

Animal Enhancement Activity – ANM07- Extending existing field borders for water quality protection and wildlife habitat



Enhancement Description

Where existing field borders are utilized, extend them to gain more efficiency in intercepting overland flow and reducing the transport of nutrients, pesticides and agro-chemicals, and for wildlife habitat.

Land Use Applicability

Crop, Pasture

Benefits

Widening existing field borders can provide food and cover for native and game species as well as enhancing wildlife habitat. Extended field borders offer more surface area to filter out sediments, agro-chemicals, and waterborne pathogens. Field borders can also offer buffers to mitigate pesticide drift during pesticide applications and pollen drift where the mixing of plant varieties is not desired.

Wildlife species utilize transition zones between agricultural fields because they provide a unique combination of cover and often provide important travel corridors. Often times field borders are adjacent to riparian areas and are important for contributing clean water, and habitat areas nearby. Extending existing field borders not only enhances wildlife habitat but it increases the effectiveness of water quality protection if the border is next to a stream.

Conditions Where Enhancement Applies

This enhancement only applies to acres of existing field borders on crop or pasture land uses.

Criteria

1. Extend the existing field border for a total of 60 feet or more to enhance habitat and water quality functions.
2. The extended field borders must be composed of at least 5 species of non-noxious, wildlife friendly grasses, perennial forbs and /or shrubs best suited to site conditions. Include species that provide pollinator and other beneficial insect 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. Any use of the field border must not compromise its intended purpose. Vegetation from field borders can be harvested for bio-energy as long as the harvesting is done in accordance with a plan that does not compromise the water quality and wildlife benefits of the extended filter strip.



5. To the extent possible the field border areas and extended field border areas will be vegetated to increase overland flow interception and increase water quality values if they also border a stream or water body.
6. The extension of field borders can incorporate other buffer types (filter strips, riparian herbaceous and riparian forest) where applicable to meet specific operator management goals.

Adoption Requirements

This enhancement is considered adopted when the field border 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 enhanced field borders.
2. Documentation of the type and rates of vegetation planted in the new field borders.

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

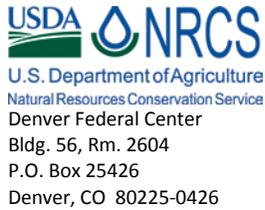
Knox, A. K., K. W. Tate, R. A. Dahlgren, and E. R. Atwill. 2007. Management reduces E. coli in irrigated pasture runoff. *California Agriculture* 61 (4).

Morandin, L, R. Long, C. Pease, and C. Kremen. 2011. Hedgerows enhance beneficial insects on farms in California's Central Valley. *California Agriculture* 65(4):197-201.

Stuart, D., C. Shennan, and M. Brown. 2006. Food safety versus environmental protection on the Central California Coast: Exploring the science behind an apparent conflict. The Center for Agroecology and Sustainable Food Systems, University of California, Santa Cruz. Research Brief #10, Fall 2006.

Tate, K., E. Atwill, J. W. Bartolome, and G. Naderd. 2006. Significant Escherichia coli attenuation by vegetative buffers on annual grasslands. *Journal of Environmental Quality* 35.

USDA-NRCS. 2010. Grassland Bird Population Responses to Upland Habitat Buffer Establishment by L. Wes Burger, Jr., Philip J. Barbour, and Mark D. Smith. Wildlife Insight No. 86. Washington, DC.
<http://www.fwrc.msstate.edu/pubs/NRCSWildlifeInsight86.pdf>



Colorado Supplement

to

National CSP 2014 Enhancement Activity Job Sheet: ANMO7

Extending existing field borders for water quality protection and wildlife habitat

Criterion #1

Delineate extended field borders in a Colorado [Field Border 386 Implementation Requirements](#) worksheet.

Criterion #2

Select adapted wildlife-friendly grasses, forbs and shrubs to extend the field border based on Colorado [Biology Technical Note 4](#), Wildlife Food and Cover Values of Selected Plants, and Colorado [Plant Materials Technical Note 59](#), Plant Suitability and Seeding Rates for Conservation Plantings in Colorado, Table 6, Suitability.

Select species for establishment based on site-specific resource concerns (sediment deposition, particulate matter emissions) that are adapted to the site and tolerant of pesticides used in the contributing area, and will not function as an alternate host for crop pests.

Seeding Plan - Develop the planned seed mix including site preparation and establishment procedures in a Colorado [CO-ECS-05, Grass Seeding Planned and Applied](#) worksheet.

Seed Source - The use of Certified named varieties is required. If "Certified Seed" is not available from a commercial source or a seed producer, request a variance from the State Resource Conservationist to use named varieties or common seed.

Criterion #3

All site preparation and plant establishment procedures will be consistent with the Plans and Specifications of the Colorado [Forage and Biomass Planting 512 Standard](#).

Criterion #4

Any harvest for bio-energy will be outside the primary wildlife ground nesting season dates: March 15 – July 15.

Criterion #6

Where a Filter Strip, Riparian Herbaceous Cover or Riparian Forest Buffer practice will be used to extend an existing field border, delineate the planned extension in the corresponding job sheet or implementation requirements worksheet.

Colorado [Filter Strip 393 Implementation Requirements](#) worksheet

Colorado [Riparian Herbaceous Cover 390 Job Sheet](#)

Colorado [Riparian Forest Buffer 391 Job Sheet](#)

Additional Documentation Requirements

Provide completed copies of the following to certify practice application, as applicable.

Field Border 386 Implementation Requirements worksheet

CO-ECS-05, Grass seeding Planned and Applied worksheet

Filter Strip 393 Implementation Requirements worksheet

Riparian Herbaceous Cover 390 Job Sheet

Riparian Forest Buffer 391 Job Sheet

Duplication potential: ANM32 and ANM33