VIA E–MAIL

September 13, 2019

Ms. Rhonda Poirier, MEPDES Stormwater Program Manager
Division of Water Quality Management
Bureau of Water Quality
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

SUBJECT: Maine Turnpike Authority
Stormwater Program Management Plan
Maine DEP Permit # MER043001
Annual Report for Permit Year Six (July 1, 2018 through June 30, 2019)

Dear Ms. Poirier:

On behalf of Maine Turnpike Authority (MTA), we are pleased to submit this Annual Report for Permit Year Six (PY6, defined as July 1, 2018 through June 30, 2019). This report is intended to satisfy the requirements in ***Part IV(J)*** of the 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 PY6.

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. On March 8, 2019, MTA received correspondence from Maine DEP regarding MTA's PY5 Annual Report. Maine DEP's review did not include questions or requests for information; therefore, no response was submitted by MTA.

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 PY6. Anticipated activities in PY7 include additional stormwater infrastructure mapping efforts (BMP 3.1), follow-up on the illicit discharge identified during MTA's Coordinated Inspection with the City of Portland (BMP 3.2), and construction projects that include new post-construction BMPs (BMP 4.1). No changes have been made to measurable goals identified in the SPMP; however, the primary stormwater contact person for MTA is now Sean Donohue. 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**. In March 2017 (PY4), a revised CPEC Program was prepared and implemented to streamline the process and capture the appropriate environmental compliance reporting information. The CPEC Program was not modified in PY5 or PY6.

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 maintenance personnel and construction inspectors to address pollution reduction in stormwater runoff. The stormwater training program, which is combined with Spill Prevention, Control and Countermeasures (SPCC) and Erosion and Sedimentation Control (ESC) practices training, was performed in May and June 2019 by regulatory specialists from GZA GeoEnvironmental, Inc. (GZA) and MTA staff.

MTA SPCC/Stormwater/ESC training sessions held in 2019 emphasized the following:

- MS4 Permit obligations;
- MTA's MS4 Urban Impaired Streams (UIS) strategy, which identified Goosefare Brook and Hart Brook as MTA's two designated highest-priority watersheds with consideration of other UIS watersheds (e.g., Capisic Brook, Red Brook, etc.) within the MTA travel corridor;
- Requirements within the Long Creek watershed and other areas where watershed management plans (WMPs) are imminent;
- 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;
- MTA's CPEC program, including the post-construction phase checklist and maintenance/inspection requirements once a construction project has been permanently stabilized;

- Annual reporting associated with the Memorandum of Agreement (MOA)[1] for Stormwater Management between MaineDOT, MTA, and DEP regarding the applicability of Maine Stormwater Management Law (Chapter 500) on MaineDOT and MTA projects; and
- Maintenance (e.g., sweeping, catch basin cleanouts, outfall inspections, etc.) as per MTA's MS4 UIS Strategy, including updates to the Catch Basin Cleaning and Illicit Discharge Detection and Elimination (IDDE) tracking forms.

MTA's Stormwater Awareness Plan was summarized during the employee training sessions to ensure that all MTA highway maintenance and operations staff in attendance are aware of their roles in achieving the goals of this 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 PY6 are as follows:

- Number of employee training sessions: **6**
  - One session was held at each of the following MTA facilities: York, Kennebunk, Crosby/South Portland, Gray, and West Gardiner; and
  - One make-up session was held at MTA headquarters (HQ).
- Number of MTA employees trained: **94**
- Number of contractors provided a copy of MTA's Stormwater Awareness Plan: **6**

Impact indicators are not required for PY6.

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

In PY6, 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 UIS strategy associated with this MCM, the BMP Adoption Plan places emphasis on utilizing target BMPs within MTA's two designated highest priority watersheds.

MTA's Targeted BMP Adoption Plan was reviewed in conjunction with the Stormwater Awareness Plan summary during the employee training sessions as described in **BMP 1.1** (above) to ensure that all MTA employees are aware of their roles in achieving the goals of this plan.

Process Indicators for PY6 are discussed under **BMP 1.1**. Impact indicators are not required for PY6.

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

[1] The Stormwater MOA requires projects undertaken by or under the administration, supervision, or oversight of MaineDOT and MTA that would require a Stormwater Management Law Permit if not for the exemption in Title M.R.S. 420-D(7)(G) to meet certain standards in Chapter 500, regardless of location. Therefore, the Annual MOA Report includes projects located inside and outside MTA's MS4 UA.

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 PY6 are as follows:

- Number of completed or ongoing construction projects within the UA disturbing one (1) acre or more: **2**
- Number of initiated construction projects within the UA disturbing one (1) acre or more: **6**
- Number of contractors required to review and sign copies of MTA's Stormwater Awareness Plan and Targeted BMP Adoption Plan: **6**

Impact indicators are not required for PY6.

Additionally, MTA was a bronze medal 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.

Also, MTA and the MaineDOT agreed to share a silver level sponsorship for the 2019 Maine Stormwater Conference. Both organizations were invoiced for this sponsorship in February 2019, and the conference is scheduled for December 2019.

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 PY6, MTA did not host any public meetings involving MS4 stakeholders in the implementation of this General Permit.

BMP 2.2 COORDINATE WITH REGULATED COMMUNITIES

In PY6, 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 remains closely involved with the evolving 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 ROW. MTA participated in the following efforts in fulfillment of **MCM 2** in PY6:

- Displays "Think Blue" Ducky stickers at MTA facilities in highly visible areas such as toll booths and service plazas;
- MTA personnel (or their designees) have attended and participated in multiple public meetings, seminars, and conferences related to stormwater, including one (1) MS4 Stakeholder meeting, one (1) watershed

management meeting, four (4) ISWG meetings, and six (6) SMSWG meetings. MTA personnel also maintain contact with the Lewiston-Auburn MS4 cluster to facilitate collaboration among MS4 communities;

- Maintains a position on the Long Creek Watershed Management District (LCWMD) Governing Board;
- Coordinated with LCWMD regarding stormwater management retrofits to MTA's mainline as part of the Portland Area Widening;
- Conducted a site visit with LCWMD to evaluate the potential for in-stream habitat improvements within Long Creek within the MTA ROW; and
- Coordinated with the City of Saco and an abutting property owner on Industrial Drive in Saco to determine whether there was a direct connection between MTA's MS4 system and the abutting property. MTA confirmed there was no outlet or outfall to the abutting property.

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 and PY5. In PY5, MTA began ground verifying drainage at local road over/underpasses within MTA's UA and this effort is ongoing.

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. MTA typically 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

As part of MTA's prioritized dry weather inspection program, MTA staff conducted dry weather inspections at approximately 346 sites in PY6, down from 600 sites in PY5. The reduction in the number of inspection sites is due to safety concerns in the two-lane section of highway between Mile Marker (MM) 41-53 and the Falmouth Spur. MTA's Highway Maintenance Lane Closure Guidance specifies that two travel lanes must remain open during times of high traffic volume. To complete dry weather inspections safely, road crews must set up lane closures during times of off-peak traffic volume. Due to the high level of daytime traffic on the stretch of two-lane highway between MM 41-53 and the Falmouth Spur, lane closures are not permitted during daytime working hours. MTA has not authorized night time work for MS4 dry weather inspections; therefore, MTA staff cannot safely inspect the stormwater infrastructure on this stretch of highway. A third travel lane in both directions of the Turnpike will be

added between MM 43.0 and 48.8 starting in 2020. As part of that construction, catch basins within the project area will be cleaned.

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.

During PY6 MTA also responded to abutting property owner concerns regarding surface water runoff from the MTA ROW. During the winter of 2018/2019, MTA coordinated with a property owner off of Warren Avenue in Portland to evaluate property owner concerns related to runoff from the MTA ROW into their parking lot and subsequent icing. MTA confirmed there was runoff from the ROW to the abutting property, and that it was the result of a leaking water district main in the MTA ROW. The water district was notified and is following up on the leak.

In PY6, MTA scheduled and conducted coordinated inspections with MS4 Stormwater Coordinators in Portland and Falmouth. Prior to conducting coordinated inspections, MTA reviewed outfall inspection techniques as well as the IDDE maps and tracking forms for MTA's ROW in the UA with each respective Stormwater Coordinator. Coordinated inspections of select outfalls in Falmouth's UA were conducted on June 18, 2019 with Justin Early, Town Engineer. During the coordinated effort with the Town of Falmouth, a total of two (2) sites were visited. Nine (9) catch basins, five (5) catch basin outlets, four (4) rip rap downspouts, five (5) ditch lines, and two (2) bridge drains were observed. Minor maintenance items, such as stabilizing eroded areas, identifying the owner/operator of unmapped stormwater infrastructure, and removing litter/debris around a catch basin were noted for follow up.

Coordinated inspections of select outfalls in Portland's UA were conducted on June 18, 2019, with Doug Roncarati, Portland Stormwater Program Coordinator. During the coordinated effort with the City of Portland, a total of two (2) sites were visited. Six (6) catch basins, eight (8) pipe (CB/culvert) outlets, four (4) bridge drains, and eight (8) ditch lines were observed. Minor maintenance items, such as stabilizing small areas of exposed soil, removing debris from a partially covered catch basin outlet, and mapping updates were noted for follow up. Additionally, we observed what appeared to be an illicit discharge in a drainage ditch at the corner of Riverside Street and Larrabee Road (outside of MTA's right-of-way). A petroleum odor, sheen, and significant iron bacteria growth were observed from an unmapped pipe outlet discharging into the ditch. The ditch then drains directly into a culvert that outlets onto MTA property and into MTA's MS4 system.

Following the site visit, we reviewed Maine DEP spill records and confirmed that the ditch is adjacent to a former gas station with several documented spills (see Maine DEP spill report P-1052-2008 et. al.). The file review confirmed that there was extensive contamination at the former gas station, including one incident in 2008 where petroleum-contaminated groundwater was discharged directly into the ditch (see Maine DEP Spill Report P-955-2008). Maine DEP Spill Report P-1052-2008 documented the presence of a "drainage trough" containing gasoline contaminated sediment and soil which also discharged to the ditch. The report recommended that additional sampling and analysis of the discharge to the ditch be conducted in the summer of 2009 and referred the matter for investigation and appropriate enforcement by Maine DEP and the City of Portland. Records indicate that a full redevelopment of the site was proposed in the Spring of 2009 and indicated that additional soil removal was expected to occur at that time. However, based on available Maine DEP records, it appears that this spill remains unresolved as no further investigation or remedial activities are documented for this site.

On July 22, 2019, Maine DEP responder Stephen Brezinski was notified of our recent observations and asked to follow-up on the referral action noted in the P-1052-2008 spill report. On July 26, 2019, Maine DEP representatives Stephen Brezinski, Mark Woodruff, and Matt Hight met with MTA representatives John Branscom and Aimee Mountain (GZA) to observe site conditions. Spill number P-594-2019 was assigned to Maine DEP's spill investigation. We understand that the Response Division of Maine DEP intends to refer this issue to the Bureau of Remediation and Waste Management (BRWM) and the Bureau of Water Quality for further investigation and possible further remediation. At this time, Maine DEP has not finalized the report associated with spill number P-594-2019, but on August 6, 2019, MTA was informed that Stacy Ladner of the Division of Petroleum Management will serve as the primary contact for this matter at BRWM.

On August 21, 2019, a representative from Maine DEP collected samples from the culverts that drain into the ditch at the intersection of Riverside Street and Larrabee Road, and the outfall of the culvert on the north side of the MTA property. MTA understands that these samples were analyzed for extractable and volatile petroleum hydrocarbons and the analytical results will be shared with MTA when they become available. We will continue to monitor this situation and work with Maine DEP and the City of Portland to address this illicit discharge.

BMP 3.3 IMPLEMENT OPEN DITCH ILLICIT DISCHARGE PROGRAM

The MTA IDDE program has been updated and implemented to include MTA's open ditch systems. Open ditch IDDE efforts have been completed within MTA's two highest priority UIS watersheds and within all of MTA's UA.

Ditches that discharge directly to surface water have been included on the same tracking forms used to capture dry weather 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 OFs and evaluated each of these conveyances for the presence of unauthorized discharges via dry weather inspection. Except for the illicit discharge associated with Maine DEP spill report P-1052-2008 et. al. (summarized under **BMP 3.2**, above), no flows from pipes or other conveyances, other than stormwater and authorized non-stormwater conveyances have been observed to date.

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 Environmental 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 illicit discharge was identified during MTA's Coordinated Inspection with the City of Portland, which is summarized under **BMP 3.2**, above.

BMP 3.5 IDENTIFY NON-STORMWATER DISCHARGES

As discussed in **BMP 3.2**, while conducting coordinated outfall inspections in Portland, MTA observed what appeared to be an illicit discharge in a drainage ditch at the corner of Riverside Street and Larrabee Road (outside of MTA's right-of-way). Following a file review of available Maine DEP records, it appears that this illicit discharge is associated with an unresolved spill (see Maine DEP spill report P-1052-2008 et al). The MTA will continue to monitor this situation and work with Maine DEP and the City of Portland to address this recently identified illicit discharge.

Twelve (12) motor vehicle accident-related spills within the UA occurred in PY6, which were reported to Maine DEP and cleaned up as soon as possible without impacts to stormwater infrastructure or waters of the State. 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 stormwater management issues, including runoff from construction activities conducted by MTA and/or its contractors. The CPEC Program includes MS4 elements intended to control stormwater runoff from construction sites such as:

- Including language in the specifications and ESC Plan to notify the contractor that they are in an MS4 project area;
- Requiring contractors to provide training certificates for the delegated OSRP for each contracted construction project, regardless of size or location; and
- Identifying and inspecting structural and non-structural BMPs designed/constructed in an MS4 project area.

In PY6, MTA maintained these requirements, as well as those construction-related requirements associated with Chapter 500 and the MOA. These measures included the requirement to apply MaineDOT's BMP/ESC Manual on all projects, regardless of size or location, thus often exceeding the requirements of the permit.

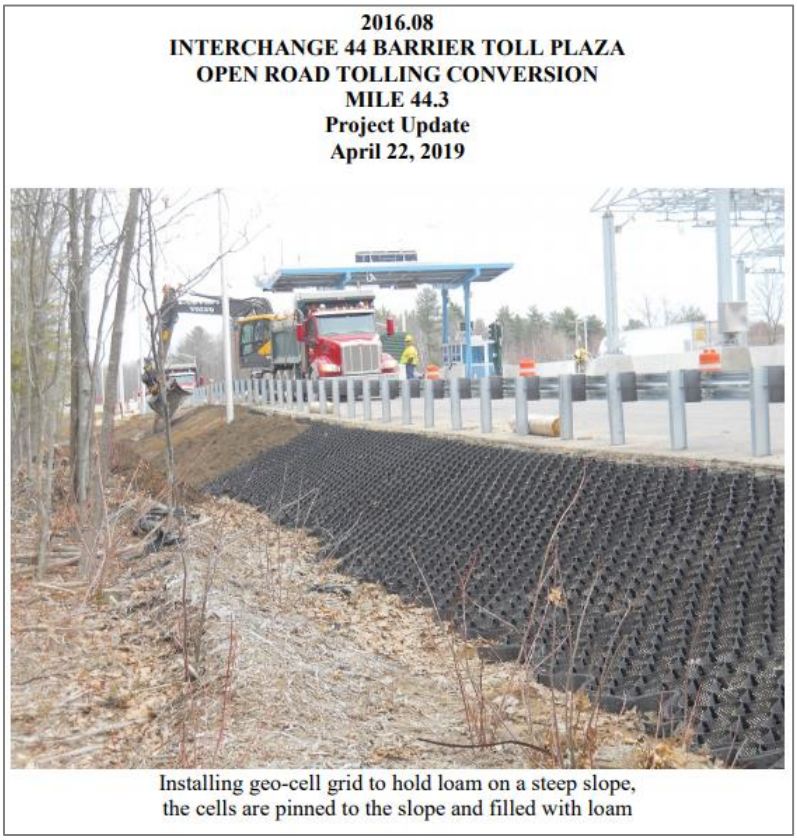
The MTA submits a separate Annual Progress Report to the Maine DEP to satisfy the requirements in the Stormwater MOA, as adopted by the Maine DEP, MaineDOT, and MTA. The Annual MOA Report, to be submitted to Maine DEP in September 2019, will summarize construction projects and associated BMPs (structural and non-structural) performed and anticipated.

In PY6, there were eight (8) active construction projects within the UA disturbing one (1) acre or more:

- 2016.08 – Interchange 44 Toll Plaza Open Road Tolling (ORT) Conversion – Scarborough
- 2018.02 – Exit 47 Intersection Improvements Pavement Rehabilitation – Portland
- 2018.03 – Exit 44 Southbound On-Ramp Improvements – Scarborough
- 2018.16 – Emergency Vehicle Ramps Blackstrap Road Underpass, Mile 52.0 – Falmouth
- 2018.17 – Exit 75 Toll System Upgrades & Stream Relocation, Mile 75.3 – Auburn
- 2018.19 – Cummings Road Underpass Bridge Replacement, Mile 44.6 – Scarborough
- 2018.20 – York Toll Plaza, Mile 8.8 – York
- 2019.09 – Bridge Improvements, Stroudwater River Overpass, Mile 46.7 and Maine Central Railroad Overpass, Mile 47.9 – Portland

Of the active construction projects within the UA disturbing one (1) acre or more, all eight (8) projects included maintenance or rehabilitation of BMPs. Highlights for two (2) projects are noted below.

- 2016.08 – Interchange 44 ORT Conversion – This project included installation of a geo-cell grid to hold loam on a steep slope (see April 22, 2019 Project Update and screen capture, below).



Installing geo-cell grid to hold loam on a steep slope,
the cells are pinned to the slope and filled with loam

- 2018.02 – Exit 47 Intersection Improvements – Email dated June 27, 2019, from Aubrey L. Strause, P.E., Stormwater Engineer, Southern Maine, Bureau of Land Resources, Maine DEP:

  Sean-

  You may not be the right person to receive this email, so please forward it as you deem appropriate.

  *My daily drive takes me on the Turnpike from **Exit 46 (Skyway Drive)**, north. I've been watching the work between Exit 46 and **Exit 47 (Westbrook Arterial)** for the last few months and wanted to give my compliments to both Shaw Brothers and MTA Project Managers for the excellent ESC measures that have been in place.*

  Good materials have been used, the measures (at least what's visible from the roadway!) have been well-maintained, and the practices have evolved along with the construction phasing. It's been really impressive.

  I thought you might want to share this positive feedback with your staff: too often you only hear from Maine DEP when we're criticizing ESC, but pats on the back are rewarding.

  Thanks for the dedication and best practices on this project.

  -als

Active construction projects in PY6 were documented under MTA's CPEC Program, which includes inspection documents, stormwater requirements and other environmental compliance considerations. MTA continues to rely 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 personnel are required to conduct weekly inspections and maintain inspection documentation for review when performing construction that disturbs land (regardless of whether the disturbance exceeds one acre). The CPEC Program requires projects to be inspected as follows:

- Prior to construction (e.g., photographic documentation, temporary BMPs in place, etc.);
- On a weekly basis 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 routine 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, no significant corrective actions were required in PY6 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 PY6 included routine housekeeping measures such as:

- Adjusting/reinstalling silt fences;
- Removing accumulated sediment at silt fences;
- Re-staking hay bales; 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

Similar to **MCM 4**, MTA has continued to implement the CPEC Program to address post-construction stormwater management in new development and redevelopment. In PY6, MTA maintained and enforced these requirements, as well as post-construction standards associated with Chapter 500 and the MOA throughout MTA's ROW regardless of size or location. MTA provides a summary of these annual O&M practices to Maine DEP in the Annual MOA Report, which will be submitted to Maine DEP in September 2019.

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

As discussed in **BMP 1.2**, MTA maintains and implements their 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.

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 incorporated into MTA's IDDE maps and tracking forms and are included in the annual infrastructure inspections completed by MTA's general engineering consultant for long-term inspection and maintenance. Final walkthrough checklists are maintained in the project specific CPEC binders and are available to Maine DEP upon request. Below is a summary of post-construction BMPs for PY6:

- Number of sites within the UA, associated with a construction project that disturbed one (1) acre or more, with new functioning post-construction BMPs that were inspected in PY6: **2**
    - 2015.09 – Exit 53 Toll Plaza Replacement: four (4) new catch basins, six (6) new drainage pipes, four (4) new rip rap downspouts, and four (4) new ditch segments, that discharge to a vegetated area.

- Cumulative number of post construction BMPs within the UA, associated with a construction project that disturbed one (1) acre or more, discharging directly into waters of the State or MS4, since the effective date of this 5-year permit (i.e., July 1, 2013): **58** (see details following next bulleted point, below)

- Number of sites with documented functioning post construction BMPs within the UA, associated with a construction project that disturbed one (1) acre or more, discharging directly into waters of the State or MS4, since the effective date of this 5-year permit (i.e., July 1, 2013): **4**
    - 2016.11 – Emergency Vehicle Ramps: Two new culverts that discharge to MTA's MS4. (2 BMPs)
    - 2015.12 – Exits 32, 36, and 46 NB Toll Upgrades: Two Underdrained Soil Filter (USF) systems that discharge to MTA's MS4. (2 BMPs)
    - 2014.10 – Exit 80 SPUI: 16 new catch basins, 8 new culverts, and 22 new ditch segments, that discharge to MTA's MS4. (46 BMPs)
    - 2011.04 – Exit 53 Bridge: Six new underdrain pipes and 2 new catch basins that discharge to MTA's MS4. (8 BMPs)

- Number of sites within the UA, associated with a construction project that disturbed one (1) acre or more, that required routine maintenance or remedial action to maintain post-construction BMP functionality (not including those listed in MCM 4): **0**

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 or PY6.

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. Approximately 94 MTA employees were trained in stormwater pollution prevention and ESC practices during six 2.5-hour training sessions held in May and June of 2019. The average test score for the PY6 stormwater training was 94.6%. The testing results provide documentation regarding the effectiveness of the training.

BMP 6.3 STREET SWEEPING

As reported in previous MS4 permit cycles and the Annual MOA Report, 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 safety concerns in the two-lane section of highway between Mile Marker (MM) 41-53 and the Falmouth Spur, MTA was unable to sweep all of the paved surfaces in its UA in PY6. A summary of sweeping activity completed in PY6 is presented below. MTA generally reuses the collected sweepings as construction fill material.

UA Street Sweeping Summary for PY6:

- Approximate number of linear miles swept: **24**
- Approximate number of toll/interchange areas swept: **17**
- Approximate number of park and rides swept: **2**

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 the Falmouth Spur, MTA was unable to clean all of the catch basins in its UA in PY6. 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 PY6:

- Approximate number of catch basins inspected: **346**
- Approximate number of catch basins cleaned: **99**
- Approximate number of catch basins repaired: **1** (replaced broken grate)

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, progress reports summarizing current and planned construction projects and maintenance efforts (which may include new drainage infrastructure installed or replaced by MTA maintenance crews) are submitted annually to Maine DEP. In PY6, MTA construction efforts included a wide range of work related to maintaining and operating MTA's highway infrastructure. Projects included pavement rehabilitation, bridge painting, bridge structure rehabilitation projects, toll plaza and system upgrades, guide sign improvements, new emergency vehicle ramps, lane and shoulder widening, and slope stabilization and repairs. Drainage infrastructure repairs are typically included as part of pavement rehabilitation projects, and infrastructure maps and IDDE tracking forms are updated annually to reflect new drainage infrastructure.

An annual inspection of MTA's infrastructure is conducted by a professional engineering consultant. The resulting *Annual Inspection Report* and *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 PY6:

- 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 stormwater BMP 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 sixth year (July 2018 through June 2019) 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 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.

Respectfully,

Peter Mills
Executive Director
Maine Turnpike Authority

Sean Donohue
Permitting Coordinator and Environmental Liaison
Maine Turnpike Authority