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, 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.

Wildlife habitat evaluations will be done using the Wildlife Habitat Appraisal Guide (WHAG).

For species specific information refer to Biological Technical Note Number 15 for minimum habitat requirements. Models and other habitat information and requirements for species not included in Biology Technical Note Number 15 may be obtained from a NRCS state or field support office biologist.

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

Provide at least the minimum habitat requirements to attain a WHAG of at least 0.5. Persons who desire abundant wildlife populations should plan to develop more habitat than the 0.5 WHAG minimum.

As indicated by the wildlife habitat evaluation, certain habitat elements may be weak or missing. Identify the types, amount, and distribution of habitat elements and management actions necessary to achieve the client's management objectives.

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 national quality criteria for wildlife habitat as found in Section III of the South Dakota Technical Guide (SDTG).

CRITERIA FOR DEVELOPMENT AND MANAGEMENT OF WILDLIFE HABITAT

Herbaceous Cover Establishment

Tall, dense herbaceous upland cover is an important habitat component for many species in SD, particularly for dense nesting cover and tall dense herbaceous winter cover. If existing native or seeded grasslands are not present in adequate quality or quantity, herbaceous cover can be established or developed using Range Technical Note Number 4. Plant species, seedbed preparation, seeding dates, techniques, weed control, cover crops, and management during establishment will be

according to the guidance contained in Range Technical Note Number 4.

Existing stands of herbaceous cover may provide suitable habitat for the desired species with appropriate management. Proper timing and intensity of management influence the quality of cover available for habitat. Properly timed burning, grazing or haying may be sufficient to restore degraded native plant communities that have never been broken, if there is still an existing, though repressed, native plant component or seed bank present.

MANAGEMENT OF HERBACEOUS HABITAT WITH WILDLIFE AS THE PRIMARY PURPOSE

Management to establish and maintain suitable herbaceous cover quality primarily for wildlife consists of a multiple year period of no utilization other than by wildlife, after which the herbaceous cover is periodically disturbed using prescribed burning, clipping and removing the vegetation, or grazing. This disturbance treatment will essentially eliminate the habitat for a period of time and may result in reduced population levels, lower reproduction, or even wildlife mortality during the disturbance. In order to minimize adverse impacts to wildlife, it is important to carefully consider the need for treatment, the timing of treatment and the methods used. It is generally more advisable to under manage herbaceous habitat rather than to disturb habitat too frequently. The goal of periodic habitat disturbance is to restore habitat quality with the least possible disruption of wildlife, especially during reproduction or other critical periods in the life cycle of targeted species. It is important to provide escape cover and/or replacement habitat during the period of management and habitat impacts.

Disturbance treatments should be planned to minimize the development of edge habitats that are detrimental to many native grassland bird species. Grassland areas that are smaller than 20 acres in size should generally be managed as a single unit. Predators can heavily impact wildlife populations in small areas and narrow strips of herbaceous cover.

A typical sign of deteriorating herbaceous plant communities is reduced visual obstruction associated with excessive accumulations of litter and reduced plant vigor. Treatment intervals vary according to the actual weather conditions that affect the area. Such habitat management should be planned to mimic the natural frequency of climatic and ecosystem disturbance to native herbaceous cover in the planning area.

Techniques and time of year for management of herbaceous cover: Management to address plant community composition must be timed to adversely impact the growth of problem plants and enhance the development of the desired plant species. This level of management may require disturbance of habitat during the primary nesting season. Any management during the primary nesting season will require appropriate documentation of the environmental effects and tradeoffs, and review by an NRCS biologist. For additional information on techniques for management of herbaceous cover see Biology Technical Note Number 15.

Grazing: Grazing will be planned to address the precise habitat problems at the site. Timing, duration, and intensity of grazing will all be considered in determining the appropriate means to address the site specific plant community problem. Refer to the standard Prescribed Grazing (528) for the requirements of writing a grazing prescription to restore the appropriate habitat conditions and requirements for the designated wildlife species.

Prescribed burning: Prescribed burning is usually planned for spring dates and will often result in loss of early season nesting cover values. Please refer to the conservation practice Prescribed Burning (338) for planning and implementation requirements.

Clipping and Raking: Where disturbance by fire or grazing is not possible, clipping and removal of the residues may be used instead to mimic the natural disturbance regime. Management should be timed to avoid the primary nesting season, which is May 1 through August 1. If management can be completed prior to August 15, some fall

regrowth may occur to provide some winter habitat.

Chemicals: To protect forbs and legumes that benefit native pollinators and other wildlife and provide insect food sources for grassland nesting birds, spraying or other chemical control of noxious weeds shall be done on a "spot" basis. Any other applications of chemicals employed for management of herbaceous habitat will be done only if no adverse impacts to desired wildlife and special concern species are anticipated.

MANAGEMENT OF HERBACEOUS HABITAT FOR WILDLIFE AS A CO-PURPOSE

Many wildlife species occupy herbaceous cover that is managed for forage production or crop production. Wildlife may be designated as a co-purpose on such lands, where the operator is taking additional measures to manage the cover to provide wildlife habitat. Conservation measures and practices such as riparian buffers, filter strips, field borders, prescribed grazing, and conservation tillage, can contribute significantly to wildlife habitat, especially if use and management are timed to benefit wildlife. The wildlife habitat value of these areas depends on how they are managed.

These areas do not usually result in the same level of wildlife occupancy or reproduction as would be expected from herbaceous cover managed exclusively for wildlife. To provide reliable habitat, the timing and intensity of grazing periods, mowing dates, stubble height, and similar factors, shall be adjusted to provide adequate plant growth to provide the required habitats. If minimum habitat requirements cannot be met, then the field should not be recorded as having a co-purpose of wildlife.

WOODY COVER ESTABLISHMENT

Woody cover establishment will be according to Hedgerow Planting (422), Tree Planting (612), Windbreak/Shelterbelt Establishment (380), or the following criteria for developing shrubby thickets.

Shrub thickets less than one acre in size will be established according to the following:

Select woody/shrubby species that provide food or cover for the desired wildlife species. Suggestions may be found in habitat models or other literature for the species, or Woodland Technical Note No. 37.

Species selected will be appropriate for the site as determined using Woodland Tech Note No. 38.

Preferably, shrubs will not be arranged in rows.

Spacing between plants will be three to five feet.

WOODY COVER MANAGEMENT

Woody cover management for wildlife as the primary purpose will generally require protection from grazing, fire and clipping and removal of the understory. Specific plans to thin or otherwise manage woodland habitats for wildlife shall identify the desired habitat improvements, how the improvements will be accomplished, and address means to avoid any adverse impacts to either the target wildlife or other species of concern in the planning area.

CONSIDERATIONS

This practice may affect the target species as well as non-target species though mechanisms such as hunting, predation, disease transmission, nest parasitism, etc. Consider effects of this practice on species with declining populations.

If a planning area has a severe infestation of noxious weeds that will require extensive treatment, consider whether the needed weed control will be compatible with habitat development that involves establishment of forbs. Spot control of noxious weeds is recommended to retain the habitat value of the forb component of the plant community.

Native prairie habitats provide native wildlife species with a portion or all of their necessary life requisites. Since native prairie has been significantly fragmented in agricultural landscapes, these areas should not be further impacted to develop windbreaks, food plots, or plant less complex herbaceous plant communities

Consider the impacts of management, development of edge, and wildlife corridors on species impacted by habitat fragmentation.

Encourage that management of wildlife cover be scheduled under a rotational plan, so that only a portion of the area is managed in a given year. This will assure that some of the habitat is still available each season.

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

The use of native plant materials should be encouraged.

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

Consider effects of hazardous materials on wildlife or human use related to wildlife.

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

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

Consider the effect of volume and rates of runoff, infiltration, evaporation, and transpiration on the water available at the site.

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

Consider impacts of human use related developments, such as, recreational trails and hunting strips, on wildlife species that are sensitive to edges and habitat patch size.

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:

Early Successional Habitat Development/Management (647)
Forest Stand Improvement (666)
Forage Harvest Management (511)
Pasture and Hay Planting (512)
Pond (378)-embankment pond only
Prescribed Burning (338)
Prescribed Grazing (528)
Range Planting (550)
Restoration and Management of Rare or Declining Habitats (643)
Riparian Forest Buffer (391)
Riparian Herbaceous Cover (390)
Tree/Shrub Establishment (612)
Use Exclusion (472)
Watering Facility (614)
Wetland Creation (658)
Wetland Enhancement (659)
Wetland Restoration (657)
Wetland Wildlife Habitat Management (644)

PLANS AND SPECIFICATIONS

The 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 specification 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.

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