

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
RIPARIAN HERBACEOUS COVER
 (acre)
CODE 390

DEFINITION

Riparian areas are ecosystems that occur along watercourses or at the fringe of water bodies. Riparian herbaceous cover consist of grasses, grasslike plants, and forbs.

PURPOSE

This practice may be applied as part of a resource management system to support the following purposes:

Riparian areas serve the following functions:

Riparian areas provide habitat (food, shelter, and water) for aquatic and terrestrial organisms.

Intercept direct solar radiation, create shade, and increase the depth to width ratio to help maintain or restore suitable water temperatures for fish and other aquatic organisms while providing a milder microclimate for wildlife.

Improve and protect water quality by reducing the amount of sediment and other pollutants, such as pesticides, organic, and nutrients in surface runoff as well as nutrients and chemicals in shallow ground water flow.

Provide food, in the form of plant detritus, for aquatic insects, which are important food items for fish.

Help stabilize the channel bed and streambank.

To serve as corridors to provide landscape linkages between existing habitats.

Provide room for watercourses to establish geomorphic stability.

To manage existing riparian herbaceous habitat to improve or maintain desired plant communities.

CONDITION WHERE PRACTICE APPLIES

Along watercourses or on the fringe of water bodies where the natural plant community is dominated by herbaceous vegetation.

Where the ecosystem has been altered and the potential natural plant community has changed or has been converted to cropland, pastureland, grazing land, etc., and can not be restored.

CRITERIA**General Criteria Applicable to All Purposes**

Select native species wherever possible that are adapted to site conditions and provide diversity, cover and food for wildlife. Species selected should also provide a deep, binding root mass to strengthen streambanks and improve soil health.

Protect and enhance riparian vegetation and water quality by reducing the use of that vegetation for haying and grazing until the desired plant community is well established. A plan for limited livestock grazing or haying will be designed to protect and enhance established and emerging vegetation, stream bank stability, wildlife habitat, and out of the stream during critical periods for aquatic species.

Corridor configuration, species planted, and management will enhance habitats for

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threatened, endangered, and other species of concern.

Harmful pests present on the site will be controlled or eliminated as necessary to achieve and maintain the intended purpose.

Management systems applied will be designed to maintain the vigor and reproduction of the desired plant community. Timing of haying or grazing periods will avoid periods when streambanks are saturated and vulnerable to livestock or mechanical damage.

The plant communities established will depend on wildlife needs, site capability, existing resources in the watershed, and local management objectives.

Necessary site preparation and planting shall be done at a time and manner to ensure survival and growth of selected species. Only viable, high quality and adapted planting stock will be used. Site preparation shall be sufficient for establishment and growth of selected species and be done in a manner that does not compromise the intended purpose.

The management plan shall consider habitat and wildlife objectives such as: habitat diversity, habitat linkages, daily and seasonal habitat ranges, limiting factors, and native plant communities.

Riparian widths will vary depending on the requirements of wildlife species and associated environmental concerns.

Other applicable practices include, but are not limited to:

Streambank and Shoreline Protection - 580

Stream Channel Stabilization - 584

Vegetative Bioengineering - NCS

Fence - 382

Riparian Forest Buffer - 391

Pasture and Hayland Planting - 512

Range Planting - 550

Prescribed Grazing - 528A

Additional Criteria to Protect or Improve Water Quality

Concentrated flow erosion or mass soil movement shall be controlled in the up gradient area prior to establishment of the riparian herbaceous cover.

The plant community should be managed and maintained to optimize functions of the riparian zone, which control erosion and maintain water quality.

CONSIDERATIONS

Site hydrology must be considered. Plant species selected must be adapted to the duration of saturation and inundation of the site.

Channel and streambank stability must be considered in selecting this practice or determining that this practice may need to be combined with other practices that better address stability issues.

This practice can be combined with filter strips to improve water quality.

Considerations should be given to how this practice will provide riparian habitat and linkage to other habitats.

Target riparian buffer restoration on a watershed basis to address habitat fragmentation, connectivity, and provide corridors for wildlife by maintaining continuous streamside vegetation.

Establish alternative water sources or controlled access stream crossings to manage livestock access to the stream and riparian area.

Preferentially select plant species that are native and have multiple values such as those suited for biomass, nesting, aesthetics, and tolerance to locally used herbicides.

Avoid plant species that may be alternate hosts to undesirable pests. Species diversity should be considered to avoid loss of function due to species-specific pests.

The location, layout and density of the buffer should compliment natural features.

PLANS AND SPECIFICATIONS

Development of management options will be based on the use of the Aquatic & Terrestrial Habitat Evaluation Guide (Biology Technical Note 14). This habitat evaluation process will result in a quality rating for habitat based on a Resource Management System (RMS). The RMS must meet the minimum acceptable level as listed in Section III of the Field Office Technical Guide.

Specifications will be developed for each site. The specifications will be prepared in accordance with the criteria for the Standard and shall describe the requirements for applying the Practice to achieve its intended use. Appropriate job sheets, narrative statements in the conservation plan, or other acceptable documentation, will be used to record the items needed to carry out this practice. Requirements for operation and maintenance of the practice will be incorporated into site specifications.

OPERATION AND MAINTENANCE

The purpose of operation, maintenance, and management is to insure that the practice functions as intended over time.

The riparian area will be inspected periodically and protected to maintain the intended purpose from adverse impacts such as excessive vehicular and pedestrian traffic, pest infestations, pesticide use on adjacent lands, livestock damage and fire.

As applicable, control of concentrated flow erosion or mass soil movement shall be continued in the up-gradient area to maintain riparian function.

Any use of fertilizers, pesticides and other chemicals to assure riparian area function shall not compromise the intended purpose.

REFERENCES

Dring, Timothy, Rachel Maggi, Martha Chaney and Mark Schuller, 2000. Biology Technical Note 14, Aquatic & Terrestrial Habitat Evaluation Guide, NRCS Washington.

USDA-NRCS, September 1999. Washington & Oregon Guide for Conservation Seedings and Plantings. Pullman, Washington. 126 Pages.