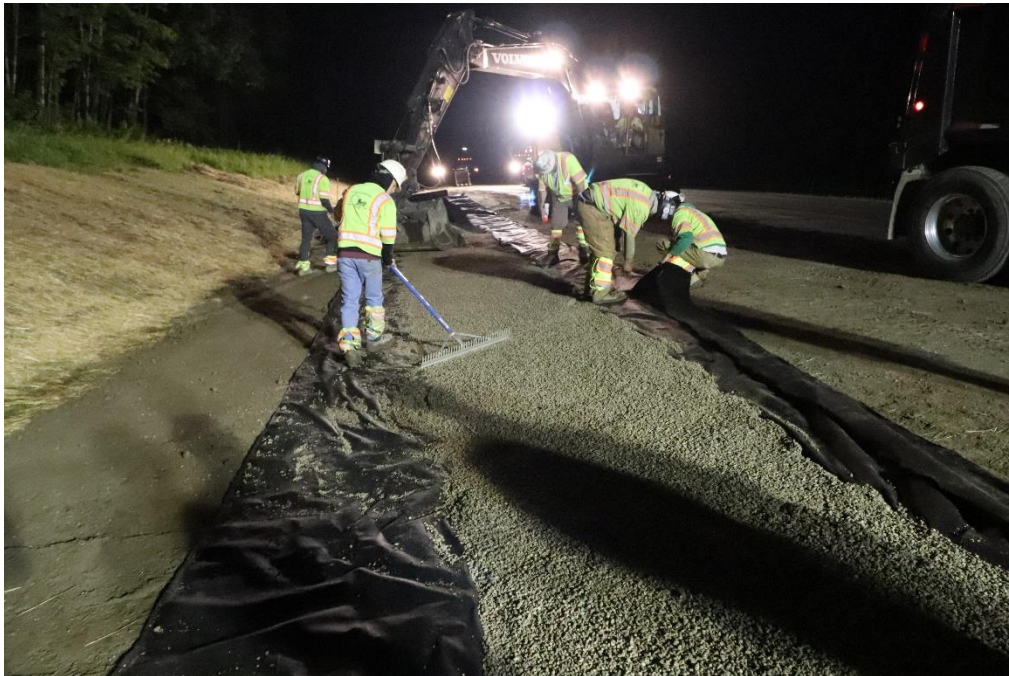




MaineDOT

**Maine Department of Transportation
Municipal Separate Storm Sewer Systems General Permit
Annual Report PY8
September 15, 2021**



Media Filter Drain Construction Along I-295 (July 2020)

Permit MER043000
Permittee MER043002

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Introduction and Summary

In accordance with the reporting requirements specified in Part IV. J. 1. of the General Permit for the Discharge of Stormwater from Maine Department of Transportation and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems (MS4), MaineDOT provides this report for Permit Year 8 (PY8).

MaineDOT continues to achieve the measurable goals identified in the MaineDOT Stormwater Program Management Plan (SPMP), described below in Minimum Control Measures (MCMs) 1 through 6. A copy of the MaineDOT SPMP is on file at the Maine Department of Environmental Protection (DEP) Office in Augusta.

MaineDOT conducted quarterly visual water quality monitoring at both vehicle maintenance facilities located in MS4 urbanized areas (Scarborough and Bangor). Visual Monitoring Forms were completed and are kept on file with the facility's Stormwater Pollution Prevention Plan (SWPPP); digital copies are kept in the MaineDOT Environmental Office, Surface Water Quality Unit, MS4 files in Augusta. No other water quality monitoring was conducted or required.

In the next permit year, MaineDOT will continue to make improvements to its infrastructure maps by verifying outfall locations and direction of flow between catch basins; and will continue confirming the locations of interconnected stormwater infrastructure with other regulated entities. An online version of the MaineDOT MS4 map will be published and made available to the public in PY9. DEP and MS4 community will be notified about the launch date of the online MS4 map and its access instructions.

MaineDOT has not made any changes to the goals identified in the SPMP.

This report includes a description of the actions completed for the measurable goals of each Best Management Practice (BMP) identified in the MaineDOT SPMP for each MCM in the General Permit. BMPs for all the MCMs were completed successfully in PY8 except for MCM 1 where as in PY7, due to COVID-19, spring training sessions were canceled.

MCM 1. Public Education and Outreach on Stormwater Impacts

Goals

1. Raise awareness among employees and contractors that polluted stormwater runoff is the most significant source of water quality problems for Maine's waters.
2. Motivate staff and contractors to use BMPs to reduce polluted stormwater runoff.
3. Reduce polluted stormwater runoff as a result of increased awareness and use of BMPs.

[BMP 1.1 Raise awareness among employees and contractors by providing training on reducing polluted stormwater runoff.](#)

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 PY8 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 provided remote training including two four-hour Erosion and Sedimentation Control classes 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’re important.*
- *This training was provided remotely on December 4, 2020 and March 4, 2021; of the 133 statewide attendees, 49 employees work on projects in MS4 Urbanized Areas.*

Maine DEP Nonpoint Source Resource Training Center: Due to the COVID-19, the Basic and Advanced Erosion and Sedimentation Control Practices and Continuing Education training sessions have been provided online and MaineDOT staff has not had an opportunity to do in-person training. To assist the Center in development of their on-line training, MaineDOT recorded the narrative for “Dirt and Water: The Basics of Erosion and Sedimentation”.

[BMP 1.2 Motivate staff 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 Provide training on reducing polluted stormwater runoff.](#)

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 Bureaus or facilities in both the planning and implementation process of improving water quality and reducing water quantity via the stormwater program.

[BMP 2.1 Public notice requirements.](#)

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 PY8.

In PY8, 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 \$2,000 to the Interlocal Stormwater Working Group for MS4 permit negotiation support. We received no other requests for financial assistance in PY8.

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 PY8, 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.](#)

On May 26, 2021 MaineDOT inspected MaineDOT drainage structures and 8 outfalls in the Arctic Brook watershed in Bangor. No indication of illicit discharge was observed in any of the drainage structures or outfalls.

Dry weather inspection forms were completed during each inspection and will be kept on file for at least five years.

[BMP 3.3 Continue to implement MaineDOT's strategy for detecting illicit discharges to open ditch systems within the two highest priority watersheds.](#)

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 PY8, 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 2021.

[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 is currently updated to comply with the requirements of 2022 transportation MS4 permit. The updated policy will go into effect in PY9.

No illicit discharges were reported in any of the regulated MS4 urbanized areas located in Regions 1 and 4 in PY8. This information was verified by personal communication in August 2021.

[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 one acre or more.

[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 PY8, MaineDOT started construction on 38 projects within the MS4 areas. None of these projects had an acre or more of disturbance in an MS4 regulated urbanized area.

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 in New Development and Redevelopment

Goals

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.
2. Include a combination of structural and non-structural BMPs.
3. Develop an inspection program including inspection of BMPs 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 constructed four structural BMPs for the I-295 emergency safety/refuge area (ESA) project (MaineDOT Work Identification Number: 23663.01) located in the Falmouth urbanized area. The structural BMPs consist of “media filter drains”. Media filter drain has an engineered media and it is installed on highway inslope. The media intercepts the surface runoff from road surface and treats the stormwater. Media filter drain was originally developed by Washington State DOT and constructed in Maine for the first time in the scope of the I-295 ESA project. The project construction was completed on 7/29/20.

[BMP 5.2 Include a combination of structural and/or non-structural BMPs.](#)

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

MaineDOT constructed its first media filter drain structural BMP in PY8 (see BMP 5.1 for details). MaineDOT Stormwater Engineer monitored the overnight construction of one media filter drain BMP.

[BMP 5.3 Develop an inspection program including inspection of BMPs at least once during the first year of installation.](#)

At the end of PY8, 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 and Good Housekeeping in Facility Operations

Goals

MaineDOT's goals are to prevent or reduce pollutant runoff from MaineDOT's roads, other infrastructure, and facilities through the development and implementation of an Operation and Maintenance Program.

[BMP 6.1 Continue to inventory potential pollution sources and associated operations conducted in, on, or associated with facilities, buildings, roads, and travelways that have the potential to cause or contribute to stormwater or surface water pollution.](#)

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 has 9 maintenance camps located in MS4 urbanized areas. Maintenance camps do not conduct vehicle maintenance but do have buildings and parking areas.

MaineDOT is responsible for 11 park and ride lots located in MS4 urbanized areas.

MaineDOT has 2 Vehicle Maintenance Facilities in the regulated MS4 urbanized areas. Vehicle maintenance facilities include storage and use of gasoline and diesel fuel, oil, hydraulic fluids, radiator fluid, brake fluid, and other related vehicle maintenance fluids; vehicle washing operations; sand/salt storage; and stockpiled materials.

[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 Continue employee training program to reduce stormwater pollution from facilities.](#)

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 PY8, 98 employees who work in the MS4 in MaineDOT Region 1 and 45 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. All crew members at the Bangor facility received separate SPCC training in the January 2021. The Scarborough facility did not receive training in PY8.

[BMP 6.4 Continue parking lot and street sweeping program.](#)

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 11 park and ride lots that are located within MS4 urbanized areas. These park and rides were swept in the spring of 2021 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 2021.

[BMP 6.5 Continue program to clean catch basins and other stormwater structures.](#)

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 PY8, in the MS4 Urbanized Areas of the State, which are in Regions 1 and 4, 817 catch basins were cleaned, and 3.4 shoulder miles of roadside ditches received maintenance ditching by excavator or backhoe.

BMP 6.6 Continue program to repair or upgrade stormwater conveyances.

MaineDOT's Bureau of M&Os assesses stormwater infrastructure for maintenance needs including repairs and replacements every other year. In PY8, 5 catch basins in MS4 urbanized areas were repaired or replaced: CB-9022 in Auburn, CB-786269 in Cumberland, CB-136235 in Freeport, CB-778696 in Bangor, and CB-783211 in Milford.

BMP 6.7 Continue to implement stormwater pollution prevention plans for vehicle maintenance facilities within the regulated MS4 areas.

MaineDOT has 2 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 will perform a thorough review of the existing SWPPPs for Bangor and Scarborough maintenance facilities and update the SWPPPs by the end of PY9.

In PY8, 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.