

Animal Enhancement Activity – ANM13 – Non-forested riparian zone enhancement for fish and wildlife



Enhancement Description

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 streams, ponds, lakes, or wetlands.

Land Use Applicability

Cropland, pastureland and rangeland

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.

Criteria

1. For streams, rivers, or floodplains adjacent to pastures, cropland, hayland, or rangeland, 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. 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. In addition, implement at least one of the management actions from the list below.
2. For ponds, floodplain wetlands, or lakes adjacent to pastures, cropland, hayland or rangeland, enhance and maintain a well-vegetated riparian zone that is 35 feet wide or greater. 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. In addition, implement at least one of the management actions from the list below.

Additional management actions for enhancing non-wooded riparian zones:

1. Control invasive species through a grazing management plan or suitable pest management techniques.
2. Limit livestock use of riparian zone through a prescribed grazing management plan



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3. Control access of people, machinery, and livestock to the riparian zone with fencing.
4. Provide off-site watering source(s) for livestock.

Documentation Requirements

1. Provide written documentation, including a map, of all riparian zone activities implemented to meet the requirements of this enhancement.
2. List of maintenance activities carried out on riparian acres as prescribed under the practice used, and its specific fish and wildlife considerations.

Michigan Supplement

Animal Enhancement Activity – ANM13 - Non-Forested Riparian Zone Enhancement for Fish and Wildlife

Plants suitable for riparian areas to enhance fish and wildlife include:

Trees and Shrubs

Scientific Name	Common Name	Region*
<i>Alnus incana</i> ssp. <i>rugosa</i>	Speckled Alder	ALL
<i>Aronia arbutifolia</i> (<i>Photinia floribunda</i>)	Red Chokeberry	ALL
<i>Asimina triloba</i>	Pawpaw	SLP
<i>Cephalanthus occidentalis</i>	Buttonbush	LP
<i>Cornus drummondii</i>	Roughleaf Dogwood	SLP
<i>Cornus amomum</i>	Silky Dogwood	ALL
<i>Cornus foemina</i>	Gray Dogwood	ALL
<i>Cornus stolonifera</i>	Red-Osier Dogwood	ALL
<i>Crataegus</i> spp. **	Common Hawthorn	ALL
<i>Hamamelis virginiana</i>	American Witchhazel	ALL
<i>Ilex verticillata</i>	Winterberry/Michigan Holly	ALL
<i>Lindera benzoin</i>	Spicebush	LP
<i>Lonicera canadensis</i>	Fly Honeysuckle	ALL
<i>Physocarpus opulifolius</i>	Ninebark	ALL
<i>Prunus virginiana</i>	Chokecherry	ALL
<i>Ribes americanum</i>	Black Currant	ALL
<i>Rosa palustris</i>	Swamp Rose	ALL
<i>Rubus occidentalis</i>	Black Raspberry	ALL
<i>Rubus parviflorus</i>	Thimbleberry	UP,NLP
<i>Rubus strigosus</i>	Red Raspberry	ALL
<i>Salix exigua</i>	Sandbar Willow	ALL
<i>Salix discolor</i>	Pussy Willow	ALL
<i>Sambucus canadensis</i>	Elderberry	ALL
<i>Sambucus racemosa</i>	Red-Berried Elder	ALL
<i>Spiraea alba</i>	Meadowsweet	ALL
<i>Staphylea trifolia</i>	American Bladdernut	LP
<i>Vaccinium corymbosum</i>	Highbush Blueberry	LP
<i>Vaccinium angustifolium</i>	Low Sweet Blueberry	ALL
<i>Viburnum nudum</i> var. <i>cassinoides</i>	Wild Raisin	NLP, UP
<i>Viburnum dentatum</i>	Southern Arrowwood	SLP

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<i>Viburnum prunifolium</i>	Blackhaw	SLP
<i>Viburnum opulus var. americana</i>	Highbush Cranberry	ALL
<i>Vitis riparia</i>	River Grape	ALL
<i>Abies balsamea</i>	Balsam Fir	NLP,UP
<i>Acer negundo</i>	Boxelder	ALL
<i>Acer nigrum</i>	Black Maple	ALL
<i>Acer rubrum</i>	Red Maple	ALL
<i>Acer saccharinum</i>	Silver Maple	ALL
<i>Acer spicatum</i>	Mountain Maple	UP,NLP
<i>Aesculus glabra</i>	Ohio Buckeye	SLP
<i>Betula allegheniensis</i>	Yellow Birch	ALL
<i>Carpinus caroliniana</i>	Blue Beech, Musclewood	ALL
<i>Carya cordiformis</i>	Bitternut Hickory	LP
<i>Carya laciniosa</i>	Shellbark Hickory	SLP
<i>Celtis occidentalis</i>	Northern Hackberry	SLP
<i>Cornus alternifolia</i>	Alternatleaf Dogwood	ALL
<i>Fraxinus americana</i>	White Ash	LP, EUP
<i>Fraxinus pennsylvanica</i>	Green/Red Ash	ALL
<i>Fraxinus nigra</i>	Black Ash	ALL
<i>Fraxinus quadrangulata</i>	Blue Ash	SLP
<i>Gleditsia triacanthos</i>	Honeylocust	SLP
<i>Juglans nigra</i>	Black Walnut	SLP
<i>Morus rubra</i>	Red Mulberry	SLP
<i>Nyssa sylvatica</i>	Blackgum	SLP
<i>Platanus occidentalis</i>	American Sycamore	SLP
<i>Populus deltoides</i>	Eastern Cottonwood	ALL
<i>Quercus bicolor</i>	Swamp White Oak	SLP
<i>Quercus imbricaria</i>	Shingle Oak	SLP
<i>Quercus macrocarpa</i>	Bur Oak	ALL
<i>Quercus muehlenbergii</i>	Chinkapin Oak	SLP
<i>Quercus palustris</i>	Pin Oak	SLP
<i>Salix amygdaloides</i>	Peachleaf Willow	LP
<i>Salix nigra</i>	Black Willow	ALL
<i>Tilia americana</i>	American Basswood	ALL
<i>Ulmus americana</i>	American Elm	ALL
<i>Ulmus rubra</i>	Slippery/Red Elm	ALL
<i>Viburnum lentago</i>	Nannyberry	ALL
<i>Picea glauca</i>	White Spruce	ALL
<i>Pinus strobus</i>	Eastern White Pine	ALL
<i>Thuja occidentalis</i>	Northern White-Cedar	ALL
<i>Tsuga canadensis</i>	Eastern Hemlock	ALL

* SLP = Southern Lower Peninsula; NLP = Northern Lower Peninsula; UP = Upper Peninsula;

ALL = All Regions of Michigan

** Michigan native species only

Herbaceous Species

Common Name	Scientific Name
Prairie Cordgrass	<i>Spartina pectinata</i>
Virginia Wildrye	<i>Elymus virginicus</i>
Riverbank Wildrye	<i>Elymus riparius</i>
Stout Woodreed	<i>Cinna arundinacea</i>
Switchgrass	<i>Panicum virgatum</i>
Canada Bluejoint	<i>Calamagrostis canadensis</i>
Sedges	<i>Carex</i> spp.
Bulrushes	<i>Scirpus</i> spp., <i>Shoenoplectus</i> spp., <i>Bulboschoenus fluviatilis</i>
Blue Vervain	<i>Verbena hastata</i>
Boneset	<i>Eupatorium perfoliatum</i>
Cardinal Flower	<i>Lobelia cardinalis</i>
Great Blue Lobelia	<i>Lobelia siphilitica</i>
Marsh Marigold	<i>Caltha palustris</i>
New England Aster	<i>Aster novae-angliae</i> (<i>Symphyotrichum novae-angliae</i>)
Lined Aster	<i>Aster lanceolatus</i> (<i>Symphyotrichum lanceolatum</i>)
Swamp Aster	<i>Aster puniceus</i> (<i>Symphyotrichum puniceum</i>)
False Sunflower	<i>Heliopsis helianthoides</i>
Spotted Joe-Pye Weed	<i>Eupatorium maculatum</i> (<i>Eupatoriadelphus maculatus</i>)
Swamp Milkweed	<i>Asclepias incarnata</i>
Northern Blueflag Iris	<i>Iris versicolor</i>
Southern Blueflag Iris	<i>Iris virginica</i> var. <i>shrevei</i>