

3.19 STREAM CHANNEL ENHANCEMENT



Figure 3.33. Stream channel enhancement (Source: Natural Resources Conservation Service)

Overview

Description: The use of vegetation to improve the visual qualities of stream channels and banks.

Problem identification: Creek channels and banks may have been adversely affected by excess runoff or excavation from construction activities.

Design purpose: To protect the streambank from erosion by use of bioengineering techniques and to improve bank aesthetics.

Associated practices: Increased storm frequency and excessive runoff may destroy the natural beauty of a stream. With streambank plantings, the area can be enhanced. The protection provided by natural vegetation is also more reliable and effective when the cover consists of natural plant communities adapted to their site.

Installation: Four vegetative zones exist along most waterways. They include the aquatic, reed bank, shrub, and tree zones. The aquatic plant zone is difficult to establish artificially. The reed bank plants include reed canary grass, bulrush, and cattail. These deep- and strong-rooted plants tend to bind the soil together. Shrubs provide good bank protection. Willow shrubs are easy to plant and are fast growers. They can be started with cuttings just pushed into the soil, where they will root and grow.

If the area receives a good deal of sun, permanent seeding can be done. A seed mixture containing a high percentage of Kentucky 31 fescue is a desirable grass.

Maintenance/ inspection: Inspect after each high-water event. Streambanks are vulnerable to damage, and repairs are needed periodically. Repair gaps in vegetative cover at once with new plants or cuttings. Trees that become established on the bank should be removed.

Design life: Twnety-five years or more.

Estimated cost: Costs vary with channel length and initial condition of the channel.