



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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December 27, 2007

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

Attn: Donald Rostofer
John Baird

RE: **BUT-CR 113 (PID 14114)**

TAILS: 31420-2008-F-0228

Dear Mr. Hill:

This letter is in response to your December 14, 2007 request for site-specific review pursuant to section 7 of the Endangered Species Act of 1973, as amended regarding the Liberty Fairfield Road (CR 113) bridge replacement and relocation project in Butler County, Ohio. The project as proposed will replace/relocate and abandon a deficient bridge over the Great Miami River. The abandoned corridor (old bridge) will be replanted with native forest tree species. As stated in your letter and email information from December 11, 14, and 27, 2007, approximately three acres of forested habitat will be impacted by the relocation. Fifteen potential roost trees occur in the project area and at least one may be suitable for maternity habitat.

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 Liberty Fairfield Road bridge project is a Tier 2 consultation under the January 26, 2007, PBO. We have reviewed the information contained in the information submitted by your office describing the effects of the proposed project on federally listed species. 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 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 Liberty Fairfield Road bridge 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 in the PBO.

Description of the Proposed Action

Your emails from December 11 and 27, 2007 and letter dated December 14, 2007 provide the location and a thorough description of the proposed action. The action as proposed involves abandoning the Liberty Frairfield Road bridge over the Great Miami River and constructing a new bridge 525 feet east of the existing bridge. Approximately three acres of forested habitat will be impacted.

This proposed action falls under the activities of a PC3 project. A typical PC3 project is one which may remove a large number of potential roost trees (more than 10 or 20 depending upon the Unit), remove one or more potential maternity roost trees, impact a known or potential hibernacula, impact Indiana bat fall swarming or spring staging areas, and/or will reduce a 100+ acre forested area by more than 10 % in the West Unit. 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 15 and April 15 to avoid direct impacts (A-1), and 2) tree planting to create future suitable habitat, create future travel corridors, and restore connectivity of forested areas (M-4).

The old bridge alignment will be abandoned and replanted with native forest tree species. A planting plan will be prepared and added to the construction plans. The plan shall require a minimum of one hundred (100) 1-inch caliber trees of four different species (from the Indiana bat preferred species tree list). This mitigation measure will offer habitat for the species in the future.

Status of the Species

Species description, distribution, life history, population dynamics, and status are fully described on pages 13-26 for the Indiana bat in the PBO and are hereby incorporated by reference. Since the issuance of the PBO in 2007, there has been no change in the status of the species.

Environmental Baseline

Status of the species within the action area

The status of Indiana bat was fully described on page 24 of the PBO for activities in the South 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 Liberty Fairfield Road bridge 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 30-35 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 Liberty Fairfield bridge 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 projects 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	7.7
Central	2,280 acres	0	1.65
South	4,679 acres	3.0	26.8
Northeast	6,370 acres	0	12.47
East	7,224 acres	0	22.7
Statewide	22,118 acres		71.39

This fulfills your section 7(a)(2) requirements for this action; however, should the proposed project be modified or the level of habitat impacted above be exceeded, ODOT/FHWA 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 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 reinitiation. Requests for reinitiation, or questions regarding reinitiation, 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 Sarena Selbo at extension 17.

Sincerely,


for Mary Knapp, Ph.D.
Field Supervisor

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