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***. In West Virginia, this evaluation is the West Virginia Habitat Evaluation Technique (WVWHET). Other habitat appraisal methods and/or specifications developed by the West Virginia Division of Natural Resources (WVDNR) certified wildlife biologists may also be acceptable with concurrence of the NRCS state staff biologist.***

For creation maintenance or enhancement of habitat for pollinators utilize evaluation or appraisal methods outlined in the West Virginia Pollinator Handbook

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

Application of this practice 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 quality criteria for wildlife habitat established in Section III of the FOTG.

Habitat Evaluation – *"(WVWHET) West Virginia Wildlife Habitat Evaluation Technique"*

Habitat development and management necessary to achieve the purpose(s) shall be based on Tables 1, 2 and 3 of the WVWHET handbook.

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. These scores will equate to meeting the minimum quality criteria for food, shelter and cover for wildlife as described in the Field Office Technical Guide, Section III.

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 Appendix 1 in the WVWHET handbook. Home range descriptions and maps for species which have limited home ranges may be found in Appendix 2.

Where feasible the use of natural invasion will be utilized to establish the desired vegetation, community and/or seral stage.

Where planting is required, plant material specifications shall include only high quality and adapted species. ***The use of native plant materials shall always be encouraged.***

Site preparation, planting dates, and planting methods shall optimize vegetation survival and growth. ***Refer to the WV conservation practice standard Forest Site Preparation (490) for further information.***

Equipment travel, grazing, haying and other disturbance to habitat shall be restricted during critical periods such as nesting, brood rearing or fawning ***(March 15 - July 15)***. ***Infrequent exceptions may occur when certain*** disturbance causing activities are necessary to maintain the health of the plant community and control noxious weeds.

Control of regulated noxious weeds and invasive plants shall be specified.

<u>Additional Criteria for Establishment of Pollinator Habitat</u>

Pollinator Habitat will be assessed using the habitat assessment contained in the West Virginia Pollinator Handbook and any relevant subsequent guidance.

The habitat assessment shall be performed on one contiguous five (5) acre block; and the area evaluated shall be designated on the conservation plan map.

If the client wishes to enhance a greater amount of habitat, multiple assessments shall be used (one per 5 acres). If the client controls less than five acres utilize the area immediately surrounding the acreage to be enhanced to perform the assessment. Upland Wildlife Habitat Management may only be reported for acreage in which the client controls.

In order to meet quality criteria for enhancement of pollinator habitat, a minimum score must be obtained as indicated in the habitat appraisal.

Pollinator enhancement practices must yield an improvement from the baseline score to the enhancement score as shown in the habitat appraisal.

The minimum pollinator enhancement size is 0.5 acre ($^1/_2$ acre) per five acres evaluated. Installation of artificial nesting structures do not count toward minimum enhancement size.

<u>Additional Criteria for Establishment of Artificial Nesting Structures for Upland Wildlife</u>

Artificial nesting structures may be created and installed when it has been determined by a habitat appraisal method, the WV Pollinator Handbook or other approved criteria that a limiting factor of habitat is cover or shelter for a particular upland species.

Appropriate animal species that may require installation of nesting structures include:

- ***native bees***
- ***bats***
- ***barn owls***
- ***squirrels***
- ***raptors***
- ***other species as identified by the NRCS State Biologist or WVDNR.***

Refer to the West Virginia the Fish and Wildlife Habitat Management Leaflet Number 20 entitled Artificial Nesting Structures or subsequent guidance for criteria for construction and installation of nesting structures more information regarding artificial nesting structures. Other guidance may be appropriate if approved by the State Biologist.

Wetland dependent species such as wood duck shall not be planned under this standard. Refer to (644) Wetland Wildlife Habitat Management for information regarding the installation of nesting structures for those species.

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.

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.

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 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.

Consider artificial nesting structures to increase potential availability of shelter and cover.

Other conservation practices that may be utilized as component practices to create a wildlife management plan include ***but are not limited to:***

- ***Conservation Cover (327)***
- ***Conservation Crop Rotation (328)***
- Early Successional Habitat Development/Management (647)
- ***Field Border (386)***
- Forage Harvest Management (511)
- Forest Stand Improvement (666)
- ***Hedgerow Planting (422)***
- Forage and Biomass Planting (512)
- Prescribed Grazing (528)
- ***Residue and Tillage Management, No-Till/Strip Till/Direct Seed***
- ***Residue Management, Seasonal (344)***
- Restoration and Management of Rare or Declining Habitats (643)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Tree/Shrub Establishment (612)
- Access Control (472)

PLANS AND SPECIFICATIONS

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 when appropriate.

Plans and specifications for this practice shall be prepared for each site. Plans and specifications shall be transmitted to clients using NRCS approved specifications sheets, job sheets, or customized narrative statements included in the conservation plan.

For species other than pollinators, each management plan will contain at a minimum the following (if appropriate):

- ***Identified targeted specie(s) or guild***
- ***Home range identified on aerial or other suitable map.***
- ***A Completed West Virginia Wildlife Habitat Evaluation Technique (WVWHET) Tables 1, 2 and 3.***
- ***Soils information within the home range of the targeted specie(s).***
- ***Any seeding, fencing or other specifications required with component practices either in customized narratives, attachments, job sheets or other approved format.***
- ***An environmental evaluation to include the CPA-52 or other acceptable environmental documentation***
- ***Operation and maintenance plan for required supplemental practices incorporated into those specifications, and; if required, any necessary operation and maintenance resulting from installation of the overall system of practices.***

For pollinator enhancements each management plan will contain as a minimum the following (if appropriate):

- ***An outlined area of evaluation***
- ***A completed habitat appraisal evaluation***
- ***Soils information within the area of evaluation of pollinator habitat.***
- ***Any seeding, fencing or other specifications required with component practices either in customized narratives, attachments, job sheets or other approved format.***
- ***An environmental evaluation to include the CPA-52 or other acceptable environmental documentation***
- ***Operation and maintenance plan for required supplemental practices incorporated into those specifications, and; if required, any necessary operation and maintenance resulting from installation of the overall system of practices.***

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.

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

Annually inspect and repair structural or vegetative components of this practice.

Evaluate habitat conditions on a regular basis in order to adapt the conservation plan and schedule of implementation.

Timing of disturbance, haying and livestock grazing will avoid periods when upland wildlife are nesting, fawning, etc. (March 15 – July 15) 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

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.

United States Department of Agriculture, Natural Resources Conservation Service. National Biology Manual. Title 190, Washington, DC.

USDA, NRCS Wildlife Habitat Management Institute. Wildlife Habitat Council. Fish and Wildlife Habitat Management Leaflet, Number 20. Artificial Nesting Structures. April 2004.

Bold italics is information added to the national standard by West Virginia.