

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
RESTORATION AND MANAGEMENT
OF RARE OR DECLINING HABITATS

(Ac.)

CODE 643

DEFINITION

Restoring, conserving, and managing unique or diminishing native terrestrial and aquatic ecosystems.

PURPOSE

To return aquatic or terrestrial ecosystems to their original or usable and functioning condition and to improve biodiversity by providing and maintaining habitat for fish and wildlife species associated with the ecosystem.

CONDITIONS WHERE PRACTICE APPLIES

Sites or areas that once supported or currently support a unique, dwindling, or imperiled native plant and animal community. In South Carolina, some of the identified rare and declining habitats include Carolina Bays, pond cypress savannas, and longleaf pine habitats. This practice specifically requires the use of local ecotype herbaceous plant materials for natural community restoration.

CRITERIA

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

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

Invasive plant and animal species and noxious weeds shall be controlled. When possible, control will be done on a "spot" basis to control undesirable species while still protecting habitat that benefit native pollinators and other fish and wildlife species that depend on the site for food, cover, and water.

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

Plant 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 conditions.

Goals or success criteria will be established using reference sites for guidance and comparison.

Treatment specifications will be referenced to the best approximation of the desired plant community composition, structure, and function by referencing the following publications: "A Guide to the Wildflowers of South Carolina" by Richard Porcher and Douglas Rayner; pages 65 through 106, located in each field office, or "The Natural Communities of South Carolina" by John Nelson found at the link below:

<http://www.dnr.sc.gov/wildlife/publications/pdf/natcomm.pdf>

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

CONSIDERATIONS

Confer with other agencies and organizations to develop guidelines and specifications to conserve declining habitats. Also consider local, state and regional references when identifying rare and declining habitat. Refer to the SC Department of Natural Resources "Comprehensive Wildlife Conservation Strategy" for a list of priority species and natural community types:

<http://www.dnr.sc.gov/cwcs/index.html>.

The practice provides option of selecting native vegetation from regionally local ecotype seed sources. Local ecotype varieties (plants native to and grown in SC, NC, GA) are suitably adapted to precipitation, elevation, temperature, fitness and general environmental conditions found in the Southeast. Native warm season grass and forb establishment using local ecotype seed helps to maintain genetic integrity and fitness of herbaceous vegetation, as well as enhance overall quality of natural plant communities.

Refer to the following technical guides for a list of adapted native species, suggested seeding rates and seeding dates that are to be used for the establishment of vegetation: South Carolina Conservation Cover – Technical Guidance (Using Native Species, Wildlife Habitat Emphasis) 327 (a), and the SC Seed Calculator and Job Sheet; both found on the EFOTG, Section IV, Conservation Cover (327).

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. Where prescribed burning is conducted it shall follow all guidelines delineated in the Prescribed Burning (Code 338) practice standard.

Consider how land use and habitat in the associated landscape may influence the ability to achieve restoration and management objectives.

Consider the likelihood of being able to maintain or establish important ecological disturbances such as burning, flooding or grazing.

Consider how the short and long term effects of climate change may influence the ability to

achieve restoration and management objectives.

Generally, the size of the restored or managed habitat should be large enough to support populations of all species associated with the targeted habitat.

Other conservation practices that will facilitate the restoration and management of rare and declining habitats include:

Conservation Cover – Code 327

Fence – Code 382

Access Control – Code 472

Brush Management – Code 314

Herbaceous Weed Control – Code 315

Tree and Shrub Establishment – Code 612

Prescribed Burning – Code 338

PLANS AND SPECIFICATIONS

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

Specifications for this practice shall be prepared. 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. Applicable information can include:

1. Seed collecting, storage, treatment and planting methods for local seed collection projects.
2. Site preparation methods
3. Native seed list, species mixture ratios and seeding rates
4. Planting methods, planting dates,
5. Maintenance timing and methods required.

This practice can include planting wiregrass plugs in suitable areas. This practice must be planned in conjunction with the application of conservation cover (327) to establish native warm season grasses and forbs. Contact an NRCS biologist for planning assistance.

OPERATION AND MAINTENANCE

Haying, grazing, prescribed burning, forest stand improvement, and other management activities will be planned and managed (including access control) as necessary to achieve and maintain the intended purpose.

Vegetation management and maintenance activities shall not be conducted during critical life stages of fish and wildlife. Conduct activities outside of the primary nesting season in SC which is April 1 – September 1, except when necessary to achieve the desired habitat condition.

Habitat conditions should be evaluated and compared to reference conditions 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

Barbour, M.G., and W. D. Billings (eds.). 2000. North American Terrestrial Vegetation. Cambridge University Press, New York, Second Edition.

Kohlsaatt, T, L. Quattro, and J. Rinehart. 2005. South Carolina Comprehensive Wildlife Conservation Strategy 2005-2010. SC Department of Natural Resources.

Kuchler, A.W. 1964 Potential Natural Vegetation of the Conterminous United States. American Geography Society, Special Publication 36. Second edition (revised), 1975.

Noss, R.F., E.T. LaRoe III, and J.M. Scott. 1995. Endangered ecosystems of the United States: a preliminary assessment of loss and degradation. Biological Report 28; National Biological Service, Washington, D.C.