



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Janet T. Mills  
GOVERNOR

Bruce A. Van Note  
COMMISSIONER

**VIA E-MAIL**

September 20, 2022

Ms. Holliday Keen, 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 Department of Transportation  
Stormwater Program Management Plan  
Maine DEP Permit # MER043002  
Annual Report for Permit Year Nine (July 1, 2021 through June 30, 2022)

Ms. Keen:

On behalf of Maine Department of Transportation (MaineDOT), 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 Maine Pollutant Discharge Elimination System (MEPDES) General Permit for Stormwater Discharges from MaineDOT and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems (MS4s).

This Annual Report describes the status of MaineDOT's Best Management Practices (BMPs) and Measurable Goals (MGs) program for each of the six Minimum Control Measures (MCMs) presented in MaineDOT's Stormwater Program Management Plan (SPMP) (dated July 25, 2013) for PY9. A copy of the MaineDOT SPMP is on file at the Maine Department of Environmental Protection (DEP) Office in Augusta.

**BACKGROUND**

MaineDOT'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 MaineDOT'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 MaineDOT'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. Anticipated activities in the next permit year include additional stormwater infrastructure mapping update efforts (BMP 3.1), dry weather inspections (BMP 3.2), MS4 infrastructure maintenance and cleaning (BMP 6.3, 6.4, and 6.5), municipal coordination (BMP 2.2), employee training (BMP 6.2), and ongoing construction projects that include new post-construction BMPs (BMP 5.2). No changes have been made to measurable goals identified in the SPMP. The subsections below describe the activities, progress, and accomplishments for each of the MCMs.

## 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**

MaineDOT provides erosion and sedimentation and water pollution control training to employees and contractors annually. In PY7, COVID-19 caused the cancelation of all in-person training beginning in the spring of 2020 and that policy has continued through PY9 including the annual spring Project Development Construction Training, and the DEP Nonpoint Source Resource Training Center's Basic and Advanced Erosion and Sedimentation Control Practices training for contractors across the State.

MaineDOT did provide remote training including two four-hour Erosion and Sedimentation Control classes and a one-hour Project Development Construction Training for MaineDOT employees.

MaineDOT Employees and Contractors: MS4 urbanized areas are located only in MaineDOT Regions 1 and 4 (Portland area, southern Maine, Lewiston-Auburn area, and the greater Bangor area). This training is further described below, and relevant documentation is retained on file.

- The MaineDOT Training Center in Fairfield provides a 4-hour Erosion and Sedimentation training session for Maintenance workers. A Surface Water Quality Unit, Environmental Senior Technician is the instructor. A test is given at the end of these training sessions; employees are expected to be able to correctly describe sources of stormwater pollution, proper maintenance of BMPs, and why they are important.

- This training was provided remotely on October 7, 2021, and March 25, 2022; of the 54 statewide attendees, 22 employees work on projects in MS4 Urbanized Areas.

- The MaineDOT Training Center in Fairfield provides a one-hour Project Development Construction Training session for project development management, designers, and construction field staff open to both MaineDOT employees and consultants. Topics include Section 656 (Temporary Soil Erosion and Water Pollution Control) of the Standard Specifications, an MS4 refresher, and new permit requirements. A Stormwater Engineer is the instructor.

- This training was provided remotely on March 24, 2022, and had 134 attendees.

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

MaineDOT requires employees and contractors to use erosion and sedimentation control BMPs to minimize the effects of stormwater runoff. Regardless of area disturbed, all MaineDOT projects that have soil disturbance are required to have a Soil Erosion and Water Pollution Control Plan (SEWPCP) reviewed and approved by authorized MaineDOT Environmental Office staff specializing in erosion and sedimentation

control compliance. These field staff inspect construction projects for compliance with the SEWPCP. MaineDOT's BMPs for Erosion and Sedimentation Control Manual is posted on MaineDOT's webpage.

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

MaineDOT provides training on erosion and sedimentation control at least annually to ensure employees and contractors are continually motivated to use the appropriate erosion and sedimentation control BMPs on their projects. See BMP 1.1 and 1.2 above.

MaineDOT is a member of the Maine DEP Nonpoint Source Training and Resource Center Advisory Committee, which meets semi-annually to provide guidance for the Center and provides Erosion and Sedimentation Control specialists to assist DEP in presenting the Basic and Advanced Erosion and Sedimentation Control Practices training. See BMP 1.1 above.

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

### ***Goals:***

*Involve the MaineDOT 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**

MaineDOT holds public meetings for construction projects and publishes meeting information, including the location, date, and time of the meeting, in local newspapers serving the project area. Attendance varies greatly; attendance and public comments are recorded and kept on file.

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

The MaineDOT 2020-2021-2022 Interactive Work Plan was emailed to the MS4 municipal stormwater coordinators on February 25, 2020. The Work Plan covers PY9.

In PY9, MaineDOT maintained regular contact with the regulated MS4 municipalities and participating in the meetings of the Bangor Area Stormwater Working Group, the Southern Maine Stormwater Work Group, and the Interlocal Stormwater Working Group.

MaineDOT continues to provide funding to the various Stormwater Work Groups in support of their education and outreach activities. MaineDOT provided \$1,000 to the Bangor Area Stormwater Group on April 21, 2022 for the Annual Spring Cleanup. We received no other requests for financial assistance in PY9.

## **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 MaineDOT's stormwater systems.*

### BMP 3.1 UPDATE THE WATERSHED-BASED MAPPING OF THE STORMWATER SYSTEM

In PY9, no new catch basins were added to the MaineDOT catch basin inventory. When new catch basins are added, MaineDOT will update their MS4 outfall maps to reflect that new information.

### BMP 3.2 CONDUCT DRY WEATHER INSPECTIONS OF OUTFALLS IN URBAN IMPAIRED STREAM WATERSHEDS OR OTHER HIGH PRIORITY WATERSHEDS

As part of MaineDOT's prioritized dry weather inspection program, GZA GeoEnvironmental, Inc. (GZA) staff conducted dry weather inspections at 60 outfalls in PY9. Outfall sampling was conducted, and field measurements were taken pursuant to the sampling procedures in the Quality Assurance Project Plan (QAPP) found in Appendix D of MaineDOT's June 2022 Stormwater Management Plan (SWMP). Field measurements for temperature, conductivity, ammonia, and free chlorine were performed at each flowing outfall. Samples obtained from flowing outfalls were brought to a lab for analysis of surfactants and *Escherichia coli* (E. coli). Of the 13 sampled outfalls, one (H6 in Hampden) exceeded the 2012 draft EPA New England Bacteria Source Tracking Protocol threshold level of 235/100mL for E. coli and is being investigated. The MS4 permit does not provide a threshold level for E. coli; therefore, the 2012 draft EPA New England Bacteria Source Tracking Protocol<sup>1</sup> was used to identify an appropriate screening level.

GZA staff prepared monthly outfall inspection summary reports and photo logs which will be kept on file along with sampling forms and lab results for at least five years.

### BMP 3.3 CONTINUE TO IMPLEMENT OPEN DITCH ILLICIT DISCHARGE PROGRAM

MaineDOT Maintenance and Operations (M&O) Transportation Workers inspect ditches on a regular basis as part of normal M&O duties; this work is statewide, not limited to high priority watersheds or urbanized areas. Potential illicit discharges are reported up the chain of command for resolution. In PY9, no potential illicit discharges within MS4 urbanized areas located in Regions 1 and 4 were reported during ditch maintenance; this information was verified by personal communication in August 2022.

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

The MaineDOT Bureau of M&O's Illicit Discharge Detection and Elimination Policy specifies the steps to take upon discovery of an illicit discharge. The policy is implemented statewide, not just in the regulated MS4 urbanized areas. The policy was updated in PY9 to comply with the requirements of 2022 Transportation MS4 permit. The updated policy went into effect on September 28, 2021 and was included as Appendix E in MaineDOT's June 2022 SWMP.

The following illicit discharges were reported in regulated MS4 urbanized areas located in Regions 1 and 4 in PY9:

- October 1, 2021: A collision of two commercial trucks on the Veterans Memorial Bridge approach ramp in Portland, Maine resulted in a discharge of antifreeze to a gutter. One of the drivers

---

<sup>1</sup> <https://www3.epa.gov/region1/npdes/stormwater/assets/pdfs/epa-ne-bst-protocol-2012.pdf>

deployed absorbent booms above CB 4752 and the South Portland Fire Department responded to the scene. The spill did not result in a discharge to the stormwater system.

- June 28, 2022: A paint contractor for the Kennebunk Savings Bank in Berwick, Maine dumped paint-laden water into a nearby MaineDOT catch basin. The Region Manager sent notice regarding this discharge to the Kennebunk Savings Bank on June 30, 2022.

This information was verified by personal communication in August 2022.

### BMP 3.5 CONTINUE SYSTEM OF TRACKING POTENTIAL ILLICIT DISCHARGES

The MaineDOT Illicit Discharge Detection and Elimination Policy contains a section on tracking potential illicit discharges. Potential illicit discharges are reported up the supervisory chain and to the MaineDOT Environmental Office Surface Water Quality Unit and logged for tracking and reporting purposes.

### **MCM 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

***Goals:***

*Continue to implement and enforce MaineDOT'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 SOIL EROSION AND WATER POLLUTION CONTROL PLAN REQUIREMENTS

MaineDOT continues to implement and enforce an Erosion and Sedimentation Control Program to reduce pollutants in stormwater runoff from all its construction activities. MaineDOT's Standard Specification 656 requires a Soil Erosion and SEWPCP to be developed by project contractors; the SEWPCPs are reviewed and approved by MaineDOT Surface Water Quality Unit staff specializing in erosion and sedimentation control prior to the start of construction. Inspections are done at various times throughout construction until completion of the project and stabilization of the construction area. As part of MaineDOT's stormwater Memorandum of Agreement with Maine DEP, MaineDOT implements the SEWPCP requirement for all projects that have soil disturbance, regardless of the amount of disturbance.

In PY9, MaineDOT started construction on 33 projects within the MS4 areas. Four of these projects had an acre or more of disturbance in an MS4 regulated urbanized area. These include the following:

PIN	PROJECT TITLE	ACRES DISTURBED	POST- CONSTRUCTION BMP REQUIRED	BMP TYPE
23825.00	YARMOUTH, SHARED USE PATH	1.2	No	
21726.00	FREEPORT, APPR RD INT BR #5721	2.75	Yes	Underdrain Filter Basin
23106.00	Yarmouth I-295 NB/Route 1 Bridge #5833	1.8	No	

23627.00	FREEPORT, MERRILL ROAD BR #5720	2.3	Yes	Underdrain Filter Basin
----------	---------------------------------------	-----	-----	----------------------------

Each project has an erosion and sedimentation control plan that was reviewed and approved by MaineDOT Environmental Office, Surface Water Quality Unit staff.

Inspections on this project are documented by the inspector and will be retained for at least three years following expiration of the permit.

### 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 DEVELOP, IMPLEMENT, AND ENFORCE A PROGRAM TO ADDRESS STORMWATER RUNOFF FROM NEW DEVELOPMENT AND REDEVELOPMENT PROJECTS THAT HAVE AN ACRE OR MORE OF LAND DISTURBANCE THAT DISCHARGE INTO THE MS4 OR DIRECTLY INTO WATERS OF THE STATE OTHER THAN GROUNDWATER**

MaineDOT's program to address stormwater runoff from new development and redevelopment is the Maine DEP's Stormwater Rules, Chapter 500. This includes a Memorandum of Agreement (MOA) between MaineDOT, MTA, and Maine DEP for Stormwater Management. New development projects are reviewed by MaineDOT staff for compliance with Chapter 500 standards; redevelopment projects are reviewed by MaineDOT staff for compliance with the MOA. This statewide program has been extended to projects within the MS4s for all projects that have an acre or more of land disturbance.

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

New development and redevelopment projects located within MaineDOT's MS4 urbanized areas that require stormwater treatment in accordance with the permit include structural and/or non-structural BMPs.

In PY9, no structural BMPs have been constructed for development projects with one or more acre of land disturbance that discharge into another MS4 or waters of the State.



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

At the end of PY9, the cumulative number of completed MaineDOT projects with functioning post construction stormwater BMPs discharging directly into waters of the State other than groundwater or into or from their separate storm sewer system, required by the MS4 permit is seven.

MaineDOT Stormwater Engineer inspected the media filter drains within the first year of their construction.

The number of sites that required routine maintenance or remedial action to ensure that the post construction BMP is functioning as intended is zero.

## **MCM 6 – Pollution Prevention/Good Housekeeping**

### ***Goals:***

*Reduce pollutant runoff from MaineDOT'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

Potential sources of pollutants for MaineDOT operations include roads, maintenance garages, park and ride lots, and vehicle maintenance facilities. Roads maintained by MaineDOT include the interstate and those sections of State and State Aid roads that are outside State Urban Compact boundaries. MaineDOT re-evaluated its inventory of potential pollutant sources in PY9 and finalized its MCM 6 Written Procedures in September 2021. A copy of the document was provided to Maine DEP as Appendix F in MaineDOT's June 2022 SWMP.

### BMP 6.2 CONTINUE TO IMPLEMENT PROCEDURES FOR MAINTENANCE OF STORMWATER CONTROLS AT MAINTENANCE FACILITIES

MaineDOT M&O staff inspect their facilities on a regular and frequent basis including inspection of erosion and sedimentation control and stormwater BMPs.

### BMP 6.3 ANNUAL EMPLOYEE TRAINING

MaineDOT maintenance facility staff receive Green Book training in November, December, January, and March each year. The Green Book is a MaineDOT environmental practices guidebook for M&O staff which covers the following topics: hazardous chemicals, universal waste, oil and equipment maintenance waste, hazardous waste, materials management, and spill prevention and response. In PY9, 71 employees who work in the MS4 in MaineDOT Region 1 and 65 employees who work in the MS4 in MaineDOT Region 4 attended Green Book training. A copy of the Green Book was included as Appendix B in the PY1 annual report submitted to DEP in September 2009.

Maintenance facility personnel also receive erosion and sedimentation control training annually; see BMP 1.1.



In recent years, both Vehicle Maintenance Facilities had above ground fuel storage tanks installed and were required to have an Oil Spill Prevention Control and Countermeasure (SPCC) Plans. At the Bangor facility in Region 4, 23 crew members received SPCC training in 2022. At the Scarborough facility in Region 4, 11 crew members received SPCC training in 2022.

#### BMP 6.4 STREET SWEEPING

MaineDOT's Bureau of M&Os has a program in place for sweeping roads and parking lots within the MaineDOT areas of responsibility. Each year over 7,500 miles are swept statewide by MaineDOT each spring to remove winter sand/salt deposits; this includes miles that were swept by MaineDOT maintenance crew and by hired contractors.

MaineDOT is responsible for 9 park and ride lots that are located within MS4 urbanized areas. These park and rides were swept in the spring of 2022 to remove winter salt and/or sand and debris. All swept material is disposed of in accordance with all applicable state and federal laws and regulations. This information was verified by personal communication in August 2022.

#### BMP 6.5 CLEANING OF STORMWATER STRUCTURES INCLUDING CATCH BASINS

MaineDOT's Bureau of M&Os has a program in place to regularly inspect, clean, maintain, repair, and replace catch basins and other stormwater structures. The M&O catch basin cleaning program is implemented statewide, not limited to MS4 urbanized areas. In PY9, in the MS4 Urbanized Areas of the State, which are in Regions 1 and 4, 2,371 catch basins were cleaned, and 4.3 shoulder miles of roadside ditches received maintenance ditching by excavator or backhoe.

#### BMP 6.6 MAINTENANCE AND UPGRADING OF STORMWATER CONVEYANCES AND OUTFALLS

MaineDOT's Bureau of M&Os assesses stormwater infrastructure for maintenance needs including repairs and replacements every other year. In PY9, seven catch basins in MS4 urbanized areas were repaired or replaced: CB-9019 in Auburn, CB-9022 in Auburn, CB-973206 in Saco, CB-786300 in Yarmouth, CB-17661 in Auburn, CB-17762 in Auburn, and CB-911168 in Bangor.

#### BMP 6.7 CONTINUE TO IMPLEMENT STORMWATER POLLUTION PREVENTION PLANS (SWPPPs) FOR VEHICLE MAINTENANCE FACILITIES WITHIN THE REGULATED MS4 AREAS

MaineDOT has two vehicle maintenance facilities located in MS4 urbanized areas: Bangor and Scarborough. Each of these vehicle maintenance facilities has a SWPPP that is updated as changes occur. MaineDOT performed a thorough review of the existing SWPPPs for Bangor and Scarborough maintenance facilities in PY9 and updated the SWPPPs in June 2022.

In PY9, the Bangor and Scarborough Maintenance Facilities received Quarterly Visual Monitoring and site inspections.

MaineDOT Vehicle Maintenance Facility staff receive erosion and sedimentation control training annually (captured in BMP 1.1) and on-site Green Book training at least four months each year.

## 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 MaineDOT's SPMP including an evaluation of BMPs and MGs established for the six MCMs. If you have any questions concerning this Annual Report of MaineDOT's MS4 SPMP, please do not hesitate to contact Charles Hebson at [Charles.Hebson@maine.gov](mailto:Charles.Hebson@maine.gov) or (207) 624-3000.

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.



---

David Gardner  
Environmental Office Director  
MaineDOT