

## CONSTRUCTION SPECIFICATION

### SWP-903. Toe-wood/Sod Mat Bank Protection Structure

#### 1. SCOPE

This structure serves to protect a length of the river bank by building a new bank with woody vegetation. The woody vegetation creates a deeper undercut along the bank's curve that provides an abundance of aquatic cover type habitat.

#### 2. MATERIALS

Trees, limbs, brush, willow bundles, sod mats, and live stakes to be used for the structures shall be provided by the property owners near the site. Excavated channel material not used in construction of the toe wood/ sod mat structure shall be hauled off the site. Sod mat, coir matting, and live staking shall be installed by the contractor.

#### 3. INSTALLATION

The channel shall be excavated to build a bench on the channel bottom on the outside of the meander bend. Its elevation shall be well below the determined low water elevation. A deep pool shall be excavated where the new thalweg will be located, and the excavated channel material shall be used to back fill the toe-wood/ sod mat structure or hauled off site. Logs, root wads, and brush shall be installed in a random interlocking fashion on top of the excavated bench up to the designated elevation shown on the construction plans. The toe-wood shall consist of a mixture of sizes of several large tree trunks with root wads attached to limbs and brush. Limbs shall be pushed into the bank where possible. Willow bundles shall be placed on top of the woody debris with river channel backfill. Sod mats, excavated from nearby, shall be placed on top of the toe-wood up to the bankfull elevation. A shrub mat can replace the required "sod mat". The steep vertical slope along the toe wood/ sod mat structure will not be disturbed. Coir matting will cover the sod mats, and live stakes will be installed on top of the coir matting to anchor the sod mats to the toe wood structure. Coir matting with live stakes may be used to stabilize other erosive areas as approved by the on-site inspector.