

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**UPLAND WILDLIFE HABITAT MANAGEMENT**

(acre)

CODE 645

**DEFINITION**

Creating, restoring, maintaining or enhancing areas for food and cover for upland wildlife and species which use upland habitat for a portion of their life cycle.

**PURPOSE**

- Provide a variety of food for the desired kinds of wildlife species.
- Provide a variety of cover types for the desired kind(s) of wildlife species.
- Arrange habitat elements in proper amounts and locations to benefit desired species.
- Manage the wildlife habitat to achieve a viable wildlife population within the species home range.

**CONDITIONS WHERE PRACTICE APPLIES**

On all landscapes *other than wetlands* that are suitable for the kinds of wildlife habitat that are needed within the range of the desired species or the natural community under consideration.

**CRITERIA**

- *Habitat development and management necessary to achieve the purpose(s), shall be based on the wildlife habitat appraisal in Tables 1, 2 and 3 of the “West Virginia Wildlife Habitat Evaluation Technique” (WV WHET) handbook. This appraisal procedure shall be used to determine*

habitat suitability for the desired species' home range area.

**Habitat Evaluation**

- *For the desired specie(s) the minimum amount (acreage composition) of essential habitat elements must be present and in sufficient quantity as shown in Table 1. Information on management of species other than those listed may be obtained by contacting the state staff biologist.*
- *For the desired specie(s) the habitat elements must be of sufficient quality and composition within the home range as shown in Table 2 of the handbook.*
- *The arrangement of certain habitat elements may be limiting. For the desired specie(s), identify the distribution of habitat elements within the home range as shown in Table 3 of the handbook.*
- *Both the acreage composition (Table 1) and the quality rating (Table 2) must rate **good or excellent**. The habitat distribution (Table 3) must rate **fair or better**.*
- *If the evaluation indicates a level below the minimal acceptable level in any factor (Tables 1, 2 or 3), alternatives will be recommended that will result in the necessary changes to bring the rating(s) up to acceptable levels.*
- *For specific information on the utilization of Tables 1-3 and definitions of habitat elements or specific terms used, refer to*

**NRCS, NHCP  
August, 1998**

**NRCS, WV  
October, 1999**

*Appendix 1 in the WV WHET handbook. Range descriptions and maps for species which have limited ranges may be found in Appendix 2.*

- 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.
- *Identify actions necessary to achieve the management objectives. Eliminating the most limiting factors within the home range should have the highest priority when establishing management objectives.*
- The amount and kinds of habitat elements planned, their location and management shall be identified in a management plan.
- *Where feasible the use of natural invasion will be utilized to establish the desired vegetation and seral stage. The use of native plant materials shall be encouraged.*
- Vegetative manipulations to restore plant and/or animal diversity shall be accomplished by mechanical, biological or chemical methods.
- *Where feasible prescribed burning shall be utilized instead of mowing. **However, burning will only be conducted according to a WV Division of Natural Resources burning plan and under direct supervision of a qualified WVDNR employee.** All burns will be conducted in accordance with federal, state and local regulations and current USDA policy.*
- Management measures shall be provided to control invasive species and noxious weeds. Spraying or other control shall be done on a "spot" basis.

## CONSIDERATIONS

Wildlife population control (hunting to reduce numbers) which is the responsibility of state

**NRCS, NHCP  
August, 1998**

and federal wildlife agencies and the landowner may be necessary to protect and maintain certain habitats.

Consider that manipulations of habitat may impact more than the desired kinds of wildlife. These possible effects shall be evaluated and taken into consideration during the planning process.

*Consider the use of this practice to promote the conservation of declining species, including threatened and endangered species. Contact the state staff biologist to coordinate these activities.*

Consider the problems of habitat fragmentation when using this practice, create large blocks of habitat verses isolated pockets.

*Consider offsite conditions or barriers that may inhibit daily and seasonal movement of selected wildlife.*

Consider habitat linkages and habitat corridors when developing upland wildlife habitat.

*Consider the establishment of warm season grasses to add diversity, nesting cover, winter cover, and food sources.*

*Consider the effects on wetlands or water related wildlife habitats.*

*Consider effects of pesticides and nutrient use on surface and ground water quality.*

*Consider the use of perennial vegetation to provide supplemental food as opposed to annual species (i.e. annual food plots).*

*Consider modified methods of grain harvest to provide supplemental food sources.*

## PLANS AND SPECIFICATIONS

Plans and specifications for this practice shall be prepared for each site. Plans and specifications shall be recorded using approved specifications sheets, job sheets, technical notes, or narrative documentation in

**NRCS, WV  
October, 1999**

the conservation plan, or other acceptable documentation.

*At a minimum, each management plan will contain the following (as appropriate):*

*Targeted specie(s).*

*Home range(s) identified on aerial or other suitable map.*

*Completed (645) Upland Wildlife Habitat Management Tables 1, 2 and 3.*

*Soils information within the home range of the targeted specie(s).*

*List of habitat improvements.*

*Any seeding, fencing or other specifications required with supplemental practices.*

*Applicable job sheets.*

*Operation and maintenance plan.*

## **OPERATION AND MAINTENANCE**

The purpose of operation, maintenance, and management is to insure that the practice functions as intended over time.

A plan for operation and maintenance of upland wildlife habitat at a minimum shall include monitoring and management of structural and vegetative measures.

Timing of haying and livestock grazing will avoid periods when upland wildlife are nesting, fawning, etc. and will allow the establishment, development, and management of upland vegetation for the intended purpose.

Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where available and feasible.

## **REFERENCES USED IN THE PREPARATION OF THIS STANDARD**

USDA, Natural Resources Conservation Service. 1998. Vegetating with Native Grasses

**NRCS, NHCP  
August, 1998**

in Northeastern North America, Dickerson et. al. and Ducks Unlimited Canada

United States Department of Agriculture, Natural Resources Conservation Service. Eastern Bluebird, Fish and Wildlife Habitat Management Leaflet No. 2. 1999. Wildlife Habitat Management Institute

United States Department of Agriculture, Natural Resources Conservation Service. Eastern Cottontail Rabbit, Fish and Wildlife Habitat Management Leaflet No. 4. 1999. Wildlife Habitat Management Institute

University of Missouri-Columbia Extension Division. Agricultural Guide. Scholl of Forestry, Fisheries and Wildlife. Ruffed Grouse in Missouri: Its ecology and management. Thompson, Freiling and Fritzell. 1997. ()

United States Department of Agriculture. Mid-Atlantic IRT. Natural Resources Conservation Service. Eastern Gammagrass for Forage, Soil Improvement and Buffer Strips. Technical Update No. 1 - 3., Prepared by Krizek et. al., Dover, DE

University of Missouri. Missouri Dept. of Conservation: Questions about Native Warm Season Grasses 1997. ()

Cunningham, M.A., 1999, Native Vegetation as a Method of Restoring Bird Habitat on Conservation Reserve Program Lands. University of MN ()

Heckert, J.R., 1994. Effects of Habitat Fragmentation on Midwestern Grassland Bird Communities. *Ecological Applications* 4:461-71.

United States Environmental Protection Agency. 1999, Office of Research and Development. Songbird Communities Indicate Ecological Condition of the Central Appalachians. MAIA Fact Sheet #1. EPA Draft 2009.

United States Department of Agriculture. Soil Conservation Service. 1959, Upland Non-

**NRCS, WV  
October, 1999**

Game Birds in the Southeast: Their needs and Management. Prepared by Davidson V. E.

United States Department of Agriculture. Forest Service. Rocky Mountain Forest and Range Experiment Station. 1992. Status and Management of Neotropical Migratory Birds. General Technical Report. RM-229.

National Geographic Society. 1987. Field Guide to the Birds of North America. Second Edition. NGS Press.

West Virginia Partners in Flight. Personal Communications. WV-PIF Priority Species Management Guidelines. 1998. West Virginia Division of Natural Resources.

Proceedings of 1997 American Forage and Grassland Council. Paine, L.K., Undersander, S.A., Temple, S.A. and Sample, D.W., Managing Rotationally Grazed Pastures for Forage Production and Grassland Birds. Vol. 6. Edited by Williams, M.J.

Quail Unlimited. Virginia Quail Plan Committee. 1998. A Roadmap for Quail Restoration. January – February 1998. Richmond, VA, Project WE99R

USFWS, Grassland Conservation Program, MA Audobon Society, et. al. 1995. Conte, S.O., Conserving Grassland Birds: Managing Agricultural Lands Including Hayfields, Cropfields, and Pastures for Grassland Birds.

West Virginia Department of Natural Resources. Division of Game and Fish. Bailey, R.W. and Rinell, K.T. History and Management of the Wild Turkey in West Virginia. Bulletin No.6., 1968. Project W-39-R.

United States Department of Agriculture. Soil Conservation Service. 1972. Land Management for Woodcock in West Virginia. Field Letter No.12.

United States Department of the Interior. Fish and Wildlife Service. 1981. Utilization of Surface Mines in East Tennessee by Amphibians. Biological Services Division. FWS/OBS-81/08

United States Department of the Interior. Fish and Wildlife Service. 1981. Surface Mine Reclamation for Wildlife. Biological Services Division. FWS/OBS-81/09

United States Department of the Interior. Fish and Wildlife Service. 1978. Mined Land Reclamation for Wildlife in the Eastern United States. Biological Services Division. FWS/OBS-78/95 Vols. I and II.

Personal Communications., West Virginia Division of Natural Resources, Gary Foster, WVDNR District I Biologist.

West Virginia Department of Natural Resources. Division of Game and Fish. Carson, J.D. and Cantner, D.E. West Virginia Cottontails. Bulletin No.5., 1963. Project W-26-R and W-33-R.

**NRCS, NHCP  
August, 1998**

**NRCS, WV  
October, 1999**