NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

RESTORATION AND MANAGEMENT OF RARE OR DECLINING HABITATS

(Ac.)

CODE 643

DEFINITION

Restoring and managing rare and declining habitats and their associated wildlife species to conserve biodiversity.

PURPOSE

Provide habitat for rare and declining species.

CONDITIONS WHERE PRACTICE APPLIES

Sites that previously or currently support the rare or declining habitat targeted for restoration or management.

In South Dakota (SD), the plant communities to be addressed using this standard are tall grass prairie and mixed grass prairie. The tall grass prairie ecoregion includes Major Land Resource Areas (MLRA's) 102A, 102B, 102C, and 56. The mixed grass prairie ecoregion covers all of the remaining MLRA's except 62.

CRITERIA

The minimum size area for establishing this practice is five acres, although larger units of grassland are needed for most grassland bird species of concern, such as greater prairie chickens, sharp-tailed grouse, long-billed curlews, and others. Details regarding habitat requirements for key interest species can be found in the Upland Wildlife Habitat Management (645) standard or you may contact a SD NRCS biologist for assistance.

If the practice is planned for a wildlife habitat development, identify on the SD-CPA-26, Wildlife Habitat Management, the species or group of species for which this habitat is being developed. Provide required habitat in proportion to the other habitats available for the designated species.

Restoration by Establishment of Native Perennial Vegetation

Plant at least eight native grass species and seven native forbs and/or shrubs for the appropriate ecological or range sites, as found in Tables 6A and 6B of Range Technical Note No. 4, found in Section I of the SD Technical Guide (SDTG). If the historical climax community for the ecological site or range site lists less than eight grass species or less than seven forb species, use the appropriate numbers of species for the site or contact the state biologist or state rangeland management specialist for assistance.

Specific guidance for seeding dates, rates, depth, seedbed preparation, seeding equipment and calibration, seed requirements, species selection, use of cover and companion crops, management and protection during establishment and stand evaluations are included in Range Technical Note No. 4.

Restoration and Maintenance by Use of Management Activities

Periodic disturbance by fire and grazing were essential in maintaining the climax plant communities in the Northern Great Plains, and similar disturbances are needed to maintain habitat values once these prairie habitats are re-established. Fire and grazing can also be used to restore degraded plant communities that have never been broken, if there is still an existing, though repressed, native plant component.

Without periodic disturbance, these prairie plant communities begin to deteriorate.

Typical signs of a deteriorating plant community are excessive accumulation of plant residues, reduced plant vigor, lack of seed heads, and invading species or shifting plant community composition. Excess accumulation of plant litter is a common problem with seeded herbaceous cover. Another common problem is invasion of the plant community with smooth brome grass, Kentucky bluegrass, Cheat grass, and others.

Management Techniques

Where disturbance by fire or grazing is not possible, clipping and removal of residues may be used instead to mimic the natural disturbance regime. Management shall be timed to avoid the primary nesting season, which is April 15 through August 1, if possible. If management can be completed prior to August 15, some fall regrowth may occur to provide winter habitat.

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 during the primary nesting season.

Management of grassland habitats should be scheduled when litter buildup and/or plant community composition shift is causing a loss of habitat. This may be documented by tracking the visual obstruction readings for the site, with annual readings documented using form SD-CPA-57, Visual Obstruction Readings for Herbaceous Wildlife Habitat. Management should be scheduled when the average visual obstruction reading for the field has dropped below the minimum height required as herbaceous habitat for the species identified on the SD-CPA-26.

Burning shall not be used to manage fire sensitive communities such as sagebrush grasslands or sagebrush steppe.

Tall grass prairie area management intervals (MLRA's 102A, 102B, 102C, and 56)

Habitat management for fully established tall grass prairie typically consists of letting the native grass stand grow for approximately four to five years without use, and then using grazing, burning, or clipping and removal of residues to eliminate plant litter buildup or adjust for other identified problems with plant community characteristics or composition. Longer or shorter periods may be appropriate in some cases, depending on the particular problems at the site and the wildlife species using the habitat. The timing and choice of treatment methods will be fully documented on form SD-CPA-58, Upland Wildlife Habitat Management, including the wildlife species of concern, the precise habitat conditions and problems, the expected impacts on the desired wildlife species and other species of concern, and how adverse impacts will be avoided or minimized.

Mixed Grass Prairie Area Management Intervals (MLRA's 53B, 53C, 54, 55B, 55C, 58D, 60A, 61, 63A, 63B, 64, 65, and 66)

Habitat management for fully established grasslands in these areas of the state typically consists of allowing the vegetation to grow for five to seven years without use. After that period, use grazing, burning, or clipping and removal of residues to eliminate the buildup of plant litter or adjust for other identified problems with plant community characteristics or composition. Longer or shorter periods may be appropriate in some cases, depending on the particular problems at the site and the wildlife species using the habitat. The timing and choice of treatment methods will be fully documented on form SD-CPA-58, including the wildlife species of concern, the precise habitat conditions and problems, the expected impacts on the desired wildlife species and other species of concern, and how adverse impacts will be avoided or minimized.

Grazing

Grazing will be planned to address the precise plant community 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.

High intensity – short duration graze: Used to remove litter and target the grazing impact on a particular plant species and release nutrients for the desired plant species.

Average intensity – short duration graze: Used to remove litter where there is no need to alter the plant community.

Low intensity – long duration graze: Remove litter and leave a mosaic of varied plant heights.

Prescribed burning

Prescribed burning is usually planned for spring dates and will often result in loss of early season nesting cover values. Any prescribed burn will be accomplished according to Prescribed Burning (338).

Spring burns prior to May 1: Reduce excess litter and remove early cool season invading plants, such as cheat grass.

Spring burns May 1 to May 20: Help reduce the invasion of Kentucky bluegrass and smooth brome grass.

Methods used will be designed to protect the soil resource from erosion and compaction.

Invasive species and noxious weeds shall be controlled. When possible, control will be done on a "spot" basis to protect native forbs and legumes that benefit native pollinators and other wildlife.

Undisturbed areas shall be conserved on a sufficient extent of the area to sustain disturbance-intolerant species.

Species and seeding rate specifications will be prepared to achieve desired habitat condition.

Only high quality and ecologically adapted plant materials will be used. When feasible, only local ecotypes will be used.

Site preparation, planting dates and methods, and plant material care and handling shall optimize vegetation survival and growth.

A pretreatment assessment of the targeted habitat will be documented to provide a baseline for comparison with post-treatment habitat assessment.

Use of fertilizers, pesticides, and other chemicals shall not compromise the intended purpose of this practice

CONSIDERATIONS

All necessary local, state, and federal permits shall be obtained by the landowner (or designee) prior to the restoration.

Confer with other agencies and organizations to develop guidelines and specifications for conserving declining habitats.

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

PLANS AND SPECIFICATIONS

Document existing habitat conditions and existing management factors impacting habitat conditions. Delineate existing habitat conditions and planned habitat elements for the targeted wildlife species on a wildlife habitat plan map.

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Specifications for this practice shall be prepared for each habitat type. Specifications shall be recorded using approved specifications sheets and job sheets.

Narrative statements in the conservation plan or other acceptable documentation may provide supplemental information to the specifications and job sheets.

OPERATION AND MAINTENANCE

Haying, grazing, and other management activities will be planned and managed (including exclusion) as necessary to achieve and maintain the intended purpose.

Vegetation management and maintenance activities shall not be conducted during the nesting season except when necessary to achieve the desired habitat condition.

Habitat conditions should be evaluated on a regular basis to adapt the conservation plan

and schedule maintenance to ensure the desired habitat condition.

Management and maintenance activities should be rotated to mimic natural disturbance regimes.

REFERENCES

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