

**STREAMBANK STABILIZATION****DEFINITION AND PURPOSE:**

A vegetative, structural or combination treatment of streams designed to stabilize the stream and reduce erosion. It is important to note that a systemic analysis of the entire reach of stream must be conducted in order to avoid unintended negative impacts on a stream as a result of a corrective action at an isolated location. A wide array of products and methodologies can be used to stabilize streams: live stakes, cellular confinement matrices, articulated block pavers, riprap, gabion baskets, turf reinforcement mats, revetments, large woody debris, grade controlling structures, stilling basins, etc.

APPROPRIATE APPLICATIONS:

All construction projects that disturb or occur within stream channels and their associated riparian areas.

CONDITIONS FOR EFFECTIVE USE:

Acceptable methods vary widely due to the unique nature of each reach of channel. Design considerations include: current and future watershed conditions, discharge, velocity, sediment load, channel slope, control of bottom scour (incising), soil conditions, compatibility with other improvements, changes in channel alignment, and protection and maintenance of fish and wildlife habitats and existing tree canopy. U.S. Army Corps of Engineers permits may be applicable.

WHEN BMP IS TO BE INSTALLED:

After streambank(s) have been disturbed.

STANDARDS AND SPECIFICATIONS:

Procedures are specific to materials used. Generally, stabilize the channel bottom first to prevent incising and knick points from undermining the bank protection. Start and stop bank protection at stable points along the channel. Minimize the size of all disturbed areas and stabilize as soon as each phase of construction is complete. Use other BMPs to prevent runoff from disturbing the streambank protection area until it has been completed. Store all construction materials well away from the stream. At the end of each workday, move all construction equipment out of and away from the stream to prevent flooding. Avoid steep slopes on the streambank.

OPERATION AND MAINTENANCE PROCEDURES:

Inspect every week and after every ½” storm event during construction. Repair, relocate, or add BMPs protecting channel until the streambank protection is operational. Remove sediment as needed.

SITE CONDITIONS FOR REMOVAL:

Not Applicable

TYPICAL DETAILS:

EC-14.1 and EC-14.2



Multiple methods and products, including a retaining wall, large boulders, vegetation, and turf reinforcement mats, being used for a streambank stabilization project.