Listing the Northern Long-Eared Bat as Threatened
Questions and Answers

1. What action is the U.S. Fish and Wildlife Service taking?
The U.S. Fish and Wildlife Service (Service) is listing the northern long-eared bat as threatened under the Endangered Species Act (ESA). The Service has also developed an interim 4(d) rule under the ESA for the northern long-eared bat and opened a 90-day public comment period on the interim 4(d) rule. The final rule listing this bat as threatened and the interim 4(d) rule were published in the *Federal Register* on April 2, 2015. The rules are effective on May 4, 2015.

The Service originally proposed to list the northern long-eared bat as endangered on October 2, 2013. The proposed rule opened a 60-day public comment period that was extended to 90 days. Two additional comment periods were opened in June and November 2014. On January 16, 2015, the Service published a proposed 4(d) rule for the northern long-eared bat. That proposal opened a fourth public comment period.

A separate set of FAQs are available that explain the interim 4(d) rule for the northern long-eared bat www.fws.gov/midwest/endangered/mammals/nleb/FAQsInterim4dRuleNLEB.html .

2. What is the northern long-eared bat and where is it found?
The northern long-eared bat is about 3 to 3.7 inches long with a wingspan of 9 to 10 inches. As its name suggests, it is distinguished by its long ears, particularly compared to other bats in its genus, *Myotis*. It eats insects and emerges at dusk to fly primarily through the understory of forest areas, feeding on moths, flies, leafhoppers, caddisflies and beetles. It catches these insects while in flight using echolocation or by using gleaning behavior, catching motionless insects from vegetation.

Northern long-eared bats spend winter hibernating in caves and abandoned mines, collectively called hibernacula. During summer, they roost alone or in small colonies underneath bark or in cavities or crevices of both live trees and snags (dead trees).

The northern long-eared bat's range includes much of the eastern and north central United States and all Canadian provinces from the Atlantic Coast west to the southern Northwest Territories and eastern British Columbia. The species' range in the United States includes the following 37 states: Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming, and the District of Columbia.[1]

[1] In the proposed rule we identified the northern long-eared bat's range as 39 states, including the District of Columbia. Since publication of the proposed rule, the Service has refined the northern long-eared bat's range based on additional data. We now consider the range to include 37 states and the District of Columbia; the species is no longer thought to occur in Florida. A map of the northern long-eared bat's range can be viewed at www.fws.gov/midwest/endangered/mammals/nleb/nlebRangeMap.html

3. Why is the Service protecting the northern long-eared bat under the ESA?
White-nose syndrome (WNS), a fungal disease known to affect only bats, is the predominant threat to the northern long-eared bat. This disease was first observed in New York in 2006 and rapidly spread from there. Throughout the Northeast, the northern long-eared bat has disappeared completely from many hibernation sites. Prior to the emergence of WNS, the northern long-eared bat was found with higher abundance in the East and becoming less common westward.

WNS has spread throughout the East and is now spreading through the Midwest and South. The rate of spread has been rapid, from the first documented occurrence in New York in February 2006 to 25 states and five Canadian provinces by 2014. Although the disease has not yet been found throughout all of the northern long-eared bat's range, the disease or the fungus that causes it has been documented in 28[2] of 37 states where the northern long-eared bat occurs. Experts expect that where it spreads, WNS will have the same impact on the northern long-eared bat as seen in the Northeast.

There are other factors that cause mortality and harm to the northern long-eared bat and these include: wind energy development, habitat destruction or disturbance (e.g., vandalism to hibernacula, roost tree removal), and contaminants. Although no significant population declines have been observed due to these threats individually, additional mortality caused by these factors may affect this bat's ability to persist while experiencing dramatic declines caused by WNS.

4. Why is the Service concerned about human activities that take bats if the cause of the bat's decline is a disease we cannot control?
The primary factor threatening the northern long-eared bat is white- nose syndrome. However, because populations of the bat are depressed by this disease, human activities that were not significant before may be so now.

FWS has worked closely with local, state and federal partners to create an interim 4(d) rule that exempts activities that have negligible impact on the species' long-term survival. The 4(d) rule will also allow activities that are beneficial to the bat to continue, ensuring there are not undue regulatory burdens on individuals not negatively impacting northern long-eared bat populations.

In particular, in areas of the northern long-eared bat's range that have not yet been affected by white-nose syndrome, as defined in the interim rule, any incidental take (unintentional harm to the bats as a result of otherwise lawful activities) is not prohibited. In areas of the bat's range that may be affected by white-nose syndrome, incidental take caused by some tree removal and tree-clearing, when combined with conservation measures that protect the bat's most vulnerable life stages, is not prohibited.

[2] To see the current spread of WNS visit www.whitenosesyndrome.org/resources/map.

5. The Service proposed listing the northern long-eared bat as endangered, so why is the Service now listing the bat as threatened?
The ESA describes two categories of declining species that need the Act's protections – "endangered" and "threatened"– and provides these definitions:

> **Endangered:** any species that is in danger of extinction throughout all or a significant portion of its range;
>
> **Threatened:** any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

In simple terms, endangered species are at the brink of extinction now; threatened species are likely to be at the brink in the foreseeable future. Therefore, the definition of each term hinges on the time element, now versus the future.

After we proposed listing the northern long-eared bat, we looked more critically at how the definitions of threatened and endangered fit within the context of the northern long-eared bat and the spread of WNS. We determined that the bat is not endangered at this time because WNS has not yet spread throughout its range and will not likely affect its entire range from some years. Furthermore, the area not yet affected by WNS has not yet suffered declines and appears stable. We expect that WNS will continue to spread and eventually will be present throughout this bat's entire range, and at that time the northern long-eared bat would be considered "in danger of extinction" and thus "endangered." Therefore, our determination is that the northern long-eared bat, due to WNS, is likely to become endangered within the foreseeable future throughout its range, thus is currently a "threatened" species.

6. Northern long-eared bats are difficult to find at winter hibernacula because they tend to hibernate singly or in small groups, often located deep in cracks or crevices in caves. Thus, isn't it likely that the northern long-eared bat is doing better than the Service's evaluation indicates?
It is true that, compared to other species, the northern long-eared bat is often difficult to find during winter hibernacula surveys. They do not cluster in large numbers, as do some species like the Indiana and little brown bats, and they will often hibernate deep in cracks and crevices. However, those conditions are constant, so hibernacula surveys provide relative abundance information from year to year, and provide accurate population trend information. Collectively, data from consistent hibernacula surveys show that numbers are down in WNS-impacted areas and the magnitude of those declines.

7. Are northern long-eared bat mortality rates similar to mortality rates of other affected species?
WNS has been confirmed in seven species of hibernating bats in North America. As indicated by hibernacula counts, numbers of four of those species – northern long-eared, little brown, tri-colored, and Indiana bats – have experienced the most severe declines.

8. Are northern long-eared bat mortality rates similar in all states where WNS has been confirmed?
Where WNS has been present for at least three years, northern long-eared bats are often extirpated or are found at extremely low numbers during winter hibernacula surveys. However, they continue to be found during summer in some WNS affected areas, although in very low numbers. Numbers observed in some areas of West Virginia and at some coastal sites suggest that there may be scattered locations where this species has not been as severely impacted as other areas of eastern North America. These observations are purely anecdotal at this point. The numbers of locations are very few and the numbers of northern long-eared bats at these locations are also very low. In most WNS-affected areas, summer trapping and acoustic data corroborate the declines of over 90 percent observed during winter surveys for northern long-eared bat.

9. Why are we not seeing population declines in some areas where WNS has been present for a few years?
There are some states that have not reported high bat mortality, despite WNS being present in the state for more than two years. However, for some states there is a lack of data pre-WNS to compare current (post-WNS) hibernacula counts to. There have been low numbers in hibernacula pre-WNS as well, with count numbers fluctuating greatly in some hibernacula. Therefore, it may not be possible to detect a change in population trends for sites in these states. However, during the winter of 2013 to 2014, WNS and/or *Pseudogymnoascus destructans* continued to spread throughout the Midwest and South, and there were many documented cases of mortality and population declines throughout these regions.

For several years, researchers have recognized that a time lag exists between the first detections of *P. destructans* at a cave and actual mortalities causing population declines, but the factors that determine the length of that time lag are not yet well understood. It may be that the time lag is longer for some sites than others, based on as yet unidentified factors.

10. Do we expect to see the same impacts of WNS on the northern long-eared bat as it spreads west that we saw in the Northeast? If so, what evidence do we have to support that?
We have no evidence to expect the impact of WNS to be any different in the West than it was in the Northeast. While there is variation among bat species and individuals in the conditions they select for hibernation, the bat's physiological demands of hibernation limit this selection to relatively cool, humid conditions similar to those where the WNS fungus *P. destructans* grows well. As WNS has spread in all directions from its North American point of origin, it has caused mortality and population declines. The timeframe of disease progression and overall impact varies among sites, but the end result has almost always been disease and population declines in sites where the fungus has been present for multiple years.

11. Are bats less likely to develop WNS in the South? Will impacts of the disease be less due to shorter hibernation periods in the South (i.e., shorter hibernation results in bats spending less time exposed to the fungus that causes WNS)?
Some have hypothesized that bats in the Southeast may not be as susceptible to WNS because their hibernation periods are shorter than in Northeast. However, WNS-related population

declines have already been reported in southern states with warmer climates. Therefore, the hypothesis of some protection from WNS in areas of milder climates has not been supported.

12. Does the northern long-eared bat hibernate in structures other than caves or mines or similar structures (i.e., do they hibernate in trees where they won't be exposed to WNS)?
For the most part, northern long-eared bats hibernate in caves and abandoned mines. There are a few documented instances of these bats using other types of structures that simulate a cave-like environment that is suitable for hibernation (culverts, sewer pipes and a dam in Michigan). To date, there have been no documented cases of this bat hibernating in trees. More importantly, WNS and *P. destructans* have been detected in forts, buildings, culverts, and aqueducts used by bats during winter. Therefore, it is not accurate to suggest that *P. destructans* exposure is limited to only certain types of hibernacula.

13. The species seems to be doing fine in my state, so why is it being considered for listing throughout its range?
The Endangered Species Act only provides for listing as a species, subspecies or distinct population segment, so listing decisions cannot be made on a state-by-state basis unless a state boundary coincides with a species' range, subspecies' range or distinct population segment boundary. There are no clear biological or ecological demarcations across the range of the northern long-eared bat that would clearly identify a segment of the population as different from another. In addition, we expect that WNS will continue to spread across the entire range of the bat.

14. What are federal and state agencies doing to find the cause and a cure for WNS?
The Service and our many partners have made it a priority to find a way to stop or slow the spread of WNS. Since this disease was first confirmed in the winter of 2006-2007 in New York, we have been leading a nationwide network of state and federal agencies, tribes, organizations, researchers and individuals to investigate the source, spread and cause of WNS and to minimize its impact. We have awarded more than $20 million in grants to address WNS and have made great progress in this effort. Finding ways to minimize the impact of this disease on our nation's bats is a priority for the Service and members of the WNS Team.

The overall WNS investigation has three primary focus areas: research, monitoring/management and outreach. In 2009 and 2010, the Service led a team of federal and state agencies and tribes in preparing a national WNS management plan to address the threat to hibernating bats. This National Plan outlines actions necessary for state, federal and tribal coordination. It provides an overall strategy for investigating the cause of WNS and a strategy for finding ways to manage it. Find out more about the plan at http://whitenosesyndrome.org/national-plan/white-nose-syndrome-national-plan.

Find out more about the work of the WNS Team at http://whitenosesyndrome.org/.

15. What is the Service doing to help the northern long-eared bat?
Pre-listing Habitat Conservation Plans or Agreements
There are multiple Habitat Conservation Plans (HCPs) in development that propose covering the northern long-eared bat. For example, the Service, state natural resource agencies and wind

energy industry representatives are developing the Midwest Wind Energy Multi-Species Habitat Conservation Plan to conserve several species, including the northern long-eared bat, amid wind energy development in Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

There are also individual HCPs being developed for wind developments covering the northern long-eared bat throughout the species' range. Many states are currently developing management and conservation alternatives to address northern long-eared bat conservation. The conservation efforts associated with HCPs are expected to benefit the northern long-eared bat once they are implemented.

WNS Research and Response

Since 2008, the Service has granted more than $20 million to institutions and federal and state agencies for WNS research and response, including investigating the cause of the disease, variation in species susceptibility, transmission routes and management options. As a result of this research, we have identified what causes WNS, the fungus *P. destructans*, and have developed ways to detect it, including molecular analyses and UV light. Research in progress is looking into treatments for the disease and molecular and genetic tools to reduce the ability of the fungus to cause the disease. While most projects are not specific to the northern long-eared bat, past, current and future research is anticipated to provide significant benefits for the species, as WNS is the primary threat to this bat.

The Service has led an effort to develop the National Plan for Assisting States, Federal Agencies, and Tribes in Managing WNS in Bats (WNS National Plan) and subsequent WNS Implementation Plan. As part of the National Plan, a multi-species recovery team has been developed consisting of state and federal agencies, conservation organizations and scientific institutions. The team is broken into seven working groups: disease surveillance, diagnostics, epidemiological and ecological research, disease management, conservation and recovery, data and technical information management, and communications and outreach. All work collaboratively on various aspects of the effort to understand and respond to WNS. These working groups have each developed goals and specific tasks to implement the various strategies in the WNS National Plan.

The WNS Conservation and Recovery Working Group has several efforts underway that may benefit northern long-eared bat (and all bats impacted by WNS). For example, Best Management Practices are being developed for transportation agencies working with bats roosting under bridges, nuisance wildlife control officers, rehabbers, and forest managers. See https://www.whitenosesyndrome.org/national-plan/conservation-and-recovery-affected-bat-species for more about this group.

Forest Management Research

The U.S. Forest Service (USFS) has been conducting research on the northern long-eared bat and forest management practices for over a decade. More recently, at the Fernow Experimental Forest in Tucker County, West Virginia, the USFS has researched the effects of WNS on bat activity on the forest and specifically to the northern long-eared bat's roosting networks and tree

selection. Similarly, the Fort Knox Military Reservation (DoD) in Kentucky has funded research on day roost selection by northern long-eared bat maternity colonies, in the context of forest succession.

Wind
In addition to working with wind energy companies to develop HPCs, the Service is using radar to document bird and bat migratory pathways in and around the Great Lakes coastlines. Information about the radar project is available at www.fws.gov/radar/. While not specific to northern long-eared bats, information will help address wind development issues along Great Lakes shorelines.

Also, the Service recently announced funding for three projects to study the spring and fall migration patterns of Indiana bats and northern long-eared bats. Bats emerging from hibernacula in the spring, as well as bats leaving maternity roosts in the fall, will be tagged and tracked to help learn how they are using the landscape during migration times, when they are most vulnerable to wind turbine mortality. This will help refine conservation measures associated with wind projects and potentially lead to strategies for reducing bat fatalities at wind turbines.

Abundance and Trend Studies
Many entities (e.g., states, USFS, National Wildlife Refuges) are conducting acoustic transect surveys as part of a larger effort to help determine bat species trends.

The Service is funding the Department of Defense and U.S. Geological Survey to conduct regional trend analyses of previously collected acoustic transect data from sites across the eastern U.S. While not targeted at northern long-eared bat, results may be informative to determine where to focus future conservation efforts.

The North American Bat Monitoring Program is a multi-agency collaborative effort currently under development to better coordinate and standardize bat population monitoring.

16. How does listing help conserve the northern long-eared bat?
Listing under the ESA helps conserve species in several ways. Listing focuses conservation planning and funding, raises awareness that can lead to additional opportunities and partners, and by regulation protects listed species from intentional and unintentional harm.

The ESA requires the Service to prepare a recovery plan for each listed species. A recovery plan identifies and prioritizes actions needed to conserve and recover a species. Non-governmental agencies, universities and other federal and state agencies often carry out conservation actions identified in recovery plans.

Federally listed threatened and endangered species are usually considered as priorities during land-use planning.

Listing protects species by prohibiting "take" under section 9 of the Act. The take prohibition includes significant habitat modification or degradation that results in the direct killing or injury

to listed animal species. States may also have their own laws restricting activity that affect federally listed species.

In addition, section 7 of the ESA protects listed species by requiring that other federal agencies formally consult with the Service to ensure that their actions are not likely to jeopardize the continued existence of a listed species or adversely modify critical habitat. Through this consultation, the Service works with the federal agency and advises on whether the actions would affect the species or critical habitat as well as ways to avoid those impacts. Listed species often become priorities for grants and other funding because of the section 7(a)(1) requirement that all federal agencies use their authorities to carry out programs for the conservation of threatened and endangered species.

17. Is the Service going to propose critical habitat for the northern long-eared bat?
In the final listing rule for the northern long-eared bat, we state that critical habitat is not determinable at this time. Thus, under the ESA, we have one year from the time a final listing rule is published to propose and determine appropriate critical habitat.

18. What can I do to help the northern long-eared bat?
Support conservation efforts and disease management efforts: Through our actions, people can play an important role in conservation efforts by observing recommendations and regulations designed to protect bat caves and mines where bats roost and hibernate. Minimizing visits and contact with roost and hibernation areas and avoiding movement of equipment and clothing among different areas, can help prevent the spread of WNS. Public use of and support for the national WNS response plan is essential for the plan to be effective. Visit www.whitenose.org for the decontamination protocols and the national plan.

Visit local parks, refuges and sanctuaries: While you enjoy these areas, your entrance fees and donations provide essential funds to manage and conserve habitat for plants and animals that rely on these lands. Visiting parks and refuges also provides opportunities to learn more about wildlife in your area.

Avoid disturbing hibernating bats: For the protection of bats and their habitats, comply with all cave and mine closures and regulations. If you are in an area without a cave and mine closure policy, follow all approved decontamination protocols. Under no circumstances should caving clothing, footwear or equipment used in a WNS-affected state or region be used in a state or region unaffected by the disease. Visit http://whitenosesyndrome.org for decontamination protocols and the national plan.

Install a bat box: Like most eastern bats, the northern long-eared bat moves to trees for the summer, often using dead and dying trees. When safe to do so, leave these standing, but if dead or dying trees are not available, bats may use bat boxes as replacement 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.

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 on your property. Northern long-eared bats and many other animals use these trees.

Support sustainability: Support efforts in your community, county and state to ensure that sustainability is a development goal. Sustainable living helps alleviate some of the pressures and threats on imperiled species, like the northern long-eared bat, and their habitat.

Spread the word: Understanding the important ecological role that bats play is a key to conserving the northern long-eared and other bats. Helping people learn more about the northern long bat and other endangered species can lead to more effective recovery efforts.

Join and volunteer: Join a conservation group; many have local chapters. Volunteer at a local nature center, zoo, or national wildlife refuge. Many state natural resource agencies benefit greatly from citizen involvement in monitoring wildlife. Check your state agency websites and get involved in citizen science efforts in your area.

19. What scientific data and analysis did the Service use to evaluate the status of the northern long-eared bat?

As our biologists reviewed the status of the northern long-eared bat and developed our listing proposal, we made a significant effort to obtain the best available scientific information, including contacting all state fish and wildlife agencies, other federal agencies, Native American tribes and research institutions within the species' range to request survey data and any other available information. Since publication of the proposed rule we made another data request to these same agencies and organizations for updated information including pre- and post-WNS data. Our analysis involved using this available pre-and post-WNS data and published models, in consultation with WNS experts, to assess the WNS risk to this bat and to evaluate its potential rate of spread.

We acknowledge that the Service did not adequately explain in the proposed rule the coordination process we used to work with federal and state agencies, tribes and research institutions, and the depth of data that we received from those agencies. After the proposed rule published we continued and increased our coordination with these entities. We worked through the Association of Fish and Wildlife Agencies to share and receive information from state natural resource agencies and state forestry associations. We conducted numerous conference calls with state wildlife agency directors and tribes to keep them informed, to answer questions and to receive information. We have continued data and technical assistance sharing with state and federal agencies, tribes and research institutions, and lead a WNS stakeholder team of federal and state agencies, NGOs, and universities working on addressing all aspects of WNS. The WNS team provided the information on the impact and rate of WNS spread that was used in evaluating the status of the northern long-eared bat.

20. Critics suggest that the survey data that the Service used are faulty, particularly the reliance on winter hibernacula survey data. Some have said that summer surveys show the bat's population is large and increasing.

Survey information that the Service used to assess the northern long-eared bat's population status came from many different sources, including state natural resource agency surveys, U.S. Forest Service surveys, contractors conducting surveys for agencies, and research institutions conducting basic research. There are difficulties comparing data that are collected in different ways and almost all survey techniques have some limitations, but that does not mean that the data is faulty. We used standard statistical analysis tools to compare the data and only used the data within its range of relevancy.

Hibernacula surveys are considered the best available data for cave-dwelling bats in general. However, in recognition of the limitations of these data, we generally do not use the available hibernacula counts to estimate northern long-eared bat population size. Instead we use the hibernacula data to understand and estimate population trends for the species. The relative difficulty of observing northern long-eared bats during hibernacula surveys should be consistent from year to year, and these data can be used to estimate relative change in numbers and indicate if the species is increasing or decreasing in number in those hibernacula.

The northern long-eared bat declines estimated at hibernacula are often corroborated by declines in acoustic records and mist-net captures in summer (typically where WNS has been present for 2 or more years). There are a number of long-term summer surveys that used the same survey techniques both pre- and post-WNS. These surveys document marked summer declines in nearly all WNS impacted areas. Here are four examples of results from these types of surveys:

- Virginia: total captures of northern long-eared bats:
  - pre-WNS = 175;
  - 2011 = 115;
  - 2012 = 83; and
  - 2013 = 7; a 96 percent decline in total captures.

- Pennsylvania: northern long-eared bats captured per 1,000 units
  - Pre-WNS = 2.4;
  - 2012 (after WNS) = 0.85

- New York:
  - 2003 = northern long-eared bats were captured during 90 percent of survey nights;
  - 2012 = northern long-eared bats were captured during less than one percent of survey nights.

- Indiana: No or few northern long-eared bats at mist-net sites where they had been reliably captured before WNS.

It should also be noted that mist-net surveys, in particular, are extremely sensitive to changes in effort. If higher or stable numbers of northern long-eared bats were found in recent years, it may

be due to recent increases in survey effort. Standardized catch per unit effort or other similar data are necessary to make population trend comparisons over time.

21. Did the Service consider weaknesses in hibernacula data raised by the Ingersoll *et al*. (2013) technical journal article (cited below) when making a decision on listing the northern long-eared bat?

The Service did evaluate the Ingersoll *et al* 2013 paper, which includes a critique of hibernacula survey data, pointing out the limitations of data derived from these surveys to adequately estimate regional bat populations. However, in our evaluation, we do not use hibernacula survey data to make population estimates. Hibernacula surveys are considered the preeminent source of population data for cave-dwelling bats, including the northern long-eared bat. In the listing rule, we use the hibernacula data (in addition to summer data) to understand and estimate population trends for northern long-eared bat.

Ingersoll T.E., B.J. Sewall and S.K. Amelon. 2013. Improved Analysis of Long-Term Monitoring Data Demonstrates Marked Regional Declines of Bat Populations in the Eastern United States. PLoS ONE 8(6): e65907. doi:10.1371/journal.pone.0065907

22. Some people have cited the Ingersoll *et al*. (2013) paper as evidence that the northern long-eared bat was declining before WNS caused high bat mortality. Does the Service agree?

The Service reviewed the Ingersoll *et al*. (2013) paper and we were not able to find support for the conclusion that the northern long-eared population was declining before WNS. The models used in the Ingersoll *et al*. paper to estimate regional population size over time did not compare estimates pre- to post-WNS. Thus, there is no way to identify the impact of WNS on the model results, or to show a pre-WNS model versus a post-WNS model. Moreover, the authors interpret their results to suggest that northern long-eared bat population declines did not increase as a result of WNS. The weight of other available evidence contradicts this interpretation, and still supports the conclusion that the bat was not imperiled prior to WNS.

23. Where can I learn more about the northern long-eared bat and the rule to list it as threatened?

Information is online at www.fws.gov/midwest/nleb or you may contact the U.S. Fish and Wildlife Service's Twin Cities Field Office at:

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If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.