United States Department of Agriculture
Natural Resources Conservation Service 2013 Ranking Period 1

Animal Enhancement Activity – ANM33- Riparian buffer, terrestrial and aquatic wildlife habitat

Enhancement Description
This activity consists of managing riparian zones by utilizing select conservation measures (such as re-locating equipment operations, trails, or livestock; establishing diverse native vegetation and controlling invasive species; fencing; and extending the width of the riparian zone to enhance wildlife habitat adjacent to riparian zones of steams, ponds, lakes, or wetlands) to achieve stream side cover and vegetative diversity and structure to improve terrestrial and aquatic wildlife habitat.

Land Use Applicability
Cropland, Pastureland, Rangeland, Forestland

Benefits
Intact riparian zones with a natural and diverse mix of herbaceous and/or woody vegetation of different ages are important landscape features for sustaining fish and wildlife populations. Maintaining vigorous native or natural riparian vegetation of diverse age classes and species will benefit riparian and aquatic fauna by providing: (a) thermal, nesting/fawning, and hiding cover in riparian zones, stream banks, and shorelines; (b) diverse food sources; (c) a steady source of leaves, brush, small woody material for aquatic food webs at and downstream of the site; (d) root systems to enhance bank stability, and (e) vegetative filters for surface water run-off.

Conditions Where Enhancement Applies
This enhancement only applies to **existing** acres of forested riparian zones on crop, pasture, range or forest land uses, *OR* **existing** acres of non-forested riparian zones on crop, pasture, or range land uses.

Criteria
For forested riparian zones:
1. The width of forested riparian zones must be wider than the NRCS State standard width for Riparian Forest Buffers to a maximum width of 150 feet.
2. Manage the riparian area to maintain a diversity of non-invasive tree, shrub, and herbaceous species by techniques such as selective thinning, controlled grazing, prescribed burning, selective use of herbicides, and/or the planting of native species.
3. Retain existing snags or create new snags by girdling live trees of at least one/acre.
4. Manage the riparian vegetation to provide tree canopy shade of the stream and good stream side cover.
5. Do not use heavy equipment such as bull dozers and tractors within the forested riparian zone to implement enhancement activities.

For non-forested riparian zones:

1. On streams, rivers, or floodplains adjacent to pastures, cropland, hayland, or rangeland:
   a. Enhance and maintain a well-vegetated riparian zone that is 2.5 times the width of the stream channel or 35 feet, whichever is greater to a maximum width of 150 feet.
   b. Improve the diversity of native or natural shrub and/or herbaceous plant species suitable for the site and appropriate for the riparian and aquatic species that inhabit the area by planting appropriate species.
   c. Implement at least one of the management actions from #3 below.
2. On ponds, floodplain wetlands, or lakes adjacent to pastures, cropland, hayland or rangeland:
   a. Enhance and maintain a well-vegetated riparian zone that is 35 feet wide or greater.
   b. Improve the diversity of native or natural woody and/or herbaceous plant species suitable for the site and appropriate for the riparian and aquatic species that inhabit the area by planting appropriate species.
   c. Implement at least one of the management actions from #3 below.
3. Additional management actions for enhancing non-wooded riparian zones:
   a. Control invasive species through a grazing management plan or suitable pest management techniques.
   b. Limit livestock use of riparian zone through a prescribed grazing management plan
   c. Control access of people, machinery, and livestock to the riparian zone with fencing.
   d. Provide off-site watering source(s) for livestock.

Adoption Requirements

This enhancement is considered adopted when the riparian zone(s) is within the range of a 150 foot maximum and either the NRCS State standard width for Riparian Forest Buffers, or for non-forested riparian zones, 2.5 times the width of the stream channel or 35 feet, whichever is greater.

Documentation Requirements

1. Delineations on a map or aerial photo indicating the stream channel length where the riparian zone has improved habitat.
2. Provide written documentation, on the delineation map, of all riparian zone activities implemented to meet the requirements of this enhancement.
3. List of maintenance activities carried out on riparian acres as prescribed under the practice used, and its specific fish and wildlife considerations.

References

Clark, W.R. and K.F. Reeder. 2005. Continuous Conservation Reserve Program: Factors Influencing the Value of Agricultural Buffers to Wildlife Conservation. Pages 93-113 *in* Fish and wildlife benefits of Farm Bill conservation programs: 2000-2005 update. Haufler, J. B., editor. The Wildlife Society Technical Review 05-2. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_012882.pdf

Duehr, J., M. Siepker, C. Pierce and T.M. Isenhart. 2007. Relation of riparian buffer strips to in-stream habitat, macroinvertebrates and fish in a small Iowa stream. Journal of the Iowa Academy of Science 113:49-55. http://www.cfwru.iastate.edu/unit_scientists/pierce/pierce2007_4.pdf

Fischer, J.R., Quist, M.C., Wigen, S.L., Schaefer, A.J., Stewart, T.W. and Isenhart, T.M. 2009. Assemblage and population-level responses of stream fish to riparian buffers at multiple spatial scales. Transactions of the American Fisheries Society 139:185-200. http://www.tandfonline.com/doi/pdf/10.1577/T09-050.1

ANM33 – Riparian buffer, terrestrial and aquatic wildlife habitat:

Select species from the following:

1. The appropriate *CSP Wildlife Plant Species* tables http://www.in.nrcs.usda.gov/programs/CSP/csp2010/2010%20CSP%20Wildlife%20Plant%20Species.doc or,
2. The **IN Seed Calculator** (http://efotg.sc.egov.usda.gov/references/public/IN/IN_NRCS_Seeding_Calculator.xlsm) (Required: check "Yes" for wildlife-friendly species).