

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
STRUCTURES FOR WILDLIFE**

(No.)

CODE 649

DEFINITION

A structure installed to replace or modify a missing or deficient wildlife habitat component.

PURPOSE

To provide structures, in proper amounts, locations and seasons to:

- Enhance or sustain non-domesticated wildlife; or
- Modify existing structures that pose a hazard to wildlife.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all lands where planting or managing vegetation fails to meet the short-term needs of the species or guild under consideration. And in addition, where a State-approved wildlife habitat assessment identifies the need to:

- Provide loafing, escape, nesting, rearing, roosting, perching and/or basking habitat. Examples are nesting islands, nesting boxes, roosting boxes, rock piles, perching structures and brush piles.
- Modify existing structures to minimize the risks of injury or mortality to wildlife. Examples are the need to:
 - i. Retrofit an existing fence with fence markers,
 - ii. Modify an existing fence by removing wire or adding wildlife-friendly wire at appropriate spacing, or

- iii. Modify an existing watering facility by installing escape ramps or removing obstacles that impede safe access to water.

Do not use this practice to:

- Install new structures or modify existing structures for the control of nuisance animal species.
- Install new structures or modify existing structures for the benefit of captive, feral, or domesticated animals.

CRITERIA

General Criteria Applicable to all Purposes

Construct and install wildlife structures when the State-approved habitat appraisal method identifies limiting habitat component(s) that cannot be provided within the desired time period with implementation of a vegetation management strategy. ***In West Virginia, this evaluation is the West Virginia Habitat Evaluation Technique (WVHET). 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 Biologist.***

Use the following criteria to design, install or modify structures for wildlife.

- Select the location of structures to meet the needs of the targeted species and not subject individuals to increased risks of injury or mortality.

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- Select materials that are durable and safe for wildlife. Avoid caustic, dangerous, debilitating, and/or irritating materials. If the structure is exposed to sunlight, utilize ultraviolet resistant materials and/or coatings made with non-toxic substances for additional protection from deterioration due to sunlight exposure.
- Construct habitat structures to withstand normal environmental conditions and meet the needs of the targeted wildlife for the target period of time.
- If identified as a wildlife structure requiring monitoring and management, the structure will be constructed to allow the capability for access.
- Locate structures with access capability if monitoring or management of the structure is needed.

CONSIDERATIONS

Because of the risk of livestock poisoning, do not use the branches of mountain laurel, black cherry trees, cocklebur, or ornamental species to create brush piles accessible to livestock. If in doubt about identifying these species, place brush piles in an area that is not grazed by livestock. For further information, refer to the following web link from West Virginia University extension or contact the State Biologist for guidance.

<http://www.wvu.edu/~agexten/pubnwsltr/T/RIM/5934.pdf>

Consider the following, prior to implementation of this standard and implement mitigation measures as appropriate.

- Potential negative impacts to target species and non-target species through an increase in predation, disease transmission, nest parasitism or other means.
- Modification of existing onsite and offsite, barriers, or other conservation structures that may inhibit safe daily and seasonal

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movement of wildlife.

- The establishment of native vegetation species, age, density and structure to supplement and/or eventually replace installed habitat structures.
- Risks associated with the use of structures by non-target or nuisance species.
- Safe passage strategies for non-target species including elk jumps, and road crossings.
- Modifications to structures to inhibit access to the structure by predators.
- Select appropriate color, orientation and exposure to support thermal regulation.

Additional Criteria for the Establishment of Brush Piles

When natural cover is limited in wildlife habitat, brush piles may be provided.

Brush piles may be constructed as supplemental habitat where the establishment of woody shrubby thickets is not practical or as temporary habitat until permanent shrubby vegetation may become established.

Disturbances to these areas such as mowing, disking or clearing of vegetation should be kept to a minimum. Where possible, allow vegetation to grow freely and avoid agricultural activities during the peak nesting season to small mammals (February to September).

PLANS AND SPECIFICATIONS

Develop plans and specifications for wildlife structures within the criteria of this standard. Within the plan, describe the biological and physical requirements for applying the practice.

Specify the number, location, spacing, grade, quantities, dimensions, materials and timing of installation of new or modification of existing structures.

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For the establishment of Brush Piles, each management plan will contain the following:

- **Target species**
- **Number of brush piles**
- **Location**
- **Surrounding cover type**
- **Size**
- **Operation and Maintenance**

Develop specifications for construction and installation of habitat structures by following State technical notes or cited literature. An example of technical literature is the Wildlife Habitat Management Leaflet Number 20 entitled Artificial Nesting Structures (USDA 2008).

OPERATION AND MAINTENANCE

Provide an operation and maintenance plan that is customary and reasonable for the wildlife structures being installed or modified. Provided the timing, scope and intensity of operation and maintenance, with consideration of the needs of the target and associated species. As a minimum, the O&M will include a schedule (timing, frequency, duration) to:

- Monitor condition and/or usage of structures.
- Implement adaptive management by relocating, modifying or repairing structures as needed during the season

with the least disturbance to target species.

- Conduct needed maintenance of structures such as removal of old nesting materials, nests of non-target species, undesirable debris, or abandoned structures.
- Install, modify and/or monitor during the season of year or time of day to minimize disturbance to wildlife.
- Remove all structures if they are determined (i.e. upon abandonment) as being potentially detrimental to the target species.

REFERENCES

USDA, Natural Resources Conservation Service and Wildlife Habitat Council. 2008. Artificial Nesting Structures. Fish and Wildlife Habitat Management Leaflet No 20 (revised) Washington, D.C.

USDA, Natural Resources Conservation Service Conservation Practice Standard for West Virginia. 2013. Upland Wildlife Habitat Management Code 645.

USDA, Natural Resources Conservation Service. 1999. West Virginia Wildlife Habitat Evaluation Technique.