



CP 26 - Sediment Retention Control Structure

16

billion dollars of damage is caused by sedimentation annually.

70

percent of erosion is caused by human use of the land.

ECONOMIC ADVANTAGES

Sediment retention control structures can help control water flow to maintain farmable land.

Sediment retention control structures can improve water quality by reducing 80% of phosphorus loss.

Reduces sediments leaving the property.

Just the Basics

Sediment retention control structures (SRCS) manages erosion and runoff by capturing sediment that flows from minor drainageways on sloped landscapes. SRCS consist of earth embankment or a combination of ridge and channel structures that concentrate and captures sediment and water runoff to a strategically placed location. SRCS usually consist of an upland buffer and an inundated area that is planted with native shrubs, grasses and wildflowers such as big bluestem, little bluestem, Indian grass, Canada wild rye, switchgrass, etc.

CREP Policy Guidelines

- *CREP sediment retention control structure will be installed according to Water and Sediment Control Basin (638) standard in the local Field Office Technical Guide (FOTG).*
- The inundated portion should not exceed more that one acre. The total water areas plus buffers should not exceed 10 acres.
- The inundated portion should be seeded with switchgrass and the embankment seeded with native grasses and wildflowers at a heavier seeding rate.
- The surrounding upland buffer must have a width of 20 - 120ft and must be enrolled and planted with native grasses and wildflowers.

For more information contact:



What is the life cycle of a sediment retention control structure?

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 an 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

Engineering designs must be approved by NRCS or Certified Technical Service providers. A pre-Construction meeting will occur to ensure the design instructions are correctly followed.

Plans and specifications for SRCS should include the following

- Overall plan view of the layout of the SRCS system.
- Cross sections and profile of the basin.
- Details of the outlet system. For underground outlets, details of the inlet and profile(s).
- Seeding and mulching requirements if needed.
- Construction specifications that describe in writing site-specific installation requirements.

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

The guidelines listed above include all areas of the installed buffer, embankment and inundated portions of the sediment retention control structure

LANDOWNER

OBLIGATION

- Develop a Conservation Plan with USDA approved conservationist.
- Complete all necessary permits before installation.
- Establish and implement an inspection and maintenance program.
- Participate in a pre-installation (construction) conference.
- Complete seeding of the the practice within 12 months of the effective date of the contract.
- Will not hay or graze the practice area.

CONTRACT

TASKS

- Complete a soil test to determine appropriate site preparation and desired species
- Complete the appropriate analysis of soil, hydrology, interval/spacing of basins, capacity of storage area and outlet, erosion control, and seeding and mulching requirements, as appropriate to adequately describe the requirements to install the practices.
- 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.

We never know the worth of water until the well is dry.

- Thomas Fuller