



Natural Resources Conservation Service
CONSERVATION PRACTICE STANDARD
UPLAND WILDLIFE HABITAT MANAGEMENT

CODE 645

(ac)

DEFINITION

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

PURPOSE

This practice is used to accomplish one or more of the following purposes—

- Treating upland wildlife habitat concerns identified during the conservation planning process that enable movement, or provide shelter, cover and 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

Habitat development and management necessary to achieve the purpose(s) shall be based on a wildlife habitat appraisal guide (Biology Technical Note 19). The appraisal or evaluation procedure shall be used to determine habitat suitability for 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.

Habitat Appraisal

The evaluation will result in a quality rating or habitat suitability index (hsi). This 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 Field Office Technical Guide (FOTG).

If the evaluation indicates a level below the acceptable quality, alternatives will be recommended that will result in the necessary changes in habitat elements or their management to bring the rating up to the minimal acceptable or above.

Habitat Elements

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

1. Food
 - a. Type
 - b. Amount

2. Cover
 - a. Type
 - b. Amount
3. Water
 - a. Quality
 - b. Quantity
 - c. Accessibility
 - d. Seasonal availability
4. Interspersion and Distance to
 - a. Crops
 - b. Grasses and/or legumes
 - c. Shrubs
 - d. Trees
 - e. Water
 - f. Openings
5. Migration
 - a. Routes
 - b. Season of use
 - c. Corridors

Development and Management of Wildlife Habitat:

- As indicated by the wildlife habitat evaluation, certain habitat elements may be weak or missing. For the desired species, identify the types, amount and distribution of habitat elements and management actions necessary to achieve the management objectives.
- The amount and kinds of habitat elements planned, their location and management shall be identified in a management plan.
- The use of native plant materials shall be encouraged.
- 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.
- Where feasible, prescribed burning shall be utilized instead of mowing.
- If appropriate, livestock grazing or haying shall be conducted to maintain or improve vegetation structure and composition so as to improve the desired wildlife habitat.
- Management measures shall be provided to control invasive species and noxious weeds.
- To protect forbs and legumes that benefit native pollinators and other wildlife and provide insect food sources for grassland nesting birds, spraying or other control of noxious weeds shall be done on a "spot" basis.
- Conservation practices listed in the FOTG will be used to meet the objectives of Upland Wildlife Habitat Management. Typical practice standards include:
 - Conservation Cover (327)
 - Tree and Shrub Establishment (612)
 - Riparian Forest Buffer (391)
 - Windbreak/Shelterbelt Establishment (380)
 - Prescribed Burning (338)
 - Fencing (382)

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.

Plant material specifications shall include only high quality and adapted species.

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

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.

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.

Consider input of other agencies (e.g. Idaho Department of Fish & Game, US Fish and Wildlife Service) and organizations (e.g. Ducks Unlimited, The Nature Conservancy) to assist in the development of the wildlife habitat plan.

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

Understand that habitat manipulations may impact more than the desired kinds of wildlife.

These possible effects shall be evaluated and taken into consideration during the planning process.

If appropriate, this practice should be used to promote the conservation of declining species including threatened and endangered species.

Consider management strategies that enhance herbaceous and woody plants that provide food and cover habitat for pollinators and beneficial insects. See Idaho Biology Technical Note No. 1; Pollinators.

Consider the problems of habitat fragmentation when using this practice. Create large blocks of habitat versus increased edge which leads to predation and parasitism by some species such as cowbirds.

Consider habitat linkages and habitat corridors when developing upland wildlife habitat. 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)
- Use Exclusion (472)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Forest Stand Improvement (666)

Consider restricting equipment travel, grazing, haying and other disturbance to habitat during critical periods such as nesting, brood rearing, fawning or calving seasons.

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.

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 Ed. 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.

Idaho Field Office Technical Guide, Section VI contains Technical Notes under Biology, Forestry and Plant Materials that should be utilized as design and maintenance references.

The Idaho Tree Planting Handbook and North Dakota Tree Handbook located in Idaho Field Office Technical Guide Reference Library are additional references that will assist the planner.

NRCS – Idaho Plant Materials Technical Notes

No. 43 – Tree Planting Care and Management

NRCS – Idaho Biology Technical Note

No. 1 – Pollinators

Land Resource Regions and Major Land Resource Areas of the United States, Issued 2006.