



Aquaculture Wetland Restoration

Michigan CONSERVATION RESERVE PROGRAM CCRP – CP40

Natural Resources Conservation Service (NRCS)

March 2011



Photo courtesy of USDA NRCS

What is an Aquaculture Wetland Restoration?

An Aquaculture Wetland Restoration is a practice to restore habitat or the functions and values of wetland ecosystems that have been devoted to commercial pond-raising aquaculture.

ELIGIBILITY

To be eligible for this practice with the Continuous Conservation Reserve Program, the total eligible land for wetland restorations is limited to land that was devoted to commercial pond-raised aquaculture any one year from 2002 through 2007.

This practice will be included in the approved conservation plan and be maintained for the life of the contract.

This practice will restore the functional capability and values of the wetland ecosystem to a level determined by the participant in consultation with NRCS or a Technical Service Provider which include the following:

- preventing degradation of the wetland area and surrounding upland area from recurring;
- increase sediment trapping efficiencies;
- improve surface and ground water quality;
- prevent excessive erosion from recurring;
- provided waterfowl and other wildlife habitat; and
- reducing flood flows.

CRP POLICY

The wetlands will be established according to the Wetland Restoration (657), Wetland Creation (658) or Wetland Enhancement (659) standards in the local Field Office Technical Guide (FOTG).

All construction and seeding must be completed within 24 months of the effective date of the contract to remain in compliance. If circumstances beyond the landowner's control prohibit the planting within the first 24 months, the local FSA County Committee may approve an extension to the next planting season.

Land enrolled in CP-40 has no size limitation, but water cover is limited to 20 percent of the total enrolled acreage. The water area must be an average depth of 6 to 18 inches and provide a source of water for wildlife for a majority of the year.

Food plots may be permitted to enhance the wildlife habitat on up to 10 percent of the enrolled land.

All levees must be planted to appropriate vegetative or tree cover if enrolled as part of the CRP contract. Levees used as access roads will not be part of the CRP contract.

Eligible seeding on soils that are developed under a grassland ecosystem that will not be covered by water anytime during the normal growing season and are substantiated as needed by COC include:

- Establishment of permanent native grass species
- Establishment of permanent introduced grasses and legumes and native shrub species, where determined necessary to improve wildlife habitat
- Planting annuals as a nurse crop to prevent erosion while permanent cover is becoming established

Eligible seeding on soils that are developed under a woodland ecosystem, except in areas that will be covered by water during no less than 60 calendar days of the normal growing season include:

- Establishment of hard mast-producing hardwoods adopted for living in wet conditions that will provide multipurpose forest and wildlife benefits
- Establishment of permanent introduced grasses and legumes and native shrub species, where determined necessary to improve wildlife habitat
- Planting annual grasses, legumes, perennial native grass species, and softwoods, not to

exceed 50 percent of the total number of trees planted, to serve as a nurse crop to prevent erosion while permanent cover is becoming established

CONSTRUCTED HYDROLOGY

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

Practices authorized to be used to restore the wetland ecosystem include smoothing levees to develop habitat, restore the hydrology of the site or provide wildlife habitat cover through vegetative plantings.

CONSTRUCTION

Construction will be authorized only after a design is approved by NRCS.

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 Extension (MSUE) 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. See website: (<http://www.naptprogram.org/about/participants/>).

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 and Native Shrubs: 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, balled and burlapped 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.

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 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 inches, and non-native grasses lower than 4 inches.**

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.

Natural Regeneration may be elected if all of the following are met:

- It is determined by NRCS that an adequate seed source of approved tree, shrub and grass species is present in the soil at the site;
- The appropriate cover will be established within 2 years of the contracts effective date;
- Erosion and runoff will be controlled during the establishment period;
- Weeds, including noxious weeds, and other non-approved plant species will be controlled during the establishment period;
- No cost share shall be provided for this practice;

Note: The producer will plant the approved cover at no cost if the aquaculture wetland is not established through natural regeneration within 2 years of the contracts effective date.

OPERATION AND MAINTENANCE

The land under contract shall not be harvested or grazed by domestic livestock for the life of the contract.

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 CRP acreage include Autumn Olive, Multiflora Rose, Spotted Knapweed, Quackgrass, etc.

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 (herbicides, burning, etc.) are only allowed between August 1 – May 1st (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.

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

MID-CONTRACT MANAGEMENT

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 Introduced grass and legume plantings include prescribed burning (according to an approved burn plan), disking, grass-specific herbicide applications, and interseeding of legumes. All management activities must be performed according to NRCS Standards and Specifications as found in the FOTG and CRP policy.

OTHER MANAGEMENT CONSIDERATIONS

Consideration for water quality, wildlife, and other environmental concerns are to be evaluated in the planning and establishment of this practice. FSA shall conduct a site investigation prior to approving a contract on a constructed wetland. This investigation is to determine if potential hazardous materials may be associated with the site. Potential impacts to historic/cultural resources and threatened and endangered species should be evaluated. Appropriate regulatory agencies should be consulted with in this process.

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CONSTRUCTED WETLAND DESIGN WORKSHEET CRP CP39

Landowner:

County:

Farm:

Tract:

Field(s):

Wetland Acres:

Date:

Buffer Acres:

WETLAND CONTRUCTION in Year:

CONSTRUCT OR RESTORE HYDROLOGY BY:

AND WILL BE CREATED BY:

(see the attached map and engineering construction drawings for details)

Natural Regeneration

Levee Grading/Leveling/Fill Removal

Grading Leveling _____ Acres

Removing _____ Cubic Yards of Fill

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

NATIVE SHRUBS (see map for location)	TOTAL needed	Spacing (ft.) <small>between rows x within rows</small>	TREE PLANTING (see map for location)	TOTAL needed	Spacing (ft.) <small>between rows x within rows</small>		
<input type="checkbox"/>		Shrub spacing X ----- Tree spacing X	<input type="checkbox"/>		Shrub spacing X ----- Tree spacing X		
NATIVE GRASSES (see map for location)	RATE PLS#/ac	TOTAL = (RATE X Acres)		NON-NATIVE GRASSES (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 SHELTERS (see map for location)	TOTAL needed	FIREBREAKS, FUELBREAKS, OR FIRELANES (if applicable)	RATE	TOTAL = (RATE X Acres)
<input type="checkbox"/>		<input type="checkbox"/>		Lb.
				Lb.

BEFORE PLANTING:

- Herbicide₁ (per label): Dates =
- Herbicide₂ (per label): Dates =
- Tillage: Dates =
- Temporary Seeding:
- Apply fertilizer and lime according to an approved soil test and MSU recommendations for "ESTABLISHING native OR non-native grasses".
- Other:

PLANTING METHOD in Year:

Tree/Shrub Planting

Method:

:

Grass Planting Method:

Seeding Dates Natives =

Seeding Dates Non-Natives=

(If unforeseen circumstances prohibit the planting of the grass by this date, please contact our office as soon as possible)

POST-PLANTING MAINTENANCE for Pest Control

Mowing: BEFORE FINAL STATUS REVIEW = mow high when the weeds are taller than the planted grasses

AFTER FINAL STATUS REVIEW* = MINIMUM Mowing Height*

Herbicide* (per label):

Prescribed Burning*: According to an approved plan

Other:*

****NOTE: after the Final Status Review has been issued, other maintenance activities will be conducted outside the primary nesting season (May 1st – August 1st), and weeds will be treated on a “spot” basis only, unless prior approval is granted by the County Committee.**

****Attach NRCS Approved Engineering drawings**

ADDITIONAL INFORMATION:

Reset Form