NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

CHANNEL VEGETATION

(acre)

CODE 322

DEFINITION

Establishing and maintaining adequate plants on channel banks, berms, spoil, and associated areas.

PURPOSES

This practice may be applied as part of a resource management system to accomplish one or more of the following purposes:

- Stabilize channel banks and adjacent areas and reduce erosion and sedimentation.
- Maintain or enhance the quality of the environment, including visual aspects and fish and wildlife habitat.

CONDITIONS WHERE PRACTICE APPLIES

This standard applies to the vegetation of open channels, streams, or ditches. It applies to Floodwater Diversions (400), Floodway (404), Open Channel (582), Stream Channel Stabilization (584), Streambank & Shoreline Protection (580), and Surface Drainage, Main or Lateral (608).

It does not apply to Diversion (362), Grassed Waterways (412), Riparian Forest Buffer (391) or Surface Drainage, Field Ditch (607); or those areas covered with water for an extended period, or in areas where conditions will not support adequate non-invasive vegetation.

CRITERIA

General Criteria Applicable to all Purposes

An adequate non-invasive vegetative cover stabilizes the channel area and provides for permanent or temporary protection or both. The intent of this practice will be achieved by the protection of the natural or existing desirable vegetation, when determined to control erosion, through the exclusion of domestic livestock and vehicles from the channel banks.

Additional Criteria for Channel Vegetation

Side Slopes

The ideal slopes for establishing channel vegetation are 3:1 or flatter. Slopes greater than 3:1 may require additional protection during establishment of the vegetation. Steep slopes are generally hydroseeded, or less often broadcast seeded. Other methods for establishing plants include: drilling seed, sodding, sprigging, hand planting or mechanical planting.

Plant Species Selection

Plant information concerning conservation species, including seeding rates, commonly used for channel vegetation can be found in "NRCS Washington and Oregon Guide for Conservation Seeding and Plantings" (September 1999). For western Washington, use non-invasive plants adapted to westside ecosystems. For eastern Washington, use non-invasive plants adapted to eastside ecosystems.

Site preparation for planting vines, shrubs, and trees will depend upon the condition of the area at the time planting is installed. If the site has a prepared seedbed as previously described, no further preparation is necessary. Established weeds or invasive vegetation must be removed or setback to reduce competition to the young seeding/planting.

Extreme care should be taken when applying fertilizer in the vicinity of streams, or other bodies of water, to prevent introduction of chemicals into the water, whether by direct application, bank erosion, or leaching. If this cannot be done, do not apply fertilizer.

Mulching may be necessary to protect channel banks from eroding during vegetation establishment or to conserve moisture for seedling establishment.

Access by domestic livestock, vehicle, or humans that would damage the channel vegetation by grazing, browsing, or trampling shall be excluded; in most cases some fencing is needed.

CONSIDERATIONS

Evaluate slopes and soil material, time of year for proper establishment of vegetation, necessity for irrigation, visual aspects, fish and wildlife, fire hazards and special needs when construction is done from one side. Other considerations include:

1. Protection of channel vegetation from sediment deposits resulting from wind and water erosion;
2. Provisions for safety and protection of human life and property in all aspects of designs, application, and maintenance;
3. Methods by which endangered and threatened plants and nationally recognized natural vegetated areas will be identified and protected;
4. Requirements for overseeding or planting woody or herbaceous vegetation on the unexcavated side when construction is done from one side;
5. Identification of desirable trees and other vegetation and means for their preservation; and
6. Special techniques for establishing and maintaining vegetation near inlets, outlets, or other appurtenances.

Supporting practice standards Critical Area Planting (342) and Streambank and Shoreline Protection (vegetative phase) (580) should be consulted as appropriate.

Water Quantity

1. Potential runoff from bare soil during construction.
2. Effects on the water budget components, especially on volumes and rates of runoff.

Water Quality

1. Effects of nutrients or pesticides in runoff during establishment of vegetation.
2. Effects of streambank erosion before vegetative establishment.

PLANS AND SPECIFICATIONS

Plans and specifications for channel vegetation shall be in keeping with the criteria in this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

OPERATION AND MAINTENANCE

The intent of this practice is to maintain the maximum amount of non-invasive vegetation possible on the channel bank. Periodic inspection and evaluation of the channel vegetation for maintenance needs. Maintenance activities will include reseeding or replanting damaged or dead plants as needed to obtain complete groundcover. Exclusion or control of animals, vehicles, or humans to prevent damage may be necessary; repair of fencing as needed. Fertilizer application when needed to maintain good plant vigor. Recreation areas associated with channel sites will require more intensive maintenance,

keeping in mind the primary purpose of channel bank stabilization and protection.