United States Department of Agriculture
Natural Resources Conservation Service

Shallow Water Development and Management

Virginia Conservation Practice Job Sheet *646*

Definition
The inundation of lands to provide habitat for fish and/or wildlife.

Purpose
To provide habitat for wildlife such as shorebirds, waterfowl, wading birds, mammals, fish, reptiles, amphibians and other species that require shallow water for at least a part of their life cycle.

Conditions Where Practice Applies
This practice applies to lands where water can be impounded or regulated by diking, excavating, ditching, and/or flooding and on floodplain areas that provide refuge habitats for native fish during high flow periods. The primary component of this practice is maintenance of water levels between 1 and 18 inches during periods of planned inundation and the sole purpose of providing habitat for wildlife species.

Criteria
Soils must have low permeability or seasonal high water table to inhibit subsurface drainage and allow for maintenance of proper water levels. Maintain water levels between 1 to 18 inches in depth over the majority of the area during periods of planned inundation. Include a plan for control of invasive species, noxious plant species, nuisance species and exotic species during the establishment and maintenance of the practice.

Conservation Management System
Wetland wildlife habitat management may be a component of a conservation management system that addresses wetland concerns.

Specifications
The design of the wetland should be site-specific and meet the landowner's objective. The design will meet targeted wetland functions. Generally, a design with low maintenance components is preferable over a restoration with pumps and other high maintenance components.

Operation and Maintenance
O&M will consist of an operation and maintenance plan that describes the timing and duration of flooding, vegetation management where necessary, and any other mechanical, chemical or maintenance treatments. The following actions shall be carried out to ensure 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):

- Document the O&M requirements in the appropriate section of the Wetland Development and Management Job Sheet.

- Any use of fertilizers, mechanical treatments, prescribed burning, pesticides and other chemicals shall assure that the intended purpose of the wetland shall not be compromised.
- Management actions shall maintain vegetation and control undesirable vegetation. Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where available and feasible. Management of water depth and duration may be utilized to control unwanted vegetation.
- Haying or grazing shall be used as appropriate to manage vegetation. Minimize disturbance to ground nesting species, especially during the primary nesting season.
- Measure the depth of accumulated sediment and remove the accumulations when the planned project objectives are jeopardized.
- Timing and level setting of water control structures is required for the establishment of desired hydrologic conditions, for management of vegetation and for optimum wildlife and fish use.
- Inspect the embankments and structures on the site (if applicable) at least annually and after major storm events. Immediately repair any damage.

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Shallow Water Development and Enhancement Job Sheet 646

Landowner:	*Farm #:*
Field(s):	*Tract #:*
Acres:	*Date:*

Purpose (check all that apply):			
☐ Wildlife Habitat Species:			
☐ Water Quality	☐ Recreation	☐ Aesthetics	☐ Other _____

Hydric Soils Present:	
☐ Yes (Use Code 646, 657, or 659)	☐ No (Use Code 646, 656, 658)

Wetland Standards Used (check all that apply): ☐ 644 ☐ 646 ☐ 657 ☐ 658 ☐ 659

Wetland Information

Water Source (See engineering design for details):		
☐ Diversion (Code 362)	☐ Pond	☐ Pumping Plant (Code 533)
☐ Well (Code 642)	☐ Surface Water	☐ Dikes
☐ Water Control Structure Number: _____ Type/Size: _____		

Vegetative Plantings:			
Riparian Herbaceous Cover (Code 390)		acres: _____	what year? _____
Riparian Forest Buffer (Code 338)		acres: _____	what year? _____
Critical Area Planting (Code 342)		acres: _____	what year? _____
Other:		acres: _____	what year? _____
Species:	*Rate:*	*Species:*	*Rate:*

Fencing (if needed: Code 382)	**Type:** _____	**Feet:** _____

Water Management:
☐ Slow drawdown starting on or around: _____
☐ Leave drained over summer for moist soil plants to grow.
☐ Allow shallow water area to gradually refill for migration, start refilling on:_____
☐ Maintain shallow water over winter. Vary water depth from year to year.
☐ Disk at the start of the growing season as necessary to stimulate annuals.
☐ No active management (natural water regime).

Vegetation Management:		
Early Successional Habitat Development (Code 647)	acres: _____	what year? _____
Prescribed Burning (Code 338)	acres: _____	what year? _____
Pest Management (Code 595)	acres: _____	what year? _____

Other:	acres: _____	what year? _____

Site Specific O&M Requirements:

Designed by:	*Approved by:*
Date:	*Signature:*
	Date: