



CONSERVATION ENHANCEMENT ACTIVITY

E646137X- Colorado

**CONSERVATION
STEWARDSHIP
PROGRAM**

Renovate small, shallow pothole and playa sites which may seasonally hold water

Conservation Practice 646: Shallow Water Development & Management

**APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial);
Associated Land Use**

RESOURCE CONCERN ADDRESSED: Fish & Wildlife – Inadequate Habitat

ENHANCEMENT LIFE SPAN: 5 Years

Enhancement Description

Renovate small, shallow pothole and playa sites which may seasonally hold water.

Criteria

- Sites should be natural, internally drained areas, such as prairie potholes, vernal pools, playas, or similar areas, and should not require diking or ditching. Seasonal or episodic inundation should be from local watershed runoff or a seasonably high groundwater table. These pools do not provide year-round water habitat.
- Remove accumulated sediment, if necessary, to increase pool depth.
- Provide a diversity of native or natural shrub and/or herbaceous plant species suitable for the site and appropriate for wildlife species that require shallow water for at least a part of their life cycle. Selected plant species must be adapted to the projected duration of saturation and inundation of the site.



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- Protect the site from flooding, drainage, sedimentation, and contamination. Use erosion control and nutrient and pest management conservation practices in the contributing watershed to maintain water quality and reduce sediment production.
- Establish a minimum 35-foot vegetated buffer around the shallow water feature. Species selected shall have stiff stems and high stem density near the ground surface to reduce water velocities and facilitate sedimentation. Only viable, high quality and site-adapted planting stock will be used. Selection of native plants is recommended.
- Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) may be the least damaging alternative for pest control.
- Human and livestock activities in and surrounding the shallow water pool may disturb wildlife, thereby decreasing habitat suitability and function. Vegetative screens, fences, or gates should be used as means of reducing unwanted disturbance. Cover around the site that may provide nesting habitat should not be mowed until after the primary nesting season.
- Design the shallow water feature for an expected life of at least 5 years.



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Documentation and Implementation Requirements

Participant will:

- Prior to implementation, prepare the area for vegetation establishment. Refer to NRCS Conservation Practice Standards Riparian Herbaceous Cover (Code 390) and Shallow Water Development and Management (Code 646). (NRCS will provide technical assistance, as needed.)
- Prior to implementation, in areas that are highly disturbed and are unlikely to have existing native seed in the soil work closely with NRCS to select plant species that are adapted to your specific site. (NRCS will provide technical assistance, as needed.)

Species	Species type (grass, legume, forb)	Rate (Lbs/Ac) PLS

- Prior to implementation, select planting technique and timing appropriate for the site and soil conditions. (NRCS will provide technical assistance, as needed.)

Planting Date	
Planting Technique	
Seeding Depth	

- During implementation, grade the pool area, if needed, to remove accumulated sediment and deepen the pool.
- During implementation, install and maintain erosion control measures, as needed.
- During implementation, establish the selected plant species in the pool area and in a minimum 35-foot vegetated buffer around the pool.



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- During implementation, notify NRCS of any planned changes to verify the planned system meets the enhancement criteria.
- After implementation, use erosion control and nutrient and pest management conservation practices in the pool's contributing watershed to maintain water quality, reduce sediment production, and control pests.
- After implementation, protect the pool and buffer area from human and livestock activities that may disturb wildlife.

NRCS will:

- As needed, provide technical assistance to meet the criteria of the enhancement.
- Prior to implementation, provide and explain NRCS Conservation Practice Standards Riparian Herbaceous Cover (Code 390) and Shallow Water Development and Management (Code 646) as they relate to implementing this enhancement.
- Prior to implementation, verify the enhancement is planned for cropland or associated agricultural land.
- Prior to implementation, verify the enhancement is planned for acres that have been appropriately prepared.
- Prior to implementation, ensure plant species selected are suited to site conditions and wildlife uses; verify no plants on the Federal or state noxious weeds list are included; ensure planting techniques and timing are appropriate for the site and soil conditions.
- Prior to implementation, prepare specifications for applying this enhancement using approved state implementation requirements, national technical notes, state technical notes, and other appropriate guidance.
- During implementation, evaluate any planned changes to verify they meet the enhancement criteria.
- During implementation, verify all erosion control needed for the site is functioning and is maintained to specifications developed for the site.



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- After implementation, verify vegetation was established to specifications developed for the site, and that appropriate erosion control, nutrient management, and pest management conservation practices are being used in the pool's contributing watershed.
- After implementation, verify the area is being protected from human and livestock activities that may disturb wildlife.

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date

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