

Module 1 of 4

Stormwater

Management

Design Review

NJ DEP Division of Watershed Protection
and Restoration



NEW JERSEY
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION

March 29, 2022



Stormwater Training Series

Welcome

Stormwater Management Design Review Course

Questions? Send email to DWQ-BNPC-StormwaterManagement@dep.nj.gov



https://www.njstormwater.org/smdrc_training.html

Stormwater Training Series

Course Materials

Stormwater Management Design Review Course

https://www.njstormwater.org/smdrc_training.html

Stormwater Handouts

Note sheets contain the powerpoint slides with notes attached to them. The powerpoint slides are the full slide with no notes.

Module 1 Handouts

Welcome and Agenda	Powerpoint Slides
Intro and Federal Background	Powerpoint Slides
Stormwater Overview	Powerpoint Slides
Maintenance	Powerpoint Slides
MS4 Stormwater Mapping	Powerpoint Slides

Handouts & Slides

Stormwater Management Design Review Course

Module 1

No. Subject

1 Welcome

2 Intro and Federal Background

Goal 1: Understand the basic concept of the Federal NPDES program and how it is administered in NJ

Goal 2: Understand how the post-construction requirements fit into the MS4 program

3 Stormwater Overview

Goal 1: Understand the effects of development on the hydrologic cycle

Goal 2: Understand basic terms used in stormwater management and stormwater calculations

Goal 3: Understand the design and performance standards

Agenda

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Module 1 (cont'd.)

No. Subject

4

Maintenance

Goal 1: Understand the Importance of long-term operation and maintenance of BMPs

Goal 2: Understand the permittee's responsibility for performing/ensuring long-term operation and maintenance

Goal 3: Understand the required elements of a maintenance plan

5

Mapping

Goal 1: Understand the mapping requirements

Goal 2: Learn about the DEP mapping tool

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Quiz 1 and Review

Agenda

Module 2

No. Subject

1 **Stormwater Calculations**

Goal 1: Understand the calculation methods allowed

Goal 2: Use the CN equation to calculate runoff volume

Goal 3: Calculate time of concentration

Goal 4: Use the NJDEP Two-Step Method for unconnected impervious surface to calculate runoff volume

Goal 5: Learn when exfiltration may be used in stormwater routing calculations

Goal 6: Size an MTD using the Rational Method with the correct rainfall intensity

2 **Soil Testing**

Goal 1: Understand the various reasons soil testing data is needed

Goal 2: Understand the requirements of soil testing procedures

3 **Manufactured Treatment Devices**

- **Quiz 2 and Review**

Agenda

Module 3

No. Subject

1 **How to Review a Project 1**

Goal 1: Learn to identify which design and performance standards must be met on site

Goal 2: Learn how to review for compliance with the GI, stormwater runoff quantity and water quality, and groundwater recharge standards

Goal 3: Learn how to review BMPs for compliance with the design criteria in the BMP Manual

2 **How to Review a Project 2**

Goal 1: Learn how to review BMPs for compliance with the design criteria in the BMP Manual

Goal 2: Calculate Detention Time

Goal 3: Learn how to review the safety requirements

Goal 4: MTD MTR vs drainage area

Goal 5: Groundwater Recharge Spreadsheet

Agenda

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Module 3 (cont'd.)

No. Subject

3 **Groundwater Mounding**

Goal 1: Learn the requirements under N.J.A.C. 7:8

Goal 2: Understand the concepts of groundwater mounding

Goal 3: Learn about the methods of calculation

Goal 4: Review examples of groundwater mounding analyses

- **Quiz 3 and Review**

Agenda

Module 4

No.	Subject
1	Design Example 1
2	Design Example 2
3	Design Example 3
4	Design Example 4
5	Design Example 5
-	Quiz 4 and Review
6	Closing Remarks

Agenda