



## **U.S. Department of Agriculture Conservation Reserve Enhancement Program CP22 – Riparian Forest Buffer (Version 1.1 April 2022)**

### **WHAT IS A RIPARIAN FOREST BUFFER?**

Riparian forest buffer is an area of trees and shrubs located adjacent to streams, lakes, ponds, sinkholes and karst areas, or wetlands. Riparian forest buffers intercept sediment, nutrients, pesticides, and other materials in surface runoff and reduce nutrients and other pollutants in shallow subsurface water flow. Woody vegetation in buffers provides food and cover for wildlife, helps lower water temperatures by shading the water body, stabilizes stream banks, and slows out-of-bank flood flows. In addition, the vegetation closest to the water body provides litter fall and large woody debris important to aquatic organisms. Some trees established or managed in a riparian forest buffer can also provide timber, wood fiber, and/or horticultural products after the CREP contract expires.

### **CREP POLICY**

CREP riparian forest buffers will be installed according to NRCS Conservation Practice Standard (CPS) Riparian Forest Buffer (391) in the local Field Office Technical Guide (FOTG). All construction and seeding must be completed within 12 months of contract effective date of CREP-1 to remain in compliance. If circumstances beyond the landowners control prohibit completion within the first 12 months, the local FSA County Committee may approve an extension to the next construction and planting season.

CREP riparian forest buffers installed on cropland are eligible adjacent and parallel to streams, sinkholes and karst areas, wetlands, and permanent bodies of water such as lakes/ponds. On marginal pastureland, riparian forest buffers are only eligible along streams and permanent bodies of water.

For CREP, riparian forest buffers will extend a minimum of 50 feet from the edge of the eligible body of water, and a maximum average width of 180 feet from the edge of the eligible water body.

The entire width of the riparian forest buffer must be established to trees and/or shrubs, except the outer 20 feet may be planted to grasses if necessary, for concentrated flow conditions.

Tree and shrub species selected for the buffer will be adapted to the site conditions (see Conservation Tree/Shrub Suitability Groups in Sect. II of FOTG) and meet the standards in the local FOTG. Only viable, high quality planting stock will be used.

Livestock will be excluded from all CREP buffers. Cost-share is authorized for fencing, alternative water sources, and livestock crossings if necessary.

### **INSTALLATION**

It is very important to plant trees into a weed-free, firm seedbed. If the field is currently in cropland, weed control efforts should begin prior to planting. Use herbicide or tillage to eliminate competing vegetation. If necessary, for erosion control, seed a temporary cover. Eliminate the temporary cover at planting time with tillage or herbicides.

If the field is currently in sod, begin weed control efforts using broad-spectrum herbicides in the fall. Apply herbicides again after the spring green-up prior to planting (if possible, a prescribed burn prior to spring green up to remove the dead litter from the fall treatment will provide best results). Pre-planting weed control must comply with CPS Tree/Shrub Site Preparation (490) the FOTG.

Plant trees according to the attached design sheet. Plantings using bare-rooted stock and non-rooted cuttings should be completed in the spring after the ground thaws, but no later than June 1; or planted in the fall after October 1 until the ground freezes when soil moisture is adequate. Containerized and balled and burlap stock may be planted between October 1 and June 1 as local soil moisture and weather conditions permit. Direct seeding will be completed from October 1 through April 30 as local soil moisture and weather conditions permit.

If the site is suitable, the landowner can choose to establish the trees through natural regeneration. No cost-share is available with this option; but, if after 2 years natural regeneration does not adequately stock the site, the trees must be planted without cost-share.

Weed control is also important to ensure survival and maximum growth of the trees after they are planted. Cost-share is authorized for one weed control application within 24 months after the trees are planted. Until the practice

is established, a 9 ft<sup>2</sup> area around each tree should remain weed-free to maximize tree growth. Mowing is not allowed for weed control for trees. Post-planting weed control must comply with CPS Herbaceous Weed Treatment (315).

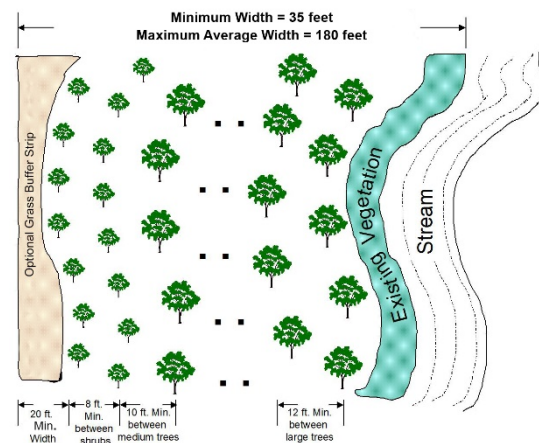
Replacement of dead trees may be needed until the planting is established. The landowner is responsible for replacement costs. Re-planting will be required when less than 80% of all plants are living, or they are not evenly distributed over the planting.

For additional information on herbicide controls, contact your local Michigan State University (MSU) extension agent. Always apply herbicides according to labeled directions.

For additional information on establishment and maintenance, implementation requirements (available at <http://www.nrcs.usda.gov/technical/efotg/> in Section IV).

Following is a list of trees and shrubs that are considered excellent for upland wildlife cover, large cavity potential, and/or fruit and nut production. Consult the FOTG for more information and other species.

Tree Species	Mature Ht (ft)	Flooding Tolerance	Wildlife Suitability
Basswood	75	L	H
Cherry, Black	70	L	H
Cottonwood	90	H	H
Cranberry, Highbush	15	H	H
Dogwood, Red-osier	12	H	H
Dogwood, Silky	12	H	H
Maple, Sugar	80	L	H
Oak, Bur	70	H	H
Oak, Red	80	L	H
Oak, White	70	L	H
Oak, Swamp White	70	M	H
Sycamore	90	H	H
Walnut, Black	80	M	H



**Wildlife – H = Excellent cover, large cavity potential, and/or high-quality fleshy fruit or nut production.**

**Flooding – H = Able to survive deep flooding for 1 growing season. M = Able to survive flooding or saturated soil for 30 consecutive days during the growing season. L = not tolerant of flooding or saturated soil.**

## OPERATION AND MAINTENANCE

Undesirable plants, insects, and pests shall be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land. Some of the most common pests that need controlled on CREP acreage include autumn olive, multi-flora rose, spotted knapweed, quackgrass, etc.

After practice establishment, maintain the planting according to your CREP conservation plan. Maintenance activities are allowed only on a spot basis and only if necessary, to maintain stand health, maintain stand diversity, or control pests that will damage the CREP cover or adjacent lands. Maintenance activities are only allowed between August 1 – May 1 (i.e. - outside of the Primary Nesting and Brood-Rearing season). If maintenance activities are needed at times other than these, the FSA County Committee must approve the maintenance activity prior to the activity occurring.

Damaging pests need to be monitored and controlled. Repellents, poisons, tubing, netting and cages of various kinds may be needed to control rodents, deer, and other pests.

Tree plantings should be inspected on a seasonal basis and following major storm and runoff events. Any damages or sediment accumulation that would adversely impair the function of the planting must be corrected immediately, at the landowner's expense.

Trees and shrubs will be protected from fire, insects, disease, and animals until established.

Supplemental watering may be desirable to ensure adequate survival.

Pruning may be required to remove damaged, diseased or unwanted limbs to improve health and quality. Refer to CPS Tree/Shrub Pruning (660) for further details.

Above is a typical layout and design of a CREP Riparian Forest Buffer. Note: other designs may also be eligible for CREP. See the attached plan and plan map.

## Riparian Forest Buffer Specification Sheet CP22

Landowner:	County:	Date:
Farm:	Tract:	Field(s):
<b>Design Considerations: Section II Forestry Interpretations</b>		
Predominant Soil Type(s): _____ = CTSG Group: _____		
Species	Total #	Spacing
Row 1:		Within row    Between Row
Row 2:		Within row    Between Row
Row 3:		Within row    Between Row
Row 4:		Within row    Between Row
Row 5:		Within row    Between Row
Row 6:		Within row    Between Row
Row 7:		Within row    Between Row
<input type="checkbox"/> Optional filter strip (Zone 3) see the attached Filter Strip Program Sheet		
<b>Livestock Exclusion (if needed)</b> See additional design sheets for engineered practices		
<input type="checkbox"/> Exclusion Fence          linear feet		
<input type="checkbox"/> Water Well		
<input type="checkbox"/> Water tank/trough		
<input type="checkbox"/> Pipeline          linear feet		
<input type="checkbox"/> Livestock crossing:		
<b>Site Prep in Year:</b>		
<input type="checkbox"/> Grading, Leveling, Filling (See attached design)		Date:
<input type="checkbox"/> Rock Filled Infiltration		Date:
<input type="checkbox"/> Plugging, removing or replacing perforated pipe.		Date:
<input type="checkbox"/> Water Control Structure		Date:
<input type="checkbox"/> Herbicide		Date:
<input type="checkbox"/> Herbicide		Date:
<input type="checkbox"/> Tillage		Date:
<input type="checkbox"/> Temporary cover		Date:
<input type="checkbox"/> Other:		Date:
<b>Planting Method in Year:</b>		
Planting method:		Date:
<b>Maintenance</b>		
Maintain a 9 ft <sup>2</sup> weed & grass-free area around each shrub for up to 3 years for optimal growth		
NOTE: After practice establishment, mowing will be conducted between August 1 & 20, and weeds will be treated on a "spot" basis only, with prior approval granted by the FSA County Committee		
<b>Management</b>		
<input type="checkbox"/> Tree pruning/thinning		Date:
NOTE: After practice establishment, other management activities will be conducted between August 1 & May 1, and weeds will be treated on a "spot" basis only, with prior approval granted by the FSA County Committee.		

### Additional Information:

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