

Animal Enhancement Activity – ANM32 – Extend existing filter strips or riparian herbaceous cover for water quality protection and wildlife habitat



Enhancement Description

Where existing filter strips or riparian herbaceous covers (i.e., buffers) 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

Cropland, Pastureland, Rangeland

Benefits

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

Buffer 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. Often buffers are adjacent to riparian areas or are important contributors to clean water, and habitat areas nearby. 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 buffers 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 grasses and/or perennial forbs 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. Any use of the buffer must not compromise its intended purpose. Vegetation from buffers 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 buffer.
5. 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.



6. The extension of buffers can incorporate other buffer types (riparian forest) 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 the existing and enhanced buffer.
2. Documentation of the type and rates of vegetation planted in the new buffer areas.

References

Al-Kaisi, M., M. Hanna and M. Licht. 2003. Conservation buffers and water quality. Iowa State University Extension Service Ames, IA. <https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=5502>

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

Davros, N. M. and W.L. Hohman. 2006. Breeding bird use of Minnesota Filter Strips in Relation to width, planting mixture, and surrounding land use. NRCS Technical Note. <http://directives.nrcs.usda.gov/OpenNonWebContent.aspx?content=18521.wba>

Reeder, K.F., D.M. Debinski, and B.J. Danielson. 2006. Factors affecting butterfly use of filter strips in southwestern Minnesota. NRCS Technical Note. <http://directives.nrcs.usda.gov/OpenNonWebContent.aspx?content=18503.wba>

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>

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Reference:

- **327 – Conservation Cover**
 - **Biology Jobsheet 9 – Establishment of Native Grasses and Forbs**
- **643 – Restoration and Management of Declining Habitats**
 - **Biology Jobsheet 12 – Tall Grass Prairie**
- **386 – Field Border**
 - **Agronomy Jobsheet 386 – Field Border**

The extended filter strips must be composed of at least 5 species of non-noxious, wildlife friendly grasses and/or perennial forbs best suited to site conditions.

NATIVE GRASSES, FORBS AND LEGUMES

Native grass seed origin shall be within a 200 mile radius of the project site, unless otherwise identified as an acceptable cultivar.

The following are native grasses that are considered wildlife friendly:

Big Bluestem	Western Wheatgrass
Indiangrass	Blue Grama
Green Needlegrass	Switchgrass
Little Bluestem	Canada Bluejoint
Sideoats Grama	Prairie Cordgrass
Prairie Sandreed	Virginia Wildrye
Canada Wildrye	Kalms Brome
Slender Wheatgrass	

FORBS AND LEGUMES

Forbs and legumes with origins native to Minnesota are preferred. When local Minnesota seed sources are not available, native forbs and legume seed shall originate from Wisconsin, northern Nebraska, North Dakota, South Dakota, northern Iowa, and the Canadian provinces of southern Manitoba and Ontario. If the true origin of the seed can be certified as one of the accepted states or provinces, then there would be no restriction on where the seed is grown. Certification must be provided by the grower, and responsibility for obtaining certification rests with the producer.

The following list identifies native forbs and wildflowers beneficial to upland wildlife and native habitat restoration. The list is not inclusive, and identifies those species, which are readily available through private vendor seed supplies.

DRY	MESIC to WET	DRY to WET
Bush Clover	Canada Tick Trefoil	Black-eyed Susan
Dotted Blazingstar	Common Ox-eye	Illinois Bundleflower
Purple Coneflower	Giant Sunflower	Purple Prairie Clover
Showy Penstemon	Golden Alexanders	Maximillian Sunflower
Silky Aster	Partridge Pea	Stiff Goldenrod
DRY to MESIC	Rattlesnake Master	Yarrow
Butterfly Weed	Tall Blazingstar	
Compass Plant	Wild Bergamot	
Hoary Vervain	Yellow Coneflower	
Leadplant	WET	
Prairie Smoke	Blue Vervain	
Rough Blazingstar	Boneset	
Showy Goldenrod	Joe-pye Weed	
Smooth Aster	New England Aster	
Stiff Tickseed	Panicled Aster	
	Swamp Milkweed	

The field will be protected from grazing and disturbance during the primary nesting and fawning season, which is **May 1 to July 15**.