



UNITED STATES DEPARTMENT OF THE INTERIOR

U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



September 13, 2017

Mr. Jason Reed
District Ranger
13700 US Highway 33
Nelsonville, OH 45764-9880

TAILS: 03E15000-2017-F-1821

Re: Kehota Vegetation Management Project on the Athens Ranger District, Wayne National Forest

Dear Mr. Reed:

This letter is in response to your August 2, 2017 letter requesting site-specific review, pursuant to section 7 of the Endangered Species Act of 1973, as amended, regarding the proposed Kehota Vegetation Management Project. The project is located within southern Perry County and northern Hocking County, on the Athens Ranger District of the Wayne National Forest (WNF). The project will improve habitat diversity through the removal of pine plantations to allow the establishment of hardwood forest. The project includes harvest of 465 acres in 34 irregularly shaped treatment stands currently dominated by pine trees.

Two alternatives were evaluated. The no action alternative maintains the coniferous forest units and prevents the establishment of hardwood forest. The other alternative is the modified proposed action to remove coniferous forest to establish additional hardwood habitat. This alternative will include the harvest of 34 stands of pine trees in the age range of 30-62 years. As part of these harvest activities, log landings, skid roads, temporary roads, and new permanent roads will be refurbished or constructed. Due to the loss of habitat through the establishment of permanent roads, and the small potential for loss of roost trees during the roosting season associated with specific activities, the amount of incidental take (IT) expected for this project is 42.98 acres and is consistent with the 2006 Forest Plan. This review represents a Tier 2 consultation, as explained below.

On November 22, 2005, the U.S. Fish and Wildlife Service (Service) issued a Programmatic Biological Opinion (PBO) for the Wayne National Forest's Revised Land and Resource Management Plan (Forest Plan). This PBO established a two-tiered consultation process for Forest Plan activities, with issuance of the programmatic opinion being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations. Under this tiered process, the Service will produce tiered biological opinions when it is determined that site-specific projects are likely to adversely affect federally listed species. When may affect, not likely to adversely affect determinations are made, the Service will review those projects and if justified, provide written concurrence and section 7(a)(2) consultation will be considered completed for those site-

specific projects. On January 5, 2016 the Service completed an intra-Service PBO of the final 4(d) rule for the northern long-eared bat (*Myotis septentrionalis*).

Your current request for Service review of the Kehota Vegetation Management Project is a Tier 2 consultation under the November 22, 2005, PBO. We have reviewed the information contained in the Biological Evaluation (BE), received by our office on August 7, 2017, and additional information provided in a September 5, 2017 email describing the effects of the modified proposed action on federally listed species. You have made determinations for the Indiana bat (*Myotis sodalis*) and the northern long-ear bat and indicated that the no action alternative will have no effect on any federally listed species as no tree removal would occur. We have no objection to your species determinations for the no action alternative.

For the modified proposed action alternative you have determined that the action may affect and is likely to adversely affect the Indiana bat and the northern long-ear bat and indicated that the proposed action will have no effect on any other federally listed species.

We concur with your determination that the modified proposed action alternative is likely to adversely affect the Indiana bat. As such, this review focuses on determining whether: (1) this proposed site-specific project falls within the scope of the Tier 1 2005 PBO, (2) the effects of this proposed action are consistent with those anticipated in the Tier 1 2005 PBO, and (3) the appropriate standards and guidelines identified in the Forest Plan are adhered to.

That is, this letter serves as the Tier 2 biological opinion for the proposed Kehota Vegetation Management Project. As such, this letter also provides the level of incidental take that is anticipated and a cumulative tally of incidental take that has been authorized for the Indiana bat and exempted under the 2005 PBO.

In addition, you have submitted the required form under the 2016 PBO for impacts to the northern long-eared bat. We concur with your determination that the modified proposed action alternative is likely to adversely affect the northern long-eared bat. We have no objection to your determination of no effect for all other federally listed species.

Description of the Proposed Action

Pages 4-5 of your Wildlife BE and associated maps in Appendix A include the location and a thorough description of the proposed action. The no action alternative will result in the continuation of pine forest habitat which provides low quality roosting habitat for bats. No trees will be harvested and no roads will be constructed.

The modified proposed action will include the harvest of 34 stands dominated by pine trees in the age range of 30-62 years. Approximately 465 acres of forest will be harvested. Potential roost trees will be retained in harvest units as identified by SFW-TES-10 and GFW-TES-9, except were they cannot be avoided due to creation/reconstruction of permanent, temporary, and skid roads, and creation of log landings. As part of these harvest activities, log landings, skid roads, temporary roads, and new permanent roads will be refurbished or constructed. Approximately 0.9 miles of permanent road would be designated. Most of this will be achieved by bringing existing roads up to current standards with only 0.05 miles of this being new

construction. One mile of temporary road would be created or reconstructed, 12 acres of log landings would be established, and 15 miles of skid roads. Due to the potential for loss of habitat through the establishment of log landings, skid roads, temporary roads, and new permanent roads, the amount of incidental take (IT) expected for this project is 42.98 acres. The intent of the modified proposed action is to produce conditions conducive to regeneration of hardwood species. Some standing dead trees may need to be felled for safety, though preferably snags will be avoided, especially if they are suitable Indiana bat roost trees. According to your BE, in all stands to be harvested, forest standard SFW-TES-10 requires that all potential roost trees (i.e. snags) for the Indiana bat be avoided during the summer roosting season and guideline GFW-TES-9 will retain all shagbark and shellbark hickory trees greater than 6 inches DBH. For all stands that have some pockets of hardwoods, under standard SFW-TES-12, selective hardwood inclusions will be retained as required. Some temporary disturbance may occur due to noise and human activity but this is expected to be similar to other forest activities such as ATV use and other recreational activities that occur on the WNF.

Status of the Species

Species descriptions, life histories, population dynamics, status and distributions are fully described on pages 13-24 for the Indiana bat in the 2005 PBO and are hereby incorporated by reference. The most recent winter population estimate indicates that 530,705 Indiana bats occur rangewide within 229 hibernacula in 17 states (USFWS 2017). The current revised Indiana Bat Recovery Plan: First Revision (2007) delineates recovery units based on population discreteness, differences in population trends, and broad level differences in land-use and macrohabitats. There are currently four recovery units for the Indiana bat: Ozark-Central, Midwest, Appalachian Mountains, and Northeast. All of Ohio falls within the Midwest Recovery Unit.

Species description, life history, population dynamics, status and distribution are fully described on pages 10-30 for the northern long-eared bat in the 2016 PBO and are hereby incorporated by reference. This species was very common on the WNF prior to the spread of white-nose syndrome (WNS). According to your BE, in surveys throughout WNF, northern long-eared bat individuals were identified in 31% of summer captures and 23% of fall captures. This species hibernates in small cracks and crevices in caves making it a challenge to establish an accurate winter population estimate.

In 2007, WNS was found to fatally affect several species of bats, including the Indiana bat in eastern hibernacula. The skin of WNS-affected bats is colonized by a psychrophilic fungus (*Geomyces destructans*). In May, 2008, a Review of New Information (RONI) was prepared by the WNF to address WNS, and states that the discovery of WNS does not present a seriously different picture with regard to the environmental effects disclosed in the Environmental Impact Statement for the 2006 Forest Plan. In 2011, a review of this RONI indicated that the conclusions remain valid. While the winter population of Indiana bats in Ohio has decreased (USFWS 2017), we cannot determine if this represents a decrease in regional or local summer populations as well due to the large and diverse movements of Indiana bats from hibernacula to summer habitat. The Forest Service has already closed caves to prevent further spread of WNS and increased monitoring at the hibernaculum. Other than preventing further spread of WNS and enhancement of habitat to improve the health of bat species, there is little that the Forest Service can do to address the threat from WNS. The U.S. Fish and Wildlife Service supports research on

treatments for WNS. Other than actions to prevent the spread of WNS, the U.S. Fish and Wildlife Service has not altered its recommendations for land management activities to recover the Indiana bat.

Environmental Baseline

The project area for this project encompasses approximately 465 acres of land within the Athens Unit. The cumulative effects analysis area for the proposed project includes the entire project area plus 5 miles from the outer project boundaries. This area includes 164,777 acres of which the WNF manages 24% and the remaining 76% is owned privately. Since the 2005 PBO the landcover distribution has remained relatively constant. No maternity roost trees have been discovered to date on the WNF, though lactating and post-lactating females have been captured, suggesting the presence of maternity colonies.

Since the issuance of the PBO in 2005, the environmental baseline in the WNF has only changed minimally. New forms of resource extraction such as hydraulic fracturing and horizontal drilling have become economically feasible. However, resource extraction impacts are within those expected under the 2005 PBO.

Status of the species within the action area

Multiple surveys for the Indiana bat have been conducted on the WNF since 1997. Currently, a total of 25 individual Indiana bats have been identified during mist net surveys and a maximum of 333 individuals have been observed during winter hibernacula surveys. There are 4 records of the Indiana bat in northern Hocking County.

The northern long-eared bat was very common on the WNF prior to the spread of WNS. In surveys throughout WNF, northern long-eared bats individuals were identified in 31% of summer captures and 23% of fall captures, as indicated in your BE. This species hibernates in small cracks and crevices in caves making it a challenge to establish an accurate winter population estimate. There are multiple records for this species in both southern Perry County and northern Hocking County.

Effects of the Action

Based on our analysis of the information provided in your BE for the Kehota Vegetation Management Project, we have determined that the effects of the proposed action are consistent with those contemplated and described on pages 12-17 of the BE.

Potential direct adverse effects to the Indiana bat from this project could occur due to loss of occupied secondary or lesser important roost trees and disturbance from noise and human presence. Potential indirect adverse effects to the Indiana bat include the temporary alteration of foraging habitat, and loss of roost trees. For the proposed action, we do not anticipate direct impacts due to loss of primary maternity roost trees, as standards and guidelines are in place to avoid taking snags and hickories in the summer, thus eliminating the likelihood of taking an unknown primary roost tree. In addition, this species rarely uses pine trees as roost trees. Thus, direct impacts will occur only if an undetected secondary or a less important roost tree is cut while occupied by individual roosting males or females. Cutting undetected secondary roost trees any time of the year may result in fitness consequences at the individual level (i.e. injury or

death), but as only a few individuals will be affected, no negative population-level consequences are anticipated. The Wayne National Forest provides a significant amount of forested habitat that will not be impacted by the proposed project. In addition, the establishment of hardwood forest will provide higher quality habitat for both the Indiana bat and northern long-eared bat.

Northern long-eared bats have been documented within the vicinity of the project area. However, no northern long-eared bat roost trees have been documented within the stand proposed for harvest. In addition, none of the stands to be harvested are within ¼ miles of known northern long-eared bat hibernacula.

Noise from equipment is similar to that of ATV use and wildlife in the area would be expected to be habituated to the periodic noise. Although impacts may not be avoided, implementation of the Forest Plan standards and guidelines will minimize adverse effects to the Indiana bat. The requirements of the 2016 PBO will reduce impacts to the northern long-eared bat. The Forest Service will adhere to standards and guidelines that protect suitable roosting, foraging, and hibernation habitat for the Indiana bat. The establishment of hardwood forest will provide future roosting and foraging habitat for both of these bat species.

Cumulative Effects

Cumulative effects include the effects of State, tribal, local, or private actions that are reasonably certain to occur within the action area considered in this biological opinion. For this project the action area includes all the stands that will be harvested and all areas within 5 miles of the outer project perimeter. This 5 mile buffer is selected as it is the furthest that an Indiana bat would be expected to travel between summer foraging and roosting habitat. Thus the maximum impacts to Indiana bats are considered. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The Forest Service provided information on the management activities that have been conducted on the WNF that would impact forest canopy as well as those conducted on private lands in the last 10 years. These activities include such actions as timber harvests, crop tree release, prescribed fire, temporary roads, permanent openings, utility corridors, and energy development. These are consistent with the Forest Plan and are similar to those contemplated in the 2005 PBO (page 22).

Conclusion

The modified proposed action is consistent with the Wayne National Forest Land and Resource Management Plan, the 2005 PBO, and the 2016 PBO. This modified proposed action will include establishment of additional hardwood forest through the removal of pine-dominated forest. Applicable standards and guidelines from the 2006 Forest Plan will be incorporated into the action. The measures incorporated include such practices as avoiding impacts to all shagbark or shellbark hickory trees greater than 6 inch DBH and seasonal removal of trees that exhibit roosting characteristics, such as snags, for the Indiana bat. Some limited take may occur through the removal of trees for log landings, skid roads, temporary roads, and new permanent roads.

We believe the modified proposed action is consistent with both PBOs. After reviewing site specific information, including 1) the scope of the project, 2) the environmental baseline, 3) the status of both bat species and their potential occurrence within the project area and surrounding

WNF land, 4) the effects of the action, and 5) any cumulative effects, it is the Service's biological opinion that this project is not likely to jeopardize the continued existence of the Indiana bat or the northern long-eared bat. As explained in the Effects of the Action section, we anticipate that there may be individual fitness consequences but do not expect any colony or population level fitness implications. Thus we do not anticipate any appreciable reductions in reproduction, numbers, or distribution for Indiana bats or northern long-eared bats rangewide.

Incidental Take Statement

No incidental take is expected with the harvest of the pine trees as potential roost trees will be avoided, through incorporation of all standards and guidelines. The Service anticipates that the proposed action will result in limited incidental take associated with permanent road construction and reconstruction (2.62 acres), temporary road construction (2.91 acres), and skid trails and long landings (37.45 acres). It is anticipated that occupied secondary roost or less important roost trees may be unknowingly cut when these activities are conducted. These trees may be occupied by either singly roosting males or a few females. It is reasonable to assume that, if present, only a subset of these individuals will be directly taken through injury or death and that most of the individuals in the occupied roost tree will escape, and hence not be incidentally taken. Although very difficult to predict, we anticipated in the 2005 PBO that one unknown occupied Indiana bat roost tree could be cut during road construction over a ten year period. As incidental take is difficult to detect, the 2005 PBO established habitat acreages as a surrogate for tracking take. This project includes a total of 42.98 acres of the cumulative total of incidental take for the implementation of the WNF's Revised Forest Plan. This brings the total amount of incidental take to 303.38 acres for all of these activities (see table below). This project, added to the cumulative total of incidental take for the implementation of the WNF's Revised Forest Plan, is well within the level of incidental take anticipated in the 2005 PBO.

Activity	IT anticipated in 2005 PBO	IT for this project	Cumulative IT granted to date (not including this project)	Cumulative IT including this project
Permanent Road Construction and Reconstruction	392 acres	2.62 acres	62.4 acres	65.02 acres
Temporary Road Construction	146 acres	2.91 acres	13.1 acres	16.01 acres
Skid Trails and Log Landings	740 acres	37.45 acres	184.9 acres	222.35 acres
Total for these activities	1,278 acres	42.98 acres	260.4 acres	303.38 acres

We determined that this level of anticipated and exempted take of Indiana bats from the proposed project, in conjunction with the other management actions taken by the WNF pursuant to the 2005 PBO to date, is not likely to result in jeopardy to the species.

The Forest Service is implementing pertinent Indiana bat standards and guidelines, including specifically SFW-TES-10, SFW-TES-12, and GFW-TES-9 stipulated in the Forest Plan and on pages 89-90 of the 2005 PBO. In addition, the Forest Service is monitoring the extent of incidental take that occurs on a project-by-project basis. These measures sufficiently minimize the impact of the anticipated incidental take, and thus, no further Reasonable and Prudent Measures are necessary.

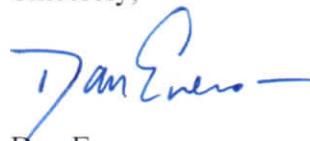
The Forest Service has determined that the no action alternative may affect but is not likely to adversely affect the Indiana bat and the northern long-eared bat. No trees would be cleared. However, the pine plantations would continue to persist and do not provide suitable high quality roosting sites for the Indiana bat and the northern long-eared bat. The proposed modified alternative will require some tree clearing and may result in adverse effects to these bats species. However, this take is consistent with both PBO's and will not result in jeopardy of either species.

The Service supports the selection of the proposed modified alternative, as it will improve long term roosting and foraging habitat for both the Indiana bat and the northern long-eared bat through the establishment of additional hardwood forest.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C.661 et seq.), the Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969, and the U.S. Fish and Wildlife Service's Mitigation Policy. As indicated in the 2005 PBO, this letter serves as a completed ESA section 7 consultation document.

We appreciate your continued efforts to ensure that this project is consistent with all provisions outlined in the Forest Plan and Programmatic Biological Opinions for both the Indiana bat and the northern long-eared bat. If you have any questions regarding our response or if you need additional information, please contact Jennifer Finfera at extension 13.

Sincerely,

A handwritten signature in blue ink that reads "Dan Everson" with a horizontal line extending to the right.

Dan Everson
Field Supervisor

Literature Cited

U.S. Fish and Wildlife Service. 2017. 2017 Indiana Bat (*Myotis sodalis*) Population Status Update. Compiled by Andy King, U.S. Fish and Wildlife Service, Indiana, Ecological Services Field Office. Available at:
<https://www.fws.gov/midwest/Endangered/mammals/inba/pdf/2017IBatPopEstimate5July2017.pdf>

References

USDA Forest Service. 2008. Wayne National Forest Review of New Information (RONI) for White-Nose Syndrome and Bat Populations. Nelsonville, OH. 18 pp.

USDA Forest Service. 2011. Wayne National Forest Review of 2008 RONI for White-Nose Syndrome and Bat Populations. Nelsonville, OH. 3 pp.

U.S. Fish and Wildlife Service. 2005. Biological Opinion on the Land and Resource Management Plan for the Wayne National Forest for the federally-listed endangered Indiana bat (*Myotis sodalis*) and running buffalo clover (*Trifolium stoloniferum*).

U.S. Fish and Wildlife Service. 2007. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. Fort Snelling, MN. 258 pp.

U.S. Fish and Wildlife Service. 2016. Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions. Bloomington, MN. 103 pp.