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October 16, 2008

Timothy M. Hill
Office of Environmental Services
Ohio Department of Transportation
P.O. Box 899
Columbus, OH 43216-0899

TAILS: 31420-2008-F-0590 (PID 82812)

Attn: Donald Rostofer
Megan Michael
RE: **ASD-97-4.25 (PID 82812)**

Dear Mr. Hill:

This letter is in response to Megan Michael's October 10, 2008 email request (copy attached) for site-specific review pursuant to section 7 of the Endangered Species Act of 1973, as amended, regarding the subject hillside stabilization project located in the Mohican State Forest, Ashland County, Ohio, adjacent to SR 97 just west of SR 3. The October 10 email request served to, respectively, revise and clarify the Indiana bat effects determination and the Conservation Measure chosen to mitigate potential impacts on the Indiana bat as they were originally stated in your April 11, 2008 letter requesting our concurrence with Ohio Department of Transportation's determinations. The effects determination for the Indiana bat was changed from 'May Affect, Not Likely to Adversely Affect' to 'May Affect, Likely to Adversely Affect' because the project-related activities fall under the PC3 level of activities defined in the Programmatic Consultation as actions that are likely to adversely affect the species. The April 11 letter indicated that one of two Conservation Measures would be chosen to mitigate for impacts on the bat. The October 11 email provided clarification, identifying which of the two options has now been chosen.

The project as proposed will stabilize the shale/sandstone cliff face by removing all vegetation, shearing off the loose stone, and anchoring the hillside with a high strength wire mesh slope drape. The project intends to increase roadway traveler safety by reducing the potential of rock fall impacting the traveling lanes of this important state route. As stated in your original letter, approximately 5.5 acres of wooded area may be removed for this project, including 17 suitable roost trees, of which four possess sufficient habitat, size, and solar exposure to be potential maternity roost trees. This project is within three miles of a positive capture record, an adult female captured in early September 2003.

On January 26, 2007, the U.S. Fish and Wildlife Service (Service) issued a programmatic biological opinion (PBO) to the Federal Highway Administration (FHWA) for the implementation of the Ohio Department of Transportation's (ODOT) Statewide Transportation Program through January 2012. This PBO established a two-tiered consultation process for ODOT 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 the Indiana bat. 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.

In issuing the PBO (Tier 1 biological opinion), we evaluated the effects of all ODOT actions outlined in your Biological Assessment on the federally listed Indiana bat (*Myotis sodalis*). Your current request for Service review of the SR 97 hillside stabilization project is a Tier 2 consultation under the January 26, 2007, PBO. We have reviewed the information contained in the April 11, 2008 letter and subsequent October 10, 2008 email submitted by your office describing the effects of the proposed project on federally listed species. We concur with your final 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 of 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 conservation and mitigation measures identified in the biological assessment are adhered to.

That is, this letter serves as the Tier 2 biological opinion for the proposed SR 97 hillside stabilization project (ASD-97-4.25; PID 82812). 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 in the PBO.

Description of the Proposed Action

Pages 8-11 of your Biological Assessment and pages 1-2 of your April 11 letter include the location and a thorough description of the proposed action. The action as proposed involves stabilization of a shale/sandstone cliff face located adjacent to SR 97 just west of SR 3, within the Mohican State Forest property and adjacent to the Clear Fork Mohican State Scenic River. The hillside will be stabilized by removing all vegetation, shearing off loose stone, and anchoring the hillside with a high strength wire mesh slope drape. This drape will direct any additional rock fall to a catchment area away from the roadway.

This proposed action falls under the activities of a PC3-d project. A typical PC3-d project is one which may remove one or more potential maternity roost trees that are not isolated. ODOT will implement the following Conservation Measures to avoid, minimize, and/or mitigate adverse impacts to the Indiana bat: 1) any unavoidable tree removal will take place between September 30 and April 1 to avoid direct impacts (A-1), and 2) wooded habitats will be protected/conserved (M-1). The October 10 email states that ODOT will subtract acreage from forested buffer purchased for the HUR-250 stream mitigation area. We agree with these proposed Conservation Measures.

Status of the Species

Species description, distribution, life history, population dynamics, and status and are fully described on pages 13-26 for the Indiana bat in the PBO and are hereby incorporated by reference. The most recent population estimate indicates 501,260 Indiana bats occur rangewide (King 2007). The current revised Indiana Bat Recovery Plan: First Revision (USFWS 2007) delineates recovery units based on population discreteness, differences in population trends, and broad level differences in land-use and microhabitats. 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.

In 2007, white nose syndrome (WNS) was found to fatally affect several species of bats, including the Indiana bat in eastern hibernacula. To date, WNS has been identified in New York, Massachusetts, Vermont, and Connecticut (all within the Northeast Recovery Unit). Roughly 50,000 Indiana bats, approximately 10% of the total population, occur in the affected locations and are vulnerable to WNS at this time. The extent of the impact this syndrome may have on the species rangewide is uncertain. However, based on our current limited understanding of WNS, we expect mortality of bats at affected sites to be high (pers. com, L. Pruitt, 2008).

In 2008, some unknown type of fungus was detected on a small number of little brown bats and eastern pipistrelles in two hibernacula in southwestern Pennsylvania in Blair and Fayette counties. To date, no mortality has been detected. Indiana bats hibernate in the Blair County site but not in the Fayette County cave. State authorities in Pennsylvania have labeled these sites as suspicious but not as confirmed WNS sites. Both of these sites occur in the Indiana bat Appalachian Mountains Recovery Unit. The potential impact on Indiana bats from these two sites is unknown. Should they be determined to be WNS sites, impacts to Indiana bats in the Appalachian Mountains Recovery Unit may be similar to those in the Northeast Recovery Unit. There is no data to indicate that Indiana bats in the Midwest Recovery Unit are currently being impacted by WNS or have there been any reported cases of an unknown fungus in any hibernacula in the Midwest Recovery Unit.

Environmental Baseline

Status of the species within the action area

The status of Indiana bat was fully described on page 25 of the PBO for activities in the Northeast Unit and is hereby incorporated by reference. Since the issuance of the PBO in 2007, there have been no Indiana bat capture records within the vicinity of this project and we are not aware of any surveys that have been performed. Your letter states that suitable habitat exists within the action area. Thus, as explained in the PBO, it is reasonable to assume presence of a maternity colony in the action area.

Effects of the Action

Based on analysis of the information provided in your letter for the SR 97 hillside stabilization project and our review of available habitat surrounding the project area, we have determined that the effects of the proposed action are consistent with those contemplated and fully described on pages 31-35 of the PBO. Adverse effects to the Indiana bat from this project could occur due to the removal of a potential maternity roost tree. However, implementation of seasonal cutting restrictions will avoid direct adverse effects to individual bats. Projects that require the removal of one or more potential primary maternity roost trees outside of the Indiana bats' maternity season can result in adverse effects to colony members upon their return to maternity areas following hibernation. When a primary roost tree becomes unsuitable, members of a colony may initially distribute themselves among several previously used alternate roost trees (USFWS 2002; Kurta et al. 2002). It is not known how long it takes for the colony to attain the same level of roosting cohesiveness that it experienced prior to the loss of an important primary roost tree. As explained in the PBO, colony cohesiveness is essential for successful birth and rearing of young. It is likely that due to the ephemeral nature of roost trees, the Indiana bat has evolved to be able to relocate replacement roosts, if available, when their previously-used roost trees become unsuitable. Until the bats from the colony locate another desirable primary roost tree and reunite, it is possible, however, that some individual members of a colony will be subject to increased stress resulting from: (1) having to search for a replacement primary roost tree, which increases energy expenditure and risk of predation; (2) having to roost in alternate trees that are less effective in meeting thermoregulatory needs; and (3) having to roost singly, rather than together, which decreases the likelihood in meeting thermoregulatory needs, thereby reducing the potential for reproductive success.

Additionally, if pregnant females are required to search for new roosting habitat in the spring, this effort may place additional stress on pregnant females at a critical time when fat reserves are low or depleted, and they are already stressed from the energy demands of migration and pregnancy, and food availability is unpredictable. This could expose them to an increased risk of mortality and/or failed reproduction.

For this particular project, however, the exposed colony is anticipated to retain cohesiveness because the essential character of the habitat will be maintained. Hence, bats will likely be able to stay within their traditional home ranges. For this reason, we anticipate that any exposed bats will need to expend only a

negligible level of energy to reform the colony, such that any adverse effects will be insignificant or discountable.

We are not aware of any non-federal actions in the action area that are reasonably certain to occur. Thus, we do not anticipate any cumulative effects associated with this project.

Conclusion

We believe the proposed SR 97 hillside stabilization 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 assumed presence within the project area, 4) the effects of the action, and 5) cumulative effects, we do not expect any perceivable impacts to the maternity colony, and hence to the overall Ohio Indiana bat population from the proposed action. As such, we also do not anticipate any reductions in the reproduction, numbers, or distribution of the species rangewide. It is, therefore, the Service’s biological opinion that this project is not likely to jeopardize the continued existence of the Indiana bat.

Incidental Take Statement

The Service does not anticipate the proposed action will incidentally take any Indiana bats. Although adverse affects to the Indiana bat may occur due to the loss of potential roost trees as described above, these impacts are not expected to rise to the level of injury, harm, or death. Hence, incidental take is not reasonably certain to occur. As such, no incidental take statement will be provided for this project. The following table is a summary of impacted acres to date for PC1, PC2, and PC3 project completed under the PBO. The thresholds set in the PBO have not been exceeded.

Management Unit	Acres of impact anticipated in PBO	Acres of impact for this project	Cumulative acres of impact to date
West	1,565 acres	0	32.40
Central	2,280 acres	0	6.05
South	4,679 acres	0	29.20
Northeast	6,370 acres	5.5	54.60
East	7,224 acres	0	29.42
Statewide	22,118 acres	5.5	151.67

This fulfills your section 7(a)(2) requirements for this action; however, should the proposed project be modified or the level of take identified above be exceeded, ODOT/FHWA should promptly reinstate consultation as outlined in 50 CFR 402.16. As provided in 50 CFR §402.16, reinstatement 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 ODOT’s Statewide Transportation Program 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 ODOT’s Statewide Transportation Program and projects predicated upon it are subsequently modified in a manner that cause 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 reinstatement. Requests for reinstatement, or questions regarding reinstatement, should be directed to the U.S. Fish 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 Biological Assessment and PBO. If you have any questions regarding our response or if you need additional information, please contact Karen Hallberg at extension 23.

Sincerely,

Mary Knapp, Ph.D.
Field Supervisor

cc: ODNR, DOW, SCEA Unit, Columbus, OH
Ohio Regulatory Transportation Office, Columbus, OH