

NATURAL RESOURCES CONSERVATION SERVICE
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

On or adjacent to wetlands, rivers, lakes and other water bodies where wetland associated wildlife habitat can be managed. This practice applies to natural wetlands and/or water bodies as well as wetlands that may have been previously restored (657), enhanced (659), and created (658).

CRITERIA

The **South Carolina Wildlife Habitat Index Guide (WHIG)** shall be used to identify habitat-limiting factors in the planning area.

Application of this practice shall 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 enable the planning area to meet or exceed the minimum quality criteria for wildlife habitat established in Section III of the FOTG.

Identify wildlife species management goals and objectives. For the desired species, identify the types, amount and distribution of habitat elements and the management actions

necessary to achieve the management objectives.

Invasive plant species and federally/state listed noxious and nuisance species currently present or any that become established shall be controlled on the site and/or removed.

Sites containing hazardous waste will be cleaned prior to the installation of this practice.

Where disturbance is necessary, be sure to conduct the activity outside of the primary bird nesting season; before April 1 and after September 1.

Examples of necessary disturbance may be mowing, burning, or light disking to assist in the establishment and maintenance of native grasses and wildflowers; or herbicide use on exotic invasive plants. Delay disturbance until after November 1 and preferably until late winter so winter cover remains available. Keep disturbance to a minimum and make sure to leave large areas undisturbed all year. Very limited herbicide use or none at all is best or wildlife, especially pollinators. If needed for exotic invasive plants, spot treat only.

Projects will be reviewed by a biologist and an engineer.

The landowner is responsible for all local, state and federal permits necessary for the installation of any practices.

CONSIDERATIONS

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

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

Consider effects on fish and wildlife habitats that would be associated with the practice.

Consider implementation of this practice to enhance rare and declining habitat for threatened, endangered and other plants and animals of concern.

Establishing vegetative buffers on surrounding uplands can reduce the delivery of sediment and soluble and sediment-attached contaminants carried by runoff and/or wind.

The nutrient and pesticide tolerance of the species planned should be considered where known nutrient and pesticide contamination exists.

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

Soil disturbance associated with the installation of this practice may increase the potential of invasion by unwanted species.

Adding dead snags, or downed woody debris (live or dead logs on the forest floor) can provide structure and cover for wildlife and serve as a carbon source for food chain support. Wildlife will benefit from a minimum of 1 snag >20 in. dbh, 4 snags 10-20 in. dbh, and 2 snags 6-10 in. dbh per acre; and a minimum of 3 downed logs at least 10 inches in diameter at the large end and at 30 ft. long per acre.

For discharge wetlands, consider underground upslope water and/or groundwater source availability.

When determining which species to plant, consider microtopography and different hydrology levels by checking the species wetland indicator status.

Native plants will be encouraged on site and used when planting. Refer to the following technical guides for a list of adapted native species, suggested seeding rates and seeding dates that are to be used for the establishment of vegetation:

South Carolina Conservation Cover –
Technical Guidance (Using Native Species,
Wildlife Habitat Emphasis) 327 (a)

South Carolina Conservation Cover –
Technical Guidance (Using Introduced and/or
Native Species) 327 (b)

A few species of introduced, non-invasive annual plants such as millet may be used in small food plot areas. No species that is on the Federal or State Noxious Weed Lists or the SC Exotic Pest Plant Council's Invasive Plant Pest Species of SC list may be used for this practice. Very limited herbicide use or none at all is best for wildlife, especially pollinators. If needed for exotic invasive plants, spot treat only.

Where disturbance is necessary, be sure to conduct the activity outside of the primary bird nesting season; before April 1 and after September 1.

Examples of necessary disturbance may be mowing, burning, or light disking to assist in the establishment and maintenance of native grasses and wildflowers; or herbicide use on exotic invasive plants. Delay disturbance until after November 1 and preferably until late winter so cover remains available. Keep disturbance to a minimum and make sure to leave large areas undisturbed all year. Very limited herbicide use or none at all is best for wildlife, especially pollinators. If needed for exotic invasive plants, spot treat only.

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

Water level draw-downs during winter may increase the potential for turtle mortality. During the activity season, high road mortality may occur as turtles emigrate from a drained wetland.

Water control structures, such as drain-pipes, stand-pipes, and head gates, can pose a threat to Blanding's turtles. Such structures should be screened to prevent turtles from becoming trapped and drowned.

Dikes and causeways often increase risks of injury or mortality associated with vehicles.

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.

Locating this practice adjacent to existing wetlands and other water bodies will provide connectivity to these cover types.

The improved habitat that results from the installation of this practice may lead to increased crop depredation by wildlife on adjacent cropland.

Consider adjacent wetlands 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 input from other agencies (SC Department of Natural Resources, US Fish and Wildlife Service) and organizations (Ducks Unlimited, Audubon, TNC) to assist in the development of the wetland enhancement plan.

PLANS AND SPECIFICATIONS

All necessary local, state, and federal permits shall be obtained by the landowner (or designee) prior to the restoration.

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

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.

specific management practices for habitat used by rare and listed species

Specific information may be provided using appropriate job sheets or written documentation in the conservation plan.

Native plants will be encouraged on site and used when planting. Refer to the following technical guides for a list of adapted native species, suggested seeding rates and seeding dates that are to be used for the establishment of vegetation:

1. South Carolina Conservation Cover – Technical Guidance (Using Native

Species, Wildlife Habitat Emphasis)
327 (a)

South Carolina Conservation Cover –
Technical Guidance (Using Introduced and/or
Native Species) 327 (b)

OPERATION AND MAINTENANCE

A plan for operation and maintenance at a minimum should include monitoring and management of structural and vegetative measures.

Haying and livestock grazing plans, if haying or livestock grazing is used as a needed wildlife management tool, will be developed to allow the establishment, development and management of wetland and associated upland vegetation for the intended wetland and/or wildlife purpose.

Invasive plant species and federally/state listed noxious and nuisance species currently present or any that become established shall be controlled on the site and/or removed.

Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where available and feasible. Contact Clemson Extension to determine if biological control agents are available for specific plant pest species.

Added water depth and duration may be utilized as a method to control unwanted vegetation (e.g., reed canary grass).

REFERENCES

Hall, C.D. and F.J. Cuthbert. 2000. Impact of a controlled wetland drawdown on Blanding's Turtles in Minnesota. *Chelonian Conservation Biology*. Vol. 3, No. 4, pp. 643-649.

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

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.