

Animal Enhancement Activity – ANM06 - Extending existing riparian herbaceous cover for water quality protection and wildlife habitat



Enhancement Description

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

Land Use Applicability

Cropland, pastureland and rangeland.

Benefits

Widening existing herbaceous buffers that currently meet NRCS conservation practice

standard water quality criteria can provide food and cover for native and game species as well as enhancing aquatic habitat by providing shade, input of carbon to the stream, and stabilizing streambank conditions. Extended buffers offer more surface area to filter out sediments and agro-chemicals. Riparian herbaceous buffers can also offer buffers to mitigate pesticide drift during pesticide applications and pollen drift where the mixing of plant varieties is not desired.

Riparian herbaceous 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.

Criteria

Existing buffers must meet minimum state water quality criteria requirements for width. Extend the existing buffer for a total of 60 feet or more to enhance habitat and water quality functions.

The extended buffer 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.

1. All site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice standard criteria and specifications.
2. Herbaceous riparian buffers shall consist of a diversity of plant species of which the majority are capable of producing nutritious food sources to wildlife.
3. Any use of the herbaceous buffer must not compromise its intended purpose. Vegetation from riparian herbaceous 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 strip.



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

Operation and Maintenance

1. Once established, buffers must not be mowed, disked, grazed, or otherwise disturbed, until after the primary wildlife ground nesting period has ended.
2. Buffers will be regularly maintained for its intended purpose through the life of the contract. This includes any removal of vegetation, including grazing. Grazing is not permitted unless a grazing management plan is in effect.
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. Grazing is not permitted unless a grazing management plan is in effect that maintains the buffer's intended purpose.

Documentation Requirements

1. A map showing the location and size of enhanced riparian herbaceous buffers.
2. Documentation of the type and rates of vegetation planted in the new riparian herbaceous buffers.

Michigan Supplement

Water Quality Enhancement Activity – ANM06 - Extending Existing Riparian Herbaceous Cover for Water Quality Protection and Wildlife Habitat

The existing riparian herbaceous cover must be a minimum width of 33 feet to be eligible for this enhancement activity. Refer to the Natural Resources Conservation Service (NRCS) conservation practice standard Riparian Herbaceous Cover (390) for establishment, operation and maintenance instructions located in the electronic Field Office Technical Guide (FOTG). Use the NRCS Michigan (MI) conservation practice standard Conservation Cover (327), and select a seed mixture from Table 2, Grass and Legume Mixtures, number 4,7,10, 11 or 14; any seed mixture from Table 4, General Mixtures for Wildlife Habitat, and Table 5 Examples of General Mixtures for Wildlife Habitat **except the following Species** as per the State Biologist recommendation to establish a minimum of 5 species:

- 1/ Pale Purple Coneflower
- 2/ Iron Weed
- 3/ Tall Coreopsis
- 4/ Rosinweed*
- 5/ Compass Plant*
- 6/ Cup Plant
- 7/ Round Leaf Ragwort
- 8/ Sweet Black-Eyed Susan

*unless there are Michigan genotypes available

The following plant species are non-noxious and wildlife-friendly and may be included in riparian forest buffers:

Grasses and Legumes

| Introduced Grasses and Legumes |
|--------------------------------|
| Alfalfa |
| Alsike Clover |
| Orchardgrass |
| Red Clover |
| Redtop |
| Timothy |
| White Dutch Clover |
| Prairie Grasses |
| |
| Big Bluestem |
| Eastern Gamagrass |
| Indiangrass |
| Intermediate Wheatgrass |
| Little Bluestem |
| Switchgrass |

Wildflowers

| COMMON NAME | SCIENTIFIC NAME | COMMON NAME | SCIENTIFIC NAME |
|--------------------------------------|---------------------------------|--------------------------------------|----------------------------------|
| Blazingstar | <i>Liatris spp.</i> | Partridge Pea | <i>Cassia chamaecrista</i> |
| Blue Vervain | <i>Verbena hastata</i> | Prairie cinquefoil | <i>Potentilla arguta</i> |
| Boneset | <i>Eupatorium perfoliatum</i> | Prairie Milkweed | <i>Asclepias sullivanti</i> |
| Bushy Aster | <i>Aster dumosus</i> | Prairie Phlox | <i>Phlox pilosa</i> |
| Butterflyweed | <i>Asclepias tuberosa</i> | Prairie Smoke | <i>Geum triflorum</i> |
| Canada Tick Trefoil | <i>Desmodium canadense</i> | Purple Coneflower | <i>Echinacea angustifolia</i> |
| Cardinal Flower | <i>Lobelia cardinalis</i> | Purple Coneflower | <i>Echinacea pupurea</i> |
| Common Beggar-Ticks | <i>Bidens frondosus</i> | Purple Prairie Clover | <i>Dalea purpurea</i> |
| Common milkweed | <i>Asclepias syriaca</i> | Rattlesnake Master | <i>Eryngium yuccifolium</i> |
| Compass Plant* | <i>Silphium laciniatum</i> | Rosin Weed | <i>Silphium integrifolium</i> |
| Culver's Root | <i>Veronicastrum virginicum</i> | Rough Blazingstar | <i>Liatris aspera</i> |
| Dotted Blazingstar | <i>Liatris punctata</i> | Sawtooth Sunflower | <i>Helianthus grosseserratus</i> |
| Evening Primrose | <i>Oenothera biennis</i> | Showy Goldenrod | <i>Solidago speciosa</i> |
| False Bonset | <i>Kuhnia eupatorioides</i> | Showy Penstemon | <i>Penstemon grandifloris</i> |
| False Solomon's seal | <i>Smilacina racemosa</i> | Silky Aster | <i>Aster sericeus</i> |
| Fireweed | <i>Epilobium angustifolium</i> | Slender Bush-Clover | <i>Lespedeza virginica</i> |
| Flowering Spurge | <i>Euphorbia corollata</i> | Smooth Aster | <i>Aster laevis</i> |
| Foxglove Beard-Tongue | <i>Penstemon digitalis</i> | Sneezeweed | <i>Helenium autumnale</i> |
| Giant / Tall Sunflower | <i>Helianthus giganteus</i> | Solomon's Seal | <i>Polygonatum biflorum</i> |
| Golden Alexanders | <i>Zizia aurea</i> | Spiderwort | <i>Tradescantia ohiensis</i> |
| Great Blue Lobelia | <i>Lobelia siphilitica</i> | Spotted Touch-Me-Not | <i>Impatiens biflora</i> |
| Hairy Beardstongue | <i>Penstemon hirsutus</i> | Stiff / Prairie Coreopsis | <i>Coreopsis palmata</i> |
| Heath Aster | <i>Aster ericoides</i> | Stiff Goldenrod | <i>Solidago rigida</i> |
| Hoary Vervain | <i>Verbena stricta</i> | Stiff Tickseed | <i>Coreopsis palmata</i> |
| Indian Paintbrush | <i>Castilleja coccinea</i> | Swamp Milkweed | <i>Asclepias incarnata</i> |
| Jack-in-the-pulpit | <i>Arisaema triphyllum</i> | Tall Bellflower | <i>Campanula americana</i> |
| Joe-Pye Weed | <i>Eupatorium maculatum</i> | Tall Blazingstar | <i>Liatris pycnostachya</i> |
| Lance-leaved / Sand Coreopsis | <i>Coreopsis lanceolata</i> | Turk's-cap Lily | <i>Lillium michiganense</i> |
| Large-Flowered Trillium | <i>Trillium grandiflorum</i> | Violet Bush-Clover | <i>Lespedeza violacea</i> |
| Leadplant | <i>Amorpha canescens</i> | White False Indigo | <i>Baptisia lactea</i> |
| Marsh Blazingstar | <i>Liatris spicata</i> | Wild Bergamot | <i>Monarda fistulosa</i> |
| Marsh Marigold | <i>Caltha palustris</i> | Wild Columbine | <i>Aquilega canadensis</i> |
| Maximillian Sunflower | <i>Helianthus maximiliani</i> | Wild Geranium | <i>Geranium maculatum</i> |
| New England Aster | <i>Aster novae-angliae</i> | Wild Iris | <i>Iris shrevei</i> |
| New England Aster | <i>Virgulus novae-angliae</i> | Wild Lupine | <i>Lupinus perennis</i> |
| New Jersey Tea | <i>Ceanothus americanus</i> | Wild Senna | <i>Cassia hebecarpa</i> |
| Obedient plant | <i>Physostegia virginiana</i> | Woodland Sunflower | <i>Helianthus divaricatus</i> |
| Ox-eye Sunflower | <i>Heliopsis helianthoides</i> | Yarrow | <i>Achillea millefolium</i> |
| Pale Spiked Lobelia | <i>Lobelia spicata</i> | Yellow / Gray-head coneflower | <i>Ratibida pinnata</i> |

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