



CP23 & 23A Wetland Restoration

1/3

of threatened and endangered species only live in wetlands

75

percent of fish rely on wetlands for a portion of their life cycle

ECONOMIC ADVANTAGES

The U.S. Global Change Research Program estimates that terrestrial wetlands in the continental United States store a total of 13.5 billion metric tons of carbon.

Wetlands are estimated to provide \$14.5 trillion dollars in ecosystem service benefits.

On average, wetlands store 1 million dollars worth of water.

Just the basics

Wetland restoration is used to re-establish natural/historic wetland sites to former conditions by manipulating physical, chemical, or biological characteristics of the site. The objective is to emulate the self-regulating system that was once present on the landscape. Often, restoration requires one or more of the following processes: reconstruction of physical conditions; chemical adjustment of the soil and water; and reintroduction of absent native flora and fauna. (non-floodplain areas (23A), floodplain areas 23).

CREP policy guidelines

- CREP wetland restoration will be installed according to wetland restoration (657) standard in the local Field Office Technical Guide (FOTG).
- Level of restoration is determined by the original hydrology of the site prior to modification.
- Wetland restoration activities will be determined in consultation with NRCS to determine the original hydrology of the site prior to alteration.
- Vegetation in the wetland area will either be established or allowed to re-vegetate naturally.
- Digging, dredging, etc. is not authorized unless the wetland was altered by grading or filling and these activities are needed to restore the original hydrology.

For more information contact:



What is the life cycle of wetland restoration?

HOW IS THE SITE PREPARED

Restoration sites will occur on soils that are hydric. Sample the soil at least six months prior to planting.

Soil test should be done by an accredited laboratory with the North American Proficiency testing program when not using and MSU laboratory.

Existing vegetation can be removed using mechanical and/or chemical methods prior to planting.

If the site is currently in sod, weed control should begin with a broad-spectrum herbicide in the fall and again before spring green up prior to planting.

Warm season herbicides may be used and/or mixed with broad-spectrum herbicides. This may help with better establishment results for native grasses.

Contact MSUE for specific herbicide recommendations.

PLANTING GUIDE

Burning to remove dead litter from fall treatment provide the best results, but should be completed before spring green up.

Lime and fertilizer can be applied prior to site planting. This is not often needed. The amount of lime should be determined by a buffer pH test.

Use a no-till grass drill for planting. If no drill is available broadcast and aerial seeding is acceptable.

A carrier, such as potash, may be used to evenly broadcast seed.

Seed no deeper than 1/8th inch. After seeding, the site must be rolled or cultipacked to ensure proper seed to soil contact when broadcasting seed.

Maintain grasses by burning, mowing, or spot herbicide. Native grasses should not be mowed lower than 12", and non-native grasses 4" - 6".

Until practice is established, a 9 ft. sq. area around trees and shrubs should remain weed-free.

DESIGN

CONSIDERATIONS

Restoration of wetlands must comply with federal, tribal, state, local laws and regulations and permitting as required. Wetland design must be approved by NRCS before construction begins.

- This practice only applies to natural wetland sites with hydric soils which have been degraded of hydrology, vegetation, or soils.
- A functional assessment of historic site function should be completed to approximate the conditions that existed before alteration.
- If sediments or other depositional material is covering hydric soil it shall be removed to restore the original soil functions.
- Work associated with the wetland shall not adversely affect adjacent properties.

See additional design sheets for engineered practices in the local Field Office Technical Guide (FOTG)

LANDOWNER

OBLIGATION

- Develop a conservation plan with USDA approved conservationist
- Participate in a pre-installation (construction) conference.
- Complete all necessary permits before installation
- Perform periodic management activities according to the conservation management plan
- Complete seeding of the the practice within 12 months of the effective date of the contract
- Will maintain practice without additional cost-share payments
- Plug any surface or sub-surface drainage

CONTRACT

TASKS

- Complete a soil test to determine appropriate site preparation and desired species
- Complete the appropriate analysis of soil, hydrology to adequately describe the requirements to install the practice
- Complete the design sheets for project installation.
- Develop written plans and sketches with client to outline installation requirements and to obtain necessary permits
- Order needed equipment such as a disk, seed drill, roller, or cultipacker.

Wetlands are nature's solution to safeguard us from disasters. When it storms, wetlands store flood waters.