



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

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April 11, 2019

Mr. Dan Olsen  
Forest Supervisor  
Daniel Boone National Forest  
1700 Bypass Rd  
Winchester, KY 40391

Subject: FWS 2018-B-0293: Scoping Notice and Request for Comments on the Daniel Boone National Forest Plan Amendment Environmental Assessment

Dear Mr. Olsen:

The U.S. Fish and Wildlife Service's Kentucky Field Office (KFO) has reviewed the above-referenced scoping notice requesting comments on amending the existing Forest Plan for the Daniel Boone National Forest (DBNF). According to the scoping notice and March 2019 Draft Environmental Assessment (2019 Draft EA), revisions to the plan are necessary to incorporate new science applicable to the management of bat habitat, account for the increased number of federally listed species and designated critical habitat that occur on the DBNF since 2004, and to accommodate a landscape level approach to forest management. The Forest Plan would be amended to ensure that appropriate management of the DBNF occurs by (1) removing or rewording of the plan standards, (2) using the best available science to update the management direction, (3) updating the Significant Caves Prescription Area to match USFWS Priority Hibernacula, and (4) updating certain definitions. We provided comments to the DBNF on the initial scoping notice on March 20, 2018. Many of our concerns remain and are offered again for ease of reference. In addition, we provide comments for your consideration on the 2019 Draft EA specific to the proposed action.

#### Section 7(a)(1)

Section 7(a)(1) of the Endangered Species Act establishes the shared responsibility of all Federal agencies to utilize their authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of endangered and threatened species (50 CFR 402.01). Section 7(a)(1) actions do not take the place of section 7(a)(2) consultations; however, these actions do have the potential to promote the recovery and conservation of listed species while complementing, streamlining, and facilitating section 7(a)(2) consultations. While we understand the amendment to the forest plan is meant to provide flexibility for a landscape-level approach to forest management, these actions can result in unintended direct and indirect adverse

effects on federally listed species. Given the potential widespread nature and magnitude of potential adverse effects that may occur during implementation of the amended Forest Plan, as currently proposed, development of a Section 7(a)(1) conservation plan for the DBNF may be warranted to promote the conservation and recovery of federally listed species affected by implementation of the amended Forest Plan. The KFO is willing to assist the DBNF in the development of a plan if the DBNF chooses to take this step.

#### General Comments

As stated in our March 20, 2018 letter, the KFO supports several of the changes proposed in the amendment, such as updating the definitions of significant caves, snags, and roost trees to be more consistent with terminology used across the range of these species. We also support taking a landscape-level approach to ensure that there is suitable habitat for federally listed bats, other federally listed species, and at-risk species throughout the DBNF. In our initial scoping comments, the KFO was concerned that the intended purpose of some of the replacement Forest Plan standards was unclear and recommended that the DBNF provide the rationale and supporting science for each replacement standard prior to finalizing the proposed action. We appreciate the inclusion of this information in the 2019 Draft EA. However, we still have concerns that the removal of several of the standards that are included in the current Forest Plan will result in increased adverse effects on listed bats.

#### Federally Listed Bat-Specific Comments

The KFO acknowledges the DBNF's need for flexibility when carrying out management activities and recognizes that several of the existing plan standards that are intended to protect the Indiana bat are unnecessarily restrictive. However, other standards were designed to protect Indiana bat swarming habitat and non-volant pups. The removal of these standards is likely to have significant negative effects on bat species.

**Swarming Habitat:** Upon arrival at a hibernaculum, Indiana bats "swarm," a behavior in which "large numbers of bats fly in and out of cave entrances from dusk to dawn, while relatively few roost in the caves during the day" (Cope and Humphrey 1977). Swarming continues for several weeks and, during this time, mating occurs, generally in the latter part of the period (USFWS 2007). Prior to hibernating, Indiana bats must also store sufficient fat to support metabolic processes during hibernation and until they emerge from hibernation in the spring. During fall swarming, fat supplies for Indiana bats are replenished as they forage in the vicinity of the hibernaculum (USFWS 2007).

The DBNF has proposed to remove standards DB-WLF-9, DB-WLF-10, DB-WLF-12, and I.J-VEG-2, which were designed to protect Indiana bat swarming habitat and individual Indiana bats during the swarming period, and replace them with standard DB-WLF-7. DB-WLF-7 prohibits tree removal within a ¼-mile of a known hibernacula or maternity cave for gray bats and Virginia big-eared bats, unless the tree removal is meant to protect or enhance the microclimate of the hibernacula, rare species, or rare communities. However, Indiana and northern long-eared bats swarm in an area much broader than ¼ mile around cave entrances. Known swarming habitat encompasses a 10-mile buffer around P1/P2 hibernacula and a 5-mile buffer around P3/P4 hibernacula for Indiana bats (USFWS 2011).

Northern long-eared bat swarming habitat encompasses a 5-mile buffer around hibernacula (USFWS 2016). Therefore, the replacement standard offers significantly less protection to swarming habitat and individuals of both listed bat species during the swarming period than the current standards. While we understand the DBNF may need to carry out forest management activities in these areas over time, we recommend that tree removal in known swarming habitat, especially during the fall swarming period (August 16 to November 14), be limited to the greatest extent practicable. We also recommend that permanent tree removal be avoided in these areas when possible. In addition, tree removal that occurs in swarming habitat should be evaluated to ensure that a high percentage of suitable habitat is maintained around the hibernacula at all times.

**Maternity Habitat:** Several of the current Forest Plan standards provide a significant amount of direct protection to Indiana bats and northern long-eared bats during the spring staging and summer roosting period (April 1 to August 15), while also ensuring the integrity of summer roosting habitat. While the proposed replacement standards (DB-WLF-4, 5, 6, and 7) offer some level of protection, they primarily focus on “known maternity habitat” and “known maternity roost trees”. For example, current standard DB-WLF-8 avoids direct impacts to Indiana bats during the summer occupancy period in known maternity habitat by prohibiting tree removal within 2.5 miles of an Indiana bat maternity colony from May 1 to August 15. The proposed replacement standard (DB-WLF-5) only applies to new construction projects and only avoids direct impacts in known maternity habitat during June and July. Therefore, tree removal associated with other activities in known maternity habitat, such as timber harvest, would be expected to result in direct effects on both adult Indiana bats and non-volant pups during the time that bats are present on the landscape, and these effects increase the likelihood of mortality, especially for non-volant pups.

DB-WLF-6, which is proposed as a replacement for DB-WLF-8, only protects within 150 feet of a known maternity roost tree. While the protection of a known roost tree is important, the 150-foot buffer was intended to ensure the removal of other trees in the vicinity did not unintentionally damage the known roost tree. It does not offer protection the numerous other roost trees outside of the 150-foot buffer that are likely to be used by the colony during the summer occupancy period. These additional roosts are important for maternity colony success, as Indiana bats frequently switch roosts (Callahan et al. 1997).

Little is known about the summer usage of the DBNF by Indiana bat. Limited survey efforts from over a decade ago have provided the location of some maternity colonies and roost trees. However, the DBNF has stated that some portion of the large number of bats that spend the winter in the large and medium-sized hibernacula on the DBNF are thought to remain in these areas throughout the summer (USFS 2003). Based on 2018 and preliminary 2019 winter bat count data, approximately 5,600 Indiana bats are estimated to hibernate on the DBNF during the winter (USFWS, internal data). In addition, the DBNF also indicated that Indiana bats from nearby hibernacula on Pine Mountain, Carter Caves, and in Campbell and Fentress Counties in Tennessee are thought to occur on the DBNF (USFS 2003). Based on this information, it appears likely that there are other Indiana bat and northern long-eared bat maternity colonies present that have not been documented. This habitat and the individual bats occupying these areas could be adversely affected by future forest management actions if there are no protective

standards proposed for potential summer habitat for either species. Therefore, we recommend developing conservation measures in the BA that would avoid and minimize adverse effects. Several such measures were discussed during the November 2017 science meeting, including identifying and avoiding potential primary roost trees during tree removal activities and limiting the amount of tree removal that can occur during the occupied timeframe, especially during June and July when non-volant pups are present.

We also have concerns with the DBNF's conclusion that the proposed action will result in "no loss of viability or change in population of federally listed bat species due to the proposed action", particularly for the Indiana bat and northern long-eared bat" (Table A6 of the EA). While it is difficult to evaluate the full extent of adverse effects on these two species without a detailed analysis, we anticipate the proposed action could result in significant harm to these species, including the mortality of non-volant pups and pregnant females, which can have both individual- and local population-level effects. The loss of reproducing females and non-volant pups has the potential to cause declines in local numbers and could affect the viability of the Indiana bat at the recovery unit level. To address these issues, we encourage the DBNF to work with us to develop appropriate avoidance and minimization measures.

#### Conclusion

In general, we support the DBNF's proposal to amend the Forest Plan to be more consistent with the terminology recognized across the range of federally listed bat species and to focus on a landscape level approach to forest management. Once a final proposed action is identified, we anticipate that the DBNF will provide a biological assessment that clarifies how listed species and critical habitat will be affected and that the DBNF will make its effects determinations for the Forest Plan amendment for our consideration. If the DBNF determines that the proposed action may affect, and is likely to adversely affect federally listed species or critical habitat, formal consultation will be necessary.

We believe many of the anticipated adverse effects on federally listed species could be avoided or minimized if appropriate conservation measures are included as part of the proposed action in the BA. Please note that conservation measures intended to avoid and minimize anticipated incidental take in the BA are part of the section 7(a)(2) consultation process and do not necessarily need to be included as standards in the amendment to the Forest Plan to be considered in our analysis.

Thank you for the opportunity to comment on 2019 Draft EA. We look forward to continued coordination with your staff as the proposed action progresses. If you have any questions, please contact Carrie Allison at 502-695-0468, extension 103.

Sincerely,

Virgil Lee Andrews, Jr.  
Field Supervisor

## Literature Cited

- Callahan, E.V., R.D. Drobney, and R.L. Clawson. 1997. Selection of summer roosting sites by Indiana bats (*Myotis sodalis*) in Missouri. *J. Mammalogy*. 78:818-825.
- Cope, J. B., and S. R. Humphrey. 1977. Spring and autumn swarming behavior in the Indiana bat, *Myotis sodalis*. *J. of Mammalogy*, 58:93-95.
- U.S. Forest Service (USFS). 2003. Programmatic Biological Assessment for the Revised Land and Resource Management Plan Daniel Boone National Forest. Winchester, KY.
- U.S. Fish and Wildlife Service (USFWS). 2007. Indiana bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. Fort Snelling, MN.
- U.S. Fish and Wildlife Service (USFWS). 2011. Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects.  
<http://www.fws.gov/midwest/endangered/mammals/inba/WindEnergyGuidance.html>
- U.S. Fish and Wildlife Service (USFWS). 2016. Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions. Bloomington, MN.