

**Animal Enhancement Activity – ANM05 - Extending riparian forest buffers for water quality protection and wildlife habitat**



**Enhancement Description**

Where existing riparian forest buffers (i.e., buffers) are utilized, extend them to gain more efficiency in intercepting overland flow, reducing the transport of nutrients, pesticides and agro-chemicals, and for wildlife habitat.

**Land Use Applicability**

Cropland, Pastureland, Rangeland

**Benefits**

Widening existing riparian forest buffers can provide food and cover for native and game species as well as enhancing aquatic habitat by providing shade, input of wood or carbon to the stream, and stabilizing streambank conditions. Extended buffers offer more

surface area to filter out sediments and agro-chemicals. Riparian forest buffers can also mitigate pesticide drift during pesticide applications and pollen drift where the mixing of plant varieties is not desired.

Riparian habitats are important transition zones between terrestrial landscapes and aquatic zones. Wildlife species utilize these transition zones because they provide a unique combination of cover, access to water and often provide important travel corridors. Extending existing buffers not only enhances wildlife habitat but it increases the effectiveness of water quality protection they provide to the streams.

**Conditions Where Enhancement Applies**

This enhancement only applies to acres of existing riparian forest buffer(s) on crop, pasture or range land uses.

**Criteria**

1. Extend the existing buffer for a total of 60 feet or more to enhance habitat and water quality functions.
2. The extended buffers must be composed of at least 5 species of non-noxious, wildlife friendly trees and shrubs best suited to site conditions. Include species that provide pollinator food and habitat where possible.
3. All site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice standard criteria and specifications.



4. Forest riparian buffers shall consist of a diversity of tree and shrub species of which the majority is capable of producing fruit or nuts and trees, when mature, will achieve heights of at least 60 feet and 60% canopy closure.
5. Any use of the buffer must not compromise its intended purpose.
6. To the extent possible the buffer areas and extended buffer areas will be shaped and vegetated to increase overland flow interception and increase water quality values of the stream or water body.
7. The extension of buffers can incorporate other buffer types (filter strips or riparian herbaceous cover) where applicable to meet specific operator management goals.

#### Operation and Maintenance

1. Once established, buffers must not be mowed, disked, grazed, or otherwise disturbed during the primary wildlife ground nesting period.
2. Buffers will be regularly maintained for the intended purpose through the life of the contract. This includes any removal of vegetation, including grazing.
  - a. Grazing is not permitted unless a grazing management plan is in effect.
  - b. The grazing management plan must protect the integrity, diversity and function of the riparian area.
3. Buffers will have a wildlife management plan to maintain established plant communities through the life of the contract. The wildlife plan will maintain the plant community and its structural diversity and provide habitat for intended species, remove duff, and control woody vegetation.
4. The grazing management plan and the wildlife management plan shall complement each other.

#### Adoption Requirements

This enhancement is considered adopted when the buffer has a total width of 60 feet or more for the selected land use.

#### Documentation Requirements

1. A map showing the location and size of existing and enhanced riparian forest buffer(s).
2. Documentation of the type and rates of vegetation planted in the new riparian forest buffers.

#### References

Bentrup, G. 2008. Conservation buffers: design guidelines for buffers, corridors, and greenways. Gen. Tech. Rep. SRS-109. Asheville, NC: Department of Agriculture, Forest Service, Southern Research Station. pp110.

<http://nac.unl.edu/bufferguidelines/index.html>

Wenger, S. 1999. A review of the scientific literature on riparian buffer width, extent, and vegetation. Athens, GA: University of Georgia, Institute of Ecology, Office of Public Service and Outreach. pp 59.

[http://www.rivercenter.uga.edu/service/tools/buffers/buffer\\_lit\\_review.pdf](http://www.rivercenter.uga.edu/service/tools/buffers/buffer_lit_review.pdf)

Palone, R.S., and A.H. Todd. 1997. Chesapeake Bay riparian handbook: a guide for establishing and maintaining riparian forest buffers. NA-TP-02-97. Randor, PA: U.S. Department of Agriculture, Forest Service, Northeastern State and Private Forestry.

[http://www.na.fs.fed.us/pubs/misc/riparian\\_handbook/chesapeake\\_bay\\_riparian\\_handbook.pdf](http://www.na.fs.fed.us/pubs/misc/riparian_handbook/chesapeake_bay_riparian_handbook.pdf)



United States Department of Agriculture  
Natural Resources Conservation Service

## IDAHO ADDENDUM 2013

### ***Animal Enhancement Activity – ANM05 – Extending Riparian Forest Buffers for Water Quality Protection and Wildlife Habitat***

#### **Additional guidance for extending existing riparian forest buffers:**

Existing riparian forest buffers must meet NRCS Practice Standard 391 minimum width requirement, which is **35 feet for water quality improvement**. The buffer will be extended to at least 60 feet wide.

#### **Wildlife Friendly Species**

Wildlife friendly grass and forb species include all native perennial plant species typically represented by a diverse mixture as described in the representative ecological site description. Native grass species typically include bluebunch wheatgrass, Idaho fescue, Sandberg bluegrass, big bluegrass, Thurber needlegrass, slender wheatgrass, thickspike wheatgrass, western wheatgrass, and basin wildrye. On sandy sites, consider sand dropseed and Indian ricegrass. Consider native forbs and legumes such as western yarrow, arrowleaf balsamroot, buckwheat, flax, milkvetch, lupine, American vetch, penstemon and tapertip hawksbeard. Introduced grass species could include redtop, orchardgrass, meadow brome, creeping foxtail, meadow foxtail, intermediate wheatgrass, pubescent wheatgrass, tall wheatgrass, and Russian wildrye. Introduced forbs and legumes include alfalfa, small burnet, clover (multiple species), sainfoin, cicer mikvetch and yellow sweetclover. Native shrubs include chokecherry, golden current, shrubby cinquefoil, juniper, serviceberry, woods rose, silver buffaloberry, redosier dogwood, and native willows (multiple species). Native trees include cottonwood, water birch, quaking aspen, Douglas and black hawthorn, and tree willows. Introduced woody species include Nanking cherry, cotoneaster and Siberian peashrub, but are not generally recommended in riparian forest buffer plantings. **Any use of the riparian forest buffer must not compromise its original intended purpose.**

For additional information, refer to the following documents:

Idaho NRCS Plant Materials Technical Note 2A, Plants for Pollinators in the Intermountain West. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn2a\\_pollinators\\_1011.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn2a_pollinators_1011.pdf)

Idaho NRCS Plant Materials Technical Note 2B, Plants for Pollinators in the Inland Northwest. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn2b\\_pollinators\\_1011.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn2b_pollinators_1011.pdf)

Idaho NRCS Plant Materials Technical Note 23, *How to Plant Willows and Cottonwood for Riparian Restoration*. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/planting\\_willowsa.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/planting_willowsa.pdf)

Idaho NRCS Plant Materials Technical Note 24, *Conservation Plant Species for the Intermountain West*. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn24\\_seed\\_species\\_1011.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn24_seed_species_1011.pdf)

Idaho NRCS Plant Material Technical Note 24 Supplement: *Intermountain Planting Guide*, USDA-ARS Forage and Range Research Lab/Utah State Extension, AG 510. <ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn24supplement.pdf>

Idaho NRCS Plant Materials Technical Note 32, *Native Shrubs and Trees for Riparian Areas*. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/riparian\\_woodys.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/riparian_woodys.pdf)

Idaho NRCS Plant Materials Technical Note 38, *Wetland Species and Grasses for Riparian Areas*. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn38\\_wetland\\_species.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn38_wetland_species.pdf)

Idaho NRCS Plant Materials Technical Note 43, *Tree Planting Care and Management*. [ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn43\\_tree\\_care\\_1011.pdf](ftp://ftp-fc.sc.egov.usda.gov/ID/programs/technotes/tn43_tree_care_1011.pdf)

USDA Forest Service, Rocky Mountain Research Station. *Riparian Buffer Design Guidelines for Water Quality and Wildlife Habitat Functions on Agricultural Landscapes in the Intermountain west*. General Technical Report GTR-203. [www.fs.fed.us/rm/pubs/rmrs\\_gtr203.pdf](http://www.fs.fed.us/rm/pubs/rmrs_gtr203.pdf)

USDA Forest Service, Southern Research Station. *Conservation Buffers: Design Guidelines for Buffers, Corridors and Greenways*. General Technical Report SRS-109. [http://efotg.sc.egov.usda.gov/references/public/NE/Nebraska\\_Forestry\\_Tech\\_Note\\_74\(Conservation\\_Buffers\).pdf](http://efotg.sc.egov.usda.gov/references/public/NE/Nebraska_Forestry_Tech_Note_74(Conservation_Buffers).pdf)

**Site preparation and plant establishment must meet NRCS Practice Standard 391 requirements. Note, however, that the extension of riparian forest buffers can incorporate other buffer types (riparian herbaceous and filter strips) where applicable to meet specific operator management goals.**

**This activity may NOT be used with the following enhancements:  
AIR08, ANM07, ANM32, PLT15, PLT18, WQL09**

**Potential duplicate practices:  
327 – Conservation Cover, 391 – Riparian Forest Buffer, 528 – Prescribed Grazing, 612 – Tree and Shrub Establishment**