Proposal to Reclassify the Northern Long-eared Bat as Endangered Under the Endangered Species Act

Questions and Answers

1. What action is the U.S. Fish and Wildlife Service taking?

The U.S. Fish and Wildlife Service is proposing to reclassify the northern long-eared bat from threatened to endangered under the Endangered Species Act (ESA). The proposed change is supported by a species status assessment of the northern long-eared bat. The proposed rule serves as our response to a court order requiring the Service to reconsider the previous listing decision for the northern long-eared bat within 18 months of completing a species status assessment. We must finalize a rule by the end of November 2022.

After a review of the best available scientific and commercial information, we find that the species meets the definition of an endangered species under the Act, meaning that it is currently in danger of extinction. If this action is finalized, we would reclassify the northern long-eared bat as an endangered species on the List of Endangered and Threatened Wildlife, and we would remove its species-specific 4(d) rule.

The species' current status of threatened with a 4(d) rule will remain in place until a final rule becomes effective.

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 emerges at dusk to fly primarily through the understory of forest areas, feeding mostly 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 predominantly spend winter hibernating in caves and abandoned mines, collectively called hibernacula. During summer months, they roost alone or in small colonies underneath bark or in cavities or crevices of both live and 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 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.

3. Why is the Service proposing to change the status of the northern long-eared bat from threatened to endangered under the ESA?

White-nose syndrome, a fungal disease known to affect only bats, is the predominant threat to the northern long-eared bat. The effect of white-nose syndrome (WNS) on northern long-eared bat has been extreme, such that most winter colonies experienced severe declines following its arrival, which was first detected in New York in 2006. Just four years after the discovery of the disease, for example, the northern long-eared bat experienced a 98% decline in winter counts across 42 sites in Vermont, New York and Pennsylvania. Similarly, the arrival of white-nose syndrome led to a 10–fold decrease in northern long-eared bat colony size. Most recently, data from 27 states and two provinces indicate white-nose syndrome has caused estimated population declines of 97–100% across 79% of northern long-eared bat's entire range and almost all of the species' U.S. range.

Summer data also reveal dramatic declines since the arrival of WNS, with an 80% decline in rangewide occupancy from 2010 to 2019. Relative abundance, a measure of how common or rare a species is relative to other species, dropped 79% from 2009 to 2019. We projected the species' abundance and distribution given current and future WNS occurrence and current and future installed wind energy capacity. We also considered impacts from climate change, habitat loss and conservation efforts. All existing data and our qualitative and quantitative analyses suggest that northern long-eared bat's viability has steeply declined.

We will continue to work with partners using best management practices and other practical means to manage risks to sensitive life stages for the remaining populations of northern long-eared bats, including hibernation and maternity roosting/pup rearing, while providing regulatory predictability.

4. Are there other threats to the northern long-eared bat besides white-nose syndrome?

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. Mortality of northern long-eared bats at wind energy facilities is a consequential stressor at local and regional levels, especially in combination with impacts from white-nose syndrome. Most bat mortality at wind energy projects is caused by direct collisions with moving turbine blades. Wind energy mortality may currently occur over 49% of northern long-eared bat's range and wind energy development is expanding.

Climate change variables, such as changes in temperature and precipitation, may influence northern long-eared bat resource needs, such as suitable roosting habitat for all seasons, foraging habitat and prey availability. Although there may be some benefit to northern long-eared bat from a changing climate, overall negative impacts are anticipated.

Habitat loss may include loss of suitable roosting or foraging habitat, resulting in longer flights between suitable roosting and foraging habitats due to habitat fragmentation,

5. What is the difference between endangered and threatened under the ESA?

The ESA describes two categories of declining species that warrant federal 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 in danger of extinction now; threatened species are likely to become in danger of extinction in the foreseeable future. Therefore, the definition of each term hinges on the time element, now versus the future.

6. What is a 4(d) rule, and what management flexibility does the current 4(d) rule for northern long-eared bat offer for forest managers and others?

Section 4(d) of the Endangered Species Act directs the Service to issue regulations deemed "necessary and advisable to provide for the conservation of threatened species." It allows the Service to promulgate special rules for species listed as threatened (not endangered) that provide flexibility in implementing the ESA. We use 4(d) rules to target the take prohibitions to those that provide conservation benefits for the species. For the northern long-eared bat, the 4(d) rule, which remains in place while the species is listed as threatened, tailors protections to areas affected by white-nose syndrome during the bat's most sensitive life stages. The rule is designed to protect the bat while minimizing regulatory requirements for landowners, land managers, government agencies and others within the species' range.

7. Why will the 4(d) rule for the northern long-eared bat be nullified if the proposal to reclassify to endangered is finalized?

A 4(d) rule is a tool provided by the ESA to allow for flexibility in the ESA's implementation and to tailor prohibitions to those that make the most sense for protecting and managing at-risk species. This rule, which may be applied only to species listed as threatened, directs the Service to issue regulations deemed "necessary and advisable to provide for the conservation of threatened species." The ESA does not allow application of 4(d) rules for species listed as endangered; thus, if the reclassification is finalized, the 4(d) rule will be nullified. The species' current status of threatened with a 4(d) rule will remain in place until a final rule becomes effective.

8. How will the reclassification, if finalized, affect activities such as transportation, wind energy, and forest management?

Many wind energy projects already have ESA compliance in place that will remain in place if reclassification to endangered status is finalized. For example, the wind energy industry currently has 16 Habitat Conservation Plans in place and an additional 13 in development; these HCPs allow wind energy projects to move forward after fully minimizing and mitigating their impacts to northern long-eared bats.

The Service has completed a programmatic consultation with the Federal Highway Administration, the Federal Railroad Administration and the Federal Transit Administration that covers transportation projects throughout the entire range of the northern long-eared bat. Projects covered under this consultation would only be impacted by the reclassification if they are not complete before the final rule would become effective. We will continue to work with stakeholders to develop and provide additional opportunities for conservation of the northern-long eared bat. Learn more about HCPs and other ESA landowner tools.

If the northern long-eared bat is reclassified as endangered, conservation strategies will likely be similar to those for other endangered bats, including the Indiana bat. We work with forest managers, wind facility operators and others to find strategies to avoid take (harming, harassing, killing) of listed bats using our various conservation tools, authorities, and programs, be it consultations or technical assistance. We also actively work with public and private groups and individuals to develop habitat conservation plans for listed species. These plans, developed as part of an application for incidental take under the ESA, outline measures the applicant will take to minimize and mitigate any unintentional take resulting from otherwise lawful activities covered in the plan. Such plans provide management flexibility and predictability for landowners, project managers and other non-federal groups while providing long-term conservation for listed species.

The U.S. Forest Service (USFS) and the Service are developing a Bat Conservation Strategy that would be implemented across USFS Regions 8 and 9.

There are several wind industry habitat conservation plans (HCPs) under development that will cover the northern long-eared bat. The majority of the wind HCPs that are in place within the range of northern long-eared bat, already cover the species. There is a short-term HCP template in use for streamlining the permitting process. There are other energy and timber harvest HCPs under development or in place that will include the northern long-eared bat.

9. What are the Service and partners doing to conserve the northern long-eared bat?

WNS Research and Response

The Service leads the coordinated national response to combat white-nose syndrome, alongside more than 150 partnering non-governmental organizations, institutions, Tribes, and state and federal agencies that are organized under the White-nose Syndrome National Response Team.

The partnership works cooperatively to identify and conduct critical research into WNS and develop management strategies to minimize current and future impacts of the disease and recover affected bat populations. Through the pursuit of innovative research, the collaborative response effort has yielded scientific advancements and promising treatments to slow the disease and improve survival of bats. Through research, management and monitoring, and partnerships, the White-nose Syndrome National Response is a coordinated community working together to apply our combined knowledge to conserving the nation's bats.

From 2008 to 2021, the Service has awarded more than $46 million to states, Tribes, federal agencies, research institutions and nongovernmental organizations. These grants address critical information needs and advance research and development of tools needed to combat white-nose syndrome. This includes conducting experimental treatments in the field and implementing adaptive management strategies. Awards have supported the testing of white-nose syndrome treatments including experimental vaccinations; investigations into the health and persistence of chronically impacted bats and estimating vulnerability of bats newly exposed; and efforts to study the potential for bats to evolve genetic resistance to WNS, and to identify and protect roosts important to recovering populations. While many projects are not specific to the northern long-eared bat, past and current research addresses critical life history information and tests effectiveness of different management activities for the species. Future work will also benefit the species through research and development of management options, with a focus on WNS as the primary threat to this bat.

The Service led development of the National Plan for Assisting States, Federal Agencies, and Tribes in Managing White-nose Syndrome in Bats (2011) and subsequent White-nose Syndrome Implementation Plan (2015). The national plan outlines actions necessary for state, federal and Tribal coordination, and provides an overall strategy for addressing this threat to hibernating bats, including the northern long-eared bat. The plan is a framework for coordinating and managing the investigation and response to WNS and establishes the framework through which emerging management options can be implemented efficiently and effectively as they become available. That framework includes five working groups: surveillance and diagnostics, data management, conservation and recovery, communications and outreach, and disease management.

The White-nose Syndrome Conservation and Recovery Working Group developed several products that may benefit northern long-eared bat (and all bats impacted by white-nose syndrome). For example, recommended management practices have been developed for transportation agencies working with bats roosting under bridges, nuisance wildlife control officers, wildlife rehabilitators and forest managers. Learn more about these products.

Wind

In addition to working with wind energy companies to develop habitat conservation plans, the Service used radar to document bird and bat migratory pathways in and around the Great Lakes coastlines. While not specific to northern long-eared bats, this information will help address wind development issues along Great Lakes shorelines.

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-national, multi-agency coordinated bat monitoring program across North America. This collaborative bat monitoring program is made up of an extensive community of partners across the continent who use standardized protocols to gather data that allow us to assess population status and trends, inform responses to stressors, and sustain viable populations. Learn more about the North American Bat Monitoring Program.

10. How does reclassifying the northern long-eared bat as endangered benefit the species?

This reclassification indicates that the bat requires additional conservation efforts to address the impacts of its primary threat of white-nose syndrome. Therefore, this action will draw greater attention to the plight of the bat, demonstrate the need for continued research and development on mitigation strategies for white-nose syndrome, and help focus collective conservation efforts on the surviving bats that remain on the landscape. 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 unless authorized by permit. 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.

11. What can I do to help the northern long-eared bat?

Support conservation and disease management efforts: Although spread of white-nose syndrome happens mainly from bats to other bats, humans visiting caves and other hibernacula can also transmit the disease inadvertently by carrying the fungus from other caves on their clothing and gear. 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. Restricting visits and contact with roost and hibernation areas and avoiding movement of equipment and clothing among different hibernacula, can help prevent the spread of white-nose syndrome and increased risk to northern long-eared bat. Public use of and support for the national white-nose syndrome response plan is essential for the plan to be effective. Learn more about 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.

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-eared 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.

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

The Service completed a species status assessment to evaluate current and future conditions of the bat. We reached out to Tribal, state, federal and other partners across the species' range to garner all relevant and available data to inform the assessment. Most of these data were collected by State and Federal agencies, and were submitted to the North American Bat Monitoring Program (NA Bat), or directly to the Service. We acknowledge partners' overwhelming contribution to this effort through submission of relevant data and information.

To assess the northern long-eared bat's viability, we used the three conservation biology principles of resiliency, redundancy and representation in developing the species status assessment. Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population and species levels, and described the beneficial and risk factors influencing the species' viability.

The species status assessment process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the species status assessment involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We used this information to inform our regulatory decision to propose reclassifying the northern long-eared bat as endangered.

13. How can I comment on the proposal to reclassify the northern long-eared bat as endangered?

The proposed rule to reclassify the northern long-eared bat as endangered appears in the March 23, 2022, *Federal Register*. Comments on the proposal may be submitted through May 23, 2022, by one the following methods:

(1) Electronically: Go to the Federal eRulemaking Portal: http://www.regulations.gov and search for Docket Number FWS–R3–ES–2021–0140.
(2) By hard copy: Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R3–ES–2021–0140, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.
(3) Public hearing: We will hold a virtual public informational meeting from 6:00 p.m. to 7:30 p.m., Central Time, followed by a public hearing from 7:30 p.m. to 8:30 p.m., Central Time, on April 7, 2022. To listen and view the meeting and hearing via Zoom, listen to the meeting and hearing by telephone, or provide oral public comments at the public hearing by Zoom or telephone, you must register. Register for the virtual public meeting and hearing. You may submit comments during the public hearing.

We request that you send comments only by the methods described above. We will post all comments on http://www.regulations.gov. This generally means that we will post any personal information you provide.

14. What are the next steps?
We will accept comments on this proposal for 60 days following publication of the proposed rule in the *Federal Register*. We will then evaluate comments we received and make a final decision on reclassifying the northern long-eared bats as endangered by the end of November 2022.

15. Where can I learn more about the northern long-eared bat and the rule to list it as threatened?
Information on the northern long-eared bat is available online or you may contact Shauna Marquardt, Field Supervisor, U.S. Fish and Wildlife Service, Minnesota Wisconsin Ecological Services Field Office, telephone 952–252–0092. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.