

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
UPLAND WILDLIFE HABITAT MANAGEMENT**

(Ac.)

CODE 645

DEFINITION

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

PURPOSE

Treating upland wildlife habitat concerns identified during the conservation planning process that enable movement, or provide shelter, cover and/or food in proper amounts, locations and times to sustain wild animals that inhabit uplands during a portion of their life cycle.

CONDITIONS WHERE PRACTICE APPLIES

Land where the decision maker has identified an objective for conserving a wild animal species, guild, suite or ecosystem.

Land within the range of targeted wildlife species and capable of supporting the desired habitat.

CRITERIA

General Criteria Applicable to all Purposes

A habitat evaluation or appraisal, approved by the NRCS state office, shall be used to identify habitat-limiting factors in the planning area.

The applicable Wildlife Habitat Evaluation Worksheet (NE-CPA-32 to 36, 43, or 45) for the associated land-use can be used.

Additional species-oriented habitat evaluation tools are also available for Northern bobwhite quail, greater prairie chicken, and sharp-tailed grouse (Nebraska Conservation Planning Sheets 23, 24, and 25, respectively).

Additional evaluations or appraisals may be used including the U.S. Fish and Wildlife Service Habitat Suitability Index (HSI) model for the target wildlife species.

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. The planned system must provide a total rating of 0.5 or higher for the conservation treatment unit.

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. Refer to NE-CPA-14 Wildlife Habitat Development and Management Plan for suitable format and content.

Establish additional criteria for components of this practice including, but not limited to:

- vegetation establishment for shelter, food and to enable movement;
- structural measures to provide shelter, food or enable movement; and
- manipulation of vegetation to sustain desirable habitat conditions over time.

Use references noted within this standard and other sources to adequately identify the habitat requirements of the target species. Identify opportunities to benefit at-risk species as described in Nebraska Biology Technical Note #77 – “The Nebraska Natural Legacy Project” as Tier I species.

Plant material specifications shall include only high quality and adapted species. Native plants will be used wherever possible.

Habitat development and management options which shift the habitat type toward the historic native plant community are preferred.

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Imperiled natural communities are noted in Nebraska Biology Technical Note #65 – “Terrestrial Natural Communities of Nebraska” and must be managed to maintain or restore their ecological integrity.

Site preparation, planting dates, and planting methods shall optimize vegetation survival and growth.

Vegetative manipulations to maintain or enhance habitat quality shall include natural processes such as prescribed burning, prescribed grazing, and rest from disturbance when feasible. Additional techniques may be needed to attain the desired outcome such as: mechanical treatments (haying or shredding), herbicide applications, and supplemental planting of annual species. Refer to the associated conservation practice standards for additional criteria.

Equipment travel, grazing, haying and other disturbance to habitat shall be restricted during critical periods such as nesting, brood rearing, fawning or calving seasons. Avoid vegetation disturbance during the primary nesting period (May 1 to July 15) and assess impacts to nesting birds beyond these critical dates. Refer to the Migratory Birds Guide Sheet on the NE-CPA-52 for additional requirements.

States may establish exceptions when certain disturbance causing activities are necessary to maintain the health of the plant community and control noxious weeds.

Control of regulated noxious weeds and invasive plants shall be specified. Refer to Nebraska Range and Pasture Technical Note #20 – “Quick Guide to Invasive Plant Treatment” for information on invasive plant control. Herbicides shall be applied using “spot treatment” methods where necessary to protect desired native plant species.

Criteria Applicable to Pollinator Habitat

The minimum size of areas established to pollinator habitat is ½ acre and at least 20 feet wide. Larger plantings will provide greater benefits (i.e. between one and five acres and wider than 100 feet).

A minimum of nine flowering plant species must be present with at least three in each

bloom period. Use of 20 or more species is preferred to expand the benefits to a greater diversity of pollinating species. The bloom periods are established as:

Early: April 15 – June 15

Middle: June 15 – August 15

Late: August 15 – October 15

Flowering plants must comprise at least 75% of the existing stand (by canopy cover) or planned seed mixture. Grasses are not required to be present or included. Aggressive sod-forming grasses should be avoided to prevent competition with flowering plants.

Native shrub thickets may be used to provide early bloom species. A minimum of one thicket (approximately 1,500 square feet) per five acres is a suitable ratio.

Seeding rates for new plantings may range between 15 pure live seeds per square foot to 30 pure live seeds per square foot. Existing plantings must be treated or managed to provide a minimum of 10% bare ground to benefit insect species that inhabit the soil.

Downed woody cover, up to 1,500 ft² per acre may be developed to benefit insect species that inhabit wood.

Refer to Nebraska Conservation Planning Sheet 26 for a list of commonly available flowering plant species by bloom period. Any native wildflower species may serve as an acceptable pollinator plant. Use of “The Flora of Nebraska” is recommended to determine native status.

Disturbances during the bloom period shall be avoided unless implemented on a periodic basis (once every three years or less frequently) and intended to maintain or improve plant species diversity.

CONSIDERATIONS

This practice may affect the target species as well as non-target species through mechanisms such as hunting, predation, disease transmission, nest parasitism, etc.

Consider effects of this practice on species with declining populations.

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Wildlife population control may be necessary to protect and maintain certain habitats. This is a responsibility of the landowner. State and federal regulations may apply to population control methods.

Undisturbed areas conserved at a sufficient extent during management activities, may sustain disturbance-intolerant animals and plants.

Other conservation practices that may be utilized in conjunction with this practice to create a wildlife management plan include:

Pasture & Hay Planting (512)

Wildlife Watering Facility (648)

Early Successional Habitat Development/Management (647)

Restoration and Management of Rare or Declining Habitats (643)

Tree/Shrub Establishment (612)

Range Planting (550)

Prescribed Grazing (528)

Prescribed Burning (338)

Forage Harvest Management (511)

Access Control (472)

Riparian Forest Buffer (391)

Riparian Herbaceous Cover (390)

Forest Stand Improvement (666)

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 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.

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

OPERATION AND MAINTENANCE

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

- Evaluate habitat conditions on a regular basis in order to adapt the conservation plan and schedule of implementation.
- Annually inspect and repair structural or vegetative components of this practice.

REFERENCES

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

Rayne, 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.

United States Department of Agriculture, Natural Resources Conservation Service. 2004. National Biology Handbook. Washington, DC.