

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**SHALLOW WATER MANAGEMENT FOR WILDLIFE**

(acre)

**CODE 646**

**DEFINITION**

Managing shallow water on agricultural lands and moist soil areas for wildlife habitat.

**PURPOSE**

- To provide open water areas on agricultural fields and moist soil areas to facilitate migratory bird resting and feeding.
- To provide habitat for reptiles and amphibians and other aquatic species which serve as important prey species for waterfowl, raptors, herons, and other wildlife.

**CONDITIONS WHERE PRACTICE APPLIES**

On agricultural and moist soil areas where water can be impounded or managed by diking, ditching, or flooding.

This practice can be used to facilitate the conservation of declining wetland-dependent and threatened and endangered species.

This practice does not apply to: Wetland Restoration (657) intended to rehabilitate a degraded wetland where the soils, hydrology, vegetative community, and biological habitat are returned to original conditions; Wetland Enhancement (659) intended to rehabilitate a degraded wetland where specific functions and/or values are enhanced beyond original conditions; or Wetland Creation (658) for creating a wetland on a site location which historically was not a wetland or on a site which was formerly a wetland but will be replaced with a wetland type not naturally occurring on the site.

**CRITERIA**

- Soils should have low permeability to inhibit subsurface drainage and allow for maintenance of proper water levels.
- Shallow water impoundments require an adequate water supply for reflooding and a water control structure for removing water when necessary.
- The landowner shall obtain all local, State, and Federal permits necessary.
- If pumping is planned, water rights must be assured.
- The Standards and Specifications for Dike (356), Pumping Plant for Water Control (533), and Structure for Water Control (587) will be used as appropriate. Refer to the Engineering Field Handbook Chapter 6, "Structures," for additional design information. Existing drainage systems will be utilized, removed, or modified as needed to achieve the intended purpose.

**CONSIDERATIONS**

To insure that food is available to dabbling ducks, impoundments should be gradually flooded to a depth of 6 - 18 inches.

Consider the timing of flooding and drawdown, as well as the type of drawdown, as it affects plant species composition (moist soil areas).

Consider the flooding tolerance of existing plant species and seed of other species in the soil (moist soil areas).

Consider effects on wetlands or wildlife habitats that would be associated with the practice.

Consider the effects of residual herbicides on establishment of vegetation (moist soil areas).

Consider the desired plant species' tolerance to the timing and method of water drawdown.

Consider effects of dissolved substances that may move to groundwater and/or downstream surface waters.

Consider effects on other water uses or users downstream or in a common aquifer of the planned practice.

### **PLANS AND SPECIFICATIONS**

Plans and Specifications for installing structures for water control shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

### **OPERATION AND MAINTENANCE**

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance).

The impoundment should be dewatered and disked or burned at 2 to 3 year intervals to control undesirable plants.

The use of fertilizers, mechanical treatments, prescribed burning, pesticides, and other chemicals used for maintenance shall not compromise the intended purpose of the practice.

Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where feasible.

Operation and maintenance shall include monitoring and management of the site and any structural components.

### **REFERENCES**

Waterfowl Management Handbook, Fish and Wildlife Leaflet 13.