

# SHALLOW WATER MANAGEMENT FOR WILDLIFE (ACRE)

CODE 646

MONTANA TECHNICAL GUIDE

SECTION IV

## 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 waterfowl resting and feeding.
- To provide habitat for reptiles and amphibians and other aquatic species which serve as important prey species for waterfowl, raptors, and other wildlife.

## CONDITIONS WHERE PRACTICE APPLIES

On agricultural and moist soil areas where water can be impounded or regulated 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: the Field Office Technical Guide (FOTG), Section IV, Practice Standards, 657–Wetland Restoration—intended to rehabilitate a degraded wetland where the soils, hydrology, vegetative community, and biological habitat are returned to original conditions; 659–Wetland Enhancement—intended to **modify or** rehabilitate an **existing or** degraded wetland where specific functions and/or values are enhanced beyond original conditions; or, 658–Wetland Creation—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 **shall** have **high water table or** low permeability to inhibit subsurface drainage and allow for maintenance of proper water levels.
- An adequate water supply for re-flooding and a water control structure for removing water **are required**.
- Landowner shall obtain all local, state, and federal permits necessary.
- Water rights must be assured.
- **The FOTG, Section IV, Practice Standards and Specifications for 356–Dike; 533–Pumping Plant for Water Control; and, 587– Structure for Water Control will be used as appropriate. Refer to *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.**
- **Implementation of this practice will not adversely affect threatened, endangered or state species of special concern or their habitats.**

## CONSIDERATIONS

To insure that foods are available to dabbling ducks, impoundments should be gradually flooded to an **average** depth of 3–18 inches.

Consider the effects of the timing of flooding and draw-down, as well as the **rate** of draw-down, on plant species **and their** composition (moist soil areas).

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NOTE: This type of font (**AaBbCcDdEe 123..**) indicates NRCS National Standards.  
This type of font (**AaBbCcDdEe 123..**) indicates Montana Supplement.

Consider the **plant** species flooding tolerances and the composition of seed in the soil at the site (moist soil areas).

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

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

Consider effects on movement of dissolved substances to groundwater and to downstream surface waters.

Consider effects on downstream flows that would affect other water uses or users.

**Consider water quality to avoid salinization by using appropriate field border widths.**

**Consider migration dates for target species to optimize water depth and foraging requirements.**

**Consider effects of drawdown rates on invertebrates.**

## **PLANS AND SPECIFICATIONS**

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

## **OPERATION AND MAINTENANCE**

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

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):

- Any use of fertilizers, mechanical treatments, prescribed burning, pesticides, **grazing, haying**, and other chemicals to assure the shallow water or moist soil area function shall not compromise the intended purpose.
- Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where available and feasible.

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

**Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.**