

Animal Enhancement Activity – ANM40- 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, pathogens and agro-chemicals, and for wildlife habitat.

Land Use Applicability

Cropland, Pastureland

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.



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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. Hafler, 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>



Notes: This enhancement applies only to existing field borders

Enhancement Name	Enhancement Code	Potential Duplicative Practices (code)	Incompatible Enhancements
Extending existing field borders for water quality protection and wildlife habitat	ANM40	Check the 2015 Duplicative Practices document	Check the 2015 Incompatible Practices document

Operations & Maintenance, Conservation Measures, and Client Acknowledgement

Operation and Maintenance	
Operation:	
Maintenance:	
Conservation Measures	
Actions that must be implemented by the landowner/manager during practice implementation:	
Client's Acknowledgement Statement	
<p>The Client acknowledges that:</p> <p>a. They have received a copy of the enhancement and understand the contents and requirements.</p> <p>b. It shall be the responsibility of the client to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to the application of this practice.</p>	
Cooperator: _____	Date: _____
Planner: _____	Date: _____