

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

FISH AND WILDLIFE STRUCTURE

(No. 734)
INTERIM

DEFINITION

A structure designed and installed specifically for fish or wildlife.

PURPOSE

To facilitate and / or improve overall conditions for fish or wildlife species.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies wherever a specific structure is needed as an integral part of a fish / wildlife habitat management plan utilizing Practice Codes 643, 644, 645, 646, 647 or 395 to provide one or more of the following functions:

- Provide structure for loafing, escape, nesting, rearing, roosting, perching, or basking.
- Provide an escape, avoidance or exclusionary feature from otherwise life-threatening conditions.
- Provide alternative cover when natural cover is not readily available.
- Isolate native species populations from non-native species.
- Improve or restore habitat connectivity.
- Provide a public notice of site management and operation features or restrictions, to direct human activities, usage or prohibitions which facilitate the habitat and / or species benefits

from the installed practice (s) and land management plan.

CRITERIA

Structures shall be designed and installed to meet the focus species biology and life history needs.

Plastic and fiberglass structures shall be made of ultraviolet resistant materials and may be coated with non-toxic substances for additional protection from deterioration due to sunlight exposure.

Structures shall be built to withstand normal and extreme environmental conditions at the site to maximize structural lifespan, stability and habitat benefits.

CONSIDERATIONS

Give consideration to the effects the location of the structure will have on focus and non-focus species.

Consider the need to prevent increased predation on both focus and non-focus fish and wildlife species as a result of installation of structures under this practice.

Consider combining this practice with vegetative practices to establish natural habitat features in the long term.

For signage, consider using explanations identifying how the structure or installed feature (s) will enhance or influence the life requisite of the focus species or habitat condition, and what management or operation of the site is necessary to gain species / habitat benefits from the practice system install.

Types of fish and wildlife structures to consider include:

- Artificial nest boxes or platforms for species such as cavity-nesting birds, bats, pollinators, and waterfowl
- Artificial cover such as brush piles, drumming logs, rock piles, buried concrete pipe, engineered log jams
- Wood structures in or along streams and on banks for fish cover
- Natural cover manipulation, such as girdling trees to encourage snag development, natural hives and pollinator habitats, placement of stream bottom structural diversity features. or spawning rock in appropriate sites
- Measures to facilitate passage including elk jumps, escape ramps, road crossings
- Measures to inhibit passage including predator guards, non-native fish barriers, beaver dam exclusion features, stock tank escapes
- Signage identifying installed conservation practices, resources to be enhanced or protected, land or practice operation, usage,

restrictions and management requirements to educate and direct human activities to maximize habitat and focus species benefits as well as practice results.

PLANS AND SPECIFICATIONS

Plans and specifications for installing fish and wildlife structures shall be in keeping with this standard and shall describe the biological and physical requirements for applying the practice.

The plan shall specify the location, grade, quantities, dimensions, materials and timing of installation for the individual structure.

OPERATION AND MAINTENANCE

Operation and maintenance provisions shall be provided to and reviewed with the land manager. The provisions shall be site specific and include but not be limited to the following:

- Structures will be inspected at least semi-annually and after major storms
- Necessary maintenance, including removal of debris, shall be performed

REFERENCES

- May, H. 2001 Artificial Nesting Structures. USDA Natural Resources Conservation Service Wildlife Habitat Management Institute and Wildlife Habitat Council, Fish and Wildlife Habitat Leaflet, No 20
- Mueller, J. 1999. American kestrel. USDA Natural Resources Conservation Service Wildlife Habitat Management Institute and Wildlife Habitat Council, Fish and Wildlife Habitat Management Leaflet, No. 3.
- Mueller, J. 1999. Bats. USDA Natural Resources Conservation Service Wildlife Habitat Management Institute and Wildlife Habitat Council, Fish and Wildlife Habitat Management Leaflet, No. 5.
- Mueller, J. 1999. Eastern bluebird. USDA Natural Resources Conservation Service Wildlife Habitat Management Institute and Wildlife Habitat Council, Fish and Wildlife Habitat Management Leaflet, No. 2.
- Novinger, D. C. and Rahel, F.J. 2003. Isolation management with artificial barriers as a conservation strategy for cutthroat trout in headwater streams. *Conservation Biology* 17: 772-781.
- Payne, N. F. and F. C. Bryant. 1994. *Techniques for wildlife management of uplands*. McGraw-Hill, New York, NY.
- Payne, N. F. 1992. *Techniques for wildlife habitat management of wetlands*. McGraw-Hill, New York, NY.
- Rewa, C. 1999. Wood duck. USDA Natural Resources Conservation Service Wildlife Habitat Management Institute and Wildlife Habitat Council, Fish and Wildlife Habitat Management Leaflet, No. 1.
- Tuttle, M. D. and D. Hensley. 1993. *The bat builder's hand-book* (2000 revision). Bat Conservation International, Austin, Texas, USA. 30