of Lewiston compared site observations against their respective MS4 maps and confirmed the existing mapping was accurate; no map changes are proposed. Minor erosion and sedimentation into Goddard Road was observed at two locations. One of the deck drain outlets beneath the MTA bridge is causing minor erosion on the bridge slope and sedimentation onto Goddard Road. When a new MS4 stormwater BMP is evaluated at the Goddard Road crossing (as discussed below), MTA will evaluate the possibility of redirecting drainage from the bridge deck drain to the south side of the bridge into a riprap downspout or similar conveyance. This would keep the bridge deck drainage off of Goddard Road and out of the municipal MS4 system, and address the erosion issue.

A second location of minor slope erosion and sedimentation onto Goddard Road was identified on the south side of the Turnpike crossing and east side of Goddard Road. MTA highway operations has been notified of this minor erosion site for further evaluation and corrective action. The City of Lewiston may also wish to shape the eastern Goddard Road shoulder on the south side of the Turnpike mainline into a small ditch to collect runoff from the existing riprap downspout on the slope and direct it towards an existing catch basin. MTA requested the City notify MTA Engineering before any work along Goddard Road that is within MTA's ROW is undertaken.

During MTA's 2022-2027 MS4 Permit cycle, MTA will evaluate and potentially implement a drainage ditch stabilization BMP on the west side of Goddard Road and the south side of the Turnpike mainline as one of two BMPs within the Hart Brook watershed. The drainage ditch receives runoff from the municipal and MTA MS4 systems, and drains directly into Hart Brook at MTA discharge point DP0029. MTA is considering lining the swale with geo-fabric and riprap, vegetating the swale with grass and adding check dams, or other similar improvements. The City of Lewiston suggested a grass lined swale with check dams rather than a riprap swale. MTA agreed deck drain revisions as discussed above will be evaluated as part of the potential scope of improvements. MTA will keep the City of Lewiston apprised of the evaluations and whether a BMP is selected for implementation at this site.

### *Exit 80 Vicinity*

MTA and the City of Lewiston briefly reviewed two potential BMP locations at Exit 80 under consideration by MTA for the 2022-2027 MS4 Permit cycle. The first included a sapling and shrub planting augmentation along a segment of unnamed tributary to Hart Brook that was restored by MTA several years ago. The City of Lewiston noted that downstream reaches of Hart Brook have thermal pollution issues, so additional shading of tributary streams may be beneficial. The second potential Exit 80 BMP location reviewed during the site visit was a potential underdrained soil filter (USF) site to the outside of the northbound off-ramp in the MTA right-of-way. The City suggested that if a USF is constructed at this location, that an infiltration USF be considered if site conditions permit this. MTA noted that liners are usually required for USFs due to insufficient depth to soil limitations such as dense impervious horizons or water tables, and also to reduce infiltration of chloride into groundwater. Over the 2022-2027 MS4 Permit cycle MTA will complete its evaluation of potential BMPs in the Hart Brook watershed, and implement two BMPs in the watershed in accordance with its new Stormwater Management Plan.

### BMP 3.3 IMPLEMENT OPEN DITCH ILLICIT DISCHARGE PROGRAM

In PY9 the MTA IDDE program included MTA's open ditch systems. Open ditch IDDE efforts were completed during catch basin inspection activities within the portions of MTA's UA that could be safely accessed for inspection and that were located outside of active work zones. Ditches that discharge directly to waters of the state have been included on the same catch basin inspection tracking forms used to capture catch basin inspection and catch basin cleanout information, which are summarized under **BMP 6.4**, below, and available to Maine DEP upon request. MTA has also categorized connections from CB drain pipes into its ditch system as outfalls and evaluated these conveyances for the presence of unauthorized discharges via dry weather inspection. No illicit discharges were observed in PY9.

### BMP 3.4 CONTINUE TO IMPLEMENT ILLICIT DISCHARGE DETECTION AND ELIMINATION PROCEDURE POLICY

MTA has an established procedure and has developed a form for evaluating and documenting suspected illicit discharges. The catch basin cleanout and IDDE tracking form directs the inspector to complete the Suspected Illicit Discharge Form and notify MTA's Permitting Coordinator who then performs an investigation of each suspected illicit discharge in accordance with MTA's IDDE SOP. In permit years one through five (PY1-PY5), no illicit discharges were identified during MTA's annual dry weather inspections; however, one illicit discharge was identified in PY4 during MTA routine maintenance. In PY6, one potential illicit discharge was identified during MTA's Coordinated Inspection with the City of Portland, and was subsequently investigated in consultation with Maine DEP. The investigations with Maine DEP determined no illicit discharge was present. In PY7, PY8, and PY9 no additional illicit discharges were identified.

### BMP 3.5 IDENTIFY NON-STORMWATER DISCHARGES

Twenty-one vehicle accident or construction-related spills within the UA occurred in PY9, which were reported to Maine DEP and cleaned up as soon as possible. Copies of the spill reports are available to Maine DEP upon request.

## MCM 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

### **Goals:**

*Continue to implement and enforce MTA's program to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre.*

### **BMP 4.1 CONTINUE TO IMPLEMENT CONSTRUCTION PROJECT ENVIRONMENTAL COMPLIANCE (CPEC) PROGRAM**

The CPEC Program is the primary means by which the MTA addresses construction-phase stormwater management, including runoff from construction activities conducted by MTA or its contractors. The CPEC Program includes elements intended to control stormwater runoff from construction sites in the MS4 area such as:

- Language in the specifications and ESC Plan to notify the contractor that they are in an MS4 project area;
- Requiring contractors to provide Maine DEP erosion and sediment control training certificates for the delegated On-Site Responsible Party for each contracted construction project; and,
- Applying structural and non-structural BMPs during construction.

In PY9, MTA maintained these requirements, as well as those construction-related requirements associated with Chapter 500 of Maine's Stormwater Management Law as implemented through the Memorandum of Agreement for Stormwater Management Between the Maine Department of Transportation, Maine Turnpike Authority and Maine Department of Environmental Protection (Stormwater MOA). These measures included the requirement to apply MaineDOT's BMP/ESC Manual on all projects.

The MTA submits a separate Annual Progress Report to the Maine DEP to satisfy the requirements in the Stormwater MOA, as adopted by the Maine DEP, MaineDOT, and MTA. The Annual MOA Report, which was submitted to Maine DEP in April 2022, summarized construction projects disturbing an acre or more. In PY9, there were seven active construction projects within the UA disturbing one (1) acre or more:

- 2019.10 – Warren Avenue Bridge Improvements Mile 49.0 – Portland
- 2019.13/14 & 2021.07 – Exit 45 Interchange Reconstruction Mile 44.9 – Scarborough and South Portland
- 2020.03 – Portland Area Widening & Safety Improvements Mile 43.0 to Mile 46.4 – Scarborough, Portland, and South Portland
- 2021.01 – Paving and Ramp Improvements MM 30 to 35.5 – Biddeford
- 2021.05 – York Toll Plaza Demolition and Mainline Reconstruction MM 7.0 to 7.9 – York
- 2021.08 – Portland Area Widening & Safety Improvements II (MM 46.4 to MM 49.3) – Portland
- 2022.02 – Exit 36 Improvements & Pavement Rehabilitation MM 35.5 to MM 36.2 – Saco

Active construction projects in PY9 were implemented under MTA's CPEC Program, which includes inspection documents and other environmental compliance considerations. MTA relies on binding contract language to ensure that contractors comply with the construction related BMPs/requirements of (1) Chapter 500; (2) applicable portions of the MOA; (3) the Maine Construction General Permit (CGP); and (4) the MS4 permit. MTA employees and contractors are trained appropriately on construction site stormwater management controls. Contractors and MTA's resident engineers or inspectors are required to conduct weekly inspections and maintain inspection documentation for review. The CPEC Program requires projects to be inspected as follows:

- Prior to construction (e.g., photographic documentation, temporary BMPs in place, etc.);
- On at least a weekly basis, and preceding and following a significant precipitation/ storm event during construction by a qualified MTA representative (e.g., Inspector or Engineer) along with the contractor's OSRP, who is appropriately trained;
- As part of periodic CPEC Program environmental audits by MTA environmental staff; and
- When transitioning from construction to post-construction (i.e., final walkthrough).

The CPEC Program provides a mechanism to ensure that stormwater requirements and other environmental regulatory obligations, including inspections and corrective actions, are considered and documented during construction, and appropriate actions are undertaken to reduce pollutants in stormwater from construction activities. As a result of the effectiveness of the CPEC Program, routine corrective actions were required in PY9 for projects in which one or more Maine DEP permits may apply (i.e., MS4, CGP, and Ch500/MOA). The non-significant corrective actions required during PY9 included commonplace measures such as:

- Repair of minor slope erosion;
- Repairing staked hay bales, silt fencing, and other structural BMPs;
- Additional mulch application;
- Removing accumulated sediment at silt fences;
- Street sweeping; and,
- Re-loaming and seeding or mulching areas after a storm event.

## **MCM 5 – POST-CONSTRUCTION STORMWATER MANAGEMENT**

### ***Goals:***

- 1. Continue to implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre.*
- 2. Develop and implement strategies that include a combination of structural and/or non-structural best management practices (BMPs).*
- 3. Develop and implement an approved BMP inspection schedule that at a minimum stipulates that new BMPs are inspected at least once during the first year of installation.*

### **BMP 5.1 CONTINUE TO IMPLEMENT CONSTRUCTION PROJECT ENVIRONMENTAL COMPLIANCE (CPEC) PROGRAM**

As described under **MCM 4**, MTA has continued to implement the CPEC Program to address stormwater management in new development and redevelopment. In PY9, MTA maintained and enforced these requirements, as well as post-construction standards associated with Chapter 500 and the Stormwater MOA throughout MTA's ROW. As described under BMP 5.3, MTA inspected post-construction stormwater treatment BMP's at least once during the PY9.

### BMP 5.2 INCLUDE A COMBINATION OF STRUCTURAL AND NON-STRUCTURAL BMPs

With regard to non-structural BMPs, as discussed in **BMP 1.2**, in PY9 MTA maintained and implemented its BMP Adoption Plan that identifies target BMPs to be utilized by employees and contractors that minimize stormwater pollution. MTA's CPEC Program requires that contractors conducting work on projects located within MTA's UA or an UIS watershed receive, review, and sign a copy of this plan. As discussed in **BMP 1.1**, in PY9 MTA continued its annual training of highway operations staff, which included a review of post-construction stormwater BMP maintenance practices. MTA implemented its illicit discharge detection and elimination program, as described in **BMP's 3.1 – 3.5**, and maintained its street sweeping (see **BMP 6.3**) and catch basin clean out (see **BMP 6.4**) program to help minimize the impacts of post-construction stormwater runoff on water quality.

MTA completed construction of four new stormwater treatment BMPs within the UA during PY9, including:

- Three proprietary esplanade tree box filters as part of the Cummings Road Bridge Rehabilitation Project in the Red Brook watershed;
- One underdrained soil filter as part of the Warren Avenue Bridge Rehabilitation Project in the Capisic Brook watershed.

The completion of these projects brings the total number of MTA's operational post-construction stormwater treatment BMPs within the UA to eleven as of the close of PY9 on June 30, 2022. At the start of the MS4 permit cycle on July 1, 2013, MTA had two operational post-construction stormwater treatment BMPs within the UA. MTA has additional stormwater treatment BMPs planned, designed, or under construction that will be documented in future MS4 Annual Reports.

### BMP 5.3 INSPECT NEW BMPs AT LEAST ONCE DURING THE FIRST YEAR AFTER INSTALLATION

MTA has incorporated a final walkthrough checklist in the construction phase portion of the CPEC Program. The final walkthrough is completed after temporary BMPs have been removed and the site has reached permanent stabilization. To ensure adequate long-term maintenance of newly constructed BMPs, the final walkthrough checklist includes inspection of new BMPs installed as part of the construction project. Following the final walkthrough, newly constructed BMPs are inspected each year by MTA staff. Final walkthrough checklists are maintained in the project specific CPEC binders and are available to Maine DEP upon request.

As noted under the discussion of BMP 5.2, in PY9 three new esplanade tree box filters were completed at the Cummings Road Bridge Rehabilitation Project in the Red Brook watershed, and one new underdrained soil filter swale was completed at the Warren Avenue Bridge Rehabilitation Project in the Capisic Brook watershed. A final walk through of the Cummings Road Bridge project site was completed on September 23, 2021 by MTA's Resident Engineer and Permitting Coordinator. A final walk through of the Warren Avenue Bridge project site was completed on October 8, 2021 by MTA's Resident Engineer and Permitting Coordinator. The final walk-throughs included review of the new tree box filters and underdrained soil filter. The new BMPs were found to be in satisfactory condition, with no evidence that they were not working properly or required corrective action. The underdrained soil filter was well vegetated.

- Number of stormwater treatment BMPs within the UA that required routine maintenance or remedial action to maintain post-construction BMP functionality in PY9: **11**
  - In PY9, routine maintenance of eleven existing stormwater treatment BMPs within the UA included vegetation trimming/ mowing and removal of debris or trash. Two of these BMPs are located at MTA headquarters at 2360 Congress Street in Portland and pre-date the existing MS4 General Permit. The remaining nine operational stormwater treatment BMPs within the

UA are located at Exit 32, Exit 44, the Maine Central Railroad Overpass at Mile 47.9, Cummings Road Bridge at Mile 44.6, and the Warren Avenue Bridge at Mile 49.0. In PY9, MTA also began planning and manufacturing new BMP signage that will be installed around vegetated BMPs to alert maintenance staff not to mow BMPs with heavy equipment to prevent damage to the BMPs. These signs will be installed during PY1 of the new MS4 Permit cycle starting July 1, 2022.

## **MCM 6 – POLLUTION PREVENTION/GOOD HOUSEKEEPING**

### ***Goals:***

*Reduce pollutant runoff from MTA's roads, other paved surfaces, infrastructure, and facilities through the development and implementation of an operation and maintenance (O&M) program.*

### **BMP 6.1 INVENTORY POTENTIAL POLLUTANT SOURCES AND OPERATIONS**

MTA does not operate any maintenance facilities within the MS4 regulated area. Therefore, potential pollutant sources are generally limited to spills associated with vehicular accidents, road-killed wildlife, and MTA deicing operations. MTA re-evaluated its inventory of potential pollutant sources in PY3 and finalized its MCM 6 Written Procedures in August 2016. Minor administrative changes were made in September 2016 and a copy of the document was included in the PY4 Annual Report. There were no changes to the pollutant source inventory in PY5, PY6, PY7, PY8, or PY9.

### **BMP 6.2 ANNUAL EMPLOYEE TRAINING**

As discussed in **BMP 1.1**, MTA's employee training program addresses stormwater pollution prevention, and erosion and sediment control. MTA's training program also incorporates construction and post-construction inspection and O&M requirements. 92 highway operations personnel were trained in stormwater pollution prevention and ESC practices in PY9. This included 92 highway operations staff attending one of five training sessions and taking a graded quiz. The average test score for the PY9 stormwater training was 96%.

In PY9 a construction project resident engineer and construction inspector training was also attended by five MTA engineering and construction management staff members, six MTA resident engineers/ construction inspectors, and 13 contracted resident engineers/ inspectors at MTA Headquarters on March 4, 2022. The meeting included a short review of MTA's erosion and sediment control contract specifications and MTA's standards for implementation on MTA construction projects.

### **BMP 6.3 STREET SWEEPING**

As reported in previous MS4 permit cycles, MTA maintains a regular pavement sweeping program that includes interchanges, toll plazas, park-and-ride lots, and other facilities. Due to several active construction projects and the associated safety concerns, particularly in the two-lane section of highway between Mile Marker (MM) 41-53, MTA was unable to sweep all of the paved surfaces in its UA in PY9. One of MTA's street sweepers was also unavailable due to the need for mechanical repairs for periods of the PY9 street sweeping season. A summary of sweeping activity completed in PY9 is presented below. MTA generally reuses the collected sweepings as construction fill material.

UA Street Sweeping Summary for PY9:

- Approximate number of lane miles swept: **111**
- Approximate number of toll, interchange, and bridge deck sweeper passes: **21**
- Approximate number of park and rides swept: **0**

**BMP 6.4 CLEANING OF STORMWATER STRUCTURES INCLUDING CATCH BASINS**

As discussed in **BMP 3.2**, MTA has a prioritized inspection program that includes inspection and catch basin cleanout, as needed, within the entire UA. Priority is given to Goosefare Brook and Hart Brook watersheds; however, maintenance crews also inspect and clean out, as needed, the remaining stormwater infrastructure in the UA and UIS watersheds on an annual basis. Due to several active construction projects and the safety concerns in the two-lane section of highway between Mile Marker (MM) 41-53 and other locations, MTA was unable to inspect or clean all of the catch basins in its UA in PY9. MTA continues to use tracking forms to capture dry weather inspection and catch basin cleanout information, which are summarized below and available to Maine DEP upon request.

UA Catch Basin Maintenance Summary for PY9:

- Approximate number of catch basins inspected: **556**
- Approximate number of catch basins cleaned: **25**
- Approximate number of catch basins repaired: **9**

Catch basin sediment is managed in accordance with Maine DEP regulations regarding the beneficial reuse. MTA may either reuse the collected sediment as construction fill material or dispose of the material in accordance with current State rules. MTA generally reuses the recovered catch basin sediment as construction fill material.

**BMP 6.5 MAINTENANCE AND UPGRADING OF STORMWATER CONVEYANCES AND OUTFALLS**

As part of MTA's Stormwater MOA, a progress report summarizing current and planned construction projects and maintenance efforts (which may include new drainage infrastructure installed or replaced by MTA maintenance crews or contractors) is submitted annually to Maine DEP. In PY9, MTA construction efforts included a wide range of work related to maintaining and operating MTA's highway infrastructure. Projects included pavement rehabilitation, bridge construction and repairs, interchange and toll plaza construction, highway widening, emergency vehicle ramp construction, maintenance paving, restoration of median drainage, ramp safety improvements, and other routine maintenance activities. Drainage infrastructure improvements are integrated as an element of most of MTA's contracted construction projects, and are also completed as part of other routine maintenance work. Infrastructure maps and IDDE tracking forms are updated annually to reflect new drainage infrastructure.

An annual inspection of MTA's infrastructure is also conducted by a professional engineering consultant, resulting in an *Annual Inspection Report* and *Operation and Maintenance Annual Report*. The *Operation and Maintenance Annual Report* is available on MTA's website (<http://www.maineturnpike.com/project-and-planning/Transportation-Planning.aspx>). These reports summarize the condition of MTA's infrastructure (including drainage infrastructure) and identify any deficiencies observed. MTA uses the information presented in these reports to evaluate and implement a prioritized schedule for repairing or upgrading conveyances, structures, and outfalls as required under this MCM.

**BMP 6.6 STORMWATER POLLUTION PREVENTION PLANS (SWPPPs)**

Although MTA does not operate any vehicle maintenance facilities within the UA, MTA continued to maintain the following measures relative to the objectives of **MCM 6** in PY9:

- SPCC Plans with integrated stormwater pollution prevention measures for all MTA Highway/Equipment Maintenance Facilities that address the proper use, storage, and disposal of petroleum products, and additionally address vehicle and equipment storage, maintenance, and refueling practices;
- A Mobile SPCC Plan for MTA’s entire ROW to supplement spill response and prevention measures in the facility specific SPCC Plans and specifically addresses more stringent practices within UA and UIS watersheds; and
- Quarterly facility inspections at its Highway/Equipment Maintenance Facilities.

## CONCLUSION

In accordance with the MPDES General Permit *Part IV(J)*, this Annual Report presents a summary of significant goals achieved during the ninth year (July 1, 2021 through June 30, 2022) of implementing MTA's SPMP including an evaluation of BMPs and MGs established for the six MCMs. If you have any questions concerning this Annual Report of MTA's MS4 SPMP, please do not hesitate to contact Sean Donohue at [sdonohue@maineturnpike.com](mailto:sdonohue@maineturnpike.com) or (207) 482-8275.

In accordance with the MPDES General Permit *Part III(D)(2)*, we 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 gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons that directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



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