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## ENGINEERING DIRECTIVE

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Engineering Administrator

### Department of Transportation Separate Storm Sewer Systems (DOT MS4) Procedures

This directive concerns the implementation of new design procedures for all projects that affect drainage and that have scheduled Final Design Plan submissions after September 30, 2019. These procedures provide a standardized approach to demonstrating compliance with the requirements of the [General Permit for the Discharge of Stormwater from Department of Transportation Separate Storm Sewer Systems](#) (DOT MS4 General Permit).

As of July 1, 2019, the Department is subject to the DOT MS4 General Permit, a new stormwater discharge permit issued by the CT Department of Energy and Environmental Protection (CTDEEP). Within the broader stormwater regulatory program, the Department of Transportation's drainage system is considered a non-traditional municipal separate storm sewer system, or DOT MS4.

One of the fundamental goals of the DOT MS4 General Permit is to lessen the amount of pollution conveyed to surface waters and wetlands by the Department's drainage system by reducing the amount of "directly connected impervious area" (DCIA).

Compliance to the *Maximum Extent Practical* must be demonstrated on a project-by-project basis as well as on a statewide aggregated level. All changes to the Department's total DCIA are to be reported annually to CTDEEP with a goal of reducing DCIA statewide by at least 2% no later than June 30, 2024.

As such, all projects that affect drainage (effectively, all projects except those that are not required to have had a Permit Need Determination Form review per OEP Directive No. 2017-01) and that have scheduled Final Design Plan submissions after September 30, 2019 shall:

1. Evaluate opportunities for reductions in impervious cover and incorporate such reductions wherever possible and as safety allows. At a minimum, projects shall seek to minimize the amount of new impervious cover.

2. Evaluate engineered means (e.g., best management practices [BMPs]) to retain and infiltrate stormwater runoff from the Department's DCIA. In cases where meeting a project's full runoff retainage goal is unfeasible, the designer shall evaluate water quality *treatment* BMPs (e.g., filters that do not retain) and BMPs at other locations within the DOT ROW and within the project's local drainage basin in order to achieve the project's total DCIA reduction goal.
3. Prepare the documentation that demonstrates the reductions of DCIA through the means described above and provides an explanation in the event the project's target runoff reductions could not be achieved.

To facilitate and standardize the required documentation, designers of projects that affect drainage shall use the [CTDOT MS4 Project Design Maximum Extent Practicable Worksheet](#) before the end of each milestone design phase.

The DOT MS4 Design Worksheet was developed to guide project designs towards BMPs that are feasible given project-specific constraints to quantify the net benefit of DCIA reductions and BMPs. It is understood that due to the nature of many Department restoration, rehabilitation and reconstruction projects, new/additional impervious area is often required in an effort to meet or approach current design standards. In many instances, ROW limits and other physical constraints will also present challenges to incorporating BMPs into project designs.

Designers should refer to the [CTDOT MS4 Project Design MEP Worksheet Instructions](#) for guidance on the information being requested to complete the worksheet. Designers should also be aware that the CTDOT BMP Matrix and BMP-Specific Description Pages are available to help with the selection of BMPs and to provide design guidelines for each practice.

Transportation Engineers with the Environmental Compliance unit will be reviewing the completed DOT MS4 Design Worksheets to ensure that the documentation supports compliance with the General Permit to the *Maximum Extent Practical*. The Environmental Compliance unit will also be responsible for tracking the net change to the Department's statewide DCIA, which shall be compiled from the various project Worksheets, and shall include the aggregated DCIA total in the required annual reports to CTDEEP.