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.

PURPOSE

To stabilize channel banks and adjacent areas and reduce erosion and sedimentation. To 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 channel banks, berms, spoil, and associated areas; except grassed waterways, diversions and areas with protective linings, those covered with water for an extended period, or in areas where conditions will not support adequate vegetation.

This standard applies to the establishment of vegetation for the following NRCS standard and specifications: Floodwater Diversions (400), Floodways (404), Open Channels (582), Stream Channel Stabilization (584), Streambank and Shoreline Protection (580), and Surface Drainage, Main Or Lateral (608). It does not apply to Diversions (362), Grassed Waterways Or Outlets (412), or Surface Drainage, Field Ditches (607).

CRITERIA

General Criteria Applicable to All Purposes

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

CONSIDERATIONS

Protect channel vegetation from sediment deposits resulting from wind and water erosion.

Provide for safety and protection of human life and property in all aspects of designs, application, and maintenance.

Identify and protect endangered and threatened plants and nationally recognized natural vegetated areas.

Establish overseeding or the planting of woody or herbaceous vegetation on the unexcavated side as needed when construction is done from one side.

Identify desirable trees and other vegetation and means for their preservation.

Establish and maintain vegetation near inlets, outlets, or other appurtenances.

PLANS AND SPECIFICATIONS

Specifications for establishment and operation of this practice shall be prepared for each field or treatment unit according to the Criteria,

NRCS, OK
April, 1998

Considerations, and O&M described in this standard.

Specifications shall be recorded using NRCS approved certification sheets, job sheets, narrative statements in the conservation plan, or other NRCS acceptable methods.

OPERATION AND MAINTENANCE

Periodic inspection and evaluation of channel vegetation shall be made to determine maintenance needs.

Manage vegetation growth, as applicable, by mowing, controlled grazing, approved chemicals, or other means to maintain the desired cover.

Reseeding or replanting will be done each planting season as needed.

The use of irrigation, fertilizers, and soil amendments will be used as needed.

Make needed repairs to appurtenances and fences.

NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE GENERAL SPECIFICATION

CHANNEL VEGETATION

(acre)

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GENERAL SPECIFICATIONS

Procedures, technical details and other information listed below provide additional guidance for carrying out selected components of the named practice. This material is referenced from the conservation practice standard for the named practice and supplements the requirements and considerations listed herein.

PLANTING SPECIFICATIONS

Grass Plantings

The following grasses shall be used for channel vegetation in areas that will not be inundated except for very short-term flooding. These grasses shall be used for the following practices: Floodwater Diversion (400), Floodway (404), Open Channel (582), Stream Channel Stabilization (584), Streambank and Shoreline Protection (580), and Surface Drainage, Main or Lateral (608).

Bermudagrass
- Mulch sod
- Solid sod
- Sprigs
- Seed - 'Guymon'

Native mixture

Switchgrass
- 'Blackwell'

Site Preparation - The area to be planted should have no more than 5 percent ground cover of living plants present. If plant competition exceeds 5 percent, area should be tilled with a disk or other suitable implement. The seedbed shall be firm but not compacted.

Planting - Rhizomes shall be planted from January 15 to May 1. If rhizomes are placed in cold storage, planting time can be extended to September 15. They may be planted by the following methods:

1. Posthole - Postholes shall have a minimum diameter of 8 inches and approximately 6 inches deep. Postholes will be spaced no more than 2 feet apart down the row with 2 rhizomes placed vertically on opposite sides of the hole. If more than one row is planted, rows will be 40 to 48 inches apart. Postholes in adjoining rows shall be spaced to have a staggered type layout. Loose soil shall be pushed over the rhizomes within 15 minutes of planting. The soil shall be firmed and water added immediately.

2. Open Furrow - A furrow shall be opened for each row to a depth of 6 inches. Rhizomes shall be dropped by hand parallel in the open furrow with 6 inches between rhizomes. Loose, moist soil shall be placed over the rhizomes within 15 minutes after planting to prevent drying. The soil shall be firmed around the rhizomes and smoothed to ground level. Rows shall be spaced 40 to 48 inches apart.

3. **Stream Channels** - Where the soil is muddy, the rhizomes shall be buried 3 to 5 inches deep by any method such as treebar, square nosed shovel, tire tool, or other methods that accomplishes the same result.

NRCS, OK

April, 1998

Row spacing shall be 40 to 48 inches. Rhizomes shall be planted 2 feet apart in the row and rows shall be spaced 4 feet apart. Adjacent rows will be planted to result in a staggered type layout.

Management - Do not graze until well established. Thereafter, graze cautiously only during the dormant season. Maintain a minimum height of 12 inches on common reedgrass.

'Kanlow' Switchgrass

Planting Dates - Dec. 1 to May 31

Rate - 6 PLS lbs./ ac.

Site Preparation - The seedbed shall be firm, free of clods that restrict seeding equipment, have no restrictive compacted layers, and be free of competitive vegetation.

Seeding - Seed shall be uniformly spread and firmed into the soil surface. Do not cover seed more than 1/2 inch.

Management - Do not graze until well established. Limit grazing only during dormant season. Graze no closer than 12 inches in height.

Tree and Shrub Plantings

Tree and shrub plantings may be done alone or in combination with grass planting. When vegetative plantings alone will solve the resource concern, the following guidance shall be used for tree plantings.

For eroded areas, black locust should be given consideration due to its soil binding properties. However, other locally adapted species may be selected from the Central-Western Oklahoma Tree Planting Handbook or the NRCS Critical Area Planting (342) standard and specification. A combination of adapted species is recommended to add diversity.

When plantings are needed to stabilize the top of a stream cut-bank, a minimum of 3 rows will be planted. The first row shall be 4 to 5 feet from the cut-bank wall.

Trees and shrubs may be used to stabilize the cut-bank. Plant as close to the stream as practical and as high up on the cut-bank as possible.

The NRCS Critical Area Planting (342) standard and specification shall be used as guidance for planting dates, seedbed preparation, spacing, care of planting stock, planting methods and planting maintenance.

Soil Bioengineering - When the use of soil bioengineering practices are needed to protect and stabilize streambanks and shorelines, Chapter 18 of the Engineering Field Handbook will be used for guidance and design of vegetative components. These will include but are not limited to live stakes, live fascines, brushlayers, branchpacking, live cribwalls, live gully repair, vegetated rock gabions, vegetated rock walls, and joint plantings.

Erosion control blanket material shall be used as needed to control erosion during vegetation establishment.

WILDLIFE FOOD AND COVER

The NRCS Wildlife Upland Habitat standard and specification (645) and the Oklahoma NRCS Wildlife Habitat Appraisal Guide technical note will be used to evaluate habitat requirements for targeted species. OK Biology-27 technical note shall be used for guidance for plant species selection to enhance wildlife habitat.