UPLAND WILDLIFE HABITAT MANAGEMENT

(Acre)
Code 645

Natural Resources Conservation Service
Conservation Practice Standard

I. Definition

Provide and manage upland habitats and connectivity within the landscape for wildlife.

II. Purpose

To treat upland wildlife habitat concerns identified during the conservation planning process that enables movement or provides life cycle requirements, i.e., food, cover, brood rearing, nesting) to sustain viable wildlife populations that inhabit uplands.

III. Conditions Where Practice Applies

This practice applies:

- on land where the decision maker has identified an objective for conserving a wild animal species, guild, suite, or ecosystem.
- on land within the range of targeted wildlife species capable of supporting a functioning landscape.

IV. Federal, Tribal, State, and Local Laws

Users of this standard should be aware of potentially applicable federal, tribal, state and local laws, rules, regulations or permit requirements governing wildlife management activities. This standard does not contain the text of federal, tribal, state, or local laws.

V. Criteria

A. General Criteria

A habitat evaluation shall be conducted utilizing an appraisal tool, approved by Wisconsin NRCS to identify habitat-limiting factors by target wildlife species within the planning unit. Wisconsin recognized habitat assessment tools can be found in the References section of this practice standard and Section III of the Wisconsin NRCS Field Office Technical Guide (WI FOTG).

Implementation of this practice shall remove or reduce limiting factor(s) in their order of significance, as indicated by results of the habitat evaluation.

Implementation 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 target wildlife species for the planning unit and develop management goals and objectives by species to address the habitat limitations identified by the assessment tools. For the target species, identify the types, amount and distribution of habitat elements to be created or enhanced and the management actions necessary to achieve the management objectives.

Evaluate the planning unit for the presence of threatened or endangered species (T&E) utilizing the Wisconsin Natural Heritage Inventory (NHI). When T&E species are present in the planning unit evaluate the potential to maintain or enhance beneficial T&E species habitat as a part of the overall wetland wildlife habitat management plan. The type and/or timing of wetland habitat management activities specified by the plan shall not cause a substantial long term negative impact on the T&E species. Consult a biologist for T&E species specific habitat management recommendations. NRCS clients shall obtain all required T&E permits prior to implementation of wetland habitat management activities and implement all actions required by the T&E permit.

Establishment or enhancement of native plants will be shall be included in management plans wherever feasible. Plant material specifications shall include only high quality and adapted species. Site preparation, planting dates, and planting methods shall optimize vegetation survival and growth.

Sites containing hazardous waste shall be remediated to the extent practical prior to the installation of this practice.

Invasive plant species and federally/state listed noxious and nuisance species shall be controlled or managed to limit spreading within the planning unit.

All disturbed areas will be seeded to wildlife friendly vegetation according to a re-vegetation plan. Use WI FOTG, Section IV, VConservation Practice Standard 327, Conservation Cover, unless the area is subject to concentrated flow conditions. Where concentrated flow conditions exist use WI FOTG Standard 342, Critical Area Planting, to plan site re-vegetation.

Equipment travel, grazing, haying and other disturbance to habitat (i.e. prescribed fire/management) shall be restricted during critical periods such as nesting, brood rearing, fawning or calving seasons. An exception may be made for disturbance causing activities as necessary to maintain the health of the plant community and control noxious weeds.

B. Additional Criteria for Vegetative Cover Management

Vegetative cover establishment will be comprised of plant species that are native to the landform being restored where feasible. When non-native plants are utilized the planned cover must meet minimum habitat requirements for the target wildlife specie(s) as defined by the NRCS approve habitat model used to develop the upland habitat management plan.

Utilize Conservation Practice Standards 327 Conservation Cover, 647 Early Successional Vegetation Management or 643 Restoration and Management of Declining Habitats to develop alternatives for grassland cover for wildlife.

Where pollinator habitat is an identified resource concern include a diversity of plants that bloom and provide abundant sources of pollen and nectar throughout spring, summer, and fall. Do not conduct intensive cover management on more than 1/3 of the pollinator habitat each year to maintain an adequate amount of functioning habitat. Refer to Wisconsin Biology Technical Note 8, Pollinator Biology and Habitat; and WI FOTG Standard 327, Conservation Cover, for additional details.

Where feasible and necessary to address an identified resource concern establish or maintain a band of vegetative suitable for wildlife cover that connects one wildlife habitat area with another to serve as a wildlife corridor. When possible, vegetative composition of a corridor should be similar to the habitat areas that are being connected.

Where feasible and necessary establish or maintain clumps or block of scattered woody vegetation to increase landscape wildlife habitat diversity.

Use WI FOTG Standards 386 Field Border; 391, Riparian Forest Buffer; 422, Hedgerow Planting; and 612, Tree and Shrub Establishment, to plan and design wildlife corridors and woody vegetation.

C. Additional Criteria for Vegetative Cover Manipulation

WI FOTG Standards 338, Prescribed Burning; and/or 528, Prescribed Grazing, can be utilized where feasible to maintain or improve the vegetative composition of the upland habitat management area.

Use WI FOTG Standard 528, Prescribed Grazing, to shift the dominance of certain grass and forb species in the cover to meet the habitat demands of targeted wildlife species within the planning area. The timing and duration of prescribed grazing must be precisely managed to achieve habitat management goals. Avoid the use of livestock who have recently grazed in areas with invasive or aggressive plant species that could be spread my seed contained in the animals manure.

Use WI FOTG Standard 338, Prescribed Burning, to remove excess litter and/or shift the dominance of certain grass and forb species to meet the habitat demands of targeted wildlife species within the planning area. Controlled fire will allow germination of seed bearing annuals, increase plant species diversity, control or set back unwanted woody cover, and open up the stand for movement of small animals and birds. Burn no more than 80 percent of the grassland acres in an area in any one year. However, exceptions can be made to burn 100 percent of an area in cases of small fields and when weather conditions have prevented burning in previous years. Consider the effect of timing of the burn on wildlife species using the grassland.

When managing for early successional species and grassland birds, regular periodic disturbance of the habitat, as detailed in WI FOTG

Standard 647, Early Successional Habitat Development and Management, shall be used.

Manipulation of woody tree and shrub stands to achieve early successional plant composition encourages re-growth and regeneration (suckering) which provides food and cover for variety of upland wildlife species. Refer to WI FOTG Standard 666, Forest Stand Improvement.

D. Additional Criteria for Placement of Artificial Habitat Structures

Adding artificial habitat structures that are appropriate for the region can increase utilization of these areas. Utilization of artificial habitat structure shall be based on an identified need using a species specific habitat assessment tool. Improper placement and lack of maintenance of artificial habitat structures can result in a net negative impact on wildlife species.

Artificial nesting structures can be used to increase wildlife reproductive success in areas where natural nest sites are unavailable or unsuitable. Artificial nesting structures must be installed in habitat conducive to the targeted species. Improperly sited structures can lead to territorial issues, competition and predation. Nest monitoring and nesting structure maintenance must be conducted to limit competing or undesirable species and assess reproductive success.

Apply this component to construct nest boxes, bat houses, roost poles, nesting platforms, and other artificial structures for cavity or roost nesting species. Design, specifications and construction are available at http://www.mn.nrcs.usda.gov/technical/ecs/wild/Nestingstr.pdf.

Hibernacula are constructed to act as refuges for species such as reptiles and amphibians as well as invertebrates, providing habitat, shelter and places to bask.

Hibernacula are constructed using different materials and specifications depending on the targeted species. They need to be free-draining and have good sun exposure. The south facing side should ideally have slightly sparser vegetation so that the reptiles and amphibians can bask easily. Vegetation should be heavier on the north side to provide extra shelter. Hibernacula for amphibians are best located near a water body.

VI. Considerations

Additional recommendations relating to design that may enhance the use of, or avoid problems with, this practice but are not required to ensure its basic conservation functions are as follows.

A. Consider the impact of this practice on target species as well as non-target species though mechanisms such as hunting, predation, disease transmission, nest parasitism, etc.

B. Consider effects of this practice on species with declining populations.

C. Consider conserving undisturbed areas at a sufficient extent during management activities to sustain disturbance-intolerant animals and plants.

D. Consider the nutrient and pesticide tolerance of the plant species to be planted where known nutrient and pesticide carryover or contamination exists.

E. Consider the potential of soil disturbance associated with the installation of this practice to increase the risk for establishment or spread of invasive or aggressive species.

F. Consider effects on runoff, infiltration, wetland vegetation and nesting success when livestock grazed within or adjoining the planning area.

G. Consider the risk for the improved habitat to increase crop depredation by wildlife on adjacent cropland.

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

VII. Plans and Specifications

NRCS shall ensure that plans and specifications for this practice are prepared by persons with adequate training in the fields of wildlife management, biology, or ecology.

Written specifications, schedules, and maps shall be prepared for each planning area and each habitat type.

Specifications shall:

- identify the amounts and kinds of habitat elements, locations, and management actions necessary to achieve the client's management objectives.
- describe the appropriate method, timing and intensity of management needed to produce the

desired habitat conditions and sustain them over time.
- identify desired native plant species and the means of establishing and maintaining them.
- identify types and sizes of habitat structures required.

Specifications shall be transmitted to clients using NRCS approved specifications sheets, job sheets, or customized narrative statements included in the conservation plan.

VIII. Operation and Maintenance

The following actions shall be carried out to ensure that this practice functions as intended throughout its expected life.

- A plan for operation and maintenance at a minimum should include monitoring and management of structural and vegetative measures present on the site.

- 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.

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

IX. References

USDA, NRCS Wisconsin Field Office Technical Guide (FOTG), Section III, Conservation Management Systems.

USDA, NRCS Wisconsin Field Office Technical Guide (FOTG), Section IV, Practice Standards and Specifications.

USDA, NRCS Wisconsin Biology Technical Note 8, Pollinator Biology and Habitat.

Bolen, Eric and William Robinson. 2002. Wildlife Ecology and Management 5th Edition. Prentice Hall, 656 pp.

Bookhout, T.A. (ed.). 1996. Research and Management Techniques for Wildlife and Habitats, 5th Ed. Wildlife Society, 740 pp

Payne, Neil F. and Fred C. Bryant. 1994. Techniques for Wildlife Habitat Management of Uplands. McGraw-Hill, Inc., 841 pp.

United States Department of Agriculture, Natural Resources Conservation Service. National Biology Manual. Title 190, Washington, DC.

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