

# NDDOT Erosion & Sediment Control – Construction Course

## Module 4: Stormwater Pollution Prevention Plan (SWPPP)

What is a SWPPP?

**Definition:**

A document, a plan that describes who and what will control erosion and keep sediment from leaving the project site, and when, where and how this will be done. The plan is the common link between the owner, designer, contractor, and inspector.

## What is a SWPPP?

A SWPPP is a site-specific, written document.

- Identifies potential pollution
- Describes practices
- Identifies procedures

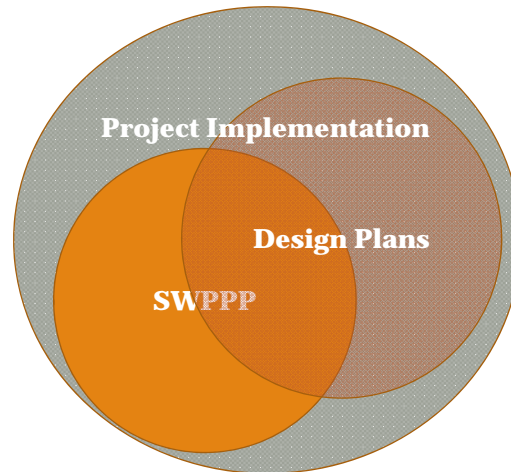
## Why is a SWPPP important?

1. Required by the permits
2. Powerful tool to assist erosion and sediment control

## Who is responsible for developing it?

Prime Contractor

Plan Designer



## Overview of SWPPP Development Process

Assess Site &  
Proposed  
Project

Select ESC  
measures

Select Good  
Housekeeping  
ESC measures

Inspection,  
Maintain,  
and Record

## Initial Considerations

1. Existing conditions
2. Outfalls
3. Waterbodies
4. Project boundaries

## Initial Considerations

5. Environmentally sensitive areas
6. Permanent stormwater controls
  - a. Ponds
  - b. Infiltration
7. Project phasing

## Existing Conditions

Soils

Hydrology

Topography



## Outfalls and Waterbodies

Considerations:

- Where does it drain to?
- How close will the disturbance be?
- What protections are required?
- Is it impaired? What for? Total Maximum Daily Load (TMDL)?

## Project Boundaries

### Considerations:

- Slopes
- Proximity to right of way lines
- What is coming into the project?
- Points of egress – trackout, etc.
- Impacts from or to outside

## Environmentally Sensitive Areas

### Rivers, Lakes, Streams:

- Spawning times

### Threatened and Endangered Species

### Wetlands:

- Impacts
- Mitigation

### Cultural sites and other avoidance areas

## Permanent Stormwater Controls

What permanent structures are required?

- MS4
- City
- Are there any existing?

## Permanent Stormwater Controls

Placement

Sizing

Maintenance

## Project Phasing

What will be done first?

What should be done first?

Environmental commitments

Should things be required due to the nature of the work?

## What are the components of a SWPPP?

1. Illustrative:
  - a. Map/site plan
  - b. Details
  - c. Drawings
2. Narrative:
  - a. Contractors means and methods
  - b. Plan notes
  - c. Environmental commitments
3. Calculations and other supporting documents



What are the parts of the illustrative section in the SWPPP?

1. Site map
2. Erosion and Sediment Control Measure (ESCM) installation drawings
  - a. Standard drawings
  - b. Plan details
  - c. Manufacturer's drawings/details
3. Other visual aids

What are the parts of a map/site plan in the SWPPP?

1. Vicinity map
2. North arrow
3. Existing contours
4. Preliminary and final design contours
5. Existing vegetation
6. Soils

What are the parts of a map/site plan in the SWPPP?

7. Critical areas
8. Existing and final drainage patterns
9. Limits of clearing and grading
10. Outfalls
11. Surface waters (including wetlands)

What are the parts of a map/site plan in the SWPPP?

12. Temporary ESCMs
13. Permanent ESCMs
14. Permanent stormwater management practices
15. Off site areas (if applicable)
16. Legend

## Plan Sections

Section 75 – Wetlands

Section 76 – Temporary ESCMs

Section 77 – Permanent ESCMs