UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
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December 2, 2015

Timothy M. Hill
Office of Environmental Services
Ohio Department of Transportation
1980 West Broad Street, **Mail Stop 4170**
Columbus, OH 43223

TAILS: 03E15000-2016-F-0253 (PID 98579)

Attn: Michael Pettegrew, Chris Staron

RE: **GUE-TR365-0.86 (PID 98579)**

Dear Mr. Hill:

This letter is in response to your October 1, 2015 request for U.S. Fish and Wildlife Service (Service/USFWS) site-specific review of the **GUE-TR365-0.86** bridge replacement project over Wills Creek located in Liberty Township, Guernsey County, Ohio.

FISH & WILDLIFE COORDINATION ACT COMMENTS:

The Service understands that the project, as proposed, will result in impacts to Wills Creek totaling 214 linear feet. We recommend that unavoidable impacts to streams be mitigated. In addition, staging areas should be kept well away from these aquatic features, and all disturbed areas in the project vicinity should be mulched and re-vegetated with native plant species. The Service supports and recommends mitigation activities that reduce the likelihood of invasive plant spread and encourage native plant colonization that will benefit native pollinators. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats. We recommend seeding all disturbed areas during construction to encourage establishment of vegetative cover and to decrease erosion.

BALD EAGLE COMMENTS:

The project lies within the range of the **bald eagle** (*Haliaeetus leucocephalus*), a species protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) and the Migratory Bird Treaty Act (16 U.S.C. 703-712). Due to the project type, location, and onsite habitat, this species would not be expected within the project area, and no impact to this species is expected. Relative to this species, this precludes the need for further action on this project as required by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

FEDERALLY LISTED SPECIES COMMENTS:

All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

In order to minimize impacts to the northern long-eared bat, all unavoidable tree removal will take place between October 1 and March 31 to avoid direct impacts (avoidance measure A-1). The Service has reviewed your project description and concurs with your determination that the project, as proposed, is not likely to adversely affect northern long-eared bat.

INDIANA BAT - TIER 2 BIOLOGICAL OPINION:

On January 26, 2007, the U.S. Fish and Wildlife Service (Service) issued a programmatic biological opinion (PBO) for the Indiana bat for Ohio Department of Transportation's (ODOT) Statewide Transportation Program. 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 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.

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. Your current request for Service review of the subject project is a Tier 2 consultation under the January 26, 2007, PBO. We have reviewed the information contained in the letter and supporting materials 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.

This letter serves as the Tier 2 biological opinion for the proposed project. 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 2-5 of your Environmental Survey Report (ESR), along with the supporting materials you submitted, include the location and a thorough description of the proposed action. The action, as proposed, involves the replacement of the existing bridge structure over Wills Creek located in Liberty Township, Guernsey County, Ohio.

We understand that ODOT will implement the following conservation measures to avoid, minimize, and/or mitigate adverse impacts to the Indiana bat:

1) all unavoidable tree removal will take place between October 1 and March 31 to avoid direct impacts (avoidance measure A-1).

2) 0.44 acres of impacted forest will be added to the SCCC2 Debit List to mitigate adverse impacts to the bat (towards mitigation measure M-1). *See attached document: ODOT Interim Debit List*. The final type and amount of acreage to be deducted from the SCCC2 Conservation Area to offset impacts from this project will be calculated in accordance with the habitat replacement strategy and ratio to be included in the final agreement between ODOT and the Service regarding the use of the SCCC2 site to offset take of Indiana bat habitat.

Range Wide 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, additional information on Indiana bat population status due to White Nose Syndrome (WNS) has become available. The most recent (2015) population estimate indicates that the range-wide population totals approximately 523,072 Indiana bats (Service 2015) (this estimate incorporates a new Indiana bat hibernaculum discovered in Missouri in 2012). Since the inset of WNS, the Northeast and Appalachian RUs have declined substantially. The Midwest Recovery Unit (RU) which includes Indiana, Kentucky, Ohio, Tennessee, Alabama, SW Virginia and Michigan, supported approximately 56.3% of the 2013 total population estimate, and as of 2015 have decreased approximately 14%.

Environmental Baseline within Action Area

WNS was first detected in multiple states within the Midwest RU in 2011. The first case of WNS was confirmed in an abandoned mine in Lawrence County, Ohio. Currently, 16 counties in Ohio have been confirmed as WNS positive including Lawrence County in 2011, 5 counties in 2012 (Geauga, Summit, Cuyahoga, Portage, and Preble), and 10 counties in 2013 (Medina, Jefferson, Union, Wayne, Ashland, Athens, Clinton, Madison, Warren, and Sandusky). Recent censuses at two hibernacula have documented a dramatic decline in Indiana bats in Ohio. A survey of the Lawrence County hibernaculum revealed a decline of 100% of Indiana bats in two years (Schultes 2014). In the next few years we anticipate large declines in the Indiana bat populations within each RU as WNS continues to spread and additional bats are infected.

Status of the species within the action area

There have been no new Indiana bat capture records within the vicinity of this project. Your letter and supporting materials state that suitable habitat exists within the action area, thus we are assuming presence.

Effects of the Action

Based on analysis of the information provided in your letter and supporting materials, 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 0.44 acres of impacted forest habitat including 12 suitable potential roost trees and 1 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 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 (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 bats have 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.

Adult male and non-reproductive female Indiana bats may be indirectly exposed to loss of roosting habitat. In general, effects on these individual bats would be less severe than the effects associated with individuals of maternity colonies. Adult male and non-reproductive female bats are not subject to the physiological demands of pregnancy and rearing young. Males and non-reproductive females typically roost alone or occasionally in small groups. When these individuals are displaced from roosts they must utilize alternative roosts or seek out new roosts. Because these individuals are not functioning as members of maternity colonies, they do not face the challenge of reforming as a colony. Roost tree requirements for non-reproductive bats are less specific whereas maternity colonies generally require larger roost trees to accommodate multiple members of a colony. Therefore, it is anticipated that adverse indirect effects to non-reproductive bats will be less than the effects to reproductively active females.

In addition, ODOT's placement of conservation-oriented restrictions on the SCCC2 site has the potential to provide suitable habitat for the Indiana bats on and near that property into perpetuity. The SCCC2 property was purchased by ODOT in December 2012 for the purpose of mitigating ODOT project impacts on waters of the U.S. and federally listed species. Prior to ODOT's purchase of the property, the SCCC2 site was available for development, which likely would have further reduced available habitat for bats in eastern Ohio.

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 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) 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.

Incidental Take Statement

The Service anticipates that the proposed action will result in incidental take associated with projects in the East management unit. Incidental take for this project, based on the potential removal of approximately 0.44 acres, results in the cumulative incidental take of 286.01 acres for this management unit. This project, added to the cumulative total of incidental take for the implementation of ODOT's Statewide Transportation Program, is well within the level of incidental take anticipated in the 2007 PBO (see table below).

Management Unit	**IT anticipated in PBO**	**IT for this project**	**Cumulative IT granted to date**
West	1,565 acres	0 acres	256.00 acres
Central	2,280 acres	0 acres	179.09 acres
Northeast	4,679 acres	0 acres	412.59 acres
East	6,370 acres	0.44 acres	286.01 acres
South	7,224 acres	0 acres	1282.66 acres
Statewide	22,118 acres	0..44 acres	2416.35 acres

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

We understand that ODOT is implementing all pertinent Indiana bat conservation measures, specifically A-1 and M-1 stipulated in the Biological Assessment on pages 29-31. In addition, ODOT is monitoring the extent of incidental take that occurs on a project-by-project basis. These measures will minimize the impact of the anticipated incidental take.

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 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 re-initiation. Requests for reinitiation, or questions regarding reinitiation, should be directed to the U.S. Fish Wildlife Service's Columbus, Ohio Field Office.

In addition to the criteria, described immediately above, under which formal consultation must be reinitiated for the Indiana bat, the following re-initiation guidance also applies: Should, during the term of this action, additional information on listed or proposed species or their critical habitat become available, if a proposed species becomes officially listed, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be reinitiated to assess whether the determinations are still valid.

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 Marci Lininger at extension 27 or Karen Hallberg at extension 23.

Sincerely,

Dan Everson
Field Supervisor

cc: J. Kessler, ODNR, Office of Real Estate, Columbus, OH (*email only*)
P. Clingan, USACE, Ohio Regulatory Transportation Office, Columbus, OH (*email only*)
J. Lung, OEPA, Columbus, OH (*email only*)
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Literature Cited

Kurta, A. et al. 2002. Ecology and management of the Indiana bat in Michigan. Michigan Academician 2002, pp. 177-190

Schultes, K. 2014. 2014 Indiana bat hibernaculum census Ironton R.D., Wayne N.F., Lawrence Co., Ohio, Lawrence County Limestone Mine. Unpublished report. 3pp

U.S. Fish and Wildlife Service. 2015. Range-wide Population Estimate for the Indiana Bat (Myotis sodalis). USFWS Regions 2, 3, 4, 5.

U.S. Fish and Wildlife Service. 2007. Statewide Programmatic Biological Opinion for the Federally-listed endangered Indiana Bat (Myotis sodalis). Ohio

ODOT Interim Debit List

Project Impacts to be Offset at the
Sunday Creek Coal Company 2 (SCCC2)
Bat Conservation Area

Project Name	PID	County	Impact Description	Impact (ac)	#pRTs to be removed	#pMRTs to be removed	Survey? (Y/N)	ESA S7 Consultation Concluded (date)
JEF-7-4.80	94058	JEF	Clearing upland forest for slope stabilization	18.15	22	3	N	12/16/2013
JEF-7-10.00	93192	JEF	Clearing upland forest for slope stabilization	41.20	18	1	N	1/13/2014
SAN-SR523-0.00	84079	SAN	Clearing 1.24 acres including 24 pRTs	1.24	24	0	N	1/28/2014
MOE-800-5.95	94598	MOE	Clearing 2.44 acres including 26 pRTs and 2 pMRTs	2.44	26	2	Y	2/12/2014
SUM-76-0.00	93501	SUM	Clearing 19.6 ac including 69 pRTs	19.60	69	0	N	4/15/2014
HAM-32F-0.00	86461	HAM	Clearing 17.3 ac including 34 PRTs and 3 PMRTs	17.30	34	3	N	6/30/2014
PIK-TR403-0.68 Turkey run	95879	PIK	Clearing 0.903 ac including 1 PRT and 4 PMRTs	0.90	1	4	N	8/5/2014
ADA-SR 125-0.34	96899	ADA	Clearing 0.1 ac including 6 PRTs and 1 PMRT	0.10	6	1	N	8/5/2014
SAN-US6-13.05	95542	SAN	Clearing 0.785 ac including 20 PRTs (no PMRTs)	0.79	20	0	N	1/23/2015
MRG-266-7.70	89418	MRG	Clearing 22.94 ac including up to 70 PRTs	36.67	70	0	N	1/28/2015
GUE-TR365-0.86	98579	GUE	Clearing .44 ac including 12 PRTS and 1 PMRT	0.44	12	1	N	12/2/2015
			CUMULATIVE TOTAL ACRES IMPACTED:	138.83				12/2/2015