

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

**CODE 643**

**DEFINITION**

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

**PURPOSE**

To return imperiled 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.

Rare and Declining Habitats of highest importance include:

**Tallgrass Prairie** – To include Dry Prairie, Dry-Mesic Prairie and Mesic Prairie.

**Savannas** – To include Oak Barrens, Oak Opening and Pine Barrens.

**Wetlands** – To include wetlands of all types and emphasize that Wet Prairie and Calcareous Fen are most imperiled.

**CRITERIA**

**General Criteria Applicable to All Purposes:**

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

Evaluate the planning unit for the presence of threatened or endangered species (T&E) utilizing the Wisconsin NRCS approved

procedure. When T&E species are present in the planning unit evaluate the potential to maintain or enhance beneficial T&E species habitat and avoid or minimize negative impacts caused by practice implementation. Practice implementation shall comply with state and federal T&E species protection statutes.

The Wisconsin Natural Heritage Inventory (NHI) shall be used as the primary source to determine the presence and define the ecological components of diminishing plant and animal communities within a project area. For the purposes of this standard Rare and Declining habitats are defined as those listed in the NHI database because of “extreme rarity”.

A Habitat Index Worksheet shall be completed for each habitat type where this standard is applied to provide a baseline for comparison with post-treatment habitat conditions.

Timing and method of restoration shall be designed to protect the soil resource from erosion and compaction.

Management measures must be provided to control invasive species and noxious weeds in order to comply with state noxious weed laws and the objectives of the restoration plan. Treatment actions shall be limited to those necessary to control undesirable plant and animal species while still protecting natural habitat remnants.

Undisturbed areas shall be conserved to the extent necessary to sustain disturbance-intolerant species.

Plant species selection and seeding rate specifications shall be prepared to achieve desired habitat condition. Plant species selected shall be adapted to the restoration site soil conditions.

Only high quality and ecologically adapted plant materials will be used. Local ecotypes will be used to the extent practicable.

Refer to Wisconsin Field Office Technical Guide (FOTG), Section IV, Standard 327 Conservation Cover for seeding and planting rates, planting dates and methods, and plant material care and handling to optimize vegetation survival and growth.

A site restoration plan documenting specific vegetative manipulations to restore plant and/or animal diversity shall be developed. The restoration plan shall document the use, timing and detailed implementation methods for each manipulation. Prescribed burning, mechanical, biological or chemical methods may be applied individually or in combination to achieve the desired ecosystem or community.

Mowing may be needed during the establishment period to control weeds. Rotate periodic planned management or other treatments throughout the restored/managed area to minimize impact on species negatively impacted by disturbance of cover.

Management and maintenance activities will be restricted to August 1 - September 30 and prior to May 15 if species sensitive to disturbance during these periods are present.

Where feasible, prescribed burning will be utilized to revitalize cover instead of mowing. Refer to Wisconsin Field Office Technical Guide (FOTG), Section IV, Standard 338 Prescribed Burning for planning and implementation requirements.

#### **Additional Criteria for Imperiled Habitats**

To restored sites that are not currently cultivated and exhibit desirable remnant characteristics, utilize low disturbance management techniques such as prescribed burning, brush management, herbaceous weed control, and interplanting with desired species.

Refer to Wisconsin Field Office Technical Guide (FOTG) , Section IV, 644 Wetland Wildlife Habitat Management, 657 Wetland Restoration, 658 Wetland Creation and 659

Wetland Enhancement for detailed guidance related to wetland restoration and management activities.

Refer to Wisconsin Field Office Technical Guide (FOTG), Section IV, Standard 612 Tree/Shrub Establishment and WI Agronomy Technical Note 8 Savanna Habitat Restoration and Management.

#### **CONSIDERATIONS**

The use of local genotype seed should be considered for all prairie restoration activities. Plants that come from the restoration site or adjacent areas will be best adapted to the local site conditions. The Wisconsin Crop Improvement Association has established Source-Identified standards for native species seed produced in Wisconsin. These standards allow documentation of the geographic location of the seed production site. This information can be utilized to locate seed that originated near the restoration site. Use of local genotype plant materials will reduce the risk of compromising the genetic integrity of remnant native plant communities.

The use of locally harvested seed is encouraged in instances where an existing native prairie is near a planting site. Refer to Wisconsin Field Office Technical Guide (FOTG), Section IV, Standard 327 Conservation Cover and Agronomy Technical 5 Establishing and Maintaining Native Grasses Forbs and Legumes for prairie plant seeding rates, seed mixtures, planting techniques and requirements for the use of untested seed.

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

Consider how land use and other habitats 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 during the preliminary planning process.

Consider if the size of the restored or managed habitat is large enough to support populations of all species associated with the targeted habitat.

Consider rotation of management and maintenance activities to mimic natural disturbance regimes.

Conservation practices located in the Wisconsin Field Office Technical Guide (FOTG), Section IV that will facilitate the restoration and management of rare and declining habitats include:

314 Brush Management

338 Prescribed Burning

382 Fence

472 Access Control

528 Prescribed Grazing

612 Tree and Shrub Establishment

### **PLANS AND SPECIFICATIONS**

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.

A site restoration plan shall be developed documenting:

- Specific vegetative manipulations to restore plant and/or animal diversity.
- Timing and detailed implementation instructions for vegetative manipulations such as prescribed burning, mechanical, biological or chemical methods, or a combination of the four to achieve the desired ecosystem or community.
- Location where manipulations are planned to be applied.

### **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.

### **REFERENCES**

Barbour, M.G., and W. D. Billings (eds.). 2000. North American Terrestrial Vegetation.

Cambridge University Press, New York, Second Edition.

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.

Wisconsin Department of Natural Resources Biodiversity page:

<http://dnr.wi.gov/topic/EndangeredResources/biodiversity.html>

Wisconsin Natural Resources Conservation Service, Field Office Technical Guide (FOTG), Section II, Habitat Index Worksheets