



Wetland Restoration

Michigan CONSERVATION RESERVE PROGRAM CRP – CP23

Natural Resources Conservation Service (NRCS)

October 2006



Photo courtesy of USDA NRCS

WHAT IS A WETLAND RESTORATION?

Wetland Restorations are applicable in areas that used to be wetlands, but have been converted to agricultural uses. Wetlands in Michigan include open water, marsh, meadow, shrub and forested habitats. An important component of wetland restorations is to also restore the upland areas surrounding the wetland to provide a "buffer". Restoring wetlands and the adjacent upland buffers provides soil erosion protection and water quality enhancement, as well as habitat for a variety of wildlife, especially waterfowl, upland game birds and songbirds.

ELIGIBILITY

To be eligible for this practice with the Conservation Reserve Program, the land must have a cropping history (4 out of 6 years from 1996-2001). Further, the site must have hydric (wetland) soils that are located in the 100-year floodplain of a permanent river/stream and are technically and economically suitable for wetland restoration.

CRP POLICY

For CRP, the hydrology of the site must be restored. The level of hydrology restoration allowed will be based on the best available evidence of what the **original** hydrology of the site was like **prior to** alteration. Vegetation in the wetland area will either be established or allowed to re-vegetate naturally. Neither Wetland Enhancements nor Wetland Creations are eligible under CRP CP23.

An upland buffer at least 50 ft. wide, and up to 3 times the wetland acres must also be enrolled and planted to native grasses and wildflowers, non-native wildlife friendly grasses and legumes (timothy, redtop, orchard grass, clover, &/or alfalfa), &/or native trees.

CRP Wetland Restorations will be established according to the Wetland Restoration (657) standard in the local Field Office Technical Guide (FOTG). All construction and seeding must be completed within 12 months of contract approval to remain in compliance. If circumstances beyond the landowner's control prohibit completion within the first 12 months, the local FSA County Committee may approve an extension to the next construction and planting season.

For CRP in Michigan, **Native Grasses & Wildflowers** (Big &/or Little Bluestem, Indiangrass, Canada Wild Rye, Switchgrass, etc.) **will be encouraged**. At a minimum, **only** wildlife friendly Non-Native grasses & legumes (timothy, redtop, orchard grass, clover, &/or alfalfa) or Native trees are authorized.

RESTORATION OF HYDROLOGY

The hydrology of the site should be completed prior to establishing the vegetation in the buffer.

If surface or sub-surface drainage exists, these must be "plugged" according to the Wetland Restoration (657) standard in the FOTG. Digging, dredging, dug-outs, dikes, etc. are not authorized unless it is documented that the wetland was altered by grading, filling, etc. and these activities are needed to restore the original hydrology. Wetland Enhancements and Wetland Creations are not authorized for CRP CP23.

CONSTRUCTION

Permits: Federal, State, or Local regulations may apply to private landowners conducting construction in wetland areas. All necessary permits shall be acquired by the landowner before construction begins.

PLANTING

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

Contact your local Michigan State University (MSU) Extension Agent for specific herbicides to use. **Apply all herbicides according to the label.**

Plant the vegetation according to the attached plan/design sheet. Apply lime and fertilizer according to needs determined by a soil test and MSU recommendations.

Use a drill designed for the seed to be planted, or the seed may be broadcast or aerial seeded. For aerial or broadcast seeding, the seedbed must be worked up and firmed with a cultipacker or similar equipment. A carrier such as potash may also be needed to spread the seed evenly. **After seeding, the site must be rolled or cultipacked to ensure proper seed to soil contact.** Regardless of the method, plant the seeds **no deeper than** 1/8 – 1/4 inch.

For trees, 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.

For grasses, mow, burn, or apply herbicides as needed to control unwanted vegetation until a ***Final*** Status Review is issued. Mow when competing weeds are taller than the planted vegetation, and at a height above the planted vegetation. **Native grasses will not be mowed lower than 12", and non-native grasses lower than 4".**

For trees, until a ***Final*** Status Review is issued, a 3-foot radius around each tree should remain weed-free to maximize tree growth. Fabric weed barriers are very effective at minimizing weed competition, but are not eligible for CRP cost-share. **Mowing is not recommended for weed control for trees.**

For additional information on establishment and maintenance of grasses and trees, see the following NRCS – Michigan Conservation Sheets (available at <http://www.nrcs.usda.gov/technical/efotg/> in Section IV): "Tree/Shrub Planting for: Reforestation, Windbreaks, and Wildlife", "Weed Control for Tree and Shrub Establishment", "Establishing Cool Season Grasses and Legumes for Conservation Cover", "Establishing Prairie Grass Buffer Strips", "Prescribed Burning", &/or others.

OPERATION AND MAINTENANCE

Noxious weeds and other undesirable plants, insects, and pests shall be controlled, including such

For additional information on herbicide controls, contact your local MSU Extension Agent. **Always apply herbicides according to labeled directions.**

maintenance as necessary to avoid detrimental effects to the surrounding land.

After the Final Status Review, maintain the planting according to your CRP 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 CRP cover or adjacent lands. **MOWING** is only authorized between Aug 1st and Aug 20th to protect ground-nesting wildlife and to allow re-growth for winter cover. Other maintenance activities or Mid-Contract Management will only be allowed outside the designated dates to protect ground-nesting wildlife. Designated dates are from May 1st to August 1st. If management or maintenance activities are needed within these dates, the FSA County Committee **must** approve the management activity **prior to** the activity occurring.

For Trees, replacement of dead trees and shrubs will occur to ensure at least 80% of the trees are living. The landowner is responsible for replacement costs.

Mowing for generic weed control or for cosmetic purposes is prohibited.

REQUIRED MANAGEMENT

If grasses will be planted, all new CRP contracts must have mid-term contract management activities scheduled that are site specific and will ensure plant diversity, wildlife habitat, and protection of soil and water resources. Management activities that will ensure these benefits in wetland restoration grass plantings include prescribed burning (according to an approved burn plan), disking, interseeding of wildflowers or non-native legumes, etc. All management activities must be performed according to NRCS Standards and Specifications as found in the FOTG, and CRP policy. Mid-Contract Management options will be selected by the participant.

OTHER MANAGEMENT CONSIDERATIONS

For optimum wildlife habitat, plant a diversity of grasses, wildflowers, legumes, &/or trees. This mixture will provide winter and nesting cover, flowers for pollinating insects, as well as a good seed and insect source for food.

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Wetland Restoration DESIGN WORKSHEET CRP CP23

Landowner: _____ **County:** _____

Farm: _____ **Tract:** _____ **Field(s):** _____ **Wetland Acres:** _____ **Date:** _____

Buffer Acres: _____

HYDROLOGY RESTORATION in Year:

ORIGINAL HYDROLOGY &/or WETLAND FUNCTIONS WERE ALTERED BY:	AND WILL BE RESTORED BY: (see the attached map and engineering design for details)
<input type="checkbox"/> Subsurface Drain Tile	<input type="checkbox"/> Plugging _____ Feet of Subsurface Drain Tile <input type="checkbox"/> And Installing a Berm to retain surface water
<input type="checkbox"/> Surface Drains	<input type="checkbox"/> Plugging _____ Feet of Surface Drains <input type="checkbox"/> And Installing a Berm to retain surface water
<input type="checkbox"/> Grading / Leveling / Fill	<input type="checkbox"/> Removing Cubic Yards of Fill
<input type="checkbox"/> Traditional Agricultural Activities (Farmed Wetlands)	<input type="checkbox"/> No Longer Farming <input type="checkbox"/> And Seeding the Area to Native Vegetation
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

WETLAND SEEDING (PLS #/ACRE = PURE LIVE SEED POUNDS PER ACRE)

The wetland will be allowed to re-vegetate naturally

WET HERBACEOUS MIX (see map for location)	RATE PLS#/ac	TOTAL = (RATE X Acres)	TREE PLANTING (see map for location)	TOTAL needed	Spacing (ft.) <small>between rows x within rows</small>
<input type="checkbox"/>		0.0 Lb.	<input type="checkbox"/>		Shrub spacing X
		0.0 Lb.			-----
		0.0 Lb.			Tree spacing X
		0.0 Lb.			
		0.0 Lb.			

WETLAND BUFFER & BERMS SEEDING

NATIVE GRASS BUFFER (see map for location)	RATE PLS#/ac	TOTAL = (RATE X Acres)	NON-NATIVE GRASS BUFFER (see map for location)	RATE PLS#/ac	TOTAL = (RATE X Acres)
<input type="checkbox"/>		0.0 Lb.	<input type="checkbox"/>		0.0 Lb.
		0.0 Lb.			0.0 Lb.
		0.0 Lb.			0.0 Lb.
		0.0 Lb.			0.0 Lb.
		0.0 Lb.			0.0 Lb.
		0.0 Lb.			0.0 Lb.

Recommended Wildflowers include:

TREE BUFFER (see map for location)	TOTAL needed	Spacing (ft.) <small>between rows x within rows</small>	BERMS (if applicable)	RATE	TOTAL = (RATE X Acres)
<input type="checkbox"/>		Shrub spacing X	<input type="checkbox"/>		Lb.
		----- Tree spacing X			Lb.
					Lb.
					Lb.

