



Interim Voluntary Guidance for the Northern Long-Eared Bat: Forest Habitat Modification

Introduction

The purpose of this voluntary guidance is to assist stakeholders with non-federal¹ actions involving forest habitat modification to address concerns about compliance with the Endangered Species Act and promote conservation of northern long-eared bat populations. This guidance is interim; we intend to seek stakeholder input on final guidance in the future.

Northern long-eared bat populations have declined dramatically due to a disease known as white-nose syndrome. As a result, the species is now listed as endangered under the Endangered Species Act. Prior to emergence of white-nose syndrome, northern long-eared bats were documented widely throughout much of the eastern U.S. and Canada. Although not nearly as common today, surveys show that the species continues to occur in small pockets distributed throughout its historic range. Because of their extremely low abundance due to white-nose syndrome, northern long-eared bat populations can be vulnerable to impacts from other stressors, such as forest habitat modification.

Northern long-eared bats predominantly overwinter in hibernacula, typically caves and abandoned mines, but have also been observed in other types of hibernacula with similar winter conditions, such as tunnels, sewers and crawl spaces. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested or wooded habitats where they roost, forage and travel. In the summer, these bats roost in live or dead trees ≥ 3 inches diameter at breast height that have exfoliating bark, cracks, crevices and/or cavities. They have also been found more rarely roosting in rock crevices and human-made structures, such as buildings, barns, bridges and bat houses. Populations in southeast coastal areas and Louisiana may be active year-round in forested or wooded habitats due to mild winter temperatures, and populations not dependent upon caves or mines for hibernation may not be susceptible to white-nose syndrome.

Although there are many activities that might alter forested or wooded habitat known to be used by northern long-eared bats, for the purposes of this Interim Guidance and to streamline the transition from the bat being a species listed as threatened with a 4(d) rule to an endangered species, we are focused on the most sensitive life stages. The Service recognizes that sustainable forestry results in healthy forests that are essential for the long-term conservation of the northern long-eared bat.

¹ Federal actions include all activities or programs authorized, funded, carried out, or permitted -- in whole or in part -- by federal agencies in the United States or on the high seas.

How are northern long-eared bats protected under the Endangered Species Act?

Under Section 9 of the Endangered Species Act, it is unlawful for any person to “take” an endangered species. The term “take” is defined as, “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” “Harm” means an act which actually kills or injures wildlife, and it is further defined to include “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.” The questions that should be asked before a determination is made that an action involving habitat modification is likely to result in take are: 1) is the modification of habitat significant; 2) if so, does that modification also significantly impair an essential behavior pattern of a listed species; and 3) is the significant modification of the habitat, with a significant impairment of an essential behavior pattern, likely to result in the actual killing or injury of wildlife? All three components of the definition are necessary to meet the regulatory definition of "harm".

There are a variety of ways take can occur through forest habitat modification, depending on the specific circumstances of the activity and location. The final rule reclassifying the northern long-eared bat as endangered provides a list of potential activities that may result in violation of Section 9 of the Act; however, not all of these activities will result in take. Many activities in forested or wooded habitat can be conducted without risk of taking northern long-eared bats.

Is it necessary to seek an incidental take permit?

Section 10(a)1(B) of the Endangered Species Act allows project proponents to pursue an incidental take permit to provide regulatory assurances for their project while also providing for the conservation of listed species. An incidental take permit is only needed when the project is reasonably certain to “take” a listed species. This is an entirely voluntary process, and it is the applicant’s decision whether or not to pursue a take permit. The U.S. Fish and Wildlife Service can assist non-federal entities on the law, regulations, and guidance related to the potential take of listed species incidental to their activities; however, the decision and responsibility regarding whether to seek an incidental take permit remains with the non-federal entity based on their own assessment.

Step One – Evaluating Presence/Absence

The first threshold in determining whether take is reasonably certain to occur involves evaluating species presence or probable absence in a given area. If northern long-eared bats are present in a given area at any time of year, it is *possible* that in some cases take may occur regardless of when the impact occurs. Research has shown that northern long-eared bats have site fidelity, which means they are likely to return to the same area year after year. However, since white-nose syndrome has led to population declines of 97-100% across most of its range, northern long-eared bats no longer occupy much of their suitable habitat. The species is rare, and there is much more available habitat than areas actually containing this species.

For areas where there is suitable northern long-eared bat habitat but actual occurrence is unknown, there are different options that could be employed to determine if take is reasonably certain to occur:

- Option 1 - Conduct a site-specific presence/probable absence survey. This provides the greatest level of certainty of presence. [The Service has developed survey guidelines to assist with this process](#). In areas where the northern long-eared bat is active year-round, surveys can be conducted from March 1 to November 15 following these guidelines. If surveys document presence, take can still be minimized or avoided through the nature of the activity or the addition of conservation measures. See Steps 2 and 3 for options associated with activities in known locations. If surveys document probable absence, we conclude take is not reasonably certain to occur.
- Option 2 – Assume presence. It is possible to forego surveys or analyses and simply assume bats may be present in suitable habitat. For those not conducting surveys, Option 2 may provide the next greatest planning certainty as it would eliminate the need to address the species should it turn out to be present. See Steps 2 and 3 for options associated with activities in known locations.
- Option 3 – Determine if you are in an area where northern long-eared bats are reasonably certain to occur by entering your project into the Northern long-eared Bat Range-wide Determination Key². We are uncertain where the northern long-eared bat occurs on the landscape outside of known locations. Because of the steep declines in the species and vast amount of available and suitable forest habitat, the presence of suitable forest habitat alone is a far less reliable predictor of their presence. Based on the best available information, most suitable habitat is now expected to be unoccupied. During the interim period, while we are working on potential methods to address this uncertainty, we conclude take is not reasonably certain to occur in areas of suitable habitat where presence has not been documented. Projects in areas where the northern long-eared bat is reasonably certain to occur are not automatically reasonably certain to result in take. Northern long-eared bats may not be present in the actual project footprint, the habitat could be unsuitable, or the timing of your project may not result in impacts to the species. In addition, northern long-eared bats can occur in an area, and take can still be avoided through the nature of the activity or the addition of conservation measures.
- Option 4 – After you have evaluated options 1-3, if you are still unsure how best to evaluate presence/probable absence for your project, [contact your local Ecological Services Field Office](#) to see if a map or additional guidance is available to help with presence/absence evaluations for a specific geographic area.

² The Service is incorporating known locations into the Northern Long-eared Bat Range-wide Determination Key. The determination key will be available for non-federal projects by March 31, the effective date of the final rule.

Step 2 – Avoiding and/or minimizing impacts when presence is known or assumed

If your activity is in a known location or you are assuming presence, there are steps that can be taken to ensure take is not reasonably certain to occur. The following time frames are the most sensitive life stages for the northern long-eared bats:

- 1) during hibernation;
- 2) during the pup season, which is the range of time when females are close to giving birth (i.e., two weeks prior to birth) and have non-volant (i.e., unable to fly) young; and
- 3) during torpor (i.e., a state of lowered body temperature and metabolic activity) when temperatures are <40°F in areas where northern long-eared bats do not hibernate, which is the Southeast Coastal Plain from the James River in Virginia south to the border of Georgia and the species' entire range in Louisiana.

Measures like those included in the former 4(d) rule for the species reduce the likelihood of take and may be enough to avoid take. Take is not reasonably certain to occur if activities do not result in the disruption or disturbance of northern long-eared bats in hibernacula or the result in alteration of the hibernacula's entrance or environment. For this Interim Guidance, take is not reasonably certain to occur if vegetation management activities are avoided in close proximity to bats during the pup season and during torpor in areas where the species is active year-round. Available data indicate the northern long-eared bat is roosting in forested wetlands in areas where the species is active year-round. We do not expect northern long-eared bats to be in torpor in areas outside of forested wetlands when temperatures are less than 40°F, and forested wetlands are not typically subjected to vegetation management at these times due to best management practices. Tree clearing projects should retain as many snags (i.e., dead trees) as possible and also minimize the amount of tree removal. Additional voluntary measures are described in [Beneficial Forest Management Practices for WNS-affected Bats: Voluntary Guidance for Land Managers and Woodland Owners in the Eastern United States](#).

Step 3 – Seeking recommendations for incidental take coverage when take is reasonably certain to occur

If northern long-eared bat presence is known or assumed, and activities cannot be avoided within its habitat during key time periods, we recommend checking with [the local Ecological Services Field Office](#) to see if implementing other conservation measures or developing a Habitat Conservation Plan and applying for an Incidental Take Permit is an appropriate course of action.