Northern Long-Eared Bat - Final 4(d) Rule
Questions and Answers

1. What action is the U.S. Fish and Wildlife Service taking?
The Service is announcing a final rule that identifies Endangered Species Act protections for the northern-long eared bat. The final 4(d) rule, published in the *Federal Register* on January 14, 2016, identifies prohibitions that focus on protecting the bat's sensitive life stages in areas affected by white-nose syndrome.

The Service listed the northern long-eared bat as a threatened species under the Endangered Species Act (ESA) in April 2015 and established an interim 4(d) rule. At the same time we opened a 90-day public comment period on the interim rule to gather additional information as we worked to refine and finalize it.

2. When will the final 4(d) rule be in effect?
The final 4(d) rule will go into effect on February 16, 2016, which is 30 days after it publishes in the *Federal Register*.

3. What prohibitions does the final 4(d) rule set in place for the northern long-eared bat?

Purposeful Take *(The terms "take," "purposeful take" and "incidental take" are defined below.)*

For all areas within the range of the northern long-eared bat, all purposeful take is prohibited except:

- Removal of northern long-eared bats from human structures.
- Defense of human life (e.g., public health monitoring for rabies).
- Removal of hazardous trees for the protection of human life and property.

Incidental Take
For areas of the country not affected by white-nose syndrome (WNS) (i.e., areas outside the WNS zone), there are no prohibitions on incidental take.

For areas of the country impacted by WNS (i.e., areas inside the WNS zone), incidental take is prohibited under the following circumstances:

- If it occurs within a hibernacula.
- If it results from tree removal activities and
  - the activity occurs within 0.25 mile (0.4 km) of a known, occupied hibernacula; or,
  - the activity cuts or destroys a known, occupied maternity roost tree or other trees within a 150 foot radius from the maternity roost tree during the pup season from June 1 through July 31.

4. What is purposeful take and what is incidental take?

- "Take" is defined by the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any endangered species.

- "Purposeful take" is when the reason for the activity or action is to conduct some form of take. For instance, conducting a research project that includes collecting and putting bands on bats is a form of purposeful take. Intentionally killing or harming bats is also purposeful take and is prohibited.

- "Incidental take" is defined by the ESA as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." For example, harvesting trees can kill bats that are roosting in the trees, but the purpose of the activity is not to kill bats.

5. How does the final 4(d) rule differ from the interim 4(d) rule?

The final 4(d) rule is a streamlined version of the interim rule that is easier to understand and follow; the final rule also reduces the scope of incidental take prohibitions that were in the interim rule.

For both the final and interim rules, most purposeful take is prohibited except to protect human life and property. Both rules differentiate protections geographically, with no prohibition of incidental take outside the WNS zone under both rules. Inside the WNS zone, the interim rule identified specific actions that were exempted from the take prohibitions, whereas the final rule identifies the specific incidental take that is prohibited.

The interim rule applied broad prohibitions against all incidental take and then exempted specific activities from incidental take prohibitions. Activities exempted from take prohibitions in the interim rule were: forest management practices, maintenance and limited expansion of transportation and utility rights-of-way, prairie habitat management, and limited tree removal projects. In contrast, the final rule prohibits incidental take that results from tree removal activities, under specific circumstances, or results from activities that take bats within hibernacula.

The interim rule, like the final rule, protected maternity roost trees and hibernacula but the incidental take prohibitions were much broader. The final rule allows incidental take that results from operating wind turbines, as well as incidental take resulting from permanent conversion of forested lands to other uses (e.g., rights-of-way creation or expansion, urban development); whereas incidental take caused by those activities was prohibited under the interim rule. The final rule only prohibits incidental take that occurs in hibernacula or that results from tree removal activities near maternity roost trees or hibernacula within the WNS zone.

6. What is a 4(d) rule?

Section 4(d) of the ESA 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. This targeted approach can reduce ESA conflicts by allowing some activities that do not harm the species to continue, while focusing our efforts on the threats that make a difference to the species' recovery.

In general, a 4(d) rule ensures that private landowners, state agencies and others are not unduly burdened by regulations that do not further the conservation of a species. Such a rule is often used to clarify or simplify what forms of "take" are prohibited for a threatened species.

For more information about 4(d) rules, please see
www.fws.gov/mountain-prairie/factsheets/ESA SpecialRules Factsheet_020714.pdf

7. Why did the Service publish a 4(d) rule for the northern long-eared bat?
The Service determined that WNS is such an overwhelming threat to the northern-long-eared bat that regulating most other sources of harm or mortality will not help conserve the species at this time. Focusing on WNS will allow the Service and our partners to concentrate on finding a solution to the disease. Applying blanket prohibitions on all forms of take across the 37-state range of the bat would not slow the spread and impact of WNS nor would it benefit the northern long-eared bat at the population level. Therefore, the 4(d) rule focuses prohibitions on protecting bats when and where they are most vulnerable: maternity roost trees during June and July pup-rearing and at hibernation sites.

8. Why does the Service believe that allowing incidental take of northern long-eared bats caused by activities other than tree removal protects the species?
For many threatened species, habitat loss or other limiting factors contribute to their decline. In those situations, regulations to address either habitat loss or the other limiting factors can assist in recovery of the species. Populations of the northern long-eared bat, however, are not habitat-limited and the species uses a wide variety of habitats within its range. For example, before WNS, this bat lived in both highly fragmented forests as well as large contiguous forest blocks from the southern United States to Canada's Yukon Territory. Land management and development have been ongoing for centuries (e.g., forest management, forest conversion), yet the northern long-eared bat appears to have been healthy across its range.

As WNS moves across its range, northern long-eared bat populations have declined and will continue to decline. The declines are so severe that the bat is now rare on WNS-affected landscapes in the Northeast and parts of the Midwest. The conservation benefit from regulating the entire landscape for those few remaining bats is questionable. This is particularly true because the current monitoring limitations do not allow us to pinpoint locations of surviving northern long-eared bats in the WNS affected area. Regulating all sources of mortality across the bat's range would not help conserve the species until we find measures to remediate WNS and improve our surveying and monitoring techniques. In areas where WNS has not yet caused severe population declines, implementing blanket prohibitions would not slow the spread of the disease or the magnitude of disease's impact on the northern long-eared bat's population.

The take prohibitions identified in this final rule help protect the most critical parts of the bat's life cycle, namely maternity colonies, hibernating bats and the areas that bats use as they enter and leave hibernation in spring and fall. The 4(d) rule allows take from certain activities that have not been the cause of the species imperilment, while still promoting conservation of the species across its range.

9. Why does the Service believe it is necessary to prohibit incidental take due to tree removal activities near maternity roost trees and hibernacula within the WNS Zone?
The northern long-eared bat depends on both caves and forests. It typically roosts in trees from late spring through early fall and hibernates in caves and mines from late fall through early spring. Female northern long-eared bats and young are particularly vulnerable in June and July when the young are unable to fly. Therefore, we tailored the regulatory provisions toward activities that may impact roost trees and hibernacula at the most sensitive periods of the bats' life cycle.

Hibernacula and nearby forests play critical roles in the life cycle of the northern long-eared bat, even beyond the time when the bats are hibernating. In early spring and fall, hibernacula and surrounding forested areas are the focus of bat activity during "spring staging" and "fall swarming." During spring staging, bats gradually emerge from hibernation, exit the hibernacula to feed, but re-enter the same or alternate hibernacula to resume daily bouts of torpor until they migrate to summer areas. Fall swarming is a time of heightened activity in and around hibernacula. It is an especially critical time in the life cycle of the northern long-eared bat because it is during this time that they mate and they build up their fat reserves, allowing them to survive hibernation.

In summary, we believe that northern long-eared bat conservation is best served by focusing the take prohibitions on the following:

- Areas within the WNS zone
- The most vulnerable life stages (hibernation, when young cannot fly, spring staging, fall swarming)
- Activities that are most likely to affect the bat, tree removal in particular

10. Why does the 4(d) rule include measures to protect hibernating bats and the sites where they hibernate?
Within the WNS zone, the 4(d) rule prohibits all incidental take that occurs within hibernacula because hibernation is a particularly critical and vulnerable time. Northern long-eared bats are insectivorous and use hibernation to survive the seasons when their prey are not available. To hibernate and survive winter, bats must maintain their body temperature above freezing, minimize water loss, meet energetic needs until prey again become available and respond to disturbance or disease. Only certain caves and mines provide the environment where bats can meet these physiological demands.

Cave-dwelling bats are vulnerable to human disturbance while hibernating. Because bats congregate at hibernacula, impacts to a single site can affect a large number of bats. Even healthy bats use up their energy stores when disturbed during hibernation and may not survive winter, or

females may not successfully give birth or rear young. Bats within the WNS zone may be even more vulnerable because the fungus may have caused a weakened condition. Because of the importance of hibernation in the bat's life cycle and their vulnerability during that time, all incidental take within hibernacula is prohibited.

11. How do I know if my activity is in an area within the WNS zone?
The Service has identified the counties within 150 miles of the boundaries of U.S. counties or Canadian districts where WNS or its causative fungus *Pseudogymnoascus destructans* (*Pd*) have been detected. If any portion of a county falls within 150 miles of a county or district where the fungus or disease has been detected, the entire county will be considered affected. To minimize confusion we use county boundaries to delineate the WNS zone because they are clearly recognizable.

The most recent map of such areas is at the website: http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf This map is updated on the first of every month, if there are new counties with verified occurrences of WNS or the fungus. You may also contact your local U.S. Fish and Wildlife Service Ecological Services Field Office for assistance in determining if your activity is within the WNS zone. Visit www.fws.gov/offices to find your local office.

12. Does the 4(d) rule allow me to remove a northern long-eared bat from my home?
Yes. On rare occasions, northern long-eared bats have roosted in human-made structures including buildings, barns, pavilions, sheds and cabins. The Service considers that removing northern long-eared bats from these structures is not expected to adversely affect the species' conservation or recovery.

Removal activities must comply with any applicable state laws. The Service recommends that anyone who has bats in their home or outbuildings minimize using pesticides and avoid sticky traps around bat roosts. If you exclude bats from where they are roosting, we recommend that those exclusions be done in the spring or fall if possible. The Service also recommends you contact a nuisance wildlife specialist for humane exclusion techniques.

13. How are private landowners affected by the final 4(d) rule?
The 4(d) rule prohibits incidental take that may occur from tree removal activities within 150 feet of a known occupied maternity roost tree during the pup season (June 1 through July 31) or within a 0.25 miles of a hibernation site, year round. If a landowner intends to remove trees near a maternity roost tree during the pup season or near a hibernation site, we suggest that they contact the nearest Ecological Services Field Office. Visit www.fws.gov/offices to find your local office. We may be able to recommend measures that will allow the work to go forward and also protect northern long-eared bats.

We acknowledge that it can be difficult to determine if a maternity roost tree or a hibernaculum is on your property or in your project area. Location information for both resources is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources,

access to the information may be limited. A web page with links to state Natural Heritage Inventory databases is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

When looking for information on the presence of maternity roost trees or hibernacula within your project area, our expectation is that a project proponent will complete due diligence to determine available data. However, if information is not available, we recognize that a project proponent who has made reasonable efforts to determine whether there are known maternity roost trees or hibernacula on their property or project area is in the position of not "knowing" if no data has been provided. If that is the case, document your attempt to find the information and move forward with your project.

We do not require private landowners to conduct surveys on their lands. However, surveys can reduce uncertainties and facilitate project planning. Recommended survey methods are available at www.fws.gov/midwest/endangered/mammals/nleb. Also, see question #16 for suggestions on conservation actions that industry and other interested partners could take to help conserve the northern long-eared bat.

14. How are states and tribes affected by the 4(d) rule?
The situation is the same for states and tribes as it is for private actions on private lands. If a landowner or land manager intends to remove trees, first check the state's Natural Heritage Inventory database to determine if a maternity roost tree or hibernaculum is present on the property. If either is present and the work will be done during the pup season within 150 feet of a maternity roost tree or at any time within 0.25 mile of a hibernaculum, we suggest that they contact the nearest Ecological Services Field Office (www.fws.gov/offices). We may be able to recommend measures that will allow the work to go forward and protect northern long-eared bats. If neither resource is present, proceed with the work. See question #16 for suggestions on conservation actions that states and tribes could take to help northern long-eared bats.

15. How are federal agencies affected by the 4(d) rule?
Under section 7 of the Endangered Species Act, federal agencies must consult with the Service to ensure that any action they authorize, fund, permit or carry out does not jeopardize the existence of a listed species. This requirement does not change when a 4(d) rule is implemented. However, for this 4(d) rule, the Service has completed a non-jeopardy biological opinion on our actions of finalizing this rule and proposing an optional framework to streamline section 7 consultations when federal actions may affect the northern long-eared bat but will not cause prohibited take. Federal agencies can rely upon the finding of this biological opinion to fulfill their project-specific section 7 responsibilities by using the optional framework. The framework requires the agency to notify the Service 30 days prior to implementing an action that may affect the northern long-eared bat. The notification would include a determination that the action would not cause prohibited incidental take. Service concurrence is not required, but the Service may advise the agency whether additional information indicates project-level consultation is required. If the Service does not respond within 30 days, the action agency may consider its section 7 responsibilities fulfilled with respect to the northern long-eared bat. If prohibited take may occur, standard section 7 procedures will apply.

16. How can federal agencies, states, tribes and industry help conserve northern long-eared bats?
In addition to participating on the WNS team, government agencies, tribes, industry and others can help conserve northern long-eared bats by:

- Surveying in areas where they are planning tree removal projects.
- Initiating or continuing monitoring for bats (including northern long-eared bats) on their properties or project areas.
- Carrying out or funding research on the impact of WNS on northern long-eared bats.
- Supporting research on aspects of this bat's life history that are not well understood.

The more we know about this bat and how it responds to WNS, the better we can focus conservation actions on those that provide the most benefit to the species and avoid actions that provide little benefit.

17. What are examples of a 4(d) rule aiding in the conservation of a threatened species?
In 2014, the Service listed the Dakota skipper, a prairie butterfly, as threatened and implemented a 4(d) rule. The listing prohibits actions that threaten the Dakota skipper, but the 4(d) rule also provides flexibility to non-federal landowners for specific activities that do not negatively affect the species' conservation. The rule exempts from take prohibitions some actions associated with ranching, such as grazing, fencing, watering livestock and haying after July 15. Although some of these activities may impact individual Dakota skippers, some of the activities have negligible impact and others are used to manage the butterfly's prairie habitat. For more information, see www.fws.gov/midwest/endangered/insects/dask/DASKfinal4dRuleFAQs22Oct2014.html.

In August 2015, the Service finalized a 4(d) rule for the Georgetown salamander. This 4(d) rule enables development activities that may affect the threatened salamander to continue as long as they comply with the City of Georgetown's Universal Development Code (UDC). The UDC is directed at reducing the threat of water quality degradation to the Georgetown salamander from urban development by requiring a variety of conservation measures, including stream and spring buffer areas, throughout the city's jurisdiction. The measures in Georgetown's UDC are expected to limit water quality degradation throughout watersheds that support the Georgetown salamander, thereby contributing to the conservation of the species. For more information, please visit:
www.fws.gov/southwest/es/AustinTexas/ESA_Sp_Salamanders.html#Georgetown_4d_final

18. Where can I find more information?
For more information about the northern long-eared bat, the final listing as threatened, the 4(d) rule and related information, visit the Service's web site at
www.fws.gov/midwest/endangered/mammals/nleb