

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
SOUTH DAKOTA SUPPLEMENTS ITALICIZED**

WETLAND WILDLIFE HABITAT MANAGEMENT

**(ac.)
CODE 644**

DEFINITION

Retaining, developing, or managing habitat for wetland wildlife.

The amount and kinds of habitat elements required for the identified species, how they are provided, their location, and management shall be identified in a management plan.

PURPOSE

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

Habitat development and management necessary to achieve the identified goals and objectives shall be based on a wildlife habitat appraisal or suitable habitat evaluation. The appraisal or evaluation procedure shall be used to determine a habitat suitability for either individual fields, home range areas, habitat type, or natural community, as well as to provide an overall evaluation for the entire property or operating unit.

Provide a variety of foods for the desired kinds of wildlife species.

Provide a variety of cover types for the desired kinds of wildlife, examples include nesting, loafing, resting, thermal, and escape cover.

Wildlife habitat evaluations may be done using any of the following:

Provide habitat elements in proper amounts and locations to benefit desired species.

Manage the wildlife habitats to support the desired wildlife population(s) within the species' home range.

US Fish and Wildlife Service Habitat Evaluation Procedure (HEP) Models;

Natural Resources Conservation Service (NRCS) or other formally developed species specific models;

Wildlife Habitat Quality Criteria contained in the South Dakota Technical Guide (SDTG), Section III; or

Minimum habitat requirements as outlined under Criteria for providing Habitat Requirements.

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 water bodies as well as wetlands that may have been previously restored, enhanced, and/or created.

The evaluation will result in a quality rating or Habitat Suitability Index (HSI) that will consider the type, amount, and distribution of habitat elements required. The quality rating or HSI will be compared to the quality criteria in Section III of the SDTG.

CRITERIA

Identify 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.

If the evaluation indicates a level below the acceptable quality, alternatives will be recommended that will result in the necessary

The landowner shall obtain all necessary local, state, and federal permits that apply.

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

changes in habitat elements or their management to improve the rating to the minimal acceptable level or above.

If the evaluation is at the minimum or above, alternatives will be recommended that will result in the necessary management to preserve, maintain or improve the existing habitat in its present state or toward optimum conditions.

The following habitat elements will be considered when assessing wildlife habitat. Not all may apply to every habitat type or species

Food

Type

Amount

Cover

Type

Amount

Water

Quality

Quantity

Accessibility

Seasonal availability

Interspersion and Distance to:

Crops

Grasses and or legumes

Shrubs

Trees

Water

Openings

Migration

Routes

Season of use

Corridors

Criteria For Providing Habitat Requirements

Provide minimum habitat requirements as follows for one or more of the species or groups of species, or in accordance with a species habitat model. Models and habitat requirements for other species may be obtained from the state biologist.

Criteria for Dabbling Ducks (Teal, Mallard, Pintail, Shoveler, Gadwall, etc.)

Pair cover. Shallow water areas provided by temporary and seasonal wetlands are needed to attract dabbling ducks to an area in the spring and provide an early food source. Provide at least one acre within one-half mile of nest cover. These areas may occur as separate basins or as the shallow zone of a deeper wetland.

Brood cover. Deeper water areas that will generally retain water throughout the summer are provided by semi-permanent and permanent wetlands or by shallow dugouts with emergent vegetation. These wetlands provide a summer food source as well as cover. Provide at least one acre within one-half mile of nest cover.

Nest cover. Upland nesting cover needs for dabbling ducks are described in Wildlife Upland Habitat Management (645).

Avoid use of chemicals that could eliminate submerged aquatic plants or aquatic organisms important in waterfowl diets.

Criteria for Diving Ducks (Canvasback, Redhead, Ruddy Duck, etc.)

Brood and pair cover. Provide at least 1 wetland basin that is either semi-permanent or permanent wetland, with no more than 50 percent in emergent vegetation.

Nest cover. Provide dense emergent vegetation or shrubby vegetation on seasonal and semi-permanent wetlands.

Avoid use of chemicals that could eliminate submerged aquatic plants or aquatic organisms important in waterfowl diets.

Criteria for Cavity Nesting Ducks (Wood Ducks, Mergansers, etc.)

Nesting cover. Provide woody cover within 20 feet of the wetland or water edge, with cavity trees or nesting structures.

Brood cover. Provide seasonal, semi-permanent and permanent wetlands, streams, ponds, and/or lakes. Adequate cover for broods consists of dense emergent herbaceous vegetation, emergent shrubs with crowns about 3-4 feet above the water surface, or fallen woody debris that covers up to 60 percent of the water surface.

Criteria for Muskrats

Cover. Provide semi-permanent wetlands or intermittent streams with abundant emergent vegetation, or permanent wetlands or perennial streams with dense, emergent vegetation along the shore.

Food. At least 50 percent of the water area should have dense emergent vegetation consisting of cattails and/or bulrushes.

Criteria for Other Wildlife

Habitat requirements for other wetland wildlife species will be obtained from the state biologist.

Criteria for Development and Management of Wildlife Habitat

As indicated by the wildlife habitat evaluation, develop the habitat elements that are weak or missing.

The amount and kinds of habitat elements planned, their location and management shall be identified in a management plan.

Vegetative manipulations to restore plant and/or animal diversity shall be accomplished by prescribed burning or mechanical, biological or chemical methods, or a combination of the four.

Management measures shall be provided to control invasive species and noxious weeds.

CONSIDERATIONS

Consider use of artificial nest structures to enhance nesting on wetland sites.

Spraying or other control of noxious weeds or pests shall be done on a "spot" basis to protect forbs and legumes that benefit native pollinators and other wildlife and to provide insect food sources for grassland nesting birds.

Wildlife population control, which is the responsibility of state and federal wildlife agencies and the landowner, may be necessary to protect and maintain certain habitats.

Manipulations of habitat may impact more than the targeted species of wildlife. These possible affects shall be evaluated and taken into consideration during the planning process.

This practice may be used to promote the conservation of declining species, including threatened and endangered species.

For species requiring large blocks of habitat, consider the problems of habitat fragmentation.

Consider habitat linkages and habitat corridors when developing wildlife habitat.

The use of native plant materials shall be encouraged.

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

Consider effects of hazardous materials expected or known to occur on the site on wildlife or human use related to wildlife.

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

Consider effects of management on non-target fish and wildlife species and threatened and endangered species.

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

Consider using artificial nesting structures that are designed for the region.

Consider locating the management practice adjacent to existing wetlands and other water bodies.

Consider the impact of elevated wildlife uses on adjacent lands (e.g., crop depredation).

Consider the effect of volumes and rates of runoff, infiltration, evaporation, and transpiration on the water budget.

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

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 effects on movement of sediment and soluble and sediment-attached substances carried by runoff and/or wind.

Consider using an appropriate hydrogeomorphic model (HGM) to identify missing components needed to improve wetland functioning.

Shallow dugouts, nesting islands, level ditches and other wetland enhancements may be used to develop habitat features not naturally present.

PLANS AND SPECIFICATIONS

Document how habitat needs will be *met* for the *identified species* of wildlife.

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

OPERATION AND MAINTENANCE

The purpose of operation, maintenance, and management is to insure that the practice functions as intended over time.

A plan for operation and maintenance of wildlife habitat at a minimum should include monitoring

and management of structural and vegetative measures.

Timing of mowing, livestock grazing, burning, or chemical applications should avoid periods when wildlife are nesting, fawning, etc., and allow the establishment, development and management of vegetation for the intended purpose.

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