

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 South Carolina Wildlife Habitat Index Guide (WHIG) habitat appraisal identifies limiting habitat component(s) that cannot be provided within the desired time period with implementation of a vegetation management strategy.

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.
- 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.
- The use of a predator guard for all structures where it is appropriate.

CONSIDERATIONS

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 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 road crossings.
- Modifications to structures to inhibit access to the structure by predators.
- Select appropriate color, orientation and exposure to support thermal regulation.

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.

Develop specifications for construction and installation of habitat structures by utilizing the following technical notes:

For Specific Information on Structures and placement:

Wildlife_Habitat_Management_Artificial_Nesting_Structures_no.20.pdf

For Bee Nesting Structures:

Tunnel_Nest_Management_Xercies.pdf

Nests_for_Native_Bees_Fact_Sheet_Xercies_.pdf

For Cavity Nesting Birds:

Wildlife_Habitat_Management_Artificial_Nesting_Structures_no.20.pdf

Wildlife_Habitat_Management_Eastern_Bluebird_Leaflet_no.2.pdf

For Waterfowl:

Wildlife_Habitat_Management_Artificial_Nesting_Structures_no.20.pdf

Wildlife_Habitat_Management_Wood_Duck_Leaflet.pdf

For Bats:

Wildlife_Habitat_Management_Bats_Leaflet_no.5.pdf

For Brush piles:

Wildlife_Habitat_Management_Managing_For_ests_for_Fish_and_Wildlife_no.18.pdf (see page 8 for brush pile specifications)

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.

For monitoring see:

Structure_for_Wildlife_Maintenance_Guide_Monitoring_Datasheet.pdf

Structure_for_Wildlife_Wood_Duck_Maintenance_Guide_Monitoring_Datasheet.pdf

- 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.

Artificial Nesting Structures. Fish and Wildlife Habitat Management Leaflet No 20 (revised) Washington, D.C.

Tunnel_Nest_Management_Xercies.pdf 2009

Nests_for_Native_Bees_Fact_Sheet_Xercies_.pdf 2009

USDA, Natural Resources Conservation Service and Wildlife Habitat Council. Wildlife_Habitat_Management_Wood_Duck_Leaflet.pdf

USDA, Natural Resources Conservation Service and Wildlife Habitat Council. 1999 Wildlife_Habitat_Management_Eastern_Bluebird_Leaflet_no.2.pdf

USDA, Natural Resources Conservation Service and Wildlife Habitat Council. 1999 Wildlife_Habitat_Management_Bats_Leaflet_no.5.pdf

USDA, Natural Resources Conservation Service and Wildlife Habitat Council. 2002 Wildlife_Habitat_Management_Managing_Forests_for_Fish_and_Wildlife_no.18.pdf

REFERENCES

USDA, Natural Resources Conservation Service and Wildlife Habitat Council. 2008.