



MaineDOT

Maine Department of Transportation
Municipal Separate Storm Sewer Systems General Permit
Annual Report PY6
September 16, 2019



Construction of a stormwater planter in Orono, ME.

Permit MER043000
Permittee MER043002

Table of Contents

Introduction and Summary	1
MCM 1. Public Education and Outreach on Stormwater Impacts	1
BMP 1.1 Raise awareness among employees and contractors by providing training on reducing polluted stormwater runoff.....	2
BMP 1.2 Motivate staff and contractors to utilize BMPs that minimize stormwater pollution.....	3
BMP 1.3 Provide training on reducing polluted stormwater runoff.	3
MCM 2. Public Involvement and Participation	3
BMP 2.1 Public notice requirements.....	3
BMP 2.2 Coordinate with regulated communities.....	3
MCM 3. Illicit Discharge Detection and Elimination	4
BMP 3.1 Update the watershed-based mapping of the stormwater system.....	4
BMP 3.2 Conduct coordinated dry weather inspections of outfalls in urban impaired stream watersheds or other high priority watersheds.....	4
BMP 3.3 Continue to implement MaineDOT's strategy for detecting illicit discharges to open ditch systems within the two highest priority watersheds.	5
BMP 3.4 Continue to implement illicit discharge detection and elimination procedure policy. ..	5
BMP 3.5 Continue system of tracking potential illicit discharges.....	6
MCM 4. Construction Site Stormwater Runoff Control	6
BMP 4.1 Continue to implement soil erosion and water pollution control plan requirements. ...	6
MCM 5. Post-Construction Stormwater Management in New Development and Redevelopment	7
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.....	7
BMP 5.2 Include a combination of structural and/or non-structural BMPs.....	8
BMP 5.3 Develop an inspection program including inspection of BMPs at least once during the first year of installation.	8
MCM 6. Pollution Prevention and Good Housekeeping in Facility Operations	9
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.....	9

BMP 6.2 Continue to implement procedures for maintenance of stormwater controls at maintenance facilities. 9

BMP 6.3 Continue employee training program to reduce stormwater pollution from facilities... 9

BMP 6.4 Continue parking lot and street sweeping program..... 10

BMP 6.5 Continue program to clean catch basins and other stormwater structures. 10

BMP 6.6 Continue program to repair or upgrade stormwater conveyances..... 10

BMP 6.7 Continue to implement stormwater pollution prevention plans for vehicle maintenance facilities within the regulated MS4 areas. 10

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 6 (PY6).

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 reporting cycle, 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.

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 of the MCMs were completed successfully in PY6.

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 PY6, MaineDOT provided two four-hour Erosion and Sedimentation Control classes for MaineDOT employees; one two-day Project Development Construction Training session; and assisted the DEP Nonpoint Source Resource Training Center (NPSTC) in conducting Basic and Advanced Erosion and Sedimentation Control Practices training for contractors at sessions across the State.

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

- *On December 4, 2018, 38 MaineDOT employees attended a 4-hour Erosion and Sedimentation Control training session at the MaineDOT Training Center in Fairfield; 12 of the 38 employees work on projects in MS4 Urbanized Areas. 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.*
- *On June 26, 2019, 29 MaineDOT employees attended a 4-hour Erosion and Sedimentation Control training session at the MaineDOT Training Center in Fairfield; 9 of the 29 employees work on projects in MS4 Urbanized Areas. 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.*
- *On March 26, 2019, 24 consultants and contractors, and 14 MaineDOT employees attended the second day of a two-day Project Development Construction Training in Hallowell. This included a 1-hour session on Erosion and Sedimentation Control and MS4 Awareness and Responsibilities.*

Maine DEP NPSTC: *In PY6, between October 2018 and May 2019, a total of 625 contractors attended DEPs Basic and Advanced Erosion and Sedimentation Control Practices and Continuing Education training sessions at various locations across the State. Only some of the contractors who took the training will potentially work on MaineDOT projects in MS4 urbanized areas. At 16 of the 21 training sessions, a MaineDOT Environmental Engineer or Senior Technicians provided the NPSTC training material for a continuing education program in Good Housekeeping on construction sites and reviewed presentation.*

[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 make decisions on providing training to contractors. MaineDOT provides Erosion and Sedimentation Control specialists to assist DEP in presenting the Basic and Advanced Erosion and Sedimentation Control Practices training.

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 2017-2018-2019 Interactive Work Plan was emailed to the MS4 municipal stormwater coordinators on August 3, 2017. That Work Plan covers PY6. A brief explanation of how to use the Interactive Work Plan and a description of what it includes was given to the members of Southern Maine Stormwater Work Group at their

July 26, 2017 meeting, and to the members of Bangor Area Stormwater Work Group at their August 10, 2017 meeting.

In PY6, MaineDOT maintained regular contact with the regulated MS4 municipalities by 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 helped sponsor the 2019 Maine Stormwater conference and is volunteering on the planning committee, hosted by the Cumberland County Soil and Water Conservation District. In April 2019 MaineDOT contributed \$750 to the Bangor Area Stormwater Working Group for stream cleanup. Additionally, MaineDOT provided funding of \$2000 to the Interlocal Stormwater Working Group in support of the permit renewal committee.

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 PY6, zero 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 coordinated dry weather inspections of outfalls in urban impaired stream watersheds or other high priority watersheds.](#)

The MaineDOT dry weather inspections in urban impaired stream watersheds were delayed in PY5 due to staffing changes within the Department. MaineDOT conducted dry weather inspections in urban impaired stream watersheds in Westbrook and Hampden immediately following the closure of the PY5 reporting period.

On August 28, 2018 MaineDOT inspected MaineDOT infrastructure and outfalls in the Nasons Brook watershed in Westbrook. No indication of illicit discharge was observed in any of the ditch sections, culverts, or outfalls.

On August 29, 2018 MaineDOT conducted dry weather inspections of ditches, catch basins, and outfalls in the Sucker Brook watershed in Hampden. No indication of illicit discharge was observed in any of the ditch sections, culverts, or outfalls.

In PY6, MaineDOT conducted dry weather inspections in one urban impaired stream watershed in Saco, and two other watersheds in Falmouth and Scarborough.

On June 7, 2019 MaineDOT inspected MaineDOT infrastructure and outfalls in Goosefare Brook watershed in Saco. A representative from the town of Saco was present during the inspection. No indication of discharge was observed in any ditch section, culverts, or outfalls.

On June 7, 2019 MaineDOT inspected MaineDOT infrastructure and outfalls in a tributary to the Nonesuch River in Scarborough. A representative from the town of Scarborough was present during the inspection. No indication of discharge was observed in any ditch section, culverts, or outfalls. Water was present due to heavy precipitation throughout the spring. MaineDOT will return to the site at a later date for a follow-up dry weather inspection.

On June 18, 2019 MaineDOT inspected MaineDOT infrastructure and outlets to private property in Falmouth. A representative from the town of Falmouth, MTA, and GZA were present during the inspection. No indication of discharge was observed in the catch basins of outlets. The drainage system is currently under construction. Infrastructure and outfall changes will be made to the system and MaineDOT will update maps once construction is completed.

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 Surface Water Quality staff inspected open ditch systems in three high priority watersheds and one other watershed while conducting dry weather inspections of outfalls during this reporting period, summarized in BMP 3.2.

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 PY6, 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 September 2019.

[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.

No illicit discharges were reported in any of the regulated MS4 urbanized areas located in Regions 1 and 4 per the policy in PY6; this information was verified by personal communication in September 2019.

[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.

In PY6 no potential illicit discharges were reported in regulated MS4 urbanized areas located in Regions 1 and 4.

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 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 PY6, MaineDOT started construction on 40 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.

MaineDOT started construction on one project in Orono in PY5 that had an acre or more of disturbance in an MS4 regulated urbanized area. Construction was completed in August 2019. During PY6, the construction site was inspected 7 times for compliance with the project SEWPCP between May 2018 and September 2018. Inspections

resulted in minor site adjustments including silt fence maintenance, mulching, and slope stabilization. The post-construction inspection will be conducted within 1 year of completion.

Inspections on this project are documented by the inspector; the inspector's files are digital and are stored both on the inspector's tablet and on a network drive; the files will be retained for at least three years.

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's Stormwater Program addresses stormwater runoff from new development and redevelopment projects through a Memorandum of Agreement (MOA) between the Maine DEP, the MaineDOT, and the MTA. All MaineDOT projects with land disturbance, regardless of size or location, are reviewed by MaineDOT Surface Water Quality Unit staff for compliance with the stormwater MOA requirements. The MOA requirements are based on DEP's Stormwater Standards (Chapter 500). Projects located in MS4 urbanized areas are further reviewed to determine if the amount of disturbance will be more or less than one acre. New development or redevelopment projects in an urbanized area with an acre or more of disturbance and a direct discharge of stormwater to the MS4 or to waters of the State other than groundwater have stormwater BMPs incorporated into the project.

In PY6, MaineDOT completed the construction of one project with an acre or more of disturbance in an MS4 regulated urbanized area and having a stormwater discharge to an existing stormwater system or to waters of the State other than groundwater: Orono Roundabout.

The Orono Roundabout project required post-construction stormwater management. Construction of the Orono Roundabout project was completed in August 2019.

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.

The Orono Roundabout project located at the intersection of Route 2 and Rangeley Road was completed on August 8, 2019 and consisted of the construction of a multi-lane roundabout with bypass lanes and sidewalks. The stormwater BMPs to treat approximately 120,000 square feet (sq ft) of the runoff from this new impervious area include stabilization methods (seed, mulch, trees, shrubs, riprap) and permanent features: a level lip spreader and vegetated meadow buffer and four stormwater planters.

BMP 5.3 Develop an inspection program including inspection of BMPs at least once during the first year of installation.

Two construction projects were completed during PY5: Sabattus Route 126 and Sarah Mildred Long Bridge.

The stormwater BMPs for the Sabattus Route 126 reconstruction were inspected by MaineDOT in July 2018. The reconstruction consisted of 1.94 miles of Route 126 and included 5,060 sq ft of new impervious area. The stormwater BMPs to treat the runoff from this new impervious area consists of 143 linear ft of underdrain ditch soil filter. During the inspection, MaineDOT observed gullies on the backslopes off the parking lot. MaineDOT staff requested these gullies be repaired.

The stormwater BMPs for the Sarah Mildred Long bridge replacement project in Kittery were inspected in September 2018. The bridge replacement consisted of 3.7 acres of disturbance. Stormwater BMPs, consisting of two stormwater bio-retention basins, were installed to treat approximately 10,600 sq ft of the new impervious area. During the inspection, MaineDOT observed bare spots on both the east and west side of the underdrain soil filters that required maintenance. MaineDOT requested that these bare spots be seeded and mulched and a blanket be applied on the west side.

At the end of PY6, the cumulative number of functioning MaineDOT 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 5. This number will be raised to 6 with the completion of the Orono Roundabout project shortly after the conclusion of PY6.

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.

As of PY6, MaineDOT has 2 Vehicle Maintenance Facilities in the regulated MS4 urbanized areas. Vehicle maintenance facilities may 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 PY6, 386 employees who work in the MS4 in MaineDOT Region 1 and 117 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.

[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. Ten lots were swept in 2019 to remove winter salt and/or sand and debris. One lot was swept at the end of August 2019 (after the PY6 reporting period) but will be swept at the appropriate time following snowmelt moving forward. All swept material is disposed of in accordance with all applicable state and federal laws and regulations.

[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 PY6, in the MS4 Urbanized Areas of the State, which are located in Regions 1 and 4, 1552 catch basins were cleaned and 4.8 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 PY6, 13 catch basins in MS4 urbanized areas were repaired or replaced: CB-970968 in Berwick, CB-971583 in Berwick, CB-136538 in Berwick, CB-786241 in Sabattus, CB-933203 in South Portland, CB-1019744 in Westbrook, CB-911265 in Bangor, CB-911203 in Bangor, CB-139619 in Hampden, CB-139584 in Hampden, CB-139607 in Hampden, CB-139583 in Hampden, and CB-139593 in Hampden.

[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.

In PY6, 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), MS4 awareness training bi-annually, and on-site Green Book training at least four months each year.