

Riparian Buffer

Definition/Purpose

A *riparian buffer* is an area of perennial, long-lived vegetative cover (grass, shrubs, trees, or a combination of vegetation types) established adjacent to and up-gradient from watercourses or water bodies to improve water quality. Benefits may include reduced soil erosion and nutrient delivery, sedimentation, pathogen contamination and pollution from dissolved, particulate and sediment-attached substances.

Policies

1. Riparian buffers are applied on areas adjacent to perennial or intermittent streams, rivers, lakes, ponds, and types of wetlands that flood or pond. Field staff shall determine the need and suitability of this practice using visual observation.*
2. The width of the riparian buffer must be a minimum of 15 feet, measured from the top of the bank.
3. Cost share for this practice will only be provided for those buffer areas planted with native shrubs and/or trees.
4. Riparian buffer projects planned for contiguous land parcels are highly encouraged.
5. BMP soil, nitrogen and phosphorus benefits are required to be documented on contracts greater than 50 feet in width.

Specifications

NC DENR Stormwater BMP Manual: Restored Riparian buffer

http://portal.ncdenr.org/c/document_library/get_file?uuid=d49be725-ae24-424f-a7af-1fcec8734dd5&groupId=38364

N.C. NRCS Technical Guide, Section IV, Specifications #391 (Riparian Forest Buffer)

http://efotg.sc.egov.usda.gov/references/public/NC/NC391RipForBuffer_10.2011.pdf

Buffers \geq 35 feet this NRCS Standard 391 shall be used; for buffers less than 35 feet in width the above standard shall be used with the exception of the zones. Native tree and/or shrub species must be planted.

Additional resource:

<http://www.bae.ncsu.edu/extension/ext-publications/water/protecting/ag779-riparian-vegetation.pdf>

Refer to Planting Guidelines for Riparian Areas.

Planting guidelines for Riparian Areas

A mixture of trees and shrubs and diverse species selection is preferred.

Spacing:

- Trees: 10-15 feet apart.
- Shrubs: 3-6 feet apart.
- If planting multiple rows, leave 4-6 feet between rows.

If area is currently in grass up to stream edge:

- Mow planting area as short as possible.
- Plant trees and shrubs, removing 2-3 feet of grass around each planting.
- Add 2–4 inches of mulch around each planting.
- As trees and shrubs grow and the canopy closes, they will shade out the grass.

Reduce compaction and site disturbance:

- It is always better to limit the use of heavy machinery within the buffer strip.
- Use shovel, planting bar or auger for seedlings and smaller trees.
- For large tree planting, the use of a mini-skid with auger attachment may be necessary.

For more information, refer to *Riparian & Wetland Tree Planting Pocket Guide for North Carolina*. Forestry NPS Unit. N.C. Division of Forest Resources. September, 2006