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| For projects that require coverage under an NPDES permit, use the SWPPP LPSM item; contractor will develop or amend the SWPPP for temporary construction BMPs.  Use with the following pay items:   * 15720-0000 Storm Water Pollution Prevention Plan LPSM and * One of the following:   + 15701-0000 Soil Erosion Control LPSM   + Individual pay items for soil erosion control BMPs   . |

Section 157. — SOIL EROSION AND SEDIMENT CONTROL

Delete the entire Section and substitute the following:

Section 157. — SOIL EROSION CONTROL, SEDIMENT CONTROL, AND STORMWATER POLLUTION PREVENTION PLAN

**Description**

**157.01**This work consists of preparing and managing a Stormwater Pollution Prevention Plan (SWPPP) including non-stormwater pollution prevention. This work also consists of implementing the SWPPP including but not limited to furnishing, constructing, and maintaining soil erosion and sediment control devices to eliminate or minimize pollutants in stormwater discharges from the project.

**Material**

**157.02** Conform to the following Subsections:

Backfill material 704.03

Concrete masonry unit 725.07(c)

Fertilizer 713.03

Fiber rolls and socks 713.12

Floating turbidity curtains 713.21

Gravel bags 713.13

Mulch 713.05

Plastic lining 725.12

Prefabricated filter insert 713.20

Riprap 705.02

Rock mulch 705.07

Sandbags 713.14

Sediment filter bags 713.19

Seed 713.04

Separation and stabilization geotextile and geotextile filter 714.01(a)

Silt fence 713.16

Tackifiers 713.11(a)

Temporary culvert pipe 713.15

Temporary plastic fence 710.11

Temporary rolled erosion control products 713.17

Turf reinforcement mats 713.18

Water 725.01(b)

If using materials not listed here, see Subsection 106.04.

**Construction Requirements**

157.03 Qualifications. Submit the names of personnel responsible for the following roles and qualifications for approval with SWPPP submittal:

**(a)** SWPPP Developer;

**(b)** Erosion Control Supervisor; and

**(c)** On-Site Stormwater Lead.

Provide documentation that personnel meet the qualifications set forth in the Construction General Permit of the state(s) that the project is located in, or the qualifications below, whichever is more stringent. Include certifications in those states where applicable. One person may serve in more than one role if qualified.

**(a) SWPPP Developer**. Provide a SWPPP Developer with all the following qualifications:

**(1)** Have completed 40 hours of stormwater management training;

**(2)** Have 5 years of highway or equivalent experience developing stormwater pollution prevention plans and designing site specific best management practices (BMPs); and

**(3)** Be registered or certified in the state(s) in which the project is located for one or more of the following:

*(a)* Registered civil engineer;

*(b)* Registered professional geologist or engineering geologist;

*(c)* Licensed landscape architect;

*(d)* Registered professional hydrologist; or

*(e)* Other state or nationally recognized certification program for erosion and sediment control professionals.

#### **(b) Erosion Control Supervisor.** Provide an Erosion Control Supervisor with the following qualifications:

**(1)** Both of the following:

*(a)* Have completed 24 hours of stormwater management training; and

*(b)* Have 3 years of highway or equivalent construction experience that included oversight of erosion, sediment, and pollution control best management practices; or

**(2)** One of the following:

*(a)* Meet requirements of SWPPP Developer above; or

*(b)* Be registered or certified as a stormwater inspector from a state or nationally recognized certification program for stormwater inspectors.

**(c) On-Site Stormwater Lead.**  Provide a Stormwater Lead with the following qualifications:

**(1)** Both of the following:

*(a)* Have completed 8 hours of stormwater management training;

*(b)* Have 1 year of highway construction experience including stormwater management duties; or

**(2)** One of the following:

*(a)* Meet requirements of Erosion Control Supervisor;

*(b)* Be registered or certified as a stormwater inspector from a state or nationally recognized certification program for stormwater inspectors.

**157.04 Roles and Responsibilities**. Furnish a Stormwater Team that is qualified to perform the following roles and responsibilities:

**(a) SWPPP Developer**. Develop andapprove the SWPPP for the project based on requirements in the Construction General Permit, contract plans, and specifications. Show construction phasing of erosion, sediment, and pollution prevention BMPs for all construction activities on a site plan to meet water quality regulations. Review field changes and provide amendments to the SWPPP when substantial changes occur.

**(b) Erosion Control Supervisor.** Implement the SWPPP, which includes but is not limited to scheduling installation and maintenance of all BMPs, job site inspections, and other activities for pollution prevention.  Review all inspection reports and ensure that SWPPP and Site Plan are implemented and updated.

**(c) Stormwater Lead.** Install and maintain BMPs, conduct site inspections, monitor water quality, and perform all on-site and reporting activities required to comply with the Construction General Permit. Inform the Erosion Control Supervisor when changes are made. The Stormwater Lead is required to be on the project site during working hours, and available during non-work hours to do inspections before, during, and after qualifying rain events.

**157.05 General.** Develop, submit, and manage a SWPPP or SWPPP amendment according to the Construction General Permit requirements for project location. Contract permits amend the requirements of this Section. Submit SWPPP to the CO at or before the preconstruction conference. Allow 7 calendar days for CO review and approval prior to submission to regulatory agency(ies).

Basic project information typically needed to fill out an NPDES permit and produce an acceptable SWPPP will be provided by the Government for the Contractor’s use in development of the SWPPP.

When soil erosion and sediment pollution control measures are not functioning as intended, take immediate corrective action to eliminate or minimize pollutants in stormwater discharges from the project.

Provide certified weed free devices.

Do not use monofilament plastic for erosion or sediment control products.

**157.06 Controls and Limitations on Work.**   Prior to the start of a construction activity, implement appropriate pollution prevention measures for the activity.  No soil disturbing construction activity may begin on the project until the SWPPP has been reviewed and approved and the NOI has been accepted by the permitting agency and is active.

**157.07 Stormwater Pollution Prevention Plan.** Prepare, submit, and implement a Construction SWPPP following the SWPPP template of the state in which the project is located. Include the Federal Highway Administration as an operator on the project in charge of plans and specifications. If the state does not provide a template, follow the SWPPP template provided by the Environmental Protection Agency (EPA)

(<https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates#swppp>).

Provide a SWPPP according to the Stormwater Construction General Permit (CGP) and the following manual: “The Stormwater Practitioners Guide by the FHWA, Central Federal Lands Highway Division” (The CFL Stormwater Guide) which is available at:<https://highways.dot.gov/federal-lands/construction/cfl-stormwater-guide>

Provisions in the SWPPP are incorporated by reference into the contract.  Provide an electronic copy of the SWPPP and obtain approval from the CO prior to mobilization.

Based on the approved SWPPP, provide the CO a list of the planned pollution prevention devices for each of the following: erosion controls, sediment controls, and non-stormwater controls.

Implement the SWPPP as required throughout the construction period. Modify the erosion, sediment, and non-stormwater pollution control details and SWPPP plans as necessary to accommodate project site conditions and proposed construction operations.  Update the SWPPP when modifying erosion, sediment, and non-stormwater pollution controls. Provide a copy of the updated SWPPP monthly to the CO for review.

**157.08 Soil Erosion Control.** Apply erosion control measures to stabilize soils and to control temporary concentrated flows throughout the duration of the project. Construct and maintain measures according to manufacturer’s recommendations, the project requirements, and according to the following manual: “The CFL Stormwater Guide.”

**157.09 Sediment Control.**  Apply sediment control measures to intercept, slow and detain the flow of stormwater throughout the duration of the project. Construct and maintain measures according to manufacturer’s recommendations, the project requirements, and according to the following manual: “The CFL Stormwater Guide.”

**157.10 Non-Stormwater Controls.** Apply non-stormwater measures as needed and as required in the SWPPP to control non-stormwater discharges, and to prevent or limit potential pollutants at their source from contact with stormwater throughout the duration of the project. Construct and maintain measures according to manufacturer’s recommendations, the project requirements, and according to the following manual: “The CFL Stormwater Guide.”

**157.11 Acceptance.** Material for erosion, sediment, and non-stormwater pollution control measures will be evaluated under Subsections 106.02 and 106.03.

Construction, maintenance, and removal of erosion control, sediment control, and non-stormwater controls will be evaluated under Subsections 106.02 and 106.04.

Separation and stabilization geotextile and geotextile filter will be evaluated under Section 207.

**Measurement**

**157.12** Measure the Section 157 pay items listed in the bid schedule according to Subsection 109.02 and the following as applicable:

Do not measure replacement erosion, sediment, or non-stormwater pollution control measures.

Do not measure additional or changed erosion, sediment, or non-stormwater pollution control measures required when planned controls are not functioning as intended and corrective actions are taken.

**Payment**

**157.13** The accepted quantities will be paid at the contract price per unit of measurement for the Section 157 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

**(a)** Progress payments for SWPPP will be paid as follows:

**(1)** 25 percent of the pay item amount will be paid on the approval of the SWPPP by the CO and upon receipt of authorization from the permitting agency that the project permit is active.

**(2)** An additional 50 percent of the pay item amount will be prorated based on total work completed.

**(3)** The remaining portion of the pay item amount will be paid when a copy of the final SWPPP and all accompanying documentation, to include, inspection reports, water quality sampling results, and annual report submittals, is submitted and accepted by the CO after the final inspection and resolution of punch list items.

**(b)** Progress payments for erosion and sediment control measures or devices will be paid as follows:

**(1)** 80 percent of the pay item amount will be prorated based on total contract work completed.

**(2)** 20 percent of the pay item amount will be paid at completion of contract after final acceptance.