

**NATURAL RESOURCES CONSERVATION SERVICE  
VIRGINIA CONSERVATION PRACTICE STANDARD**

**WETLAND WILDLIFE HABITAT MANAGEMENT**

(Ac.)

**CODE 644**

**DEFINITION**

Retaining, developing or managing wetland habitat for wetland wildlife.

**PURPOSE**

To maintain, develop, or improve wetland habitat for waterfowl, shorebirds, fur-bearers, or other wetland dependent or associated flora and fauna.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies on or adjacent to vernal pools, wetlands, rivers, lakes and other water bodies where wetland associated wildlife habitat can be managed.

This practice is applicable to natural wetlands and/or water bodies as well as wetlands that may have been previously restored, Virginia Conservation Practice Standard *Wetland Restoration* (Code 657); enhanced, *Wetland Enhancement* (Code 659); or created, *Wetland Creation* (Code 658).

This practice does not apply to managing ponds or other areas for fish habitat (refer to *Fishpond Management* – Code 399).

This practice does not apply to tidal wetlands or stream systems.

**CRITERIA**

Use 190-V-NBM, Amend. VA1 (Wildlife Habitat Evaluation Worksheet) to identify habitat-limiting factors (food, water, cover, spatial arrangement) in the planning area.

Identify wildlife species management goals and objectives. Identify the types, amount and distribution of habitat elements and the management actions necessary to achieve the management objectives.

Remove or reduce limiting factor(s) in their order of significance, as indicated by results of the habitat evaluation.

Application of this practice alone, or in combination with other supporting and facilitating practices, shall result in a conservation system that will meet or exceed the minimum quality criteria for wildlife habitat established in Section III of the FOTG.

Use native plants wherever possible.

Clean sites containing hazardous waste prior to the installation of this practice.

Early and ongoing control of invasive species, federal/state listed noxious plant species, and nuisance species (e.g., those whose presence or overpopulation jeopardize the practice) on the site (if applicable). This may include the manipulation of water levels to control unwanted vegetation. Discourage the establishment and/or use of non-native plant species where possible.

**CONSIDERATIONS**

Consider the effects management will have on disease vectors such as mosquitoes.

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

Consider the nutrient and pesticide tolerance of the species planned, where known nutrient and pesticide contamination exists.

Consider effects on temperature of water resources to prevent undesired effects on aquatic and wildlife communities.

Adding dead snags, tree trunks or logs can provide structure and cover for wildlife and serve as a carbon source for food chain support.

When determining which species to plant, consider microtopography and different hydrology levels.

Consider installing complexes of vernal pools (5 acres is ideal) to provide habitat for amphibian species, that includes hardwood buffer areas.

Consider effects of management actions on compliance with state and federal hunting regulation (e.g., baiting).

Consider the effects of predatory species on other species (e.g. fish and bullfrogs on other amphibians).

Consider the impact that water surface draw-downs will have on concentrating aquatic species, such as turtles, into diminished pool area resulting in increased mortality.

Consider effects of livestock grazing on runoff, infiltration, wetland vegetation and nesting success.

Adding artificial nesting structures that are appropriate for the region can increase utilization of these areas.

Consider adjacent wetlands, vernal pools or water bodies that contribute to wetland system complexity and diversity, decrease habitat fragmentation, and maximize use of the site by wetland-associated wildlife.

Consider flattening the side slopes of the dike in situations where overtopping could cause erosion or wave damage could occur.

## PLANS AND SPECIFICATIONS

Use the Wetland Wildlife Habitat Management Job Sheet to document how habitat needs will be provided for the desired kinds of wildlife:

- Required depth of water during the different seasons.
- Types and sizes of structures required.
- Desired native plant species and the means of establishing and maintaining them.

Virginia NRCS staff is encouraged to work closely with the NRCS Biologist and biologists from the U.S. Fish and Wildlife Service, Virginia Department of Game and Inland

Fisheries or Ducks Unlimited in developing site specific plans and specifications.

Plans shall be reviewed by staff with the appropriate training in management of wetland wildlife habitat.

## OPERATION AND MAINTENANCE

A plan for operation and maintenance at a minimum should include monitoring and management of structural and vegetative measures. The Operation and Maintenance Plan is included in the Wetland Wildlife Habitat 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.

Limited and controlled haying or grazing can be used as appropriate to manage vegetation. Minimize disturbance to ground nesting species, especially during the primary nesting season.

The depth of accumulated sediment should be measured and the accumulations removed 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.

## REFERENCES

Helmets, D.L. 1992. Shorebird management manual. Western Hemisphere Shorebird Reserve Network, Manomet, MA 58 pp.

NRCS Wildlife Habitat Management Institute, Shorebirds, Fish and Wildlife Habitat Management Leaflet No. 17, 2000.

USDA-Natural Resources Conservation Service. Electronic Field Office Technical

Guide (eFOTG), Section IV. Available at <http://www.nrcs.usda.gov/technical/eFOTG>.

USDA-Natural Resources Conservation Service. Virginia Biology Technical Note – Aquatic Systems #1. Available at <http://www.nrcs.usda.gov/technical/eFOTG>

Payne, Neil F. 1992. Techniques for wildlife habitat management of wetlands. McGraw-Hill, Inc. 549 pp.

Smith, Loren M. and Roger L. Pederson. 1989. Habitat management for migrating and wintering waterfowl in North America. Texas Tech University Press, 574 pp.

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer."