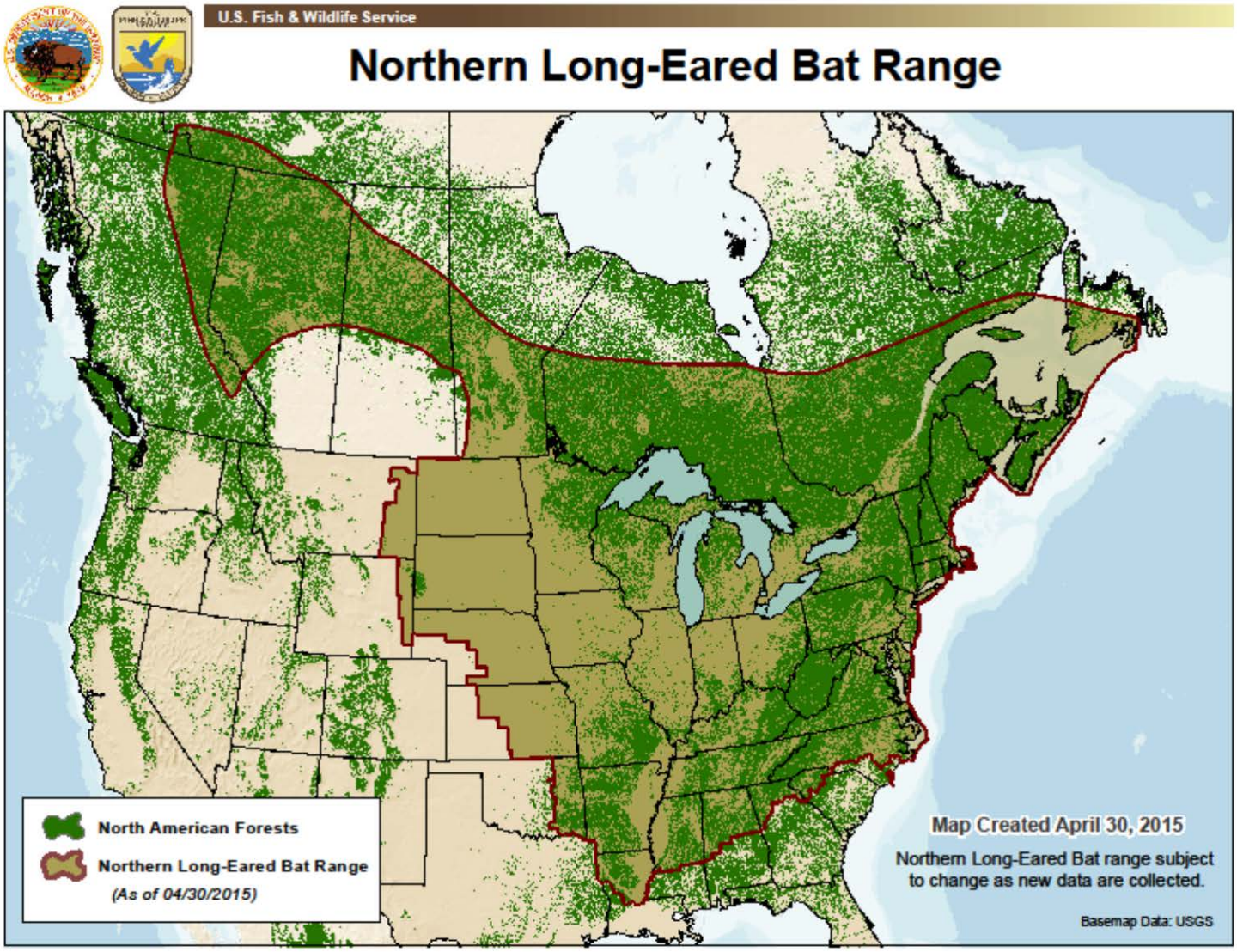
Northern Long-eared Bat (*Myotis septentrionalis*)

Northern Long-eared Bat Listed as Threatened with Interim 4(d) Rule

This map shows the northern long-eared bat range overlain with forested areas. Because northern long-eared bats require trees for roosting during summer, the forested areas within the range indicate where this bat may occur during times when it is not hibernating (spring through fall).



http://www.fws.gov/midwest/endangered/mammals/nleb/nlebRangeMap.html

http://www.fws.gov/midwest/endangered/mammals/nleb/index.html **visit links for more NLEB info.**
http://www.fws.gov/midwest/endangered/mammals/nleb/nlebFactSheet.html

South Carolina Counties within historic Northern Long-eared Bat Range:

Abbeville County	South Carolina
Anderson County	South Carolina
Cherokee County	South Carolina
Greenville County	South Carolina
Laurens County	South Carolina
Oconee County	South Carolina
Pickens County	South Carolina
Spartanburg County	South Carolina
Union County	South Carolina
York County	South Carolina

Primary conservation provision: June 1 – July 31 ---- forest management should be avoided within NLEB range

Northern long-eared bats use their maternity roost trees and hibernacula repeatedly for many years. Unless a survey or other information indicates otherwise, if the habitat around a roost is intact and the tree is suitable, we would conclude that the tree is likely an occupied maternity roost during the pup season (June 1 - July 31). Similarly, we would assume that a hibernaculum remains occupied unless a survey or other information indicates otherwise.
Therefore, if you have a northern long-eared bat roost tree or hibernacula documented on or near your project area, any incidental take of bats will be exempted by the 4(d) rule if you follow these conservation measures:

● Do not conduct any activities within ¼ mile of known, occupied hibernacula;

● Do not cut or destroy a known, occupied roost tree from June 1 to July 31 (the pup season);

● Do not clearcut (and similar harvest methods that cut most or essentially all trees from an area, *e.g.*, seed tree, shelterwood, and coppice) within a ¼ mile of known, occupied roost trees from June 1 to July 31.

Practices that can help:

Leave Dead and Dying Trees Standing: Like most eastern bats, the northern long-eared bat roosts in trees during summer. Where possible and not a safety hazard, leave dead or dying trees standing (or create snags by girdling trees). Northern long-eared bats and many other animals use these trees.

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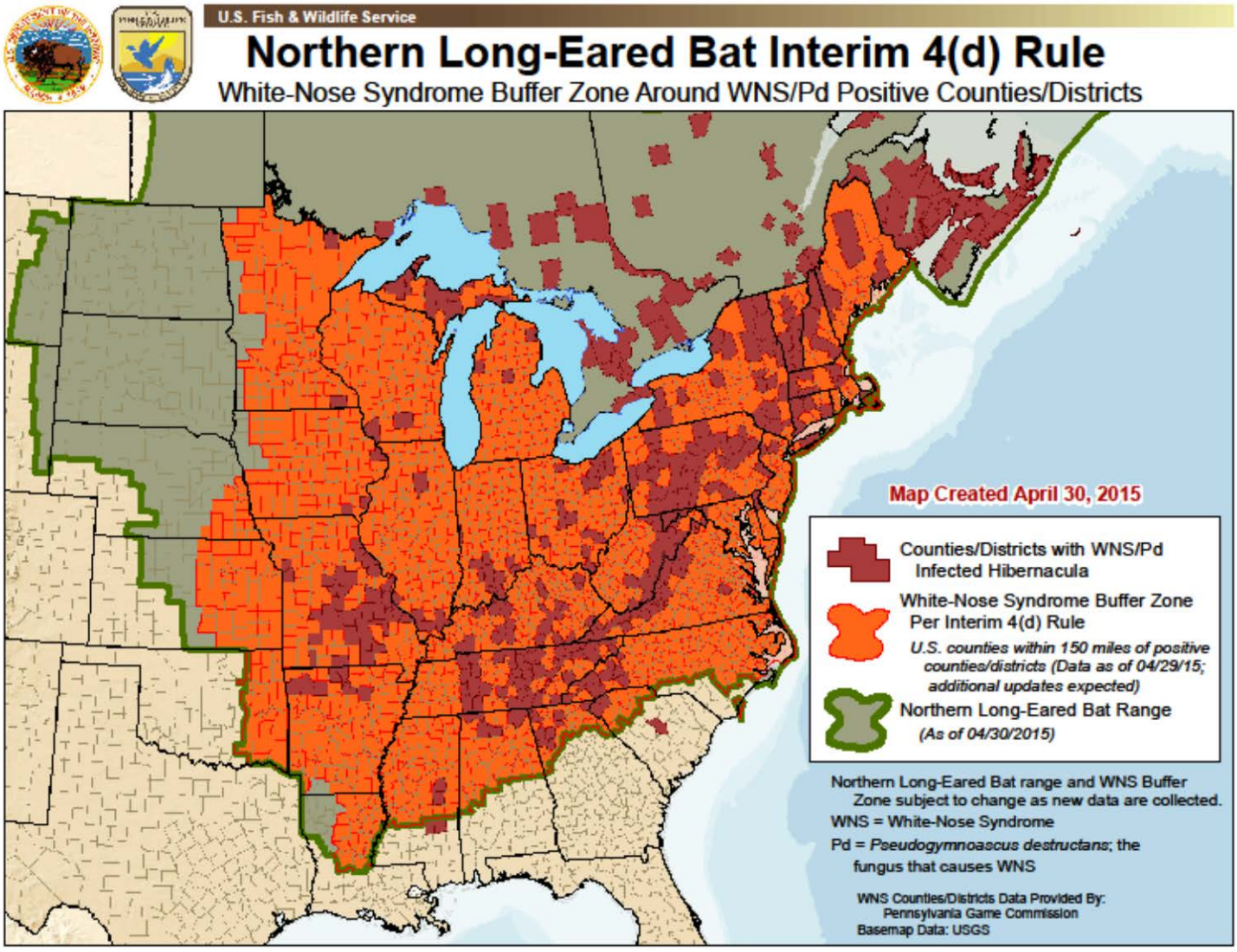
Install a Bat Box: Dead and dying trees are usually not left standing, so trees suitable for roosting may be in short supply and bat boxes may provide additional roost sites. Bat boxes are especially needed from April to August when females look for safe and quiet places to give birth and raise their pups.

Under the 4(d) rule, all incidental take outside the white-nose syndrome buffer zone is exempted from ESA prohibitions.



http://www.batcon.org/index.php/our-work/regions/usa-canada/address-serious-threats/wns-intro

For further information on White-nose Syndrome visit the link above.

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What is the northern long-eared bat?

Photo by New York Department of Environmental Conservation; Al Hicks

Appearance: The northern long-eared bat is a medium-sized bat with a body length of 3 to 3.7 inches but a wingspan of 9 to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*.

Winter Habitat: Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. Within hibernacula, surveyors find them hibernating most often in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. This bat has also been found rarely roosting in structures, like barns and sheds.

Reproduction: Breeding begins in late summer or early fall when males begin to swarm near hibernacula. After copulation, females store sperm during hibernation until spring. In spring, they emerge from their hibernacula, ovulate and the stored sperm fertilizes an egg. This strategy is called delayed fertilization.

After fertilization, pregnant females migrate to summer areas where they roost in small colonies and give birth to a single pup. Maternity colonies of females and young generally have 30 to 60 bats at the beginning of the summer, although larger maternity colonies have also been seen. Numbers of individuals in roosts, typically decreases from pregnancy to post-lactation. Most bats within a maternity colony give birth around the same time, which may occur from late May or early June to late July, depending where the colony is located within the species' range. Young bats start flying by 18 to 21 days after birth. Maximum lifespan for the northern long-eared bat is estimated to be up to to 18.5 years.

Feeding Habits: Like most bats, northern long-eared bats emerge at dusk to feed. They primarily fly through the understory of forested areas feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation or by gleaning motionless insects from vegetation.

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