

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
SOUTH DAKOTA SUPPLEMENTS ITALICIZED**

RIPARIAN HERBACEOUS COVER

(ac.)

CODE 390

DEFINITION

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

PURPOSE

To establish and/or manage herbaceous cover on riparian areas and restore ecological functions which:

Provide habitat (food, cover, shelter, and water) for aquatic and terrestrial organisms.

Intercept direct solar radiation, create shade, and restore or stabilize the depth to width ratio to help maintain the ecological functions of the riparian and aquatic systems.

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

Add stability to the channel bed and streambank.

Provide corridors as landscape linkages between existing habitats.

Provide area for watercourses to evolve toward geomorphic stability.

Improve or maintain desired plant communities.

Provide flood attenuation and energy dissipation.

CONDITION WHERE PRACTICE APPLIES

This practice can be applied 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 establishment of herbaceous cover is warranted.*

CRITERIA

Identify ecological functions to be addressed, including identification of any specific fish or wildlife species for which particular management is planned.

Select native species that are adapted to site conditions and provide diversity, cover, and food for wildlife. Species selected *will* 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 stress to that vegetation from haying and grazing until the desired plant community is well established. *If the area is used for livestock or hay production, a plan for limited livestock grazing or haying will be developed to protect or enhance established and emerging vegetation.*

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.

Necessary site preparation and planting shall be done at a time and manner to insure survival and growth of selected species. Only viable, high quality and adapted planting stock will be used. Site preparation shall be sufficient for establishment

Conservation practice standards are reviewed periodically and updated if needed. The current version of this standard is posted on our website at www.sd.nrcs.usda.gov or may be obtained at your local Natural Resources Conservation Service.

and growth of selected species and *shall* be done in a manner that does not compromise the intended purpose.

Site hydrology must be analyzed. Plant species selected must be adapted to the frequency and duration of saturation and/or inundation identified as typical for the site.

Channel and stream bank stability must be evaluated. This practice will be combined with other practices to address stability issues that will not be resolved with improved herbaceous cover.

Riparian widths will be planned to accomplish the riparian functions targeted.

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

The native or natural plant community *will* be managed and maintained to optimize *the ecological* functions of the riparian zone *that helps* to control erosion and maintain water quality.

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

CONSIDERATIONS

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

The plant communities established and targeted successional stages will depend on the desired riparian functions, existing resources in the watershed, and local management objectives.

Where native seed sources are adequate and meet the intended purpose of the riparian cover, natural regeneration will be allowed.

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

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

This practice should be included as part of an overall management system.

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

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

Avoid plant species that could become a problem due to their invasive nature (e.g., reed canary grass).

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

Corridor configuration, species planted, and management should enhance habitats for threatened, endangered, and other species of concern, where applicable.

Consideration should be given to managing the adjacent upland habitat in order to maintain the longevity of the practice.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Specification shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

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, concentrated flow erosion or mass soil movement shall be *controlled* in the up-gradient area to maintain riparian function.

Management is needed to maintain vegetation, including control of unwanted vegetation.

A riparian functional assessment can monitor the change in riparian ecological health and thus indicate future management direction.