



Tennessee Department of Environment and Conservation

General Aquatic Resource Alteration Permit for Minor Stream Grade Stabilization

Activities Covered by this Permit

This general permit is intended to authorize alterations associated with the **a structure used to control the grade and head cutting in natural or artificial channels** ~~repair and protection of~~ in actively degrading stream beds. ~~in destabilized watersheds located in the western third of the state bounded by the Mississippi River in the west and the Tennessee River in the east~~ (comment: These problems exist to a lesser extent, in tributaries that TDEC labels streams in the rest of the state. Recommend deleting this specific location and allow it state wide.). ~~Stream grade stabilization involves activities that result in the prevention, arresting or restoration of an active head cut within an aggressively degrading stream channel~~ (comment: defined in first sentence). Coverage under this general permit is limited to ~~highly altered watersheds and channels of the Northern Mississippi Alluvial Plains; Bluff Hills; Loess Plains; and Southeastern Plains and Hills Ecoregions~~ (comment: Same comment as above. There are locations statewide that have the grade stabilization problems.) where unconsolidated sediments ~~prevalent in these ecoregions~~ are not underlain by bedrock. The unstable character of the parent soil material and the influence of historical widespread channelization practices in Mississippi River valley can result in rapidly moving headcuts which cause exacerbated channel degradation and over-widening.

Stream grade stabilization activities typically include installation of one or more transverse hard points to halt the headcut and allow the stream to resume the appropriate grade based on hydrology. Such activities involve cross channel structural elements (i.e. logs, rock, reno mattress, driven sheet pile), keyed into both left and right bank, including protection immediately downstream.

Certain activities due to size, location or potential water quality impacts are not covered under this general permit, as described in both the Special and General Conditions sections. Activities not qualifying for authorization under this general permit may be authorized by a standard (individual) permit provided that all requirements of the *Tennessee Water Quality Control Act of 1977* (the *Act*) are met.

Special Conditions

1. The length of stream grade stabilization treatment is limited to 500 linear feet **west of the Tennessee River and 200 feet for the remainder of Tennessee.** (comment: 500' is probably OK in W. TN. Recommend adding a smaller distance for the rest of the state. Something like 200' would be reasonable.). This footage includes the total length of channel, bed, or hydrologic alteration, including downstream scour protection, grade reestablishment, bank sloping and re-vegetation, and upstream flow alteration.
2. In-stream structures must be keyed into both banks to prevent scouring around the structure. Placement of liners, matting, riprap or other hard armor for scour protection is limited to locations adjacent to and/or immediately downstream of the structure, not to exceed a total of 200 linear feet. Hard armor, riprap, matting or liners in other locations along the channel are prohibited.

3. Where practicable, all activities shall be accomplished in the dry. All surface water flowing towards this work shall be diverted using cofferdams and/or berms constructed of sandbags, clean rock (containing no fines or soils), steel sheeting, or other non-erodible, non-toxic material. All such diversion materials shall be removed upon completion of the work.
4. This activity must be designed to minimize any permanent disruption to the movement of fish or other aquatic life to the maximum extent practicable.
5. This permit does not authorize projects for which the primary purpose is stream relocation, compensatory mitigation, flood control or drainage improvement.

6. Activities located in State Scenic Rivers or Outstanding National Resource Waters are not authorized.