



**Maine Department of Transportation
Municipal Separate Storm Sewer Systems
General Permit**

Annual Report - Permit Year 5

September 13, 2013



MaineDOT Stormwater Planter BMP

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Introduction

In accordance with the General Permit for the Discharge of Stormwater from MaineDOT and MTA Municipal Separate Storm Sewer Systems (MS4), MaineDOT provides this annual report for Permit year 5.

This report includes a description of the actions completed for the measurable goals of each BMP identified in the MaineDOT Stormwater Program Management Plan (SPMP) for each Minimum Control Measure (MCM) required in the General Permit. BMPs for all of the MCMs were completed successfully and MaineDOT continues to be in compliance with the permit conditions. The goals and BMPs in MaineDOT's SPMP were chosen for their appropriateness for transportation systems. A copy of the SPMP is on file at the Maine DEP Office.

MaineDOT continues to make progress in achieving measurable goals identified in the SPMP, and continually researches and reviews new stormwater control BMPs for their potential use in treating stormwater runoff from roads and other transportation systems. MaineDOT continues to improve its infrastructure mapping; in 2013, ditch outfalls were mapped. In the next few years, MaineDOT intends to identify and map the location of connections to or from other regulated MS4s; to verify the mapping of catch basin outfalls in regulated areas; to make improvements to its database to track inspections and maintenance of post construction stormwater BMPs; and to develop a maintenance and inspection manual for post construction stormwater BMPs.

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 people to use BMPs which 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 continues to provide annual training to employees and contractors on soil erosion and sedimentation control. MaineDOT Regions 1 and 4 have cities and towns that have regulated MS4 areas. In Regions 1 and 4, 176 MaineDOT employees attended training on soil erosion and sedimentation control within the last 12 months. A test is given at the end of each training session. All attendees passed the test; the average score was 99. Additionally, MaineDOT provided erosion and sedimentation control training to 1259 contractors within the last 12 months.

BMP 1.2 - Motivate staff and contractors to utilize BMPs that minimize stormwater pollution.

MaineDOT requires employees and contractors to utilize BMPs to minimize effects of stormwater runoff. All MaineDOT projects that have soil disturbance are required to have a Soil Erosion and Water Pollution Control Plan (SEWPCP) reviewed and approved by an authorized MaineDOT Environmental Office staff person. MaineDOT's Best Management Practices for Erosion and Sedimentation Control Manual is posted on MaineDOT's webpage. MaineDOT provides training on erosion and sedimentation control several times a year to cover new employees and further instill the information for current employees..

BMP1.3 - Provide training on reducing polluted stormwater runoff from MaineDOT's systems.

See BMP 1.1 and 1.2 above. Additionally, MaineDOT is a member of the Nonpoint Source Training and Resource Center Advisory Committee which meets biannually to address stormwater training. MaineDOT also participates as instructors for Maine DEP's Basic and Advanced Erosion Control Practices training sessions for the Volunteer Contractor Certification Program. Within the last twelve months MaineDOT presented at 25 training sessions across the State, with a total of 1259 participants. Upon completion of the training sessions and job site inspections, 1015 of the 1259 participants received their Contractor Certification in Erosion Control.

A five year analysis of process and impact indicators shows that over the past five years, 906 MaineDOT employees and 2,715 private contractors have attending soil erosion and sedimentation control training. Test scores among MaineDOT employees improved from 96% to 99%. MaineDOT's regional environmental coordinators report improvement and confidence in maintenance crews' knowledge and application of erosion and sedimentation control BMPs in the field.

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 quantity via the stormwater program.

BMP 2.1 - Public notice requirements.

MaineDOT holds public meetings for construction projects regardless of MS4 and UA boundaries. MaineDOT publishes project meeting information 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. Provide information on planned activities to regulated small MS4 municipal stormwater coordinators.

MaineDOT provided its Biennial Capital Work Plan for 2012/2013 to the municipal MS4 stormwater coordinators via email. Additionally, MaineDOT maintains contact with other MS4 communities by participating in the Greater Portland Interlocal Stormwater Working Group, the Bangor Area Stormwater Working Group, DEP meetings, and Urban Impaired Stream Watershed work groups.

MCM 3. Illicit Discharge Detection and Elimination

Goals

Develop, implement, and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges.

BMP 3.1 - Develop a comprehensive map of the storm drain system including all catch basins and outfalls within the regulated areas and operated by MaineDOT.

MaineDOT's catch basins and cross pipes are mapped in ArcMap and on the MaineDOT MapViewer. The direction of flow between pipes and the specific location of the outfalls from these piped systems have not been verified. All ditch outfalls in the regulated areas have been mapped in the field.

BMP 3.2 - Conduct dry weather outfall inspections in areas having the greatest potential threat to the receiving waterbody, in high priority watersheds.

In the Summer of 2013 MaineDOT conducted dry weather inspections of MaineDOT stormwater system outfalls in the Red Brook watershed and the Phillips Brook watershed in Scarborough. No illicit discharges were detected. Many sections of road were found to have no direct discharge of stormwater in the regulated area. One new drainage pipe was found connected directly to the road ditch. It is located within the State Urban Compact Area and is the responsibility of the town. MaineDOT has notified the Town.

BMP 3.3 - Develop a strategy to detect illicit discharges to open ditch systems within the two highest priority watersheds.

MaineDOT's strategy has been to field inspect roadside ditches in the two highest priority watersheds. This is possible since most of the ditches are located within State urban compact areas and are therefore the responsibility of the municipality, by law, leaving reasonable length sections of roadway ditches for us to field inspect.

BMP 3.4 - Implement a policy to respond to illicit discharge discoveries.

MaineDOT has an Illicit Discharge Detection and Elimination Policy explaining the steps to take for illicit discharge discovery.

BMP 3.5 - Establish a system to track potential illicit discharges.

The MaineDOT Illicit Discharge Detection and Elimination Policy includes a section on tracking potential illicit discharges

MCM 4. Construction Site Stormwater Runoff Control

Goals

Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre.

BMP 4.1 - MaineDOT's construction activities with earth disturbance will have a fully implemented Soil Erosion and Water Pollution Control Plan (SEWPCP).

MaineDOT continues to implement and enforce its highly successful Erosion and Sedimentation Control Program to reduce pollutants in any stormwater runoff from construction activities. MaineDOT Standard Specification 656 requires a SEWPCP to be developed, reviewed, and approved prior to start of construction. Inspections and maintenance activities are done throughout construction until the site is stable following completion of the project. Construction sites in Urban Impaired Stream Watersheds are designated as Sensitive in the SEWPCP, requiring more stringent standards. As part of a stormwater Memorandum of Agreement with Maine DEP, MaineDOT implements the SEWPCP requirement for all site disturbance of any size regardless of the one acre threshold of the MS4 General 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 or redevelopment projects that have an acre or more of disturbance and a direct discharge of stormwater to a receiving waterbody.

The MaineDOT stormwater program to address stormwater runoff from new development and redevelopment is implemented through the Stormwater Rules, Chapter 500 under a Memorandum of Agreement between the Maine DEP, MaineDOT, and MTA. This program is implemented statewide, not just in the regulated MS4 areas.

BMP 5.2 - New development or redevelopment projects in the MS4 regulated areas that have an acre or more of disturbance and a direct discharge of stormwater to a receiving waterbody will incorporate permanent stormwater BMPs that comply with the stormwater MOA.

*During the 5-year period covered by this MS4 General Permit, several projects **not** in the MS4 regulated areas required stormwater treatment; only two projects requiring stormwater treatment were in the MS4 regulated areas. The first project was improvements to the I-295 Exit 3 ramp in 2009. Stormwater treatment included a sand filter swale. The second project was the reconstruction of the Route 1/Payne Road intersection in Scarborough. It was completed in July 2013 and inspected again in August 2013. Most of the project's stormwater drains to the Scarborough storm drain system; the remainder drains to six stormwater planters discharging to a 30-foot long level spreader, then to a 50-foot vegetated buffer before entering the stream.*

BMP 5.3 – Inspect and maintain BMPs.

There are currently 7 post-construction BMPs located in regulated MS4 areas. MaineDOT inspected 6 of these within the last 12 months. Six of the BMPs were fully functioning without any actions needed. One of the BMPs needed maintenance: a detention basin at an I-95 southbound on-ramp need mowing, removal of woody vegetation, rodent relocation, and fence repair. The BMP that was not inspected is a Vortech unit at the Saco park and ride lot that requires confined space entry, which we have requested. Inspection reports are kept on file, electronically, in our Managing Assets on Transportation Systems database (MATS).

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 paved surfaces, infrastructure, and facilities through the development and implementation of an Operation and Maintenance Program.

BMP 6.1 - Inventory potential pollutant sources. Develop an inventory of 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 pollutant sources for MaineDOT operations include maintenance garages, road sections, and Park and Ride facilities.

MaineDOT maintenance garages 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.

Road Sections maintained by MaineDOT are those within the MS4 boundaries and outside the State Urban Compact lines. These road sections were swept during the Spring to remove winter sand deposits. Catch basins are inspected and cleaned on a regular schedule.

There are four Park and Ride facilities within the Urbanized Areas in MS4 areas that are maintained by MaineDOT. Each Park and Ride facility was swept this Spring to remove winter sand deposits.

BMP 6.2 - Develop procedures for maintenance of stormwater BMPs.

MaineDOT has procedures in place to inspect stormwater BMPs on an annual basis and perform maintenance when needed.

BMP 6.3 - Develop and implement an employee training program to reduce stormwater pollution from facilities.

MaineDOT Maintenance & Operations staff receive on site 'Green Book' training on a monthly basis. Each monthly session focuses on a different Green Book topic, such as hazardous waste handling, spill response, floor drain management, etc. The training sessions are hands-on at existing MaineDOT facilities. At the end of training sessions, attending staff are knowledgeable in identifying potential pollutants, drainage patterns, correct handling, storage, and disposal of the potential pollutants and other materials; and spill response protocol and contacts.

BMP 6.4 - Continue parking lot and street sweeping program.

MaineDOT's Bureau of Maintenance and Operations has a program in place for sweeping parking lots and roads within the State's areas of responsibility.

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

MaineDOT's Bureau of Maintenance and Operations has procedures that include regularly scheduled inspections of catch basins and other stormwater infrastructure. Inspections, maintenance, repairs, upgrades, and replacements are recorded in the MATS database.

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

MaineDOT has a program to inspect stormwater infrastructure on a regular basis. Repairs or upgrades are done as needed based on inspection results.

BMP 6.7 - Develop and implement a stormwater pollution prevention plan for vehicle maintenance facilities within the MS4 regulated areas.

MaineDOT has three vehicle maintenance facilities located in the Urbanized Areas in regulated MS4 areas: Bangor, Scarborough and Yarrmouth. Each of these maintenance facilities has a SWPPP and each facility was inspected in 2013.