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October 16, 2007

TAILS: 31420-2007-F-1013

Gloria Chrismer
Ironton District Ranger
Wayne National Forest
6518 State Route 93
Pedro, OH 45659

Dear Ms. Chrismer:

This letter is in response to your August 28, 2007, request for site-specific review, pursuant to section 7 of the Endangered Species Act of 1973, as amended, regarding the Pine Creek Historic Forest Restoration Project in Lawrence and Scioto Counties on the Ironton Ranger District of the Wayne National Forest (WNF). The Forest Service proposes to restore the oak-hickory forest ecosystem in the Pine Creek area by implementing an integrated project involving selective hardwood harvest (2,309 acres), mid-story treatment (3,068 acres), timber stand improvement (1,677 acres), prescribed burning (2,875 acres), non-native invasive species control (140 acres), white pine (68.5 acres) and native pine (100 acres) treatments. Associated actions include temporary (2.4 acres) and permanent (36.3 acres) road construction, construction of skid roads and log landings (86 acres), fire line construction (13.76 miles), waterhole and vernal pool creation (100 sites), and improving 8 visitor parking areas. 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, we will provide written concurrence and section 7(a)(2) consultation will be considered completed for those site-specific projects.

In issuing the PBO (Tier 1 biological opinion), we evaluated the effects of all Forest Service actions outlined in your Biological Assessment on the Federally listed Indiana bat (*Myotis sodalis*), bald eagle (*Haliaeetus leucocephalus*), American burying beetle

(*Nicrophorus americanus*), northern monkshood (*Aconitum noveboracense*), running buffalo clover (*Trifolium stoloniferum*), small whorled pogonia (*Isotria medeoloides*), Virginia spiraea (*Spiraea virginiana*), fanshell mussel (*Cyprogenia stegaria*), and the pink mucket pearly mussel (*Lampsilis abrupta*). We concurred with your determinations of not likely to adversely affect for the bald eagle, American burying beetle, northern monkshood, small whorled pogonia, Virginia spiraea, fanshell mussel, and the pink mucket pearly mussel. We also concurred with your determination of likely to adversely affect for the Indiana bat and running buffalo clover.

Your current request for Service review of the Pine Creek Historic Forest Restoration Project is a Tier 2 consultation under the November 22, 2005, PBO. We have reviewed the information contained in the Biological Evaluations (BEs), submitted by your office on August 28, 2007, describing the effects of the proposed project on federally listed species. You have indicated that the proposed action will have no effect on the American burying beetle, fanshell mussel, pink mucket pearly mussel, and Virginia spiraea, and thus, consultation is not required for these species for this project.

We concur with your determination that the action may affect, but is not likely to adversely affect running buffalo clover, small whorled pogonia, and northern monkshood. Potential impacts to listed species include habitat destruction and or alternation due to fire lines, road/trail construction, herbicide application, and invasive plant spread. Plant surveys were conducted along all fire lines and proposed trails. Although suitable habitat for these species occurs throughout the proposed project corridors, no individuals were detected and thus the likelihood of them occurring on-site is small (due to dormancy). Suitable habitat for listed plants may be adversely affected by introduction of invasive plants if avoidance and minimization measures are not adhered to. Invasive plant control measures identified in your BE (Japanese stiltgrass and tree-of-heaven control prior to or within 12-months of all fire and timber activities) will prevent habitat degradation and maintain suitability for these species in the action area. As listed species are not likely to be present within the action area and as the Forest Plan standards and guidelines will prevent degradation of the habitat, we concur that the proposed action may affect, but is not likely to adversely affect northern monkshood, running buffalo clover and small whorled pogonia.

We concur with your determination that the action 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 the Tier 1 PBO, (2) the effects of this proposed action are consistent with those anticipated in the Tier 1 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 Pine Creek Historic Forest Restoration 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 and exempted under the PBO.

Description of the Proposed Action

Pages 6-19 of your Wildlife BE and pages 5-14 of your Botanical BE include the location and a thorough description of the proposed action. A discussion on the use of even aged harvest, prescribed fire, road and trail construction, temporary roads, skids trails, and log landings, control of non-native invasive species and the standards and guidelines that will be applied to this project are detailed on pages 15-20 and 88-91 of the PBO. The action as proposed involves conducting habitat management through use of selective hardwood harvest, mid-story treatment, timber stand improvement, prescribed burning, non-native invasive species control, and pine thinning. Associated actions include temporary (2.4 acres) and permanent (36.3 acres) road construction, construction of skid roads and log landings (86 acres), fire line construction (13.76 miles), waterhole and vernal pool creation, and improving 8 visitor parking areas in previously disturbed/non-forested areas. In addition to adhering to all Forest Plan standards and guidelines (see pages 88-91), minimization measures that provide additional protection to potential roost trees will be applied. Such measures include roost tree identification training for WNF staff and protection of potential roost trees by raking fuels away from the base of the tree.

Status of the Species

Species descriptions, life histories, population dynamics, status and distributions are fully described on pages 23-30 for the Indiana bat in the PBO and are hereby incorporated by reference. There is no new information to indicate that the population status of the Indiana bat has changed since issuance of the PBO.

Environmental Baseline

The action area for this project encompasses burning and harvest units within the Ironton District totaling 4,256 acres (includes burn only, harvest only, and harvest & burn units) and land within a mile of each unit. The level of noise generated from actions such as road construction and timber harvest is not expected to reach outside the project boundary. Prescribed fire will generate smoke that may drift short distances from the project area. Smoke dissipates into the air column and detectable levels are minimal at a distance of one mile from the fire. Similarly, sediment originating on WNF lands and entering an aquatic system is likely to be deposited a certain distance downstream, depending on velocity and mean particle size. Based on channel morphology and velocity of streams on the WNF, sediment particles would be expected to be deposited within one mile of the origination point under normal flow conditions (see p. 23 of PBO for more details). Thus, the action area for this project encompasses the burn and harvest unit boundaries and extends out 1 mile.

The environmental baseline for this project is a subset of the environmental baseline described on pages 34-42 of the PBO and is hereby incorporated by reference. Since the issuance of the PBO in 2005, the environmental baseline in the WNF has only changed minimally. On the WNF, 123.01 acres and 49.8 miles of projects have been applied toward your incidental take.

Status of the species within the action area

Since 1979, summer mist net surveys, fall swarming surveys, radio-telemetry, and hibernaculum censuses have been conducted on the Forest to determine the distribution of

the Indiana bat. To date, 10 Indiana bats have been captured during summer mist net or fall swarming surveys and a maximum of 333 observed at the hibernaculum in the Ironton District. Summer mist net surveys conducted in the action area in 2006 did not detect Indiana bats. Since issuance of the PBO in 2005, male Indiana bats were detected at two new portals on the Ironton District during fall swarming and the 2007 hibernacula census observed 224 Indiana bats. No portals that could potentially be suitable swarming or hibernacula sites occur within a ¼ mile of any of the burning or harvest units. The closest suitable portal is over a mile outside the action area.

Effects of the Action

Based on our analysis of the information provided in your BEs for the Pine Creek Historic Forest Restoration Project, we have determined that the effects of the proposed action are consistent with those contemplated and fully described on pages 51-53 of the PBO (please refer to these pages for a more detailed description than what is provided below).

Although we believe impacts to individuals could occur, implementation of the Forest Plan standards and guidelines provided on pages 88-94 in the PBO will minimize adverse effects. Specifically, implementing the standards and guidelines will ensure that suitable roosting, foraging, and hibernation habitat for the Indiana bat will be protected now and into the future. For this project, the following standards and guidelines apply: SFW-TES-2, GFW-TES-3, SFW-TES-4, SFW-TES-8, GFW-TES-9, SFW-TES-10, SFW-TES-11, SFW-TES-12, and GFW-TES-14. Additionally, the proposed roost tree identification training for WNF timber marking staff and raking fuels away from the base of potential roost trees will further minimize the likelihood of adverse effects occurring.

As alluded to above, adverse effects to the Indiana bat from this project could occur due to the removal of an unknown occupied roost tree specifically in conjunction with fire line, road, and log landing/skid road construction. 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 felling an unknown primary roost tree. 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 during the active season may result in injury or death to the single or few bats that may be using the tree at the time. As only a few individuals will be affected, we do not anticipate any negative population-level consequences (see the PBO for further discussion).

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. 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. We are not aware of any additional effects beyond those contemplated in the PBO (page 75) at this time.

Conclusion

We believe the proposed Pine Creek Historic Forest Restoration Project is consistent with the PBO. After reviewing site specific information, including 1) the scope of the project, 2) the environmental baseline, 3) the status of the Indiana bat and its potential occurrence within the project area and surrounding Wayne NF 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. 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 rangewide.

Incidental Take Statement

The Service anticipates that the proposed action may result in incidental take as the result of fire line (13.76 miles), permanent road (36.3 acres), temporary road (2.4 acres), and skid road/log landings (86 acres) construction. It is anticipated that occupied secondary roost or less important roost trees may be unknowingly cut. These trees, if occupied, are likely to harbor either singly roosting males or a few females. It is reasonable to assume that 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 PBO that up to four unknown occupied roost trees could be cut during fireline, road, and skid road/log landing construction over a ten year period. As incidental take is difficult to detect, the PBO established habitat acreages as a surrogate for tracking take. We indicated that provided the habitat loss does not exceed what is shown in the table below, we do not anticipate that this level of incidental will be exceeded.

This project adds 13.76 miles and 124.7 acres to 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 63.56 miles and 247.71 acres (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 PBO through 2015.

Activity	IT anticipated in PBO	IT for this project	Cumulative IT granted to date
Permanent Road Construction	392 acres	36.3	38.88
Temporary Road Construction	146 acres	2.4	9.03
Skid Trails & Log Landings	740 acres	86	199.8
Utility Development	50 acres	0	0
Fire Lines	750 miles	13.76	63.56

We determined, within the PBO, 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 PBO to date, is not likely to result in jeopardy to the species.

The Forest Service is implementing all pertinent Indiana bat standards and guidelines, specifically, SFW-TES-2, GFW-TES-3, SFW-TES-4, SFW-TES-8, GFW-TES-9, SFW-TES-10, SFW-TES-11, SFW-TES-12, and GFW-TES-14 in the Forest Plan and on pages 88-94 of the 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.

This fulfills your section 7(a)(2) requirements for this action; however, should the proposed project be modified or the level of take (i.e. habitat loss) identified above be exceeded, the Forest Service should promptly reinitiate consultation as outlined in 50 CFR 402.16. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the continued implementation of the Revised Wayne National Forest Land and Resource Management Plan and projects predicated upon it may affect listed species in a manner or to an extent not considered in this opinion; (3) the continued implementation of the Revised Wayne National Forest Land and Resource Management Plan and projects predicated upon it is subsequently modified in a manner that causes an effect to Federally-listed species not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease, pending reinitiation. Requests for reinitiation, or questions regarding reinitiation, should be directed to the U.S. Fish and Wildlife Service's Reynoldsburg, Ohio Field Office.

We appreciate your continued efforts to ensure that this project is consistent with all provisions outlined in the Forest Plan and PBO. If you have any questions regarding our response or if you need additional information, please contact Sarena Selbo at extension 17.

Sincerely,

Mary M. Knapp, Ph.D.
Supervisor