THE FINAL NORTHERN LONG-EARED BAT 4(D) RULE: IMPACTS TO ENERGY INFRASTRUCTURE PROJECTS

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Last spring, the U.S. Fish and Wildlife Service (the "Service") published a final rule to list the northern long-eared bat (the "Bat") as a threatened species and an interim 4(d) rule under the Endangered Species Act (the "Act" or "ESA") (16 U.S.C. §1531 *et seq*.).

The interim 4(d) rule reflected an attempt by the Service to accommodate both conservation needs and industry group interests; however, it was widely believed that the listing of the Bat as a threatened species would impose a significant burden on wind, energy, and other energy infrastructure projects carried out within range of the Bat, as defined by the Service.[1]

On January 13, 2016, the Service issued a prepublication version of the final 4(d) rule (the "Rule") that significantly revises the interim 4(d) rule.[2] In the Rule, the Service reduces the scope of prohibition against incidental Bat take. The Rule, which sets out a two-tiered framework for protecting the Bat, allows any incidental take from otherwise lawful activities:

1. outside the range of the Bat; and
2. within the range of the Bat, so long as that take does not occur inside Bat hibernacula or that the activity does not result in the physical or other alteration of the hibernaculum's entrance or environment.[3]

If the listing determination and Rule are upheld, then the development and operation of energy infrastructure projects will largely be unaffected by the final decision to list the species as threatened.

ENDANGERED SPECIES ACT 4(D) RULES — AN OVERVIEW

The Act does not specify prohibitions, or exceptions to those prohibitions, for threatened species. Rather, under Section 4(d) of the Act, the U.S. Secretary of the Interior has the discretion to issue regulations deemed "necessary and advisable to provide for the conservation" of threatened species. In exercising this discretion, under the Act the Service developed general prohibitions (50 CFR §17.31) and exceptions to those prohibitions (50 CFR §17.32) that apply to most threatened wildlife species.

In addition, for specific threatened species, the Service may develop prohibitions and exceptions that are tailored to the specific conservation needs of the species. In effect, the Service's authority under Section 4(d) allows it to incentivize conservation activities for a threatened species and streamline regulatory requirements for activities that have minor effects.

THE BAT LISTING

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The Service listed the Bat as threatened under the Act because of white-nose syndrome ("WNS").[4] WNS is the main threat to this species, and has had a devastating impact on bat numbers where the disease occurs.[5] According to the Service, 90%–100% mortality has been seen in bats affected by the disease in the eastern United States. As a result, the Service's listing determination is based on the presence of WNS.

This approach to listing is somewhat unusual. For most threatened species, habitat loss or other limiting factors contribute to species decline, and a "threatened" listing results in regulations to address habitat loss or the other limiting factors. But the Service concludes in the Rule that the Bat is not habitat-limited and has tremendous plasticity within its environment (e.g., living in highly fragmented forest habitats to contiguous forest blocks from the southern United States to Canada's Yukon Territory) in the absence of WNS.[6] Moreover, in areas outside of WNS, land management and development actions that have been ongoing for centuries (e.g., forest management, forest conversion) have not been shown to have significant negative impacts to Bat populations.[7]

Given the significance of WNS to the species, the Service states that it would not have listed the Bat if not for the impact of WNS; and that regulating incidental take in areas not affected by WNS is not expected to change the rate at which WNS progresses across the range of the species.[8]

THE WNS ZONE

Under the Rule, incidental take is regulated within the WNS zone. In the interim 4(d) rule, the Service used the term "white-nose syndrome buffer zone" to identify "the portion of the range of the northern long-eared bat" within 150 miles (241 km) of the boundaries of U.S. counties or Canadian districts where the fungus *Pseudogymnoascus destructans* ("*Pd*") or WNS had been detected.

The Service clarifies in the Rule that the term "white-nose syndrome buffer zone" is revised to "white-nose syndrome zone" or "WNS zone"; and that the "WNS zone" is "the set of counties within the range of the northern long-eared bat" within 150 miles (241 km) of the boundaries of U.S. counties or Canadian districts where *Pd* or WNS had been detected.[9]

As a result, the 150-mile buffer (e.g., the distance the disease has historically been spreading annually over the past five years) is included within the "WNS Zone." The WNS zone map will be updated regularly based on detection of *Pd* or WNS. If WNS is detected in any county, then it will be included within the WNS zone, along with all adjacent areas within 150 miles of that county; and where the 150-mile (241-km) buffer line bisects a county, the entire county is included in the WNS zone.

The current map of the WNS zone:[10]
Click here to view larger image.

THE NORTHERN LONG-EARED BAT 4(D) RULE

Under the Rule, the Service created a two-tiered framework for regulating incidental take of the Bat.

Outside the WNS zone

The Service concludes that regulating incidental take in areas not affected by WNS is not expected to change the rate at which WNS progresses across the range of the species. As a result, regulating incidental take outside the WNS zone will not influence the future impact of the disease throughout the species' range or the status of the

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species. For these reasons, the prohibition of incidental take from otherwise lawful activities is not necessary or advisable for the protection and recovery of the species.[11]

Inside the WNS zone

The Service's approach to regulating incident take reflects the significant role WNS plays as the central threat affecting the species.

As WNS continues to move across the range of the species, Bat populations have declined and will continue to decline. As a result, the Service focuses its regulatory provisions on sensitive life stages at known, occupied maternity roost trees and hibernacula.

The Bat predominantly overwinters in hibernacula that include caves and abandoned mines; and hibernacula are the considered a primary driver in the species distribution.[12] In addition, the forest habitats surrounding hibernacula play important roles in the Bat's life cycle beyond the time when they are overwintering.[13] In both the early spring and fall, the hibernacula and surrounding forested habitats are the focus of bat activity in two separate periods, referred to as "spring staging" and "fall swarming."

Based on the importance of hibernacula to the Bat, the Service prohibits take in and around the hibernacula within the WNS zone, including activities that may alter the hibernacula at any time of the year. In addition, the Service prohibits take in areas within 0.25 mile (0.4 km) of the hibernacula.[14]

Under the Rule, within the WNS zone, incidental take is prohibited only[15] if:

3. actions result in the incidental take of the Bat in hibernacula;
4. actions result in the incidental take of the Bat by altering a known hibernaculum's entrance or interior environment if the alteration impairs an essential behavioral pattern, including sheltering Bats; or
5. tree-removal activities result in the incidental take of the Bat when the activity either occurs within 0.25 mile (0.4 kilometer) of a known hibernaculum, or cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot (45-meter) radius from the maternity roost tree, during the pup season (June 1 through July 31).[16]

The Service makes these revisions to take prohibitions from the interim 4(d) rule because in areas impacted by WNS, "the most important conservation actions for the northern long-eared bat are to protect bats in hibernacula and maternity roost trees, and to continue to monitor populations in summer habitat (e.g., identify where the species continues to survive after the detection of *Pd* or WNS and determine the factors influencing its resilience), while developing methods to abate WNS as quickly as possible."[17]

However, any incidental take — within WNS zone — resulting from otherwise lawful activities outside known hibernacula, other than tree removal, is not prohibited, as long as it does not change the Bat's access to, or quality of, a known hibernaculum for the species.[18]

In addition, activities within the WNS zone not involving tree removal are not prohibited, provided they do not result in the incidental take of the Bat in hibernacula or otherwise impair essential behavioral patterns at known hibernacula.[19]

WHAT THE RULE MEANS FOR ENERGY INFRASTRUCTURE PROJECTS

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Under the interim 4(d) rule, the Service prohibited incidental take from all activities inside the WNS buffer zone; however, the interim 4(d) rule conditionally allowed incidental take resulting from a limited set of activities: (i) forest management practices, (ii) maintenance and limited expansion of transportation and utility rights-of-way, (iii) prairie habitat management, and (iv) limited tree removal projects known to protect maternity roosts and hibernacula.[20] Beyond these limited activities, all other activities that could result in incidental take would require permit or take authorization: these activities included mining, drilling, wind energy activities, and forest conversion activities—such as infrastructure development—that result in forest loss.[21]

When issuing the interim 4(d) rule, the Service focused on the operation of utility-scale wind-energy turbines and their potential to cause the incidental take of Bats. While the Service had no compelling evidence that wind turbines would have a significant effect on the Bat when considered alone, it concluded that wind turbines could have a cumulative effect on this species when considered in concert with WNS.[22]

However, in the final Rule, after additional consideration and review of public comments, the Service did not find compelling evidence that regulating wind energy facilities—or other activities such as application of pesticides and prescribed fire—would result in significant impacts at the species level.[23]

The Service provided a detailed explanation of its change in position with regard to wind energy development and production, pesticide application and prescribed fire. With regard to wind, the agency acknowledged that wind-energy facilities are located throughout the range of the Bat, and that many new facilities are anticipated to be constructed over the next 15 years. In addition, the Service reviewed various post-construction mortality monitoring studies conducted from 1998 through 2014 at 81 unique operating wind-energy facilities in the range of the Bat in the United States and Canada.[24] In these studies, the Service found that Bat fatalities comprised less than 1% of all documented bat mortalities. Given these results, the Service concluded that Bat mortality at wind facilities is not widespread or sustained, and is a rare event, if occurs at all.

The Service noted there is "a great deal of uncertainty" related to extrapolating the results of these post-construction mortality monitoring studies to generate an estimate of total Bat mortality at wind-energy facilities (i.e., uncertainty due to variability in post-construction survey effort and methodology; variability in mortality between years and sites; and variability in detecting carcasses that may only be a small percentage of total Bat mortalities).[25]

Nonetheless, the Service stated that "even with those limitations, northern long-eared bats were rarely detected as mortalities, even when they were known to be common on the landscape around the wind-energy facility."[26] In addition, the Service noted that wind industry's voluntary adoption of operating protocols involving the feathering of turbine blades below cut-in speed reduces risk "to all bats, including the northern long-eared bat."[27]

Given these findings, the Service concluded that while "there may be adverse effects posed by wind-energy development to individual northern long-eared bats," there is "no evidence suggesting that effects from wind-energy development has led to significant declines in this species, nor is there evidence that regulating the incidental take that is occurring would meaningfully change the conservation or recovery potential of the species in the face of WNS."[28]

This conclusion is not inconsistent with the Service's earlier determination in the interim 4(d) rule; rather, the conclusion is a logical outgrowth of the agency's evaluation of Bat mortality at wind farms relative to mortality due

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to WNS. The Service is clear that take at wind farms may be reasonably likely to occur over the 20–30 years the farm is in operation; however, that "does not mean that prohibiting that incidental take in the case of a threatened species is necessary and advisable for the conservation of such a species."[29] In effect, because the level of take at wind farms is so low, the Service concluded that Bat fatalities at wind farms would not "meaningfully change the species' status in the foreseeable future."[30]

In reaching this determination for wind energy, the Service effectively removed the prohibitions imposed under the interim 4(d) rule against all other activities - i.e., other energy infrastructure projects, mining, drilling, and all forest conversion activities. As a result, the Rule treats all these activities equally. Under the Rule, all energy infrastructure development and operation within the WNS zone is conditionally exempt from regulation.[31] The Service explains this determination in its response to comments about whether other energy infrastructure projects are exempt under the Rule. The Service states that take of Bats attributable to habitat conversion and habitat loss is not prohibited under the Rule, if developers and project proponents follow conservation measures described in the Rule when activities occur within the WNS zone.[32]

What this means for all energy infrastructure development and operation—indeed all industrial or agricultural activity—within the WNS zone is that there is no prohibition against incidental take so long as the projects do not:

6. result in the incidental take of the Bat in hibernacula;
7. result in the incidental take of the Bat by altering a known hibernaculum's entrance or interior environment if the alteration impairs an essential behavioral pattern, including sheltering Bats; or
8. result in tree-removal activities that incidentally take Bats when the activity either occurs within 0.25 mile (0.4 kilometer) of a known hibernaculum, or cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot (45-meter) radius from the maternity roost tree, during the pup season (June 1 through July 31).

CONCLUSION

The final 4(d) rule for the Bat is substantially different from the interim rule. While it retains the two-tiered framework to regulate incidental take (i.e., inside versus outside the WNS zone), the Rule reduces the scope of take prohibitions. Consistent with the interim 4(d) rule, outside the WNS zone, there is no prohibition against incidental take. However, within the WNS zone, the Service revised scope of regulation reduces the regulatory burden on many activities, including energy infrastructure development and operation.

The Service's decision to reduce the scope of prohibition is a logical outgrowth of the agency's analysis of the interim 4(d) rule. As discussed above, even though Bat mortality may be reasonably likely to occur, due to the operation of wind turbines or other land management activities, the level of take will not change the threatened status of the species. Likewise, with regard to other energy infrastructure projects in the oil and gas or renewable energy industries, the Service's regulatory focus remains on the impact of WNS.

The key driver to the Service's listing decision and the Rule is the disproportionate and significant impact of WNS on the Bat. The Rule focuses on the role of WNS, along with bat hibernacula and forested areas around them. Given the critical role that these two habitats play in the survival and distribution of the Bat, the Service concluded that it is necessary and advisable to regulate activities in those areas to protect the species while

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methods are developed to address the impact of WNS. The Rule reflects the Service's conclusion that abatement or eradication of WNS is the most significant means to change the status of Bat.

As a result, all energy infrastructure development and operation within the WNS zone is conditionally exempt from ESA regulation provided they avoid take at hibernacula and meet the conservation measures for surrounding forests.

The Service's approach in listing and regulating the take of Bats may suggest the agency will continue to explore how best to protect threatened species — i.e., carefully tailoring regulations to address what is necessary and advisable to protect a species while avoiding burdens energy infrastructure operation and development.

Notes:

[1] http://www.klgates.com/bats-in-the-balance-northern-long-eared-bat-listing-and-interim-4d-rule-05-06-2015/

[2] https://www.federalregister.gov/articles/2016/01/14/2016-00617/endangered-and-threatened-species-northern-long-eared-bat

[3] The Rule continues to prohibit purposeful take of the Bat throughout the species' range, except in certain cases, including instances of removal of Bats from human structures and for authorized capture, handling, and related activities of Bats by individuals permitted to conduct these same activities for other bat species until May 3, 2016. After May 3, 2016, a permit pursuant to section 10(a)(1)(A) of the Endangered Species Act is required for the capture and handling of Bats.

[4] Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule, 80 Fed. Reg. 18,006 (Apr. 2, 2015) (to be codified at 50 C.F.R. Part 17).

[5] WNS is a fungal disease affecting many hibernating U.S. bat species.

[6] Rule at 16.

[7] Rule at 16.

[8] Rule at 15.

[9] Rule at 10.

[10] http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf

[11] Rule at 15.

[12] Rule at 17.

[13] Rule at 20.

[14] Rule at 21–22.

[15] **Note**: Inside the WNS zone, there are exceptions for incidental take for the following activities, subject to certain conditions: implementation of forest management, maintenance and expansion of existing rights-of-way and transmission corridors, prairie management, minimal tree removal, and removal of hazardous trees for the protection of human life and property.

[16] Rule at 79–80.

[17] Rule at 12.

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[18] Rule at 11–12.

[19] Rule at 11–12.

[20] Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule, 80 Fed. Reg. at 18024. **Note**: Under the interim 4(d) rule, these activities were only exempt if they occur more than 0.25 mile from a known and occupied Bat hibernacula; avoid cutting or destroying known and occupied roost trees during the Bat pup season; and avoid forest clearcuts within 0.25 mile of known and occupied roost trees during the Bat pup season.

[21] *Id*. at 17990.

[22] Rule at 22; See also 80 Fed. Reg. 17,974, 18,002 (April 2, 2015) ("We conclude that there may be adverse effects posed by wind energy development to northern long-eared bats; however, there is no evidence suggesting effects from wind energy development itself has led to population-level declines in this species. Further, given the low mortality rates experienced and estimated, we believe northern long-eared bats are not as vulnerable to mortality from wind turbines as other species of bats (e.g., hoary bat, silver-haired bat, red bat, big brown bat, little brown bat, and tricolored bat).").

[23] Rule at 22.

[24] Rule at 23.

[25] Rule 23–24.

[26] Rule at 24.

[27] Rule at 24.

[28] Rule at 24. **Note**: the Service also removed prohibitions against application of pesticides and prescribed fire (among other activities) that were in place under the interim 4(d) rule.

[29] Rule at 24. **Note**: the Service acknowledges that several wind energy facilities have completed or are currently working to complete habitat conservation plans (HCP) and permits for incidental take for other bat species (e.g., Indiana bats). Service recommends obtaining take coverage under a permit where incidental take of an endangered species is reasonably likely to occur; however, it is silent as to how wind facilities should handle permit modifications where coverage exists for the Bat or in cases where HCPs are in development.

[30] Rule at 24.

[31] Note: outside the WNS zone, incidental take of Bats by energy infrastructure projects is not prohibited under the Rule.

[32] *See* Rule at 23-25 (wind industry); *see* 59-60 (oil and gas industry); *see* Rule at 62 (solar industry).

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KEY CONTACTS



CLIFF L. ROTHENSTEIN
GOVERNMENT AFFAIRS ADVISOR

WASHINGTON, DC
+1.202.778.9381
CLIFF.ROTHENSTEIN@KLGATES.COM



BARRY M. HARTMAN
PARTNER

WASHINGTON, DC
+1.202.778.9338
BARRY.HARTMAN@KLGATES.COM

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